

# **\*TM 5-4210-249-13&P-3**

---

## **TECHNICAL MANUAL**

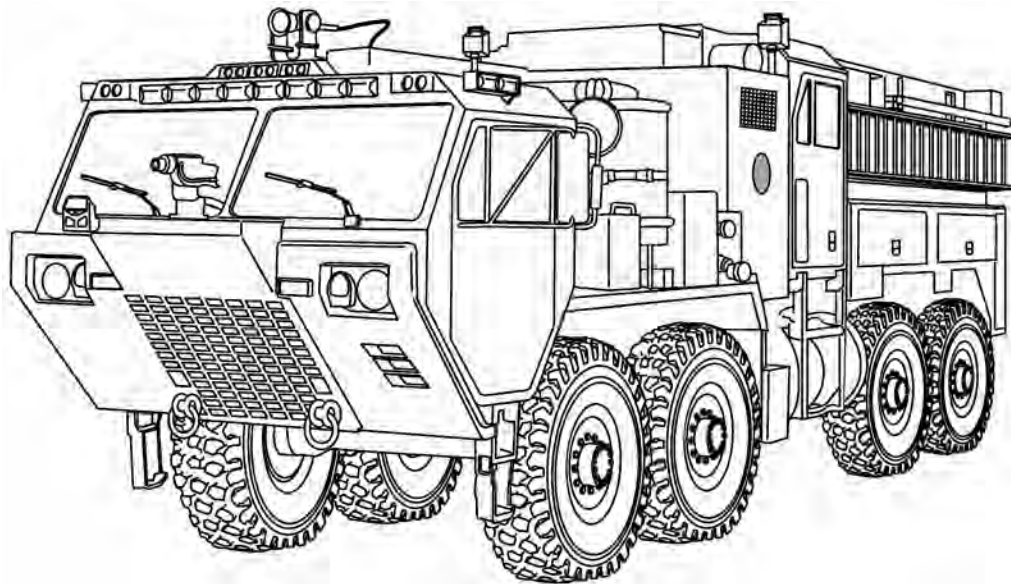
### **OPERATOR'S AND FIELD LEVEL MAINTENANCE MANUAL WITH REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT REPAIR PARTS AND SPECIAL TOOLS)**

**FOR**

## **TACTICAL FIRE FIGHTING TRUCK (TFFT)**

**MODEL M1142**

**NSN 4210-01-486-1035**



**\* SUPERSEDURE NOTICE:** This manual supersedes TM 9-2320-279-10-3 dated 15 March 2004 and TM 9-2320-315-14&P dated 15 October 2004.

**DISTRIBUTION STATEMENT A:** Approved for public release; distribution is unlimited.

---

**HEADQUARTERS, DEPARTMENT OF THE ARMY**

**FEBRUARY 2009**



## WARNING SUMMARY

---

This list summarizes critical warnings in this technical manual. They are repeated here to let you know how important they are. Study these warnings carefully. They can save your life and the lives of personnel you work with. If there is any doubt about handling tools, materials, equipment, and procedures, see TB 43-0216, Safety and Hazard Warnings for Operation and Maintenance of TACOM Equipment.

**FOR INFORMATION ON FIRST AID, REFER TO FM 4-25.11.**

### OPERATION HAZARDS

#### **WARNING**



- **CARBON MONOXIDE (EXHAUST GAS) CAN CAUSE DEATH**
- **Carbon monoxide is without color or smell, but can cause death. Breathing air with carbon monoxide produces symptoms of headache, dizziness, loss of muscular control, a sleepy feeling, and coma. Brain damage or death can result from heavy exposure. Carbon monoxide occurs in the exhaust fumes of fuel-burning heaters and internal combustion engines. Carbon monoxide can become dangerously concentrated under conditions of no ventilation. Precautions must be followed to ensure crew safety when the personnel heater or engine of any vehicle is operated for any purpose.**
- **DO NOT operate personnel heater or engine of vehicle in a closed place without proper ventilation.**
- **DO NOT drive any vehicle with inspection plates, cover plates, or engine compartment covers removed unless necessary for maintenance purposes.**
- **BE ALERT at all times during vehicle operation for exhaust odors and exposure symptoms. If either are present, IMMEDIATELY VENTILATE personnel compartments. If symptoms persist, remove affected crew to fresh air and keep warm. DO NOT PERMIT PHYSICAL EXERCISE. If necessary, give artificial respiration and get immediate medical attention. For artificial respiration, refer to FM 4-25.11.**
- **BE AWARE that the gas particulate filter unit or field protection mask for nuclear-biological-chemical protection WILL NOT offer safety from carbon monoxide poisoning.**
- **THE BEST DEFENSE AGAINST CARBON MONOXIDE POISONING IS GOOD VENTILATION.**

**WARNING**



Personnel hearing can be **PERMANENTLY DAMAGED** if exposed to constant high noise levels of 85 dB or greater. Wear approved hearing protection devices when working in high noise level areas. Hearing loss occurs gradually, but becomes permanent over time.

**MODIFICATION HAZARD**

**WARNING**



Unauthorized modifications to, alterations to, or installations of this equipment are prohibited and are in violation of AR 750-10. Any unauthorized modifications, alterations, or installations could result in injury or death to personnel or damage to equipment.

**HIGH-PRESSURE HYDRAULIC SYSTEM**

**WARNING**



- Hydraulic systems can cause serious injury if high-pressure lines or equipment fails.
- Never work on hydraulic systems or equipment unless there is another person nearby who is familiar with the operation and hazards of the equipment and can give first aid.
- Never disconnect any hydraulic hose or part while the engine is running. Allow several minutes to elapse after shutting off engine, to allow pressure to relieve itself, before attempting to remove hoses. Failure to comply may result in injury to personnel.

**ELECTRICAL SYSTEM****WARNING**

- Remove all jewelry, such as rings, dog tags, bracelets, etc. If jewelry or tools contact electrical circuits, a direct short may result. Damage to equipment or death to personnel may occur.
- Do not smoke, use open flame, make sparks or other ignition sources around batteries. A battery giving off gas could explode and cause injury to personnel.

**SOLVENT CLEANING COMPOUND****WARNING**

Solvent cleaning compound MIL-PRF-680 Type II and III may be irritating to the eyes and skin. Use protective gloves and goggles. Use in well-ventilated areas. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract, may cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: do not induce vomiting. Seek immediate medical attention. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. If symptoms persist, seek medical attention. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. Keep away from open flames and other sources of ignition. Failure to follow this warning may result in injury or death to personnel.

- The flashpoint for Type II solvent cleaning compound is 141 to 198°F (61 to 92°C) and Type III is 200 to 241°F (93 to 116°C).
- Improper cleaning methods and use of unauthorized cleaning solvents may injure personnel and damage equipment.
- Fire extinguishers should be placed nearby when using solvent cleaning compound. Failure to follow this warning may result in injury or death.
- Cloths or rags saturated with solvent cleaning compound must be disposed of IAW authorized facilities' procedures. Failure to follow this warning may result in injury.
- Eye shields must be worn when cleaning with a wire brush. Flying rust and metal particle may cause injury.

**ADHESIVE**

**WARNING**



Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

**FLAMMABLE LIQUID AND COMBUSTIBLE VAPOR**

**WARNING**



Gasoline, fuel oil, lubricating oil, grease, paint, paint thinner, cleaning solvents, and other combustible liquids present a serious fire hazard. Always store combustible liquids in approved containers and in their designated compartments or deck storage locations. Ensure exhaust and ventilation fans are operating while using cleaning solvents or paint products. Never store or charge batteries in a confined space without ventilation or near electrical equipment.

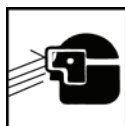
**WARNING**



Fuel is very flammable and can explode easily. To avoid serious injury or death, keep fuel away from open fire and keep fire extinguisher within easy reach when working with fuel. Do not work on fuel system when engine is hot. Fuel can be ignited by hot engine. While working with fuel, post signs that read NO SMOKING WITHIN 50 FEET OF VEHICLE.

**PARTS UNDER PRESSURE**

**WARNING**



Wear safety goggles and use caution when removing or installing springs, snap rings, retaining rings, and other parts under spring tension. These parts can act as projectiles, resulting in serious injury to personnel.

## LIST OF EFFECTIVE PAGES/WORK PACKAGES

NOTE: This manual supersedes TM 9-2320-279-10-3 dated 15 March 2004 and TM 9-2320-315-14&P dated 15 October 2004. Zero in the "Change No." column indicates an original page or work package.

Date of issue for the original manual is:

Original 20 FEBRUARY 2009

**TOTAL NUMBER OF VOLUMES IS 4, TOTAL NUMBER OF PAGES  
FOR FRONT AND REAR MATTER IS 290 AND TOTAL NUMBER OF  
WORK PACKAGES IS 625, CONSISTING OF THE FOLLOWING:**

Page/WP No.	Change No.	Page/WP No.	Change No.
<b>VOLUME 3</b>			
Cover . . . . .	0	WP 0321 (2 pgs) . . . . .	0
Warning Summary (4 pgs) . . . . .	0	WP 0322 (2 pgs) . . . . .	0
i thru xii . . . . .	0	WP 0323 (2 pgs) . . . . .	0
xiii/(xiv blank) . . . . .	0	WP 0324 (2 pgs) . . . . .	0
Chp 5 Title Cont. page . . . . .	0	WP 0325 (4 pgs) . . . . .	0
WP 0294 (4 pgs) . . . . .	0	WP 0326 (2 pgs) . . . . .	0
WP 0295 (2 pgs) . . . . .	0	WP 0327 (2 pgs) . . . . .	0
WP 0296 (2 pgs) . . . . .	0	WP 0328 (2 pgs) . . . . .	0
WP 0297 (2 pgs) . . . . .	0	WP 0329 (2 pgs) . . . . .	0
WP 0298 (10 pgs) . . . . .	0	WP 0330 (2 pgs) . . . . .	0
WP 0299 (2 pgs) . . . . .	0	WP 0331 (2 pgs) . . . . .	0
WP 0300 (4 pgs) . . . . .	0	WP 0332 (2 pgs) . . . . .	0
WP 0301 (18 pgs) . . . . .	0	WP 0333 (2 pgs) . . . . .	0
WP 0302 (4 pgs) . . . . .	0	WP 0334 (6 pgs) . . . . .	0
WP 0303 (6 pgs) . . . . .	0	WP 0335 (4 pgs) . . . . .	0
WP 0304 (8 pgs) . . . . .	0	WP 0336 (8 pgs) . . . . .	0
WP 0305 (2 pgs) . . . . .	0	WP 0337 (2 pgs) . . . . .	0
WP 0306 (2 pgs) . . . . .	0	WP 0338 (2 pgs) . . . . .	0
WP 0307 (2 pgs) . . . . .	0	WP 0339 (2 pgs) . . . . .	0
WP 0308 (2 pgs) . . . . .	0	WP 0340 (2 pgs) . . . . .	0
WP 0309 (2 pgs) . . . . .	0	WP 0341 (2 pgs) . . . . .	0
WP 0310 (4 pgs) . . . . .	0	WP 0342 (4 pgs) . . . . .	0
WP 0311 (14 pgs) . . . . .	0	WP 0343 (2 pgs) . . . . .	0
WP 0312 (8 pgs) . . . . .	0	WP 0344 (6 pgs) . . . . .	0
WP 0313 (2 pgs) . . . . .	0	WP 0345 (4 pgs) . . . . .	0
WP 0314 (4 pgs) . . . . .	0	WP 0346 (4 pgs) . . . . .	0
WP 0315 (2 pgs) . . . . .	0	WP 0347 (2 pgs) . . . . .	0
WP 0316 (2 pgs) . . . . .	0	WP 0348 (2 pgs) . . . . .	0
WP 0317 (4 pgs) . . . . .	0	WP 0349 (2 pgs) . . . . .	0
WP 0318 (2 pgs) . . . . .	0	WP 0350 (6 pgs) . . . . .	0
WP 0319 (2 pgs) . . . . .	0	WP 0351 (2 pgs) . . . . .	0
WP 0320 (4 pgs) . . . . .	0	WP 0352 (8 pgs) . . . . .	0
		WP 0353 (2 pgs) . . . . .	0
		WP 0354 (4 pgs) . . . . .	0

**TM 5-4210-249-13&P-3**

<b>Page/WP No.</b>	<b>Change No.</b>	<b>Page/WP No.</b>	<b>Change No.</b>
WP 0355 (2 pgs)	0	WP 0404 (4 pgs)	0
WP 0356 (2 pgs)	0	WP 0405 (2 pgs)	0
WP 0357 (2 pgs)	0	WP 0406 (4 pgs)	0
WP 0358 (6 pgs)	0	WP 0407 (2 pgs)	0
WP 0359 (4 pgs)	0	WP 0408 (4 pgs)	0
WP 0360 (4 pgs)	0	WP 0409 (4 pgs)	0
WP 0361 (4 pgs)	0	WP 0410 (2 pgs)	0
WP 0362 (8 pgs)	0	WP 0411 (2 pgs)	0
WP 0363 (4 pgs)	0	WP 0412 (2 pgs)	0
WP 0364 (6 pgs)	0	WP 0413 (2 pgs)	0
WP 0365 (6 pgs)	0	WP 0414 (2 pgs)	0
WP 0366 (4 pgs)	0	WP 0415 (6 pgs)	0
WP 0367 (4 pgs)	0	WP 0416 (2 pgs)	0
WP 0368 (8 pgs)	0	WP 0417 (2 pgs)	0
WP 0369 (2 pgs)	0	WP 0418 (2 pgs)	0
WP 0370 (8 pgs)	0	WP 0419 (2 pgs)	0
WP 0371 (6 pgs)	0	WP 0420 (4 pgs)	0
WP 0372 (4 pgs)	0	WP 0421 (2 pgs)	0
WP 0373 (4 pgs)	0	WP 0422 (2 pgs)	0
WP 0374 (2 pgs)	0	WP 0423 (4 pgs)	0
WP 0375 (2 pgs)	0	WP 0424 (6 pgs)	0
WP 0376 (6 pgs)	0	WP 0425 (4 pgs)	0
WP 0377 (4 pgs)	0	WP 0426 (2 pgs)	0
WP 0378 (2 pgs)	0	WP 0427 (8 pgs)	0
WP 0379 (2 pgs)	0	WP 0428 (4 pgs)	0
WP 0380 (2 pgs)	0	WP 0429 (4 pgs)	0
WP 0381 (8 pgs)	0	WP 0430 (4 pgs)	0
WP 0382 (4 pgs)	0	WP 0431 (2 pgs)	0
WP 0383 (4 pgs)	0	WP 0432 (4 pgs)	0
WP 0384 (4 pgs)	0	WP 0433 (12 pgs)	0
WP 0385 (2 pgs)	0	WP 0434 (10 pgs)	0
WP 0386 (4 pgs)	0	WP 0435 (10 pgs)	0
WP 0387 (2 pgs)	0	WP 0436 (18 pgs)	0
WP 0388 (4 pgs)	0	WP 0437 (6 pgs)	0
WP 0389 (4 pgs)	0	WP 0438 (4 pgs)	0
WP 0390 (2 pgs)	0	WP 0439 (4 pgs)	0
WP 0391 (2 pgs)	0	WP 0440 (14 pgs)	0
WP 0392 (4 pgs)	0	WP 0441 (12 pgs)	0
WP 0393 (6 pgs)	0	WP 0442 (6 pgs)	0
WP 0394 (2 pgs)	0	WP 0443 (14 pgs)	0
WP 0395 (6 pgs)	0	WP 0444 (4 pgs)	0
WP 0396 (2 pgs)	0	WP 0445 (4 pgs)	0
WP 0397 (4 pgs)	0	WP 0446 (12 pgs)	0
WP 0398 (2 pgs)	0	WP 0447 (4 pgs)	0
WP 0399 (2 pgs)	0	WP 0448 (24 pgs)	0
WP 0400 (6 pgs)	0	WP 0449 (6 pgs)	0
WP 0401 (2 pgs)	0	WP 0450 (6 pgs)	0
WP 0402 (2 pgs)	0	WP 0451 (4 pgs)	0
WP 0403 (4 pgs)	0	WP 0452 (4 pgs)	0



TM 5-4210-249-13&P-3

Page/WP No.	Change No.	Page/WP No.	Change No.
WP 0453 (4 pgs)	0	WP 0503 (4 pgs)	0
WP 0454 (4 pgs)	0	WP 0504 (8 pgs)	0
WP 0455 (36 pgs)	0	WP 0505 (4 pgs)	0
WP 0456 (24 pgs)	0	WP 0506 (4 pgs)	0
WP 0457 (6 pgs)	0	WP 0507 (4 pgs)	0
WP 0458 (20 pgs)	0	WP 0508 (2 pgs)	0
WP 0459 (38 pgs)	0	WP 0509 (6 pgs)	0
WP 0460 (4 pgs)	0	WP 0510 (6 pgs)	0
WP 0461 (8 pgs)	0	WP 0511 (2 pgs)	0
WP 0462 (4 pgs)	0	WP 0512 (4 pgs)	0
WP 0463 (8 pgs)	0	WP 0513 (8 pgs)	0
WP 0464 (14 pgs)	0	WP 0514 (6 pgs)	0
WP 0465 (8 pgs)	0	WP 0515 (2 pgs)	0
WP 0466 (4 pgs)	0	WP 0516 (2 pgs)	0
WP 0467 (4 pgs)	0	WP 0517 (4 pgs)	0
WP 0468 (12 pgs)	0	WP 0518 (4 pgs)	0
WP 0469 (4 pgs)	0	WP 0519 (10 pgs)	0
WP 0470 (4 pgs)	0	WP 0520 (2 pgs)	0
WP 0471 (6 pgs)	0	WP 0521 (12 pgs)	0
WP 0472 (4 pgs)	0	WP 0522 (2 pgs)	0
WP 0473 (2 pgs)	0	WP 0523 (2 pgs)	0
WP 0474 (2 pgs)	0	WP 0524 (14 pgs)	0
WP 0475 (2 pgs)	0	WP 0525 (4 pgs)	0
WP 0476 (4 pgs)	0	WP 0526 (2 pgs)	0
WP 0477 (4 pgs)	0	WP 0527 (28 pgs)	0
WP 0478 (2 pgs)	0	WP 0528 (4 pgs)	0
WP 0479 (4 pgs)	0	WP 0529 (2 pgs)	0
WP 0480 (2 pgs)	0	WP 0530 (4 pgs)	0
WP 0481 (6 pgs)	0	WP 0531 (4 pgs)	0
WP 0482 (8 pgs)	0	WP 0532 (6 pgs)	0
WP 0483 (4 pgs)	0	WP 0533 (6 pgs)	0
WP 0484 (4 pgs)	0	WP 0534 (2 pgs)	0
WP 0485 (6 pgs)	0	WP 0535 (8 pgs)	0
WP 0486 (6 pgs)	0	WP 0536 (2 pgs)	0
WP 0487 (4 pgs)	0	WP 0537 (6 pgs)	0
WP 0488 (4 pgs)	0	WP 0538 (4 pgs)	0
WP 0489 (2 pgs)	0	WP 0539 (4 pgs)	0
WP 0490 (20 pgs)	0	WP 0540 (30 pgs)	0
WP 0491 (4 pgs)	0	WP 0541 (6 pgs)	0
WP 0492 (4 pgs)	0	WP 0542 (4 pgs)	0
WP 0493 (4 pgs)	0	WP 0543 (12 pgs)	0
WP 0494 (4 pgs)	0	WP 0544 (8 pgs)	0
WP 0495 (4 pgs)	0	WP 0545 (8 pgs)	0
WP 0496 (4 pgs)	0	WP 0546 (2 pgs)	0
WP 0497 (6 pgs)	0	WP 0547 (12 pgs)	0
WP 0498 (2 pgs)	0	WP 0548 (4 pgs)	0
WP 0499 (2 pgs)	0	WP 0549 (4 pgs)	0
WP 0500 (20 pgs)	0	WP 0550 (4 pgs)	0
WP 0501 (2 pgs)	0	WP 0551 (6 pgs)	0
WP 0502 (6 pgs)	0	WP 0552 (6 pgs)	0

TM 5-4210-249-13&P-3

---

<b>Page/WP No.</b>	<b>Change No.</b>	<b>Page/WP No.</b>	<b>Change No.</b>
WP 0553 (2 pgs).....	0	WP 0560 (4 pgs).....	0
WP 0554 (2 pgs).....	0	WP 0561 (2 pgs).....	0
WP 0555 (10 pgs).....	0	WP 0562 (8 pgs).....	0
WP 0556 (2 pgs).....	0	WP 0563 (4 pgs).....	0
WP 0557 (4 pgs).....	0	INDEX-1 thru INDEX-38 .....	0
WP 0558 (20 pgs).....	0		
WP 0559 (4 pgs).....	0		

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
WASHINGTON, D.C., 20 FEBRUARY 2009

**TECHNICAL MANUAL**

**OPERATOR'S AND FIELD LEVEL  
MAINTENANCE MANUAL  
WITH REPAIR PARTS AND SPECIAL TOOLS LIST  
(INCLUDING DEPOT REPAIR PARTS AND SPECIAL TOOLS)**

**FOR**

**TACTICAL FIRE FIGHTING TRUCK (TFFT)**

**MODEL M1142**

**NSN 4210-01-486-1035**

**REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**

You can help improve this publication. If you find any errors, or if you would like to recommend any improvements to the procedures in this publication, please let us know. The preferred method is to submit you DA Form 2028 (Recommended Changes to Publications and Blank Forms) through the Internet, on the Army Electronic Product Support (AEPS) website. The Internet address is <https://aeeps.ria.army.mil>. The DA Form 2028 is located under the Public Applications section in the AEPS Public Home Page. Fill out the form and click on SUBMIT. Using this form on the AEPS will enable us to respond quicker to your comments and better manage the DA Form 2028 program. You may also mail, e-mail, or fax your comments of DA Form 2028 directly to the U.S. Army TACOM Life Cycle Management Command. The postal mail address is U.S. Army TACOM Life Cycle Management Command, ATTN: AMSTA-LC-LMPP / TECH PUBS, 1 Rock Island Arsenal, Rock Island, IL 61299-7630. The e-mail address is [tacomlcmc.daform2028@us.army.mil](mailto:tacomlcmc.daform2028@us.army.mil). The fax number is DSN 793-0726 or Commercial (309) 782-0726.

\* **SUPERSEDURE NOTICE:** This manual supersedes TM 9-2320-279-10-3 dated 15 March 2004 and TM 9-2320-315-14&P dated 15 October 2004.

**DISTRIBUTION STATEMENT A:** Approved for public release; distribution is unlimited.

## TABLE OF CONTENTS

	<u>Page No.</u>	<u>WP Sequence No.</u>
<b>VOLUME 3</b>		
<b>CHAPTER 5 FIELD LEVEL MAINTENANCE (CONTINUED)</b>		
<b>WATER TANK ASSEMBLY</b>		
Auxiliary Inlet Valve (Passenger Side) Replacement . . . . .	WP 0294	WP 0294
Tank-to-Pump Check Valve (Driver Side) Replacement . . . . .	WP 0295	WP 0295
Tank-to-Pump Check Valve (Passenger Side) Replacement. . . . .	WP 0296	WP 0296
Water Level Probe Replacement . . . . .	WP 0297	WP 0297
Water Tank Replacement. . . . .	WP 0298	WP 0298
Water Tank Fill Valve Replacement . . . . .	WP 0299	WP 0299
Water Tank Heater Replacement . . . . .	WP 0300	WP 0300
Water Tank Heater Control Box Replacement . . . . .	WP 0301	WP 0301
Water Tank Low Level Switch Replacement . . . . .	WP 0302	WP 0302
Water Tank Side Fill Valve Replacement. . . . .	WP 0303	WP 0303
Water Tank Vent/Fill Replacement. . . . .	WP 0304	WP 0304
<b>INSTRUMENT HOUSING ASSEMBLY</b>		
Personnel Cab Do Not Move Apparatus Indicator Replacement . . . . .	WP 0305	WP 0305
Personnel Cab Foam Tank Selector Indicator Replacement . . . . .	WP 0306	WP 0306
Personnel Cab Foam Tank Selector Indicator Lamp Replacement . . . . .	WP 0307	WP 0307
Personnel Cab Foam Tank Selector Switch Replacement. . . . .	WP 0308	WP 0308
Personnel Cab Pressure Governor Control Panel Replacement . . . . .	WP 0309	WP 0309
Personnel Cab High Idle Switch and Indicator Replacement. . . . .	WP 0310	WP 0310
Personnel Cab Instrument Panel Replacement . . . . .	WP 0311	WP 0311
Personnel Cab Instrument Panel Assembly Replacement. . . . .	WP 0312	WP 0312
Personnel Cab Panel Indicator Replacement. . . . .	WP 0313	WP 0313
Personnel Cab Panel Indicator Lamp(s) Replacement . . . . .	WP 0314	WP 0314
Personnel Cab Toggle Switch Replacement . . . . .	WP 0315	WP 0315
Personnel Cab Water and/or Foam Level Gauge(s) Replacement . . . . .	WP 0316	WP 0316
Pump Digital Pressure Gauge(s) (Discharge and Intake) Replacement . . . . .	WP 0317	WP 0317
Pump Operator’s Panel Air Flow Restrictor Indicator Replacement. . . . .	WP 0318	WP 0318
Audio Alarm Replacement . . . . .	WP 0319	WP 0319

**TABLE OF CONTENTS (CONTINUED)**

	<u>Page No.</u>	<u>WP Sequence No.</u>
Pump Operator's Panel Cover Replacement . . . . .		WP 0320
Pump Operator's Panel Engine Diagnostics Plug Replacement . . . . .		WP 0321
Pump Operator's Panel Foam Level Gauge Replacement . . . . .		WP 0322
Pump Operator's Panel Fuel Gauge Replacement . . . . .		WP 0323
Pump Operator's Panel Hourmeter Replacement . . . . .		WP 0324
Pump Operator's Panel Housing Open/Close . . . . .		WP 0325
Pump Operator's Panel Indicator Light Replacement . . . . .		WP 0326
Pump Operator's Panel Indicator Lamp Replacement . . . . .		WP 0327
Pump Operator's Panel Light Switch Replacement . . . . .		WP 0328
Pump Operator's Panel Manual Primer Handle Replacement . . . . .		WP 0329
Pump Operator's Panel Momentary Toggle Switch Replacement . . . . .		WP 0330
Pump Operator's Panel Overheat Test Button . . . . .		WP 0331
Pump Operator's Panel Pressure Governor Control Panel Replacement . . . . .		WP 0332
Pump Operator's Panel Primer Switch Replacement . . . . .		WP 0333
Pump Operator's Panel Replacement . . . . .		WP 0334
Pump Operator's Panel Side Lamp and Bracket Replacement . . . . .		WP 0335
Pump Operator's Panel Test Gauge Panel Replacement . . . . .		WP 0336
Pump Operator's Panel Three-Position Toggle Switch Replacement . . . . .		WP 0337
Pump Operator's Panel Two-Position Toggle Switch Replacement . . . . .		WP 0338
Pump Operator's Panel Water Level Gauge Replacement . . . . .		WP 0339
Water Pump Engine Gauge Panel Replacement . . . . .		WP 0340
<b>SIREN ASSEMBLY</b>		
Siren Control Replacement . . . . .		WP 0341
<b>WARNING LIGHT ASSEMBLY</b>		
Lower Rear Marker Light and Bracket Replacement . . . . .		WP 0342
Marker Light (Amber LED) Replacement . . . . .		WP 0343
Personnel Cab Clearance Light and Bracket Replacement . . . . .		WP 0344
Personnel Cab Front Lightbar Replacement . . . . .		WP 0345
Personnel Cab Side Lightbar Replacement . . . . .		WP 0346
Personnel Cab Lightbar Repair . . . . .		WP 0347
Personnel Cab Warning Light and Do Not Move Apparatus Flasher Units Replacement . . . . .		WP 0348
Rear Marker/Clearance LED Replacement . . . . .		WP 0349

**TABLE OF CONTENTS (CONTINUED)**

	<u>Page No.</u>	<u>WP Sequence No.</u>
Roof Mounted Clearance Lights Replacement . . . . .		WP 0350
Warning Lights Replacement . . . . .		WP 0351
<b>SPOTLIGHTS</b>		
Deck Spotlight Replacement . . . . .		WP 0352
Deck Spotlight Lamp Replacement . . . . .		WP 0353
Extendable Floodlight Replacement . . . . .		WP 0354
Extendable Floodlight Lamp Replacement . . . . .		WP 0355
Overhead Beacon Light Replacement . . . . .		WP 0356
<b>DOME AND ENGINE LIGHT ASSEMBLY</b>		
Dome Light (LED & Incandescent) Replacement . . . . .		WP 0357
<b>MISCELLANEOUS ELECTRICAL COMPONENTS</b>		
120-Volt Air Compressor Replacement . . . . .		WP 0358
24-Volt Battery Charger Replacement . . . . .		WP 0359
120-Volt Circuit Breaker Replacement . . . . .		WP 0360
120-Volt Power Cord(s) Replacement . . . . .		WP 0361
Table 1. 120-Volt Power Cords . . . . .	0361-2	
120-Volt Receptacle Replacement . . . . .		WP 0362
Auto Fill Control Replacement . . . . .		WP 0363
Battery Box and Bracket Replacement . . . . .		WP 0364
Battery Charger(s) Receptacle Replacement . . . . .		WP 0365
Battery Disconnect Switch and Box Replacement . . . . .		WP 0366
Battery Equalizer Replacement . . . . .		WP 0367
Batteries, Terminal, and Cable Replacement . . . . .		WP 0368
Blackout Relay Replacement . . . . .		WP 0369
Bumper Turret and Pump Cooler Dump-To-Ground Control Valve Replacement . . . . .		WP 0370
Cab Roof Lightbar Cable Assembly Replacement . . . . .		WP 0371
Cab Roof Lightbar Cable Assembly Branch Replacement . . . . .		WP 0372
Circuit Breaker Box Replacement . . . . .		WP 0373
Compartment Light Replacement . . . . .		WP 0374
Control Valve Replacement . . . . .		WP 0375
Cord Reel Repair . . . . .		WP 0376
Cord Reel Cable, Work Light, and Receptacle Box Replacement . . . . .		WP 0377

**TABLE OF CONTENTS (CONTINUED)**

	<u>Page No.</u>	<u>WP Sequence No.</u>
Cord Reel Cable Work Light Lamp Replacement . . . . .		WP 0378
Cord Reel Cable Work Light Bracket Replacement. . . . .		WP 0379
Cord Reel Control Assembly Replacement . . . . .		WP 0380
Cord Reel Replacement . . . . .		WP 0381
Cord Reel Rewind Circuit Breaker Replacement. . . . .		WP 0382
Cord Reel Rewind Solenoid Replacement . . . . .		WP 0383
Cover, Door, and Electronic Mounting Base (SINCGARS) Replacement . . . . .		WP 0384
Door Switch Replacement . . . . .		WP 0385
Dual Governor Pressure Switch Replacement . . . . .		WP 0386
Electronically-Operated Ball Valve Seats and Preformed Packing Replacement . . . . .		WP 0387
Electronically-Operated Ball Valve Electric Motor and Drive Assembly Replacement . . . . .		WP 0388
Equipment (Ladder) Rack Control Assembly Replacement . . . . .		WP 0389
Flow Sensor Replacement . . . . .		WP 0390
Glow Plug Circuit Breaker Replacement . . . . .		WP 0391
Glow Plug Control Relay Replacement . . . . .		WP 0392
High Amperage Cable Replacement . . . . .		WP 0393
Table 1. Positive High Amperage Cable Routing. . . . .	0393-2	
Figure 1. Positive High Amperage Cable Routing. . . . .	0393-3	
Table 2. Negative High Amperage Cable Routing. . . . .	0393-4	
Figure 2. Negative High Amperage Cable Routing.. . . .	0393-5	
Inline Fuse Replacement . . . . .		WP 0394
Intercom Replacement . . . . .		WP 0395
Light Bezel Replacement. . . . .		WP 0396
Light Bezel Cover Replacement . . . . .		WP 0397
Personnel Cab Power Distribution Box Circuit Breaker Replacement. . . . .		WP 0398
Personnel Cab Power Distribution Box Diode Block Replacement. . . . .		WP 0399
Personnel Cab Power Distribution Block Replacement . . . . .		WP 0400
Personnel Cab Power Distribution Box Fuse Replacement . . . . .		WP 0401
Personnel Cab Power Distribution Box Relays Replacement . . . . .		WP 0402
Personnel Cab Roof Lightbar Flasher Unit Replacement . . . . .		WP 0403
Personnel Cab Step Clearance Light Replacement . . . . .		WP 0404

**TABLE OF CONTENTS (CONTINUED)**

	<u>Page No.</u>	<u>WP Sequence No.</u>
Portable Handheld Flashlight and Charger Replacement . . . . .		WP 0405
Portable Handheld Radio and Charger Replacement . . . . .		WP 0406
Power Distribution Box (Pump House) Replacement . . . . .		WP 0407
Power Distribution Box Control Panel (Pump House) Replacement . . . . .		WP 0408
Power Cable Assembly (SINCGARS) Replacement . . . . .		WP 0409
Pressure Regulator Replacement . . . . .		WP 0410
Pressure Transducer Replacement . . . . .		WP 0411
Pump House Distribution Box Circuit Breaker Replacement . . . . .		WP 0412
Pump House Distribution Box Relay Replacement . . . . .		WP 0413
Pump House Cooling Fan Temperature Switch Replacement . . . . .		WP 0414
Pump House Heater Diagnostic Module Replacement . . . . .		WP 0415
Pump House Cooling Fan Replacement . . . . .		WP 0416
Pump Operator's Panel Electric Valve Control/Meter Replacement . . . . .		WP 0417
Pump Operator's Panel Electric Valve Control Replacement . . . . .		WP 0418
Pump Primer Motor Diode Pack Replacement . . . . .		WP 0419
Rear Step Buzzer Button and Cable Replacement . . . . .		WP 0420
Rear Step Buzzer Button Compartment Replacement . . . . .		WP 0421
Remote Intercom Replacement . . . . .		WP 0422
Roof, Bumper, and Pump Cooler Dump-To-Ground Junction Box Replacement . . . . .		WP 0423
Roof Turret Control Valve Replacement . . . . .		WP 0424
Shoreline Inlet Receptacle Replacement . . . . .		WP 0425
Shutoff Control Valve Diode Pack Replacement . . . . .		WP 0426
Shutoff Control Valve Manifold Replacement . . . . .		WP 0427
Speaker Replacement . . . . .		WP 0428
Terminal Block (Pass-Through) Replacement . . . . .		WP 0429
Two-Way Radio Replacement . . . . .		WP 0430
Utility Outlet Replacement . . . . .		WP 0431
Windshield Deluge Motor Replacement . . . . .		WP 0432
Air Conditioner Controller Wire Harness Replacement . . . . .		WP 0433
Air Conditioner Electric Motor Wire Harness Replacement . . . . .		WP 0434
Air Conditioner Rear Wire Harness Replacement . . . . .		WP 0435
Body Air Condenser Wire Harness Replacement . . . . .		WP 0436



**TABLE OF CONTENTS (CONTINUED)**

	<u>Page No.</u>	<u>WP Sequence No.</u>
Bumper Turret Wire Harness Replacement . . . . .		WP 0437
Cab Discharge Digital Pressure Gauge Wire Harness Replacement . . . . .		WP 0438
Cab Foam A and Foam B Tank Level Indicator Wire Harness Replacement . . . . .		WP 0439
Cab Instrument Panel Wire Harness Replacement . . . . .		WP 0440
Cab Power Distribution Wire Harness and Block Replacement . . . . .		WP 0441
Cab Roof Wire Harness Replacement . . . . .		WP 0442
Cab Pump Control Wire Harness Replacement . . . . .		WP 0443
Cab Water Tank Level Indicator Wire Harness Replacement . . . . .		WP 0444
Crew Cab Intercom Wire Harness Replacement . . . . .		WP 0445
Crew Cab Wire Harness Replacement . . . . .		WP 0446
Direct Tank Fill Valve Wire Harness Replacement . . . . .		WP 0447
Driver Side Body Wire Harness Replacement . . . . .		WP 0448
Equipment (Ladder) Rack Control Wire Harness Replacement . . . . .		WP 0449
Evaporator Wire Harness Replacement . . . . .		WP 0450
Flow Sensor Wire Harness Replacement . . . . .		WP 0451
Foam Tank Level Probe Wire Harness Replacement . . . . .		WP 0452
Inlet, Discharge, and Tank Fill and Re-Circulating Control Valve Wire Harness Replacement . . . . .		WP 0453
Intercom Wire Harness Replacement . . . . .		WP 0454
Main Wire Harness Replacement . . . . .		WP 0455
Passenger Side Body Wire Harness Replacement . . . . .		WP 0456
Pump House Power Distribution Wire Harness and Block Replacement . . . . .		WP 0457
Pump House Wire Harness Replacement . . . . .		WP 0458
Pump Operator's Panel Wire Harness Replacement . . . . .		WP 0459
Pressure Transducer Wire Harness Replacement . . . . .		WP 0460
Rear Body Wire Harness Replacement . . . . .		WP 0461
SINCGARS and Two-Way Radio Intercom Cable Replacement . . . . .		WP 0462
Valve Control Wire Harness Replacement . . . . .		WP 0463
Water Pump Engine Wire Harness Replacement . . . . .		WP 0464
Water Valve Wire Harness Replacement . . . . .		WP 0465
Water Tank Level Probe Wire Harness Replacement . . . . .		WP 0466

**TABLE OF CONTENTS (CONTINUED)**

	<u>Page No.</u>	<u>WP Sequence No.</u>
<b>HEATER, VEHICULAR COMPARTMENT</b>		
Heater Fuel Pumps Replacement .....		WP 0467
Heater Fuel Tank Pickups Replacement .....		WP 0468
Pump House Heater Replacement .....		WP 0469
Rear Compartment Heater Diagnostic Module Replacement .....		WP 0470
Rear Compartment Heater Replacement .....		WP 0471
Rear Heater Thermostat Replacement .....		WP 0472
<b>WATER PUMP ENGINE COOLING ASSEMBLY</b>		
Water Pump Engine Coolant/Fuel Pump Belts Replacement .....		WP 0473
Water Pump Engine Coolant Level Sensor Replacement .....		WP 0474
Water Pump Engine Coolant Level Sight Glass Replacement .....		WP 0475
Water Pump Engine Coolant Hoses and Tubes Replacement .....		WP 0476
Water Pump Engine Coolant Pump Replacement .....		WP 0477
Water Pump Engine Cooling System Pressure Test .....		WP 0478
Water Pump Engine Cooling System Service .....		WP 0479
Water Pump Engine Coolant Temperature Sensor Replacement .....		WP 0480
Water Pump Engine Radiator Replacement .....		WP 0481
<b>PIPING, WATER AND FOAM</b>		
Bumper Turret Valve Replacement .....		WP 0482
Coupling Replacement .....		WP 0483
Main Inlet Valve (Driver Side) Replacement .....		WP 0484
No. 1 Discharge Valve (Driver Side) Replacement .....		WP 0485
No. 2 Discharge Valve (Driver Side) Replacement .....		WP 0486
No. 3 Discharge Valve (Passenger Side) Replacement .....		WP 0487
No. 4 Discharge Valve (Passenger Side) Replacement .....		WP 0488
Piping Assembly (Pipe Thread Sealing Compound) .....		WP 0489
Plumbing, Hoses, and Piping Replacement .....		WP 0490
Table 1. Water Intake System .....	0490-3	
Table 2. Foam and Water Tank Fill Systems .....	0490-5	
Table 2. Foam and Water Tank Fill Systems. (Continued) ..	0490-7	
Table 3. Side Discharge System .....	0490-9	
Table 4. Pre-Connect System .....	0490-11	

**TABLE OF CONTENTS (CONTINUED)**

	<u>Page No.</u>	<u>WP Sequence No.</u>
Table 5. Roof and Bumper Turret Systems. . . . .	0490-13	
Table 6. Ground Sweeps and Thermal Relief Systems. . . .	0490-15	
Table 7. Windshield Deluge System. . . . .	0490-17	
Table 8. Priming System. . . . .	0490-19	
Pressure Reducing Valve Driver Pre-Connect "A" Replacement . . . . .		WP 0491
Pressure Reducing Valve Driver Pre-Connect "B" Replacement . . . . .		WP 0492
Tank-To-Pump Intake Valve (Driver Side) Replacement. . . . .		WP 0493
Tank-To-Pump Intake Valve (Passenger Side) Replacement. . . . .		WP 0494
Valve Driver Pre-Connect "A" Replacement . . . . .		WP 0495
Valve Driver Pre-Connect "B" Replacement . . . . .		WP 0496
<b>SPECIAL PURPOSE BODY</b>		
Air Lift Bag Storage Box Replacement . . . . .		WP 0497
Air Vent Guard Replacement. . . . .		WP 0498
Crew Cab Access Panels Replacement . . . . .		WP 0499
Crew Cab Assembly Replacement . . . . .		WP 0500
Crew Cab Bench Seat and Access Panel Replacement . . . . .		WP 0501
Crew Cab Door/Door Hinge Replacement. . . . .		WP 0502
Crew Cab Door Handle Replacement . . . . .		WP 0503
Crew Cab Door Latch/Linkage Replacement . . . . .		WP 0504
Crew Cab Door Seal Replacement . . . . .		WP 0505
Crew Cab Door Window/Regulator Replacement. . . . .		WP 0506
Crew Cab Inner Door Panel Replacement . . . . .		WP 0507
Crew Cab Peep Window Replacement . . . . .		WP 0508
Crew Cab Rifle Mount(s) Replacement . . . . .		WP 0509
Crew Cab Roof Hatch Replacement . . . . .		WP 0510
Crew Cab Roof Hatch Door Switch Guard Replacement . . . . .		WP 0511
Crew Cab SCBA Seat Replacement . . . . .		WP 0512
Crew Cab SCBA Seat Repair . . . . .		WP 0513
Driver Side and Passenger Side Crew Cab Ladder Replacement . . . . .		WP 0514
Crew Cab Window Replacement. . . . .		WP 0515
Crew Cab Vent Window Replacement . . . . .		WP 0516
Cross Divider Replacement. . . . .		WP 0517

**TABLE OF CONTENTS (CONTINUED)**

	<u>Page No.</u>	<u>WP Sequence No.</u>
Decal and Data Plate Replacement . . . . .		WP 0518
Equipment (Ladder) Rack Replacement . . . . .		WP 0519
Gasoline Can Stowage Compartment Replacement . . . . .		WP 0520
Grab Handle Replacement . . . . .		WP 0521
Heater Access Panel Replacement . . . . .		WP 0522
Hose Restraint Net Replacement . . . . .		WP 0523
Hose Bed Cover(s) Replacement . . . . .		WP 0524
Hose Bed Divider Replacement . . . . .		WP 0525
Hose Bed Grating Replacement . . . . .		WP 0526
Loose Equipment (Components of End Item) Mounting Bracket(s) Replacement . . . . .		WP 0527
On-Board Tool Mounting Bracket(s) Replacement . . . . .		WP 0528
Passenger Seat Mount Replacement . . . . .		WP 0529
Passenger Seat Replacement . . . . .		WP 0530
Personnel Cab Rifle Mount(s) and Door Strap(s) Replacement . . . . .		WP 0531
Personnel Cab SCBA Seat Repair . . . . .		WP 0532
Personnel Cab Step Replacement . . . . .		WP 0533
Pneumatic Spring Replacement . . . . .		WP 0534
Power Steering Pump Modification . . . . .		WP 0535
Pre-Connect Nozzle Storage Cups Replacement . . . . .		WP 0536
Pre-Connect Roller Assembly Replacement . . . . .		WP 0537
Pump House Access Doors Replacement . . . . .		WP 0538
Pump House Panel A Open/Close . . . . .		WP 0539
Pump House Panels Replacement . . . . .		WP 0540
Table 1. Pump House Panels Locations . . . . .	0540-1	
Pump Operator's Platform Replacement . . . . .		WP 0541
Rear Access Ladder Replacement . . . . .		WP 0542
Rear Compartment Mounting Brackets Replacement . . . . .		WP 0543
Rear Compartment Utility Tilt Tray Replacement . . . . .		WP 0544
Rear Hard Lift Replacement . . . . .		WP 0545
Rear Splash Guard Replacement . . . . .		WP 0546
Rear Work Platform Replacement . . . . .		WP 0547
Roof Turret Plumbing Cover Replacement . . . . .		WP 0548

**TABLE OF CONTENTS (CONTINUED)**

	<u>Page No.</u>	<u>WP Sequence No.</u>
SCBA Seat Belt Replacement . . . . .		WP 0549
Skid Plate Grille Replacement . . . . .		WP 0550
Small Compartment Doors Replacement . . . . .		WP 0551
Spreader Bar Bracket Replacement . . . . .		WP 0552
Stowage Box Replacement . . . . .		WP 0553
Stowage Compartment Door Latch Replacement . . . . .		WP 0554
Stowage Compartment Door Replacement . . . . .		WP 0555
Threaded Screw Insert Replacement . . . . .		WP 0556
Table 1. Threaded Screw Insert Replacement Parts. . . . .	0556-1	
Top Stowage Compartment Door Replacement . . . . .		WP 0557
Transmission Replacement . . . . .		WP 0558
Transmission Dipstick and Tube Replacement . . . . .		WP 0559
Wheel Chocks Stowage Compartment Replacement . . . . .		WP 0560
Windshield Deluge Pump House Strainer Screen Replacement . . . . .		WP 0561
Windshield Deluge System Replacement . . . . .		WP 0562
Wire Rope Replacement . . . . .		WP 0563

## HOW TO USE THIS TECHNICAL MANUAL

This manual is designed to help operate and maintain the Tactical Fire Fighting Truck (TFFT). This technical manual should be used in conjunction with the TM 9-2320-347-10 and TM 9-2320-325-14&P series manuals. Listed below are some of the features included in this manual to help locate and use the needed information:

- Warnings, cautions, subject headings, and other essential information are printed in bold type, making them easier to see.
- In addition to text, there are illustrations showing how to take a component off and put it back on. Cleaning and inspection criteria are also included where necessary.

This manual is subdivided into four volumes containing the following:

### Volume 1

- Chapter 1 of this manual supplements the TM 9-2320-347-10 manual and it describes the TFFT specific components. Equipment data is also provided.
- Chapter 2 of this manual supplements the TM 9-2320-347-10 manual and provides TFFT Operating Instructions.
- Chapter 3 of this manual supplements the TM 9-2320-325-14&P manual and provides TFFT Operator and Field Level Troubleshooting Procedures for Refrigeration and Air Conditioning Components, Fire Pump System, Foam Proportioner System, and Water Tank Assembly.

### Volume 2

- Chapter 3 (continued) of this manual supplements the TM 9-2320-325-14&P manual and provides TFFT Field Level Troubleshooting Procedures for Instrument Housing Assembly, Siren Assembly, Spotlights, Dome and Engine Light Assembly, Miscellaneous Electrical Components, and Heater, Vehicular Compartment.
- Chapter 4 of this manual supplements the TM 9-2320-325-14&P manual and provides TFFT Preventive Maintenance Checks and Services (PMCS) and Lubrication Instructions.
- Chapter 5 of this manual supplements the TM 9-2320-325-14&P manual and provides Field Level Maintenance Instructions for Adjustments and Alignments on the TFFT, as well as Removal/Installation Instructions for Refrigeration and Air Condition Components, Brake System Maintenance, Fire Pump Assembly, Relief Valve Assembly, Primer Pump Assembly, Drain Valve Assembly, and Foam System Assembly.

### Volume 3

- Chapter 5 (continued) of this manual supplements the TM 9-2320-325-14&P manual and provides TFFT Field Level Maintenance Removal/Installation Instructions Water Tank Assembly, Instrument Housing Assembly, Siren Assembly, Warning Light Assembly, Spotlights, Dome and Engine Assembly, Miscellaneous Electrical components, Heater, Vehicular Compartment, Water Pump Engine Cooling Assembly, Piping, Water and Foam, and Special Purpose Body.

### Volume 4

- Chapter 5 (continued) of this manual supplements the TM 9-2320-325-14&P manual and provides TFFT Field Level Maintenance Removal/Installation Instructions Mounting Brackets, Fuel Tank, and Air Tank, and Air Reservoir, Fixed Firefighting Equipment, Hydraulic Generator Assembly, and Miscellaneous Winterization Equipment. An Illustrated List of Manufactured Items and Torque Limits are provided at the rear of this chapter.

- Chapter 6 of this manual supplements the TM 9-2320-325-14&P manual and provides Repair Parts and Special Tools List (RPSTL) for the TFFT.
- Chapter 7 of this manual supplements the TM 9-2320-325-14&P manual and provides References, Two-Level Maintenance Allocation Chart (MAC), Components of End Item (COEI) and Basic Issue Items (BII) Lists, Additional Authorization list (AA), and Expendable and Durable Supplies and Material Lists. An Alphabetical Index is provided to help locate items in the text.

The vehicles referenced in the TM 9-2320-347-10 and TM 9-2320-325-14&P manuals are similar, but not identical to the vehicle referenced in the supplemental manual. TFFT vehicle procedures that are common to the M977A2 can be found in the TM 9-2320-347-10 or TM 9-2320-325-14&P manual. Configuration differences can be determined by visually inspecting the vehicle prior to maintenance.

Follow these guidelines when using the manual:

- Read all WARNINGS and CAUTIONS before performing any procedure.
- The operator must read this technical manual along with TM 9-2320-347-10 manual and become familiar with the content of each manual before attempting to operate the vehicle.
- Maintenance personnel must read this technical manual along with TM 9-2320-325-14&P manual and become familiar with the content of each manual before performing any maintenance to the vehicle.





## **CHAPTER 5**

### **MAINTENANCE INSTRUCTIONS (CONTINUED)**



## FIELD LEVEL MAINTENANCE

## AUXILIARY INLET VALVE (PASSENGER SIDE) REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 51)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Locknut (2)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

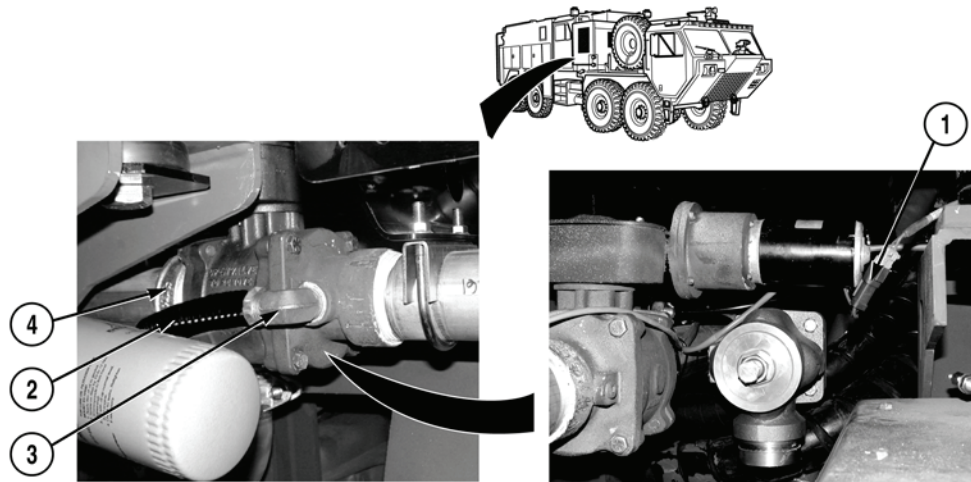
**References**

WP 0388  
WP 0483  
WP 0615, Fig. 50

**Equipment Conditions**

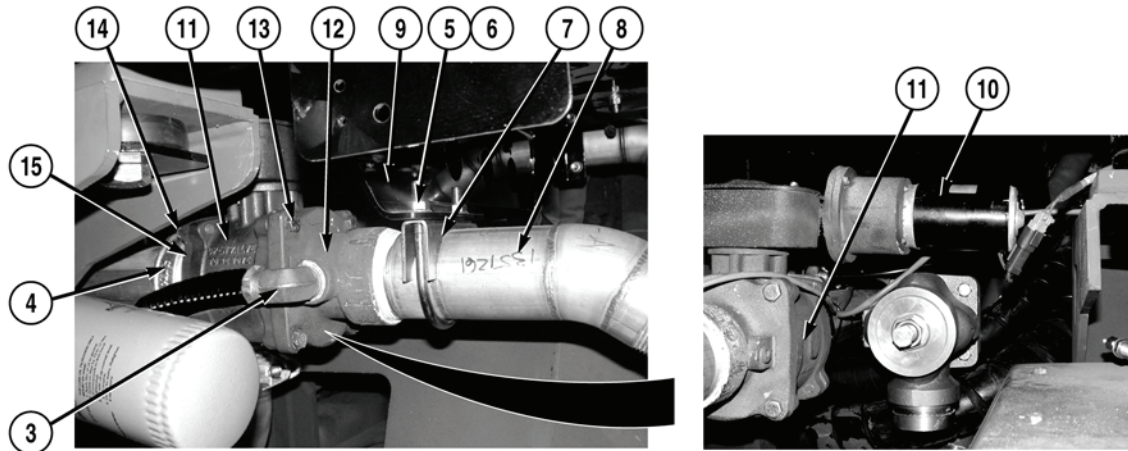
Pump house panel M removed (WP 0540)  
Water system drained (WP 0041)

## REMOVAL

**NOTE**

- Tag and mark wire prior to removal to ensure proper installation.
- Remove cable ties as required.

1. Disconnect connector (1).
2. Remove hose (2) from elbow (3).
3. Remove coupling (4) from vehicle (WP 0483).



### NOTE

Pipe and valve are removed as an assembly.

4. With the aid of an assistant, remove two locknuts (5), U-bolt (6), cradle (7), and pipe (8) from bracket (9) and vehicle. Discard locknuts.
5. Remove electric motor and drive assembly (10) from valve (11) (WP 0388).
6. Remove elbow (3) from adapter (12).
7. Remove four screws (13) and adapter (12) from valve (11).
8. Remove four screws (14) and adapter (15) from valve (11).

**END OF TASK**

**INSTALLATION**

1. Install adapter (15) on valve (11) with four screws (14).
2. Install adapter (12) on valve (11) with four screws (13).

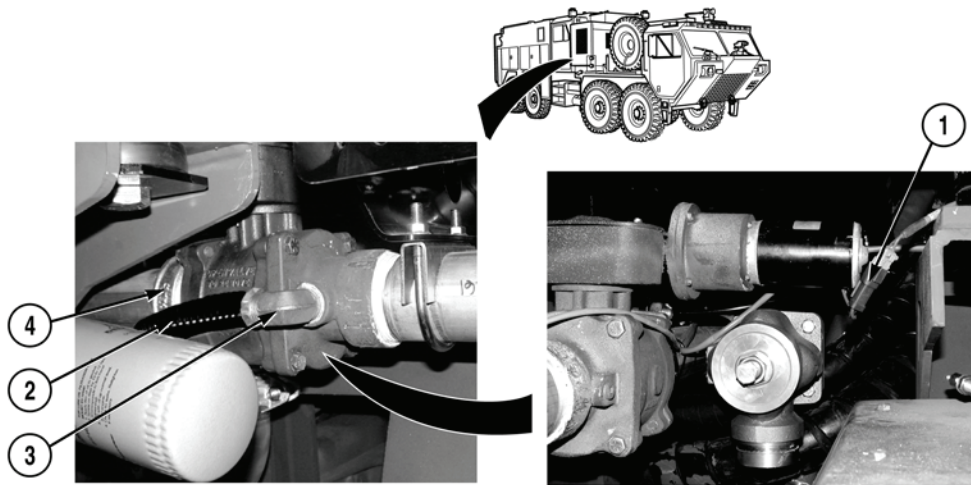
**WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

**CAUTION**

**Use sealing compound sparingly only on pipe threads. Do not apply compound to hose connections. Damage to equipment may result.**

3. Apply sealing compound to threads of elbow (3).
4. Install elbow (3) on adapter (12).
5. Install electric motor and drive assembly (10) on valve (11) (WP 0388).
6. With the aid of an assistant, install pipe (8) on bracket (9) and vehicle with cradle (7), U-bolt (6), and two locknuts (5).



7. Install coupling (4) on vehicle (WP 0483).
8. Install hose (2) on elbow (3).
9. Connect connector (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install pump house panel M (WP 0540)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## TANK-TO-PUMP CHECK VALVE (DRIVER SIDE) REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)

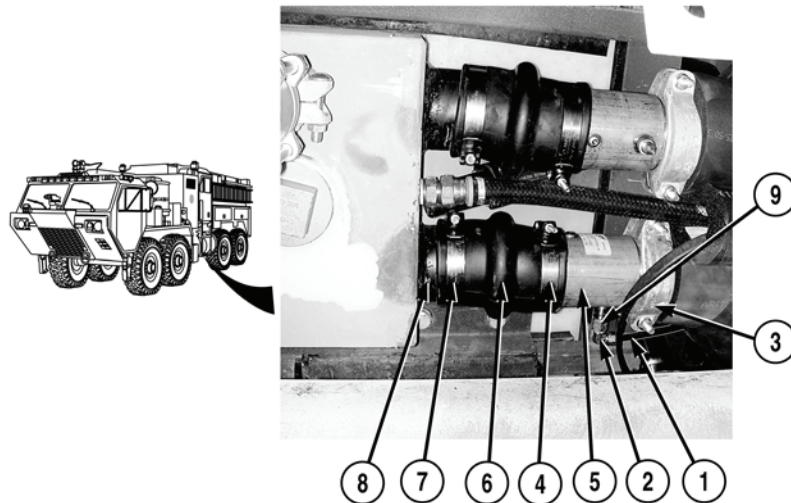
**References**

WP 0483  
WP 0615, Fig. 114

**Equipment Conditions**

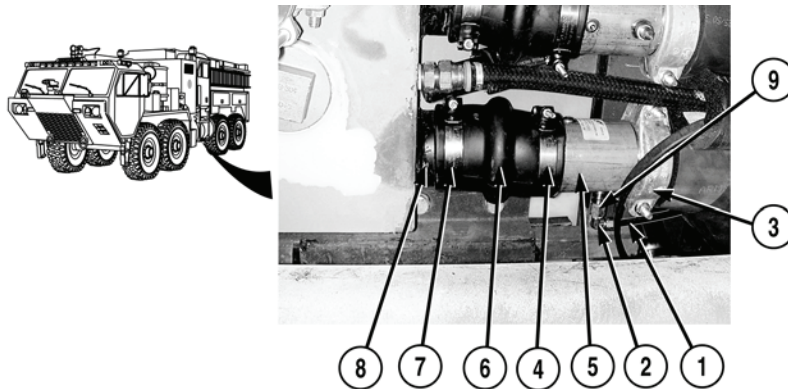
Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)  
Water system drained (WP 0041)

## REMOVAL



1. Remove line (1) from elbow (2).
2. Remove coupling (3) from vehicle (WP 0483).
3. Loosen clamp (4) and remove check valve (5) from boot (6) and vehicle.
4. Loosen clamp (7) and remove boot (6) from pipe (8).
5. Remove elbow (2) from fitting (9).
6. Remove fitting (9) from check valve (5).

## END OF TASK

**INSTALLATION****WARNING**

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

**CAUTION**

Use sealing compound sparingly only on pipe threads. Do not apply compound to hose connections. Damage to equipment may result.

1. Apply sealing compound to threads of elbow (2) and fitting (9).
2. Install fitting (9) on check valve (5).
3. Install elbow (2) on fitting (9).
4. Install boot (6) on pipe (8) and tighten clamp (7).
5. Install check valve (5) on boot (6) and tighten clamp (4).
6. Install coupling (3) on vehicle (WP 0483).
7. Install line (1) on elbow (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## TANK-TO-PUMP CHECK VALVE (PASSENGER SIDE) REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)

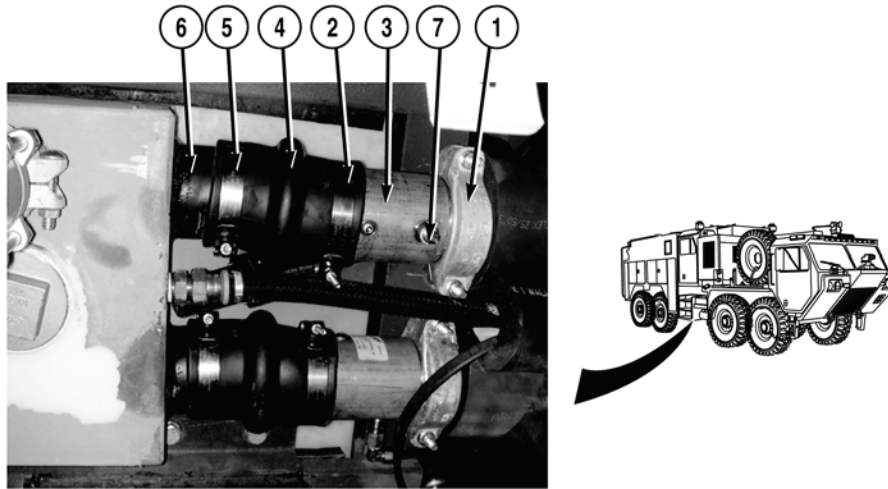
**References**

WP 0483  
WP 0615, Fig. 114

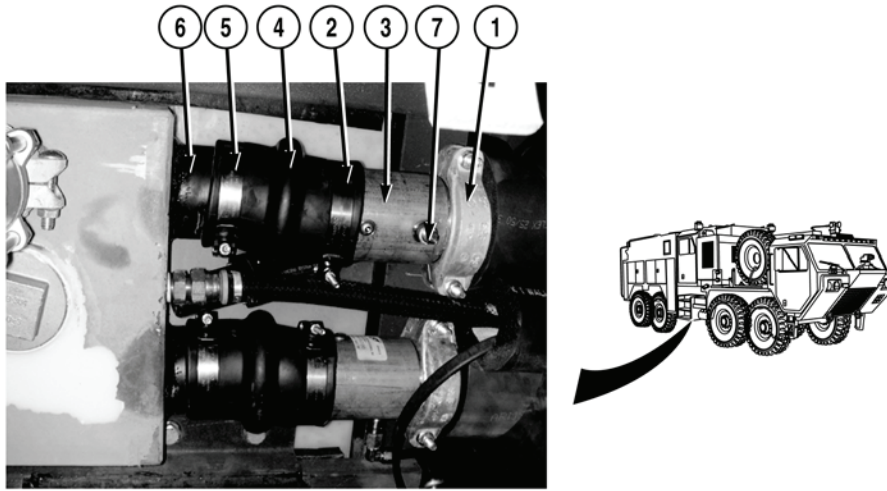
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)  
Water system drained (WP 0041)

## REMOVAL



1. Remove coupling (1) from vehicle (WP 0483).
2. Loosen clamp (2) and remove check valve (3) from boot (4) and vehicle.
3. Loosen clamp (5) and remove boot (4) from pipe (6).
4. Remove plug (7) from check valve (3).

**INSTALLATION****WARNING**

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

**CAUTION**

Use sealing compound sparingly only on pipe threads. Do not apply compound to hose connections. Damage to equipment may result.

1. Apply sealing compound to threads of plug (7).
2. Install plug (7) on check valve (3).
3. Install boot (4) on pipe (6) and tighten clamp (5).
4. Install check valve (3) on boot (4) and tighten clamp (2).
5. Install coupling (1) on vehicle (WP 0483).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**WATER LEVEL PROBE REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 47

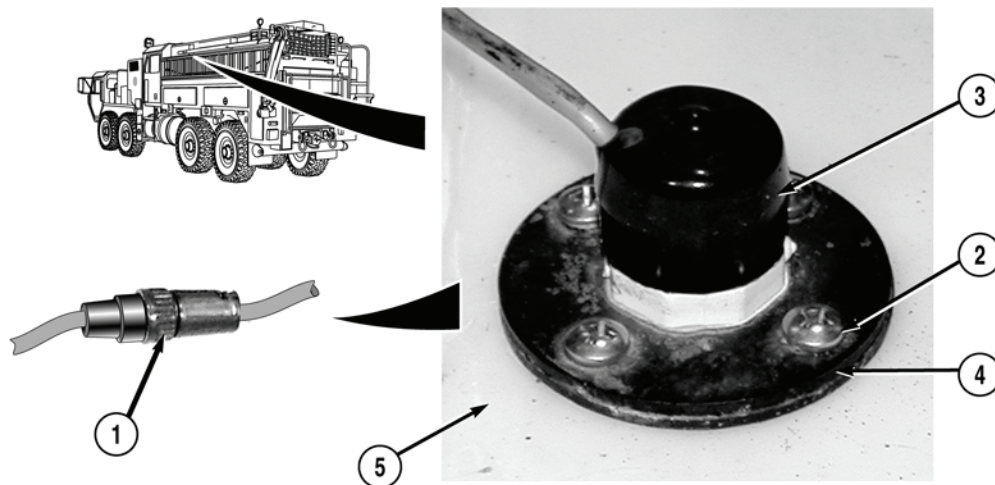
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

---

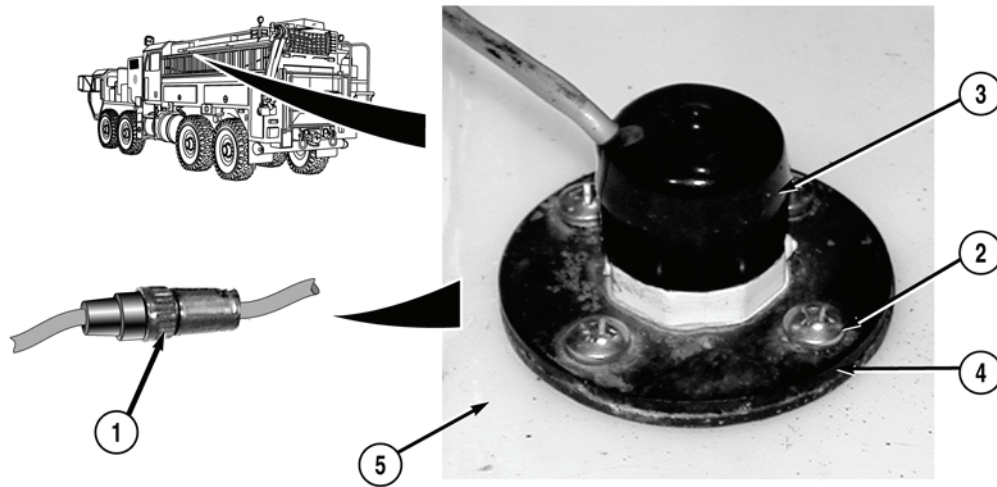
**REMOVAL****NOTE**

- Remove cable ties as required.
- Tag and mark connectors prior to removal to ensure proper installation.
- Secure connector after disconnecting.

1. Disconnect connector (1).

2. Remove four screws (2), water level probe (3), and gasket (4) from tank (5).

**END OF TASK**

**INSTALLATION**

1. Install gasket (4) and water level probe (3) on tank (5) with four screws (2).

**NOTE**

Install cable ties as needed.

2. Connect connector (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**WATER TANK REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing, Pipe Thread (WP 0625,  
Item 1)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (24)

**Personnel Required**

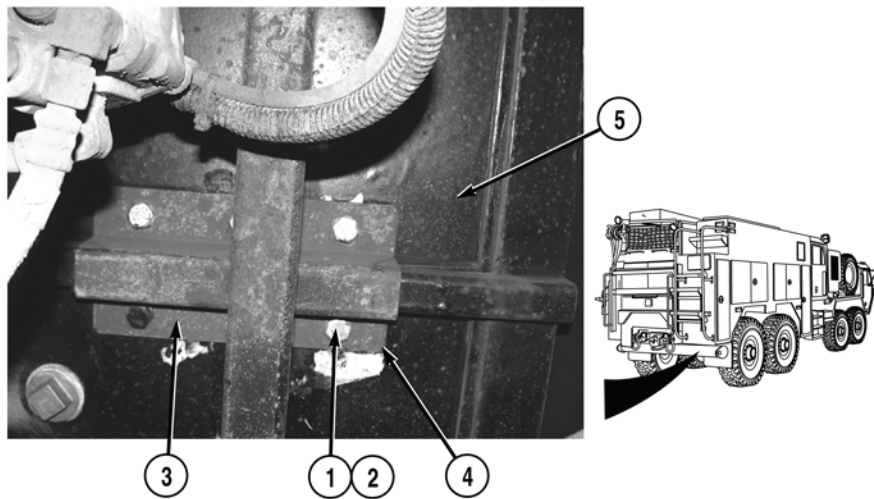
MOS 63B Wheeled vehicle mechanic (6)

**References**

WP 0483  
WP 0607  
WP 0615, Fig. 51

**Equipment Conditions**

Water tank drain valve removed (WP 0279)  
Tank-to-pump check valve (driver side) removed  
(WP 0295)  
Tank-to-pump check valve (passenger side)  
removed (WP 0296)  
Water level probe removed (WP 0297)  
Foam level probe removed (WP 0281)  
Water tank side fill valve removed (WP 0303)  
Crew cab assembly removed (WP 0500)  
Water tank heaters removed (WP 0300)  
Pre-connect removed (WP 0577)  
Cross divider removed (WP 0517)  
Hose bed grating removed (WP 0526)  
Water temperature sender removed (WP 0302)  
Water tank vent/fill valve removed (WP 0304)  
Foam tank fill port extensions and covers  
removed (WP 0293)

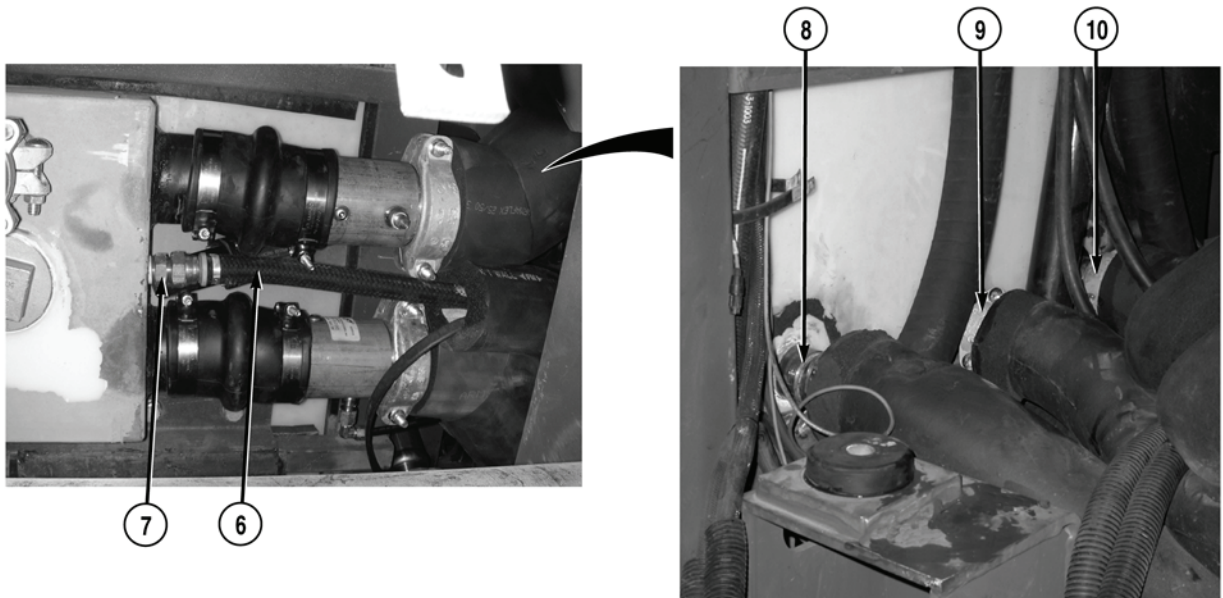
**REMOVAL****WARNING**

**Two steel spacers are positioned between each tank mounting bracket and water tank. Care must be taken when removing tank mounting brackets so that steel spacers do not fall and injure personnel.**

**NOTE**

All four tank mounting brackets are removed the same way.

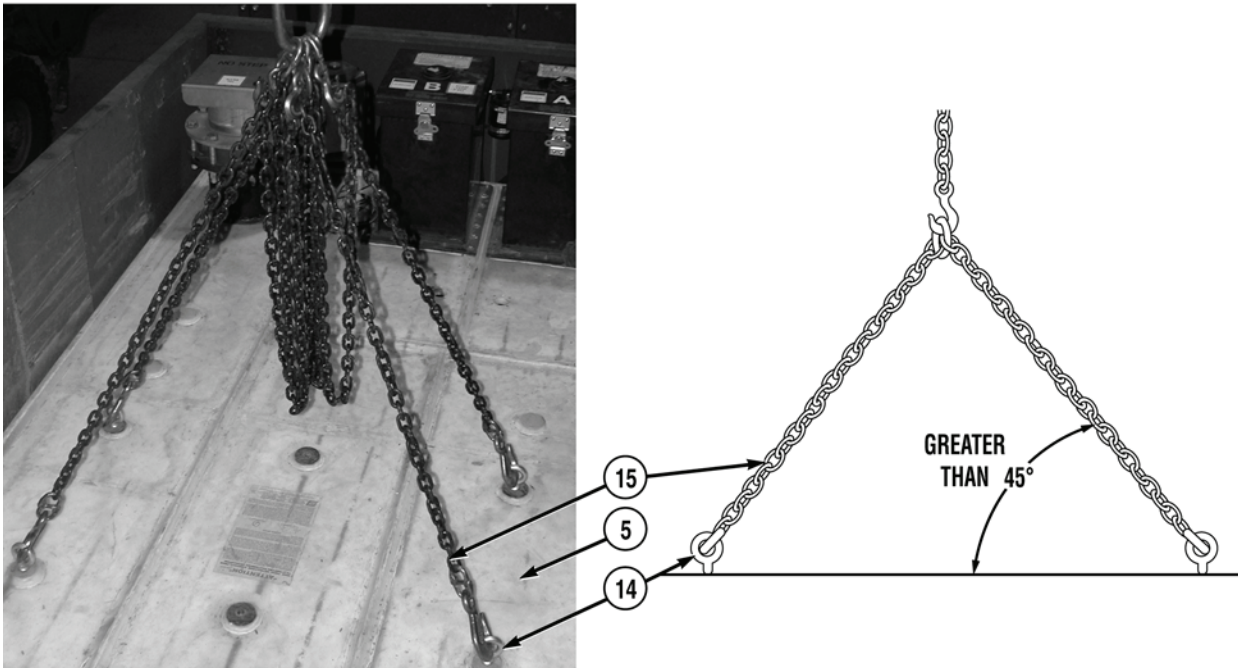
1. Remove six screws (1), lockwashers (2), tank mounting bracket (3), and two spacers (4) from water tank (5) and vehicle. Discard lockwashers.
2. Repeat Step (1) to remove remaining three tank mounting brackets (3).



3. Remove hose (6) from fitting (7).
4. Remove insulation from three couplings (8), (9), and (10) (WP 0607).
5. Remove three couplings (8), (9), and (10) from vehicle (WP 0483).



6. Remove connector (11) from binary switch (12).
7. Remove binary switch (12) from dryer (13).



8. Attach four eye bolts (14) on water tank (5).

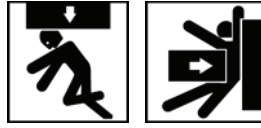
**WARNING**



**Chains attached to eye bolts must be of sufficient length to allow greater than a 45° lifting angle from eyebolts to suitable lifting device. Chains attached at greater than 45° lifting angle will allow water tank to be lifted straight out. Failure to comply may cause serious injury or death to personnel and/or damage to equipment.**

9. Attach chains (15) on four eye bolts (14).
10. Attach suitable lifting device to chains (15).



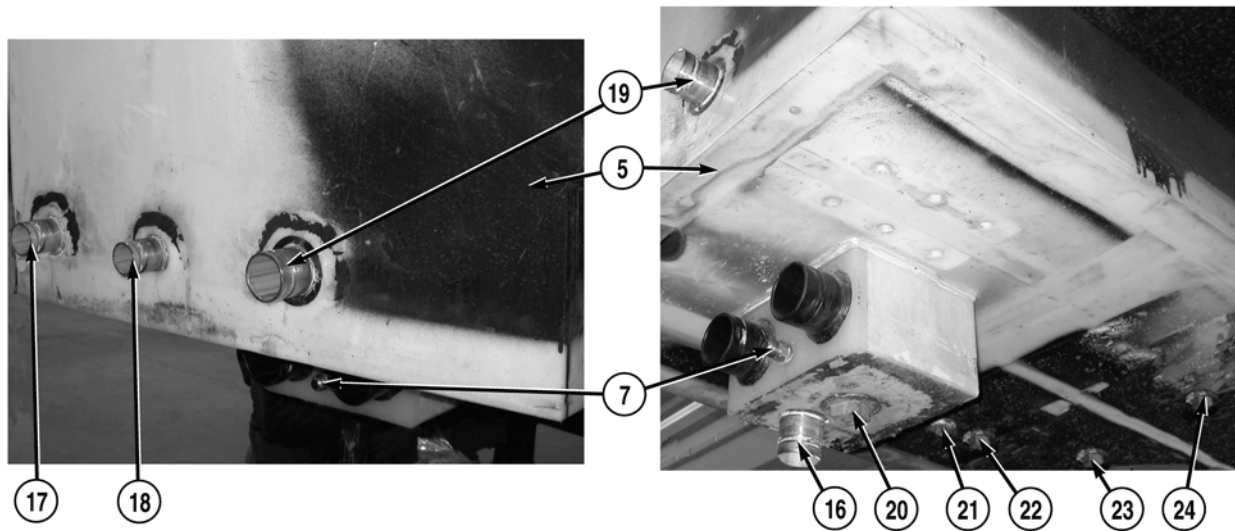
**WARNING**

Keep out from under water tank when removing from vehicle. If water tank slips or falls, serious injury or death may result.

**CAUTION**

Water tank must be lifted slowly and carefully. Make sure fresh air hose piping and elbow are rotated and that no wires or hoses are caught during removal, or severe damage to equipment will result.

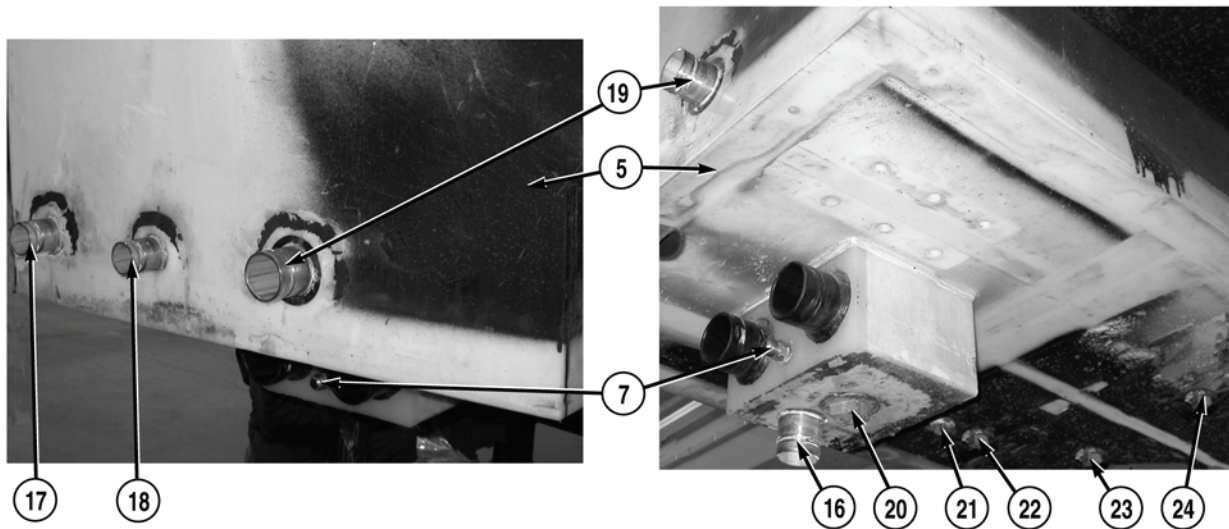
11. With the aid of five assistants, remove water tank (5) from vehicle.
12. Remove chains (15) from four eye bolts (14).
13. Remove four eye bolts (14) from water tank (5).



14. Remove five fittings (7), (16), (17), (18), and (19) from water tank (5).
15. Remove five plugs (20), (21), (22), (23), and (24) from water tank (5).

**END OF TASK**

## INSTALLATION

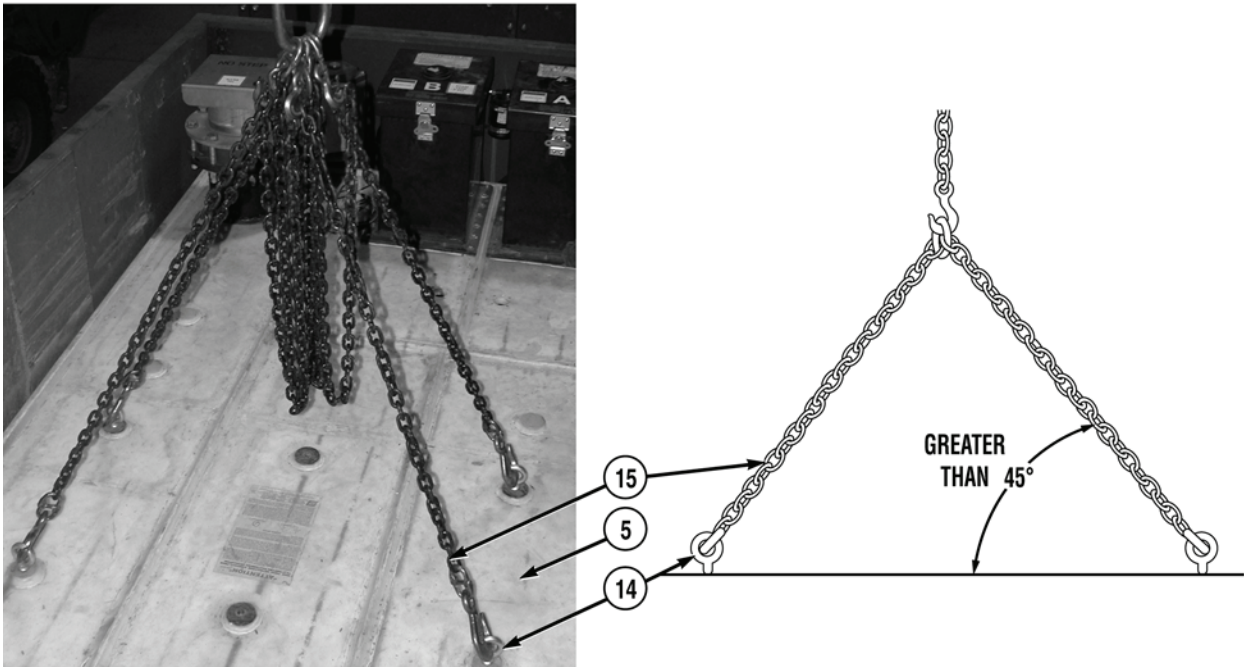
**WARNING**

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

**CAUTION**

Use sealing compound sparingly only on pipe threads. Do not apply compound to hose connections. Damage to equipment may result.

1. Apply sealing compound to threads of five plugs (20), (21), (22), (23), and (24) and five fittings (7), (16), (17), (18), and (19).
2. Install five plugs (20), (21), (22), (23), and (24) on water tank (5).
3. Install five fittings (7), (16), (17), (18), and (19) on water tank (5).



4. Install four eye bolts (14) on water tank (5).
5. Attach chains (15) on four eye bolts (14).
6. Attach suitable lifting device on chains (15).

**WARNING**



Keep out from under water tank when installing on vehicle. Failure to comply may result in injury or death to personnel.

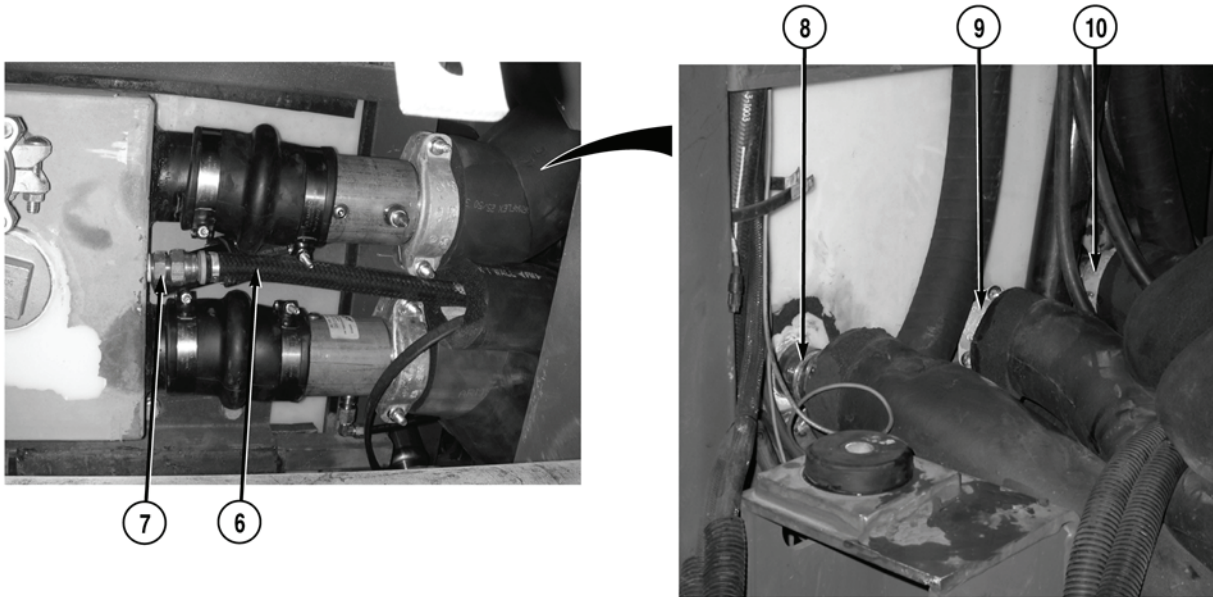
**CAUTION**

Water tank must be lifted slowly and carefully. Make sure water tank does not contact other vehicle components which could cause damage to equipment.

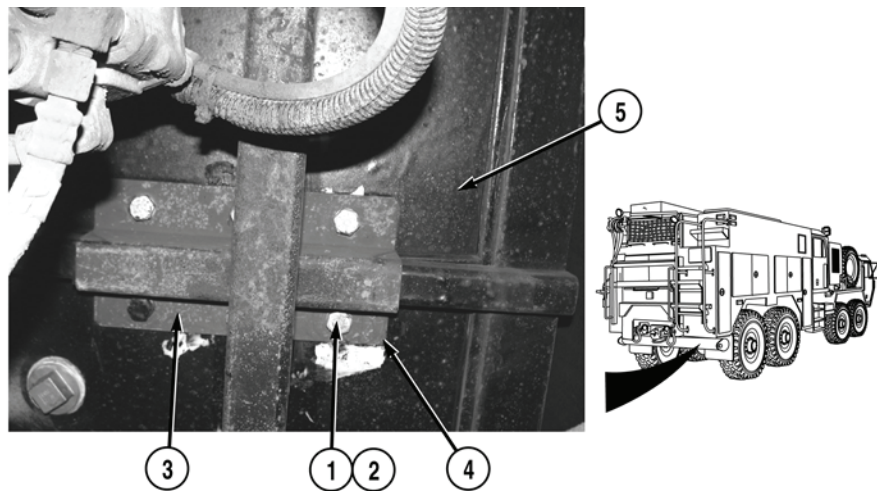
7. With the aid of five assistants and a suitable lifting device, guide water tank (5) on vehicle.



8. Install binary switch (12) on dryer (13).
9. Install connector (11) on binary switch (12).



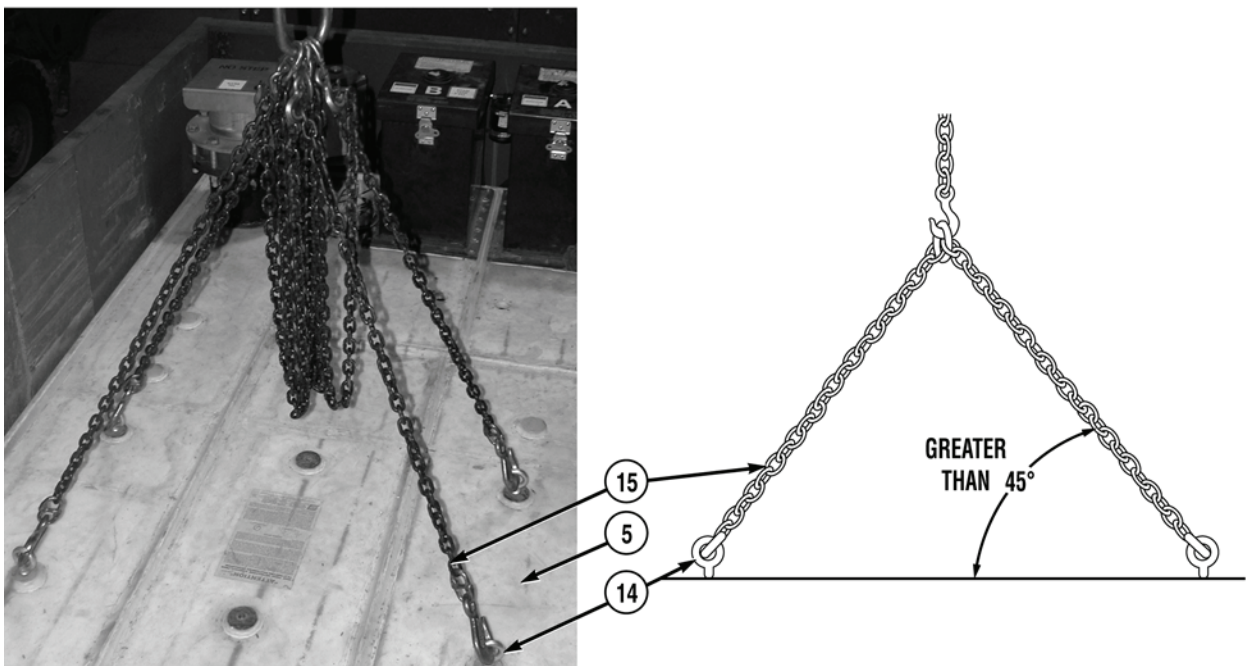
10. Install three couplings (10), (9), and (8) (WP 0483).
11. Install insulation on three couplings (10), (9), and (8) (WP 0607).



### NOTE

All four tank mounting brackets are installed the same way.

12. Install two spacers (4) and tank mounting bracket (3) on water tank (5) with six lockwashers (2) and screws (1).
13. Repeat Step (12) to install remaining three tank mounting brackets (3).



14. Remove suitable lifting device from chains (15).
15. Remove chains (15) and four eye bolts (14) from water tank (5).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Install foam tank fill port extensions and covers (WP 0293)
2. Install water tank vent/fill valve (WP 0304)
3. Install water temperature sender (WP 0302)
4. Install hose bed grating (WP 0526)
5. Install cross divider (WP 0517)
6. Install pre-connect (WP 0577)
7. Install water tank heaters (WP 0300)
8. Install crew cab assembly (WP 0500)
9. Install water tank side fill valve (WP 0303)
10. Install foam level probes (WP 0281)
11. Install water level probe (WP 0297)
12. Install tank-to-pump check valve (passenger side) (WP 0296)
13. Install tank-to-pump check valve (driver side) (WP 0295)
14. Install water tank drain valve (WP 0279)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**WATER TANK FILL VALVE REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0483  
WP 0615, Fig. 47

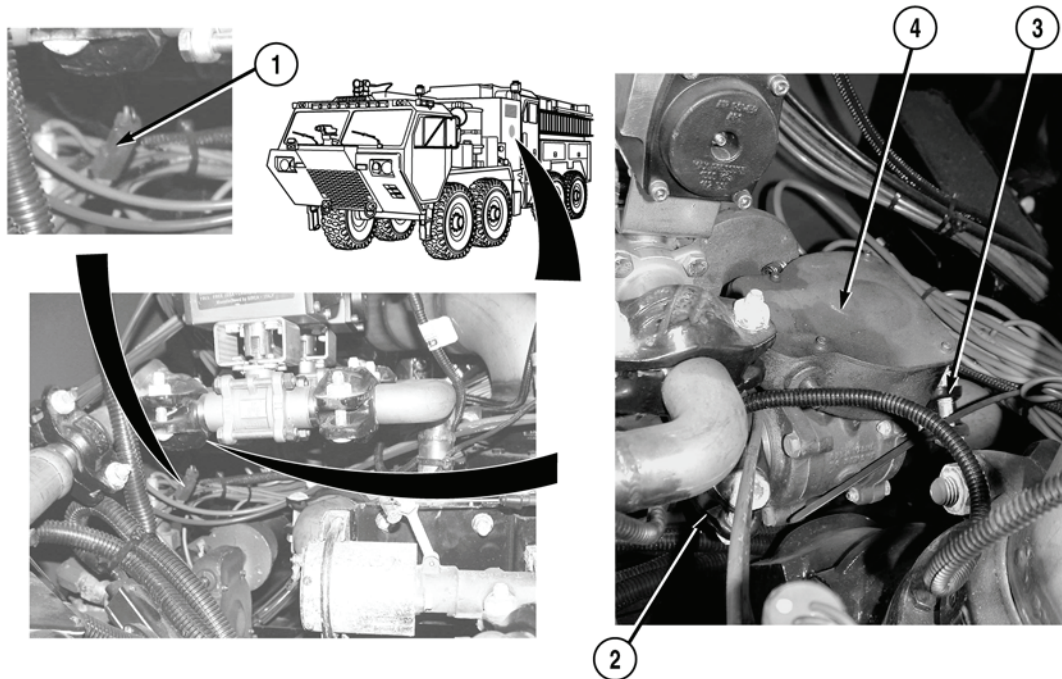
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Pump house panel A opened (WP 0539)  
Water system drained (WP 0041)

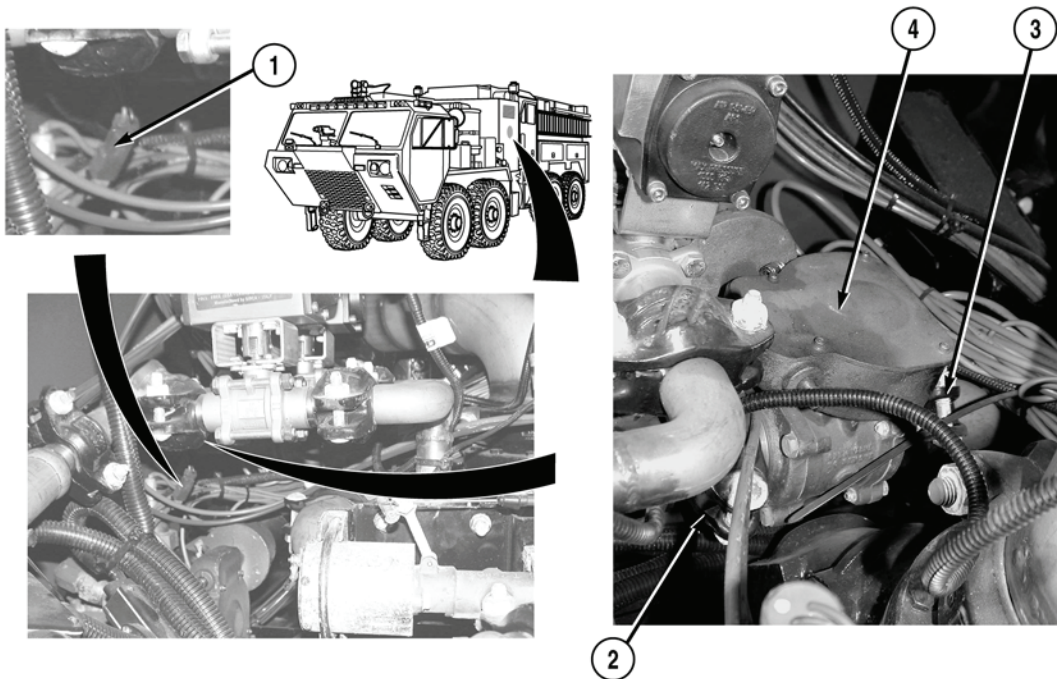
---

**REMOVAL****NOTE**

Tag and mark wire prior to removal to ensure proper installation.

1. Disconnect connector (1).
2. Remove two couplings (2) and (3) and water tank fill valve (4) from vehicle (WP 0483).

**END OF TASK**

**INSTALLATION**

1. Install water tank fill valve (4) on vehicle with two couplings (2) and (3) (WP 0483).
2. Connect connector (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Close pump house panel A (WP 0539)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**WATER TANK HEATER REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Sealant, Nut Locking (WP 0625, Item 45)  
Tags, Identification (WP 0625, Item 51)  
Lockwasher (2)

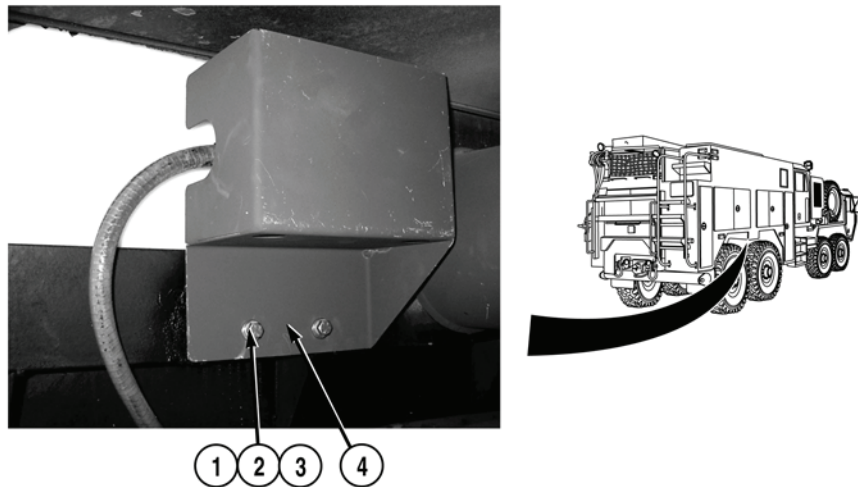
**References**

WP 0615, Fig. 54

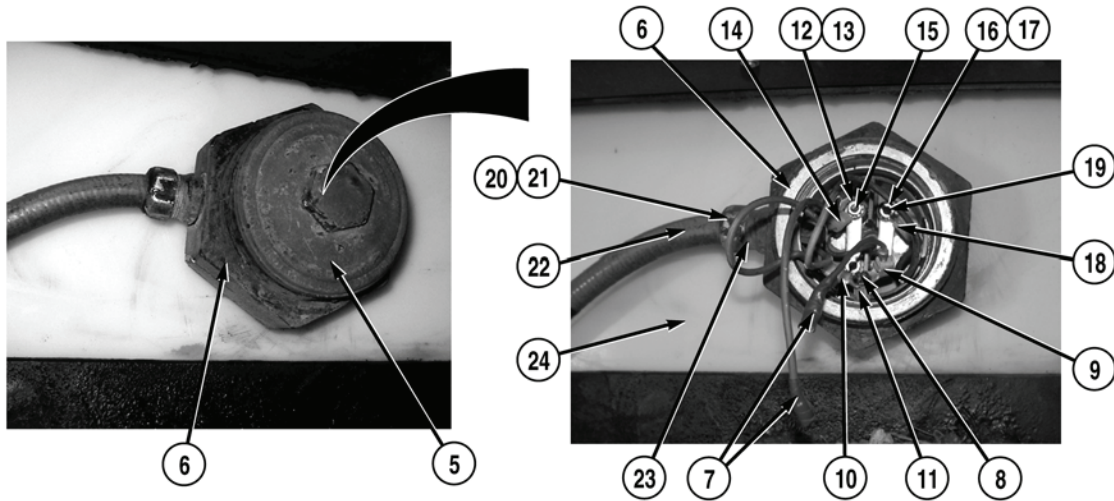
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)  
Water tank drained (WP 0029)

---

**REMOVAL****NOTE**

- Front and rear tank heaters are removed the same way. Front tank heater shown.
1. Remove two screws (1), lockwashers (2), washers (3), and heater guard (4) from vehicle. Discard lockwashers.



2. Remove heater cover (5) from tank heater (6).

### NOTE

Tag and mark wires prior to removal to ensure proper installation.

3. Cut wire (7) (TM 9-2320-325-14&P).
4. Remove screw (8), wire lug (9), and wire (10) from post (11).
5. Remove nut (12), washer (13), and wire (14) from post (15).
6. Remove nut (16), washer (17), and wire (18) from post (19).
7. Remove collar (20), grommet (21), and cable (22) from fitting (23).
8. Remove tank heater (6) from tank (24).

### END OF TASK

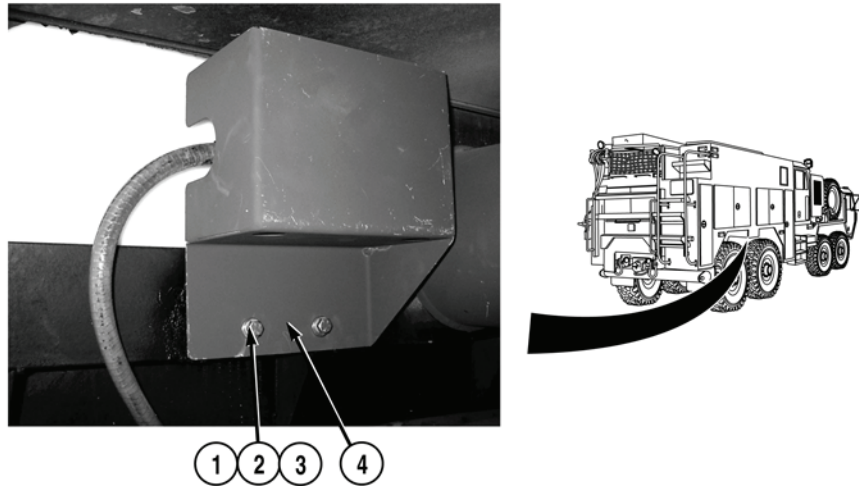
### INSTALLATION

### NOTE

- Front and rear tank heaters are installed the same way. Front tank heater shown.
- Apply nut locking grade sealant to threads of fasteners.
- Install tank heaters with power cable at 9 o'clock position as shown.

1. Install tank heater (6) in tank (24).
2. Install cable (22) in tank heater (6), and clamp with grommet (21) and collar (20) on fitting (23).
3. Install wire (18) on post (19) with washer (17) and nut (16).
4. Install wire (14) on post (15) with washer (13) and nut (12).
5. Install wire (10) and wire lug (9) on post (11) with screw (8).

6. Repair wire (7) (TM 9-2320-325-14&P).
7. Install heater cover (5) on tank heater (6).



**WARNING**



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

8. Apply sealant to threads of two screws (1).
9. Install heater guard (4) on vehicle with two washers (3), lockwashers (2), and screws (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE****WATER TANK HEATER CONTROL BOX REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (1)  
Lockwasher (4)  
Locknut (4)  
Locknut (4)

**References**

WP 0615, Fig. 54

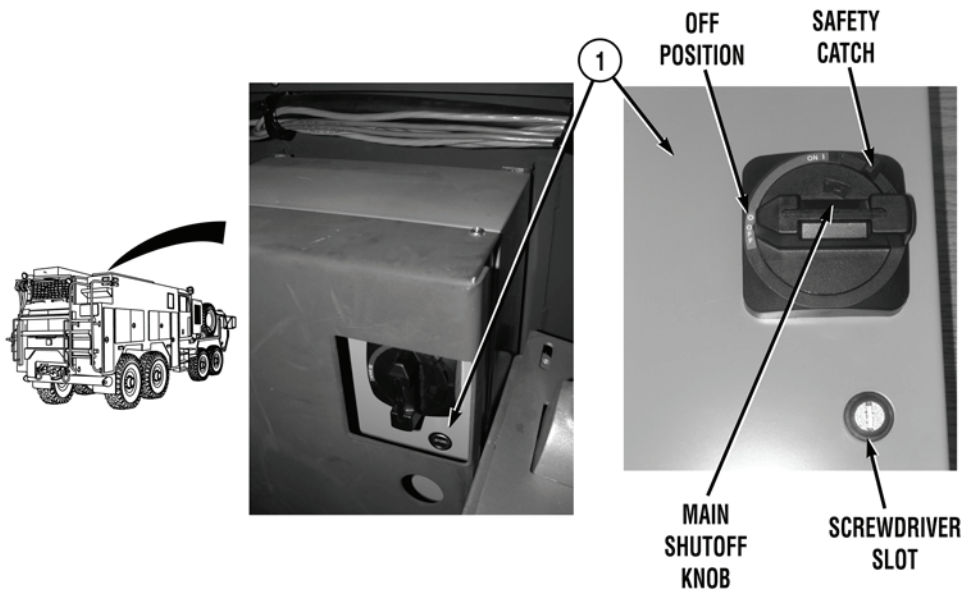
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

---

**OPENING WATER TANK HEATER CONTROL BOX****WARNING**

**Turn off main circuit breakers and generator before removing covers on 120/240-volt power distribution panel or receptacles. Failure to comply may result in damage to equipment or electrical shock to personnel.**



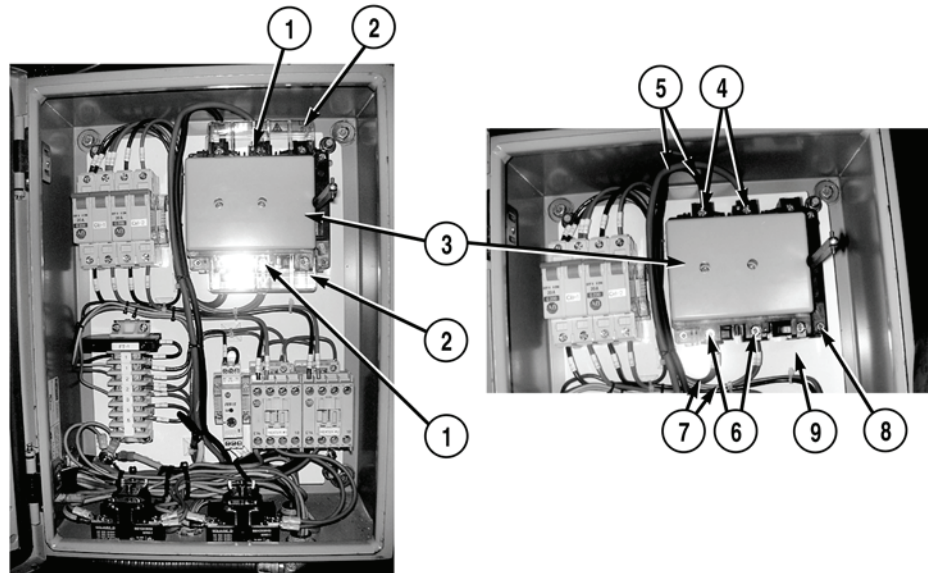
### NOTE

- Water tank heater control box is located in top stowage compartment. Removal of some stowage compartment items will be required to access control box.
- Control box door is opened by turning main shutoff knob to OFF position, inserting and turning a flat blade screwdriver in slot of door latch, pushing safety catch down, and opening door.

Open control box door (1).

**END OF TASK**

## MAIN SHUTOFF CONTROL REMOVAL



### NOTE

- After opening water tank heater control box door, tag and mark wires prior to removal to ensure proper installation.
- Remove cable ties as required.

1. Remove two screws (1) and plastic guards (2) from main shutoff control (3).
2. Loosen two screws (4) and remove wires (5) from main shutoff control (3).
3. Loosen two screws (6) and remove four wires (7) from main shutoff control (3).
4. Remove four screws (8) and main shutoff control (3) from mounting plate (9).

### END OF TASK

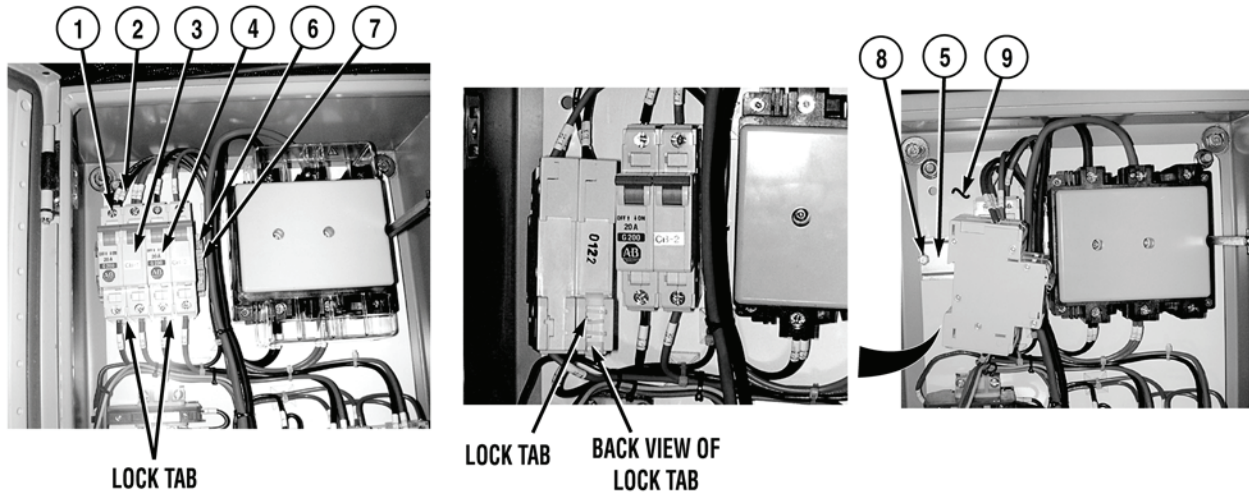
## MAIN SHUTOFF CONTROL INSTALLATION

### NOTE

Install cable ties as required.

1. Install main shutoff control (3) on mounting plate (9) with four screws (8).
2. Install four wires (7) on main shutoff control (3) and tighten two screws (6).
3. Install two wires (5) on main shutoff control (3) and tighten two screws (4).
4. Install two plastic guards (2) on main shutoff control (3) with two screws (1).

### END OF TASK

**BREAKERS AND MOUNTING STRIP REMOVAL****NOTE**

Tag and mark wires prior to removal to ensure proper installation.

1. Loosen eight screws (1) and remove ten wires (2) from two breakers (3) and (4).

**NOTE**

Breakers are secured on mounting strip with spring loaded lock tab located on bottom left portion of breaker. Flat blade screwdriver inserted between lock tab and breaker and pulling lock tab down will allow breaker to be released from mounting strip.

2. Remove two breakers (3) and (4) from mounting strip (5).
3. Loosen four screws (6) and remove two retainers (7) from mounting strip (5).
4. Remove two screws (8) and mounting strip (5) from mounting plate (9).

**END OF TASK****BREAKERS AND MOUNTING STRIP INSTALLATION**

1. Install mounting strip (5) on mounting plate (9) with two screws (8).

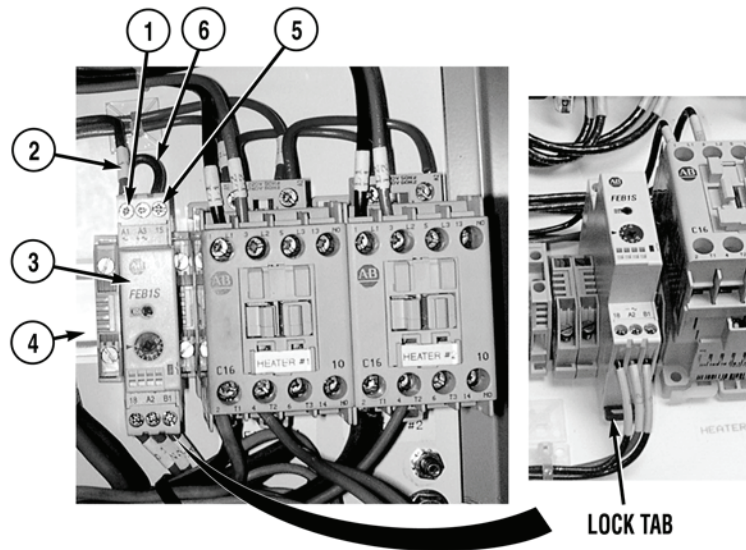
**NOTE**

- Breakers are installed on mounting strip by snapping breakers into place.
- Breakers must be centered on mounting strip in order to allow proper installation of two retainers.

2. Center and install two breakers (3) and (4) on mounting strip (5).
3. Install two retainers (7) on mounting strip (5) and tighten four screws (6).
4. Install ten wires (2) on two breakers (4) and (3) and tighten eight screws (1).

**END OF TASK**



**TIMER REMOVAL****NOTE**

Tag and mark wires prior to removal to ensure proper installation.

1. Loosen four screws (1) and remove four wires (2) from timer (3).

**NOTE**

Timer is secured on mounting strip with spring loaded lock tab located on bottom portion of timer. Flat blade screwdriver inserted between lock tab and timer and pulling lock tab down will allow timer to be released from mounting strip.

2. Remove timer (3) from mounting strip (4).
3. Loosen screw (5) and remove wire (6) from timer (3).

**END OF TASK****TIMER INSTALLATION**

1. Install wire (6) on timer (3) and tighten screw (5).

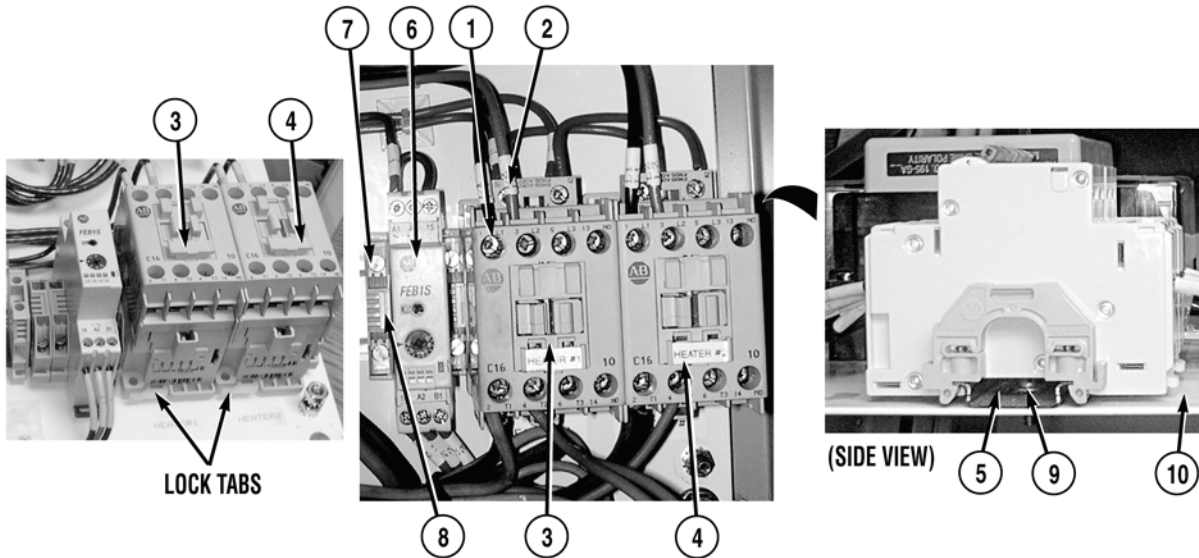
**NOTE**

Timer is installed on mounting strip by snapping timer into place.

2. Install timer (3) on mounting strip (4).
3. Install four wires (2) on timer (3) and tighten four screws (1).

**END OF TASK**

## CONTACTORS AND MOUNTING STRIP REMOVAL

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

1. Loosen 12 screws (1) and remove 14 wires (2) from two contactors (3) and (4).

**NOTE**

Contactors are secured on mounting strip with spring loaded lock tabs located on bottom left corner of contactors. Flat blade screwdriver inserted between lock tabs and contactors will allow contactors to be released from mounting strip.

2. Remove two contactors (3) and (4) from mounting strip (5).
3. Remove timer (6) from mounting strip (5).

**NOTE**

Note position of retainers on mounting strip prior to removal to ensure proper installation.

4. Loosen six screws (7) and remove three retainers (8) from mounting strip (5).
5. Remove two screws (9) and mounting strip (5) from mounting plate (10).

**END OF TASK**

---

**CONTACTORS AND MOUNTING STRIP INSTALLATION**

1. Install mounting strip (5) on mounting plate (10) with two screws (9).
2. Install timer (6) on mounting strip (5).

**NOTE**

Contactors are installed on mounting strip by snapping contactors into place.

3. Install two contactors (3) and (4) on mounting strip (5).

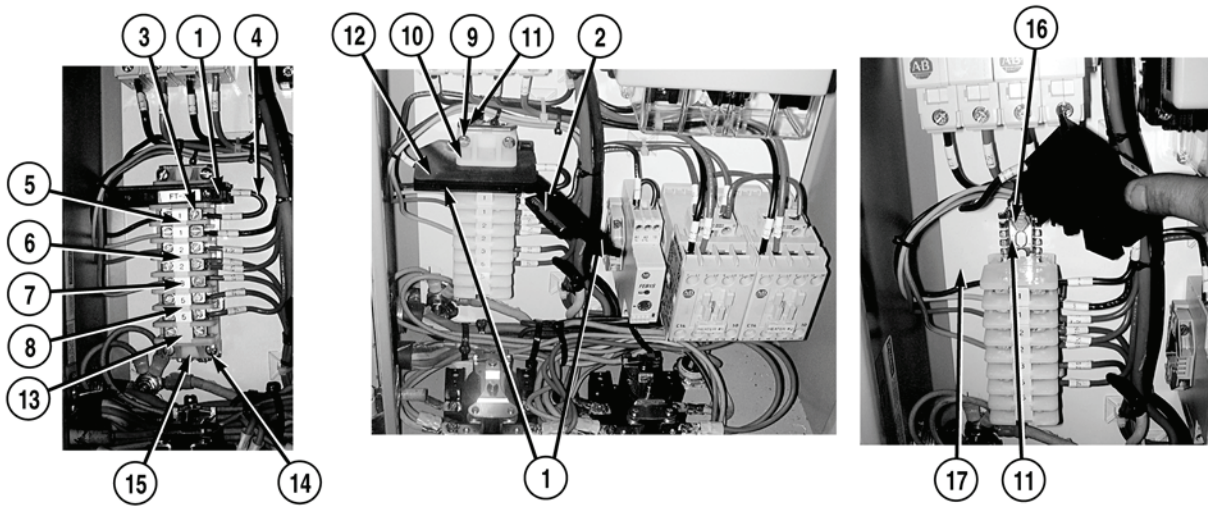
**NOTE**

Install retainers on mounting strip as noted prior to removal.

4. Install three retainers (8) on mounting strip (5) and tighten six screws (7).
5. Install 14 wires (2) on two contactors (3) and (4) and tighten 12 screws (1).

**END OF TASK**

## TERMINAL STRIP COMPONENTS AND MOUNTING STRIP REMOVAL



1. Open fuse block (1).
2. Remove fuse (2) from fuse block (1).

### NOTE

Tag and mark wires prior to removal to ensure proper installation.

3. Loosen 13 screws (3) and remove 13 wires (4) from fuse block (1) and four terminals (5), (6), (7), and (8).
4. Remove two screws (9) and cap (10) from mounting strip (11).

### NOTE

Terminal strip contains seven individual components that snap in place on mounting strip and are removed from the top down.

5. Remove fuse block cover (12), fuse block (1), and five terminals (5), (6), (7), (8), and (13) from mounting strip (11).
6. Remove two screws (14) and cap (15) from mounting strip (11).
7. Remove two screws (16) and mounting strip (11) from mounting plate (17).

**END OF TASK**

---

**TERMINAL STRIP COMPONENTS AND MOUNTING STRIP INSTALLATION**

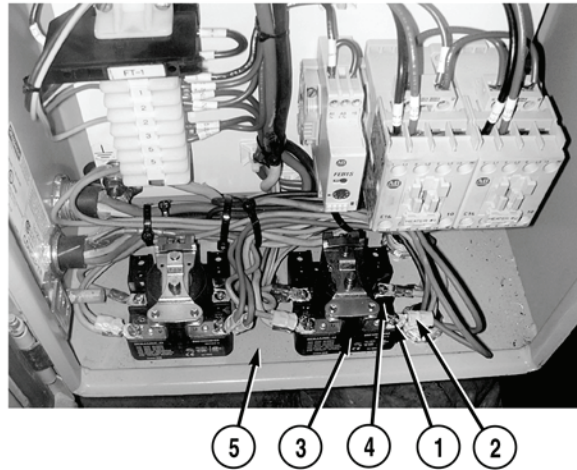
1. Install mounting strip (11) on mounting plate (17) with two screws (16).

**NOTE**

Terminal strip components are installed from the bottom up.

2. Install cap (15) on mounting strip (11) with two screws (14).
3. Install five terminals (13), (8), (7), (6), and (5), fuse block (1), and fuse block cover (12) on mounting strip (11).
4. Install cap (10) on mounting strip (11) with two screws (9).
5. Install 13 wires (4) on fuse block (1) and four terminals (8), (7), (6), and (5) and tighten 13 screws (3).
6. Install fuse (2) on fuse block (1).
7. Close fuse block (1).

**END OF TASK**

**RELAYS REMOVAL****NOTE**

- Both relays are removed the same way. Heater No.1 relay shown.
- Tag and mark wires prior to removal to ensure proper installation.

1. Loosen four screws (1) and remove eight wires (2) from heater No.1 relay (3).
2. Remove two screws (4) and heater No.1 relay (3) from control box (5).

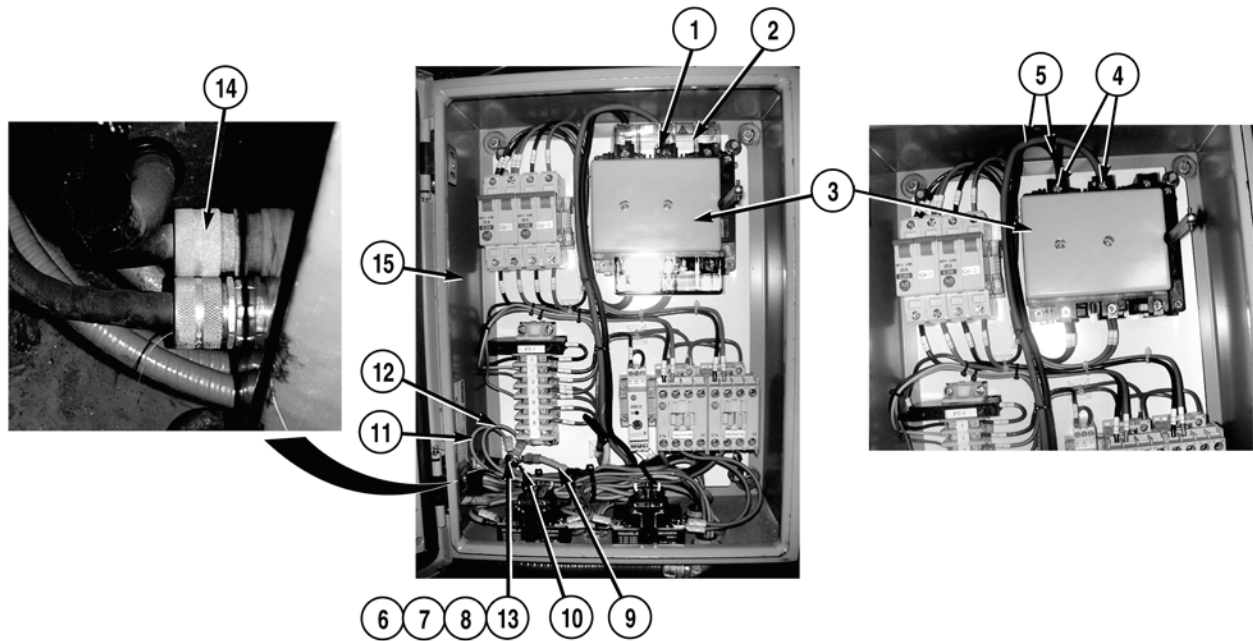
**END OF TASK****RELAYS INSTALLATION****NOTE**

Both relays are installed the same way. Heater No.1 relay shown.

1. Install heater No.1 relay (3) on control box (5) with two screws (4).
2. Install eight wires (2) on heater No.1 relay (3) and tighten four screws (1).

**END OF TASK**

## CONTROL BOX REMOVAL

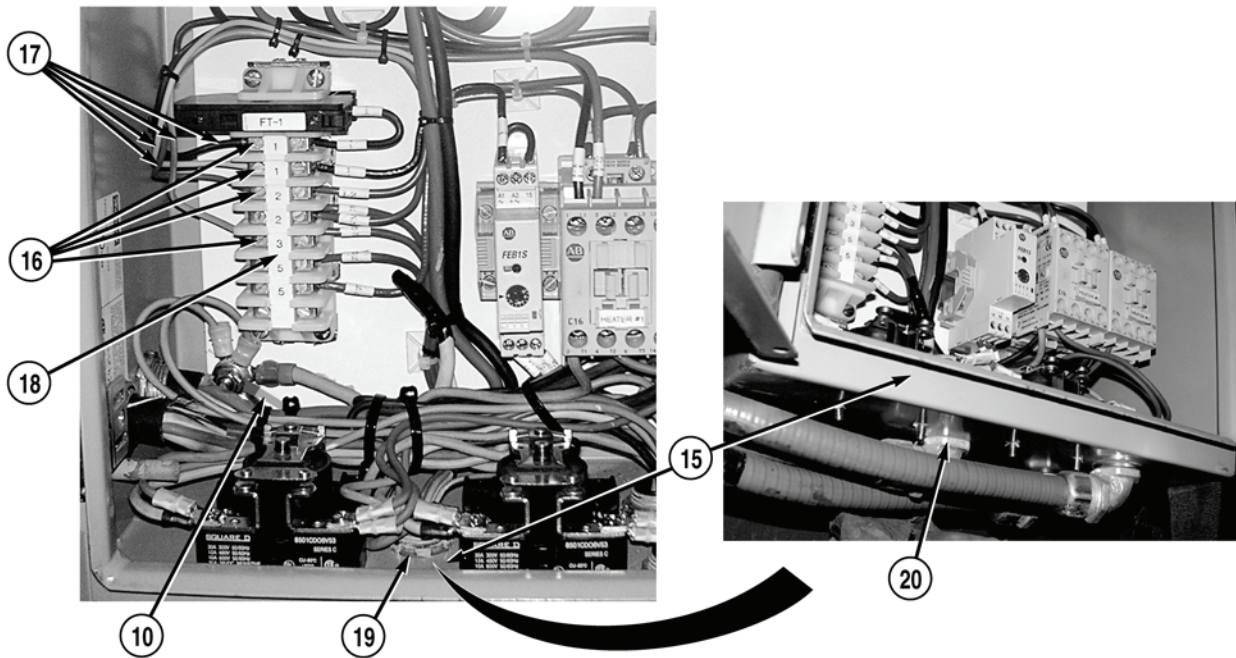


1. Remove screw (1) and plastic cover (2) from main shutoff control (3).

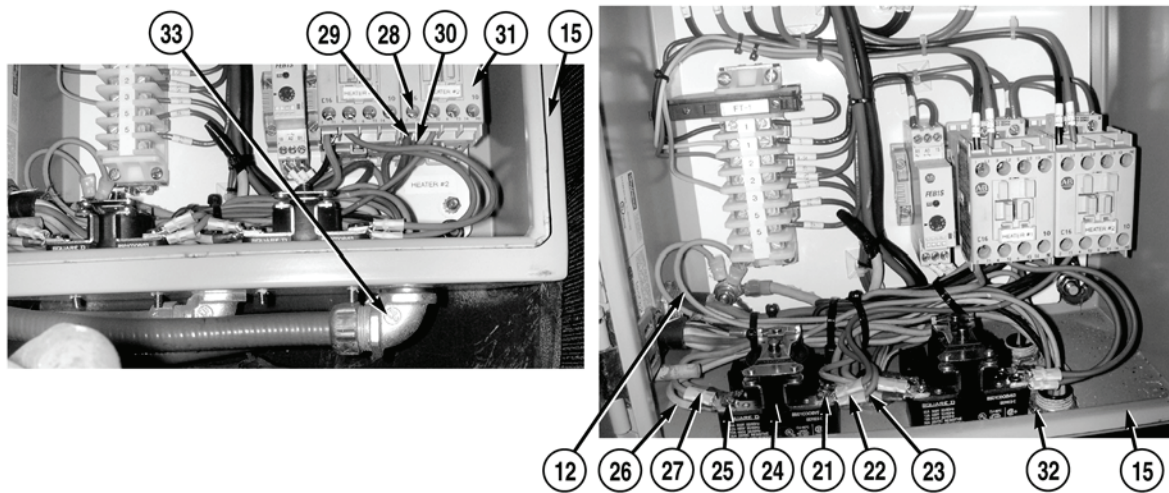
**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

2. Loosen two screws (4) and remove wires (5) from main shutoff control (3).
3. Remove nut (6), lockwasher (7), washer (8), and four wires (9), (10), (11), and (12) from stud (13). Discard lockwasher.
4. Loosen strain relief (14) and remove wire (9) from control box (15).

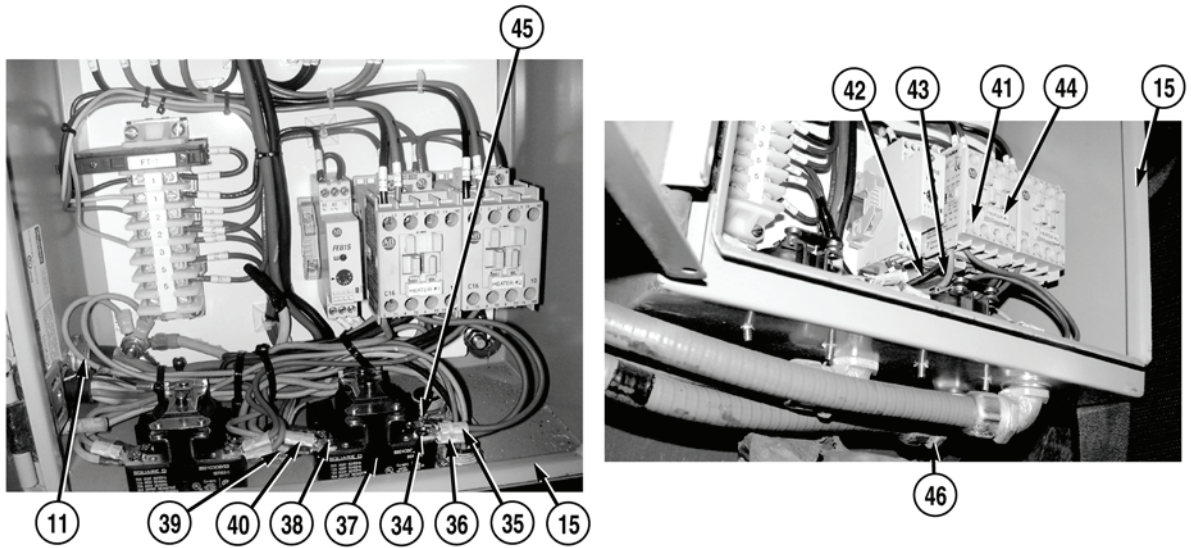


5. Loosen four screws (16) and remove wires (17) from terminal strip (18).
6. Remove nut (19), wire (10), four wires (17), and elbow (20) from control box (15).

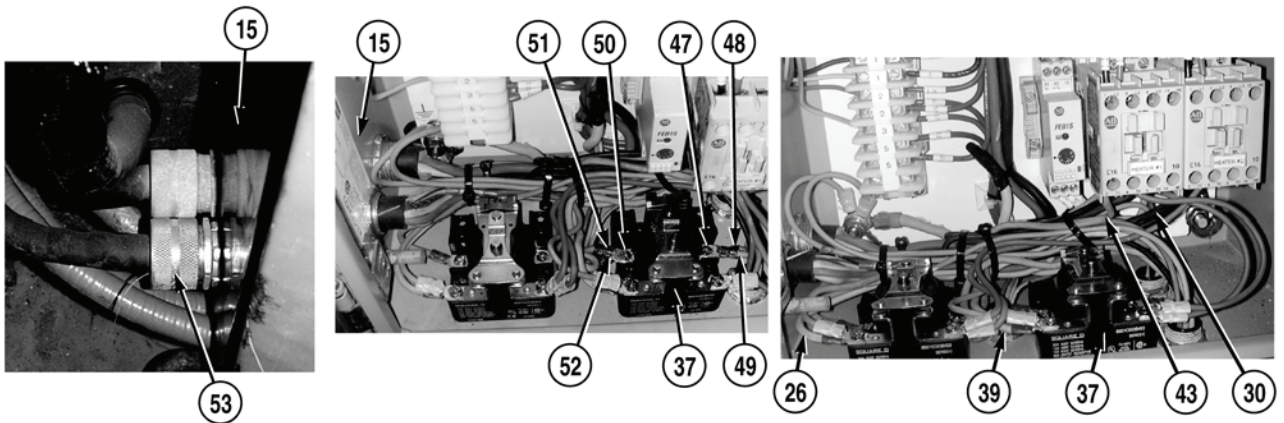


7. Loosen screw (21) and remove two wires (22) and (23) from relay (24).
8. Loosen screw (25) and remove two wires (26) and (27) from relay (24).
9. Loosen screw (28) and remove two wires (29) and (30) from contactor (31).
10. Remove nut (32), elbow (33), and four wires (23), (27), (12), and (29) from control box (15).

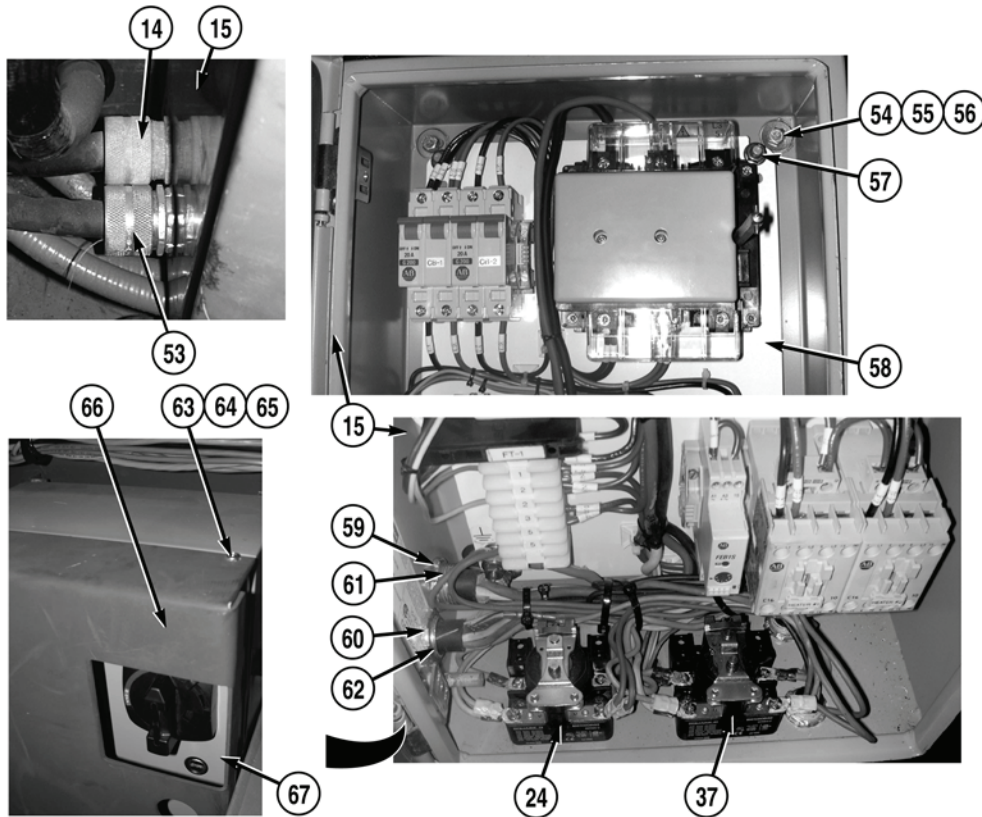




11. Loosen screw (34) and remove two wires (35) and (36) from relay (37).
12. Loosen screw (38) and remove two wires (39) and (40) from relay (37).
13. Loosen screw (41) and remove two wires (42) and (43) from contactor (44).
14. Remove nut (45), elbow (46), and four wires (11), (36), (40), and (42) from control box (15).



15. Loosen screw (47) and remove two wires (48) and (49) from relay (37).
16. Loosen screw (50) and remove two wires (51) and (52) from relay (37).
17. Loosen strain relief (53) and remove six wires (26), (30), (39), (43), (48), and (51) from control box (15).



18. Remove four screws (54), lockwashers (55), washers (56) and control box (15) from vehicle. Discard lockwashers.
19. Remove two relays (24) and (37) from control box (15).
20. Remove four locknuts (57) and mounting plate (58) from control box (15). Discard locknuts.
21. Remove two nuts (59) and (60), sleeves (61) and (62), and strain reliefs (14) and (53) from control box (15).

### NOTE

Note position of washers prior to removal to ensure proper installation.

22. Remove four locknuts (63), eight washers (64), four screws (65), and guard (66) from control box door (67). Discard locknuts.

### END OF TASK

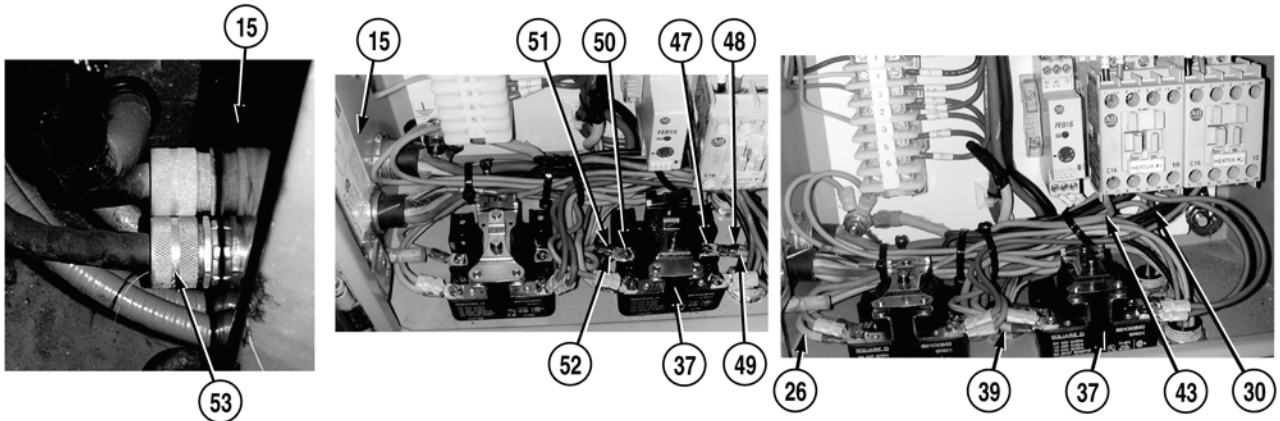
### CONTROL BOX INSTALLATION

### NOTE

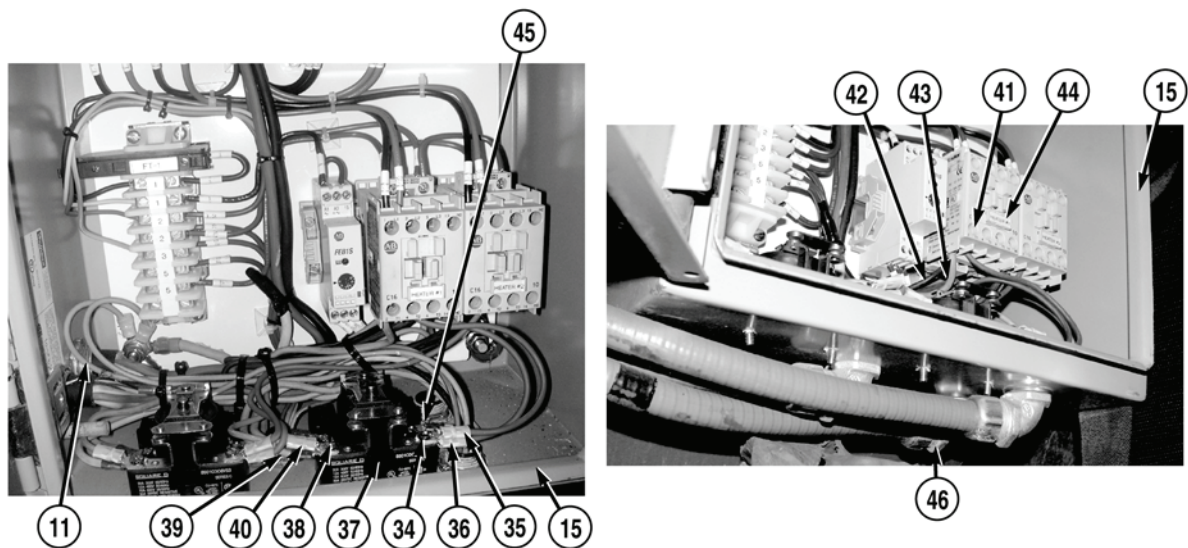
Install washers in position as noted prior to removal.

1. Install guard (66) on control box door (67) with four screws (65), eight washers (64), and four locknuts (63).
2. Install two strain reliefs (53) and (14) and sleeves (62) and (61) on control box (15) with two nuts (60) and (59).

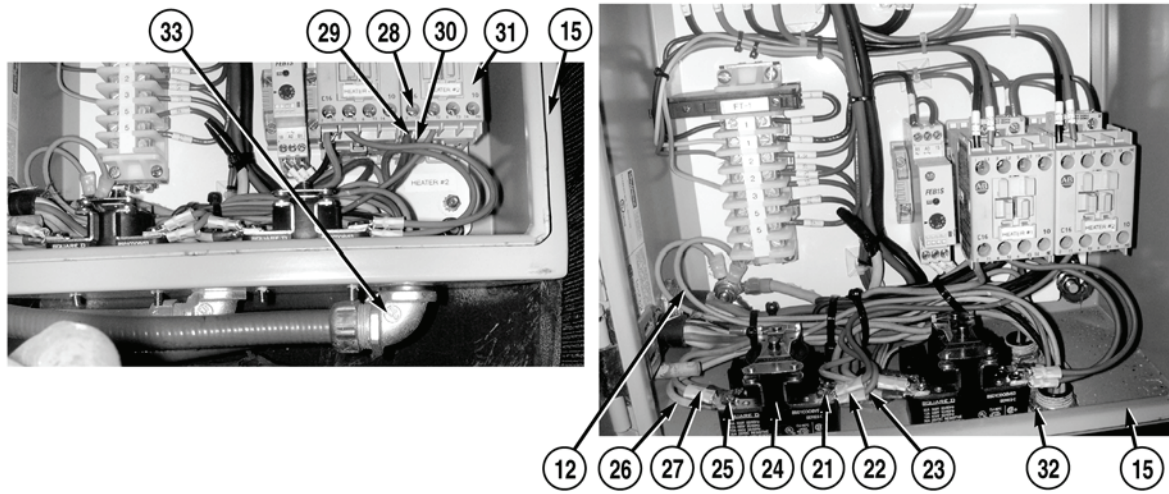
3. Install mounting plate (58) on control box (15) with four locknuts (57).
4. Install two relays (37) and (24) on control box (15).
5. Install control box (15) on vehicle with four washers (56), lockwashers (55), and screws (54).



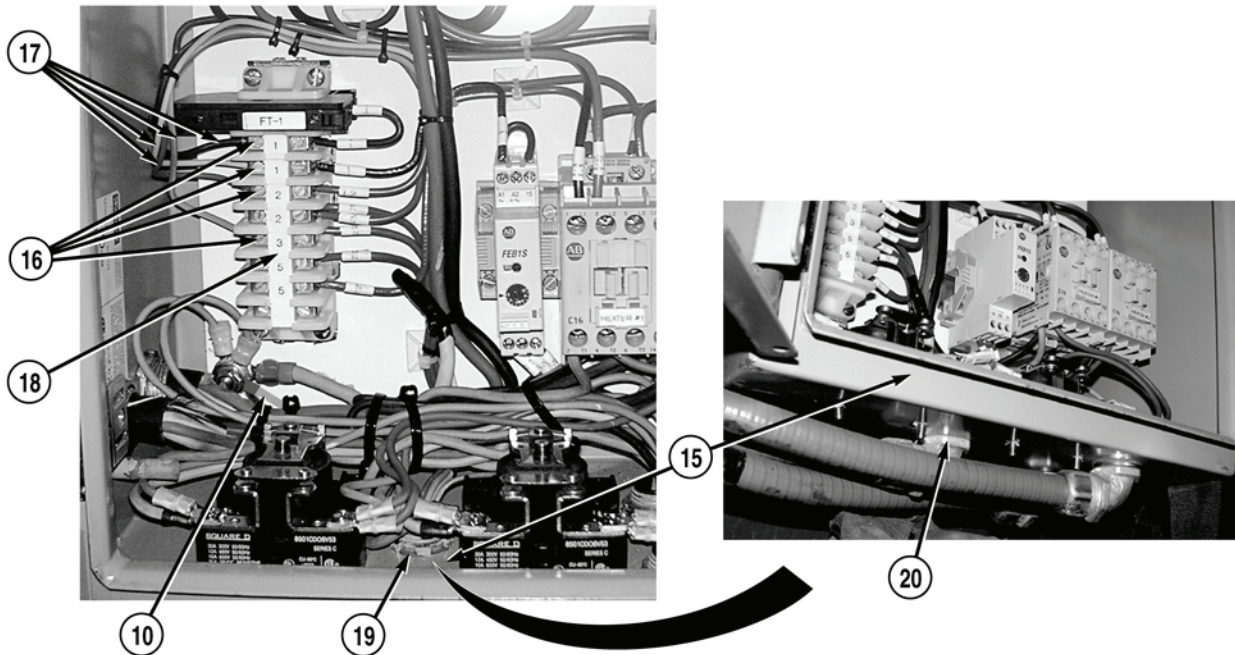
6. Position six wires (51), (48), (43), (39), (30), and (26) in control box (15) and tighten strain relief (53).
7. Install two wires (52) and (51) on relay (37) and tighten screw (50).
8. Install two wires (49) and (48) on relay (37) and tighten screw (47).



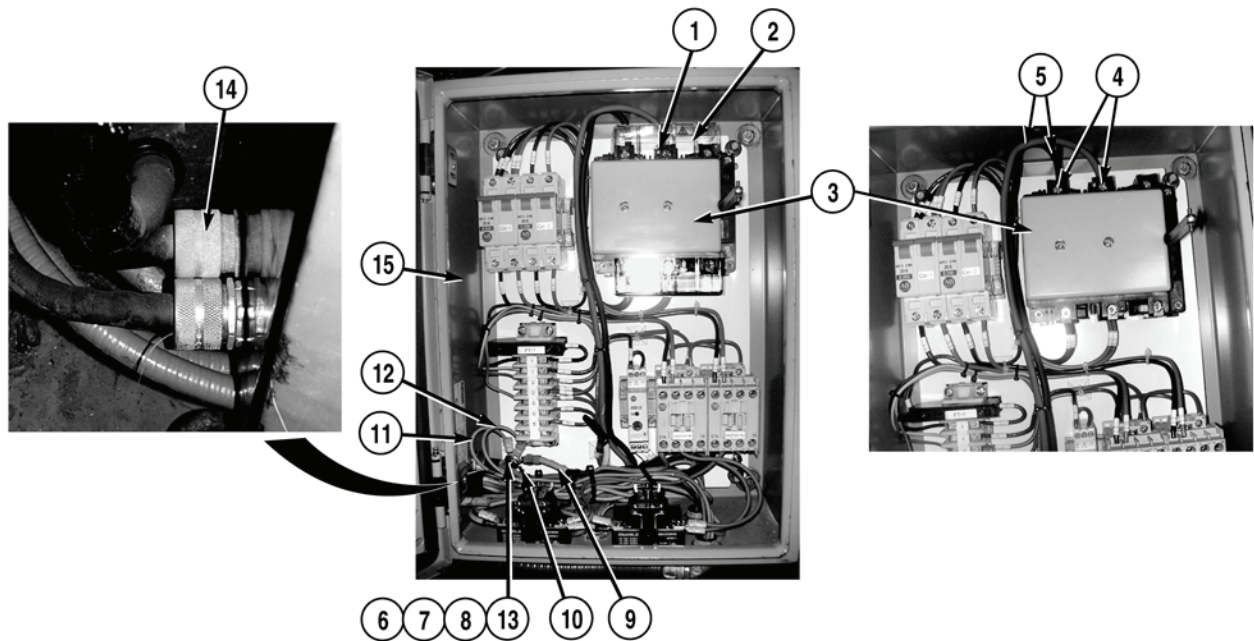
9. Position four wires (42), (40), (36), and (11) and elbow (46) in control box (15) and tighten nut (45) on elbow (46).
10. Install two wires (43) and (42) on contactor (44) and tighten screw (41).
11. Install two wires (40) and (39) on relay (37) and tighten screw (38).
12. Install two wires (36) and (35) on relay (37) and tighten screw (34).



13. Position four wires (29), (27), (23), and (12) and elbow (33) in control box (15) and tighten nut (32).
14. Install two wires (30) and (29) on contactor (31) and tighten screw (28).
15. Install two wires (27) and (26) on relay (24) and tighten screw (25).
16. Install two wires (23) and (22) on relay (24) and tighten screw (21).



17. Position four wires (17), wire (10), and elbow (20) in control box (15) and tighten nut (19).
18. Install four wires (17) on terminal strip (18) and tighten four screws (16).



19. Position wire (9) in control box (15) and tighten strain relief (14).
20. Install four wires (12), (11), (10), and (9) on stud (13) with washer (8), lockwasher (7), and nut (6).
21. Install two wires (5) on main shutoff control (3) with two screws (4).
22. Install plastic cover (2) on main shutoff control (3) with screw (1).

**END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## WATER TANK LOW LEVEL SWITCH REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 51

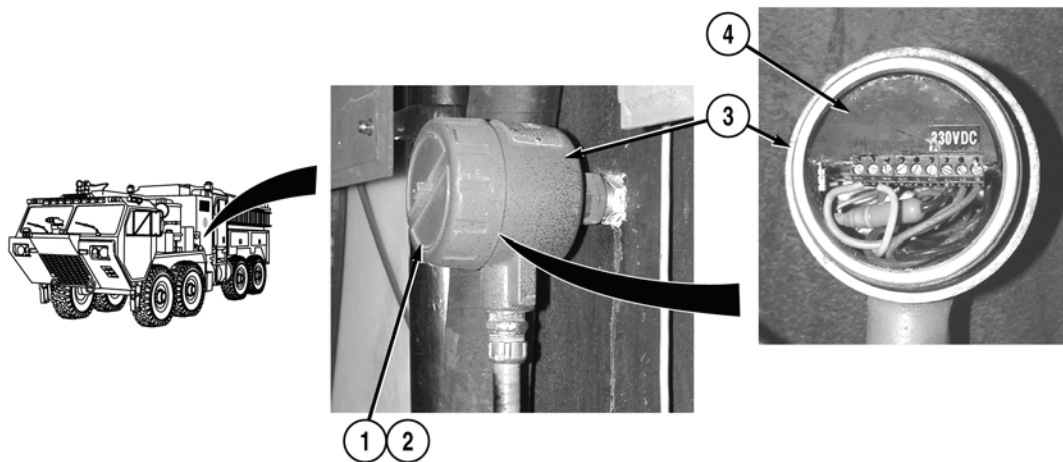
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)  
Preformed Packing (1)

**Equipment Conditions**

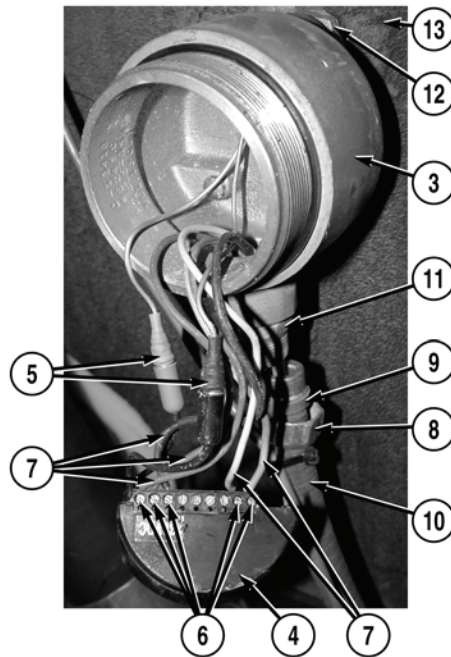
Crew cab removed (WP 0500)

## REMOVAL

**⚠ CAUTION**

**Ensure cable is removed from temperature sender prior to removal. Failure to comply may cause damage to equipment.**

1. Remove temperature sender cover (1) and preformed packing (2) from temperature sender (3). Discard preformed packing.
2. Pull junction box (4) from temperature sender (3).



### NOTE

Tag and mark wires and connectors prior to removal.

3. Disconnect two connectors (5).
4. Loosen five screws (6) and remove five wires (7) from junction box (4).
5. Remove collar (8), grommet (9), and cable (10) from fitting (11).
6. Remove fitting (11) from temperature sender (3).
7. Loosen locknut (12) and remove temperature sender (3) from water tank (13).

### END OF TASK

### INSTALLATION

#### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

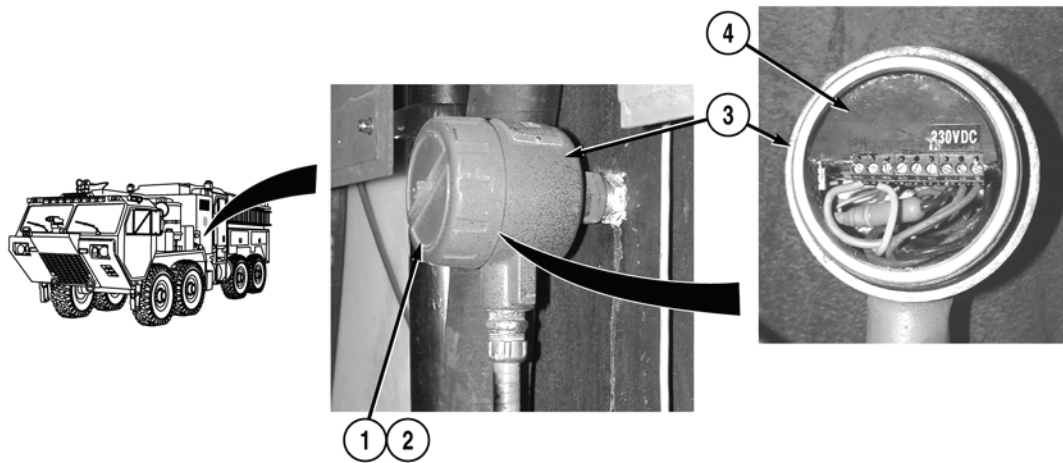
1. Apply sealing compound to threads of temperature sender (3).



**⚠ CAUTION**

**Do not over tighten or cross thread temperature sender. Failure to comply may cause damage to equipment.**

2. Install temperature sender (3) on water tank (13) and tighten locknut (12).
3. Install fitting (11) on temperature sender (3).
4. Install cable (10) and grommet (9) on fitting (11) with collar (8).
5. Install five wires (7) on junction box (4) and tighten five screws (6).
6. Connect two connectors (5).



7. Install junction box (4) in temperature sender (3).
8. Install preformed packing (2) and temperature sender cover (1) on temperature sender (3).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Install crew cab (WP 0500)

**END OF TASK**

**END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## WATER TANK SIDE FILL VALVE REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Standard Automotive Tool Set (SATS),  
(WP 0622, Item 25)  
• Wrench, Torque, Click, Ratcheting, 1/2"  
Drive, 250 ft-lb  
Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Adhesive, Sealant, Silicone RTV  
(WP 0625, Item 5)  
Seal, Sentry, Blue (WP 0625, Item 44)  
Locknut (2)  
Lockwasher (2)  
Lockwasher (8)  
Lockwasher (2)  
Lockwasher (1)  
Gasket (3)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

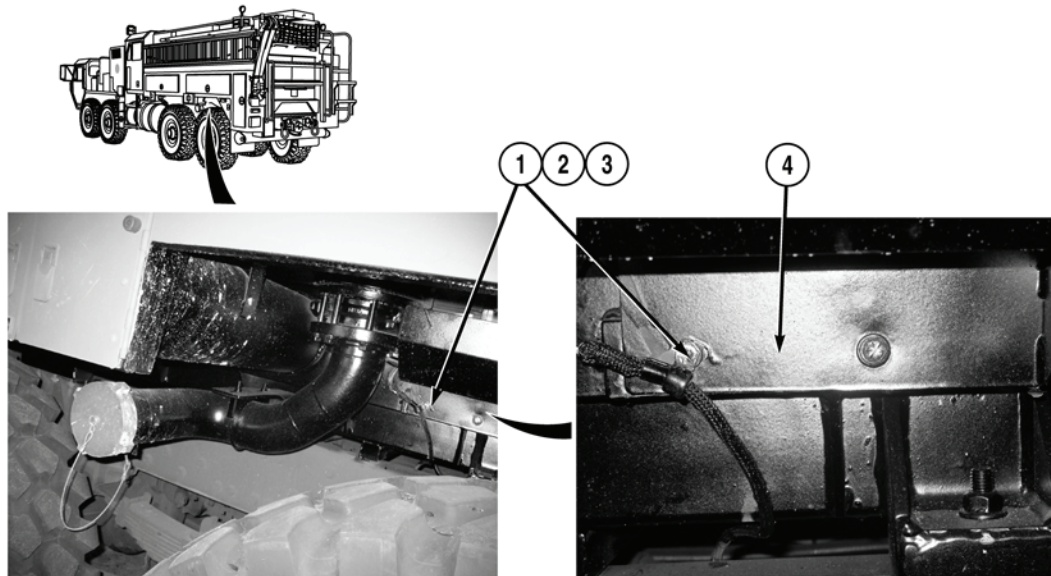
**References**

WP 0615, Fig. 51

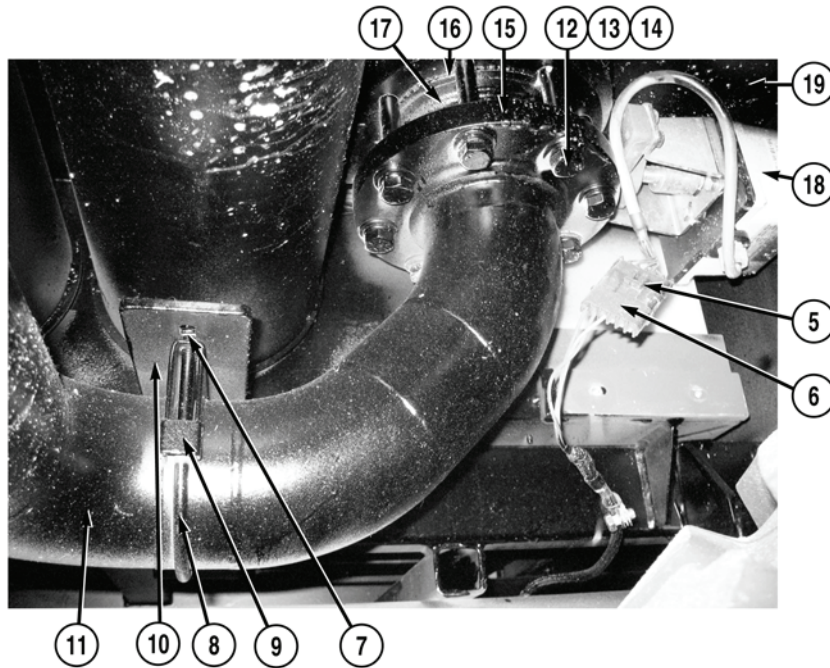
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Water system drained (WP 0041)  
Wheels chocked (TM 9-2320-347-10)

## REMOVAL



1. Remove two screws (1), lockwashers (2), cushion clip (3), and guard (4) from vehicle. Discard lockwashers.

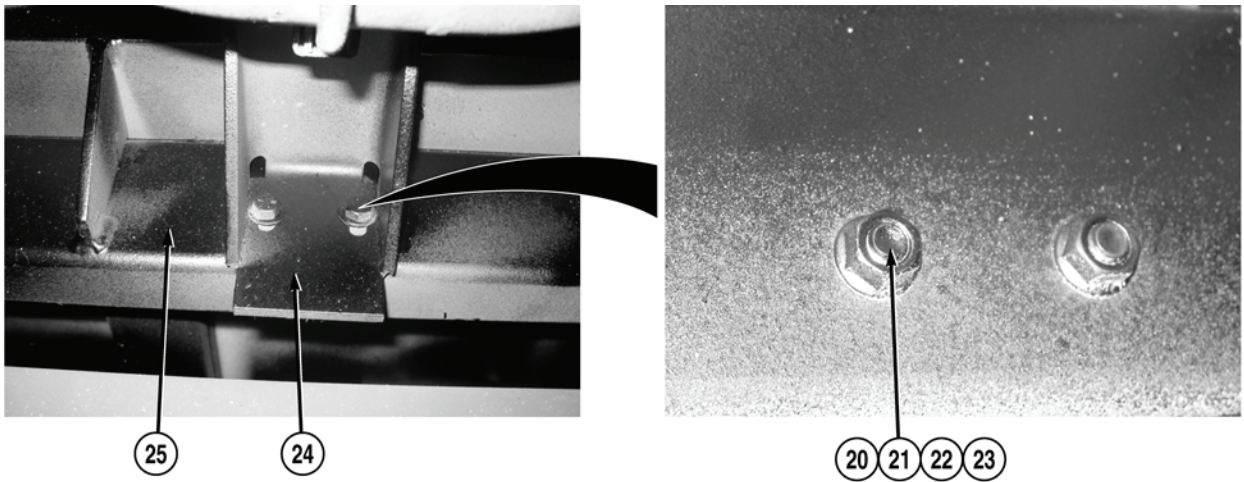


2. Disconnect water tank side fill valve connector (5) from pump house power distribution wire harness connector (6).
3. Remove two locknuts (7), U-bolt (8), and cradle (9) from bracket (10) and pipe (11). Discard locknuts.

#### NOTE

Note position of gaskets and water tank side fill valve prior to removal to ensure proper installation.

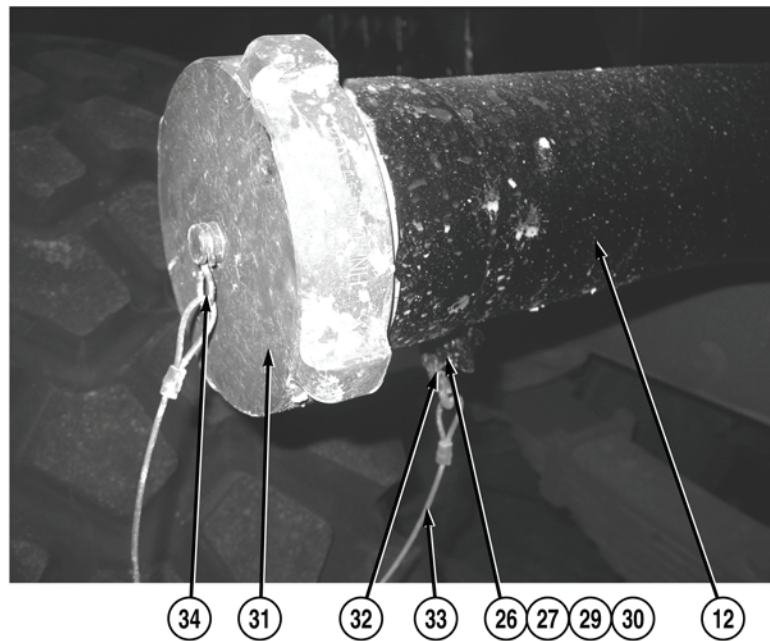
4. With the aid of an assistant, remove eight screws (12), lockwashers (13), washers (14), three gaskets (15), (16), and (17), pipe (11), and water tank side fill valve (18) from water tank (19). Discard lockwashers and gaskets.



**NOTE**

Perform Step (5) if bracket must be removed.

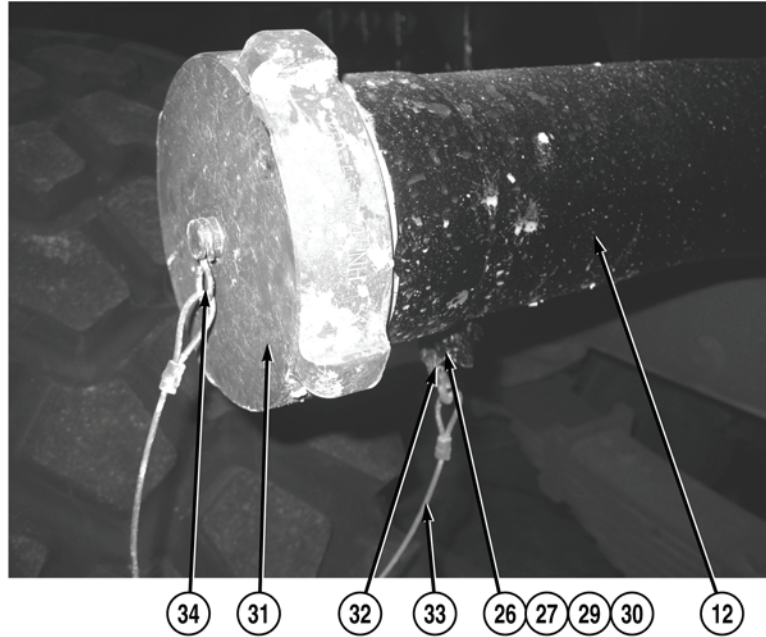
5. Remove two nuts (20), lockwashers (21), four washers (22), two screws (23), and bracket (24) from frame rail (25). Discard lockwashers.



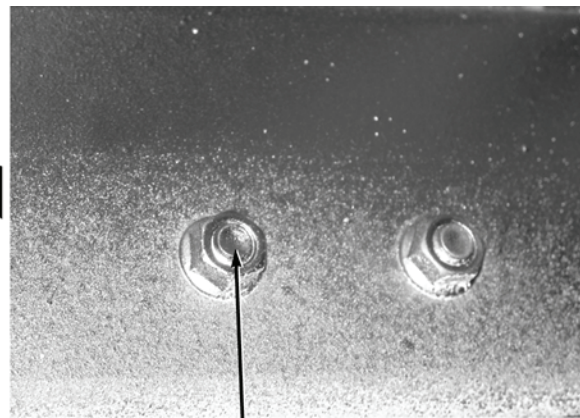
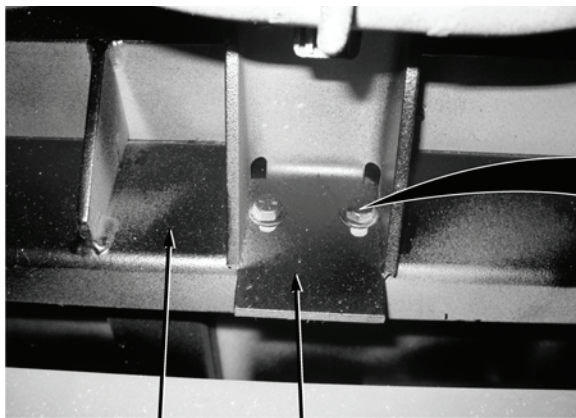
6. Remove nut (26), lockwasher (27), washer (28), tab (29), and screw (30) from pipe (12).
7. Remove cap (31) from pipe (12).
8. Remove S-hook (32) from wire rope (33) and tab (29).
9. Remove S-hook (34) from cap (31) and wire rope (33).

**END OF TASK**

**INSTALLATION**



1. Attach S-hook (34) to cap (31) and wire rope (33).
2. Attach S-hook (32) to wire rope (33) and tab (29).
3. Install cap (31) on pipe (12).
4. Install tab (29) on pipe (12) with screw (30), washer (28), lockwasher (27), and nut (26).



25

24

20

21

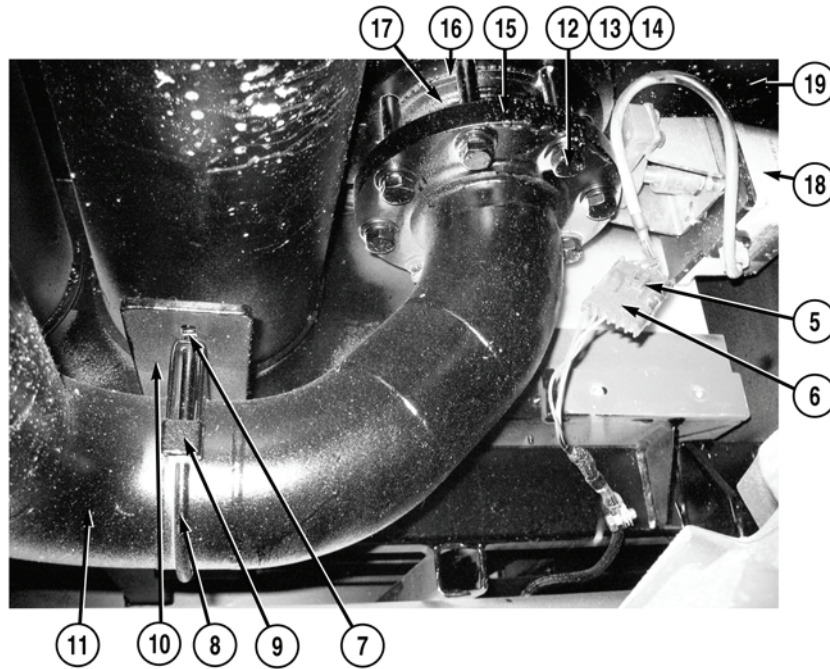
22

23

**NOTE**

Perform Step (5) if bracket was removed.

5. Install bracket (24) on frame rail (25) with two screws (23), four washers (22), two lockwashers (21), and nuts (20).



### **WARNING**



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

### **NOTE**

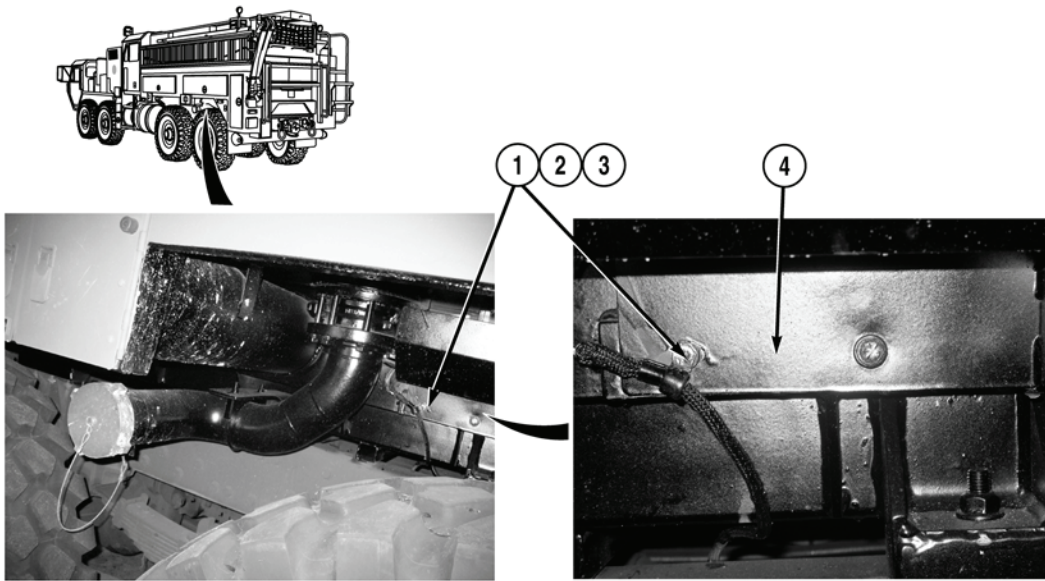
- Install water tank side fill valve and gaskets as noted prior to removal.
- Clean mating surfaces of water tank side fill valve.

6. Apply silicone sealant to both sides of three gaskets (17), (16), and (15).

### **NOTE**

Tighten screws in a criss-cross pattern.

7. With the aid of an assistant, install water tank side fill valve (18), three gaskets (17), (16), and (15), and pipe (11) on water tank (19) with eight washers (14), lockwashers (13), and screws (12). Tighten screws to 20 lb-ft (27.12 N•m).
8. Apply sealant to eight screws (13) to mark torque point.
9. Install pipe (11) and cradle (9) on bracket (10) with U-bolt (8), and locknuts (7).
10. Connect pump house power distribution wire harness connector (6) to water tank side fill valve connector (5).



11. Install guard (4) on vehicle with cushion clip (3), two lockwashers (2), and screw (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**WATER TANK VENT/FILL REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

- Standard Automotive Tool Set (SATS),  
(WP 0622, Item 25)
- Socket, Socket Wrench, 1/2" DR, 6 PT, Deep, 1 1/16"
  - Bar, Extension, 1/2" DR, 9.5" Long
  - Handle, Ratchet, 1/2" DR, 10" Long
- Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

- Lockwasher (8)  
Locknut (1)

**Materials/Parts (continued)**

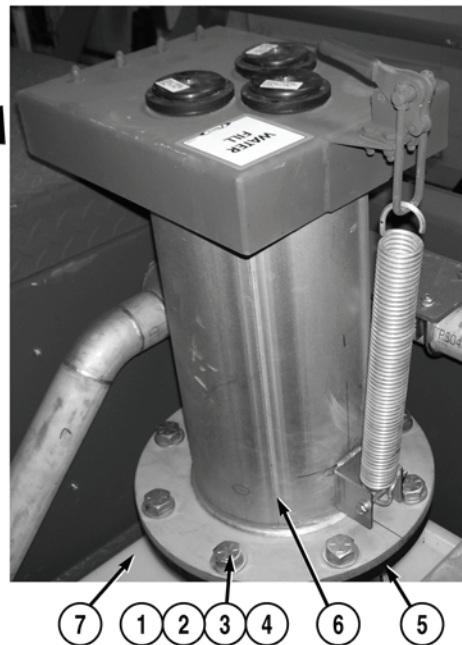
- Locknut (3)  
Locknut (4)  
Locknut (2)

**References**

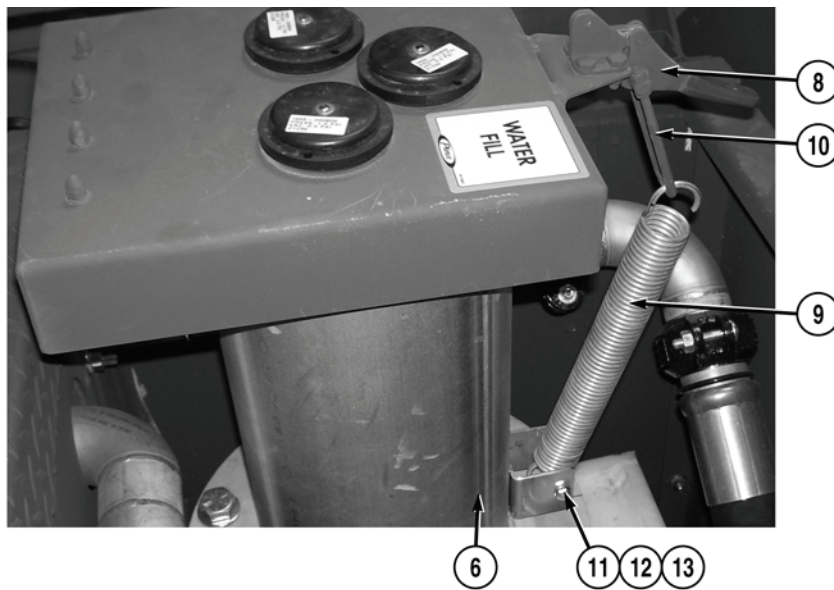
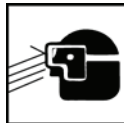
WP 0615, Fig. 53

**Equipment Conditions**

- Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)
- 

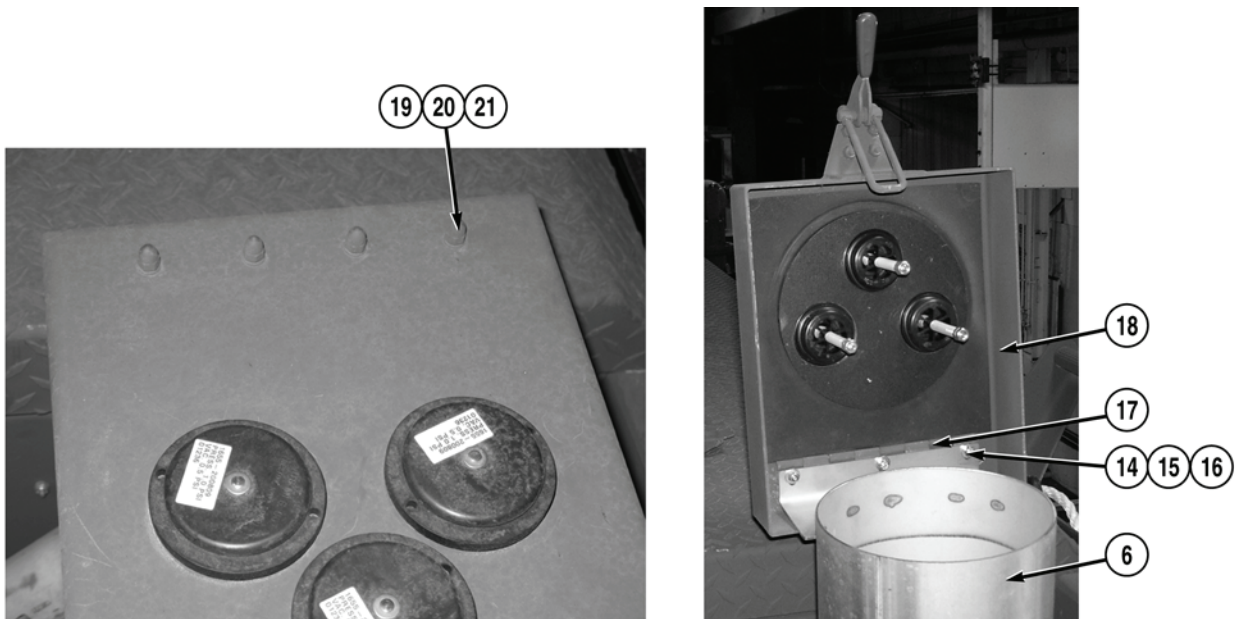
**REMOVAL**

1. Remove eight nuts (1), lockwashers (2), 16 washers (3), eight screws (4), gasket (5), and water tank vent/fill flange (6) from water tank (7). Discard lockwashers.

**WARNING**

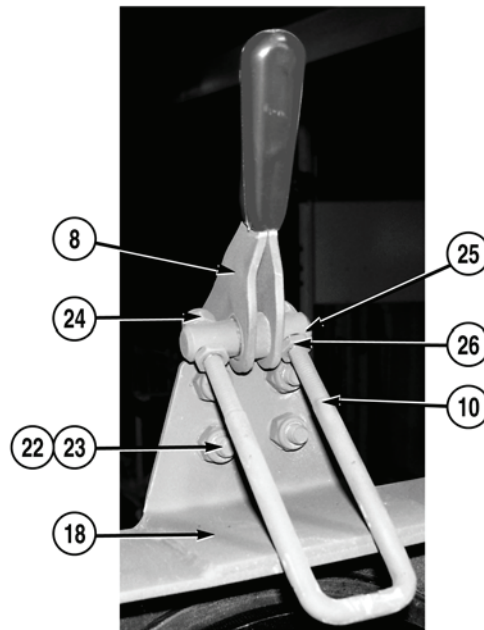
**Wear safety goggles and use care when removing springs. Springs are under tension and can act as projectiles when released causing injury to personnel and damage to equipment.**

2. Open water tank vent/fill handle (8) and remove spring (9) from U-bolt (10).
3. Remove locknut (11), two washers (12), screw (13), and spring (9) from water tank vent/fill flange (6). Discard locknut.

**NOTE**

Perform Steps (4) and (5) to remove water tank vent/fill cover.

4. Remove three locknuts (14), six washers (15), three screws (16), hinge (17), and water tank vent/fill cover (18) from water tank vent/fill flange (6). Discard locknuts.
5. Remove four nuts (19), eight washers (20), four screws (21), and hinge (17) from water tank vent/fill flange.



6. Remove four locknuts (22), screws (23), and water tank vent/fill handle (8) from water tank vent/fill cover (18). Discard locknuts.
7. Remove two locknuts (24), U-bolt (10), and pin (25) from water tank vent/fill handle (8). Discard locknuts.

### NOTE

Note position of nuts on U-bolt prior to removal to ensure proper tension on spring during installation.

8. Remove two nuts (26) from U-bolt (10).

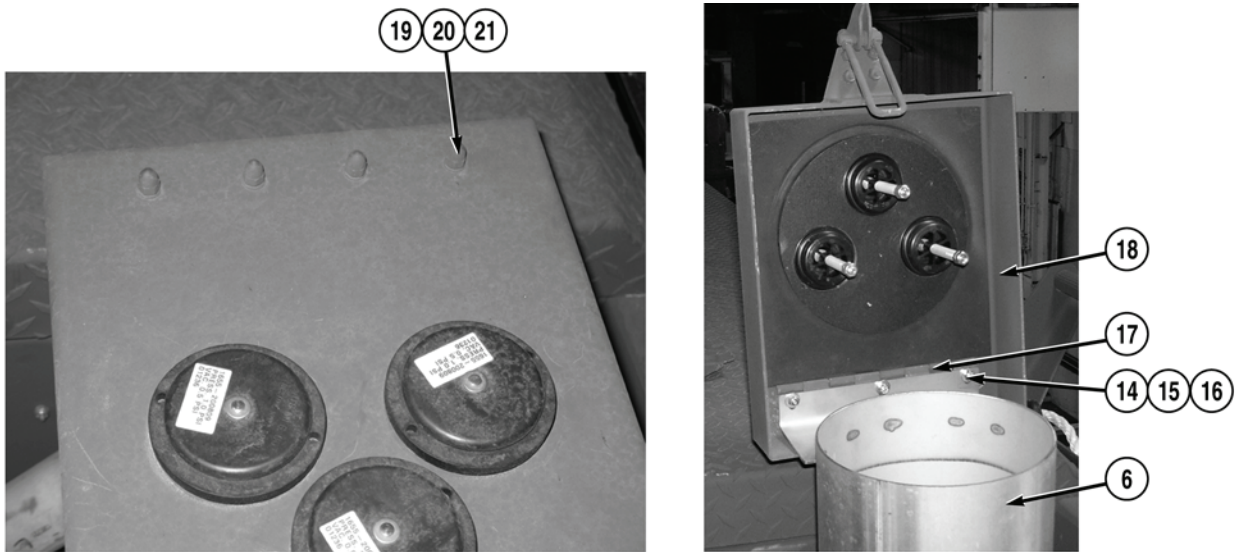
### END OF TASK

### INSTALLATION

### NOTE

- Perform Steps (1) through (3) to install water tank vent/fill handle.
- Install nuts on U-bolt as noted prior to removal.

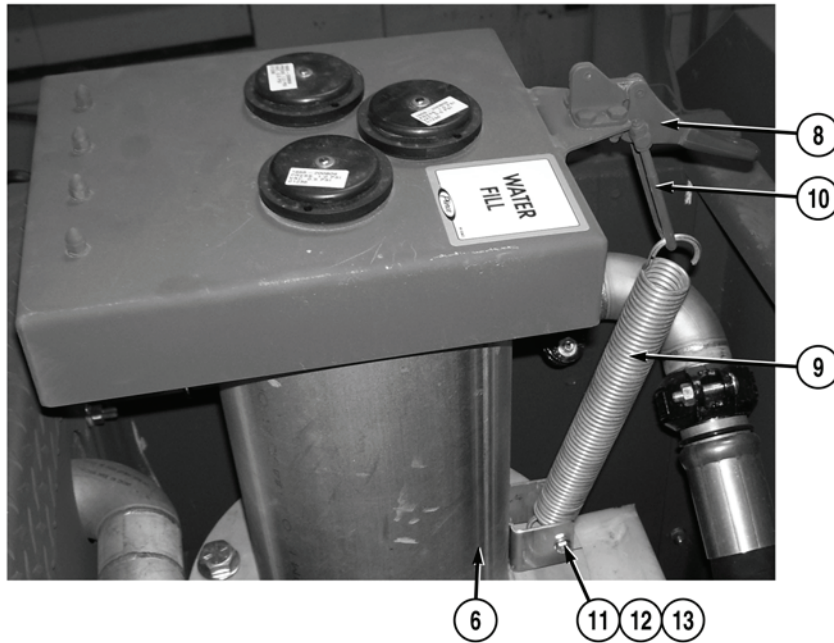
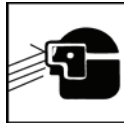
1. Install two nuts (26) on U-bolt (10).
2. Install pin (25) on water tank vent/fill handle (8) with U-bolt (10) and two locknuts (24).
3. Install water tank vent/fill handle (8) on water tank vent/fill cover (18) with four screws (23) and locknuts (22).



### NOTE

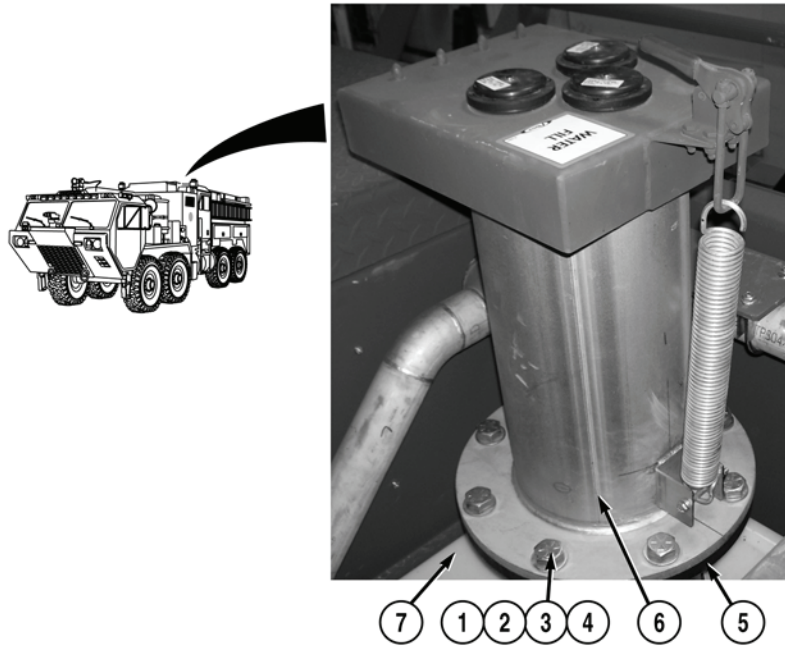
Perform Steps (4) and (5) to install water tank vent/fill cover.

4. Install hinge (17) on water tank vent/fill cover (18) with four screws (21), eight washers (20), and four nuts (19).
5. Install water tank vent/fill cover (18) and hinge (17) on water tank vent/fill flange (6) with three screws (16), six washers (15), and three locknuts (14).

**WARNING**

**Wear safety goggles and use care when removing springs. Springs are under tension and can act as projectiles when released causing injury to personnel and damage to equipment.**

6. Install spring (9) on water tank vent/fill flange (6) with screw (13), two washers (12), and locknut (11).
7. Attach spring (9) on U-bolt (10) and close water tank handle (8).



8. Install water tank vent/fill flange (6) on water tank (7) with gasket (5), eight screws (4), 16 washers (3), eight lockwashers (2), and nuts (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**





## FIELD LEVEL MAINTENANCE

## PERSONNEL CAB DO NOT MOVE APPARATUS INDICATOR REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

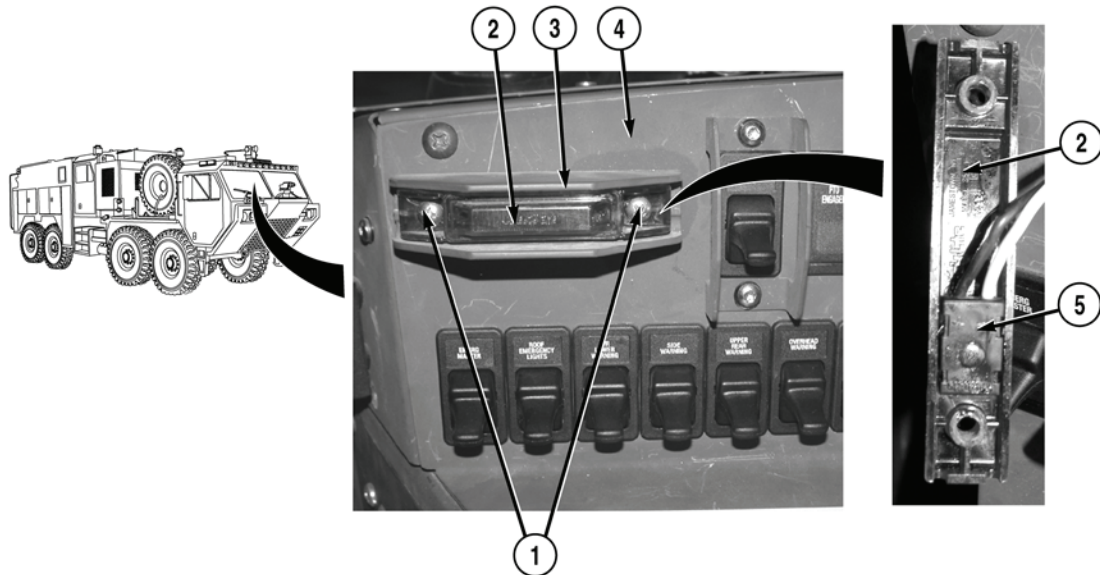
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

**References**

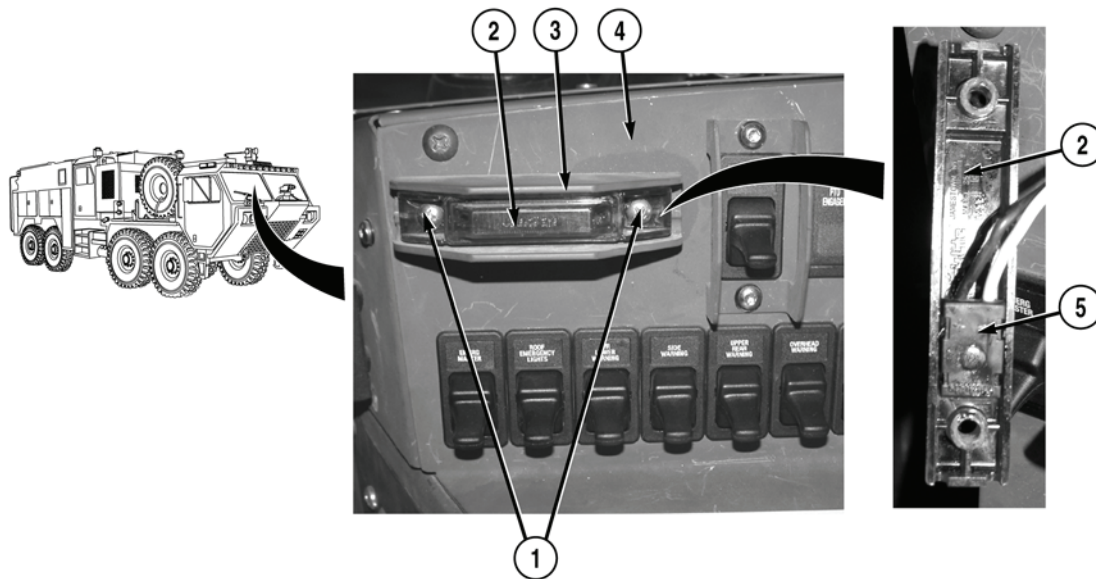
WP 0483  
WP 0615, Fig. 55

## REMOVAL



1. Remove two screws (1), indicator (2), and indicator guard (3) from panel (4) and disconnect connector (5) from indicator (2).
2. Disconnect connector (5) from indicator (2).

## END OF TASK

**INSTALLATION**

1. Pull connector (5) through indicator guard (3).
2. Connect connector (5) on indicator (2).
3. Install indicator guard (3) and indicator (2) on panel (4) with two screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PERSONNEL CAB FOAM TANK SELECTOR INDICATOR REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Sealant, RTV 2000 Electrical (WP 0625, Item 47)  
Tags, Identification (WP 0625, Item 51)  
Lockwasher (1)  
Preformed Packing (1)

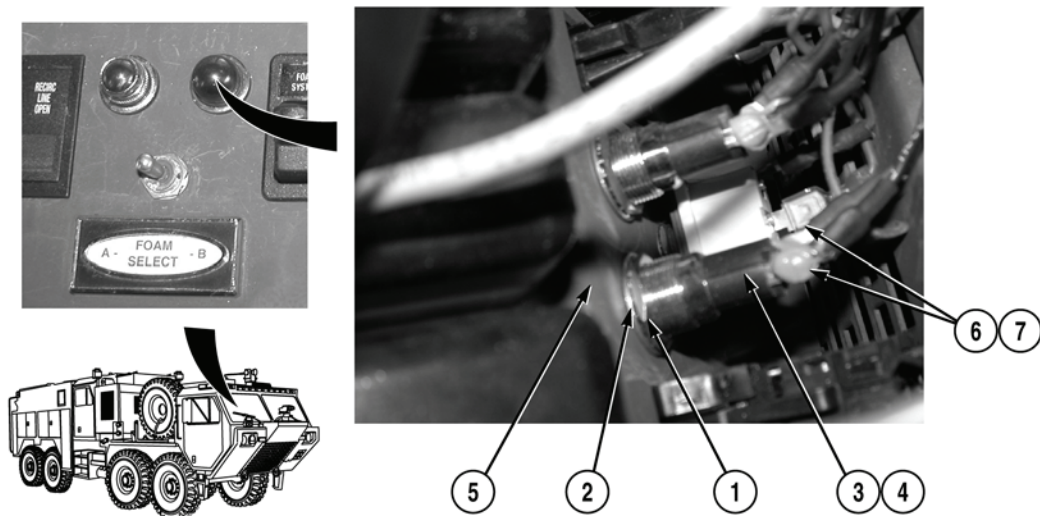
**References**

WP 0615, Fig. 55

**Equipment Conditions**

Personnel cab foam tank indicator lamp removed  
(WP 0307)  
Personnel cab instrument panel C removed  
(WP 0311)

## REMOVAL

**NOTE**

Both indicators are removed the same way.

1. Remove nut (1), lockwasher (2), indicator (3) and preformed packing (4) from instrument panel (5). Discard lockwasher and preformed packing.

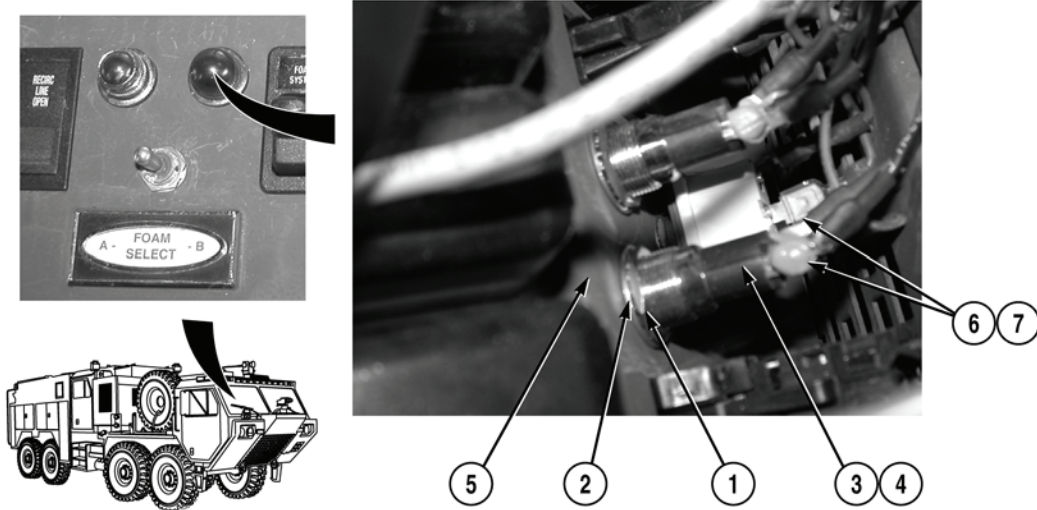
**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

2. Remove two screws (6) and wires (7) from indicator (3).

**END OF TASK**

## INSTALLATION



1. Install preformed packing (4) on indicator (3).

### NOTE

Both indicators are installed the same way.

2. Install two wires (7) on indicator (3) with two screws (6).
3. Install indicator (3) on instrument panel (5) with lockwasher (2) and nut (1).

### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

4. Apply electrical sealant on two screws (1).

## END OF TASK

## FOLLOW-ON MAINTENANCE

1. Install personnel cab instrument panel C (WP 0311)
2. Install personnel cab foam tank indicator lamp (WP 0307)

## END OF TASK

## END OF WORK PACKAGE

## FIELD LEVEL MAINTENANCE

## PERSONNEL CAB FOAM TANK SELECTOR INDICATOR LAMP REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 55

**Materials/Parts**

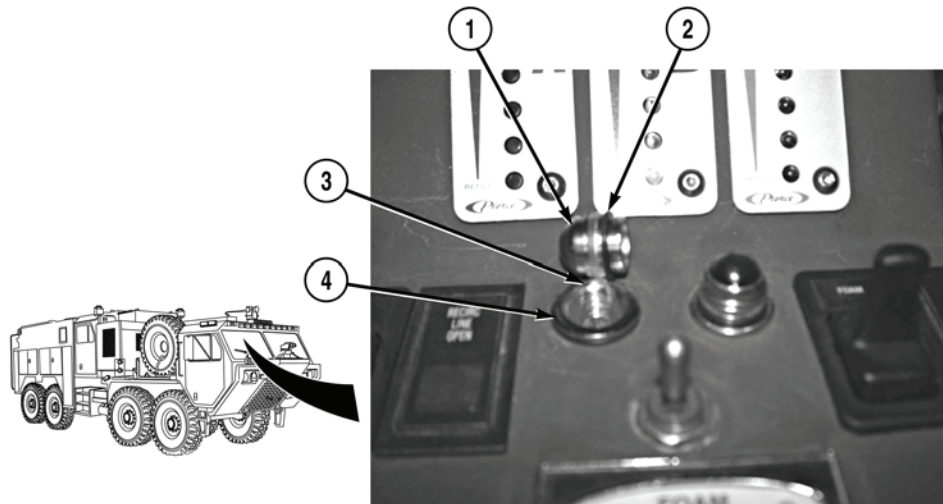
Preformed Packing (1)

**Equipment Conditions**

Wheels chocked (TM 9-2320-347-10)

Batteries disconnected (TM 9-2320-325-14&P)

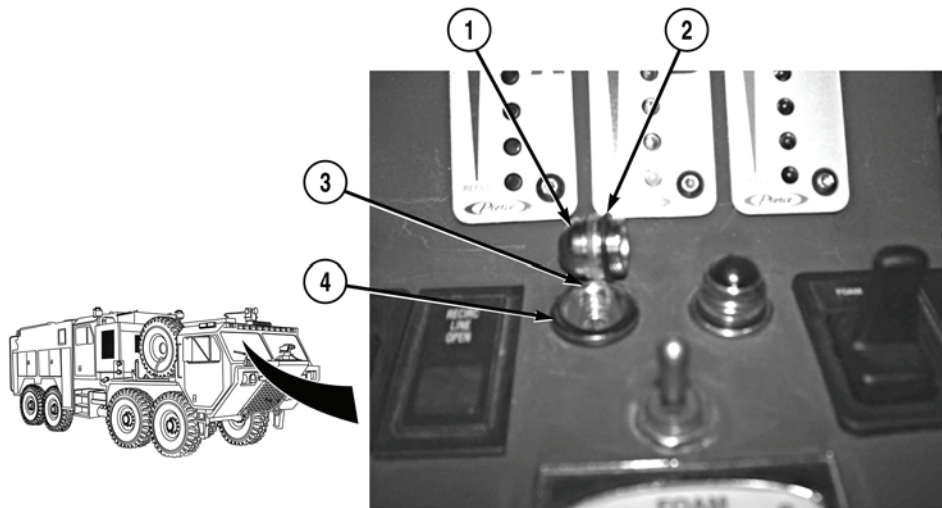
## REMOVAL

**NOTE**

Both indicator lamps are removed the same way.

Remove indicator lens (1), preformed packing (2), and lamp (3) from indicator (4). Discard preformed packing.

**END OF TASK**

**INSTALLATION****NOTE**

Both indicator lamps are installed the same way.

Install lamp (3), preformed packing (2), and indicator lens (1) on indicator (4).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Connect batteries (TM 9-2320-325-14&P)
2. Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PERSONNEL CAB FOAM TANK SELECTOR SWITCH REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

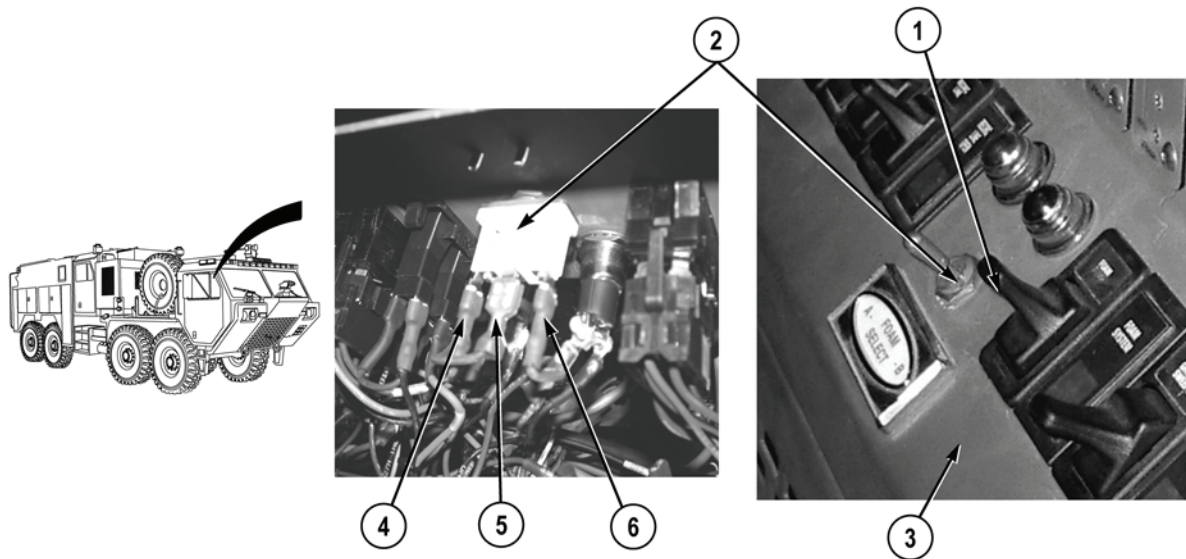
**Equipment Conditions**

Personnel cab instrument panel C removed  
(WP 0311)

**References**

WP 0615, Fig. 55

## REMOVAL



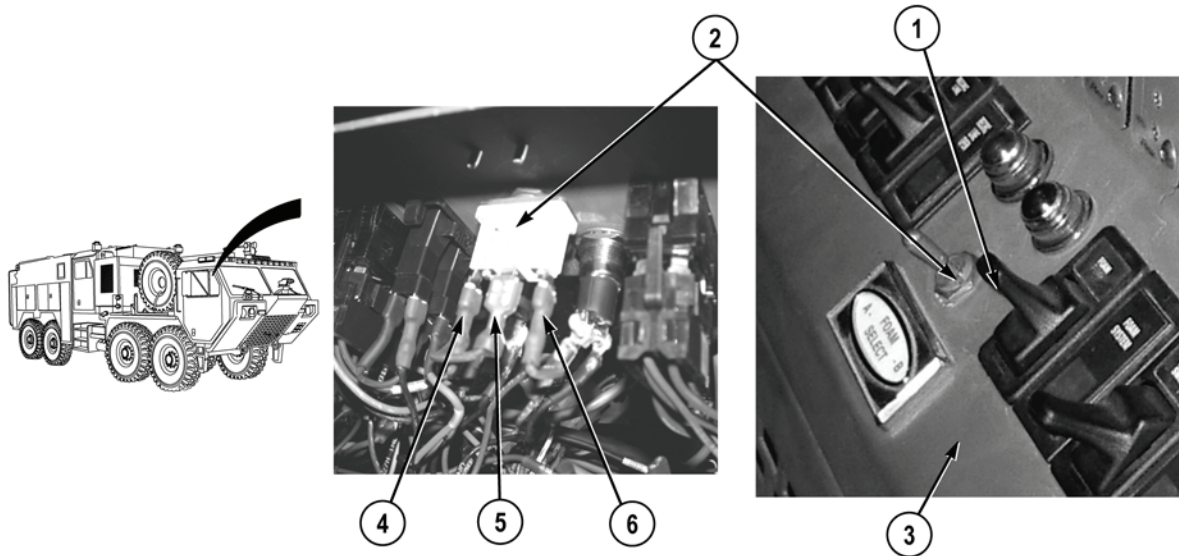
1. Remove nut (1) and switch (2) from instrument panel (3).

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

2. Remove three wires (4), (5), and (6) from switch (2).

**END OF TASK**

**INSTALLATION**

1. Install three wires (6), (5), and (4) on switch (2).
2. Install switch (2) on instrument panel (3) with nut (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install personnel cab instrument panel C (WP 0311)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## PERSONNEL CAB PRESSURE GOVERNOR CONTROL PANEL REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 55

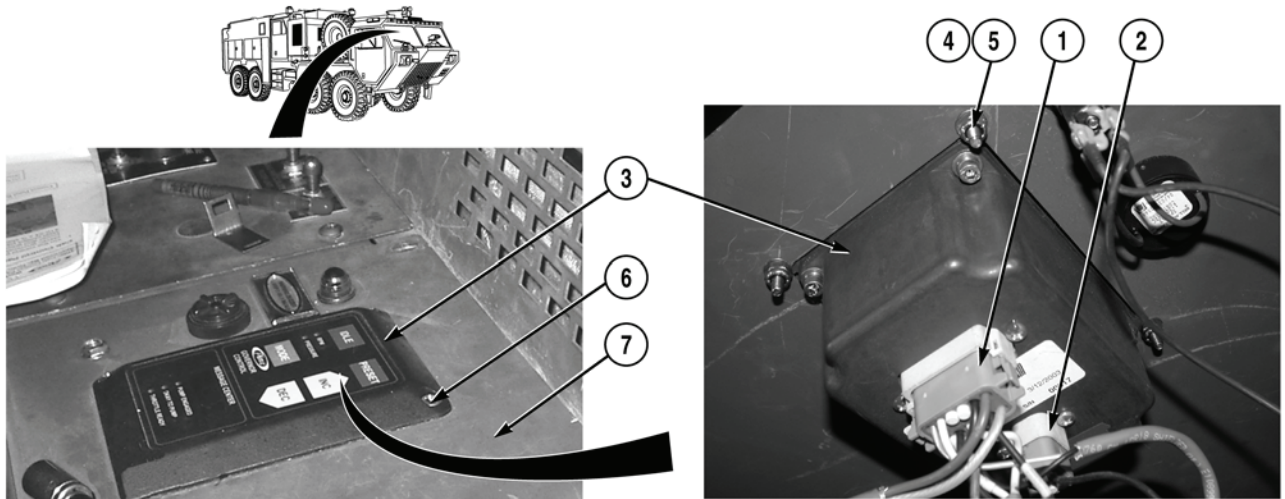
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Locknut (4)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Cab instrument panel E removed (WP 0311)

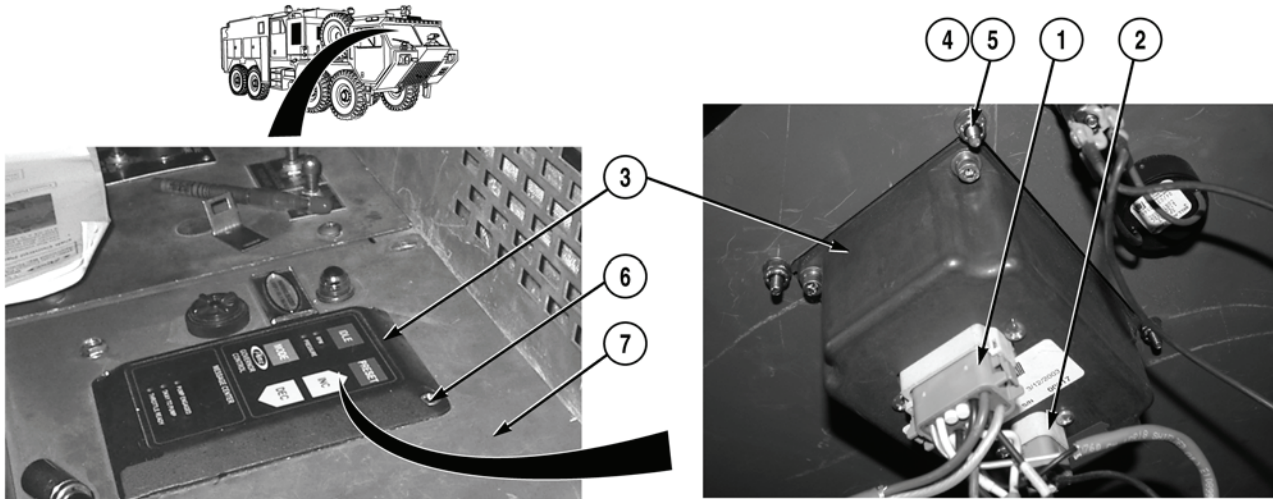
## REMOVAL

**NOTE**

Tag and mark connectors to removal to ensure proper installation.

1. Disconnect two connectors (1) and (2) from governor control panel (3).
2. Remove four locknuts (4), washers (5), screws (6), and governor control panel (3) from heater compartment cover (7). Discard locknuts.

**END OF TASK**

**INSTALLATION**

1. Install governor control panel (3) on heater compartment cover (7) with four screws (6), washers (5), and locknuts (4).
2. Connect two connectors (2) and (1) on governor control panel (3).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install cab instrument panel E (WP 0311)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PERSONNEL CAB HIGH IDLE SWITCH AND INDICATOR REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Adhesive, RTV 732 (WP 0625, Item 40)  
Tags, Identification (WP 0625, Item 51)  
Lockwasher (1)  
Lockwasher (1)

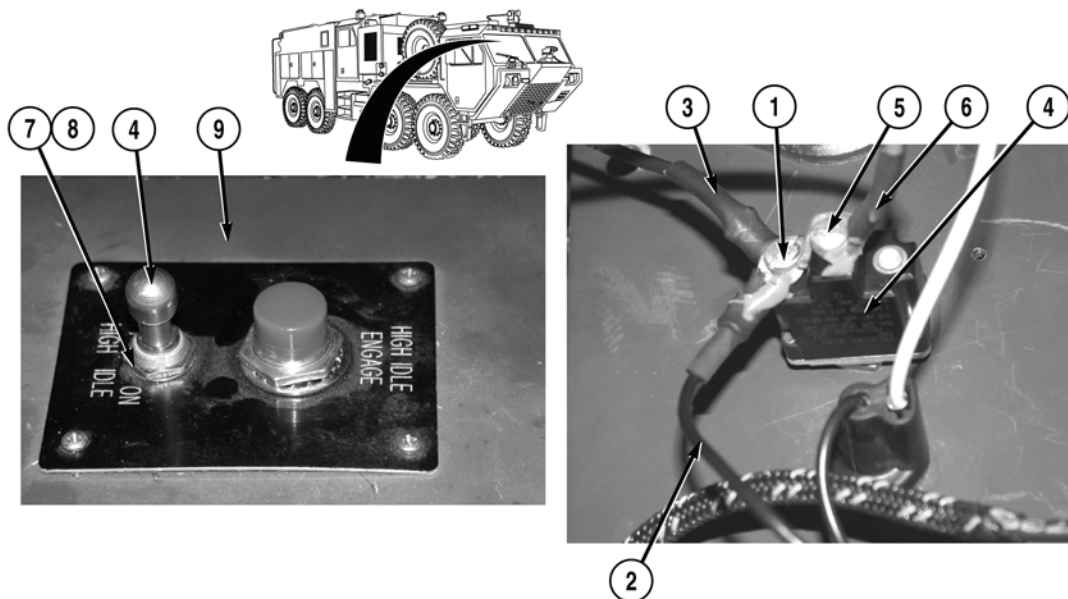
**References**

WP 0615, Fig. 55

**Equipment Conditions**

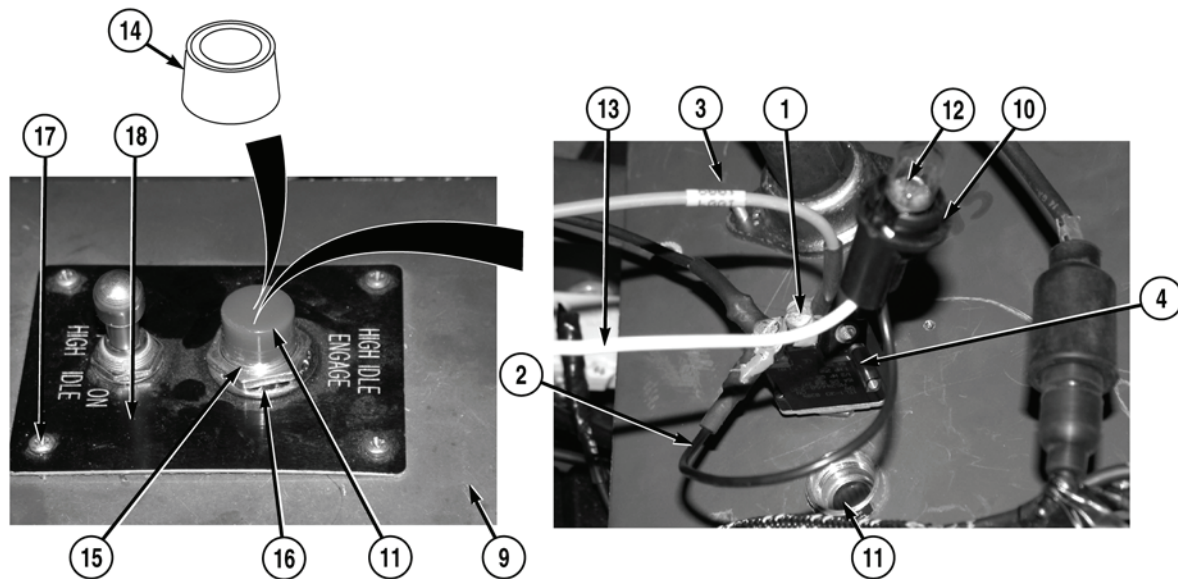
Batteries disconnected (TM 9-2320-325-14&P)  
Personnel cab instrument panel D removed  
(WP 0311)

## REMOVAL

**NOTE**

- Perform Steps (1) through (3) to remove high idle switch only.
- Tag and mark wires prior to removal to ensure proper installation.

1. Remove screw (1) and two wires (2) and (3) from switch (4).
2. Remove screw (5) and wire (6) from switch (4).
3. Remove nut (7), lockwasher (8), and switch (4) from panel (9). Discard lockwasher.

**NOTE**

Perform Steps (4) through (8) to remove high idle indicator light only.

4. Remove screw (1) and wire (2) from switch (4).
5. Remove indicator (10) from lens (11).
6. Remove lamp (12) from indicator (10).
7. Cut wire (13) (TM 9-2320-325-14&P).
8. Remove cover (14) from lens (11).
9. Remove nut (15), lockwasher (16), and lens (11) from panel (9). Discard lockwasher.
10. Remove four screws (17) and plate (18) from panel (9).

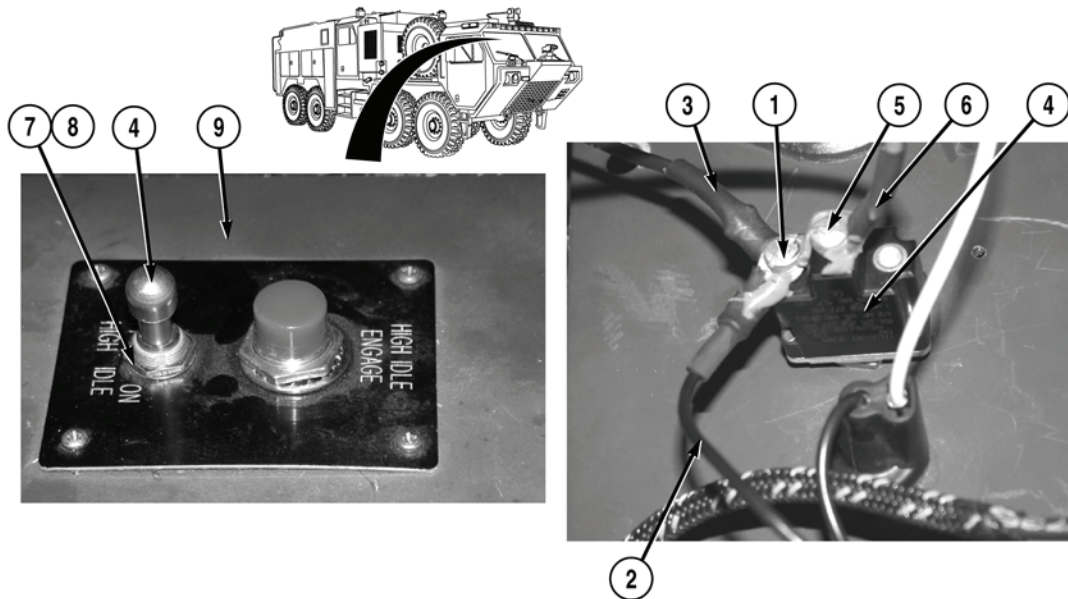
**END OF TASK****INSTALLATION**

1. Install plate (18) on panel (9) with four screws (17).

**NOTE**

Perform Steps (2) through (6) to install high idle indicator only.

2. Install lens (11) on panel (9) with lockwasher (16) and nut (15).
3. Install cover (14) on lens (11).
4. Repair wire (13) (TM 9-2320-325-14&P).
5. Install lamp (12) on indicator (10).
6. Install indicator (10) on lens (11).



7. Install switch (4) on panel (9) with lockwasher (8) and nut (7).
8. Install wire (2) on switch (4) with screw (1).

### **WARNING**



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

9. Apply electrical sealant to end of wire (2).

### **NOTE**

Perform Steps (10) through (12) to install high idle switch only.

10. Install wire (6) on switch (4) with screw (5).
11. Install wires (3) and (2) on switch (4) with screw (1).
12. Apply electrical sealant to three wires (2), (3), and (6).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Personnel cab instrument panel D installed (WP 0311)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**PERSONNEL CAB INSTRUMENT PANEL REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Locknut (8)

**References**

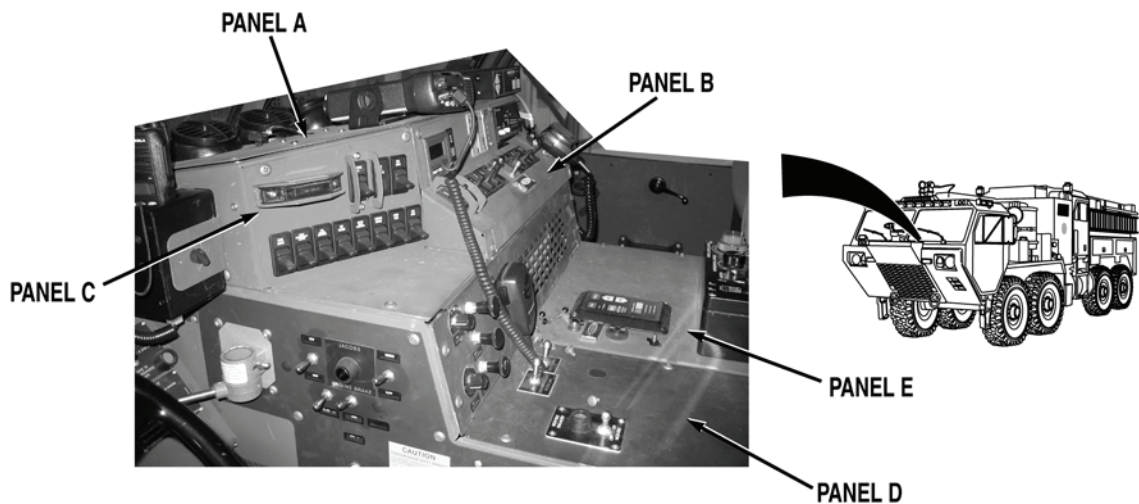
WP 0205  
WP 0305  
WP 0306  
WP 0308  
WP 0309  
WP 0310

**References (continued)**

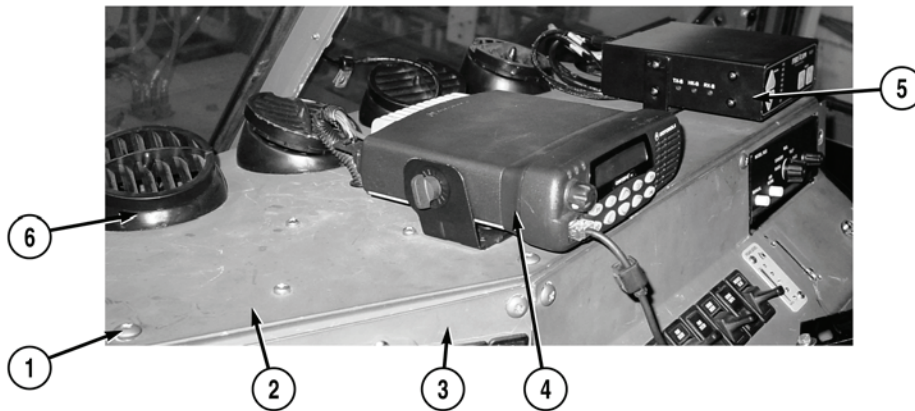
WP 0313  
WP 0315  
WP 0316  
WP 0317  
WP 0395  
WP 0430  
WP 0570  
WP 0615, Fig. 55

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)  
Wheels chocked (TM 9-2320-347-10)

**NOTE**

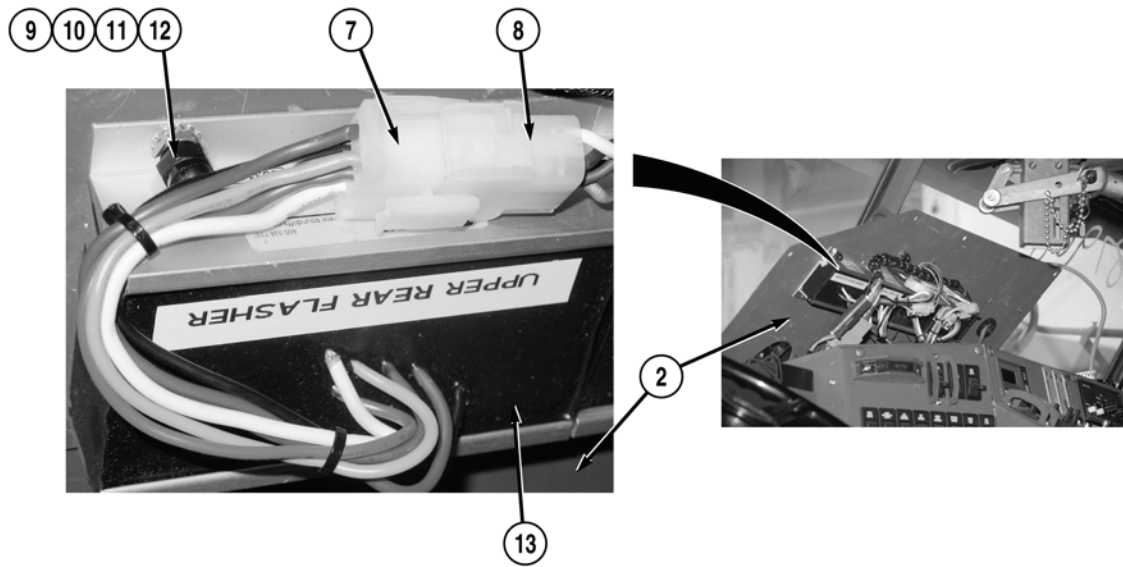
Individual panel's location and designation shown.

**PANEL A REMOVAL**** CAUTION**

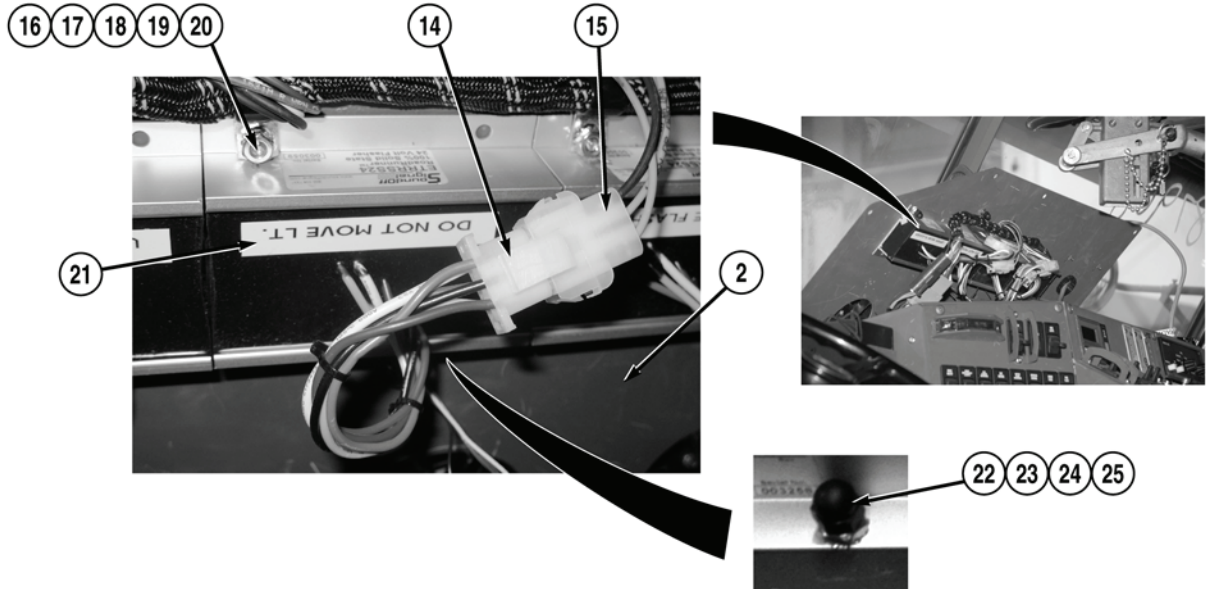
**When performing Step (1), pull instrument panel A forward only enough to access wires. Wires for radio and flasher units are still attached. Failure to comply may result in damage to equipment.**

1. Remove seven screws (1) from cab instrument panel A (2) and instrument assembly frame (3).
2. Remove two-way radio (4) from cab instrument panel A (2) (WP 0430).
3. Remove intercom control (5) from cab instrument panel A (2) (WP 0395).
4. Remove four defrost louvers (6) from cab instrument panel A (2) (WP 0205).

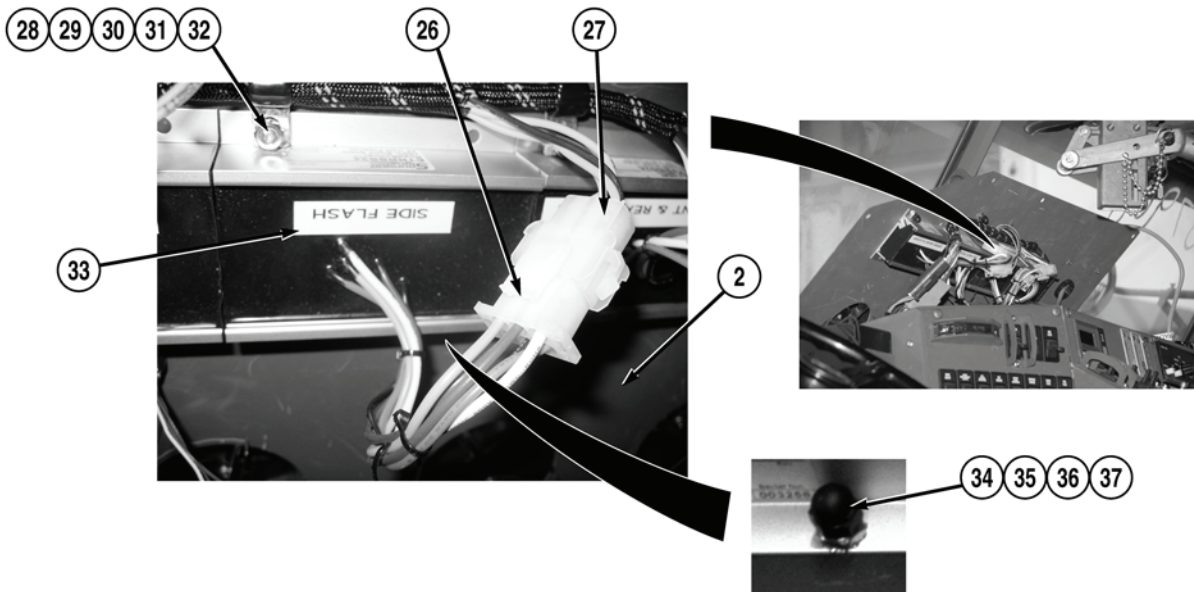




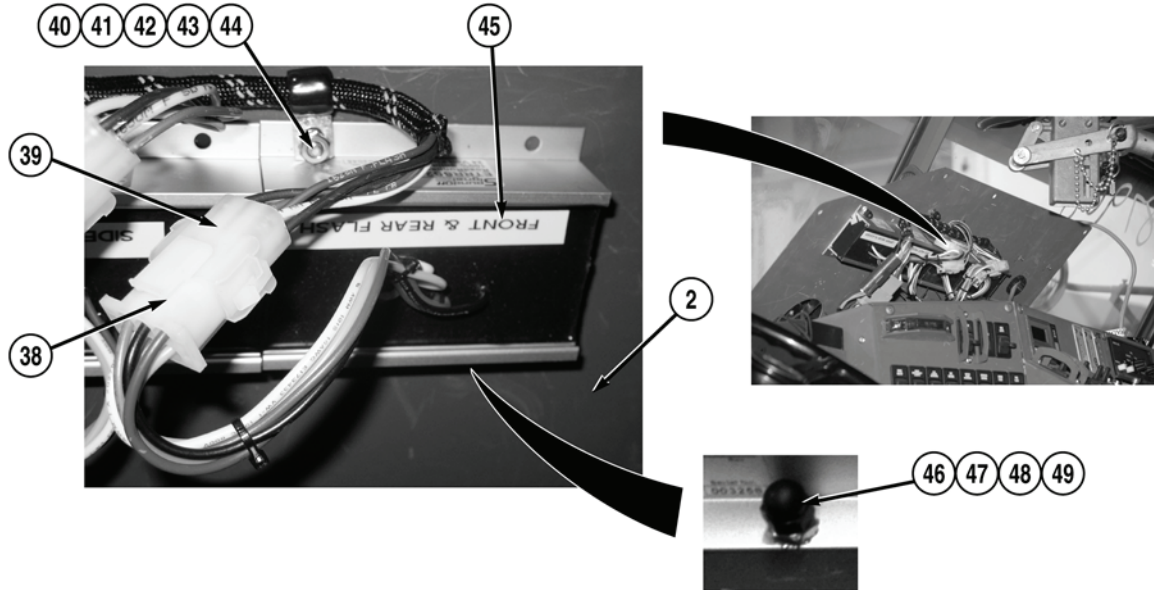
5. Disconnect UPPER REAR FLASHER connector (7) from cab instrument panel wire harness connector (8).
6. Remove two nuts (9), locknuts (10), washers (11), screws (12), and UPPER REAR FLASHER control (13) from cab instrument panel A (2). Discard locknuts.



7. Disconnect DO NOT MOVE LT. connector (14) from cab instrument panel wire harness connector (15).
8. Remove locknut (16), cushion clip (17), locknut (18), washer (19), and screw (20) from DO NOT MOVE LT. control (21). Discard locknut.
9. Remove nut (22), locknut (23), washer (24), screw (25), and DO NOT MOVE LT. control (21) from cab instrument panel A (2). Discard locknut.



10. Disconnect SIDE FLASH connector (26) from cab instrument panel wire harness connector (27).
11. Remove locknut (28), cushion clip (29), locknut (30), washer (31), and screw (32) from SIDE FLASH control (33). Discard locknut.
12. Remove nut (34), locknut (35), washer (36), screw (37), and SIDE FLASH control (33) from cab instrument panel A (2). Discard locknut.

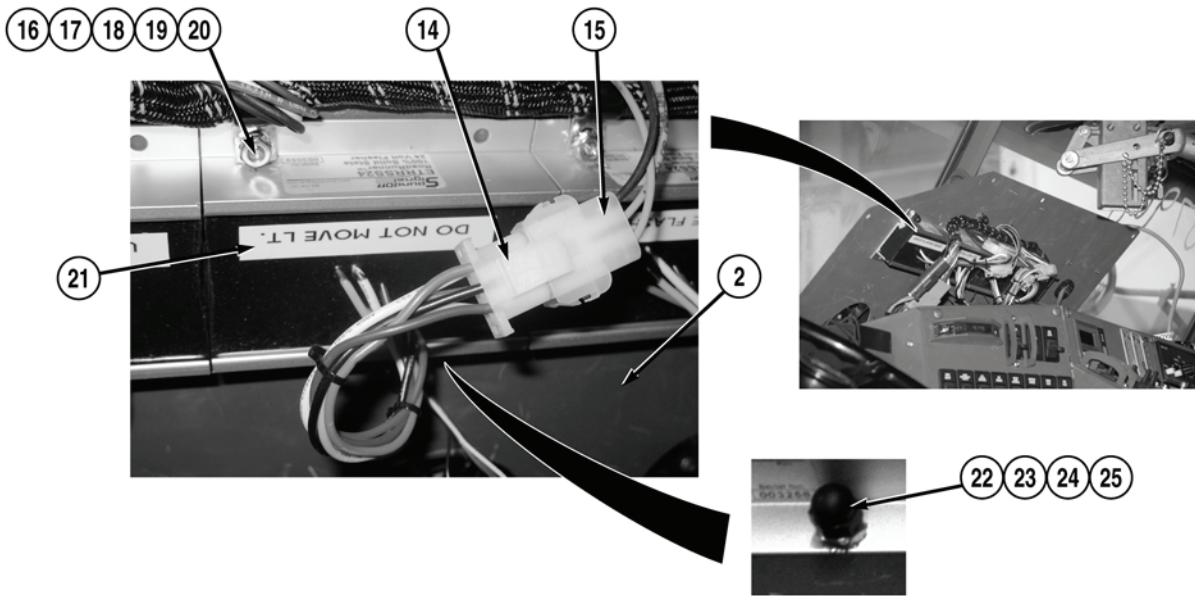


13. Disconnect FRONT & REAR FLASH connector (38) from cab instrument panel wire harness connector (39).
14. Remove locknut (40), cushion clip (41), locknut (42), washer (43), and screw (44) from FRONT & REAR FLASH control (45). Discard locknuts.
15. Remove nut (46), locknut (47), washer (48), screw (49), and FRONT & REAR FLASH control (45) from cab instrument panel A (2). Discard locknut.
16. Remove cab instrument panel A (2) from vehicle.

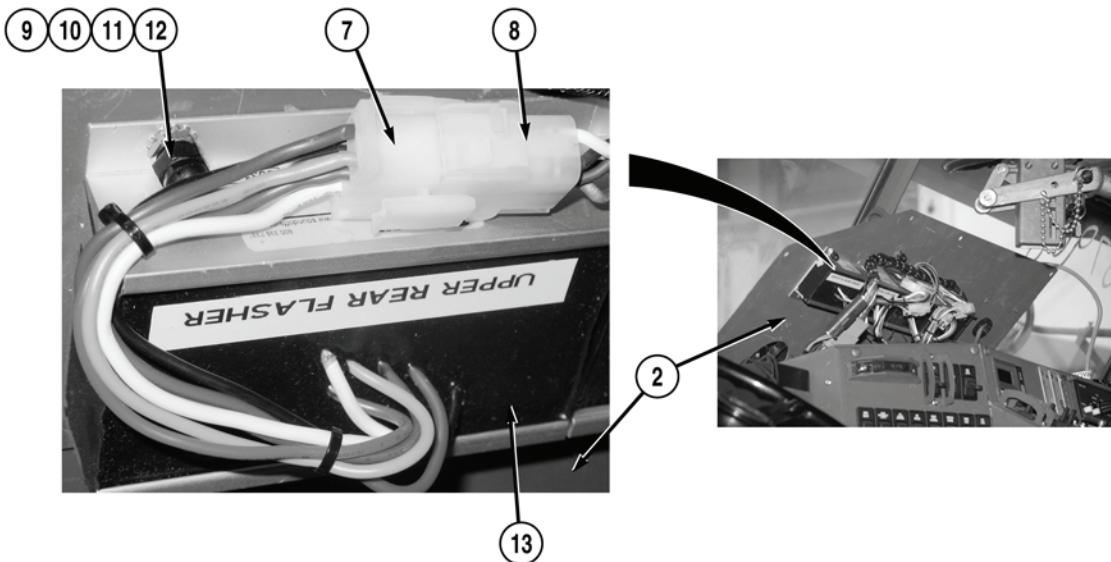
#### END OF TASK

#### PANEL A INSTALLATION

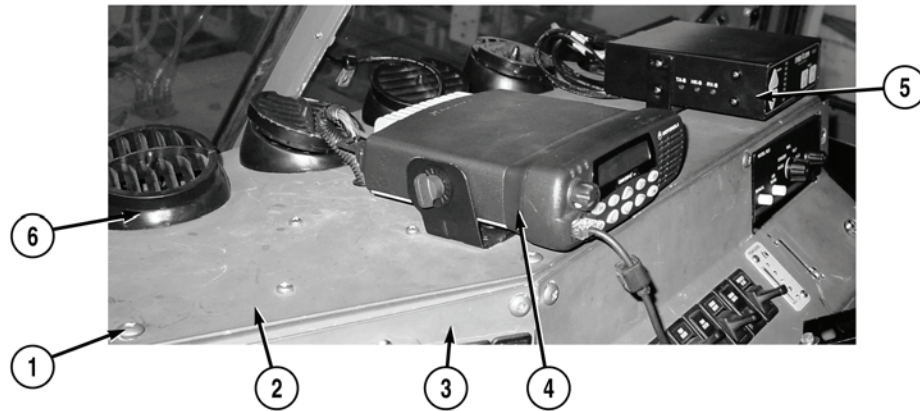
1. Place cab instrument panel A (2) in vehicle.
2. Install FRONT & REAR FLASH control (45) on cab instrument panel A (2) with screw (49), washer (48), locknut (47), and nut (46).
3. Install screw (44), washer (43), locknut (42), cushion clip (41), and locknut (40) on FRONT & REAR FLASH control (45).
4. Connect FRONT & REAR FLASH connector (30) to cab instrument panel wire harness connector (39).
5. Install SIDE FLASH control (33) on cab instrument panel A (2) with screw (37), washer (36), locknut (35), and nut (34).
6. Install screw (32), washer (31), locknut (30), cushion clip (29), and locknut (28) on SIDE FLASH control (33).
7. Connect SIDE FLASH connector (26) to cab instrument panel wire harness connector (27).



8. Install DO NOT MOVE LT. control (21) on cab instrument panel A (2) with screw (25), washer (24), locknut (23), and nut (22).
9. Install screw (20), washer (19), locknut (18), cushion clip (17), and locknut (16) on DO NOT MOVE LT. control (21).
10. Connect DO NOT MOVE LT. connector (14) to cab instrument panel wire harness connector (15).



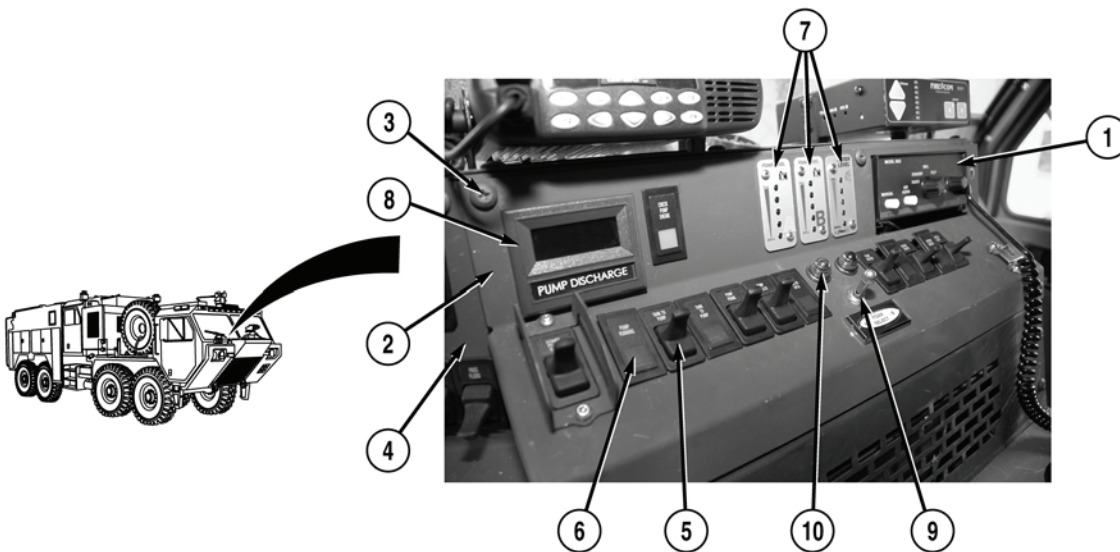
11. Install UPPER REAR FLASHER control (13) on cab instrument panel A (2) with two screws (12), washers (11), locknuts (10), and nuts (9).
12. Connect UPPER REAR FLASHER connector (7) to cab instrument panel wire harness connector (8).



13. Install four defrost louvers (6) on cab instrument panel A (2) (WP 0205).
14. Install intercom control (5) on cab instrument panel A (2) (WP 0395).
15. Install two-way radio (4) on cab instrument panel A (2) (WP 0430).
16. Install cab instrument panel A (2) on instrument assembly frame (3) with seven screws (1).

**END OF TASK**

## PANEL B REMOVAL



### CAUTION

**When performing Step (2), pull instrument panel B forward only enough to access wires. Failure to comply may result in damage to equipment.**

1. Remove siren control (1) from instrument panel B (2) (WP 0341).
2. Remove five screws (3) and instrument panel B (2) from instrument assembly frame (4).
3. Remove seven toggle switches (5) from instrument panel B (2) (WP 0315).
4. Remove six cab panel indicators (6) from instrument panel B (2) (WP 0313).
5. Remove three water and foam level gauges (7) from instrument panel B (2) (WP 0316).
6. Remove pump discharge pressure gauge (8) from instrument panel B (2) (WP 0316).
7. Remove foam tank selector switch (9) from instrument panel B (2) (WP 0308).
8. Remove two foam tank selector switch indicators (10) from instrument panel B (2) (WP 0306).

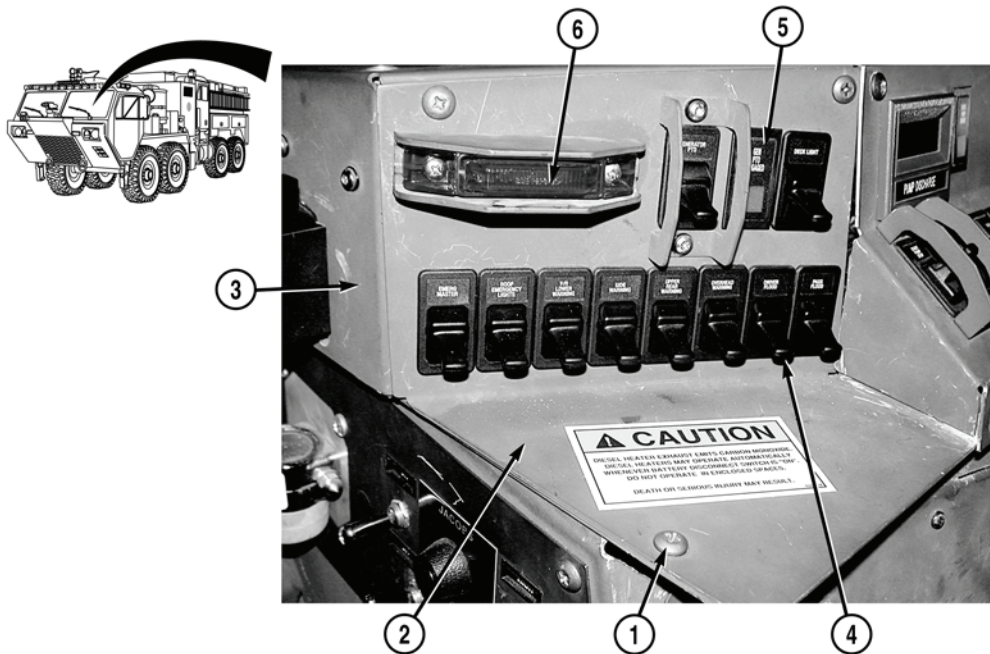
**END OF TASK**

**PANEL B INSTALLATION**

1. Install two foam tank selector switch indicators (10) on instrument panel B (2) (WP 0306).
2. Install foam tank selector switch (9) on instrument panel B (2) (WP 0308).
3. Install pump discharge pressure gauge (8) on instrument panel B (2) (WP 0317).
4. Install three water and foam level gauges (7) on instrument panel B (2) (WP 0316).
5. Install six cab panel indicators (6) on instrument panel B (2) (WP 0313).
6. Install seven toggle switches (5) on instrument panel B (2) (WP 0315).
7. Install instrument panel B (2) on instrument assembly frame (4) with five screws (3).
8. Install siren control (1) on instrument panel B (2) (WP 0341).

**END OF TASK**

## PANEL C REMOVAL



### **⚠ CAUTION**

**When performing Step (1), pull instrument panel C forward only enough to access wires. Failure to comply may result in damage to equipment.**

1. Remove three screws (1) and instrument panel C (2) from instrument assembly frame (3).
2. Remove 10 toggle switches (4) from instrument panel C (2) (WP 0315).
3. Remove cab panel indicator (5) from instrument panel C (2) (WP 0313).
4. Remove do not move apparatus indicator (6) from instrument panel C (2) (WP 0305).

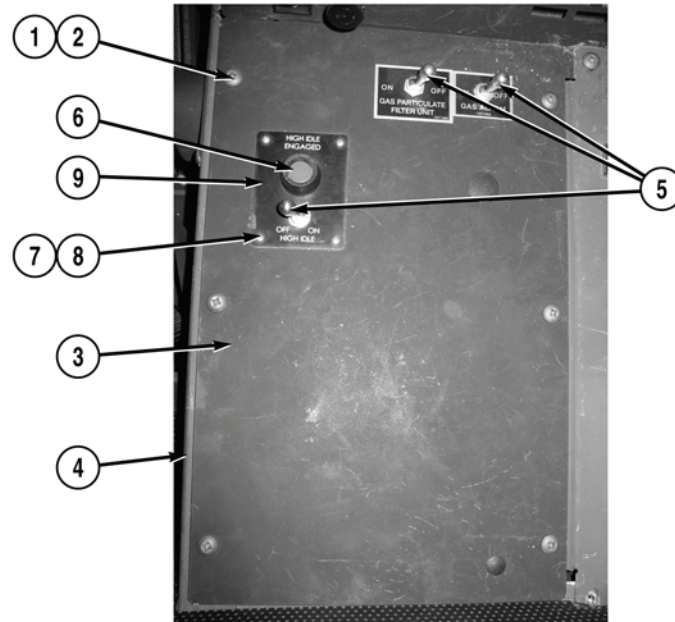
**END OF TASK**

## PANEL C INSTALLATION

1. Install do not move apparatus indicator (6) on instrument panel C (2) (WP 0305).
2. Install cab panel indicator (5) on instrument panel C (2) (WP 0313).
3. Install 10 toggle switches (4) on instrument panel C (2) (WP 0315).
4. Install instrument panel C (2) on instrument assembly frame (3) with three screws (1).

**END OF TASK**



**PANEL D REMOVAL**

**⚠ CAUTION**

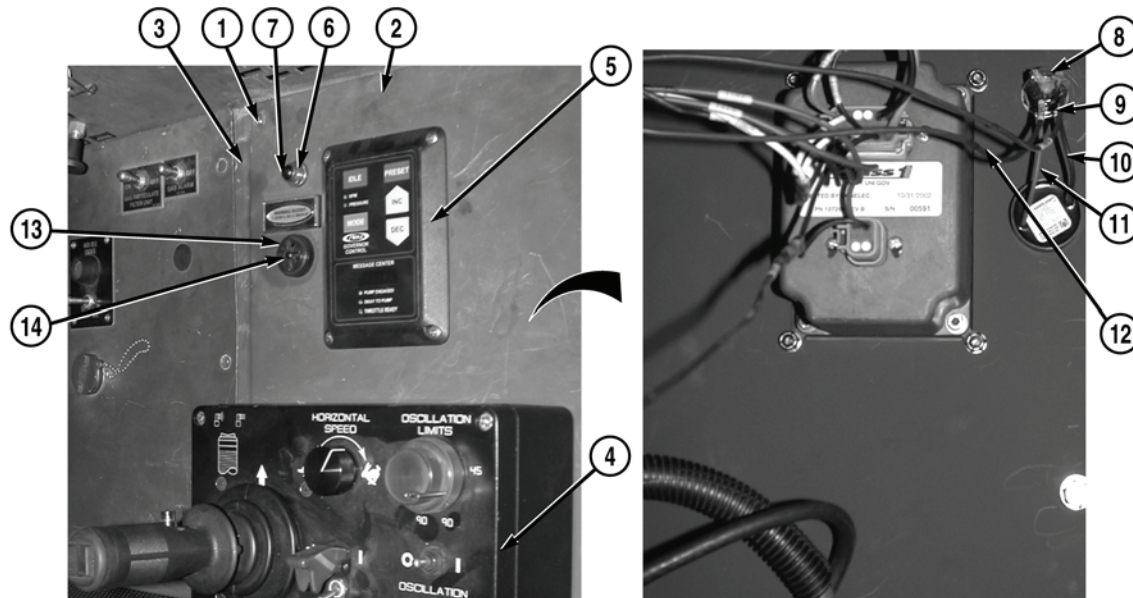
**When performing Step (1), pull instrument panel C forward only enough to access wires. Failure to comply may result in damage to equipment.**

1. Remove six screws (1), washers (2), and cab instrument panel D (3) from instrument access frame (4).
2. Remove three toggle switches (5) from cab instrument panel D (3) (WP 0315).
3. Remove indicator light (6) from cab instrument panel D (3) (WP 0313).
4. Remove four screws (7), washers (8), and data plate (9) from cab instrument panel D (3).

**END OF TASK****PANEL D INSTALLATION**

1. Install data plate (9) on cab instrument panel D (3) with four washers (8) and screws (7).
2. Install indicator light (6) on cab instrument panel D (3) (WP 0313).
3. Install three toggle switches (5) on cab instrument panel D (3) (WP 0315).
4. Install cab instrument panel D (3) on instrument access frame (4) with six washers (2) and screws (1).

**END OF TASK**

**PANEL E REMOVAL**** CAUTION**

**When performing Step (1), pull instrument panel E forward only enough to access wires. Failure to comply may result in damage to equipment.**

1. Remove five screws (1) and instrument panel E (2) from instrument assembly panel (3).
2. Remove bumper turret control (4) from instrument panel E (2) (WP 0570).
3. Remove governor control (5) from instrument panel E (2) (WP 0309).
4. Remove nut (6) and indicator light (7) from instrument panel E (2).
5. Remove two screws (8) and four wires (9), (10), (11), and (12) from indicator light (7).
6. Remove nut (13) and buzzer (14) from instrument panel E (2).

**END OF TASK****PANEL E INSTALLATION**

1. Install buzzer (14) on instrument panel E (2) with nut (13).
2. Install four wires (12), (11), (10), and (9) on indicator light (7) with two screws (8).
3. Install indicator light (7) on instrument panel E (2) with nut (6).
4. Install governor control (5) on instrument panel E (2) (WP 0309).
5. Install bumper turret (4) on instrument panel E (2) (WP 0570).
6. Install instrument panel E (2) on instrument assembly panel (3) with five screws (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Remove wheel chocks (TM 9-2320-347-10)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## PERSONNEL CAB INSTRUMENT PANEL ASSEMBLY REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Locknut (1)  
Locknut (1)  
Locknut (1)  
Lockwasher (7)  
Lockwasher (4)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

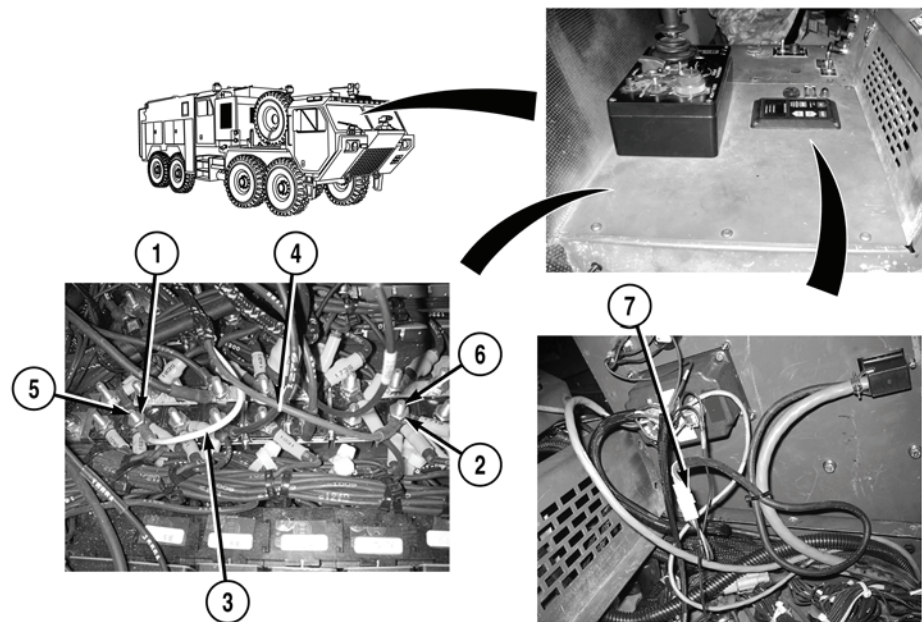
**References**

TM 9-2320-325-14&P  
WP 0615, Fig. 55

**Equipment Conditions**

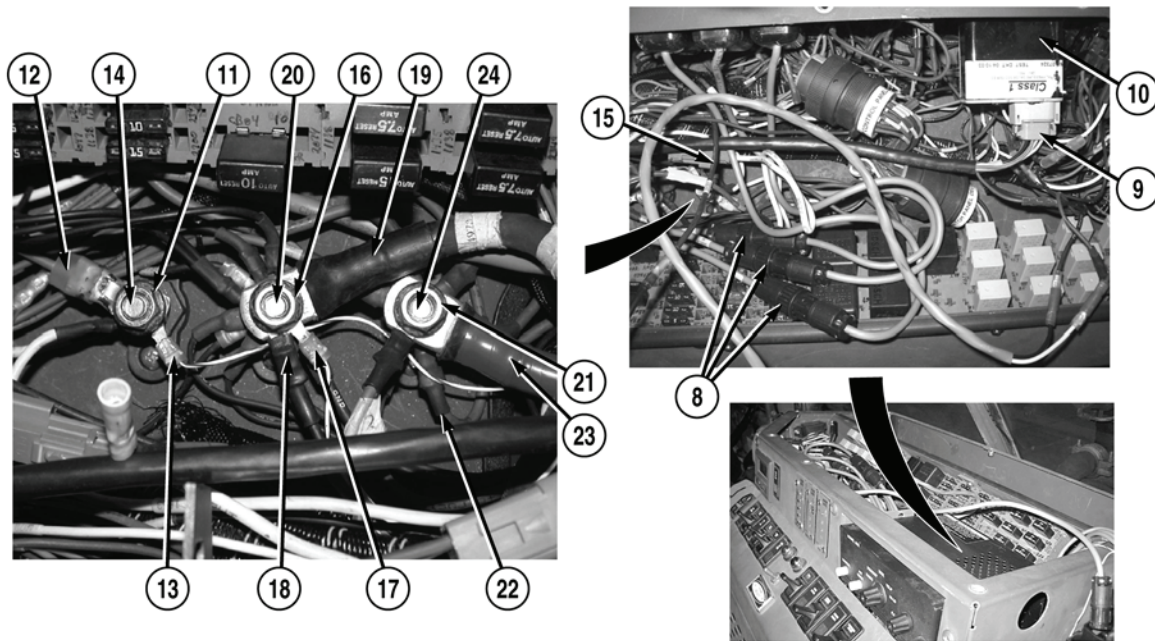
Siren control removed (WP 0341)  
Personnel cab instrument panels D and E  
removed (WP 0311)  
Skid plate grille removed (WP 0550)

## REMOVAL

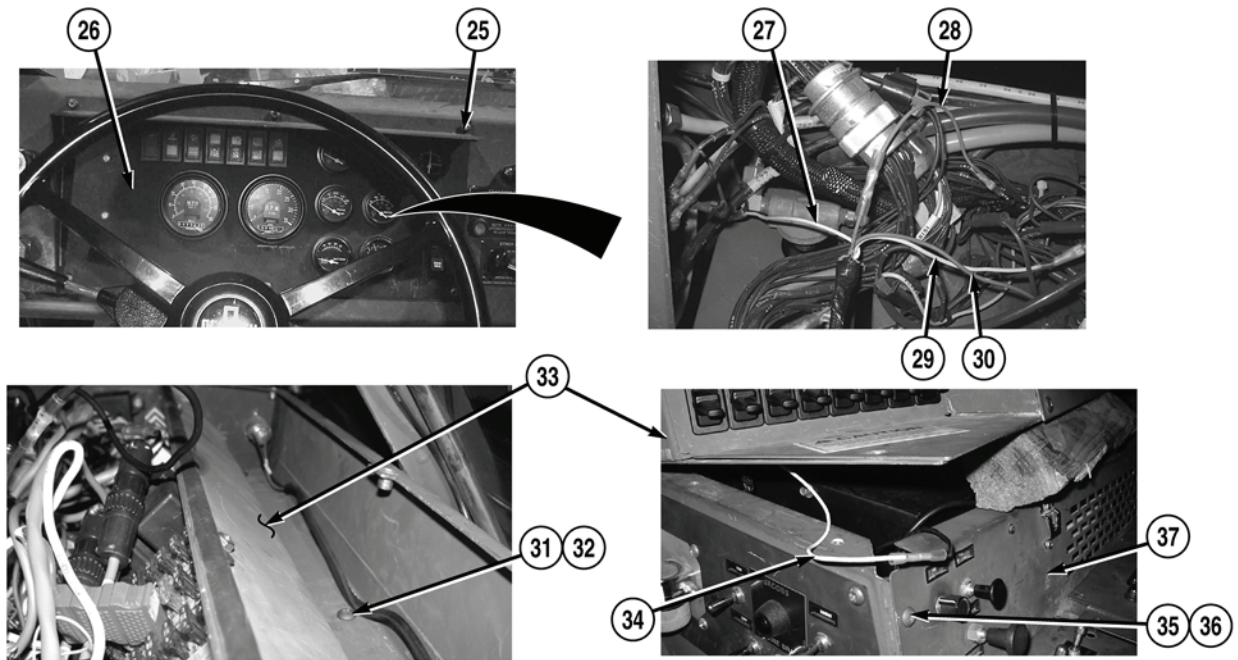
**NOTE**

Tag and mark wires and connectors prior to removal to ensure proper installation.

1. Remove two nuts (1) and (2) and wires (3) and (4) from studs (5) and (6).
2. Disconnect connector (7).



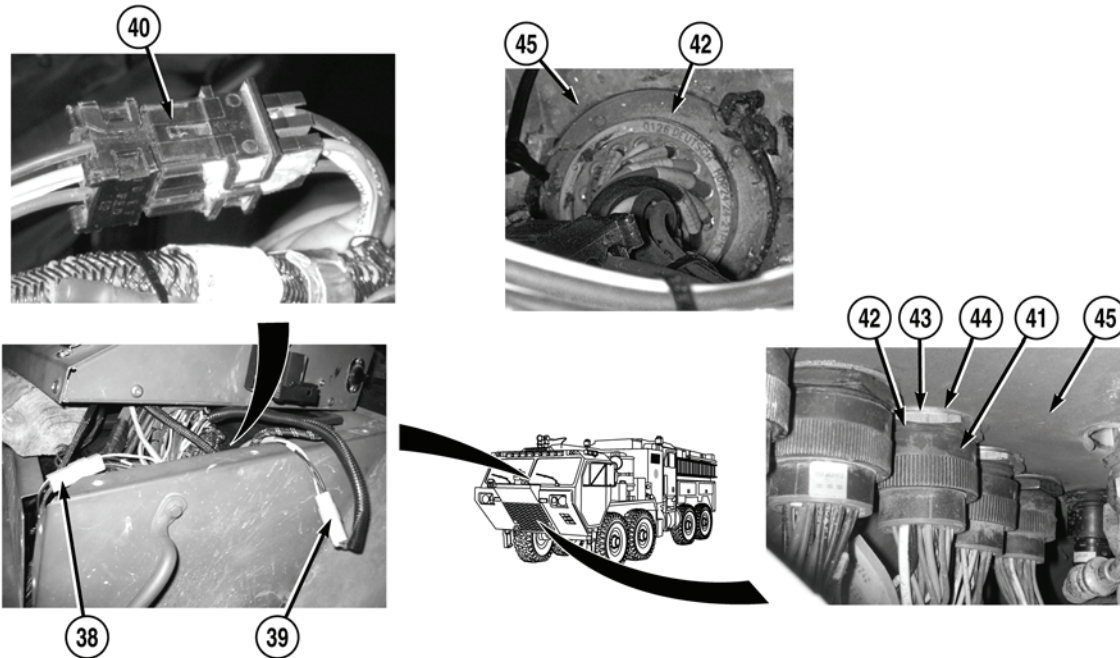
3. Disconnect three connectors (8).
4. Disconnect connector (9) from flow meter (10).
5. Remove locknut (11) and two wires (12) and (13) from stud (14). Discard locknut.
6. Cut wire H052 (15) (TM 9-2320-325-14&P).
7. Remove locknut (16), two wires (17) and (18) and cable (19) from stud (20). Discard locknut.
8. Remove locknut (21), wire (22), and cable (23) from stud (24). Discard locknut.



**⚠ CAUTION**

**Dash panel should be pulled forward only far enough to cut wires. Failure to comply may cause damage to equipment.**

9. Remove six screws (25) from dash (26) and pull dash (26) forward.
10. Cut wire 1412 (27), wire H012 (28), wire 1020 (29), and wire 1411(30) (TM 9-2320-325-14&P).
11. Remove seven screws (31) and lockwashers (32) from instrument panel assembly (33). Discard lockwashers.
12. Cut wire 1187 (34) (TM 9-2320-325-14&P).
13. Remove four screws (35) and lockwashers (36) and pull panel (37) forward. Discard lockwashers.

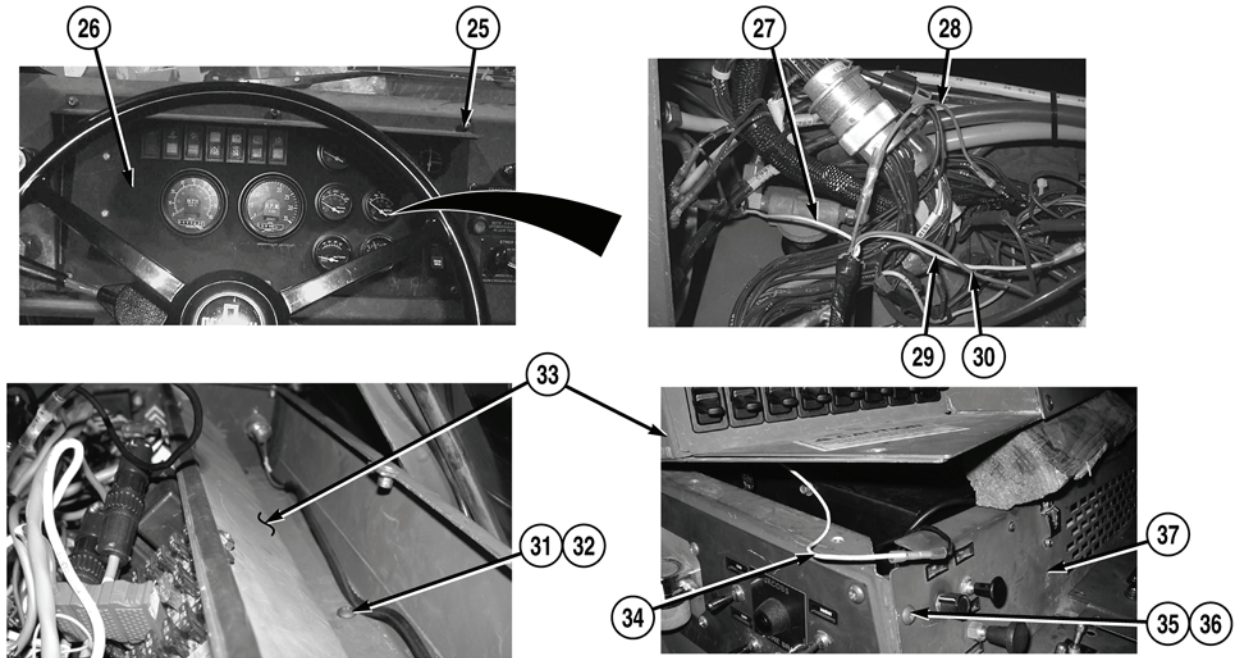


14. Disconnect connector (38).
15. Disconnect connector (39).
16. Disconnect connector (40).
17. Remove four plugs (41) from four connectors (42).
18. Remove four nuts (43), lockwashers (44), and connectors (42) from personnel cab (45). Discard lockwashers.
19. With the aid of an assistant, remove instrument assembly (33) from vehicle.

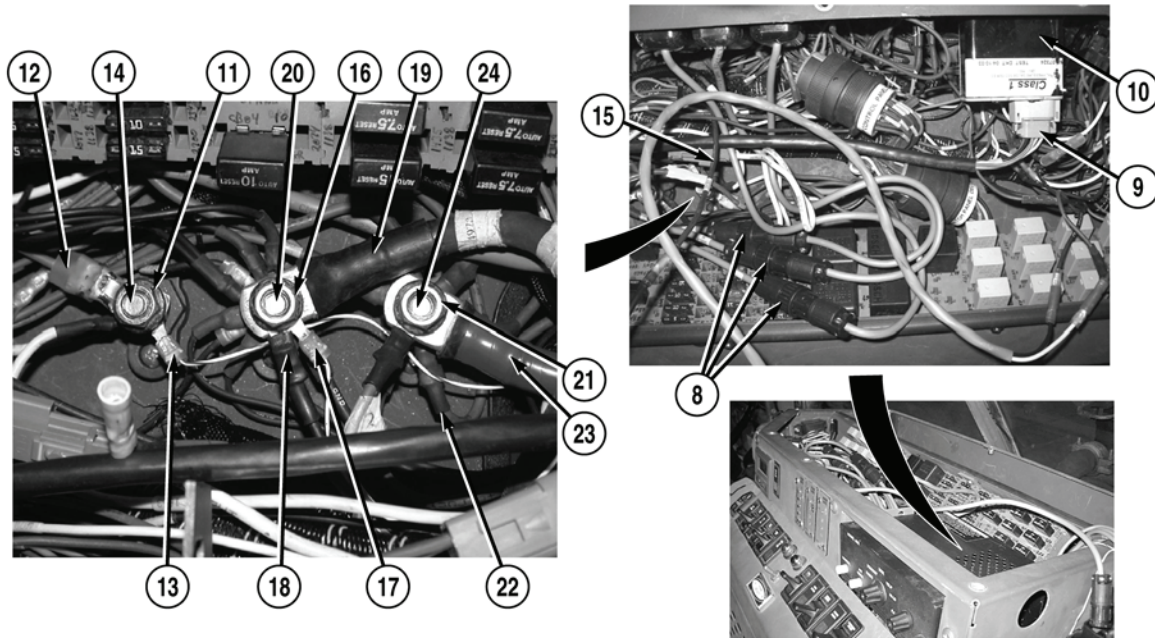
**END OF TASK**



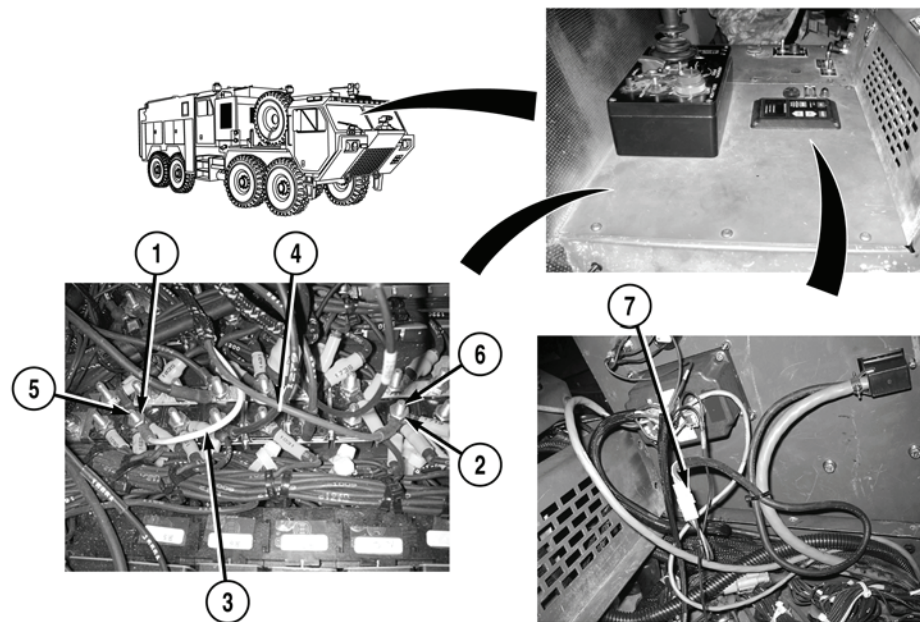
## INSTALLATION



1. With the aid of an assistant, install instrument assembly (33) in vehicle.
2. Install four connectors (42) on personnel cab (45) with four lockwashers (44) and nuts (43).
3. Install four plugs (41) on connectors (42).
4. Connect connector (40).
5. Connect connector (39).
6. Connect connector (38).
7. Install four lockwashers (36) and screws (35) on panel (37).
8. Repair wire 1187 (34) (TM 9-2320-325-14&P).
9. Install instrument panel assembly (33) with seven lockwashers (32) and screws (31).
10. Repair wires 1411(30), wire 1020 (29), wire H012 (28), and wire 1412 (27) (TM 9-2320-325-14&P).
11. Install dash (26) with six screws (25).



12. Install cable (23) and wire (22) on stud (24) with locknut (21).
13. Install cable (19) and two wires (18) and (17) on stud (20) with locknut (16).
14. Repair wire H052 (15) (TM 9-2320-325-14&P).
15. Install two wires (12) and (13) on stud (14) with locknut (11).
16. Connect connector (9) on flow meter (10).
17. Connect three connectors (8).



18. Connect connector (7).

19. Install two wires (4) and (3) on two studs (6) and (5) with two nuts (2) and (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Install skid plate grille (WP 0550)
2. Install personnel cab instrument panels D and E (WP 0311)
3. Install siren control (WP 0341)

#### END OF TASK

#### END OF WORK PACKAGE



## FIELD LEVEL MAINTENANCE

## PERSONNEL CAB PANEL INDICATOR REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)

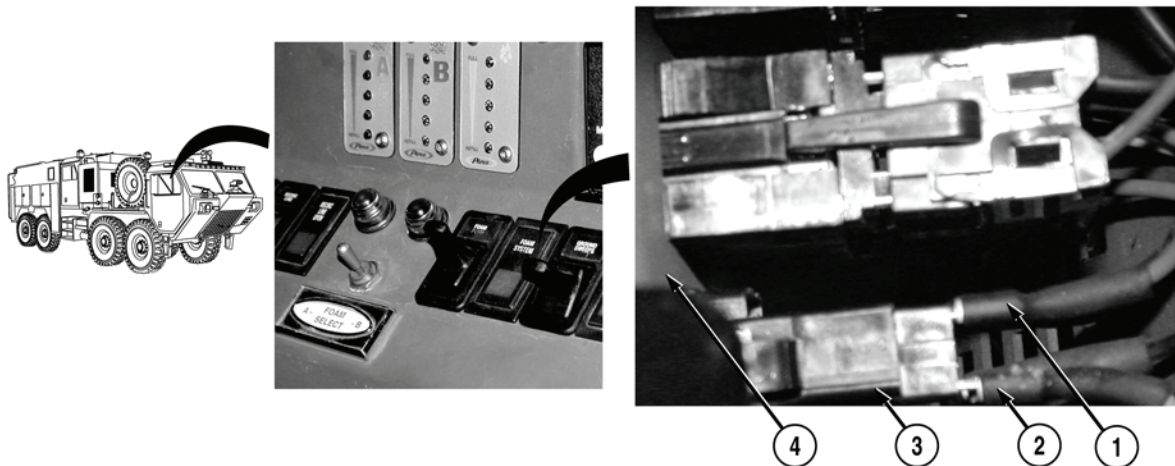
**References**

WP 0615, Fig. 55

**Equipment Conditions**

Personnel cab instrument panel C removed  
(WP 0311)

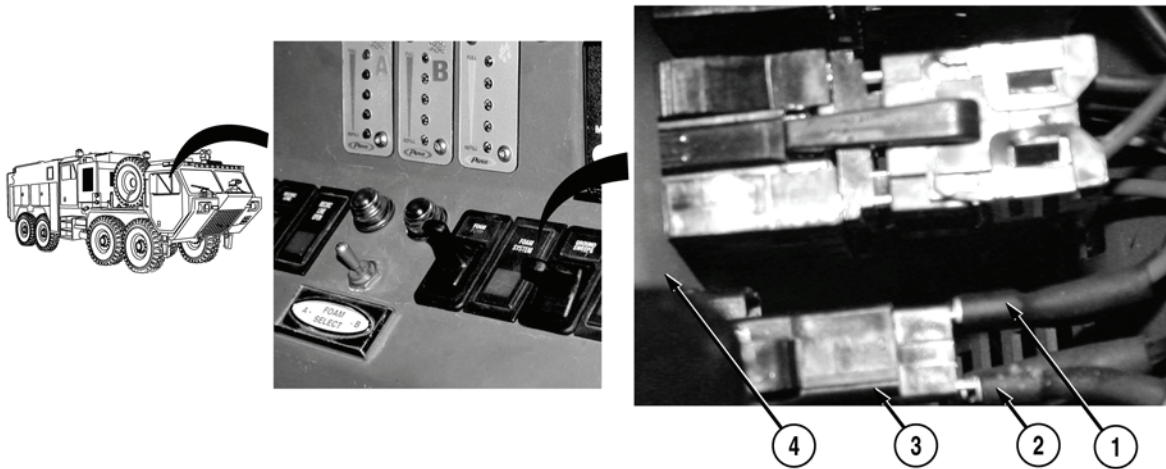
## REMOVAL

**NOTE**

- All indicators are removed the same way.
- Tag and mark wires prior to removal to ensure proper installation.

1. Remove two wires (1) and (2) from indicator (3).
2. Remove indicator (3) from instrument panel (4).

**END OF TASK**

**INSTALLATION****NOTE**

All indicators are installed the same way.

1. Install indicator (3) on instrument panel (4).
2. Install two wires (1) and (2) on indicator (3).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install personnel cab instrument panel C (WP 0311)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**PERSONNEL CAB PANEL INDICATOR LAMP(S) REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)

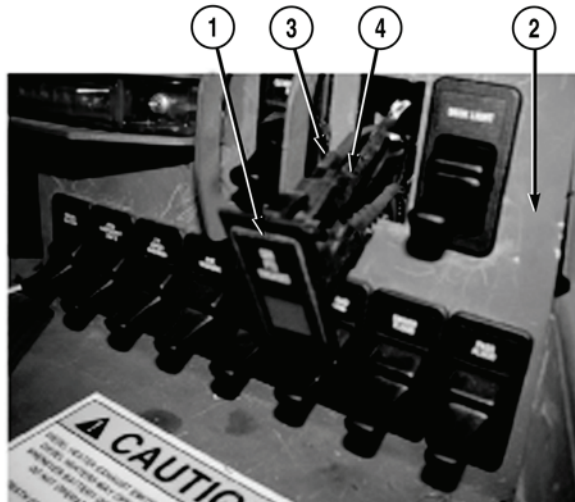
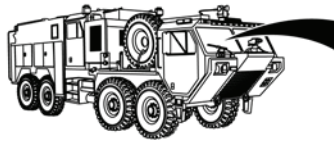
**References**

WP 0615, Fig. 55

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Wheels chocked (TM 9-2320-347-10)

---

**REMOVAL****NOTE**

All indicator lamps are removed the same way.

1. Remove indicator (1) from panel (2).

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

2. Disconnect two wires (3) and (4) from indicator (1).



3. Remove lamp (5) from indicator (1).

#### END OF TASK

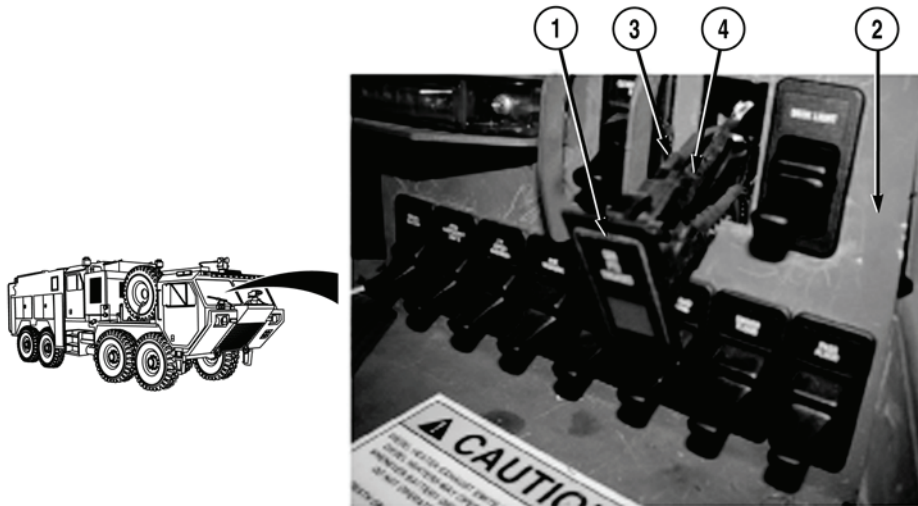
#### INSTALLATION

#### NOTE

All indicator lamps are installed the same way.

1. Install lamp (5) in indicator (1).





2. Connect two wires (3) and (4) on indicator (1).
3. Install indicator (1) in panel (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Remove wheel chocks (TM 9-2320-347-10)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**PERSONNEL CAB TOGGLE SWITCH REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0518  
WP 0615, Fig. 55

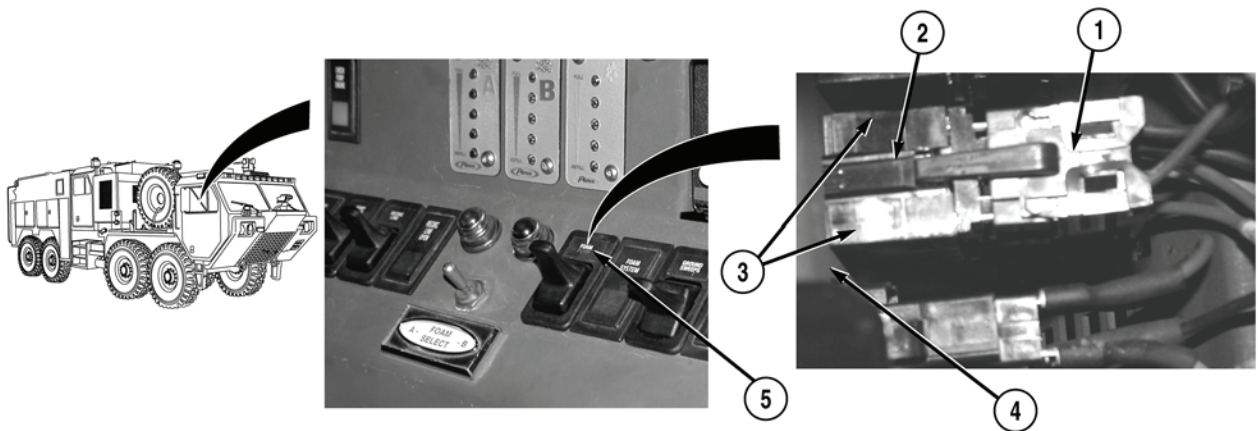
**Materials/Parts**

Adhesive, Spray (WP 0625, Item 6)

**Equipment Conditions**

Personnel cab instrument panel B  
removed (WP 0311)

---

**REMOVAL****NOTE**

All toggle switches are removed the same way.

1. Disconnect connector (1) from switch (2).
2. Press four clips (3) and remove switch (2) from instrument panel (4).

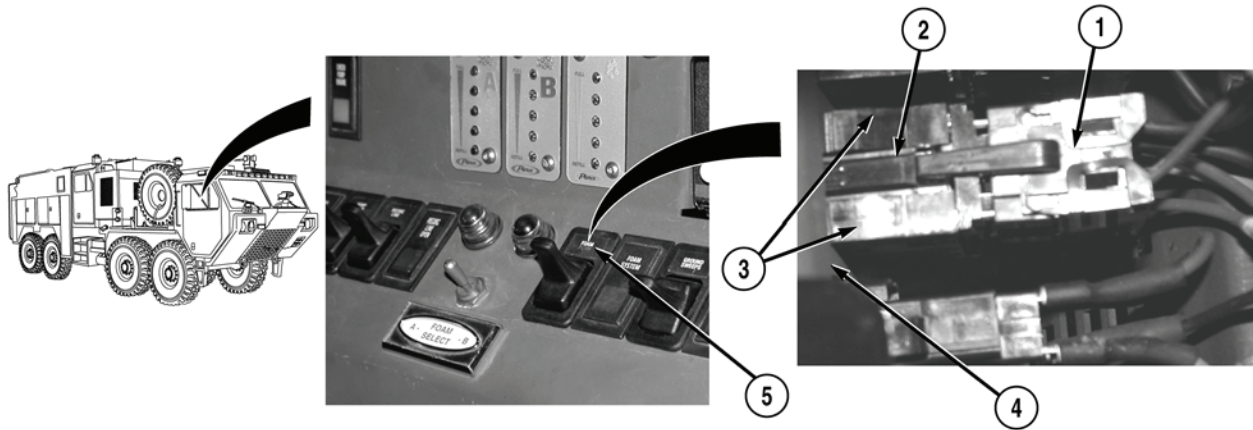
**NOTE**

- Perform Step (3) if decal requires removal.
- Use care when removing decal to prevent damage.

3. Remove decal (5) from switch (2) (WP 0518).

**END OF TASK**

## INSTALLATION



### **WARNING**



Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

### **NOTE**

Perform Steps (1) and (2) if decal requires installation.

1. Apply adhesive to decal (5).
2. Install decal (5) on switch (2).

### **NOTE**

All toggle switches are installed the same way.

3. Install switch (2) on instrument panel (4) with four clips (3).
4. Connect connector (1) on switch (2).

### **END OF TASK**

### **FOLLOW-ON MAINTENANCE**

Install personnel cab instrument panel B (WP 0311)

### **END OF TASK**

### **END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PERSONNEL CAB WATER AND/OR FOAM LEVEL GAUGE(S) REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

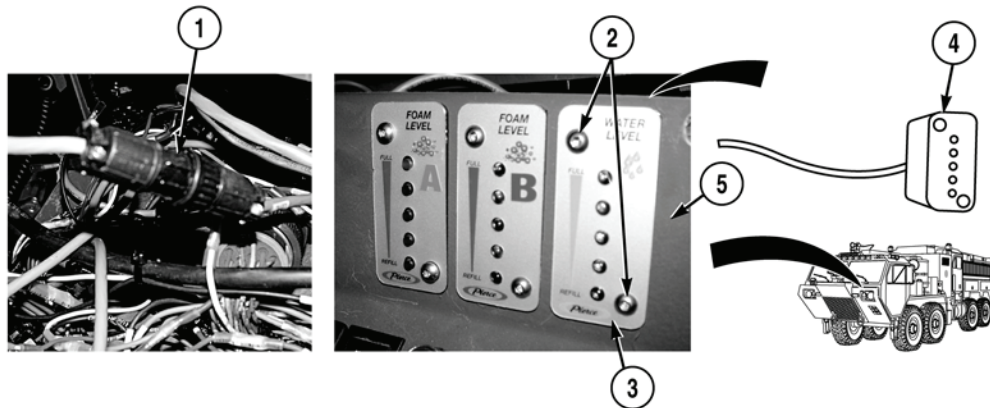
**Equipment Conditions**

Cab instrument panel C removed (WP 0311)

**References**

WP 0615, Fig. 55

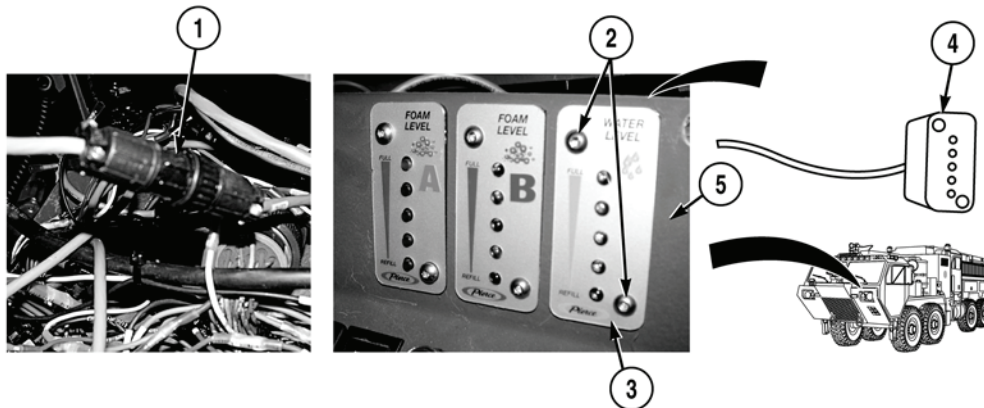
## REMOVAL

**NOTE**

- Water gauge and two foam gauges are removed the same way. Water gauge shown.
- Note orientation of gauge prior to removal to ensure proper installation.

1. Disconnect connector (1).
2. Remove two screws (2), plate (3), and gauge (4) from instrument panel (5).

**END OF TASK**

**INSTALLATION****NOTE**

- Water gauge and two foam gauges are installed the same way. Water gauge shown.
- Install gauge in same orientation as noted prior to removal.

1. Install gauge (4) and plate (3) on instrument panel (5) with two screws (2).
2. Connect connector (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install cab instrument panel C (WP 0311)

**END OF TASK****END OF WORK PACKAGE**

FIELD LEVEL MAINTENANCE

PUMP DIGITAL PRESSURE GAUGE(S) (DISCHARGE AND INTAKE) REPLACEMENT

INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 55

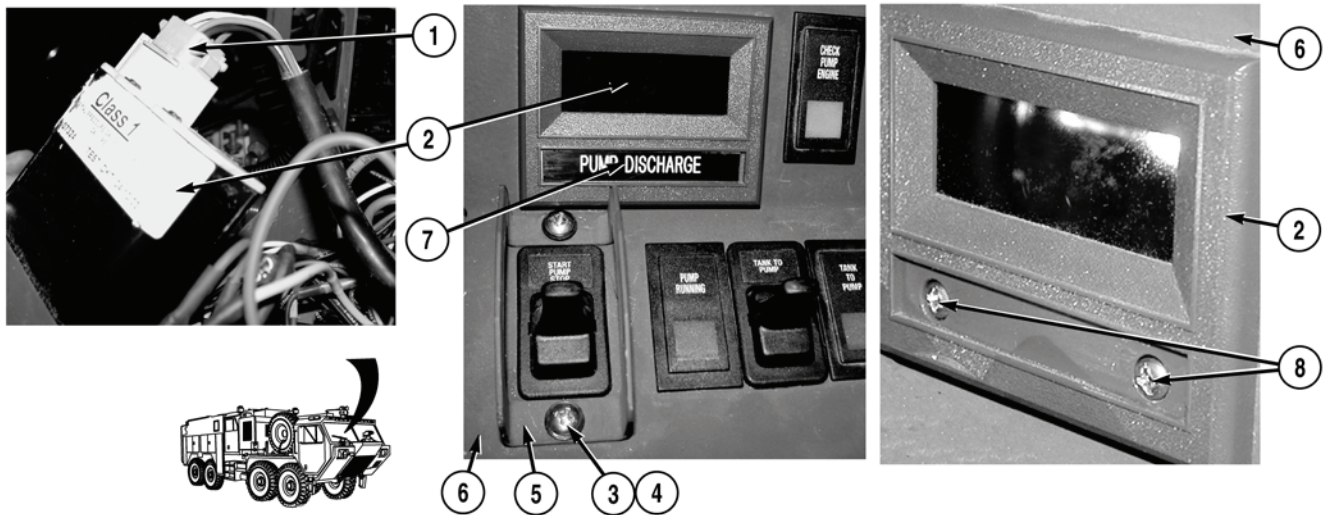
**Materials/Parts**

Adhesive, Spray (WP 0625, Item 6)  
Cleaning Compound, Solvent (WP 0625, Item 12)

**Equipment Conditions**

Cab instrument panel A removed (for cab pump discharge pressure gauge) (WP 0311)  
Pump operator's panel housing opened (for pump operator's pump discharge pressure gauge) (WP 0325)

REMOVAL



**NOTE**

All digital gauges are removed the same way, except as noted. Cab instrument panel pump discharge pressure gauge shown.

1. Disconnect connector (1) from pump discharge pressure gauge (2).

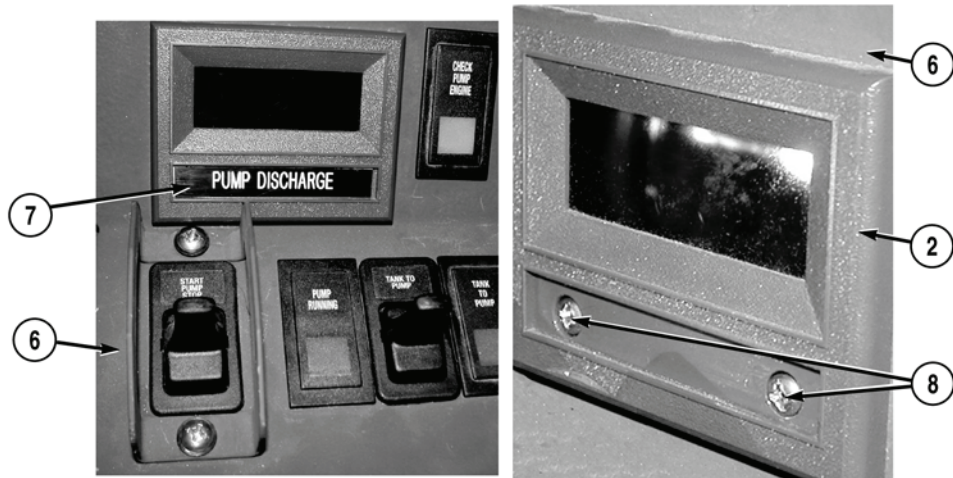
**NOTE**

Perform Step (2) for cab instrument panel only.

2. Remove two screws (3), washers (4), and toggle switch guard (5) from instrument panel (6).
3. Remove decal (7) from pump discharge pressure gauge (2).
4. Remove two screws (8) and pump discharge pressure gauge (2) from instrument panel (6).

END OF TASK

---

**INSTALLATION****NOTE**

All digital gauges are installed the same way, except as noted. Cab instrument panel pump discharge pressure gauge shown.

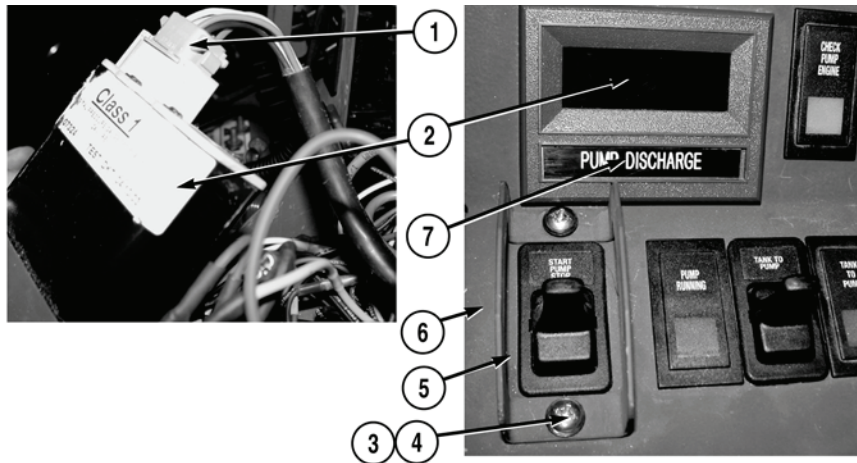
1. Install pump discharge pressure gauge (2) on instrument panel (6) with two screws (8).



**WARNING**

Solvent cleaning compound MIL-PRF-680 Type II and III may be irritating to the eyes and skin. Use protective gloves and goggles. Use in well-ventilated areas. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract, may cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: do not induce vomiting. Seek immediate medical attention. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. If symptoms persist, seek medical attention. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. Keep away from open flames and other sources of ignition. Failure to follow this warning may result in injury or death to personnel.

- The flashpoint for Type II solvent cleaning compound is 141 to 198°F (61 to 92°C) and Type III is 200 to 241°F (93 to 116°C).
  - Improper cleaning methods and use of unauthorized cleaning solvents may injure personnel and damage equipment.
  - Fire extinguishers should be placed nearby when using solvent cleaning compound. Failure to follow this warning may result in injury or death.
  - Cloths or rags saturated with solvent cleaning compound must be disposed of IAW authorized facilities' procedures. Failure to follow this warning may result in injury.
  - Eye shields must be worn when cleaning with a wire brush. Flying rust and metal particle may cause injury.
2. Clean back of decal (7) and decal mounting surface on pump discharge pressure gauge (2) with solvent cleaning compound.

**WARNING**

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

**NOTE**

Adhesive is applied to mating surface of decal. Do not apply adhesive to area of decal that will cover tops of screws.

3. Apply adhesive to decal (7).
4. Install decal (7) on pump discharge pressure gauge (2).

**NOTE**

Perform Step (5) for cab instrument panel gauge only.

5. Install toggle switch guard (5) on cab instrument panel (6) with two washers (4) and screws (3).
6. Connect cab instrument panel pump discharge pressure gauge (2) to connector (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Close pump operator's panel housing (if required) (WP 0325)
2. Install cab instrument panel A (if required) (WP 0311)

**END OF TASK**

**END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL AIR FLOW RESTRICTOR INDICATOR REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 56

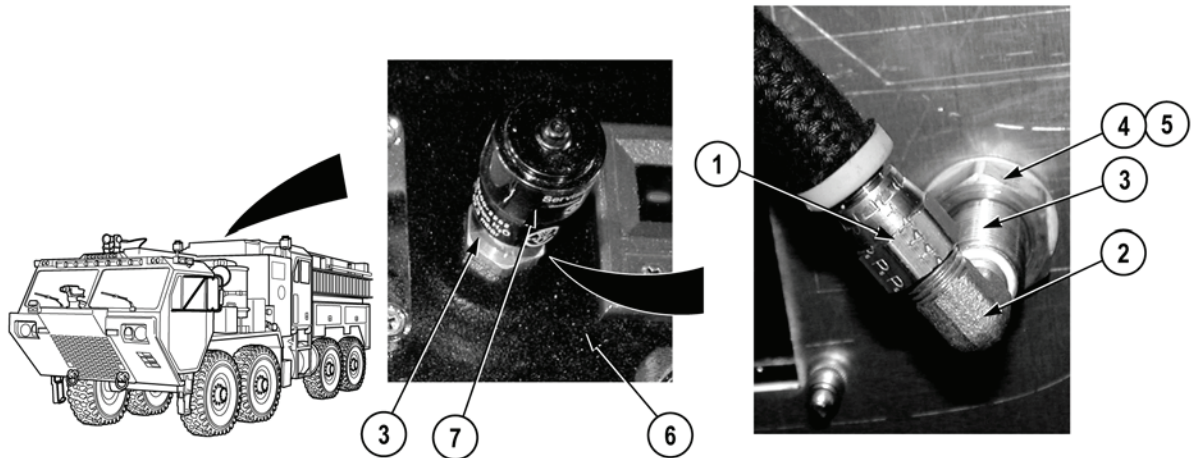
**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)

**Equipment Conditions**

Pump operator's panel housing opened  
(WP 0325)

## REMOVAL



1. Remove hose (1) from elbow (2).

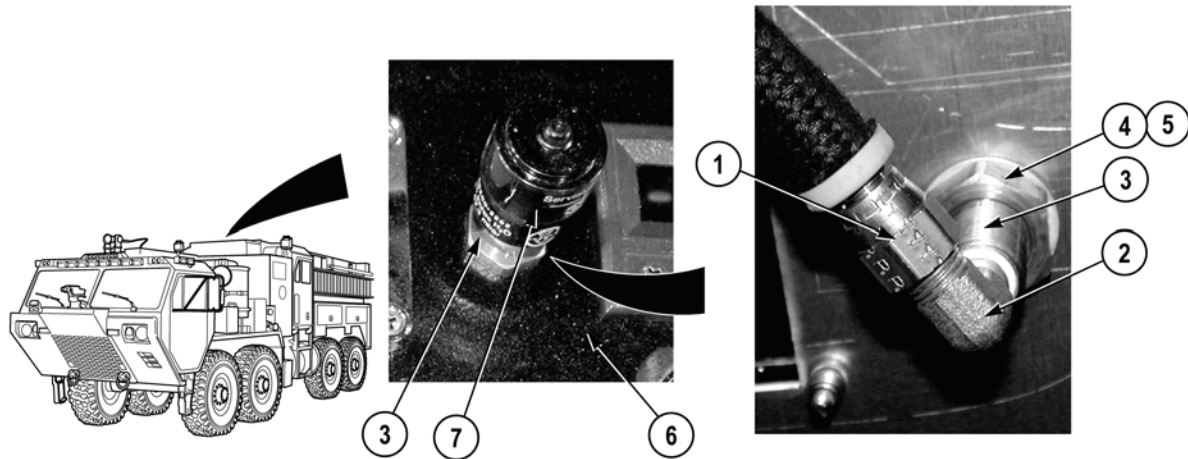
**NOTE**

Note position of elbow prior to removal to ensure proper installation.

2. Remove elbow (2) from fitting (3).
3. Remove nut (4), washer (5), and fitting (3) from pump operator's panel (6).
4. Remove air flow restrictor indicator (7) from fitting (3).

**END OF TASK**

## INSTALLATION



### **WARNING**



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

1. Apply sealing compound to threads of elbow (2) and air flow restrictor indicator (7).
2. Install air flow restrictor indicator (7) on fitting (3).
3. Install fitting (3) on pump operator's panel (6) with washer (5) and nut (4).

### **NOTE**

Install elbow as noted prior to removal.

4. Install elbow (2) on fitting (3).
5. Install hose (1) on elbow (2).

### **END OF TASK**

### **FOLLOW-ON MAINTENANCE**

Close pump operator's panel housing (WP 0325)

### **END OF TASK**

### **END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**AUDIO ALARM REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)

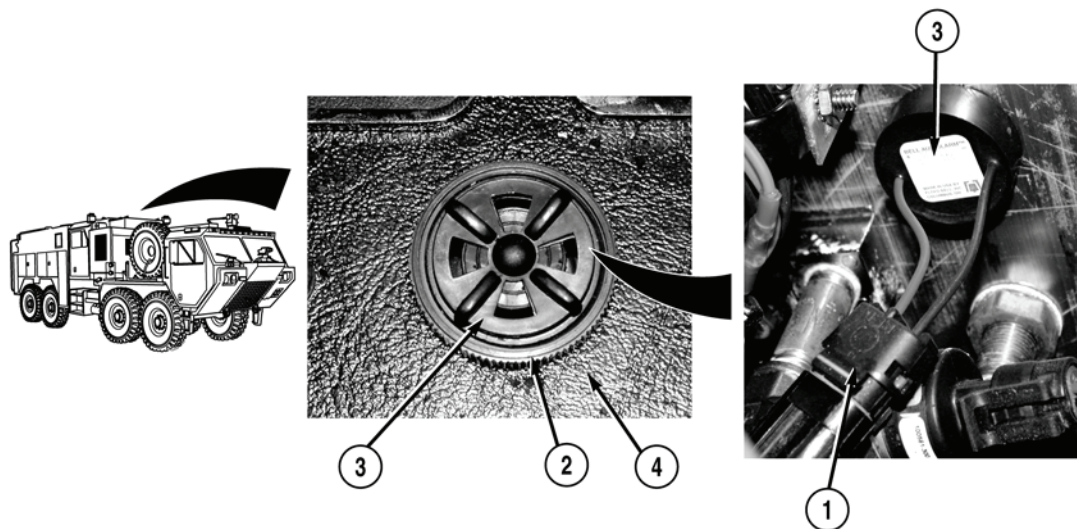
**References**

WP 0615, Fig. 56

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel housing opened  
(WP 0325)

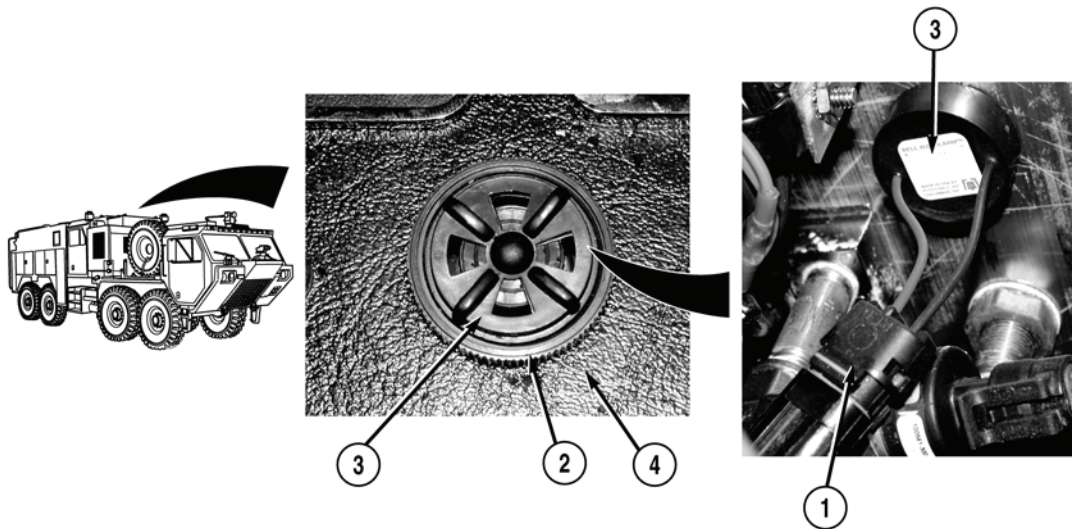
---

**REMOVAL****NOTE**

Both audio alarms are removed the same way.

1. Disconnect connector (1).
2. Remove retainer (2) and audio alarm (3) from pump operator's panel (4).

**END OF TASK**

**INSTALLATION****NOTE**

Both audio alarms are installed the same way.

1. Install audio alarm (3) on pump operator's panel (4) with retainer (2).
2. Connect connector (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Close pump operator's panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL COVER REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Mineral Spirits (WP 0625, Item 32)  
Lockwasher (8)  
Locknut (9)  
Locknut (9)  
Locknut (8)  
Locknut (1)  
Locknut (4)

**Materials/Parts (continued)**

Lockwasher (1)  
Lockwasher (2)

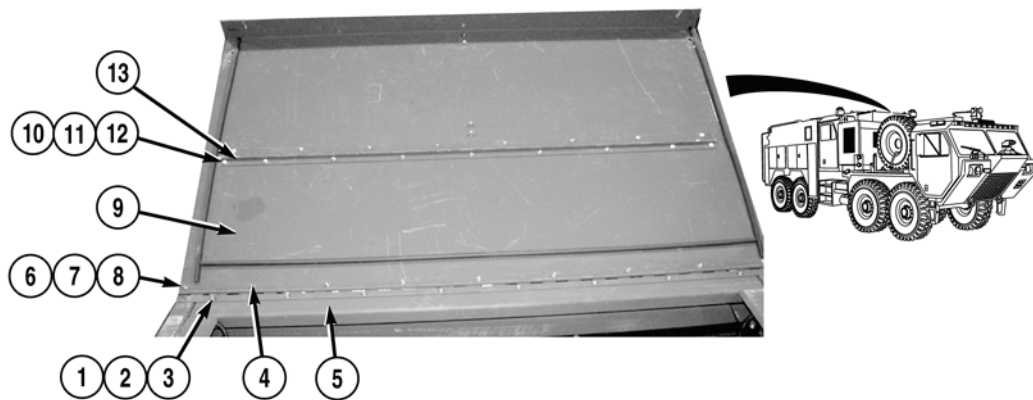
**References**

WP 0615, Fig. 58

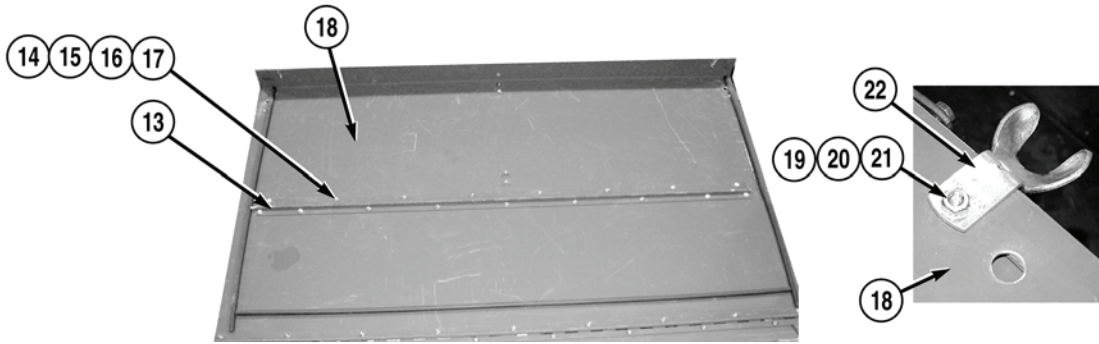
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)  
Pump panel cover opened (WP 0019)

## REMOVAL



1. Remove eight screws (1), lockwashers (2), washers (3), and hinge (4) from pump operator's panel housing (5). Discard lockwashers.
2. Remove nine locknuts (6), washers (7), screws (8), and hinge (4) from pump operator's panel cover A (9). Discard locknuts.
3. Remove nine locknuts (10), washers (11), screws (12), and hinge (13) from pump operator's panel cover A (9). Discard locknuts.

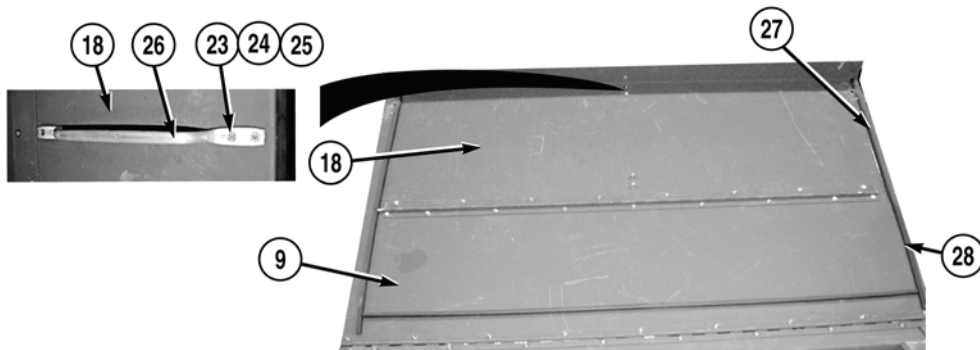


4. Remove eight locknuts (14), washers (15), screws (16), hinge (13), and plate (17) from pump operator's panel cover B (18). Discard locknuts.

**NOTE**

Both rubber hold-downs are removed the same way.

5. Remove locknut (19), washer (20), screw (21), and rubber hold-down (22) from pump operator's panel cover B (18). Discard locknut.



6. Remove four locknuts (23), washers (24), screws (25), and handle (26) from pump operator's panel cover B (18). Discard locknuts.
7. Remove two seals (27) from pump operator's panel cover B (18).
8. Remove three seals (28) from cover A (9).

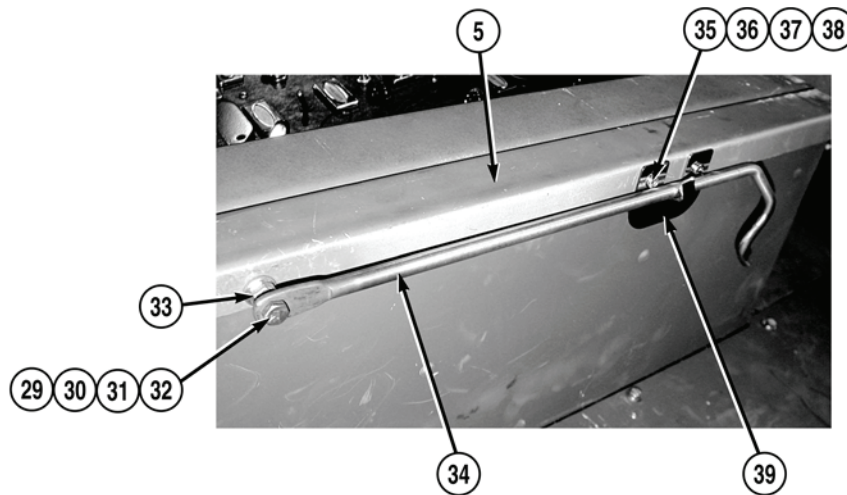
**WARNING**



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

9. Clean seal residue from two pump operator's panel covers A (9) and B (18).





### NOTE

Both support rods and support rod hold-downs are replaced the same way.

10. Remove nut (29), lockwasher (30), two washers (31), and screw (32) from pump operator's panel housing (5). Discard lockwasher.
11. Remove nut (33) and support rod (34) from screw (32).
12. Remove two nuts (35), lockwashers (36), washers (37), and screws (38) and support rod catch (39) from pump operator's panel housing (5). Discard lockwashers.

### END OF TASK

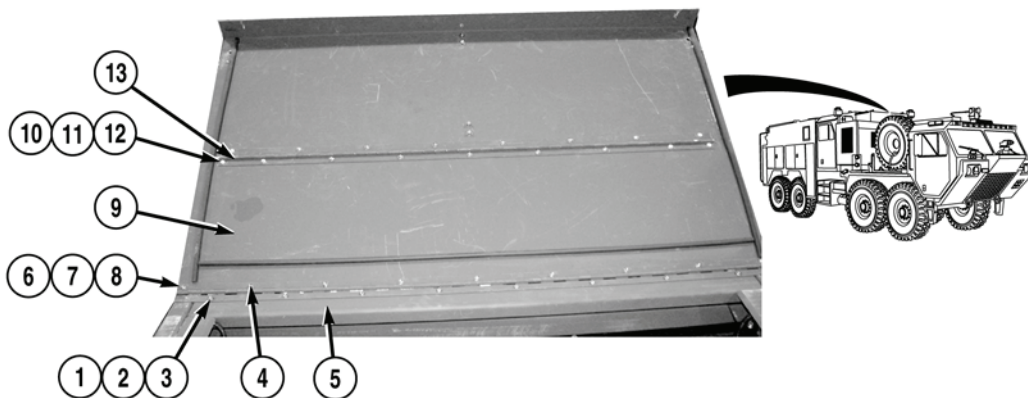
### INSTALLATION

1. Install support rod catch (39) on pump operator's panel housing (5) with two screws (38), washers (37), lockwashers (36), and nuts (35).
2. Install support rod (34) on screw (32) with nut (33).
3. Install screw (32) on pump operator's panel housing (5) with two washers (31), lockwasher (30), and nut (29).
4. Install three seals (28) on pump operator's panel cover A (9).
5. Install two seals (27) on pump operator's panel cover B (18).
6. Install handle (26) on pump operator's panel cover B (18) with four screws (25), washers (24), and locknuts (23).

### NOTE

Both rubber hold-downs are installed the same way.

7. Install rubber hold-down (22) on pump operator's panel cover B (18) with screw (21), washer (20), and locknut (19).
8. Install hinge (13) and plate (17) on pump operator's panel cover B (18) with eight screws (16), washers (15), and locknuts (14).



9. Install pump operator's panel cover A (9) on hinge (13) with nine screws (12), washers (11), and locknuts (10).
10. Install hinge (4) on pump operator's panel cover A (9) with nine screws (8), washers (7), and locknuts (6).
11. Install hinge (4) on pump operator's panel housing (5) with eight washers (3), lockwashers (2), and screws (1).

**END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

1. Close pump operator's panel cover (WP 0019)
2. Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL ENGINE DIAGNOSTICS PLUG REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 56

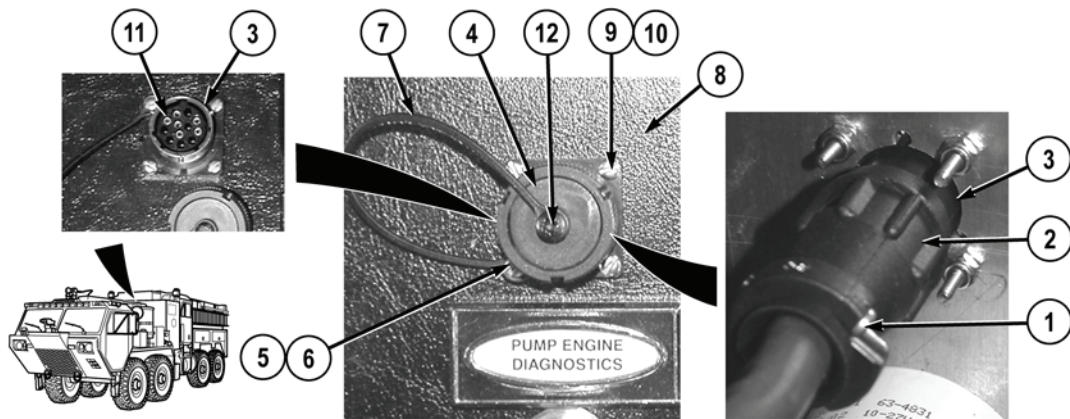
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Locknut (1)  
Locknut (3)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel housing opened  
(WP 0325)

## REMOVAL



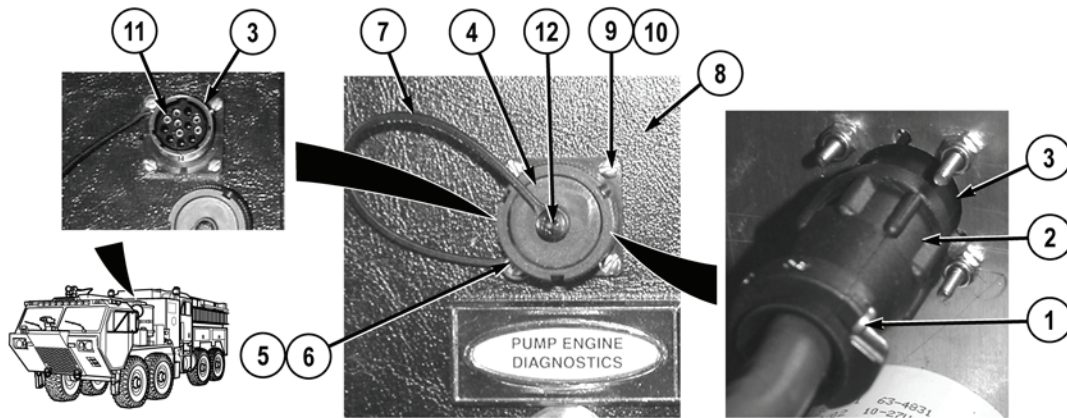
1. Loosen two screws (1).
2. Remove protective sleeve (2) from pump engine diagnostics plug (3).
3. Remove cap (4) from pump engine diagnostics plug (3).
4. Remove locknut (5), screw (6), and cable (7) from pump engine diagnostics plug (3) and pump panel (8). Discard locknut.
5. Remove three locknuts (9) and screws (10) from pump engine diagnostics plug (3) and pump panel (8). Discard locknut.
6. Close pump operator's panel housing (WP 0325)

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

7. Using extractor tool, remove six wires (11) from pump engine diagnostics plug (3).
8. Remove screw (12) and cable (7) from cap (4).

**END OF TASK**

**INSTALLATION**

1. Install cable (7) on cap (4) with screw (12).
2. Open pump operator's panel housing (WP 0325)
3. Install six wires (11) on pump engine diagnostics plug (3).
4. Install pump engine diagnostics plug (3) on pump panel (8) with three screws (10) and locknuts (9).
5. Install cable (7) on pump engine diagnostics plug (3) and pump panel (8) with screw (6) and locknut (5).
6. Install cap (4) on pump engine diagnostics plug (3).
7. Install protective sleeve (2) on pump engine diagnostics plug (3).
8. Tighten two screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Close pump operator's panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL FOAM LEVEL GAUGE REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

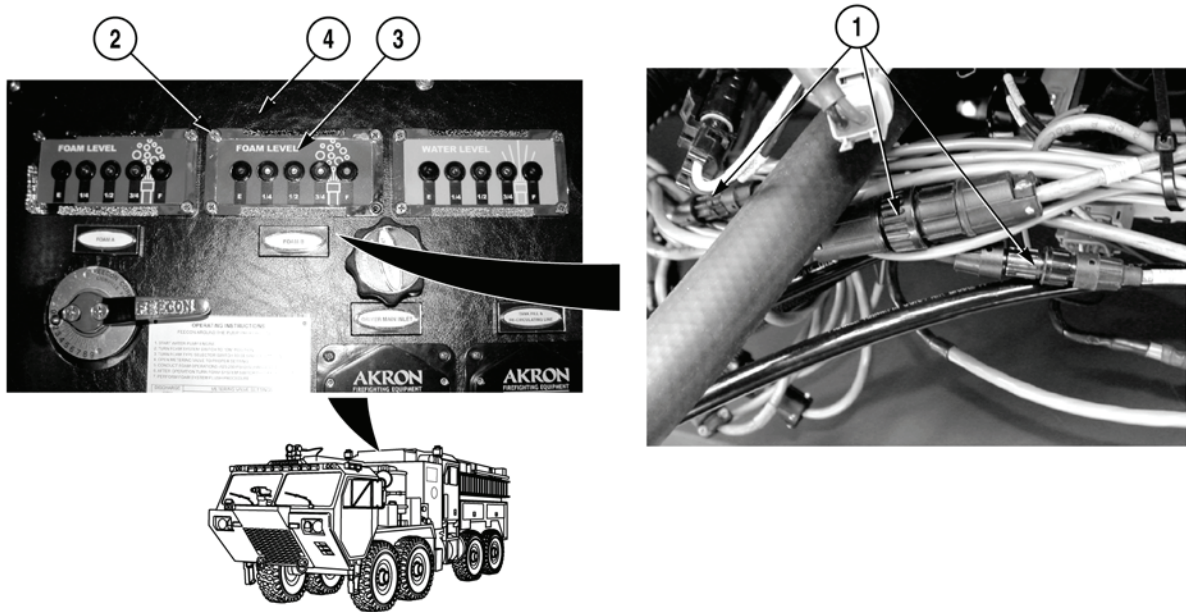
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel housing opened  
(WP 0325)

## REMOVAL

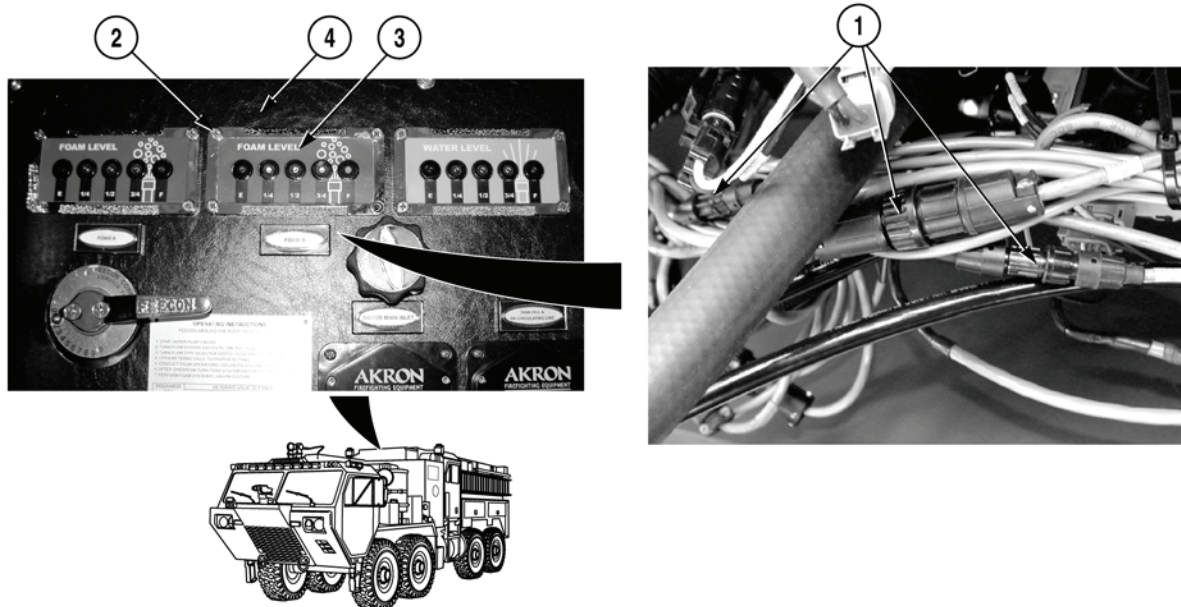
**NOTE**

- Both foam level gauges are replaced the same way.
- Tag and mark connectors prior to removal to ensure proper installation.
- Remove cable ties as needed.

1. Disconnect three connectors (1).
2. Remove four screws (2) and foam level gauge (3) from pump operator's panel (4).

**END OF TASK**

## INSTALLATION



1. Install foam level gauge (3) on pump operator's panel (4) with four screws (2).

### NOTE

Install cable ties as needed.

2. Connect three connectors (1).

**END OF TASK**

### FOLLOW-ON MAINTENANCE

1. Close pump operator's panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL FUEL GAUGE REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 56

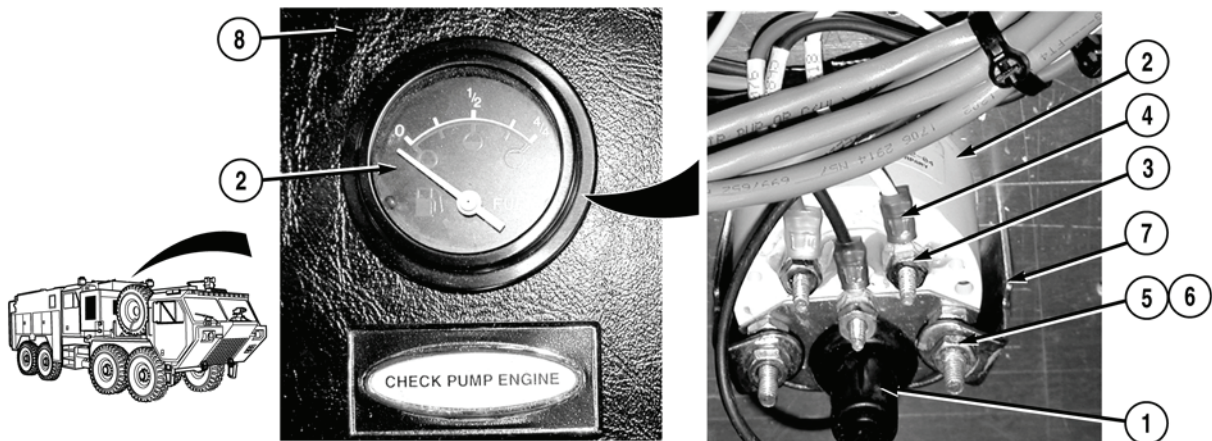
**Materials/Parts**

Adhesive, RTV 732 (WP 0625, Item 2)  
Tags, Identification (WP 0625, Item 51)  
Lockwasher (2)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel housing  
opened (WP 0325)

## REMOVAL



1. Remove light (1) from fuel gauge (2).

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

2. Remove three nuts (3) and wires (4) from fuel gauge (2).

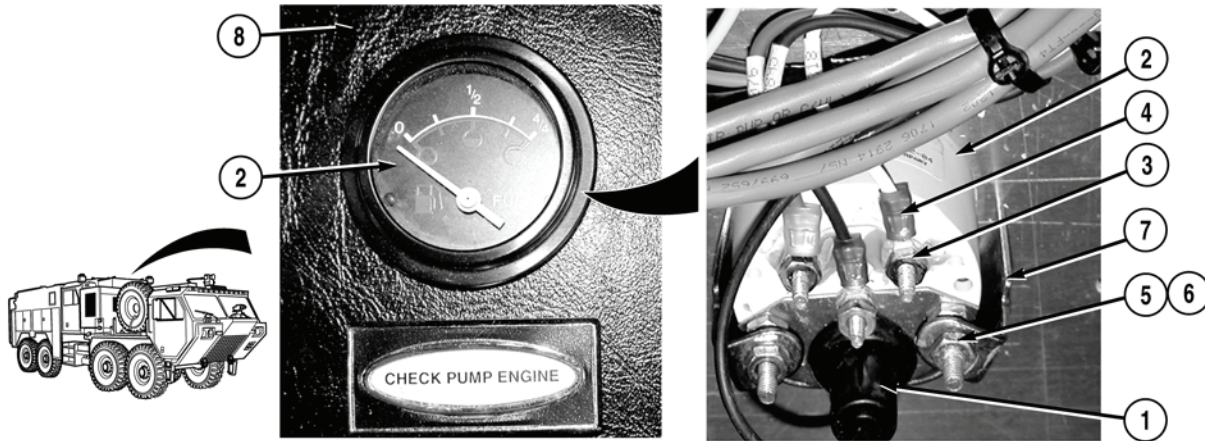
**NOTE**

Note position of fuel gauge prior to removal to ensure proper installation.

3. Remove two nuts (5), lockwashers (6), bracket (7), and fuel gauge (2) from pump operator's panel (8). Discard lockwashers.

## END OF TASK

## INSTALLATION

**NOTE**

Install fuel gauge as noted prior to removal.

1. Install fuel gauge (2) on pump operator's panel (8) with bracket (7), two lockwashers (6), and nuts (5).
2. Install three wires (4) on fuel gauge (2) with three nuts (3).

**WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

3. Apply electrical sealant to ends of three wires (4) and nuts (3).
4. Install light (1) in fuel gauge (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Close pump operator's panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL HOURMETER REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 56

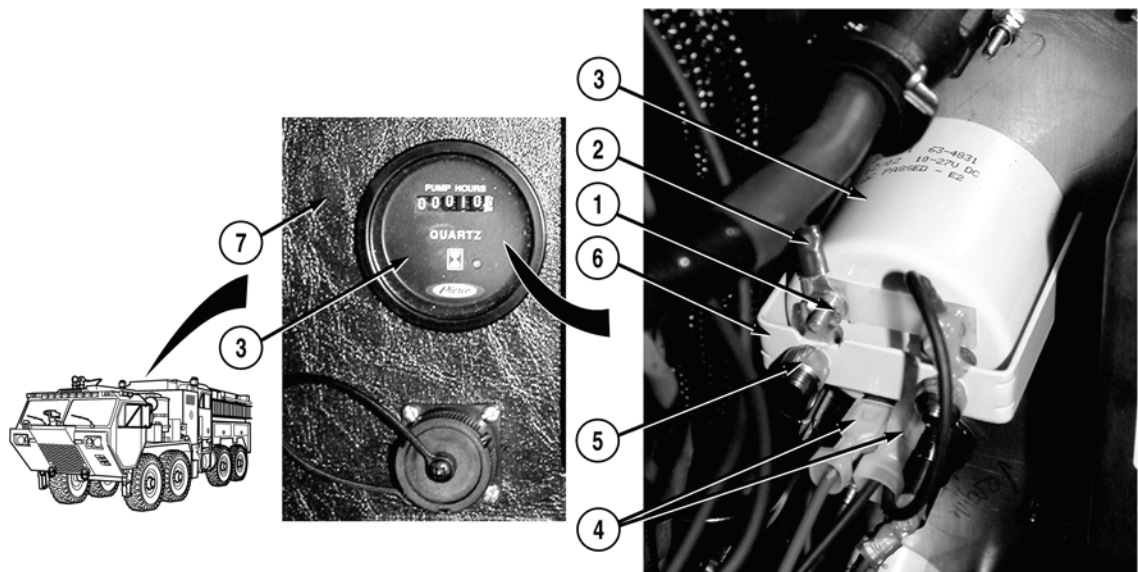
**Materials/Parts**

Adhesive, RTV 732 (WP 0625, Item 2)  
Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel housing  
opened (WP 0325)

## REMOVAL

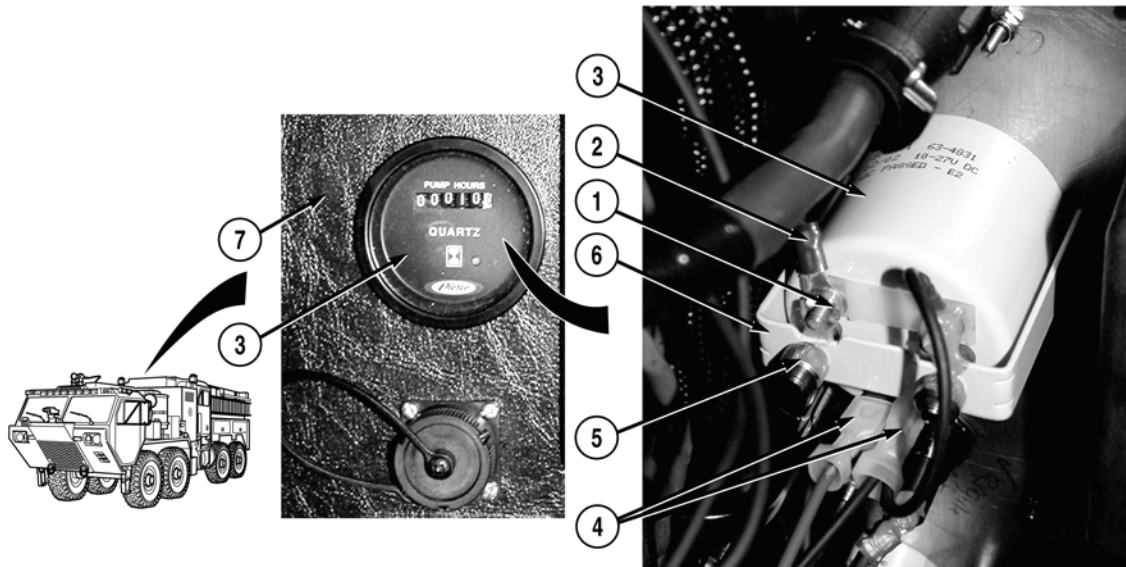
**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

1. Remove two nuts (1) and wires (2) from hour meter (3).
2. Remove two wires (4) from hour meter (3).
3. Remove two screws (5), bracket (6), and hour meter (3) from pump operator's panel (7).

**END OF TASK**

## INSTALLATION



1. Install hour meter (3) on pump operator's panel (7) with bracket (6) and two screws (5).
2. Install two wires (4) on hour meter (3).
3. Install two wires (2) on hour meter (3) with two nuts (1).

### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

4. Apply electrical sealant to ends of two wires (2) and screws (1).

### END OF TASK

### FOLLOW-ON MAINTENANCE

1. Close pump operator's panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

### END OF TASK

### END OF WORK PACKAGE

FIELD LEVEL MAINTENANCE

PUMP OPERATOR'S PANEL HOUSING OPEN/CLOSE

INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 47

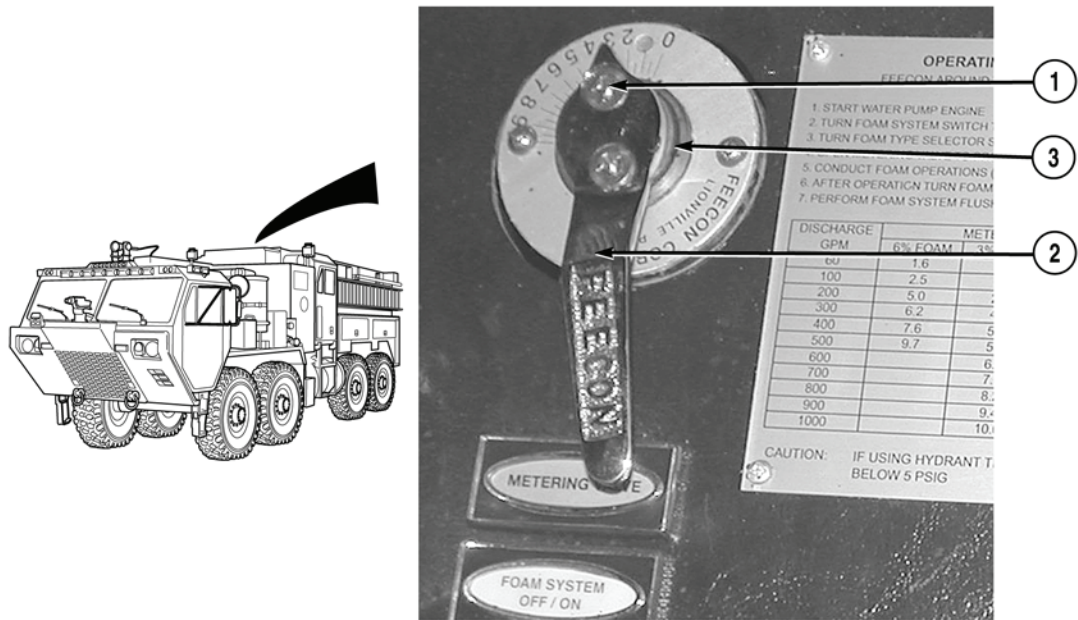
**Materials/Parts**

Lockwasher (2)

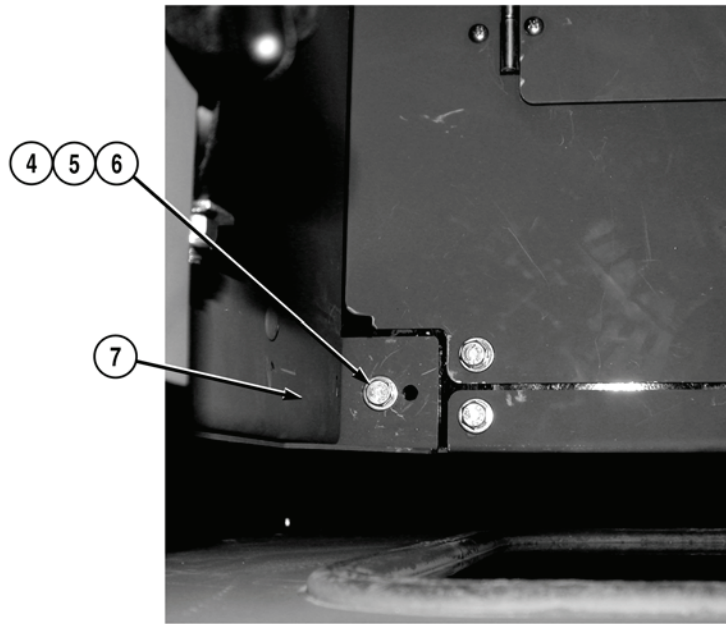
**Equipment Conditions**

Pump operator's panel cover opened (WP 0019)

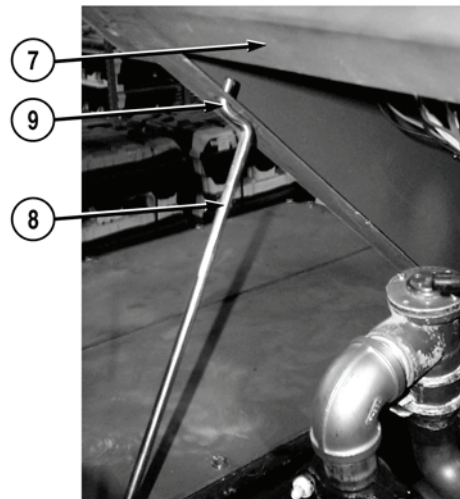
OPEN



1. Remove two screws (1) and manual metering valve handle (2) from manual foam valve (3).



2. Remove two screws (4), lockwashers (5), and washers (6) from pump operator's panel housing (7) and vehicle. Discard lockwashers.

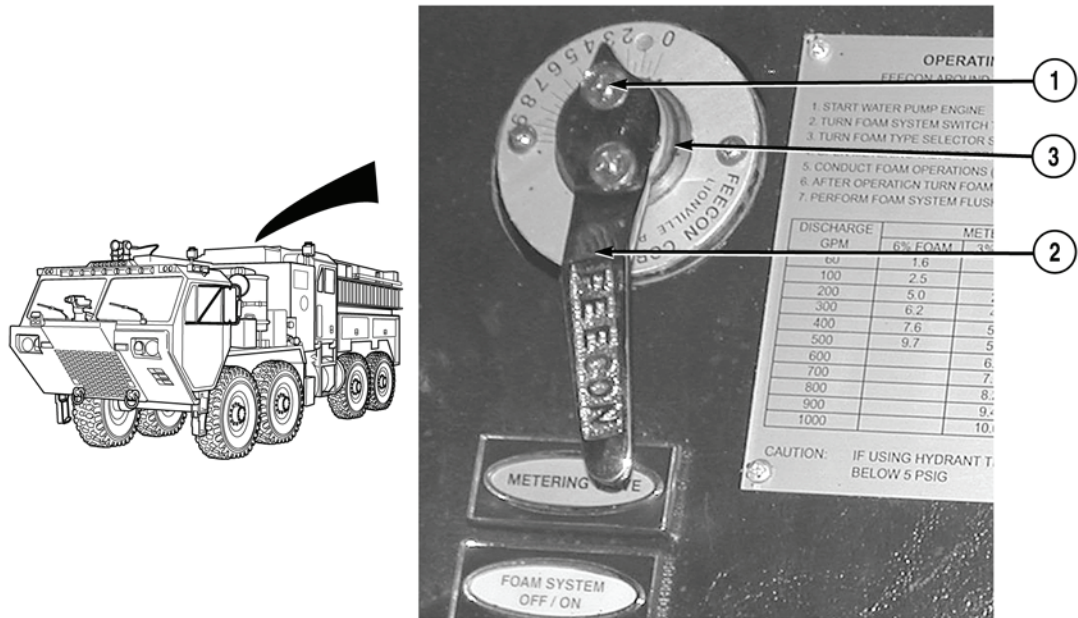


3. Lift pump operator's panel housing (7) and install rod (8) in hole (9) on bottom of pump operator's panel housing (7).

#### END OF TASK

#### CLOSE

1. Lift pump operator's panel housing (7) and remove rod (8) from hole (9) on bottom of pump operator's panel housing (7).
2. Install pump operator's panel housing (7) on vehicle with two washers (6), lockwashers (5), and screws (4).



3. Install manual metering valve handle (2) on manual foam valve (3) with two screws (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Close pump operator's panel cover (WP 0019)

**END OF TASK**

**END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL INDICATOR LIGHT REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 56

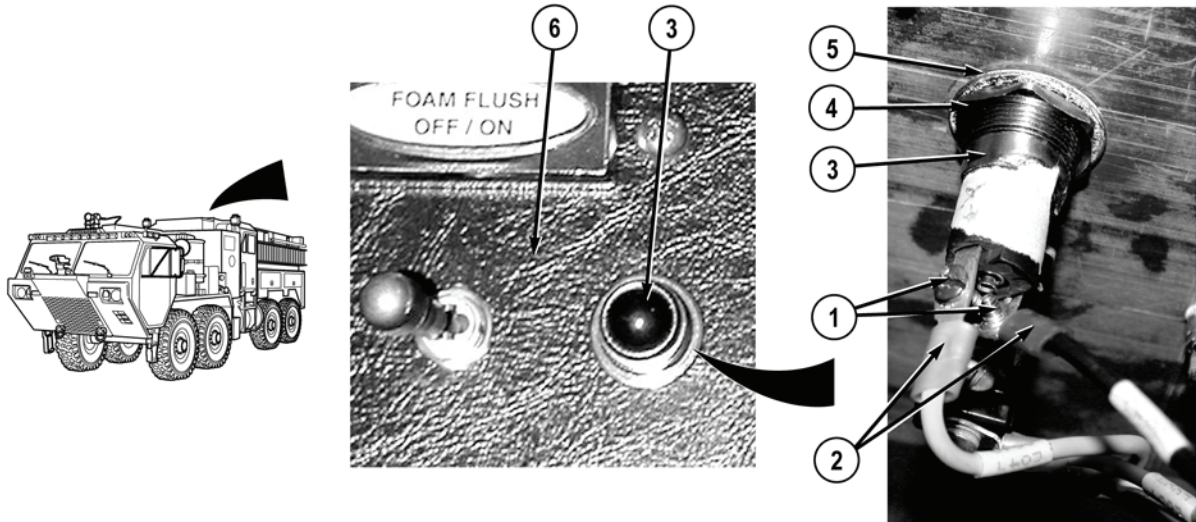
**Materials/Parts**

Adhesive, RTV 732 (WP 0625, Item 2)  
Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel housing opened  
(WP 0325)

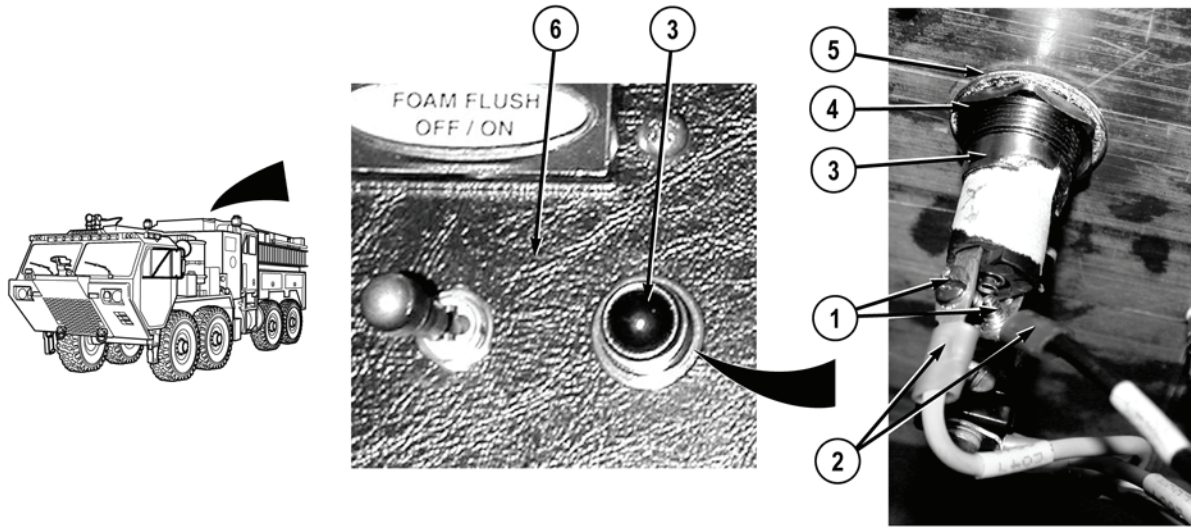
## REMOVAL

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

1. Remove two screws (1) and wires (2) from indicator light (3).
2. Remove nut (4), washer (5), and indicator light (3) from pump operator's panel (6).

**END OF TASK**

**INSTALLATION**

1. Install indicator light (3) on pump operator's panel (6) with washer (5) and nut (4).
2. Install two wires (2) on indicator light (3) with two screws (1).

**WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

3. Apply electrical sealant to two wires (2) and screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Close pump operator's panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL INDICATOR LAMP REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 56

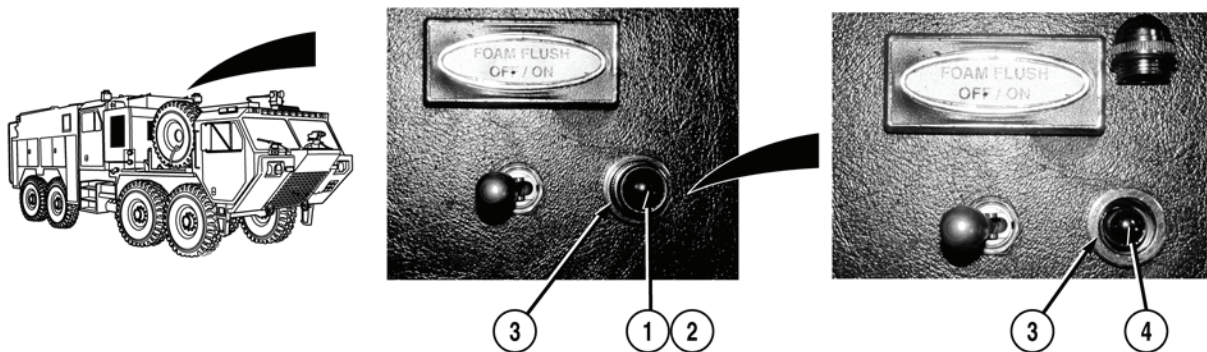
**Materials/Parts**

Preformed Packing (1)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel cover opened (WP 0019)

## REMOVAL



1. Remove lamp cover (1) and preformed packing (2) from alarm light (3). Discard preformed packing.
2. Remove alarm lamp (4) from alarm light (3).

## END OF TASK

## INSTALLATION

1. Install alarm lamp (4) in alarm light (3).
2. Install preformed packing (2) and lamp cover (1) on alarm light (3).

## END OF TASK

## FOLLOW-ON MAINTENANCE

1. Close pump operator's panel cover (WP 0019)
2. Connect batteries (TM 9-2320-325-14&P)

## END OF TASK

## END OF WORK PACKAGE



## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL LIGHT SWITCH REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 56

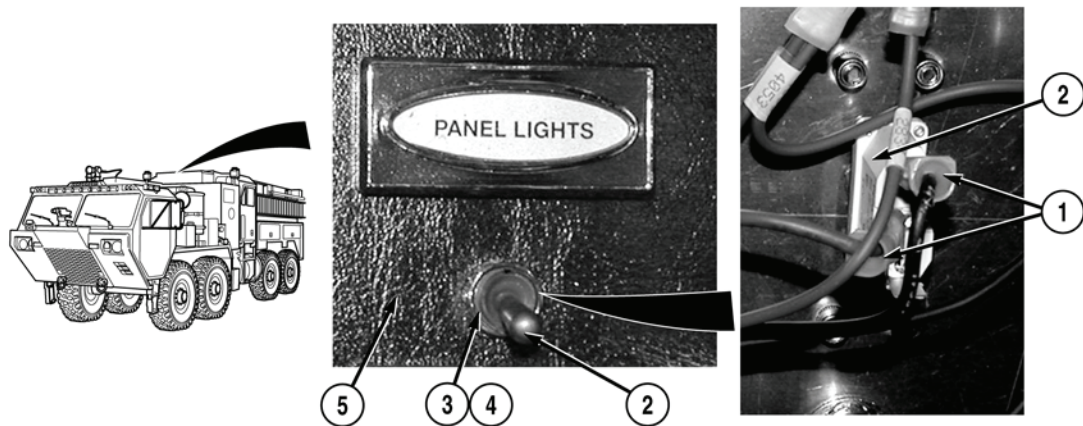
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel housing  
opened (WP 0325)

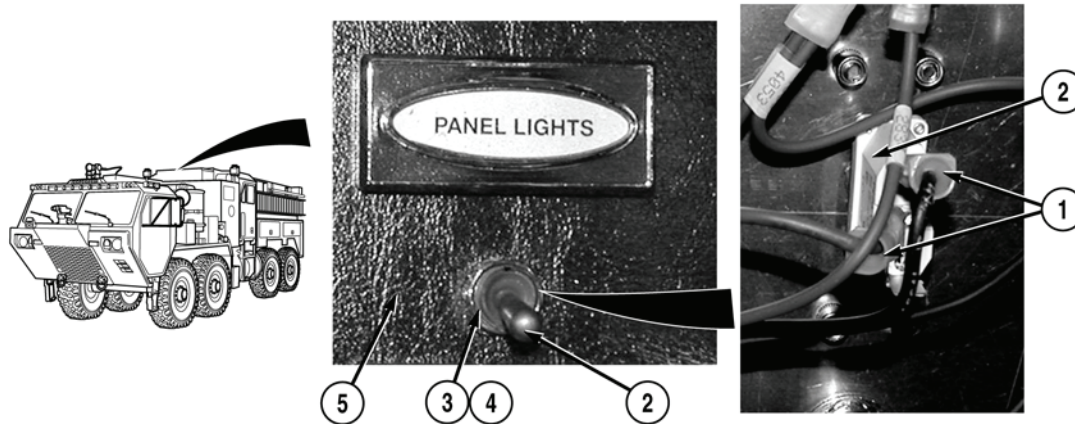
## REMOVAL

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

1. Remove two wires (1) from panel light switch (2).
2. Remove nut (3), washer (4), and panel light switch (2) from pump operator's panel (5).

**END OF TASK**

**INSTALLATION**

1. Install panel light switch (2) on pump operator's panel (5) with washer (4) and nut (3).
2. Install two wires (1) on panel light switch (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Close pump operator's panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL MANUAL PRIMER HANDLE REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Adhesive, RTV 732 (WP 0625, Item 2)

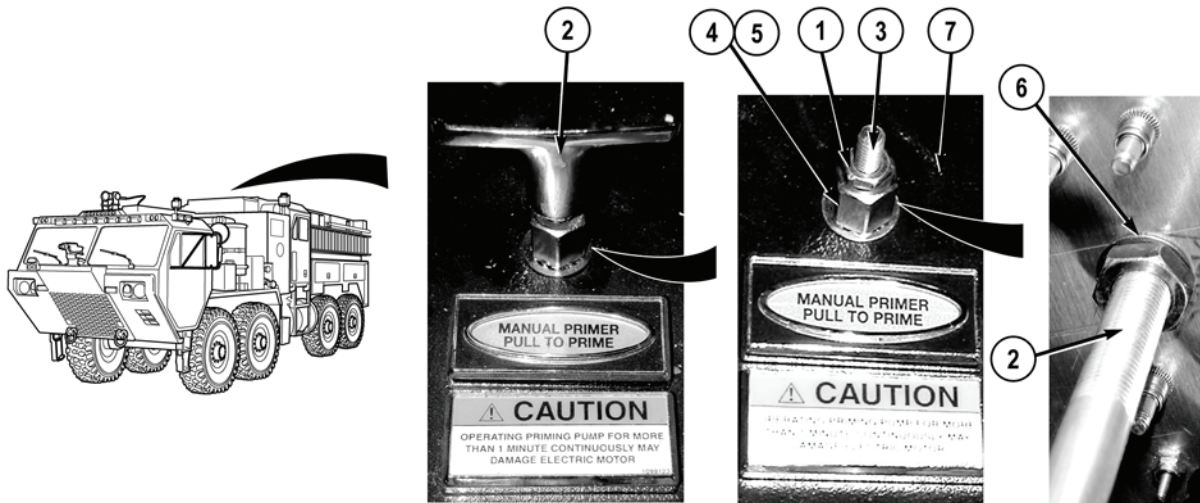
**References**

WP 0615, Fig. 56

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel housing opened  
(WP 0325)

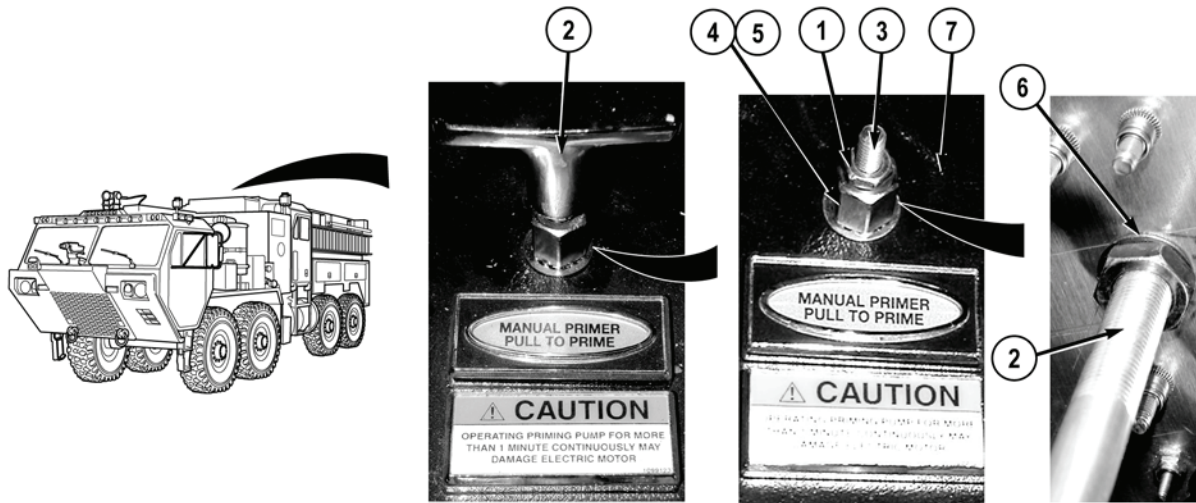
## REMOVAL

**NOTE**

Both primer handles are replaced the same way.

1. Hold nut (1) and remove handle (2) from cable (3).
2. Remove two nuts (1) and (4), washers (5) and (6), and cable (3) from pump operator's panel (7).

**END OF TASK**

**INSTALLATION**

1. Install cable (3) on pump operator's panel (7) with two washers (5) and (6) and nuts (1) and (4).
2. Hold nut (1) and install handle (2) on cable (3).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Close pump operator's panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL MOMENTARY TOGGLE SWITCH REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 56

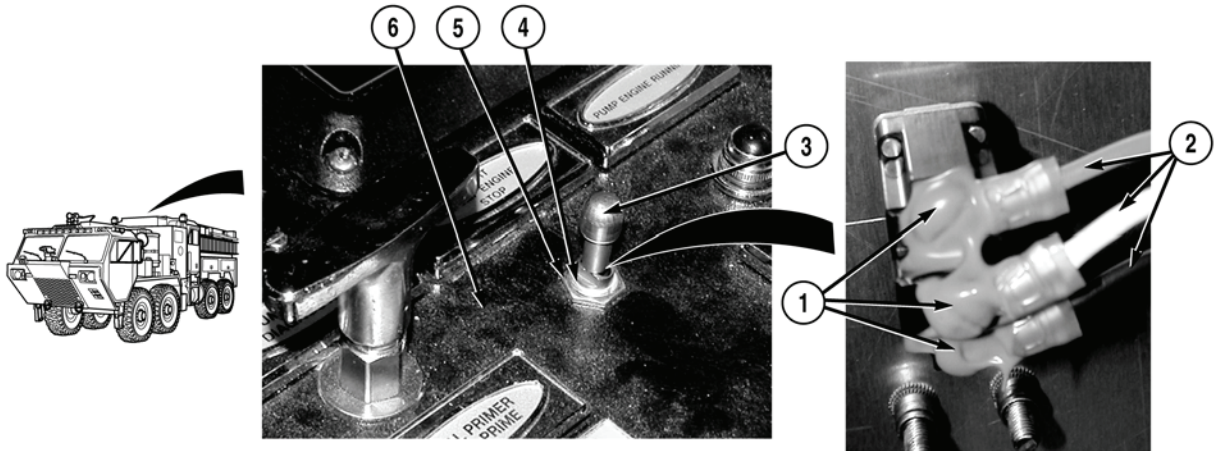
**Materials/Parts**

Adhesive, RTV 732 (WP 0625, Item 2)  
Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel housing  
opened (WP 0325)

## REMOVAL

**NOTE**

- Pump engine, tank-to-pump, pump cooler, foam tank, and foam system momentary toggle switches are removed the same way.
- Pump cooler momentary toggle switch has six wires.
- Tag and mark wires prior to removal to ensure proper installation.

1. Remove three screws (1) and wires (2) from pump engine momentary toggle switch (3).

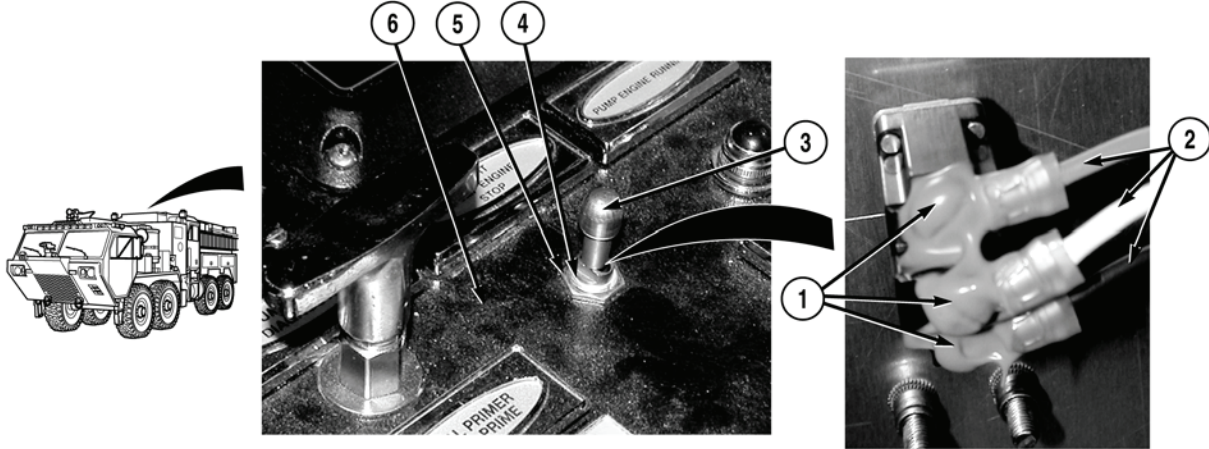
**NOTE**

Note position of momentary toggle switch and wires prior to removal to ensure proper installation.

2. Remove nut (4), washer (5), and pump engine momentary toggle switch (3) from pump operator's panel (6).

**END OF TASK**

## INSTALLATION



### NOTE

- Pump engine, tank-to-pump, pump cooler, foam tank, and foam system momentary toggle switches are installed the same way.
  - Pump cooler momentary switch has six wires.
  - Install momentary toggle switch as noted prior to removal.
1. Install pump engine momentary toggle switch (3) on pump operator's panel (6) with washer (5) and nut (4).
  2. Install three wires (2) on pump engine momentary toggle switch (3) with three screws (1).

### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

3. Apply electrical sealant to ends of three wires (2) and screws (1).

### END OF TASK

### FOLLOW-ON MAINTENANCE

1. Close pump operator's panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

### END OF TASK

### END OF WORK PACKAGE



## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL OVERHEAT TEST BUTTON

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 56

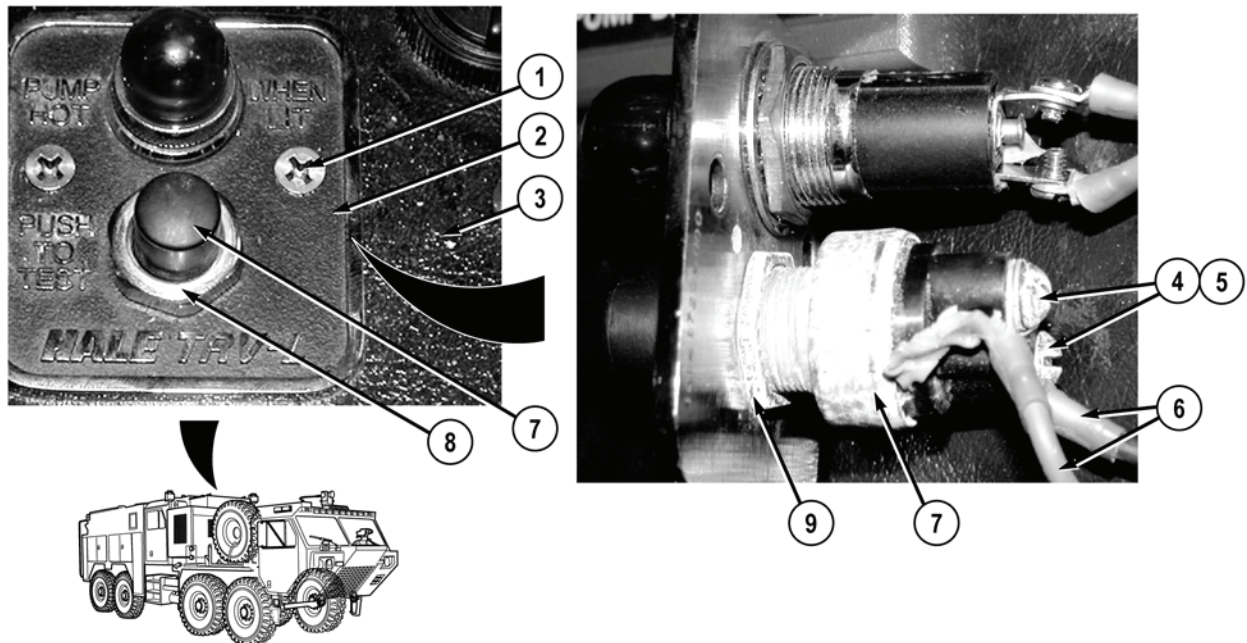
**Materials/Parts**

Adhesive, RTV 732 (WP 0625, Item 2)  
Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel cover opened (WP 0019)

## REMOVAL



1. Remove two screws (1) and cover plate (2) from pump operator's panel (3).

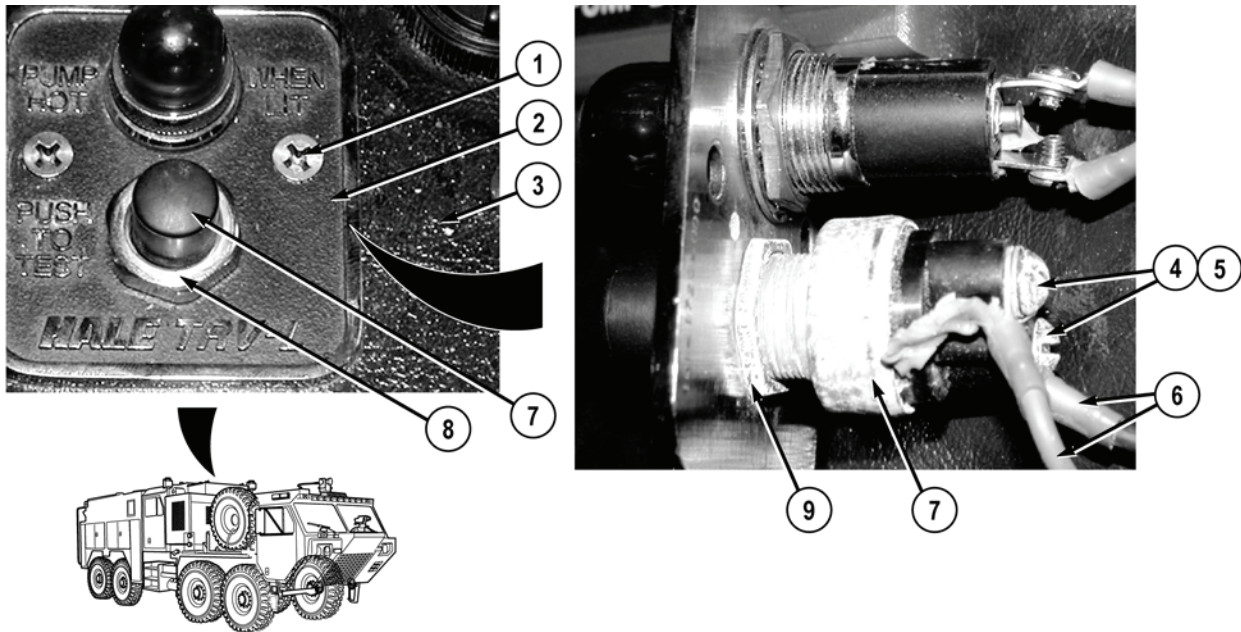
**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

2. Remove two screws (4), washers (5), and wires (6) from test button (7).
3. Remove nut (8) and test button (7) from cover plate (2).
4. Remove nut (9) from test button (7).

**END OF TASK**

**INSTALLATION**



1. Install/adjust nut (9) on test button (7).
2. Install test button (7) on cover plate (2) with nut (8).
3. Install two wires (6) on test button (7) with two washers (5) and screws (4).

**WARNING**



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

4. Apply electrical sealant to ends of two wires (6) and screws (4).
5. Install cover plate (2) on pump operator's panel (3) with two screws (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Close pump operator's panel cover (WP 0020)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL PRESSURE GOVERNOR CONTROL PANEL REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 56

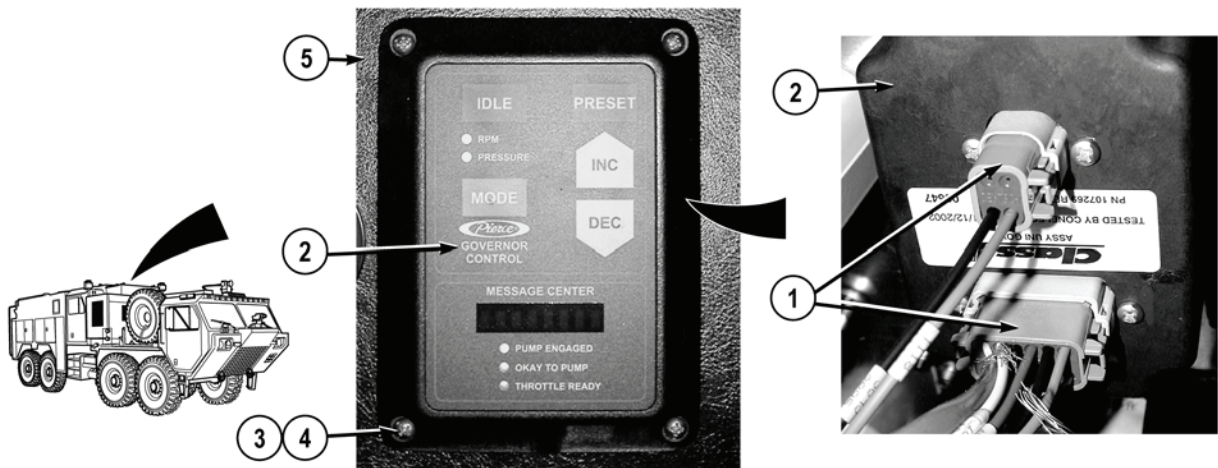
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel housing opened  
(WP 0325)

## REMOVAL

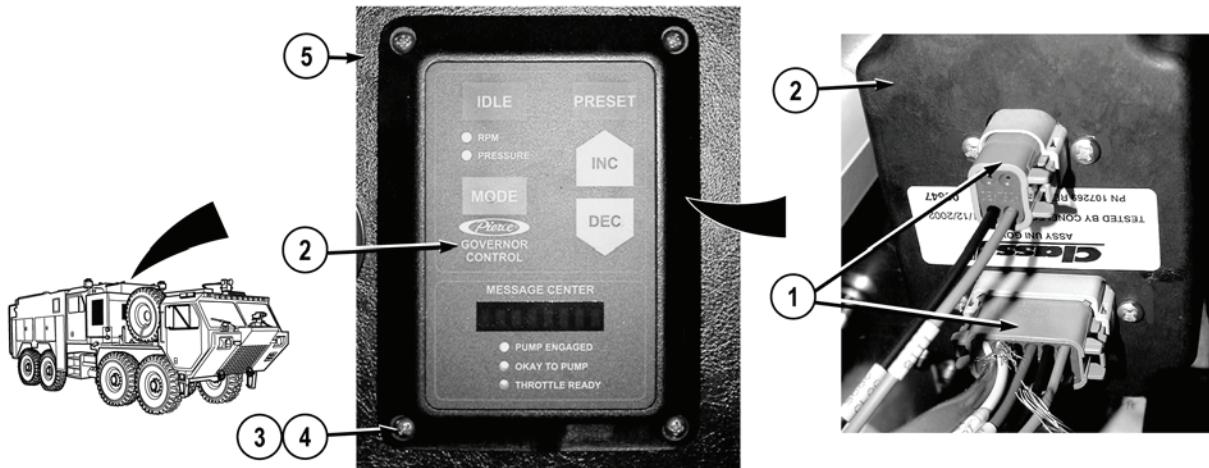
**NOTE**

Tag and mark connectors prior to removal to ensure proper installation.

1. Disconnect two connectors (1) from pressure governor control (2).
2. Remove four screws (3), washers (4), and pressure governor control (2) from pump operator's panel (5).

**END OF TASK**

**INSTALLATION**



1. Install pressure governor control (2) on pump operator's panel (5) with four washers (4) and screws (3).
2. Connect two connectors (1) on pressure governor control (2).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Close pump operator's panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL PRIMER SWITCH REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 56

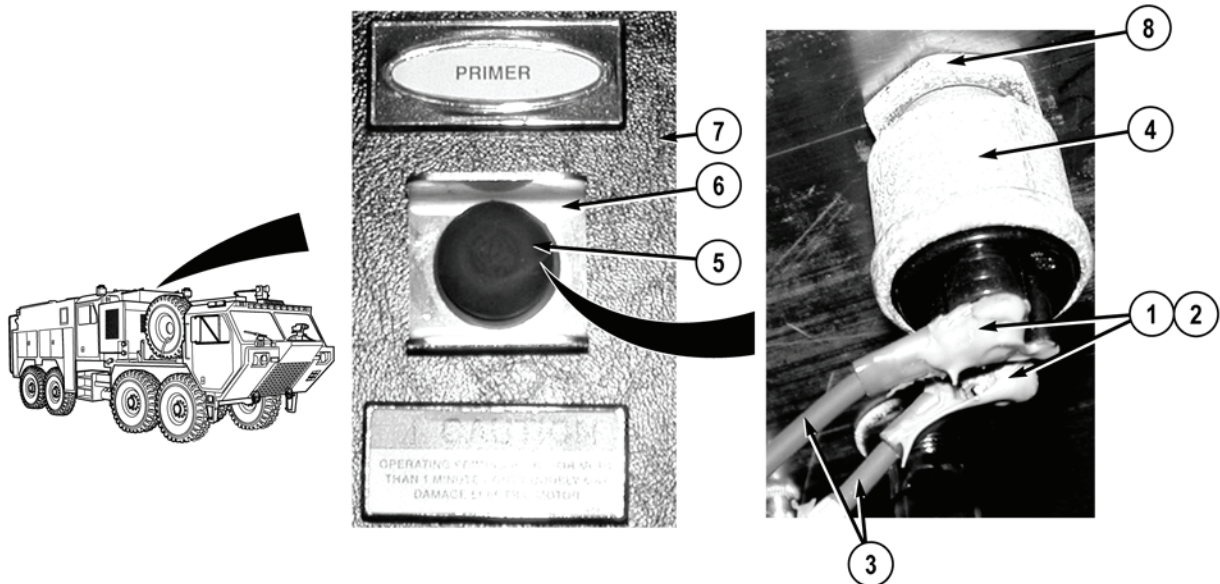
**Materials/Parts**

Adhesive, RTV 732 (WP 0625, Item 2)  
Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel housing opened  
(WP 0325)

## REMOVAL

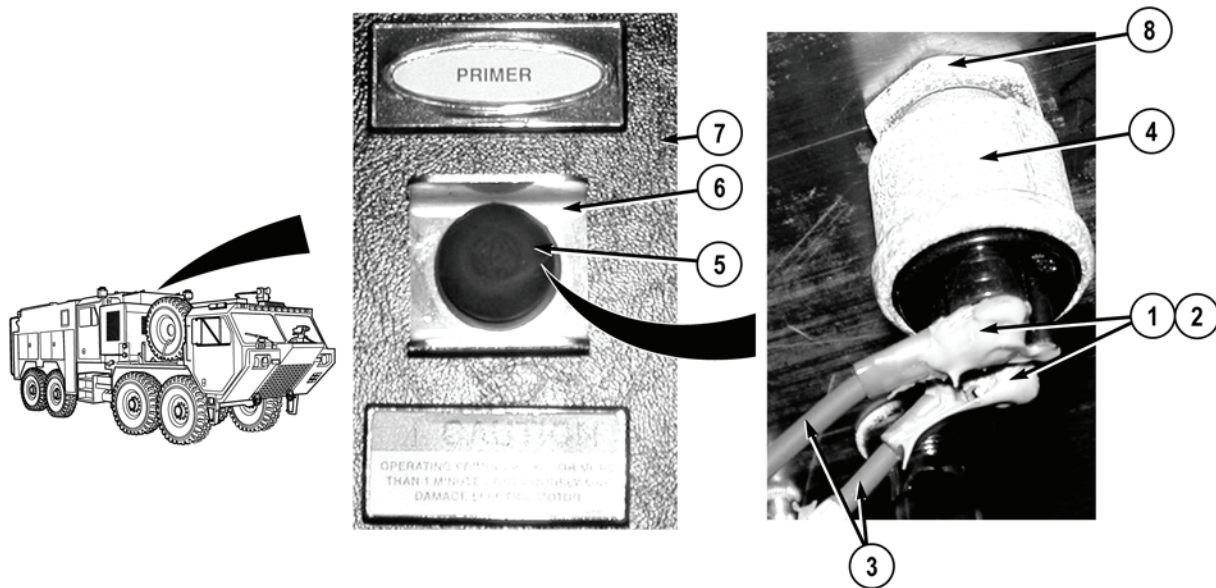
**NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
- Both primer switches are replaced the same way.

1. Remove two screws (1), washers (2), and wires (3) from primer switch (4).
2. Remove cover (5), guard (6), and primer switch (4) from pump operator's panel (7).
3. Remove nut (8) from primer switch (4).

**END OF TASK**

## INSTALLATION



1. Install/adjust nut (8) on primer switch (4).
2. Install primer switch (4) on pump operator's panel (7) with guard (6) and cover (5).
3. Install two wires (3) on primer switch (4) with two washers (2) and screws (1).

### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

4. Apply electrical sealant to ends of two wires (3) and screws (1).

### END OF TASK

### FOLLOW-ON MAINTENANCE

1. Close pump operator's panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

### END OF TASK

### END OF WORK PACKAGE

---

**FIELD LEVEL MAINTENANCE**
**PUMP OPERATOR'S PANEL REPLACEMENT**


---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Locknut (5)  
Lockwasher (10)

**References**

WP 0615, Fig. 56

**Equipment Conditions**

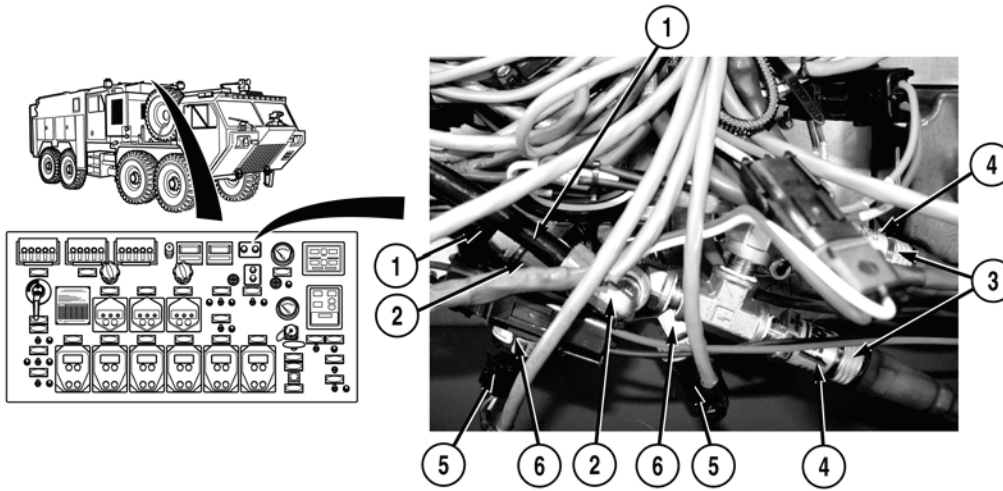
Pump operator's panel electric valve control/  
meters removed (WP 0417)  
Pump operator's panel electric valve controls  
removed (WP 0418)  
Pump operator's panel primer switch removed  
(WP 0333)  
Pump operator's panel manual primer handle  
removed (WP 0329)  
Pump operator's panel engine diagnostics plug  
removed (WP 0321)  
Pump operator's panel indicator lights removed  
(WP 0326)  
Pump operator's panel light switch removed  
(WP 0328)  
Pump operator's panel two-position toggle  
switches removed (WP 0338)  
Pump operator's panel momentary switches  
removed (WP 0330)

**Equipment Conditions (continued)**

Pump operator's panel three-position toggle  
switch removed (WP 0337)  
Pump operator's panel pressure governor control  
removed (WP 0332)  
Pump operator's panel hourmeter removed  
(WP 0324)  
Pump operator's panel overheat test button  
removed (WP 0331)  
Pump operator's panel audio alarms removed  
(WP 0319)  
Pump operator's panel water pump engine gauge  
panel removed (WP 0340)  
Pump operator's panel fuel level gauges removed  
(WP 0323)  
Passenger side auxiliary inlet and driver side  
main inlet bleeder valves removed (WP 0278)  
Digital flow meters removed (WP 0317)  
Pump operator's panel air flow restrictor indicator  
removed (WP 0318)  
Pump operator's panel water level gauge  
removed (WP 0339)  
Pump operator's panel foam level gauges  
removed (WP 0322)  
Pump operator's panel side light brackets  
removed (WP 0335)

---

**REMOVAL**



**NOTE**

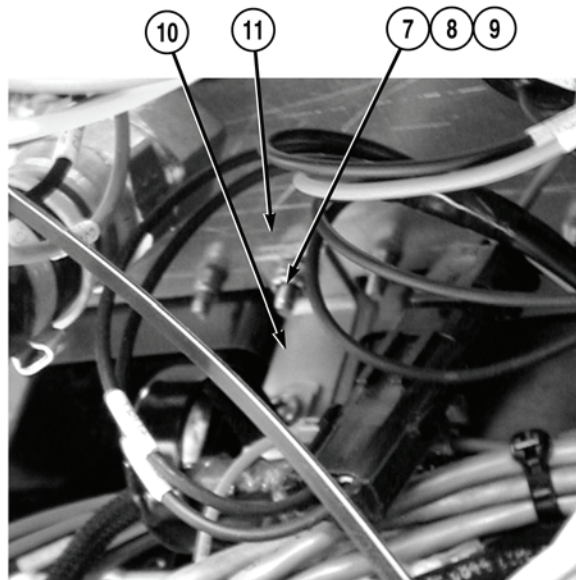
Tag and mark air lines prior to removal to ensure proper installation.

1. Remove two air lines (1) from elbows (2).

**NOTE**

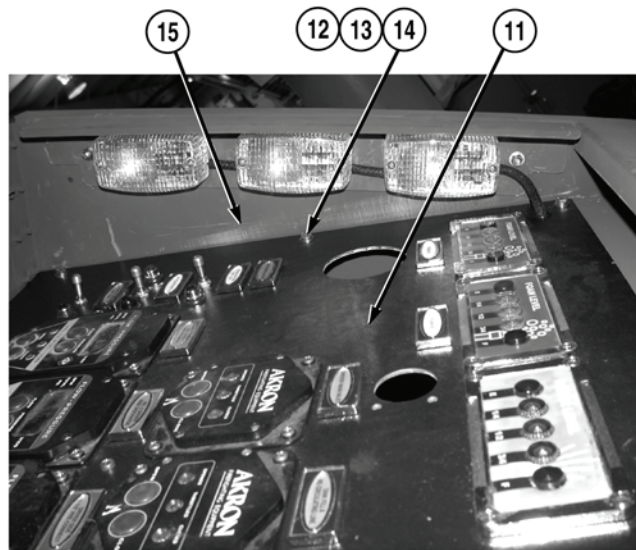
- Tag and mark connectors prior to removal to ensure proper installation.
- Remove cable ties as required.

2. Disconnect two connectors (3) from pressure transducers (4).
3. Disconnect two connectors (5) from pressure transducers (6).



4. Remove five locknuts (7), ten washers (8), five screws (9), and L-brackets (10) from pump operator's panel (11). Discard locknuts.



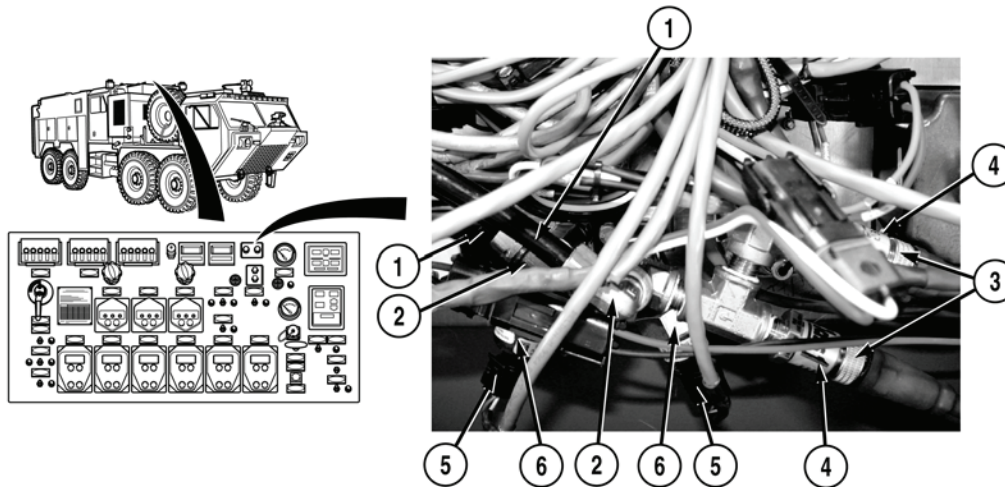


5. Remove ten screws (12), lockwashers (13), washers (14), and pump operator's panel (11) from pump operator's panel housing (15). Discard lockwashers.

#### END OF TASK

#### INSTALLATION

1. Install pump operator's panel (11) on pump operator's panel housing (15) with ten washers (14), lockwashers (13), and screws (12).
2. Install five L-brackets (10) on pump operator's panel (11) with five screws (9), ten washers (8), and five locknuts (7).

**NOTE**

Install cable ties as required.

3. Connect two connectors (5) on pressure transducers (6).
4. Connect two connectors (3) on pressure transducers (4).
5. Install two air lines (1) on elbows (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install pump operator's panel side light brackets (WP 0335)
2. Install pump operator's panel foam level gauges (WP 0322)
3. Install pump operator's panel water level gauge (WP 0339)
4. Install pump operator's panel air flow restrictor indicator (WP 0318)
5. Install digital flow meters (WP 0317)
6. Install passenger side auxiliary inlet and driver side main inlet bleeder valves (WP 0278)
7. Install pump operator's panel fuel level gauge (WP 0323)
8. Install pump operator's panel water pump engine gauge panel (WP 0340)
9. Install pump operator's panel audio alarms (WP 0319)
10. Install pump operator's panel overheat test button (WP 0331)
11. Install pump operator's panel hourmeter (WP 0324)

12. Install pump operator's panel pressure governor control (WP 0332)
13. Install pump operator's panel three-position toggle switch (WP 0337)
14. Install pump operator's panel momentary switches (WP 0330)
15. Install pump operator's panel two-position toggle switches (WP 0338)
16. Install pump operator's panel light switch (WP 0328)
17. Install pump operator's panel indicator lights (WP 0326)
18. Install pump operator's panel engine diagnostics plug (WP 0321)
19. Install pump operator's panel manual primer handle (WP 0329)
20. Install pump operator's panel primer switch (WP 0333)
21. Install pump operator's panel electric valve controls (WP 0418)
22. Install pump operator's panel electric valve control/meters (WP 0417)

**END OF TASK**

**END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL SIDE LAMP AND BRACKET REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)

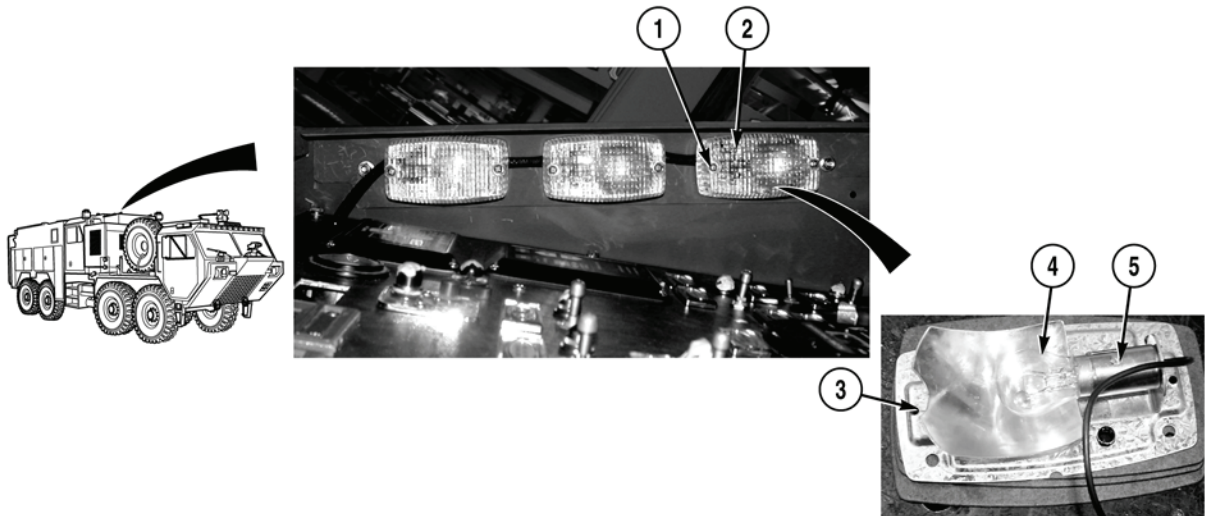
**References**

WP 0615, Fig. 56

**Equipment Conditions**

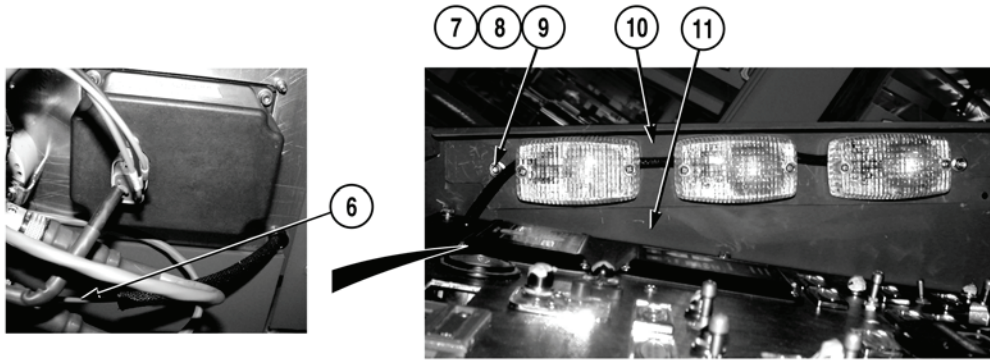
Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel housing opened  
(WP 0325)

## REMOVAL

**NOTE**

- Perform Steps (1) and (2) if side lamp needs to be removed.
- All side lamps are removed same way.

1. Remove two screws (1) and lens (2) from side lamp (3).
2. Remove lamp (4) from socket (5).



### NOTE

- Perform Steps (3) and (4) if pump panel side lamp bracket needs to be removed.
- Tag and mark wires prior to removal to ensure proper installation.
- Both side lamp brackets are removed the same way.

3. Cut two wires (6) (TM 9-2320-325-14&P).
4. Remove two locknuts (7), four washers (8), two screws (9), and side lamp bracket (10) from pump operator's panel housing (11).

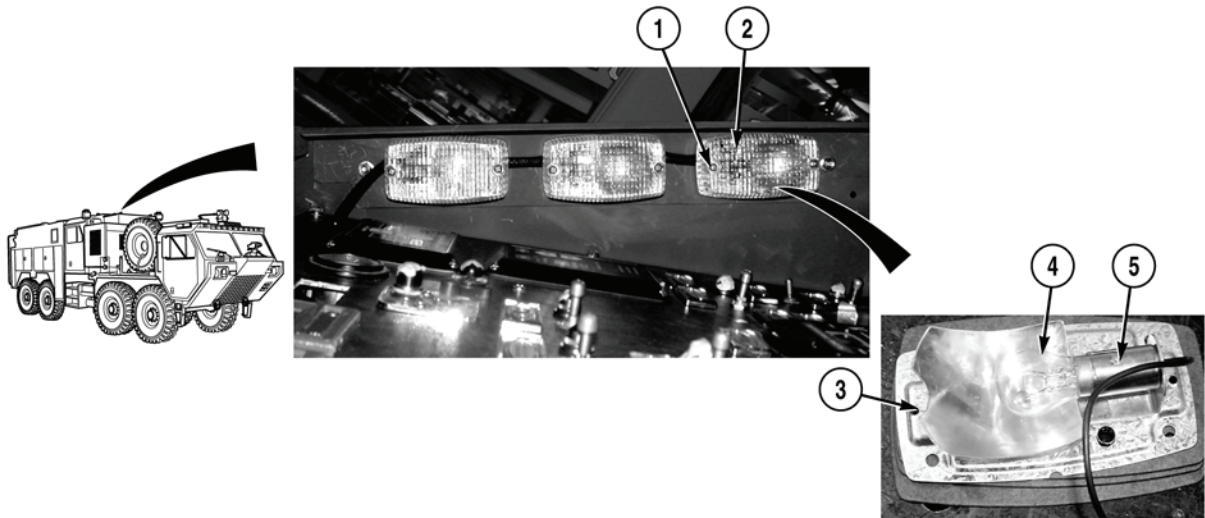
### END OF TASK

### INSTALLATION

### NOTE

- Perform Steps (1) and (2) if pump panel side lamp bracket was removed.
- Both side lamp brackets are installed the same way.

1. Install side lamp bracket (10) on pump panel housing (11) with two screws (9), four washers (8), and two locknuts (7).
2. Repair two wires (6) (TM 9-2320-325-14&P).



#### NOTE

- Perform Steps (3) and (4) if side lamp was removed.
- All side lamps are installed the same way.

3. Install lamp (4) in socket (5).
4. Install lens (2) on side lamp (3) with two screws (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Close pump operator's panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

#### END OF TASK

#### END OF WORK PACKAGE





**FIELD LEVEL MAINTENANCE**

**PUMP OPERATOR'S PANEL TEST GAUGE PANEL REPLACEMENT**

**INITIAL SETUP:**

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)  
Tags, Identification (WP 0625, Item 51)  
Lockwasher (1)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

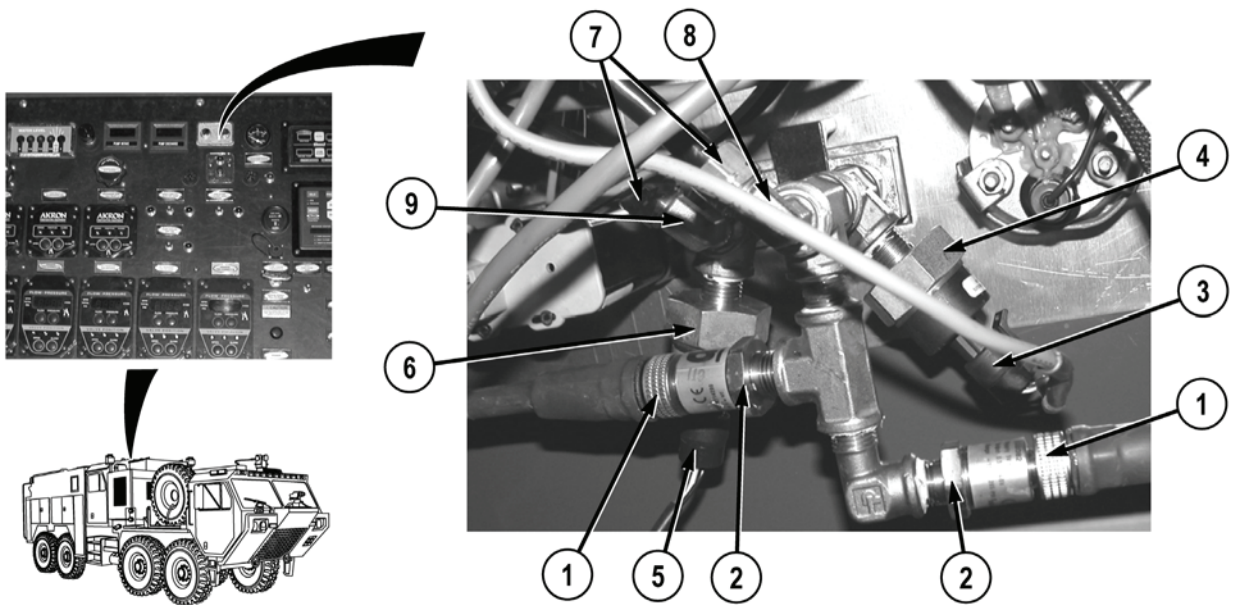
**References**

WP 0615, Fig. 56

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel housing opened  
(WP 0325)

**REMOVAL**



**NOTE**

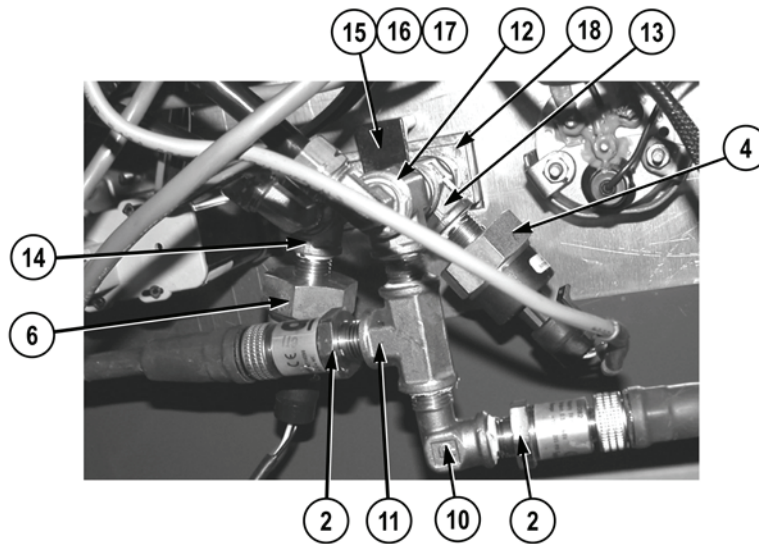
Tag and mark connectors prior to removal to ensure proper installation.

1. Disconnect two connectors (1) from governor control pressure transducers (2).
2. Disconnect connector (3) from output pressure transducer (4).
3. Disconnect connector (5) from input pressure transducer (6).

**NOTE**

Tag and mark air lines prior to removal to ensure proper installation.

4. Remove two air lines (7) from elbows (8) and (9).



### NOTE

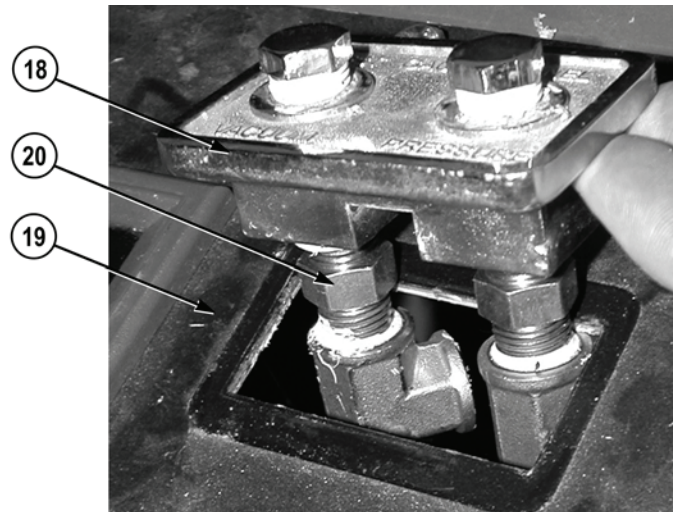
Note position of pressure transducers prior to removal to ensure proper installation.

5. Remove two governor control pressure transducers (2) from elbow (10) and tee (11).

### NOTE

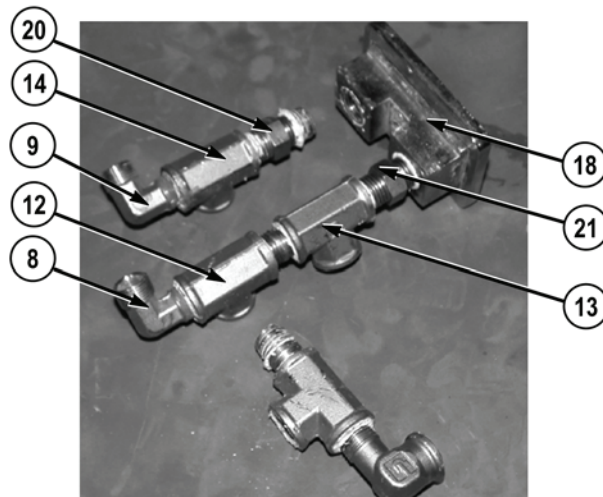
Note position of elbows, fittings, and tees prior to removal to ensure proper installation.

6. Remove tee (11) from tee (12).
7. Remove output pressure transducer (4) from tee (13).
8. Remove input pressure transducer (6) from tee (14).
9. Remove screw (15), lockwasher (16), and retainer (17) from test gauge panel (18). Discard lockwasher.

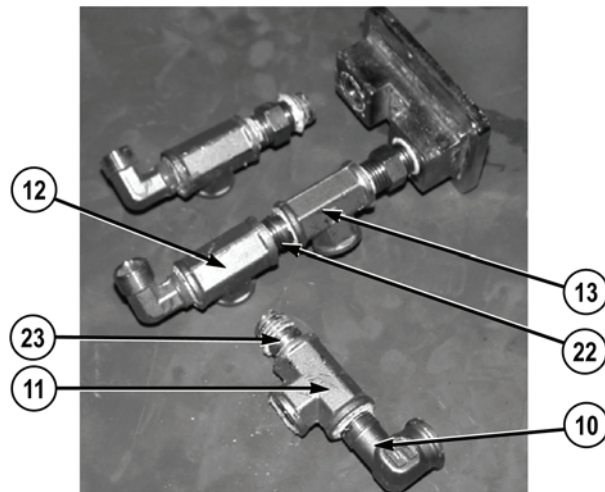
**NOTE**

Test gauge panel is not removed from pump operator's panel in Step (10). Test gauge panel is pulled up to access fitting that needs to be removed prior to removing pump operator's panel test gauge.

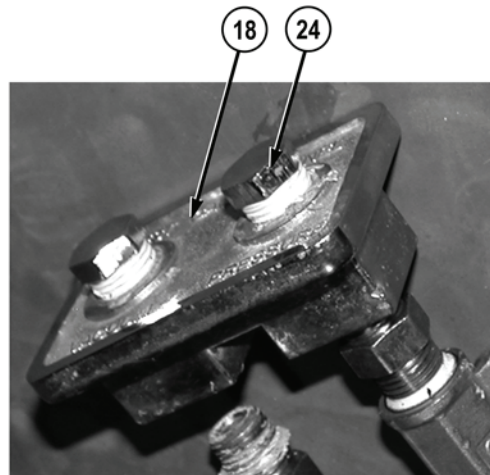
10. Pull panel test gauge panel (18) up from pump operator's panel (19).
11. Remove fitting (20) from test gauge panel (18).
12. Remove test gauge panel (18) from pump operator's panel (19).



13. Remove elbow (9) from tee (14).
14. Remove fitting (20) from tee (14).
15. Remove fitting (21) from test gauge panel (18).
16. Remove fitting (21) from tee (13).
17. Remove elbow (8) from tee (12).



18. Remove two tees (12) and (13) from nipple (22).
19. Remove elbow (10) from tee (11).
20. Remove nipple (23) from tee (11).



21. Remove two plugs (24) from test gauge panel (18).

**END OF TASK**

---

**INSTALLATION****WARNING**

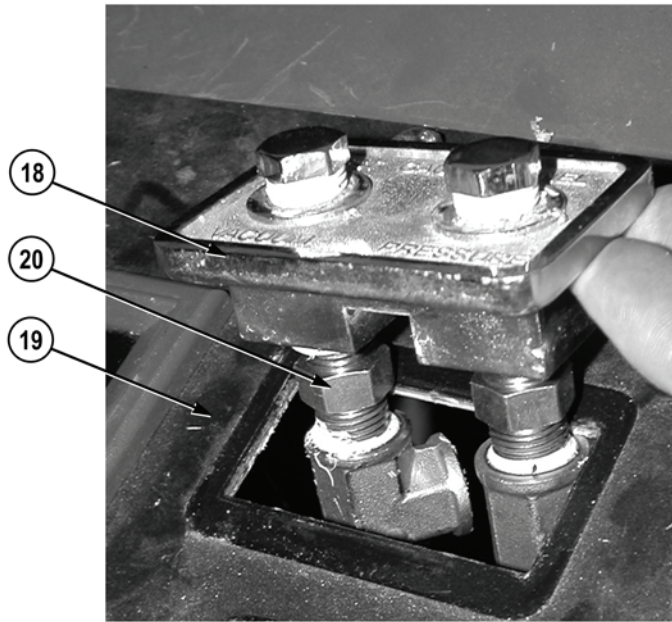
**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

1. Apply sealing compound to threads of three elbows (8), (9), and (10), two fittings (20) and (21), nipples (22) and (23), and plugs (24).
2. Install two plugs (24) on test gauge panel (18).

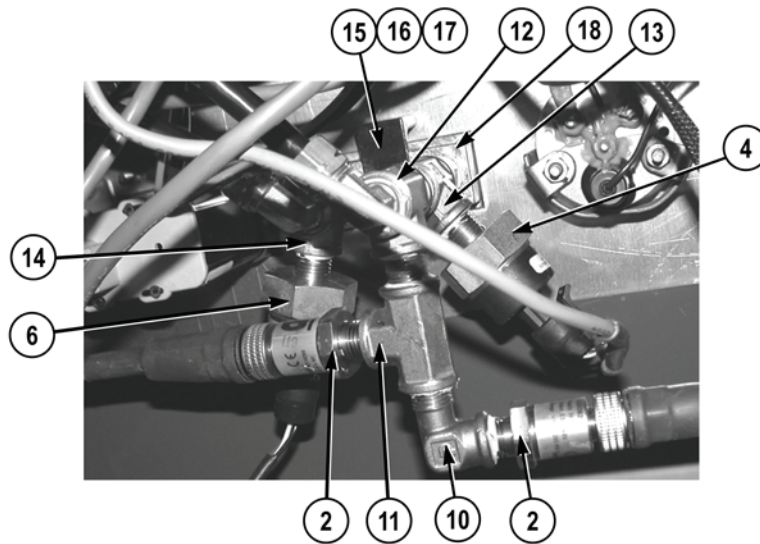
**NOTE**

Install elbows, fittings, and tees as noted prior to removal.

3. Install nipple (23) on tee (11).
4. Install elbow (10) on tee (11).
5. Install two tees (12) and (13) on nipple (22).
6. Install elbow (8) on tee (12).
7. Install fitting (21) on tee (13).
8. Install fitting (21) on test gauge panel (18).
9. Install fitting (20) on tee (14).
10. Install elbow (9) on tee (14).



11. Position test gauge panel (18) on pump operator's panel (19).
12. With the aid of an assistant, install fitting (20) on test gauge panel (18).
13. Install with retainer (17), lockwasher (16), and screw (15) to test gauge panel (18).



**WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

14. Apply sealing compound to two governor control pressure transducers (2), output pressure transducer (4), and input pressure transducer (6).
15. Install input pressure transducer (6) on tee (14).
16. Install output pressure transducer (4) on tee (13).
17. Install tee (11) on tee (12).
18. Install two governor control pressure transducers (2) on elbow (10) and tee (11).
19. Install two air lines (7) on elbows (8) and (9).
20. Connect connector (5) on input pressure transducer (6).
21. Connect connector (3) on output pressure transducer (4).
22. Connect two connectors (1) on governor control pressure transducers (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Close pump operator's panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**





## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL THREE-POSITION TOGGLE SWITCH REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 56

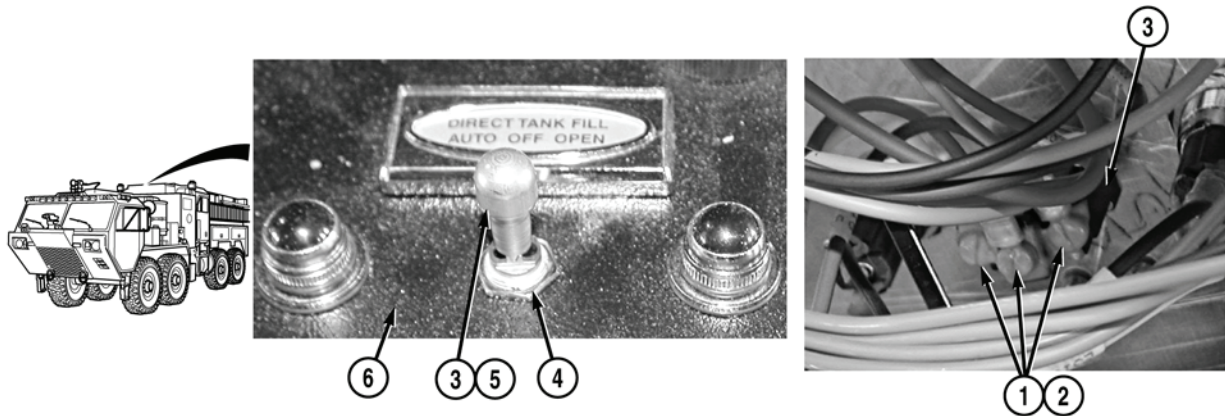
**Materials/Parts**

Adhesive, RTV 732 (WP 0625, Item 48)  
Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel housing  
opened (WP 0325)

## REMOVAL

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

1. Remove three screws (1) and wires (2) from three-position toggle switch (3).

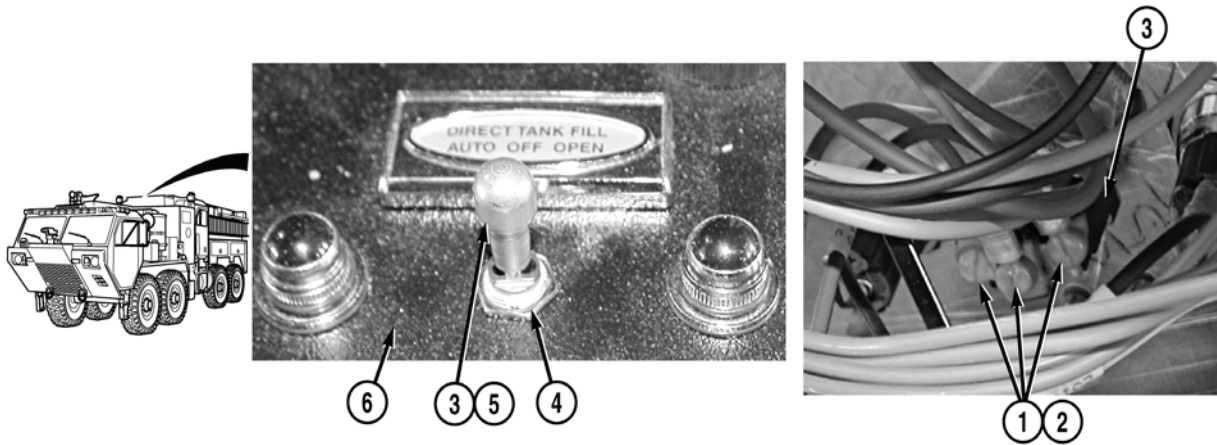
**NOTE**

Note position of three-position toggle switch and wires prior to removal to ensure proper installation.

2. Remove nut (4), washer (5), and three-position toggle switch (3) from pump operator's panel (6).

**END OF TASK**

## INSTALLATION



### NOTE

Install three-position toggle switch as noted prior to removal.

1. Install three-position toggle switch (3) on pump operator's panel (6) with washer (5) and nut (4).
2. Install three wires (2) on three-position toggle switch (3) with three screws (1).

### WARNING



Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

3. Apply electrical sealant to ends of three wires (2) and screws (1).

### END OF TASK

### FOLLOW-ON MAINTENANCE

1. Close pump operator's panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

### END OF TASK

### END OF WORK PACKAGE

## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL TWO-POSITION TOGGLE SWITCH REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 56

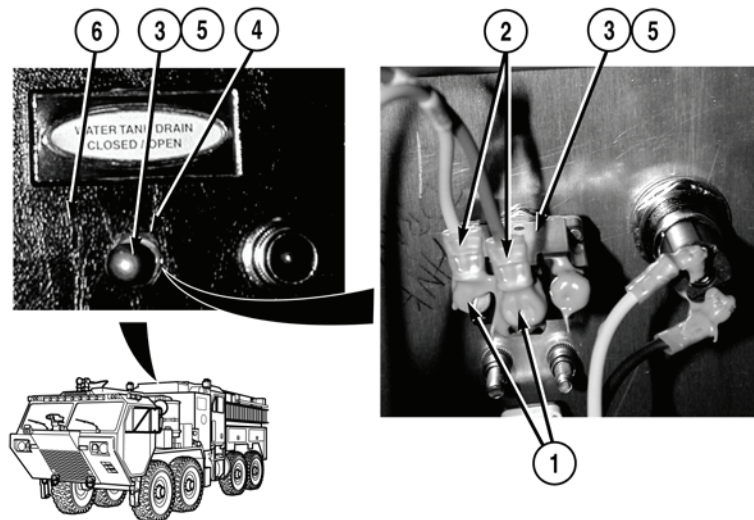
**Materials/Parts**

Adhesive, RTV 732 (WP 0625, Item 2)  
Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel housing  
opened (WP 0325)

## REMOVAL

**NOTE**

- Water tank drain and foam flush two-position toggle switches are removed the same way. Water tank drain two-position toggle switch shown.
- Foam flush two-position toggle switch is equipped with three wires.
- Tag and mark wires prior to removal to ensure proper installation.

1. Remove two screws (1) and wires (2) from two-position toggle switch (3).

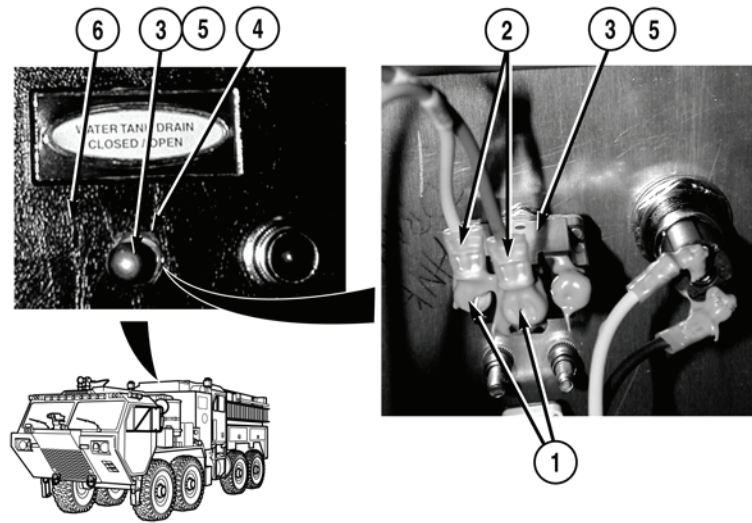
**NOTE**

Note orientation of two-position toggle switch prior to removal to ensure proper installation.

2. Remove nut (4), washer (5), and two-position toggle switch (3) from pump operator's panel (6).

**END OF TASK**

## INSTALLATION



### NOTE

Install two-position toggle switch and wires as noted prior to removal.

1. Install two-position toggle switch (3) on pump operator's panel (6) with washer (5) and nut (4).
2. Install two wires (2) on two-position toggle switch (3) with two screws (1).

### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

3. Apply electrical sealant to ends of two wires (2) and screws (1).

### END OF TASK

### FOLLOW-ON MAINTENANCE

1. Close pump operator's panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

### END OF TASK

### END OF WORK PACKAGE

## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL WATER LEVEL GAUGE REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 56

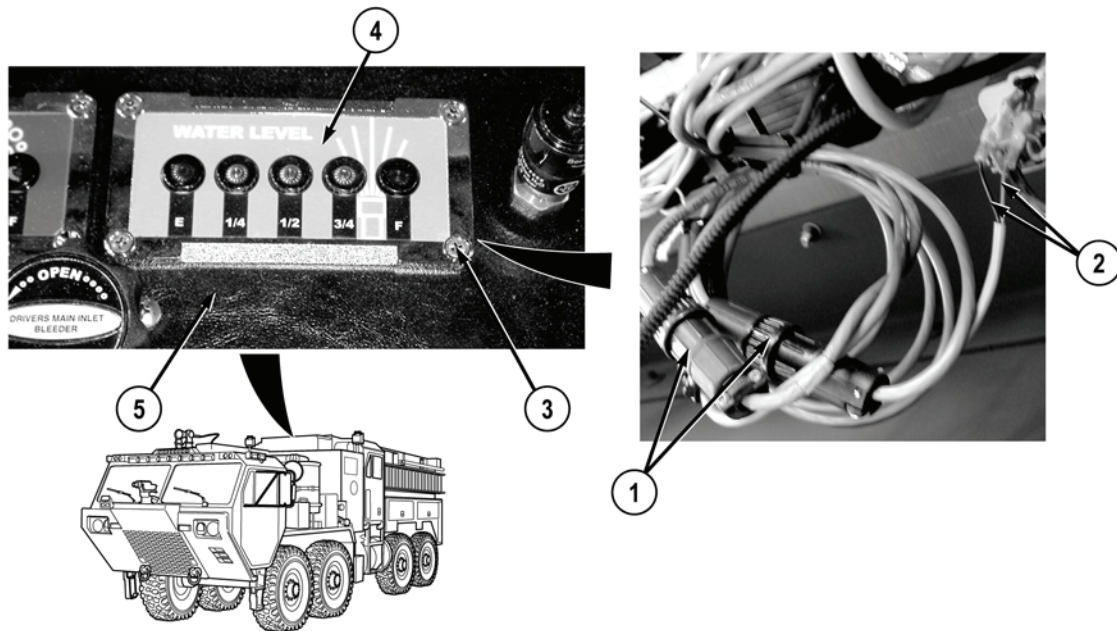
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel housing opened  
(WP 0325)

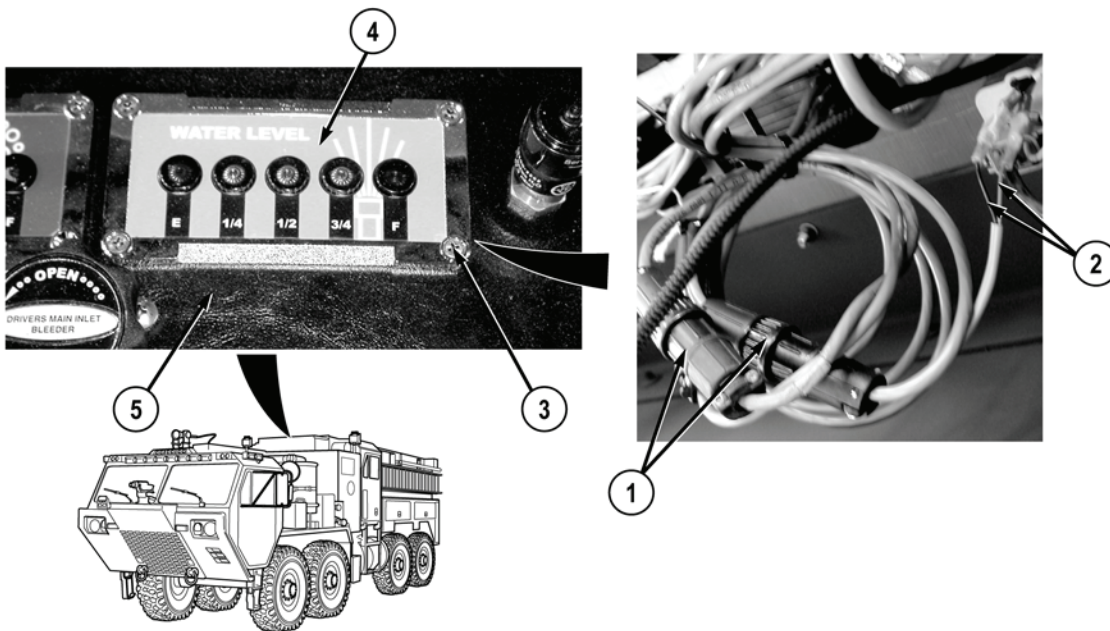
## REMOVAL

**NOTE**

- Tag and mark connectors and wires prior to removal to ensure proper installation.
- Remove cable ties as required.

1. Disconnect three connectors (1).
2. Cut two wires (2) (TM 9-2320-325-14&P).
3. Remove four screws (3) and water level gauge (4) from pump operator's panel (5).

**END OF TASK**

**INSTALLATION**

1. Install water level gauge (4) on pump operator's panel (5) with four screws (3).
2. Repair two wires (2) (TM 9-2320-325-14&P).

**NOTE**

Install cable ties as required.

3. Connect three connectors (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Close pump operator's panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## WATER PUMP ENGINE GAUGE PANEL REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 56

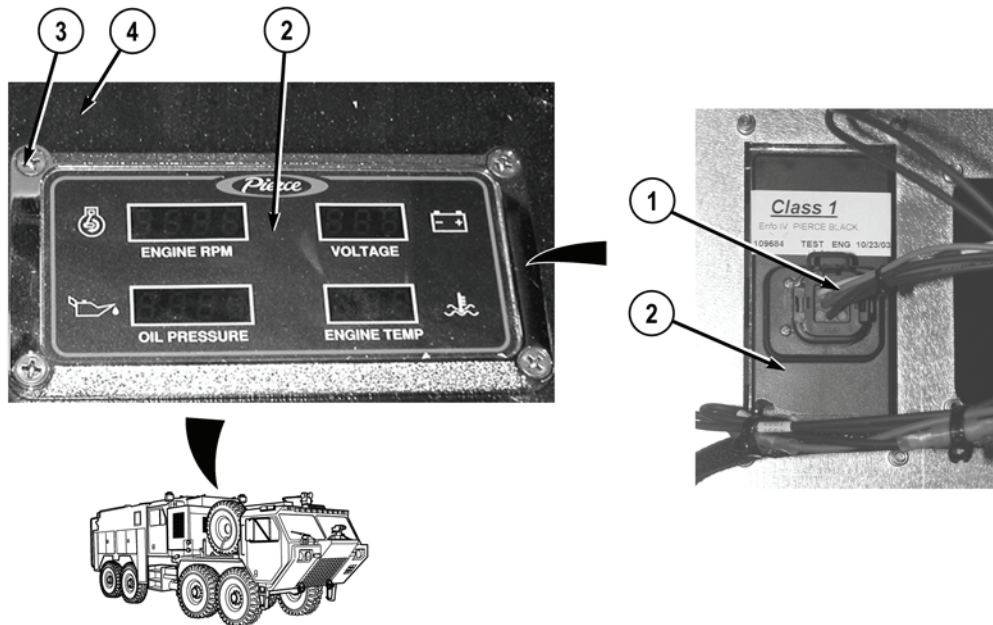
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump operator's panel housing opened  
(WP 0325)

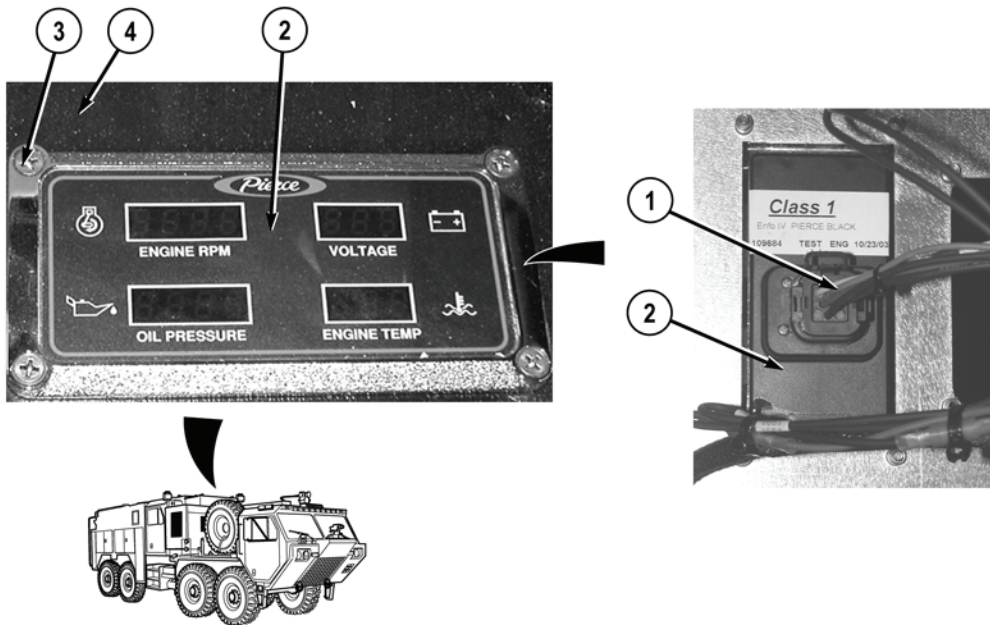
## REMOVAL

**NOTE**

Tag and mark connectors prior to removal to ensure proper installation.

1. Disconnect connector (1) from water pump engine gauge panel (2).
2. Remove four screws (3) and water pump engine gauge panel (2) from pump operator's panel (4).

**END OF TASK**

**INSTALLATION**

1. Install water pump engine gauge panel (2) on pump operator's panel (4) with four screws (3).
2. Connect connector (1) on water pump engine gauge panel (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Close pump operator's panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**SIREN CONTROL REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

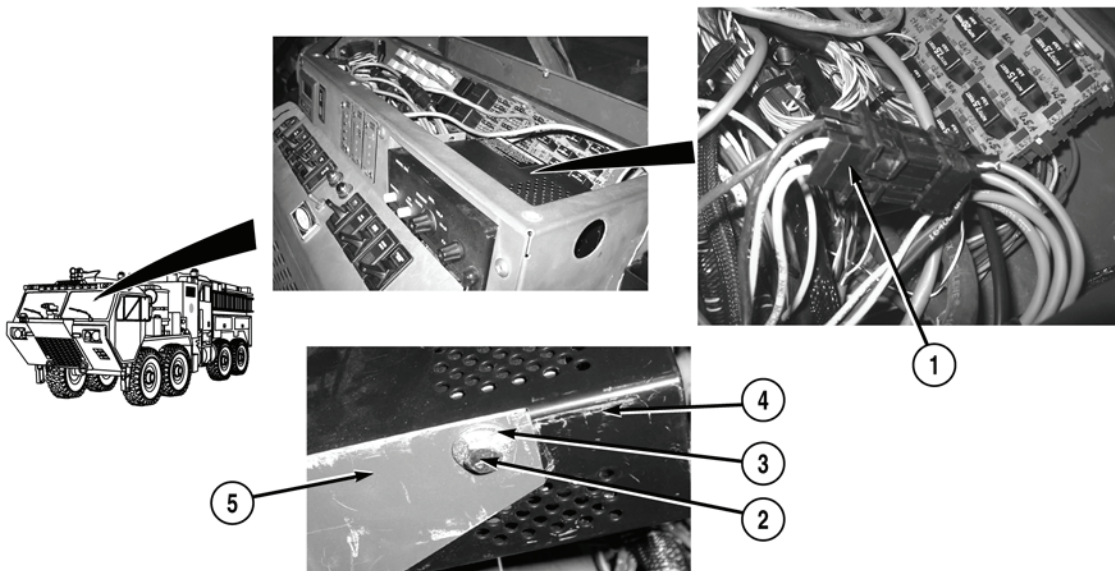
**Equipment Conditions**

Personnel cab instrument panel A removed  
(WP 0311)

**References**

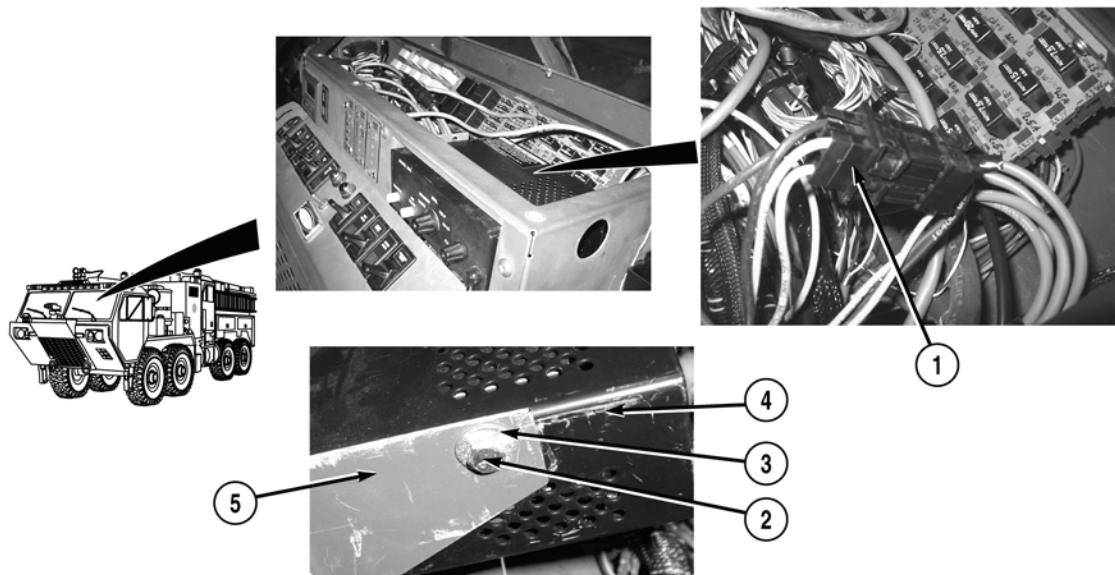
WP 0615, Fig. 55

---

**REMOVAL**

1. Disconnect connector (1).
2. Remove two screws (2), washers (3), and siren (4) from instrument panel (5).

**END OF TASK**

**INSTALLATION**

1. Install siren (4) on instrument panel (5) with two washers (3) and screws (4).
2. Connect connector (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install personnel cab instrument panel A (WP 0311)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE****LOWER REAR MARKER LIGHT AND BRACKET REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

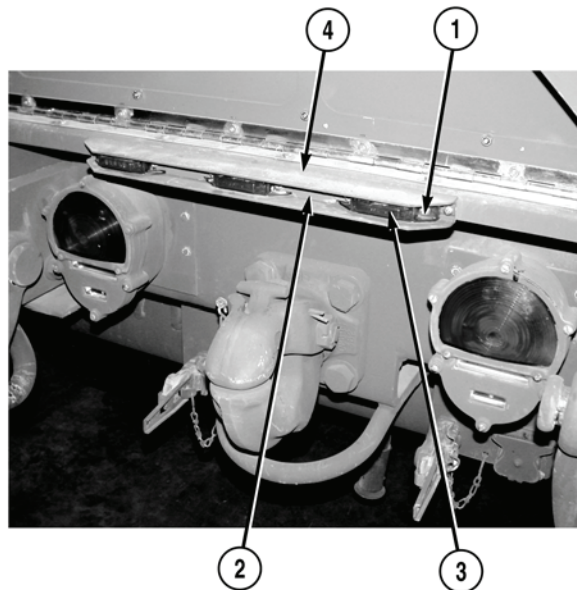
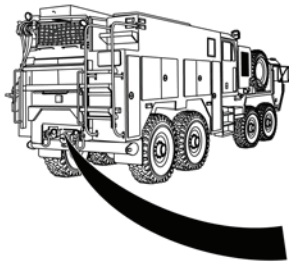
**References**

WP 0615, Fig. 64, 142

**Equipment Conditions**

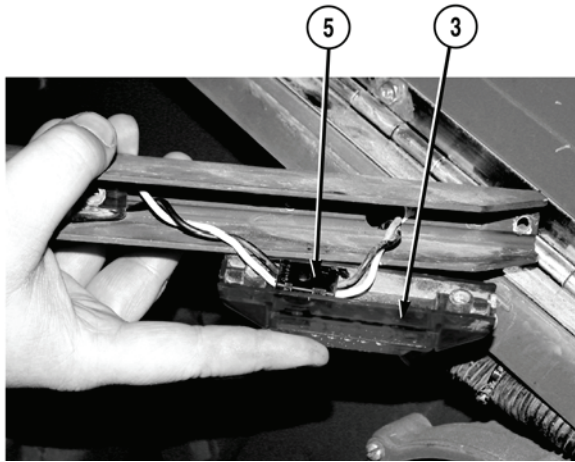
Batteries disconnected (TM 9-2320-325-14&P)  
Wheels chocked (TM 9-2320-347-10)

---

**REMOVAL****NOTE**

Driver side and passenger side marker lights are removed the same way. Center marker light requires the removal of two retainers. Passenger side marker light shown.

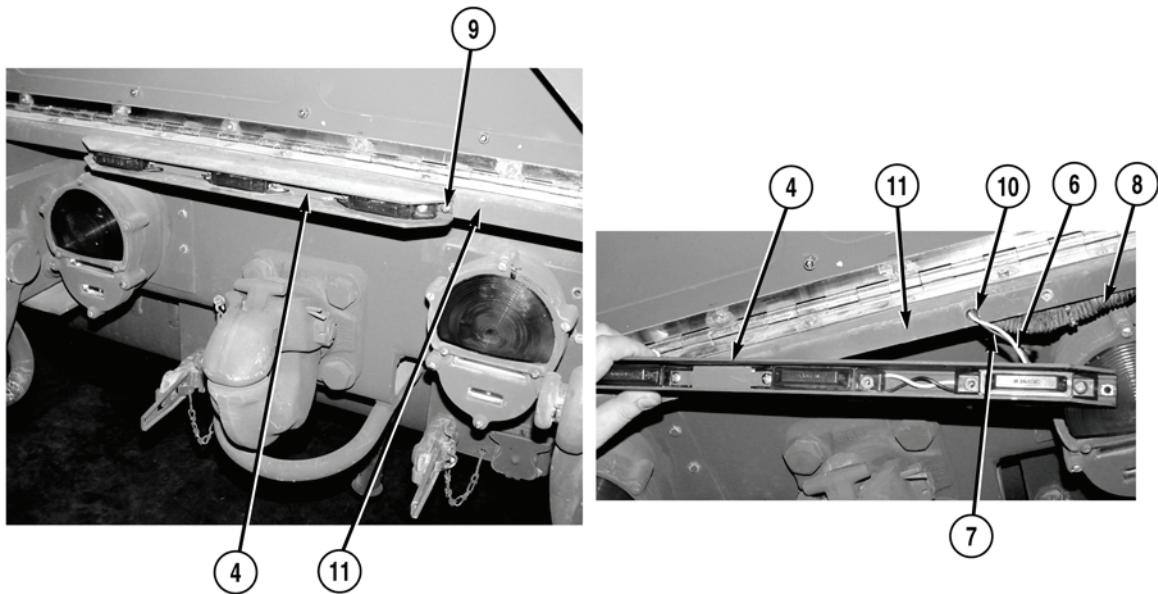
1. Remove two screws (1), retainer (2), and marker light (3) from light bracket (4).



### NOTE

Marker light will only function if properly installed on rubber mounting of pigtail. Plastic tabs on lamp must align with openings on rubber mounting of pigtail. It is possible to force lamp on to rubber mounting of pigtail in opposite position, which will not allow lamp to operate. Note position of lamp on rubber mounting of pigtail prior to removal to ensure proper installation.

2. Remove marker light (3) from rubber mounting of pigtail (5).

**NOTE**

- Two wires for marker light must be cut behind grommet in plastic loom covering wires.
- Remove cable ties as required.
- Tag and mark wires prior to removal to ensure proper installation.

3. Cut two wires (6) and (7) in plastic loom (8) (TM 9-2320-325-14&P).
4. Remove two screws (9), light bracket (4), and two wires (6) and (7) from grommet (10) and mounting bracket (11).
5. Remove grommet (10) from mounting bracket (11).

**END OF TASK****INSTALLATION****NOTE**

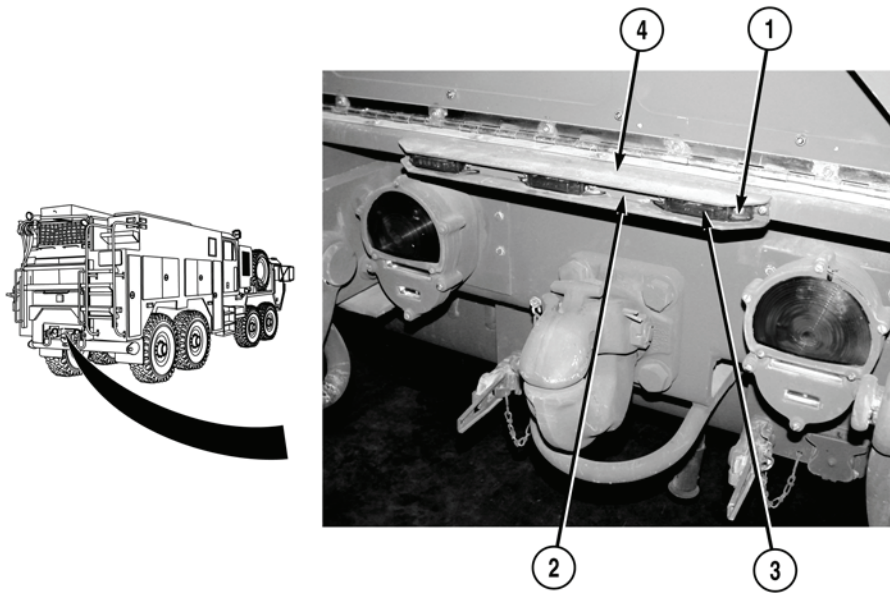
Install cable ties as required.

1. Install grommet (10) on mounting bracket (11).
2. Position two wires (7) and (6) through grommet (10) and install light bracket (4) on mounting bracket (11) with two screws (9).
3. Repair two wires (7) and (6) and cover with plastic loom (8) (TM 9-2320-325-14&P).

**NOTE**

Install lamp on rubber mounting of pigtail as noted prior to removal.

4. Install marker light (3) on rubber mounting of pigtail (5).



5. Install marker light (3) on light bracket (4) with retainer (2) and two screws (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Remove wheel chocks (TM 9-2320-347-10)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**MARKER LIGHT (AMBER LED) REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

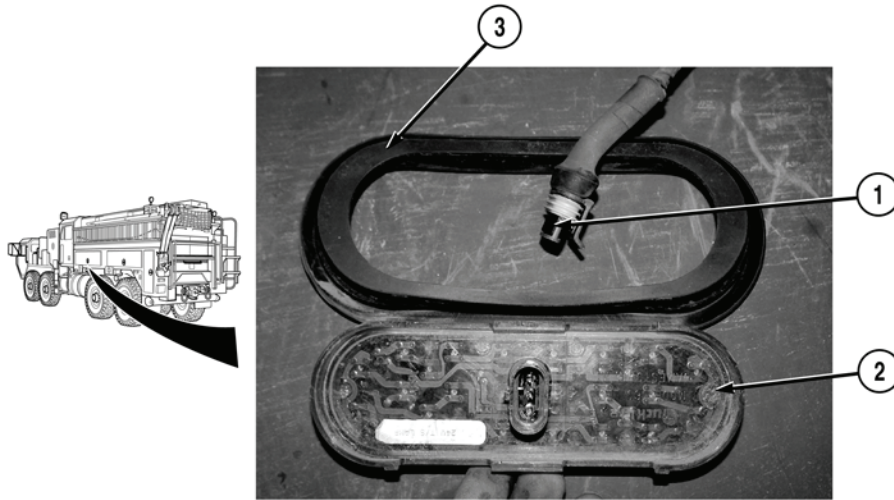
**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Wheels chocked (TM 9-2320-347-10)

**References**

WP 0615, Fig. 63

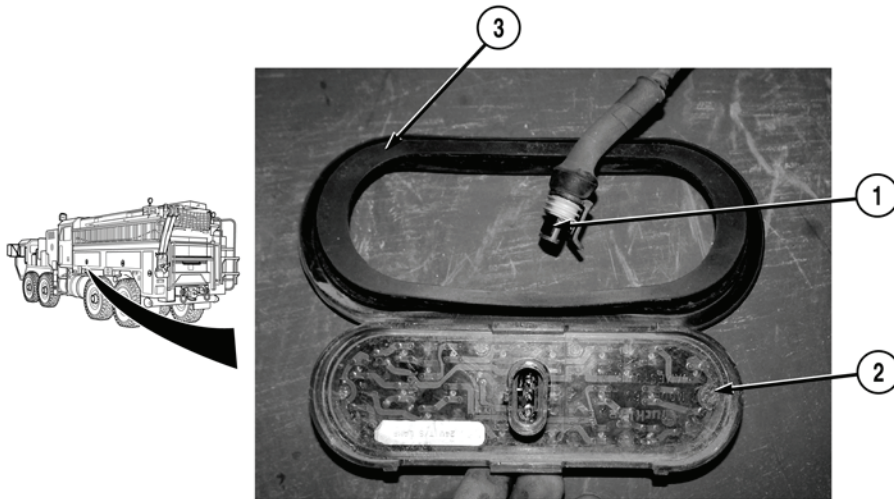
---

**REMOVAL****NOTE**

Both marker LEDs are removed the same way.

1. Disconnect connector (1) from back of marker LED (2).
2. Remove marker LED (2) from rubber gasket (3).
3. Remove rubber gasket (3) from vehicle.

**END OF TASK**

**INSTALLATION****NOTE**

Both marker LEDs are installed the same way.

1. Install rubber gasket (3) on vehicle.
2. Install marker LED (2) on rubber gasket (3).
3. Connect connector (1) on back of marker LED (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Remove wheel chocks (TM 9-2320-347-10)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## PERSONNEL CAB CLEARANCE LIGHT AND BRACKET REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Lockwasher (4)

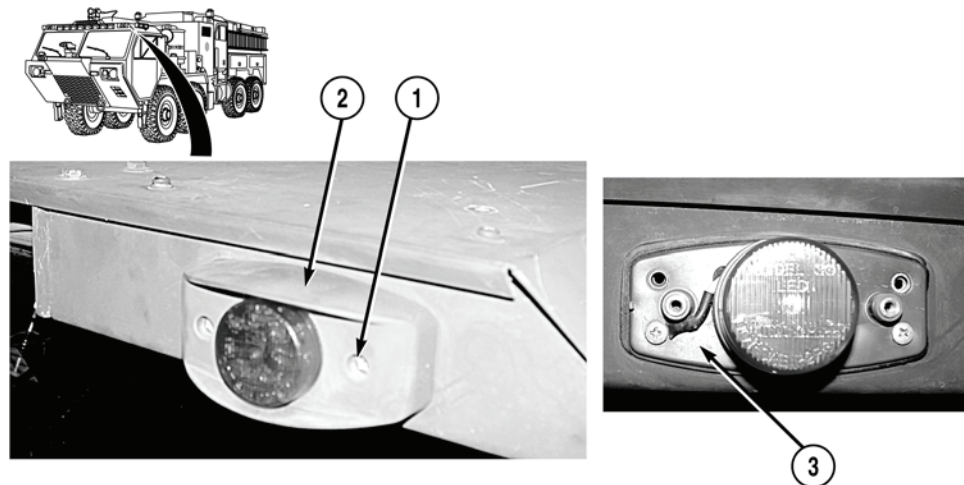
**References**

WP 0615, Fig. 66

**Equipment Conditions**

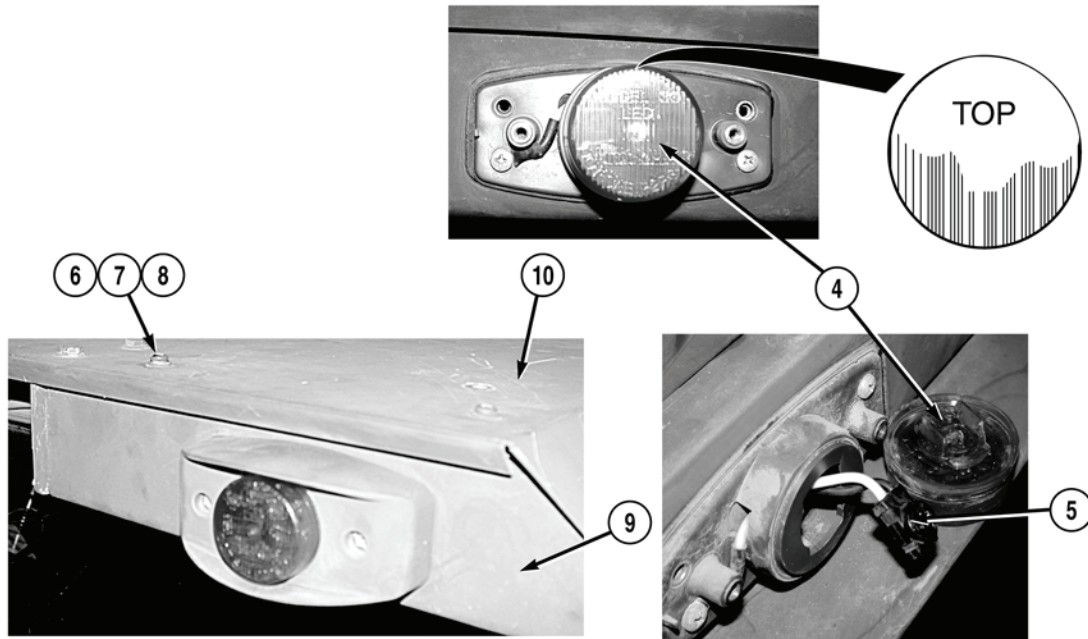
Batteries disconnected (TM 9-2320-325-14&P)  
Wheels chocked (TM 9-2320-347-10)

## REMOVAL

**NOTE**

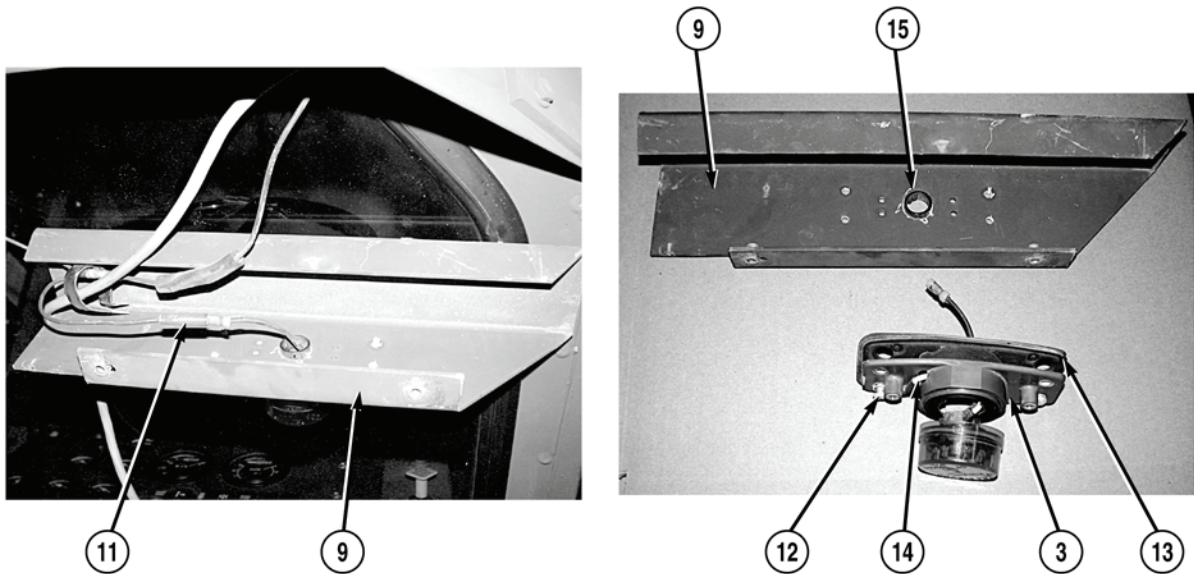
Passenger side and driver side clearance lights are removed the same way. Driver side shown.

1. Remove two screws (1) and light cover (2) from mounting base (3).



### NOTE

- Lamp must be replaced as indicated on lamp cover with TOP facing up. Rotate lamp 45 degrees in order to remove lamp from mounting base.
  - Lamp will only function if correctly installed on rubber mounting of pigtail. Plastic tabs on lamp must align with openings on rubber mounting of pigtail. It is possible to force lamp on rubber mounting of pigtail in opposite position, which will not allow lamp to operate.
  - Note position of lamp on rubber mounting of pigtail prior to removal to ensure proper installation.
2. Remove lamp (4) from mounting base (3).
  3. Remove lamp (4) from rubber mounting of pigtail (5).
  4. Remove two screws (6), lockwashers (7), washers (8), and bracket (9) from cab roof (10). Discard lockwashers.

**NOTE**

Note position of wire prior to removal to ensure proper installation.

5. Disconnect connector (11) and remove bracket (9) from vehicle.
6. Remove two screws (12), mounting base (3), gasket (13), and wire (14) from bracket (9).
7. Remove grommet (15) from bracket (9).

**END OF TASK****INSTALLATION****NOTE**

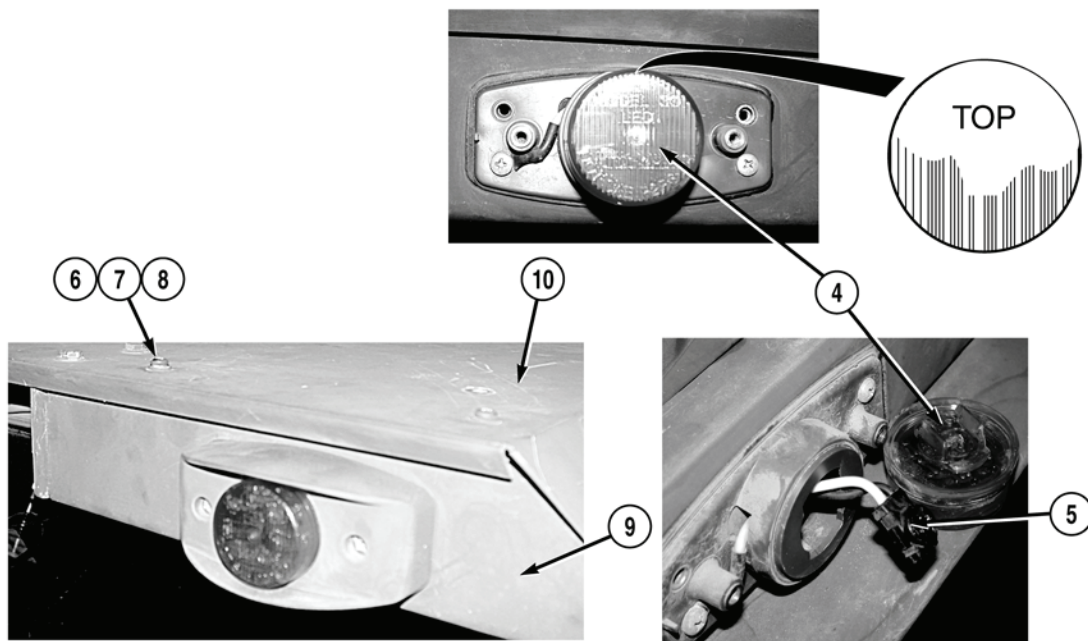
Passenger side and driver side clearance lights are installed the same way. Driver side shown.

1. Install grommet (15) on bracket (9).

**NOTE**

Install wire as noted prior to removal.

2. Install wire (14), mounting base (3), and gasket (13) on bracket (9) with two screws (12).
3. Connect connector (11).



4. Install bracket (9) on cab roof (10) with two washers (8), lockwashers (7), and screws (6).

**NOTE**

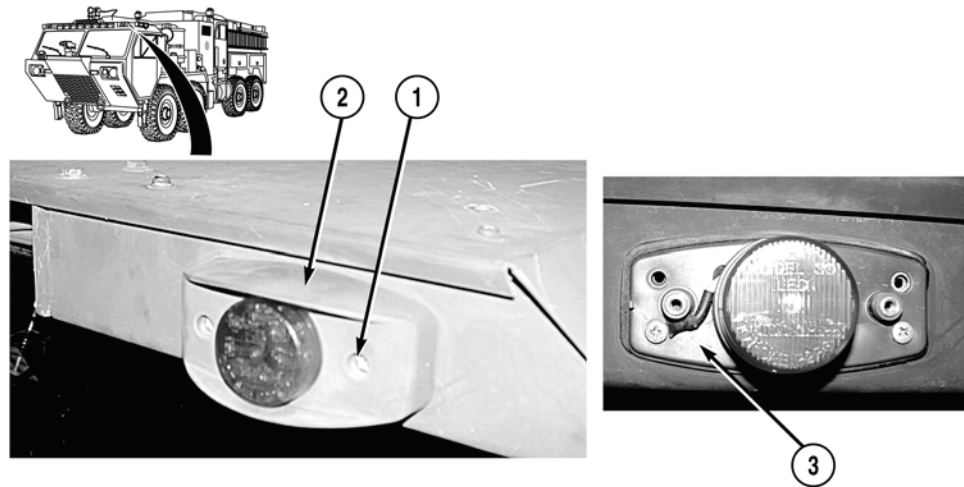
Install lamp on rubber mounting of pigtail as noted prior to removal.

5. Install lamp (4) on rubber mounting of pigtail (5).

**NOTE**

Install lamp as noted prior to removal.

6. Install lamp (4) on mounting base (3).



7. Install light cover (2) on mounting base (3) with two screws (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Remove wheel chocks (TM 9-2320-347-10)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**PERSONNEL CAB FRONT LIGHTBAR REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Locknut (1)  
Lockwasher (2)  
Lockwasher (4)

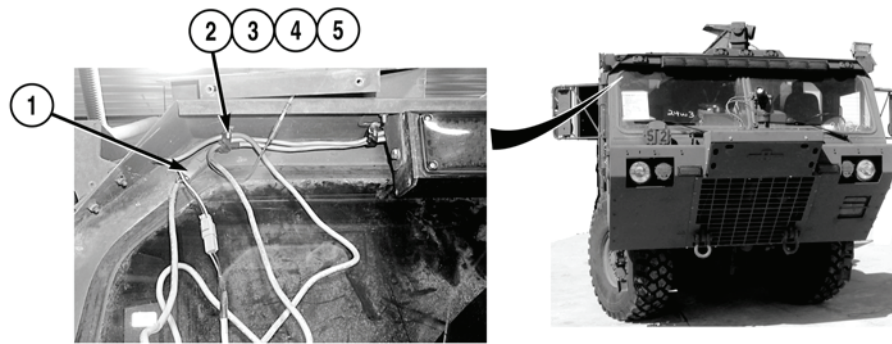
**References**

WP 0615, Fig. 60

**Equipment Conditions**

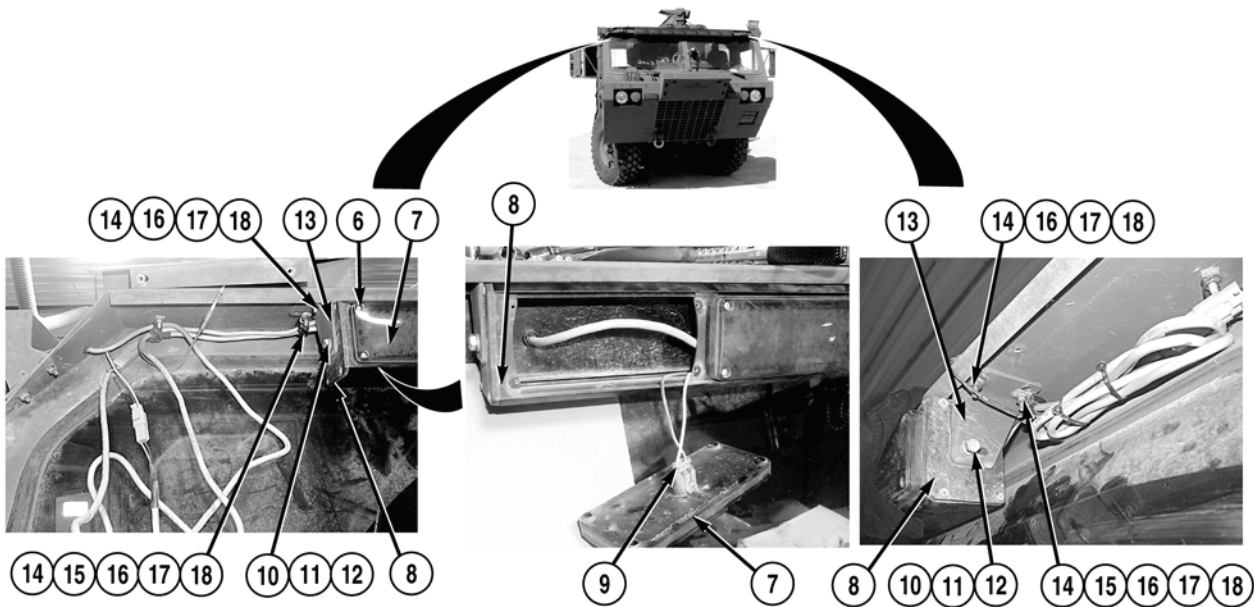
Cab clearance lights and brackets  
removed (WP 0344)

---

**REMOVAL****NOTE**

- Tag and mark connectors prior to removal to ensure proper installation.
- Remove cable ties as required.

1. Disconnect connector (1).
2. Remove locknut (2), cushion clip (3), screw (4), and washer (5) from vehicle. Discard locknut.



**NOTE**

Perform Steps (3) and (4) to remove all lights on lightbar.

3. Remove four screws (6) and light (7) from lightbar (8).
4. Disconnect connector (9) from light (7).

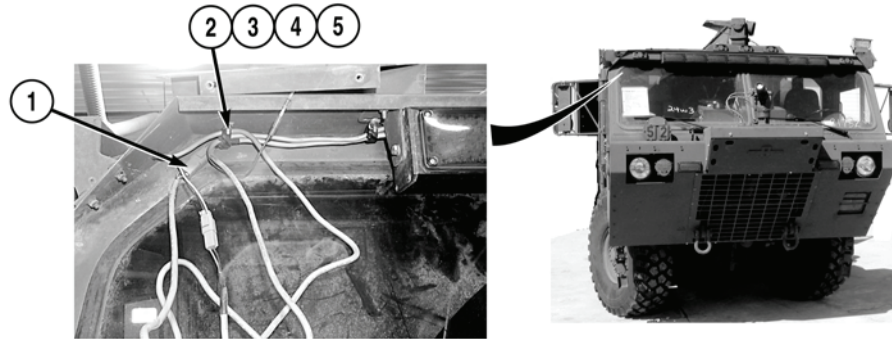
**NOTE**

Perform Steps (5) and (6) to remove lightbar.

5. Remove two screws (10), lockwashers (11), washers (12), and lightbar (8) from two brackets (13). Discard lockwashers.
6. Remove four nuts (14), two cushion clips (15), four lockwashers (16), screws (17), washers (18), and two brackets (13) from vehicle. Discard lockwashers.

**END OF TASK**



**INSTALLATION****NOTE**

Install cable ties as required.

1. Install two brackets (13) on vehicle with four washers (18), screws (17), lockwashers (16), two cushion clips (15), and four nuts (14).
2. Install lightbar (8) on two brackets (13) with two washers (12), lockwashers (11), and screws (10).
3. Connect connector (9) to light (7).
4. Install light (7) on lightbar (8) with four screws (6).

**NOTE**

Repeat Steps (3) and (4) to install remaining lights (7) on lightbar (8).

5. Install washer (5), screw (4), cushion clip (3), and locknut (2) on vehicle.
6. Connect connector (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install cab clearance lights and brackets (WP 0344)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**PERSONNEL CAB SIDE LIGHTBAR REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Adhesive, RTV 732 (WP 0625, Item 2)  
Tags, Identification (WP 0625, Item 51)  
Lockwasher (4)

**References**

WP 0615, Fig. 60

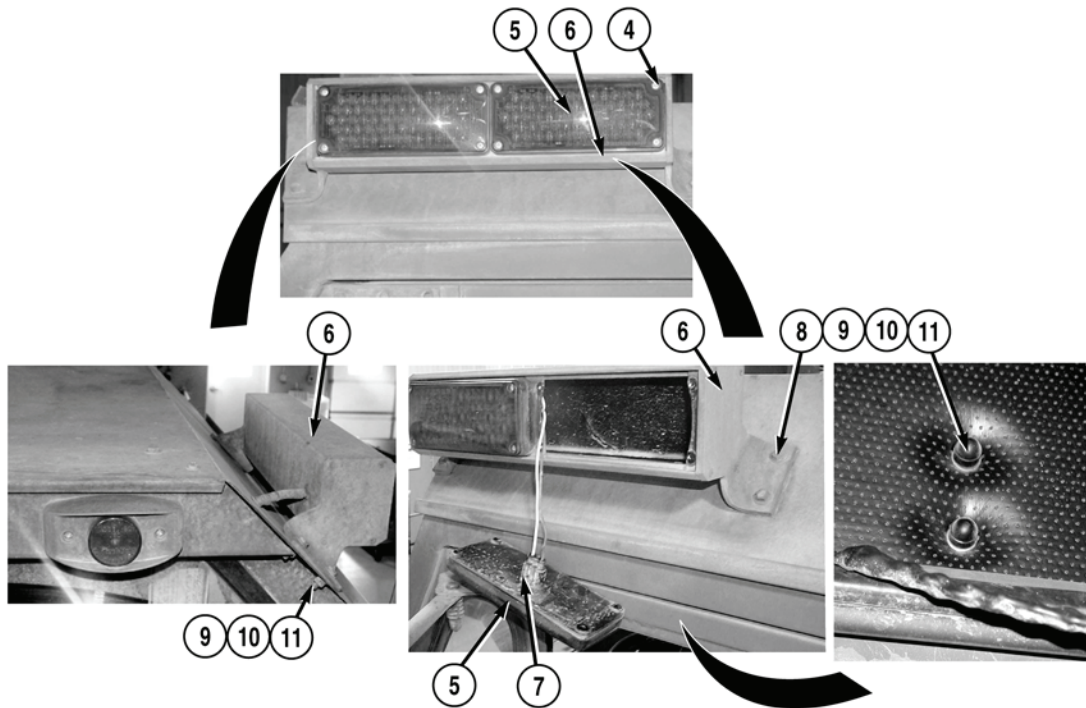
**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Wheels chocked (TM 9-2320-347-10)

---

**REMOVAL****NOTE**

- Both side lightbars are removed the same way. Driver side shown.
  - Tag and mark wires prior to removal to ensure proper installation.
1. Open louver (1) and cut two wires (2) and (3) (TM 9-2320-325-14&P).

**NOTE**

Perform Steps (2) and (3) for removal of both lights on lightbar.

2. Remove four screws (4) and light (5) from lightbar (6).
3. Disconnect connector (7) from light (5).
4. Remove four nuts (8), lockwashers (9), screws (10), washers (11), and lightbar (6) from vehicle. Discard lockwashers.

**END OF TASK****INSTALLATION****NOTE**

Both side lightbars are installed the same way. Driver side shown.

1. Install lightbar (6) on vehicle with four washers (11), screws (10), lockwashers (9), and nuts (8).

**NOTE**

Perform Steps (2) and (3) for installation of both lights on lightbar.

2. Connect connector (7) on light (5).
3. Install light (5) on lightbar (6) with four screws (4).



4. Repair two wires (2) and (3) and close loom (1) (TM 9-2320-325-14&P).

**WARNING**



Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

5. Apply electrical sealant to loom (1) and vehicle.

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Remove wheel chocks (TM 9-2320-347-10)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**PERSONNEL CAB LIGHTBAR REPAIR**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

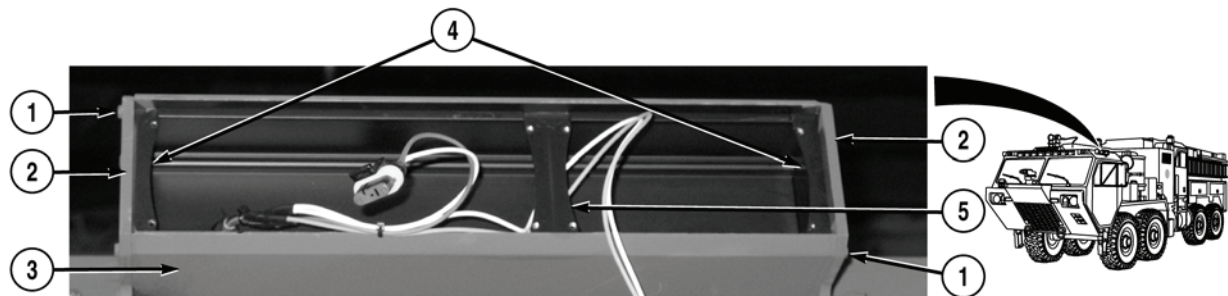
**Equipment Conditions**

Cab front lightbar removed (WP 0345)  
Cab side lightbar removed (WP 0346)

**References**

WP 0615, Fig. 60

---

**CAB SIDE LIGHTBAR DISASSEMBLY****NOTE**

Both cab side lightbars are disassembled the same way. Driver side shown.

1. Remove eight screws (1) and two brackets (2) from side lightbar (3).

**NOTE**

Note position of brackets prior to removal to ensure proper installation.

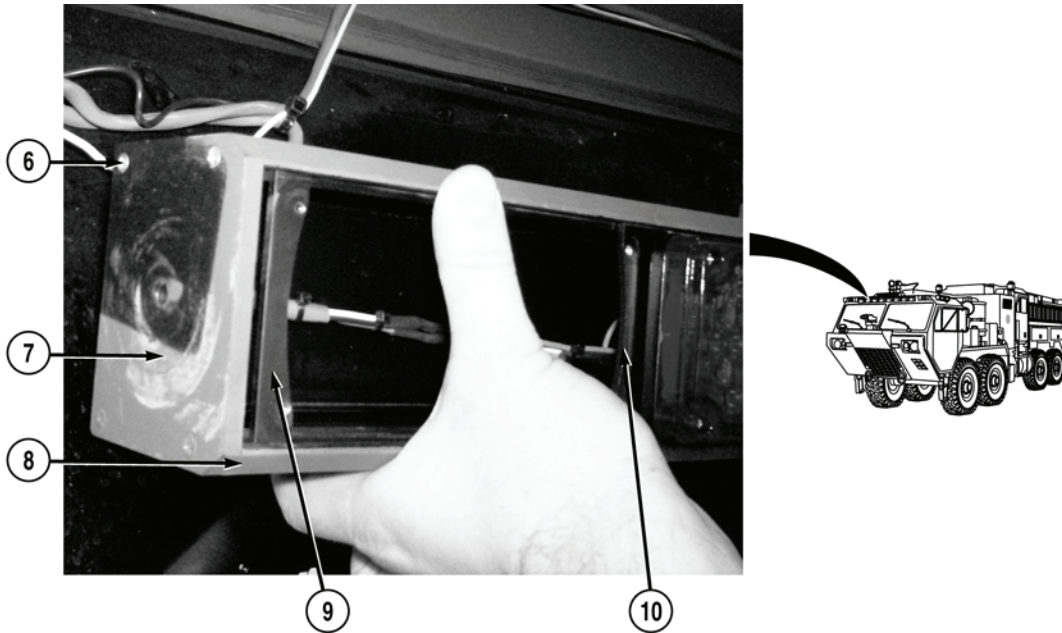
2. Remove two brackets (4) and bracket (5) from side lightbar.

**END OF TASK****CAB SIDE LIGHTBAR ASSEMBLY****NOTE**

- Both cab sidelights are assembled the same way. Driver side shown.
- Install brackets in same position as noted prior to removal.

1. Install bracket (5) and two brackets (4) on side lightbar (3).
2. Install two brackets (2) on side lightbar (3) with eight screws (1).

**END OF TASK**

**CAB FRONT DISASSEMBLY****NOTE**

Both cab front lightbar end caps are removed the same way. Passenger side shown.

1. Remove four screws (6) and cab front lightbar end cap (7) from cab front lightbar (8).
2. Remove two brackets (9) and seven brackets (10) from cab front lightbar (8).

**END OF TASK****CAB FRONT LIGHTBAR ASSEMBLY****NOTE**

Both cab lightbar end caps are installed the same way. Passenger side shown.

1. Install seven brackets (10) and two brackets (9) on cab front lightbar (8).
2. Install cab front lightbar end cap (7) on cab front lightbar (8) with four screws (7).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install cab side lightbar (WP 0346)
2. Install cab front lightbar (WP 0345)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## PERSONNEL CAB WARNING LIGHT AND DO NOT MOVE APPARATUS FLASHER UNITS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 55

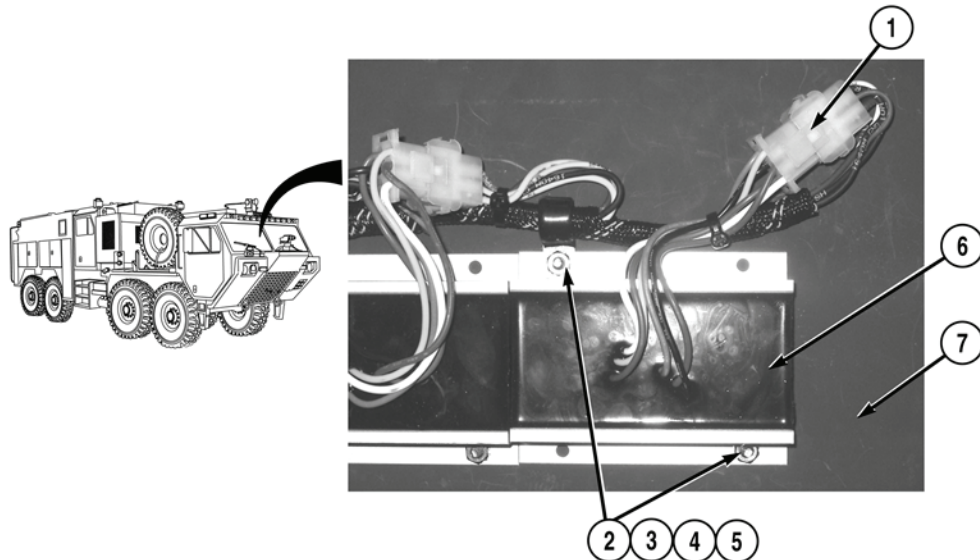
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Sealant, RTV 200 Electrical (WP 0625, Item 47)  
Lockwasher (2)

**Equipment Conditions**

Personnel cab instrument panel A removed  
(WP 0311)

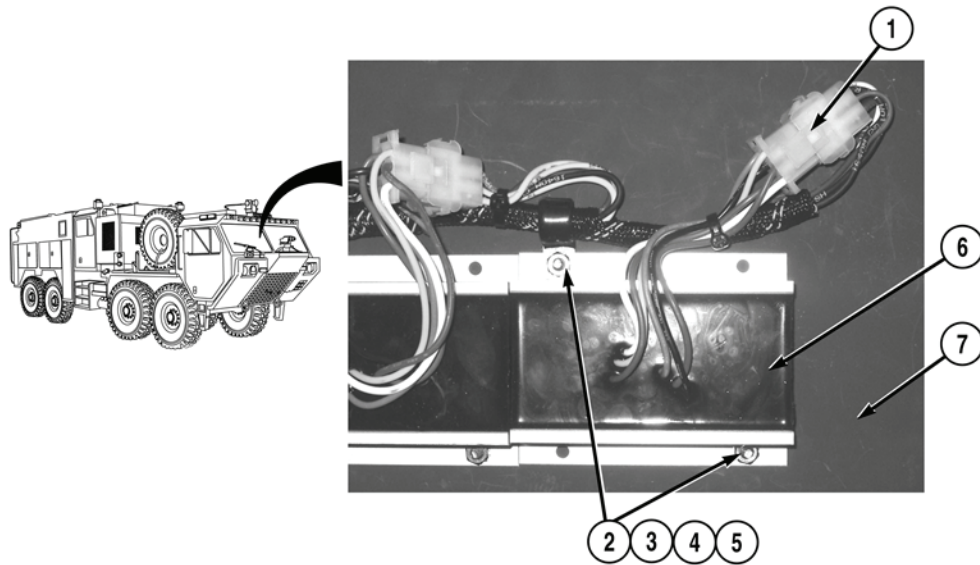
## REMOVAL

**NOTE**

- All flasher units are removed the same way.
- Note position and remove cable ties and cushion clips as required.
- Tag and mark connectors prior to removal to ensure proper installation.

1. Disconnect connector (1).
2. Remove two nuts (2), lockwashers (3), screws (4), washers (5), and flasher unit (6) from panel (7). Discard lockwashers.

**END OF TASK**

**INSTALLATION****NOTE**

- All flasher units are installed the same way.
- Install cable ties and cushion clips as noted.

1. Install flasher unit (6) on panel (7) with two washers (5), screws (4), lockwashers (3), and nuts (2).
2. Connect connector (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install personnel cab instrument panel A (WP 0311)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**REAR MARKER/CLEARANCE LED REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 64

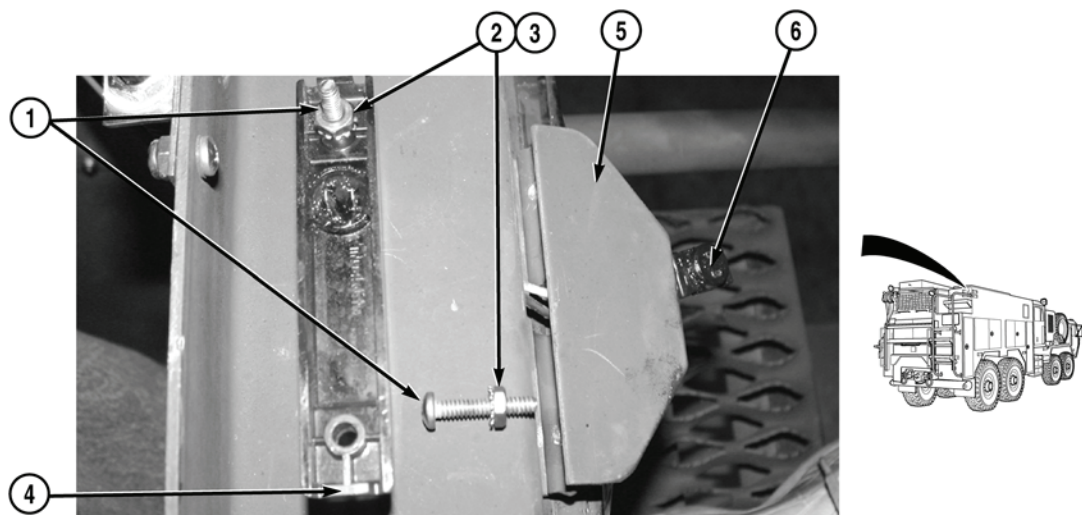
**Materials/Parts**

Locknut (2)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Wheels chocked (TM 9-2320-347-10)  
Light bezel cover removed (driver side  
only) (WP 0397)

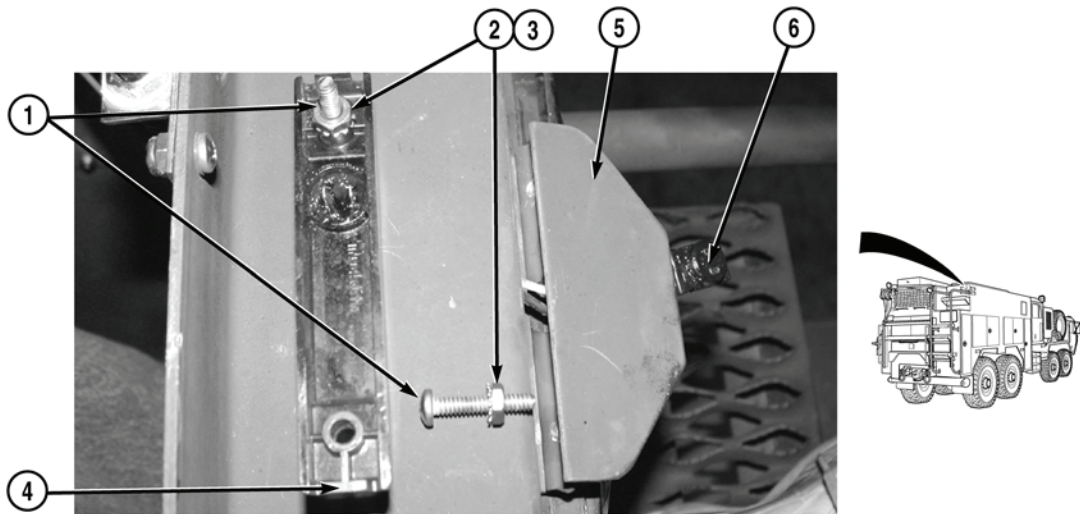
---

**REMOVAL****NOTE**

All rear marker/clearance LEDs are removed the same way. Passenger side shown.

1. Remove two screws (1), washer (2), locknuts (3), marker/clearance LED (4), and marker/clearance LED cover (5) from vehicle. Discard locknuts.
2. Disconnect connector (6) from back of marker/clearance LED (4).
3. Remove marker/clearance LED cover (5) from connector (6).

**END OF TASK**

**INSTALLATION****NOTE**

All rear marker/clearance LEDs are installed the same way. Passenger side shown.

1. Pull connector (6) through back of marker/clearance LED cover (5).
2. Connect connector (6) to back of marker/clearance LED (4).
3. Install marker/clearance LED (4) and marker/clearance LED cover (5) on vehicle with two locknuts (3), washers (2), and screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install light bezel cover (driver side only) (WP 0397)
2. Remove wheel chocks (TM 9-2320-347-10)
3. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## ROOF MOUNTED CLEARANCE LIGHTS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0345  
WP 0615, Fig. 66

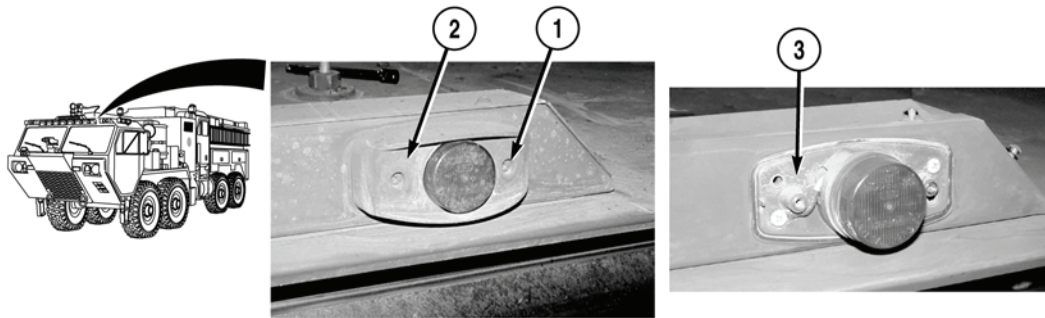
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Locknut (2)

**Equipment Conditions**

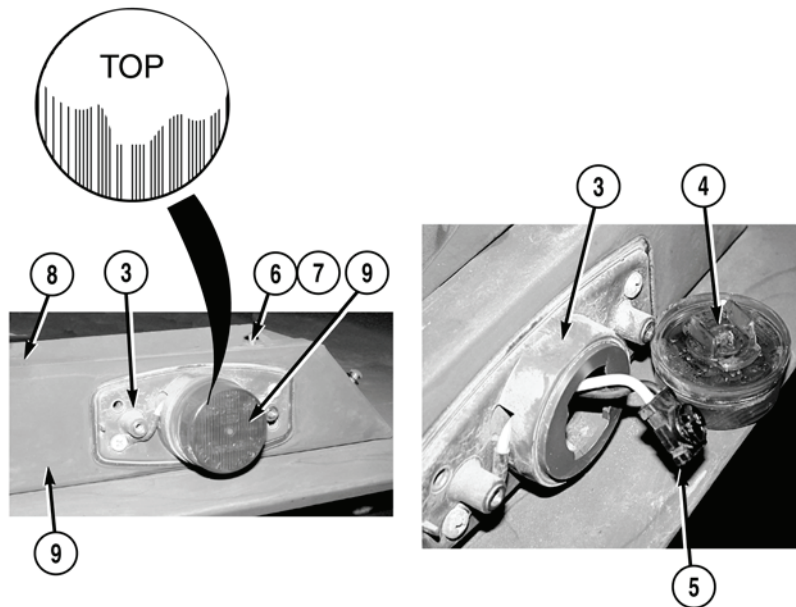
Batteries disconnected (TM 9-2320-325-14&P)  
Wheels chocked (TM 9-2320-347-10)

## REMOVAL

**NOTE**

All three clearance lights and mounting brackets are removed the same way. Driver side shown.

1. Remove two screws (1) and cover (2) from mounting base (3).

**NOTE**

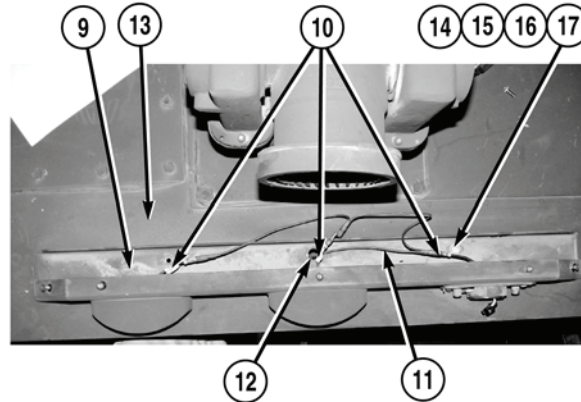
Lamp must be replaced as indicated on lamp cover with TOP facing up. Lamp must be rotated 45 degrees in order to remove lamp from mounting base.

2. Remove lamp (4) from mounting base (3).

**NOTE**

Lamp will only function if correctly installed on rubber mounting of pigtail. Plastic tabs on lamp must align with openings on rubber mounting of pigtail. It is possible to force lamp on rubber mounting of pigtail in opposite position, which will not allow lamp to operate. Note position of lamp on rubber mounting of pigtail prior to removal to ensure proper installation.

3. Remove lamp (4) from rubber mounting of pigtail (5).
4. Remove five screws (6), washers (7), and cover (8) from mounting bracket (9).

**NOTE**

Tag and mark connectors prior to removal to ensure proper installation.

5. Disconnect three connectors (10).

**NOTE**

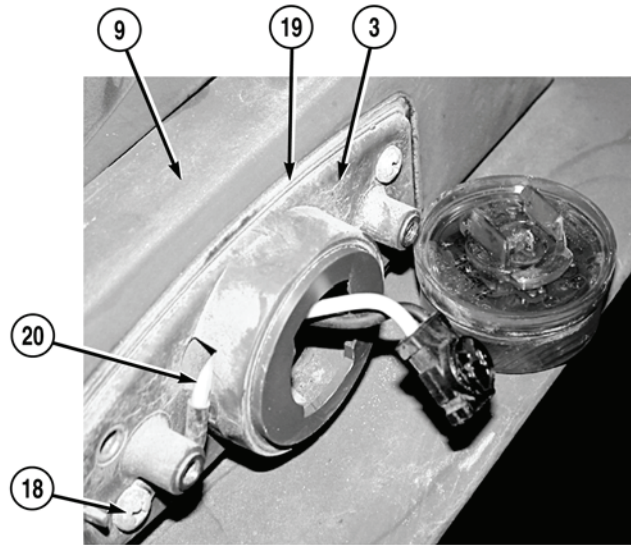
Cab front lightbar must be removed in order to access mounting bracket attaching hardware.

6. Remove cab front lightbar (WP 0345).
7. Pull wire (11) through grommet (12) on mounting bracket (9) and personnel cab roof (13).

**NOTE**

Note position of cushion clips prior to removal to ensure proper installation.

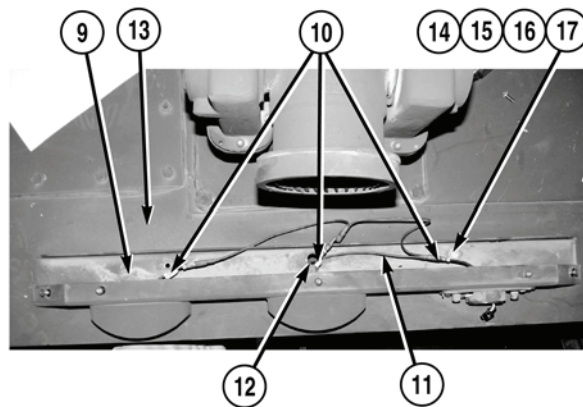
8. Remove two locknuts (14), cushion clips (15), washers (16), screws (17), and mounting bracket (9) from cab roof (13). Discard locknuts.



### NOTE

Note position of wire prior to removal to ensure proper installation.

9. Remove two screws (18), mounting base (3), gasket (19), and wire (20) from mounting bracket (9).



10. Remove grommet (12) from mounting bracket (9).

### END OF TASK

### INSTALLATION

1. Install grommet (12) on mounting bracket (9).



**NOTE**

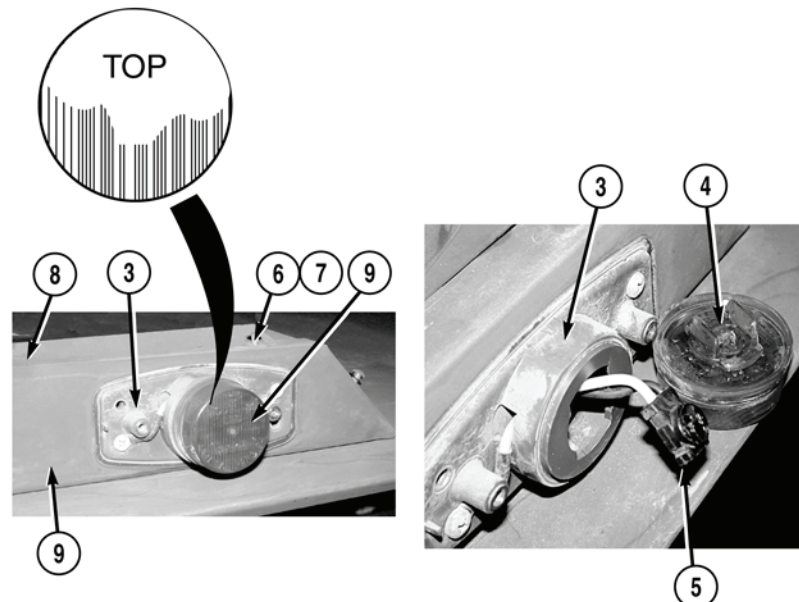
Install wire in same position as noted prior to removal.

2. Install wire (20), gasket (19) and mounting base (3) on mounting bracket (9) with two screws (18).

**NOTE**

Install cushion clips in same position as noted prior to removal.

3. Install mounting bracket (9) and two cushion clips (15) on cab roof (13) with two screws (17), washers (16), and locknuts (14).
4. Pull wire (11) through crew cab roof (13), mounting bracket (9), and grommet (12).
5. Install cab front lightbar (WP 0345).
6. Connect three connectors (10).



7. Install cover (8) on mounting bracket (9) with five washers (7) and screws (6).

**⚠ CAUTION**

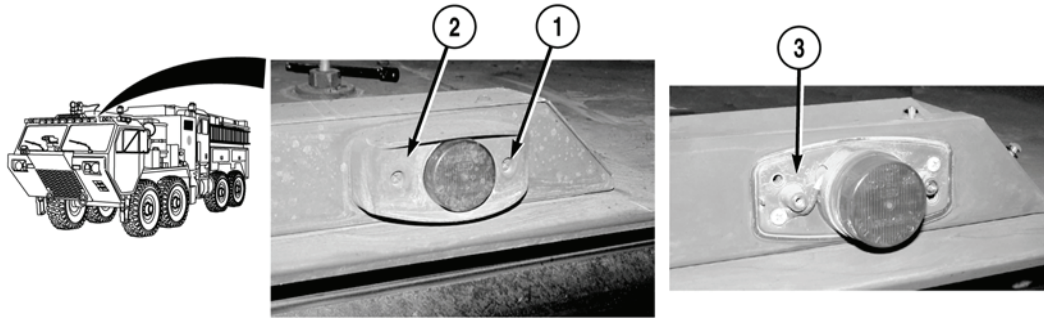
**Install lamp on rubber mounting of pigtail as noted prior to removal. Failure to connect lamp on rubber mounting of pigtail correctly will not allow lamp to function.**

8. Install lamp (4) on rubber mounting of pigtail (5).

**NOTE**

Install lamp as noted prior to removal. Lamp must be installed with TOP facing up.

9. Install lamp (4) on mounting base (3).



10. Install cover (2) on mounting base (3) with two screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Remove wheel chocks (TM 9-2320-347-10)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**WARNING LIGHTS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

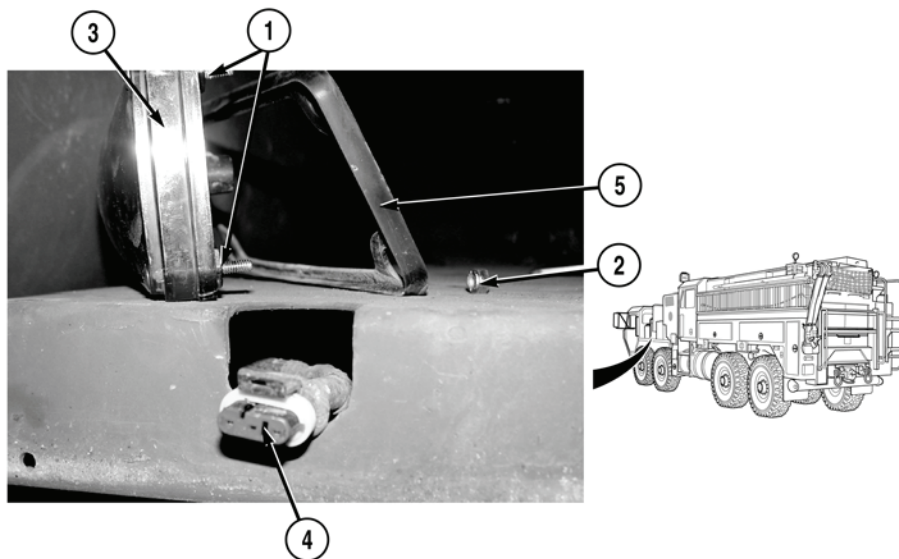
**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Wheels chocked (TM 9-2320-347-10)

**References**

WP 0615, Fig. 60

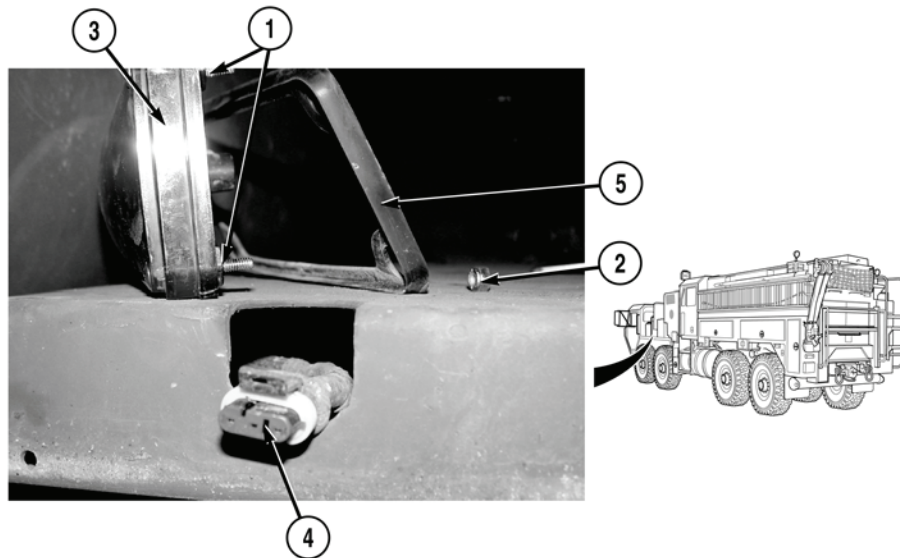
---

**REMOVAL****NOTE**

All warning lights are removed the same way.

1. Remove four screws (1), two nuts (2), and warning light (3) from vehicle.
2. Disconnect connector (4) from back of warning light (3).
3. Remove rubber gasket (5) from warning light (3).

**END OF TASK**

**INSTALLATION****NOTE**

All warning lights are installed the same way.

1. Install rubber gasket (5) on warning light (3).
2. Connect connector (4) on back of warning light (3).
3. Install warning light (3) on vehicle with two nuts (2) and four screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Remove wheel chocks (TM 9-2320-347-10)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**DECK SPOTLIGHT REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0556  
WP 0615, Fig. 67

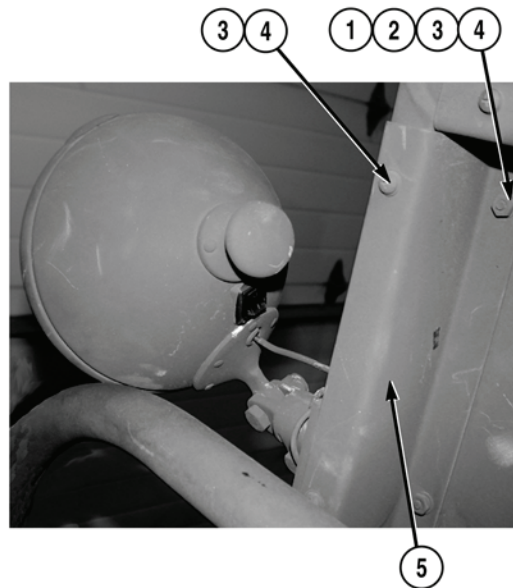
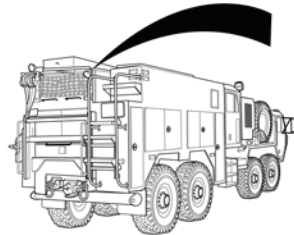
**Materials/Parts**

Adhesive, RTV 732 (WP 0625, Item 2)  
Tags, Identification (WP 0625, Item 51)  
Lockwasher (2)  
Lockwasher (4)  
Locknut (4)

**Equipment Conditions**

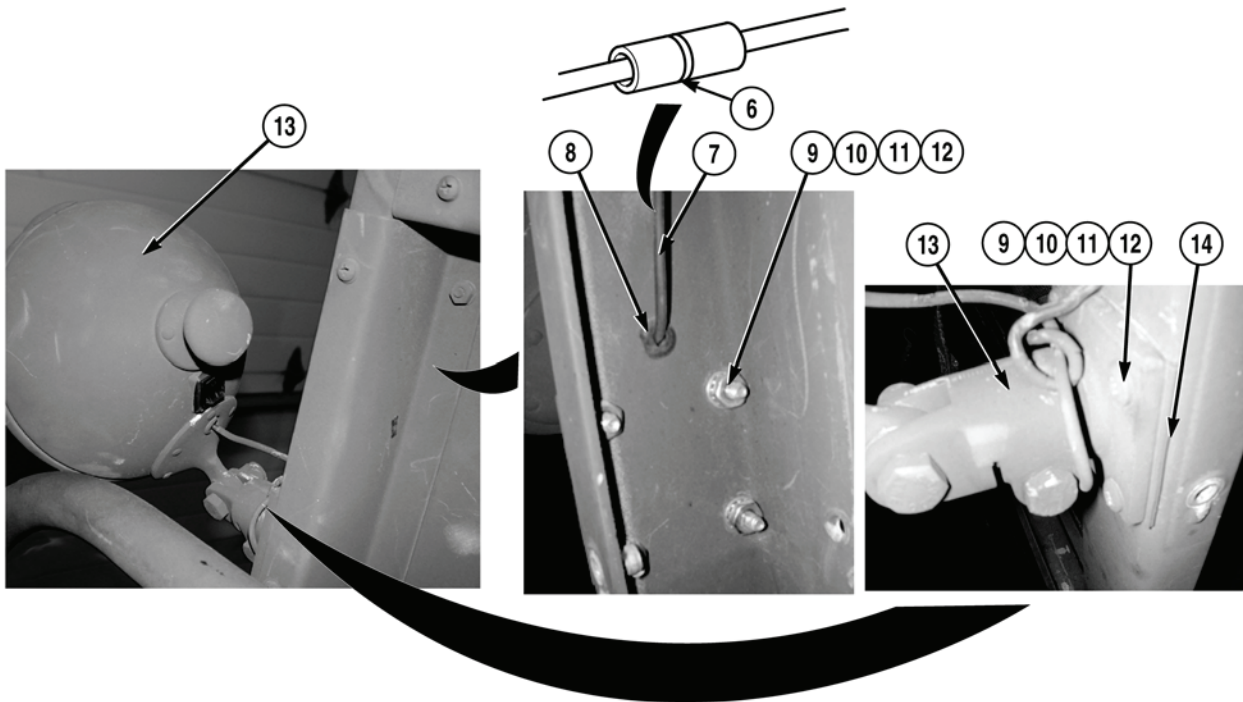
Batteries disconnected (TM 9-2320-325-14&P)  
Wheel chocked (TM 9-2320-347-10)

---

**REMOVAL****NOTE**

Perform Steps (1) through (6) for removal of passenger side rear deck spotlight.

1. Remove two nuts (1), lockwashers (2), screws (3), and washers (4) from cover (5) and vehicle. Discard lockwashers.
2. Remove two screws (3), washers (4), and cover (5) from vehicle.

**NOTE**

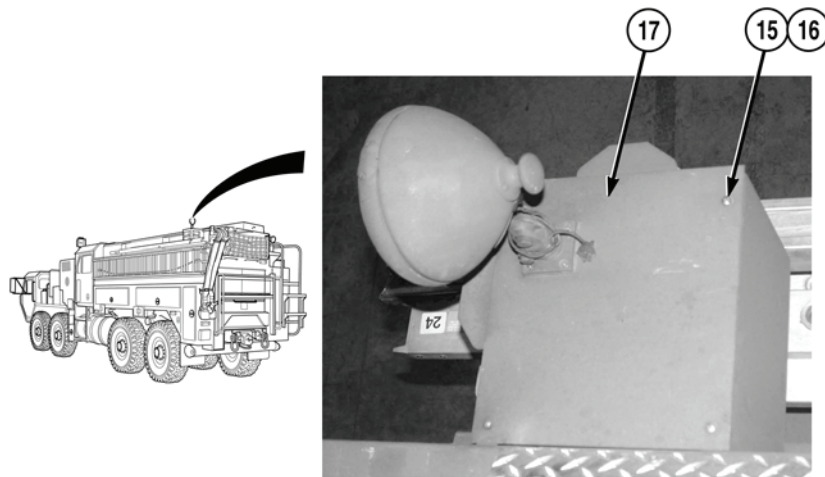
Perform Step (3) if removing threaded screw insert(s).

3. Remove threaded screw insert(s) from vehicle (WP 0556).

**NOTE**

Tag and mark connectors and wires prior to removal to ensure proper installation.

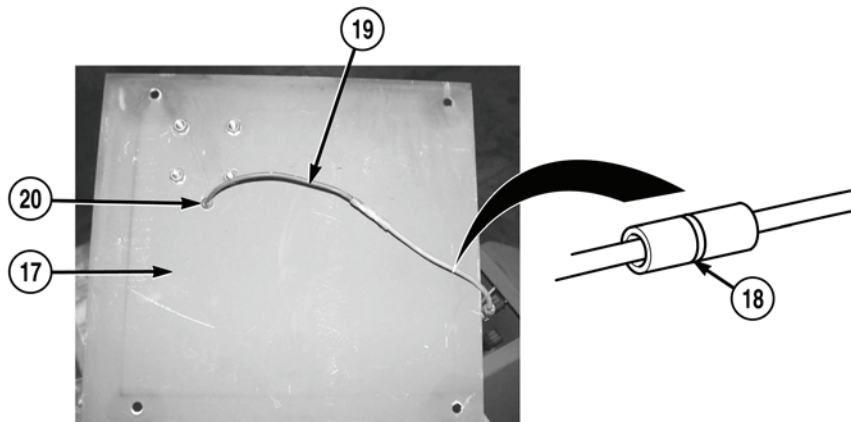
4. Disconnect connector (6).
5. Remove wire (7) and grommet (8) from vehicle.
6. Remove four nuts (9), lockwashers (10), washers (11), screws (12), spotlight (13), and gasket (14) from vehicle. Discard lockwashers.



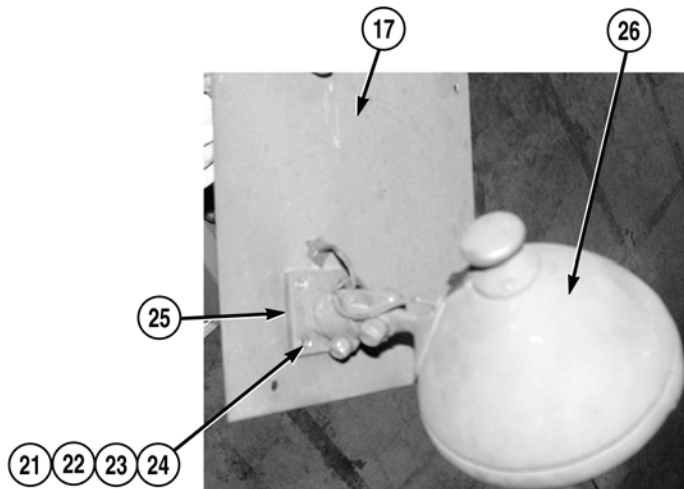
### NOTE

Perform Steps (7) through (9) for removal of driver side rear deck spotlight.

7. Remove four screws (15), washers (16), and cover (17) from vehicle.



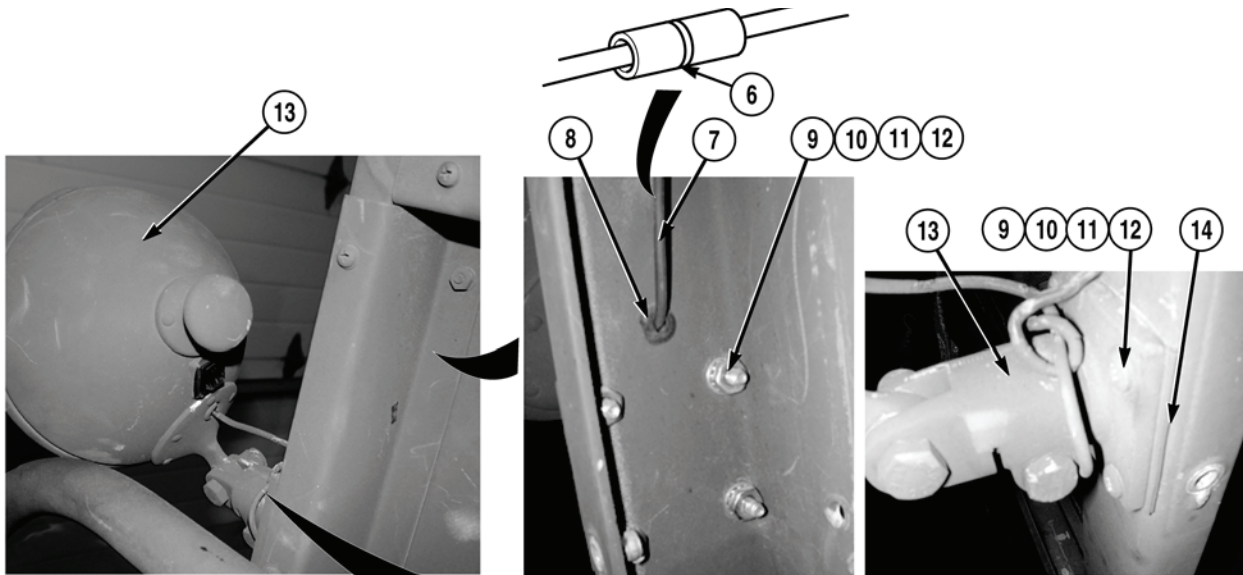
8. Disconnect connector (18).
9. Remove wire (19) and grommet (20) from cover (17).



- Remove four locknuts (21), washers (22), screws (23), washers (24), gasket (25), and spotlight (26) from cover (17). Discard locknuts.

**END OF TASK**

**INSTALLATION**



**NOTE**

Perform Steps (1) through (7) for installation of right rear deck spotlight.

- Install gasket (14) and spotlight (13) on vehicle with four screws (12), washers (11), lockwashers (10), and nuts (9).

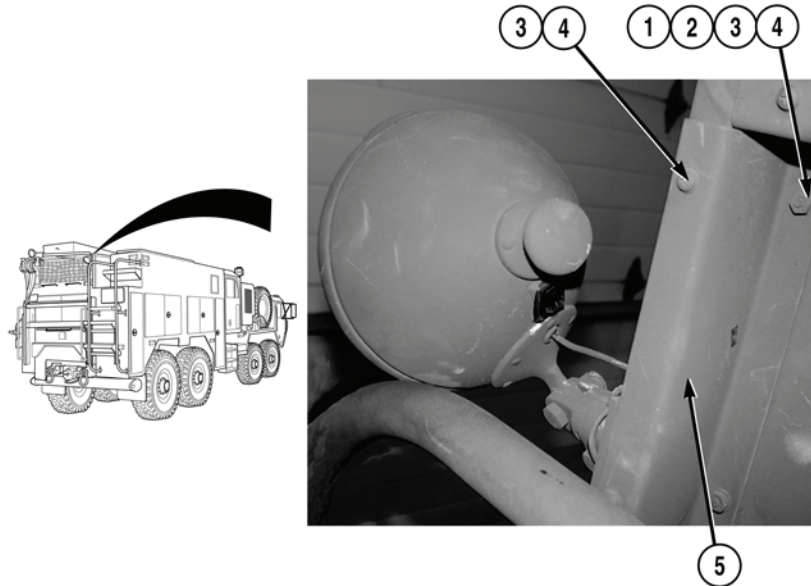


2. Install grommet (8) and wire (7) on vehicle.
3. Connect connector (6).

### NOTE

Perform Step (4) if installing threaded screw insert(s).

4. Install threaded screw insert(s) on vehicle (WP 0556).



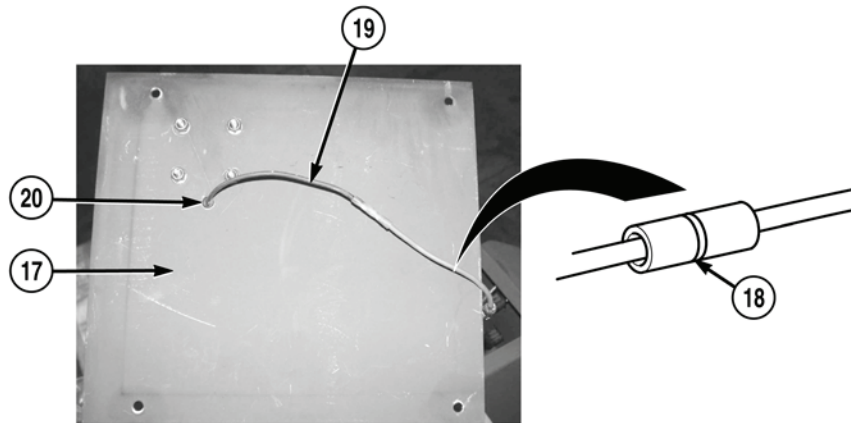
5. Install cover (5) on vehicle with two washers (4) and screws (3).
6. Install two washers (4), screws (3), lockwashers (2), and nuts (1) on cover (5) and vehicle.

### WARNING



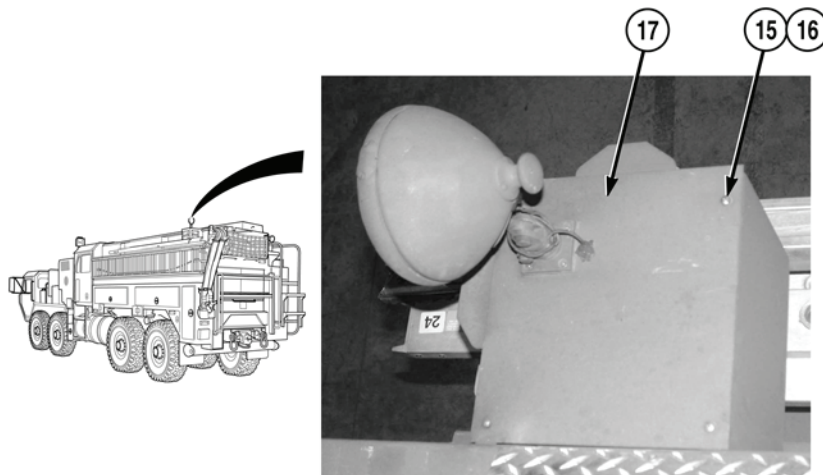
**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

7. Apply electrical sealant to grommet (8).

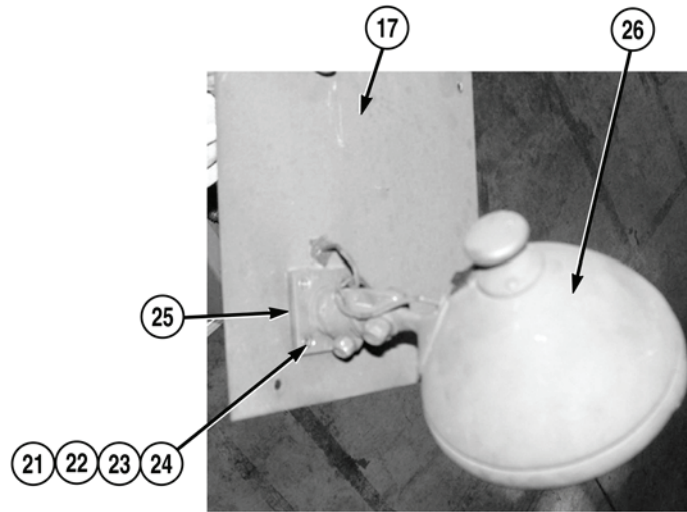
**NOTE**

Perform Steps (8) through (12) for installation of driver side rear deck spotlight.

8. Install grommet (20) and wire (19) on cover (17).
9. Connect connector (18).



10. Install cover (17) on vehicle with four washers (16) and screws (15).



11. Install gasket (25) and spotlight (26) on cover (17) with four washers (24), screws (23), washers (22), and locknuts (21).

### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

12. Apply electrical sealant to grommet (20).

**END OF TASK**

### **FOLLOW-ON MAINTENANCE**

1. Remove wheel chocks (TM 9-2320-347-10)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**



**FIELD LEVEL MAINTENANCE**  
**DECK SPOTLIGHT LAMP REPLACEMENT**

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

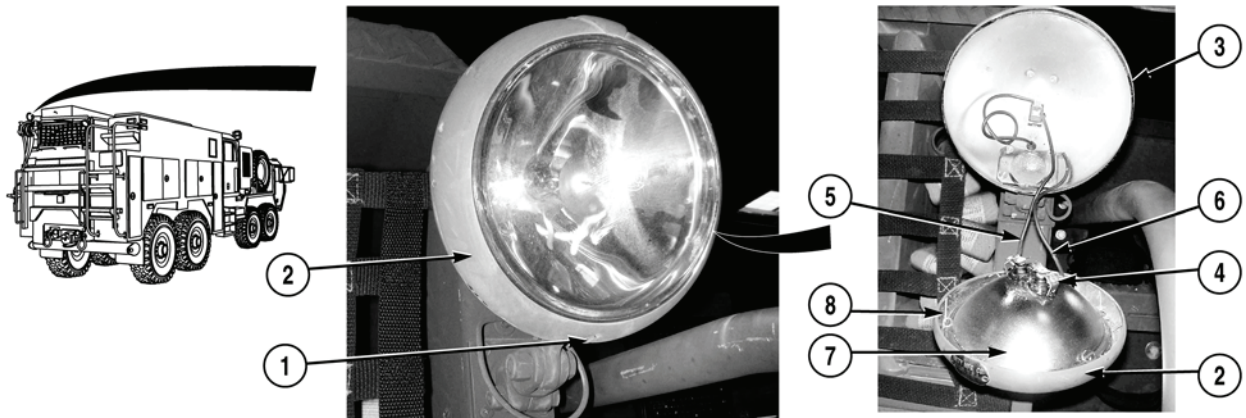
WP 0615, Fig. 67

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Wheels chocked (TM 9-2320-347-10)

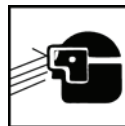
**REMOVAL**

1. Remove screw (1) and cover (2) from light (3).

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

2. Loosen two screws (4) and remove wires (5) and (6) from lamp (7).

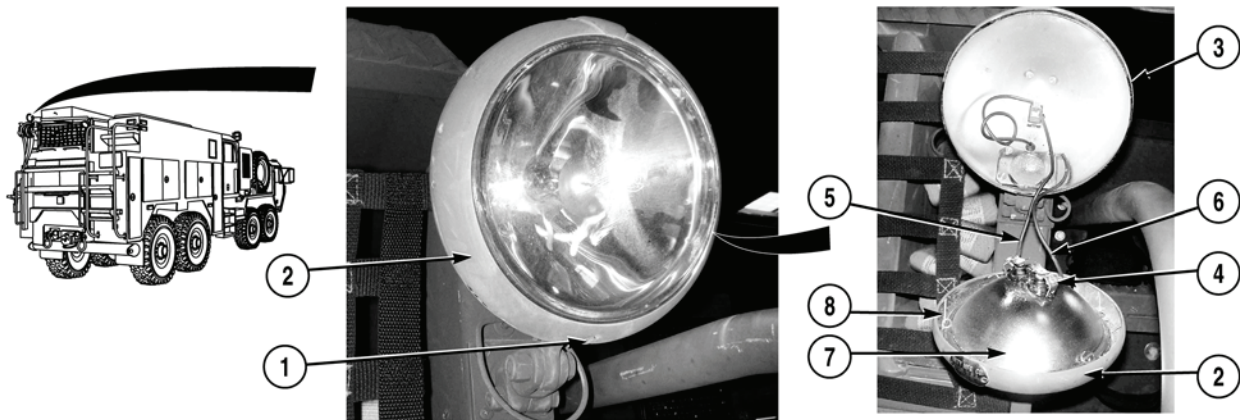
**WARNING**

**Springs, retaining rings, and snaprings are under extreme spring tension and can act as projectiles when being removed. Ensure all personnel wear protective goggles. Failure to comply could result in serious injury to personnel.**

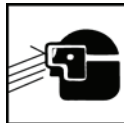
3. Remove three springs (8) and lamp (7) from cover (2).

**END OF TASK**

## INSTALLATION



### WARNING



**Springs, retaining rings, and snaprings are under extreme spring tension and can act as projectiles when being installed. Ensure all personnel wear protective goggles. Failure to comply could result in serious injury to personnel.**

1. Install lamp (7) in cover (2) with three springs (8).
2. Install two wires (6) and (5) on lamp (7) and tighten screws (4).
3. Install cover (2) on light (3) with screw (1).

### END OF TASK

### FOLLOW-ON MAINTENANCE

1. Remove wheel chocks (TM 9-2320-347-10)
2. Connect batteries (TM 9-2320-325-14&P)

### END OF TASK

### END OF WORK PACKAGE

---

**FIELD LEVEL MAINTENANCE**  
**EXTENDABLE FLOODLIGHT REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (8)

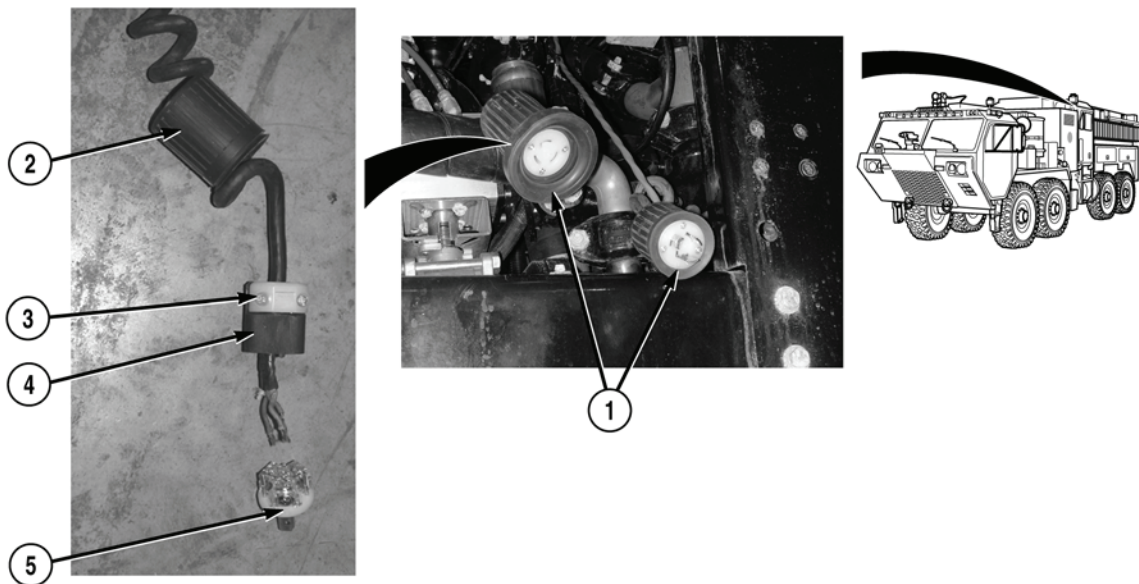
**References**

WP 0615, Fig. 65, 68

**Equipment Conditions**

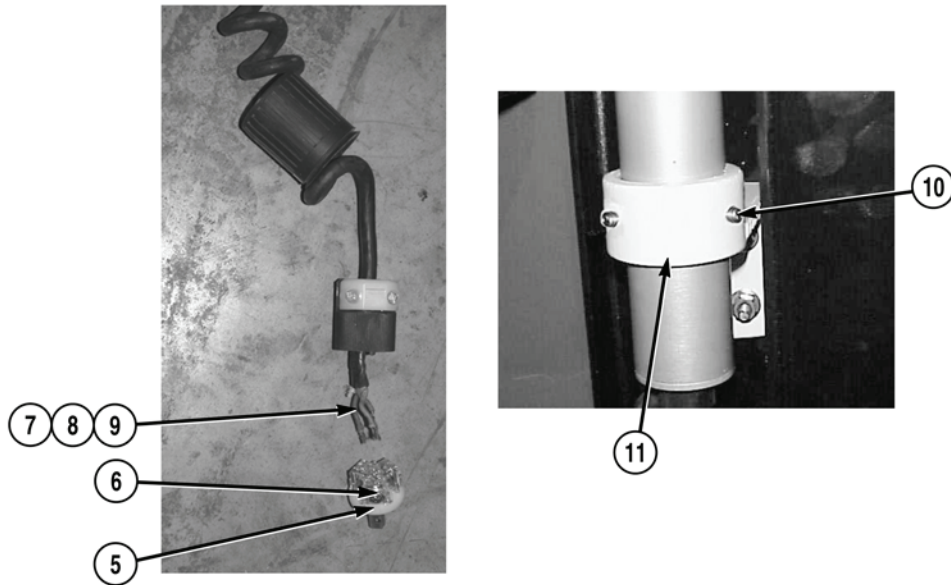
Pump house panel A opened for driver side flood light (WP 0539)  
Pump house panel J removed for passenger side flood light (WP 0540)

---

**REMOVAL****NOTE**

- Both extendable floodlights are removed the same way.
- Remove cable ties as required

1. Disconnect connector (1).
2. Remove boot (2) from connector (1)
3. Loosen two screws (3) and position connector body (4) away from plug (5).

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

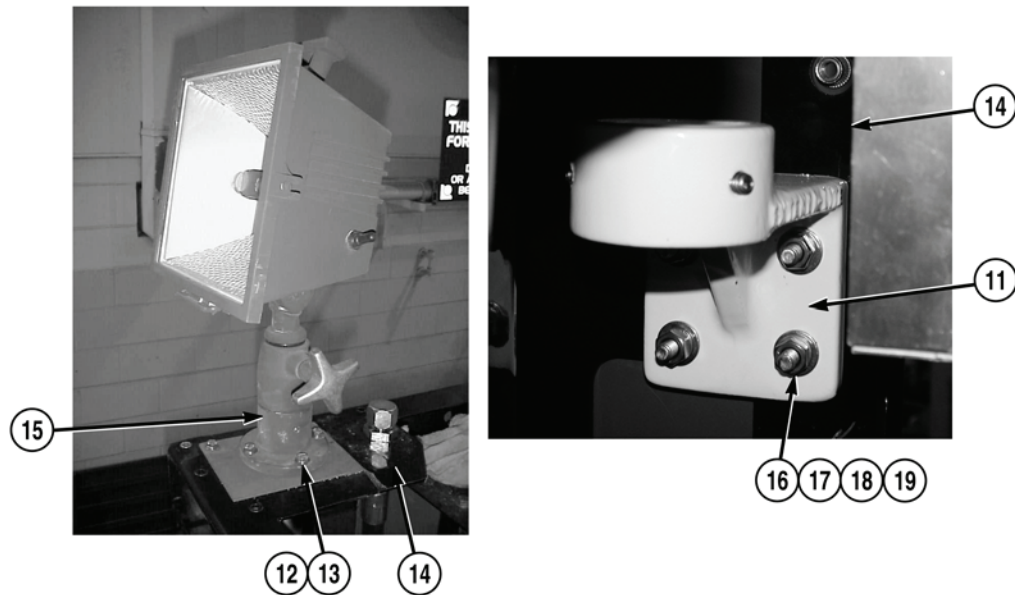
4. Loosen three screws (6) and remove plug (5) from three wires (7), (8), and (9).

**NOTE**

Setscrews are 1/4 in. (6.4 mm) hex head.

5. Loosen two setscrews (10) on bracket (11).





6. Remove four screws (12) and washers (13) from pump housing (14) and extendable floodlight (15).

#### NOTE

Perform Step (7) if bracket needs to be removed.

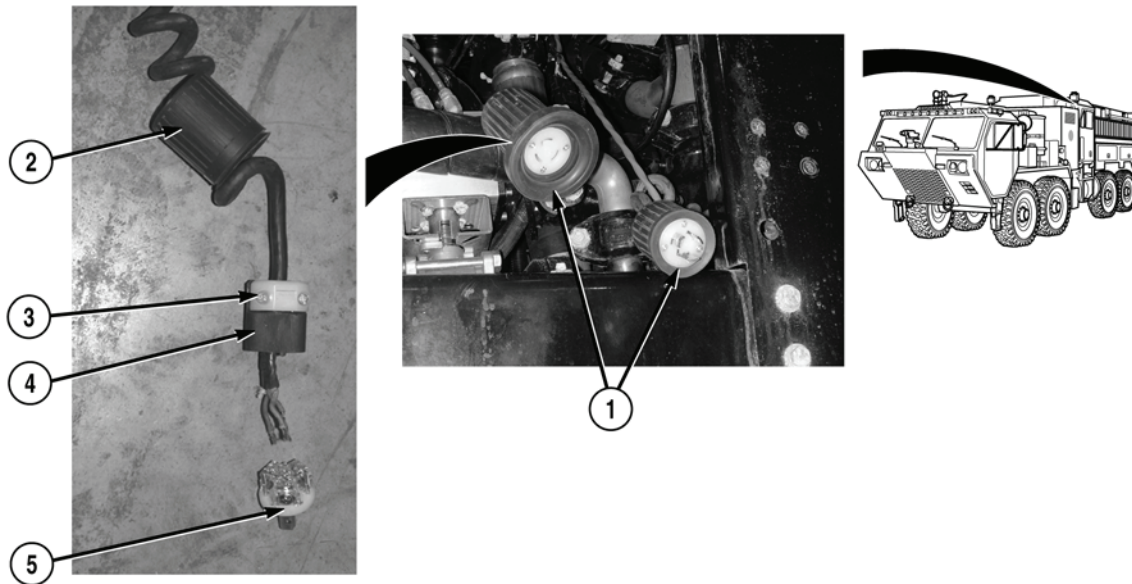
7. Remove four nuts (16), eight washers (17), four lockwashers (18), screws (19), and bracket (11) from pump housing (14). Discard lockwashers.

#### END OF TASK

#### INSTALLATION

#### NOTE

- Perform Step (1) if bracket was removed.
  - Both extendable floodlights are installed the same way.
  - Install cable ties as required.
1. Install bracket (11) on pump housing (14) with four screws (19), lockwashers (18), eight washers (17), and four nuts (16).
  2. Position extendable floodlight (15) on pump housing (14) and bracket (11)
  3. Install extendable floodlight (15) on pump housing (14) with four washers (13) and screws (12).
  4. Tighten two setscrews (10) on bracket (11).
  5. Install plug (5) on three wires (7), (8), and (9) and tighten three screws (6).



6. Position connector body (4) on plug (5) and tighten two screws (3).
7. Install boot (2) on connector (1).
8. Connect connector (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Close pump panel A for driver side floodlight (WP 0539)
2. Install pump panel J for passenger side floodlight (WP 0540)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**EXTENDABLE FLOODLIGHT LAMP REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

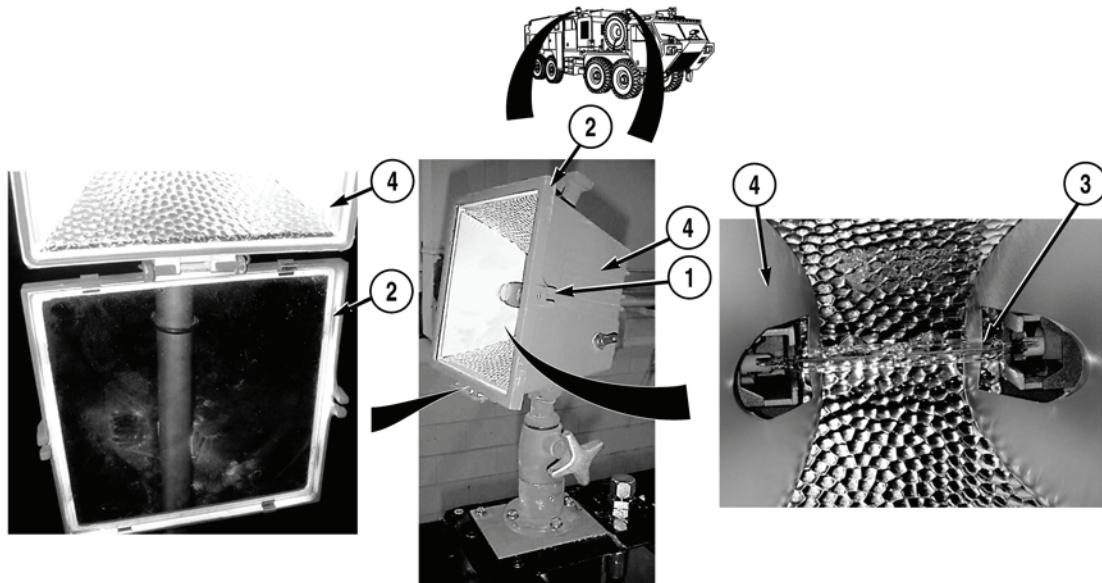
**Equipment Conditions**

Wheels chocked (TM 9-2320-347-10)  
Batteries disconnected (TM 9-2320-325-14&P)

**References**

WP 0615, Fig. 68

---

**REMOVAL**

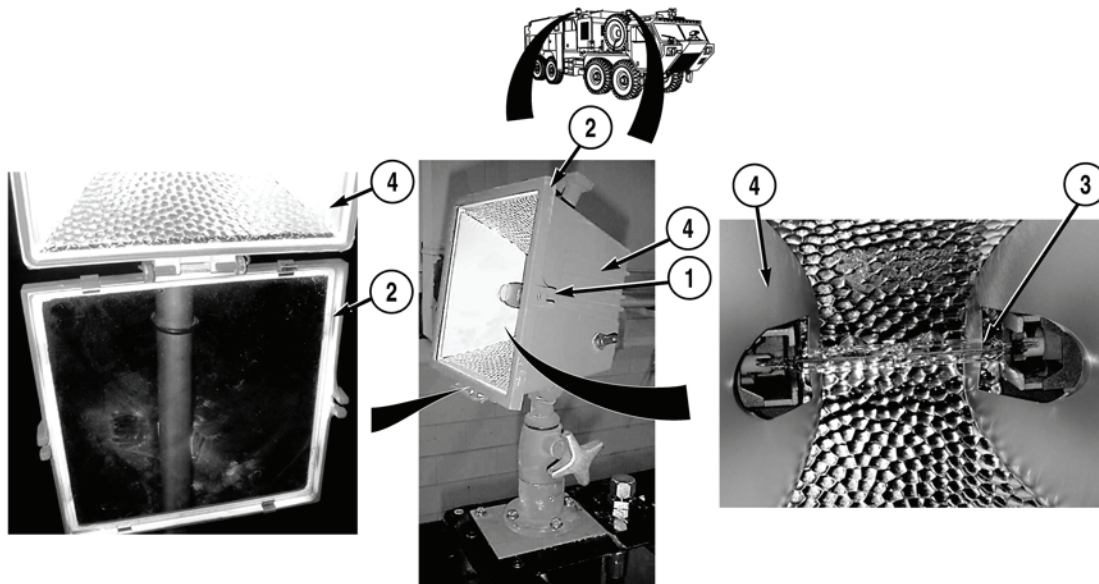
1. Loosen two screws (1) and open cover (2).

**WARNING**

**Floodlight lamp may be hot. Use care when removing lamp. Failure to comply may result in injury to personnel.**

2. Remove lamp (3) from extendable floodlight (4).

**END OF TASK**

**INSTALLATION**

**⚠ CAUTION**

**Avoid touching lamp with bare hands. Failure to comply may result in damage to equipment.**

1. Install lamp (3) in extendable floodlight (4).
2. Close cover (2) and tighten two screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Connect batteries (TM 9-2320-325-14&P)
2. Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**OVERHEAD BEACON LIGHT REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 65

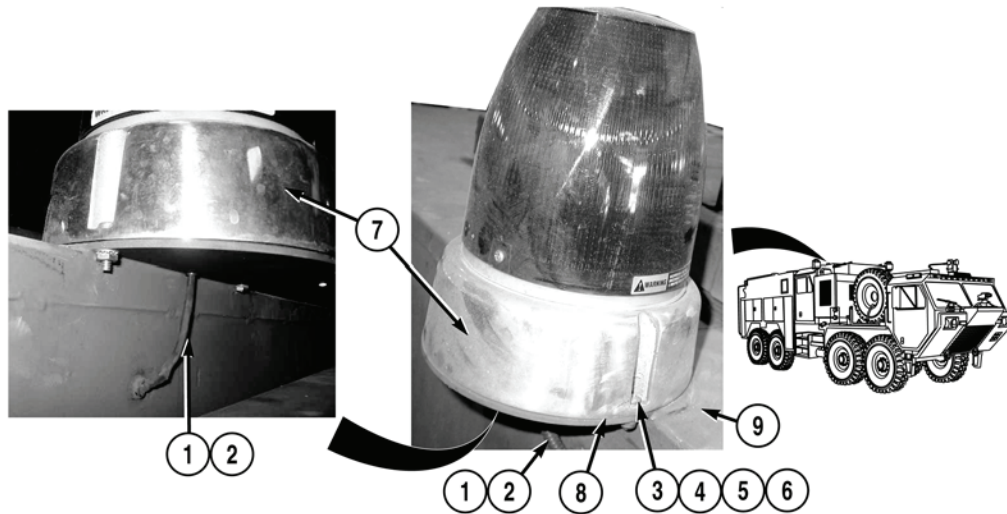
**Materials/Parts**

Lockwasher (3)

**Equipment Conditions**

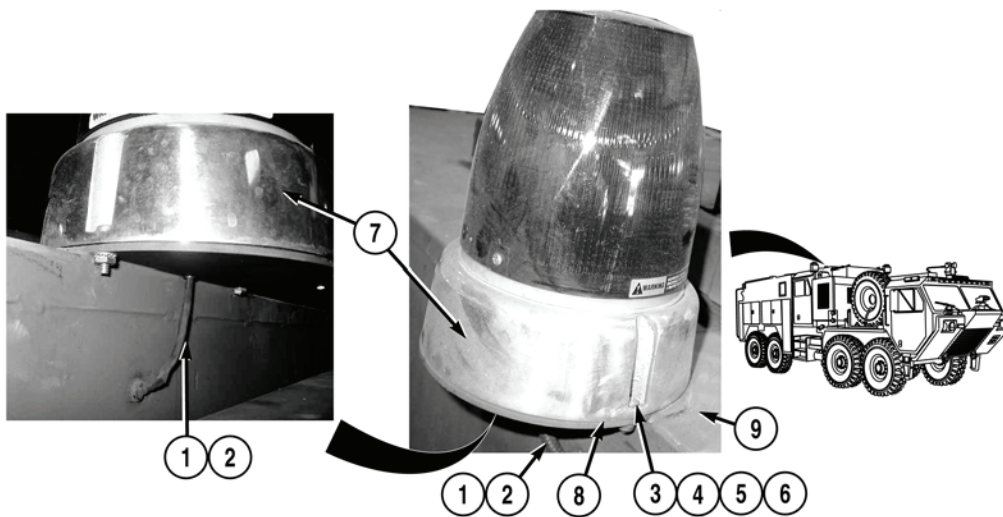
Batteries disconnected (TM 9-2320-325-14&P)  
Wheels chocked (TM 9-2320-347-10)

---

**REMOVAL**

1. Cut wire 1640 (1) and wire 1630 (2) (TM 9-2320-325-14&P).
2. Remove three nuts (3), lockwashers (4), washers (5), screws (6), overhead beacon light (7), and gasket (8) from crew cab (9). Discard lockwashers.

**END OF TASK**

**INSTALLATION**

1. Install gasket (8) and overhead beacon light (7) on crew cab (9) with three screws (6), washers (5), lockwashers (4), and nuts (3).
2. Repair wire 1630 (2) and wire 1640 (1) (TM 9-2320-325-14&P).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Remove wheel chocks (TM 9-2320-347-10)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## DOME LIGHT (LED &amp; INCANDESCENT) REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)

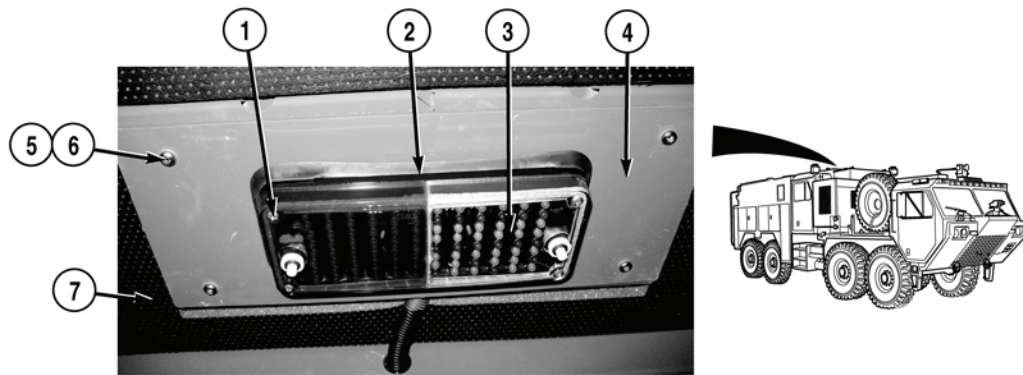
**References**

WP 0615, Fig. 69

**Equipment Conditions**

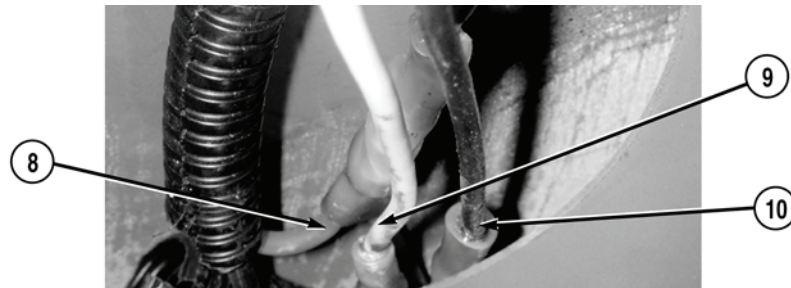
Batteries disconnected (TM 9-2320-325-14&P)  
Wheels chocked (TM 9-2320-347-10)

## REMOVAL

**NOTE**

All LED dome lights are removed the same way.

1. Remove four screws (1), rubber gasket (2) and dome light (3) from dome light base (4).
2. Remove four screws (5), washers (6), and dome light base (4) from cab (7).

**NOTE**

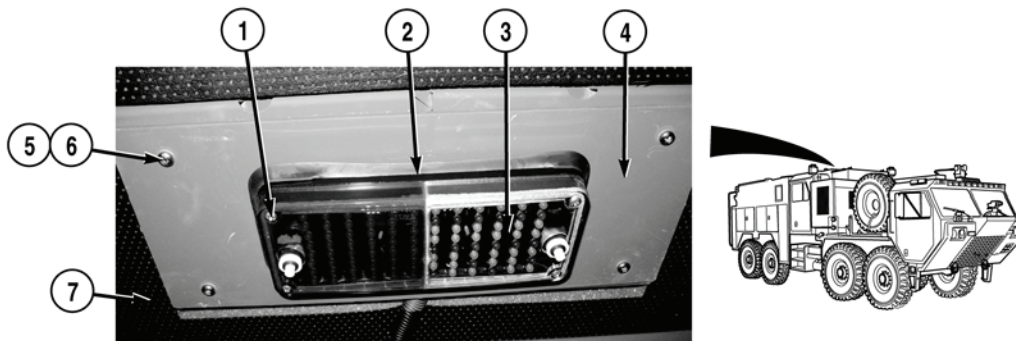
Tag and mark wires prior to removal to ensure proper installation.

3. Cut three wires (8), (9), and (10) (TM 9-2320-325-14&P).

**END OF TASK****INSTALLATION****NOTE**

All LED dome lights are installed the same way.

1. Repair three wires (10), (9) and (8) (TM 9-2320-325-14&P).



2. Install dome light base (4) on cab (7) with four washers (6) and screws (5).
3. Install dome light (3) and rubber gasket (2) on dome light base (4) with four screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Remove wheel chocks (TM 9-2320-347-10)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**120-VOLT AIR COMPRESSOR REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0614, Fig. 5  
WP 0615, Fig. 131

**Materials/Parts**

Lockwasher (4)

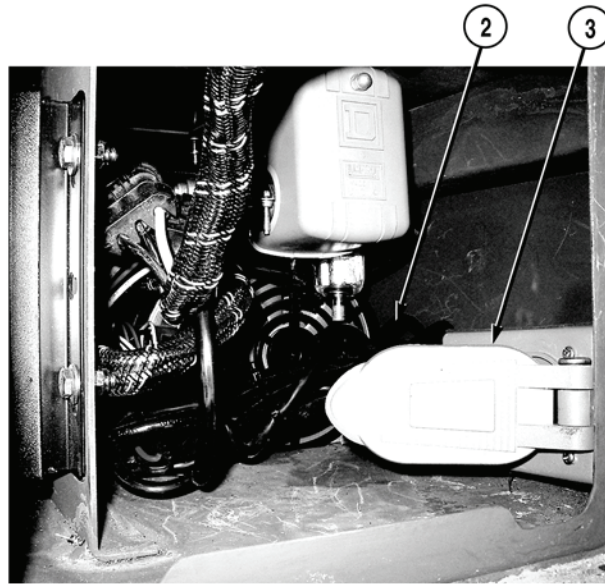
**Equipment Conditions**

Crew cab SCBA seat removed  
(driver side) (WP 0512)

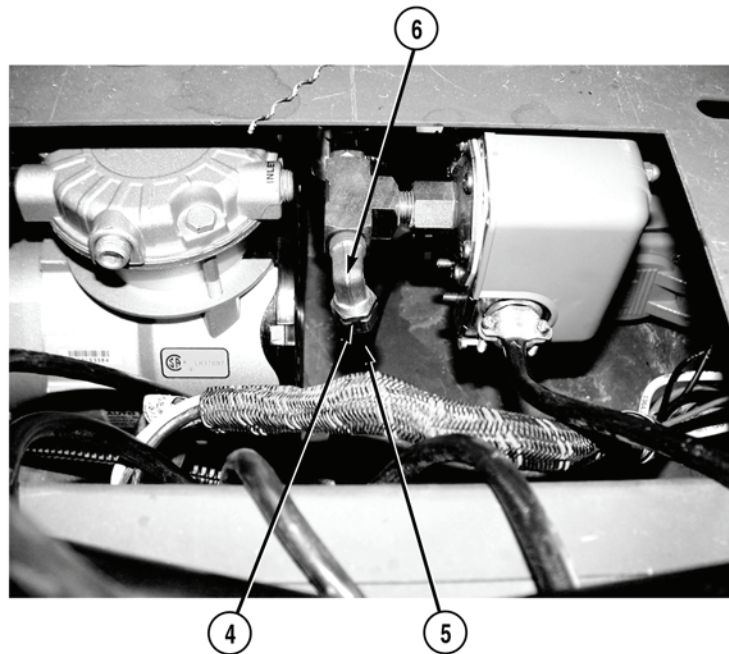
---

**REMOVAL**

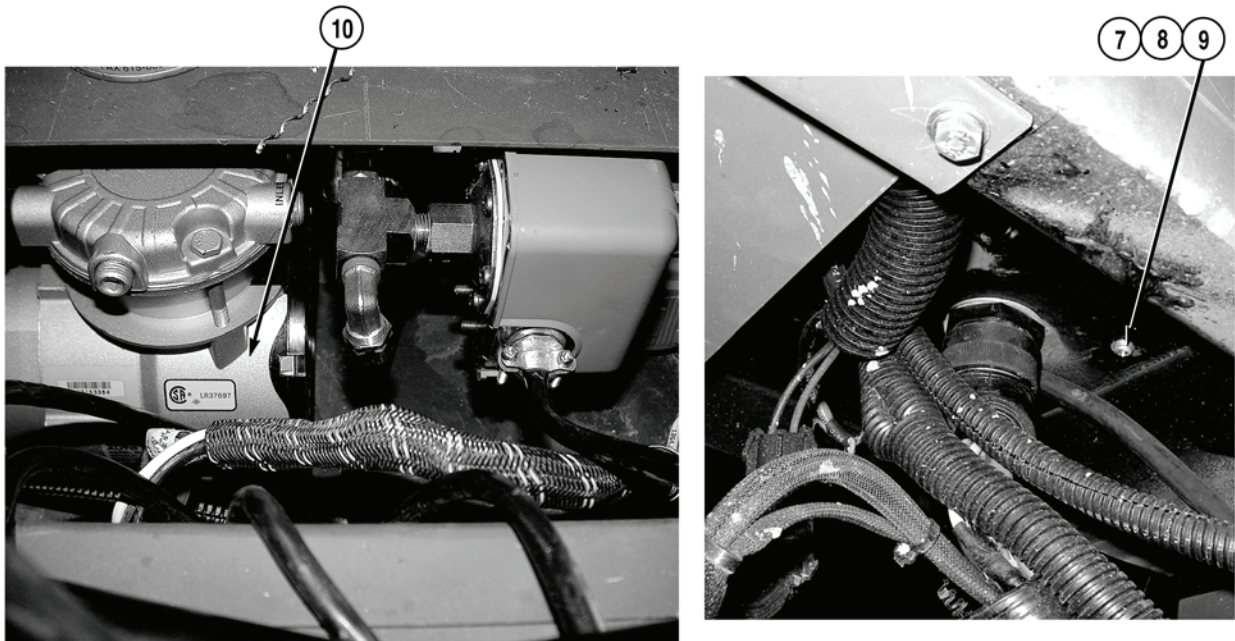
1. Open powered equipment rack access panel (1).



2. Remove power cord plug (2) from receptacle (3).



3. Remove fitting (4) and air hose (5) from elbow (6).



### NOTE

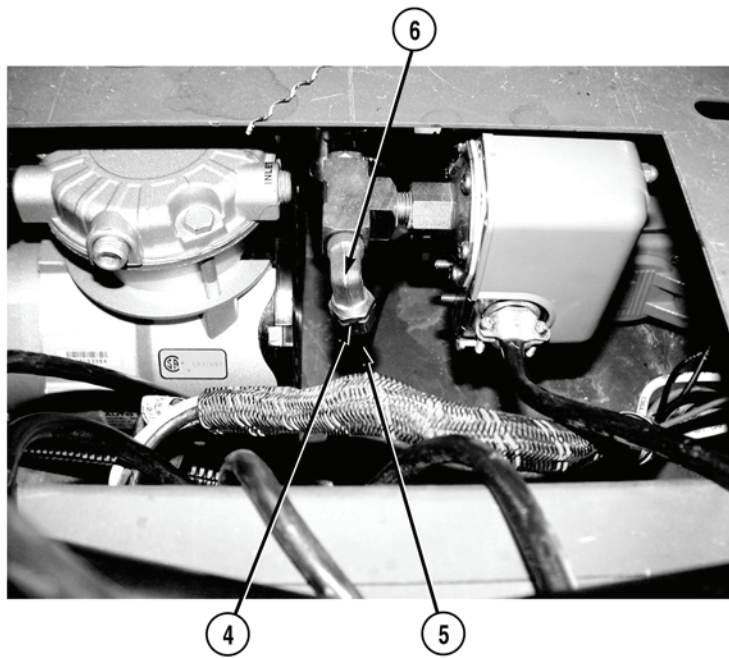
Screws that fasten compressor to vehicle are located under crew cab.

4. Remove four screws (7), lockwashers (8), washers (9), and compressor (10) from vehicle. Discard lockwashers.

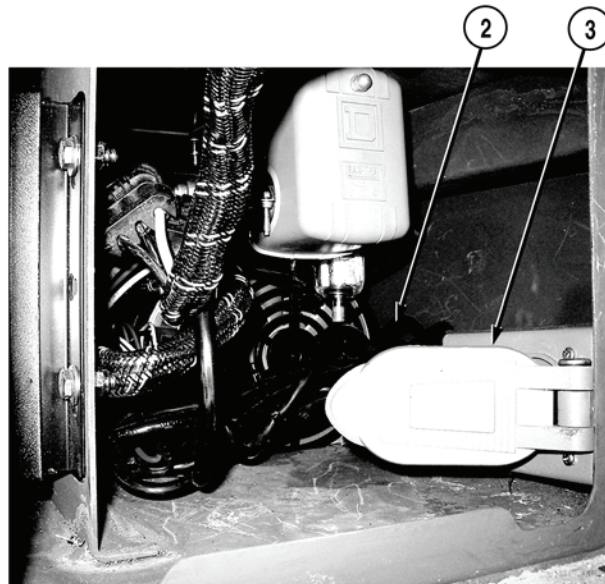
### END OF TASK

### INSTALLATION

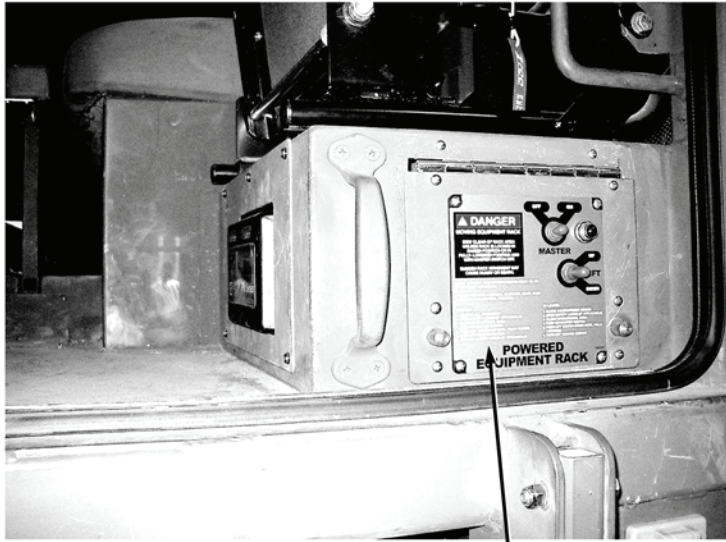
1. Install compressor (10) in vehicle with four washers (9), lockwashers (8), and screws (7).



2. Install air hose (5) and fitting (4) on elbow (6).



3. Plug in power cord (2) in receptacle (3).



4. Close powered equipment rack access panel (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Install crew cab SCBA seat (driver side) (WP 0497)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**24-VOLT BATTERY CHARGER REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0614, Fig. 5  
WP 0615, Fig. 131

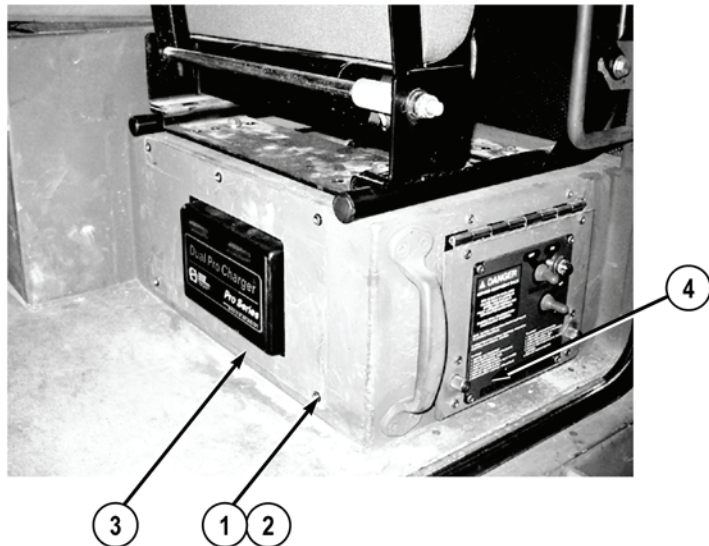
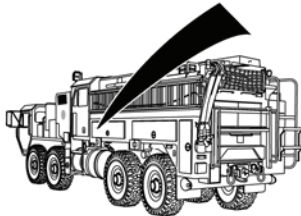
**Materials/Parts**

Locknut (4)

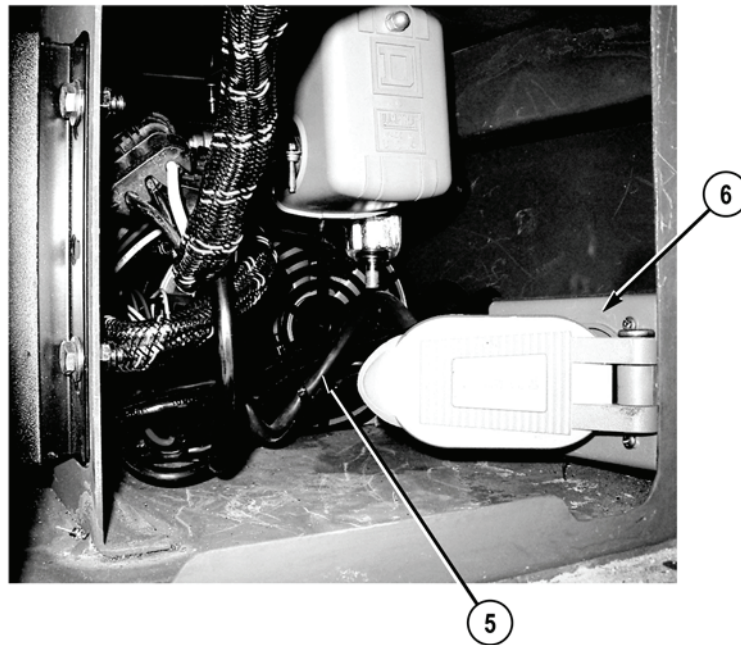
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

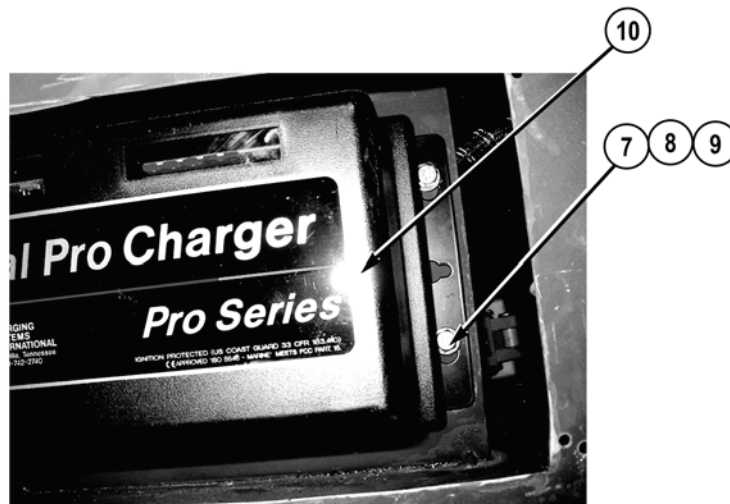
---

**REMOVAL**

1. Remove six screws (1), washers (2), and cover (3) from vehicle.
2. Open equipment (ladder) rack access panel (4).



3. Remove power cord plug (5) from receptacle (6).

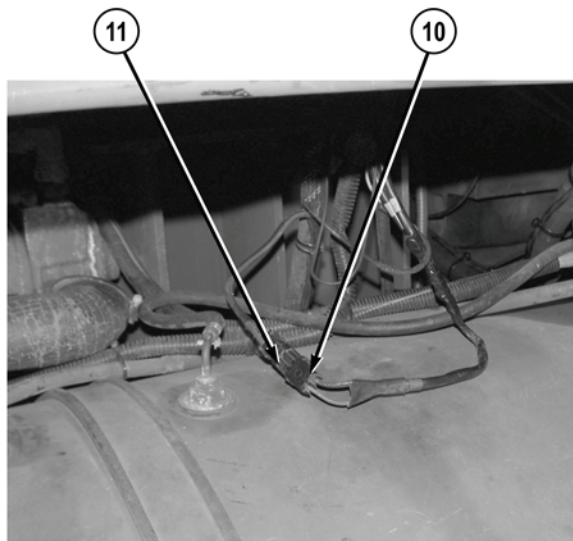


#### NOTE

Wires are attached to charger. Only remove charger enough to access wires.

4. Remove four locknuts (7), eight washers (8), four screws (9), and slide charger (10) out enough to access connector (11). Discard locknuts.



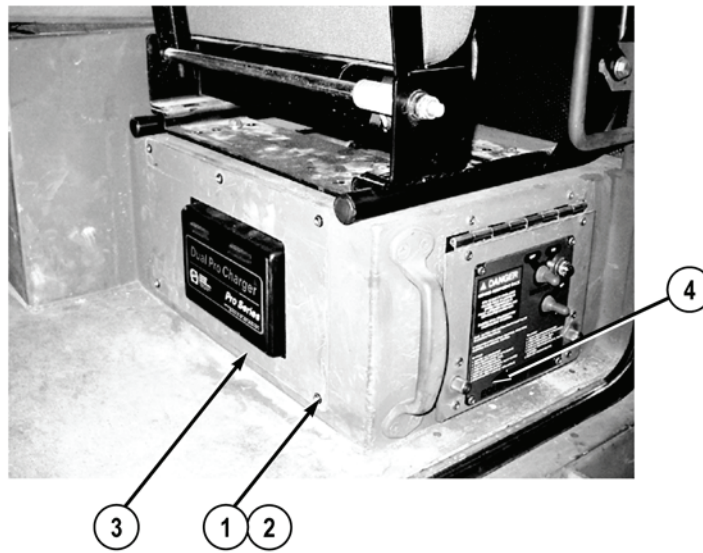


5. Disconnect connector (11) from charger (10).

#### END OF TASK

#### INSTALLATION

1. Connect connector (11) to charger (10).
2. Install charger (10) on vehicle with four screws (9), eight washers (8), and four locknuts (7).
3. Plug power cord plug (5) in receptacle (6).



4. Close equipment (ladder) rack access panel (4).
5. Install cover (3) on vehicle with six washers (2) and screws (1).

**END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

Connect batteries TM 9-2320-325-14&P

**END OF TASK**

**END OF WORK PACKAGE**

**FIELD LEVEL MAINTENANCE**

**120-VOLT CIRCUIT BREAKER REPLACEMENT**

**INITIAL SETUP:**

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 75

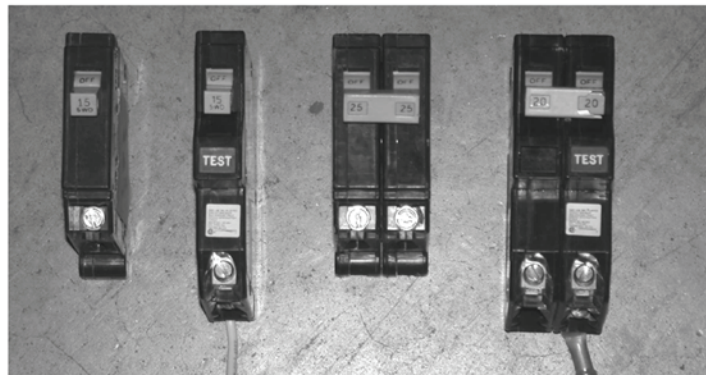
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

**Equipment Conditions**

Wheels chocked (TM 9-2320-347-10)  
Batteries disconnected (TM 9-2320-325-14&P)

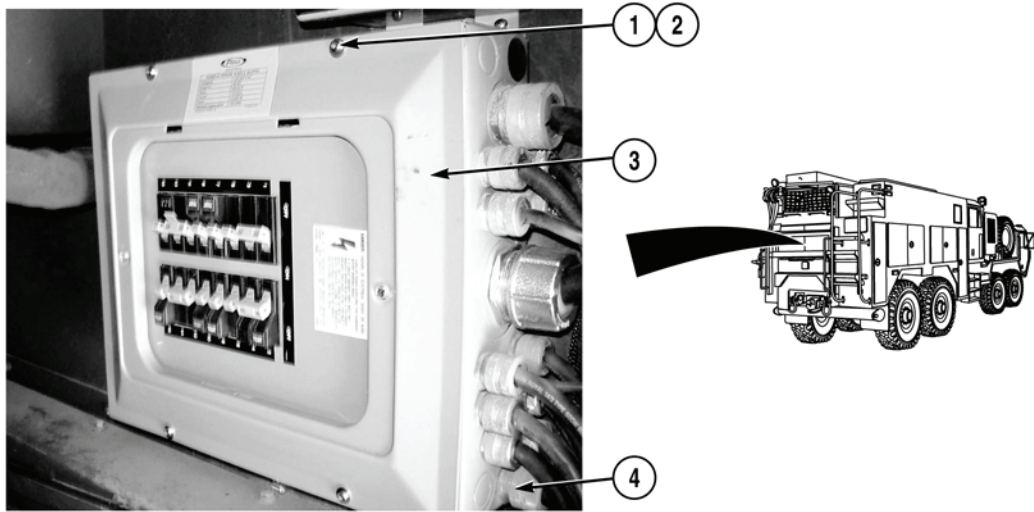
**REMOVAL**



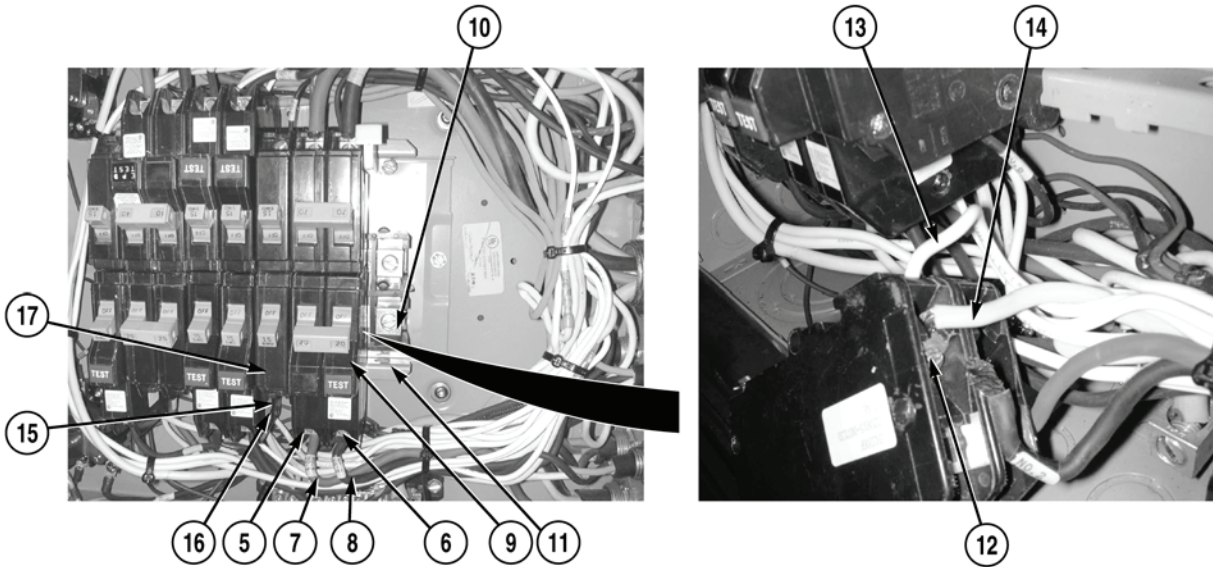
**SINGLE POLE      SINGLE POLE      DOUBLE POLE      DOUBLE POLE**  
**GROUND FAULT      GROUND FAULT      GROUND FAULT      GROUND FAULT**

**NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
- Remove cable ties as required.
- Circuit breakers come in four different types. The single and double poled ground fault circuit breakers have ground wires connected to them.



1. Remove four screws (1), washers (2), and cover (3) from circuit breaker box (4).



**NOTE**

- Perform Steps (2) through (4) for removal of all double circuit breakers.
  - Number of wires may vary. Note position and quantity before removal.
2. Loosen two screws (5) and (6) and remove two wires (7) and (8) from double circuit breaker (9).

- 
3. Remove double circuit breaker (9) from bus bar (10) and bracket (11).
  4. Loosen screw (12) and remove two wires (13) and (14) from double circuit breaker (9).

#### **NOTE**

- Perform Steps (5) and (6) for removal of all single circuit breakers.
- Number of wires may vary. Note position and quantity before removal.

5. Loosen screw (15) and remove wire (16) from single circuit breaker (17).
6. Remove single circuit breaker (17) from bus bar (10) and bracket (11).

#### **END OF TASK**

#### **INSTALLATION**

#### **NOTE**

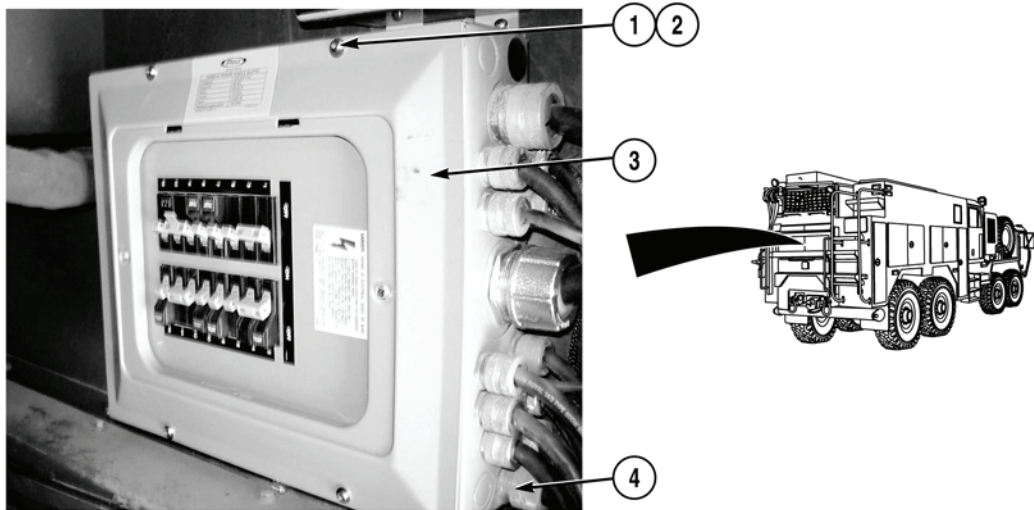
Perform Steps (1) through (3) for installation of all double circuit breakers.

1. Install two wires (14) and (13) on double circuit breaker (9) and tighten screw (12).
2. Install double circuit breaker (9) on bracket (11) and bus bar (10).
3. Install two wires (8) and (7) on double circuit breaker (9) and tighten two screws (5) and (6).

#### **NOTE**

Perform Steps (4) and (5) for installation of all single circuit breakers.

4. Install wire (16) on single circuit breaker (17) and tighten screw (15).
5. Install single circuit breaker (17) on bracket (11) and bus bar (10).



6. Install cover (3) on circuit breaker box (4) with four washers (2) and screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Connect batteries (TM 9-2320-325-14&P)
2. Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**
**120-VOLT POWER CORD(S) REPLACEMENT**


---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

**References**

WP 0615, Fig. 75

**Equipment Conditions**

120-Volt receptacle removed  
(if necessary) (WP 0362)

**Equipment Conditions (continued)**

Water tank heater power cord removed  
(if necessary) (WP 0300)

Piping heat trace power cord removed  
(if necessary) (WP 0604)

Cord reel power cord removed  
(if necessary) (WP 0381)

Crew cab air conditioner/heater control box power  
cord removed (if necessary) (WP 0201)

Battery chargers(s) receptacle removed  
(if necessary) (WP 0365)

120-Volt power cord removed from circuit breaker  
box (WP 0373)

---

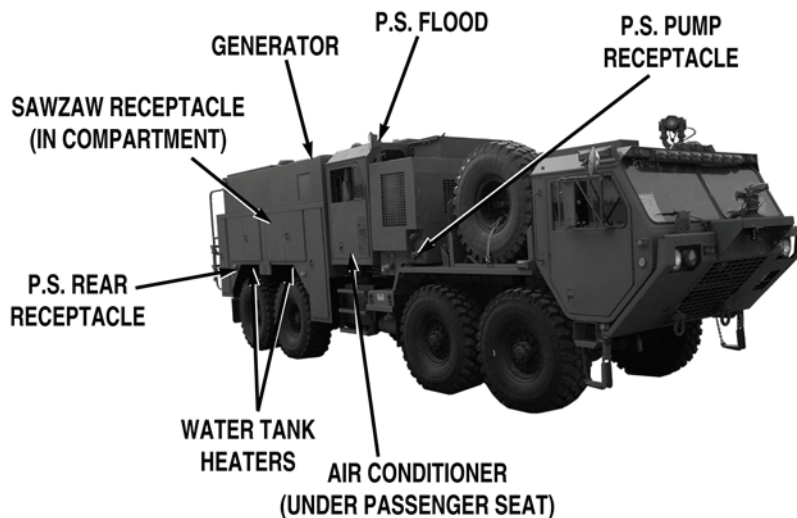
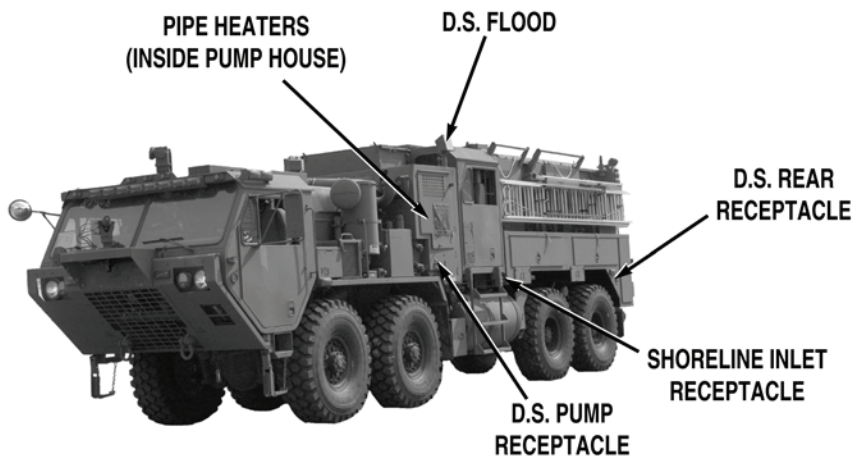
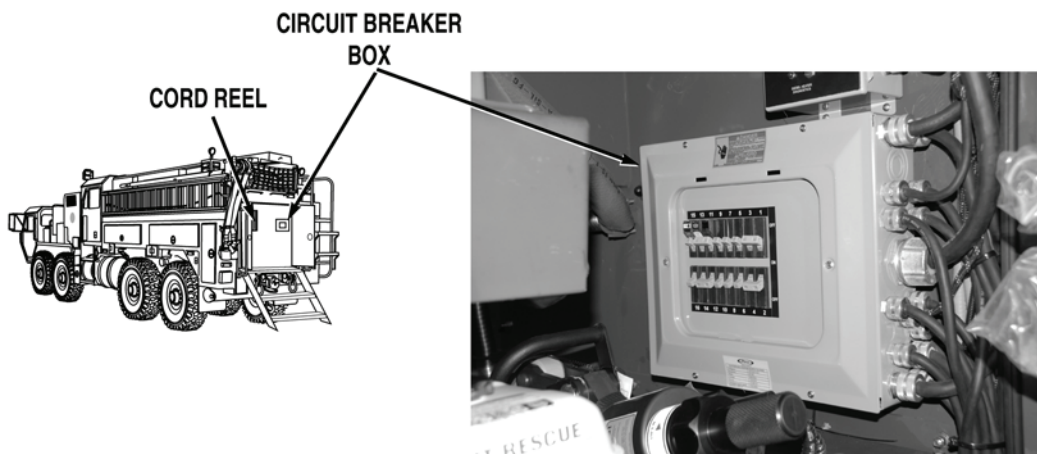
**REPLACEMENT****NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
- Remove cable ties and cushion clips as required.
- This procedure only shows routing of 120-volt power cords. It will never be necessary to remove all 120-volt power cords at once.

**Table 1. 120-Volt Power Cords.**

<b>Power Cord No.</b>	<b>From</b>	<b>To</b>
1	Generator (WP 0583)	Circuit Breaker Box, Main Circuit Breaker No. 1
2	Circuit Breaker Box Circuit Breaker No. 2	Cord Reel
1	Generator (WP 0583)	Circuit Breaker Box, Main Circuit Breaker No.3
2	Circuit Breaker Box Circuit Breaker No. 4	Cord Reel
3	Circuit Breaker Box Circuit Breaker No. 5	Top Left Relay in Circuit Breaker Box then to D.S. Flood
4	Circuit Breaker Box Circuit Breaker No. 6	Lower Left Relay in Circuit Breaker Box then to P.S. Flood
5	Circuit Breaker Box Circuit Breaker No. 7	D.S. Pump Receptacle
6	Circuit Breaker Box Circuit Breaker No. 8	P.S. Pump Receptacle
7	Circuit Breaker Box Circuit Breaker No. 9	D.S. Rear Receptacle
8	Circuit Breaker Box Circuit Breaker No. 10	P.S. Rear Receptacle
9	Circuit Breaker Box Circuit Breaker No. 11	Water Tank Heater
10	Circuit Breaker Box Circuit Breaker No. 12	Air Conditioner
9	Circuit Breaker Box Circuit Breaker No. 13	Water Tank Heater
10	Circuit Breaker Box Circuit Breaker No. 14	Air Conditioner
11	Circuit Breaker Box Circuit Breaker No. 15	Pipe Heater
12	Circuit Breaker Box Circuit Breaker No. 16	Top Right Two-Way Relay in Circuit Breaker Box then to SAWZAW
13	Shoreline Inlet Receptacle	Top Right Two-Way Relay in Circuit Breaker Box





**FOLLOW-ON MAINTENANCE**

1. 120-Volt power cord installed in circuit breaker box (WP 0373)
2. Install battery charger(s) receptacle if necessary (WP 0365)
3. Install crew cab air conditioner/heater control box power cord if necessary (WP 0201)
4. Install cord reel power cord if necessary (WP 0381)
5. Install piping heat trace power cord if necessary (WP 0604)
6. Install water tank heater power cord if necessary (WP 0300)
7. Install 120-Volt receptacle if necessary (WP 0362)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**120-VOLT RECEPTACLE REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 73

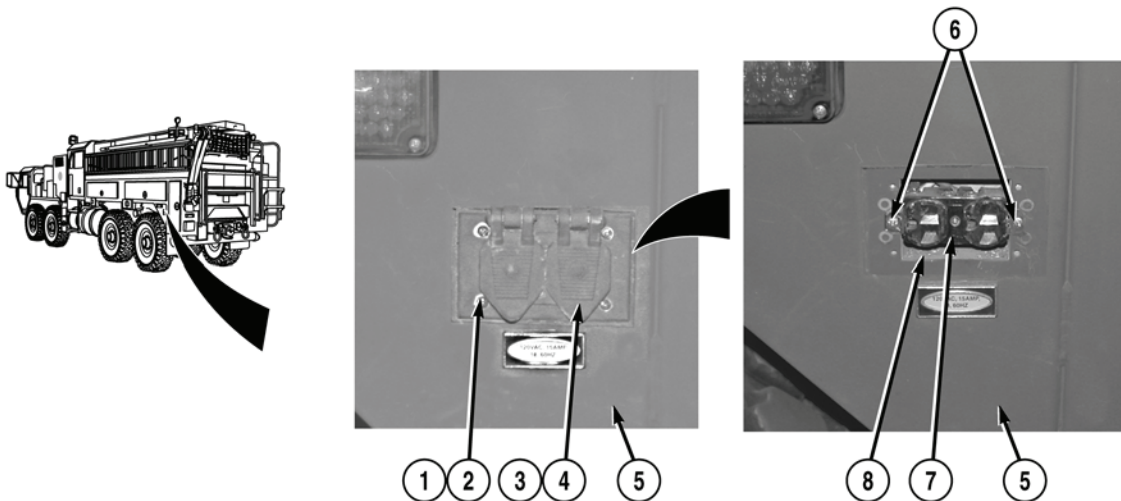
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

---

**REAR BODY PANEL RECEPTACLES REMOVAL****NOTE**

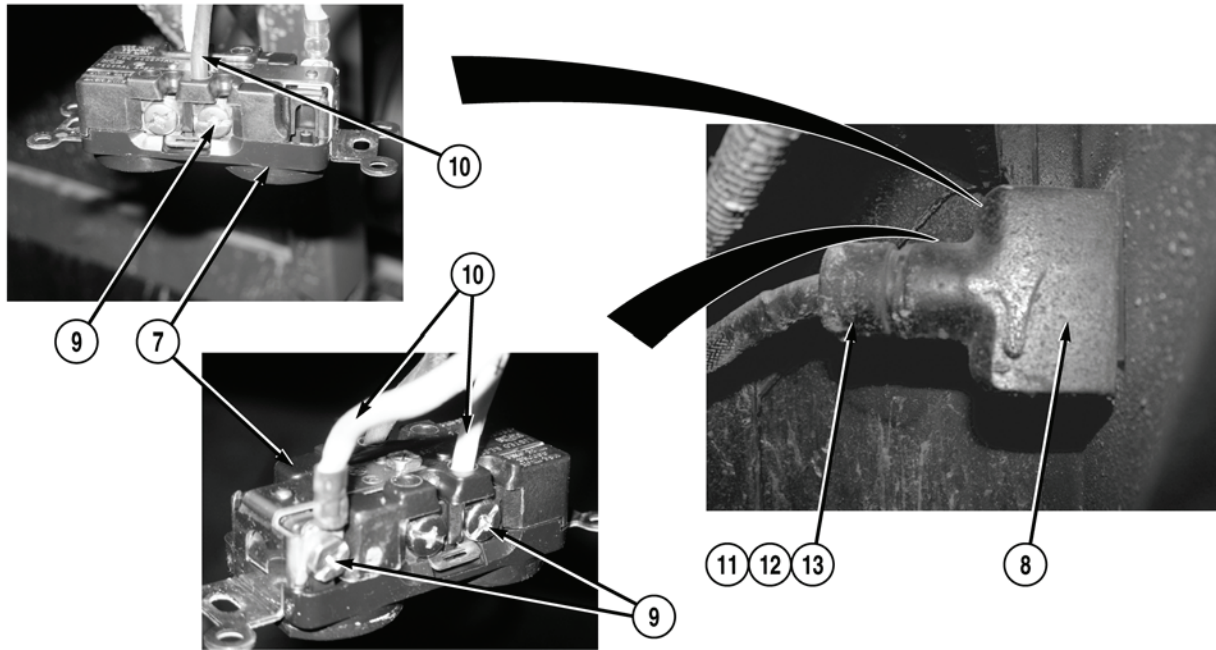
Both driver side and passenger side rear body panel receptacles are removed the same way. Driver side receptacle shown.

1. Remove four screws (1), washers (2), receptacle cover (3), and gasket (4) from rear body panel (5).
2. Remove two screws (6), receptacle (7), and box (8) from rear body panel (5).

**NOTE**

Wires are still attached to receptacle. Only remove receptacle from box far enough to access screws.

3. Pull receptacle (7) from box (8).



### NOTE

Tag and mark wires prior to removal to ensure proper installation.

4. Loosen three screws (9) and remove wires (10) from receptacle (7).
5. Remove collar (11) from box (8).
6. Remove backing washer (12), grommet (13), and three wires (10) from box (8).

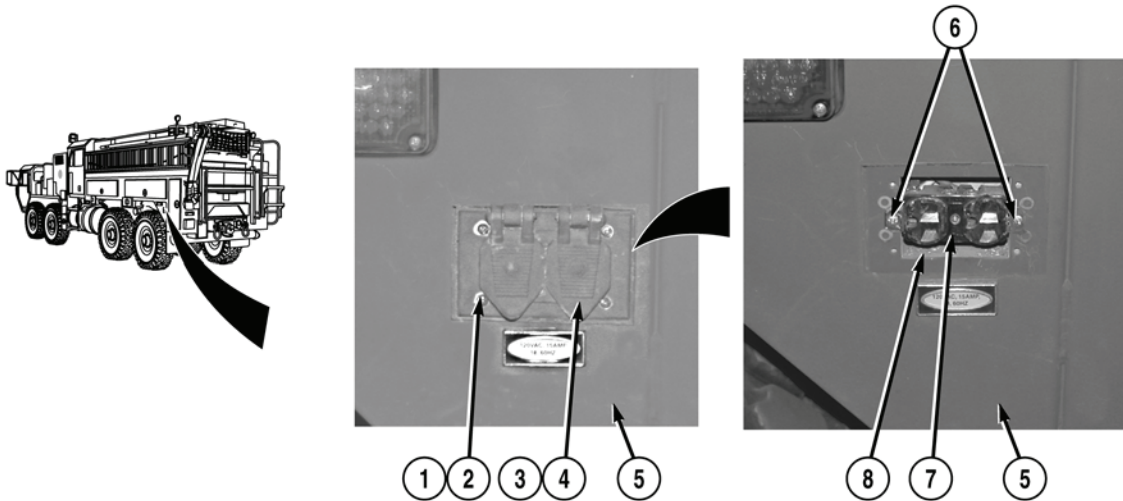
### END OF TASK

### REAR BODY PANEL RECEPTACLES INSTALLATION

### NOTE

Both driver side and passenger side rear body panel receptacles are installed the same way. Driver side receptacle shown.

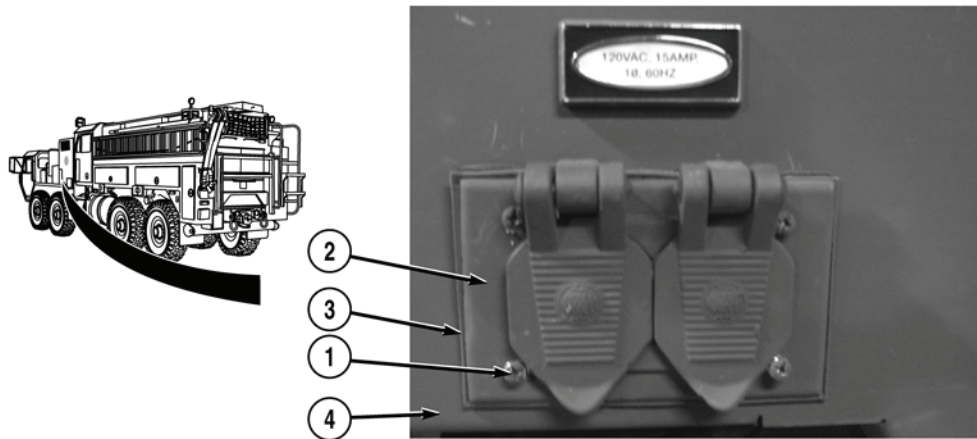
1. Install three wires (10), grommet (13), and backing washer (12) on box (8) and tighten collar (11).
2. Install three wires (10) on receptacle (7) and tighten three screws (9).
3. Install receptacle (7) in box (8).



4. Install box (8) and receptacle (7) on rear body panel (5) with two screws (6).
5. Install gasket (4) and receptacle cover (3) on rear body panel (5) with four washers (2) and screws (1).

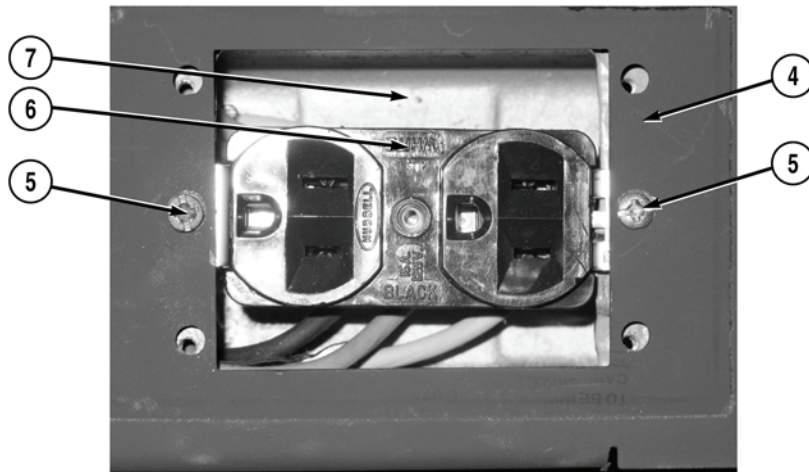
**END OF TASK**

**PUMP PANEL B RECEPTACLE REMOVAL**



**NOTE**

- Both pump panel receptacles are removed the same way. Driver side pump house panel receptacle shown.
  - Tag and mark wires prior to removal to ensure proper installation.
1. Remove four screws (1), receptacle cover (2), and gasket (3) from pump house panel B (4).

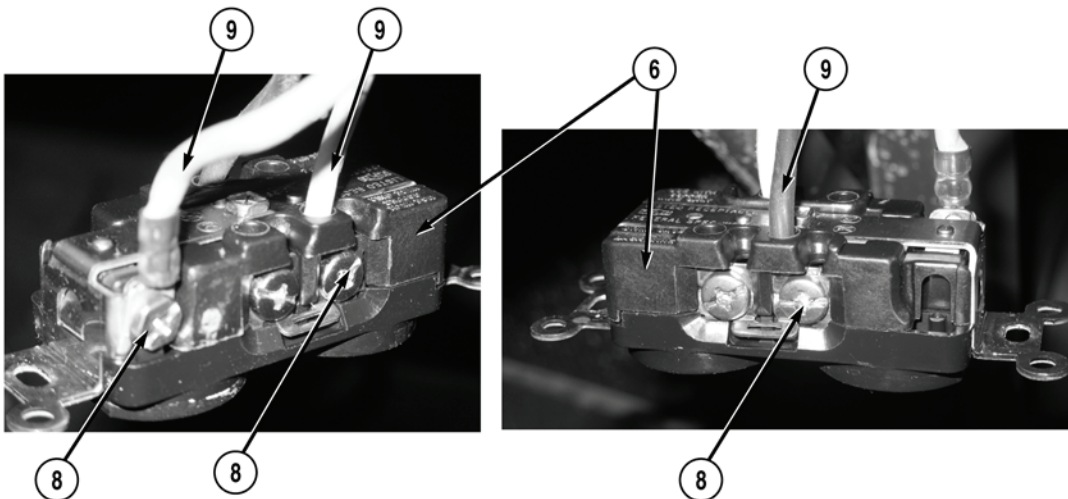


2. Remove two screws (5), receptacle (6), and electrical box (7) from pump house panel B (4).

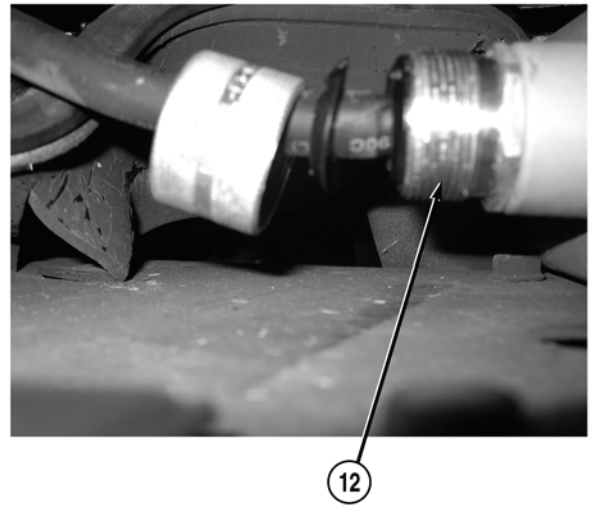
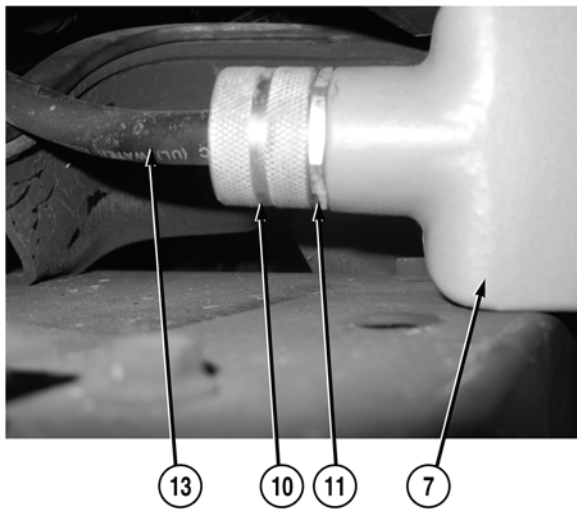
#### NOTE

Wires are still attached to receptacle. Only remove receptacle from box far enough to access screws.

3. Pull receptacle (6) from electrical box (7).



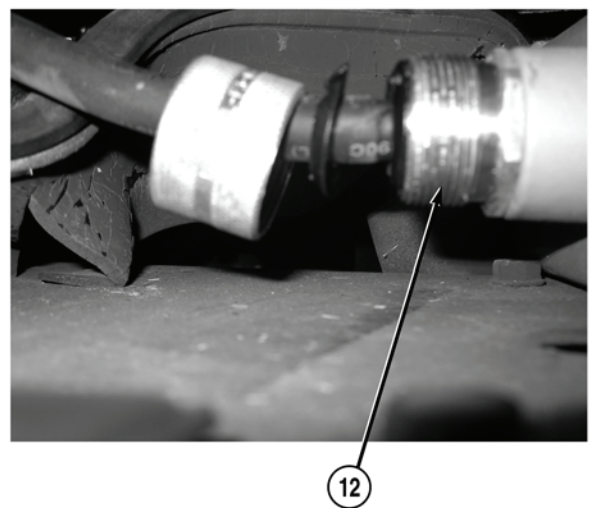
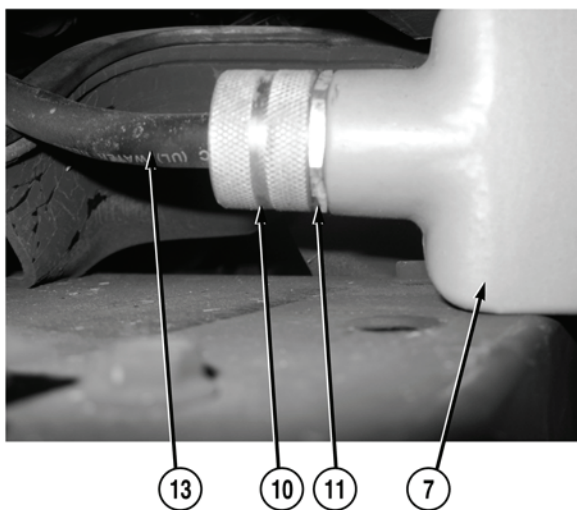
4. Loosen three screws (8) and remove three wires (9) from receptacle (6).



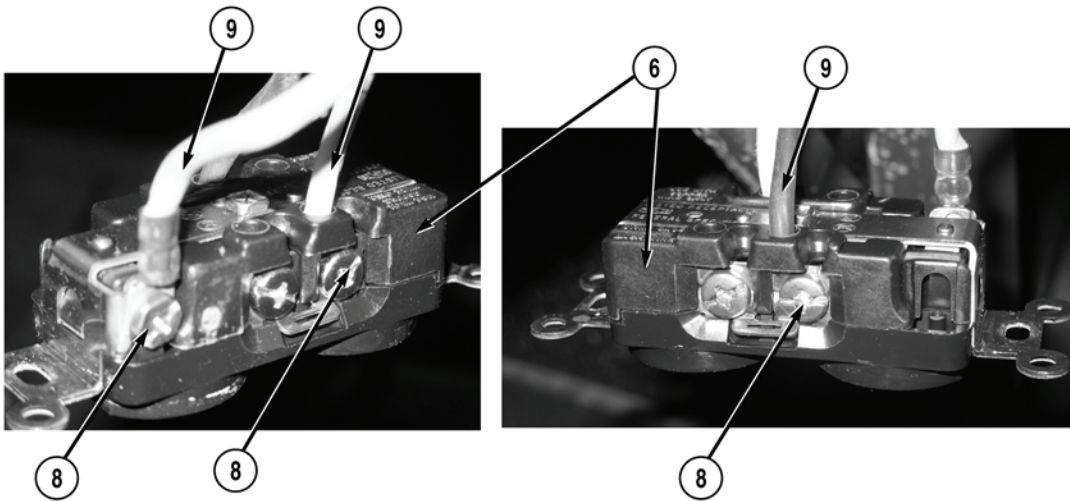
5. Remove collar (10) and jamnut (11) from fitting (12).
6. Remove cable (13) from fitting (12) and electrical box (7).
7. Remove fitting (12) from electrical box (7).

#### END OF TASK

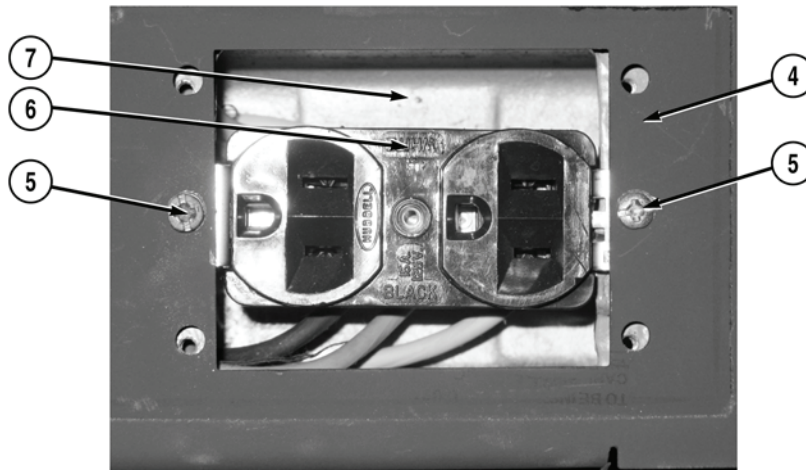
#### PUMP PANEL RECEPTACLE INSTALLATION



1. Install fitting (12) on electrical box (7).
2. Install cable (13) in fitting (12) and electrical box (7).
3. Install jamnut (11) and collar (10) on fitting (12).

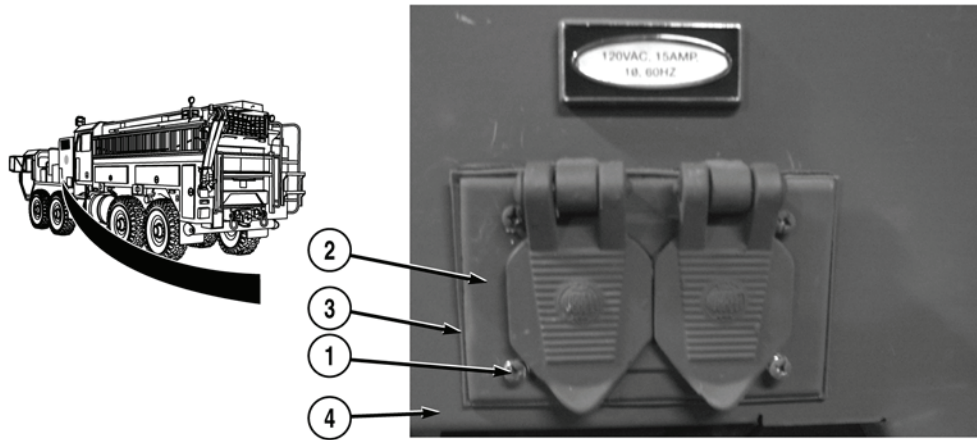


4. Install three wires (9) on receptacle (6) and tighten three screws (8).



5. Install receptacle (6) in electrical box (7).
6. Install electrical box (7) and receptacle (6) on pump house panel B (4) with two screws (5).





7. Install gasket (3) and receptacle cover (2) on pump house panel B (4) with four screws (1).

#### **FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**AUTO FILL CONTROL REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 83

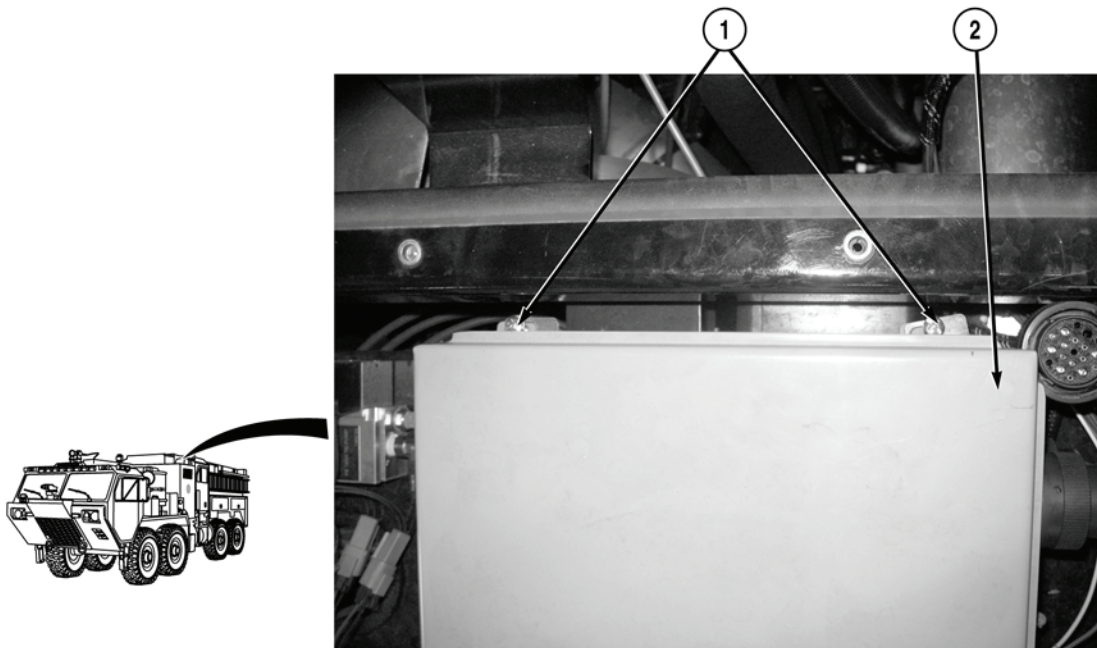
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Lockwasher (4)

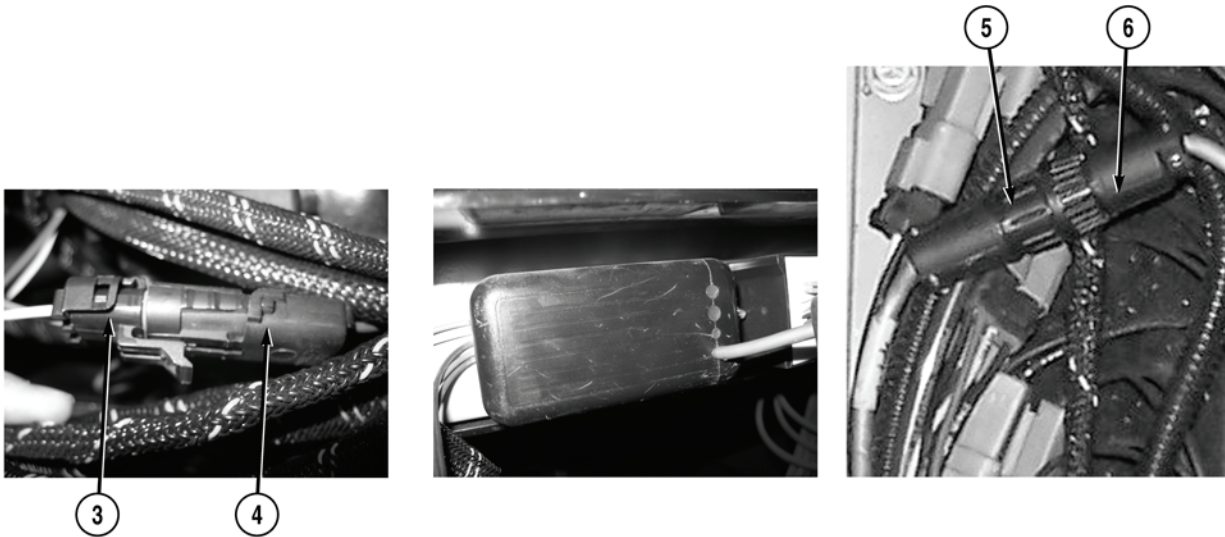
**Equipment Conditions**

Pump house panel S removed (WP 0540)

---

**REMOVAL**

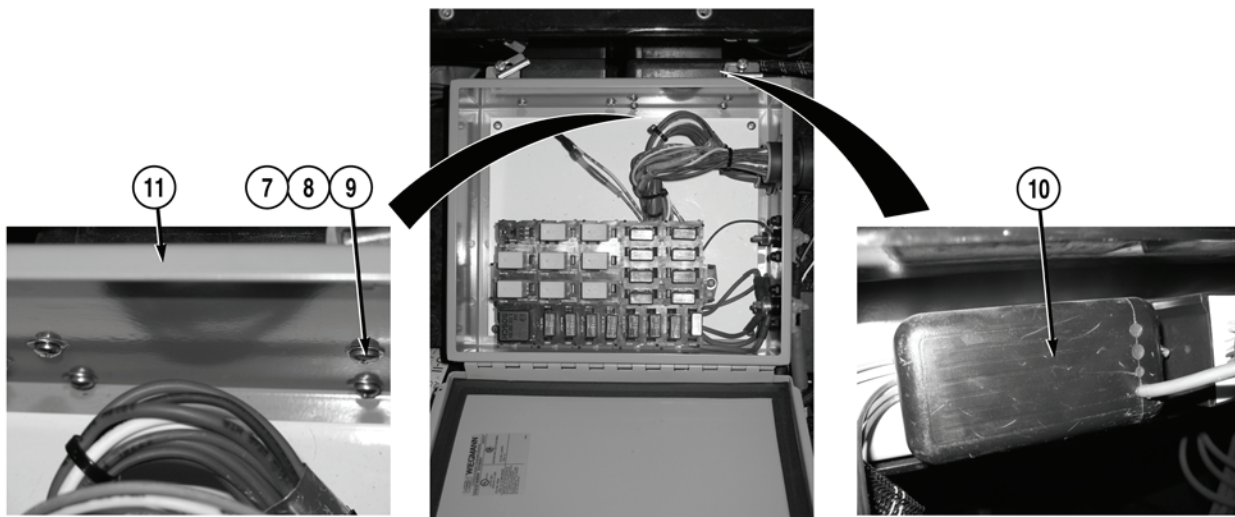
1. Loosen two screws (1) and open power distribution box cover (2).



### NOTE

Tag and mark connectors prior to removal to ensure proper installation.

2. Disconnect auto fill control connector (3) from auto fill valve connector (4).
3. Disconnect auto fill control connector (5) from auto fill valve gauge connector (6).

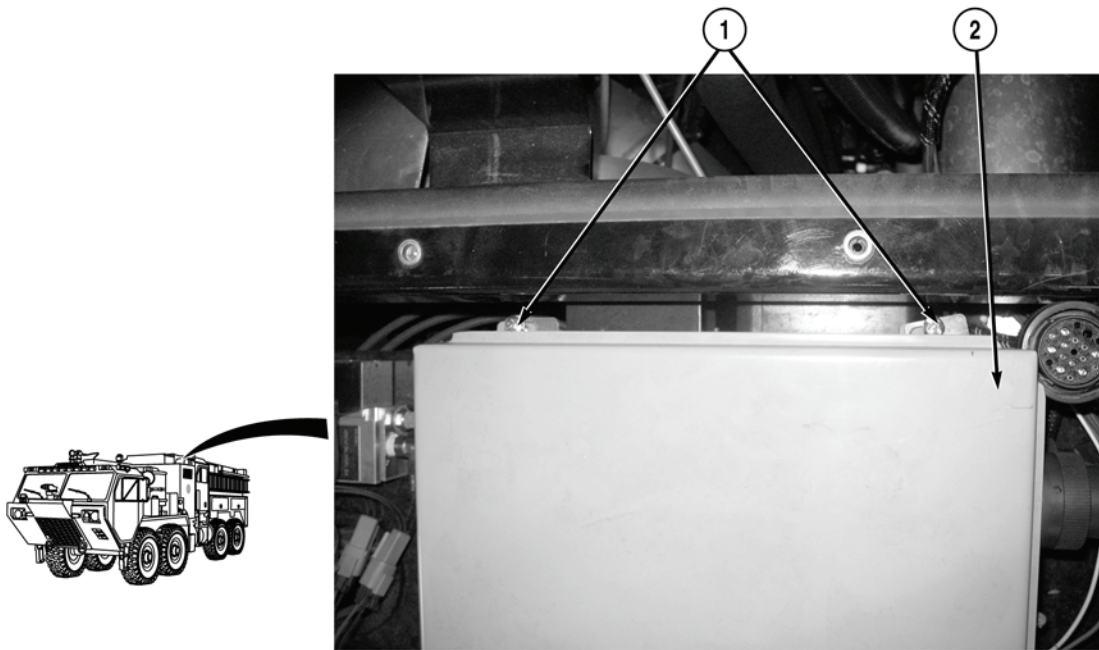


4. Remove four screws (7), lockwashers (8), washers (9), and auto fill control (10) from power distribution box (11). Discard lockwashers.

**END OF TASK**

**INSTALLATION**

1. Install auto fill control (10) on power distribution box (11) with four washers (9), lockwashers (8), and screws (7).
2. Connect auto fill valve gauge connector (6) to auto fill control connector (5).
3. Connect auto fill valve connector (4) to auto fill control connector (3).



4. Close power distribution box cover (2) and tighten two screws (1).

**FOLLOW-ON MAINTENANCE**

Install pump house panel S (WP 0540)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**BATTERY BOX AND BRACKET REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

- Standard Automotive Tool Set (SATS),  
(WP 0622, Item 25)
- Wrench, Torque, Click, Ratcheting, 1/2" Drive  
250 ft-lb, Regular 1-1/8"
- Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

- Locknut (6)  
Lockwasher (2)  
Locknut (2)  
Locknut (6)

**Personnel Required**

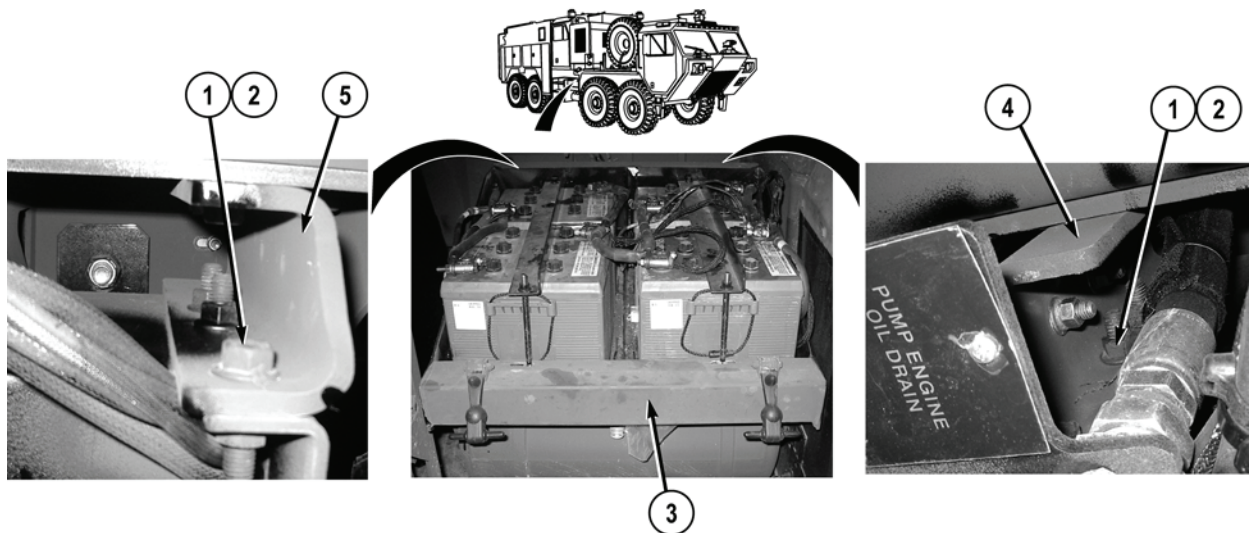
MOS 63B Wheeled vehicle mechanic (2)

**References**

WP 0615, Fig. 109

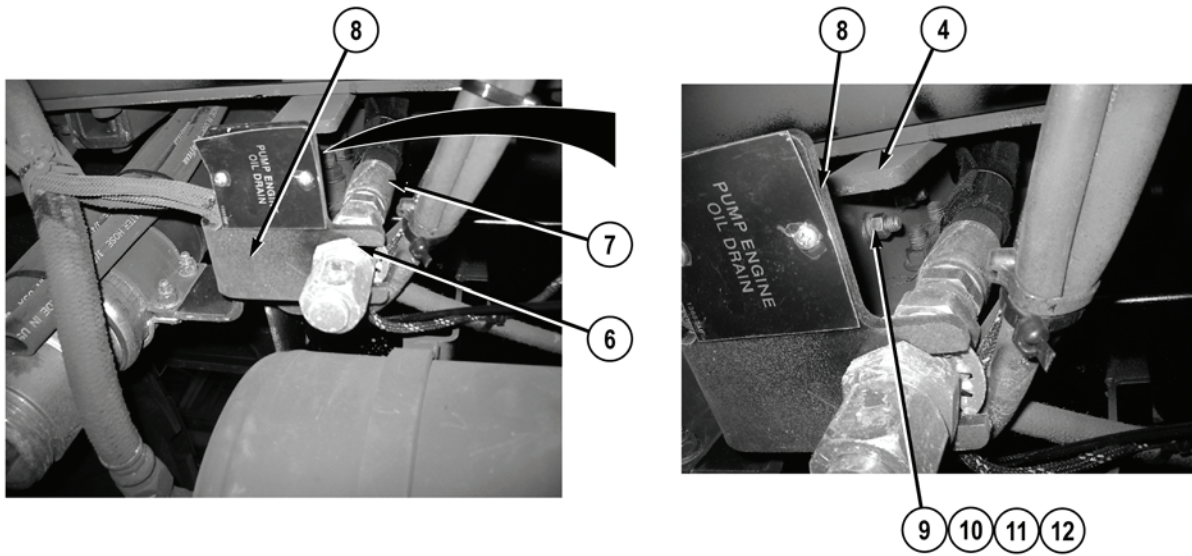
**Equipment Conditions**

Batteries removed (WP 0368)  
Air tanks 1 and 3  
removed (TM 9-2320-325-14&P)

**REMOVAL****WARNING**

**Battery box weighs approximately 50 lb. (23 kg). Do not attempt to lift or move battery box without the aid of an assistant. Failure to comply may result in the injury to personnel and/or damage to equipment.**

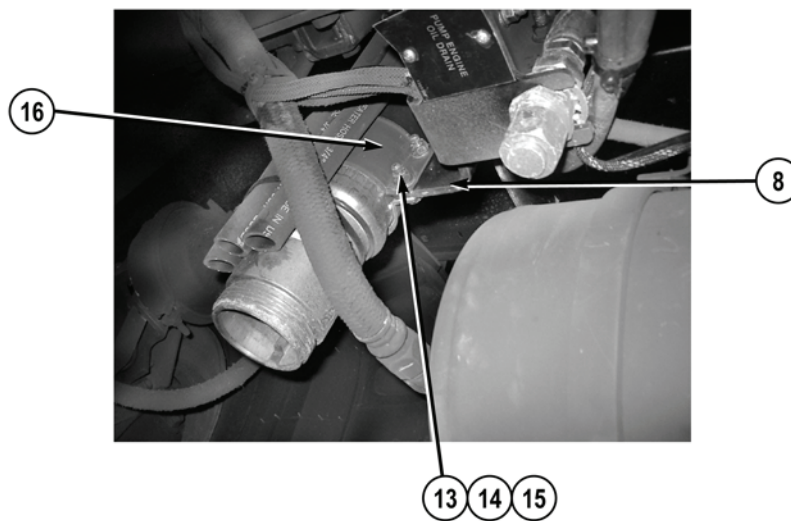
1. With the aid of an assistant, remove six locknuts (1), screws (2), and battery box (3) from front battery box bracket (4) and rear battery box bracket (5). Discard locknuts.



**NOTE**

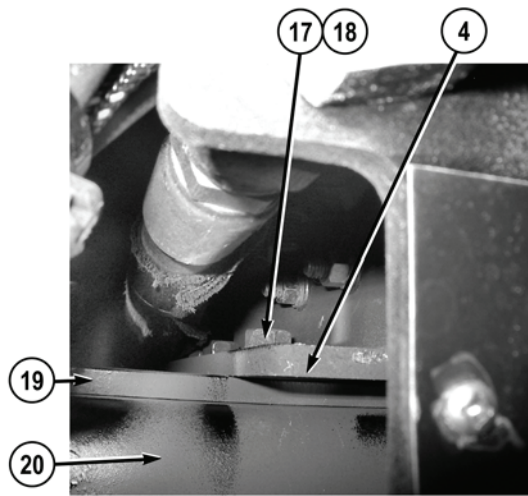
Perform Steps (2) through (5) to remove water pump engine oil drain mounting bracket.

2. Loosen jamnut (6) on water pump engine oil drain hose (7).
3. Remove water pump engine oil drain hose (7) from water pump engine oil drain mounting bracket (8).
4. Remove two nuts (9), lockwashers (10), four washers (11), two screws (12), and water pump engine oil drain mounting bracket (8) from front battery box bracket (4). Discard lockwashers.



5. Remove two locknuts (13), four washers (14), two screws (15), and clamp (16) from water pump engine oil drain mounting bracket (8). Discard locknuts.

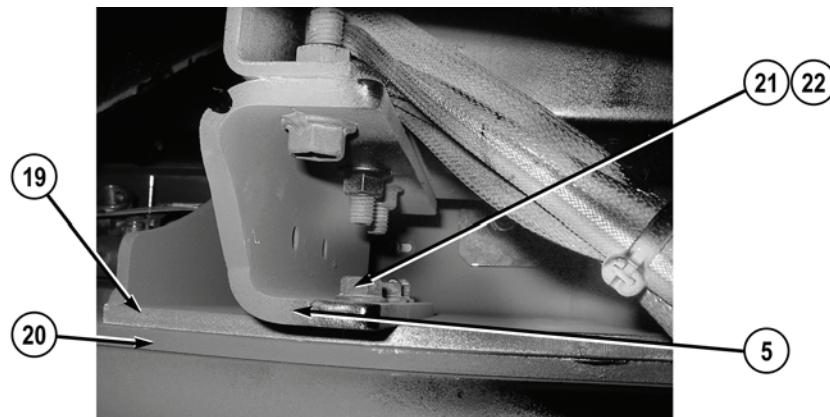




### NOTE

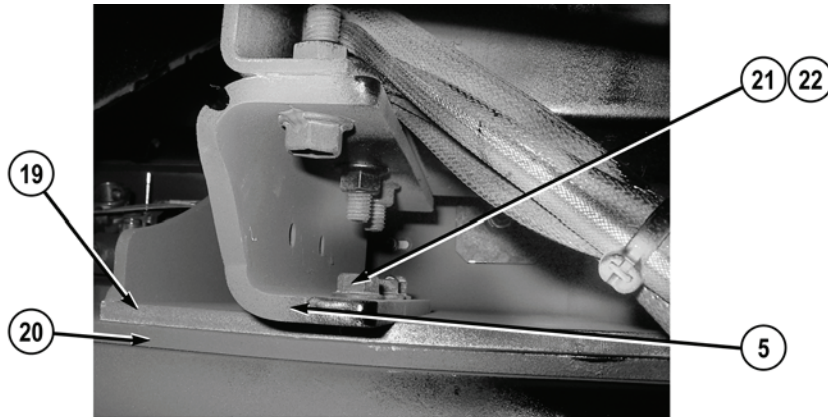
Perform Steps (6) and (7) if battery box brackets need to be removed.

6. Remove three locknuts (17), screws (18), and front battery box bracket (4) from bracket (19) and frame rail (20). Discard locknuts.



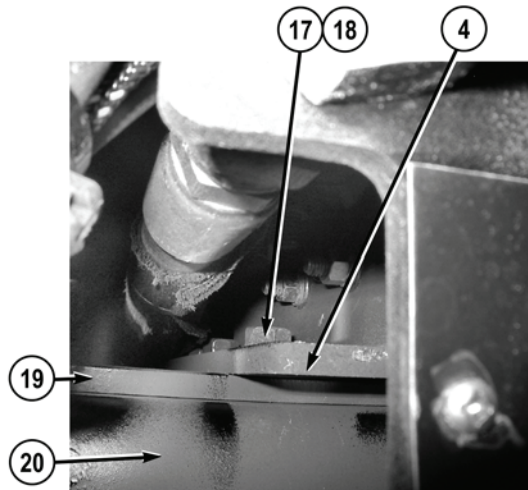
7. Remove three locknuts (21), screws (22), and rear battery box bracket (5) from bracket (19) and frame rail (20). Discard locknuts.

**END OF TASK**

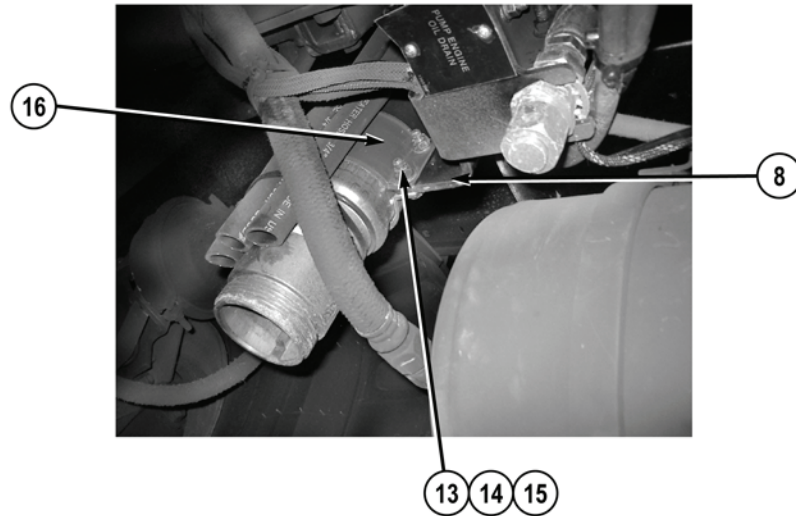
**INSTALLATION****NOTE**

Perform Steps (1) and (2) if battery box brackets were removed.

1. Install rear battery box bracket (5) on frame rail (20) and bracket (19) with three screws (22) and locknuts (21). Tighten screws (22) to 96 lb-ft (130 N•m).



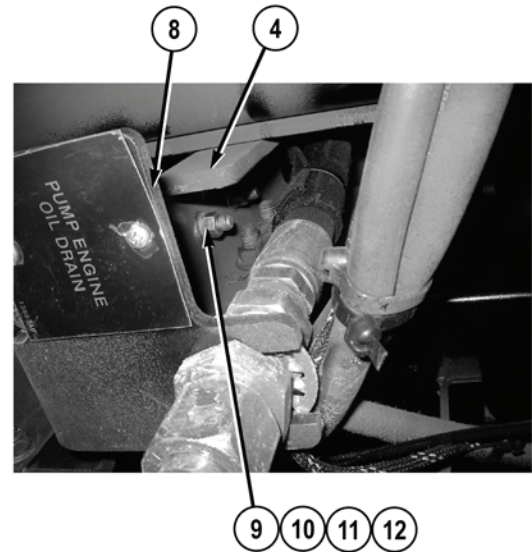
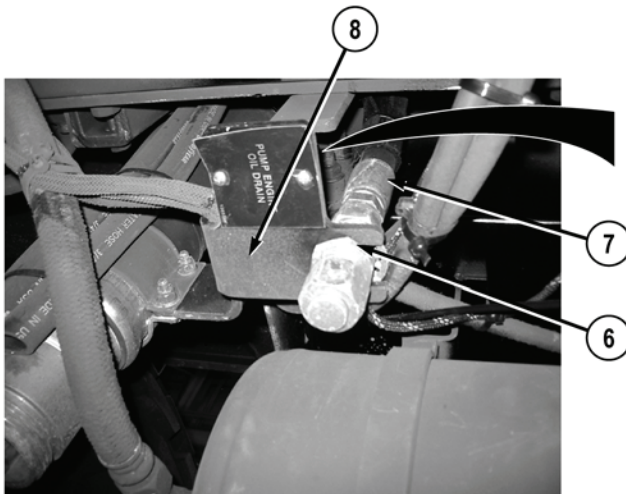
2. Install front battery box bracket (4) on frame rail (20) and bracket (19) with three screws (18) and locknuts (17). Tighten screws (18) to 96 lb-ft (130 N•m).



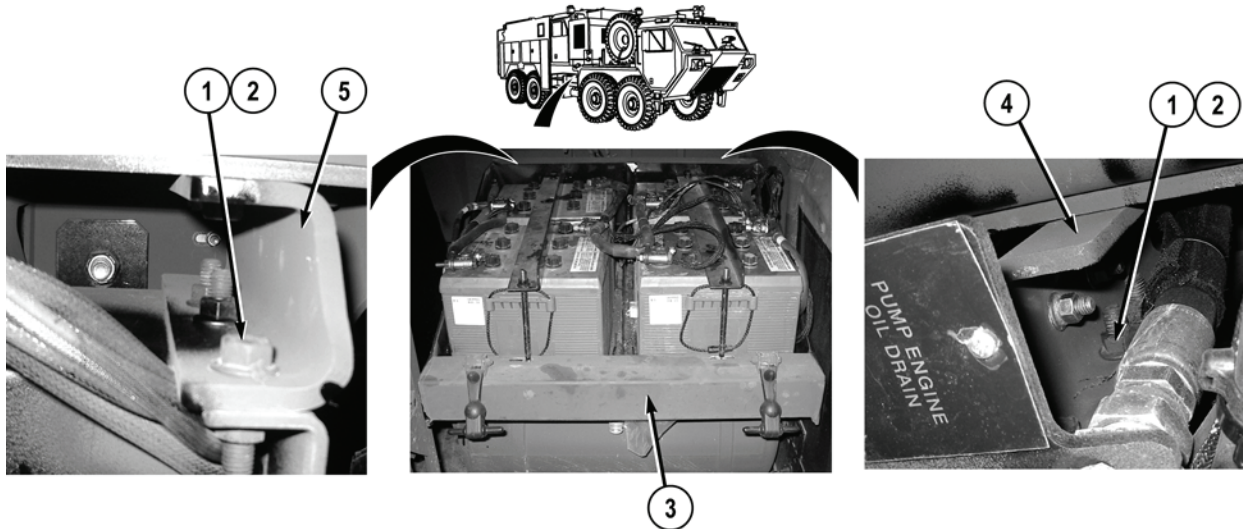
**NOTE**

Perform Steps (3) through (6) to install water pump engine oil drain mounting bracket.

3. Install clamp (16) on water pump engine oil drain mounting bracket (8) with two screws (15), four washers (14), and two locknuts (13).



4. Install water pump engine oil drain mounting bracket (8) on front battery box bracket (4) with two screws (12), four washers (11), two lockwashers (10), and nuts (9).
5. Install water pump engine oil drain hose (7) on water pump engine oil drain mounting bracket (8).
6. Tighten jamnut (6) on water pump engine oil drain hose (7).

**WARNING**

**Battery box weighs approximately 50 lb. (23 kg). Do not attempt to lift or move battery box without the aid of an assistant. Failure to comply may result in the injury to personnel and/or damage to equipment.**

7. With the aid of an assistant, install battery box (3) on rear battery box bracket (5) and front battery box bracket (4) with six screws (2) and locknuts (1). Tighten screws (2) to 96 lb-ft (130 N•m).

**FOLLOW-ON MAINTENANCE**

1. Install air tanks 1 and 3 (TM 9-2320-325-14&P)
2. Install batteries (WP 0368)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**BATTERY CHARGER(S) RECEPTACLE REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 72, 79

**Materials/Parts**

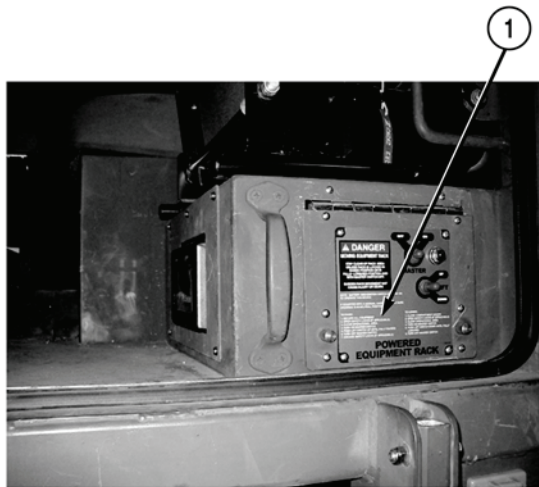
Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Water pump engine OFF (WP 0022)

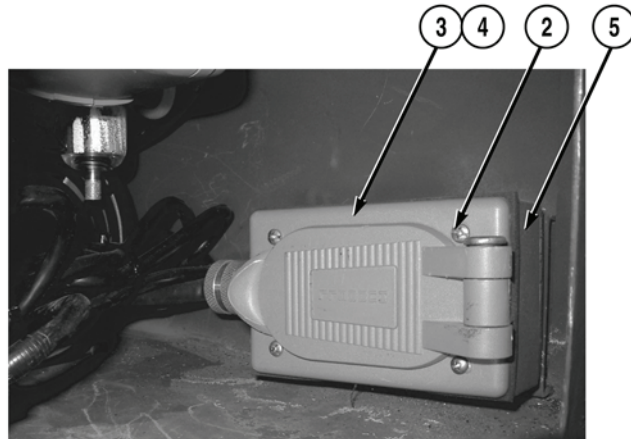
Batteries disconnected (TM 9-2320-325-14&P)

---

**REMOVAL****WARNING**

**Ensure external power cord is not plugged into shoreline inlet receptacle. Failure to comply could cause electrocution.**

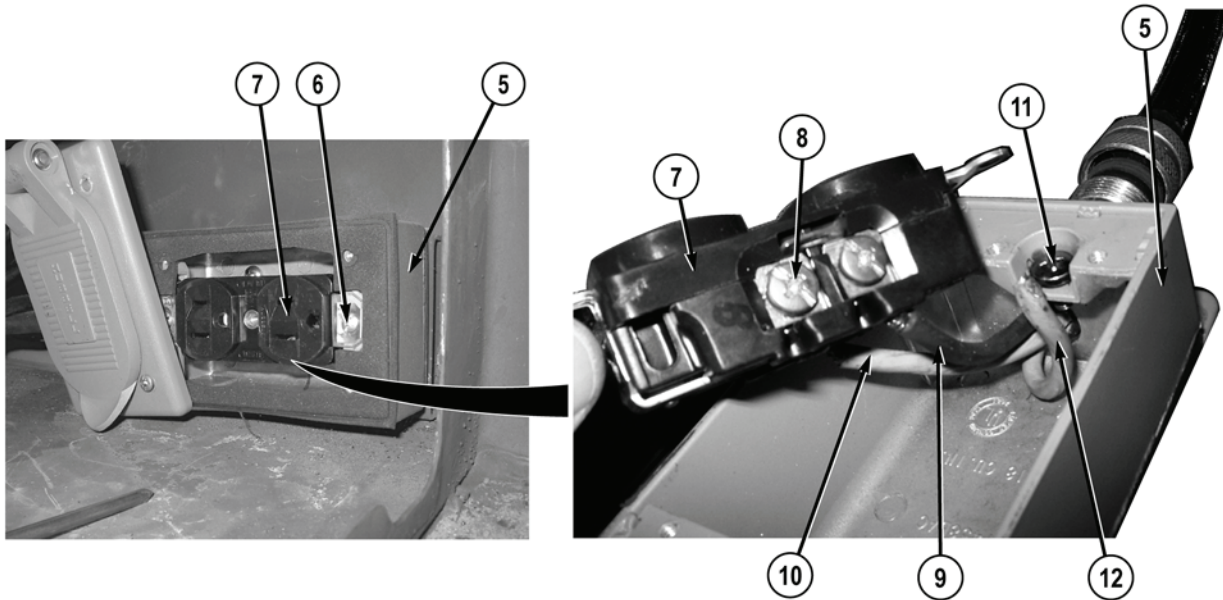
1. Open powered equipment rack access panel (1).



**NOTE**

24-Volt battery charger receptacle and 18-Volt reciprocating saw charger receptacle are removed the same way. 24-Volt battery charger receptacle shown.

2. Remove four screws (2), cover (3), and receptacle seal (4) from receptacle housing (5).



**⚠ CAUTION**

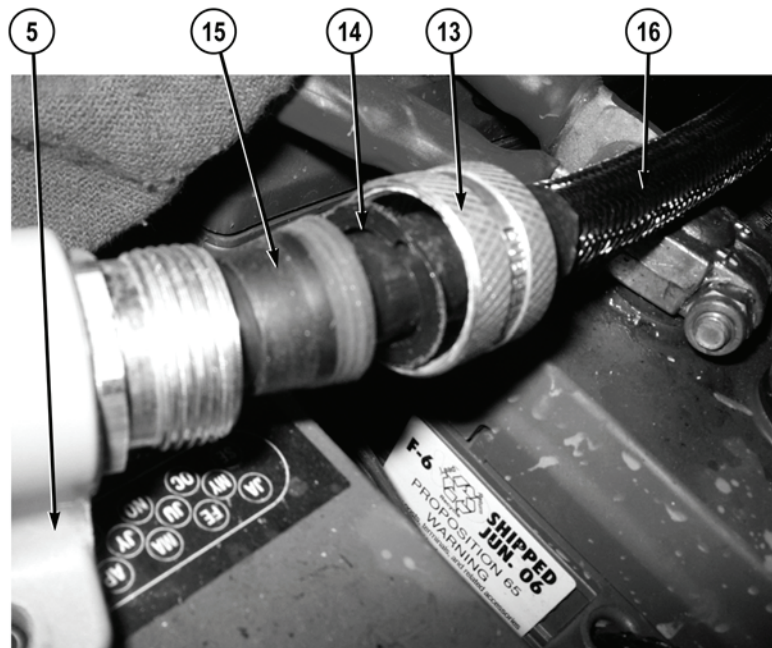
**Wires are attached to back of receptacle. Only remove receptacle enough to access wires.**

3. Remove two screws (6) and receptacle (7) from receptacle housing (5).

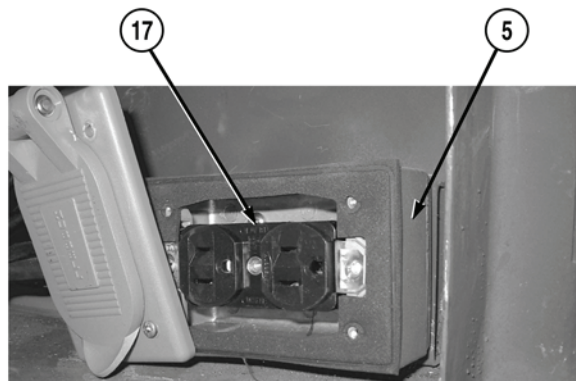
**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

4. Loosen two screws (8) and remove black wire (9) and white wire (10) from receptacle (7).
5. Loosen screw (11) and remove green wire (12) from receptacle housing (5).

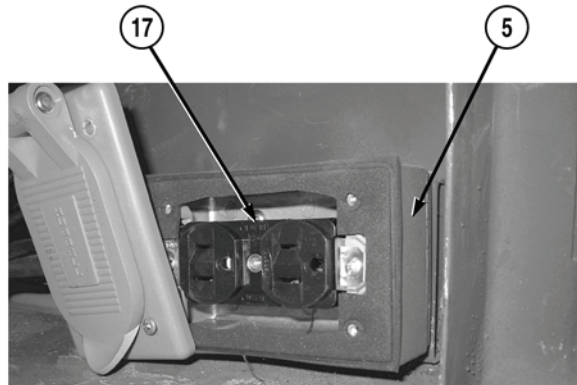


6. Remove strain relief (13), compression ring (14), rubber grommet (15), and cable (16) from receptacle housing (5).



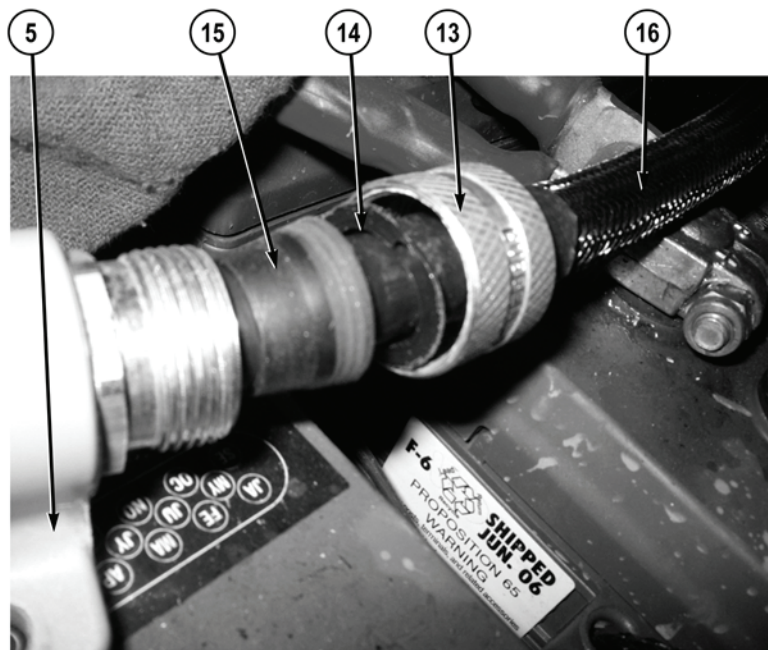
7. Remove two screws (17) and receptacle housing (5) from vehicle.

**END OF TASK**

**INSTALLATION****NOTE**

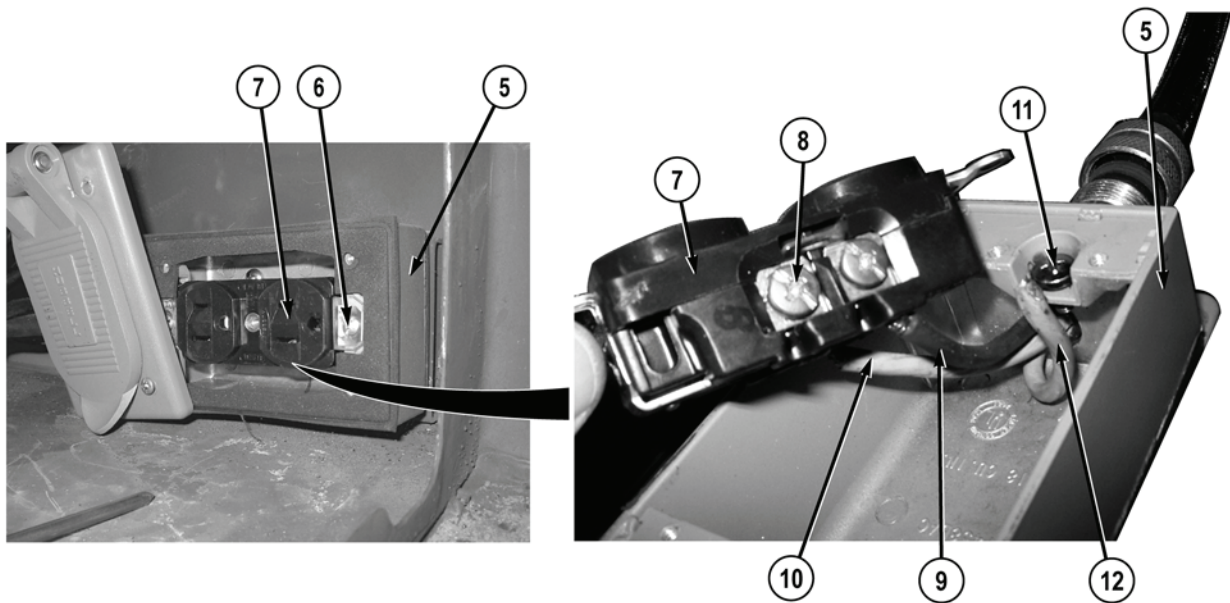
24-Volt battery charger receptacle and 18-Volt reciprocating saw charger receptacle are installed the same way. 24-Volt battery charger receptacle shown.

1. Install receptacle housing (5) on vehicle with two screws (17).

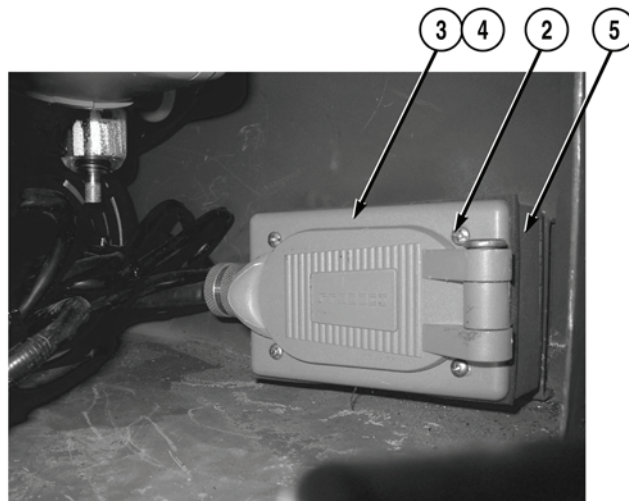


2. Install cable (16) in receptacle housing (5) with rubber grommet (15), compression ring (14), and strain relief (13).

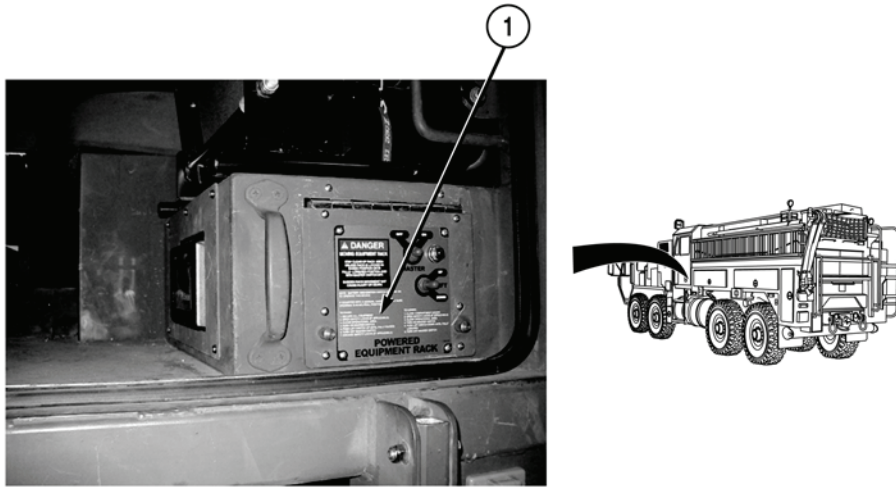




3. Install green wire (12) on receptacle housing (5) and tighten screw (11).
4. Install white wire (10) and black wire (9) on receptacle (7) and tighten two screws (8).
5. Install receptacle (7) in receptacle housing (5) with two screws (6).



6. Install receptacle seal (4) and cover (3) on receptacle housing (5) with four screws (2).



7. Close powered equipment rack access panel (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**BATTERY DISCONNECT SWITCH AND BOX REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 74

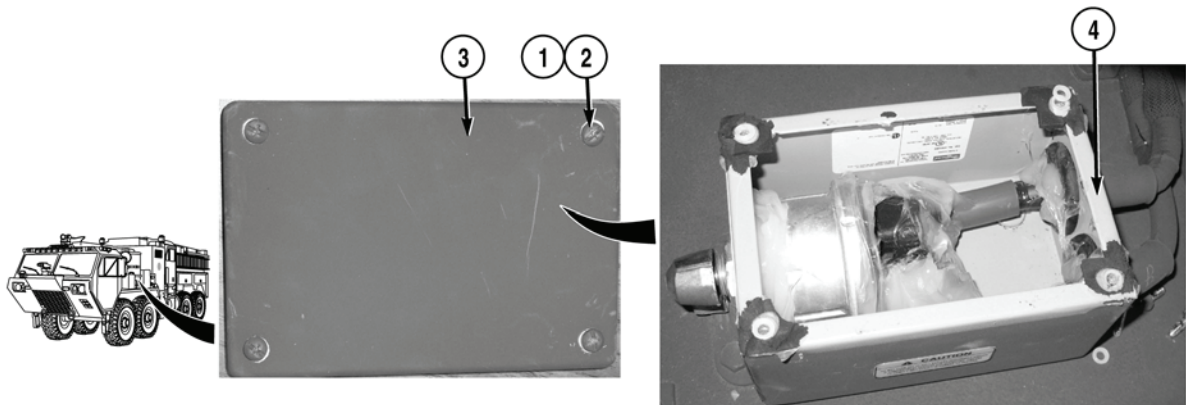
**Materials/Parts**

Adhesive, RTV 732 Clear Down  
Corning (WP 0625, Item 2)  
Tags, Identification (WP 0625, Item 51)  
Lockwasher (2)

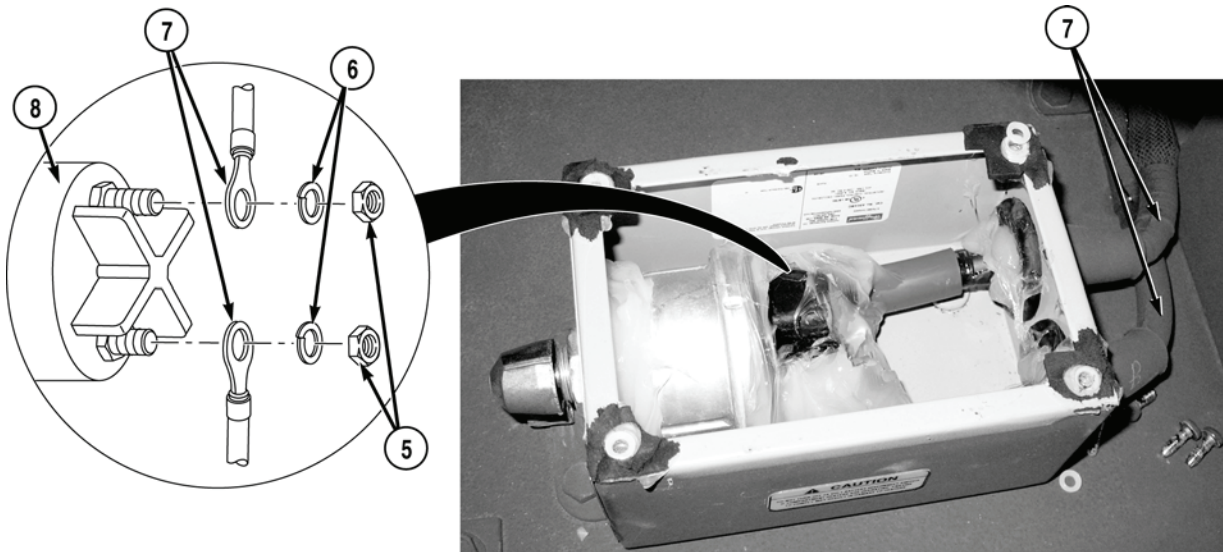
**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)

---

**REMOVAL**

1. Remove four screws (1), washers (2), and cover (3) from battery disconnect box (4).



**NOTE**

Tag and mark cables prior to removal to ensure proper installation.

2. Remove two nuts (5), lockwashers (6), and cables (7) from battery disconnect switch (8). Discard lockwashers.



3. Remove screw (9), battery disconnect switch control (10), and nut (11) from battery disconnect switch (8).



4. Remove battery disconnect switch (8) from battery disconnect box (4).

### NOTE

Perform Step (5) if battery disconnect box must be removed.

5. Remove four nuts (12), screws (13), and battery disconnect box (4) from vehicle.

### END OF TASK

### INSTALLATION

### NOTE

Perform Step (1) if battery disconnect box was removed.

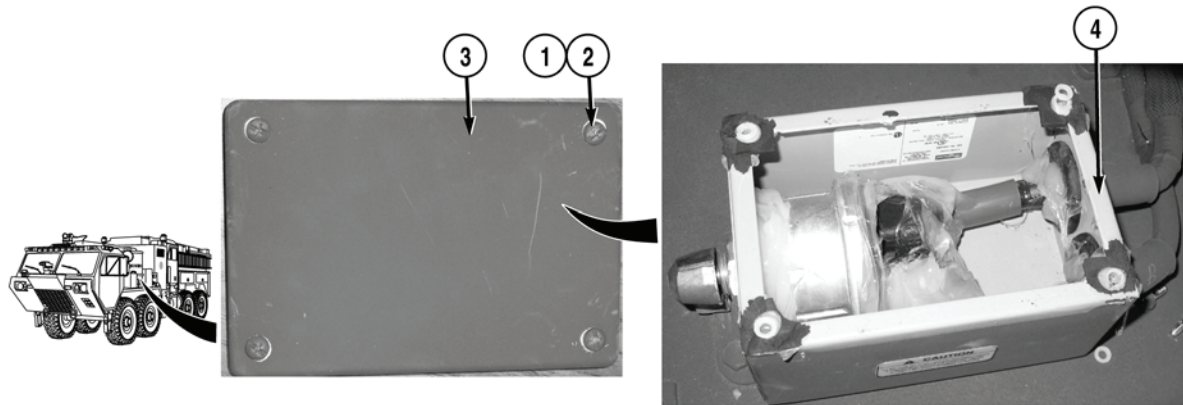
1. Install battery disconnect box (4) on vehicle with four screws (13) and nuts (12).
2. Position battery disconnect switch (8) in battery disconnect box (4).
3. Install nut (11), battery disconnect switch control (10), and screw (9) on battery disconnect switch (8).
4. Install two cables (7), lockwashers (6), and nuts (5) on battery disconnect switch (8).

### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

5. Apply sealant to two cables (7) and battery disconnect switch (8).



6. Install cover (3) on battery disconnect box (4) with four washers (2) and screws (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**BATTERY EQUALIZER REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 74

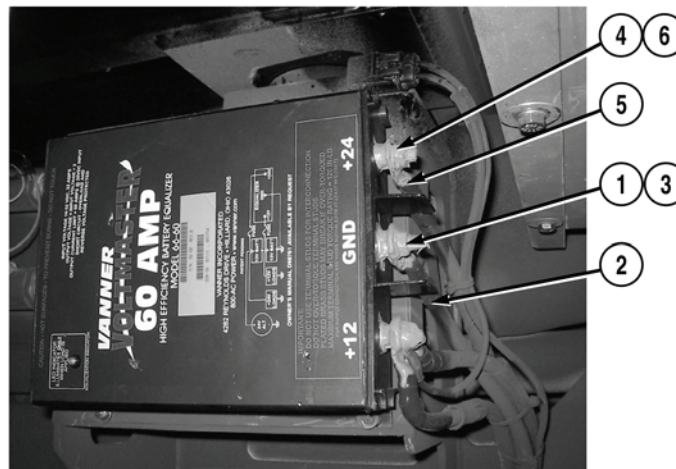
**Materials/Parts**

Adhesive, RTV732 (WP 0625, Item 2)  
Tags, Identification (WP 0625, Item 51)  
Locknut (1)  
Locknut (1)  
Locknut (1)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

---

**REMOVAL**

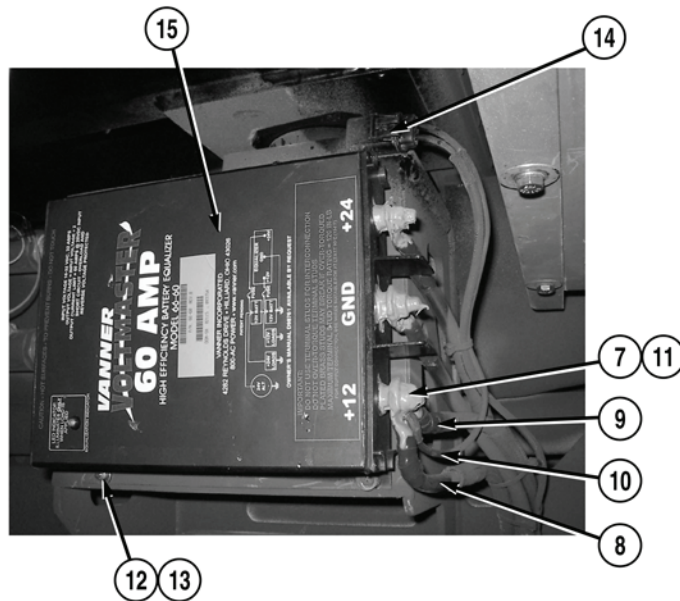
**⚠ CAUTION**

To avoid reverse polarity damage when removing equalizer battery cables, always remove equalizer ground cable first. Failure to comply may result in damage to equipment.

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

1. Remove locknut (1) and ground cable (2) from terminal (3). Discard locknut.
2. Remove locknut (4) and cable (5) from terminal (6). Discard locknut.



3. Remove locknut (7), two cables (8) and (9), and wire (10) from terminal (11). Discard locknut.
4. Remove four screws (12), washers (13), fuse (14), and battery equalizer (15) from vehicle.

#### END OF TASK

#### INSTALLATION

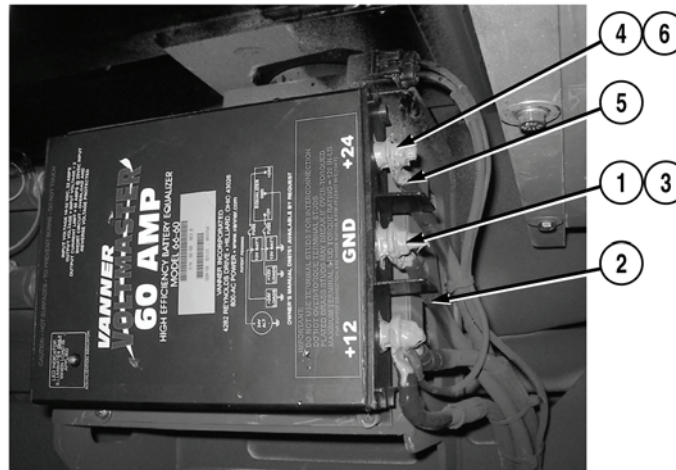
1. Install battery equalizer (15) and fuse (14) on vehicle with four washers (13) and screws (12).

#### **CAUTION**

**To avoid reverse polarity damage when installing equalizer battery cables, always install equalizer ground cable first. Failure to comply may result in damage to equipment.**

2. Install ground cable (2) on terminal (3) with locknut (1).
3. Install wire (10) and two cables (9) and (8) on terminal (11) with locknut (7).





4. Install cable (5) on terminal (6) with locknut (4).

### WARNING



Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

5. Apply electrical sealant to three terminals (3), (6), and (11) and locknuts (1), (4), and (7).

**END OF TASK**

### **FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**BATTERIES, TERMINAL, AND CABLE REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Locknut (5)  
Locknut (4)

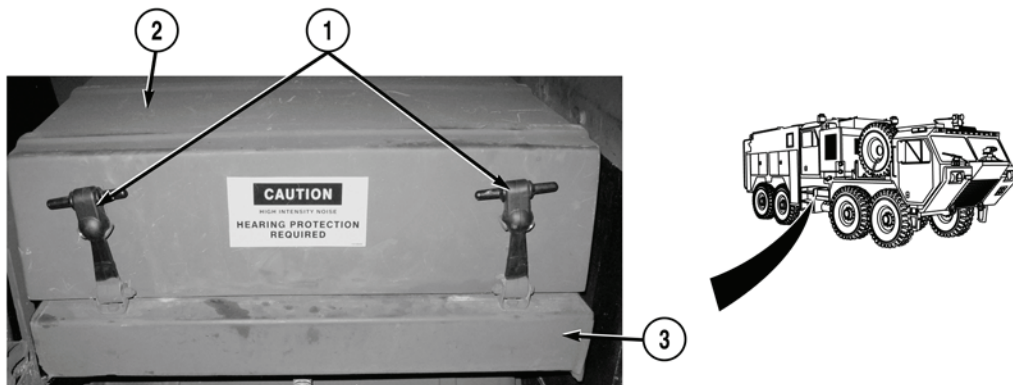
**References**

WP 0615, Fig. 102

**Equipment Conditions**

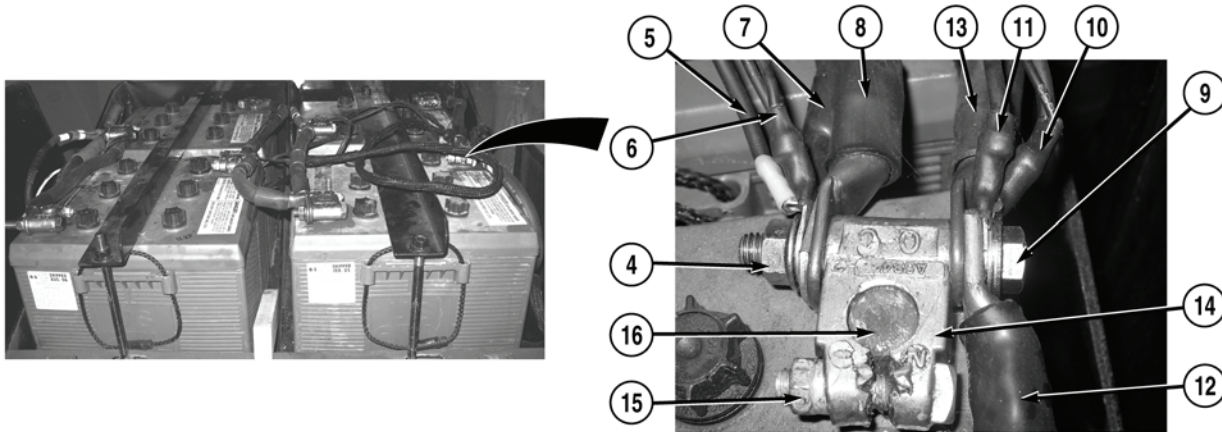
Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

**REMOVAL****NOTE**

Perform Steps (1) through (4) to disconnect batteries.

1. Release two rubber holddown straps (1) from battery box cover (2).
2. Remove battery box cover (2) from battery box base (3).



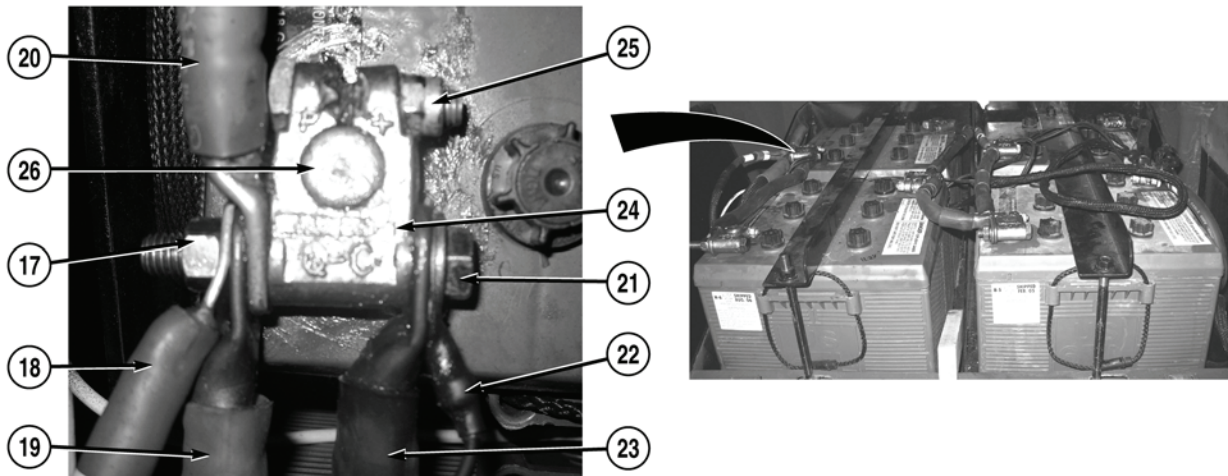
### **WARNING**



- **Battery acid (electrolyte) is extremely harmful. Always wear safety goggles and rubber gloves, and do not smoke when performing maintenance on batteries. Wear rubber apron to prevent clothing being damaged. Failure to comply may result in injury or death to personnel.**
- **Remove all jewelry such as rings, dog tags, bracelets, etc. If jewelry or tools contact positive electrical circuits, a direct short may result. Failure to comply may cause damage to equipment and/or injury or death to personnel.**

### **NOTE**

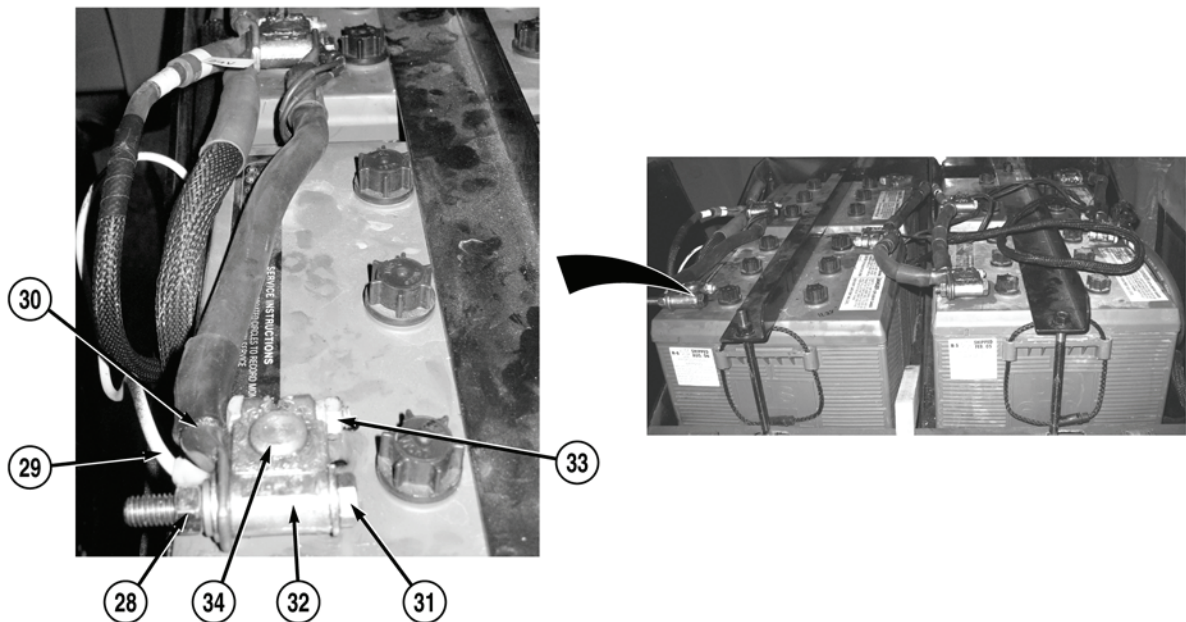
- Tag and mark wires and cables prior to removal to ensure proper installation.
  - Only remove faulty cables from battery terminals as required.
3. Remove locknut (4), three wires (5), (6), and (7), cable (8), screw (9), two wires (10) and (11), and two cables (12) and (13) from battery cable terminal (14). Discard locknut.
  4. Loosen nut (15) and remove battery cable terminal (14) from battery post (16).



**NOTE**

Tag and mark wires and cables prior to removal to ensure proper installation.

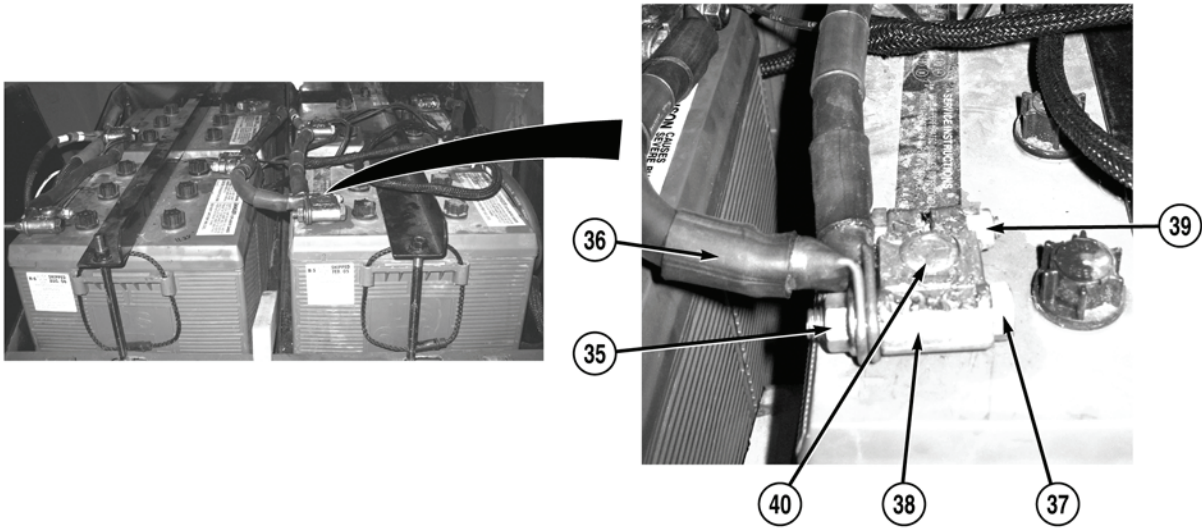
5. Remove locknut (17), three cables (18), (19), and (20), screw (21), wire (22), and cable (23) from battery cable terminal (24). Discard locknut.
6. Loosen nut (25), and remove battery cable terminal (24) from battery post (26).



**NOTE**

Tag and mark wires and cables prior to removal to ensure proper installation.

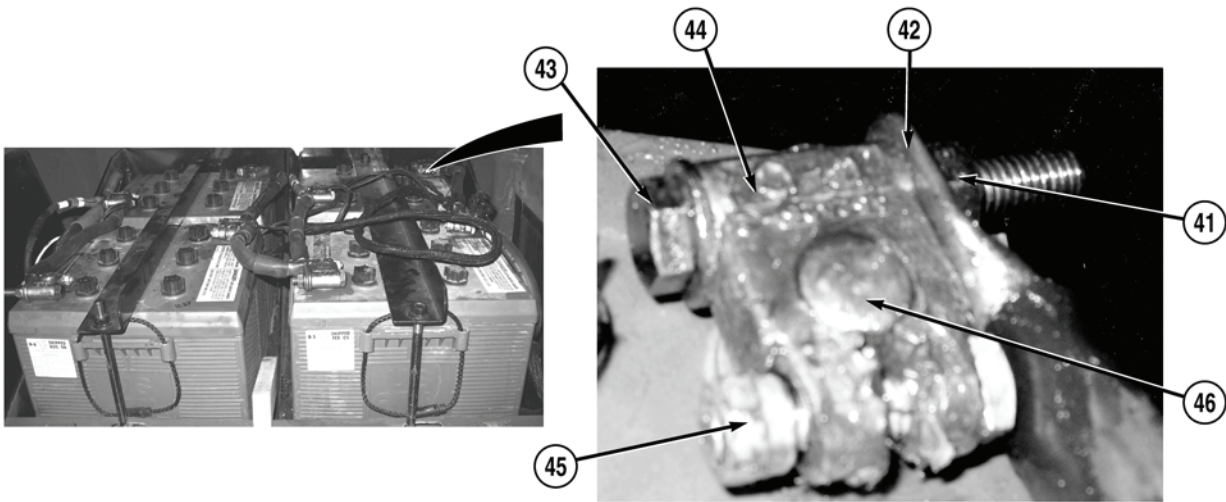
7. Remove locknut (28), wire (29), cable (30), and screw (31) from battery terminal (32). Discard locknut.
8. Loosen nut (33), and remove battery terminal (32) from battery post (34).



**NOTE**

Tag and mark cables prior to removal to ensure proper installation.

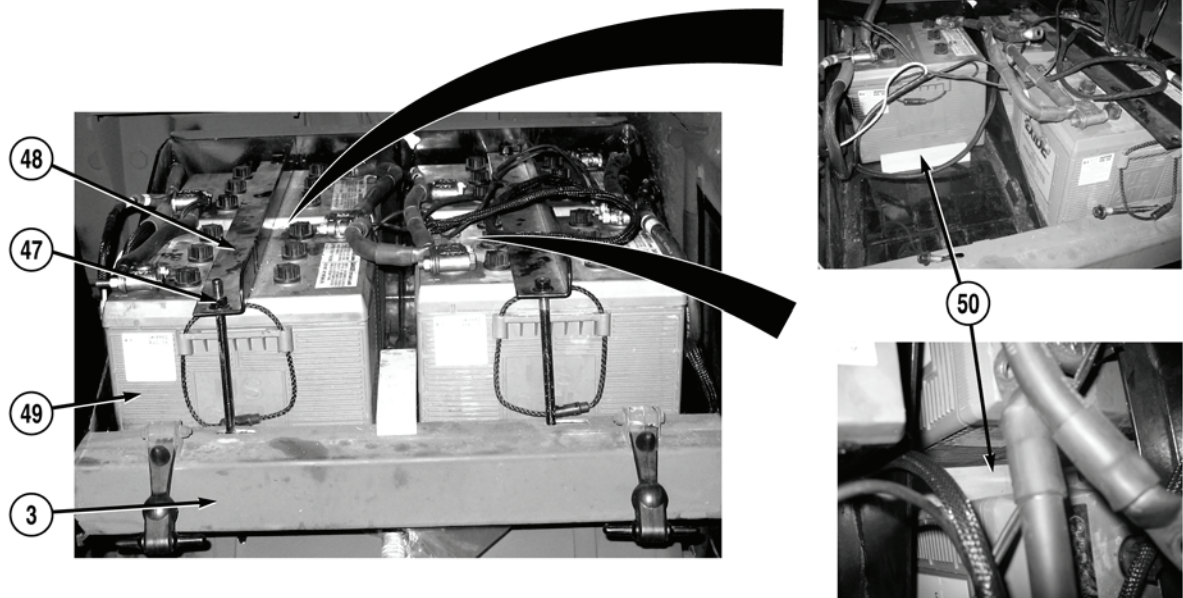
- 9. Remove locknut (35), two cables (36), and screw (37) from battery cable terminals (38). Discard locknut.
- 10. Loosen nut (39) and remove battery cable terminal (38) from battery post (40).



**NOTE**

Tag and mark cable prior to removal to ensure proper installation.

- 11. Remove locknut (41), cable (42), and screw (43) from battery cable terminal (44). Discard locknut.
- 12. Loosen nut (45) and remove battery cable terminal (44) from battery post (46).



### NOTE

Note position and orientation of wooden spacer blocks and batteries prior to removal to ensure proper installation.

13. Remove four locknuts (47), two brackets (48), four batteries (49), and two wooden spacer blocks (50) from battery box base (3). Discard locknuts.

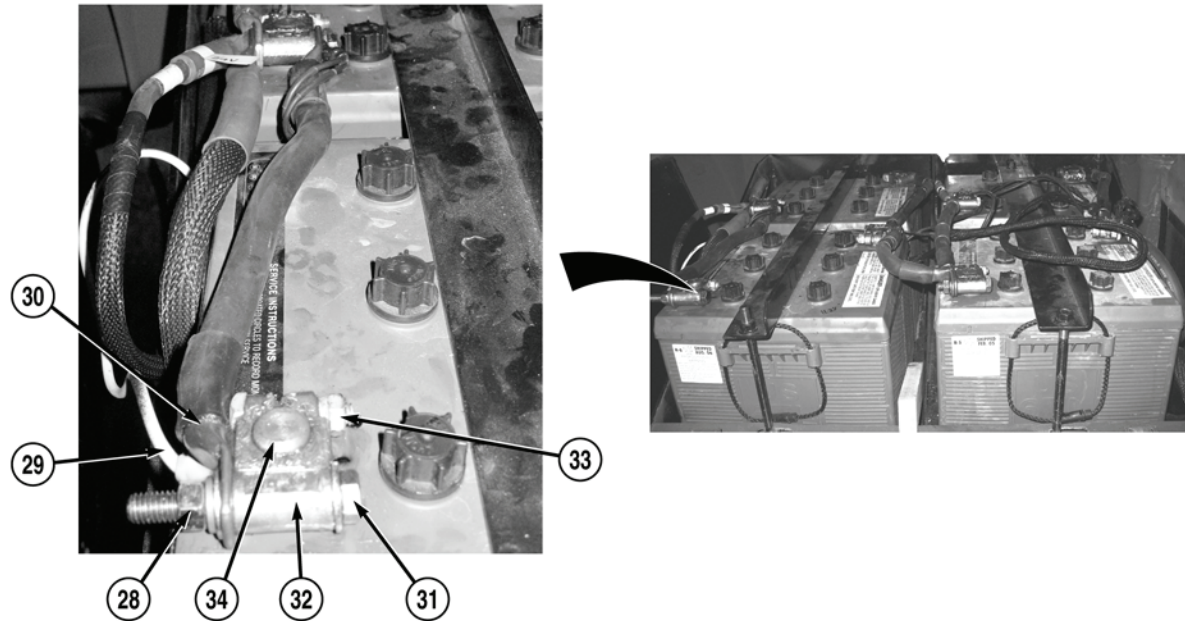
### END OF TASK

### INSTALLATION

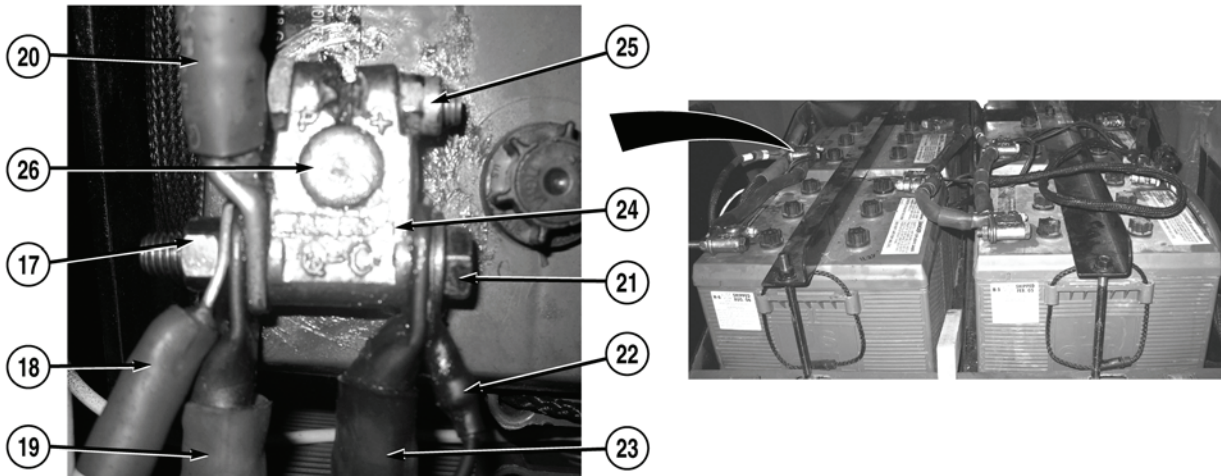
### NOTE

Install wooden spacer blocks and batteries as noted prior to removal.

1. Install two wooden spacer blocks (50), four batteries (49), two brackets (48), and four locknuts (47) on battery box (3).
2. Install battery cable terminal (44) on battery post (46) and tighten nut (45).
3. Install cable (42) on battery cable terminal (44) with screw (43) and locknut (41).
4. Install battery cable terminal (38) on battery post (40) and tighten nut (39).
5. Install two cables (36) on battery cable terminal (38) with screw (37) and locknut (35).

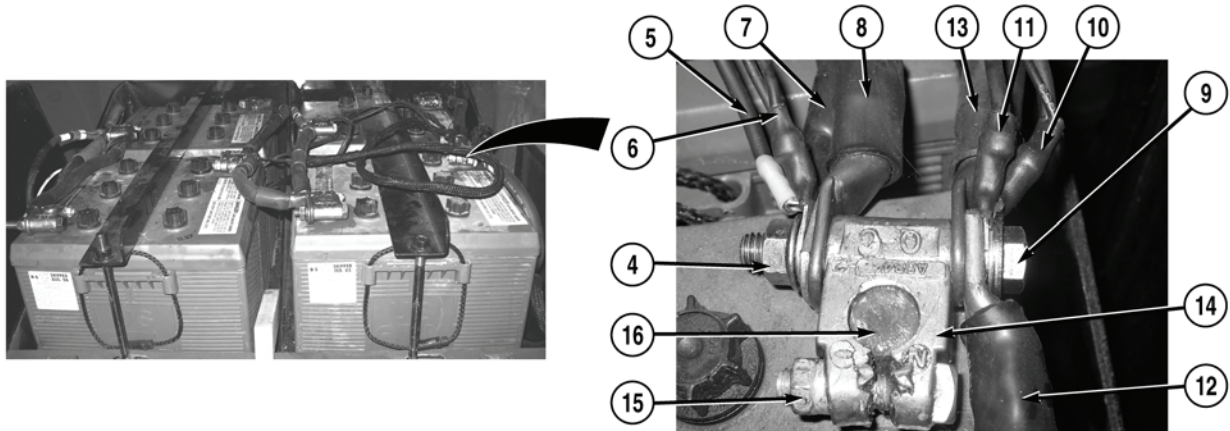


6. Install battery terminal (32) on battery post (34) and tighten nut (33).
7. Install cable (30) and wire (29) on battery terminal (32) with screw (31) and locknut (28).

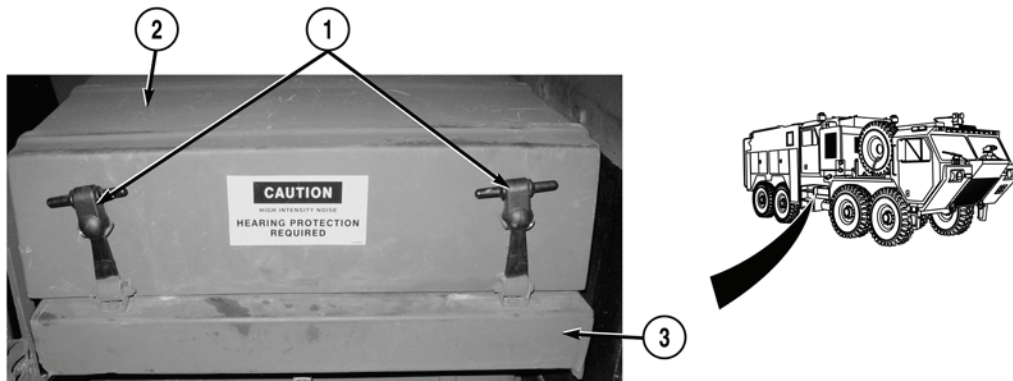


8. Install battery cable terminal (24) on battery post (26) and tighten nut (25).
9. Install cable (23), wire (22), screw (21), three cables (20), (19), and (18), and locknut (17) on battery cable terminal (24).





10. Install battery cable terminal (14) on battery post (16) and tighten nut (15).
11. Install two cables (13) and (12), wires (11) and (10), screw (9), cable (8), three wires (7), (6), and (5), and locknut (4) on battery cable terminal (14).



12. Install battery box cover (2) on battery box base (3).
13. Attach two rubber holddown straps (1) to battery box cover (2).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**BLACKOUT RELAY REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 55

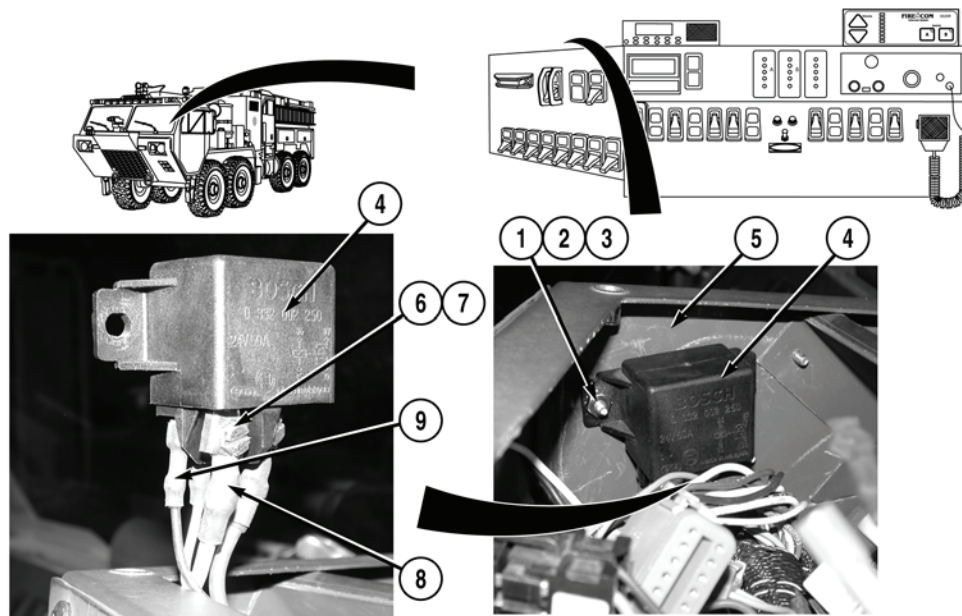
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Locknut (2)

**Equipment Conditions**

Personnel cab instrument panel A removed  
(WP 0311)

---

**REMOVAL**

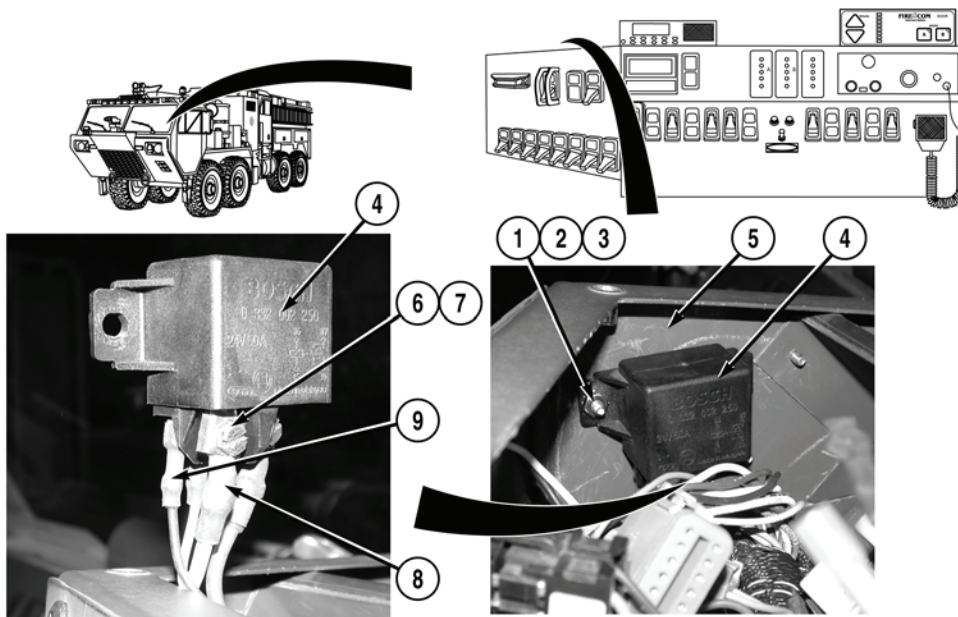
1. Remove two locknuts (1), washers (2), screws (3), and blackout relay (4) from instrument assembly (5). Discard locknuts.

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

2. Remove two screws (6), plates (7), and wires (8) from blackout relay (4).
3. Remove two wires (9) from blackout relay (4).

**END OF TASK**

**INSTALLATION**

1. Install two wires (9) on blackout relay (4).
2. Install two wires (8) on blackout relay (4) with two plates (7) and screws (6).
3. Install blackout relay (4) on instrument assembly (5) with two screws (3), washers (2), and locknuts (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install personnel cab instrument panel A (WP 0311)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## BUMPER TURRET AND PUMP COOLER DUMP-TO-GROUND CONTROL VALVE REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Locknut (2)

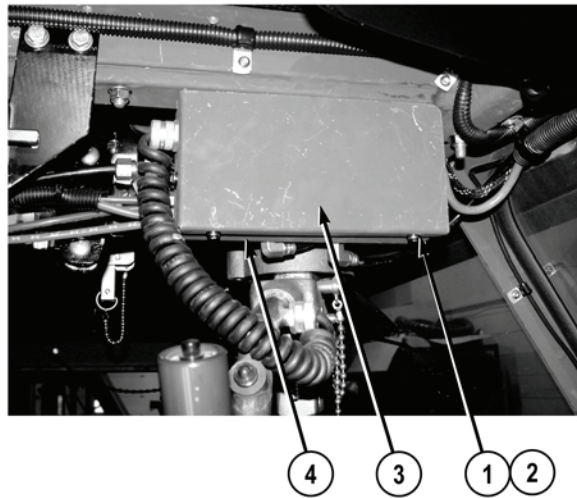
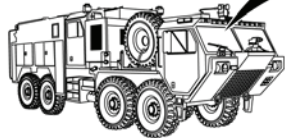
**References**

WP 0035  
WP 0615, Fig. 168

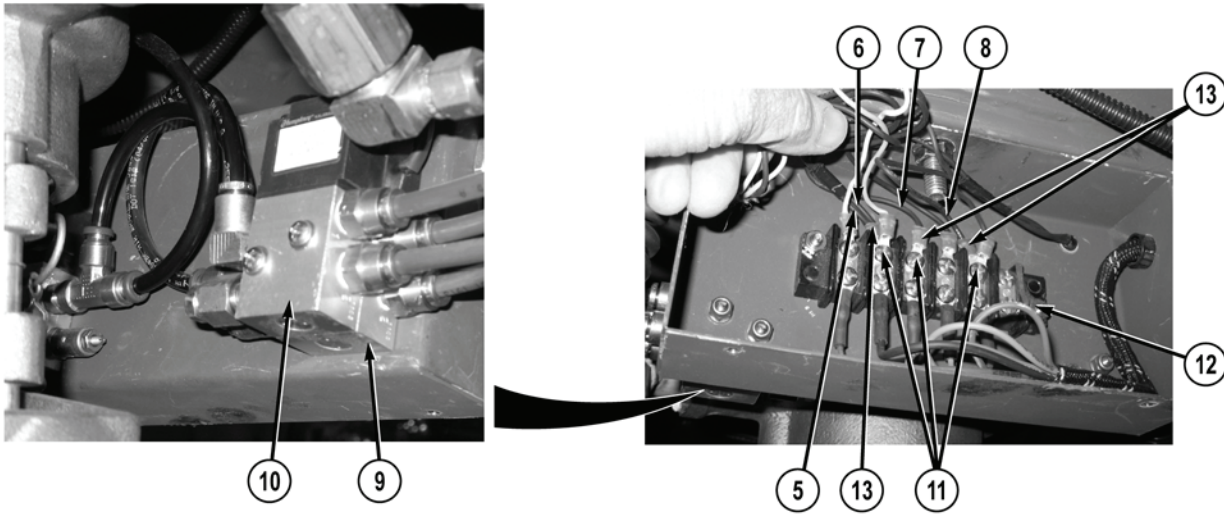
**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Air system drained (TM 9-2320-347-10)  
Roof turret control handle lowered (WP 0036)

## REMOVAL



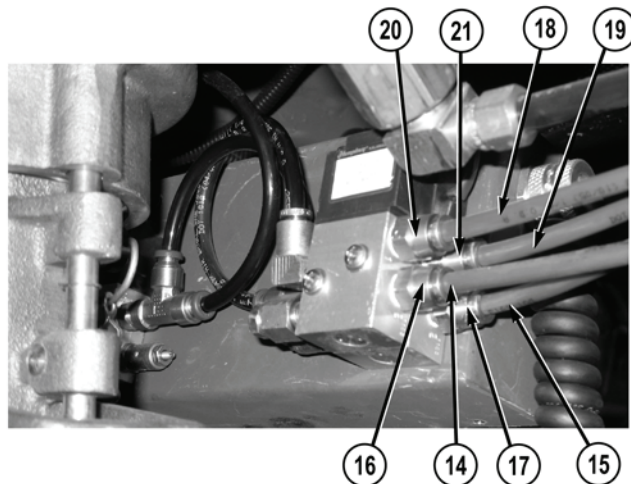
1. Remove three screws (1), washers (2), and cover (3) from junction box (4).



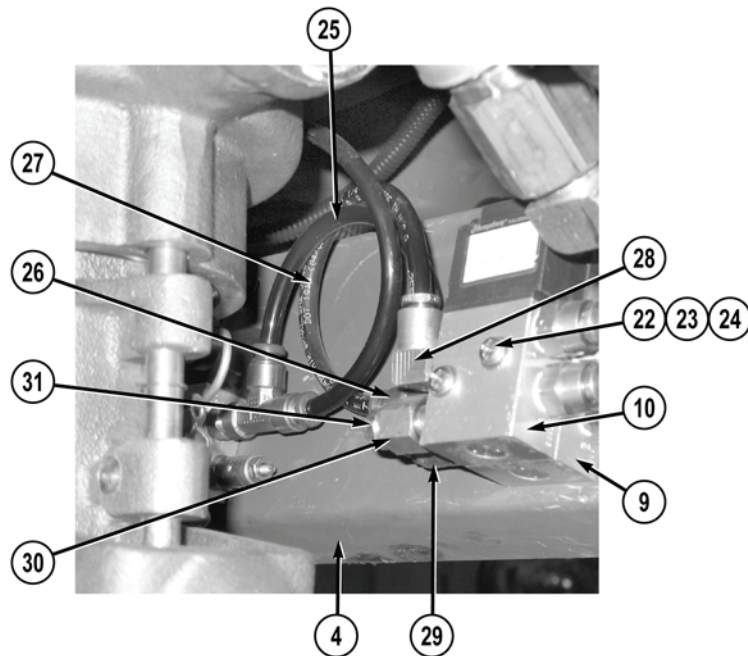
**NOTE**

- Tag and mark wires and air lines prior to removal to ensure proper installation.
- Remove cable ties as required.
- Wires may be connected on terminal block in junction box, in positions other than shown. Four wires from bumper turret and pump cooler dump-to-ground control valve solenoids must first be identified and then removed from terminal block.

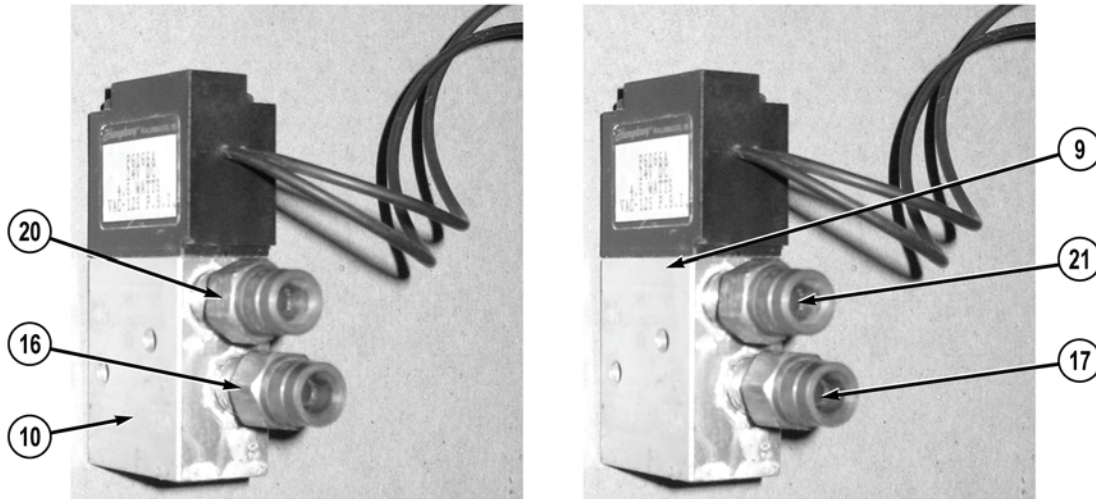
2. Identify four wires (5), (6), (7), and (8) on bumper turret valve (9) and pump cooler dump-to-ground valve (10).
3. Remove three screws (11) and four wires (5), (6), (7), and (8) from terminal block (12) and junction box (4).
4. Cut three insulated eyes (13) from four wires (5), (6), (7), and (8) (TM 9-2320-325-14&P).



5. Remove two air lines (14) and (15) from fittings (16) and (17).
6. Remove two air lines (18) and (19) from fittings (20) and (21).



7. Remove two locknuts (22), four washers (23), two screws (24), bumper turret valve (9), and pump cooler dump-to-ground valve (10) from junction box (4). Discard locknuts.
8. Remove air line (25) from tee (26).
9. Remove air line (27) from tee (26) and elbow (28).
10. Remove tee (26) and exhaust fitting (29) from bumper turret valve (9).
11. Remove elbow (28) and fitting (30) from pump cooler dump-to-ground valve (10).
12. Remove muffler (31) from fitting (30).



13. Remove two fittings (17) and (21) from bumper turret valve (9).
14. Remove two fittings (16) and (20) from pump cooler dump-to-ground valve (10).

#### END OF TASK

#### INSTALLATION

#### **WARNING**



Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

#### **CAUTION**

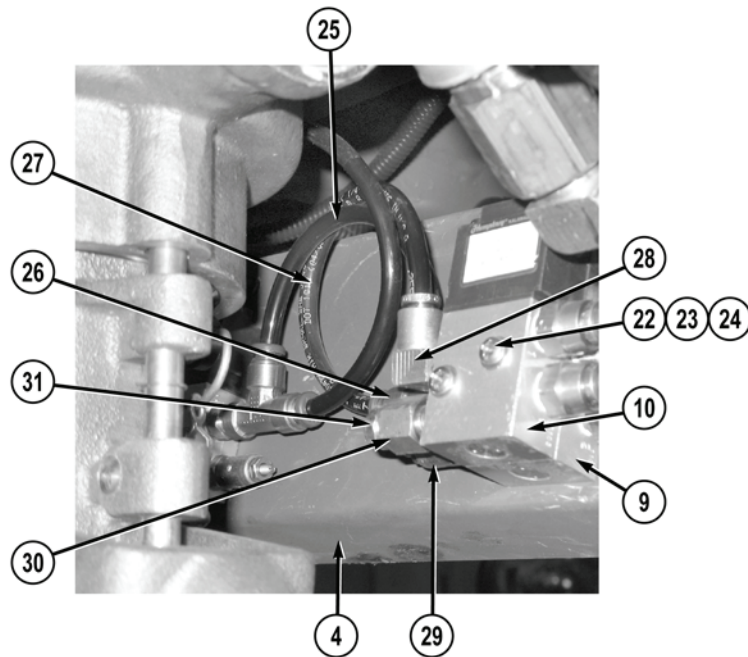
Use sealing compound sparingly only on pipe threads. Do not apply compound to hose connections. Damage to equipment may result.

#### **NOTE**

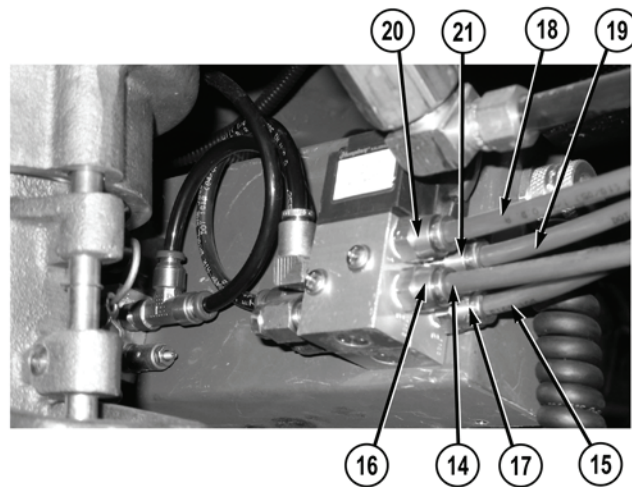
Exhaust fitting will be adjusted at end of installation procedure.

1. Apply sealing compound to threads of five fittings (16), (17), (20), (21), and (30), tee (26), exhaust fitting (29), and muffler (31).
2. Install two fittings (20) and (16) on pump cooler dump-to-ground valve (10).
3. Install two fittings (21) and (17) on bumper turret valve (9).

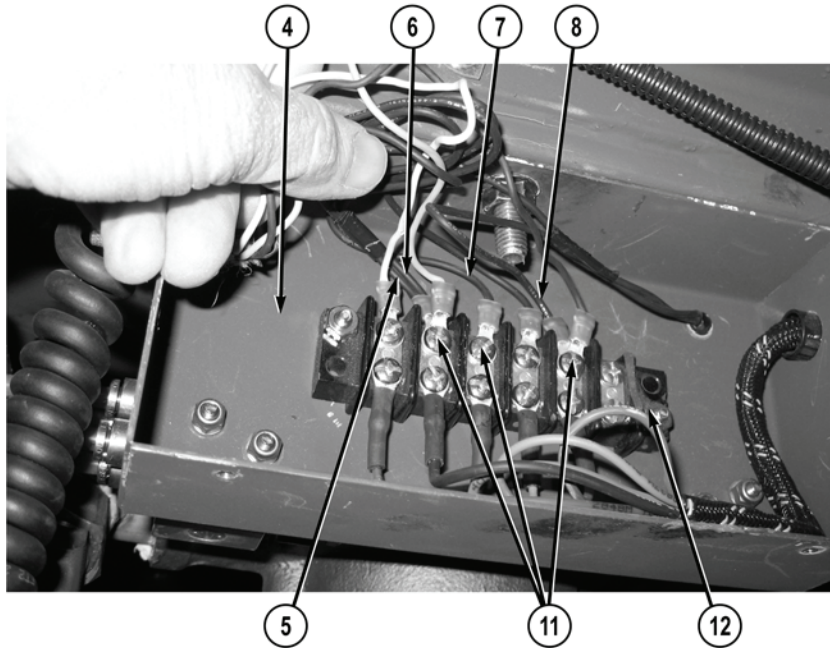




4. Install muffler (31) on fitting (30).
5. Install fitting (30) and elbow (28) on pump cooler dump-to-ground valve (10).
6. Install exhaust fitting (29) and tee (26) on bumper turret valve (9).
7. Install air line (27) on elbow (28) and tee (26).
8. Install air line (25) on tee (26).
9. Install bumper turret valve (9) and pump cooler dump-to-ground valve (10) on junction box (4) with two screws (24), four washers (23), and two locknuts (22).



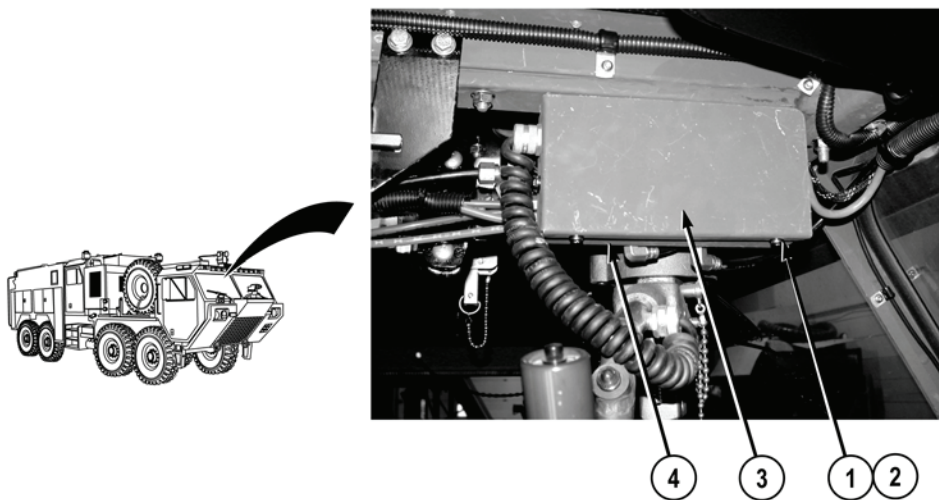
10. Install two air lines (19) and (18) on fittings (21) and (20).
11. Install two air lines (15) and (14) on fittings (17) and (16).



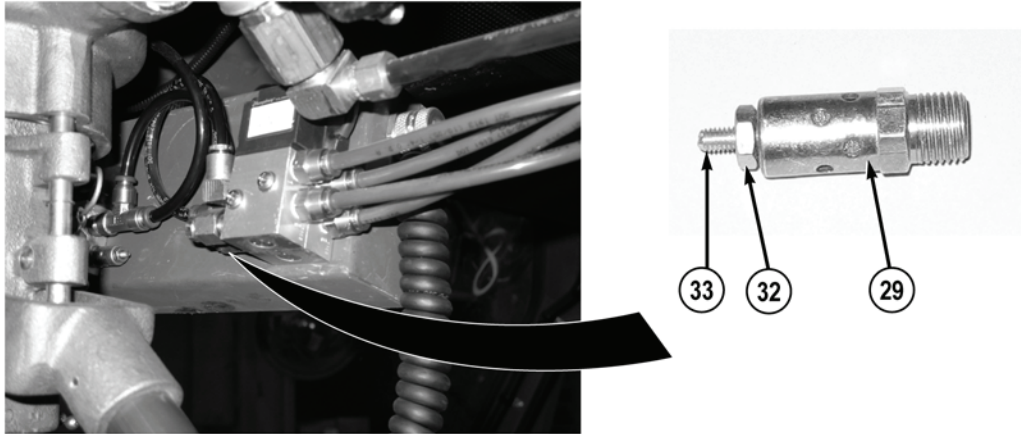
**NOTE**

Install cable ties as required.

- 12. Position four wires (5), (6), (7), and (8) in junction box (4).
- 13. Repair four wires (5), (6), (7), and (8) (TM 9-2320-325-14&P).
- 14. Install four wires (8), (7), (6), and (5) on terminal block (12) with three screws (11).



- 15. Install cover (3) on junction box (4) with three washers (2) and screws (1).

**NOTE**

Exhaust fitting must be adjusted in order to slow the rate of bumper turret valve closure. Proper rate of closure is three to five seconds.

16. Loosen jamnut (32) and screw in needle (33) on exhaust fitting (29).
17. Back needle (33) 1 and 1/2 turns.
18. Connect batteries (TM 9-2320-325-14&P).
19. Start engine (TM 9-2320-347-10).
20. Operate bumper turret (WP 0035).

**NOTE**

Adjusting needle valve clockwise allows valve to close faster.

21. Adjust needle (33) until bumper turret valve closure is between three to five seconds.
22. Stop engine (TM 9-2320-347-10).
23. Tighten jamnut (32) on needle (33) and exhaust fitting (29).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Stow roof turret control handle (WP 0036)
2. Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**CAB ROOF LIGHTBAR CABLE ASSEMBLY REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

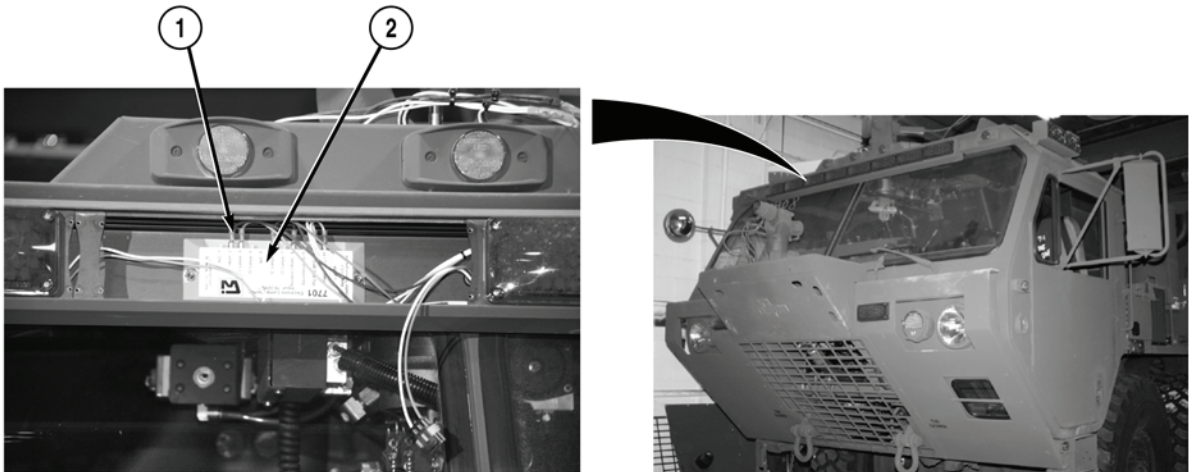
**References**

TM 9-2320-325-14&P  
WP 0615, Fig. 60

**Equipment Conditions**

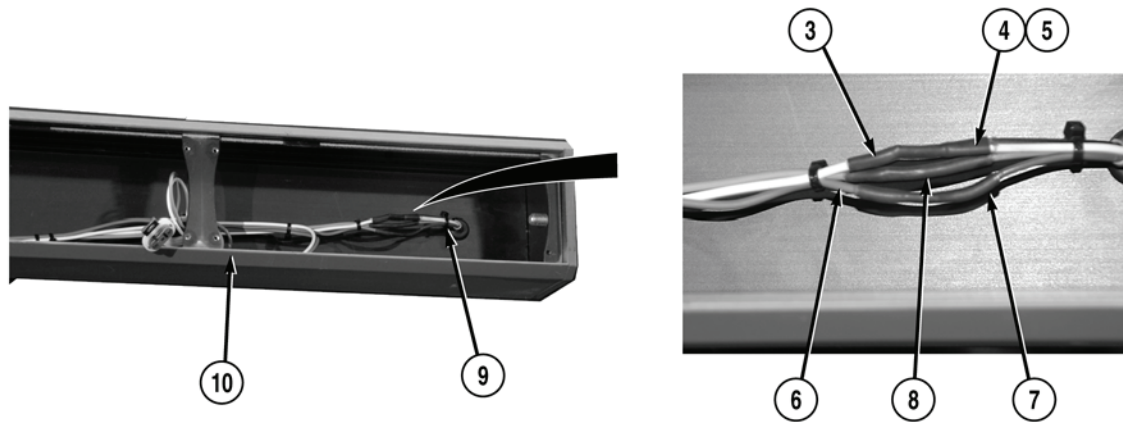
Personnel cab front lightbar removed (WP 0345)  
Personnel cab front lightbar warning lights  
removed (WP 0351)

---

**REMOVAL****NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
- Note routing of wires prior to removal to ensure proper installation.
- Note position and remove cable ties, split looms, and cushion clips as required.

1. Remove seven wires (1) from lightbar flasher unit (2).

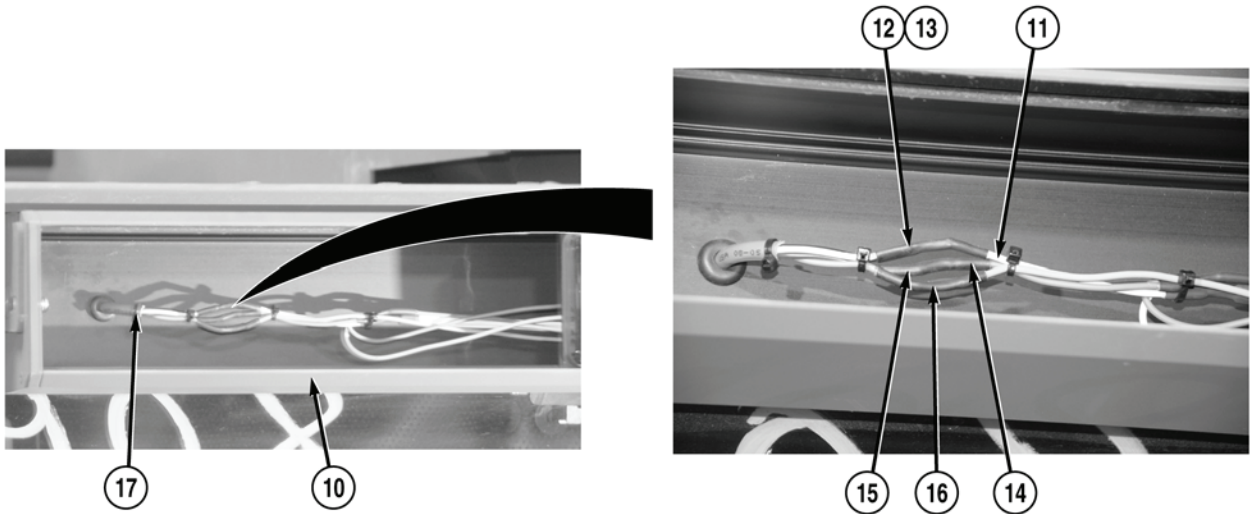


2. Cut two white wires (3) and (4) and black wire (5) (TM 9-2320-325-14&P).
3. Cut blue wire (6) and red wire (7) (TM 9-2320-325-14&P).
4. Cut green wire (8) (TM 9-2320-325-14&P).

#### NOTE

Step (5) only removes sections of lightbar cable assembly that was cut in Steps (2), (3), and (4). This section of lightbar cable assembly connects to passenger side lightbar cable assembly branch.

5. Remove lightbar cable assembly (9) from personnel cab front lightbar (10).

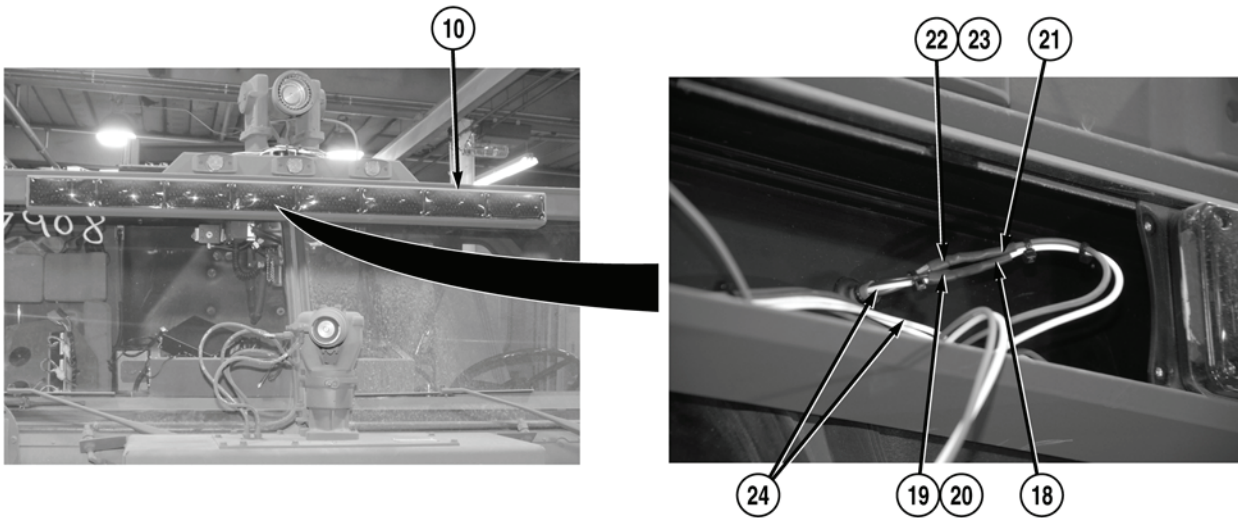


6. Cut two white wires (11) and (12) and black wire (13) (TM 9-2320-325-14&P).
7. Cut blue wire (14) and red wire (15) (TM 9-2320-325-14&P).
8. Cut green wire (16) (TM 9-2320-325-14&P).

#### NOTE

Step (9) only removed section of lightbar cable assembly that was cut in Steps (6), (7), and (8). This section of lightbar cable assembly connects to driver side lightbar cable assembly branch.

9. Remove lightbar cable assembly (17) from personnel cab lightbar (10).



10. Cut two white wires (18) and (19) and black wire (20) (TM 9-2320-325-14&P).
11. Cut two red wires (21) and (22) and green wire (23) (TM 9-2320-325-14&P).

#### NOTE

Step (12) removes remaining sections of lightbar cable assembly from personnel cab front lightbar.

12. Remove lightbar cable assembly (24) from personnel cab front lightbar (10).

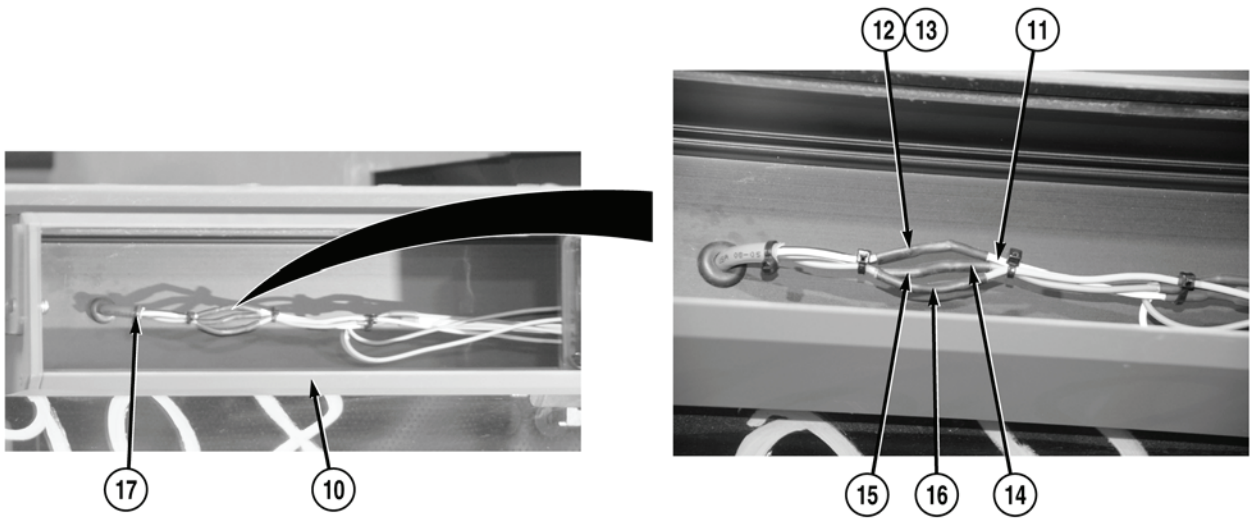
#### END OF TASK

#### INSTALLATION

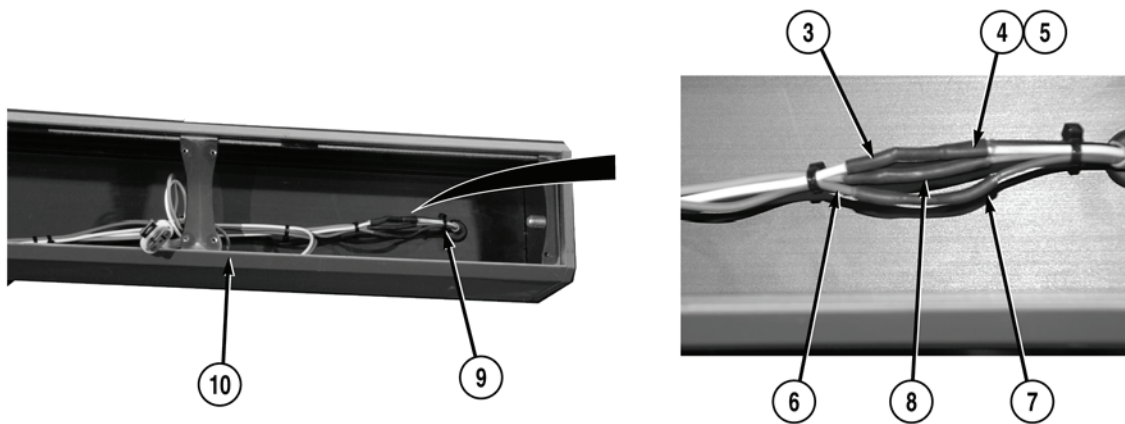
#### NOTE

- Route lightbar cable assembly on vehicle as noted prior to removal.
  - Install cushion clips, split looms, and cable ties as noted.
1. Install lightbar cable assembly (24) on personnel cab front lightbar (10).
  2. Repair two red wires (21) and (22) and green wire (23) (TM 9-2320-325-14&P).
  3. Repair two white wires (18) and (19) and black wire (20) (TM 9-2320-325-14&P).

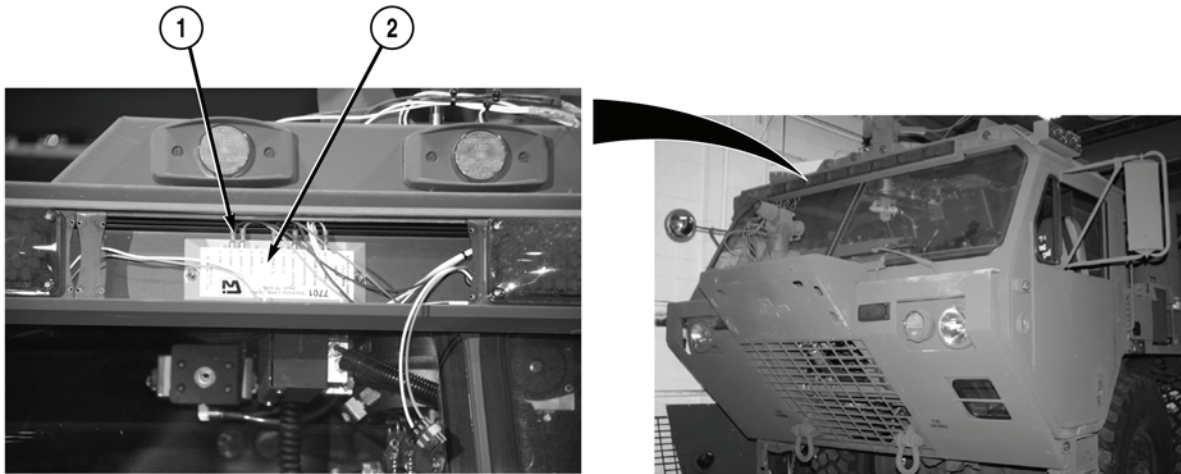




4. Install lightbar cable assembly (17) on personnel cab front lightbar (10).
5. Repair green wire (16) (TM 9-2320-325-14&P).
6. Repair blue wire (14) and red wire (15) (TM 9-2320-325-14&P).
7. Repair two white wires (11) and (12) and black wire (13) (TM 9-2320-325-14&P).



8. Install lightbar cable assembly (9) on personnel cab front lightbar (10).
9. Repair green wire (8) (TM 9-2320-325-14&P).
10. Repair blue wire (6) and red wire (7) (TM 9-2320-325-14&P).
11. Repair two white wires (3) and (4) and black wire (5) (TM 9-2320-325-14&P).



12. Install seven wires (1) on lightbar flasher unit (2).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Install personnel cab front lightbar warning lights (WP 0351)
2. Install personnel cab front lightbar (WP 0345)

**END OF TASK**

**END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## CAB ROOF LIGHTBAR CABLE ASSEMBLY BRANCH REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

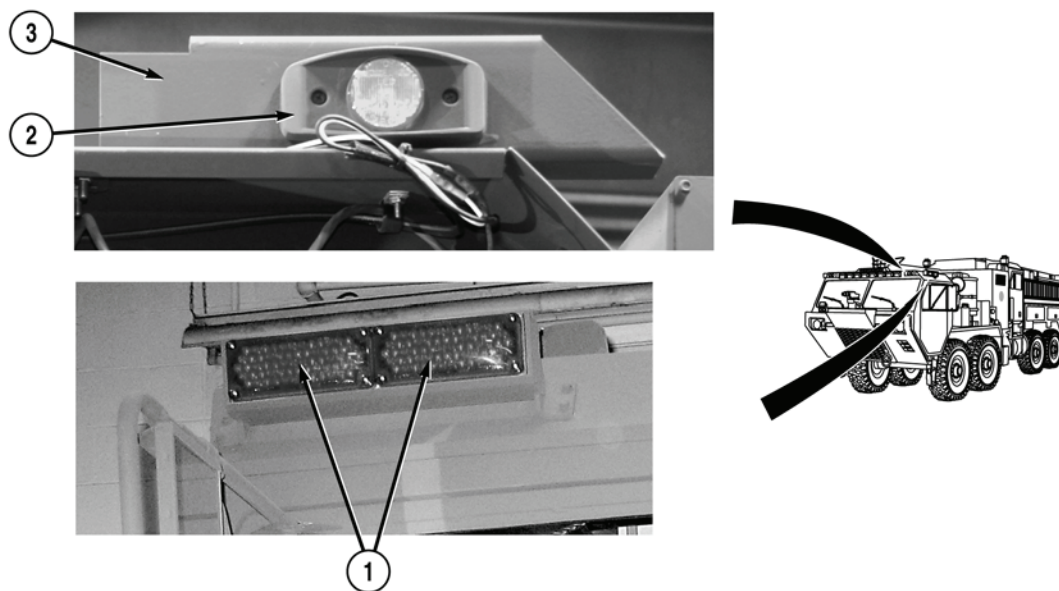
**References**

WP 0344  
WP 0351  
WP 0615, Fig. 98, 99

**Equipment Conditions**

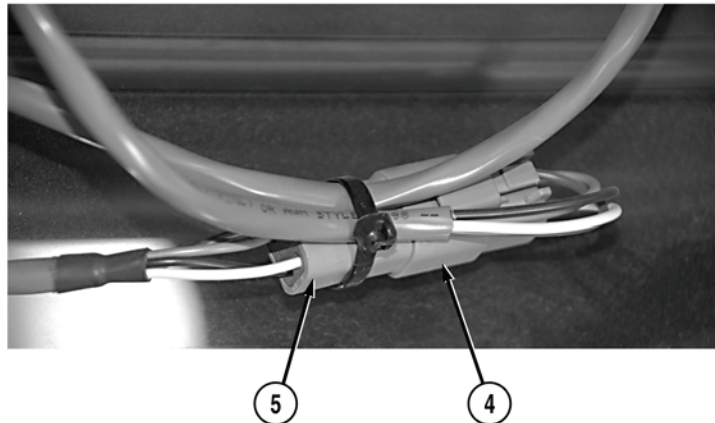
Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

## REMOVAL

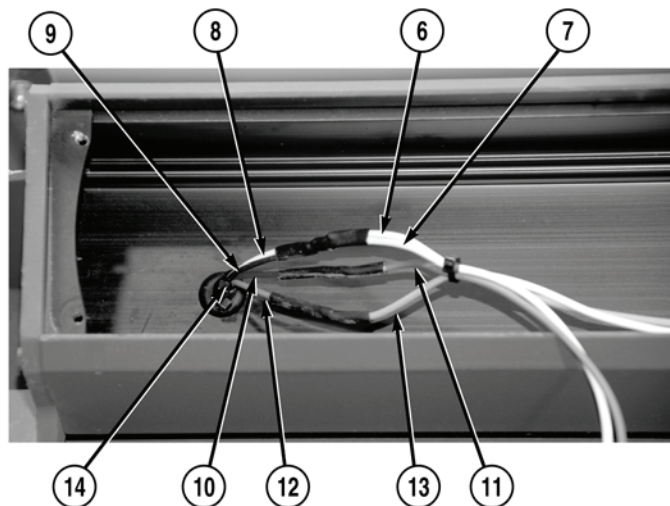
**NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
- Note position and remove cable ties, split looms, and cushion clips as required.
- Note routing of lightbar cable assembly branch prior to removal to ensure proper installation.
- Driver side and passenger side lightbar cable assembly branches are replaced the same way. Driver side shown.

1. Remove two warning lights (1) (WP 0351).
2. Remove driver side cab clearance light (2) and bracket (3) (WP 0344).



3. Disconnect lightbar cable assembly connector (4) from lightbar cable assembly branch connector (5).

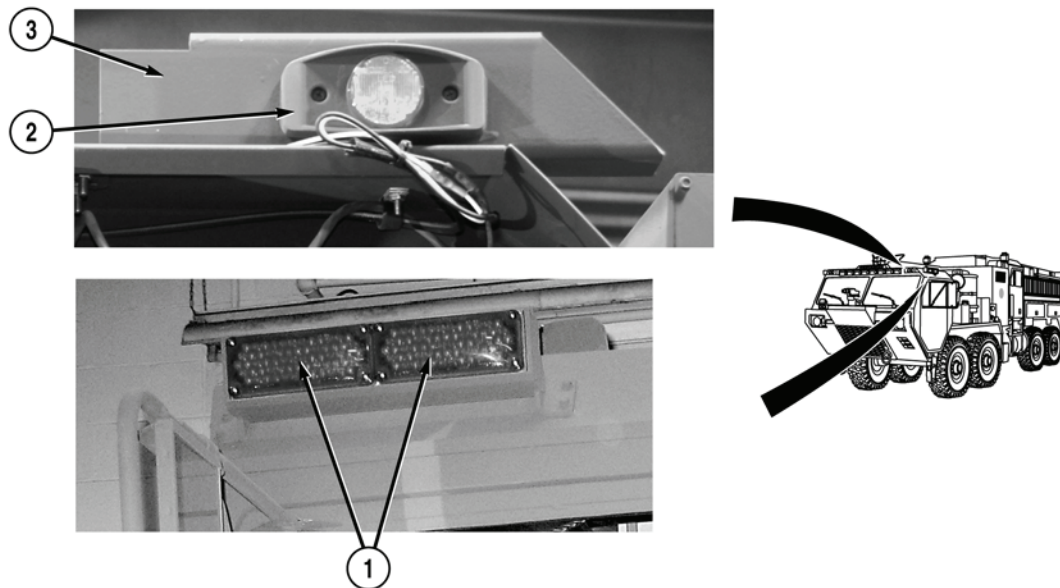


4. Cut three white wires (6), (7), (8), and black wire (9) (TM 9-2320-325-14&P).
5. Cut red wire (10) and blue wire (11) (TM 9-2320-325-14&P).
6. Cut two green wires (12) and (13) (TM 9-2320-325-14&P).
7. Remove lightbar cable assembly branch (14) from vehicle.

**END OF TASK**

**INSTALLATION****NOTE**

- Route lightbar cable assembly branch on vehicle as noted prior to removal.
  - Install cushion clips, split looms, and cable ties as noted.
1. Install lightbar cable assembly branch (14) on vehicle.
  2. Repair two green wires (13) and (12) (TM 9-2320-325-14&P).
  3. Repair blue wire (11) and red wire (10) (TM 9-2320-325-14&P).
  4. Repair black wire (9) and three white wires (8), (7), and (6) (TM 9-2320-325-14&P).
  5. Connect lightbar cable assembly branch connector (5) to lightbar cable assembly connector (4).



6. Install driver side cab clearance light (3) and bracket (2) (WP 0344).
7. Install two warning lights (1) (WP 0351).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**CIRCUIT BREAKER BOX REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

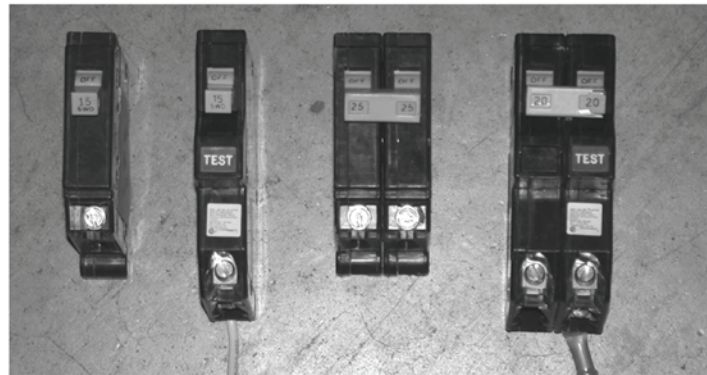
**References**

WP 0615, Fig. 72, 73, 75

**Equipment Conditions**

120-volt circuit breaker removed (WP 0360)

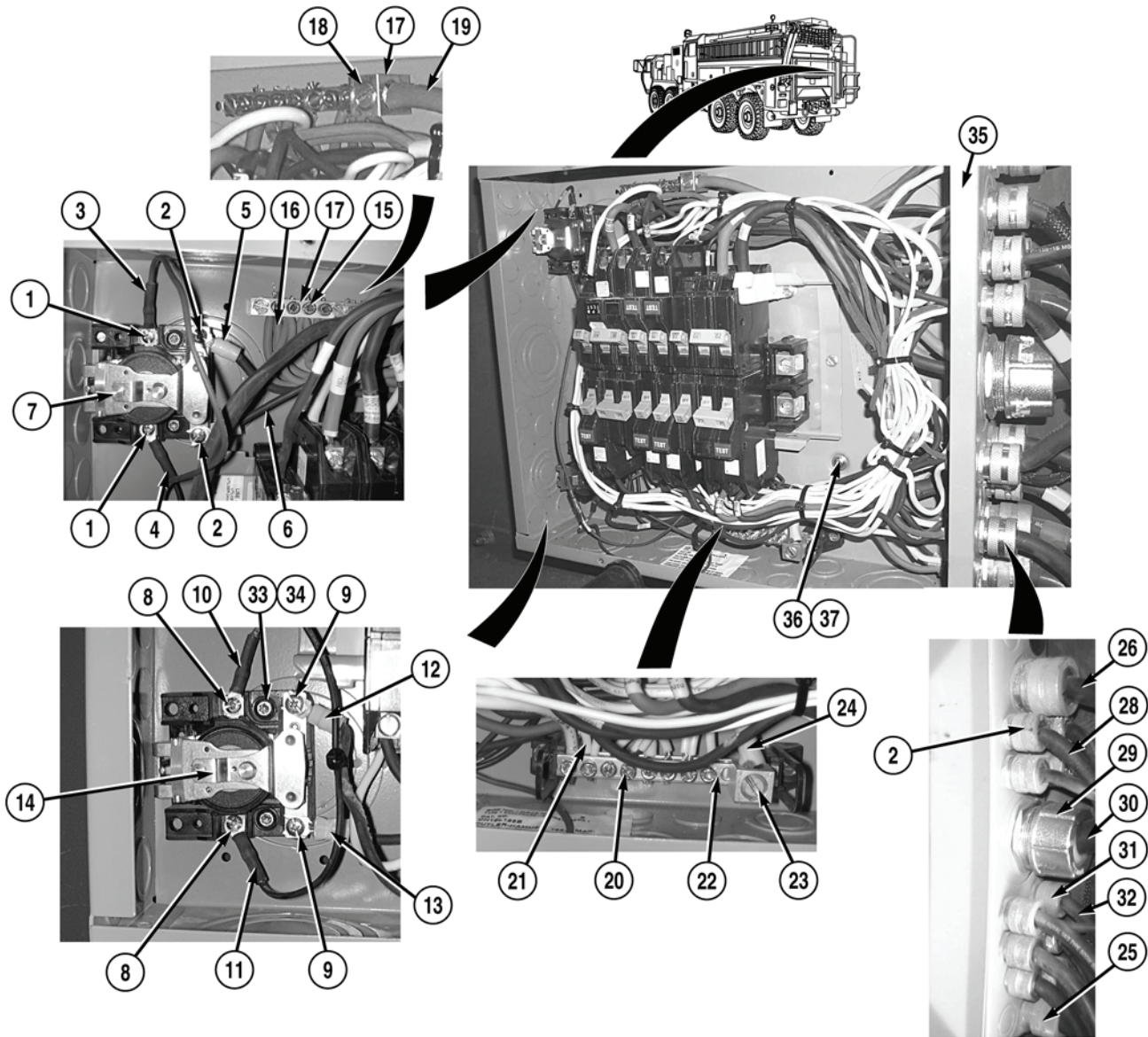
---

**REMOVAL**

SINGLE POLE    SINGLE POLE    DOUBLE POLE    DOUBLE POLE  
GROUND FAULT    GROUND FAULT    GROUND FAULT    GROUND FAULT

**NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
- Remove cable ties as required.
- Circuit breakers come in four different types. The single and double poled ground fault circuit breakers have ground wires connected to them.



1. Loosen four screws (1) and (2) and remove wires (3), (4), (5), and (6) from relay (7).
2. Loosen four screws (8) and (9) and remove wires (10), (11), (12), and (13) from relay (14).
3. Loosen six screws (15) and remove wires (16) from bus bar (17).
4. Loosen screw (18) and remove wire (19) from bus bar (17).
5. Loosen eight screws (20) and remove wires (21) from bus bar (22).
6. Loosen screw (23) and remove wire (24) from bus bar (22).
7. Loosen three connectors (25) and remove wires (26) from connectors (25).
8. Loosen nine connectors (27) and remove wires (28) from connectors (27).



9. Loosen connector (29) and remove wires (30) from connector (29).
10. Loosen connector (31) and remove wire (32) from connector (31).

### NOTE

Both relays are removed the same way. Bottom relay shown.

11. Remove two screws (33), washers (34), and relay (14) from circuit breaker box (35).
12. Remove four screws (36), washers (37), and circuit breaker box (35) from vehicle.

### END OF TASK

### INSTALLATION

### NOTE

- Both relays are installed the same way. Bottom relay shown.
- Install cable ties as required.

1. Install circuit breaker box (35) on vehicle with four washers (37) and screws (36).
2. Install relay (14) on circuit breaker box (35) with two washers (34) and screws (33).
3. Install wires (32) in connector (31). Do not tighten connector (31).
4. Install wires (30) in connector (29). Do not tighten connector (29).
5. Install nine wires (28) in connectors (27). Do not tighten connectors (27).
6. Install three wires (26) in connectors (25). Do not tighten connectors (25).
7. Install wire (24) on bus bar (22) and tighten screw (23).
8. Install eight wires (21) on bus bar (22) and tighten eight screws (20).
9. Install wire (19) on bus bar (17) and tighten screw (18).
10. Install six wires (16) on bus bar (17) and tighten six screws (15).
11. Install four wires (13), (12), (11), and (10) on relay (14) with four screws (9) and (8).
12. Install four wires (6), (5), (4), and (3) on relay (7) with four screws (2) and (1).
13. Tighten 14 connectors (25), (27), (31), and (29).

### END OF TASK

### FOLLOW-ON MAINTENANCE

Install 120-Volt circuit breakers (WP 0360)

### END OF TASK

### END OF WORK PACKAGE



---

**FIELD LEVEL MAINTENANCE**  
**COMPARTMENT LIGHT REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 70

**Materials/Parts**

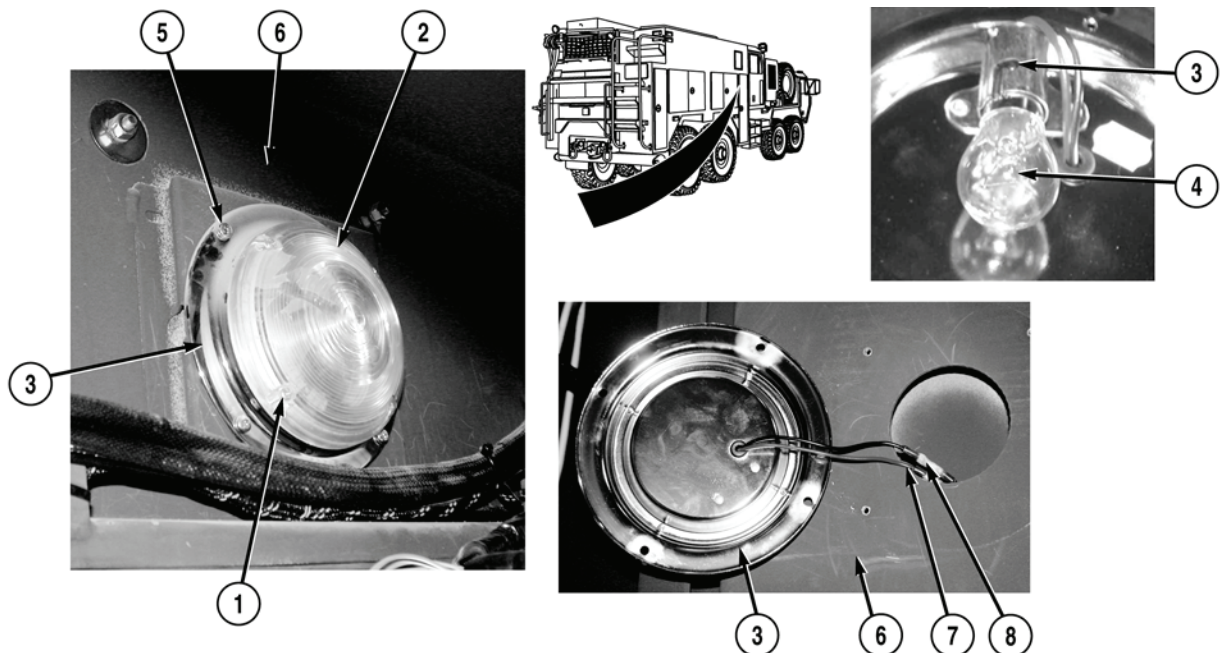
Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Water pump engine OFF (WP 0022)

Batteries disconnected (TM 9-2320-325-14&P)

---

**REMOVAL****NOTE**

All compartment lights are removed the same way. P4 compartment light shown.

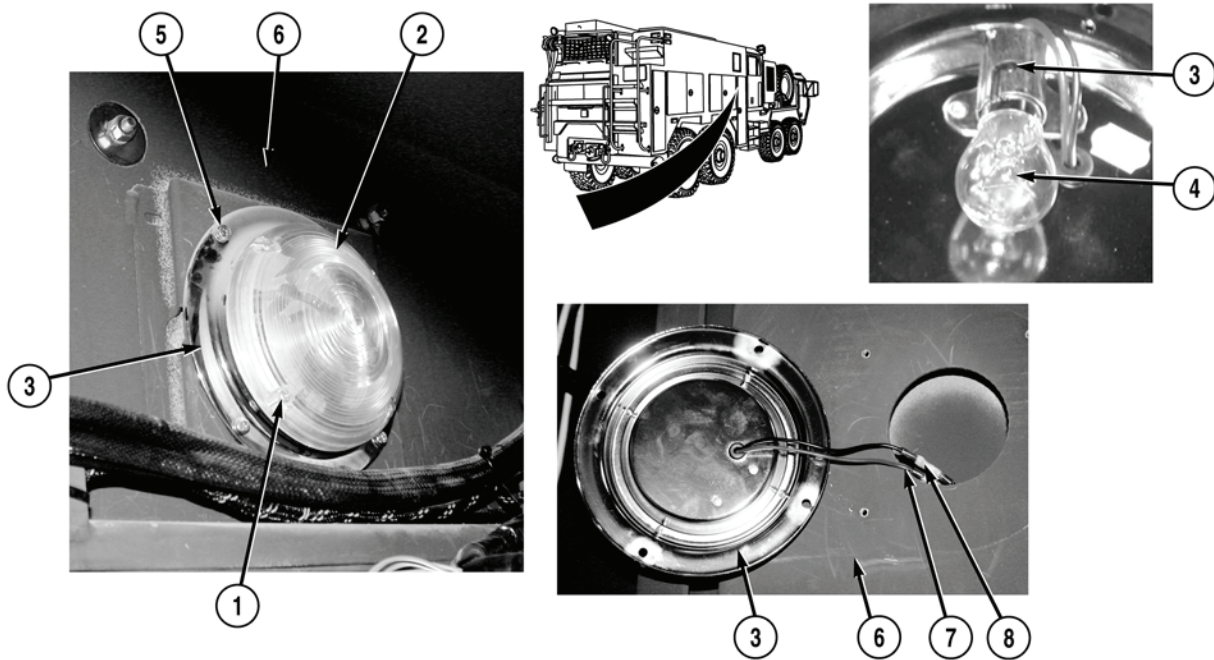
1. Remove four screws (1) and lens (2) from compartment light base (3).
2. Remove lamp (4) from compartment light base (3).
3. Remove four screws (5) and compartment light base (3) from compartment (6).

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

4. Cut two wires (7) and (8) (TM 9-2320-325-14&P).

**END OF TASK**

**INSTALLATION****NOTE**

All compartment lights are installed the same way. P4 compartment lights shown.

1. Repair two wires (8) and (7) (TM 9-2320-325-14&P).
2. Install compartment light base (3) on compartment (6) with four screws (5).
3. Install lamp (4) in compartment light base (3).
4. Install lens (2) on compartment light base (3) with four screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**CONTROL VALVE REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 48

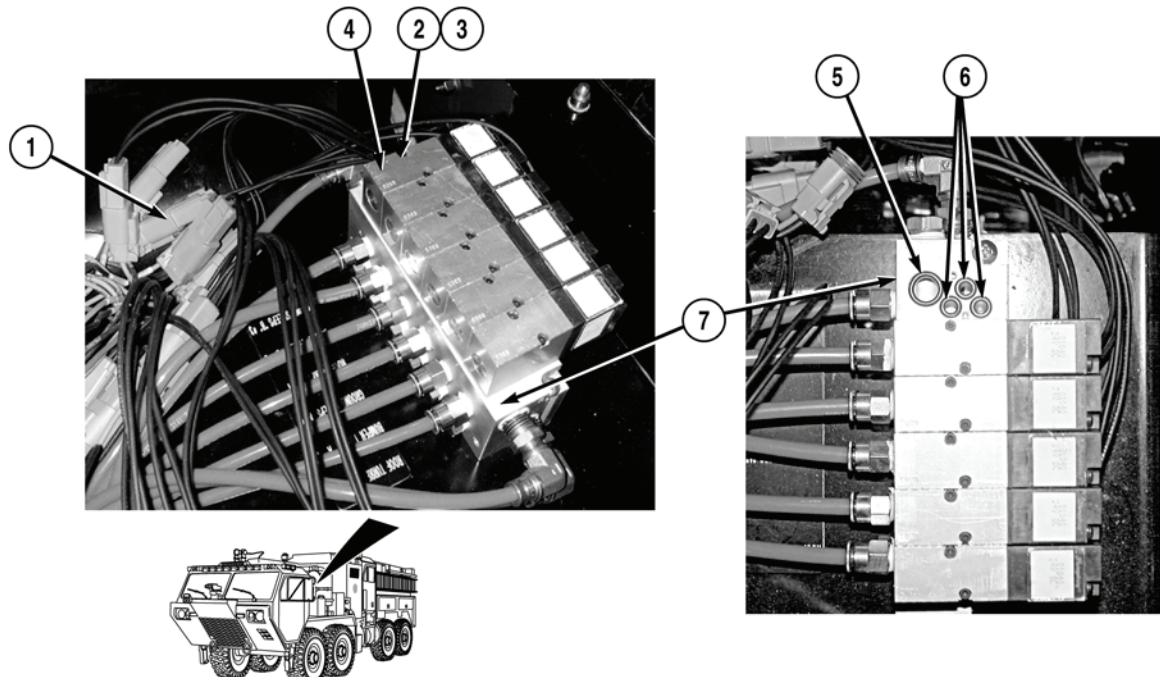
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Preformed Packing (1)  
Preformed Packing (3)

**Equipment Conditions**

Wheels chocked (TM 9-2320-347-10)  
Batteries disconnected (TM 9-2320-325-14&P)  
Pump house panel S removed (WP 0540)  
Air system drained (TM 9-2320-347-10)

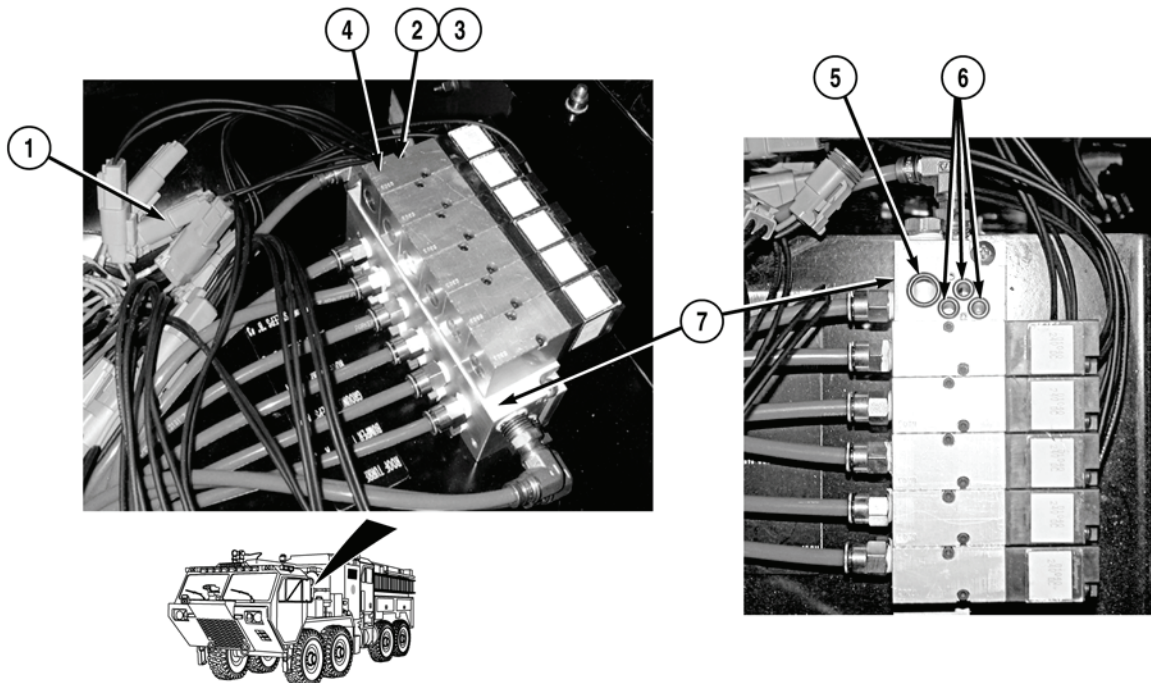
---

**REMOVAL****NOTE**

- Remove cable ties as required.
- Tag and mark wires prior to removal to ensure proper installation.
- All control valves are removed the same way. Ground sweeps "B" # 3 shown.

1. Disconnect connector (1).
2. Remove two screws (2), washers (3), valve (4), preformed packing (5), and three preformed packings (6) from manifold (7). Discard preformed packings.

**END OF TASK**

**INSTALLATION****NOTE**

All control valves are installed the same way. Ground sweeps "B" # 3 shown.

1. Install three preformed packings (6), preformed packing (5), and valve (4) on manifold (7) with two washers (3) and screws (2).

**NOTE**

Install cable ties as required.

2. Connect connector (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install pump house panel S (WP 0540)
2. Connect batteries (TM 9-2320-325-14&P)
3. Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE****CORD REEL REPAIR**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Locknut (8)  
Locknut (2)  
Locknut (2)  
Lockwasher (2)  
Locknut (2)

**Materials/Parts (continued)**

Locknut (2)  
Locknut (6)  
Locknut (2)  
Locknut (2)

**References**

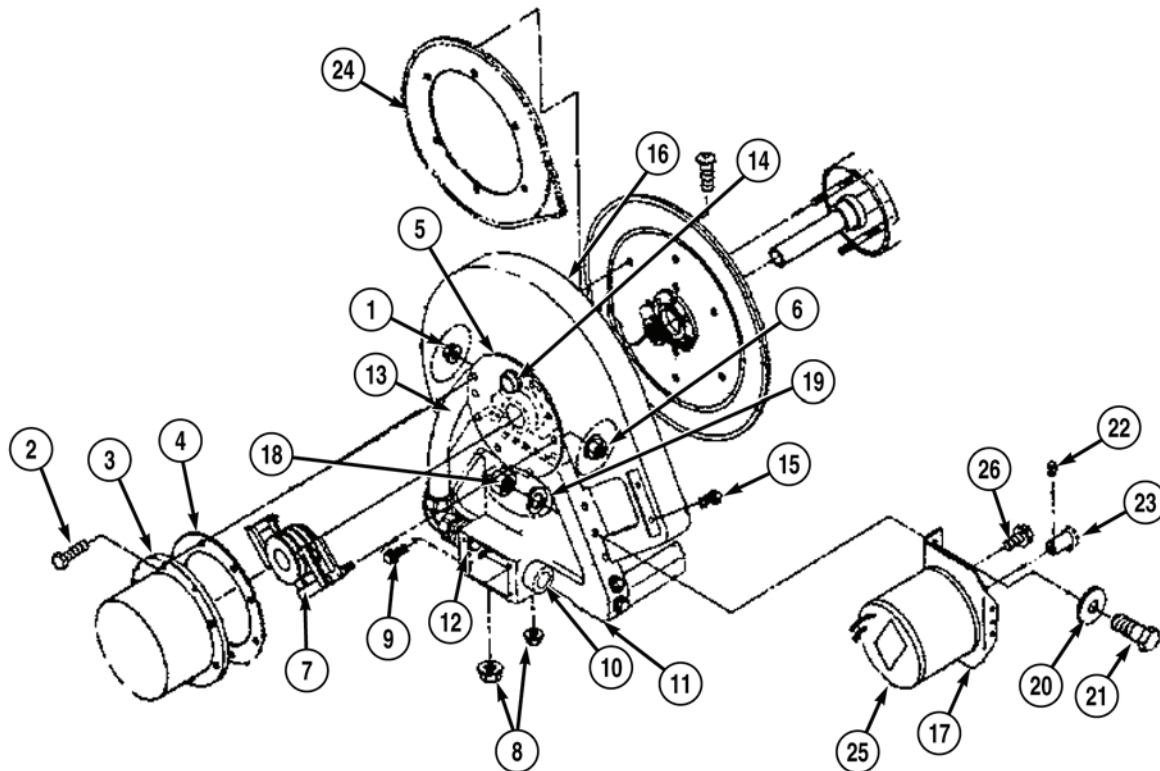
WP 0615, Fig. 77, 78

**Equipment Conditions**

Cord reel removed (WP 0381)

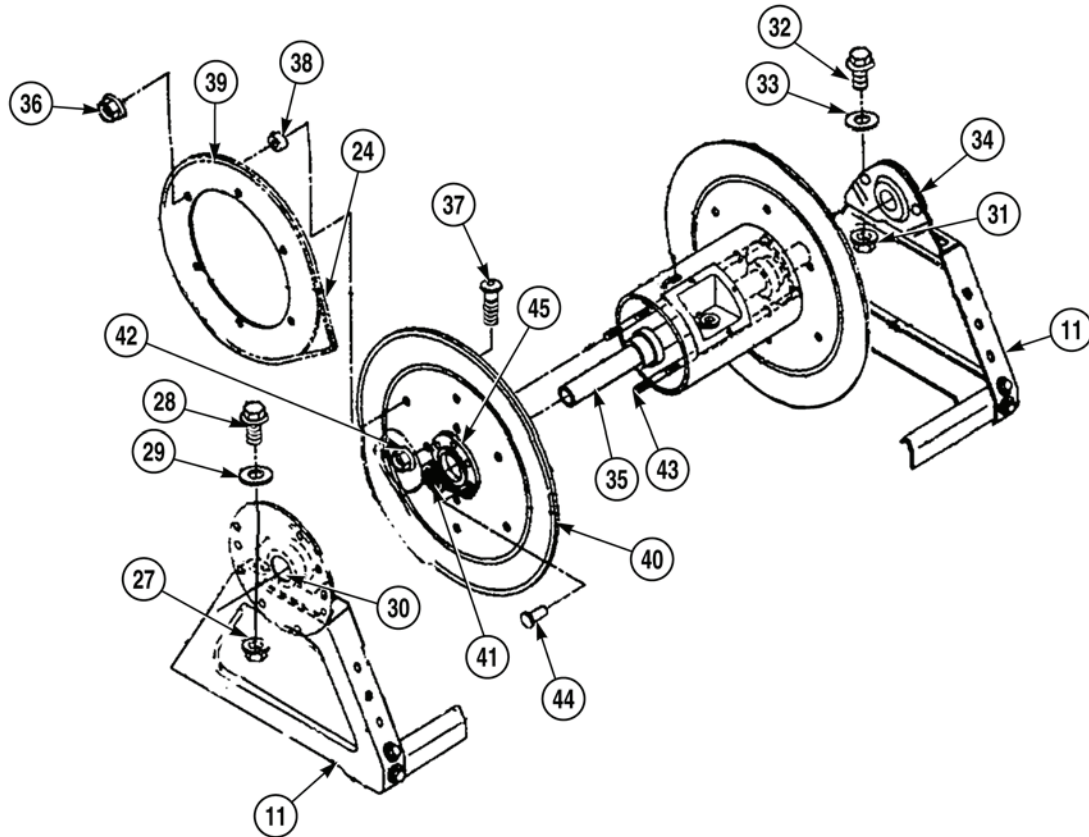
---

## DISASSEMBLY



1. Remove eight locknuts (1), screws (2), cover (3), and cover gasket (4) from backing plate (5). Discard locknuts.
2. Remove two locknuts (6) and collector assembly (7) from backing plate (5). Discard locknuts.
3. Remove two locknuts (8), screws (9), and junction box (10) from cord reel frame (11). Discard locknuts.
4. Remove nut (12) and cable (13) from junction box (10).
5. Remove strain relief (14) and cable (13) from backing plate (5).
6. Remove two screws (15) and chain guard (16) from motor mount (17).
7. Remove two nuts (18), lockwashers (19), washers (20), screws (21), and motor mount (17) from frame (11). Discard lockwashers.
8. Remove set screw (22), sprocket (23), and chain (24) from motor (25).
9. Remove two screws (26) and motor mount (17) from motor (25).





10. Remove two locknuts (27), screws (28), and washers (29) from bearing (30) and cord reel frame (11). Discard locknuts.
11. Remove two locknuts (31), screws (32), washers (33), and bearing (34) from cord reel frame (11). Discard locknuts.

### NOTE

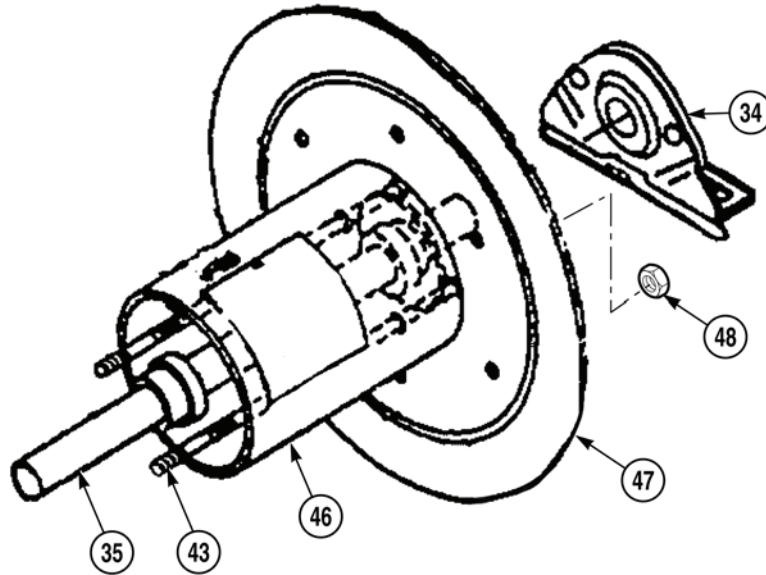
Front bearing and backing plate are welded together.

12. Remove bearing (30) and backing plate (5) from axle assembly (35).
13. Remove six locknuts (36), screws (37), spacers (38), chain (24), and sprocket (39) from disc (40). Discard locknuts.
14. Remove chain (24) from sprocket (39).
15. Remove spacer (41) from axle assembly (35).
16. Remove two locknuts (42) and disc (40) from two screws (43) and axle assembly (35). Discard locknuts.

### NOTE

Perform Step (17) if washer needs to be removed.

17. Remove six rivets (44) and washer (45) from disc (40).



18. Remove drum (46) from axle assembly (35).
19. Remove bearing (34) and axle assembly (35) from disc (47).

### NOTE

Note position of locknuts prior to removal to ensure proper installation.

20. Remove two locknuts (48) and disc (47) from two screws (43). Discard locknuts.

### END OF TASK

### ASSEMBLY

### NOTE

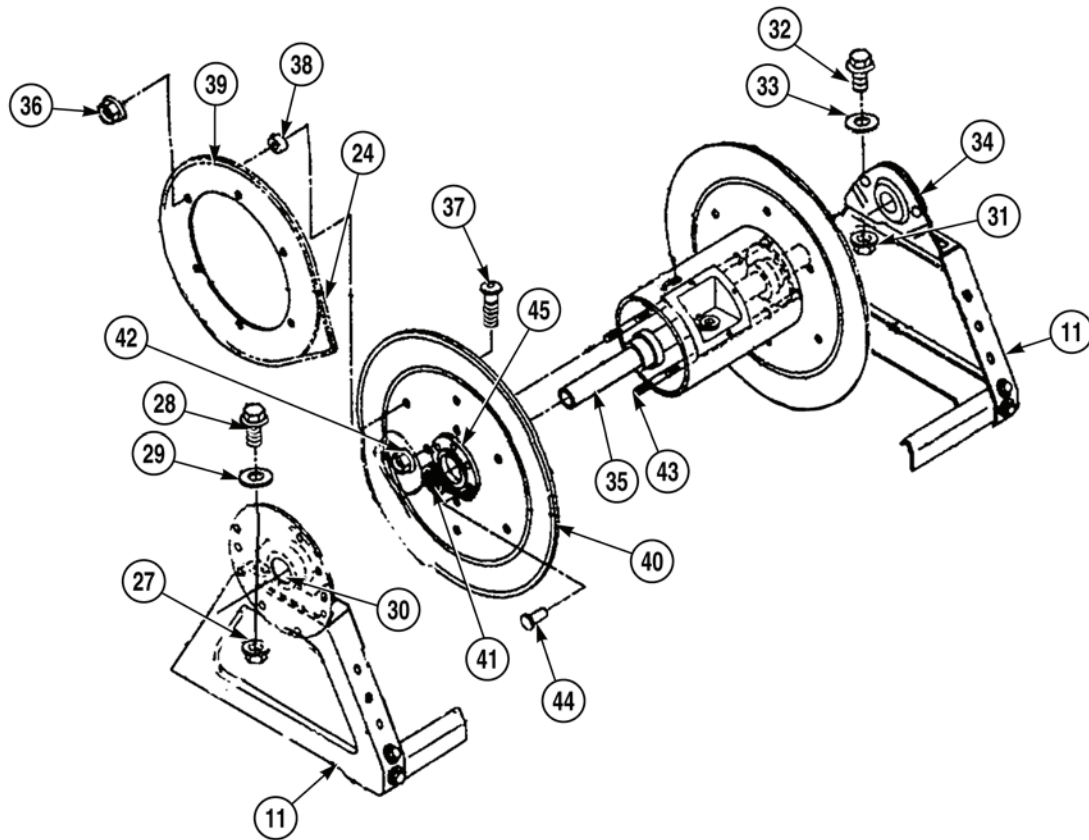
Install locknuts as noted prior to removal.

1. Install rear disc (47) and two locknuts (48) on two screws (43).
2. Install axle assembly (35) and bearing (34) on disc (47).
3. Install drum (46) on axle assembly (35).

### NOTE

Perform Step (7) if washer was removed.

4. Install washer (45) on disc (40) with six rivets (44).
5. Install disc (40) on axle assembly (35) and two screws (43) with locknuts (42).
6. Install spacer (41) on axle assembly (35).

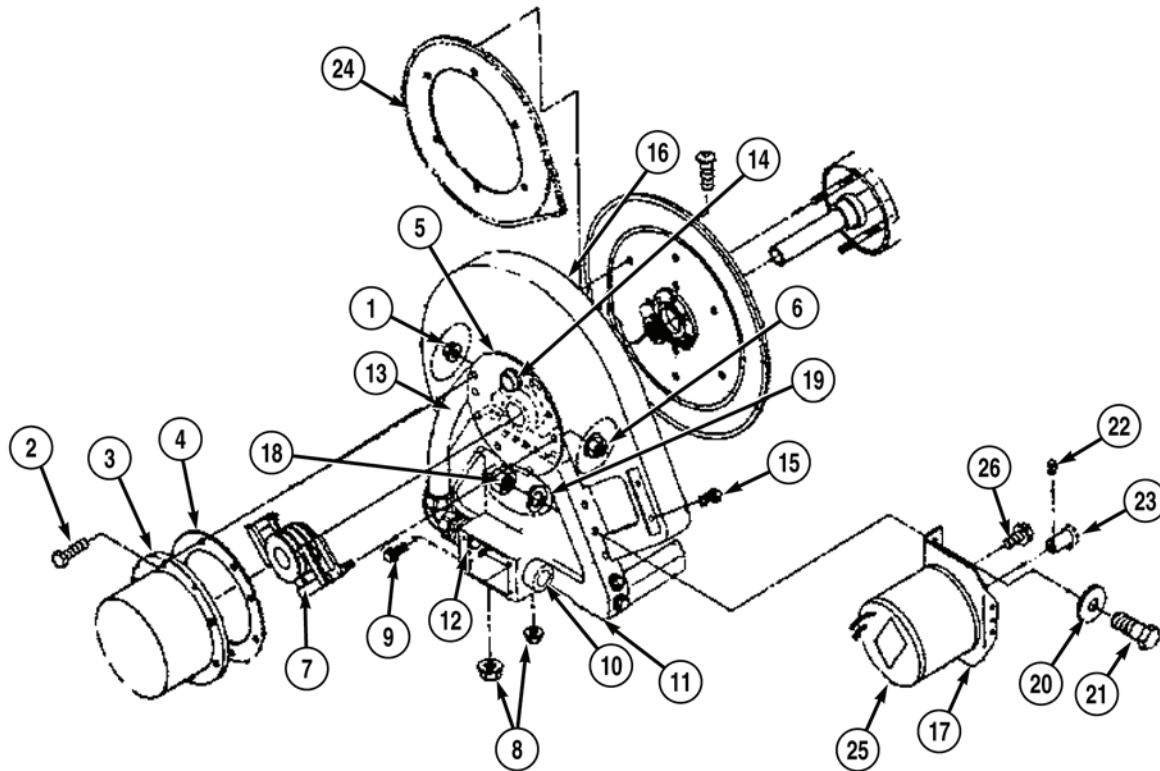


7. Install chain (22) on sprocket (39).
8. Install chain (22) and sprocket (39) on front disc (40) with six locknuts (36), spacers (38), and screws (37).

### NOTE

Front bearing and collector backing plate are welded together.

9. Install bearing (30) and backing plate (5) on axle assembly (35).
10. Install bearing (34) on cord reel frame (11) with two washers (33), screws (32), and locknuts (31).
11. Install bearing (30) on cord reel frame (11) with two washers (29), screws (28), and locknuts (27).



12. Install motor mount (17) on motor (25) with two screws (26).
13. Install chain (24) and sprocket (23) on motor (25) with set screw (22).
14. Install motor mount (17) on cord reel frame (11) with two screws (21), washers (20), lockwashers (19), and nuts (18).
15. Install chain guard (16) on motor mount (17) with two screws (15).
16. Install cable (13) on backing plate (5) with strain relief (14).
17. Install cable (13) on junction box (10) with nut (12).
18. Install junction box (10) on cord reel frame (11) with two screws (9) and locknuts (8).
19. Install collector assembly (7) on backing plate (5) with two locknuts (6).
20. Install cover gasket (4) and cover (3) on backing plate (5) with eight screws (2) and locknuts (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

Install cord reel (WP 0381)

#### END OF TASK

#### END OF WORK PACKAGE

## FIELD LEVEL MAINTENANCE

## CORD REEL CABLE, WORK LIGHT, AND RECEPTACLE BOX REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 77, 78

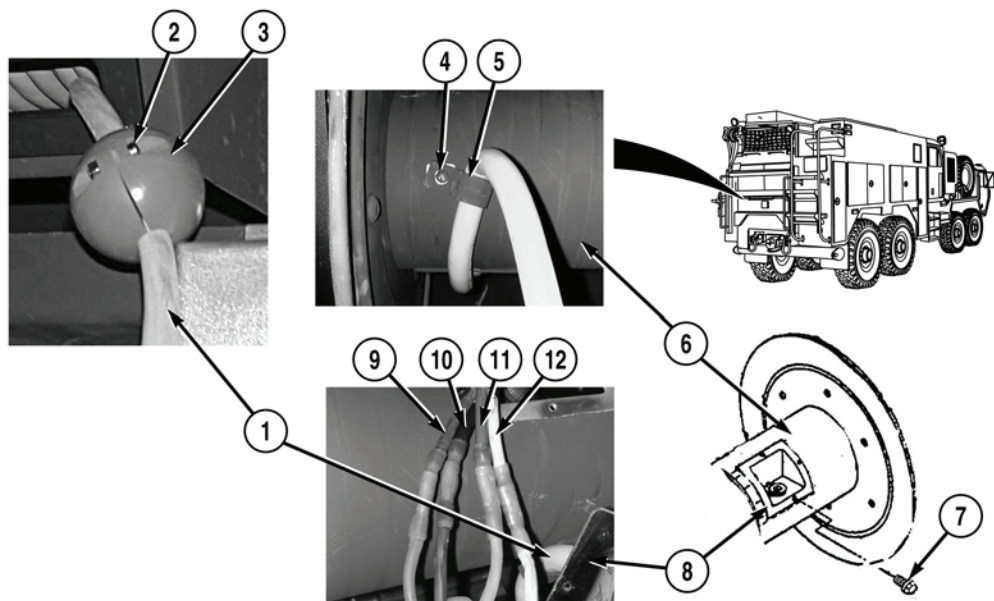
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Cord reel cable work light lamp  
removed (WP 0378)

## REMOVAL

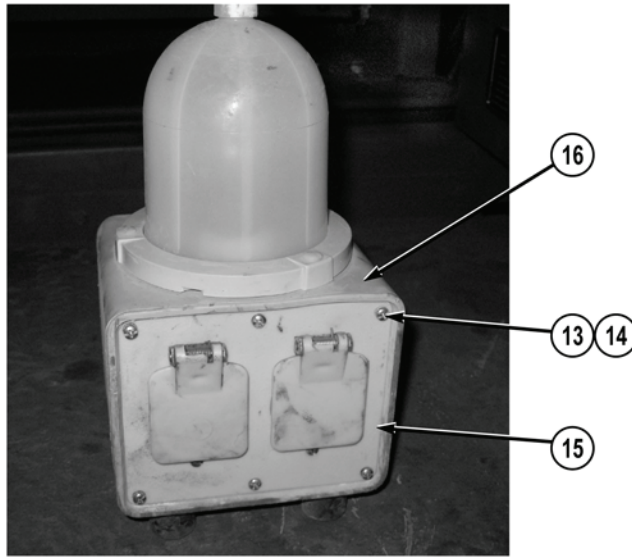


1. Unreel cord reel cable (1).
2. Remove two screws (2) and cable stop (3) from cord reel cable (1).
3. Remove screw (4) and clamp (5) from cord reel drum (6).
4. Remove four screws (7) and cover (8) from cord reel drum (6).

**NOTE**

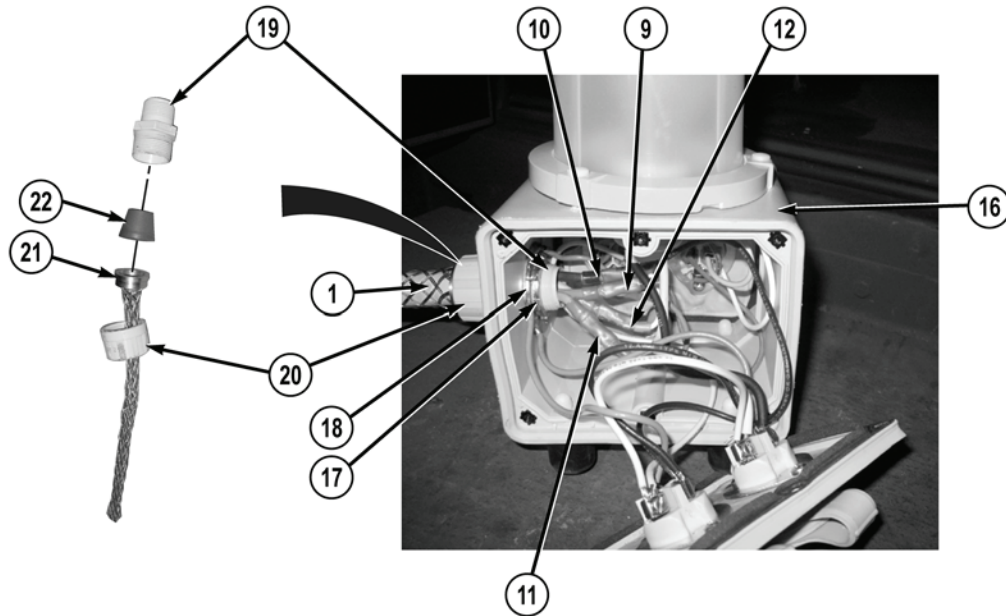
Tag and mark wires prior to removal to ensure proper installation.

5. Cut four wires (9), (10), (11), and (12) (TM 9-2320-325-14&P) and remove cover (8) from cord reel cable (1).

**NOTE**

Receptacle box is replaced as an assembly. Receptacles cannot be replaced separately.

6. Remove six screws (13), gasket (14), and cover (15) from receptacle box (16).



### NOTE

Note position of wires prior to removal to ensure proper installation.

7. Cut four wires (9), (10), (11), and (12) (TM 9-2320-325-14&P).
8. Remove nut (17), ring (18), and connector (19) from receptacle box (16).
9. Remove nut (20), loom (21), strain relief (22), and connector (19) from cord reel cable (1).

### END OF TASK

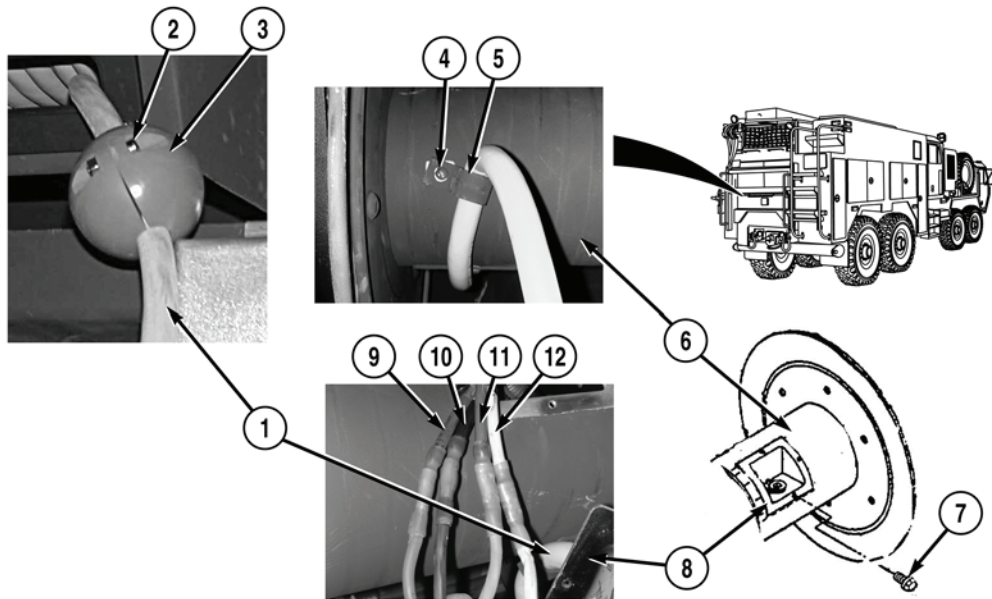
### INSTALLATION

1. Position nut (20), loom (21), strain relief (22), and connector (19) on cord reel cable (1). Do not tighten nut.
2. Install connector (19) and ring (18) on receptacle box (16) with nut (17).

### NOTE

Position wires as noted prior to removal.

3. Repair four wires (9), (10), (11), and (12) (TM 9-2320-325-14&P).
4. Tighten nut (20) on loom (21) and connector (19).
5. Install gasket (14) and cover (15) on receptacle box (16) with six screws (13).



6. Position cord reel cable (1) in cover (8) and repair four wires (12), (11), (10), and (9) (TM 9-2320-325-14&P).
7. Install cover (8) on cord reel drum (6) with four screws (7).
8. Install clamp (5) on cord reel drum (6) with screw (4).
9. Install cable stop (3) on cord reel cable (1) with two screws (2).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Install cord reel cable work light lamp (WP 0378)
2. Stow cord reel (WP 0037)

#### END OF TASK

#### END OF WORK PACKAGE



## FIELD LEVEL MAINTENANCE

## CORD REEL CABLE WORK LIGHT LAMP REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

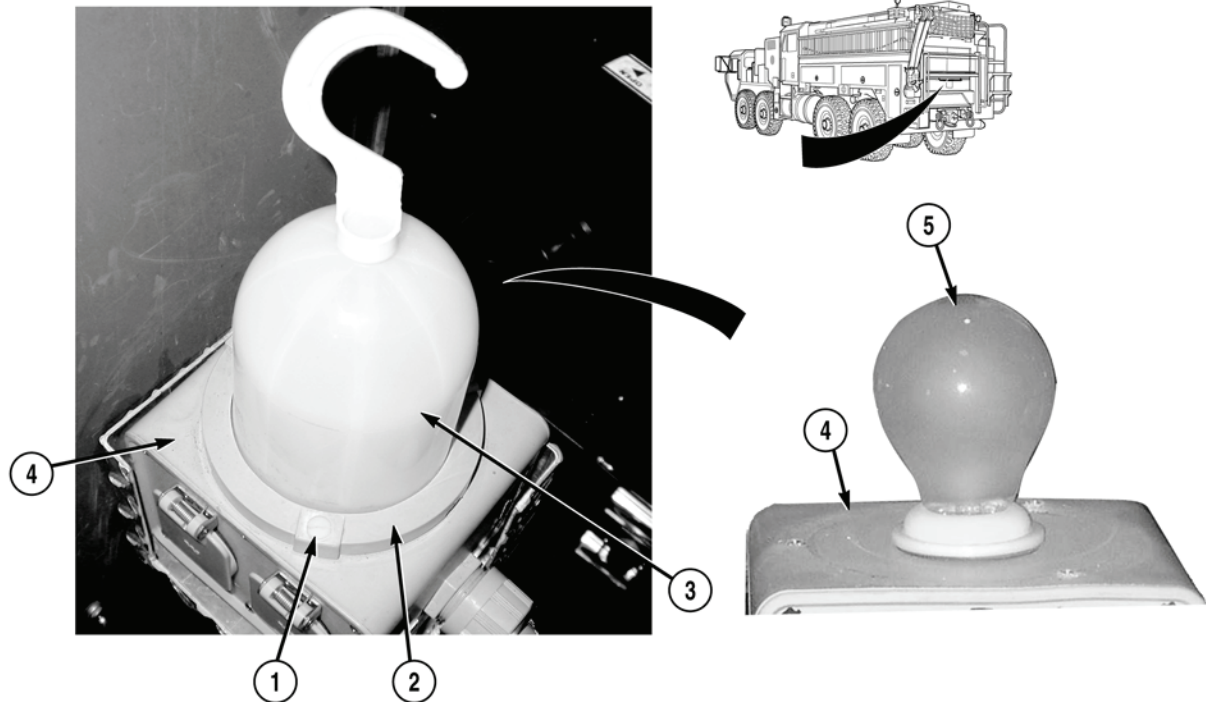
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

**References**

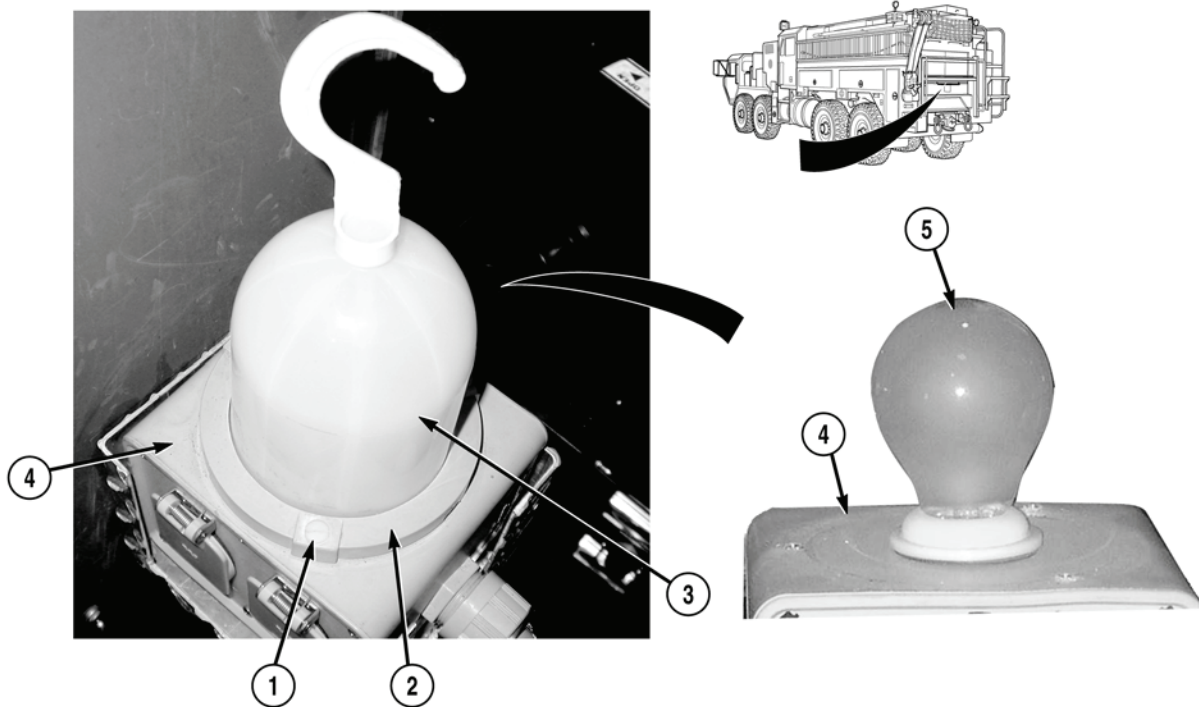
WP 0615, Fig. 77

## REMOVAL



1. Remove three screws (1), flange (2), and cover (3) from work light (4).
2. Remove lamp (5) from work light (4).

## END OF TASK

**INSTALLATION**

1. Install lamp (5) on work light (4).
2. Install cover (3) and flange (2) on work light (4) with three screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&amp;P)

**END OF TASK****END OF WORK PACKAGE**

FIELD LEVEL MAINTENANCE

CORD REEL CABLE WORK LIGHT BRACKET REPLACEMENT

INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 163

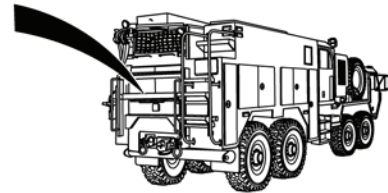
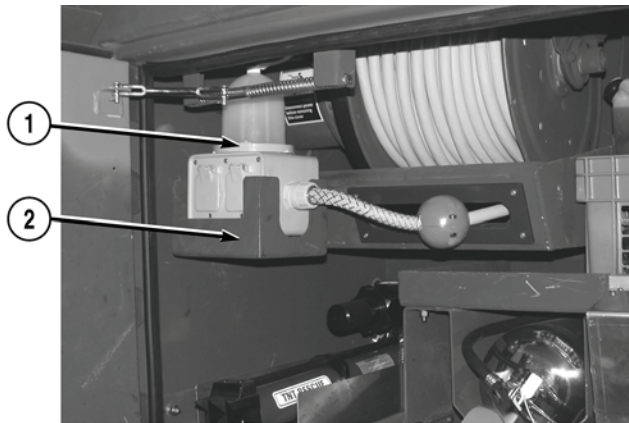
**Materials/Parts**

Lockwasher (2)

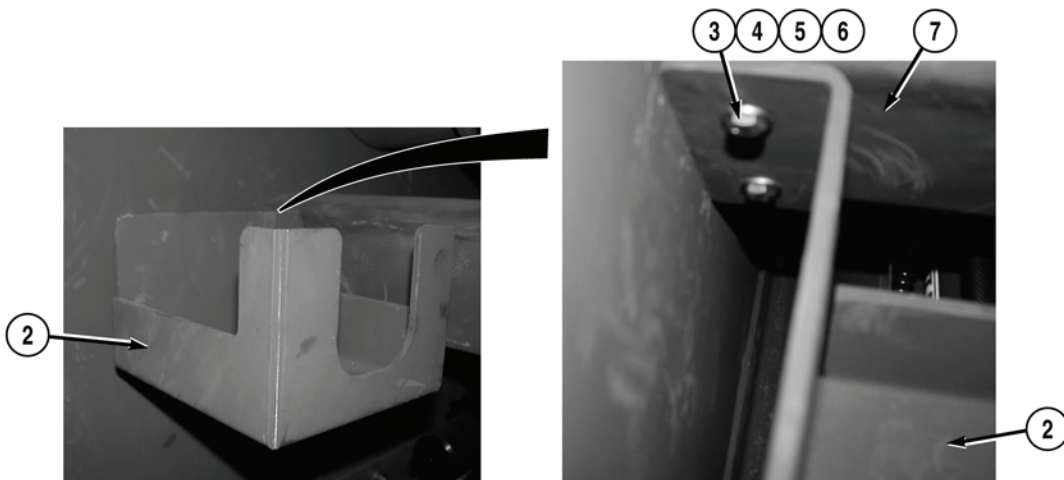
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

REMOVAL



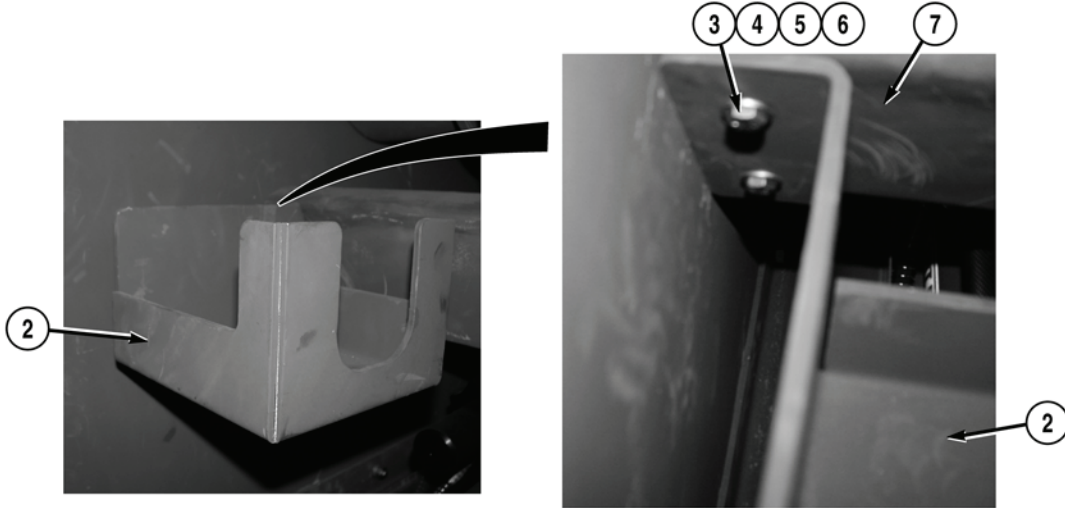
1. Remove work light (1) from bracket (2).



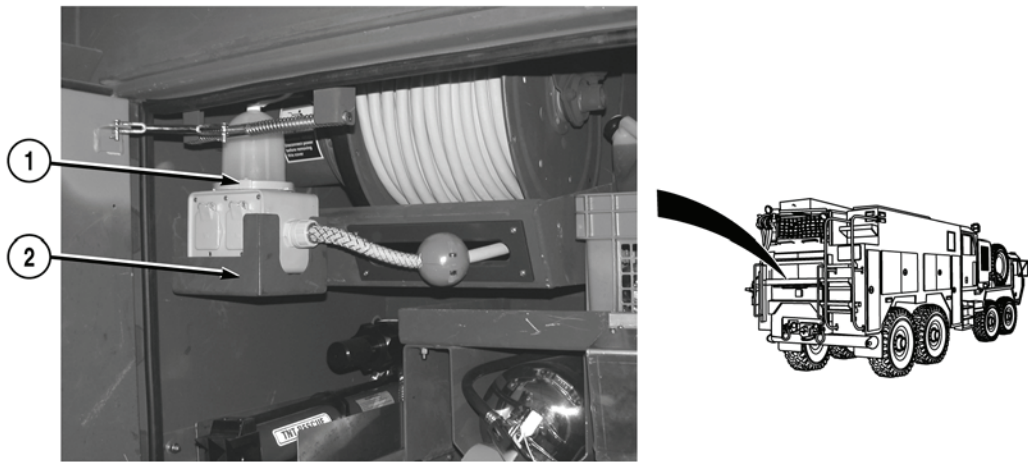
2. Remove two nuts (3), lockwashers (4), four washers (5), two screws (6), and bracket (2) from roller assembly bracket (7). Discard lockwashers.

END OF TASK

**INSTALLATION**



1. Install bracket (2) in roller assembly bracket (7) with two screws (6), four washers (5), two lockwashers (4), and nuts (3).



2. Install work light (1) in bracket (2).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**CORD REEL CONTROL ASSEMBLY REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 76

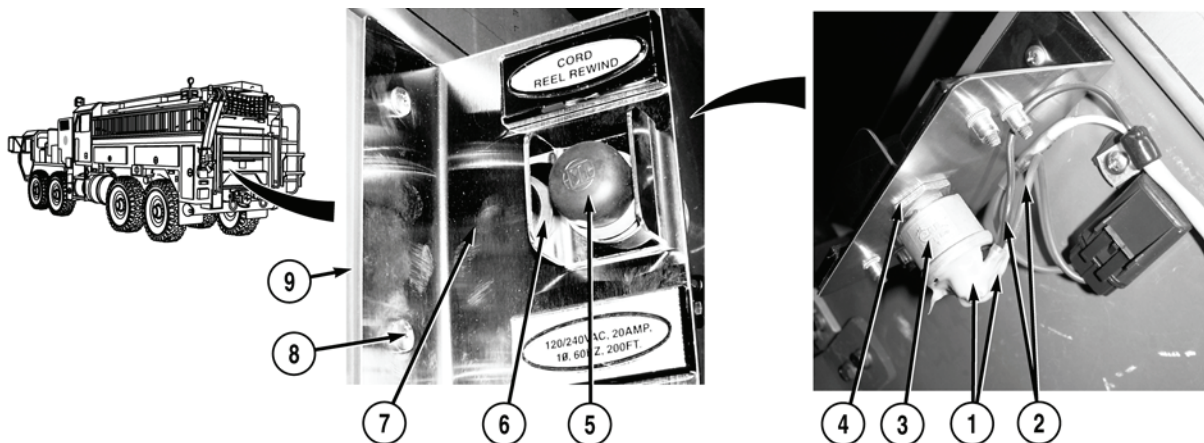
**Materials/Parts**

Compound, Sealing (WP 0625, Item 17)  
Tags, Identification (WP 0625, Item 51)  
Locknut (1)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Decal plates removed (WP 0518)

---

**REMOVAL****NOTE**

Tag and mark wires prior to removal to ensure proper installation.

1. Remove two screws (1) and wires (2) from cord reel switch (3).
2. Loosen locknut (4) on cord reel switch (3).
3. Remove cord reel switch cover (5), switch guard (6), and cord reel switch (3) from cord reel switch bracket (7).
4. Remove locknut (4) from cord reel switch (3). Discard locknut.

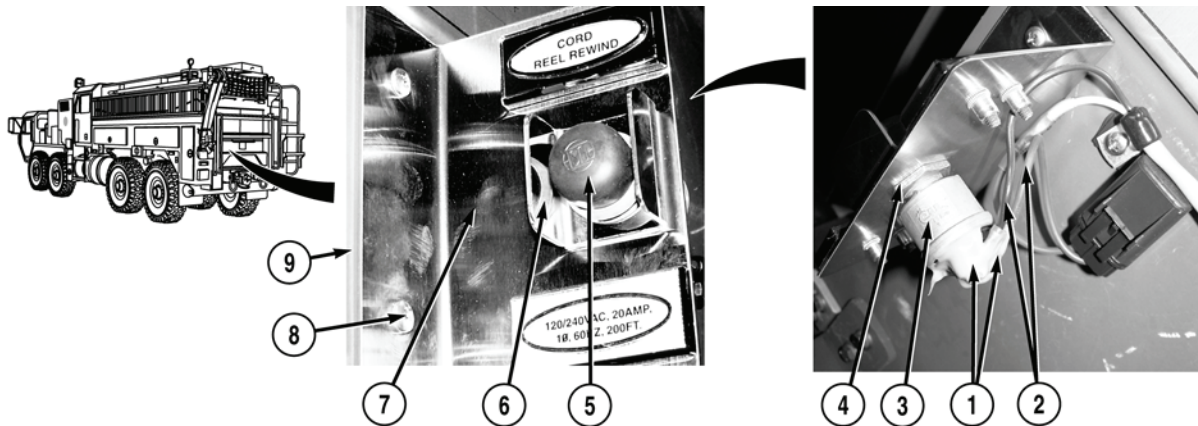
**NOTE**

Perform Step (5) if cord reel switch bracket needs to be removed.

5. Remove two screws (8) and cord reel switch bracket (7) from rear compartment (9).

**END OF TASK**

## INSTALLATION



### NOTE

Perform Step (1) if switch bracket was removed.

1. Install cord reel switch bracket (7) on rear compartment (9) with two screws (8).
2. Install locknut (4) on cord reel switch (3).
3. Install cord reel switch (3) on cord reel switch bracket (7) with switch guard (6) and cord reel switch cover (5).
4. Tighten locknut (4) on cord reel switch (3).
5. Install two wires (2) on cord reel switch (3) with two screws (1).

### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

6. Apply sealing compound to switch connection of two wires (2).

### END OF TASK

### FOLLOW-ON MAINTENANCE

1. Install decal plates (WP 0518)
2. Connect batteries (TM 9-2320-325-14&P)

### END OF TASK

### END OF WORK PACKAGE

## FIELD LEVEL MAINTENANCE

## CORD REEL REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

TM 9-2320-325-14&P  
WP 0615, Fig. 77, 78

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Lockwasher (2)  
Lockwasher (4)  
Lockwasher (2)

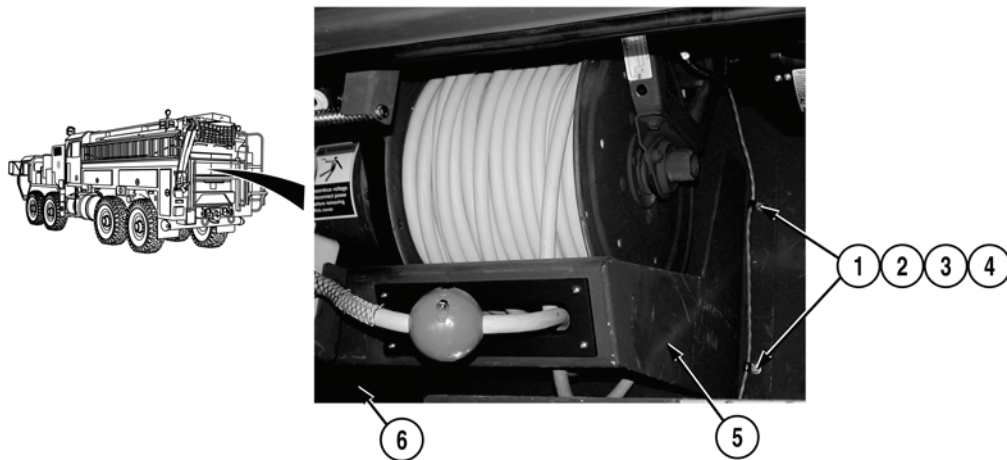
**Equipment Conditions**

Cord reel cable, work light, and receptacle  
removed (WP 0377)  
Cord reel cable work light bracket removed  
(WP 0379)

**Personnel Required**

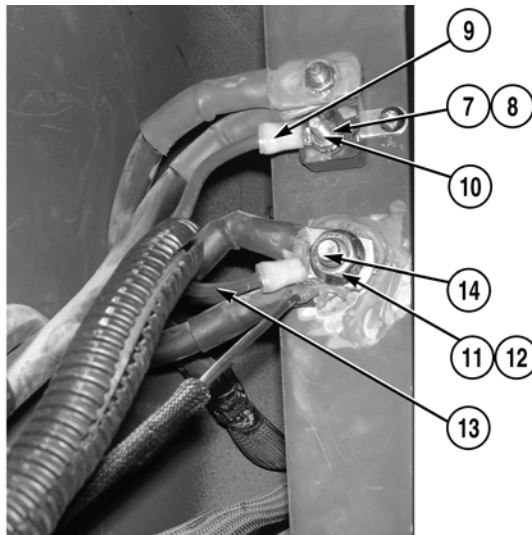
MOS 63B Wheeled vehicle mechanic (2)

## REMOVAL

**NOTE**

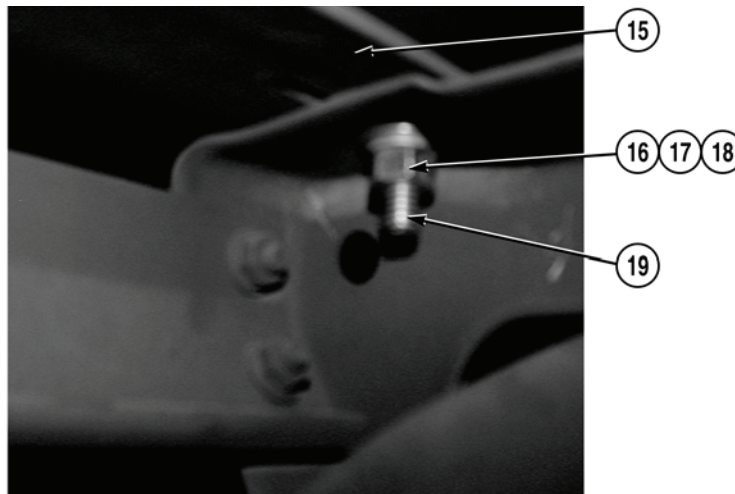
Remove all items from doors.

1. Remove two screws (1), lockwashers (2), washers (3), two cushion clips (4), and roller assembly bracket (5) from compartment (6). Discard lockwashers.

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

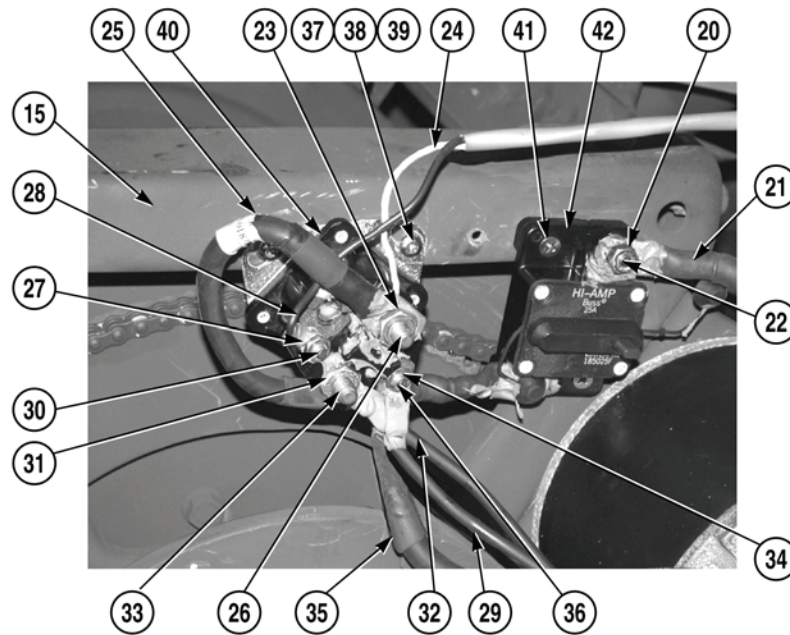
2. Remove nut (7), washer (8), and wire (9) from positive breaker stud (10).
3. Remove nut (11), washer (12), and wire (13) from ground breaker stud (14).

**WARNING**

**Cord reel is heavy. Do not lift cord reel without the aid of an assistant. Failure to comply could result in injury to personnel.**

4. With the aid of an assistant, hold cord reel (15) and remove four nuts (16), lockwashers (17), washers (18), and cord reel (15) from four screws (19). Discard lockwashers.



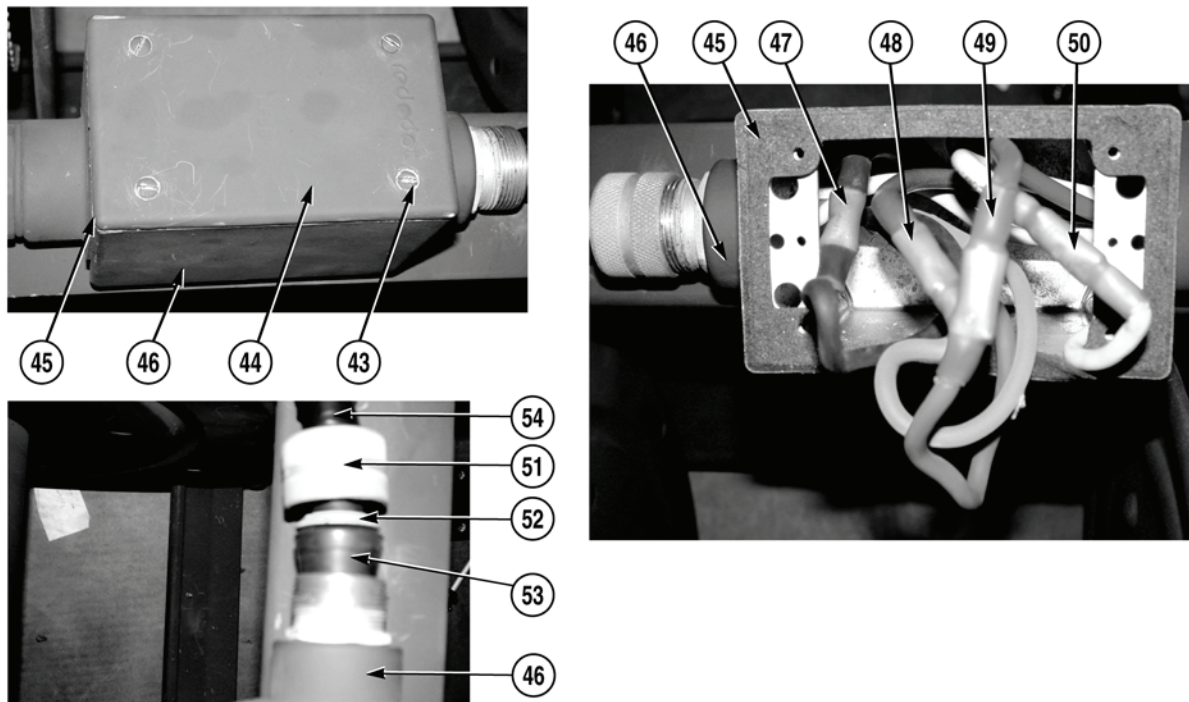


5. Remove nut (20) and wire (21) from stud (22).
6. Remove nut (23) and two wires (24) and (25) from stud (26).

### NOTE

Use suitable lifting blocks for supporting the cord reel.

7. Remove nut (27) and two wires (28) and (29) from stud (30).
8. Remove nut (31) and wire (32) from stud (33).
9. Remove nut (34) and wire (35) from stud (36).
10. Remove two nuts (37), lockwashers (38), screws (39), and solenoid (40) from cord reel (15). Discard lockwashers.
11. Remove two screws (41) and breaker (42) from cord reel (15).

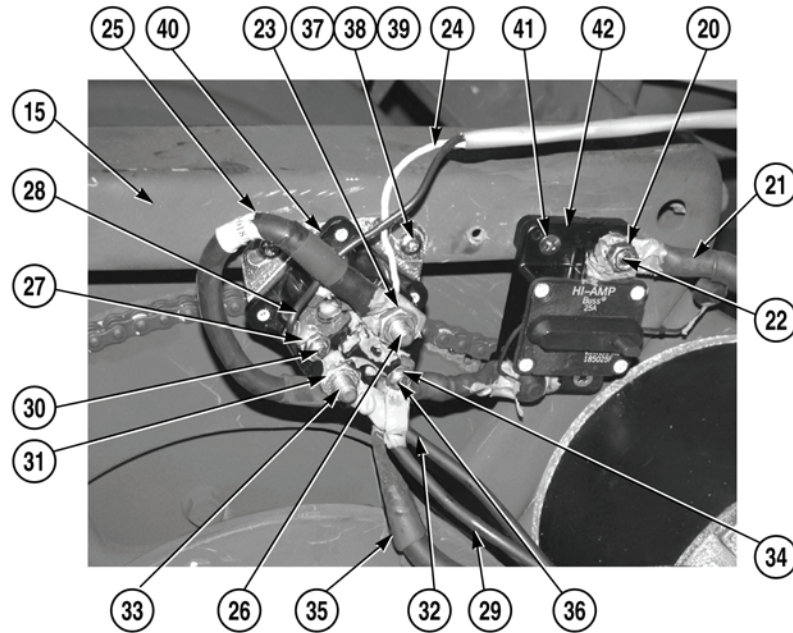


12. Remove four screws (43), cover (44), and gasket (45) from box (46).
13. Cut four wires (47), (48), (49), and (50) (TM 9-2320-325-14&P).
14. Remove collar (51), grommet (52), stopper (53), and cable (54) from box (46).

#### END OF TASK

#### INSTALLATION

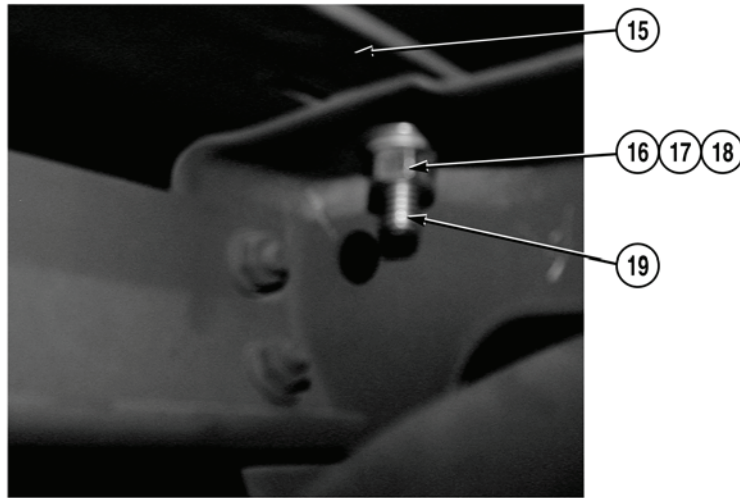
1. Install cable (54), stopper (53), and grommet (52) on box (46) with collar (51).
2. Repair four wires (47), (48), (49), and (50) (TM 9-2320-325-14&P).
3. Install gasket (45) and cover (44) on box (46) with four screws (43).



**⚠ CAUTION**

**Do not over-tighten breaker. Damage to breaker could occur.**

4. Install breaker (42) on cord reel (15) with two screws (41).
5. Install solenoid (40) on cord reel (15) with two screws (39), lockwashers (38), and nuts (37).
6. Install wire (35) on stud (36) with nut (34).
7. Install wire (32) on stud (33) with nut (31).
8. Install two wires (29) and (28) on stud (30) with nut (27).
9. Install two wires (25) and (24) on stud (26) with nut (23).
10. Install wire (21) on stud (22) with nut (20).

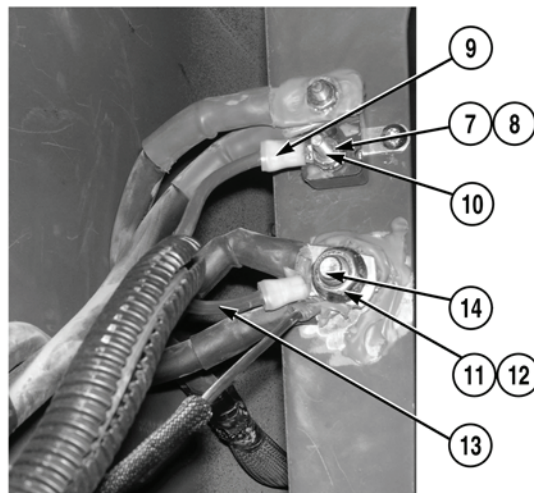


**WARNING**

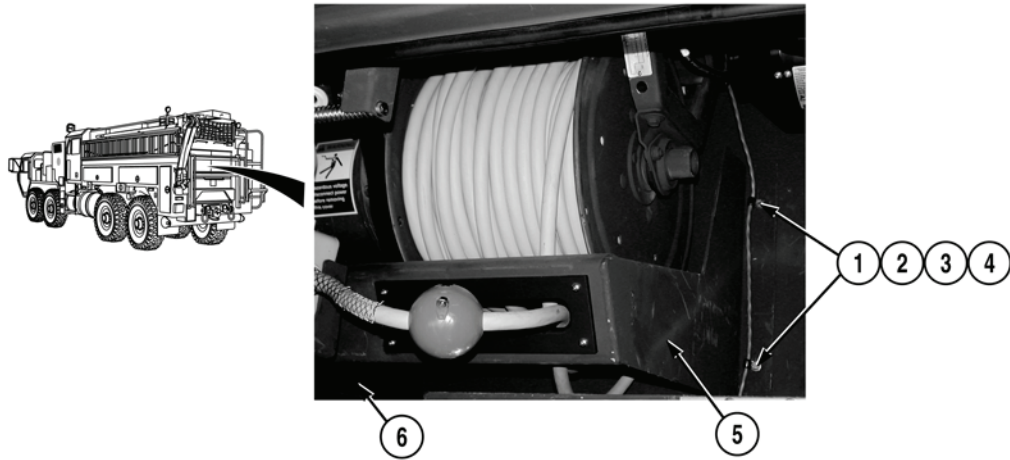


**Cord reel is heavy. Do not lift cord reel without the aid of an assistant. Failure to comply could result in injury to personnel.**

11. With the aid of an assistant, position and install cord reel (15) on four screws (19) with washers (18), lockwashers (17), and nuts (16).



12. Install wire (13) on ground breaker stud (14) with washer (12) and nut (11).
13. Install wire (9) on positive breaker stud (10) with washer (8) and nut (7).



14. Install roller assembly bracket (5) on compartment (6) with two cushion clips (4), washers (3), lockwashers (2), and screws (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Install cord reel work light bracket (WP 0379)
2. Install cord reel, work light, and receptacle (WP 0377)

#### END OF TASK

#### END OF WORK PACKAGE



## FIELD LEVEL MAINTENANCE

## CORD REEL REWIND CIRCUIT BREAKER REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 77, 78

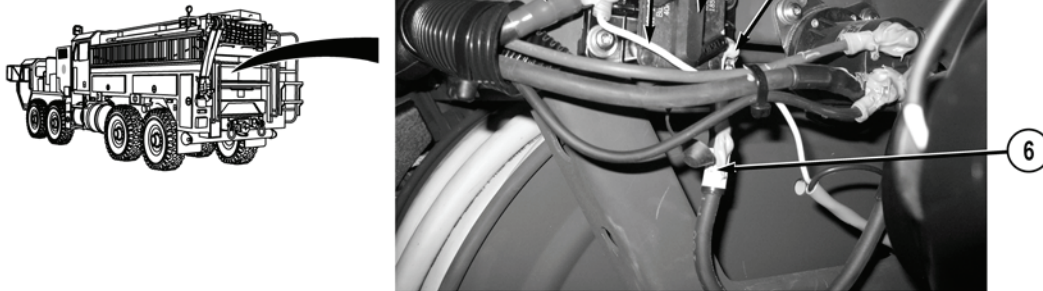
**Materials/Parts**

Compound, Sealing (WP 0625, Item 17)  
Tags, Identification (WP 0625, Item 51)  
Locknut (2)  
Locknut (2)

**Equipment Conditions**

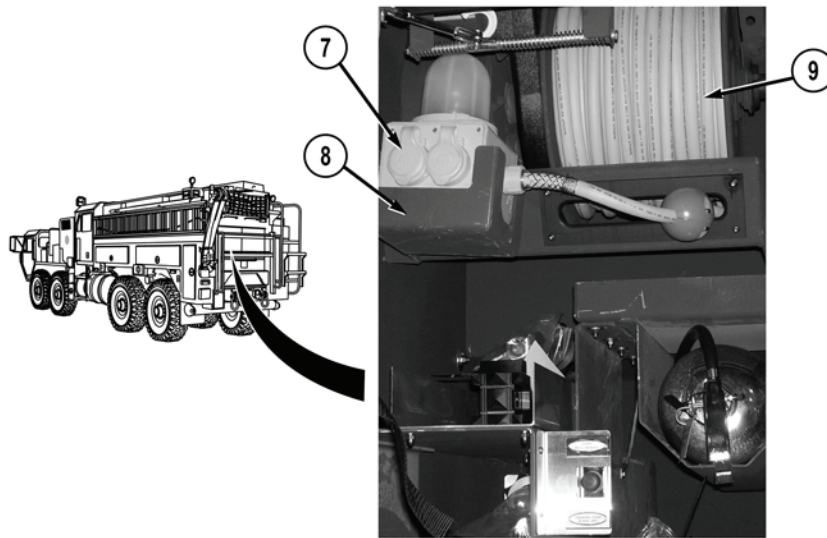
Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

## REMOVAL

**NOTE**

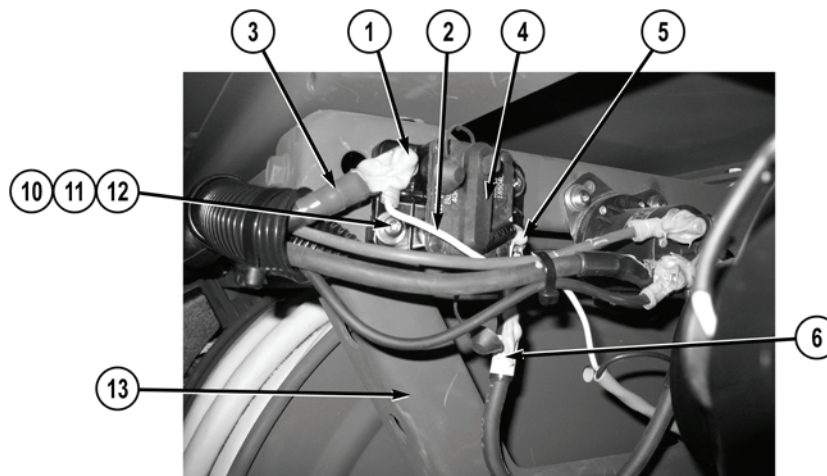
Tag and mark wires prior to removal to ensure proper installation.

1. Remove locknut (1), cord reel control wire (2), and high amperage cable (3) from cord reel rewind circuit breaker (4). Discard locknut.
2. Remove locknut (5) and wire 1296580 (6) from cord reel rewind circuit breaker (4). Discard locknut.

**NOTE**

Cord reel cord must be pulled out in order to remove locknuts.

3. Remove light box (7) from bracket (8), and pull out cord reel cord (9).



4. Remove two locknuts (10), washers (11), screws (12), and cord reel rewind circuit breaker (4) from bracket (13).

**END OF TASK**



**INSTALLATION**

1. Install cord reel rewind circuit breaker (4) on bracket (13) with two screws (12), washers (11), and locknuts (10).
2. Install wire 1296580 (6) on cord reel rewind circuit breaker (4) with locknut (5).
3. Install high amperage cable (3) and cord reel control wire (2) on cord reel rewind circuit breaker (4) with locknut (1).

**WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

4. Apply sealing compound to electrical connections at wire 1296580 (6), high amperage cable (3), and cord reel control wire (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Connect batteries (TM 9-2320-325-14&P)
2. Stow cord reel (WP 0037)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**CORD REEL REWIND SOLENOID REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing (WP 0625, Item 17)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Locknut (2)  
Lockwasher (2)  
Lockwasher (2)

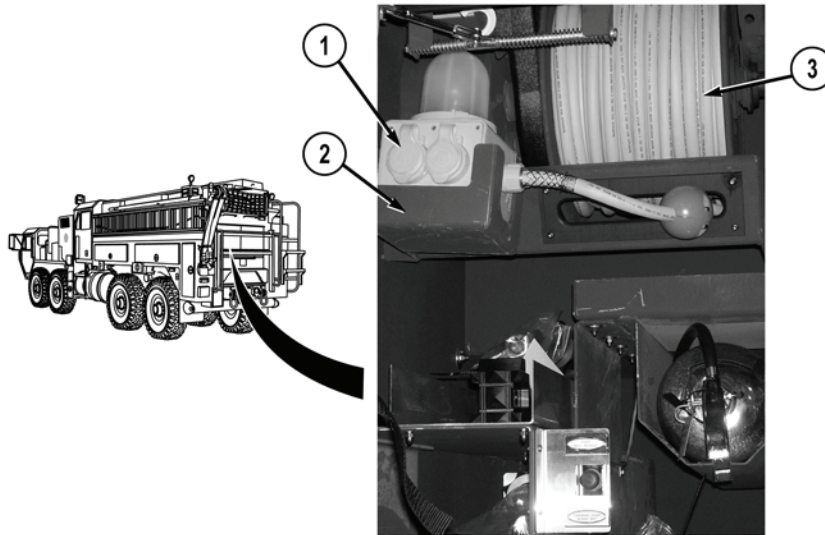
**References**

WP 0615, Fig. 76

**Equipment Conditions**

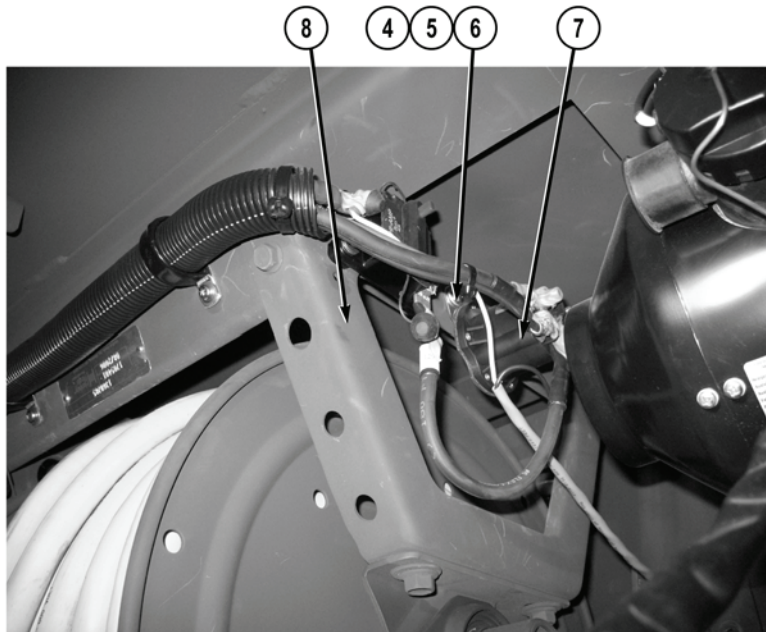
Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

---

**REMOVAL****NOTE**

Cord reel cord must be pulled out in order to remove locknuts.

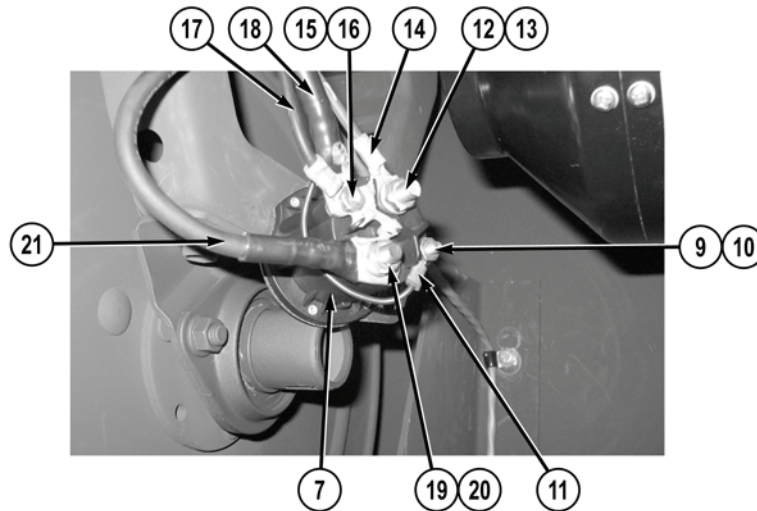
1. Remove light box (1) from bracket (2), and pull out cord reel cord (3).



### NOTE

In order to remove wires from solenoid, solenoid must be removed from bracket first.

2. Remove two locknuts (4), screws (5), washers (6), and solenoid (7) from bracket (8). Discard locknuts.



3. Remove nut (9), lockwasher (10), and cord reel ground wire (11) from solenoid (7). Discard lockwasher.
4. Remove nut (12), lockwasher (13), and motor power wire (14) from solenoid (7). Discard lockwasher.
5. Remove nut (15), lockwasher (16), motor ground wire (17), and ground wire (18) from solenoid (7). Discard lockwasher.
6. Remove nut (19), lockwasher (20), and wire 1296580 (21) from solenoid (7). Discard lockwasher.

**END OF TASK**

**INSTALLATION**

1. Install wire 1296580 (21) on solenoid (7) with lockwasher (20) and nut (19).
2. Install ground wire (18) and motor ground wire (17) on solenoid (7) with lockwasher (16) and nut (15).
3. Install motor power wire (14) on solenoid (7) with lockwasher (13) and nut (12).
4. Install cord reel ground wire (11) on solenoid (7) with lockwasher (10) and nut (9).

**WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

5. Apply sealing compound to connection at cord reel ground wire (11), motor power wire (14), ground wire (18), motor ground wire (17), and wire 1296580 (21).
6. Install solenoid (7) on bracket (8) with two washers (6), screws (5), and locknuts (4).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Connect batteries (TM 9-2320-325-14&P)
2. Stow cord reel (WP 0037)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## COVER, DOOR, AND ELECTRONIC MOUNTING BASE (SINGGARS) REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 59

**Materials/Parts**

Locknut (8)  
Lockwasher (8)  
Seal, Door

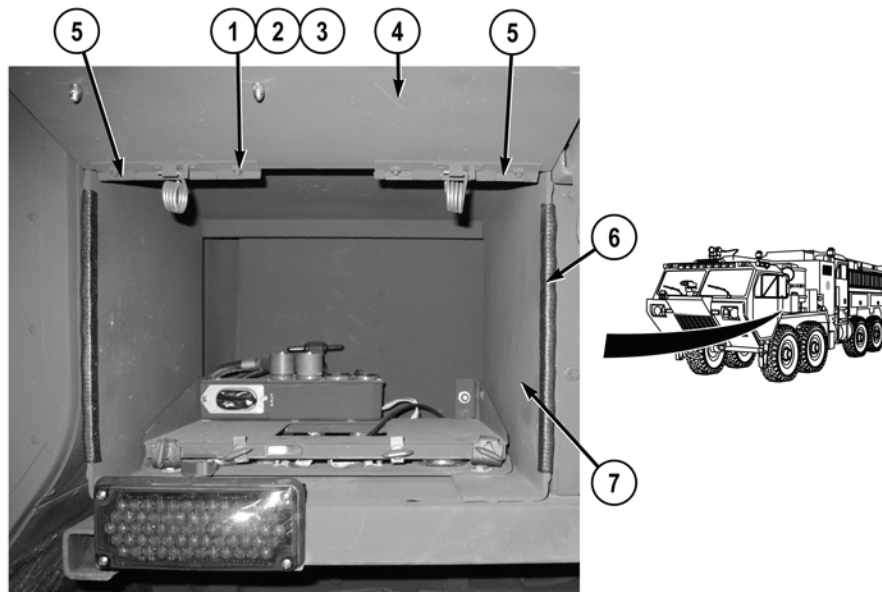
**Equipment Conditions**

Radio/transmitter, amplifiers, and communication  
cables removed (TM 11 5820-890-10-1)  
Power cable assembly (SINGGARS) removed  
(WP 0409)

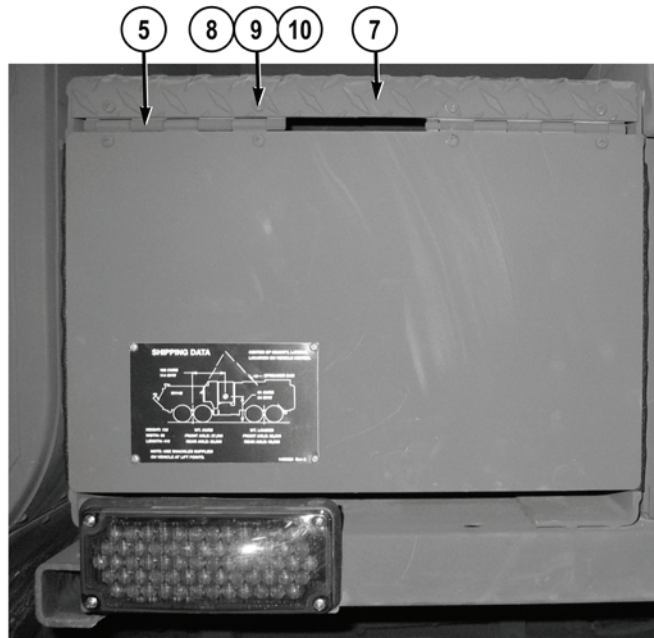
**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

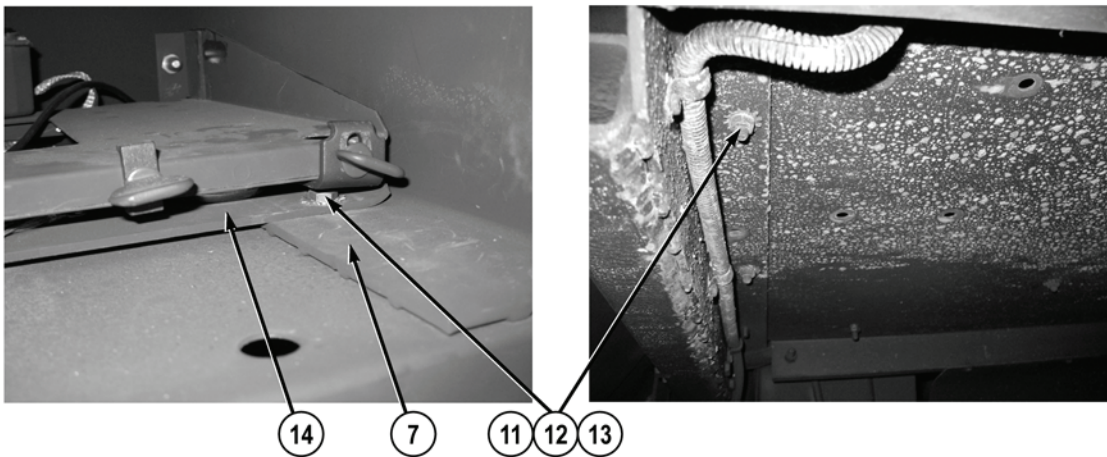
## REMOVAL



1. Remove four locknuts (1), eight washers (2), four screws (3), and door (4) from two hinges (5). Discard locknuts.
2. Remove two door seals (6) from cover (7).



3. Remove four locknuts (8), eight washers (9), four screws (10), and two hinges (5) from cover (7). Discard locknuts.



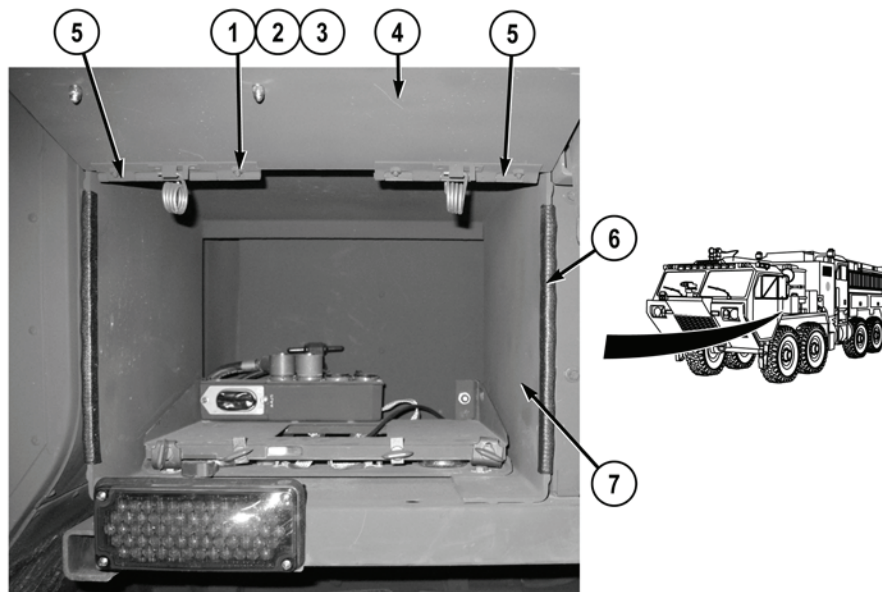
4. Remove four nuts (11), eight lockwashers (12), four screws (13), mounting base (14), and cover (7) from vehicle. Discard lockwashers.

**END OF TASK**

**INSTALLATION**

1. Install cover (7) and mounting base (14) on vehicle with four screws (13), eight lockwashers (12), and four nuts (11).
2. Install two hinges (5) on cover (7) with four screws (10), eight washers (9), and four locknuts (8).





3. Install two door seals (6) on cover (7).
4. Install door (4) on two hinges (5) with four screws (3), eight washers (2), and four locknuts (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Install power cable assembly (SINCGARS) (WP 0409)
2. Install radio/transmitter, amplifiers, and communication cables (TM 11-5820-890-10-1)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**
**DOOR SWITCH REPLACEMENT**


---

**INITIAL SETUP:****Tools and Special Tools**

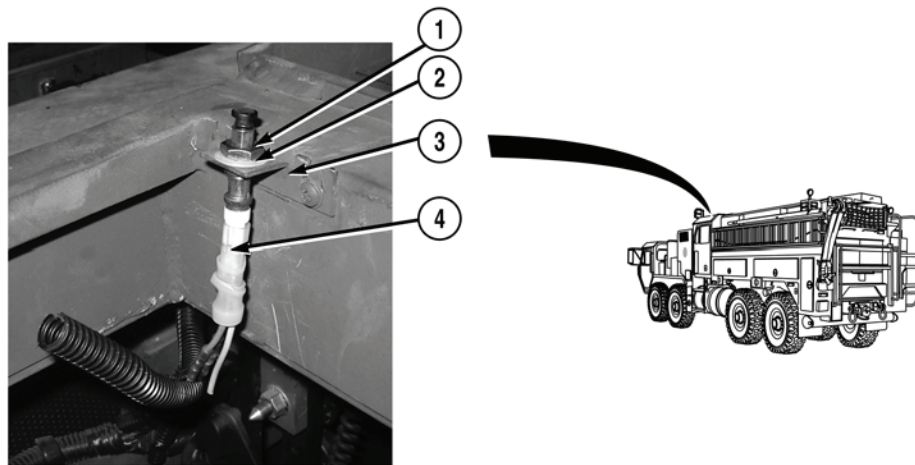
Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 70

**Equipment Conditions**

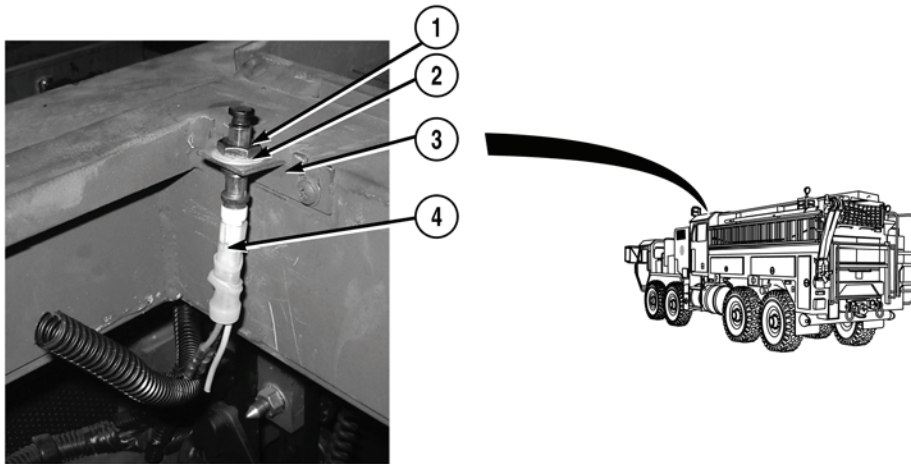
Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)  
Crew cab roof hatch door switch guard removed  
(if required) (WP 0511)

**REMOVAL****NOTE**

All door switches are removed the same way.

1. Remove door switch (1) and washer (2) from compartment (3).
2. Disconnect connector (4) from door switch (1).
3. Remove washer (2) from door switch (1).

**END OF TASK**

**INSTALLATION****NOTE**

All door switches are installed the same way.

1. Install washer (2) on door switch (1).
2. Connect connector (4) to door switch (1).
3. Install door switch (1) on compartment (3) with washer (2).

**END OF TASK****ADJUSTMENT****NOTE**

Adjusting of switch should be done prior to closing compartment door to eliminate stress on switch and door assembly.

Tap top of black plunger in approximately 0.25 in. (0.64 cm).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install crew cab roof hatch door switch guard (if necessary) (WP 0511)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**DUAL GOVERNOR PRESSURE SWITCH REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Locknut (2)

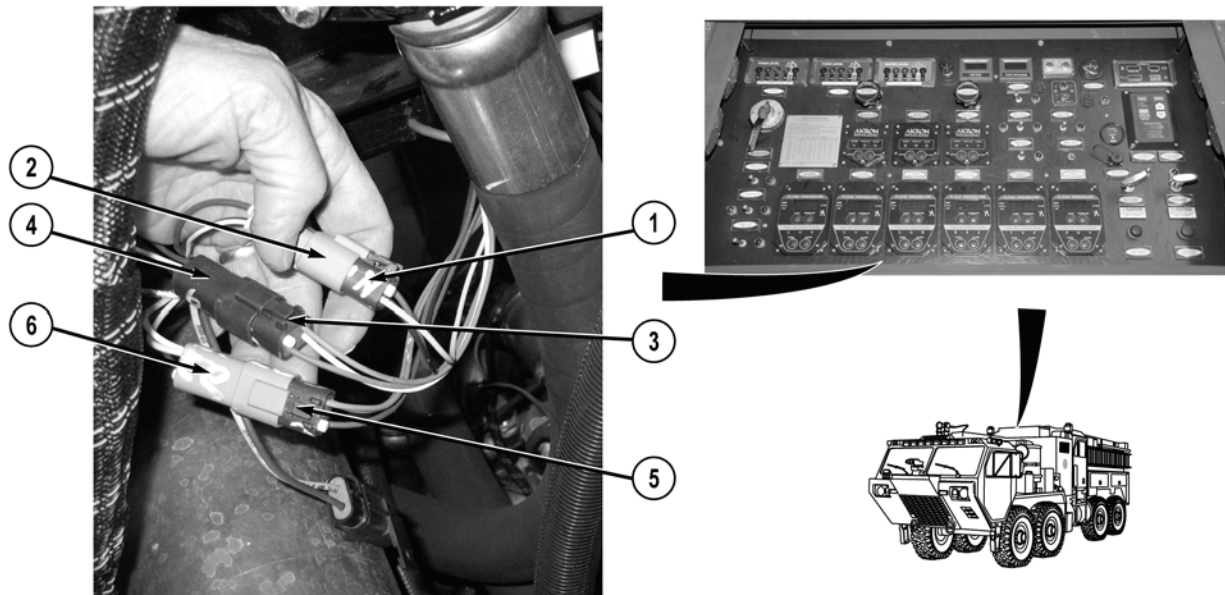
**References**

WP 0615, Fig. 43

**Equipment Conditions**

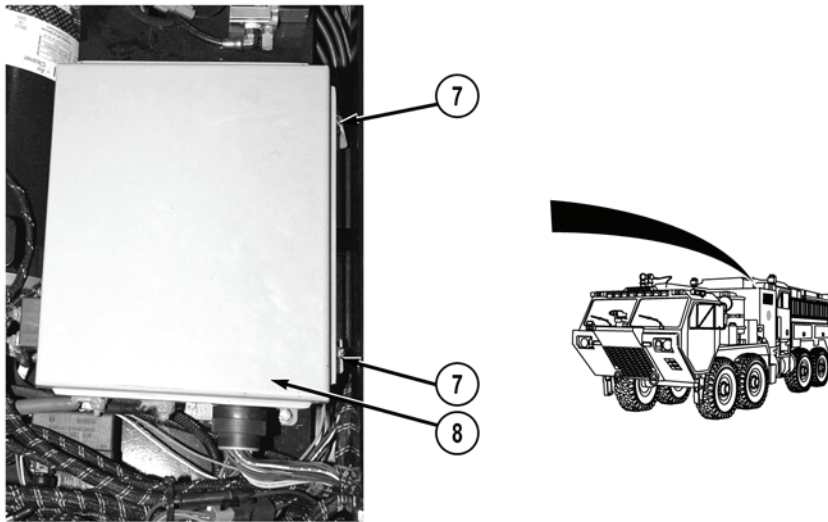
Pump operator's panel housing  
opened (WP 0325)  
Pump house panel S removed (WP 0540)

---

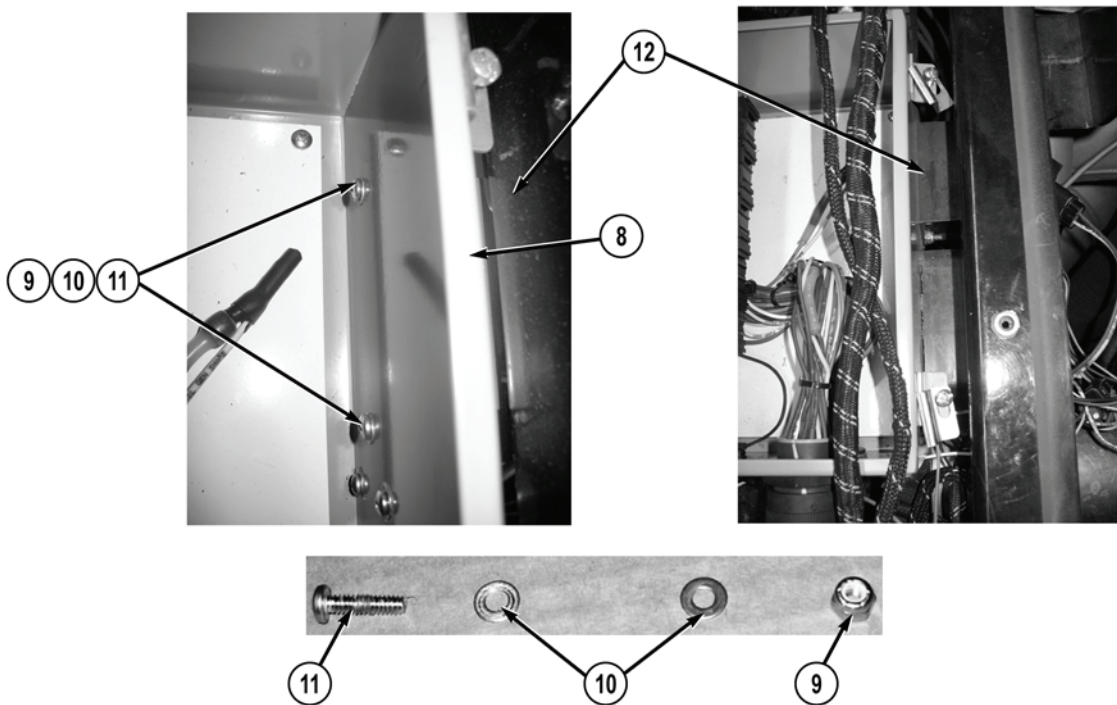
**REMOVAL****NOTE**

Tag and mark connectors prior to removal to ensure proper installation.

1. Disconnect dual governor pressure switch power supply connector (1) from pump operator's panel wire harness connector (2).
2. Disconnect dual governor pressure switch connector (3) from main wire harness connector (4).
3. Disconnect dual governor pressure switch connector (5) from pump operator's panel wire harness connector (6).



4. Loosen two screws (7) and open power distribution box (8).

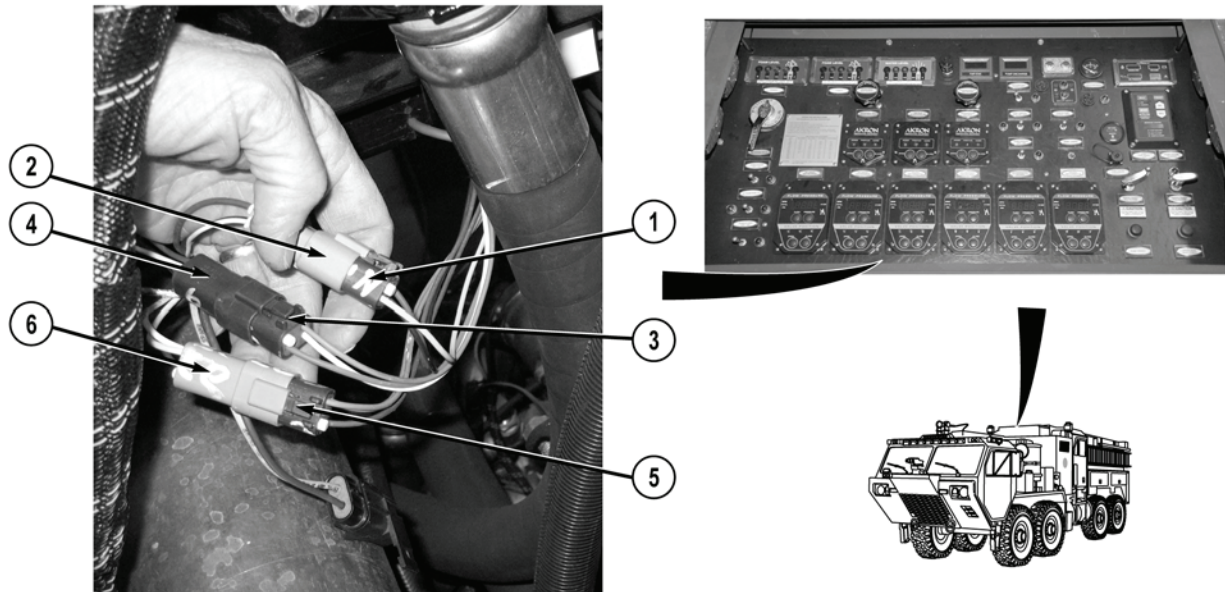


5. Remove two locknuts (9), four washers (10), two screws (11), and dual governor pressure switch (12) from power distribution box (8). Discard locknuts.

**END OF TASK**

**INSTALLATION**

1. Install dual governor pressure switch (12) on power distribution box (8) with two screws (11), four washers (10), and two locknuts (9).
2. Close power distribution box (8) and tighten two screws (7).



3. Connect pump operator's panel wire harness connector (6) to dual governor pressure switch connector (5).
4. Connect main wire harness connector (4) to dual governor pressure switch connector (3).
5. Connect pump operator's panel wire harness connector (2) to dual governor pressure switch power supply connector (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install pump house panel S (WP 0540)
2. Close pump operator's panel housing (WP 0325)

**END OF TASK****END OF WORK PACKAGE**





---

**FIELD LEVEL MAINTENANCE****ELECTRONICALLY-OPERATED BALL VALVE SEATS AND PREFORMED PACKING REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 50

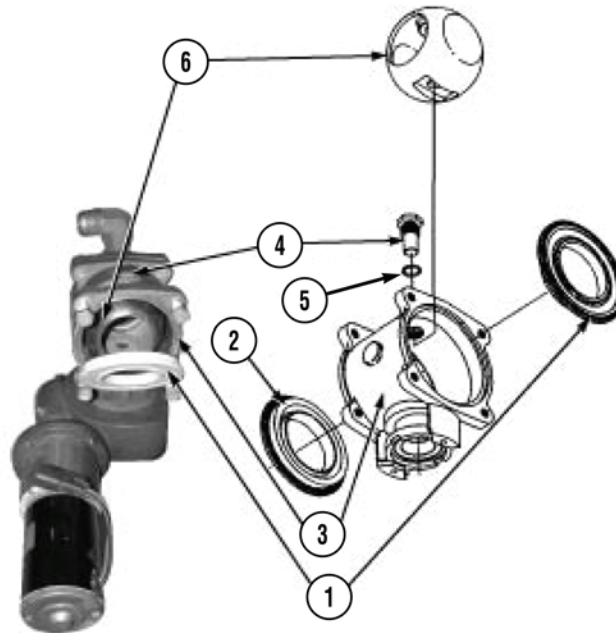
**Materials/Parts**

Silicone Compound, Lubricant  
(WP 0625, Item 49)  
Seal (2)  
Preformed Packing (1)

**Equipment Conditions**

Electrically-operated valve removed (WP 0388)

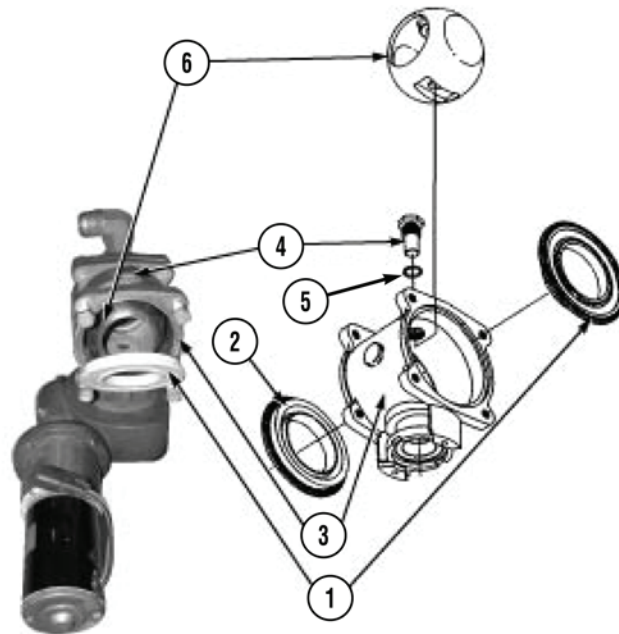
---

**REMOVAL****NOTE**

Perform task with electrically-operated ball valve on clean work surface.

1. Remove two seals (1) and (2) from valve body (3). Discard seals
2. Remove trunnion (4), preformed packing (5), and valve ball (6) from valve body (3). Discard preformed packing.

**END OF TASK**

**INSTALLATION****NOTE**

Valve must be placed in open position before replacing valve ball.

1. Coat preformed packing (5) with silicone, and install valve ball (6) on valve body (3) with preformed packing (5) and trunnion (4).
2. Install two seals (1) and (2) on valve body (3).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Install electrically-operated ball valve (WP 0388)

**END OF TASK**

**END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## ELECTRONICALLY-OPERATED BALL VALVE ELECTRIC MOTOR AND DRIVE ASSEMBLY REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 50

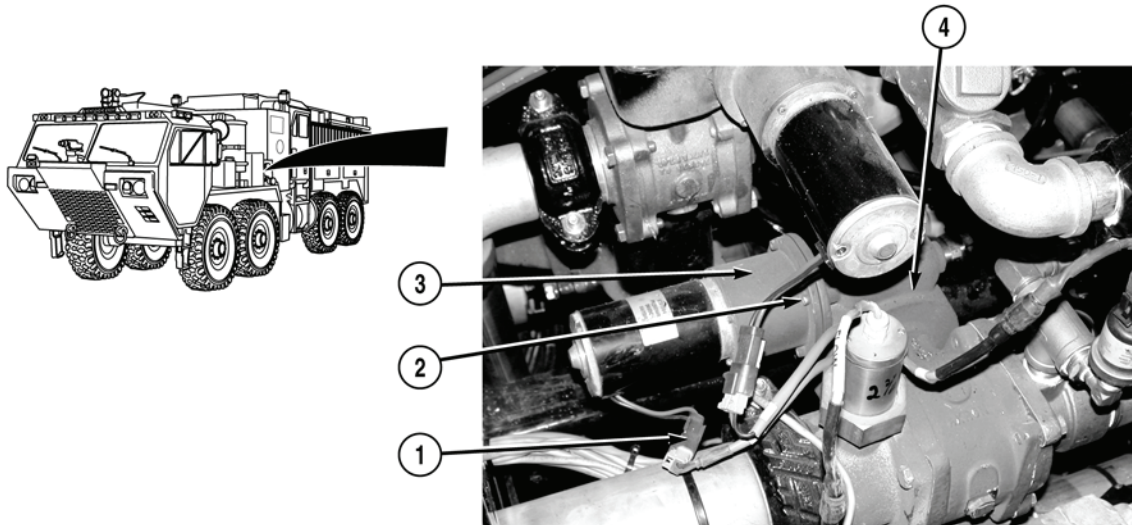
**Materials/Parts**

Adhesive, Thread, Locking (WP 0625, Item 7)  
Tags, Identification (WP 0625, Item 51)  
Preformed Packing (1)  
Preformed Packing (1)

**Equipment Conditions**

Pump house panel A opened (WP 0539)

## REMOVAL

**NOTE**

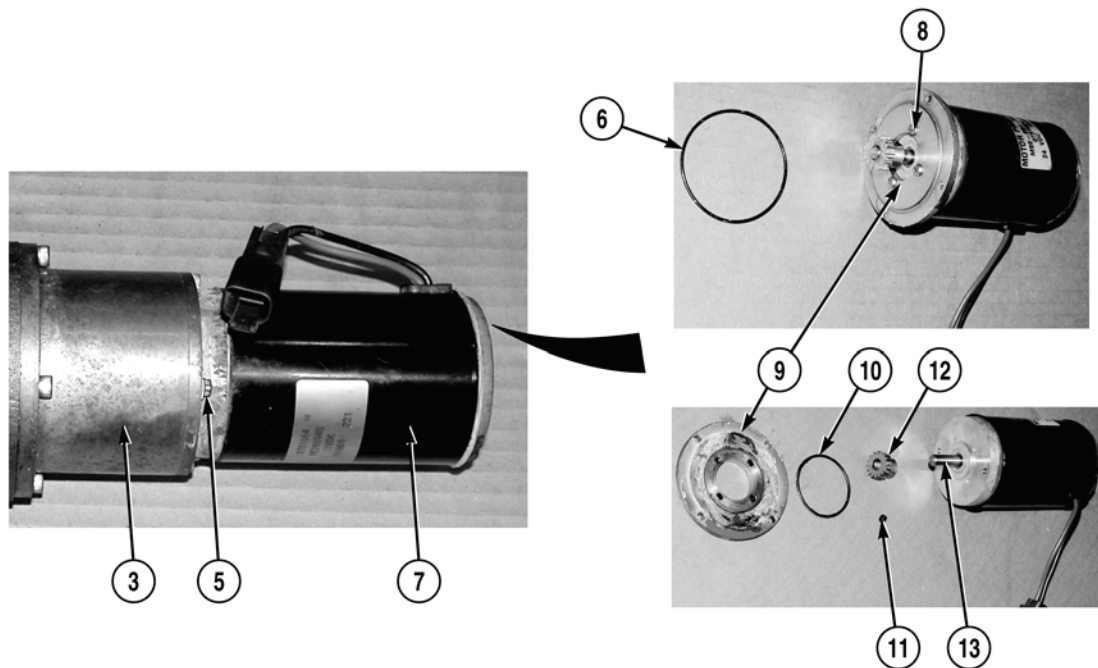
- Tag and mark wires prior to removal to ensure proper installation.
- All nine electrically-operated ball valve electric motors and drive assemblies are replaced the same way.
- No. 1 discharge electrically-operated ball valve electric motor and drive assembly shown.

1. Disconnect connector (1).

**NOTE**

- Electric motor and drive assembly are replaced as an assembly.
- Note position of electric motor and drive housing on valve prior to removal to ensure proper installation.

2. Remove four screws (2) and drive housing (3) from valve (4).



3. Remove four screws (5), preformed packing (6), and electric motor (7) from drive housing (3). Discard preformed packing.
4. Remove four screws (8), adapter (9), and preformed packing (10) from electric motor (7). Discard preformed packing.

### NOTE

Note position of gear on shaft prior to removal to ensure proper installation.

5. Remove set screw (11) and gear (12) from shaft (13).

### END OF TASK

### INSTALLATION

#### WARNING



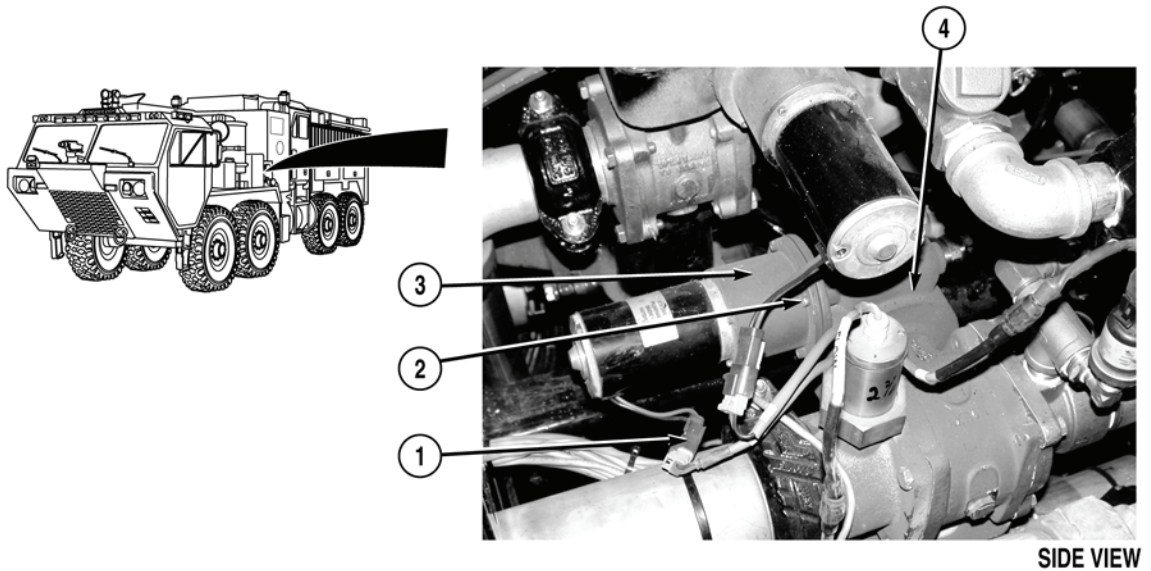
Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

### NOTE

Install gear on shaft as noted prior to removal.

1. Apply thread lock adhesive to threads of four screws (5) and (8) and set screw (11).

2. Install gear (12) on shaft (13) with set screw (11).
3. Install preformed packing (10) and adapter (9) on electric motor (7) with four screws (8).
4. Install electric motor (7) and preformed packing (6) on drive housing (3) with four screws (5).



### NOTE

Install electric motor and drive housing on valve as noted prior to removal.

5. Install drive housing (3) on valve (4) with four screws (2).
6. Connect connector (1).

**END OF TASK**

### FOLLOW-ON MAINTENANCE

Close pump house panel A (WP 0539)

**END OF TASK**

**END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## EQUIPMENT (LADDER) RACK CONTROL ASSEMBLY REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 79, 131

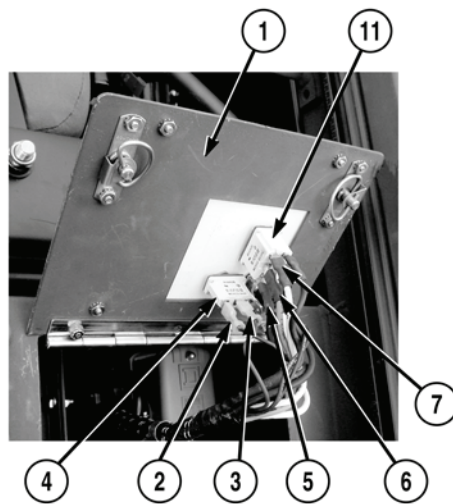
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Lockwasher (1)  
Locknut (4)

**Equipment Conditions**

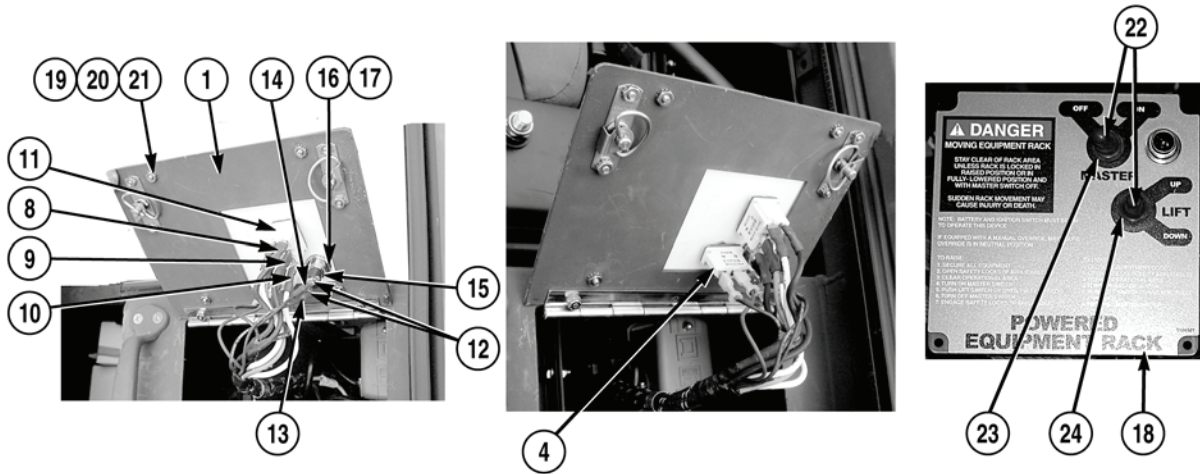
Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

## REMOVAL

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

1. Open access door (1).
2. Remove two wires (2) and (3) from master switch (4).
3. Remove six wires (5), (6), (7), (8), (9), and (10) from lift switch (11).



4. Remove two screws (12) and wires (13) and (14) from equipment (ladder) rack indicator (15).

**NOTE**

Note position of indicator and switches prior to removal to ensure proper installation.

5. Remove nut (16), lockwasher (17), and equipment (ladder) rack indicator (15) from control panel (18). Discard lockwasher.
6. Remove four locknuts (19), washers (20), screws (21), and control panel (18) from access door (1). Discard locknuts.
7. Remove two rubber boots (22) from master switch (4) and lift switch (11).
8. Remove nut (23) and master switch (4) from control panel (18).
9. Remove nut (24) and lift switch (11) from control panel (18).

**END OF TASK**

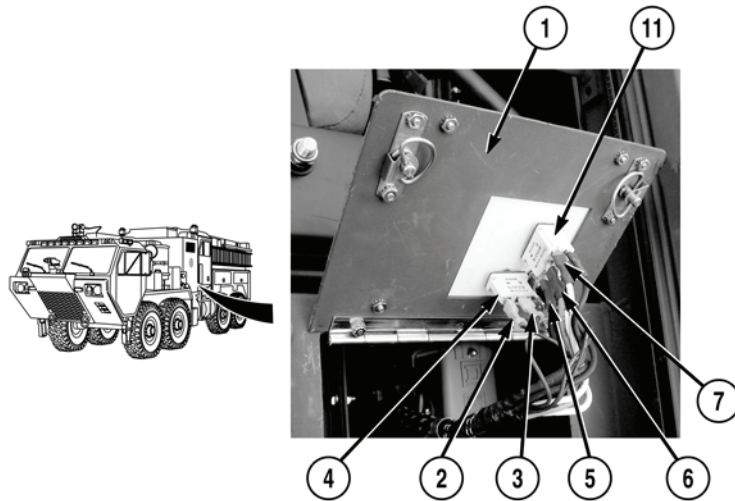
**INSTALLATION**

**NOTE**

Ensure indicators and switches are installed as noted in removal.

1. Install lift switch (11) on control panel (18) with nut (24).
2. Install master switch (4) on control panel (18) with nut (23).
3. Install two rubber boots (22) on lift switch (11) and master switch (4).
4. Install control panel (18) on access door (1) with four screws (21), washers (20), and locknuts (19).
5. Install equipment (ladder) rack indicator (15) on control panel (18) with lockwasher (17) and nut (16).
6. Install two wires (14) and (13) on equipment (ladder) rack indicator (15) with screws (12).





7. Install six wires (10), (9), (8), (7), (6), and (5) on lift switch (11).
8. Install two wires (3) and (2) on master switch (4).
9. Close access door (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

Connect batteries (TM 9-2320-325-14&P)

#### END OF TASK

#### END OF WORK PACKAGE



---

**FIELD LEVEL MAINTENANCE**  
**FLOW SENSOR REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Standard Automotive Tool Set (SATS),  
(WP 0622, Item 25)  
• Wrench, Pipe, 10"  
Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 113

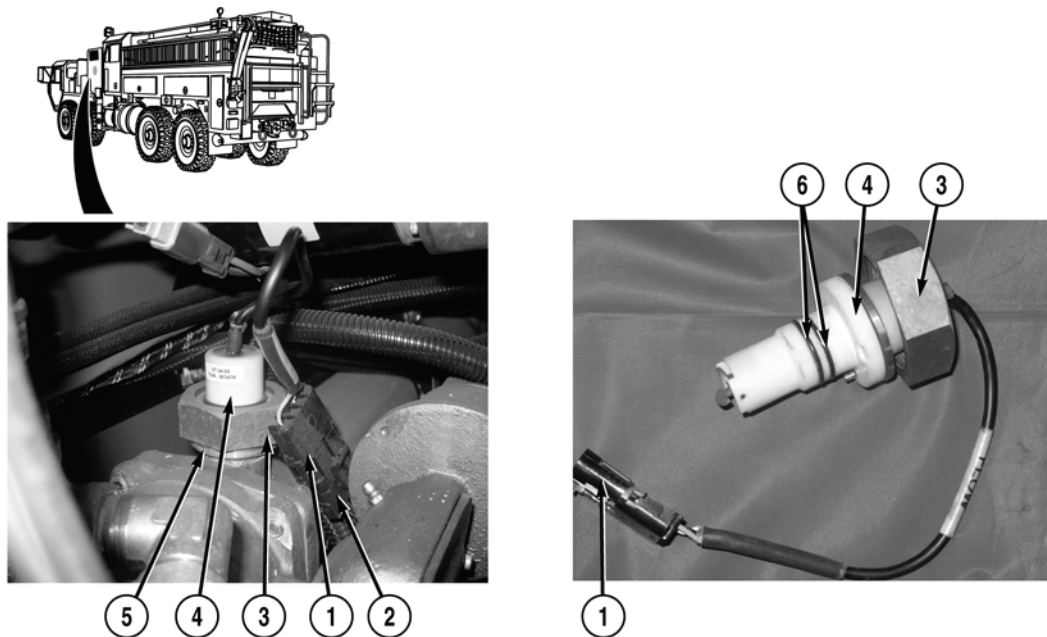
**Equipment Conditions**

Pump house panel A removed (WP 0540)  
Water system drained (WP 0029)

**Materials/Parts**

Oil, Lubricating (WP 0625, Item 37)  
Preformed Packing (2)

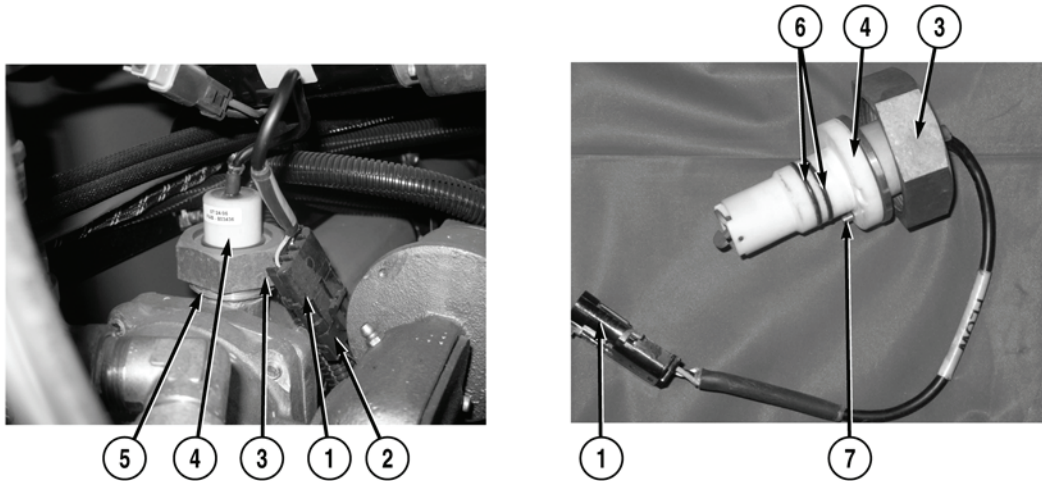
---

**REMOVAL****NOTE**

All flow sensors are removed the same way. Flow sensor on No. 1 discharge valve (driver side) shown.

1. Disconnect flow sensor connector (1) from valve control wire harness connector (2).
2. Loosen nut (3) and remove flow sensor (4) from adapter (5).
3. Remove two preformed packings (6) from flow sensor (4). Discard preformed packing.

**END OF TASK**

**INSTALLATION****NOTE**

All flow sensors are installed the same way. Flow sensor on No. 1 discharge valve (driver side) shown.

1. Coat two preformed packings (6) with lubricating oil and install two preformed packings (6) on flow sensor (4).

**NOTE**

Alignment pin must align with hole in adapter before tightening nut.

2. Align alignment pin (7) on flow sensor (4) with hole in adapter (5).
3. Install flow sensor (4) on adapter (5) and tighten nut (3).
4. Connect valve control wire harness connector (2) to flow sensor connector (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install pump house panel A (WP 0540)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**GLOW PLUG CIRCUIT BREAKER REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 83

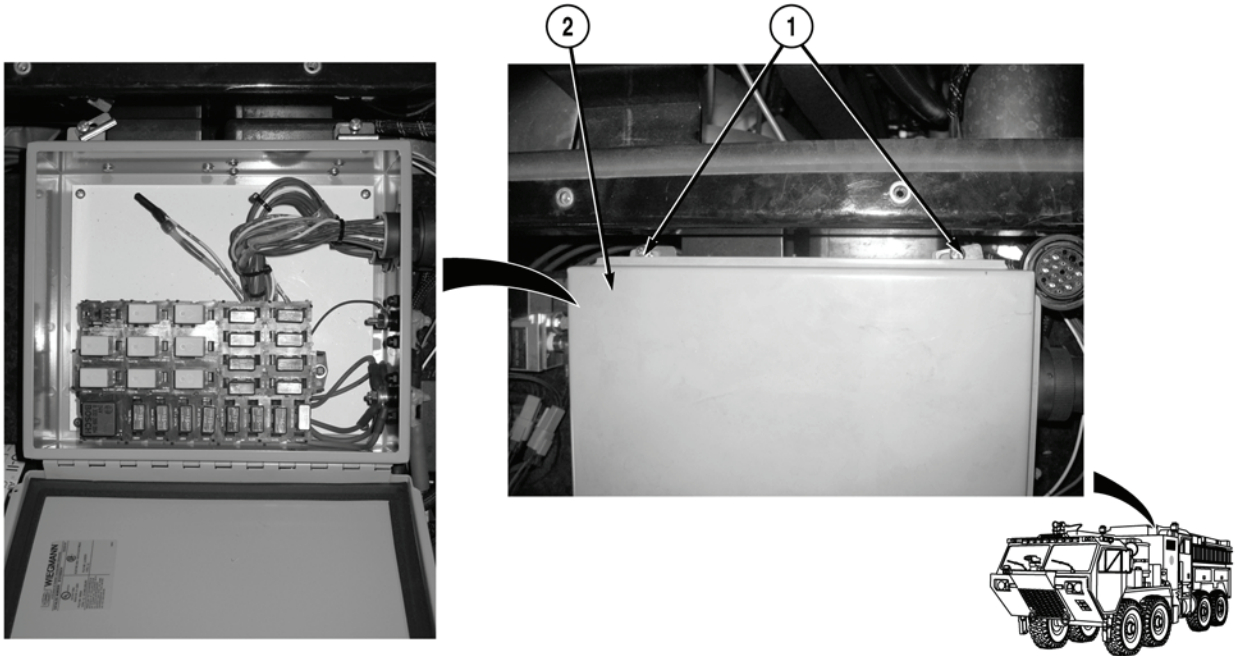
**Materials/Parts**

Lockwasher (2)  
Locknut (2)

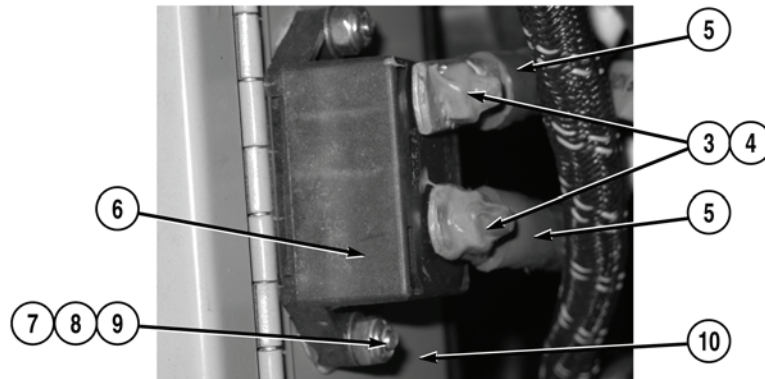
**Equipment Conditions**

Pump house panel S removed (WP 0540)

---

**REMOVAL**

1. Loosen two screws (1), and open pump house power distribution box cover (2).



2. Remove two nuts (3), lockwashers (4), and wires (5) from preheat breaker (6). Discard lockwashers.
3. Remove two locknuts (7), four washers (8), screws (9), and preheat breaker (6) from pump house power distribution box (10). Discard locknuts.

#### END OF TASK

#### INSTALLATION

1. Install preheat breaker (6) on pump house power distribution box (10) with two screws (9), four washers (8), and two locknuts (7).
2. Install two wires (5) on preheat breaker (6) with two lockwashers (4) and nuts (3).
3. Close pump house power distribution box cover (2) and tighten two screws (1).

#### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

4. Apply sealing compound to two wires (5) on preheat breaker (6).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

Install pump house panel S (WP 0540)

#### END OF TASK

#### END OF WORK PACKAGE

---

**FIELD LEVEL MAINTENANCE**  
**GLOW PLUG CONTROL RELAY REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 18

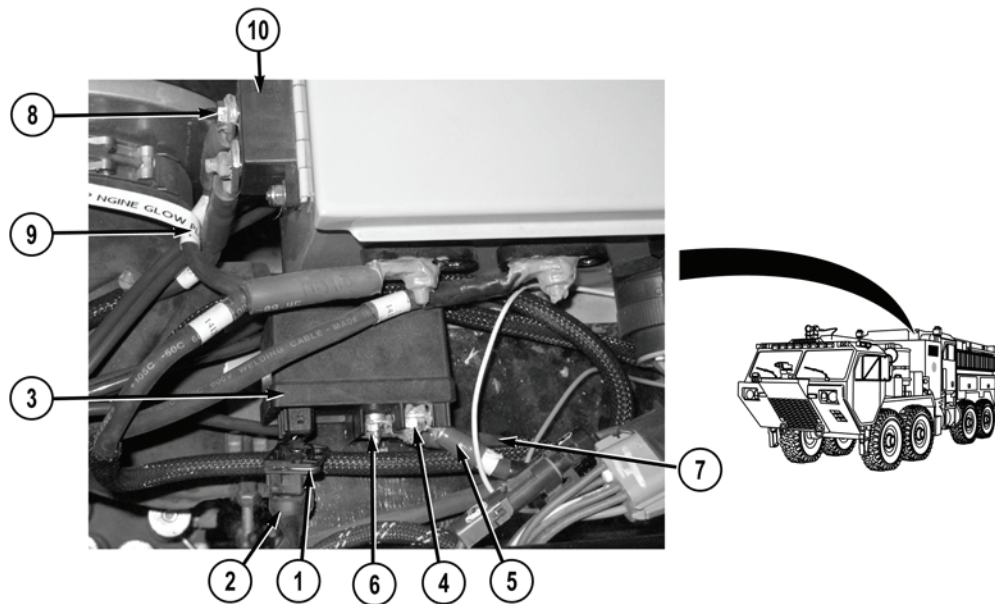
**Materials/Parts**

Compound, Sealing (WP 0625, Item 17)  
Tags, Identification (WP 0625, Item 51)  
Lockwasher (1)

**Equipment Conditions**

Pump house panel S removed (WP 0540)

---

**REMOVAL****NOTE**

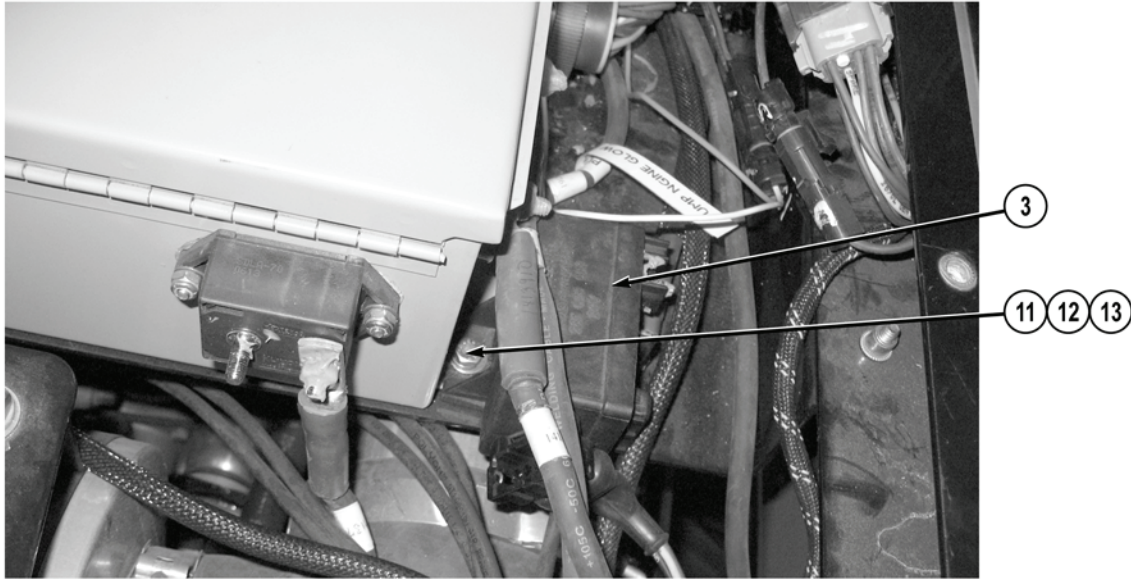
Tag and mark wires prior to removal to ensure proper installation.

1. Remove retaining clip (1) and pump house wire harness connector (2) from glow plug control relay (3).
2. Remove nut (4) and wire 1413766 (5) from glow plug control relay (3).
3. Remove nut (6) and wire 1413770 (7) from glow plug control relay (3).

**NOTE**

Wire 1413761 must be removed to access screw.

4. Remove nut (8) and wire 1413761 (9) from circuit breaker (10).



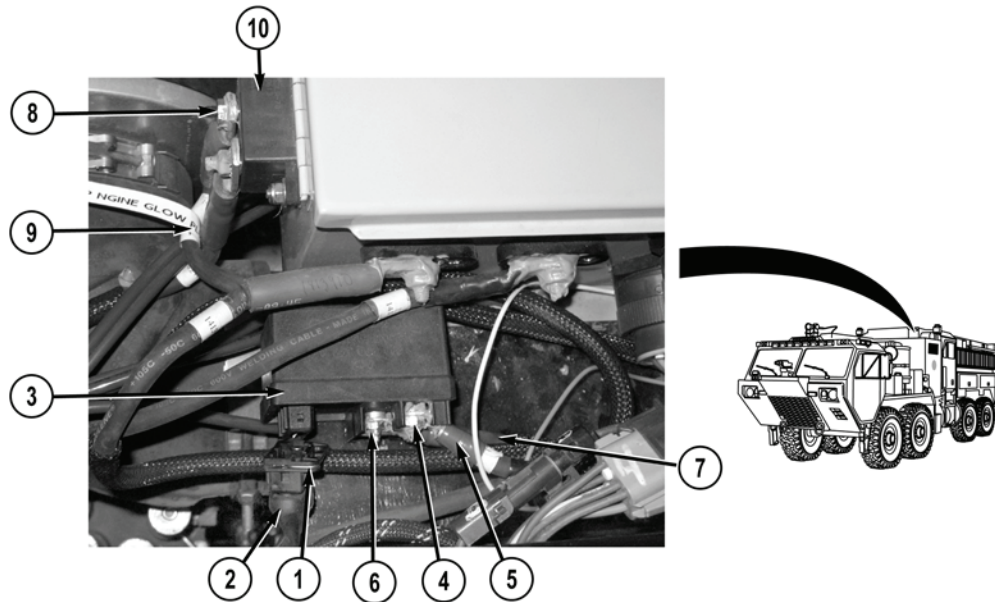
5. Remove screw (11), lockwasher (12), washer (13), and glow plug control relay (3) from vehicle. Discard lockwasher.

#### END OF TASK

#### INSTALLATION

1. Install glow plug control relay (3) on vehicle with washer (13), lockwasher (12), and screw (11).





2. Install wire 1413761 (9) on circuit breaker (10) with nut (8).
3. Install wire 1413770 (7) on glow plug control relay (3) with nut (6).
4. Install wire 1413766 (5) on glow plug control relay (3) with nut (4).
5. Install pump house wire harness connector (2) on glow plug control relay (3) with retaining clip (1).

### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

6. Apply sealing compound to electrical connections at wire 1413766 (5), wire 1413770 (7), and wire 1413761 (9).

**END OF TASK**

### **FOLLOW-ON MAINTENANCE**

Install pump house panel S (WP 0540)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**HIGH AMPERAGE CABLE REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

---

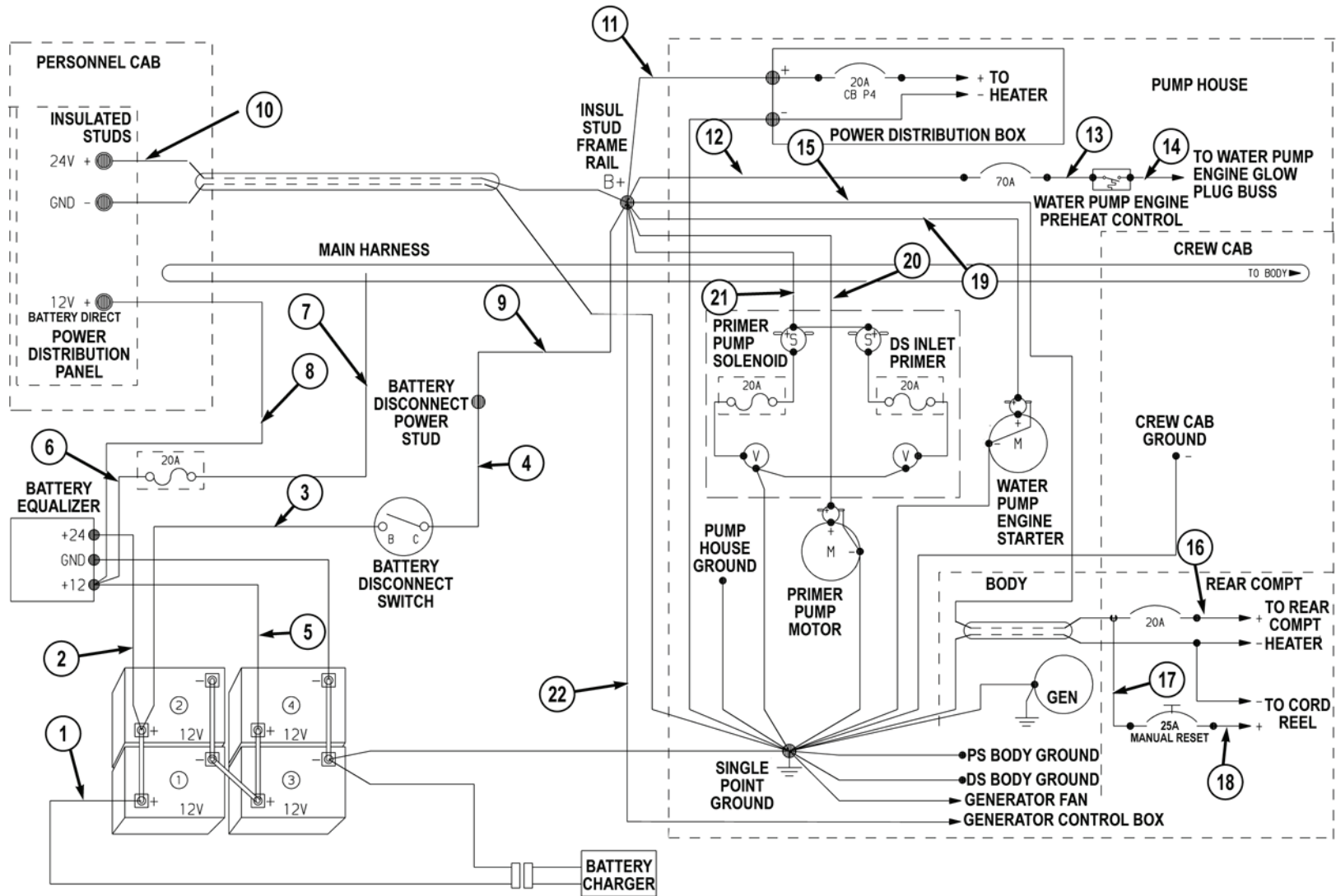
**REPLACEMENT****NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
- Remove cable ties and cushion clips as required.
- This procedure only shows routing and location of high amperage cables. It will never be necessary to remove all high amperage cables at once.

**Table 1. Positive High Amperage Cable Routing.**

<b>Item No.</b>	<b>Part or Wire No.</b>	<b>From</b>	<b>To</b>
1	1662J	Battery No. 1 (Positive)	Battery Charger
2	1414600 (1662G)	Battery No. 2 (Positive)	Battery Equalizer +24
3	1413981	Battery No. 2 (Positive)	Battery Disconnect Switch
4	1413982	Battery Disconnect Switch	Battery Disconnect Power Stud
5	1414600 (1663G)	Battery No. 4 (Positive)	Battery Equalizer +12
6	1663J (Main Harness)	Battery Equalizer +12	20 Amp Inline Fuse
7	2075J (Main Harness)	20 Amp Inline Fuse	Main Harness
8	1663G (60-6910)	Battery Equalizer +12	Personnel Cab Power Distribution Panel +12
9	1024365	Insulated Stud (Frame Rail B+)	Battery Disconnect Power Stud
10	1224970	Insulated Stud (Frame Rail B+)	Personnel Cab Power Distribution Panel +24
11	1413910	Insulated Stud (Frame Rail B+)	Power Distribution Box
12	1413761	Insulated Stud (Frame Rail B+)	70 Amp Fuse
13	1413766	70 Amp Fuse	Water Pump Engine Preheat Control
14	1413770	Water Pump Engine Preheat Control	Water Pump Engine Glow Plugs Bus
15	1224946	Insulated Stud (from Rail B+)	Rear Compartment In Front of Cord Reel (20 Amp Fuse)
16	NA	Rear Compartment in Front of Cord Reel (20 Amp Fuse)	Rear Compartment Heater
17	NA	Rear Compartment in Front of Cord Reel (20 Amp Fuse)	Manual Reset
18	1296580	Manual Reset	Cord Reel
19	1413780	Insulated Stud (frame Rail B+)	Water Pump Engine Starter
20	1413786	Insulated Stud (frame Rail B+)	Primer Pump Motor Solenoid
21	1425813	Insulated Stud (frame Rail B+)	Primer Pump Solenoid
22	1138J (In Wire Harness 1362780)	Insulated Stud (frame Rail B+)	Generator Control Box

Figure 1. Positive High Amperage Cable Routing.

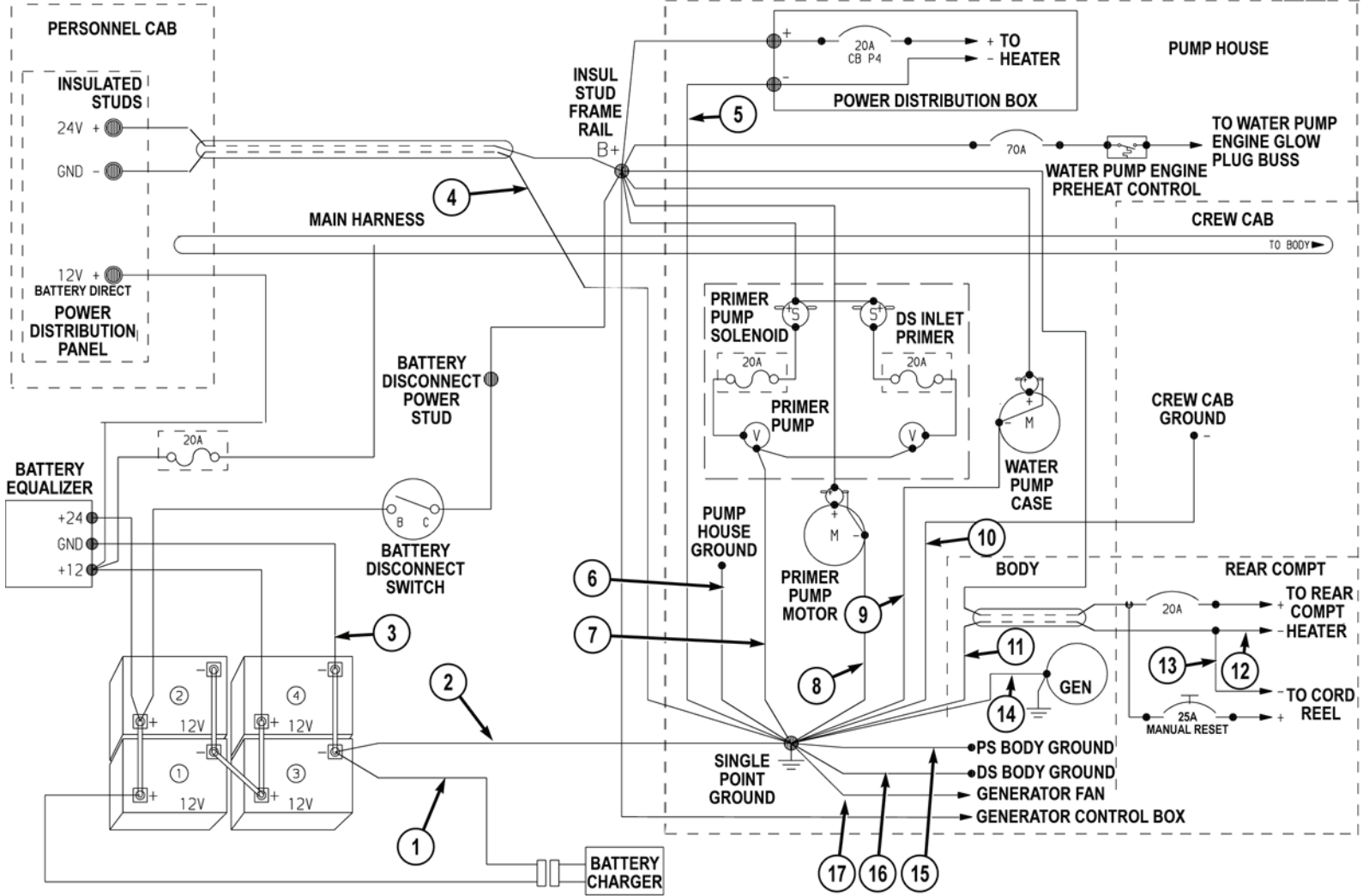


**Table 2. Negative High Amperage Cable Routing.**

<b>Item No.</b>	<b>Part or Wire No.</b>	<b>From</b>	<b>To</b>
1	1640J	Battery No. 3 (Negative)	Battery Charger
2	60-5200	Battery No. 3 (Negative)	Single Point Ground
3	1414598 (1640G)	Battery No. 4 (Negative)	Battery Equalizer GND
4	1224970	Single Point Ground	Personnel Cab Power Distribution Panel 24 V Ground Stud
5	1413773	Single Point Ground	Power Distribution Box
6	1413941	Single Point Ground	Pump House Ground
7	1413904	Single Point Ground	Primer Pump (Frame)
8	1224983	Single Point Ground	Primer Pump Motor
9	1224981	Single Point Ground	Water Pump Case
10	1224981	Single Point Ground	Crew Cab Ground
11	1224946	Single Point Ground	Rear Compartment in Front of Cord Reel (Frame)
12	NA	Rear Compartment in Front of Cord Reel (Frame)	To Rear Compartment Heater
13	NA	Rear Compartment in Front of Cord Reel (Frame)	To Cord Reel
14	1413977	Single Point Ground	Generator
15	1413482	Single Point Ground	PS Body Ground
16	1224981	Single Point Ground	DS Body Ground
17	1640I	Single Point Ground	Generator Control Box

END OF TASK

Figure 2. Negative High Amperage Cable Routing.



0393-5

**FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**
**INLINE FUSE REPLACEMENT**


---

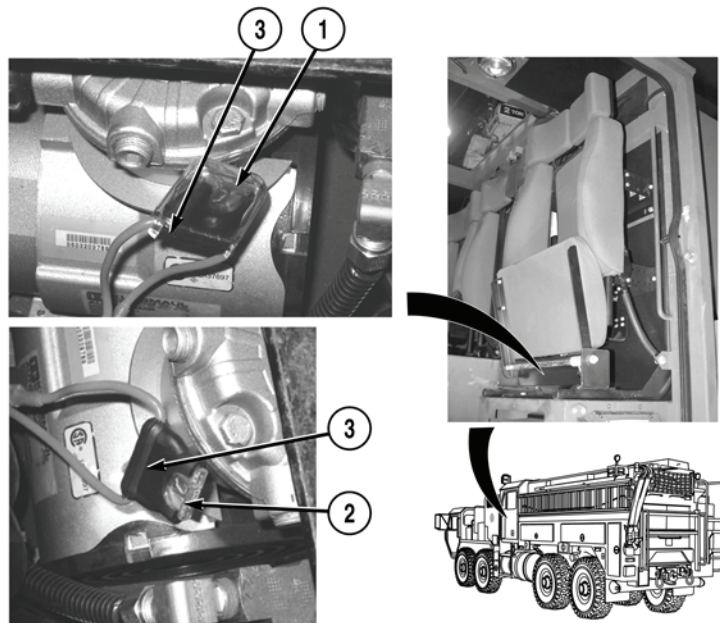
**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

---

**REMOVAL**

Remove cover (1) and fuse (2) from fuse connector (3).

**END OF TASK****INSTALLATION**

Install fuse (2) and cover (1) on fuse connector (3).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE****INTERCOM REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0311  
WP 0615, Fig. 55

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Locknut (2)  
Lockwasher (1)  
Lockwasher (1)

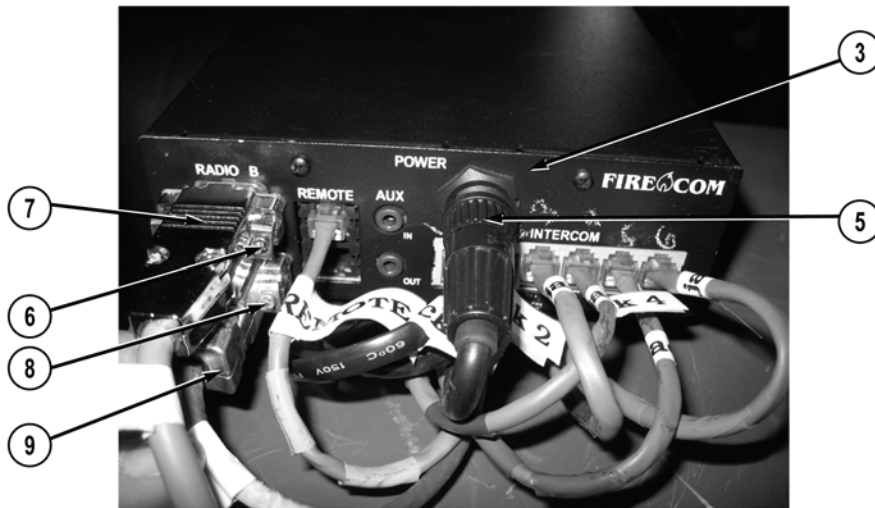
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

---

**REMOVAL**

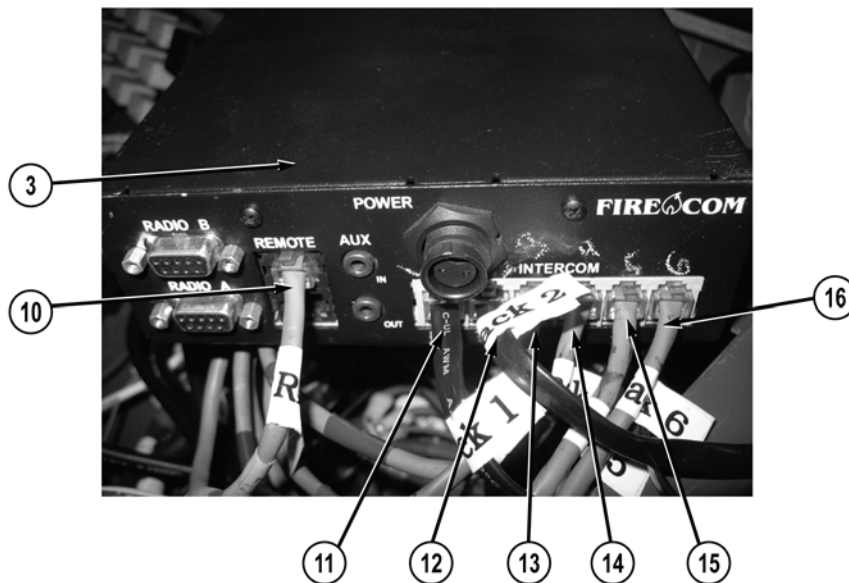
1. Remove four screws (1), washers (2), and intercom (3) from bracket (4).



**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

2. Remove power supply cord (5) from intercom (3).
3. Loosen two screws (6) and remove SINCGARS interface wire harness connector (7) from intercom (3).
4. Loosen two screws (8) and remove two-way radio interface wire harness connector (9) from intercom (3).



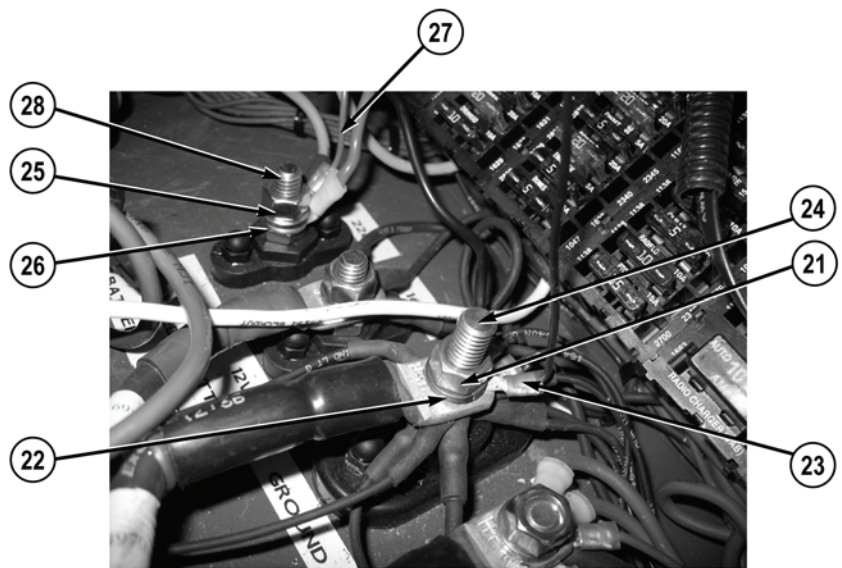
5. Remove remote intercom cable (10) from intercom (3).
6. Remove jack 1 cable (11), jack 2 cable (12), jack 3 cable (13), jack 4 cable (14), jack 5 cable (15), and jack 6 cable (16) from intercom (3).
7. Remove intercom (3) from vehicle.



**NOTE**

Perform Steps (8) through (11) if intercom bracket and/or power supply cord needs to be removed.

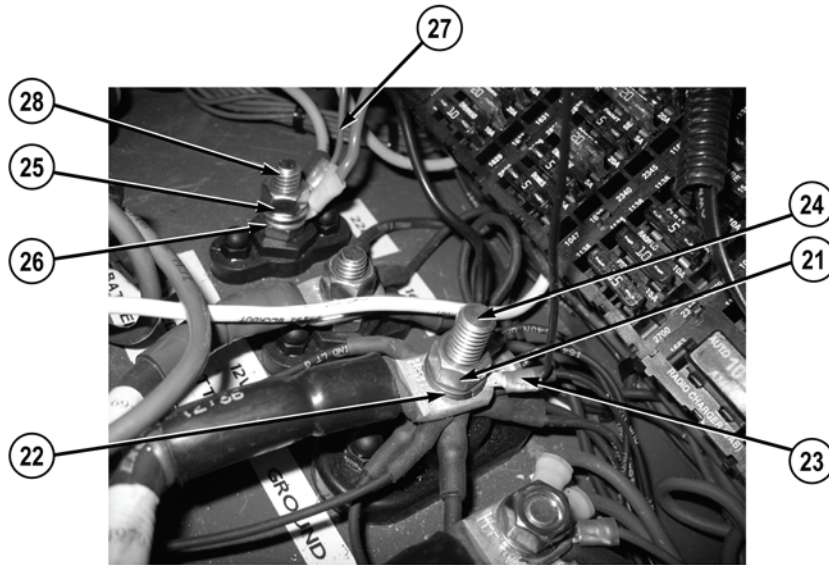
8. Remove cab instrument panel A (WP 0311).
9. Remove two locknuts (17), washers (18), screws (19), and bracket (4) from panel A (20). Discard locknuts.



10. Remove nut (21), lockwasher (22), and power supply cord black wire (23) from stud (24). Discard lockwasher.
11. Remove nut (25), lockwasher (26), and power supply cord red wire (27) from stud (28). Discard lockwasher.

**END OF TASK**

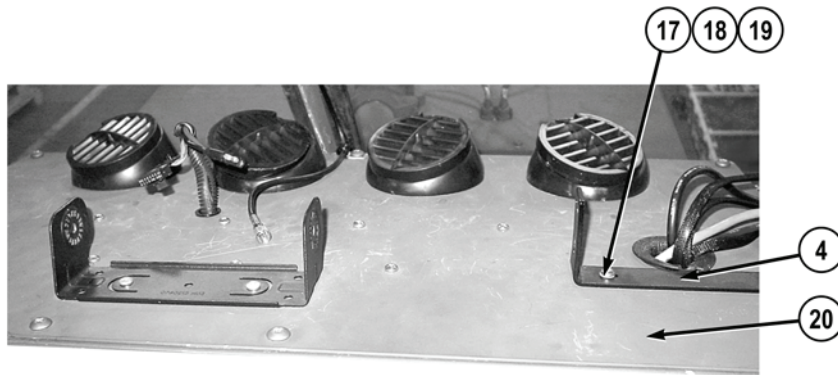
**INSTALLATION**



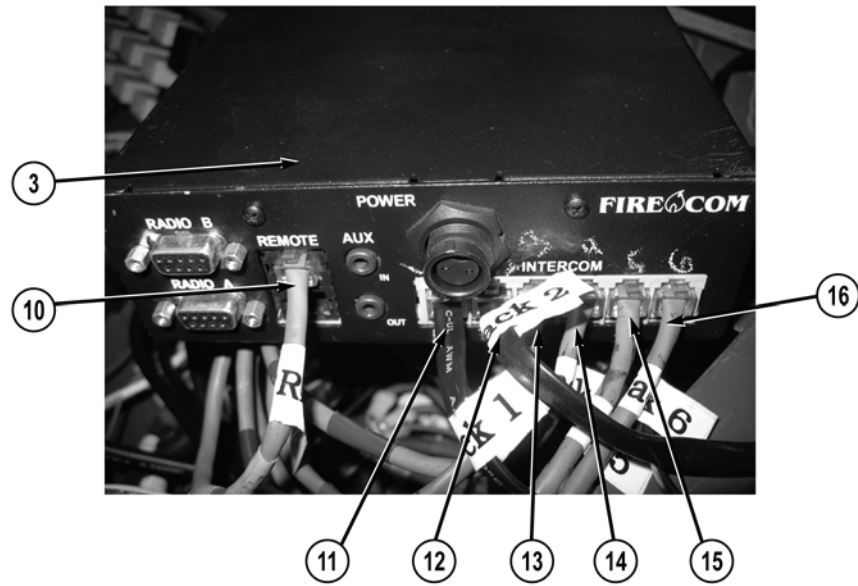
**NOTE**

Perform Steps (1) through (4) if intercom bracket and/or power supply cord was removed.

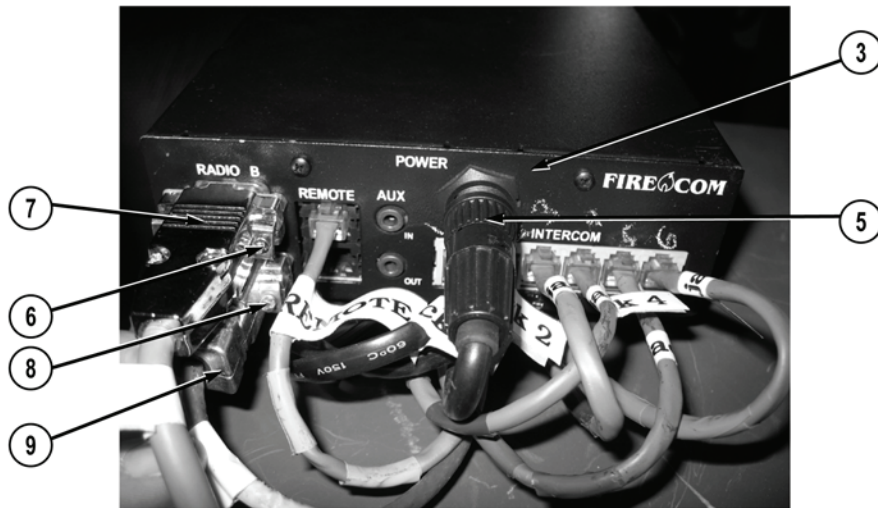
1. Install power supply cord red wire (27) on stud (28) with lockwasher (26) and nut (25).
2. Install power supply cord black wire (23) on stud (24) with lockwasher (22) and nut (21).



3. Install bracket (4) on panel A (20) with two screws (19), washers (18), and locknuts (17).
4. Install cab instrument panel A (WP 0311).



5. Position intercom (3) in vehicle.
6. Install jack 6 cable (16), jack 5 cable (15), jack 4 cable (14), jack 3 cable (13), jack 2 cable (12), and jack 1 cable (11) on intercom (3).
7. Install remote intercom cable (10) on intercom (3).



8. Install two-way radio interface wire harness connector (9) on intercom (3) and tighten two screws (8).
9. Install SINCGARS interface wire harness connector (7) on intercom (3) and tighten two screws (6).
10. Install power supply cord (5) on intercom (3).



11. Install intercom (3) on bracket (4) with four washers (2) and screws (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**LIGHT BEZEL REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

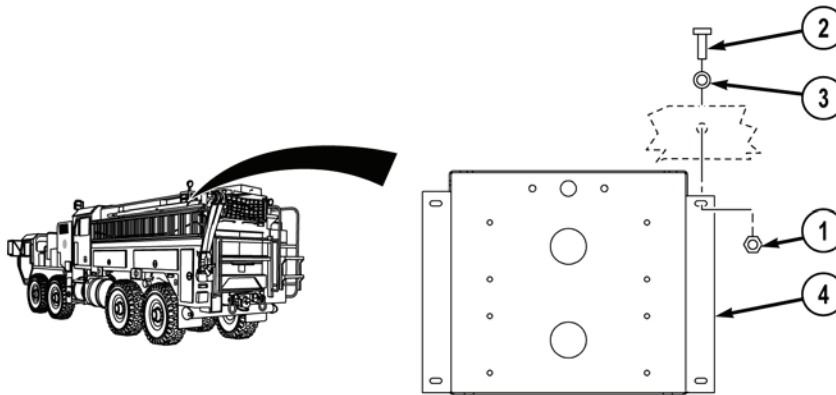
Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 64

**Equipment Conditions**

Driver side deck spotlight removed (WP 0352)  
Rear light bezel marker clearance lights  
removed (WP 0349)  
Light bezel warning lights removed (WP 0351)

**REMOVAL**

Remove four nuts (1), screws (2), washers (3), and light bezel (4) from vehicle.

**END OF TASK****INSTALLATION**

Install light bezel (4) on vehicle with four washers (3), screws (2), and nuts (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install light bezel warning lights (WP 0351)
2. Install rear light bezel marker clearance lights (WP 0349)
3. Install driver side deck spotlight (WP 0352)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**LIGHT BEZEL COVER REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

TM 9-2320-325-14&P  
WP 0615, Fig. 67

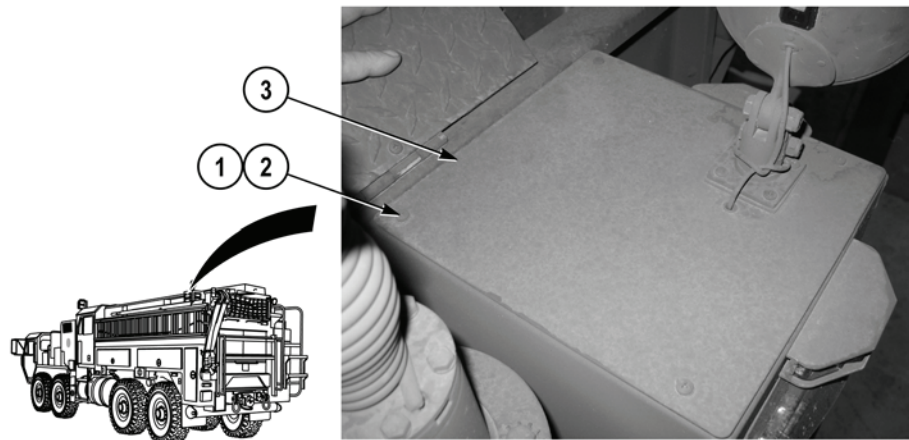
**Materials/Parts**

Nylon washer (4)  
Locknut (4)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

---

**REMOVAL**

 **CAUTION**

**Raise light bezel cover only enough to access wires to deck light. Failure to comply may cause damage to equipment.**

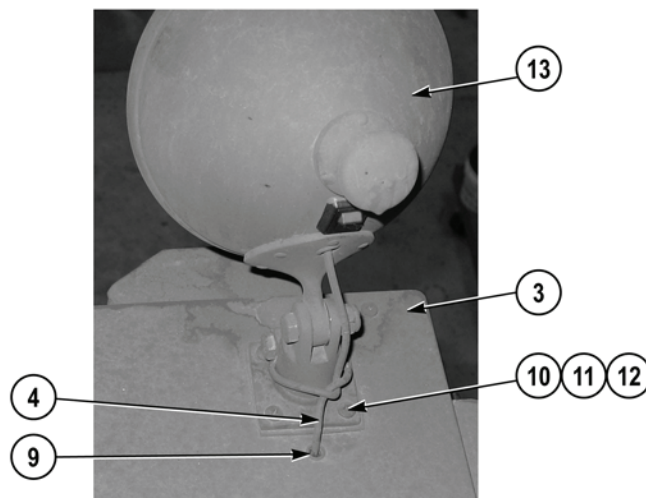
**NOTE**

Perform Step (1) to open cover.

1. Remove four screws (1) and nylon washers (2) and carefully raise light bezel cover (3). Discard nylon washers.



2. Cut wire 1607 (4) (TM 9-2320-325-14&P).
3. Remove locknut (5), washer (6), screw (7), and wire 2640 (8) from light bezel cover (3). Discard locknut.

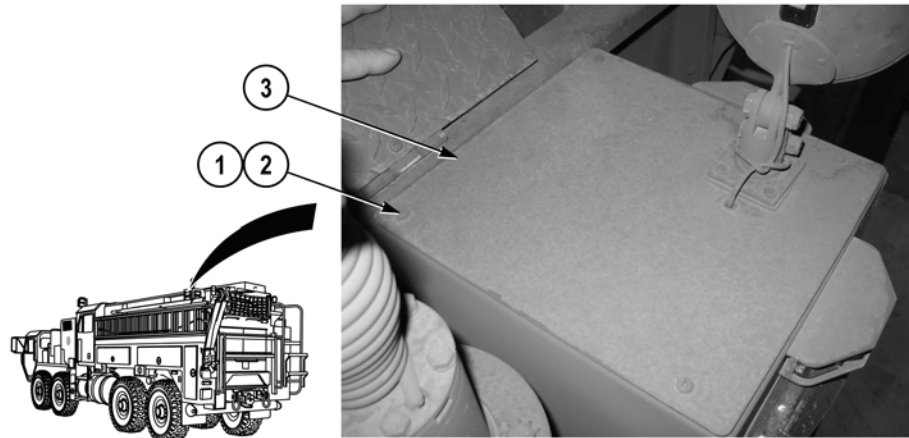


4. Pull wire 1607 (4) through grommet (9).
5. Remove three locknuts (10), washers (11), screws (12), and deck light (13) from light bezel cover (3). Discard locknuts.

**END OF TASK**

**INSTALLATION**

1. Install deck light (13) on light bezel cover (3) with three screws (12), washers (11), and locknuts (10).
2. Pull wire 1607 (4) through grommet (9).
3. Install wire 2640 (8) on light bezel cover (3) with screw (7), washer (6), and locknut (5).
4. Repair wire 1607 (4) (TM 9-2320-325-14&P).



5. Install light bezel cover (3) with four nylon washers (2) and screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## PERSONNEL CAB POWER DISTRIBUTION BOX CIRCUIT BREAKER REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

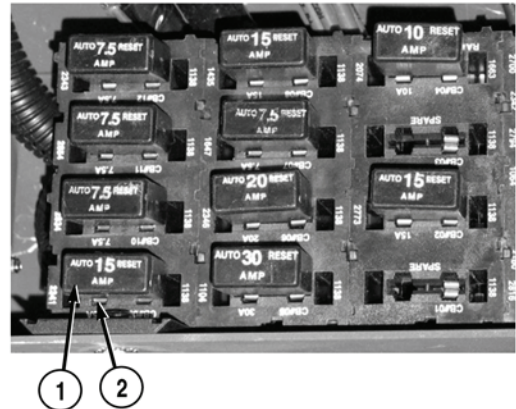
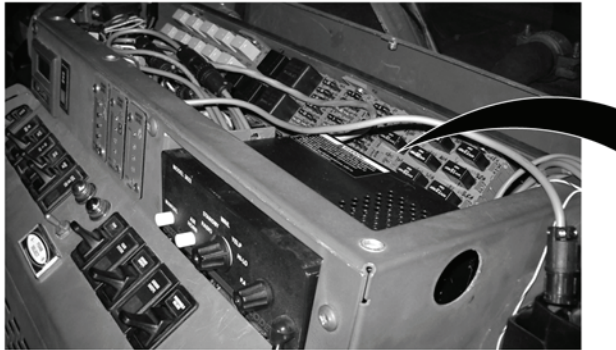
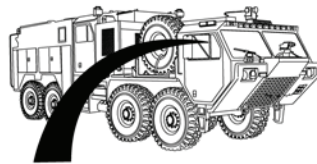
**Equipment Conditions**

Instrument panel A removed (WP 0311)

**References**

WP 0615, Fig. 55

## REMOVAL

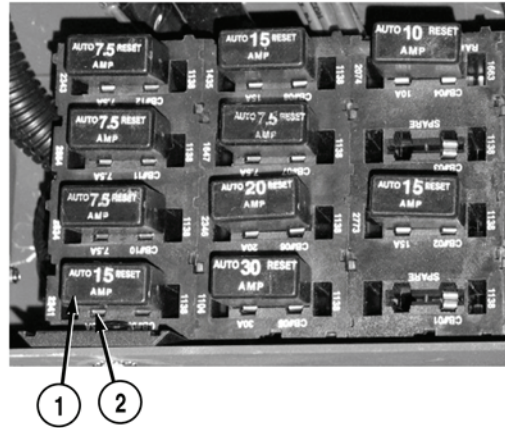
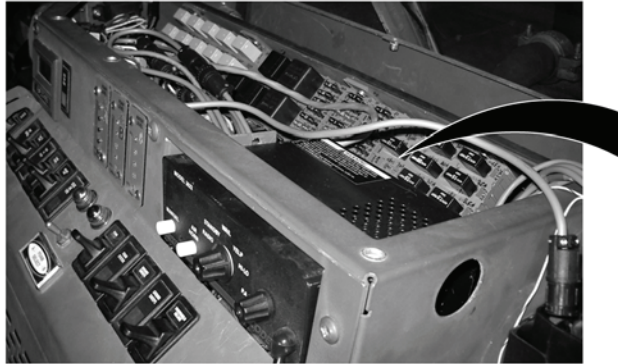
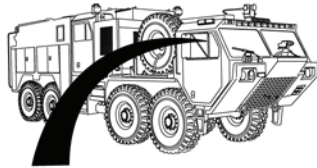
**NOTE**

All circuit breakers are removed the same way. Radio charger circuit breaker shown.

Remove radio charger circuit breaker (1) from power distribution box (2).

**END OF TASK**

**INSTALLATION**



**NOTE**

All circuit breakers are installed the same way. Radio charger circuit breaker shown.

Install radio charger circuit breaker (1) on power distribution box (2).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Install instrument panel A (WP 0311)

**END OF TASK**

**END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## PERSONNEL CAB POWER DISTRIBUTION BOX DIODE BLOCK REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Equipment Conditions**

Personnel cab instrument panel A removed  
(WP 0311)

**References**

WP 0615, Fig. 55

## REMOVAL

**NOTE**

Both diode blocks are removed the same way.

Remove diode block (1) from power distribution box (2).

**END OF TASK**

**INSTALLATION****NOTE**

Both diode blocks are installed the same way.

Install diode block (1) on power distribution box (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install personnel cab instrument panel (WP 0311)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PERSONNEL CAB POWER DISTRIBUTION BLOCK REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Lockwasher (2)  
Locknut (1)  
Locknut (1)  
Locknut (1)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

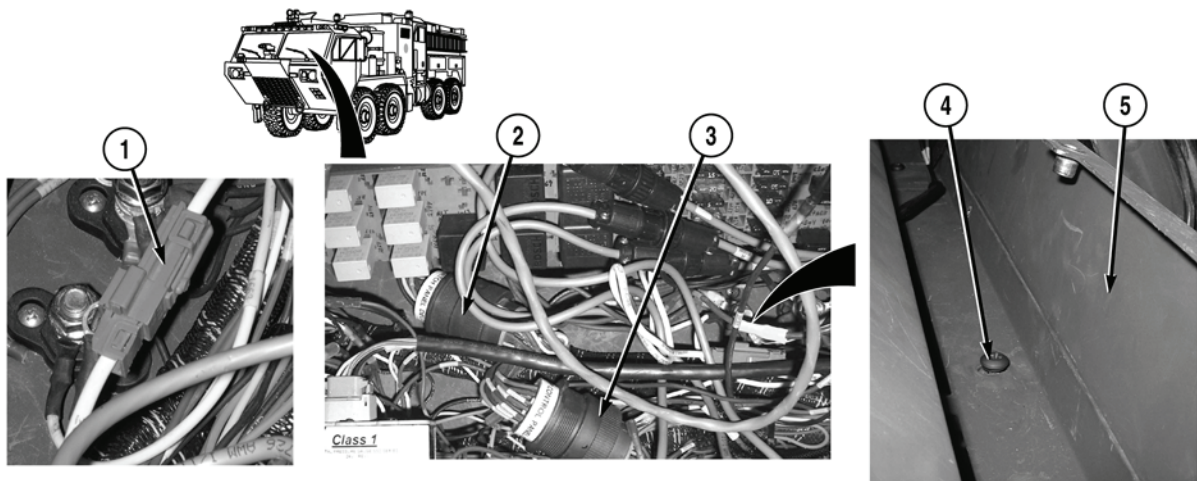
**References**

TM 9-2320-325-14&P  
WP 0615, Fig. 55

**Equipment Conditions**

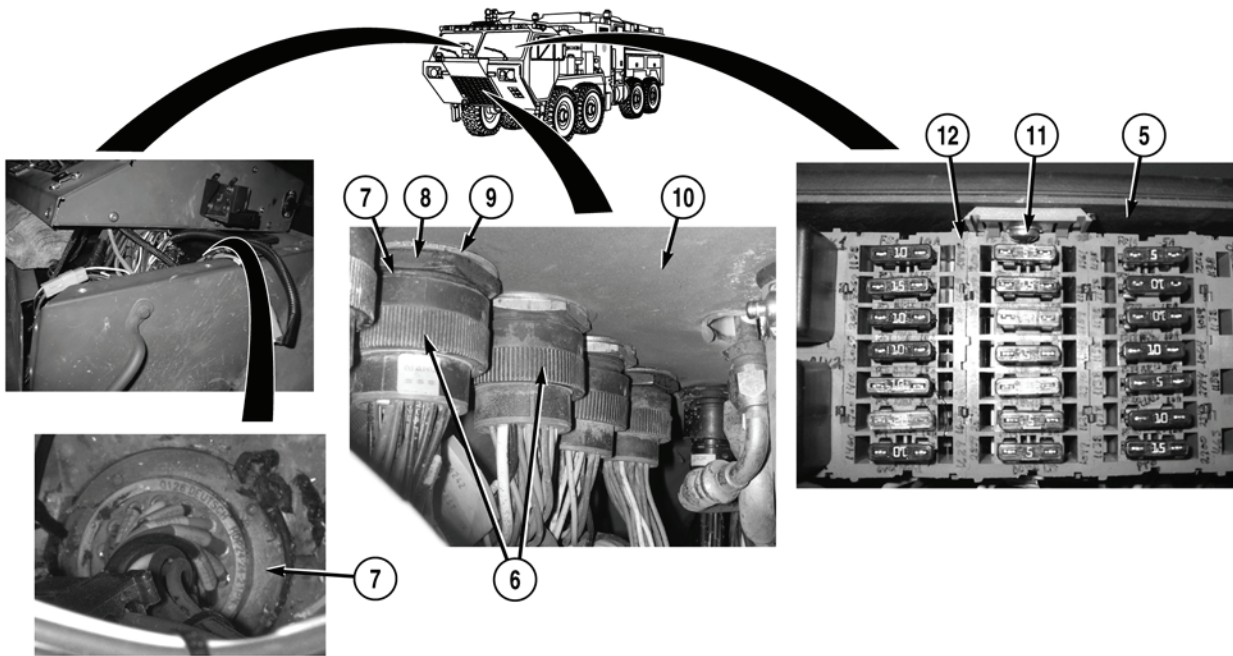
Siren control removed (WP 0341)  
Distribution block relays removed (WP 0402)  
Distribution block fuses removed (WP 0401)  
Distribution block circuit breakers  
removed (WP 0398)  
Distribution block diode blocks  
removed (WP 0399)

## REMOVAL

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

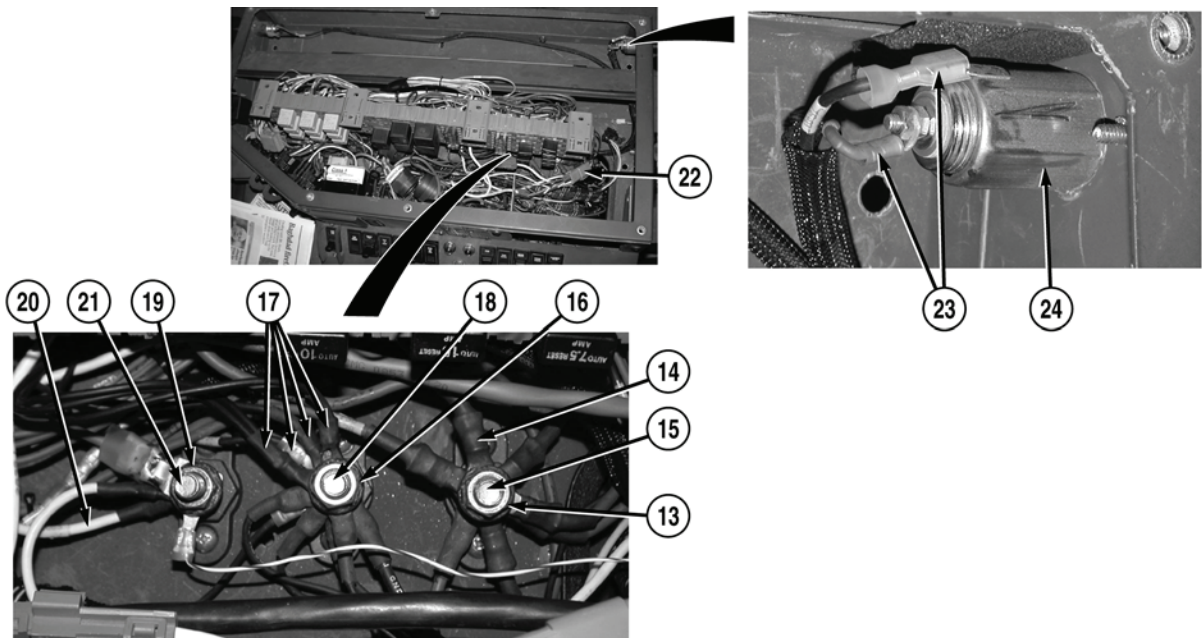
1. Disconnect connector (1).
2. Disconnect two connectors (2) and (3).
3. Remove seven screws (4) from instrument panel assembly (5) and move instrument panel assembly (5) aside.



### NOTE

Instrument panel assembly needs to be moved to access two connector (7).

4. Remove two plugs (6) from connectors (7).
5. With aid of an assistant, remove two nuts (8), lockwashers (9), and connectors (7) from personnel cab (10). Discard lockwashers.
6. Remove four screws (11) and power distribution block (12) from instrument panel assembly (5).

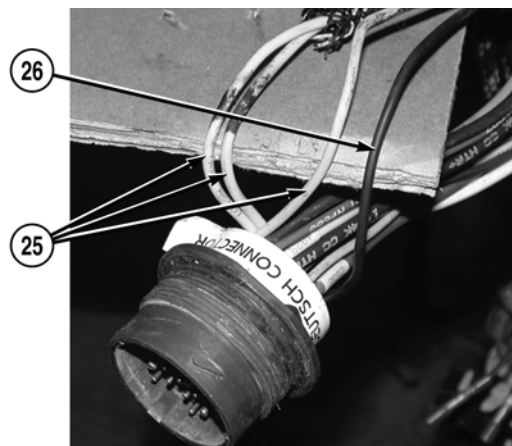


7. Remove locknut (13) and seven red wires (14) from stud (15). Discard locknut.
8. Remove locknut (16) and four black wires (17) from stud (18). Discard locknut.
9. Remove locknut (19) and white wire (20) from stud (21). Discard locknut.
10. Disconnect connector (22).

### NOTE

Wires must be disconnected from both 15 amp power ports. Passenger side shown.

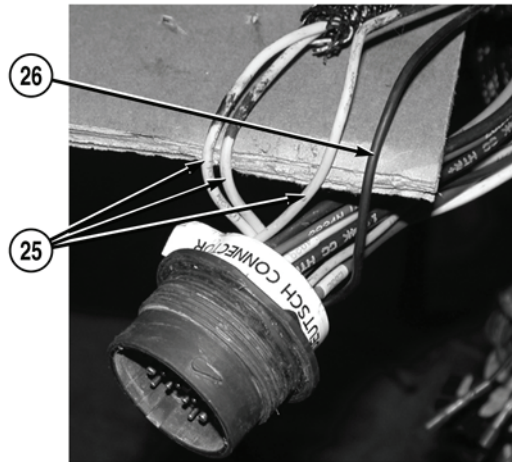
11. Disconnect two wires (23) from 15 amp power port (24).



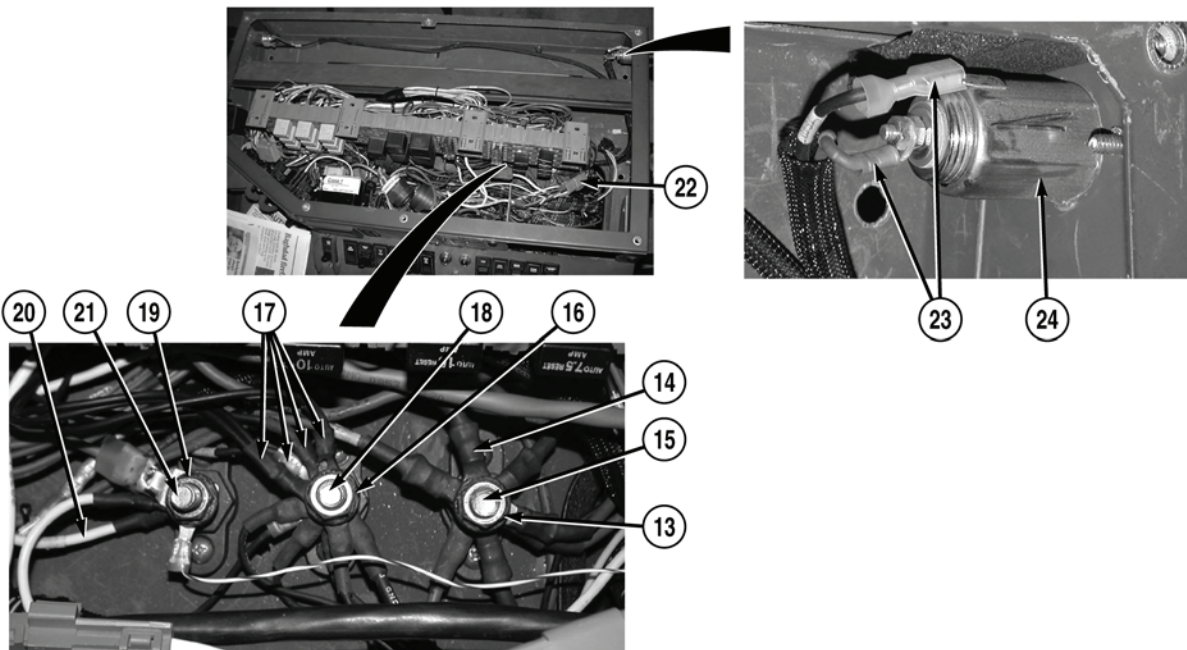
12. Cut three wires (25) (TM 9-2320-325-14&P).
13. Cut wire (26) (TM 9-2320-325-14&P).

**END OF TASK**

INSTALLATION

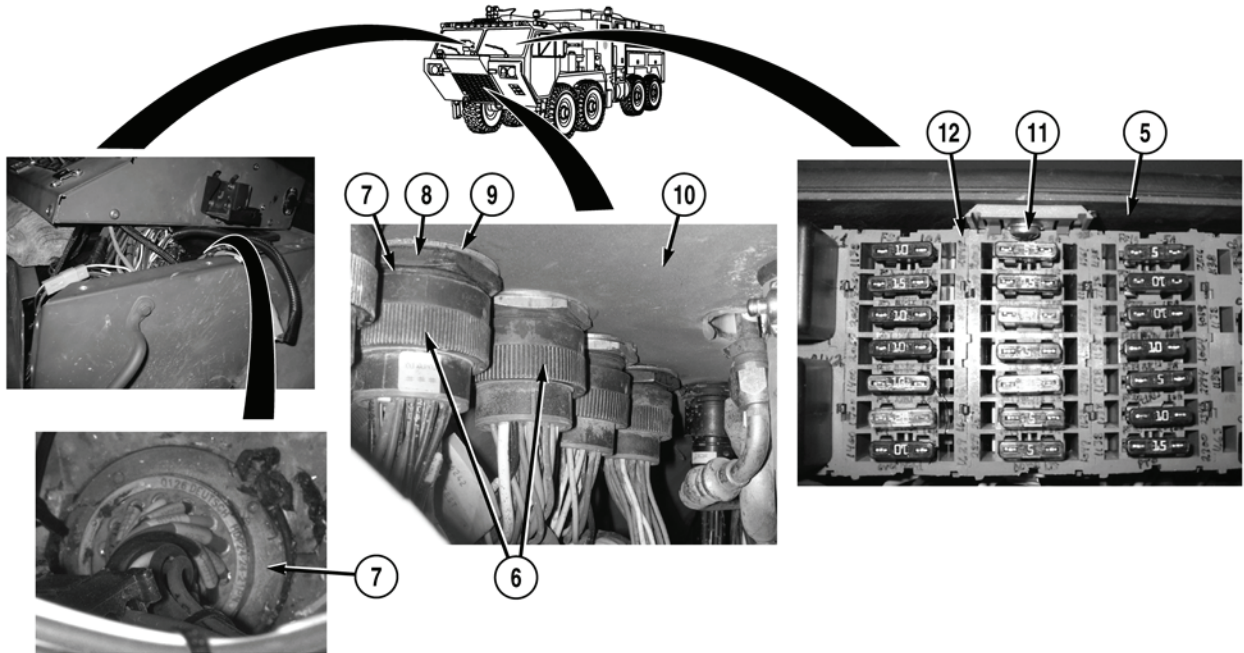


1. Repair wire (26) (TM 9-2320-325-14&P).
2. Repair three wires (25) (TM 9-2320-325-14&P).

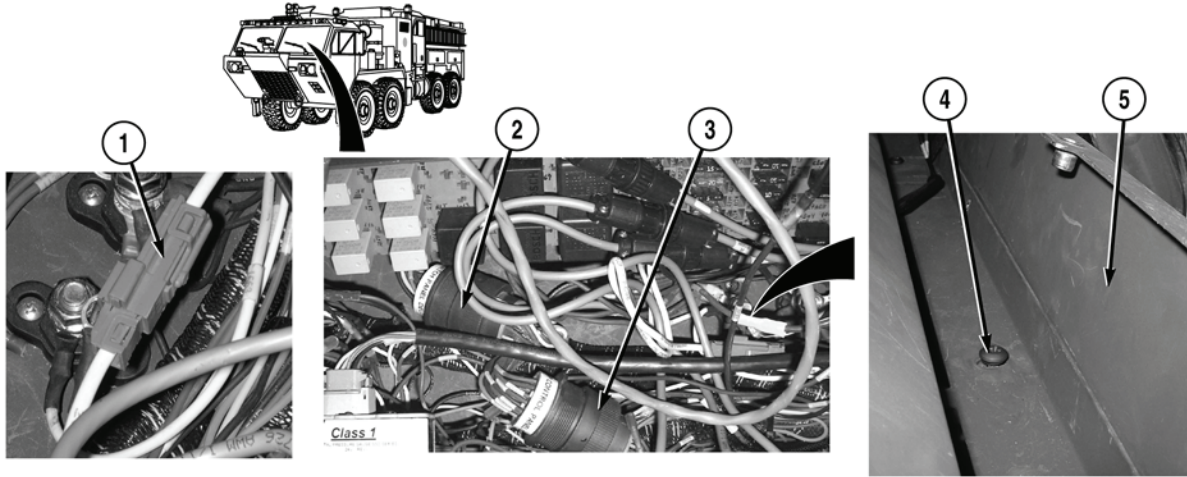


3. Connect two wires (23) on 15 amp power port (24).
4. Connect connector (22).
5. Install white wire (20) on stud (21) with locknut (19).

6. Install four black wires (17) on stud (18) with locknut (16).
7. Install seven red wires (14) on stud (15) with locknut (13).



8. Install power distribution block (12) on instrument panel assembly (5) with four screws (11).
9. With aid of an assistant, install two connectors (7) on personnel cab (10) with lockwashers (9) and nuts (8).
10. Install two plugs (6) on connectors (7).



11. Install seven screws (4) on instrument panel assembly (5).
12. Connect two connectors (3) and (2).
13. Connect connector (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Install distribution diode blocks (WP 0402)
2. Install distribution circuit breakers (WP 0398)
3. Install distribution block fuses (WP 0401)
4. Install distribution block relays (WP 0402)
5. Install siren control (WP 0341)

#### END OF TASK

#### END OF WORK PACKAGE



## FIELD LEVEL MAINTENANCE

## PERSONNEL CAB POWER DISTRIBUTION BOX FUSE REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

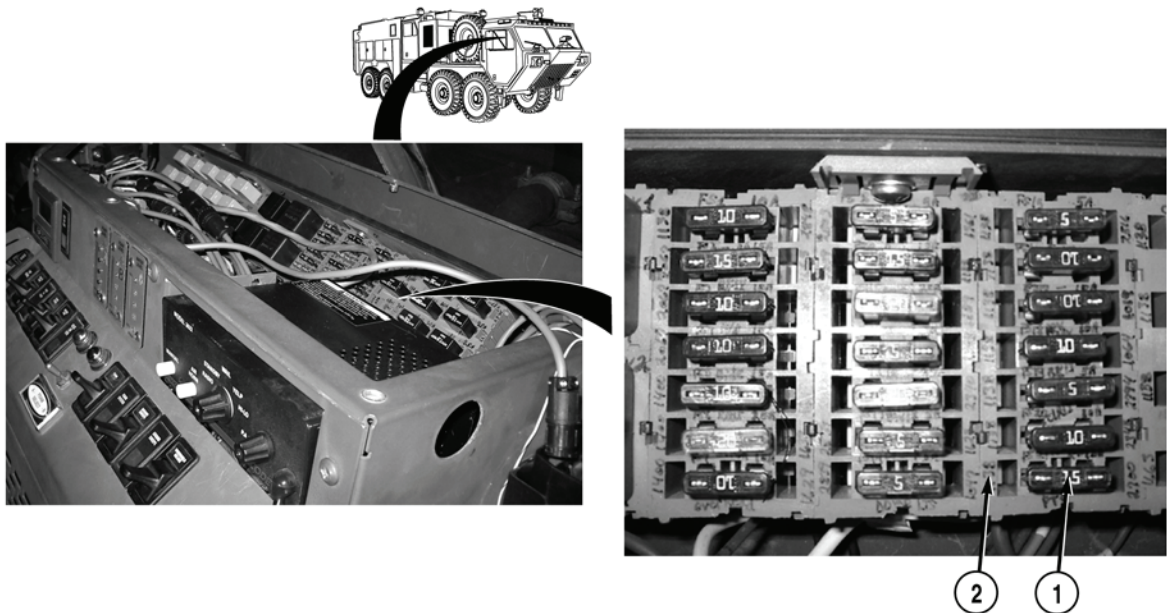
**Equipment Conditions**

Instrument panel A removed (WP 0311)

**References**

WP 0615, Fig. 95

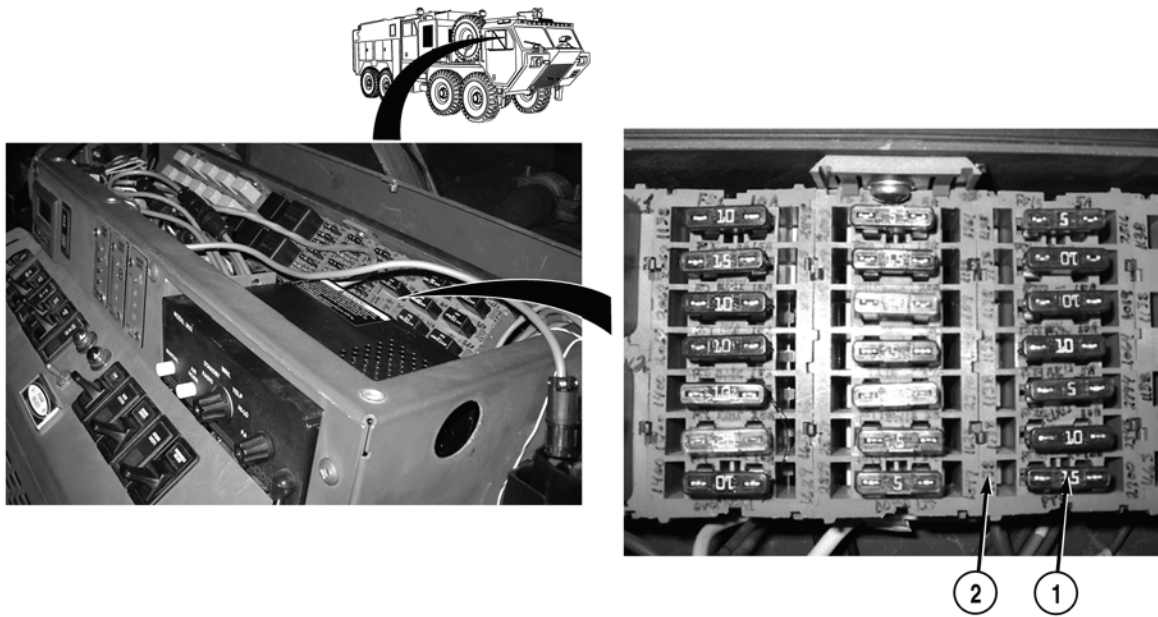
## REMOVAL

**NOTE**

All fuses are removed the same way. PTO fuse shown.

Remove PTO fuse (1) from power distribution box (2).

**END OF TASK**

**INSTALLATION****NOTE**

All fuses are installed the same way. PTO fuse shown.

Install PTO fuse (1) in power distribution box (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install instrument panel A (WP 0311)

**END OF TASK****END OF WORK PACKAGE**

FIELD LEVEL MAINTENANCE

PERSONNEL CAB POWER DISTRIBUTION BOX RELAYS REPLACEMENT

INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

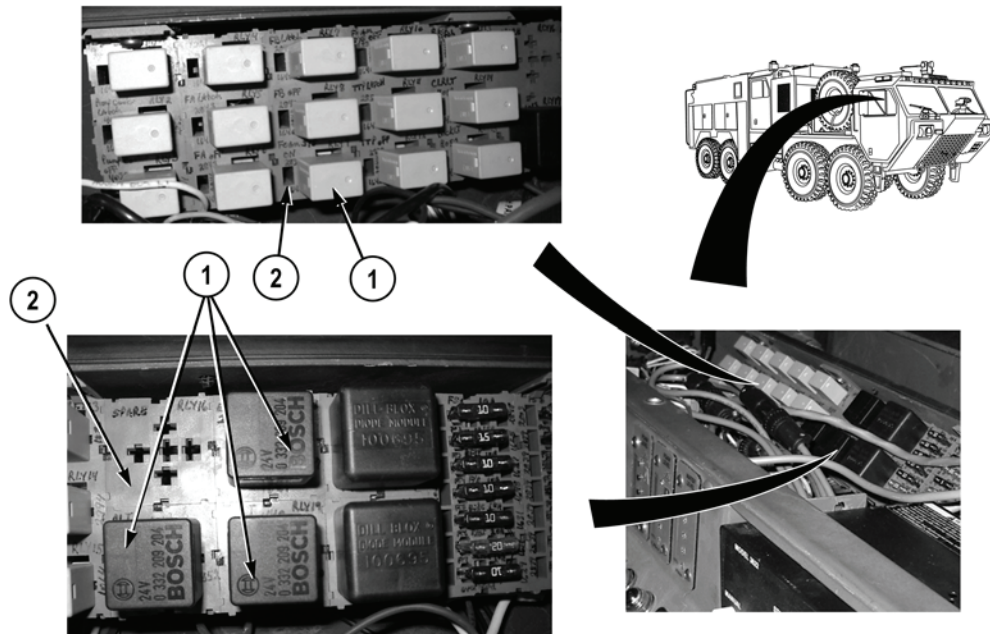
**Equipment Conditions**

Personnel cab instrument panel A removed  
(WP 0311)

**References**

WP 0615, Fig. 55

REMOVAL



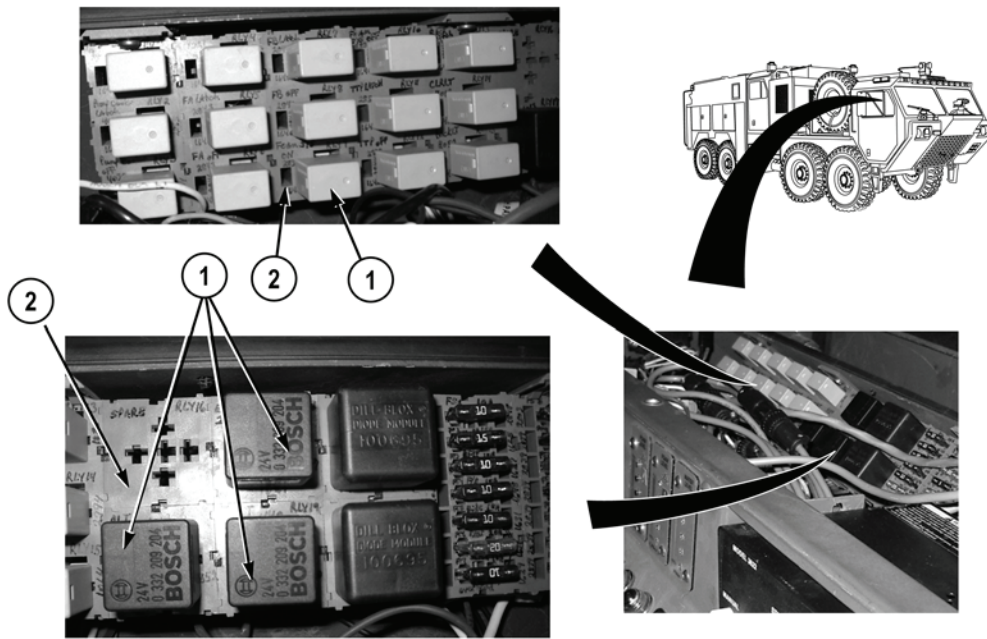
**NOTE**

All relays are removed the same way.

Remove relay (1) from power distribution box (2).

**END OF TASK**

**INSTALLATION**



**NOTE**

All relays are installed the same way.

Install relay (1) on power distribution box (2).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Install personnel cab instrument panel A (WP 0311)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE****PERSONNEL CAB ROOF LIGHTBAR FLASHER UNIT REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Drill, Electric, Portable 1/4 in. (WP 0622, Item 10)  
Drill Set, Twist (WP 0622, Item 11)  
Tool Kit, Blind Rivet (WP 0622, Item 26)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)

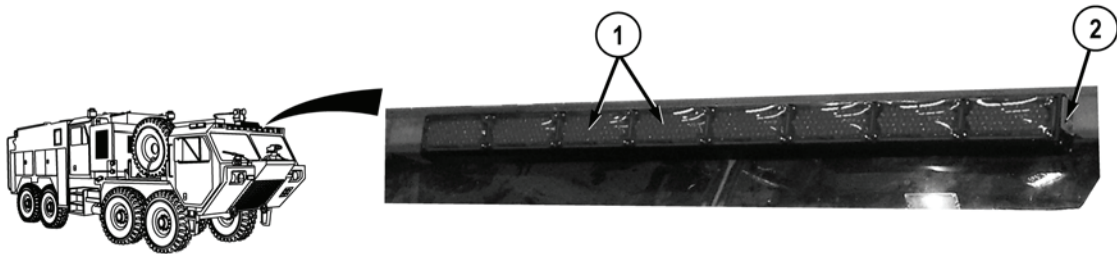
**References**

WP 0351  
WP 0615, Fig. 60

**Equipment Conditions**

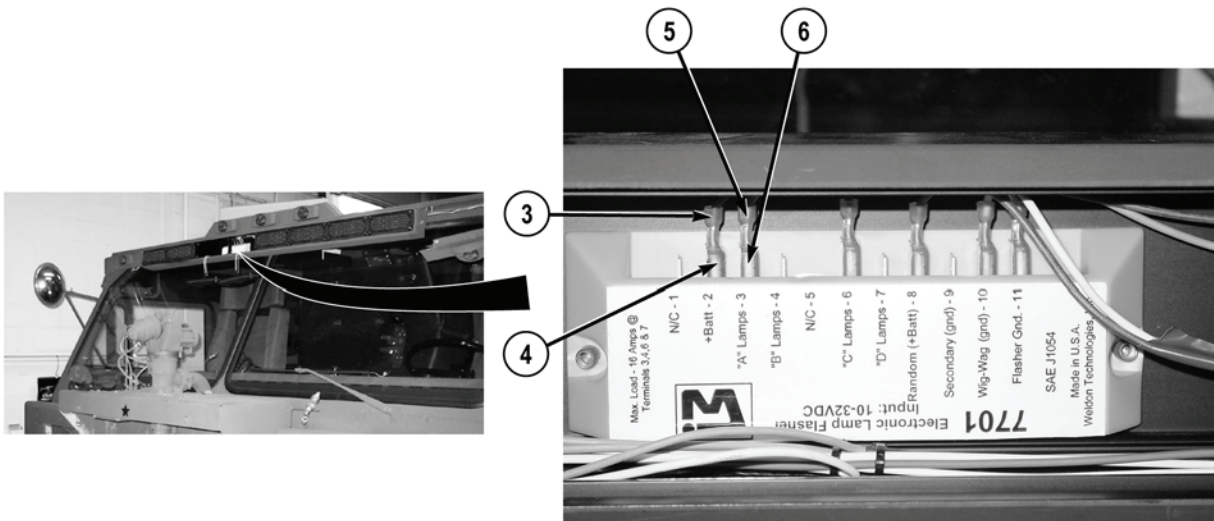
Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

---

**REMOVAL****NOTE**

Lights removed in Step (1) are 3rd and 4th lights from passenger side of vehicle.

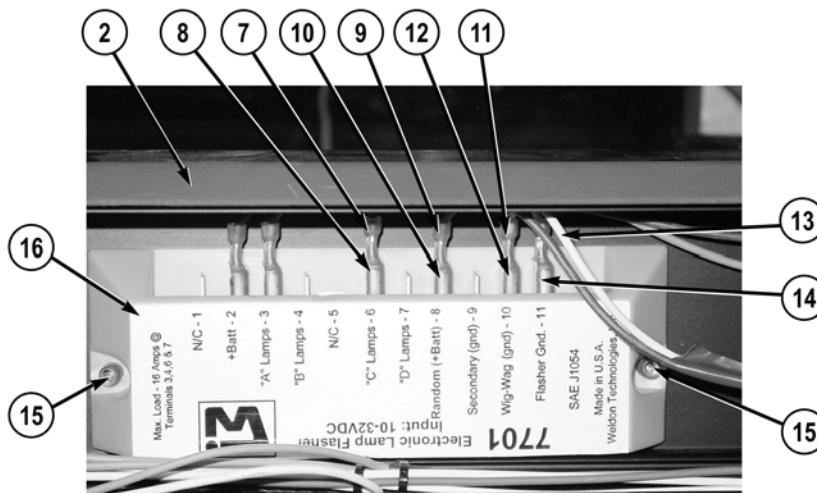
1. Remove two lights (1) from personnel cab roof lightbar (2) (WP 0351).



**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

2. Remove red wire (3) from lightbar flasher unit, terminal 2 (4).
3. Remove green wire (5) from lightbar flasher unit, terminal 3 (6).

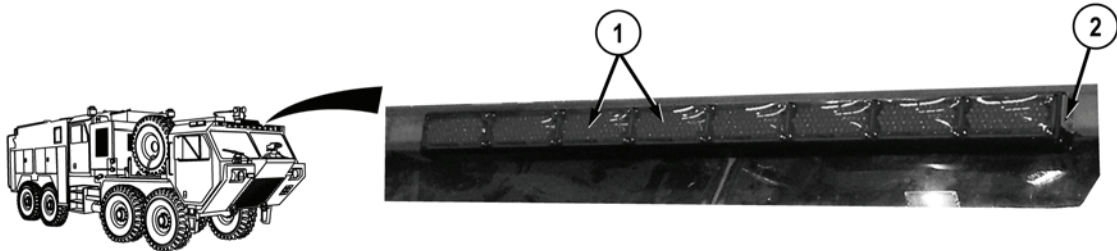


4. Remove blue wire (7) from lightbar flasher unit, terminal 6 (8).
5. Remove red wire (9) from lightbar flasher unit, terminal 8 (10).
6. Remove white wire (11) from lightbar flasher unit, terminal 10 (12).
7. Remove white wire (13) from lightbar flasher unit, terminal 11 (14).
8. Remove two rivets (15) and lightbar flasher unit (16) from personnel cab roof lightbar (2).

**END OF TASK**

**INSTALLATION**

1. Install lightbar flasher unit (16) on personnel cab roof lightbar (2) with two rivets (15).
2. Install white wire (13) on lightbar flasher unit, terminal 11 (14).
3. Install white wire (11) on lightbar flasher unit, terminal 10 (12).
4. Install red wire (9) on lightbar flasher unit, terminal 8 (10).
5. Install blue wire (7) on lightbar flasher unit, terminal 6 (8).
6. Install green wire (5) on lightbar flasher unit, terminal 3 (6).
7. Install red wire (3) on lightbar flasher unit, terminal 2 (4).

**NOTE**

Lights installed in Step (8) are 3rd and 4th lights from passenger side.

8. Install two lights (1) on personnel cab roof lightbar (2) (WP 0351).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**





---

**FIELD LEVEL MAINTENANCE****PERSONNEL CAB STEP CLEARANCE LIGHT REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Locknut (2)

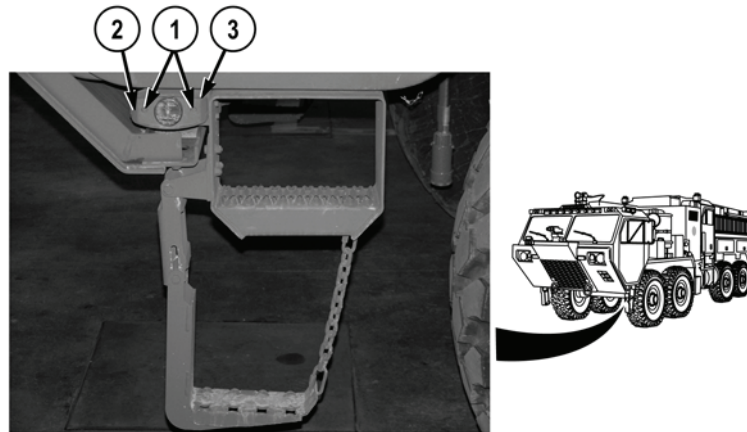
**References**

WP 0615, Fig. 120

**Equipment Conditions**

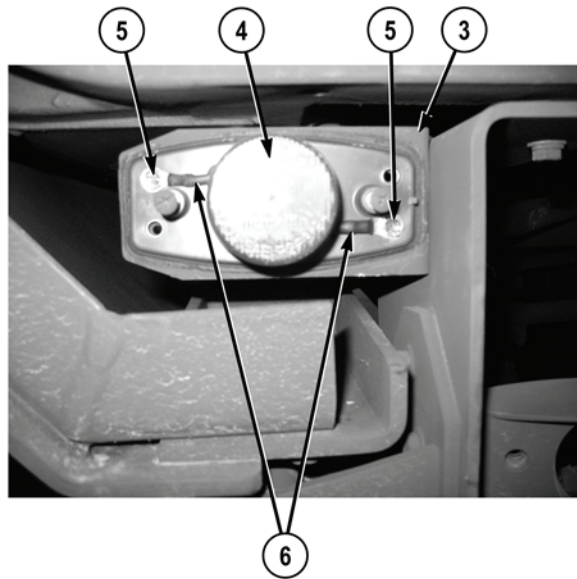
Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

---

**REMOVAL****NOTE**

Personnel cab step clearance lights are removed the same from both sides.

1. Remove two screws (1) and clearance light cover (2) from clearance light bracket (3).

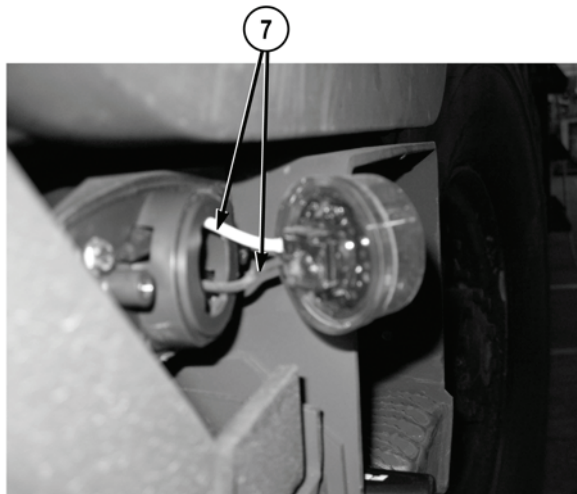


2. Turn clearance light (4) 90 degrees and remove from clearance light bracket (3).

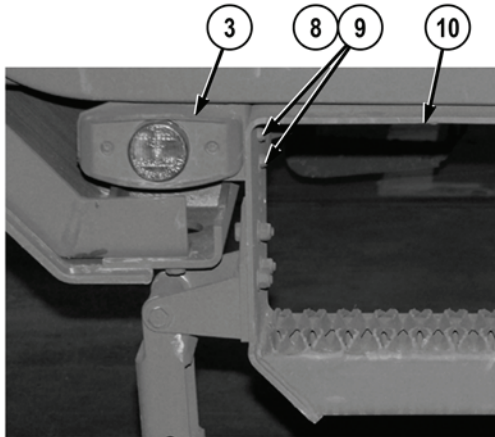
#### NOTE

Tag and mark wires prior to removal to ensure proper installation.

3. Remove two screws (5) and wires (6) from clearance light bracket (3).



4. Cut two wires (7) (TM 9-2320-325-14&P).

**NOTE**

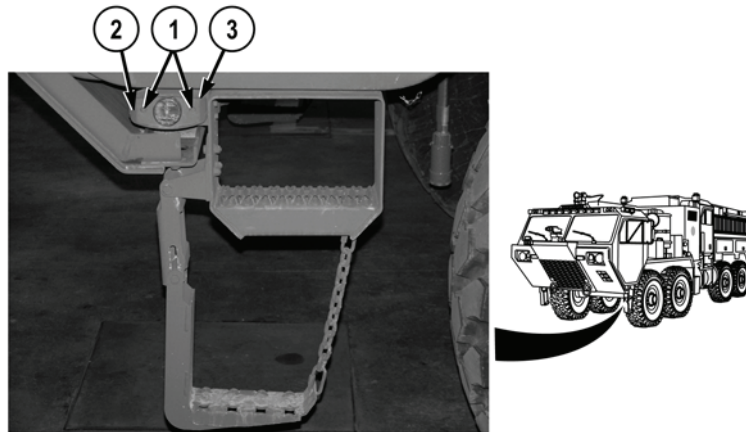
Perform Step (5) if clearance light bracket needs to be removed.

5. Remove two screws (8), locknuts (9), and clearance light bracket (3) from step bracket (10). Discard locknuts.

**END OF TASK****INSTALLATION****NOTE**

Perform Step (1) if clearance light bracket was removed.

1. Install clearance light bracket (3) on step bracket (10) with two locknuts (9) and screws (8).
2. Repair two wires (7) (TM 9-2320-325-14&P).
3. Install two wires (6) and screws (5) on clearance light bracket (3).
4. Install clearance light (4) on clearance light bracket (3).



5. Install clearance light cover (2) on clearance light bracket (3) with two screws (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PORTABLE HANDHELD FLASHLIGHT AND CHARGER REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

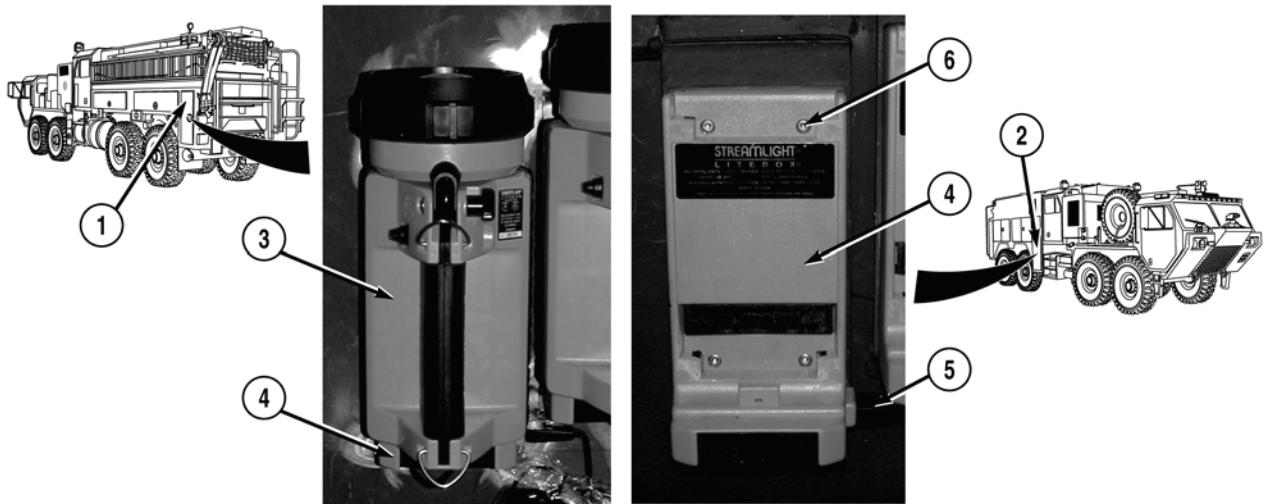
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

**References**

WP 0010  
WP 0615, Fig. 156, 162

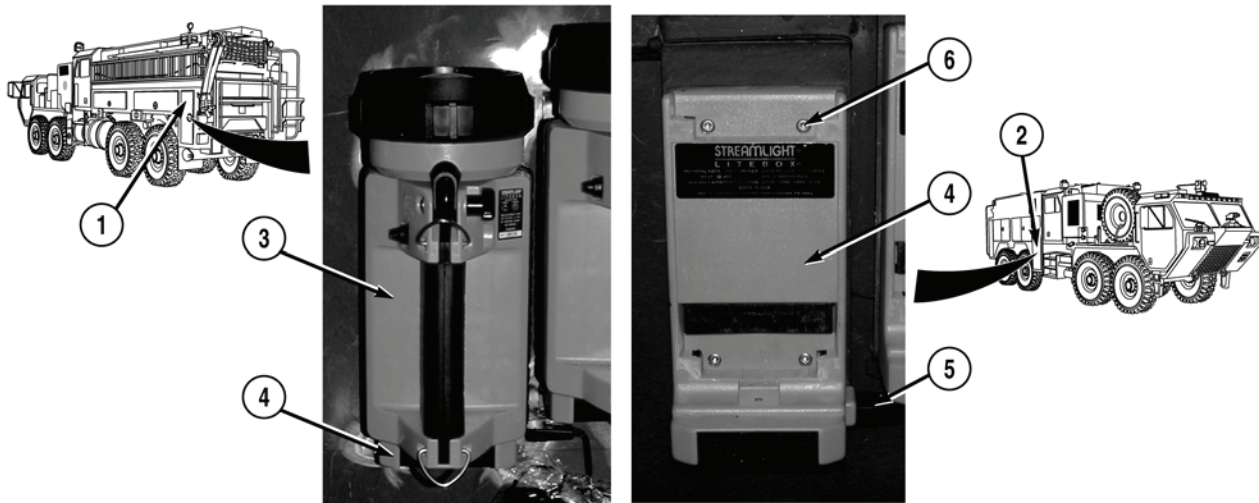
## REMOVAL

**NOTE**

All portable handheld flashlights and chargers are removed the same way.

1. Open compartment door (1) or (2) (WP 0010).
2. Remove flashlight (3) from charger (4).
3. Disconnect connector (5).
4. Remove four screws (6) and charger (4) from vehicle.

**END OF TASK**

**INSTALLATION****NOTE**

All portable handheld flashlights and chargers are installed the same way.

1. Install charger (4) on vehicle with four screws (6).
2. Connect connector (5).
3. Install flashlight (3) on charger (4).
4. Close compartment door (1) or (2) (WP 0010).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PORTABLE HANDHELD RADIO AND CHARGER REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 85

**Materials/Parts**

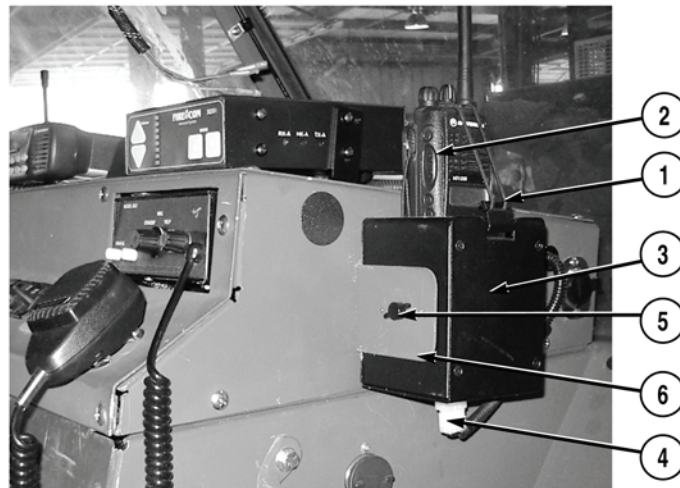
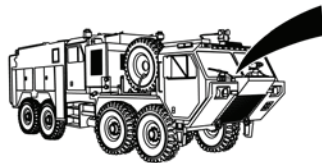
Locknut (2)

**Equipment Conditions**

Engine OFF (TM 9-2320-347-10)

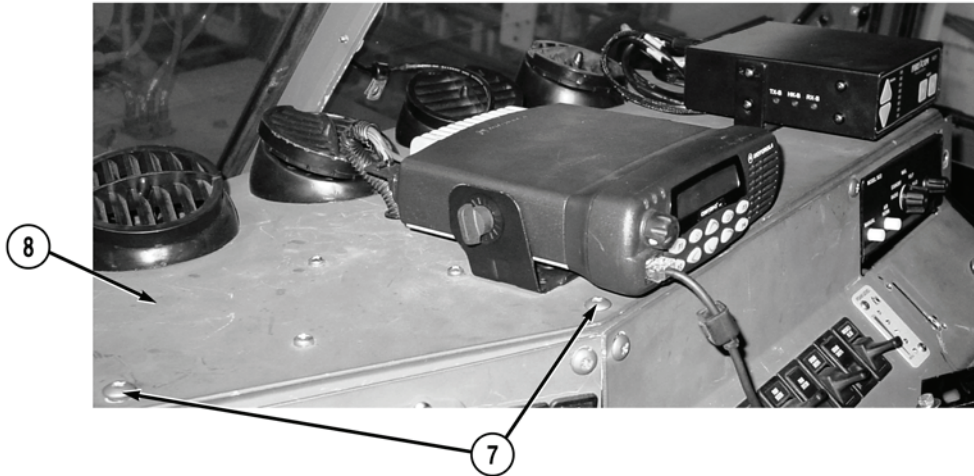
Wheels chocked (TM 9-2320-347-10)

## REMOVAL

**NOTE**

All handheld radios and chargers are removed the same way. Personnel cab passenger side radio shown.

1. Unlatch radio retainer (1) and remove radio (2) from charger (3).
2. Disconnect radio charger connector (4) from charger (3).
3. Remove two screws (5) and charger (3) from bracket (6).



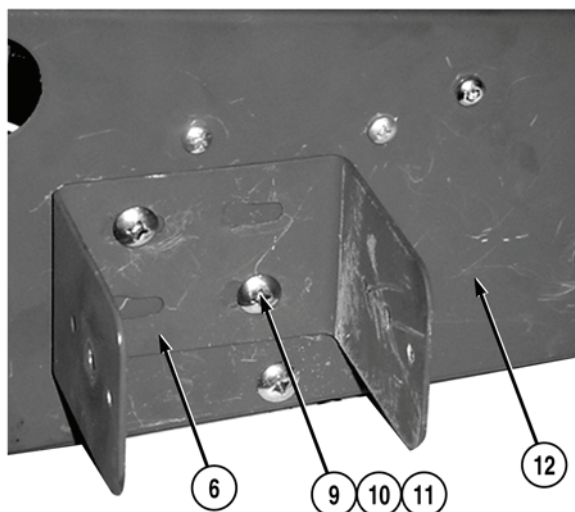
**⚠ CAUTION**

Lift cab instrument panel A only enough to access back of bracket. Wires to flasher controls and intercom are still attached. Failure to comply may result in damage to equipment.

**NOTE**

Perform Steps (4) and (5) if bracket needs to be removed.

4. Remove seven screws (7) from cab instrument panel A (8) and lift cab instrument panel A (8).



5. Remove two locknuts (9), washers (10), screws (11), and bracket (6) from panel (12). Discard locknuts.

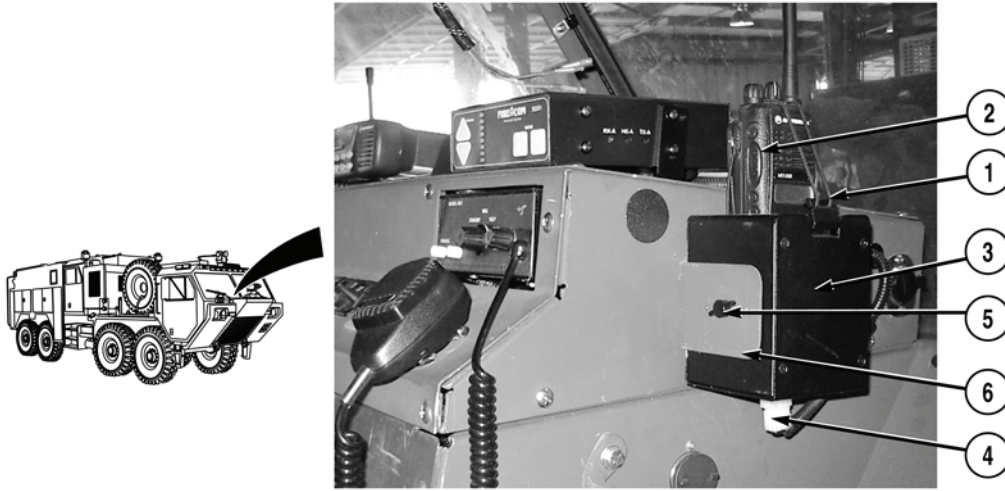
**END OF TASK**



**INSTALLATION****NOTE**

Perform Steps (1) and (2) if bracket was removed.

1. Install bracket (6) on panel (12) with two screws (11), washers (10), and locknuts (9).
2. Install cab instrument panel A (8) with seven screws (7).

**NOTE**

All handheld radios and chargers are installed the same way. Personnel cab passenger side radio shown.

3. Install charger (3) on bracket (6) with two screws (5).
4. Connect radio charger connector (4) to charger (3).
5. Install radio (2) in charger (3) and latch radio retainer (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## POWER DISTRIBUTION BOX (PUMP HOUSE) REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Lockwasher (4)

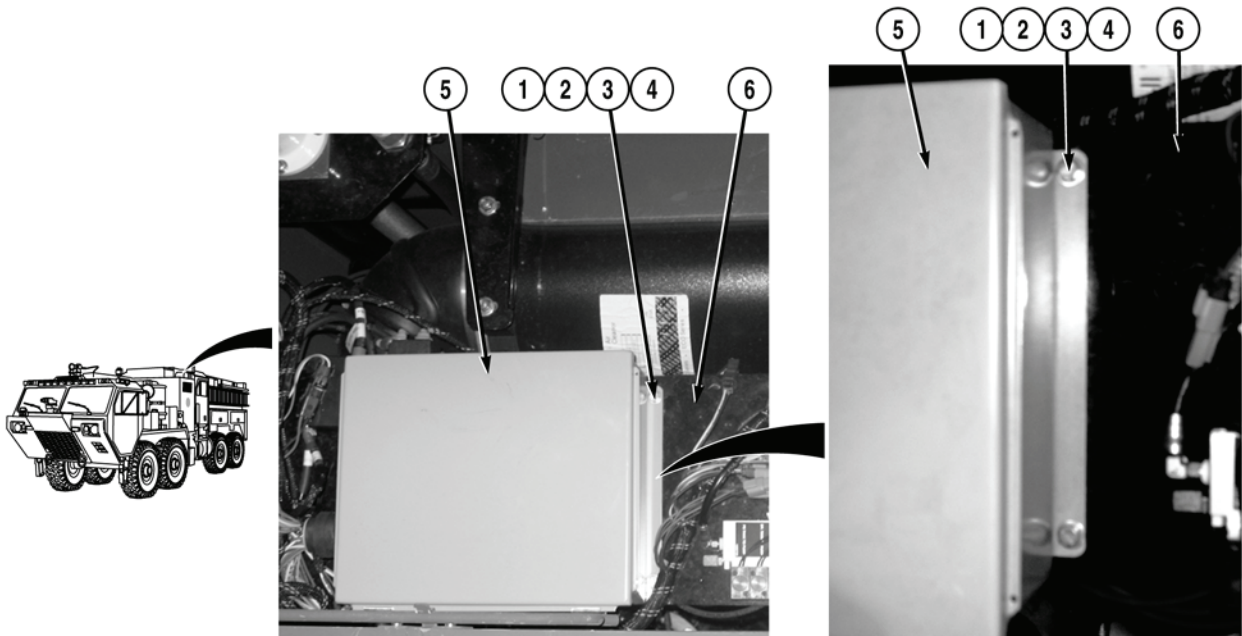
**References**

WP 0615, Fig. 83

**Equipment Conditions**

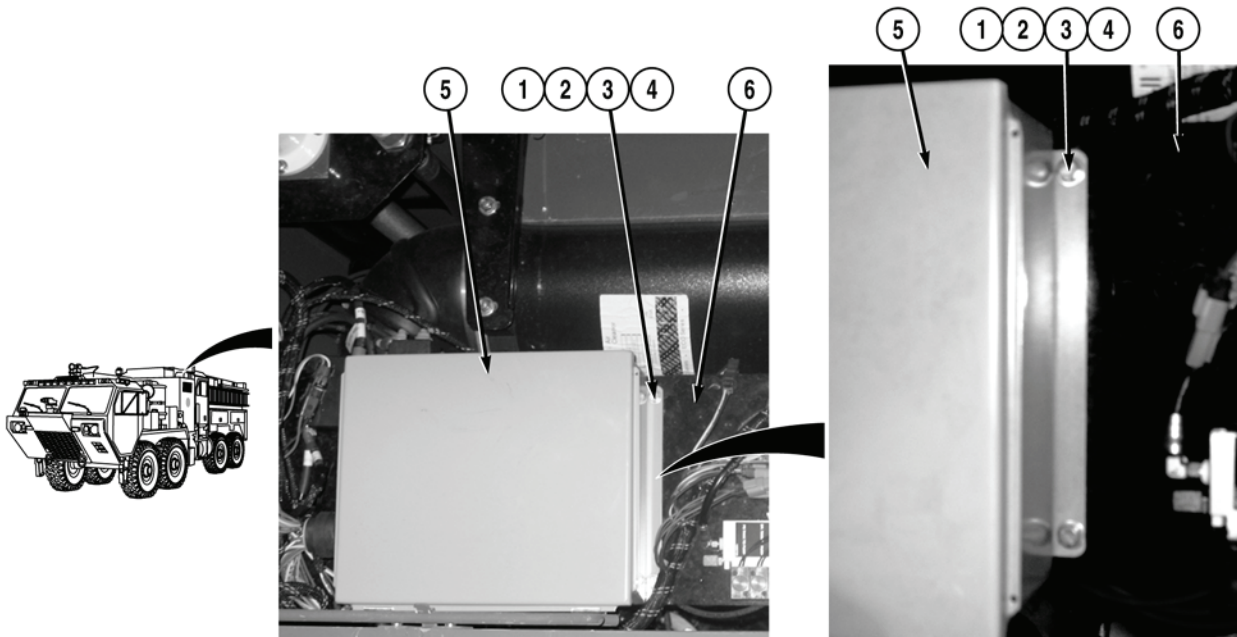
Pump house panel S removed (WP 0540)  
Preheat breaker removed (WP 0391)  
Auto fill control removed (WP 0363)  
Power distribution box control panel (pump house) removed (WP 0408)  
Terminal block (pass-through) removed (WP 0429)  
Dual governor pressure switch removed (WP 0392)

## REMOVAL



Remove four nuts (1), lockwashers (2), eight washers (3), four screws (4), and power distribution box (5) from bracket (6). Discard lockwashers.

## END OF TASK

**INSTALLATION**

Install power distribution box (5) on bracket (6) with four screws (4), eight washers (3), four lockwashers (2), and nuts (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install dual governor pressure switch (WP 0392)
2. Install terminal block (pass-through) (WP 0429)
3. Install power distribution box control panel (pump house) (WP 0408)
4. Install auto fill control (WP 0363)
5. Install preheat breaker (WP 0391)
6. Install pump house panel S (WP 0540)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## POWER DISTRIBUTION BOX CONTROL PANEL (PUMP HOUSE) REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Lockwasher (1)  
Lockwasher (1)

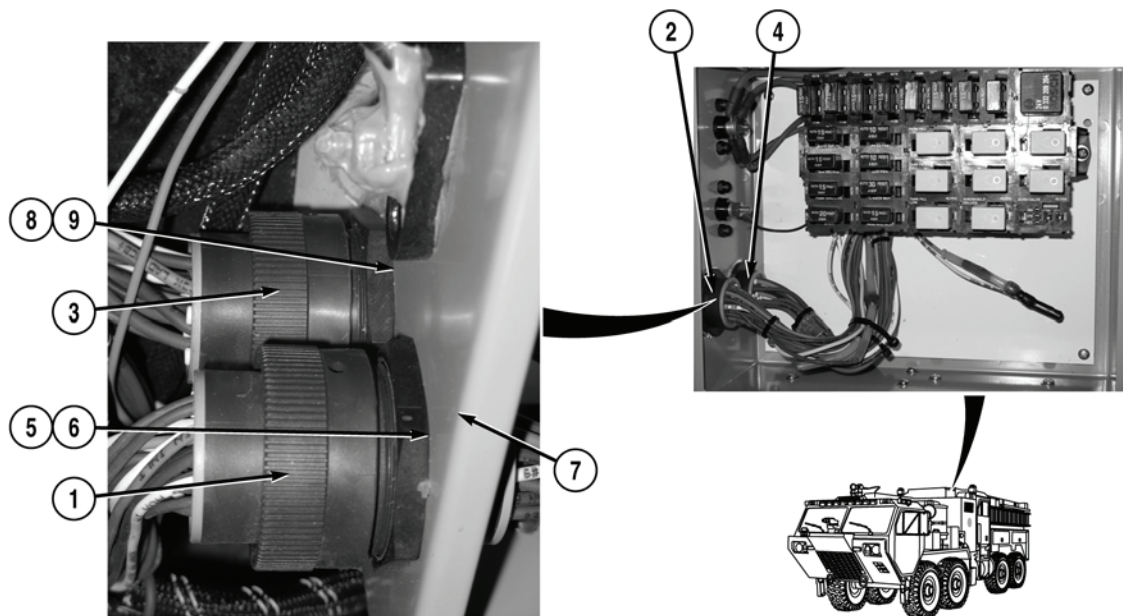
**References**

WP 0615, Fig. 83

**Equipment Conditions**

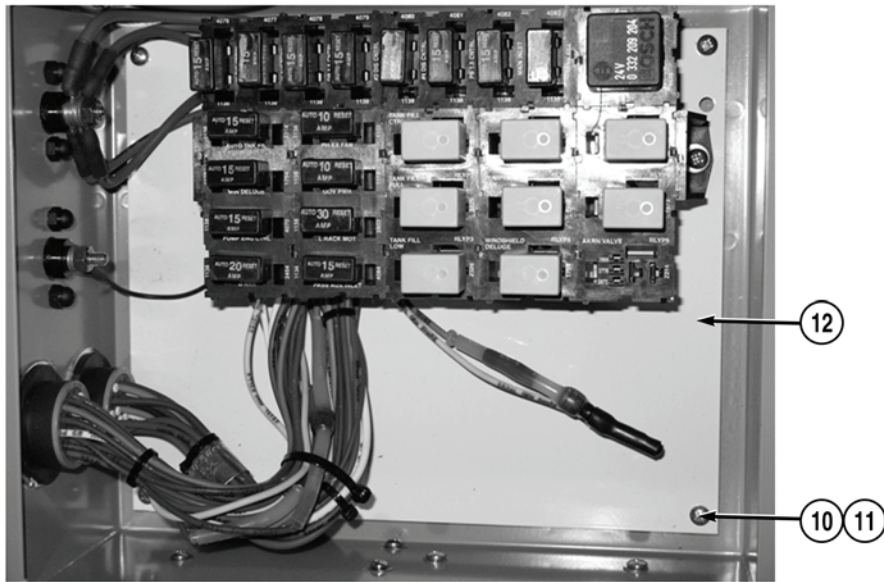
Pump house panel S removed (WP 0540)  
Preheat breaker removed (WP 0391)  
Auto fill control removed (WP 0363)  
Terminal block (pass-through)  
removed (WP 0429)  
Dual governor pressure switch  
removed (WP 0386)

## REMOVAL

**NOTE**

Note position of connectors before removal to ensure proper installation.

1. Disconnect main wire harness connector (1) from power distribution panel connector (2).
2. Disconnect pump panel wire harness connector (3) from power distribution panel connector (4).
3. Remove nut (5), lockwasher (6), and power distribution panel connector (2) from power distribution box (7). Discard lockwasher.
4. Remove nut (8), lockwasher (9), and power distribution panel connector (4) from power distribution box (7). Discard lockwasher.

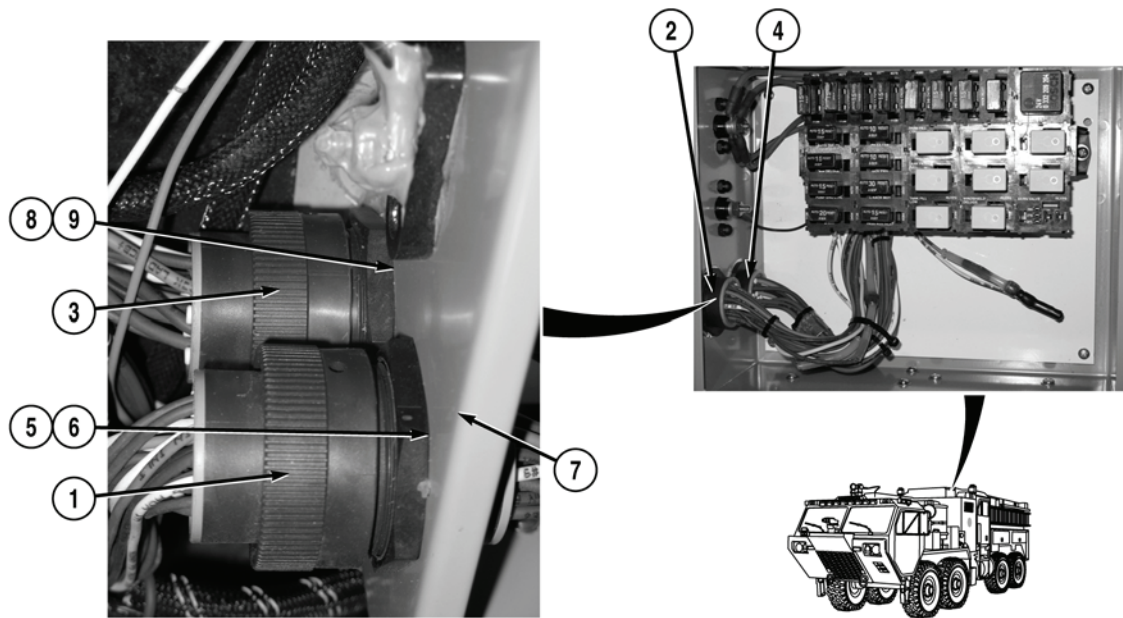


5. Remove four screws (10), washers (11), and power distribution box control panel (12) from vehicle.

#### END OF TASK

#### INSTALLATION

1. Install power distribution box control panel (12) on vehicle with four washers (11) and screws (10).



### NOTE

Install connectors as noted prior to removal.

2. Install power distribution panel connector (4) on power distribution box (7) with lockwasher (9) and nut (8).
3. Install power distribution panel connector (2) on power distribution box (7) with lockwasher (6) and nut (5).
4. Connect pump panel wire harness connector (3) to power distribution panel connector (4).
5. Connect main wire harness connector (1) to power distribution panel connector (2).

### END OF TASK

### FOLLOW-ON MAINTENANCE

1. Install dual governor pressure switch (WP 0386)
2. Install terminal block (pass-through) (WP 0429)
3. Install auto fill control (WP 0363)
4. Install preheat breaker (WP 0391)
5. Install pump house panel S (WP 0540)

### END OF TASK

### END OF WORK PACKAGE





## FIELD LEVEL MAINTENANCE

## POWER CABLE ASSEMBLY (SINGGARS) REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 59

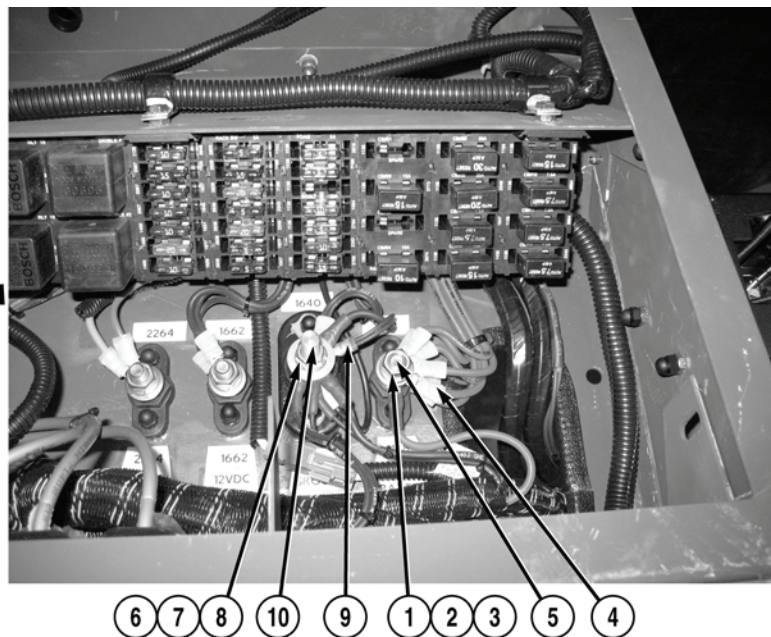
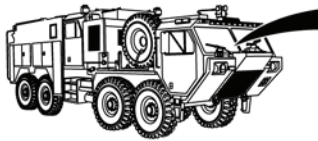
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (1)  
Lockwasher (1)

**Equipment Conditions**

Cab instrument panel A removed (WP 0311)

## REMOVAL

**NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
  - Note routing of power cable assembly prior to removal to ensure proper installation.
  - Remove cable ties and cushion clips as required.
1. Remove nut (1), lockwasher (2), washer (3), and T1 connector (4) from power terminal (5). Discard lockwasher.
  2. Remove nut (6), lockwasher (7), washer (8), and T2 connector (9) from ground terminal (10). Discard lockwasher.



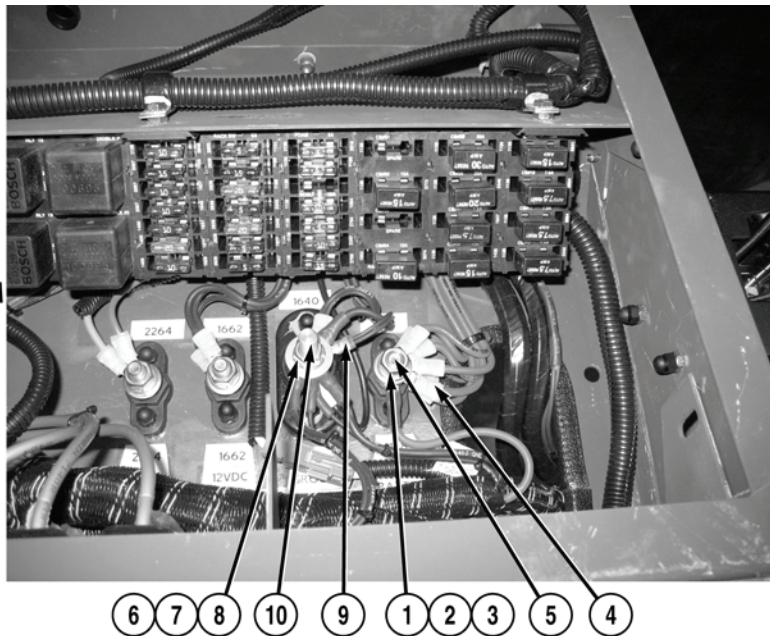
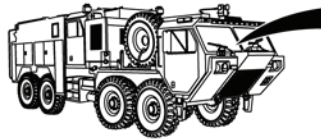
3. Open SINCGARS door (11).
4. Disconnect power cable (12) from SINCGARS connector (13).
5. Remove power cable (12) from vehicle.

#### END OF TASK

#### INSTALLATION

#### NOTE

- Route power cable assembly as noted prior to removal.
  - Install cable ties and cushion clips as required.
1. Install power cable (12) on vehicle.
  2. Connect power cable (12) to SINCGARS connector (13).
  3. Close SINCGARS door (11).



4. Connect T2 connector (9) to ground terminal (10) with washer (8), lockwasher (7), and nut (6).
5. Connect T1 connector (4) to power terminal (5) with washer (3), lockwasher (2), and nut (1).

**END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

Install cab instrument panel A (WP 0311)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**PRESSURE REGULATOR REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Standard Automotive Tool Set (SATS),  
(WP 0622, Item 25)  
• Wrench, Torque, Click, Ratcheting, 3/8"  
Drive, 75 ft-lb  
Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

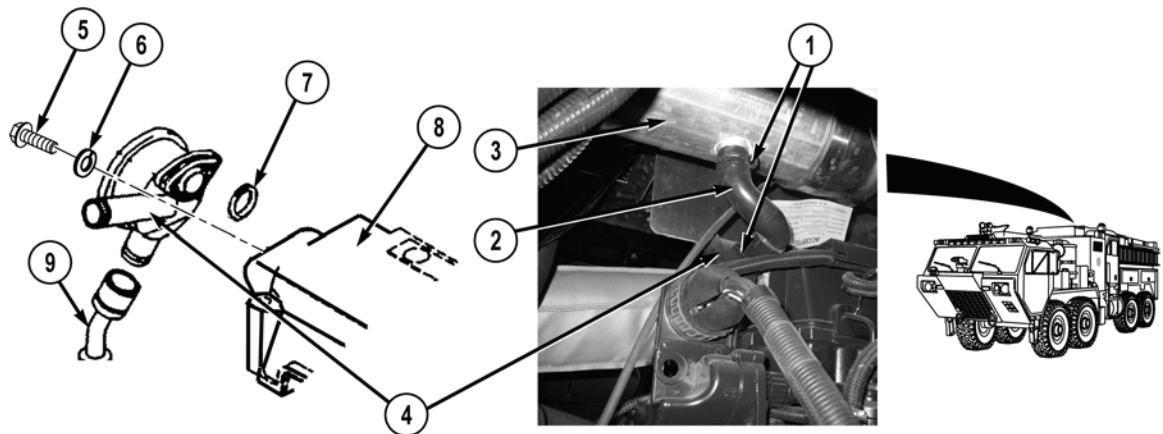
**Equipment Conditions**

Driver side crew cab access panel removed  
(WP 0499)  
Pump house panel Q removed (WP 0540)

**References**

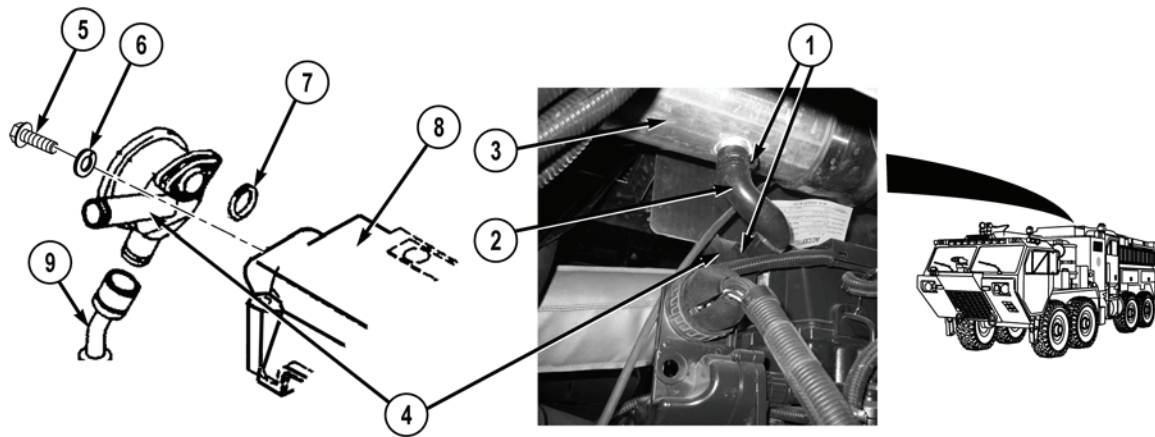
WP 0615, Fig. 29

---

**REMOVAL**

1. Loosen two clamps (1) and remove hose (2) from pipe (3) and pressure regulator (4).
2. Remove two screws (5), washers (6), pressure regulator (4), and gasket (7) from valve cover (8). Discard gasket.
3. Remove pressure regulator (4) from hose (9).

**END OF TASK**

**INSTALLATION**

1. Install pressure regulator (4) on hose (9).
2. Install gasket (7) and pressure regulator (4) on valve cover (8) with two washers (6) and screws (5). Tighten two screws (5) to 7.5 to 9.5 N•m.
3. Install hose (2) on pressure regulator (4) and pipe (3) with two clamps (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install pump house panel Q (WP 0540)
2. Install driver side crew cab access door (WP 0499)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**PRESSURE TRANSDUCER REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)

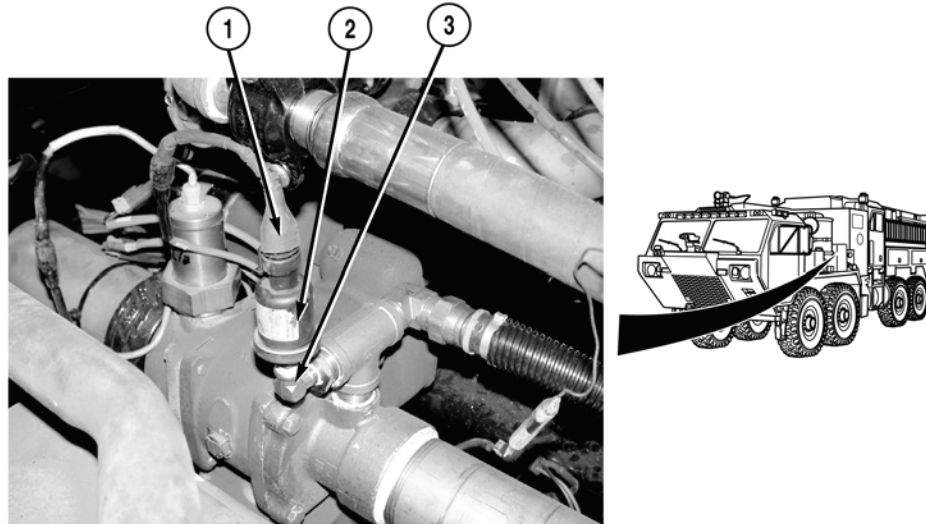
**References**

WP 0615, Fig. 113

**Equipment Conditions**

Pump house panel A opened (WP 0539)  
All piping drained (WP 0044)

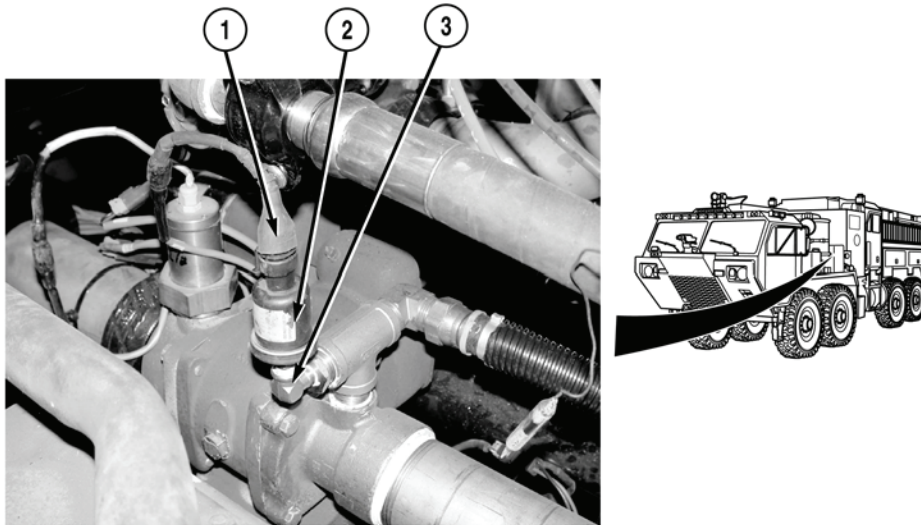
---

**REMOVAL****NOTE**

All six pressure transducers are removed the same way. No. 1 discharge valve pressure transducer shown.

1. Disconnect connector (1) from transducer (2).
2. Remove transducer (2) from elbow (3).

**END OF TASK**

**INSTALLATION****WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

1. Apply sealing compound to threads of transducer (2).
2. Install transducer (2) on elbow (3).
3. Connect connector (1) on transducer (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Close pump house panel A (WP 0539)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## PUMP HOUSE DISTRIBUTION BOX CIRCUIT BREAKER REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

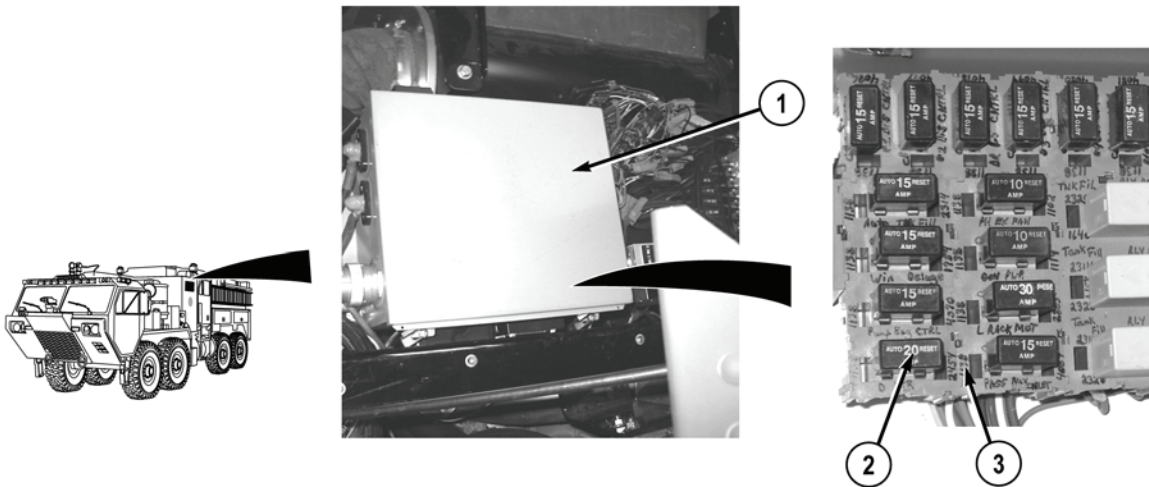
**Equipment Conditions**

Pump house panel S removed (WP 0540)

**References**

WP 0615, Fig. 83

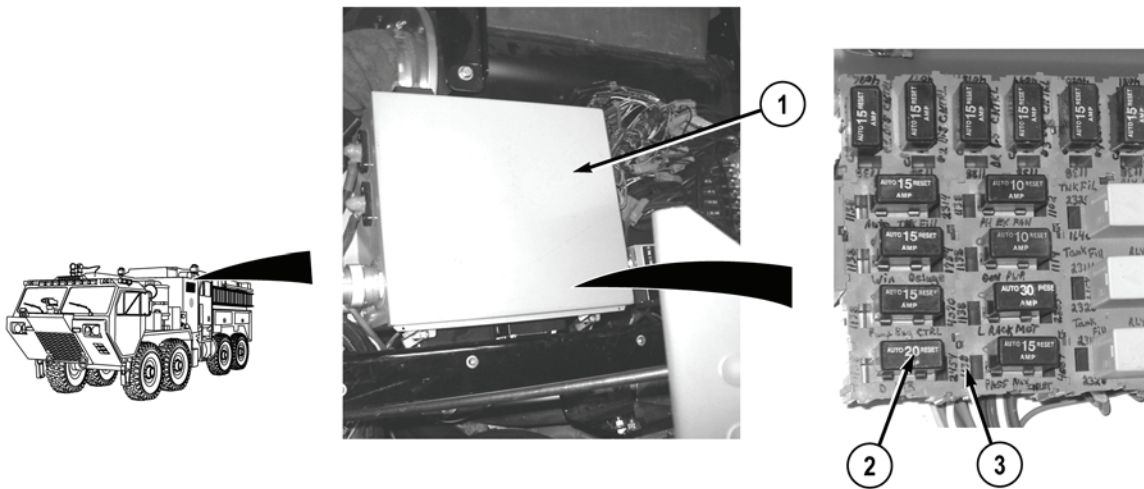
## REMOVAL

**NOTE**

All pump house distribution box circuit breakers are removed the same way.

Open pump house distribution box (1) and remove circuit breaker (2) from panel (3).

**END OF TASK**

**INSTALLATION****NOTE**

All pump house distribution box circuit breakers are installed the same way.

Install circuit breaker (2) on panel (3) and close pump house distribution box (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install pump house panel S (WP 0540)

**END OF TASK****END OF WORK PACKAGE**

FIELD LEVEL MAINTENANCE

PUMP HOUSE DISTRIBUTION BOX RELAY REPLACEMENT

INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

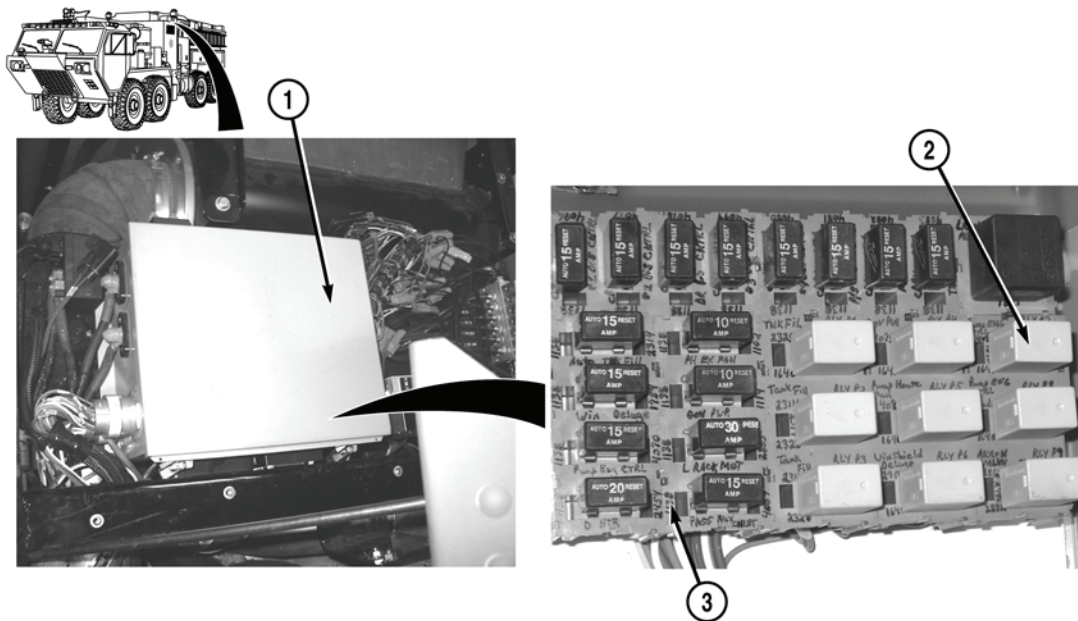
**Equipment Conditions**

Pump house panel S removed (WP 0540)

**References**

WP 0615, Fig. 83

REMOVAL

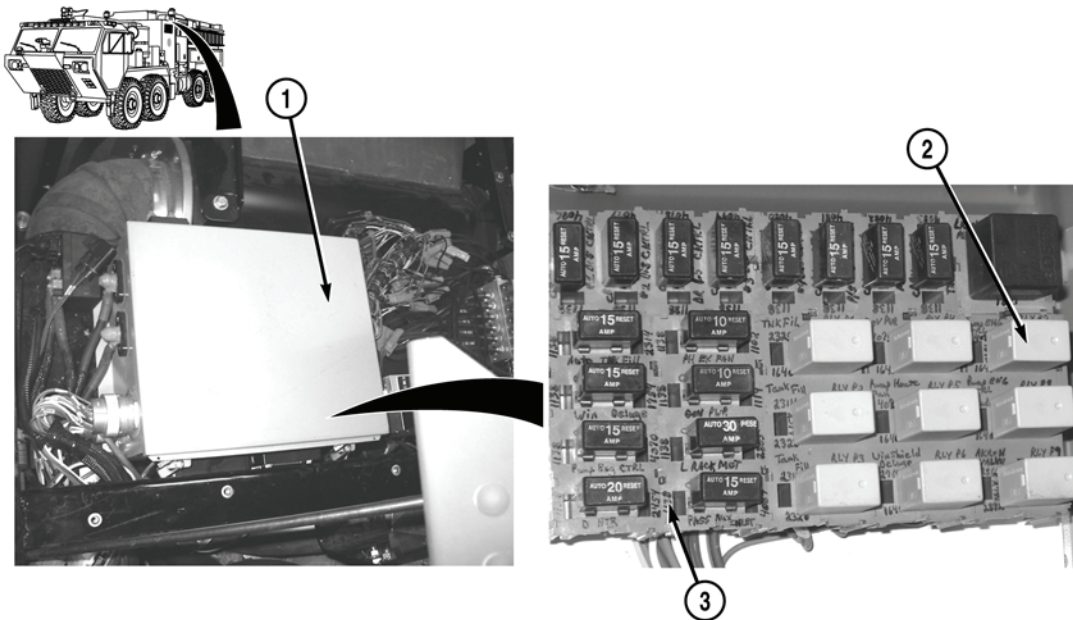


**NOTE**

All pump house distribution box relays are removed the same way.

Open pump house distribution box (1) and remove relay (2) from panel (3).

END OF TASK

**INSTALLATION****NOTE**

All pump house distribution box relays are installed the same way.

Install relay (2) on panel (3) and close pump house distribution box (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install pump house panel S (WP 0540)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PUMP HOUSE COOLING FAN TEMPERATURE SWITCH REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 80, 123

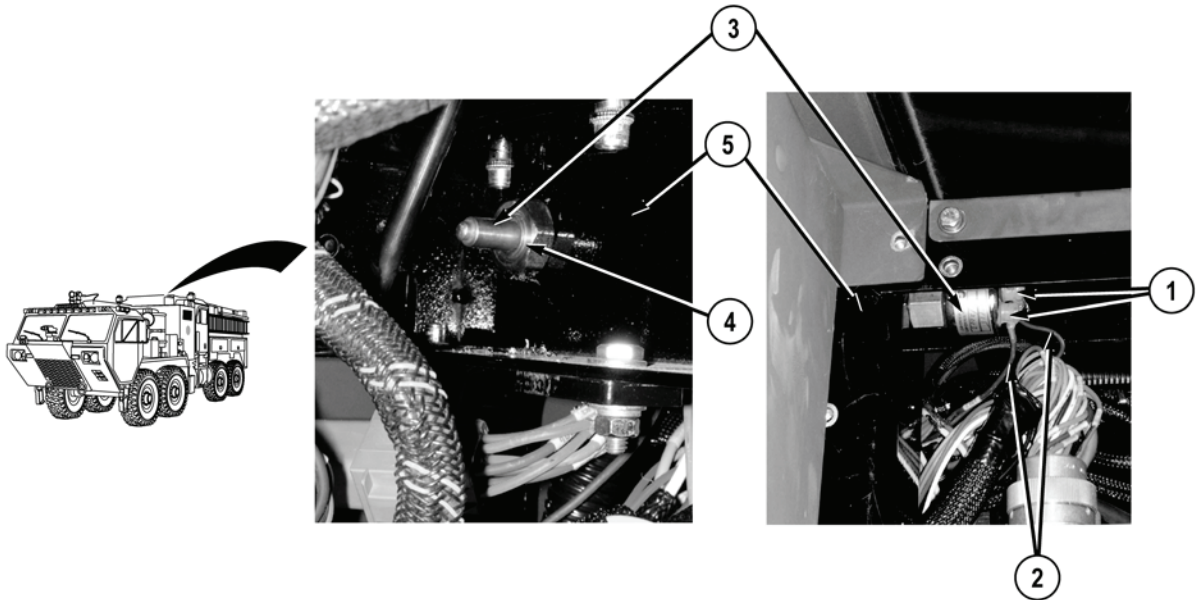
**Materials/Parts**

Adhesive, RTV 732 (WP 0625, Item 2)  
Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Pump house panel T removed (WP 0540)  
Pump operator's panel housing opened  
(WP 0325)

## REMOVAL

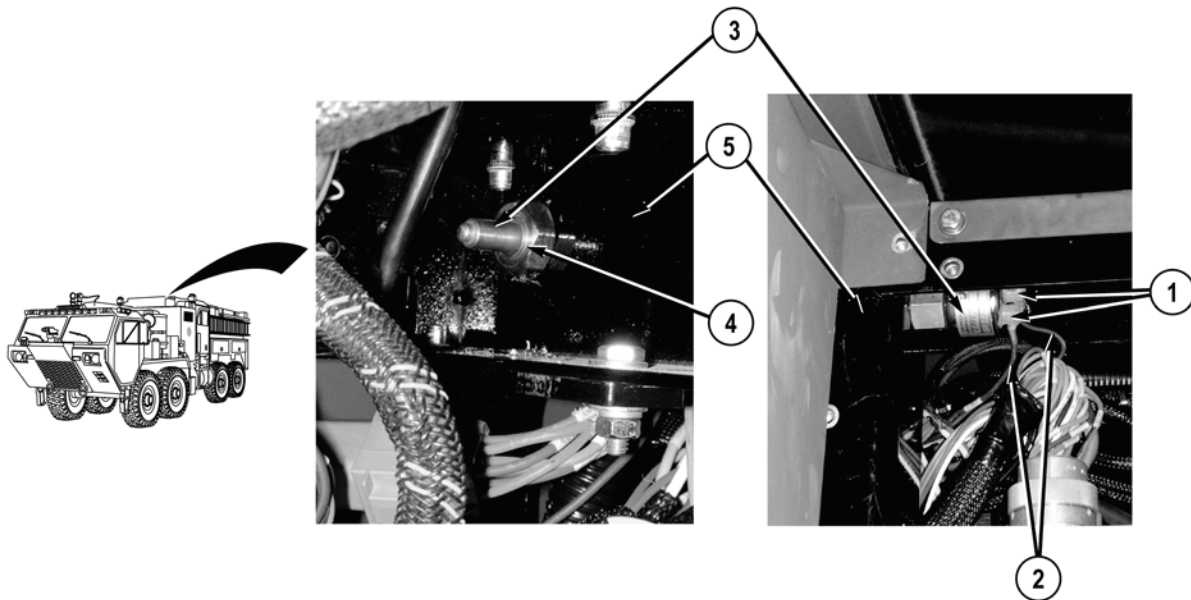
**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

1. Remove two nuts (1) and wires (2) from pump house cooling fan temperature switch (3).
2. Remove nut (4) and pump house cooling fan temperature switch (3) from frame rail (5).

**END OF TASK**

## INSTALLATION



1. Install pump house cooling fan temperature switch (3) on frame rail (5) with nut (4).
2. Install two wires (2) on pump house cooling fan temperature switch (3) with two nuts (1).

**WARNING**

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

3. Apply electrical sealant to ends of two wires (2) and nuts (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install pump house panel T (WP 0540)
2. Close pump operator's panel housing (WP 0325)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PUMP HOUSE HEATER DIAGNOSTIC MODULE REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing (WP 0625, Item 17)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (1)  
Locknut (1)  
Locknut (2)

**Materials/Parts**

Locknut (2)  
Lockwasher (2)

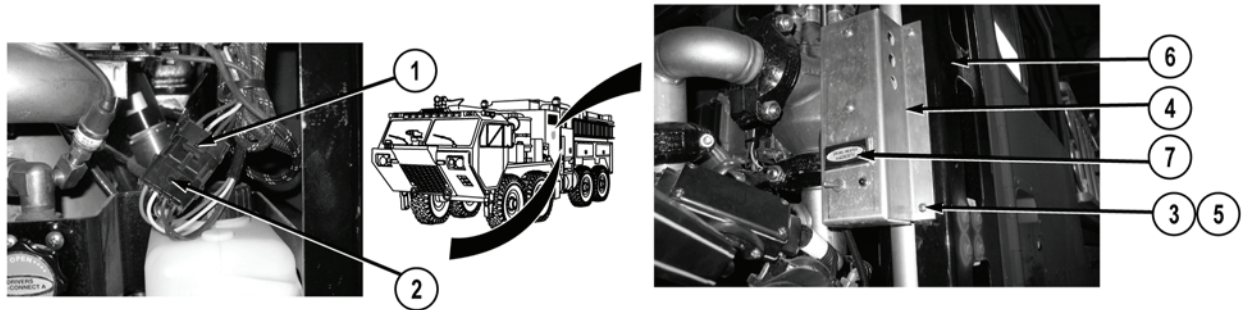
**References**

WP 0518  
WP 0615, Fig. 173

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump house panel A opened (WP 0539)

## REMOVAL

**NOTE**

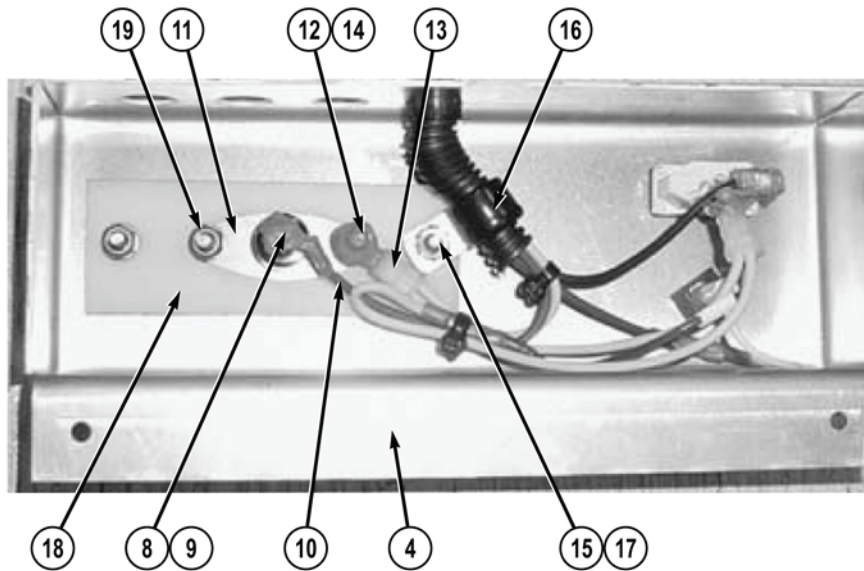
- Remove cable ties as required.
- Tag and mark wires prior to removal to ensure proper installation.

1. Disconnect heater diagnostic module connector (1) from pump house wire harness connector (2).

**NOTE**

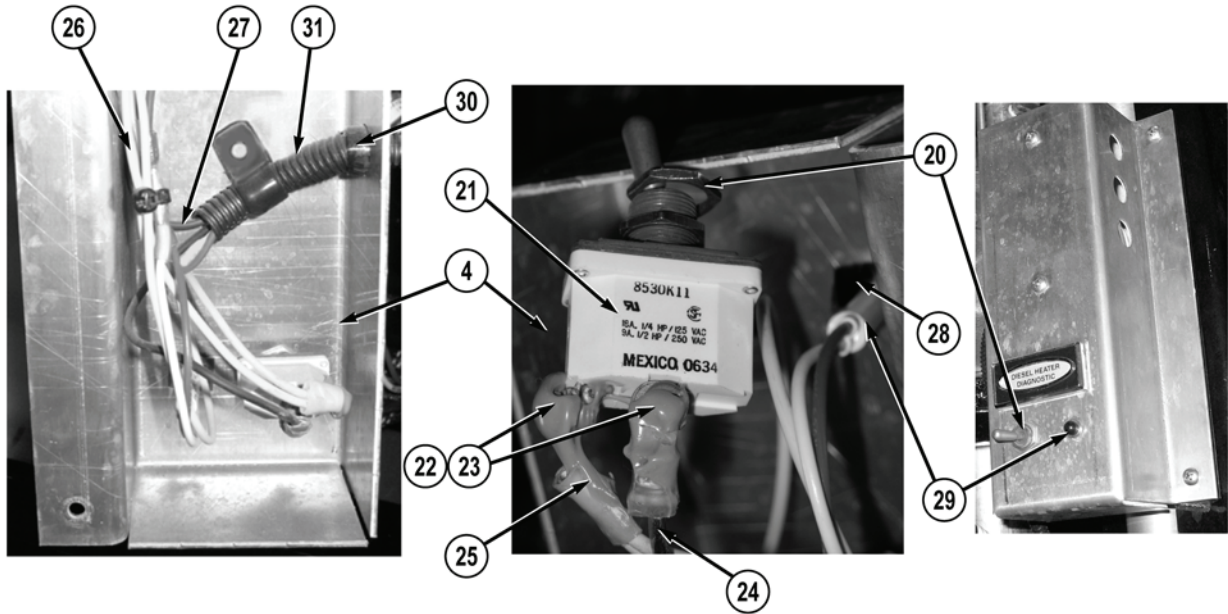
Note position of washers prior to removal to ensure proper installation.

2. Remove two screws (3), box (4), and two washers (5) from frame rail (6).
3. Remove data plate (7) from box (4) (WP 0518).



4. Remove screw (8), lockwasher (9), and wire 2852 (10) from thermostat (11). Discard lockwasher.
5. Remove locknut (12) and terminal (13) from screw (14). Discard locknut.
6. Remove two locknuts (15), cushion clip (16), two screws (17), and base (18) from box (4). Discard locknuts.
7. Remove two locknuts (19), screws (14), and thermostat (11) from base (18). Discard locknuts.





8. Remove nut (20) and switch (21) from box (4).
9. Remove two screws (22), lockwashers (23), wire 4088 (24), and terminal (25) from switch (21). Discard lockwashers.
10. Cut wire 4086 (26) and wire 4087 (27) (TM 9-2320-325-14&P).
11. Remove retainer (28) and indicator light (29) from box (4).
12. Remove grommet (30) and split loom (31) from box (4).

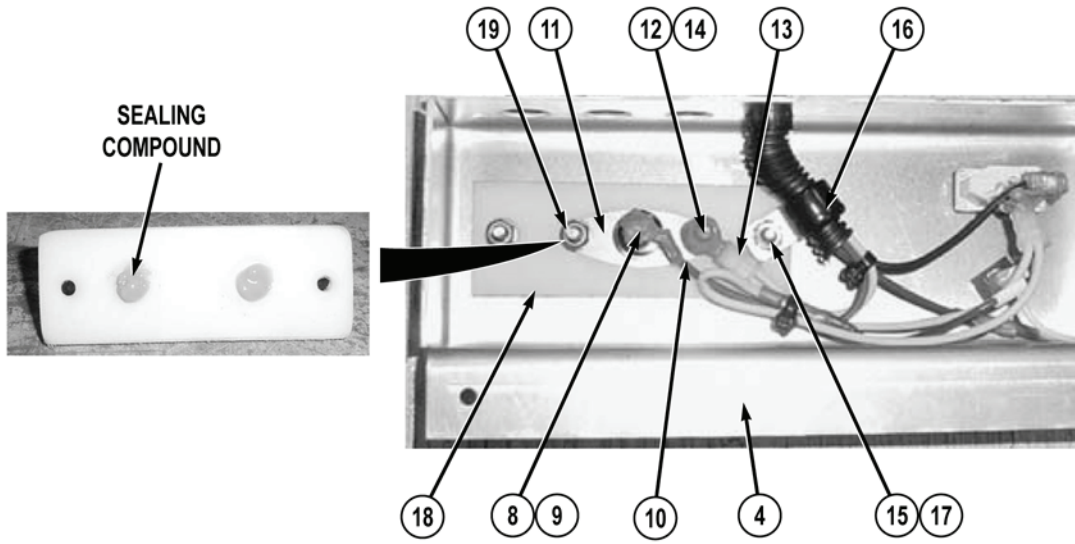
## END OF TASK

## INSTALLATION

### NOTE

Install cable ties as required.

1. Install split loom (31) and grommet (30) on box (4).
2. Install indicator light (29) on box (4) with retainer (28).
3. Repair wire 4087 (27) and wire 4086 (26) (TM 9-2320-325-14&P).
4. Install terminal (25) and wire 4088 (24) on switch (21) with two lockwashers (23) and screws (22).
5. Install switch (21) on box (4) with nut (20).



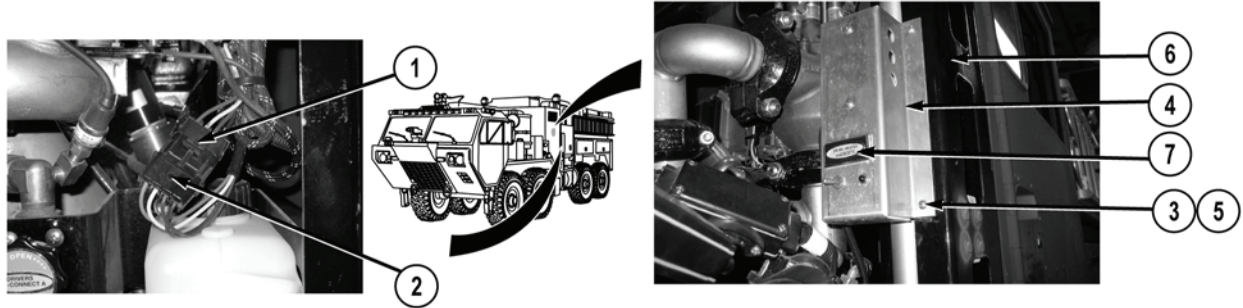
6. Install thermostat (11) on base (18) with two screws (14) and locknuts (19).

**WARNING**



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

7. Apply sealing compound to heads of two screws (14).
8. Install base (18) and cushion clip (16) on box (4) with two screws (17) and locknuts (15).
9. Install terminal (13) on screw (14) with locknut (12).
10. Install wire 2852 (10) on thermostat (11) with lockwasher (9) and screw (8).



11. Install data plate (7) on box (4) (WP 0518).

### NOTE

Install two washers as noted prior to removal.

12. Install two washers (5), and box (4), on frame rail (6) with two screws (3).
13. Connect pump house wire harness connector (2) on heater diagnostic module connector (1).

### END OF TASK

### FOLLOW-ON MAINTENANCE

1. Close pump house panel A (WP 0539)
2. Connect batteries (TM 9-2320-325-14&P)

### END OF TASK

### END OF WORK PACKAGE



---

**FIELD LEVEL MAINTENANCE**  
**PUMP HOUSE COOLING FAN REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 80

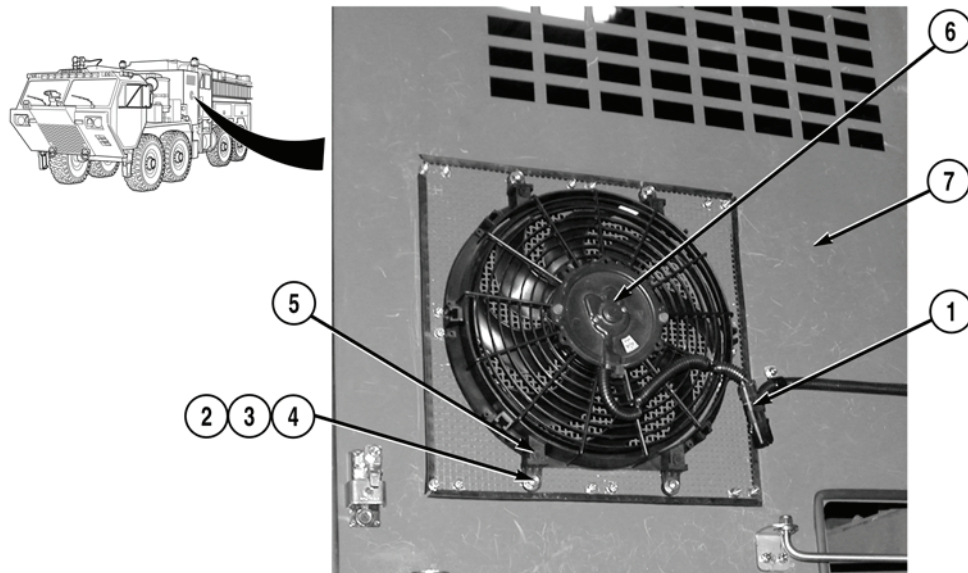
**Materials/Parts**

Locknut (4)

**Equipment Conditions**

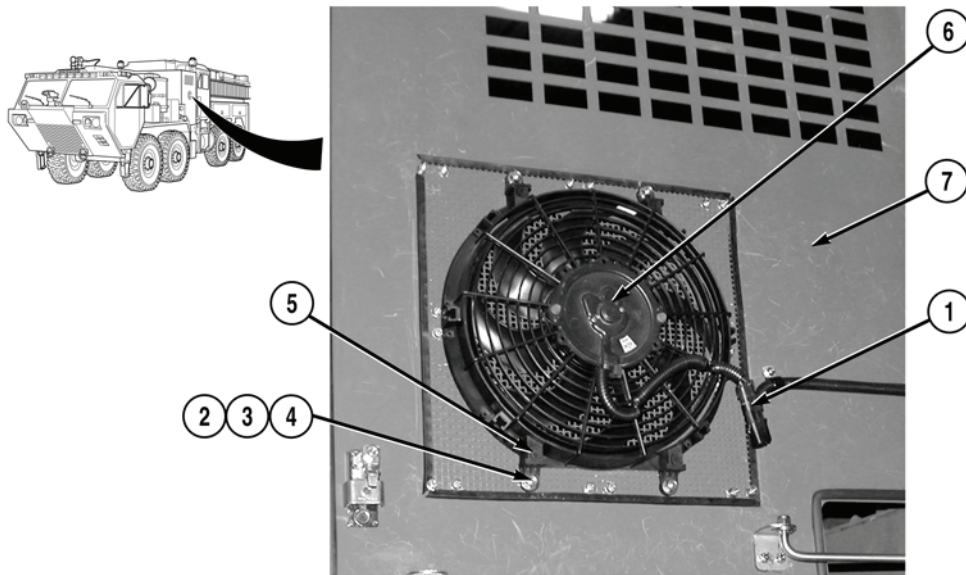
Pump house panel A opened (WP 0539)

---

**REMOVAL**

1. Disconnect connector (1).
2. Remove four locknuts (2), eight washers (3), four screws (4), clips (5), and pump house cooling fan (6) from pump house panel A (7). Discard locknuts.

**END OF TASK**

**INSTALLATION**

1. Install pump house cooling fan (6) on pump house panel A (7) with four clips (5), screws (4), eight washers (3), and four locknuts (2).
2. Connect connector (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Close pump house panel A (WP 0539)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL ELECTRIC VALVE CONTROL/METER REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 56

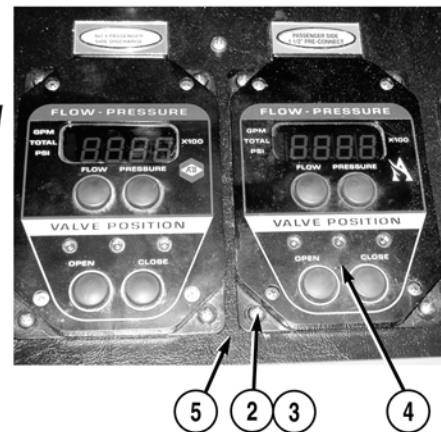
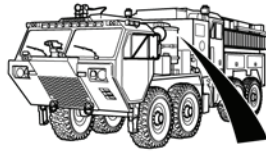
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump panel housing opened (WP 0325)

## REMOVAL

**NOTE**

- All electric valve control/meters are replaced the same way. Passenger side 1.5 in. pre-connect electric valve control/meter shown.
- Tag and mark wires prior to removal to ensure proper installation.

1. Disconnect four connectors (1).
2. Remove four screws (2), washers (3), and electric valve control/meter (4) from pump panel (5).

**END OF TASK**

**INSTALLATION****NOTE**

All electric valve control/meters are installed the same way. Passenger side 1.5 in. pre-connect electric valve control/meter shown.

1. Install electric valve control/meter (4) on pump panel (5) with four washers (3) and screws (2).
2. Connect four connectors (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Close pump panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL ELECTRIC VALVE CONTROL REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 56

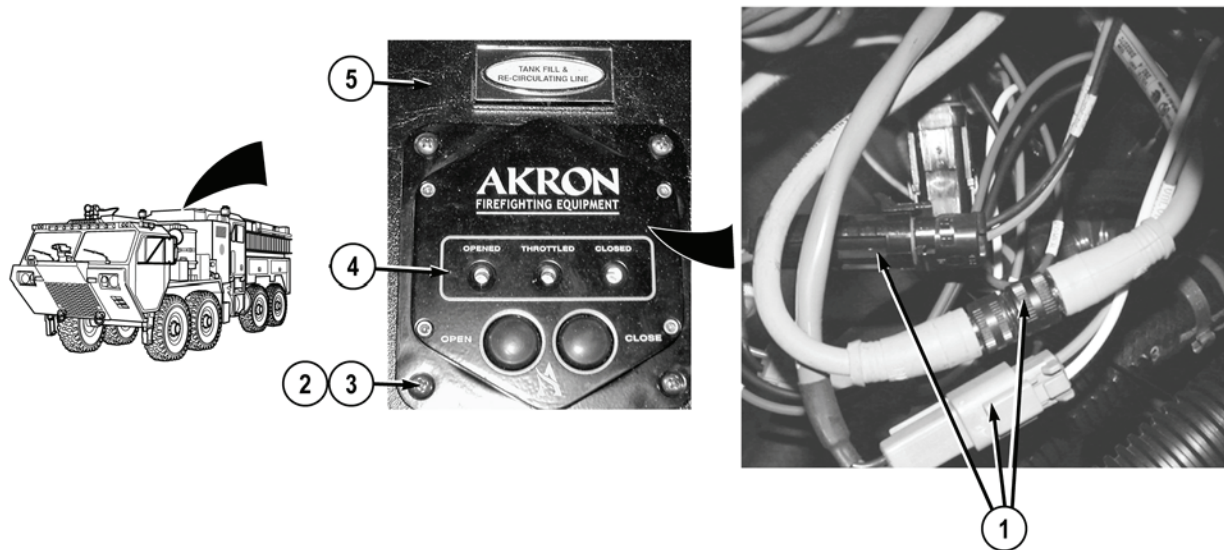
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump panel housing opened (WP 0325)

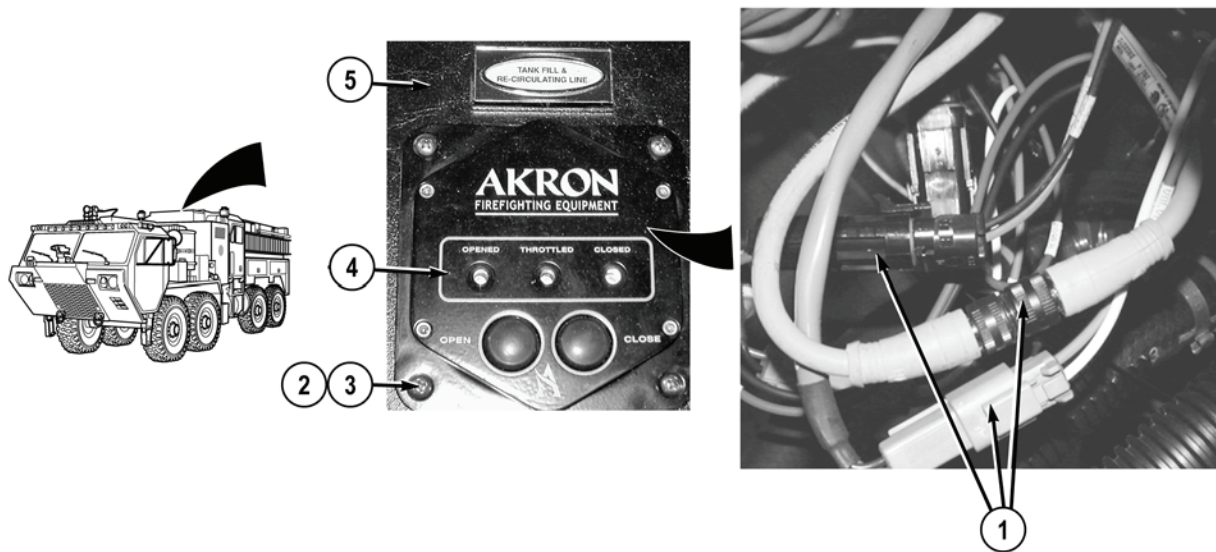
## REMOVAL

**NOTE**

- Driver main inlet and passenger side aux. inlet electric valve controls are equipped with two connectors. Tank fill and re-circulating line electric valve control is equipped with three connectors. Tank fill and re-circulating line electric valve control shown.
- Tag and mark connectors prior to removal to ensure proper installation.

1. Disconnect three connectors (1).
2. Remove four screws (2), washers (3), and electric valve control (4) from pump panel (5).

**END OF TASK**

**INSTALLATION**

1. Install electric valve control (4) on pump panel (5) with four washers (3) and screws (2).
2. Connect three connectors (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Close pump panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**PUMP PRIMER MOTOR DIODE PACK REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

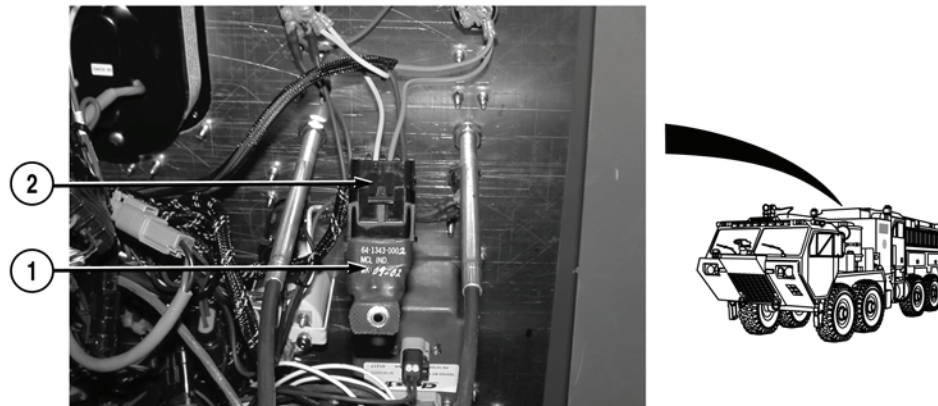
**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)  
Pump panel housing opened (WP 0325)

**References**

WP 0615, Fig. 56

---

**REMOVAL**

Remove diode (1) from diode connector (2).

**END OF TASK****INSTALLATION**

Install diode (1) on diode connector (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Close pump house panel housing (WP 0325)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## REAR STEP BUZZER BUTTON AND CABLE REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 81

**Materials/Parts**

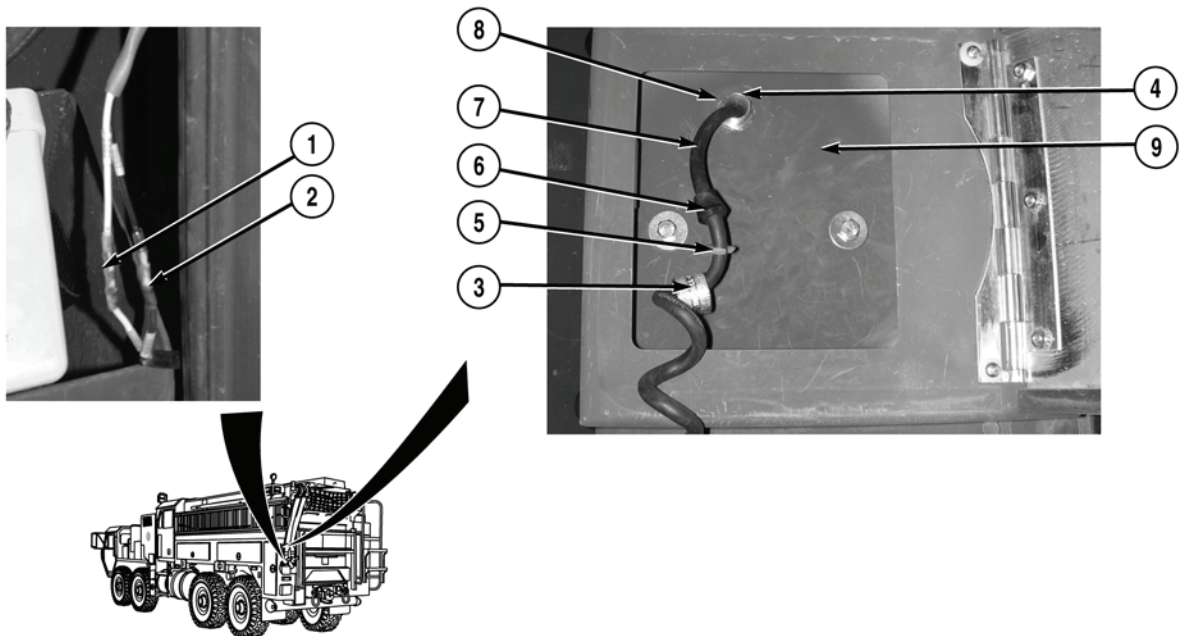
Tags, Identification (WP 0625, Item 51)

**Equipment Conditions**

Water pump engine OFF (WP 0022)

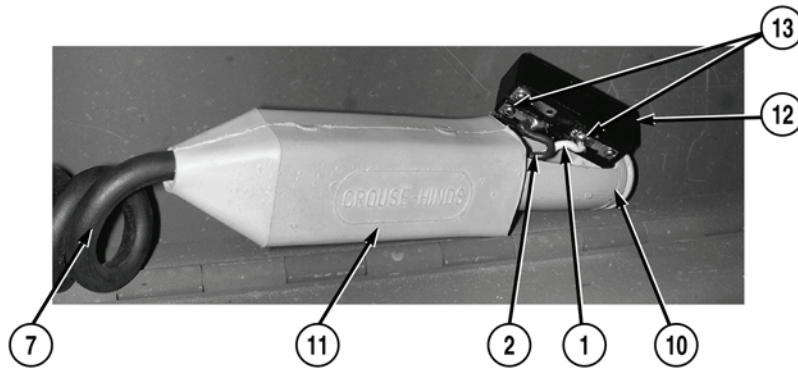
Batteries disconnected (TM 9-2320-325-14&P)

## REMOVAL

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

1. Cut two wires (1) and (2) (TM 9-2320-325-14&P).
2. Remove collar (3) from sleeve (4).
3. Remove backing washer (5), grommet (6), and rear step buzzer cable (7) from sleeve (4).
4. Remove nut (8) and sleeve (4) from cable box (9).

**NOTE**

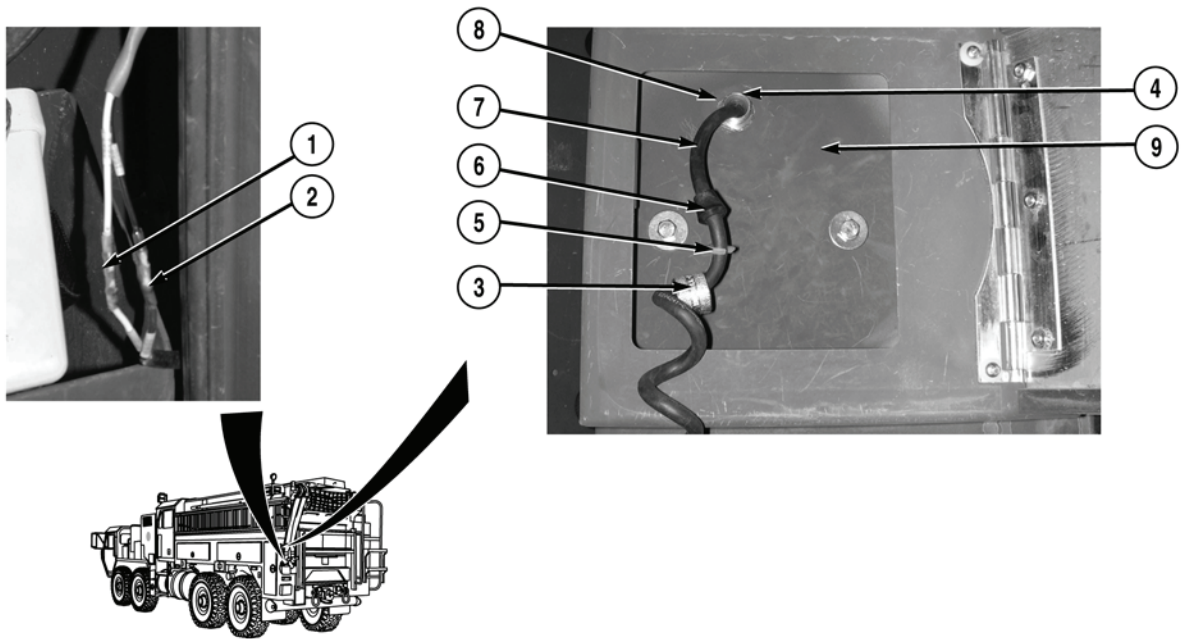
Perform Steps (5) through (8) if removal of button and handle is necessary.

5. While holding handle (10), remove outer guard (11) from handle (10) and rear step buzzer cable (7).
6. Remove button (12) from handle (10).
7. Remove two screws (13) and wires (1) and (2) from button (12).
8. Remove handle (10) from rear step buzzer cable (7).

**END OF TASK****INSTALLATION****NOTE**

Perform Steps (1) through (3) if button and handle were removed.

1. Install handle (10) on rear step buzzer cable (7).
2. Install two wires (2) and (1) on button (12) with screws (13).
3. Install button (12) on handle (10).
4. Install outer guard (11) on handle (10) and rear step buzzer cable (7).



5. Install sleeve (4) on cable box (9) with nut (8).
6. Install grommet (6), washer (5), and rear step buzzer cable (7) on sleeve (4) with collar (3).
7. Repair two wires (1) and (2) (TM 9-2320-325-14&P).

**END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**





## FIELD LEVEL MAINTENANCE

## REAR STEP BUZZER BUTTON COMPARTMENT REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 81

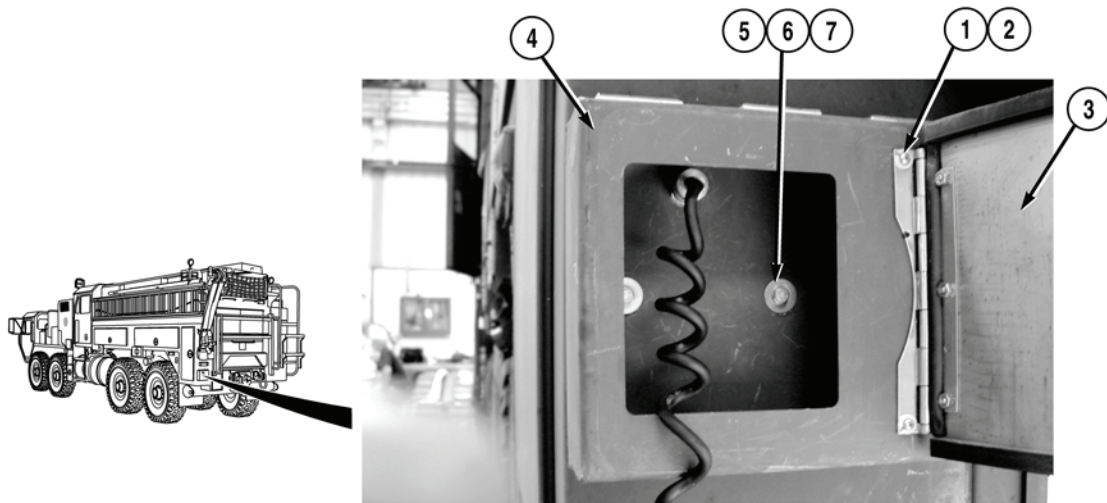
**Materials/Parts**

Lockwasher (2)

**Equipment Conditions**

Rear step buzzer cable removed (WP 0420)

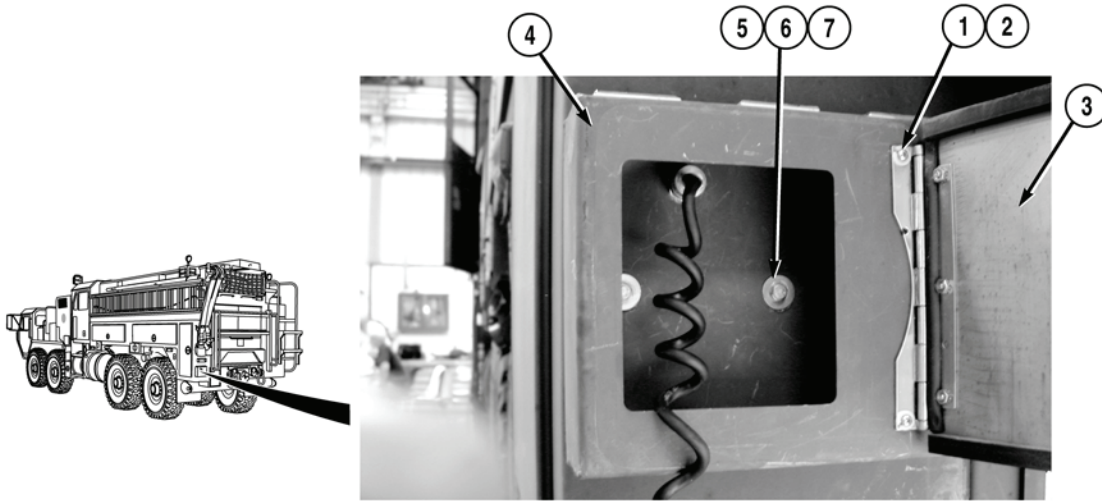
## REMOVAL

**NOTE**

Perform Step (1) if rear step buzzer button compartment door needs to be removed.

1. Remove two screws (1), inserts (2), and rear step buzzer button compartment door (3) from rear step buzzer button compartment (4).
2. Remove two screws (5), washers (6), lockwashers (7), and rear step buzzer button compartment (4) from vehicle. Discard lockwashers.

**END OF TASK**

**INSTALLATION**

1. Install rear step buzzer button compartment (4) on vehicle with two screws (5), washers (6), and lockwashers (7).

**NOTE**

Perform Step (2) if rear step buzzer button compartment door was removed.

2. Install rear step buzzer button compartment door (3) on rear step buzzer button compartment (4) with two screws (1) and inserts (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install rear step buzzer cable (WP 0420)

**END OF TASK****END OF WORK PACKAGE**

**FIELD LEVEL MAINTENANCE**  
**REMOTE INTERCOM REPLACEMENT**

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 84

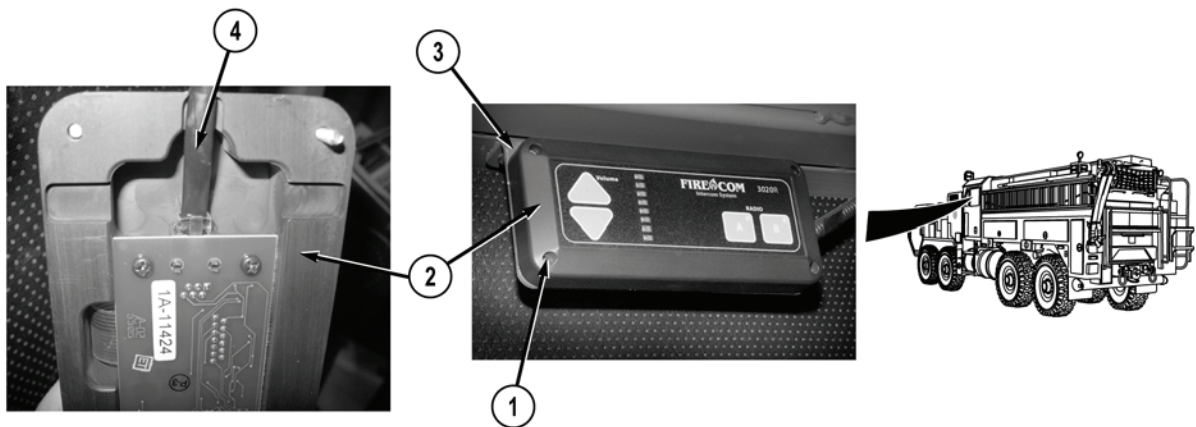
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)

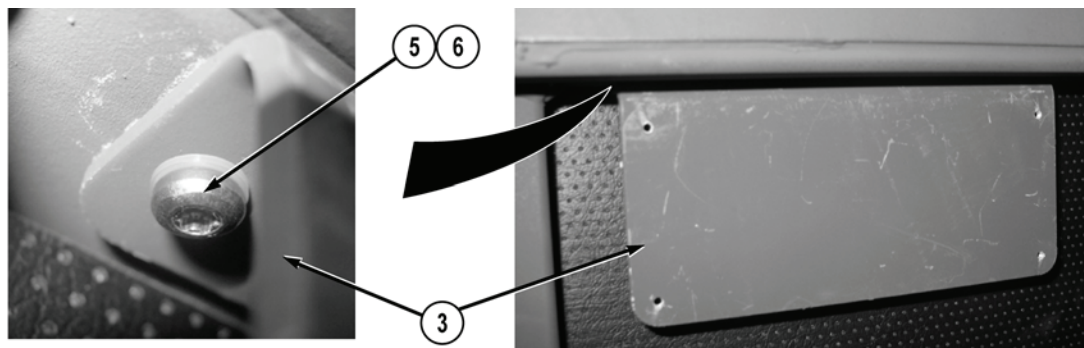
**Equipment Conditions**

Water pump engine OFF (WP 0022)

Batteries disconnected (TM 9-2320-325-14&P)

**REMOVAL**

1. Remove four screws (1) and remote intercom (2) from bracket (3).
2. Remove intercom cable (4) from remote intercom (2).

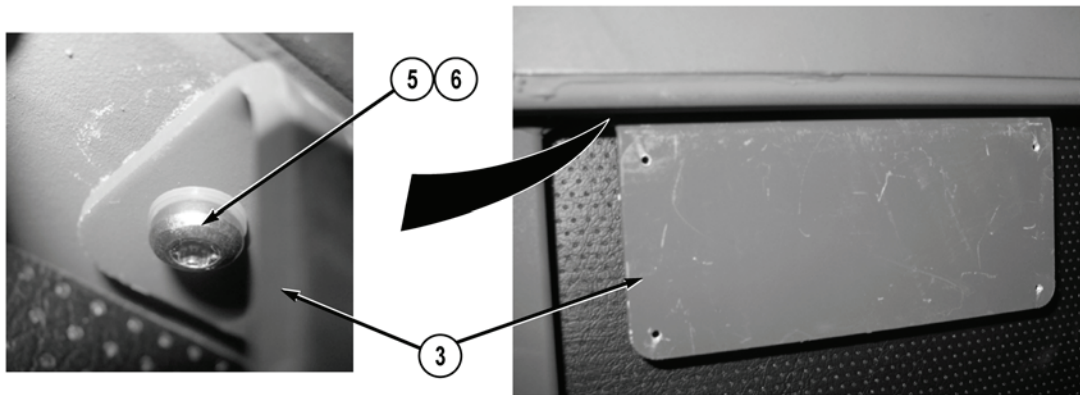
**NOTE**

Perform Step (3) if bracket needs to be removed.

3. Remove two screws (5), washers (6), and bracket (3) from vehicle.

**END OF TASK**

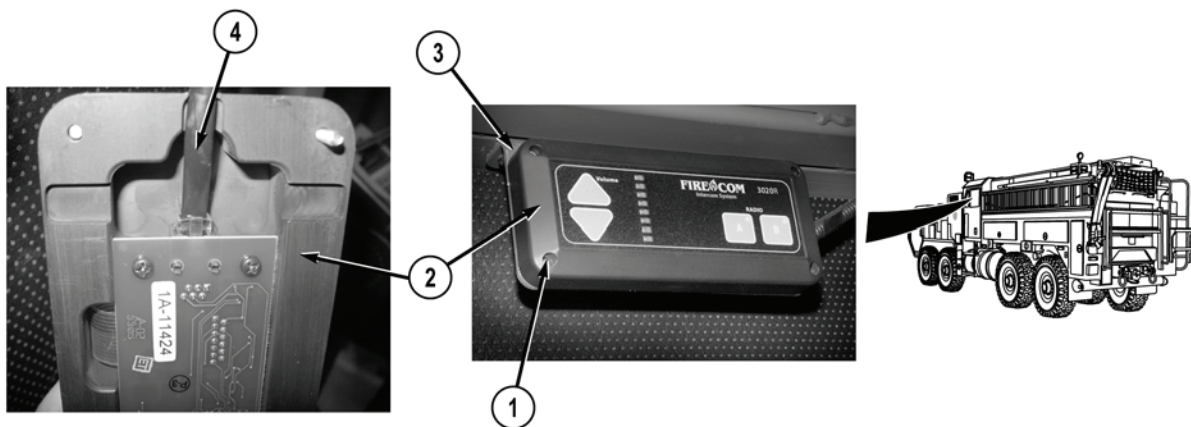
**INSTALLATION**



**NOTE**

Perform Step (1) if bracket was removed.

1. Install bracket (3) on vehicle with two washers (6) and screws (5).



2. Install intercom cable (4) on remote intercom (2).
3. Install remote intercom (2) on bracket (3) with four screws (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## ROOF, BUMPER, AND PUMP COOLER DUMP-TO-GROUND JUNCTION BOX REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 170

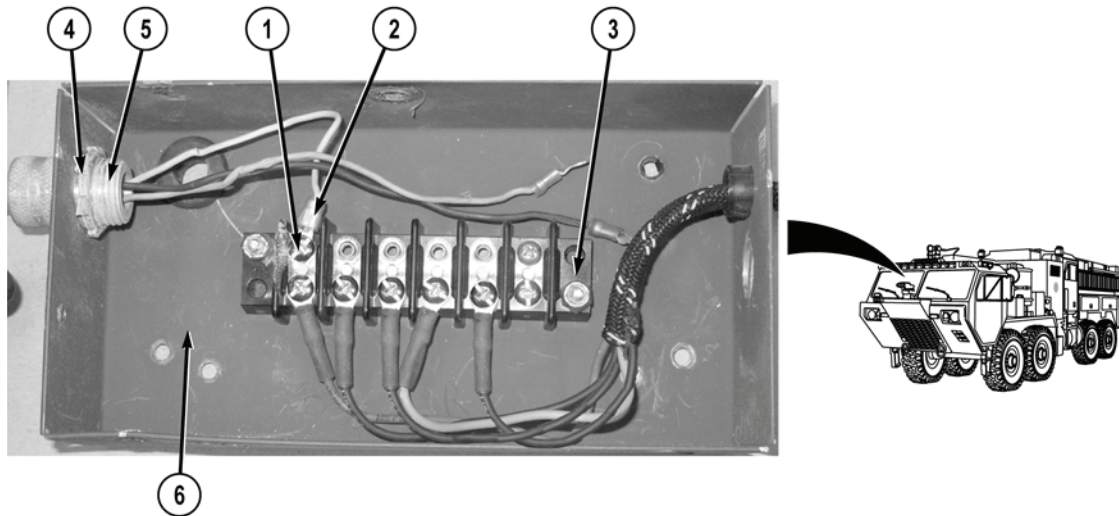
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Locknut (2)

**Equipment Conditions**

Roof turret control valve removal (WP 0424)  
Bumper turret and pump cooler dump-to-ground  
control valve removed (WP 0370)

## REMOVAL



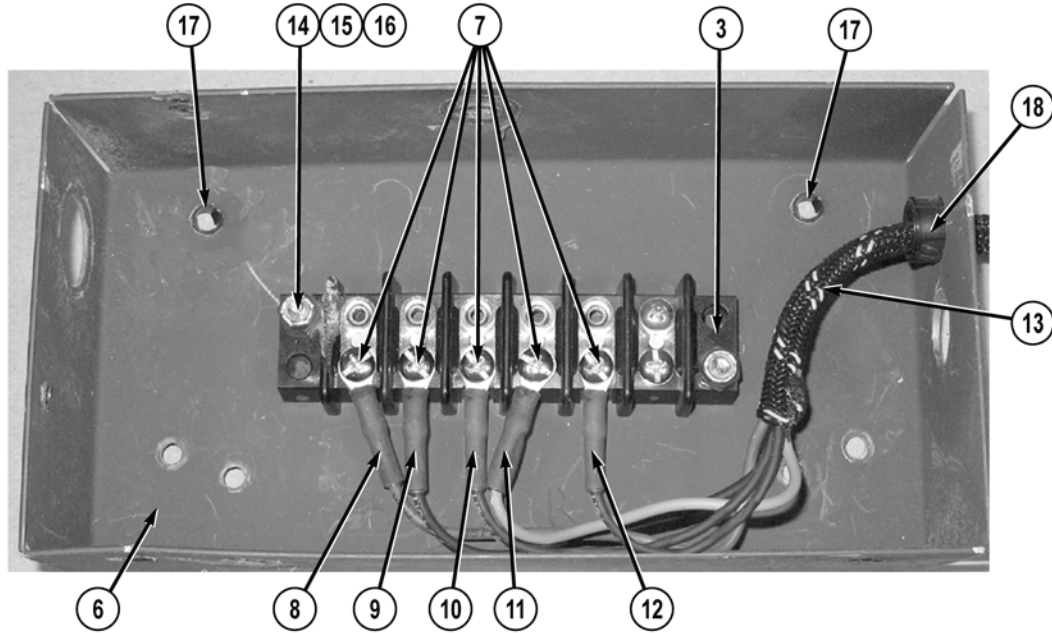
**CAUTION**

Wires may be connected on terminal block of vehicle in positions other than shown. Note position of wires on terminal block prior to removal. Failure to comply may not allow wires to be installed correctly.

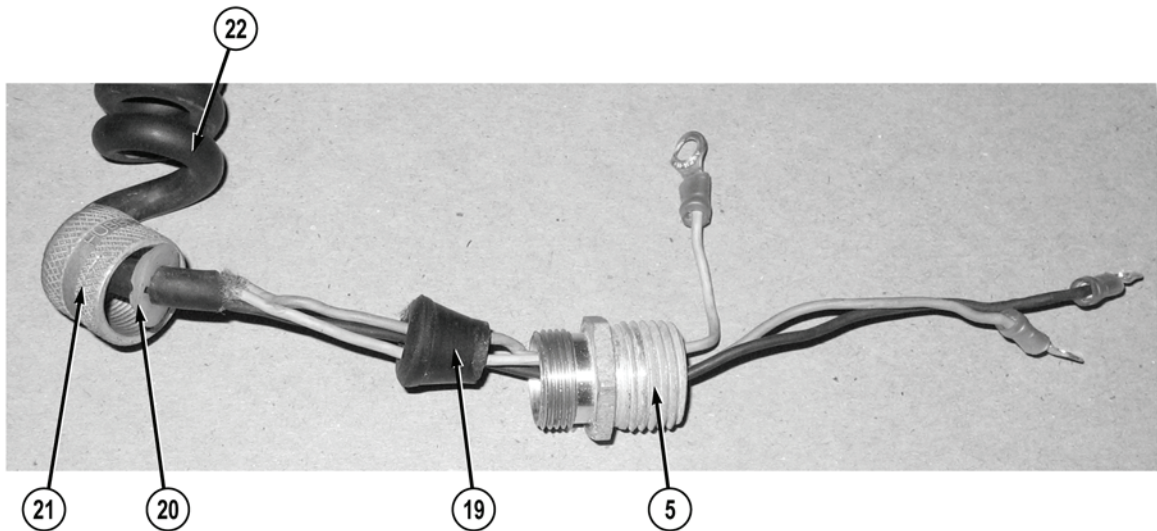
**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

1. Remove screw (1) and wire (2) from terminal strip (3).
2. Remove nut (4) and fitting (5) from junction box (6).



3. Remove five screws (7) and wires 2848 (8), 1640 (9), 4037 (10), 2837 (11), and 4055 (12) from terminal strip (3).
4. Remove wire harness (13) from junction box (6).
5. Remove two locknuts (14), washers (15), screws (16), and terminal strip (3) from junction box (6). Discard locknuts.
6. Remove two grommets (17) from junction box (6).
7. Remove grommet (18) from junction box (6).

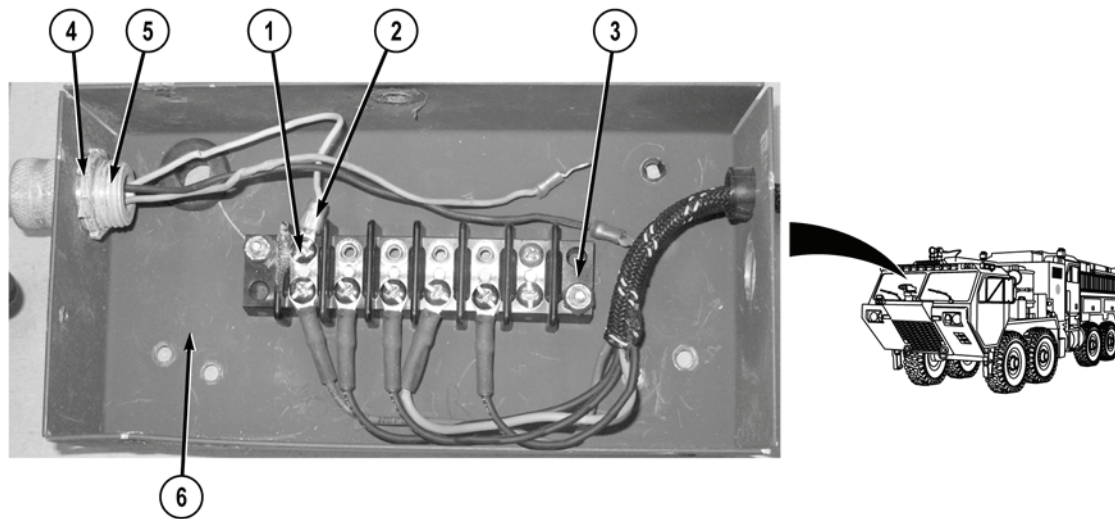


8. Remove fitting (5), grommet (19), backing washer (20), and collar (21) from cable (22).

#### END OF TASK

#### INSTALLATION

1. Install collar (21), backing washer (20), grommet (19), and fitting (5) on cable (22).
2. Install grommet (18) on junction box (6).
3. Install two grommets (17) on junction box (6).
4. Install terminal strip (3) on junction box (6) with two screws (16), washers (15), and locknuts (14).
5. Position wire harness (13) in junction box (6).
6. Install five wires 4055 (12), 2837 (11), 4037 (10), 1640 (9), and 2848 (8) on terminal strip (3) with five screws (7).



7. Install fitting (5) on junction box (6) with nut (4).
8. Install wire (2) on terminal strip (3) with screw (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install bumper turret and pump cooler dump-to-ground control valve (WP 0370)
2. Install roof turret control valve (WP 0424)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**ROOF TURRET CONTROL VALVE REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Locknut (1)  
Locknut (2)

**References**

WP 0615, Fig. 170

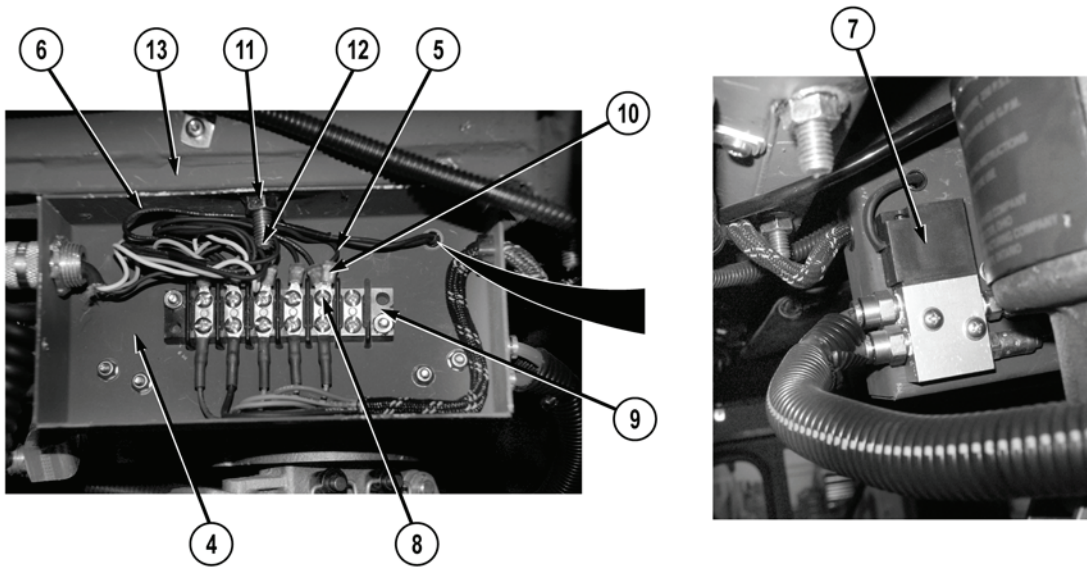
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Air system drained (TM 9-2320-347-10)  
Batteries disconnected (TM 9-2320-325-14&P)  
Roof turret control handle lowered (WP 0036)

---

**REMOVAL**

1. Remove three screws (1), washers (2), and cover (3) from junction box (4).



**⚠ CAUTION**

**Wires may be connected on terminal block of vehicle in positions other than shown. Two wires from roof turret solenoid must first be identified and then removed from terminal block.**

**NOTE**

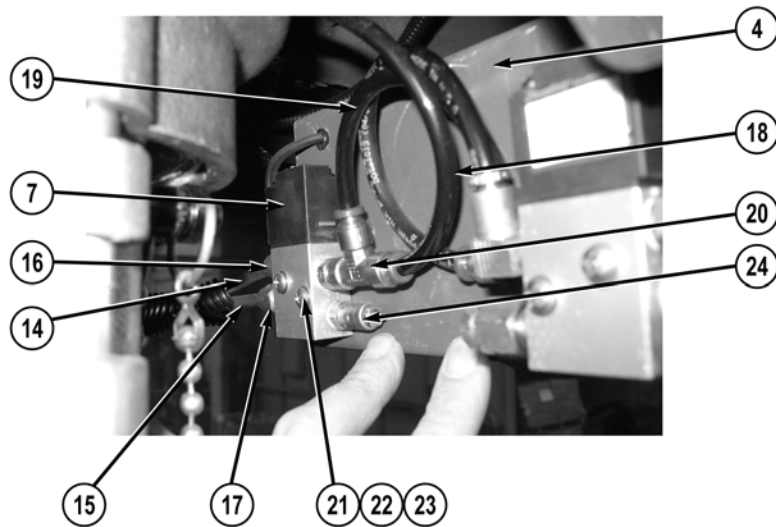
Tag and mark wires and air lines prior to removal to ensure proper installation.

2. Identify two wires (5) and (6) from roof turret control valve (7).
3. Remove screw (8) and wire (5) from terminal block (9).
4. Cut insulated eye (10) from wire (5) (TM 9-2320-325-14&P).
5. Cut wire (6) (TM 9-2320-325-14&P).
6. Remove two wires (5) and (6) from junction box (4).

**NOTE**

Lowering junction box allows access for removal of fittings and roof turret control valve.

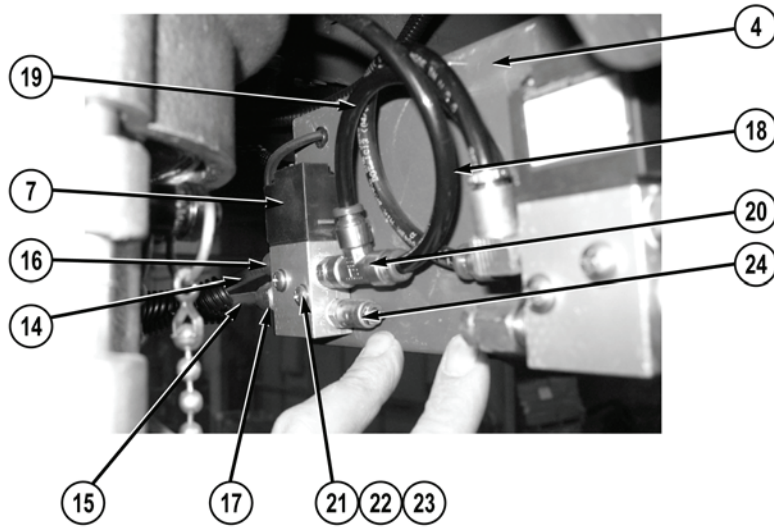
7. Remove locknut (11) and lower junction box (4) from screw (12) and frame (13). Discard locknut.



8. Remove two air lines (14) and (15) from fittings (16) and (17).
9. Remove two air lines (18) and (19) from tee (20).
10. Remove two locknuts (21), four washers (22), two screws (23), and roof turret control valve (7) from junction box (4). Discard locknuts.
11. Remove exhaust fitting (24), tee (20), and two fittings (16) and (17) from roof turret control valve (7).

**END OF TASK**

## INSTALLATION

**WARNING**

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

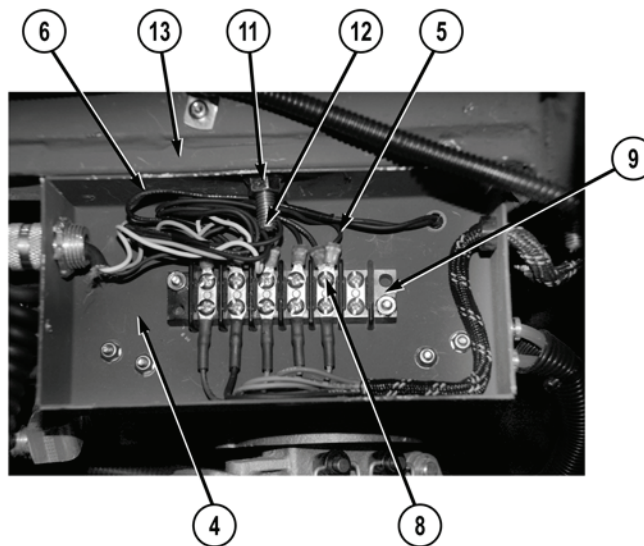
**CAUTION**

Use sealing compound sparingly only on pipe threads. Do not apply compound to hose connections. Damage to equipment may result.

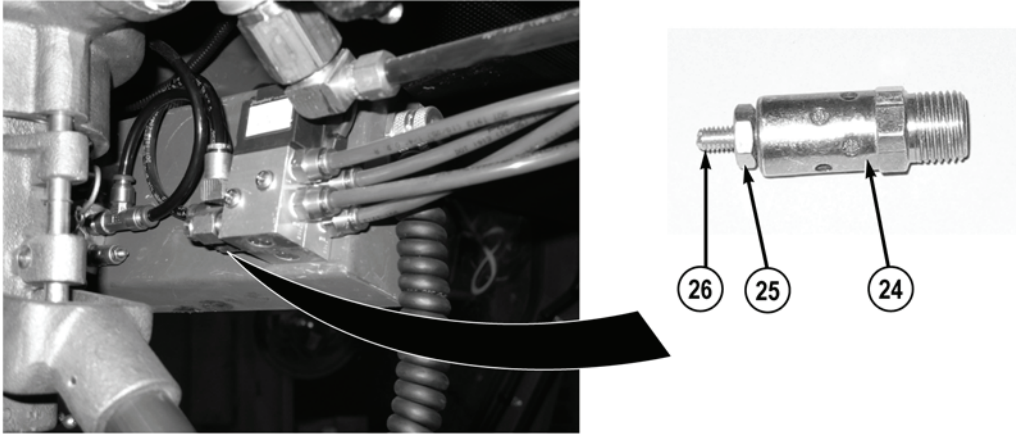
**NOTE**

Exhaust fitting will be adjusted at end of installation procedure.

1. Apply sealing compound to threads of two fittings (16) and (17), tee (20), and exhaust fitting (24).
2. Install exhaust fitting (24), tee (20), and two fittings (17) and (16) on roof turret control valve (7).
3. Install roof turret control valve (7) on junction box (4) with two screws (23), four washers (22), and two locknuts (21).
4. Install two air lines (19) and (18) on tee (20).
5. Install two air lines (15) and (14) on fittings (17) and (16).



6. Install junction box (4) on frame (13) and screw (12) with locknut (11).
7. Position two wires (5) and (6) in junction box (4).
8. Repair wire (6) (TM 9-2320-325-14&P).
9. Repair wire (5) (TM 9-2320-325-14&P).
10. Install wire (5) on terminal block (9) with screw (8).

**NOTE**

Exhaust fitting must be adjusted in order to slow the rate of roof turret valve closure. Proper rate of closure is three to five seconds.

11. Loosen jamnut (25) and screw in needle (26) on exhaust fitting (24).
12. Back needle (26) 1 and 1/2 turns.
13. Connect batteries (TM 9-2320-325-14&P).
14. Start engine (TM 9-2320-347-10).
15. Operate roof turret (WP 0036).

**NOTE**

Adjusting needle valve clockwise allows valve to close faster.

16. Adjust needle (26) until roof turret valve closure is between three to five seconds.
17. Stop engine (TM 9-2320-347-10).
18. Tighten jamnut (25) on needle (26) and exhaust fitting (24).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Stow roof turret control handle (WP 0036)
2. Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**SHORELINE INLET RECEPTACLE REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0365  
WP 0615, Fig. 82

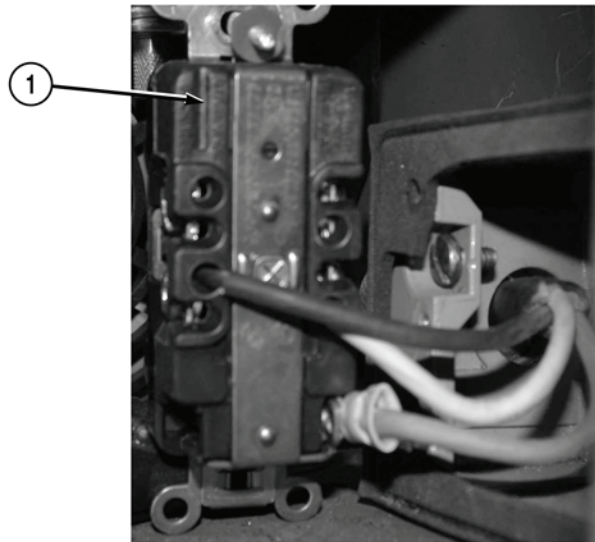
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Lockwasher (4)

**Equipment Conditions**

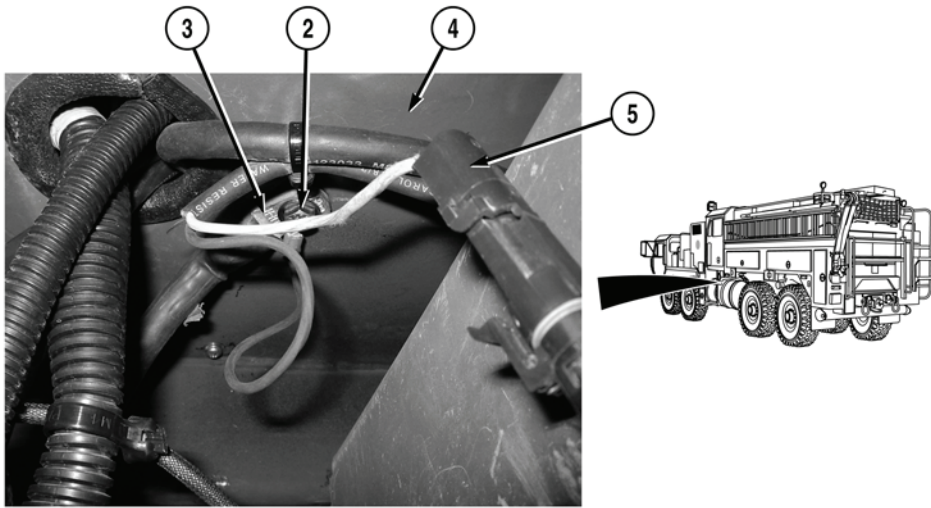
Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

---

**REMOVAL****NOTE**

- One cable from shoreline inlet receptacle must be disconnected from battery charging receptacle and one cable must be disconnected from under crew cab before removing shoreline inlet receptacle.
- Screws attaching cover to crew cab also attach shoreline inlet receptacle to crew cab.

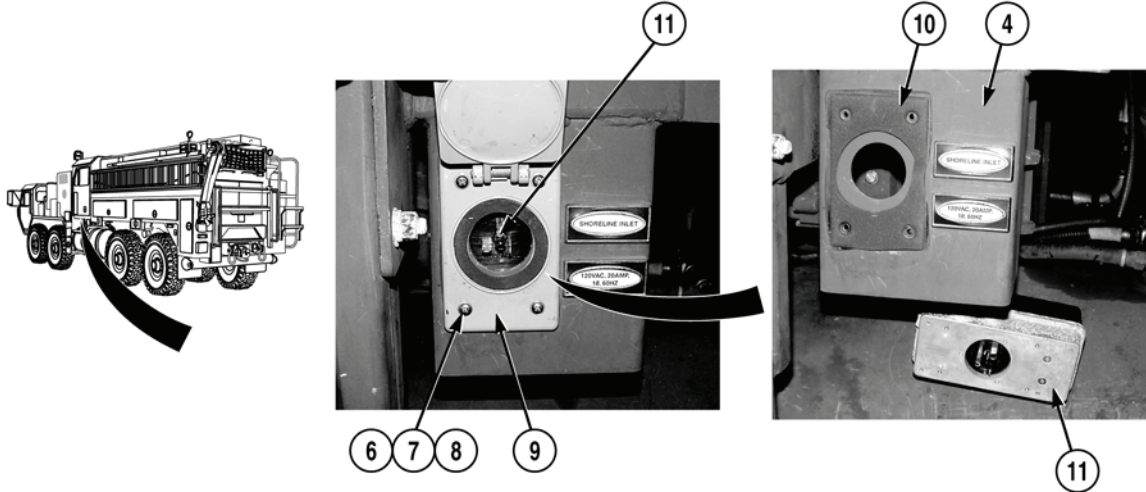
1. Remove battery charging receptacle (1) (WP 0365).



**NOTE**

Tag and mark wires and connectors prior to removal to ensure proper installation.

2. Remove screw (2) and connector (3) from bottom of crew cab (4).
3. Disconnect connector (5) under crew cab (4).



4. Remove four screws (6), lockwashers (7), washers (8), cover (9), seal (10), and shoreline inlet receptacle (11) from crew cab (4). Discard lockwashers.

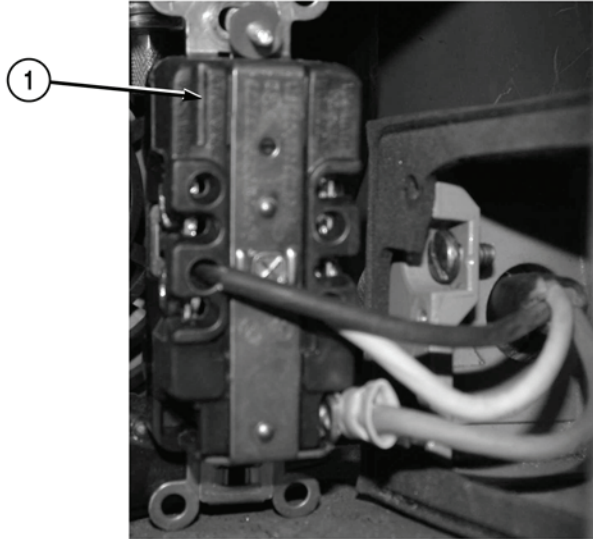
**END OF TASK**

**INSTALLATION**

1. Install shoreline inlet receptacle (11), seal (10), and cover (9) on crew cab (4) with four washers (8), lockwashers (7), and screws (6).



2. Connect connector (5) under crew cab (4).
3. Install connector (3) to bottom of crew cab (4) with screw (2).



4. Install battery charging receptacle (1) (WP 0365).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE****SHUTOFF CONTROL VALVE DIODE PACK REPLACEMENT**

---

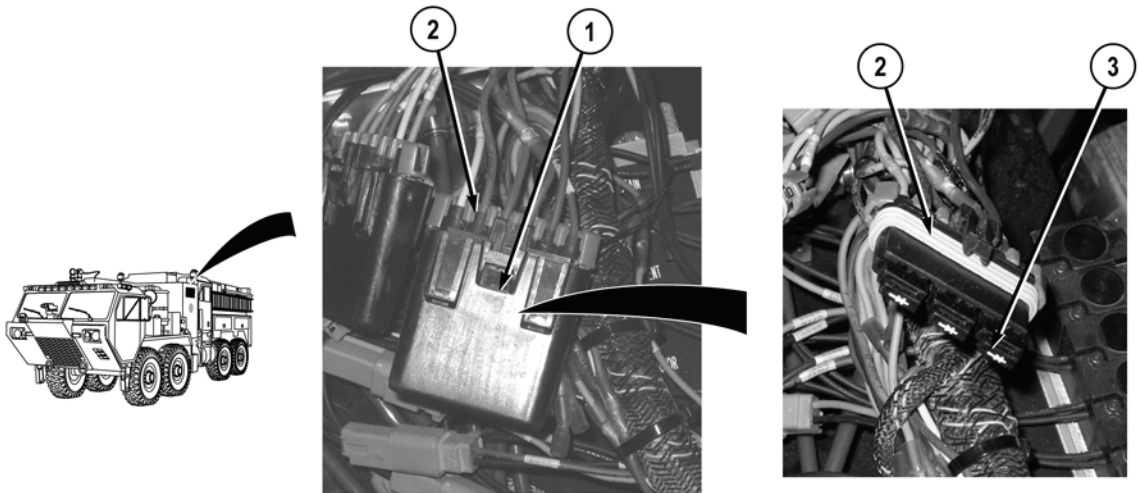
**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Equipment Conditions**

Pump house panel S removed (WP 0540)

---

**REMOVAL****NOTE**

Both shutoff control valve diode packs are removed the same way.

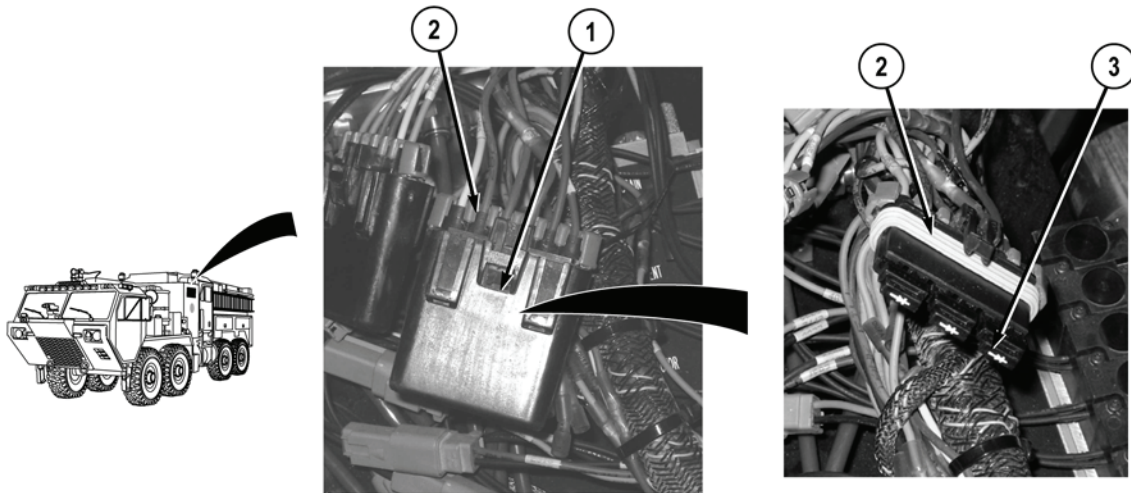
1. Remove cover (1) from diode connector (2).

**NOTE**

Note position of diode prior to removal to ensure proper current flow following installation.

2. Remove diode (3) from diode connector (2).

**END OF TASK**

**INSTALLATION****NOTE**

Both shutoff control valve diode packs are installed the same way.

1. Install diode (3) on diode connector (2).
2. Install cover (1) on diode connector (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install pump house panel S (WP 0540)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**

**SHUTOFF CONTROL VALVE MANIFOLD REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

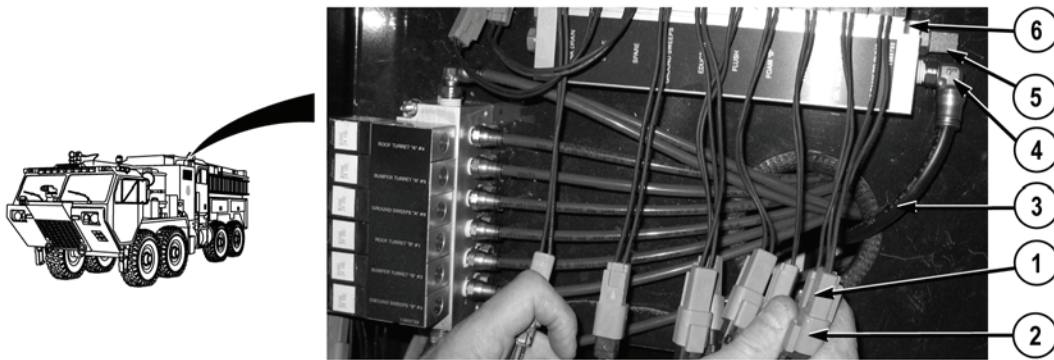
Compound, Sealing, Pipe  
Thread (WP 0625, Item 21)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (2)

**References**

WP 0615, Fig. 48

**Equipment Conditions**

Pump house panel A opened (WP 0539)  
Pump house panel S removed (WP 0540)  
Air system drained (TM 9-2320-347-10)

**REMOVAL****NOTE**

- Remove cable ties as necessary.
  - Tag and mark connectors prior to removal to ensure proper installation.
1. Disconnect eight control valve manifold connectors (1) from valve control manifold wire harness connectors (2).

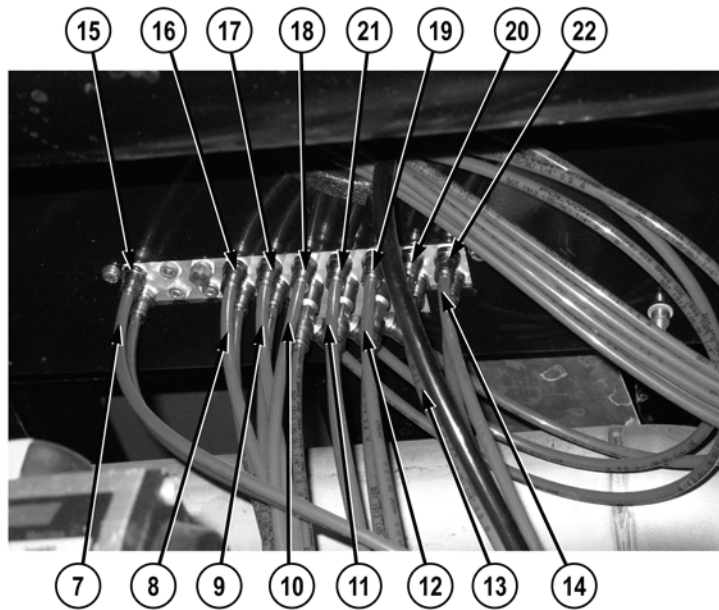
 **CAUTION**

**Air lines may be removed directly from elbows and fittings, or may remain attached to elbows and fittings and removed as an assembly. If air lines are removed from elbows and fittings, care must be taken not to damage air line. If sealing surface of air line is damaged, air line must be repaired or replaced.**

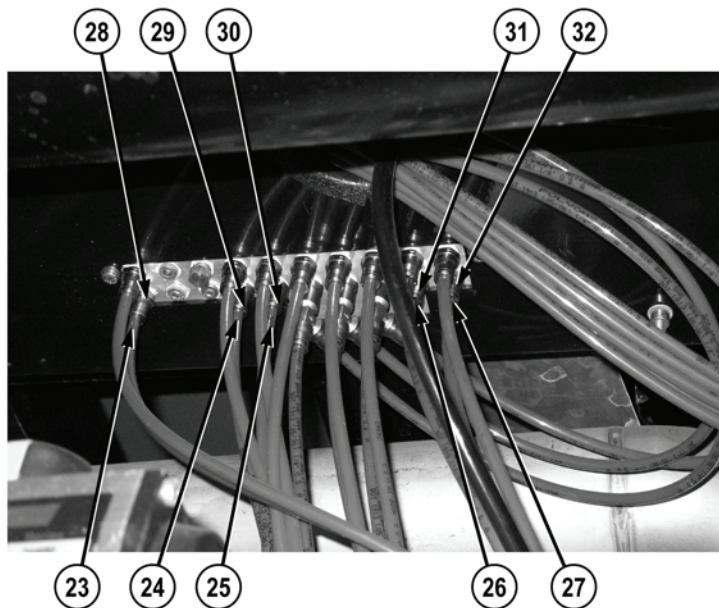
**NOTE**

Tag and mark air lines prior to removal to ensure proper installation.

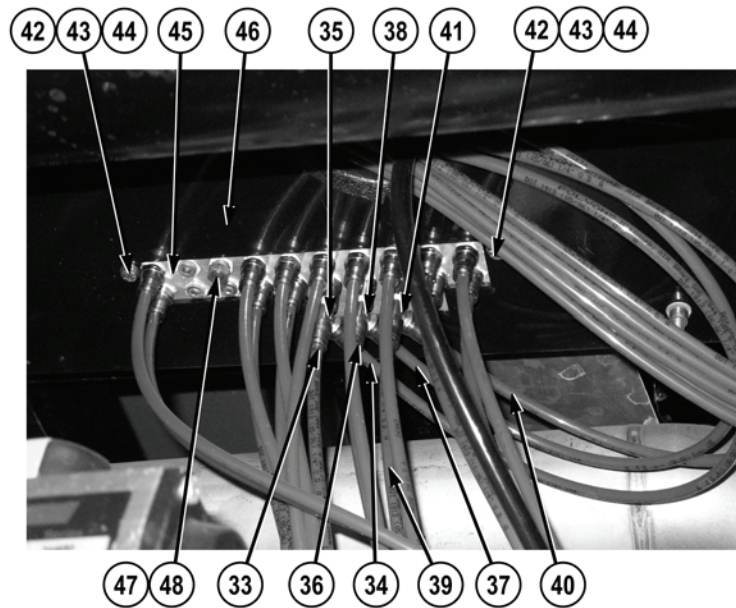
2. Remove air line (3) from elbow (4).
3. Remove elbow (4) and muffler (5) from control valve manifold (6).



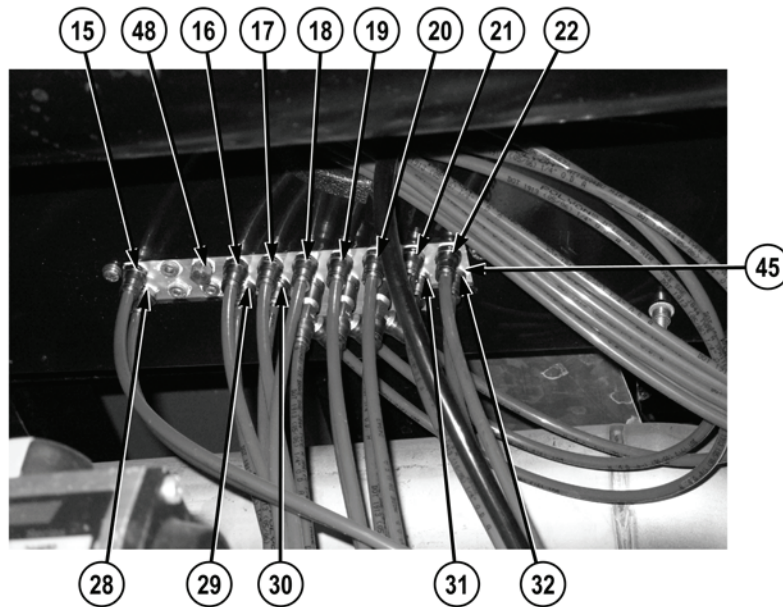
4. Remove eight air lines (7), (8), (9), (10), (11), (12), (13), and (14) from fittings (15), (16), (17), (18), (19), (20), (21), and (22).



5. Remove five air lines (23), (24), (25), (26), and (27) from fittings (28), (29), (30), (31), and (32).



6. Remove two air lines (33) and (34) from tee (35).
7. Remove two air lines (36) and (37) from tee (38).
8. Remove two air lines (39) and (40) from tee (41).
9. Remove two screws (42), lockwashers (43), washers (44) and control valve manifold (45) from base (46). Discard lockwashers.
10. Remove plug (47) from fitting (48).



11. Remove 14 fittings (15), (48), (16), (17), (18), (19), (20), (21), (22), (28), (29), (30), (31), and (32) from control valve manifold (45).

#### END OF TASK

#### INSTALLATION

#### WARNING



Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

#### CAUTION

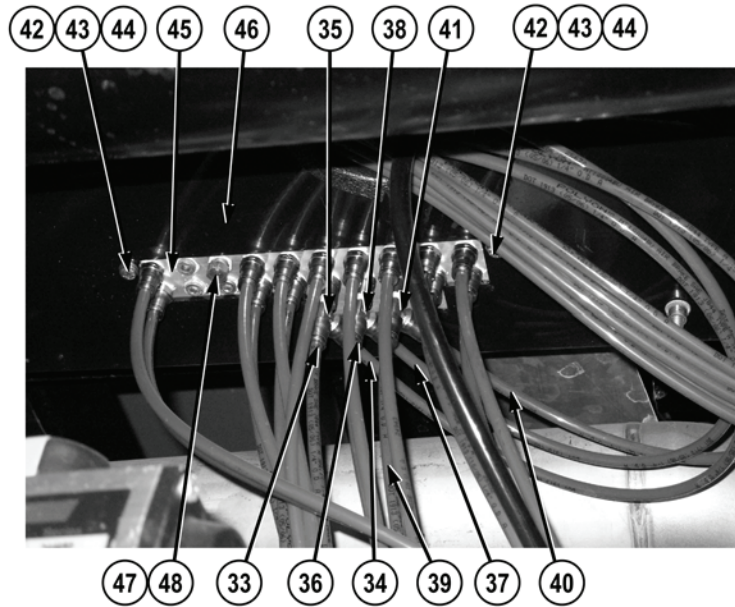
Use sealing compound sparingly only on pipe threads. Do not apply compound to hose connections. Damage to equipment may result.

#### NOTE

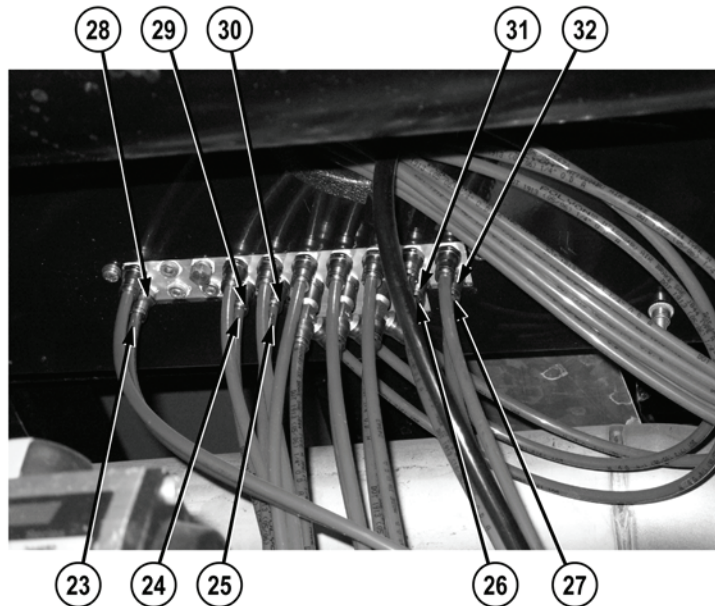
Install cable ties as required.

1. Apply sealing compound to threads of 14 fittings (32), (31), (30), (29), (28), (22), (21), (20), (19), (18), (17), (16), (48), and (15).
2. Install 14 fittings (32), (31), (30), (29), (28), (22), (21), (20), (19), (18), (17), (16), (48), and (15) on control valve manifold (45).

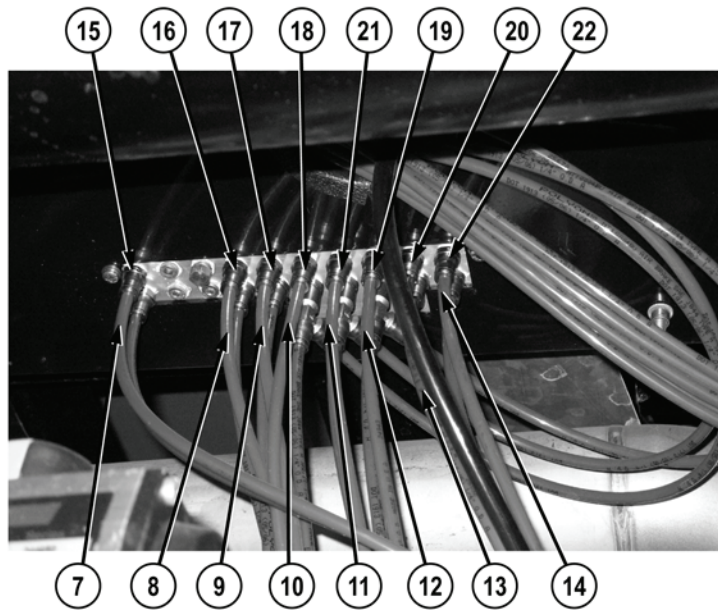




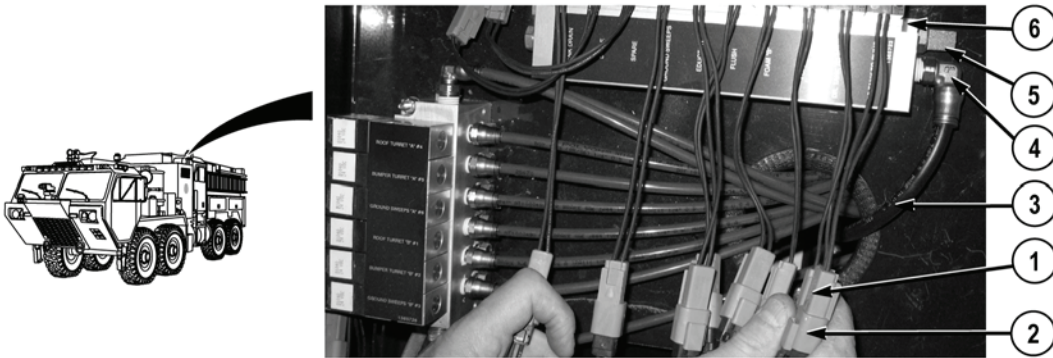
3. Install plug (47) in fitting (48).
4. Install control valve manifold (45) on base (46) with two washers (44), lockwashers (43), and screws (42).
5. Install two air lines (40) and (39) on tee (41).
6. Install two air lines (37) and (36) on tee (38).
7. Install two air lines (34) and (33) on tee (35).



8. Install five air lines (27), (26), (25), (24), and (23) on fittings (32), (31), (30), (29), and (28).



9. Install eight air lines (14), (13), (12), (11), (10), (9), (8), and (7) on fittings (22), (21), (20), (19), (18), (17), (16), and (15).



10. Install muffler (5) and elbow (4) on control valve manifold (6).
11. Install air line (3) on elbow (4).
12. Connect eight connectors control valve manifold connectors (1) to valve control manifold wire harness connectors (2).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Install pump house panel S (WP 0540)
2. Install pump house panel A (WP 0539)

#### END OF TASK

#### END OF WORK PACKAGE



---

**FIELD LEVEL MAINTENANCE****SPEAKER REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Adhesive, RTV 732 (WP 0625, Item 2)  
Tags, Identification (WP 0625, Item 51)  
Lockwasher (5)

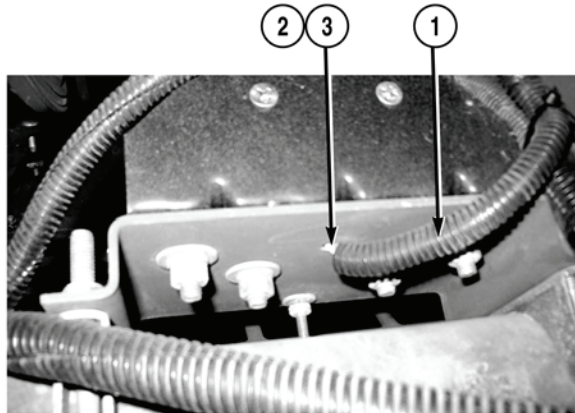
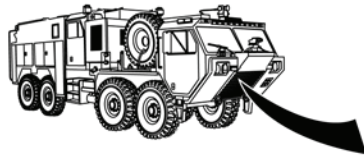
**References**

WP 0615, Fig. 84

**Equipment Conditions**

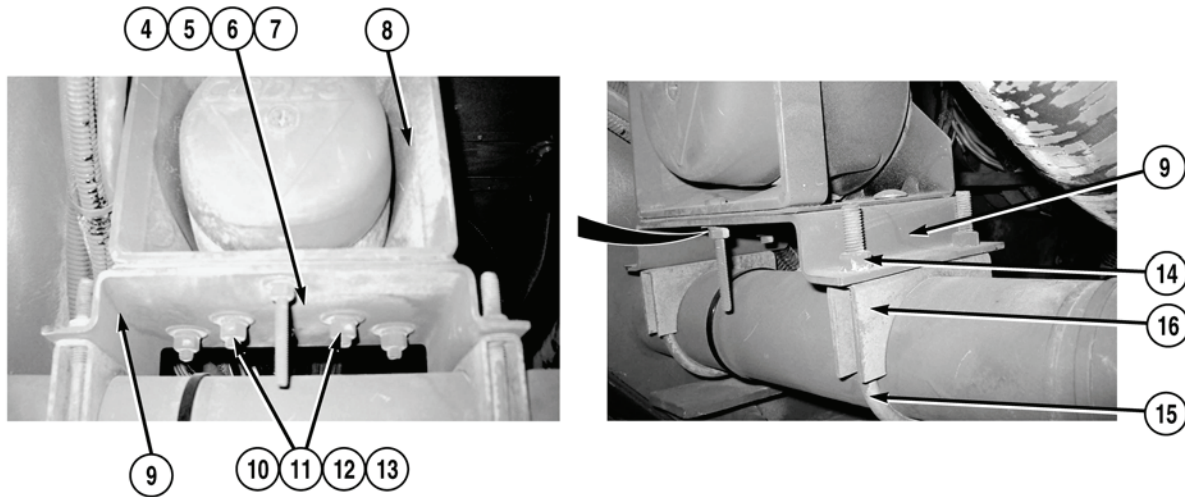
Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)  
Skid plate grille removed (WP 0550)

---

**REMOVAL****NOTE**

Tag and mark wires prior to removal to ensure proper installation.

1. Open loom (1) and cut two wires (2) and (3) (TM 9-2320-325-14&P).



2. Remove nut (4), lockwasher (5), washer (6), and screw (7) from speaker (8) and bracket (9). Discard lockwasher.
3. Remove four nuts (10), lockwashers (11), washers (12), screws (13), and speaker (8) from bracket (9). Discard lockwashers.

### NOTE

Perform Step (4) if bracket needs to be removed.

4. Remove four nuts (14), two U-bolts (15), cradles (16), and bracket (9) from vehicle.

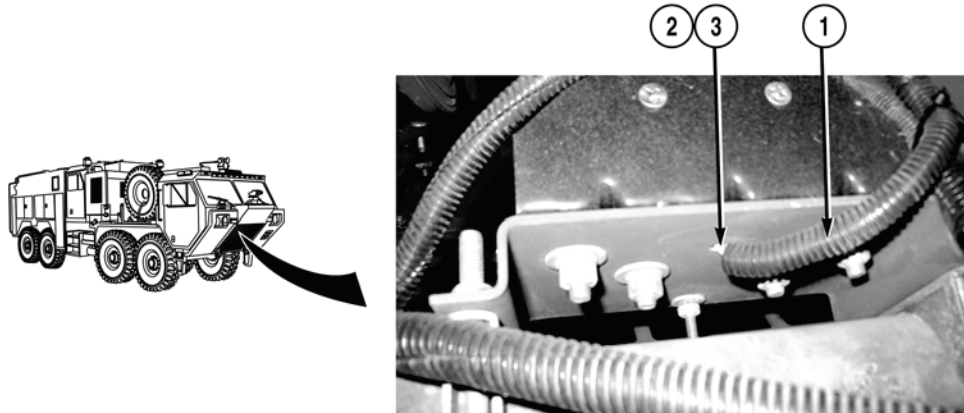
### END OF TASK

### INSTALLATION

### NOTE

Perform Step (1) if bracket was removed.

1. Install bracket (9) on vehicle with two cradles (16), U-bolts (15), and four nuts (14).
2. Install speaker (8) on bracket (9) with four screws (13), washers (12), lockwashers (11), and nuts (10).
3. Install screw (7), washer (6), lockwasher (5), and nut (4) on speaker (8) and bracket (9).



4. Repair two wires (2) and (3) (TM 9-2320-325-14&P).

**WARNING**



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

5. Apply electrical sealant to two wires (3) and (2) and close loom (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Install skid plate grille (WP 0550)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**





## FIELD LEVEL MAINTENANCE

## TERMINAL BLOCK (PASS-THROUGH) REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 83

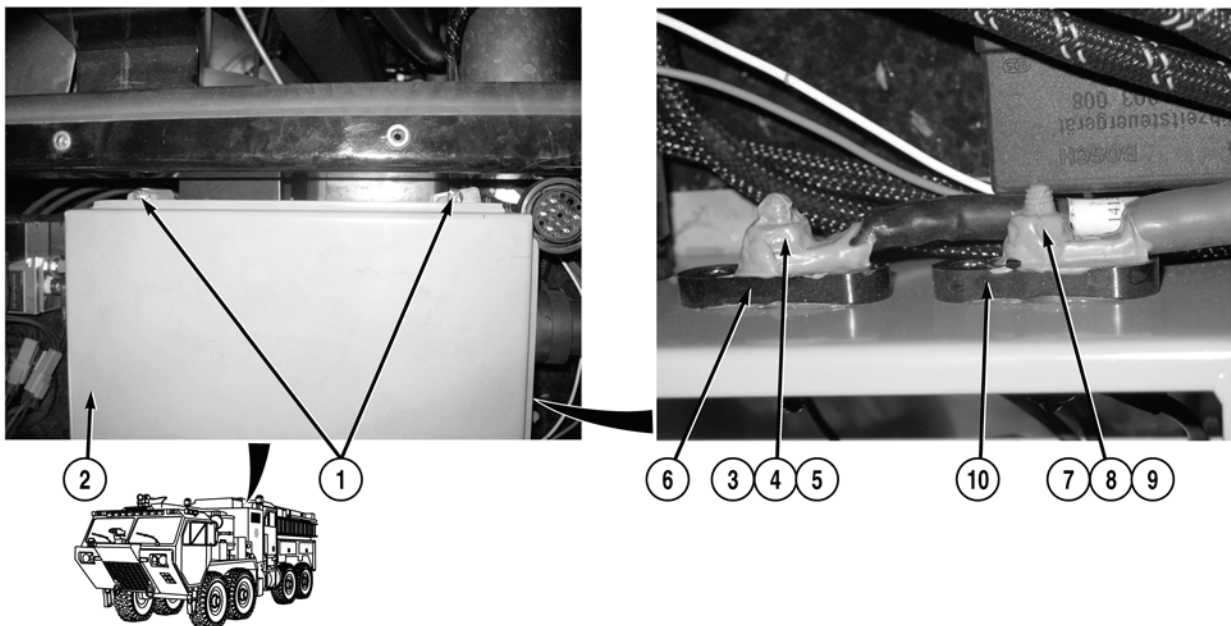
**Materials/Parts**

Compound, Sealing (WP 0625, Item 17)  
Tags, Identification (WP 0625, Item 51)  
Lockwasher (1)  
Lockwasher (1)  
Lockwasher (1)  
Lockwasher (1)

**Equipment Conditions**

Pump house panel S removed (WP 0540)

## REMOVAL

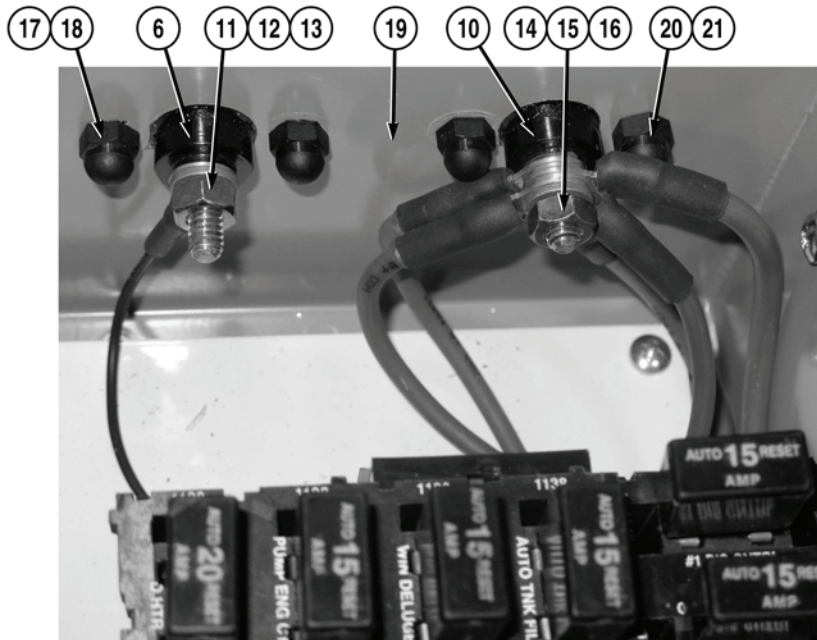


1. Loosen two screws (1) and open pump house power distribution box cover (2).

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

2. Remove nut (3), lockwasher (4), and wire 1640 (5) from ground terminal block (6). Discard lockwasher.
3. Remove nut (7), lockwasher (8), and wire 1138 (9) from positive terminal block (10). Discard lockwasher.



4. Remove nut (11), lockwasher (12), and wire 1640 (13) from ground terminal block (6). Discard lockwasher.
5. Remove nut (14), lockwasher (15), and five wires 1138 (16) from positive terminal block (10). Discard lockwasher.
6. Remove two nuts (17), screws (18), and ground terminal block (6) from pump house power distribution box (19).
7. Remove two nuts (20), screws (21), and positive terminal block (10) from pump house power distribution box (19).

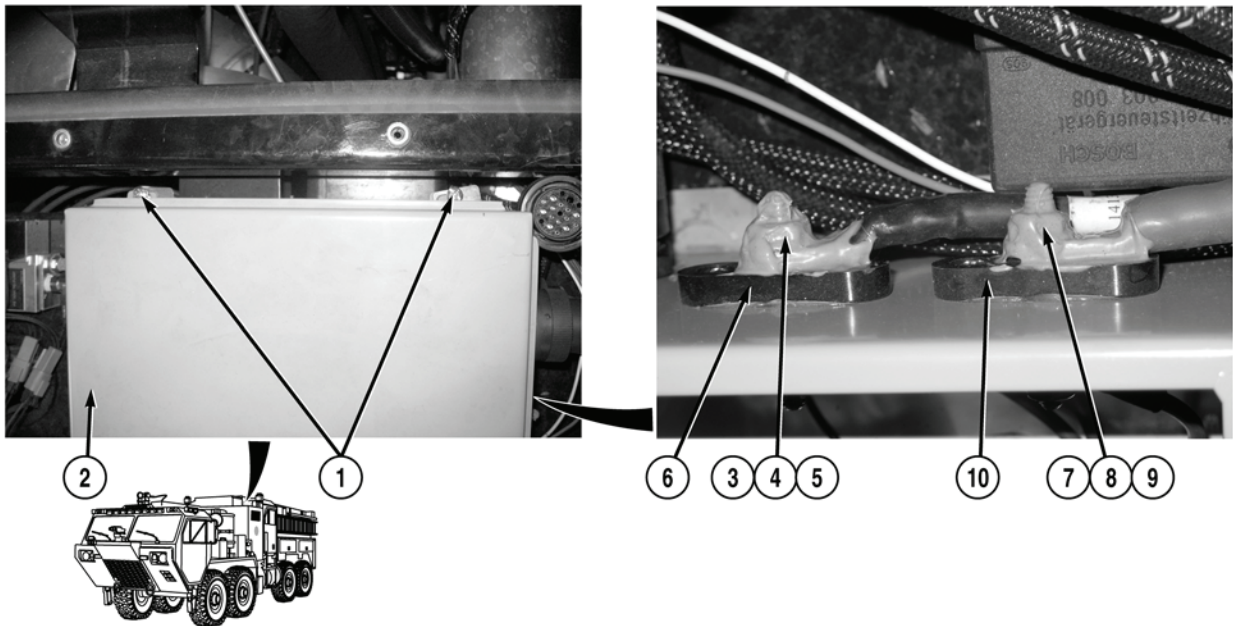
#### END OF TASK

#### INSTALLATION

### CAUTION

**Do not overtighten nuts when installing terminal blocks. Failure to comply may cause damage to equipment.**

1. Install positive terminal block (10) on pump house power distribution box (19) with two screws (21) and nuts (20).
2. Install ground terminal block (6) on pump house power distribution box (19) with two screws (18) and nuts (17).
3. Install five wires 1138 (16) on positive terminal block (10) with lockwasher (15) and nut (14).
4. Install wire 1640 (13) on ground terminal block (6) with lockwasher (12) and nut (11).



5. Install wire 1138 (9) on positive terminal block (10) with lockwasher (8) and nut (7).
6. Install wire 1640 (5) on ground terminal block (6) with lockwasher (4) and nut (3).
7. Close pump house power distribution box cover (2) and tighten two screws (1).

### **WARNING**



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

8. Apply sealing compound to electrical connections at wire 1640 (5) and wire 1138 (9).

**END OF TASK**

### **FOLLOW-ON MAINTENANCE**

Install pump house panel S (WP 0540)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**TWO-WAY RADIO REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Locknut (2)

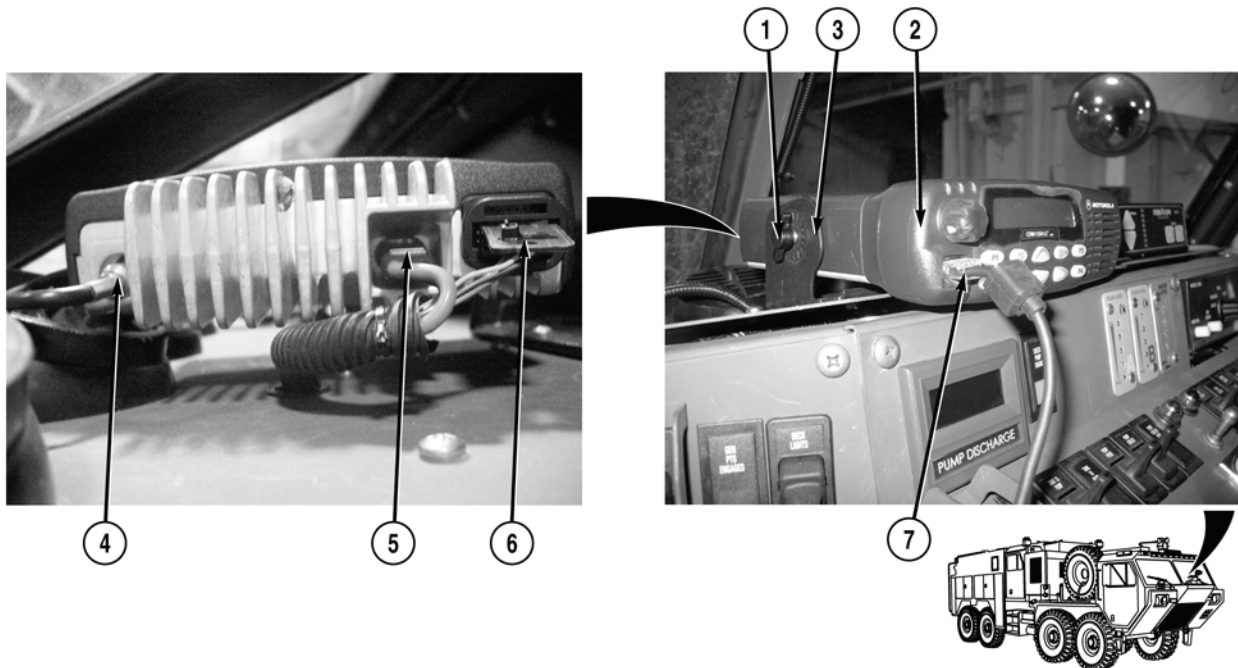
**References**

WP 0615, Fig. 55

**Equipment Conditions**

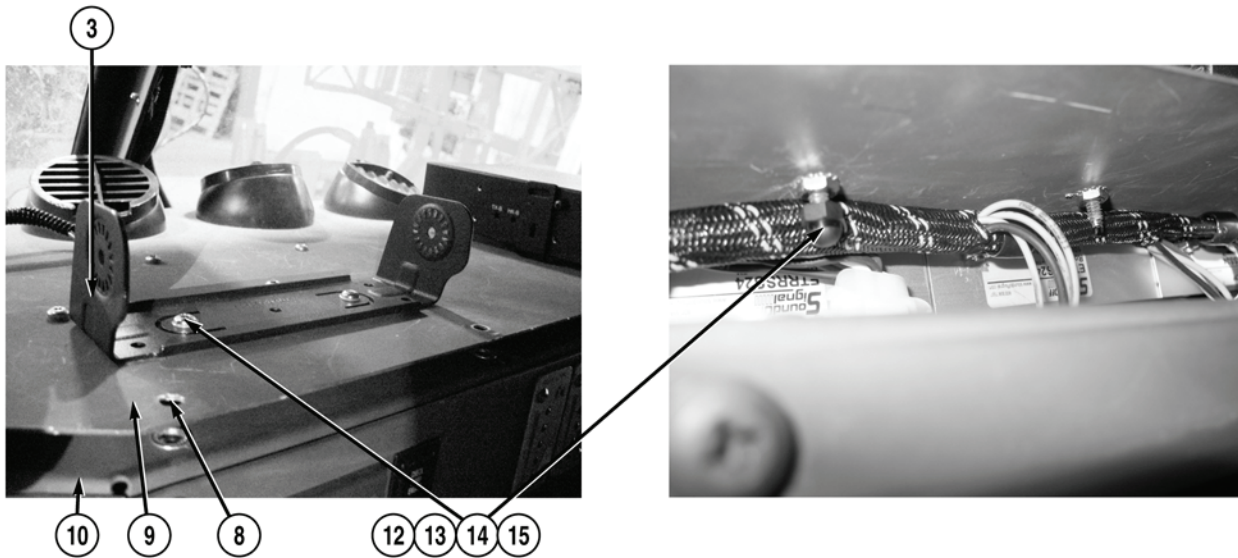
Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

---

**REMOVAL****NOTE**

Tag and mark wires prior to removal to ensure proper installation.

1. Remove two screws (1) and two-way radio (2) from bracket (3).
2. Disconnect four connectors (4), (5), (6), and (7) from two-way radio (2).



**⚠ CAUTION**

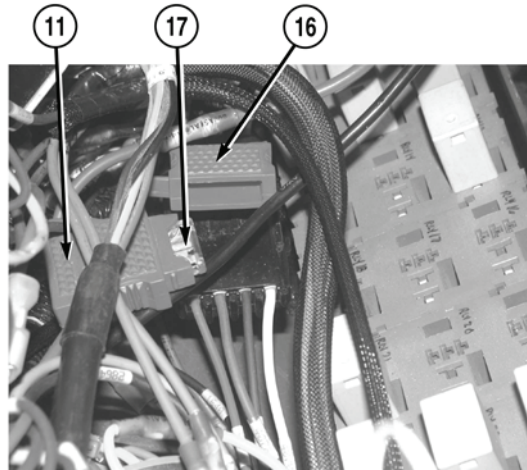
**Lift cab instrument panel A only enough to access fuse holder. Wires to flasher controls and intercom are still attached. Failure to comply may result in damage to equipment.**

3. Remove seven screws (8) from cab instrument panel A (9).
4. Lift cab instrument panel A (9) from console (10).

**NOTE**

Perform Step (5) if removing bracket.

5. Remove two nuts (12), locknuts (13), washers (14), screws (15), and bracket (3) from cab instrument panel A (9). Discard locknuts.

**NOTE**

Perform Step (6) to remove fuse.

6. Open cover (16) on fuse holder (11) and remove fuse (17) from fuse holder (11).

**END OF TASK****INSTALLATION****NOTE**

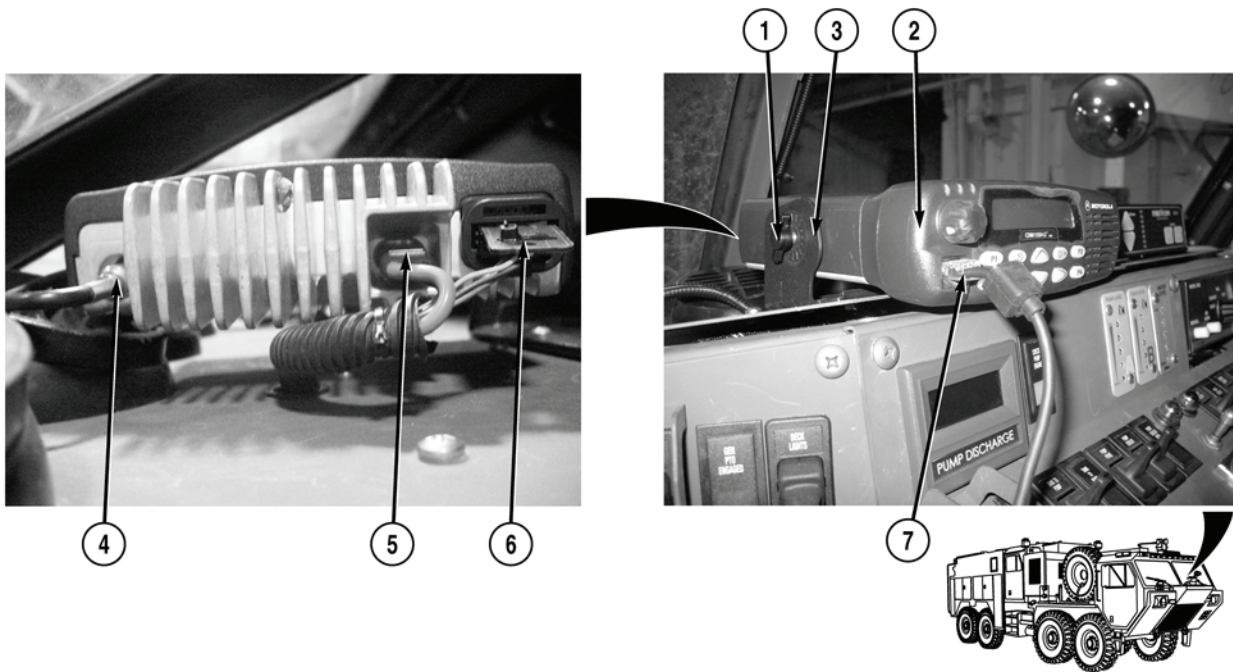
Perform Step (1) to install fuse.

1. Install fuse (17) in fuse holder (11) and close cover (16).

**NOTE**

Perform Step (2) if bracket was removed.

2. Install bracket (3) on cab instrument panel A (9) with two screws (15), washers (14), locknuts (13), and nuts (12).
3. Install cab instrument panel A (9) on console (10) with seven screws (8).



4. Connect four connectors (7), (6), (5), and (4) to two-way radio (2).
5. Install two-way radio (2) on bracket (3) with two screws (1).

**END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**UTILITY OUTLET REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 55

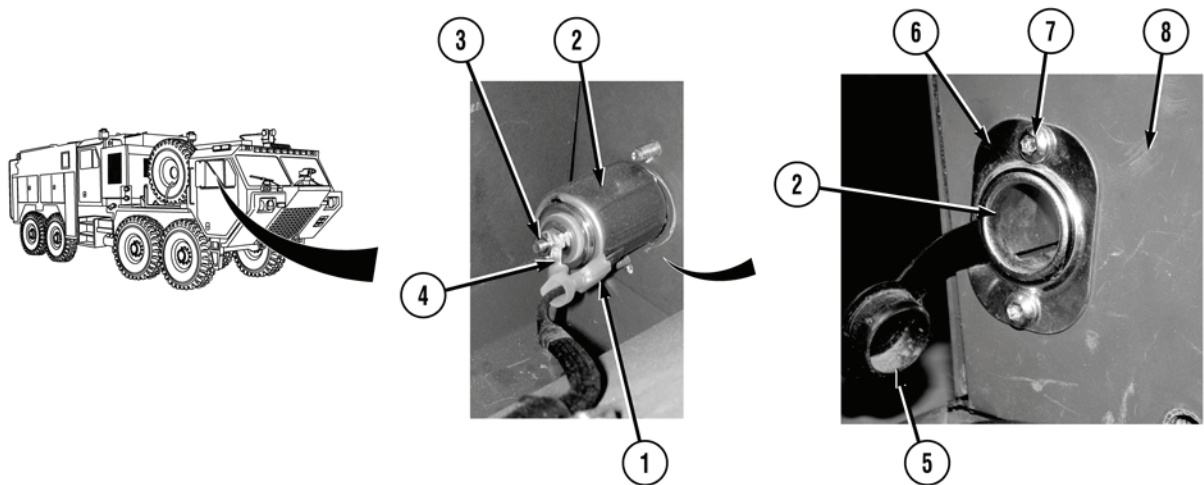
**Materials/Parts**

Locknut (1)

**Equipment Conditions**

Personnel cab instrument panel A removed  
(for personnel cab utility outlet only)  
(WP 0311)

---

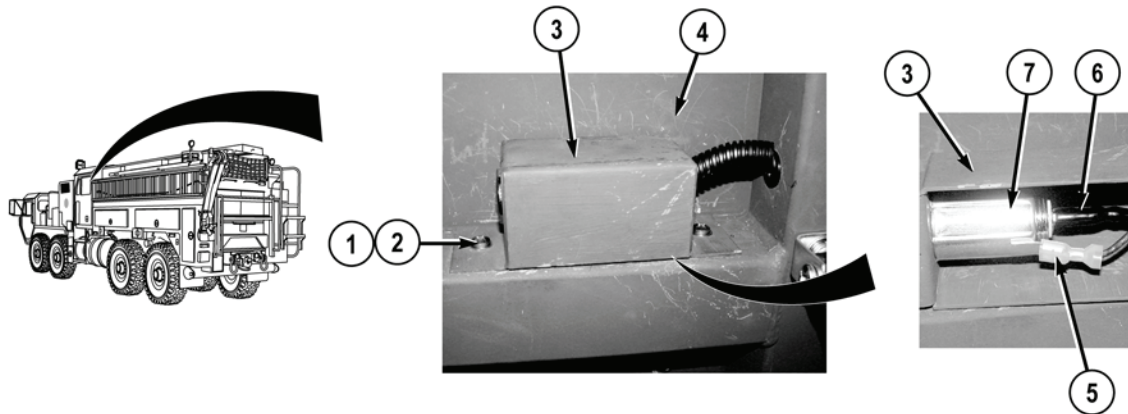
**PERSONNEL CAB UTILITY OUTLET REMOVAL**

1. Disconnect connector (1) from utility outlet (2).
2. Remove locknut (3) and wire (4) from utility outlet (2). Discard locknut.
3. Remove utility outlet (2) and cover (5) from bracket (6).
4. Remove two screws (7) and bracket (6) from personnel cab instrument panel assembly (8).

**END OF TASK****PERSONNEL CAB UTILITY OUTLET INSTALLATION**

1. Install bracket (6) on personnel cab instrument panel assembly (8) with two screws (7).
2. Install cover (5) and utility outlet (2) on bracket (6).
3. Install wire (4) on utility outlet (2) with locknut (3).
4. Connect connector (1) on utility outlet (2).

**END OF TASK**

**CREW CAB UTILITY OUTLET REMOVAL****NOTE**

Both crew cab utility outlets are removed the same way. Driver side shown.

1. Remove two screws (1), washers (2), and cover (3) from crew cab (4).
2. Disconnect connectors (5) and (6) from utility outlet (7).
3. Remove utility outlet (7) from cover (3).

**END OF TASK****CREW CAB UTILITY OUTLET INSTALLATION****NOTE**

Both crew cab utility outlets are installed the same way. Driver side shown.

1. Install utility outlet (7) on cover (3).
2. Connect connectors (6) and (5) on utility outlet (7).
3. Install cover (3) on crew cab (4) with two washers (2) and screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install personnel cab instrument panel A (for personnel cab utility outlet only) (WP 0311)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**WINDSHIELD DELUGE MOTOR REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Locknut (4)

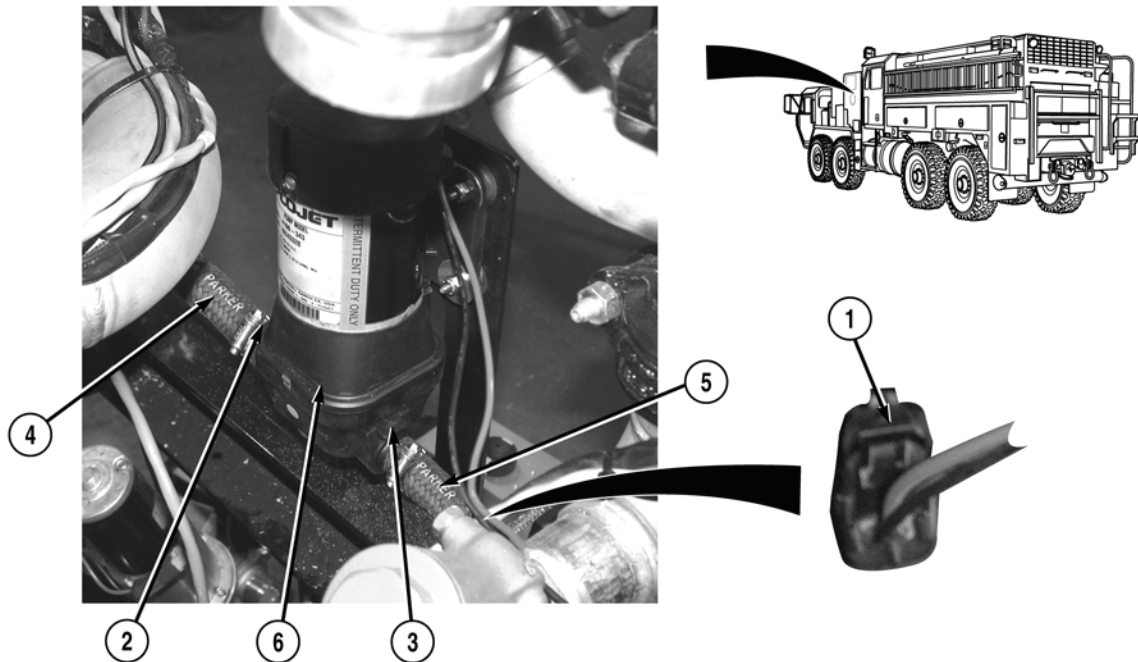
**References**

WP 0615, Fig. 172

**Equipment Conditions**

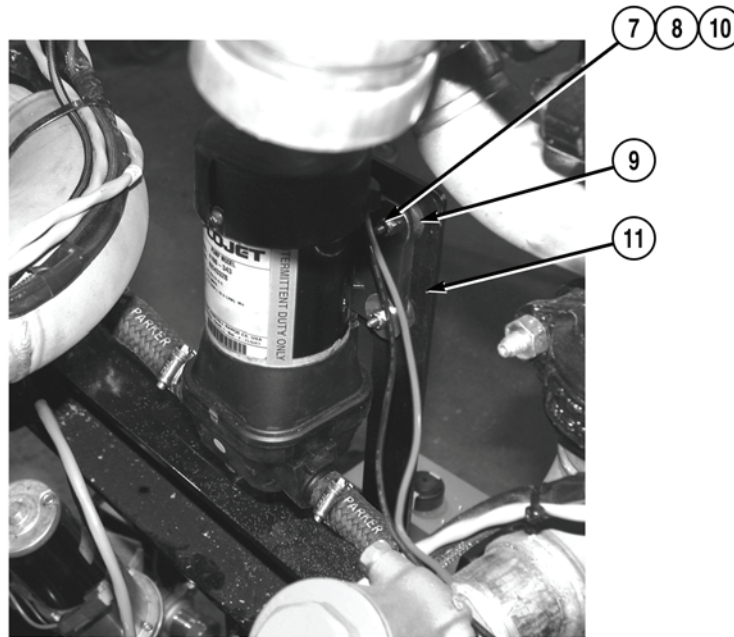
Batteries disconnected (TM 9-2320-325-14&P)  
Pump house panel A opened (WP 0539)  
Water pump system drained (WP 0041)

---

**REMOVAL****NOTE**

- Remove cable ties as required.
- Tag and mark hoses and wires prior to removal to ensure proper installation.

1. Disconnect connector (1).
2. Lift two retainer clips (2) and (3) and remove hoses (4) and (5) from windshield deluge motor (6).



### NOTE

Note position of washers and isolators prior to removal to ensure proper installation.

3. Remove four locknuts (7), washers (8), isolators (9), screws (10), and windshield deluge motor (6) from bracket (11). Discard locknuts.

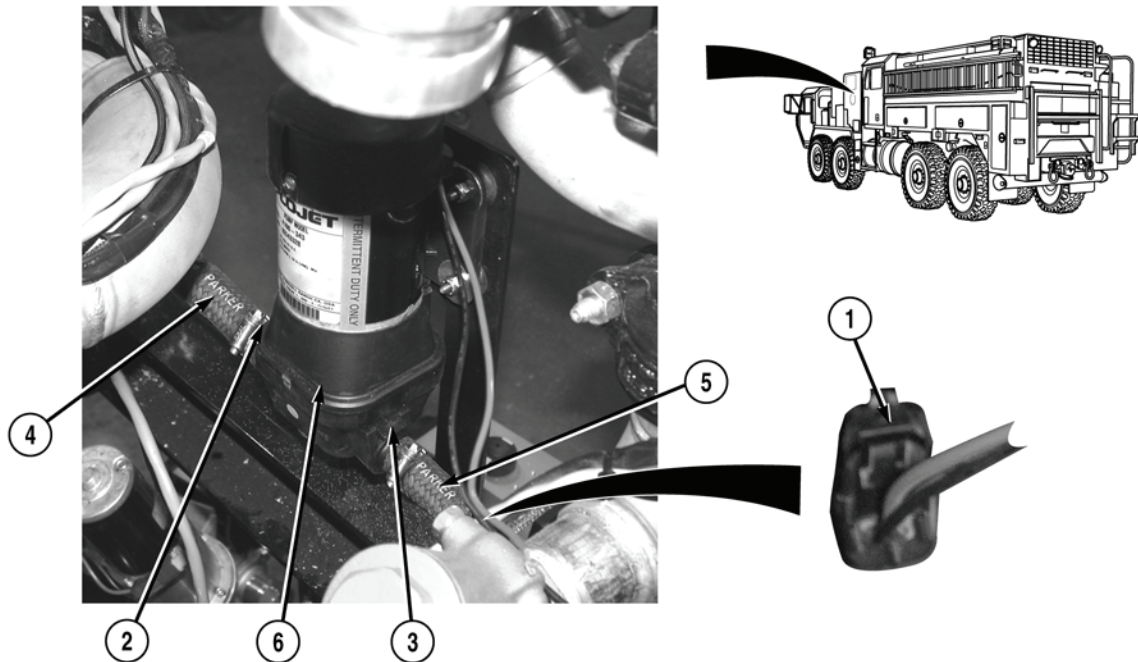
### END OF TASK

### INSTALLATION

### NOTE

Install washers and isolators as noted prior to removal.

1. Install windshield deluge motor (6) on bracket (11) with four screws (10), isolators (9), washers (8), and locknuts (7).



### NOTE

Install cable ties as required.

2. Install two hoses (5) and (4) on windshield deluge motor (6) and secure two retainer clips (3) and (2).
3. Connect connector (1).

### END OF TASK

### FOLLOW-ON MAINTENANCE

1. Close pump house panel A (WP 0539)
2. Connect batteries (TM 9-2320-325-14&P)

### END OF TASK

### END OF WORK PACKAGE



## FIELD LEVEL MAINTENANCE

## AIR CONDITIONER CONTROLLER WIRE HARNESS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (1)

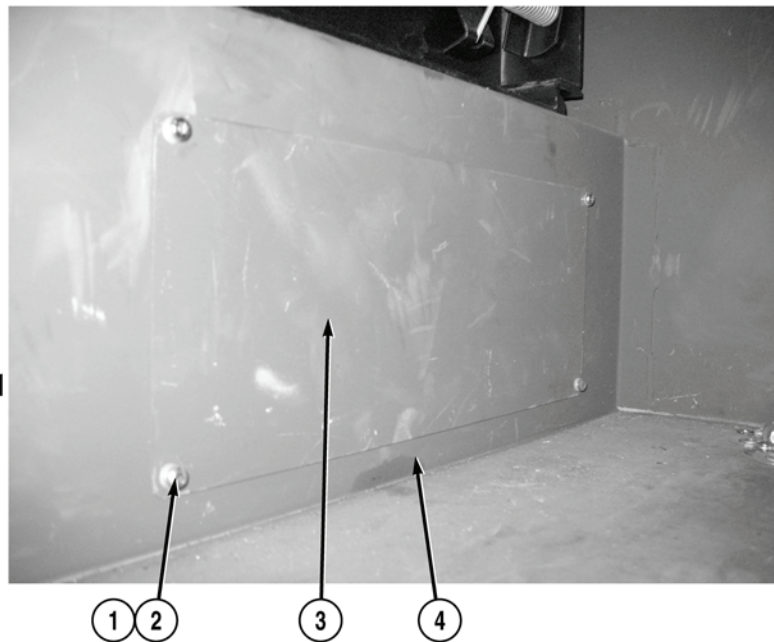
**References**

WP 0614, Fig. 6

**Equipment Conditions**

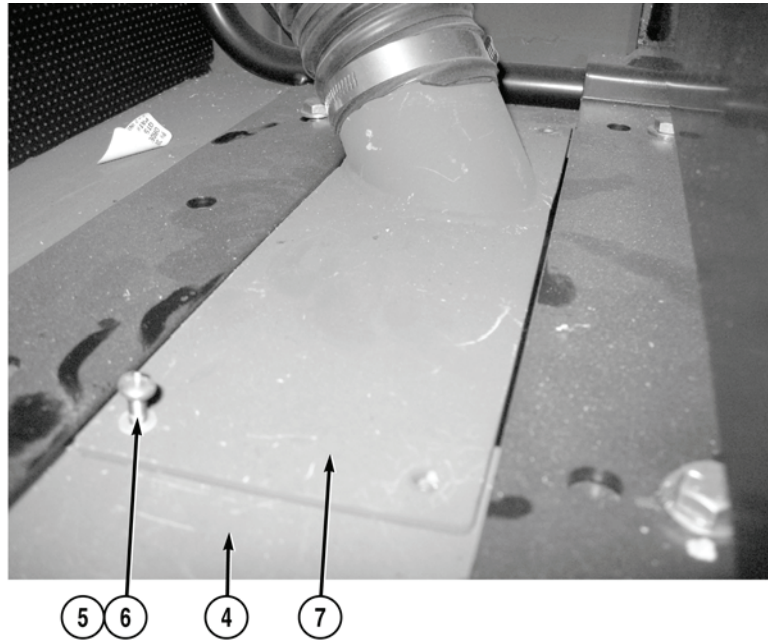
Batteries disconnected (TM 9-2320-325-14&P)  
Crew cab bench seat and access panel removed  
(WP 0501)

## REMOVAL

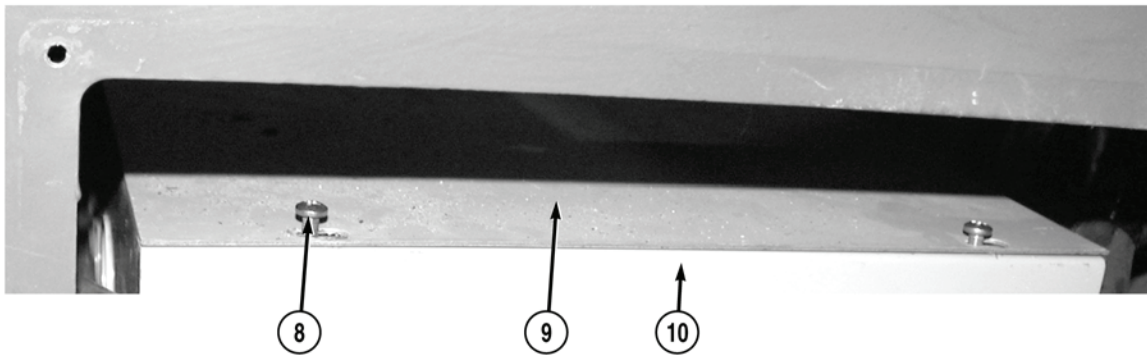
**NOTE**

Control box is located under crew cab passenger side seat.

1. Remove four screws (1), washers (2), and cover (3) from crew cab (4).

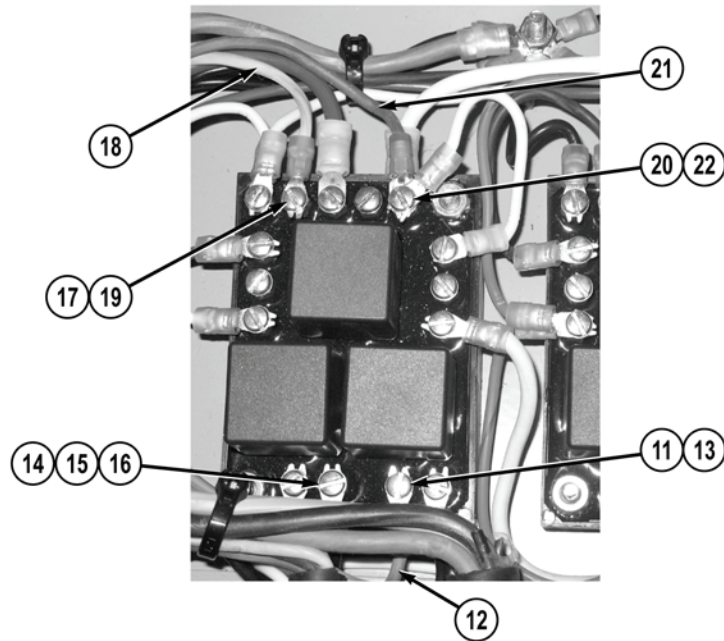


2. Remove four screws (5) and washers (6) from fresh air bracket (7) and crew cab (4).
3. Move fresh air bracket (7) out of the way.



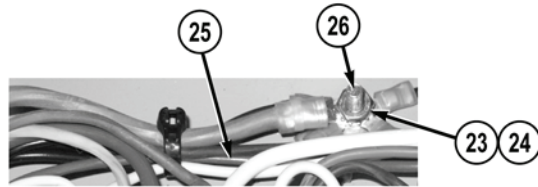
4. Remove four screws (8) and control box cover (9) from control box (10).



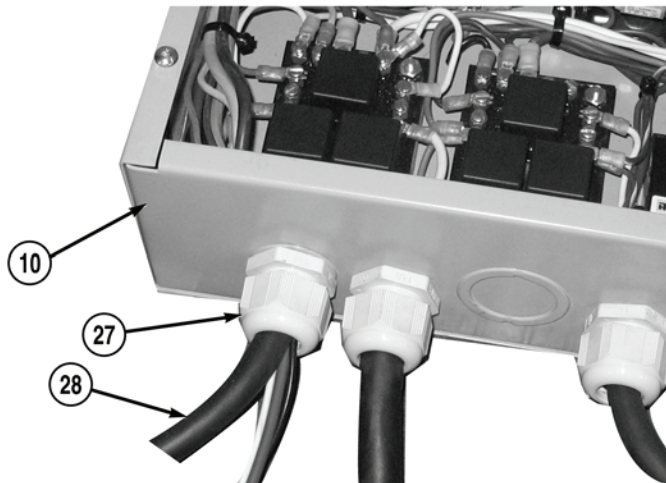


### NOTE

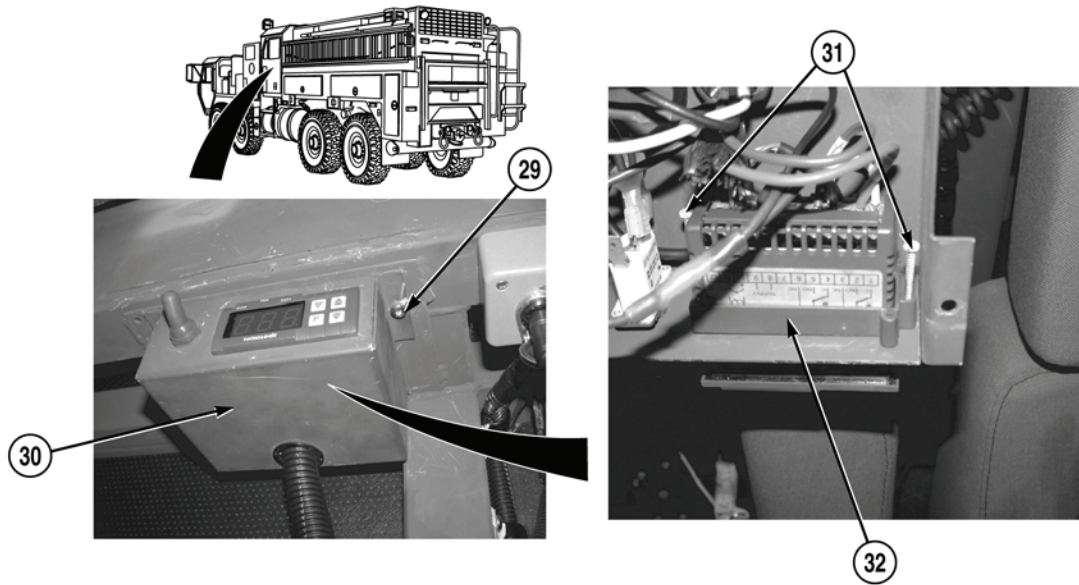
- Tag and mark wires prior to removal to ensure proper installation.
  - Note position and remove cable ties, split looms, and cushion clips as required.
  - Note routing of wire harness prior to removal to ensure proper installation.
5. Loosen screw (11) and remove orange wire (12) from heat relay terminal 85 (13).
  6. Loosen screw (14) and remove red wire (15) from freeze relay terminal 85 (16).
  7. Loosen screw (17) and remove yellow wire (18) from blower relay terminal 86 (19).
  8. Loosen screw (20) and remove blue wire (21) from blower relay terminal 30 (22).



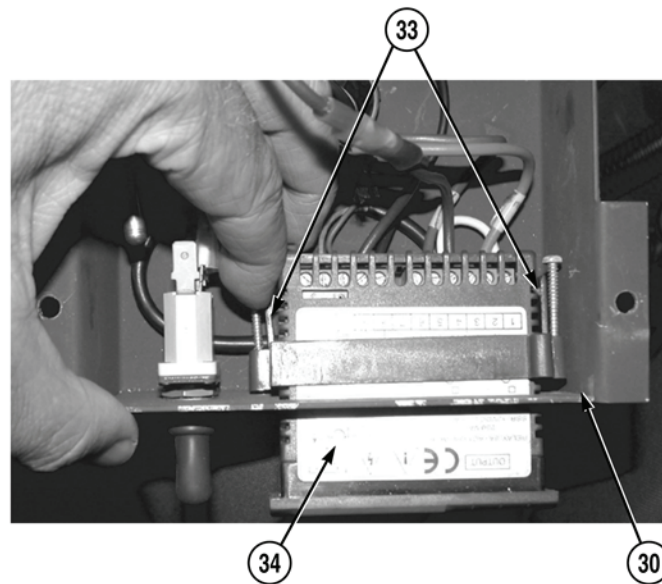
9. Remove nut (23), lockwasher (24), and black wire (25) from ground stud (26). Discard lockwasher.



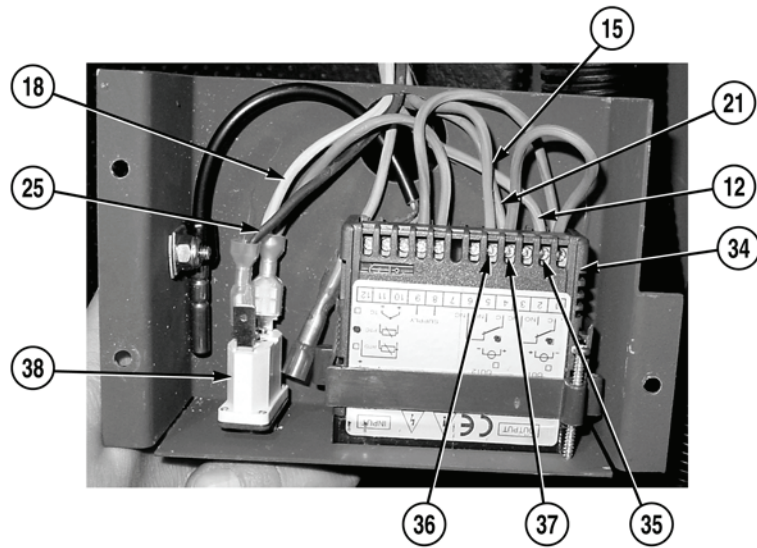
10. Loosen nut (27) and remove air conditioner controller wire harness (28) from control box (10).



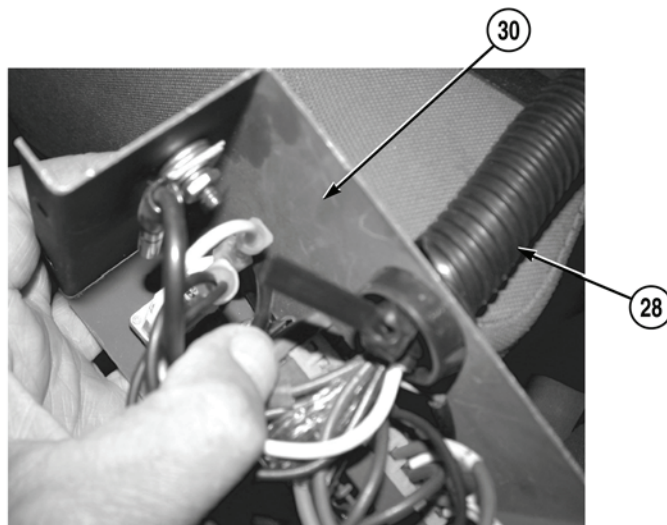
11. Remove three screws (29) and control panel (30) from vehicle.
12. Loosen two screws (31) from bracket (32).



13. Release two tabs (33) and remove display (34) from control panel (30).



14. Loosen screw (35) and remove orange wire (12) from display (34).
15. Loosen screw (36) and remove red wire (15) from display (34).
16. Loosen screw (37) and remove blue wire (21) from display (34).
17. Disconnect yellow wire (18) from switch (38).
18. Disconnect black wire (25) from switch (38).

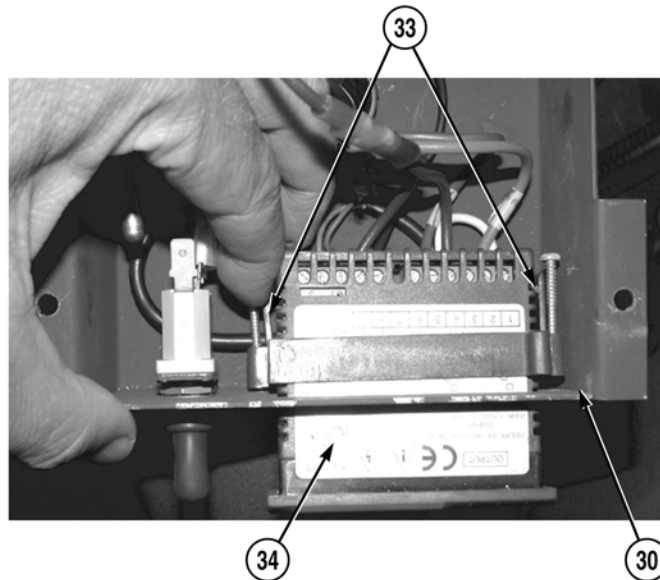


19. Remove air conditioner controller wire harness (28) from control panel (30).

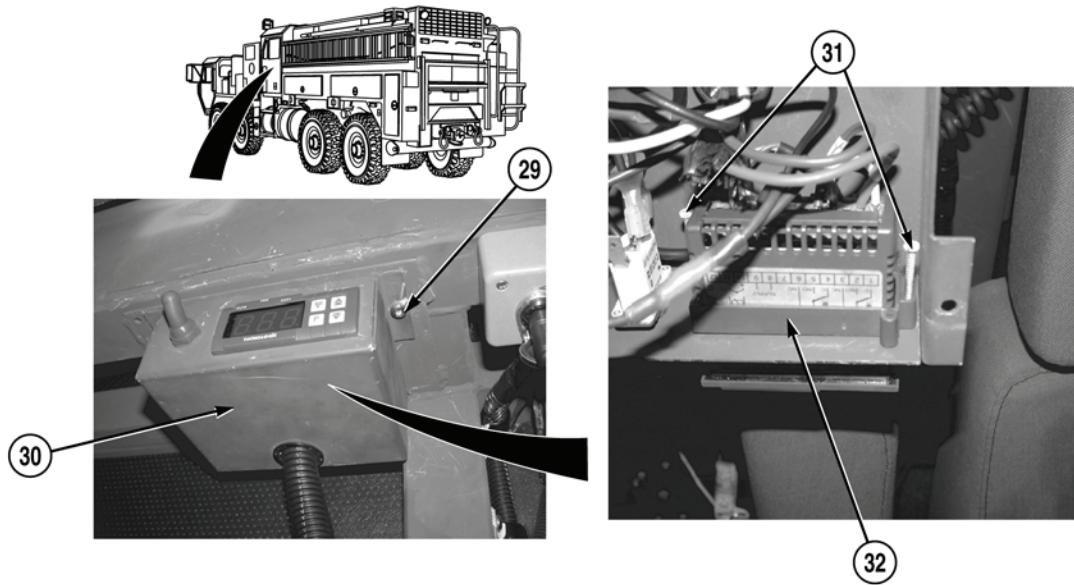
**END OF TASK**

**INSTALLATION****NOTE**

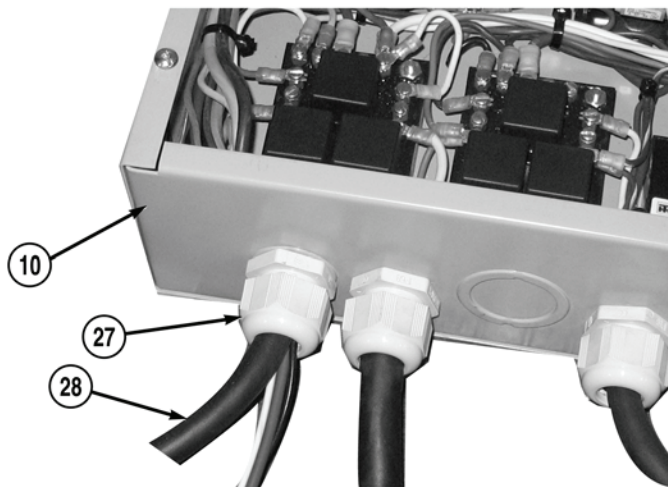
- Install wire harness as noted prior to removal.
  - Install cable ties, split looms, and cushion clips as required.
1. Install air conditioner controller wire harness (28) in control panel (30).
  2. Connect black wire (25) to switch (38).
  3. Connect yellow wire (18) to switch (38).
  4. Install blue wire (21) on display (34) and tighten screw (37).
  5. Install red wire (15) on display (34) and tighten screw (36).
  6. Install orange wire (12) on display (34) and tighten screw (35).



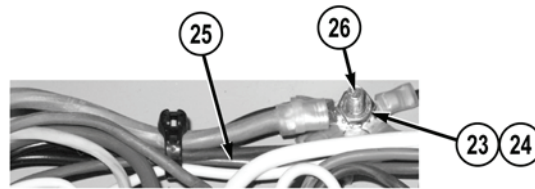
7. Install display (34) in control panel (30) with two tabs (33).



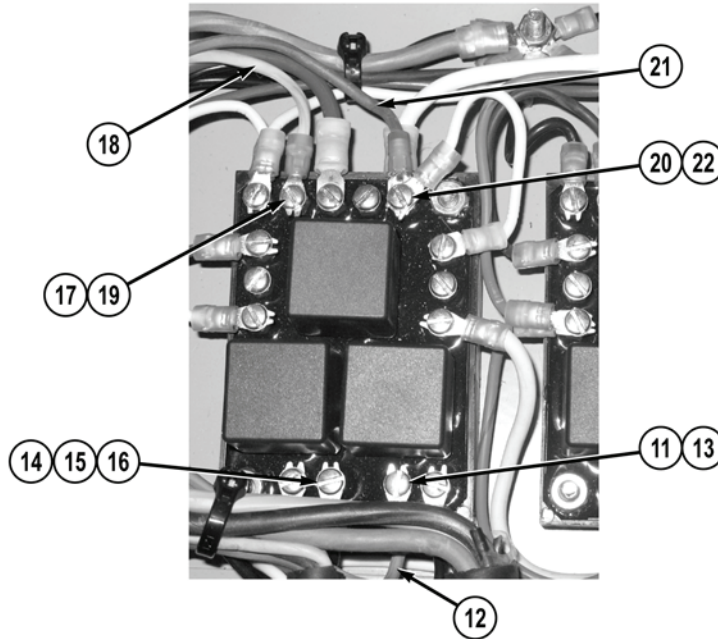
8. Tighten two screws (31) on bracket (32).
9. Install control panel (30) on vehicle with three screws (29).



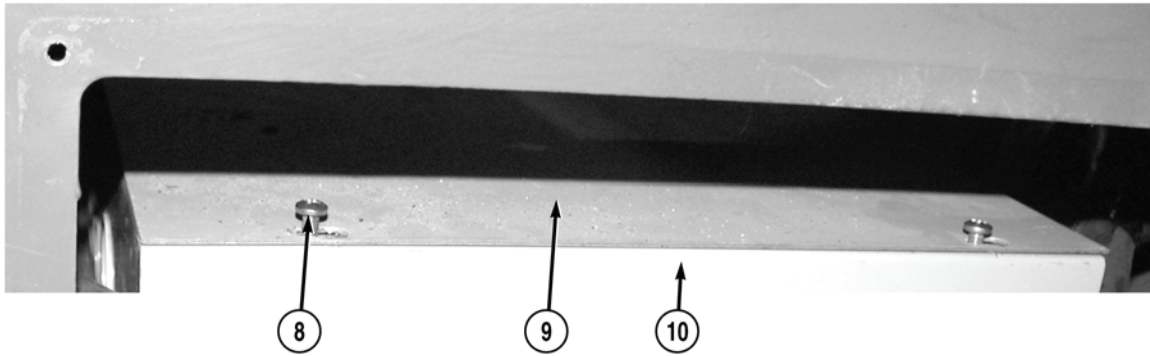
10. Install air conditioner controller wire harness (28) in control box (10) and tighten nut (27).



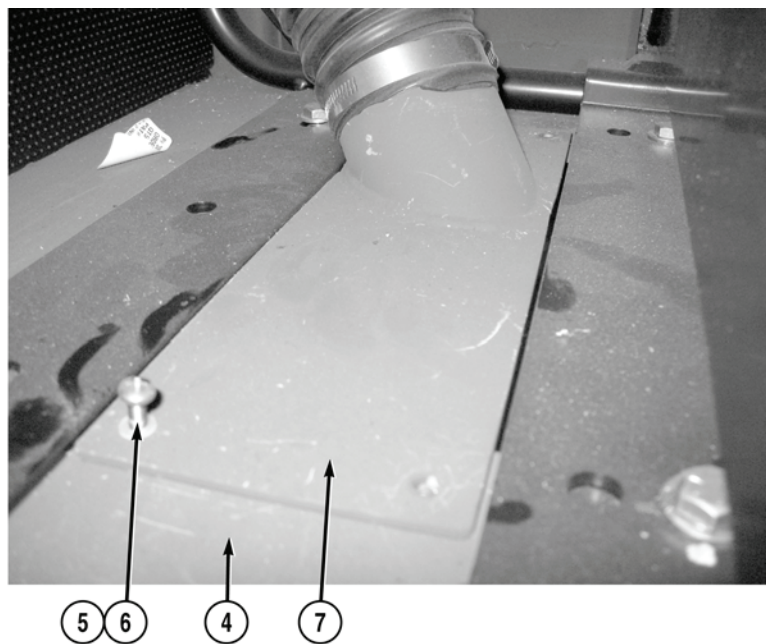
11. Install black wire (25) on ground stud (26) with lockwasher (24) and nut (23).



12. Install blue wire (21) on blower relay terminal 30 (22) and tighten screw (20).
13. Install yellow wire (18) on blower relay terminal 86 (19) and tighten screw (17).
14. Install red wire (15) on freeze relay terminal 85 (16) and tighten screw (14).
15. Install orange wire (12) on heat relay terminal 85 (13) and tighten screw (11).

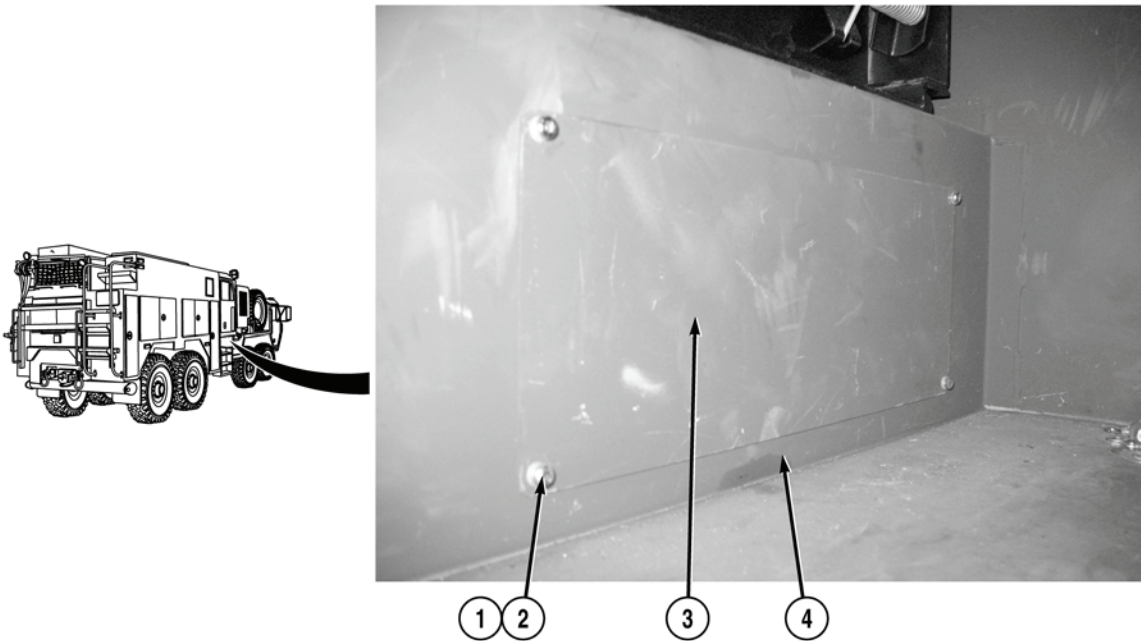


16. Install control box cover (9) on control box (10) with four screws (8).



17. Install fresh air bracket (7) on crew cab (4) with four washers (6) and screws (5).





18. Install cover (3) on crew cab (4) with four washers (2) and screws (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Install crew cab bench seat and access panel (WP 0501)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE****AIR CONDITIONER ELECTRIC MOTOR WIRE HARNESS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (1)

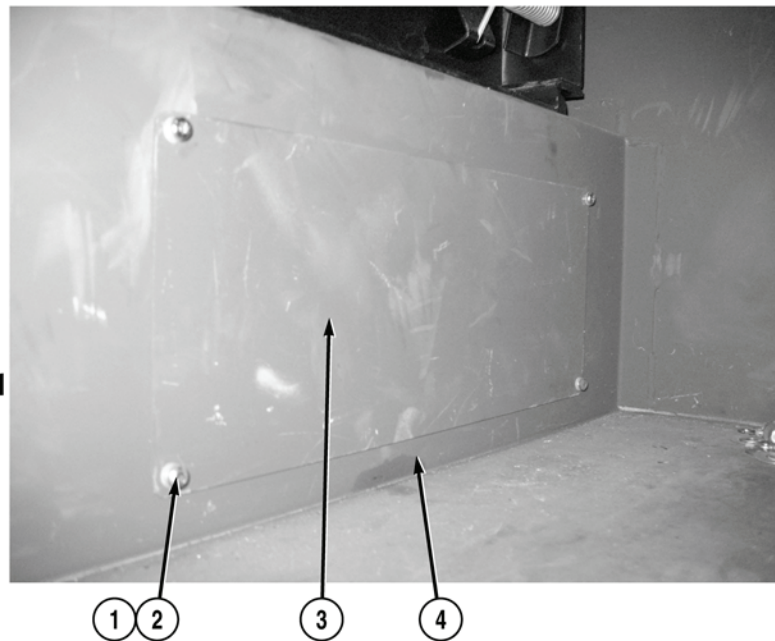
**References**

WP 0614, Fig. 6

**Equipment Conditions**

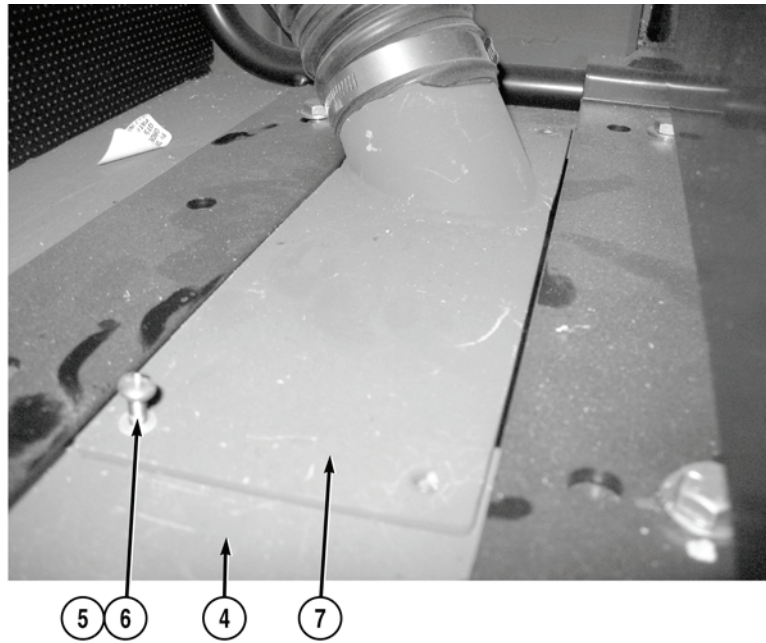
Batteries disconnected (TM 9-2320-325-14&P)  
Crew cab bench seat and access panel  
removed (WP 0501)

---

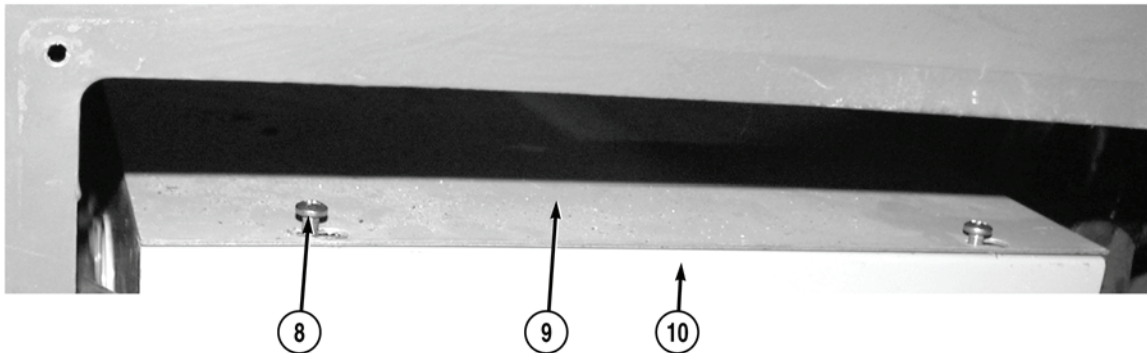
**REMOVAL****NOTE**

Control box is located under crew cab passenger side seat.

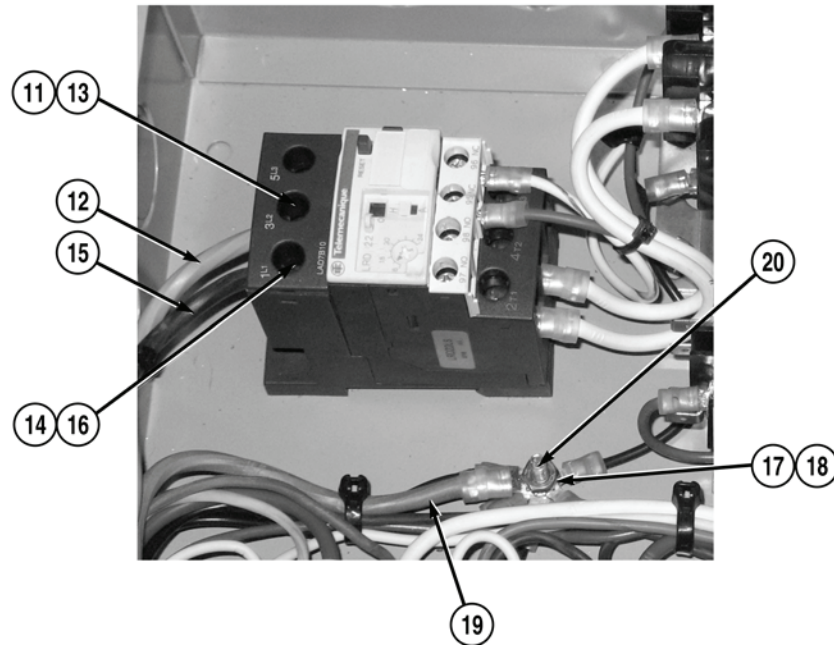
1. Remove four screws (1), washers (2), and cover (3) from crew cab (4).



2. Remove four screws (5) and washers (6) from fresh air bracket (7) and crew cab (4).
3. Move fresh air bracket (7) out of the way.

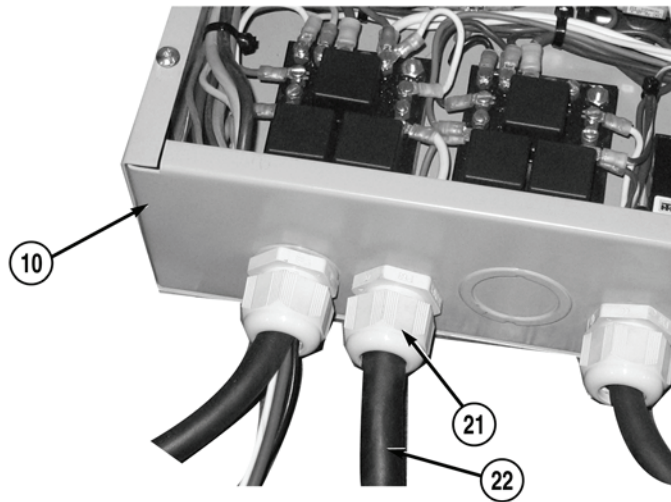


4. Remove four screws (8) and control box cover (9) from control box (10).

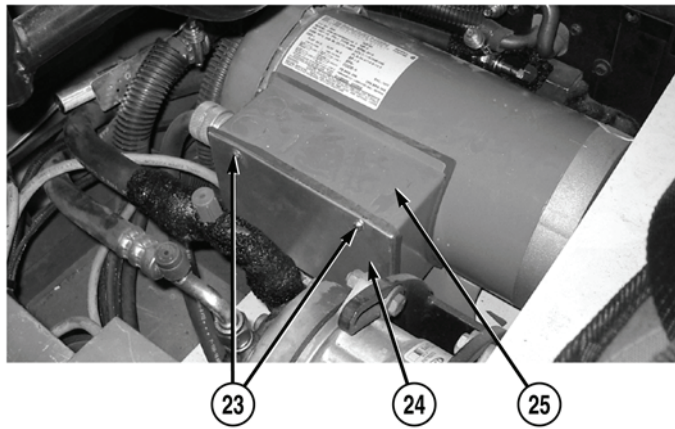


### NOTE

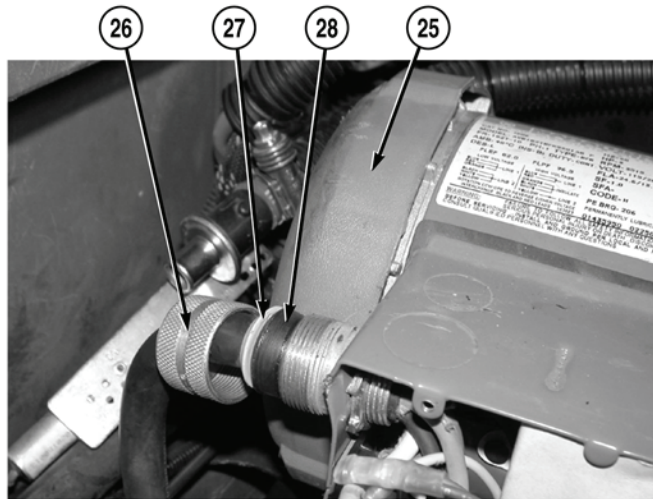
- Tag and mark wires prior to removal to ensure proper installation.
  - Note position and remove cable ties, split looms, and cushion clips as required.
  - Note routing of wire harness prior to removal to ensure proper installation.
5. Loosen screw (11) and remove yellow wire (12) from overload relay terminal L2 (13).
  6. Loosen screw (14) and remove black wire (15) from overload relay terminal L1 (16).
  7. Remove nut (17), lockwasher (18), and green wire (19) from ground stud (20). Discard lockwasher.



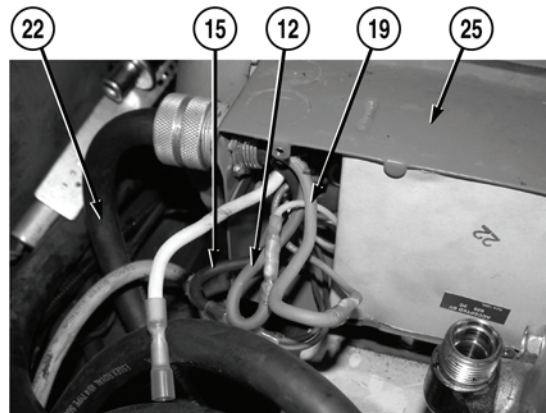
8. Loosen nut (21) and remove air conditioner electric motor wire harness (22) from control box (10).



9. Remove four screws (23) and cover (24) from motor (25).



10. Remove collar (26), washer (27), and grommet (28) from motor (25).



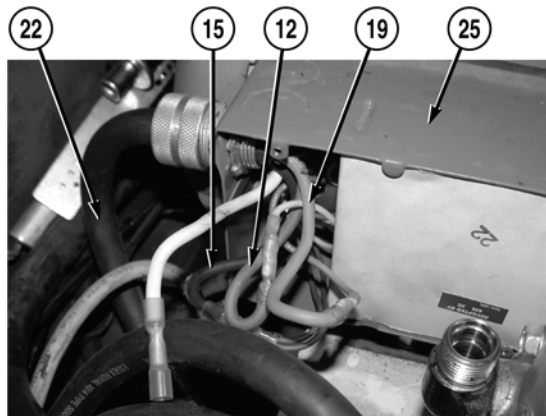
11. Cut yellow wire (12), black wire (15), and green wire (19) (TM 9-2320-325-14&P).

#### NOTE

White wire of air conditioner electric motor wire harness is not connected to motor.

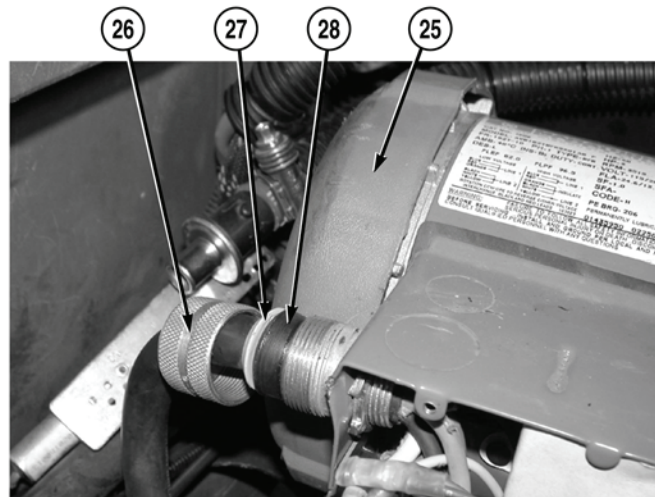
12. Remove air conditioner electric motor wire harness (22) from motor (25).

**END OF TASK**

**INSTALLATION****NOTE**

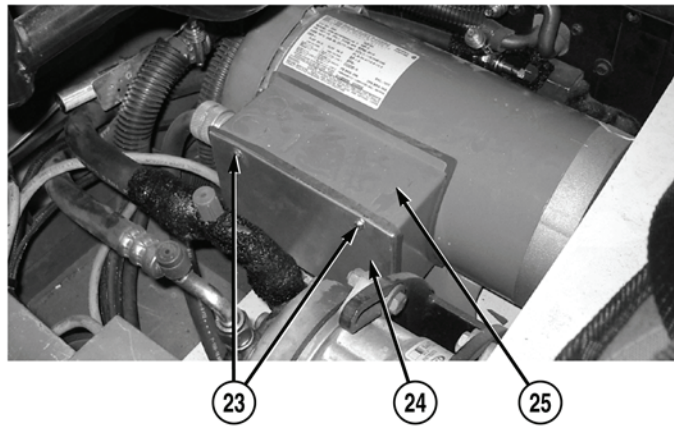
- Install wire harness as noted prior to removal.
- White wire of air conditioner electric motor wire harness is not connected to motor.

1. Install air conditioner electric motor wire harness (22) in motor (25).
2. Repair green wire (19), black wire (15), and yellow wire (12) (TM 9-2320-325-14&P).

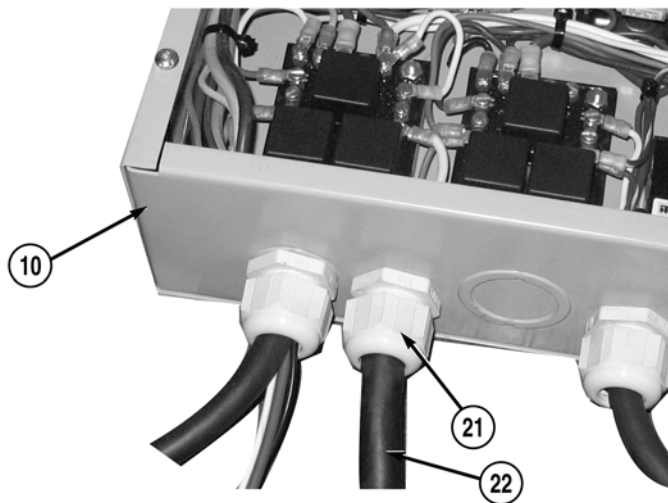


3. Install grommet (28), washer (27), and collar (26) on motor (25).





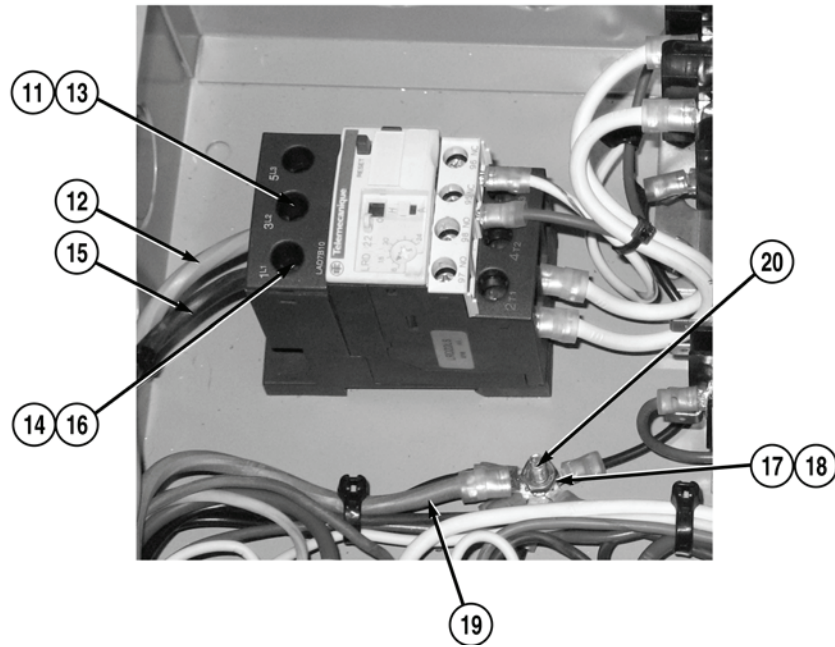
4. Install cover (24) on motor (25) with four screws (23).



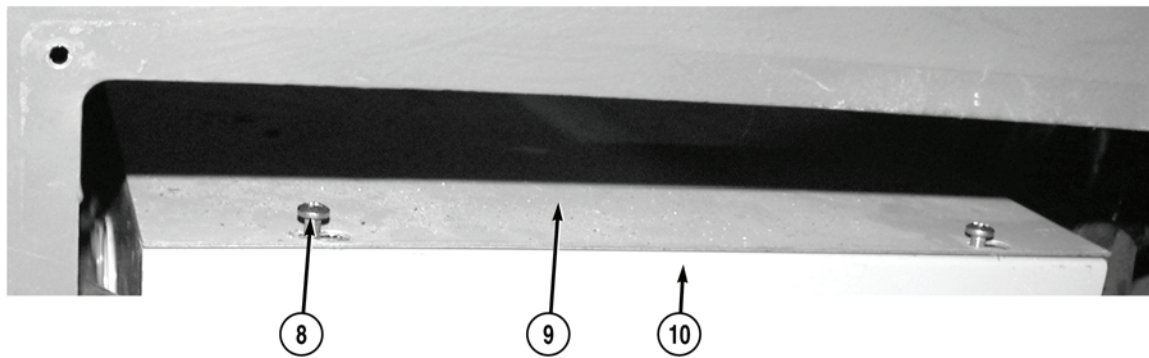
#### NOTE

Install cable ties, split looms, and cushion clips as required.

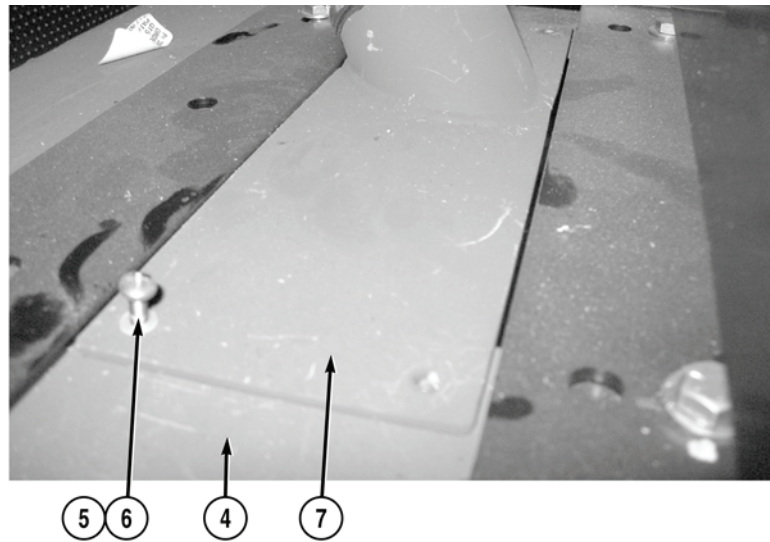
5. Install air conditioner electric motor wire harness (22) in control box (10) and tighten nut (21).



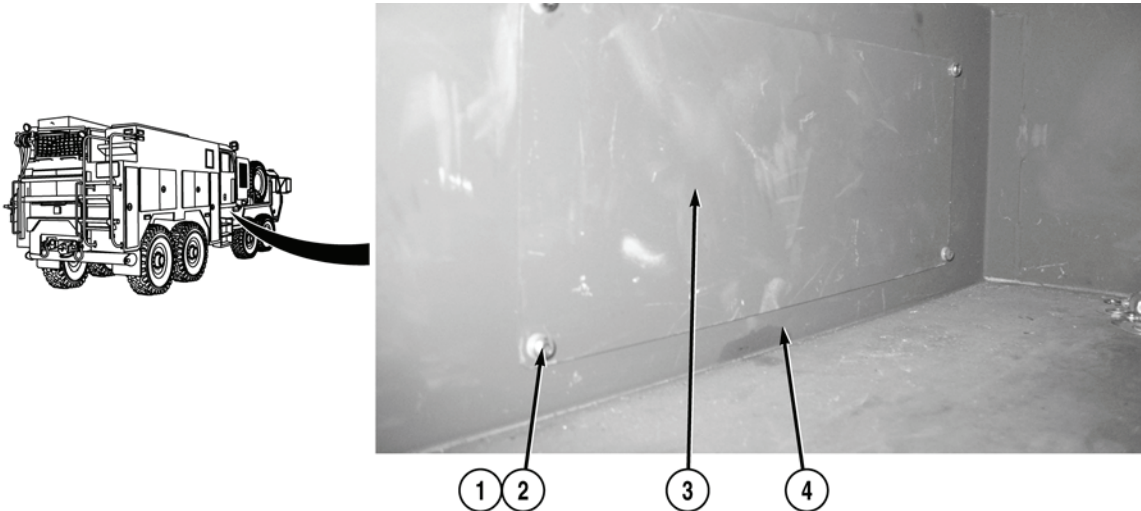
6. Install green wire (19) on ground stud (20) with lockwasher (18) and nut (17).
7. Install black wire (15) on overload relay terminal L1 (16) and tighten screw (14).
8. Install yellow wire (12) on overload relay terminal L2 (13) and tighten screw (11).



9. Install control box cover (9) on control box (10) with four screws (8).



10. Install fresh air bracket (7) on crew cab (4) with four washers (6) and screws (5).



11. Install cover (3) on crew cab (4) with four washers (2) and screws (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Install crew cab bench seat and access panel (WP 0501)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**AIR CONDITIONER REAR WIRE HARNESS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (1)

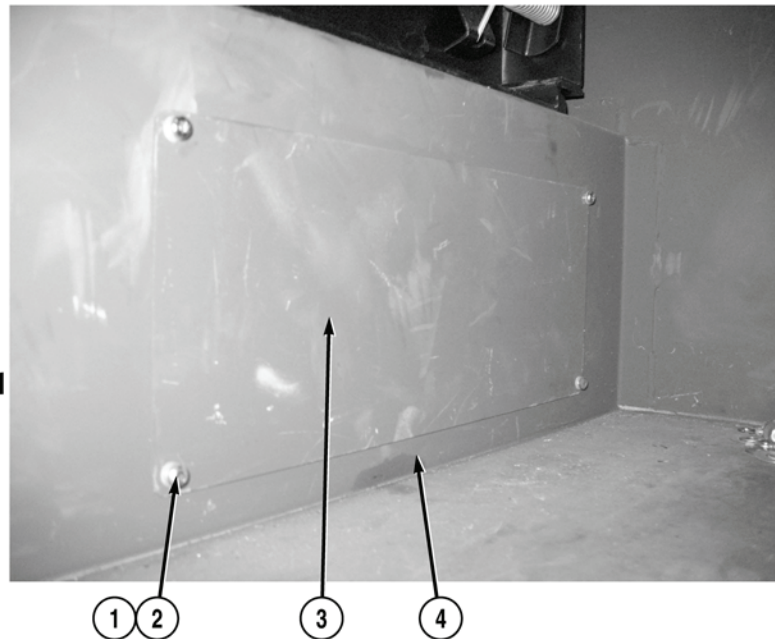
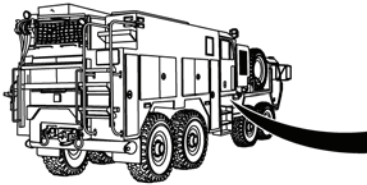
**References**

WP 0614, Fig. 6

**Equipment Conditions**

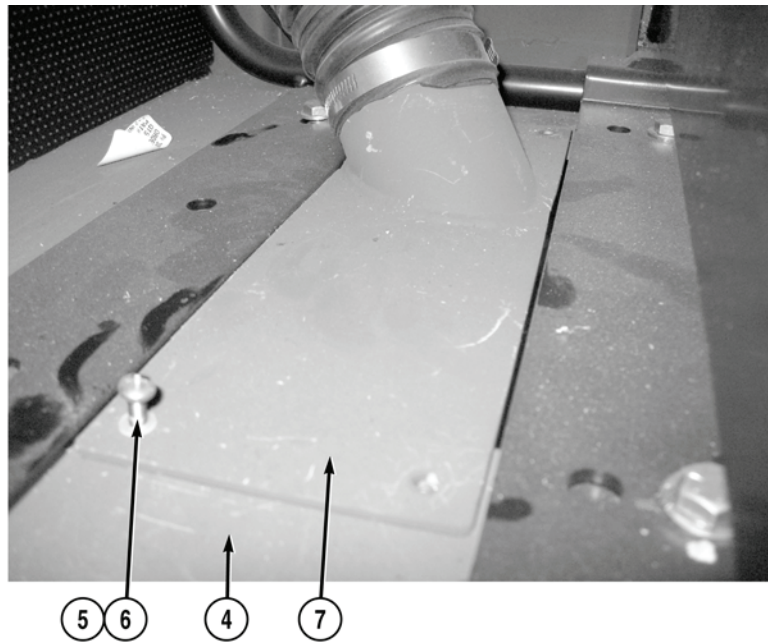
Batteries disconnected (TM 9-2320-325-14&P)  
Crew cab bench seat and access panel  
removed (WP 0501)  
Rear stowage compartment doors  
opened (WP 0010)

---

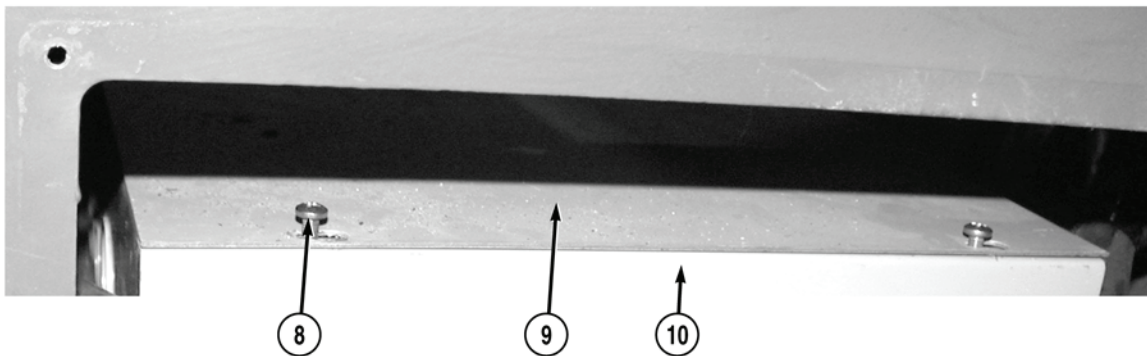
**REMOVAL****NOTE**

Control box is located under crew cab passenger side seat.

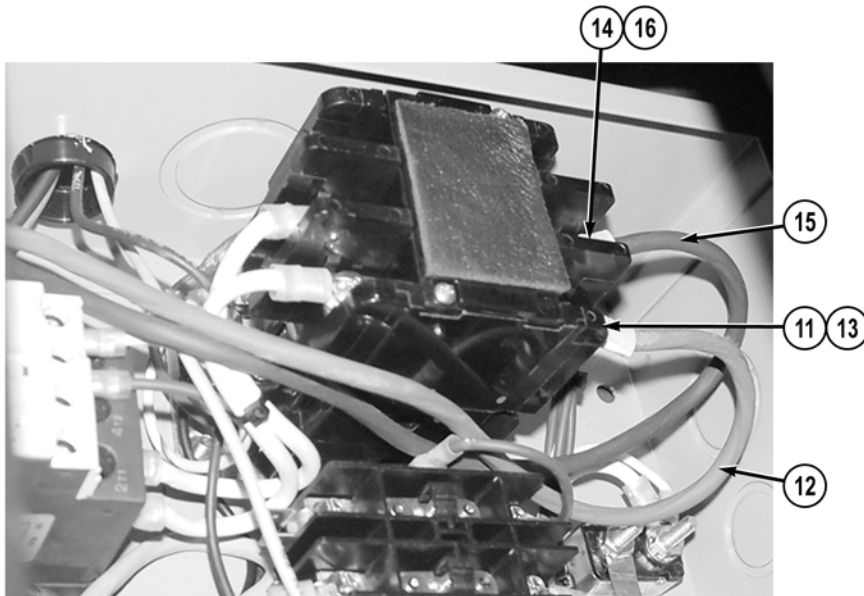
1. Remove four screws (1), washers (2), and cover (3) from crew cab (4).



2. Remove four screws (5) and washers (6) from fresh-air bracket (7) and crew cab (4).
3. Move fresh-air bracket (7) out of the way.

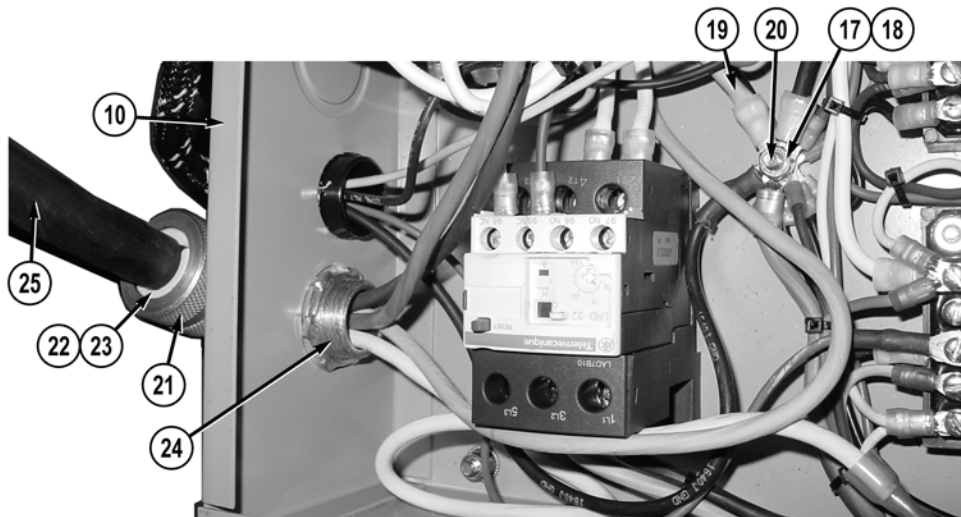


4. Remove four screws (8) and control box cover (9) from control box (10).



### NOTE

- Tag and mark wires prior to removal to ensure proper installation.
  - Note position and remove cable ties, split looms, and cushion clips as required.
  - Note routing of wire harness prior to removal to ensure proper installation.
5. Remove screw (11) and red wire (12) from contactor terminal L1 (13).
  6. Remove screw (14) and black wire (15) from contactor terminal L2 (16).

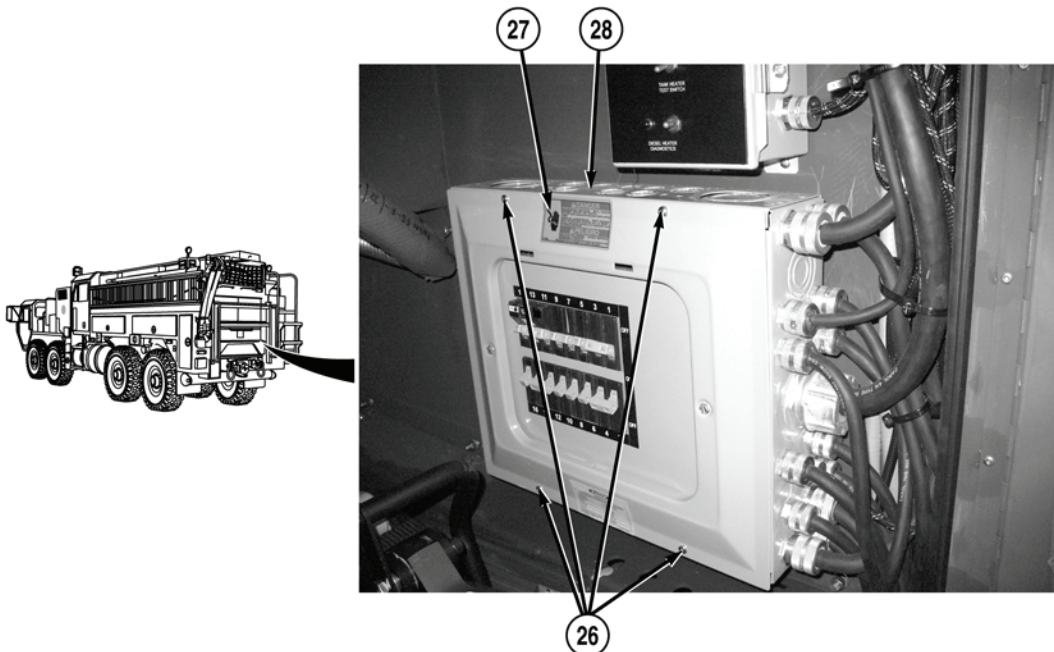


7. Remove nut (17), lockwasher (18), and green wire (19) from ground stud (20). Discard lockwasher.

**NOTE**

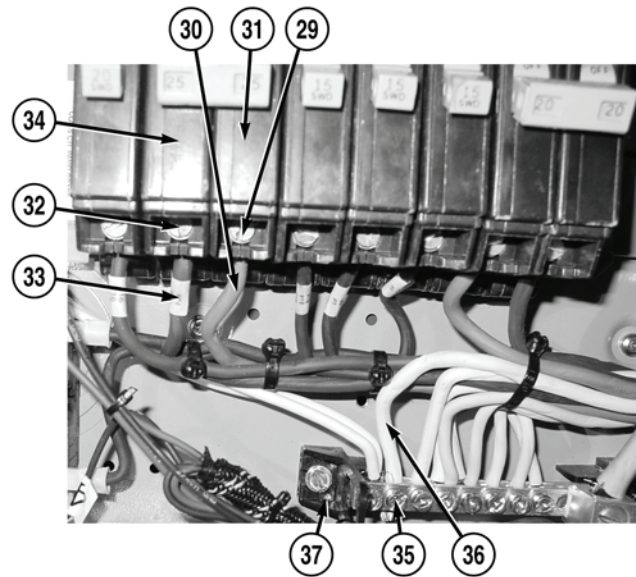
White wire of air conditioner rear wire harness is not used in control box.

8. Remove compression nut (21), washer (22), and grommet (23) from control box connector (24).
9. Remove air conditioner rear wire harness (25) from control box (10).
10. Remove compression nut (21), washer (22), and grommet (23) from air conditioner rear wire harness (25).

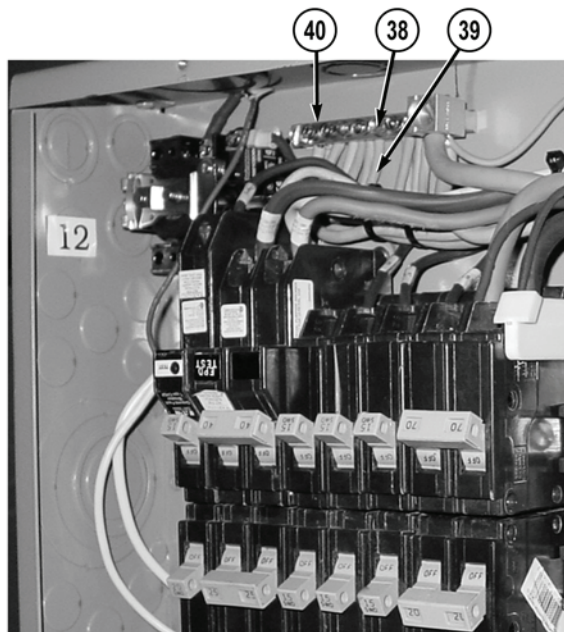


11. Remove four screws (26) and front panel (27) from air conditioner breaker box (28).

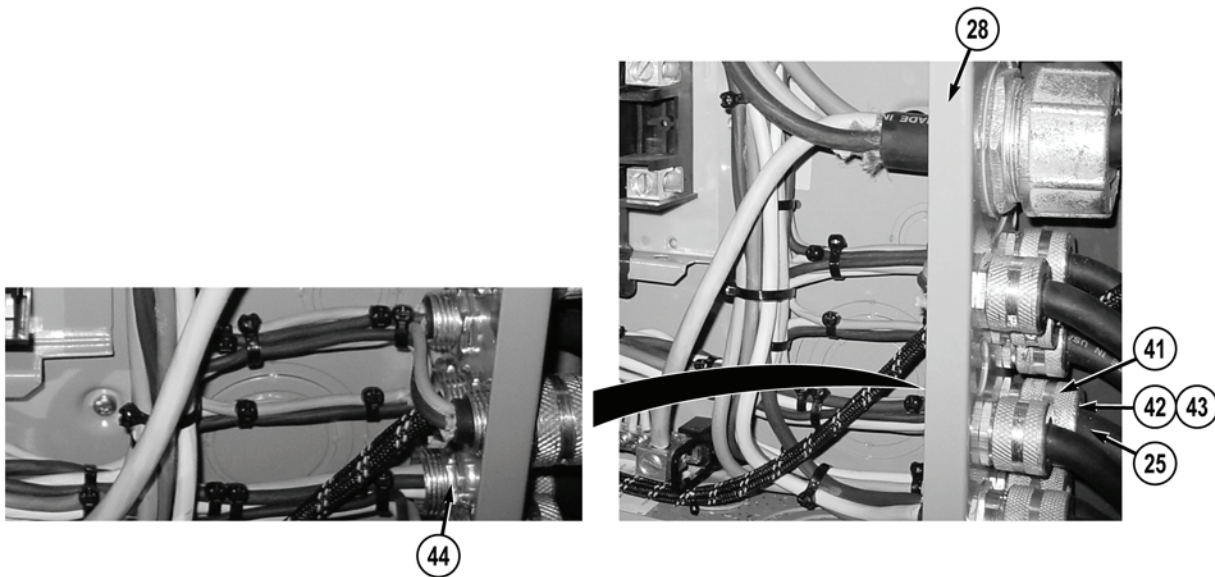




12. Loosen screw (29) and remove red wire (30) from circuit breaker 12 (31).
13. Loosen screw (32) and remove black wire (33) from circuit breaker 14 (34).
14. Loosen screw (35) and remove white wire (36) from bus bar (37).



15. Loosen screw (38) and remove green wire (39) from bus bar (40).



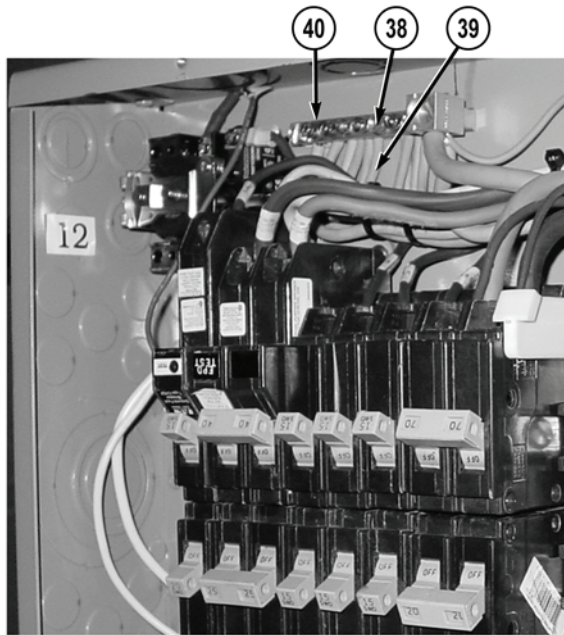
16. Remove compression nut (41), washer (42), and grommet (43) from air conditioner breaker box connector (44).
17. Remove air conditioner rear wire harness (25) from air conditioner breaker box (28).
18. Remove compression nut (41), washer (42), and grommet (43) from air conditioner rear wire harness (25).

#### END OF TASK

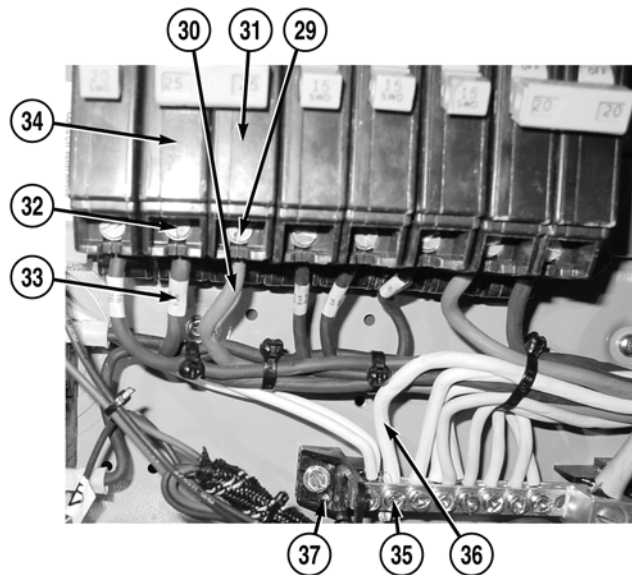
#### INSTALLATION

#### NOTE

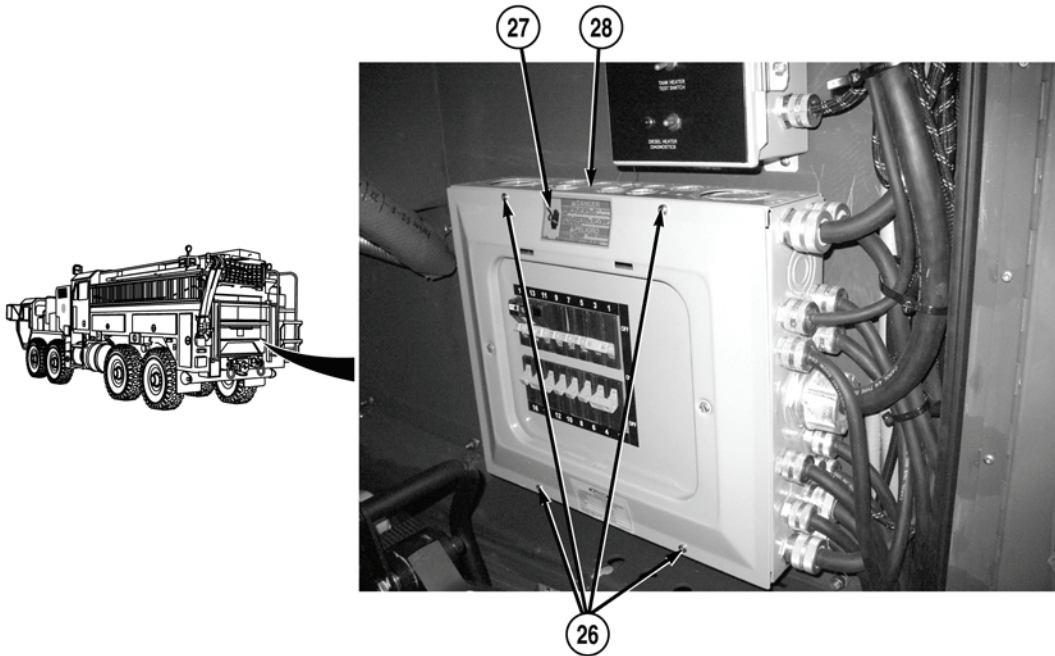
- Install wire harness as noted prior to removal.
  - Install cable ties, split looms, and cushion clips as noted.
1. Install grommet (43), washer (42), and compression nut (41) on air conditioner rear wire harness (25).
  2. Install air conditioner rear wire harness (25) in air conditioner breaker box (28).
  3. Install grommet (43), washer (42), and compression nut (41) on air conditioner breaker box connector (44).



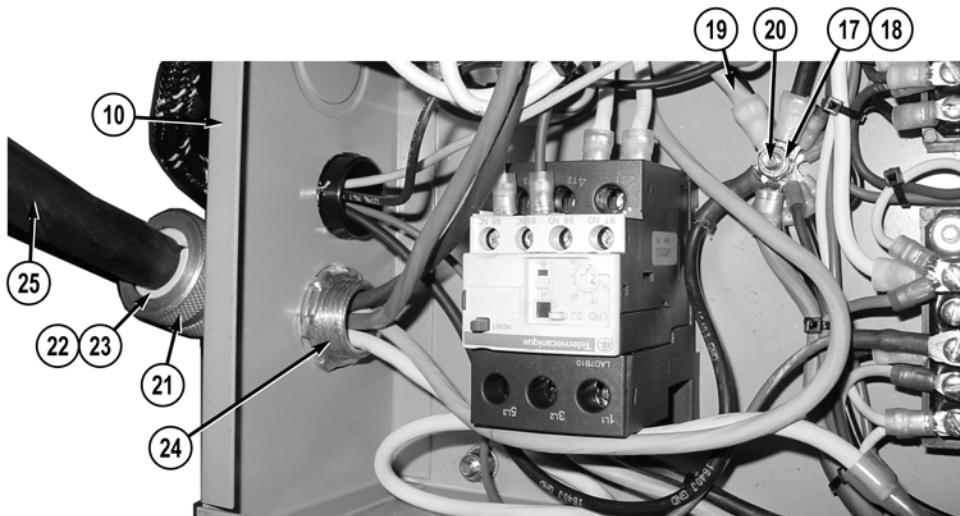
4. Install green wire (39) on bus bar (40) and tighten screw (38).



5. Install white wire (36) on bus bar (37) and tighten screw (35).
6. Install black wire (33) on circuit breaker 14 (34) and tighten screw (32).
7. Install red wire (30) on circuit breaker 12 (31) and tighten screw (29).



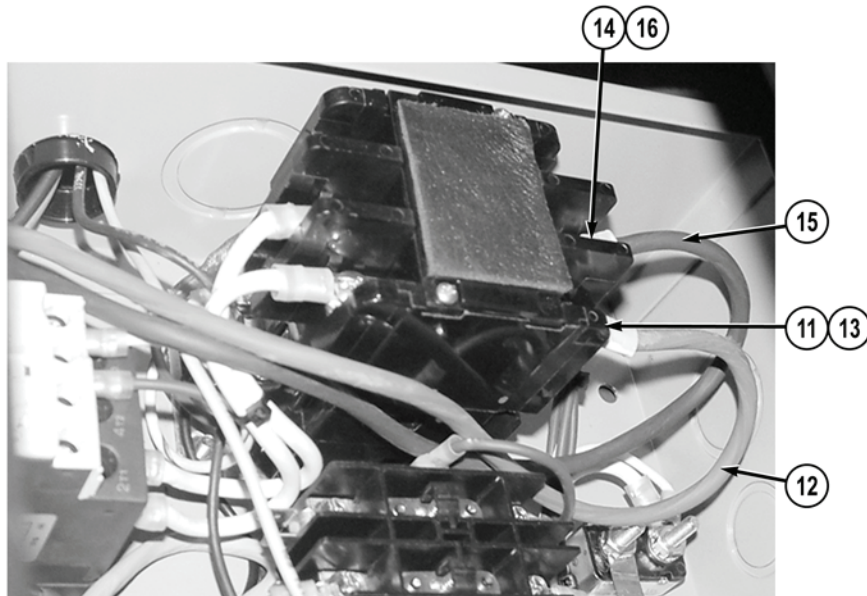
8. Install front panel (27) on air conditioner breaker box (28) with four screws (26).



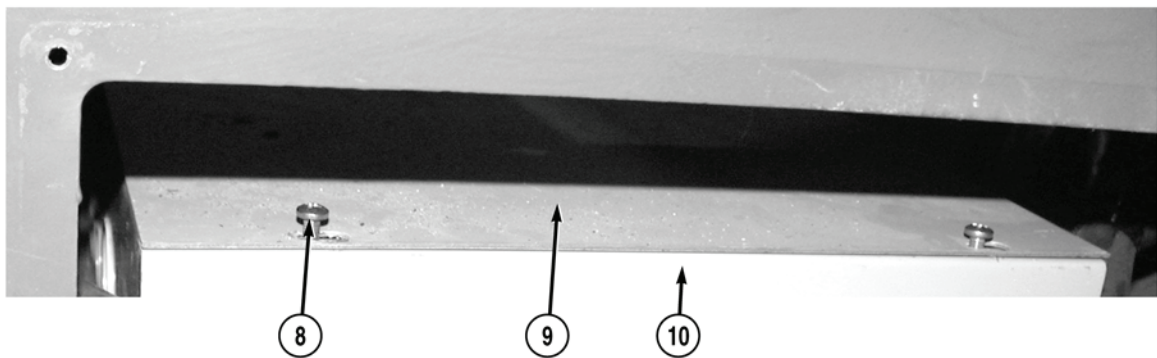
**NOTE**

White wire of air conditioner rear wire harness is not used in control box.

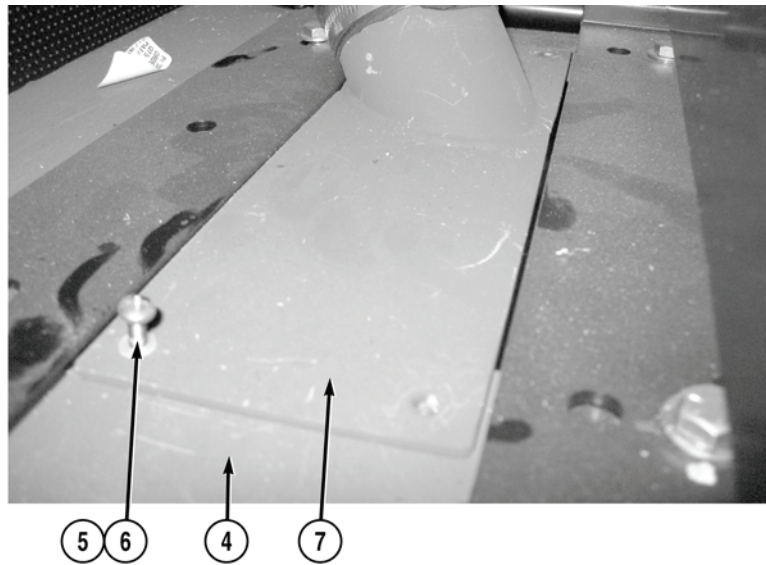
9. Install grommet (23), washer (22), and compression nut (21) on air conditioner rear wire harness (25).
10. Install air conditioner rear wire harness (25) in control box (10).
11. Install grommet (23), washer (22), and compression nut (21) on control box connector (24).
12. Install green wire (19) on ground stud (20) with lockwasher (18) and nut (17).



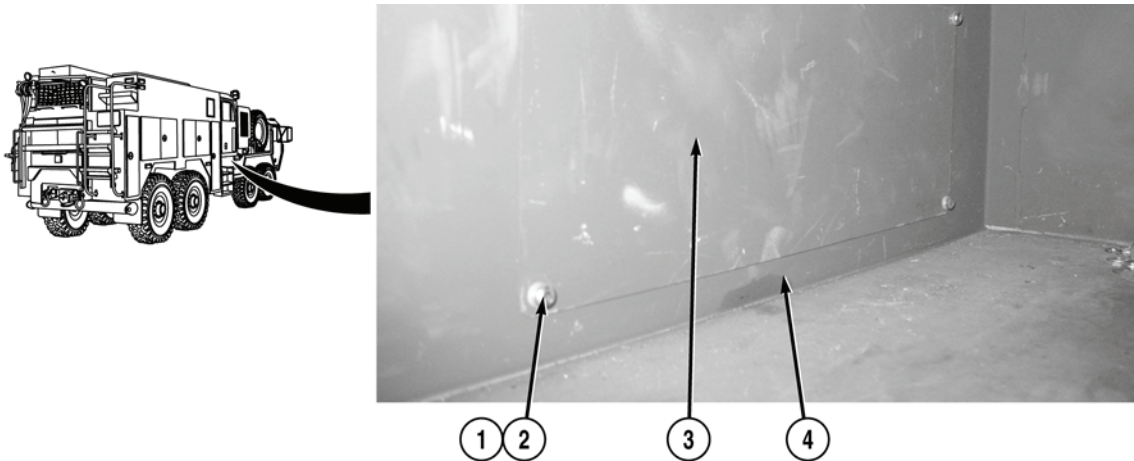
13. Install black wire (15) on contactor terminal L2 (16) with screw (14).
14. Install red wire (12) on contactor terminal L1 (13) and tighten screw (11).



15. Install control box cover (9) on control box (10) with four screws (8).



16. Install fresh-air bracket (7) on crew cab (4) with four washers (6) and screws (5).



17. Install cover (3) on crew cab (4) with four washers (2) and screws (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Close rear stowage compartment doors (WP 0010)
2. Install crew cab bench seat and access panel (WP 0501)
3. Connect batteries (TM 9-2320-325-14&P)

#### END OF TASK

#### END OF WORK PACKAGE

---

**FIELD LEVEL MAINTENANCE****BODY AIR CONDENSER WIRE HARNESS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing (WP 0625, Item 17)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (1)  
Lockwasher (1)  
Nylon washer (4)  
Nylon washer (4)  
Lockwasher (1)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

**References**

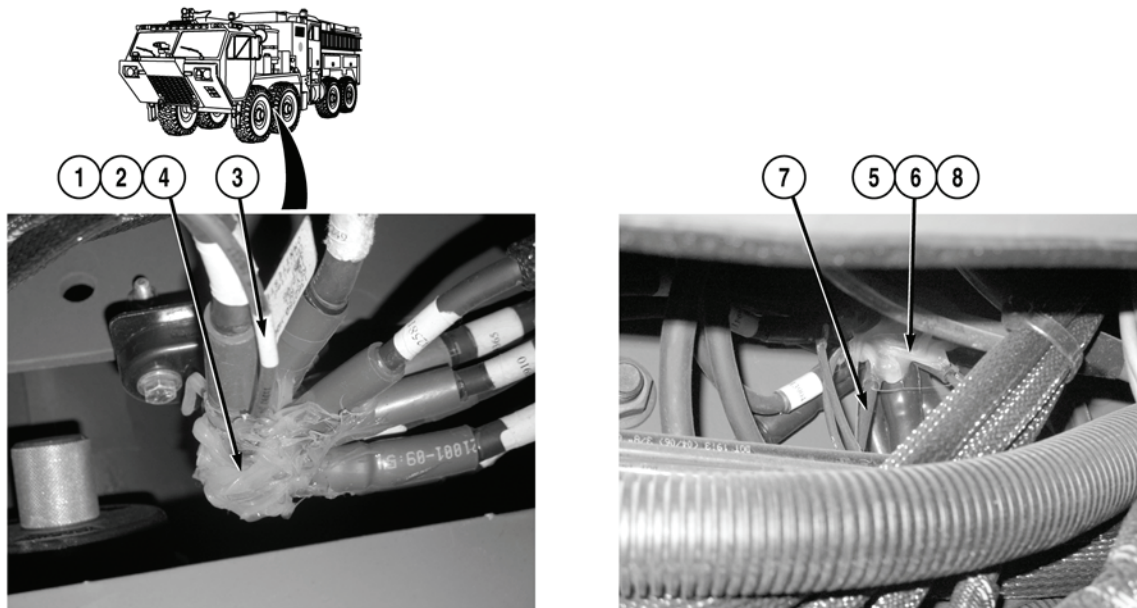
WP 0501  
WP 0614, Fig. 4, 6

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

---

## REMOVAL

**NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
- Note routing of body condenser wire harness prior to removal to ensure proper installation.
- Note position and remove cable ties, split looms, and cushion clips as required.
- B+ stud is located on frame rail crossmember under vehicle.

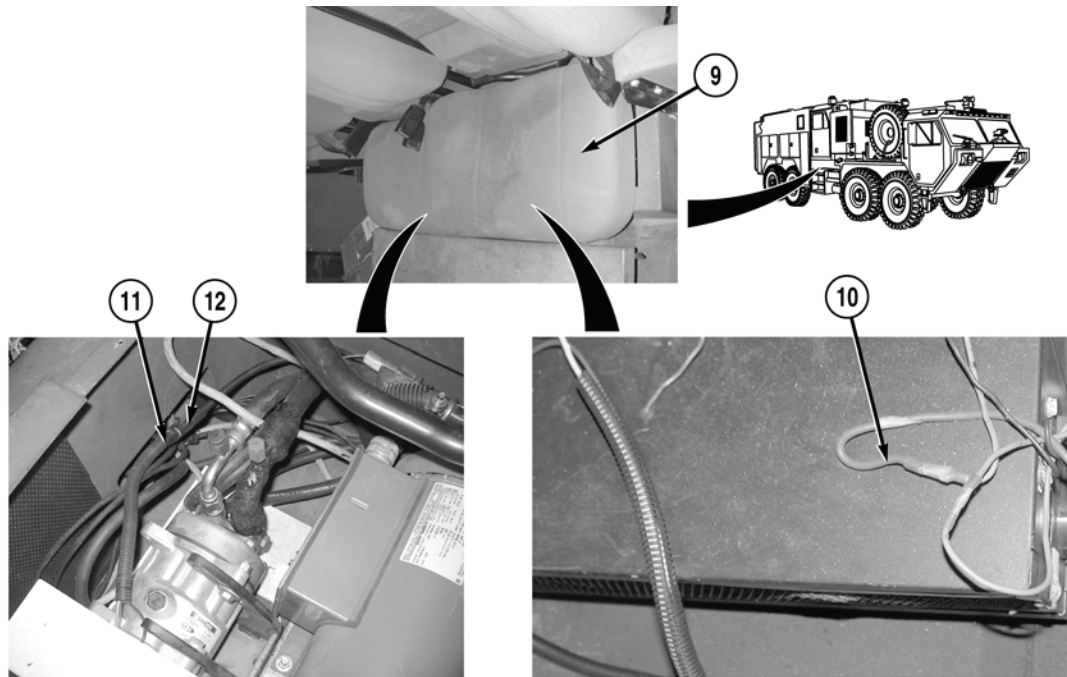
1. Remove nut (1), lockwasher (2), and wire 1138 (3) from B+ stud (4). Discard lockwasher.

**NOTE**

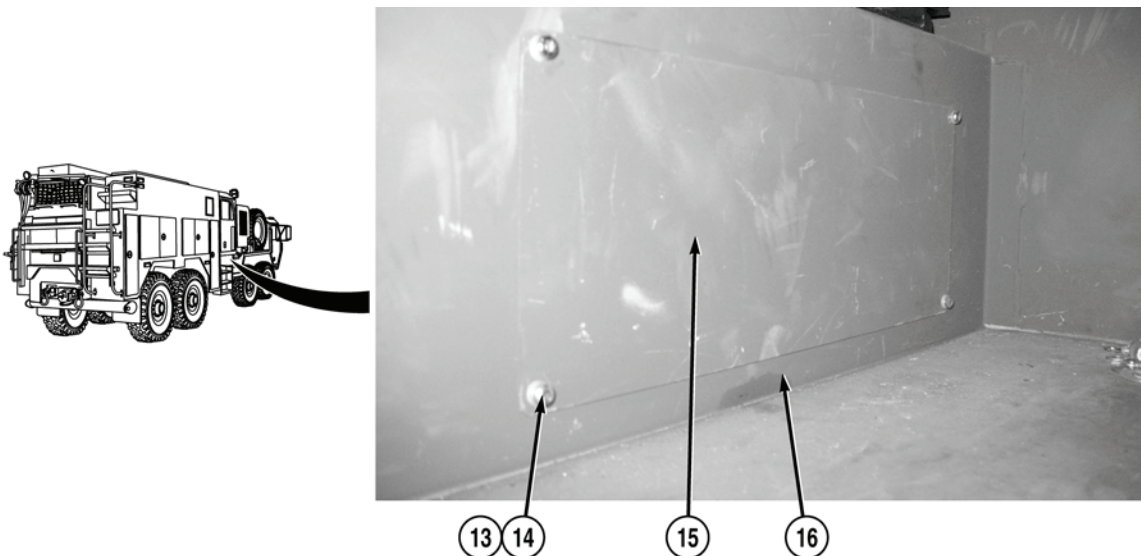
Ground stud is located on driver side frame rail.

2. Remove nut (5), lockwasher (6), and wire 1640 (7) from ground stud (8). Discard lockwasher.





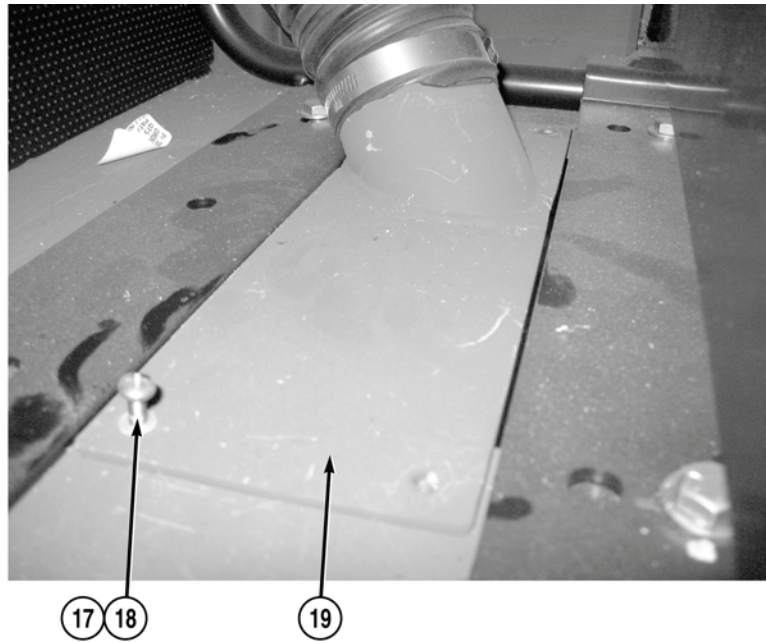
3. Remove crew cab bench seat (9) (WP 0501).
4. Cut wire 2400 (10) (TM 9-2320-325-14&P).
5. Disconnect air compressor clutch connector (11) from body condenser wire harness connector (12).



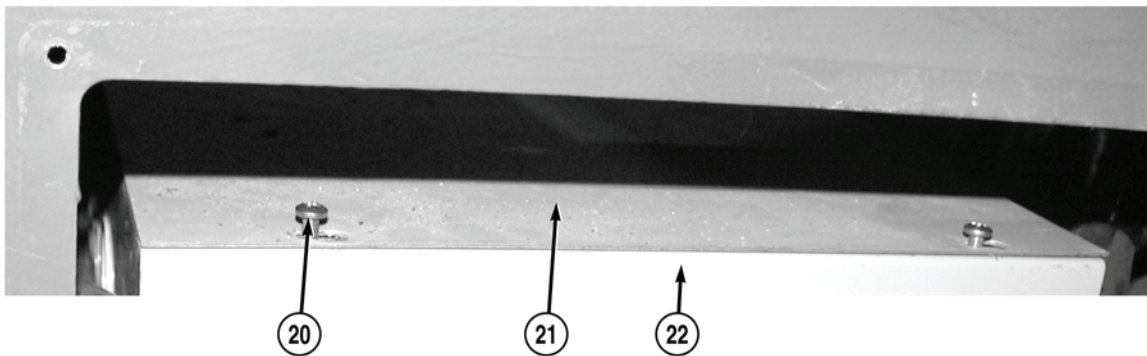
**NOTE**

Control box is located under crew cab passenger side seat.

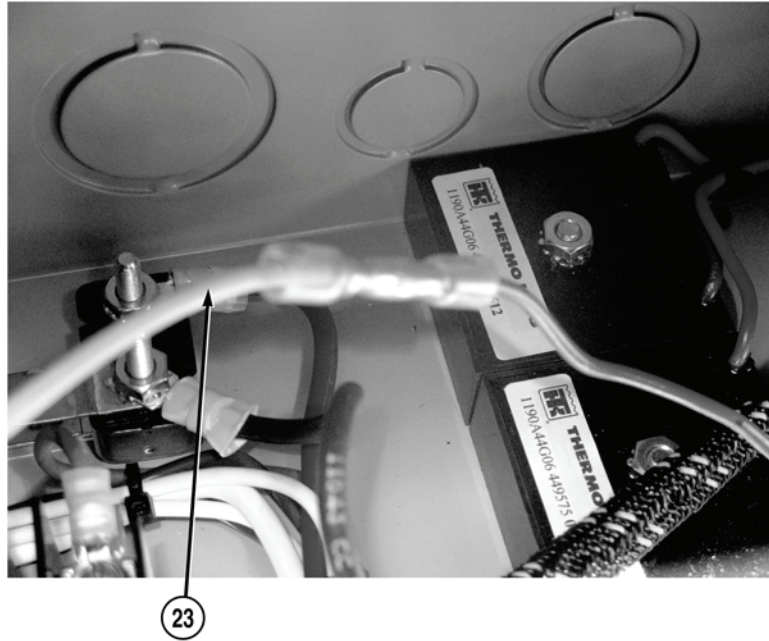
6. Remove four screws (13), nylon washers (14), and cover (15) from crew cab (16). Discard nylon washers.



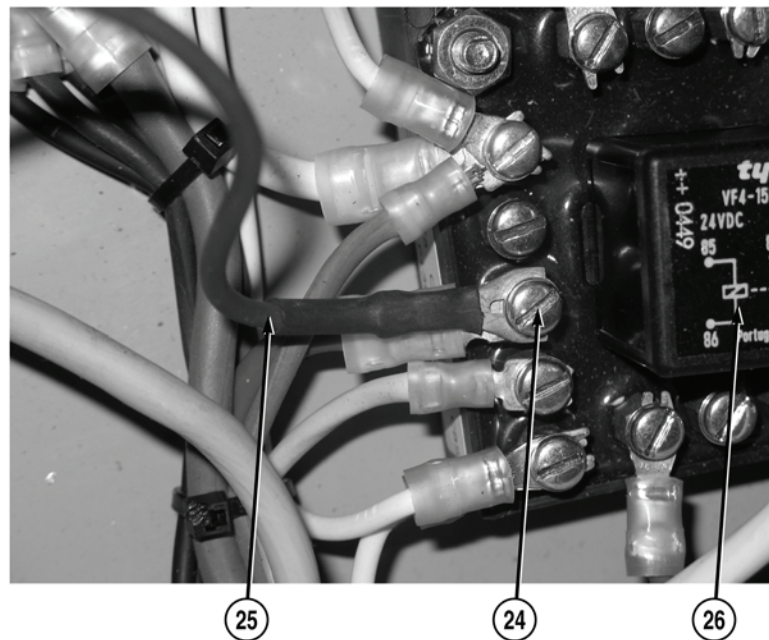
7. Remove four screws (17) and nylon washers (18), and move fresh air bracket (19) out of the way. Discard nylon washers.



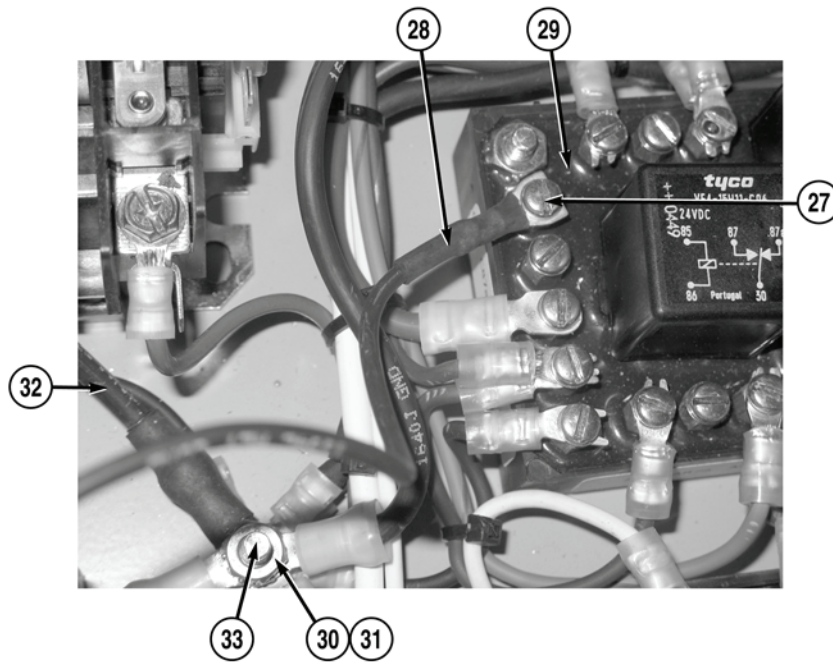
8. Loosen four screws (20) and remove control box cover (21) from control box (22).



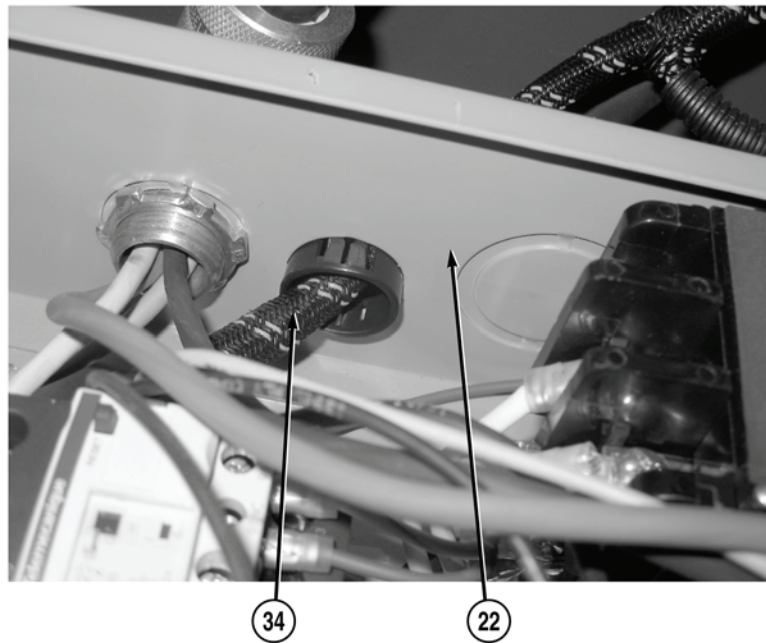
9. Cut wire 4041 (23) (TM 9-2320-325-14&P).



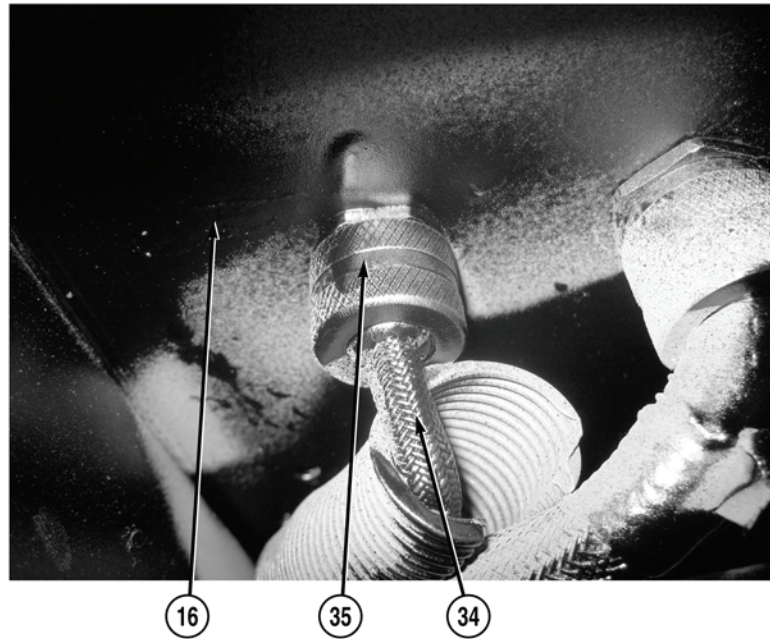
10. Loosen screw (24) and remove wire 4042 (25) from fresh air relay (26).



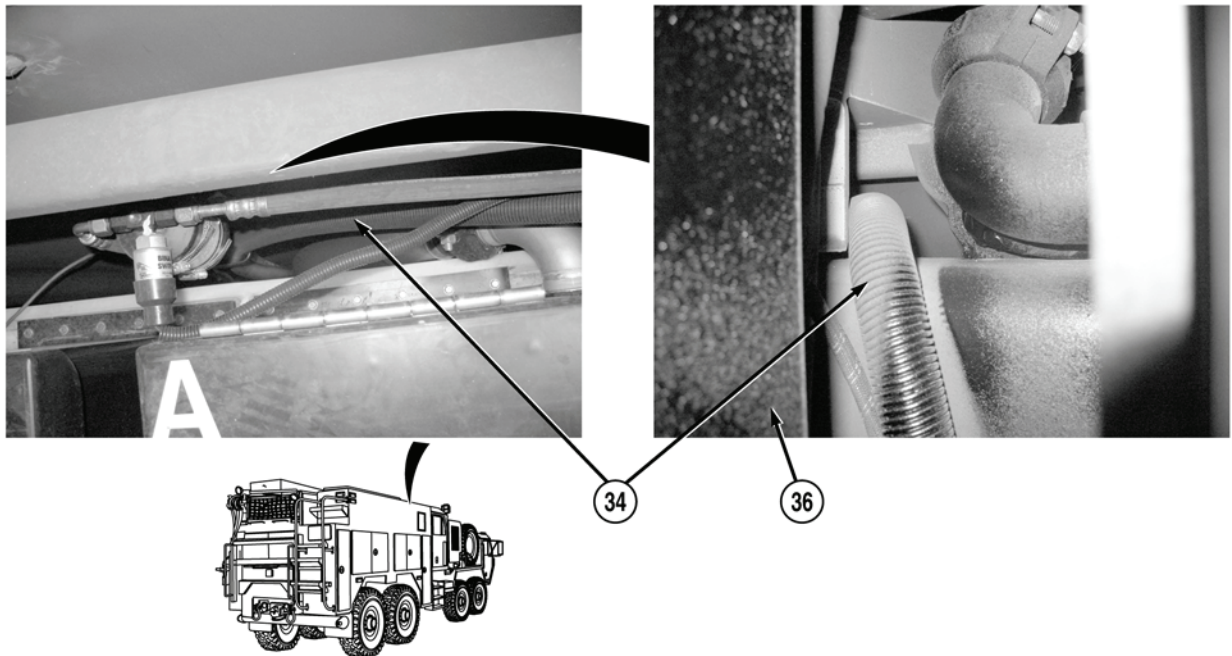
11. Loosen screw (27) and remove wire 1394 (28) from relay (29).
12. Remove nut (30), lockwasher (31), and wire 1640 (32) from ground stud (33). Discard lockwasher.



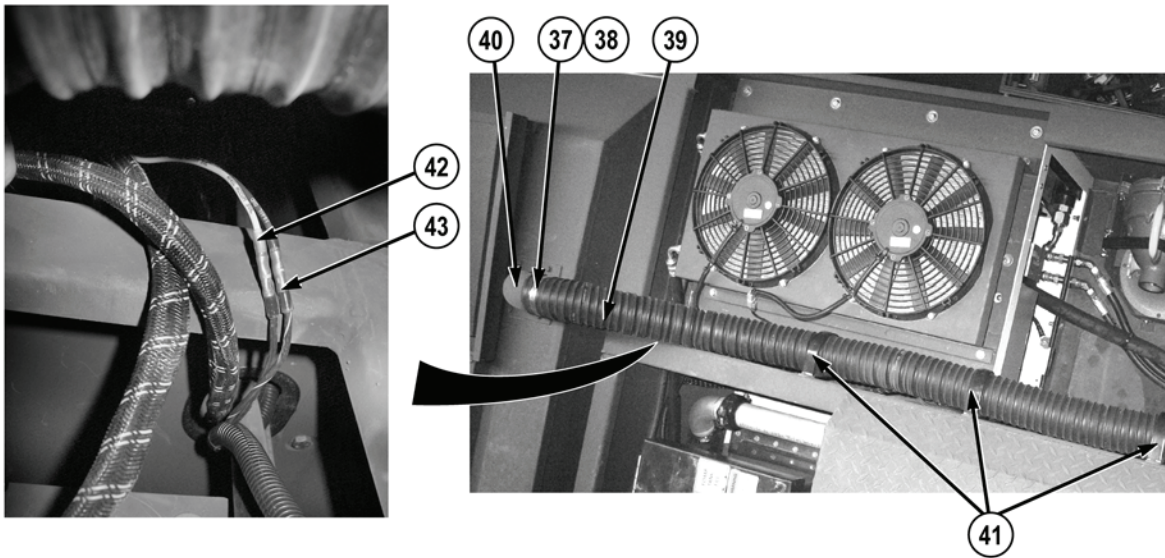
13. Remove body condenser wire harness (34) from control box (22).



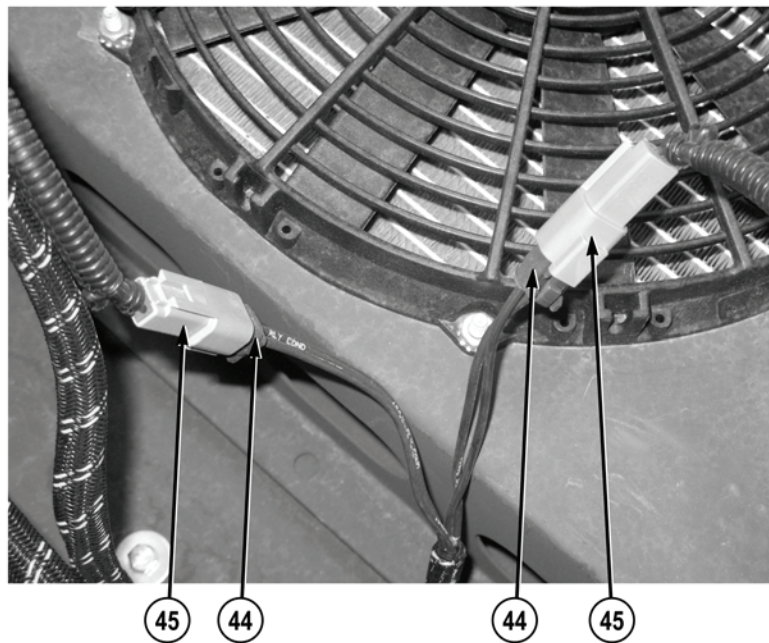
14. Loosen nut (35) and remove body condenser wire harness (34) from crew cab (16).



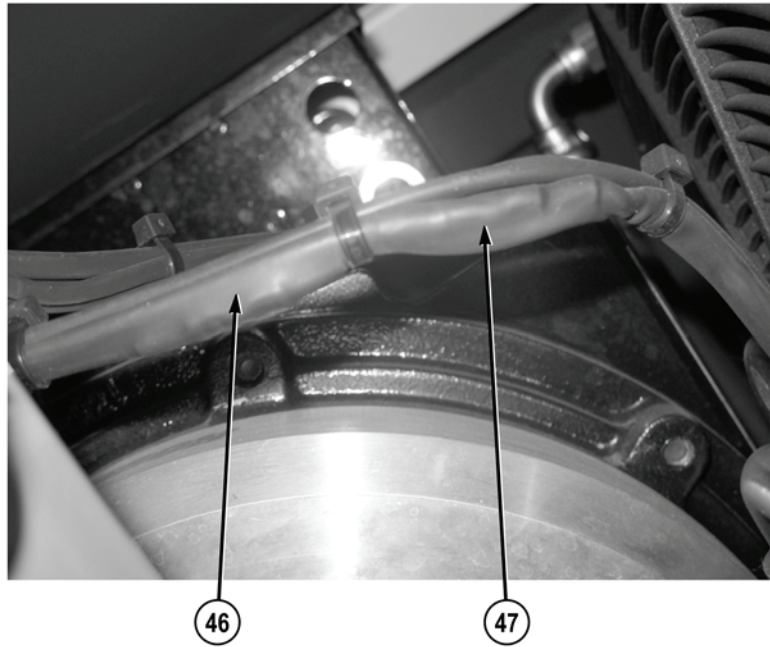
15. With the aid of an assistant, carefully pull body condenser wire harness (34) through bulkhead (36).



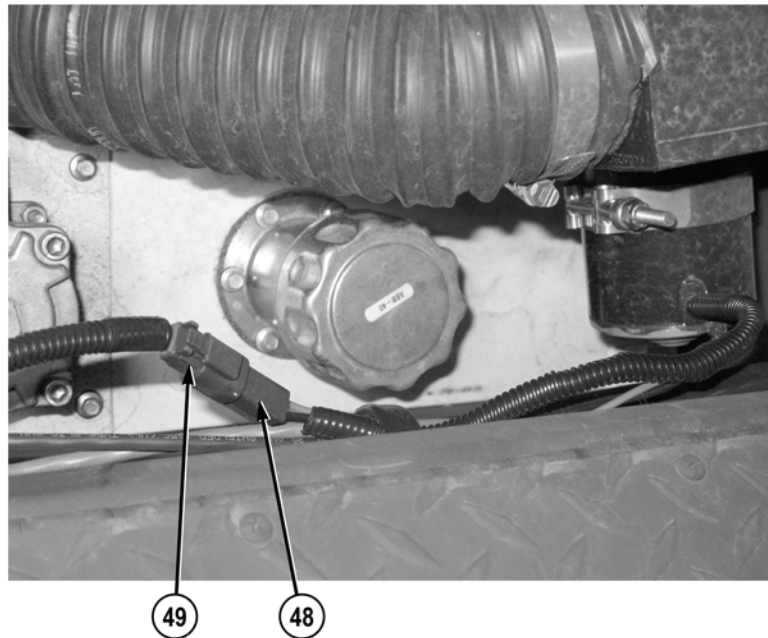
16. Loosen screw (37) and remove clamp (38) from hose (39) and elbow (40).
17. Pull hose (39) through three clamps (41) and out of the way.
18. Cut wire 4041 (42) and wire 1640 (43) (TM 9-2320-325-14&P).



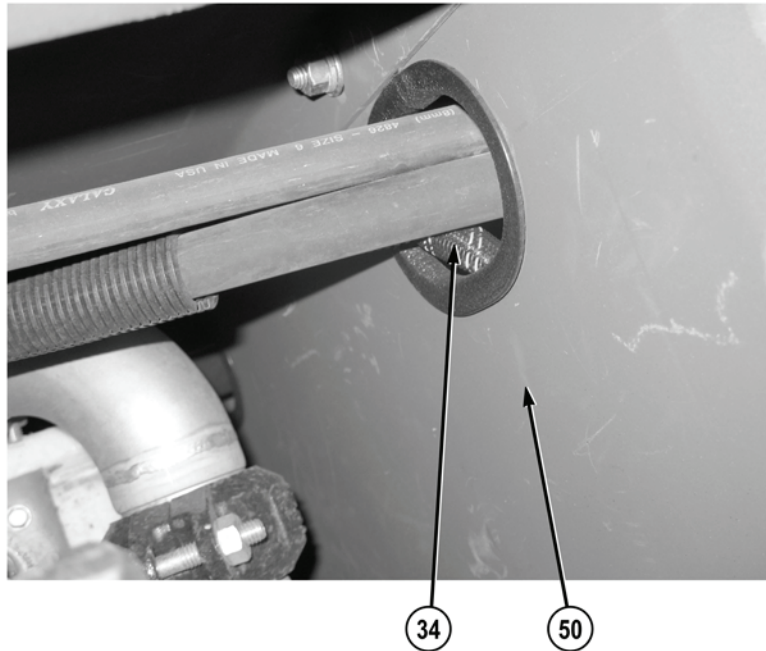
19. Disconnect two fan connectors (44) from body condenser wire harness connectors (45).



20. Cut two generator fan wires 1640 (46) and 1138 (47) (TM 9-2320-325-14&P).



21. Disconnect fresh air fan connector (48) from body condenser wire harness connector (49).



22. Remove body condenser wire harness (34) from hydraulic generator compartment (50) and vehicle.

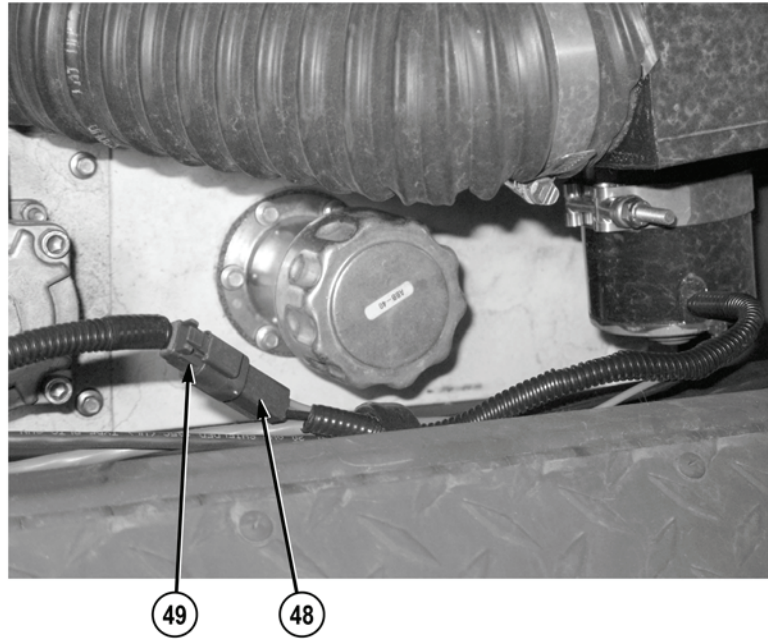
#### END OF TASK

#### INSTALLATION

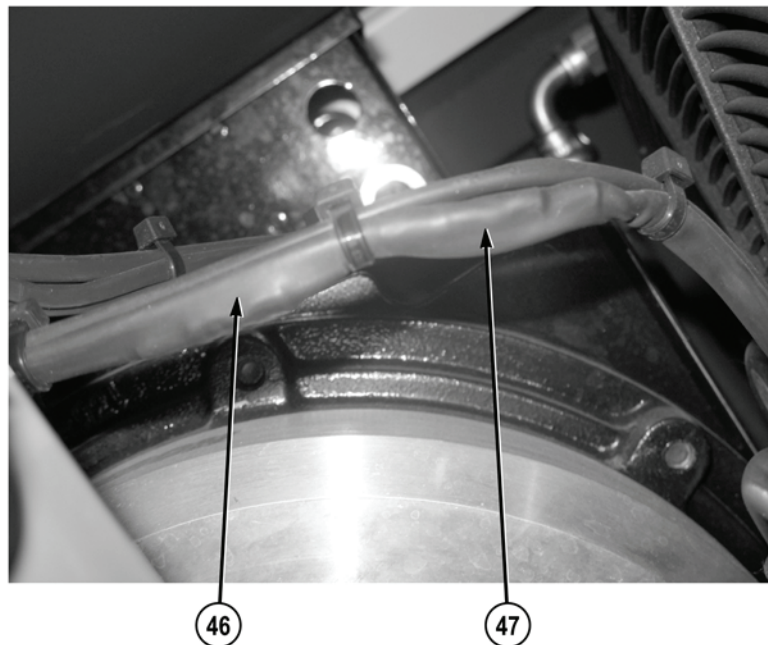
#### NOTE

- Install body condenser wire harness as noted prior to removal.
  - Install cushion clips, looms, and cable ties as noted.
1. Install body condenser wire harness (34) on vehicle and through hydraulic generator compartment (50).

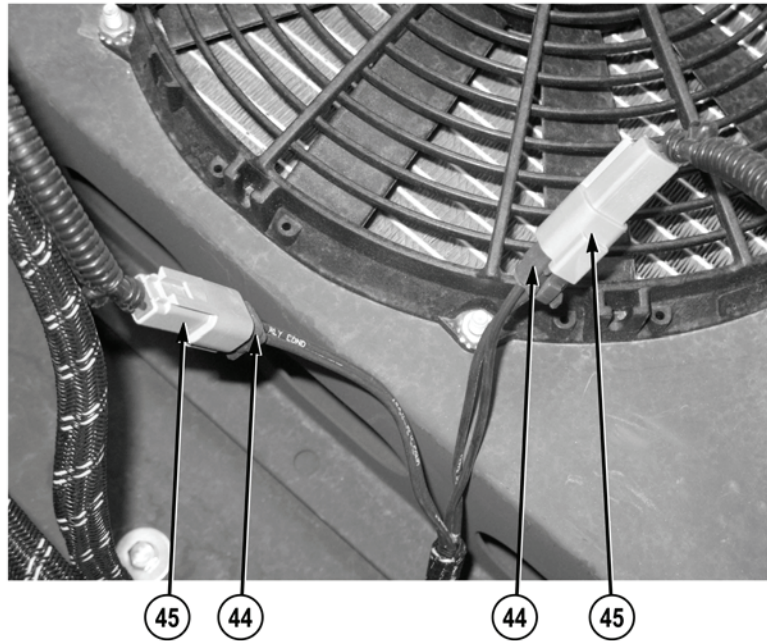




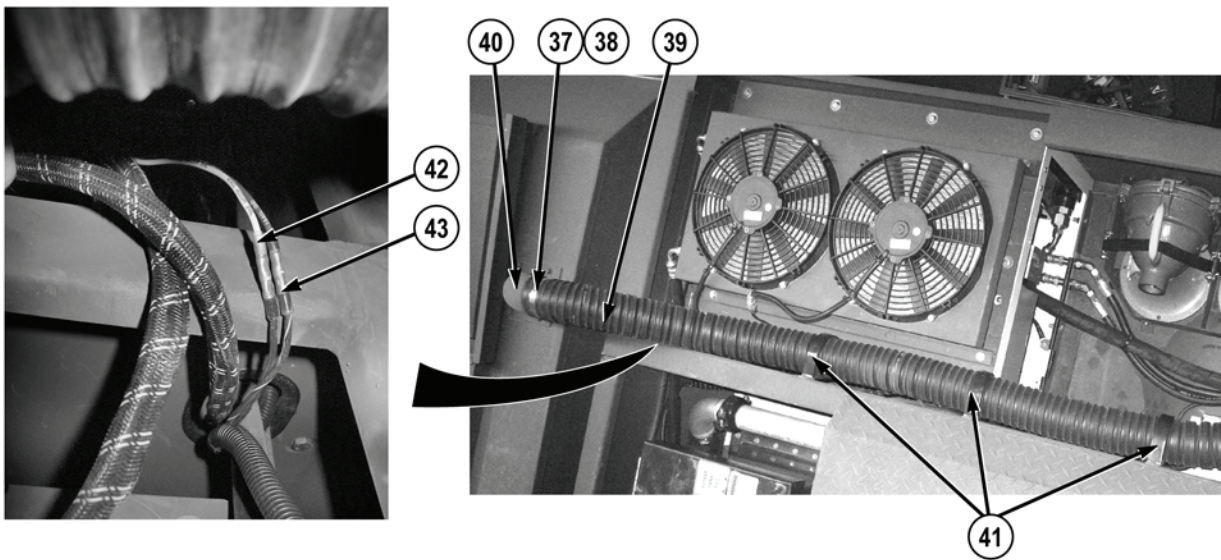
2. Connect fresh air fan connector (48) to body condenser wire harness connector (49).



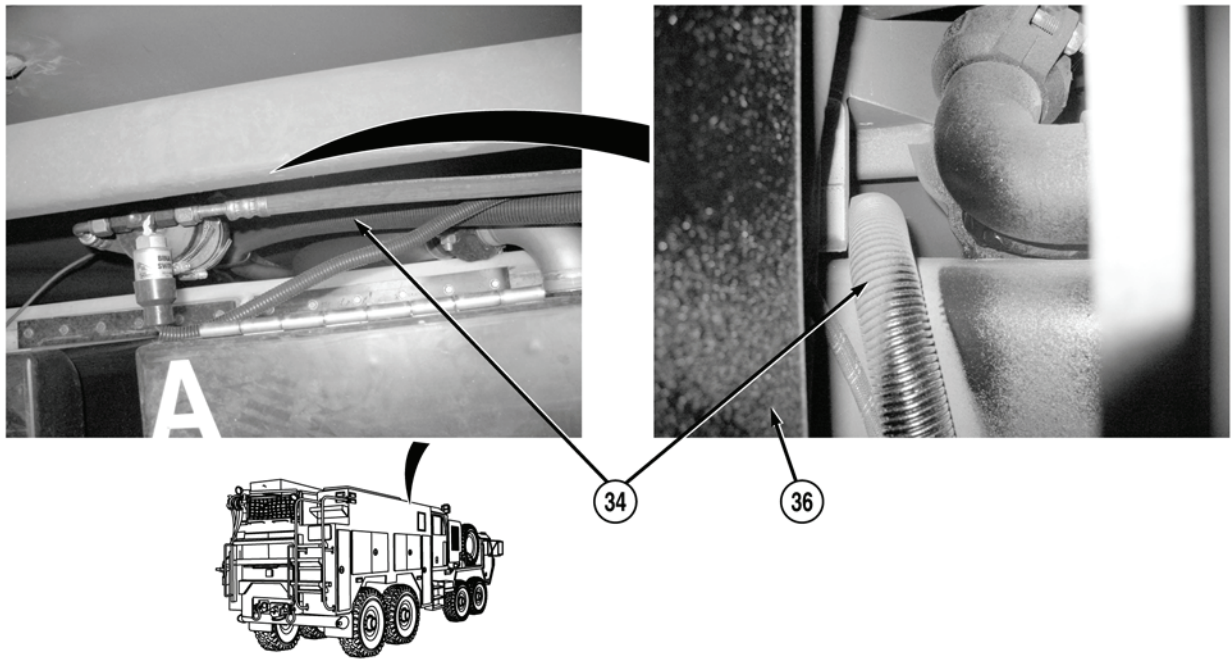
3. Repair two generator fan wires 1138 (47) and 1640 (46) (TM 9-2320-325-14&P).



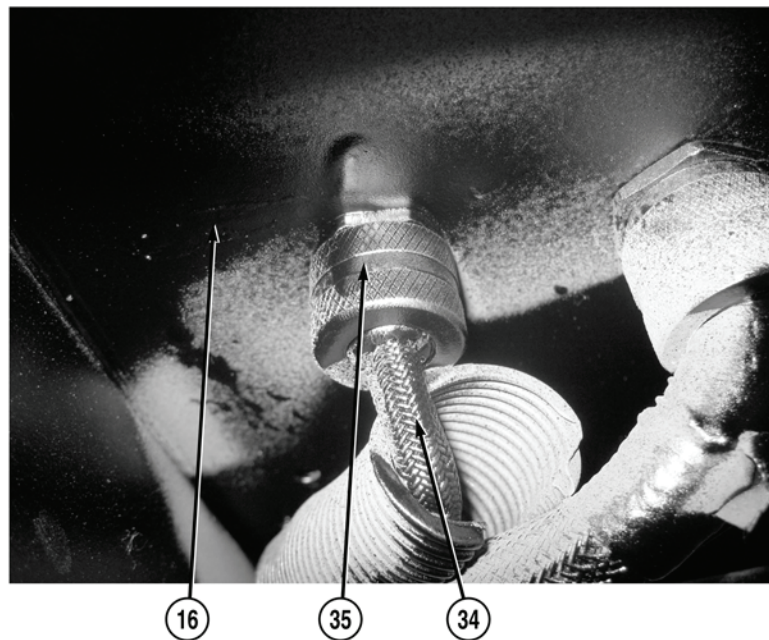
4. Connect two fan connectors (44) to body condenser wire harness connectors (45).



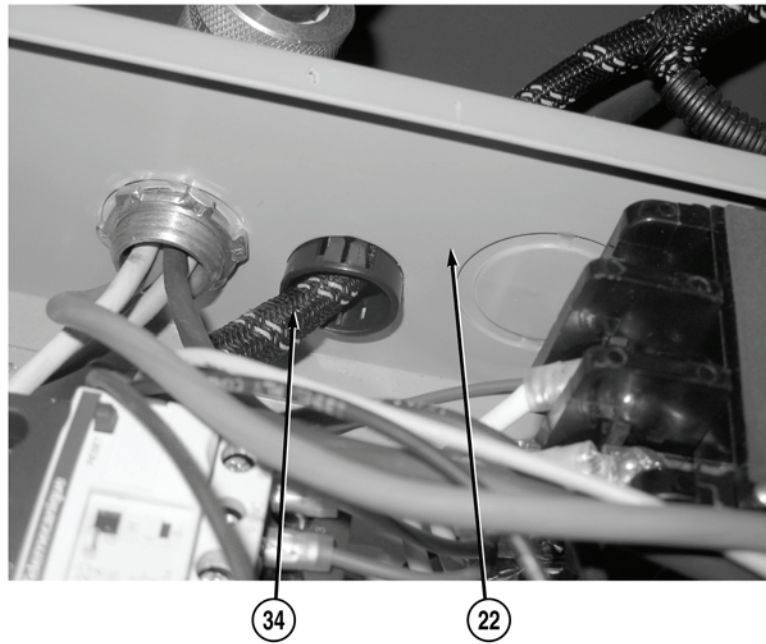
5. Repair wire 1640 (43) and wire 4041 (42) (TM 9-2320-325-14&P).
6. Pull hose (39) through three clamps (41).
7. Install hose (39) on elbow (40) with clamp (38) and tighten screw (37).



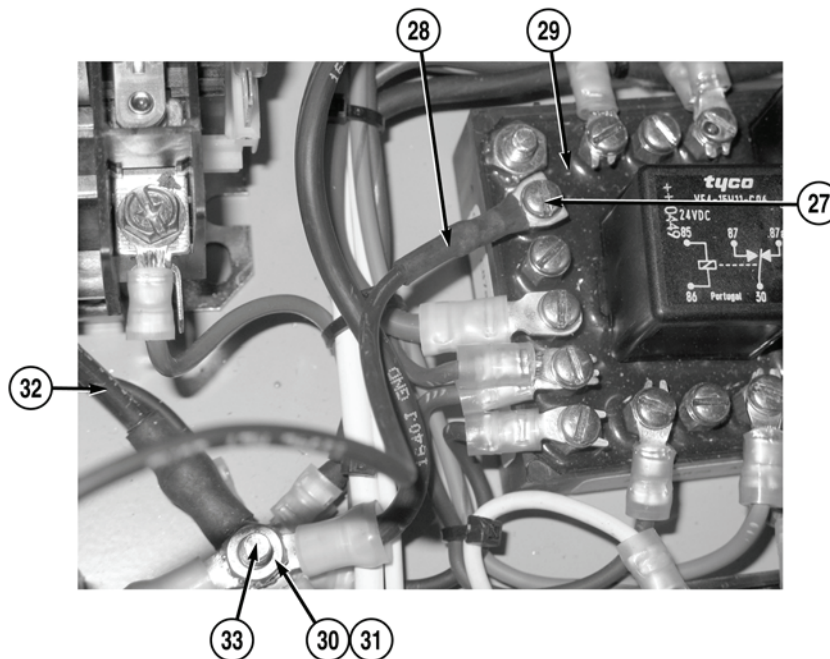
8. With the aid of an assistant, pull body condenser wire harness (34) through bulkhead (36).



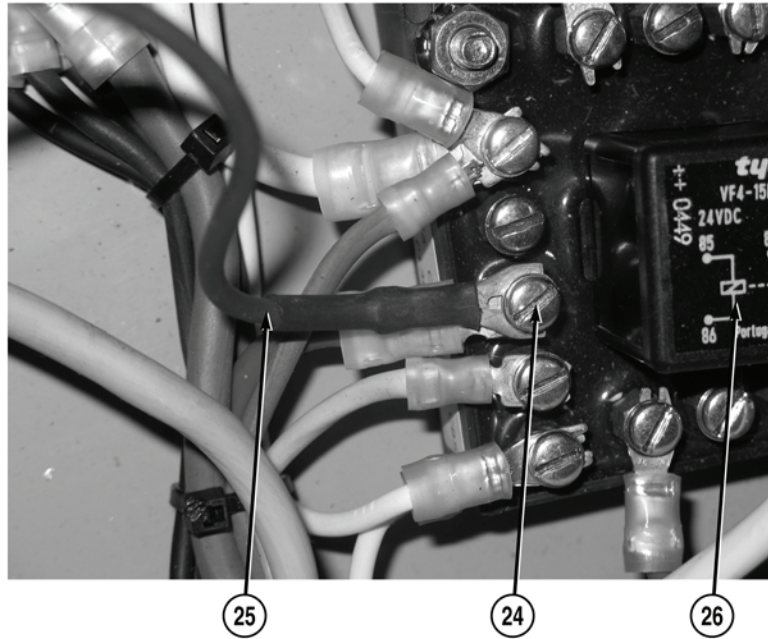
9. With the aid of an assistant, pull body condenser wire harness (34) through crew cab (16) and tighten nut (35).



10. Install body condenser wire harness (34) in control box (22).



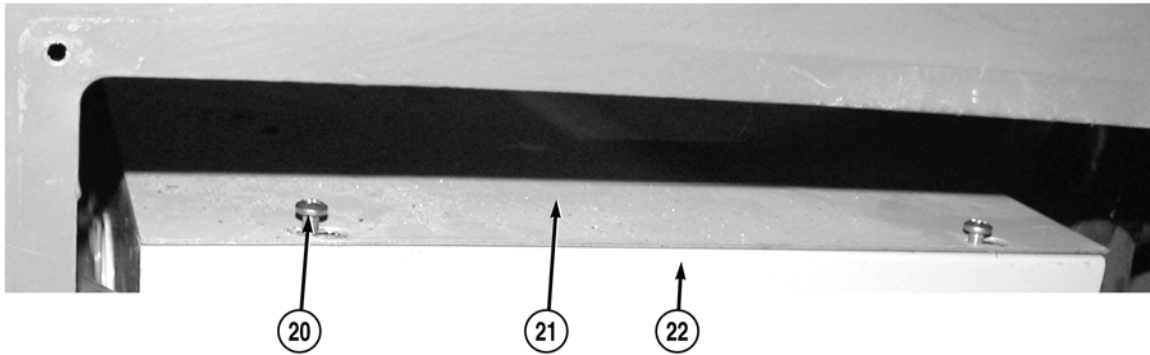
11. Install wire 1640 (32) on ground stud (33) with lockwasher (31) and nut (30).
12. Install wire 1394 (28) on relay (29) and tighten screw (27).



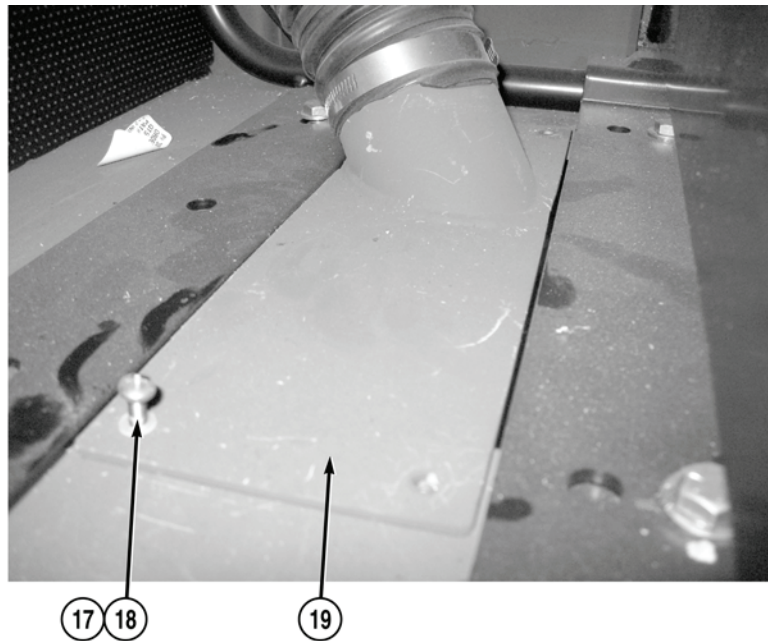
13. Install wire 4042 (25) on fresh air relay (26) and tighten screw (24).



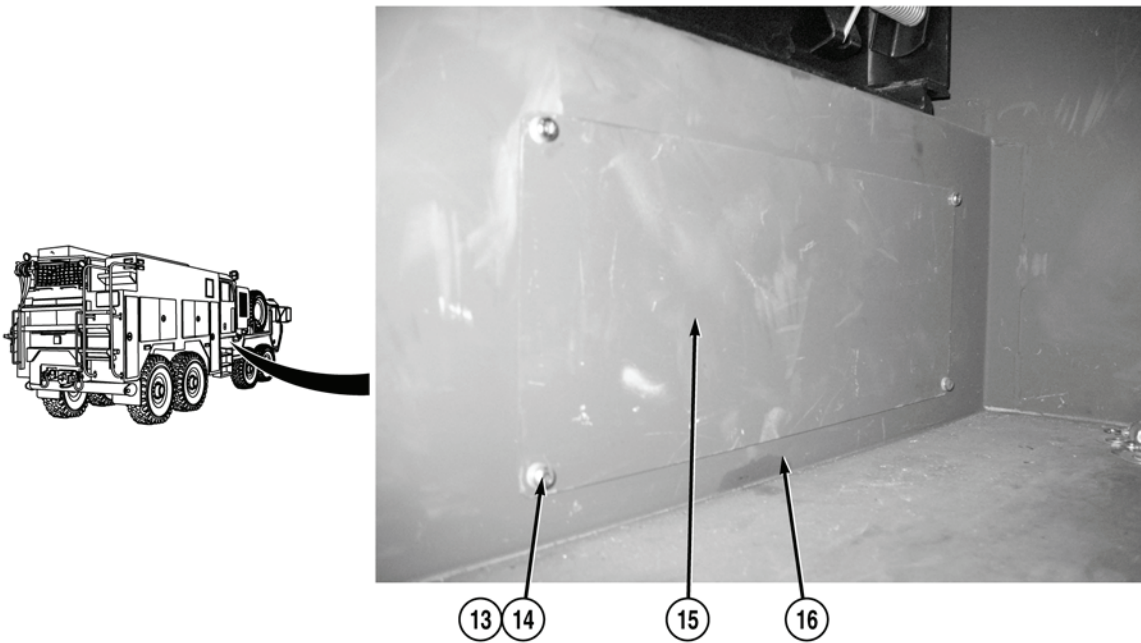
14. Repair wire 4041 (23) (TM 9-2320-325-14&P).



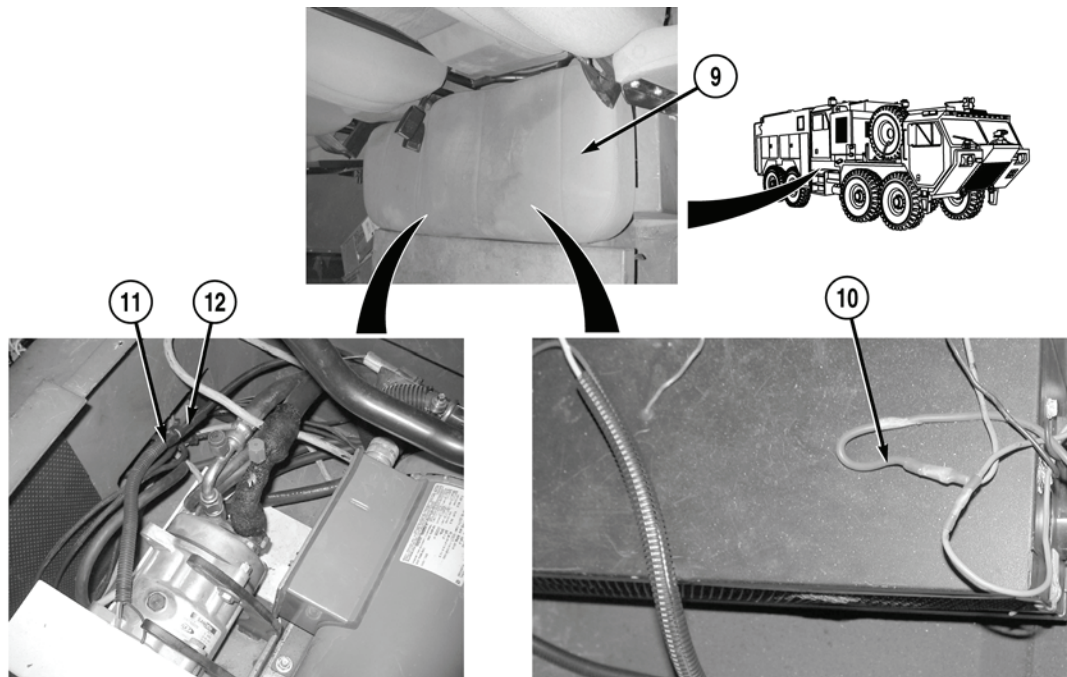
15. Install control box cover (21) on control box (22) and tighten four screws (20).



16. Install fresh air bracket (19) with four washers (18) and screws (17).



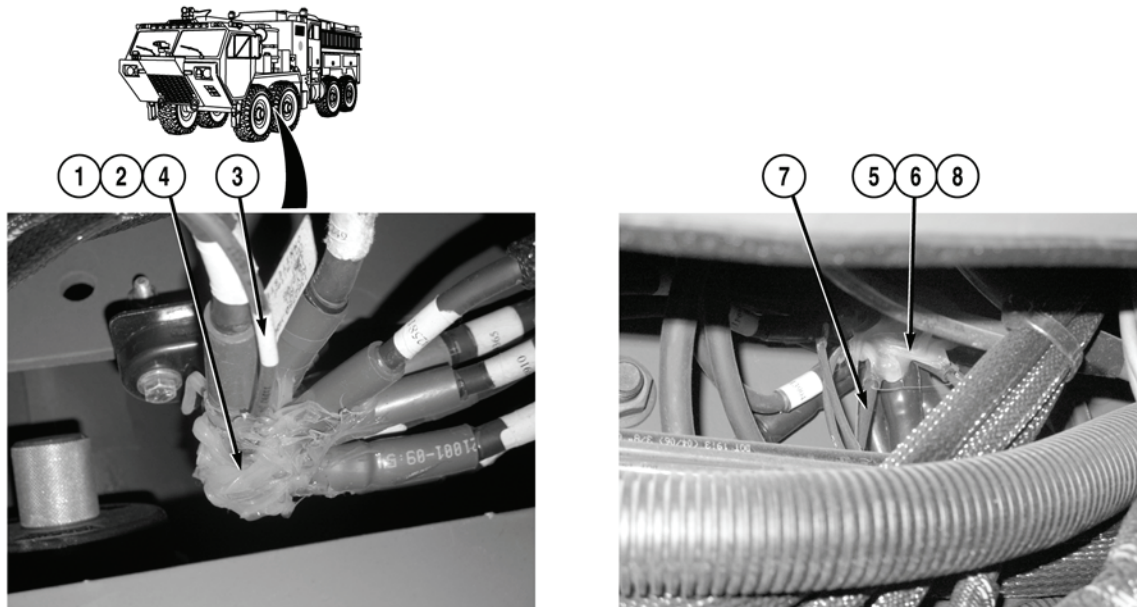
17. Install cover (15) on crew cab (16) with four washers (14) and screws (13).



18. Connect air compressor clutch connector (11) to body condenser wire harness connector (12).

19. Repair wire 2400 (10) (TM 9-2320-325-14&P).

20. Install crew cab bench seat (9) (WP 0501).



21. Install wire 1640 (7) on ground stud (8) with lockwasher (6) and nut (5).
22. Install wire 1138 (3) on B+ stud (4) with lockwasher (2) and nut (1).

### **WARNING**



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

23. Apply sealing compound to ground stud (8) and B+ stud (4) wire connections.

### **END OF TASK**

### **FOLLOW-ON MAINTENANCE**

1. Connect batteries (TM 9-2320-325-14&P)
2. Remove wheel chocks (TM 9-2320-347-10)

### **END OF TASK**

### **END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**BUMPER TURRET WIRE HARNESS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (6)

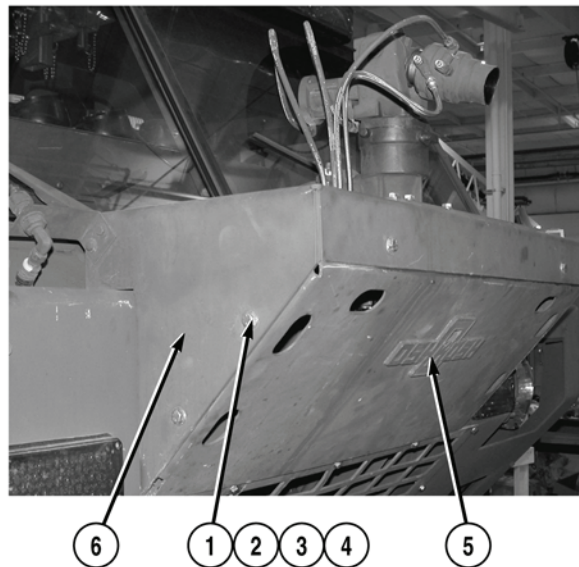
**References**

WP 0615, Fig. 168

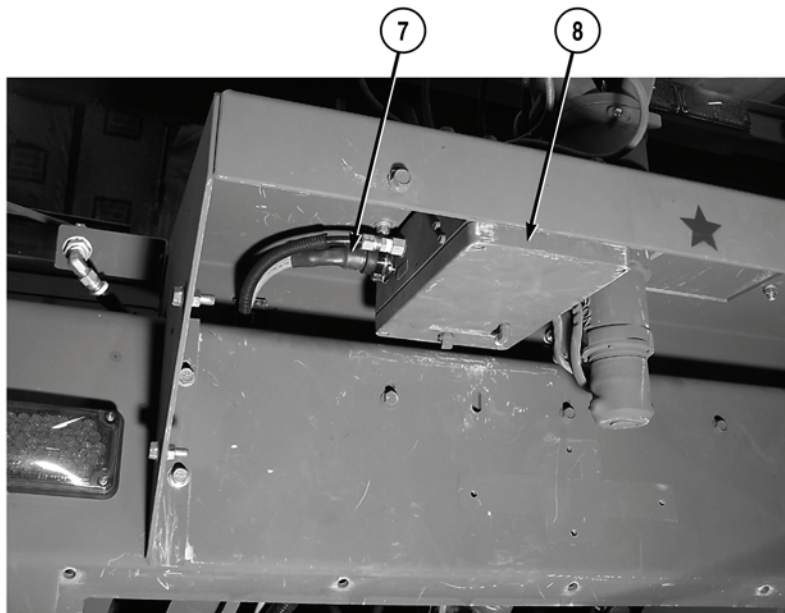
**Equipment Conditions**

Cab instrument panel E removed (WP 0311)  
Skid plate grille removed (WP 0550)

---

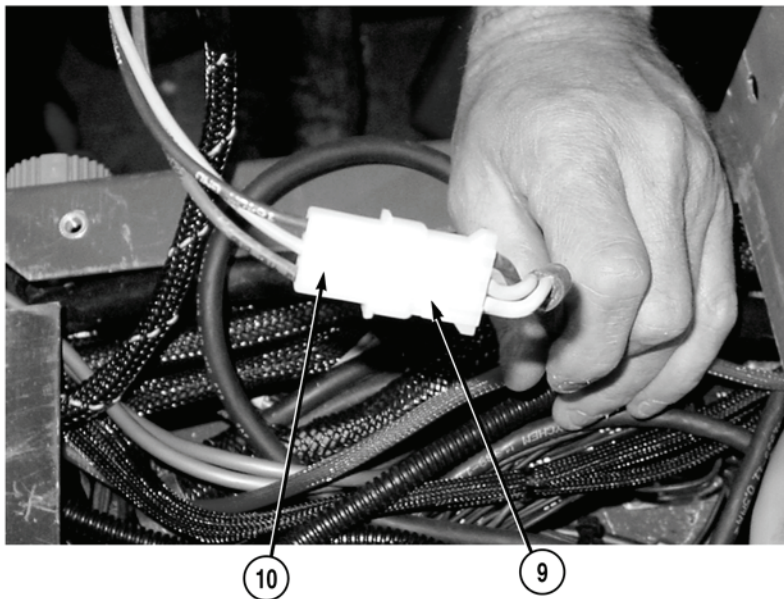
**REMOVAL**

1. Remove six nuts (1), lockwashers (2), 12 washers (3), six screws (4), and cover (5) from bumper turret mount (6). Discard lockwashers.

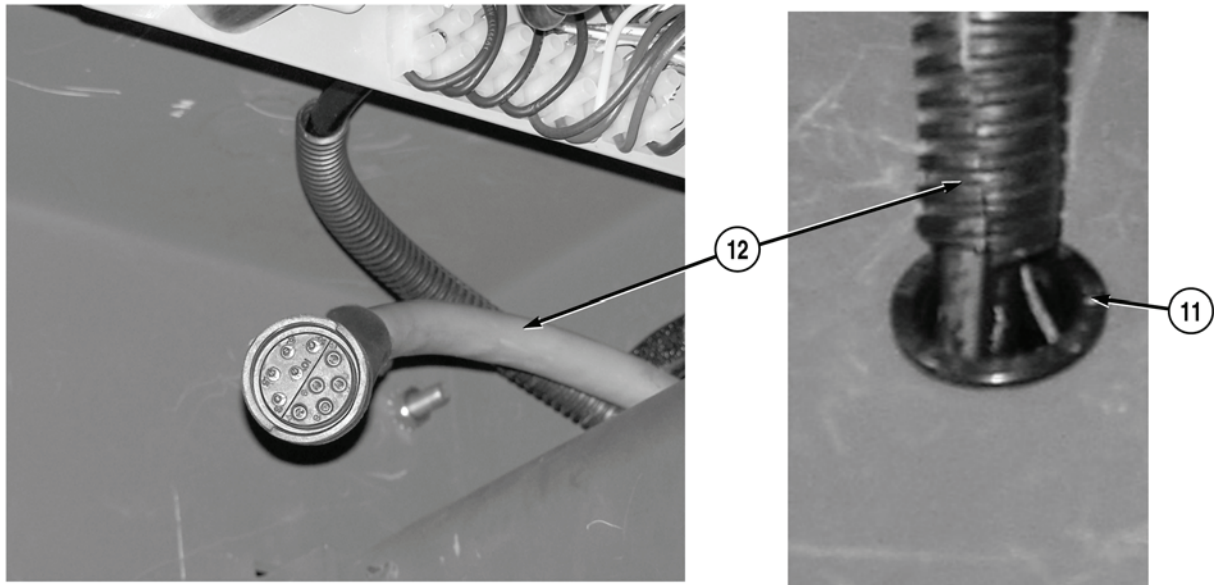


### NOTE

- Tag and mark wires prior to removal to ensure proper installation.
  - Note routing of bumper turret wire harness prior to removal to ensure proper installation.
  - Note position and remove cable ties, split loom, and cushion clips as required.
2. Disconnect bumper turret wire harness connector (7) from bumper turret junction box (8).



3. Disconnect bumper turret control connector (9) from cab power distribution wire harness connector (10).

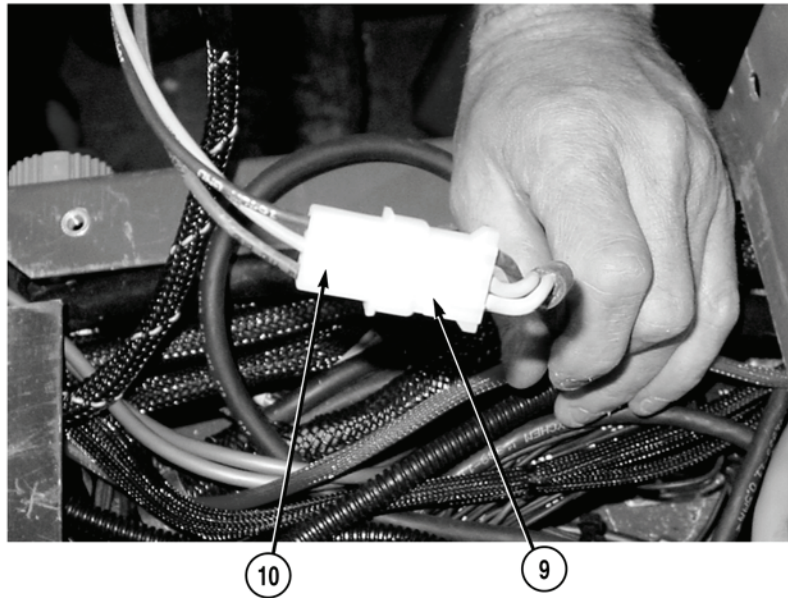
**NOTE**

Bumper turret wire harness must be routed into cab for removal from vehicle.

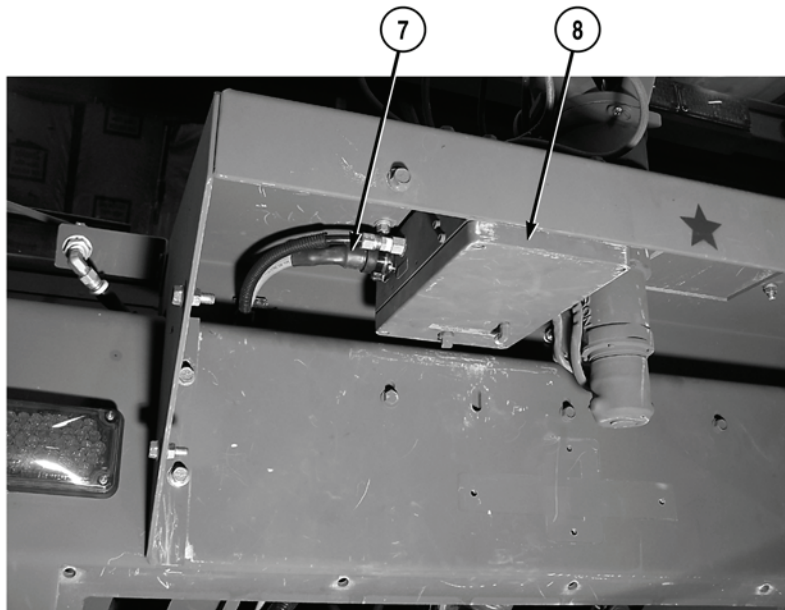
4. Remove grommet (11) and bumper turret wire harness (12) from vehicle.

**END OF TASK****INSTALLATION****NOTE**

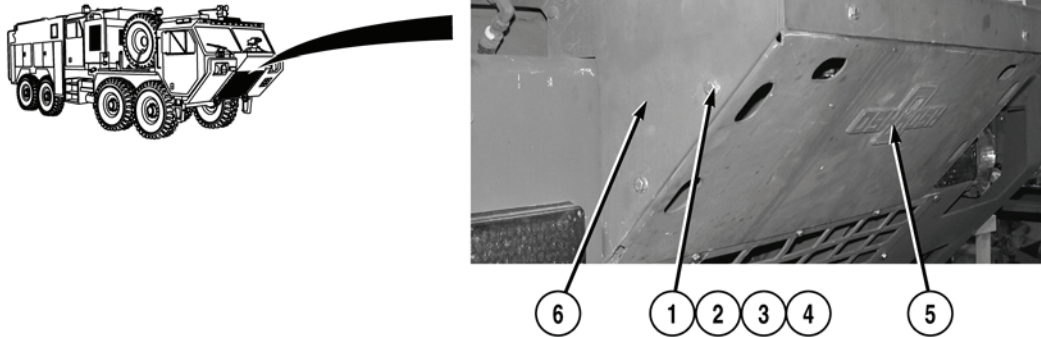
- Route bumper turret wire harness on vehicle as noted prior to removal.
  - Install cable ties, split loom, and cushion clips as required.
1. Install bumper turret wire harness (12) and grommet (11) on vehicle.



2. Connect bumper turret control connector (9) on cab power distribution wire harness connector (10).



3. Connect bumper turret wire harness connector (7) on bumper turret junction box (8).



4. Install cover (5) on bumper turret mount (6) with six screws (4), 12 washers (3), six lockwashers (2), and nuts (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Install skid plate grille (WP 0550)
2. Install cab instrument panel E (WP 0311)

**END OF TASK**

**END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## CAB DISCHARGE DIGITAL PRESSURE GAUGE WIRE HARNESS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

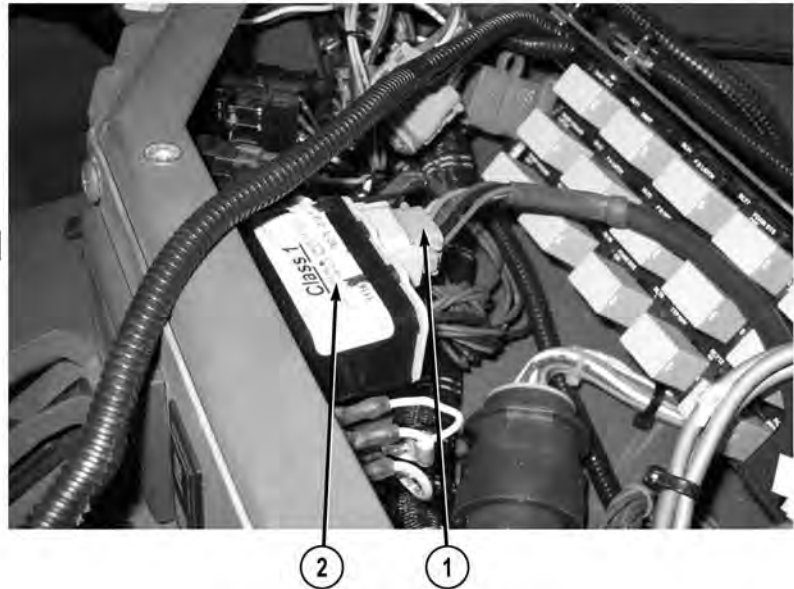
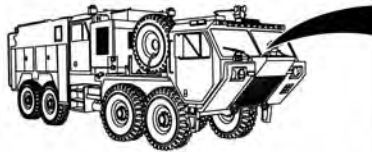
**References**

WP 0615, Fig. 56

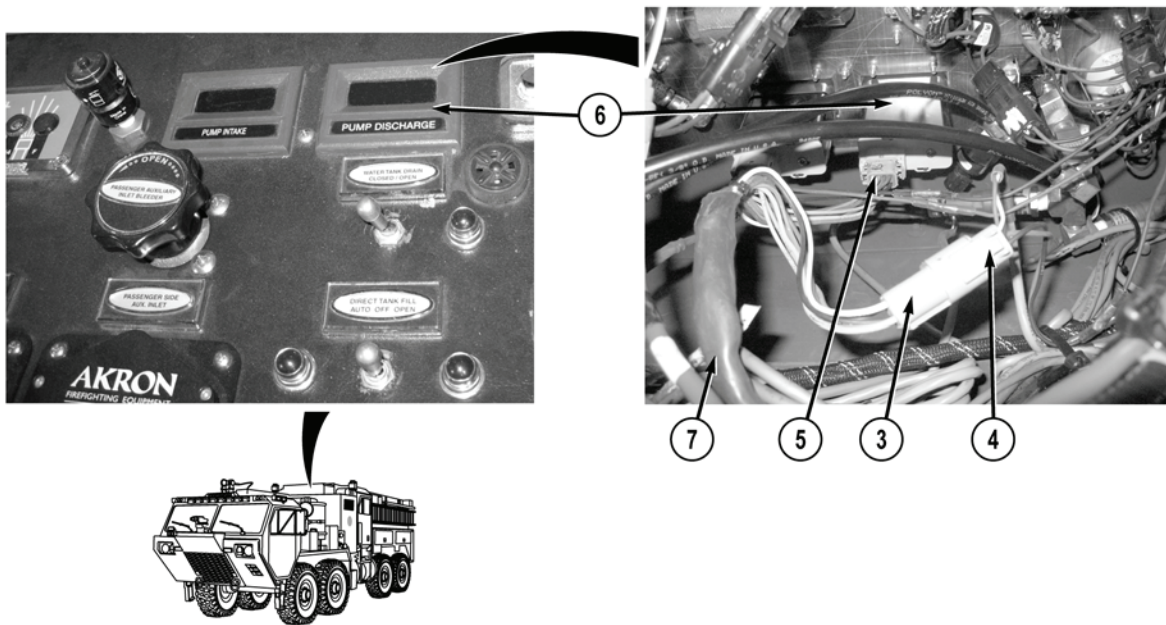
**Equipment Conditions**

Cab instrument panels A and E  
opened (WP 0311)  
Pump operator's panel housing  
opened (WP 0325)

## REMOVAL

**NOTE**

- Note routing of cab discharge digital pressure gauge wire harness prior to removal to ensure proper installation.
  - Note position and remove cable ties, split looms, and cushion clips as required.
  - Tag and mark connectors prior to removal to ensure proper installation.
1. Disconnect cab discharge digital pressure gauge wire harness connector (1) from cab discharge digital pressure gauge (2).



2. Disconnect cab discharge digital pressure gauge connector (3) from pump discharge pressure transducer connector (4).
3. Disconnect cab discharge digital pressure gauge connector (5) from pump operator's panel discharge digital pressure gauge (6), and remove cab discharge digital pressure gauge wire harness (7) from vehicle.

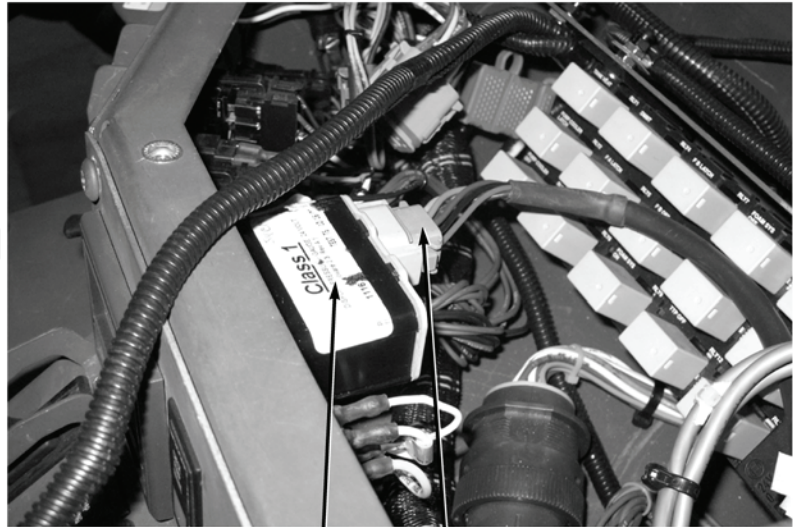
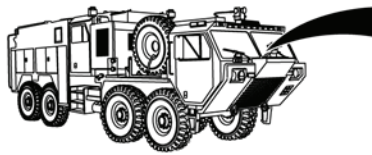
#### END OF TASK

#### INSTALLATION

#### NOTE

- Install cab discharge digital pressure gauge wire harness as noted prior to removal.
  - Install cable ties, split looms, and cushion clips as noted.
1. Position cab discharge digital pressure gauge wire harness (7) on vehicle, and connect cab digital pressure gauge connector (5) on pump operator's panel discharge digital pressure gauge (6).
  2. Connect pump discharge pressure transducer connector (4) on cab discharge digital pressure gauge connector (3).





2

1

3. Connect cab discharge digital pressure gauge wire harness connector (1) on cab discharge digital pressure gauge (2).

#### **FOLLOW-ON MAINTENANCE**

1. Close cab instrument panels A and E (WP 0311)
2. Close pump operator's panel housing (WP 0325)

#### **END OF TASK**

#### **END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## CAB FOAM A AND FOAM B TANK LEVEL INDICATOR WIRE HARNESS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

**References**

WP 0615, Fig. 55

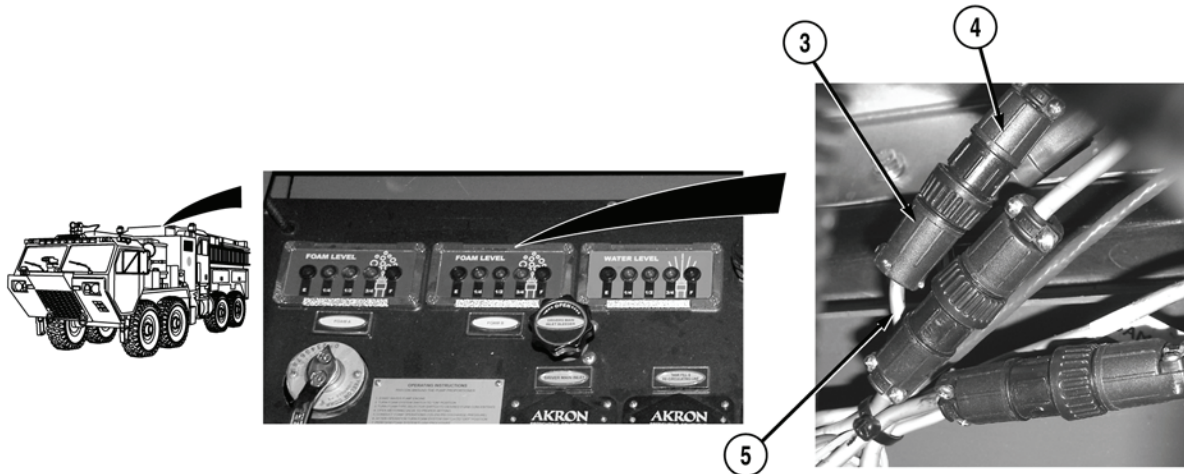
**Equipment Conditions**

Cab instrument panel B opened (WP 0311)  
Pump operator's panel housing  
opened (WP 0325)

## REMOVAL

**NOTE**

- Both cab foam wiring harnesses are replaced the same way.
  - Note routing of cab foam tank level indicator wire harness prior to removal to ensure proper installation.
  - Note position and remove cable ties, split looms, and cushion clips as required.
  - Tag and mark connectors prior to removal to ensure proper installation.
1. Disconnect cab foam tank level indicator wire harness connector (1) from cab foam tank level indicator gauge connector (2).



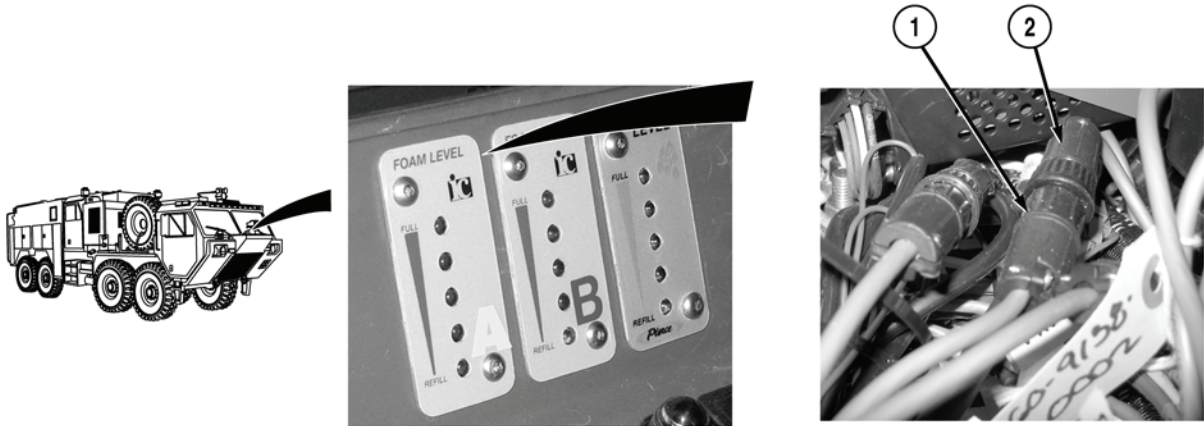
2. Disconnect cab foam tank level indicator wire harness connector (3) from cab foam tank level indicator gauge connector (4).
3. Remove cab foam tank level indicator wire harness connector (5) from vehicle.

#### END OF TASK

#### INSTALLATION

#### NOTE

- Route cab foam tank level indicator wire harness as noted prior to removal.
  - Install cable ties, cushion clips, and harness split looms as noted.
1. Install cab foam tank level indicator wire harness connector (5) on vehicle.
  2. Connect cab foam tank level indicator gauge connector (4) to cab foam tank level indicator wire harness connector (3).



3. Connect cab foam tank level indicator gauge connector (2) to cab foam tank level indicator wire harness connector (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Close pump operator's panel housing (WP 0325)
2. Close cab instrument panel B (WP 0311)

#### END OF TASK

#### END OF WORK PACKAGE



## FIELD LEVEL MAINTENANCE

## CAB INSTRUMENT PANEL WIRE HARNESS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

TM 9-2320-325-14&P  
WP 0615, Fig. 87

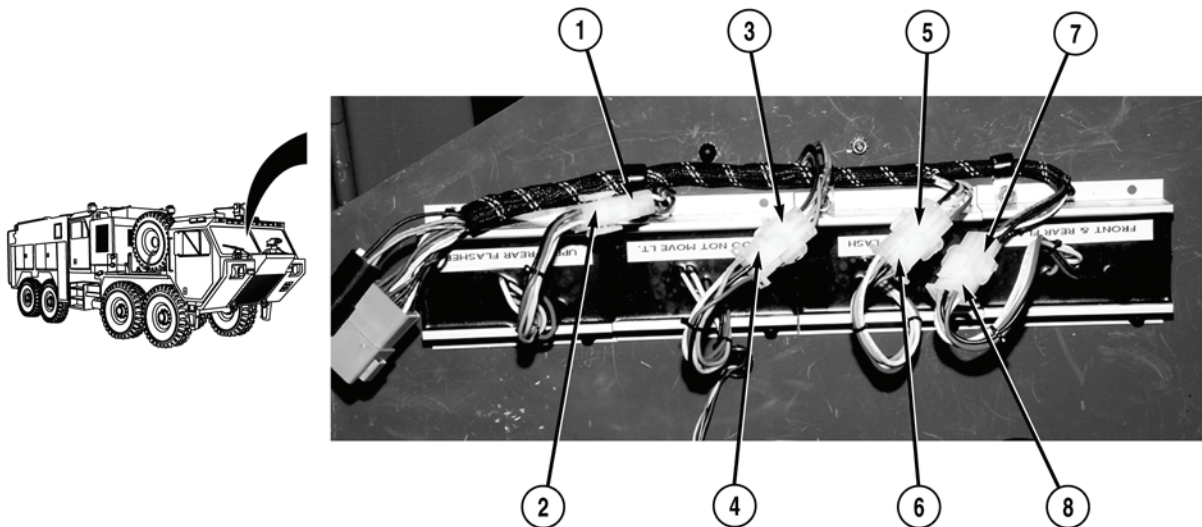
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (1)  
Lockwasher (1)  
Lockwasher (7)

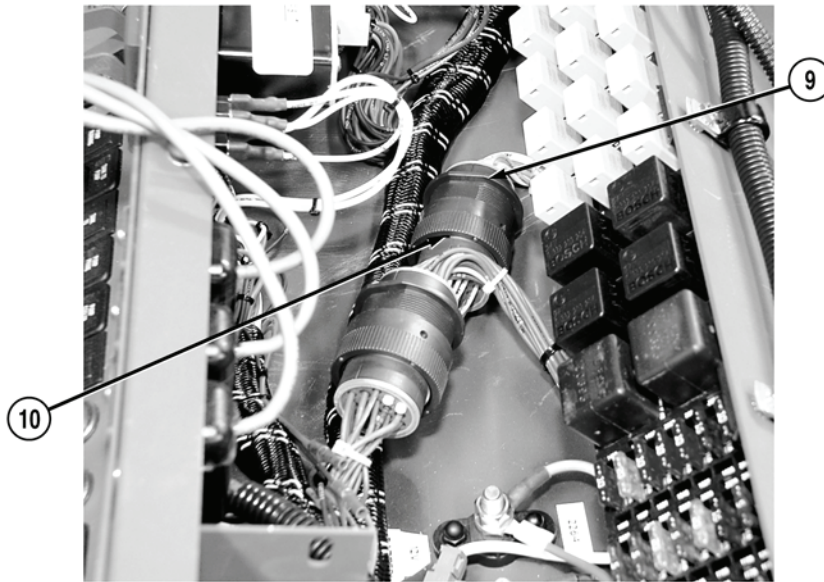
**Equipment Conditions**

Personnel cab instrument panel assembly  
removed (WP 0312)  
Blackout relay removed (WP 0369)

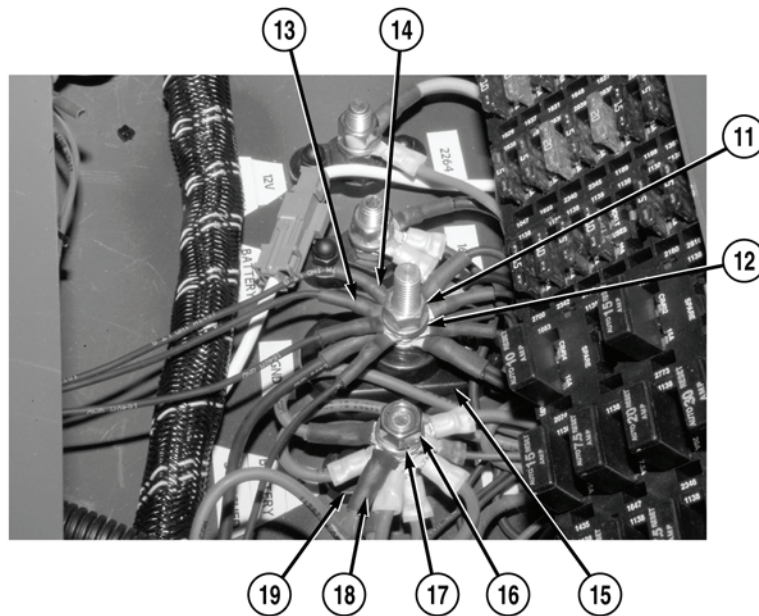
## REMOVAL

**NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
  - Note routing of main wire harness prior to removal to ensure proper installation.
  - Note position and remove cable ties, split looms, and cushion clips as required.
1. Disconnect cab instrument panel wire harness connector (1) from upper rear warning light flasher unit (2).
  2. Disconnect cab instrument panel wire harness connector (3) from do not move apparatus when light is on flasher unit (4).
  3. Disconnect cab instrument panel wire harness connector (5) from side warning light flasher unit (6).
  4. Disconnect cab instrument panel wire harness connector (7) from front and rear lower warning light flasher unit (8).

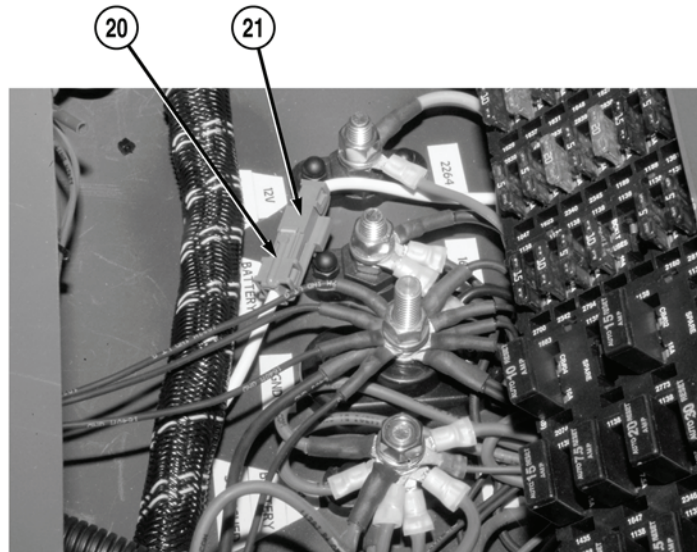


5. Disconnect cab instrument panel wire harness connector (9) from cab power distribution wire harness connector (10).



6. Remove nut (11), lockwasher (12), wire 1640 (13), and wire 1027 (14) from cab ground terminal block (15). Discard lockwasher.
7. Remove nut (16), lockwasher (17), and wire 1138 (18) from cab 24 VDC terminal block (19). Discard lockwasher.





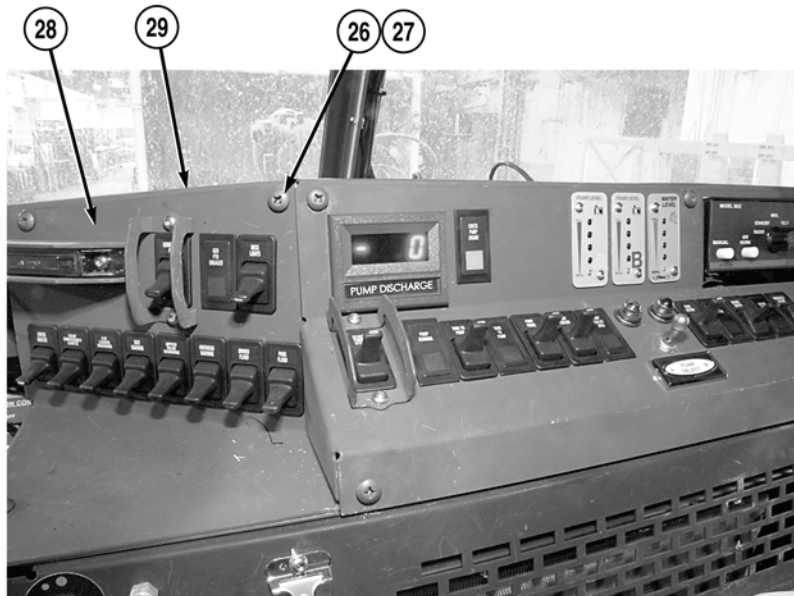
8. Disconnect cab instrument panel wire harness connector MP1 (20) from cab power distribution wire harness connector MP1(21).



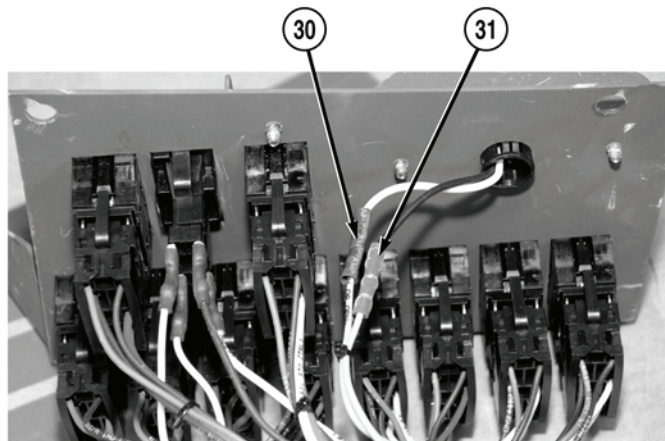
#### NOTE

Cab instrument panels B and C interlock. Pulling cab instrument panel B away from cab instrument panel assembly allows cab instrument panel C to be removed.

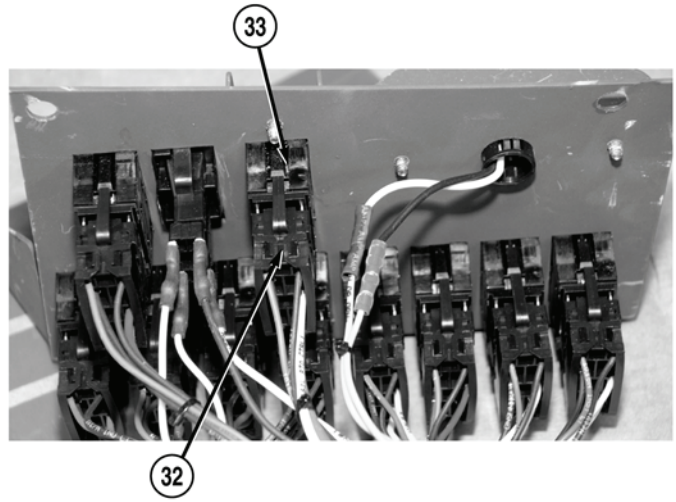
9. Remove five screws (22) and lockwashers (23), then pull cab instrument panel B (24) away from cab instrument panel assembly (25). Discard lockwashers.



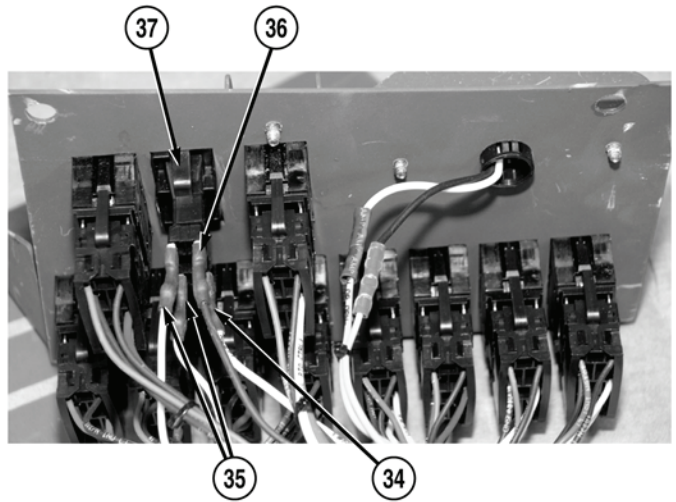
10. Remove two screws (26), lockwashers (27), and cab instrument panel C (28) from cab instrument panel assembly (29). Discard lockwashers.



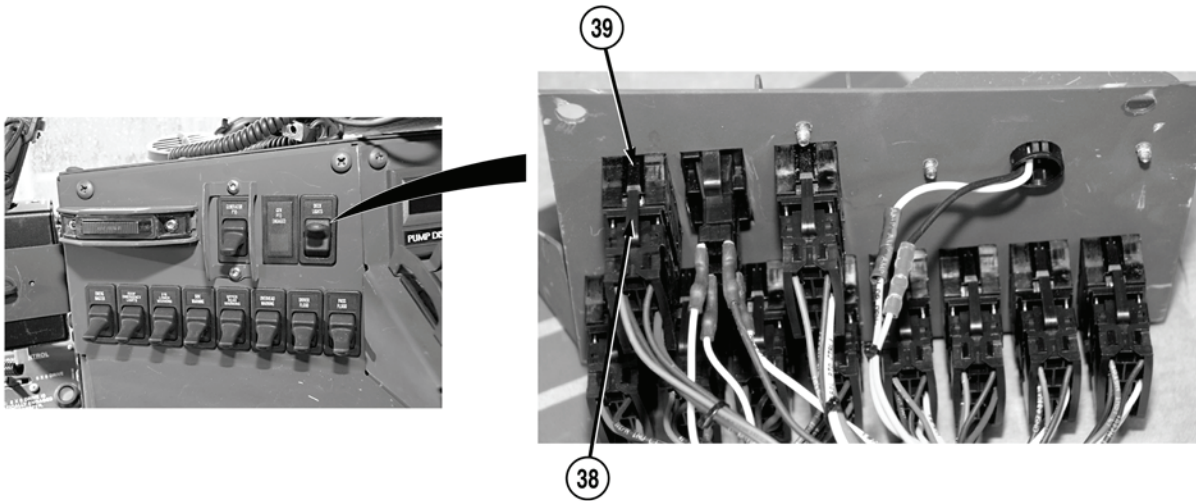
11. Cut wire 1187 (30) and wire 1592 (31) (TM 9-2320-325-14&P).



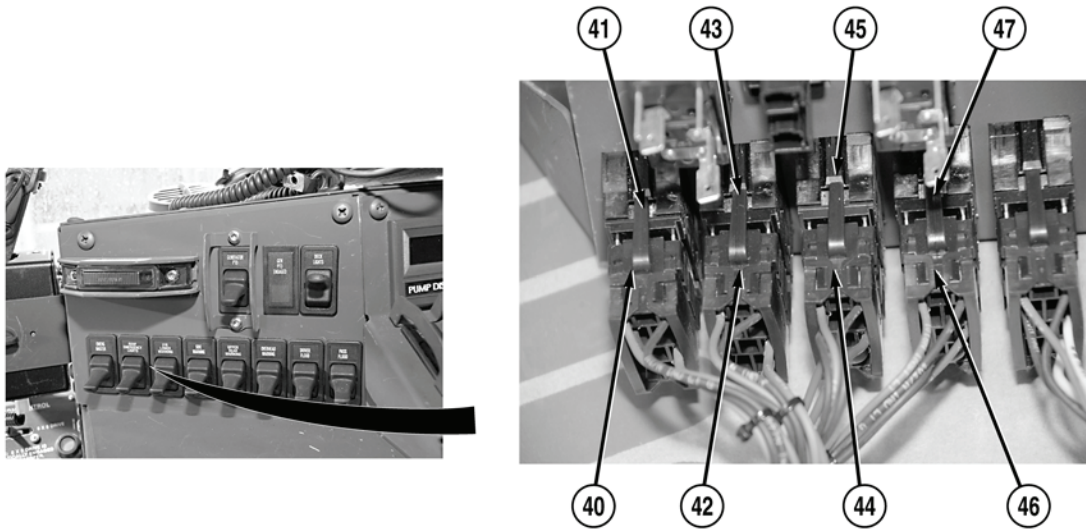
12. Disconnect cab instrument panel wire harness connector (32) from GENERATOR PTO switch (33).



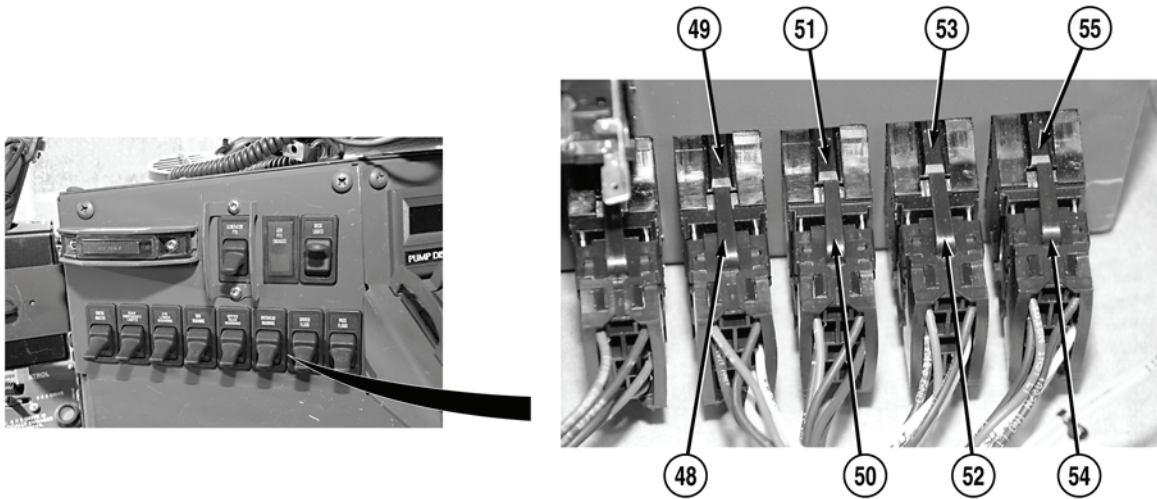
13. Disconnect wire 1677 connector (34), wire 2768 connector (35), and wire 1640 connector (36) from GEN PTO ENGAGED indicator (37).



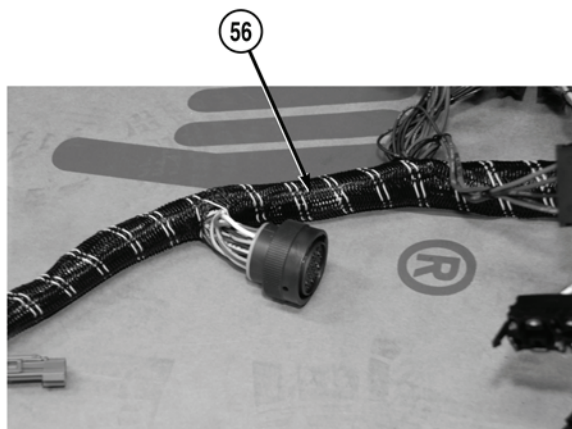
14. Disconnect cab instrument panel wire harness connector (38) from DECK LIGHTS switch (39).



15. Disconnect cab instrument panel wire harness connector (40) from EMERG MASTER switch (41).
16. Disconnect cab instrument panel wire harness connector (42) from ROOF EMERGENCY LIGHTS switch (43).
17. Disconnect cab instrument panel wire harness connector (44) from F/R LOWER WARNING switch (45).
18. Disconnect cab instrument panel wire harness connector (46) from SIDE WARNING switch (47).



19. Disconnect cab instrument panel wire harness connector (48) from UPPER REAR WARNING switch (49).
20. Disconnect cab instrument panel wire harness connector (50) from OVERHEAD WARNING switch (51).
21. Disconnect cab instrument panel wire harness connector (52) from DRIVER FLOOD switch (53).
22. Disconnect cab instrument panel wire harness connector (54) from PASS FLOOD switch (55).



23. Remove cab instrument panel wire harness (56) from vehicle.

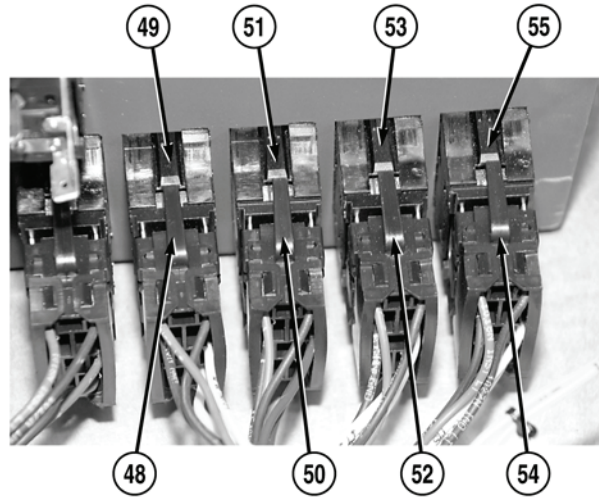
## END OF TASK

## INSTALLATION

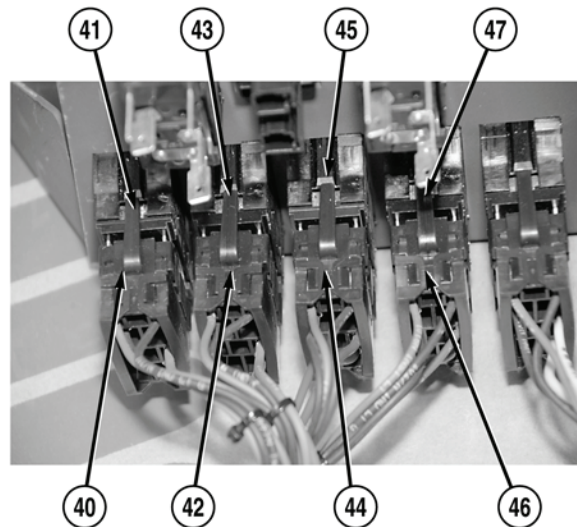
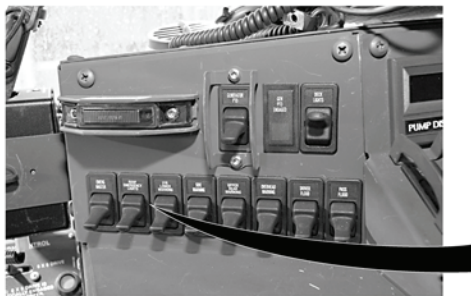
### NOTE

- Route cab instrument panel wire harness on vehicle as noted prior to removal.
- Install cushion clips, split looms, and cable ties as noted.

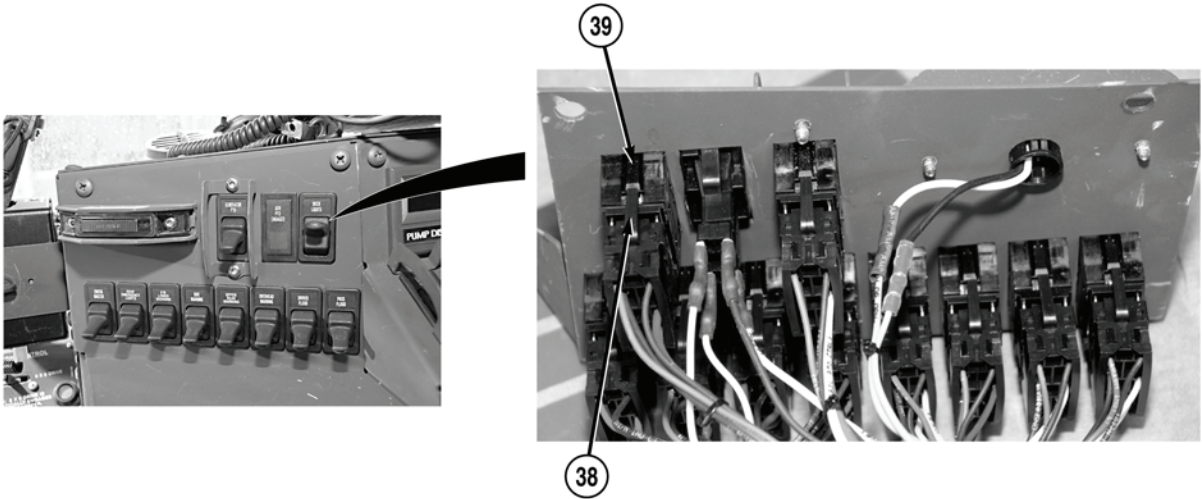
1. Install cab instrument panel wire harness (56) on vehicle.



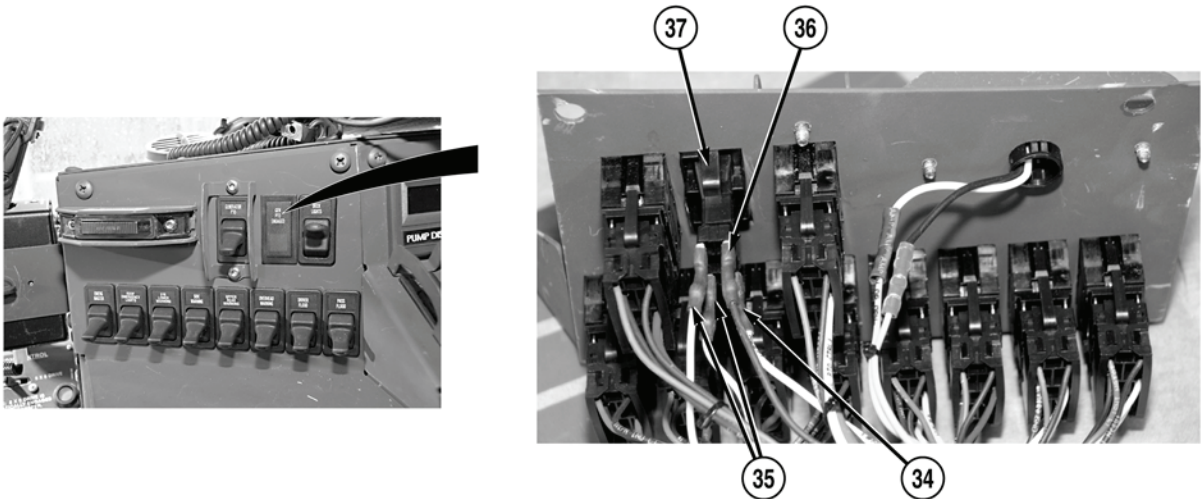
2. Connect cab instrument panel wire harness connector (54) on PASS FLOOD switch (55).
3. Connect cab instrument panel wire harness connector (52) on DRIVER FLOOD switch (53).
4. Connect cab instrument panel wire harness connector (50) on OVERHEAD WARNING switch (51).
5. Connect cab instrument panel wire harness connector (48) on UPPER REAR WARNING switch (49).



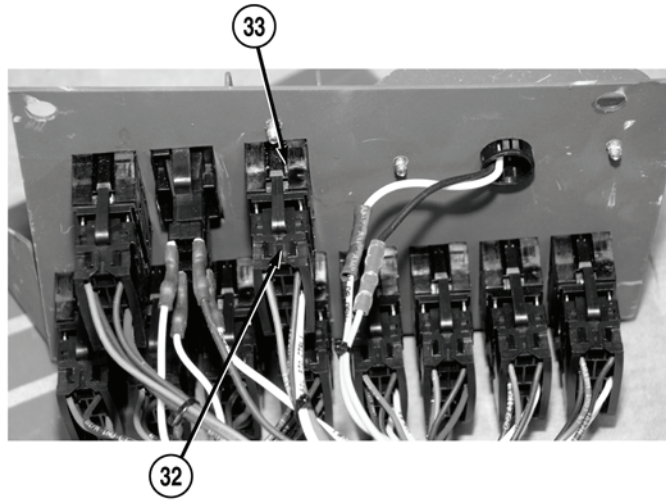
6. Connect cab instrument panel wire harness connector (46) on SIDE WARNING switch (47).
7. Connect cab instrument panel wire harness connector (44) on F/R LOWER WARNING switch (45).
8. Connect cab instrument panel wire harness connector (42) on ROOF EMERGENCY LIGHTS switch (43).
9. Connect cab instrument panel wire harness connector (40) on EMERG MASTER switch (41).



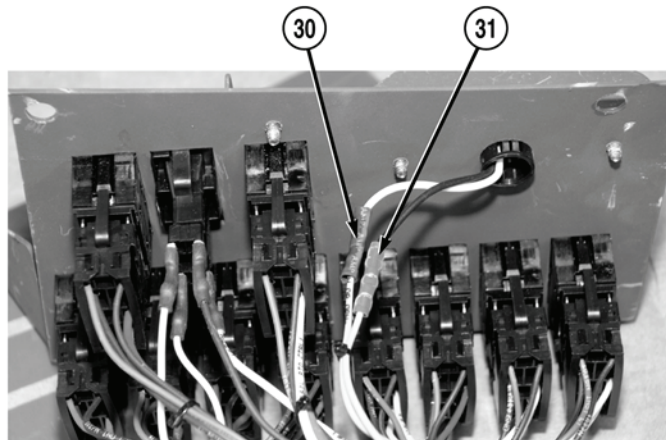
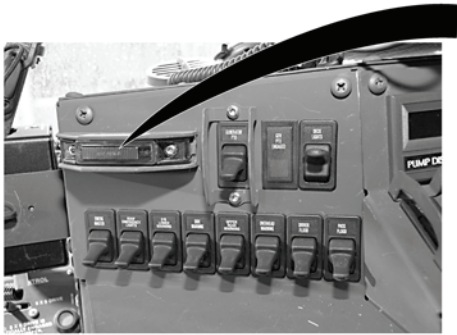
10. Connect cab instrument panel wire harness connector (38) on DECK LIGHTS switch (39).



11. Connect wire 1677 connector (34), wire 2768 connector (35), and wire 1640 connector (36) on GEN PTO ENGAGED indicator (37).

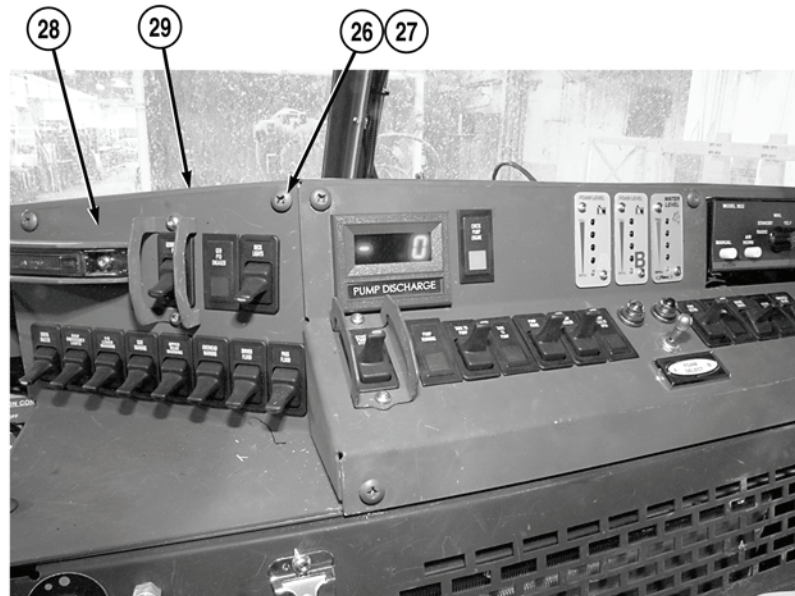


12. Connect cab instrument panel wire harness connector (32) on GENERATOR PTO switch (33).



13. Repair wire 1187 (30) and wire 1592 (31) (TM 9-2320-325-14&P).

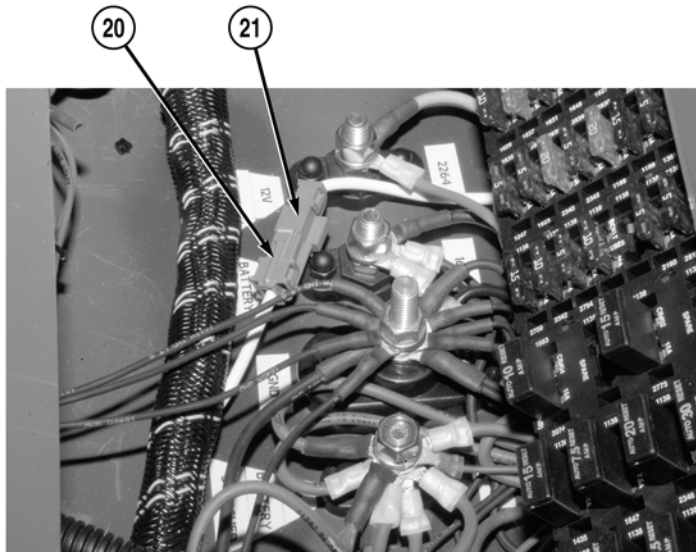




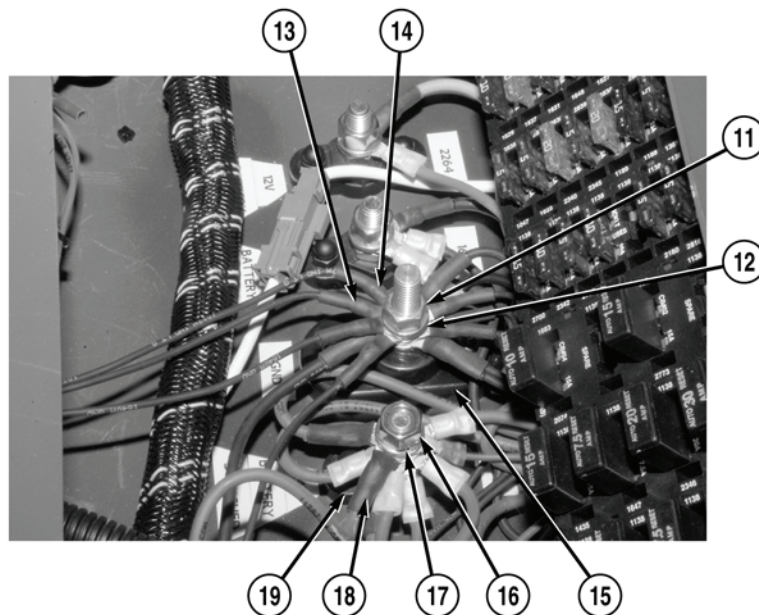
14. Install cab instrument panel C (28) on cab instrument panel assembly (29) with two lockwashers (27) and screws (26).



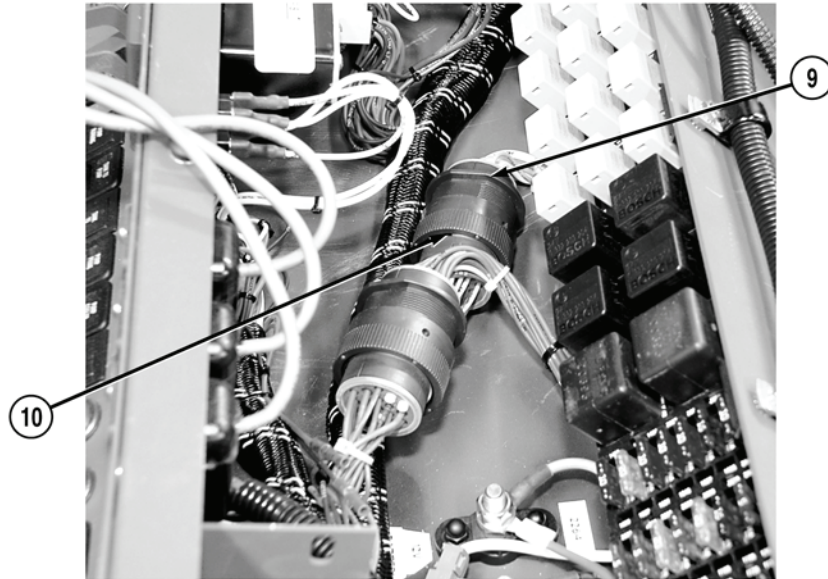
15. Install cab instrument panel B (24) on cab instrument panel assembly (25) with five lockwashers (23) and screws (22).



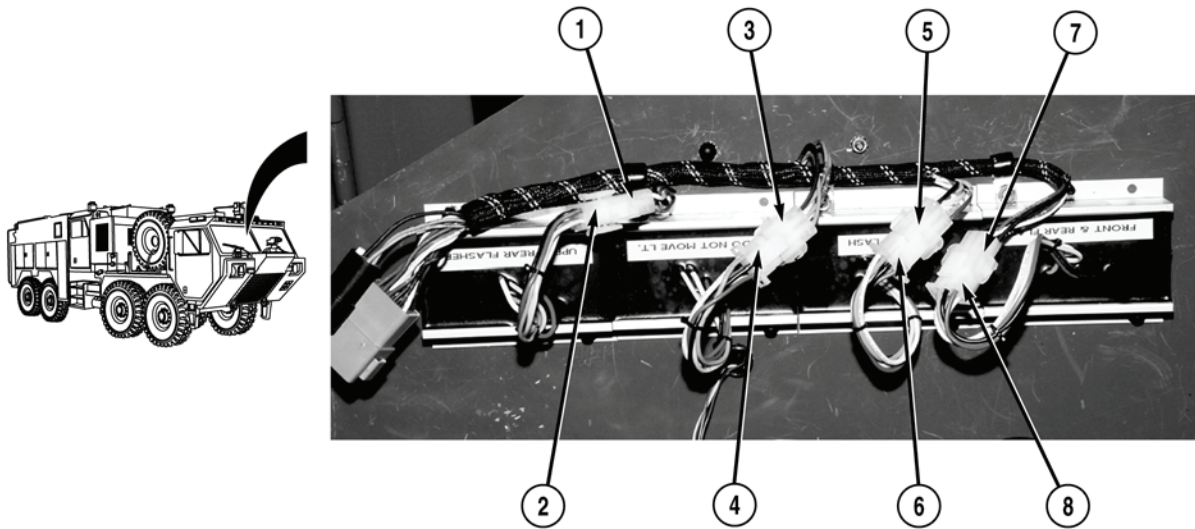
16. Connect cab instrument panel wire harness connector MP1 (20) on cab power distribution wire harness connector MP1 (21).



17. Install wire 1138 (18) on cab 24 VDC terminal block (19) with lockwasher (17) and nut (16).
18. Install wire 1640 (13) and wire 1027 (14) on cab ground terminal block (15) with lockwasher (12) and nut (11).



19. Connect cab instrument panel wire harness connector (9) on cab power distribution wire harness connector (10).



20. Connect cab instrument panel wire harness connector (7) on front and rear lower warning light flasher unit (8).
21. Connect cab instrument panel wire harness connector (5) on side warning light flasher unit (6).
22. Connect cab instrument panel wire harness connector (3) on do not move apparatus when light is on flasher unit (4).
23. Connect cab instrument panel wire harness connector (1) on upper rear warning light flasher unit (2).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Install blackout relay (WP 0369)
2. Install personnel cab instrument panel assembly (WP 0312)

#### END OF TASK

#### END OF WORK PACKAGE

## FIELD LEVEL MAINTENANCE

## CAB POWER DISTRIBUTION WIRE HARNESS AND BLOCK REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (3)  
Lockwasher (1)  
Locknut (8)

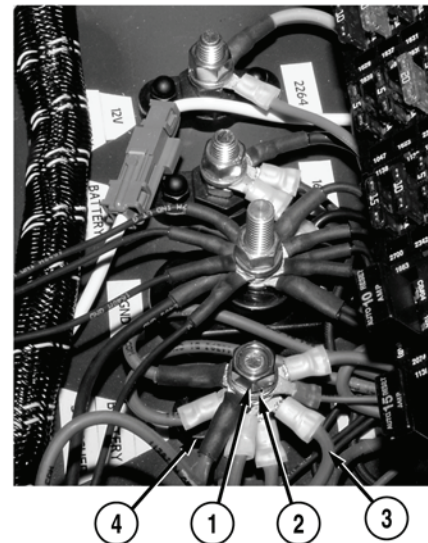
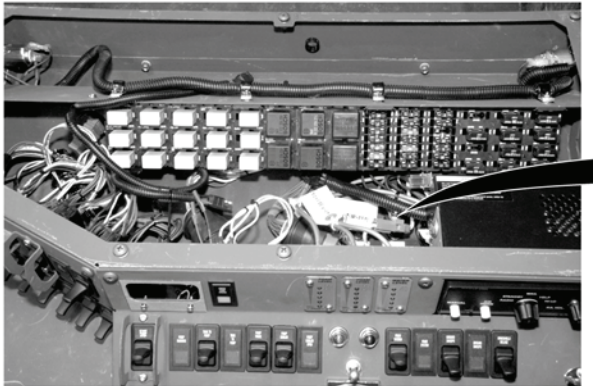
**References**

TM 9-2320-325-14&P  
WP 0615, Fig. 93

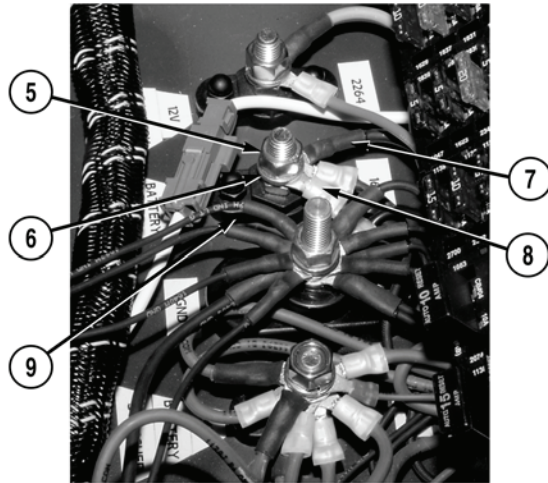
**Equipment Conditions**

Cab instrument panel assembly  
removed (WP 0311)  
Cab power distribution block circuit breakers  
removed (WP 0398)  
Cab power distribution block diode  
removed (WP 0399)  
Cab power distribution block relays  
removed (WP 0400)

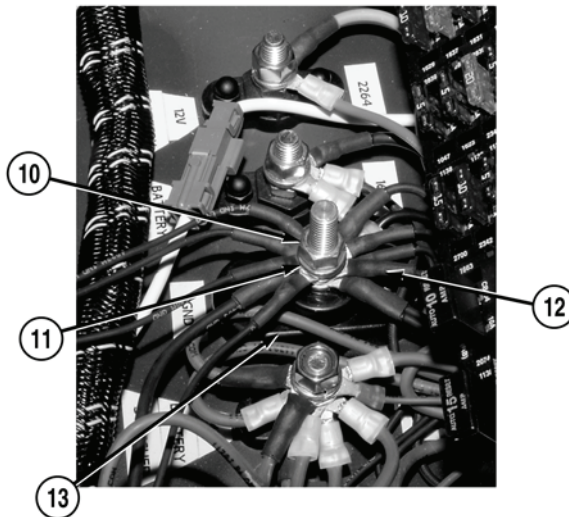
## REMOVAL

**NOTE**

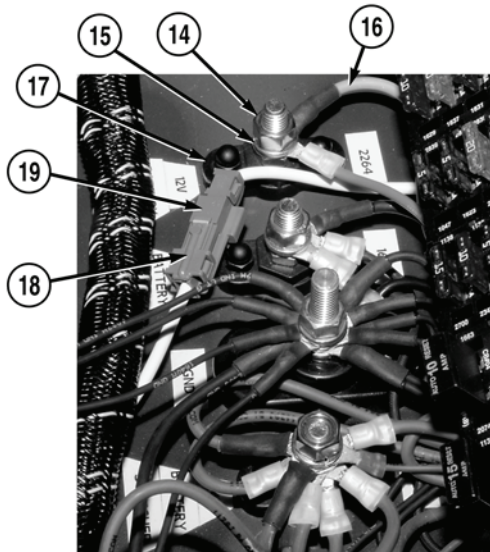
- Tag and mark wires prior to removal to ensure proper installation.
  - Note routing of cab power distribution wire harness prior to removal to ensure proper installation.
  - Note position and remove cable ties, split loom, and cushion clips as required.
1. Remove nut (1), lockwasher (2), and eight wires 1138 (3) from cab 24 VDC terminal block (4). Discard lockwasher.



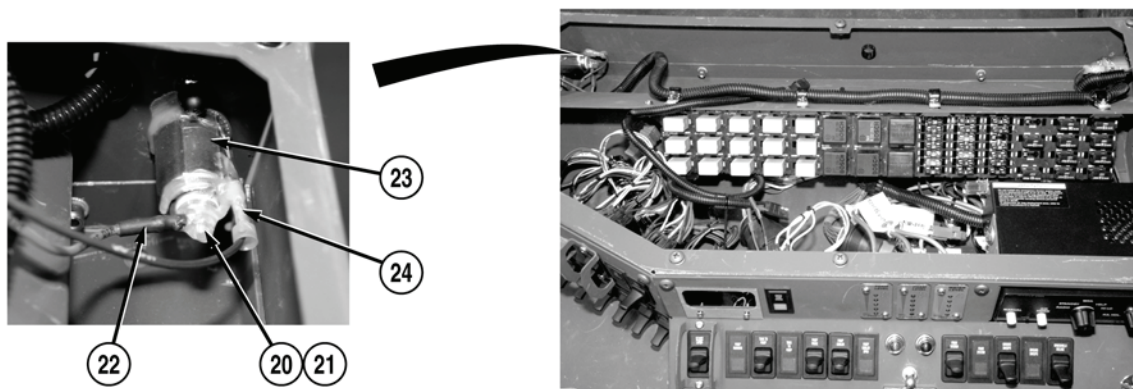
2. Remove nut (5), lockwasher (6), wire 2138 (7), and three wires 1663 (8) from cab 12 VDC terminal block (9). Discard lockwasher.



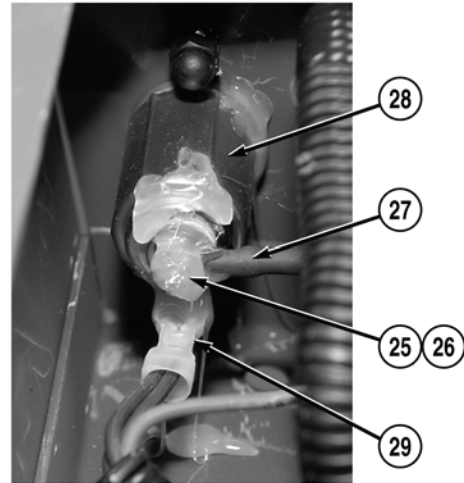
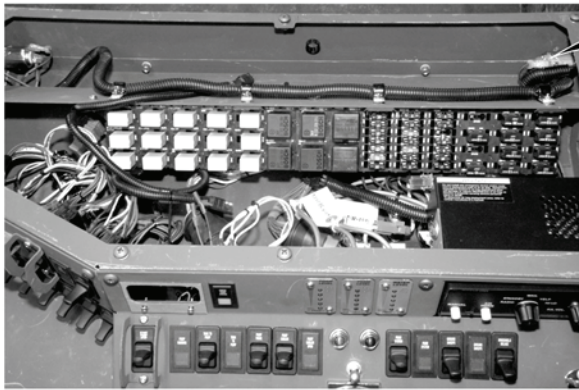
3. Remove nut (10), lockwasher (11), and six wires 1640 (12) from cab ground terminal block (13). Discard lockwasher.



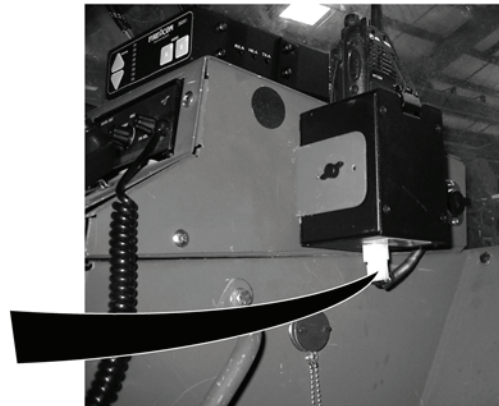
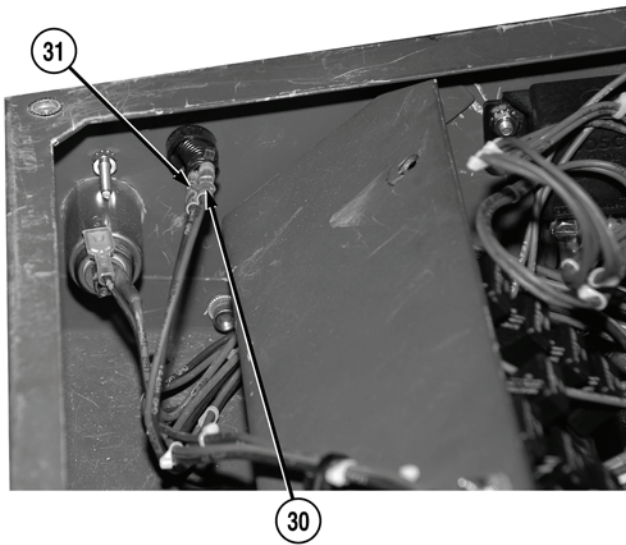
4. Remove nut (14), lockwasher (15), and wire 2264 (16) from cab 12 VDC switched terminal block (17). Discard lockwasher.
5. Disconnect cab instrument panel wire harness connector MP1 (18) from cab power distribution wire harness connector MP1 (19).



6. Remove nut (20), washer (21), and wire 2074 (22) from driver side 12 VDC auxiliary outlet (23).
7. Disconnect wire 1640 (24) from driver side 12 VDC auxiliary outlet (23).

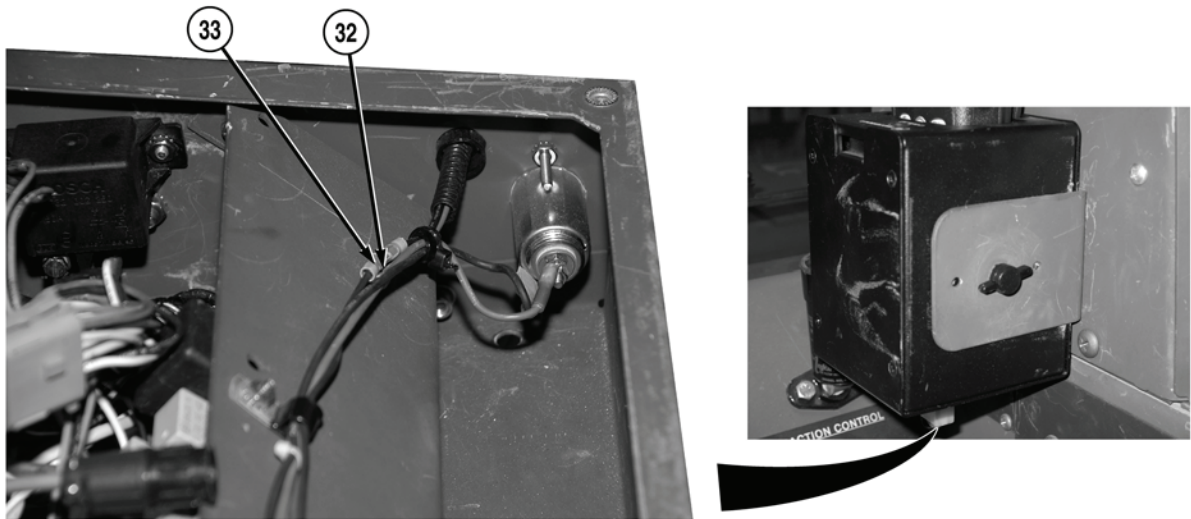


8. Remove nut (25), washer (26), and wire 2074 (27) from passenger side 12 VDC auxiliary outlet (28).
9. Disconnect wire 1640 (29) from passenger side 12 VDC auxiliary outlet (28).

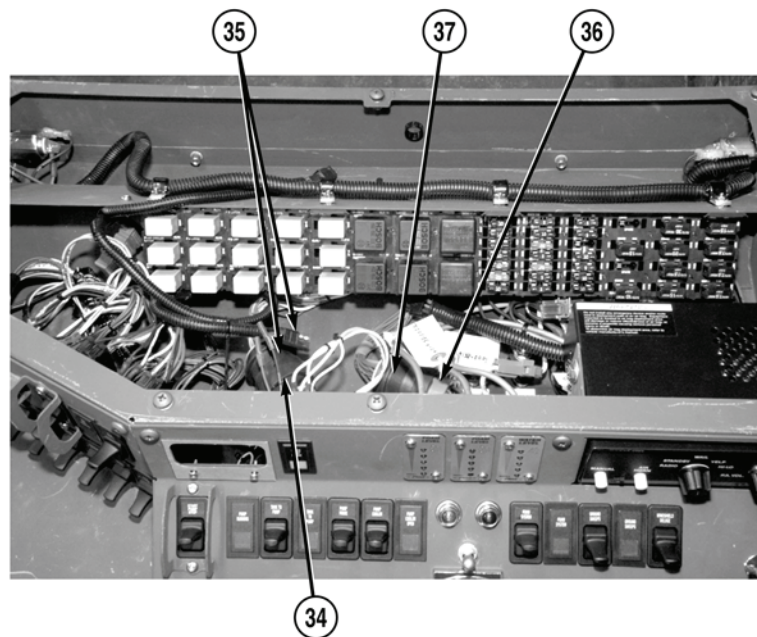


10. Cut wire 2074 (30) and wire 1640 (31) (TM 9-2320-325-14&P).

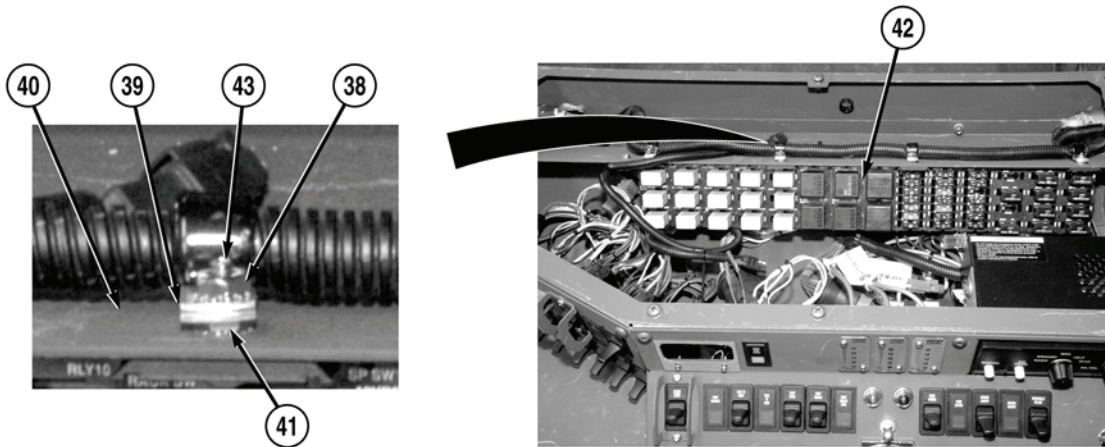




11. Cut wire 2074 (32) and wire 1640 (33) (TM 9-2320-325-14&P).



12. Disconnect cab instrument panel wire harness connector (34) from cab power distribution wire harness connector (35).
13. Disconnect cab pump control wire harness connector (36) from cab power distribution wire harness connector (37).



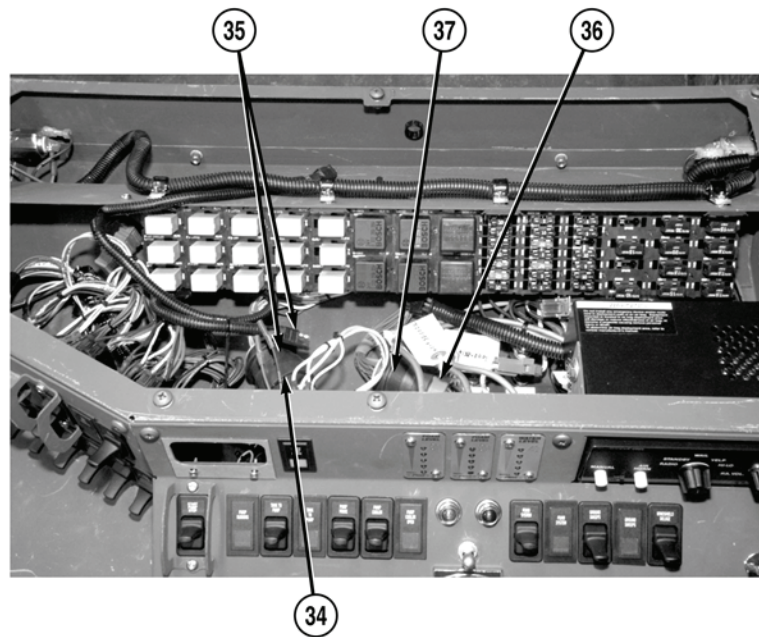
14. Remove four locknuts (38) and cushion clips (39) from cab instrument panel assembly (40). Discard locknuts.
15. Remove four locknuts (41), cab power distribution wire harness block (42), and four screws (43) from cab instrument panel assembly (40). Discard locknuts.
16. Remove cab power distribution wire harness and block (42) from vehicle.

#### END OF TASK

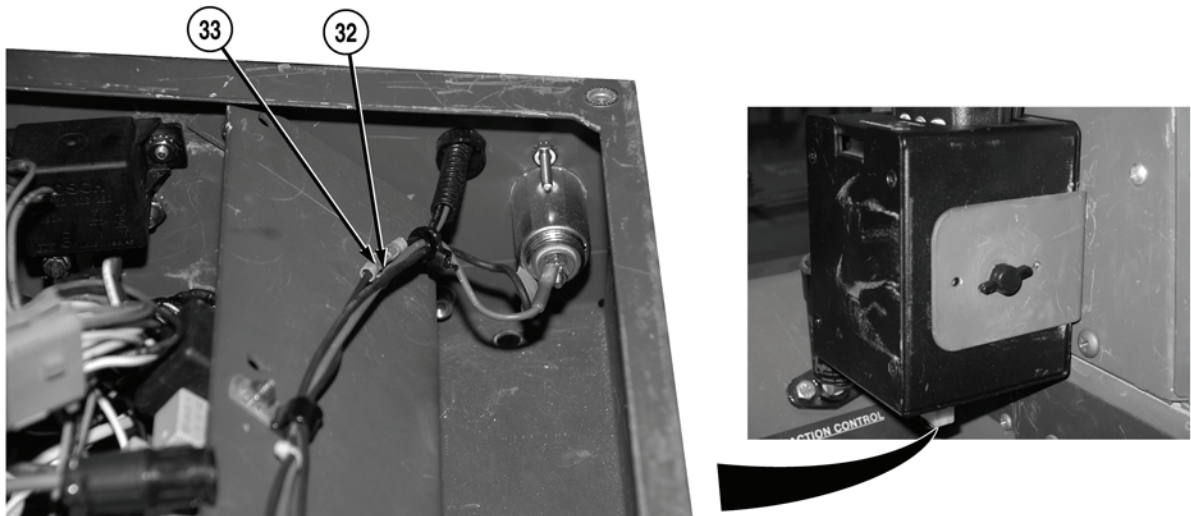
#### INSTALLATION

#### NOTE

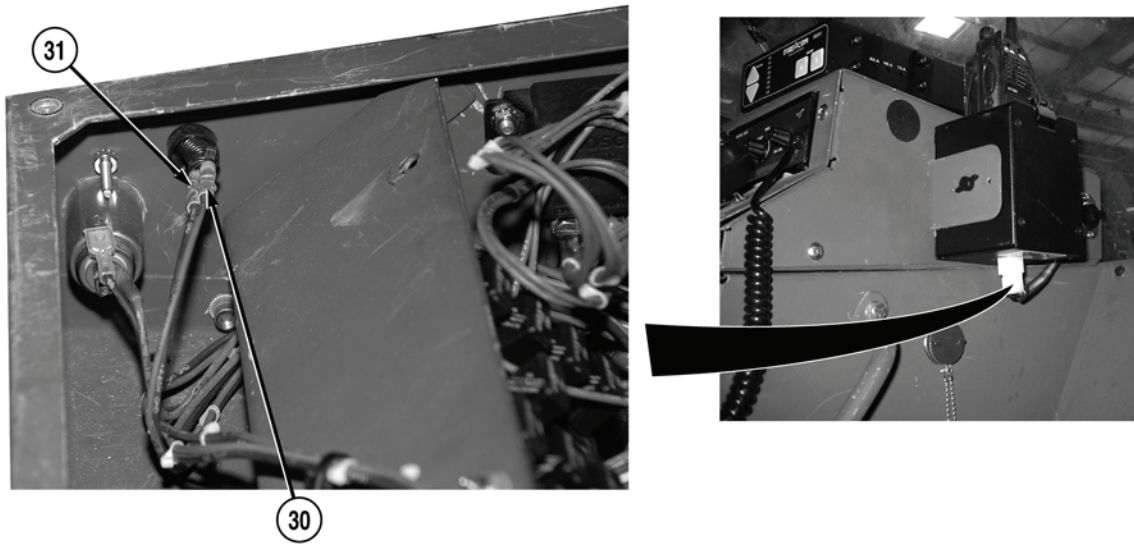
- Route cab power distribution wire harness on vehicle as noted prior to removal.
  - Install cushion clips, split loom, and cable ties as noted.
1. Install cab power distribution wire harness and block (42) on vehicle.
  2. Install cab power distribution wire harness block (42) on cab instrument panel assembly (40) with four screws (43) and locknuts (41).
  3. Install four cushion clips (39) on cab instrument panel assembly (40) with four locknuts (38).



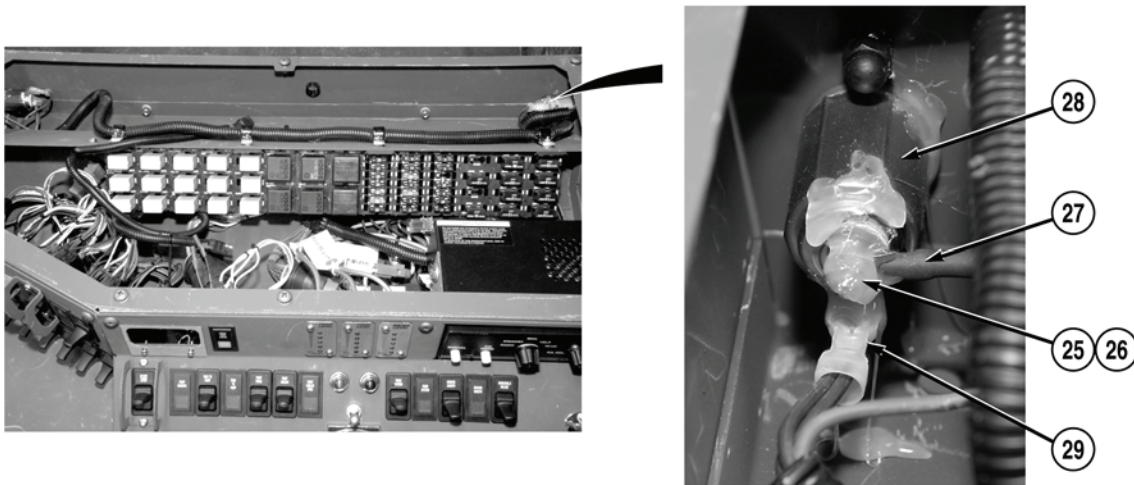
4. Connect cab pump control wire harness connector (36) on cab power distribution wire harness connector (37).
5. Connect cab instrument panel wire harness connector (34) on cab power distribution wire harness connector (35).



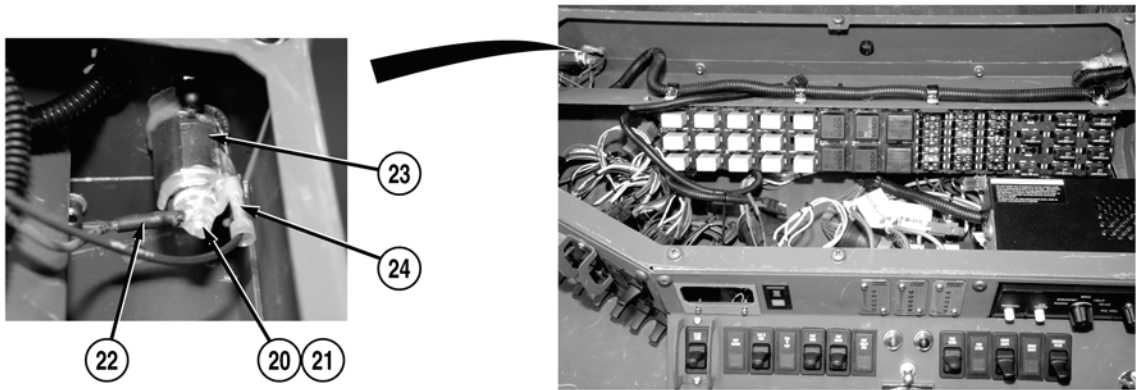
6. Repair wire 2074 (32) and wire 1640 (33) (TM 9-2320-325-14&P).



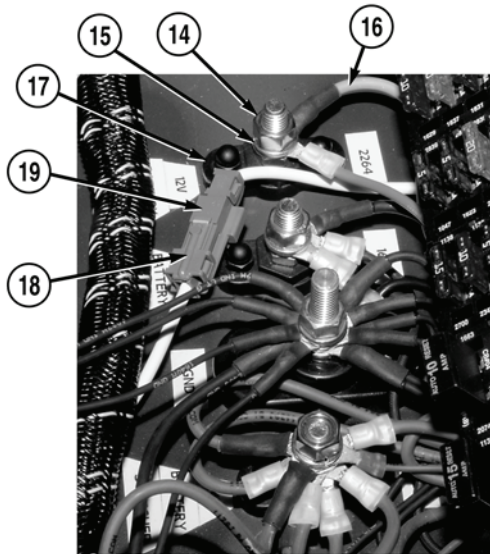
7. Repair wire 2074 (30) and wire 1640 (31) (TM 9-2320-325-14&P).



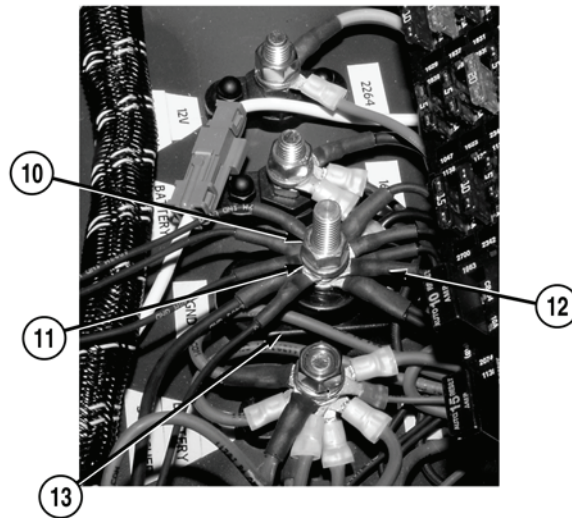
8. Connect wire 1640 (29) on passenger side 12 VDC auxiliary outlet (28).
9. Install wire 2074 (27) on passenger side 12 VDC auxiliary outlet (28) with washer (26) and nut (25).



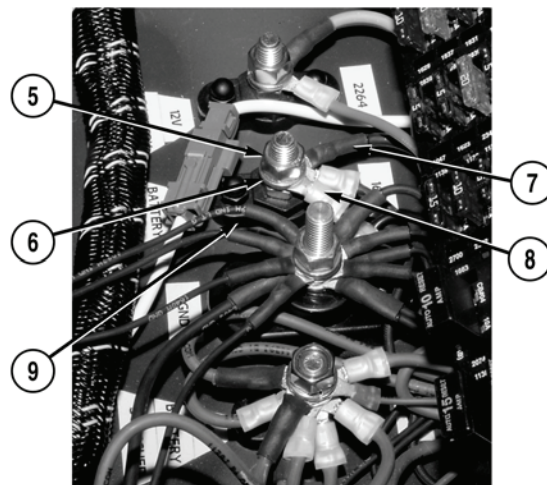
10. Connect wire 1640 (24) on driver side 12 VDC auxiliary outlet (23).
11. Install wire 2074 (22) on driver side 12 VDC outlet (23) with washer (21) and nut (20).



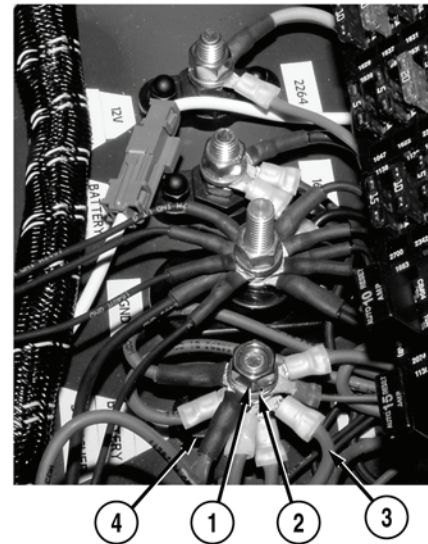
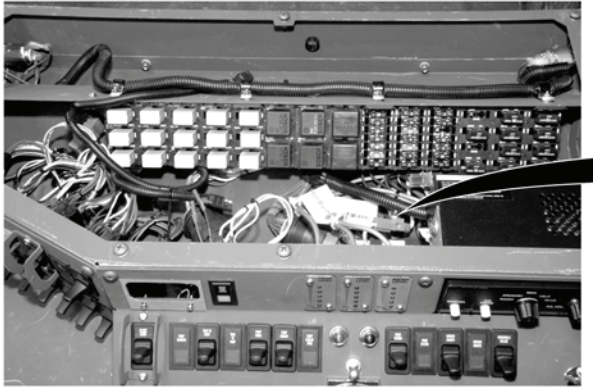
12. Connect cab instrument panel wire harness connector MP1 (18) on cab power distribution wire harness connector MP1 (19).
13. Install wire 2264 (16) on cab 12 VDC switched terminal block (17) with lockwasher (15) and nut (14).



14. Install six wires 1640 (12) on cab ground terminal block (13) with lockwasher (11) and nut (10).



15. Install wire 2138 (7) and three wires 1663 (8) on cab 12 VDC terminal block (9) with lockwasher (6) and nut (5).



16. Install eight wires 1138 (3) on cab 24 VDC terminal block (4) with lockwasher (2) and nut (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Install cab power distribution block relays (WP 0400)
2. Install cab power distribution block diode (WP 0399)
3. Install cab power distribution block circuit breakers (WP 0398)
4. Install cab instrument panel assembly (WP 0311)

**END OF TASK**

**END OF WORK PACKAGE**





---

**FIELD LEVEL MAINTENANCE**  
**CAB ROOF WIRE HARNESS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (3)  
Lockwasher (2)  
Lockwasher (7)  
Lockwasher (5)  
Lockwasher (3)

**References**

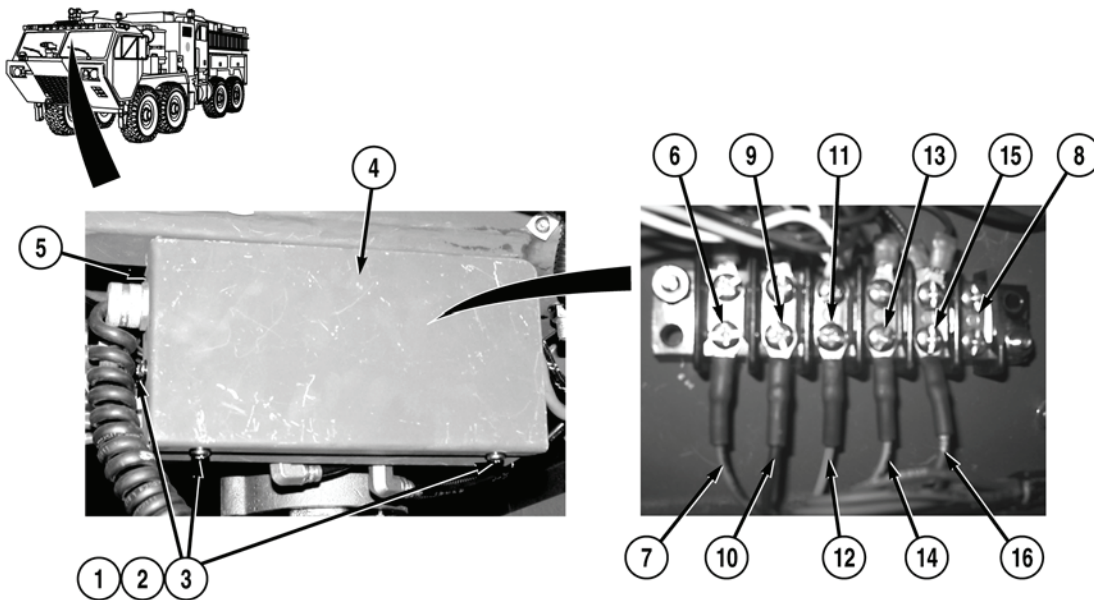
WP 0615, Fig. 55, 66, 89, 170

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

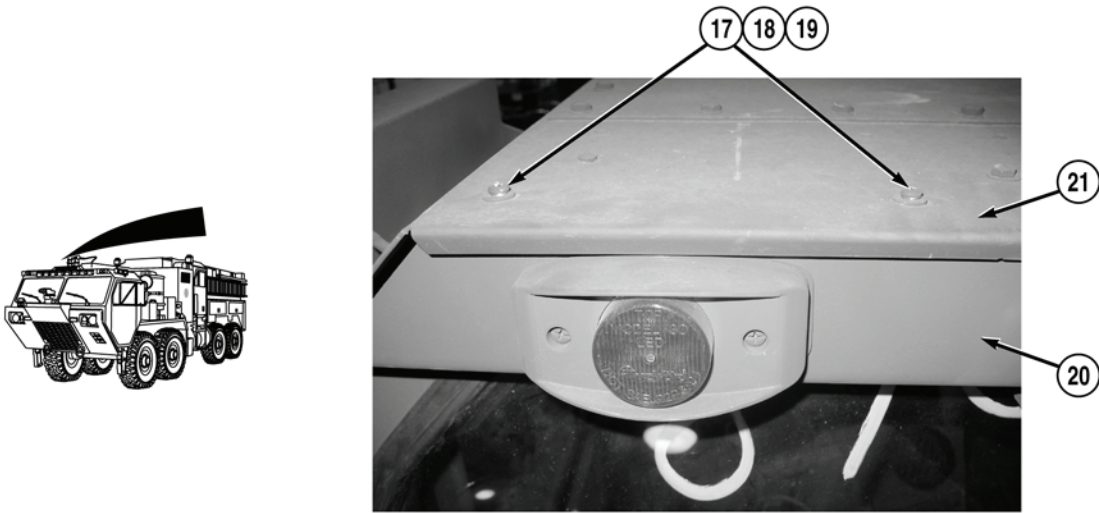
---

## REMOVAL

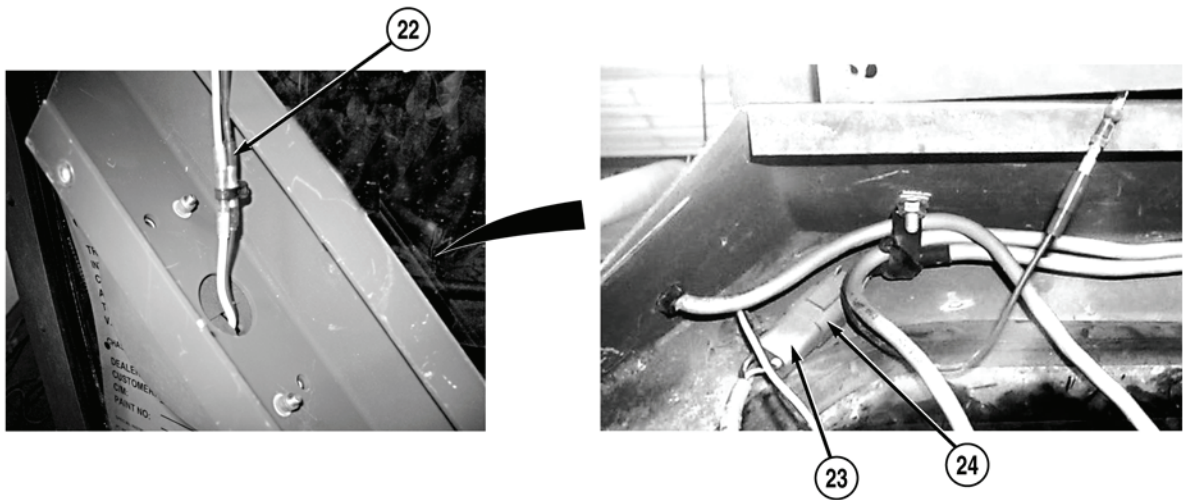
**NOTE**

- Tag and mark wires and connectors prior to removal to ensure proper installation.
- Remove cable ties, split looms, and cushion clips as required.
- Note routing of wire harness prior to removal to ensure proper installation.

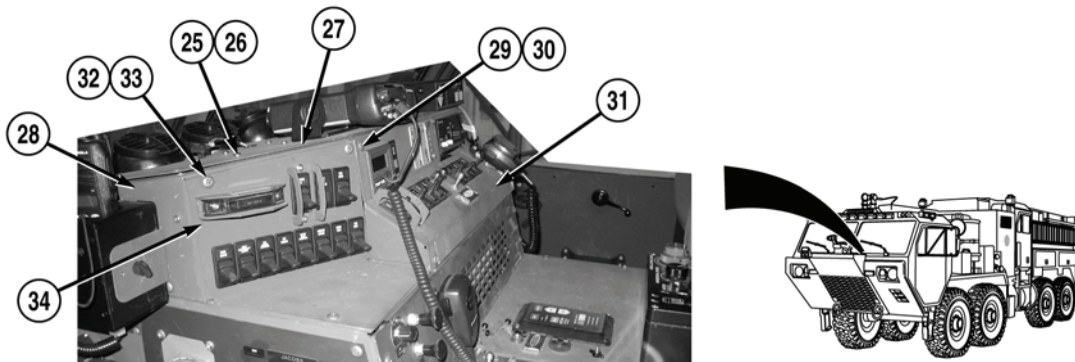
1. Remove three screws (1), lockwashers (2), washers (3), and cover (4) from turret control box (5). Discard lockwashers.
2. Remove screw (6) and wire 2848 (7) from turret control terminal strip (8).
3. Remove screw (9) and wire 1640 (10) from turret control terminal strip (8).
4. Remove screw (11) and wire 4037 (12) from turret control terminal strip (8).
5. Remove screw (13) and wire 2837 (14) from turret control terminal strip (8).
6. Remove screw (15) and wire 4055 (16) from turret control terminal strip (8).



7. Remove two screws (17), lockwashers (18), washers (19), and clearance light assembly (20) from cab roof (21). Discard lockwashers.



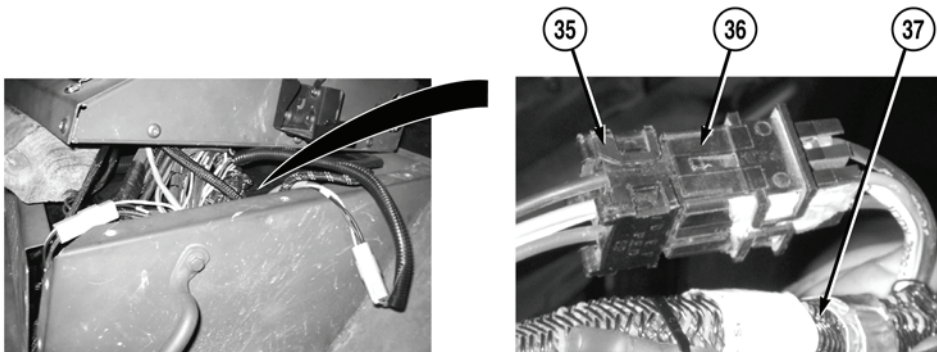
8. Cut wire 1640 (22) (TM 9-2320-325-14&P).
9. Disconnect lightbar connector (23) from cab roof wire harness connector (24).



**⚠ CAUTION**

Open cab instrument panels carefully and only far enough to access connector. Wiring is still attached to components. Failure to comply may result in damage to equipment.

10. Remove seven screws (25), lockwashers (26), and cab instrument panel A (27) from panel assembly (28). Discard lockwashers.
11. Remove five screws (29), lockwashers (30), and cab instrument panel B (31) from panel assembly (28). Discard lockwashers.
12. Remove three screws (32), lockwashers (33), and cab instrument panel C (34) from panel assembly (28). Discard lockwashers.



13. Disconnect cab instrument panel wire harness connector (35) from cab roof wire harness connector (36).
14. Remove cab roof wire harness (37) from vehicle.

**END OF TASK**

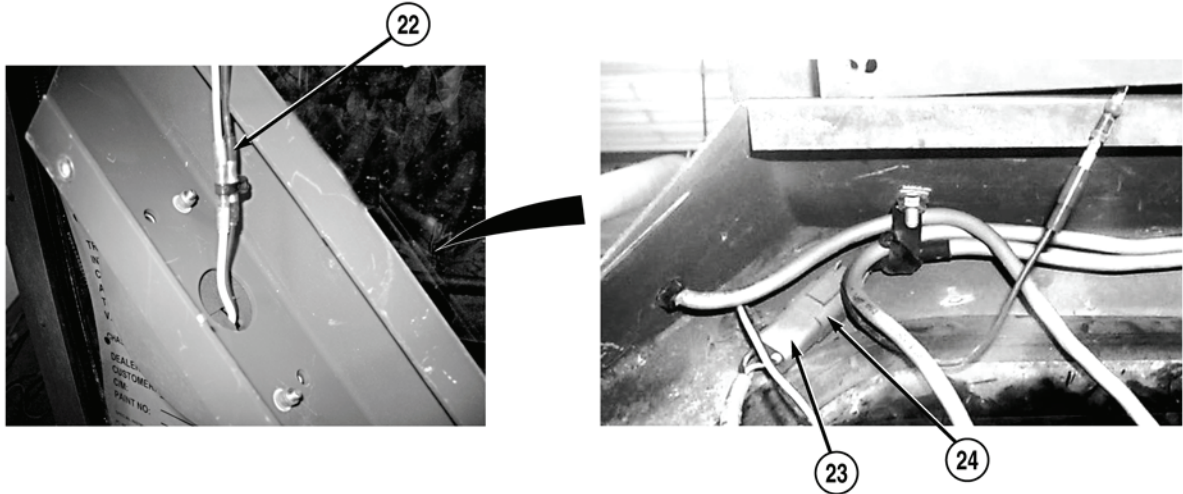
**INSTALLATION**

**NOTE**

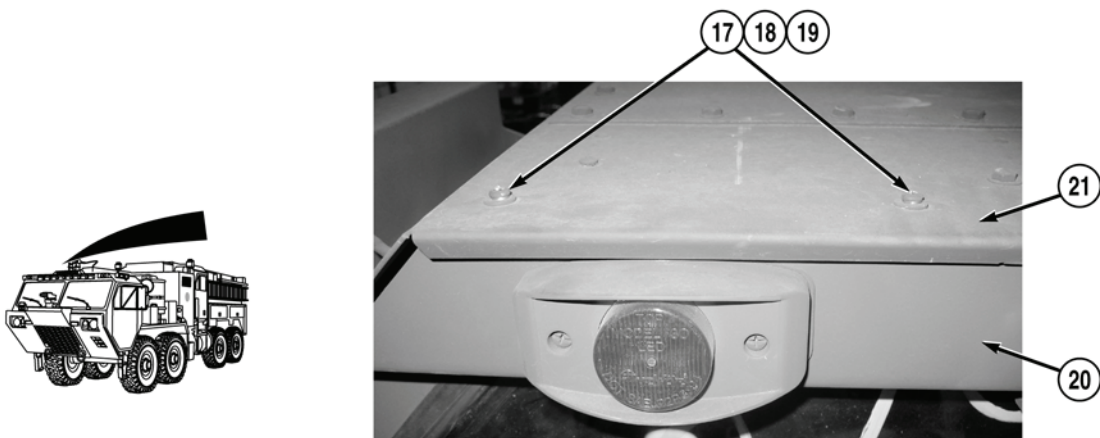
- Route wire harness as noted prior to removal.
- Install cushion clips, split loom, and cable ties as noted.

1. Install cab roof wire harness (37) on vehicle.

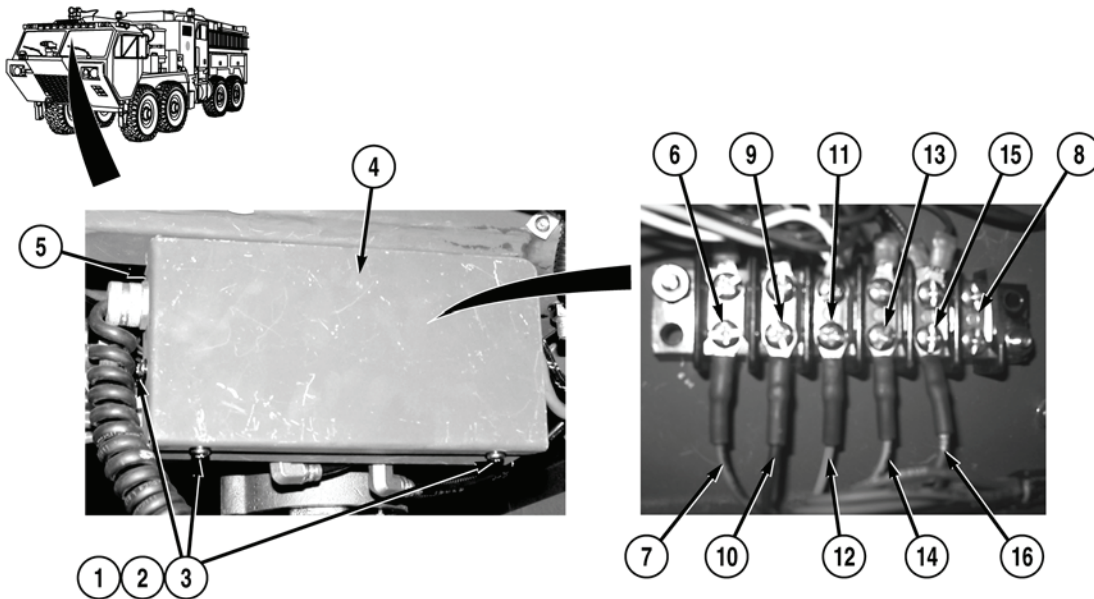
2. Connect cab instrument panel wire harness connector (35) to cab roof wire harness connector (36).
3. Install cab instrument panel C (34) on panel assembly (28) with three lockwashers (33) and screws (32).
4. Install cab instrument panel B (31) on panel assembly (28) with five lockwashers (30) and screws (29).
5. Install cab instrument panel A (27) on panel assembly (28) with seven lockwashers (26) and screws (25).



6. Connect cab roof wire harness connector (24) to lightbar connector (23).
7. Repair wire 1640 (22) (TM 9-2320-325-14&P).



8. Install clearance light assembly (20) on cab roof (21) with two washers (19), lockwashers (18), and screws (17).



9. Install wire 4055 (16) on turret control terminal strip (8) with screw (15).
10. Install wire 2837 (14) on turret control terminal strip (8) with screw (13).
11. Install wire 4037 (12) on turret control terminal strip (8) with screw (11).
12. Install wire 1640 (10) on turret control terminal strip (8) with screw (9).
13. Install wire 2848 (7) on turret control terminal strip (8) with screw (6).
14. Install cover (4) on turret control box (5) with three washers (3), lockwashers (2), and screws (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

Connect batteries (TM 9-2320-325-14&P)

#### END OF TASK

#### END OF WORK PACKAGE

## FIELD LEVEL MAINTENANCE

## CAB PUMP CONTROL WIRE HARNESS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (1)  
Lockwasher (5)  
Lockwasher (3)

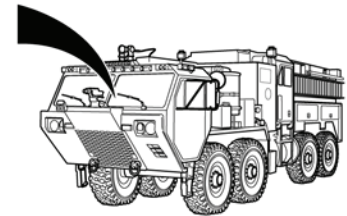
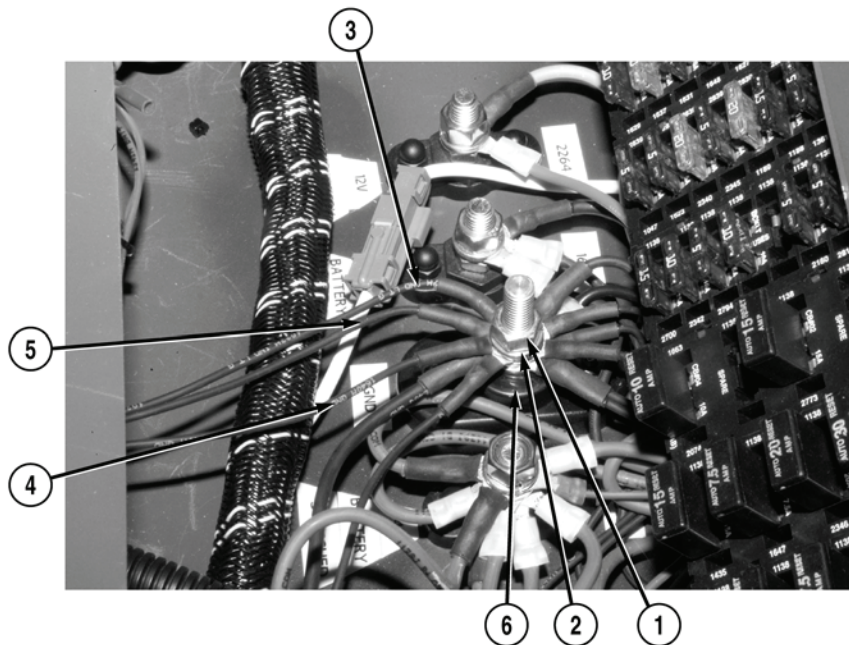
**References**

WP 0615, Fig. 55, 88

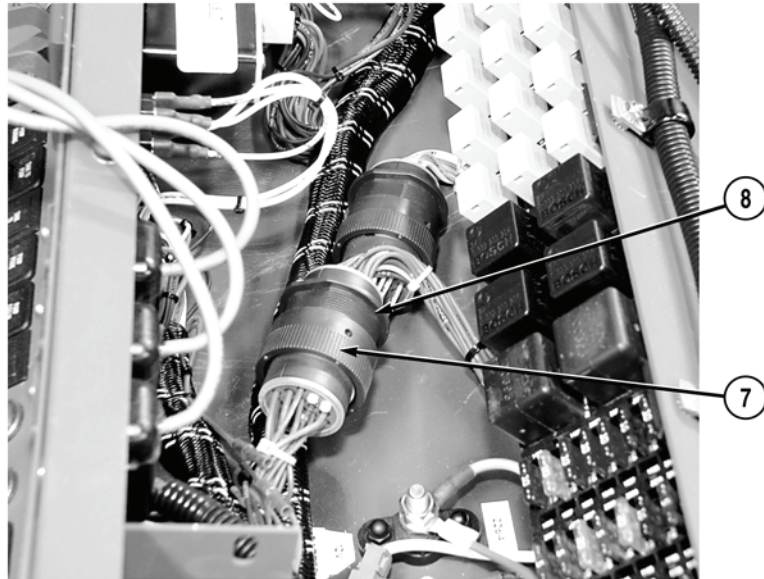
**Equipment Conditions**

Personnel cab instrument panel assembly  
removed (WP 0312)  
Siren control removed (WP 0341)

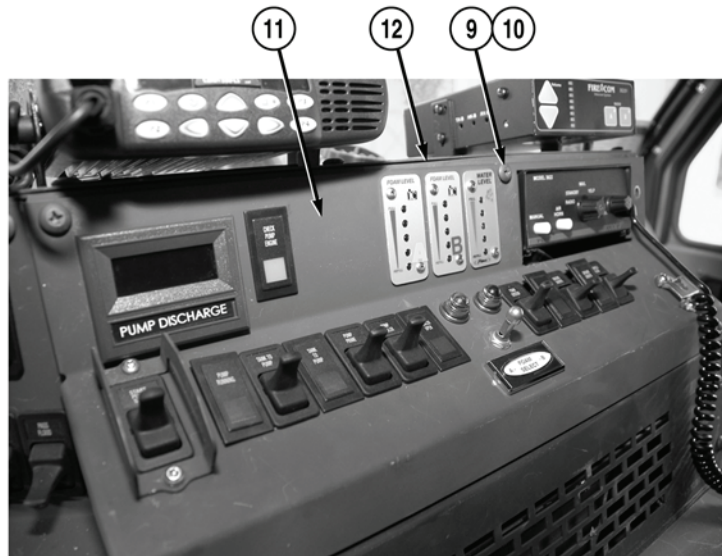
## REMOVAL

**NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
  - Note routing of main wire harness prior to removal to ensure proper installation.
  - Note position and remove cable ties, split looms, and cushion clips as required.
1. Remove nut (1), lockwasher (2), wire 1027 (3), wire 1640 (4), and wire 1023 (5) from cab ground terminal block (6). Discard lockwasher.

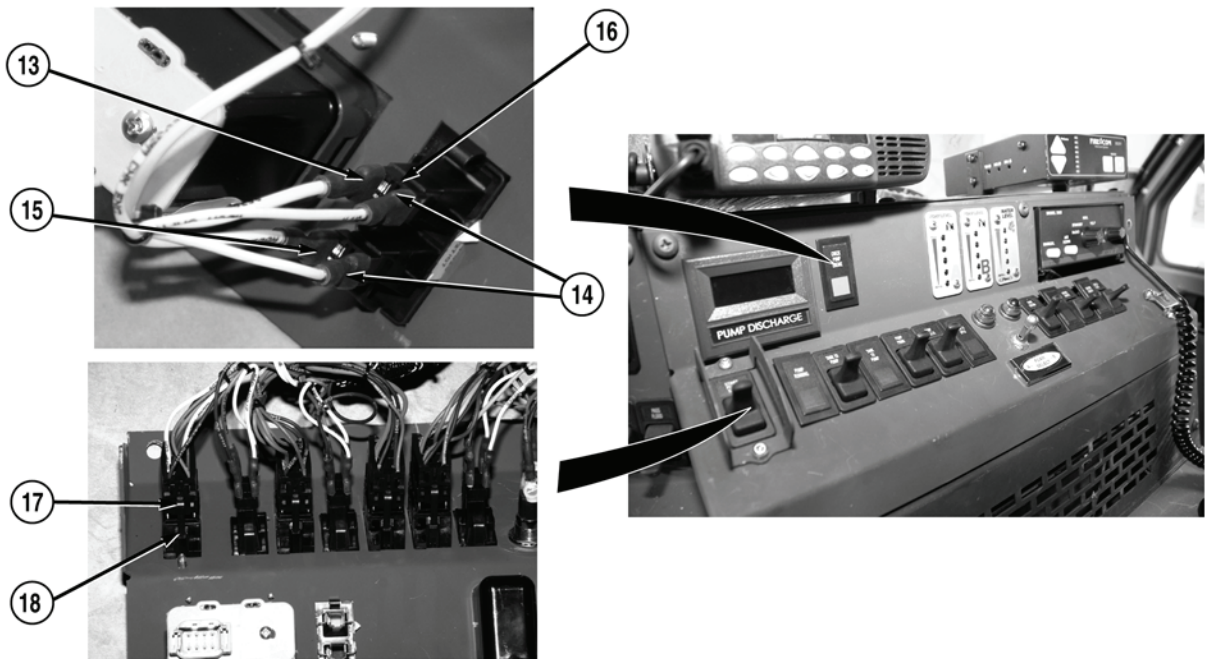


2. Disconnect pump control wire harness connector (7) from cab power distribution wire harness connector (8).

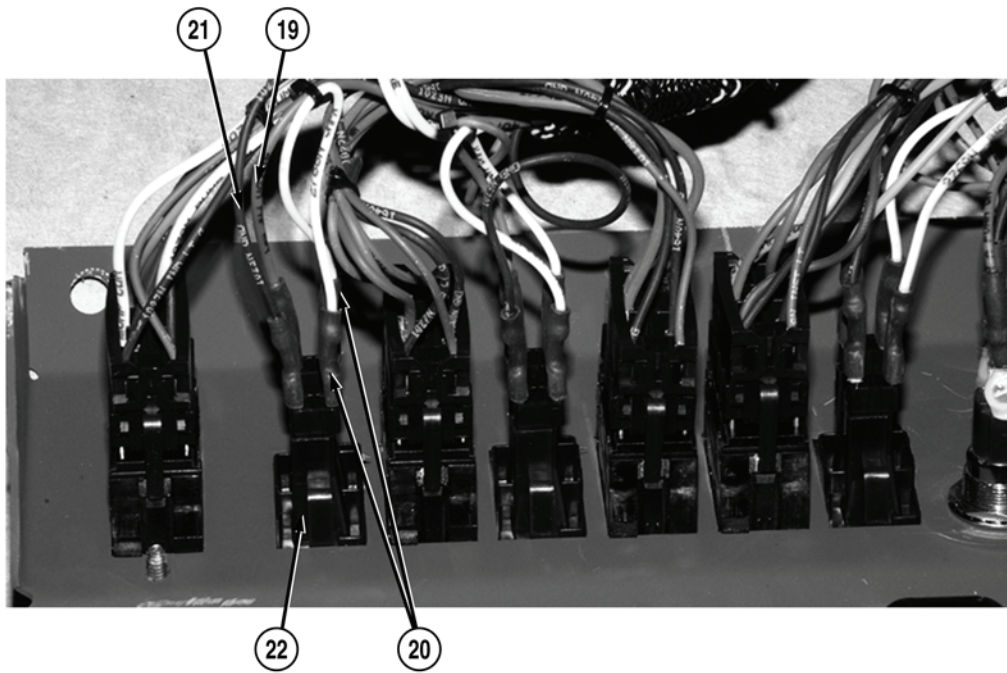


3. Remove five screws (9), lockwashers (10), and cab instrument panel B (11) from cab instrument panel assembly (12). Discard lockwashers.

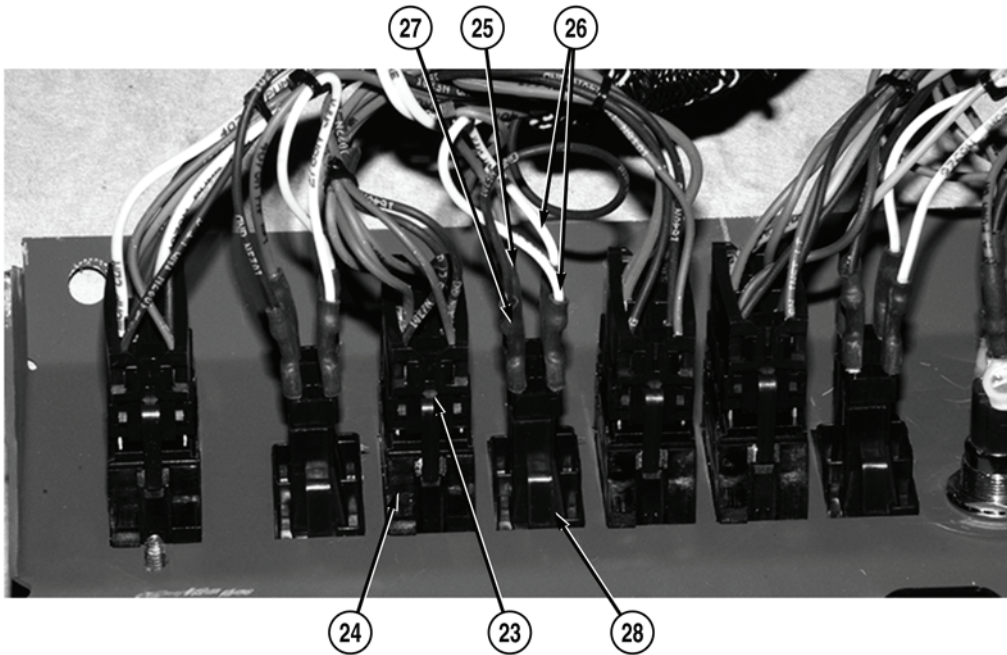




4. Disconnect wire 2670 (13), two wires 2768 (14), and wire 2539 (15) from CHECK PUMP ENGINE indicator (16).
5. Disconnect cab pump control wire harness connector (17) from START PUMP STOP switch (18).



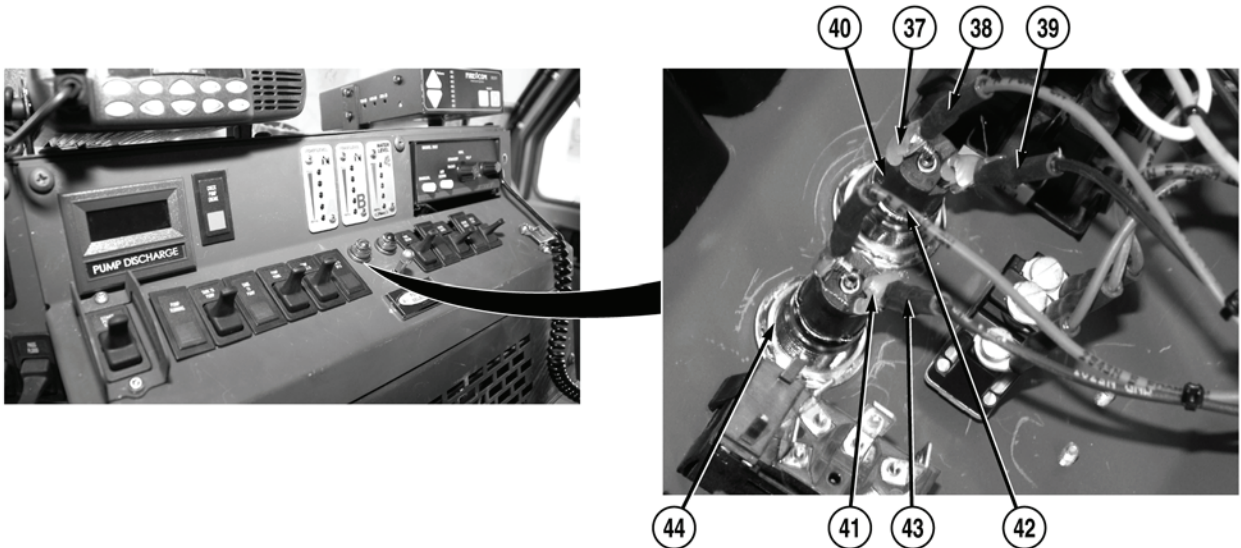
6. Disconnect wire 4075 (19), two wires 2768 (20), and wire 1023 (21) from PUMP RUNNING indicator (22).



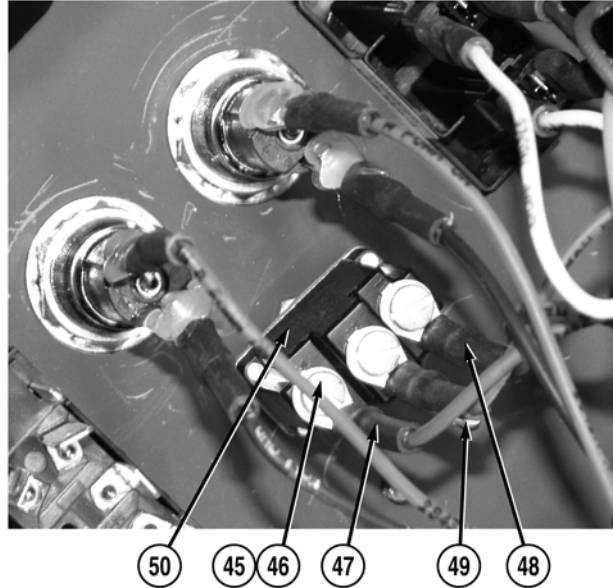
7. Disconnect cab pump control wire harness connector (23) from TANK TO PUMP switch (24).
8. Disconnect wire 2855 (25), two wires 2768 (26), and wire 1023 (27) from TANK TO PUMP indicator (28).



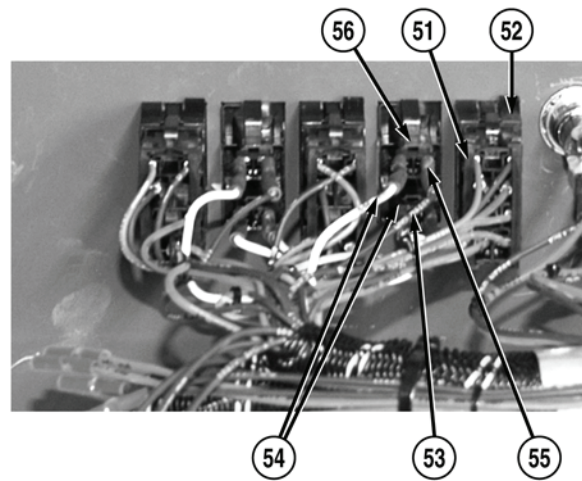
9. Disconnect cab pump control wire harness connector (29) from PUMP PRIME switch (30).
10. Disconnect cab pump control wire harness connector (31) from PUMP COOLER switch (32).
11. Disconnect wire 4037 (33), two wires 2768 (34), and wire 1023 (35) from PUMP COOLER OPEN indicator (36).



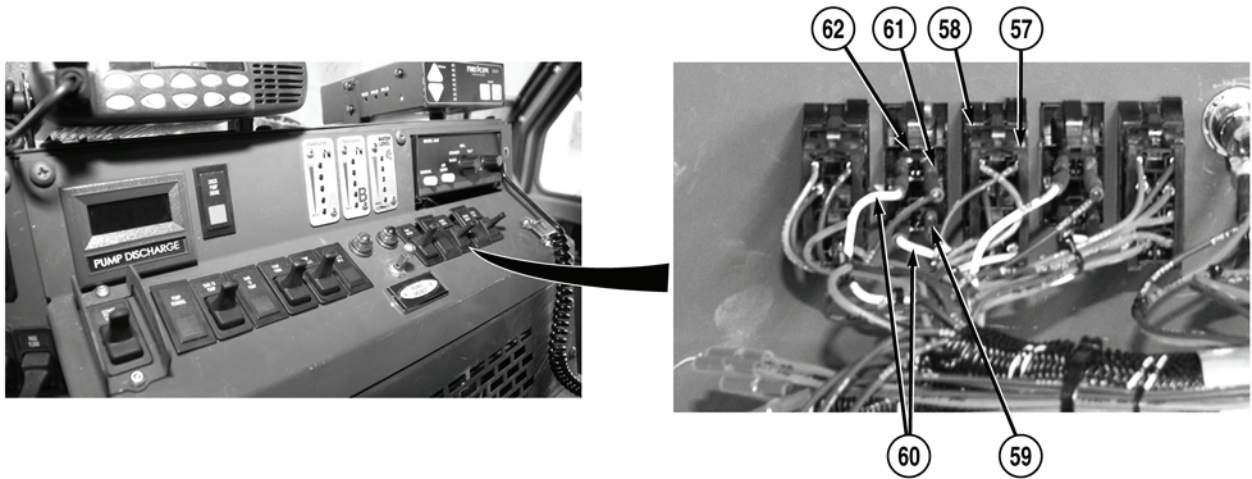
12. Remove two screws (37), wire 2842 (38), and wire 1023 (39) from foam A select indicator (40).
13. Remove two screws (41), wire 2843 (42), and wire 1023 (43) from foam B select indicator (44).



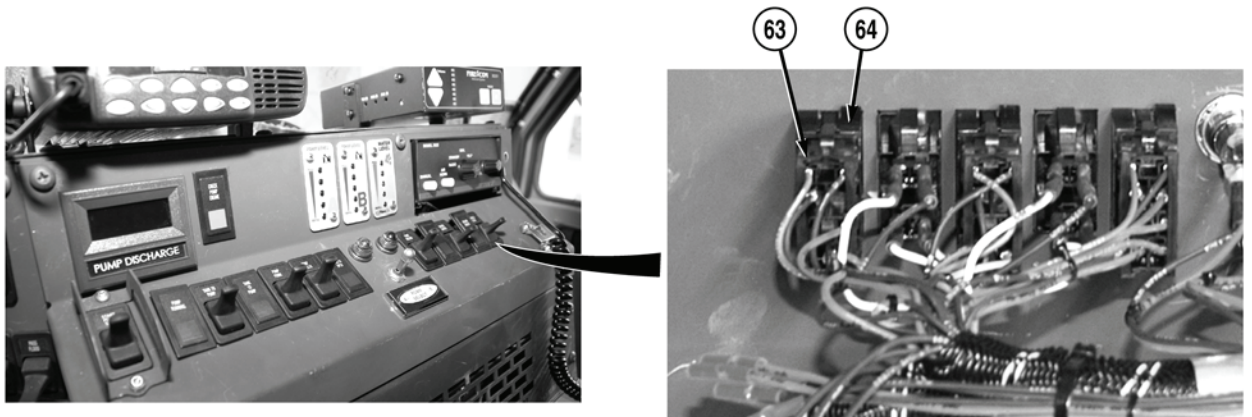
14. Remove three screws (45), lockwashers (46), wire 2842 (47), wire 2843 (48), and wire 2830 (49) from FOAM SELECT switch (50). Discard lockwashers.



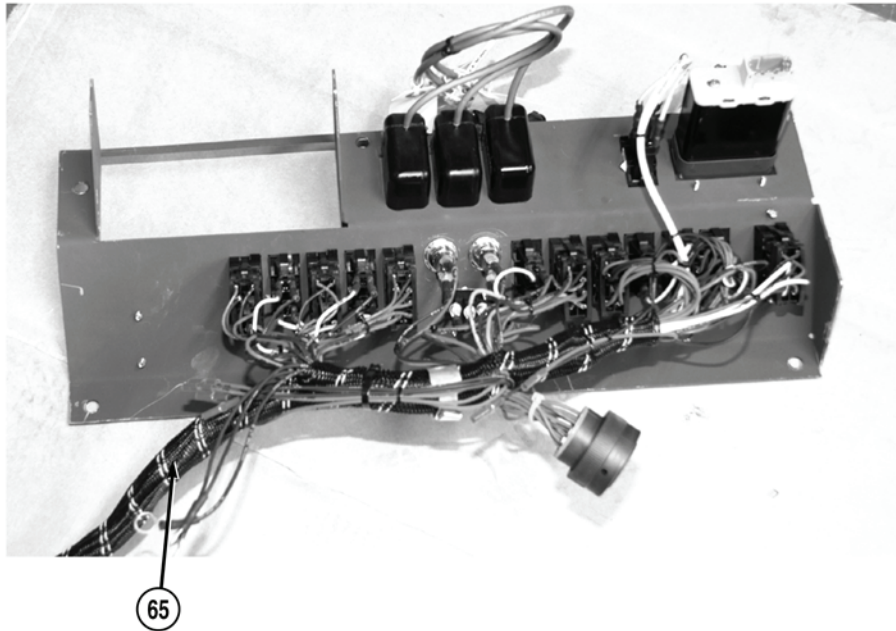
15. Disconnect cab pump control wire harness connector (51) from FOAM SYSTEM switch (52).
16. Disconnect wire 2830 (53), two wires 2768 (54), and wire 1023 (55) from FOAM SYSTEM indicator (56).



17. Disconnect cab pump control wire harness connector (57) from GROUND SWEEPS indicator (58).
18. Disconnect wire 2772 (59), two wires 2768 (60), and wire 1023 (61) from GROUND SWEEPS indicator (62).



19. Disconnect cab pump control wire harness connector (63) from WINDSHIELD DELUGE switch (64).



20. Remove cab pump control wire harness (65) from vehicle.

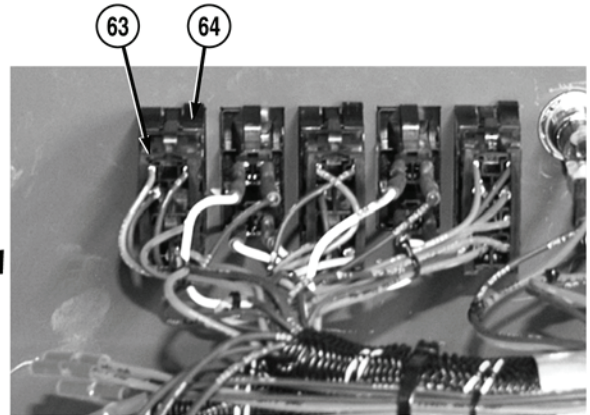
#### END OF TASK

#### INSTALLATION

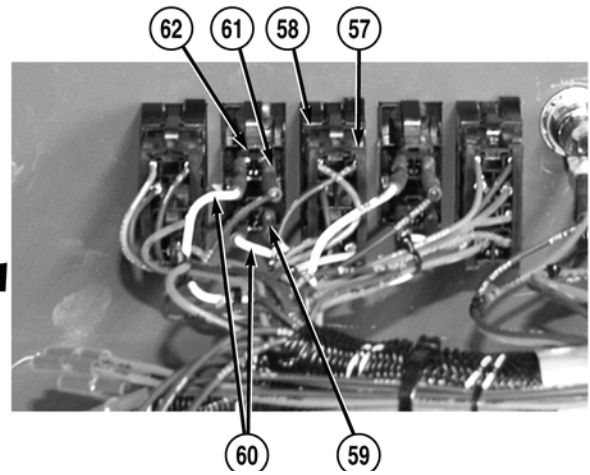
#### NOTE

- Route main wire harness on vehicle as noted prior to removal.
- Install cable ties, cushion clips, and split looms as noted.

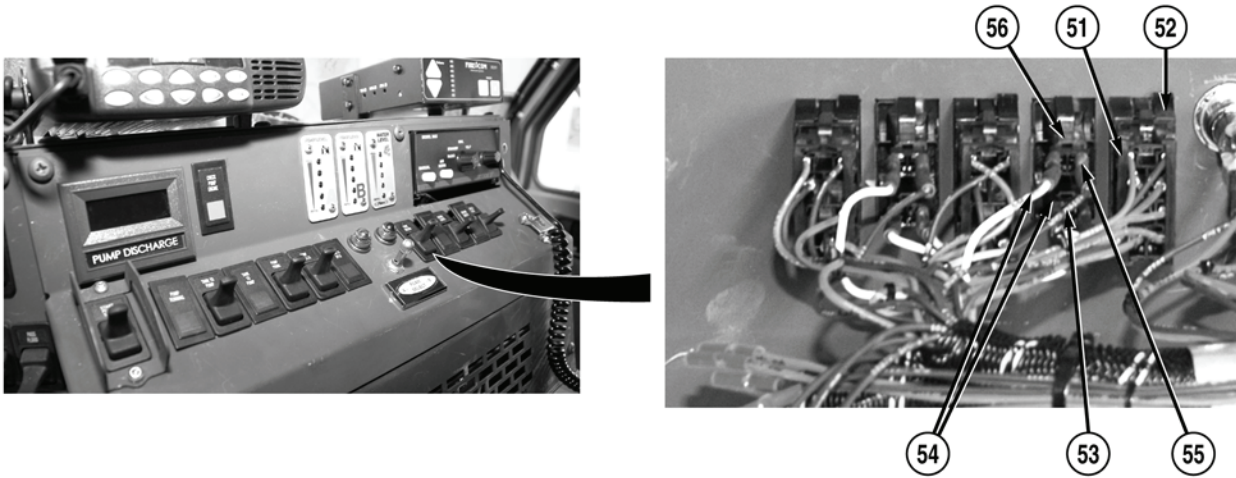
1. Install cab pump control wire harness (65) on vehicle.



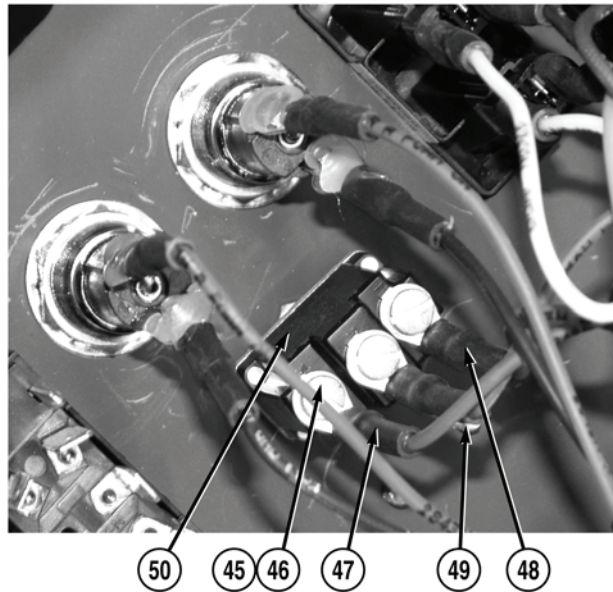
2. Connect cab pump control wire harness connector (63) on WINDSHIELD DULUGE switch (64).



3. Connect wire 2772 (59), two wires 2768 (60), and wire 1023 (61) on GROUND SWEEPS indicator (62).
4. Connect cab pump control wire harness connector (57) on GROUND SWEEPS switch (58).

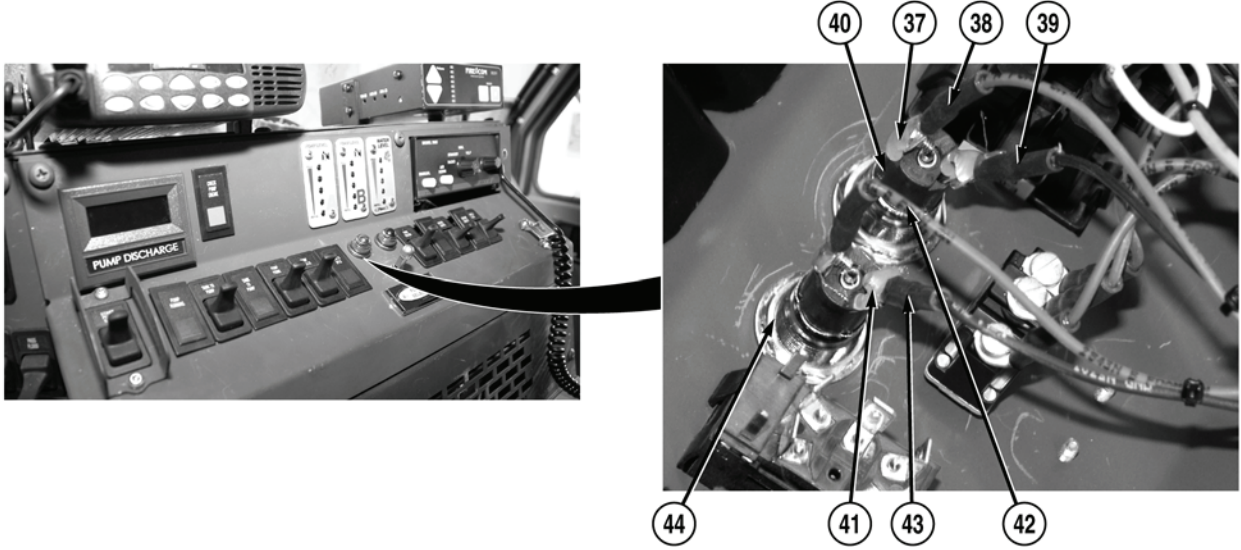


5. Connect wire 2830 (53), two wires 2768 (54), and wire 1023 (55) on FOAM SYSTEM indicator (56).
6. Connect cab pump control wire harness connector (51) on FOAM SYSTEM switch (52).



7. Install wire 2842 (47), wire 2843 (48), and wire 2830 (49) on FOAM SELECT switch (50) with three lockwashers (46) and screws (45).

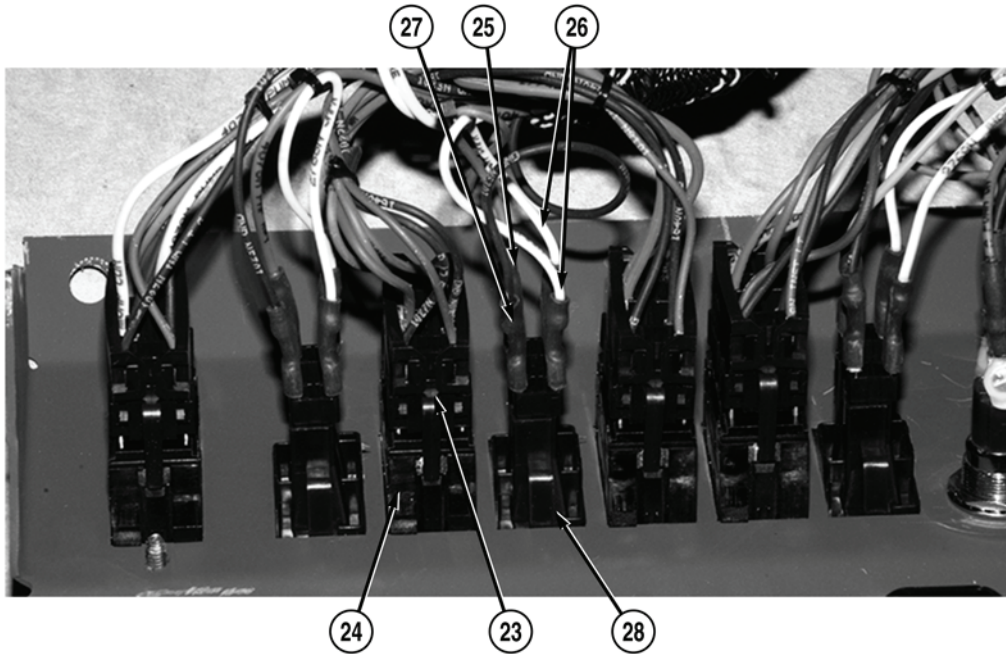




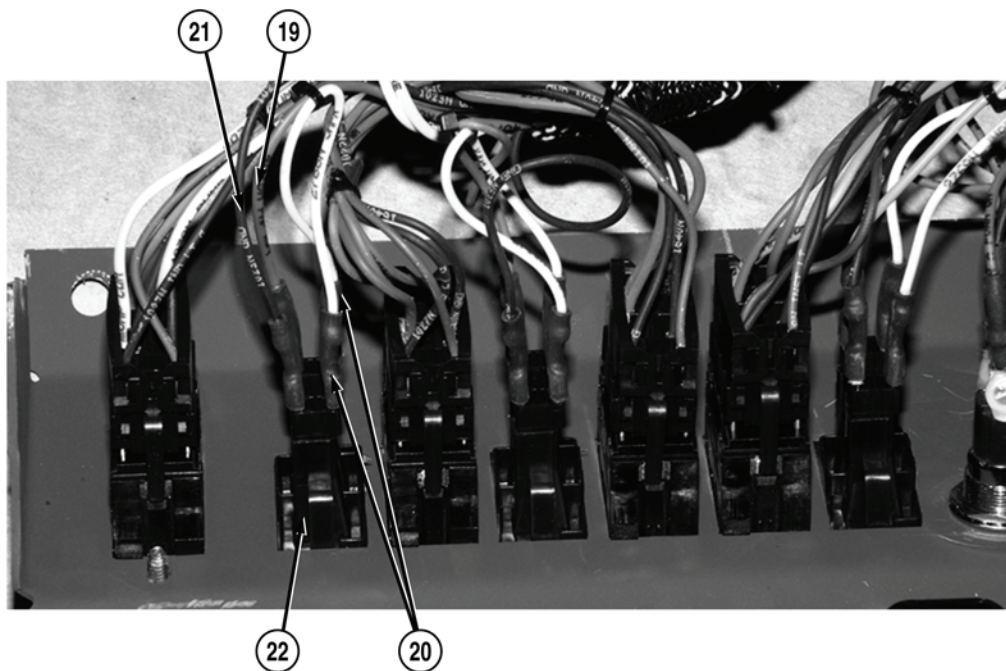
8. Install wire 2843 (42) and wire 1023 (43) on foam B select indicator (44) with two screws (41).
9. Install wire 2842 (38) and wire 1023 (39) on foam A select indicator (40) with two screws (37).



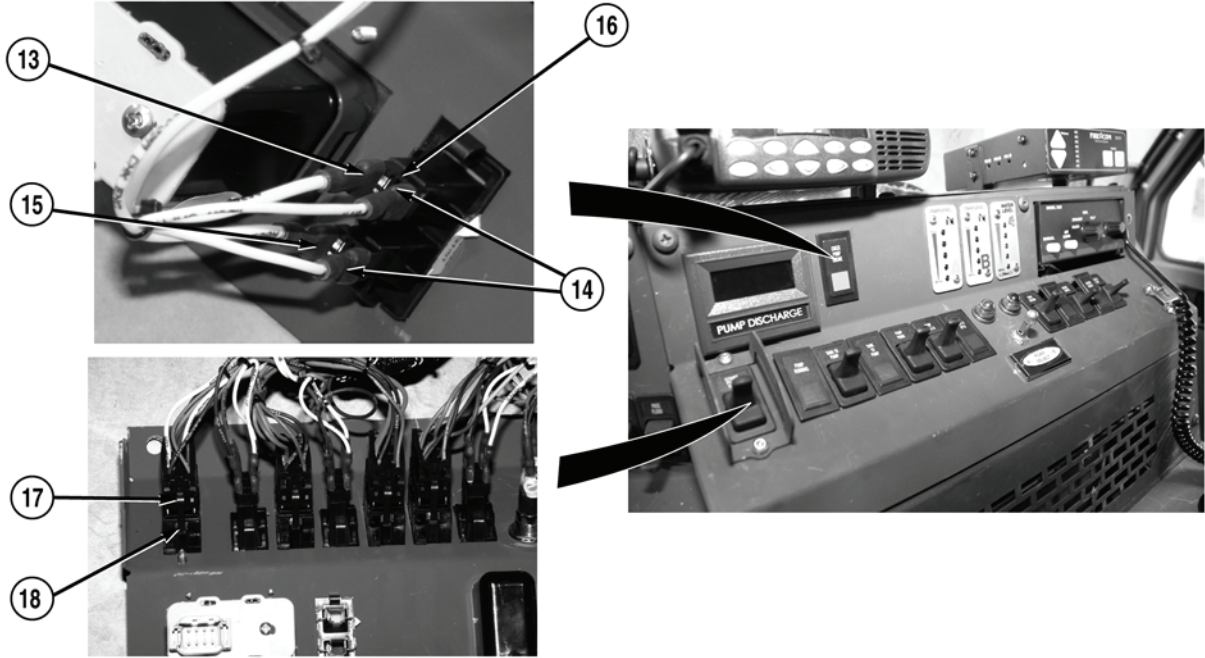
10. Connect wire 4037 (33), two wires 2768 (34), and wire 1023 (35) on PUMP COOLER OPEN indicator (36).
11. Connect cab pump control wire harness connector (31) on PUMP COOLER switch (32).
12. Connect cab pump control wire harness connector (29) on PUMP PRIME switch (30).



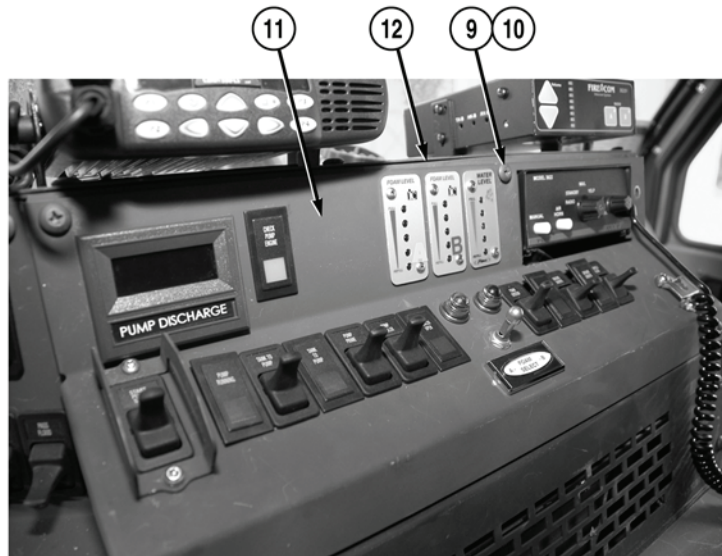
13. Connect 2855 (25), two wires 2768 (26), and wire 1023 (27) on TANK TO PUMP indicator (28).
14. Connect cab pump control wire harness connector (23) on TANK TO PUMP switch (24).



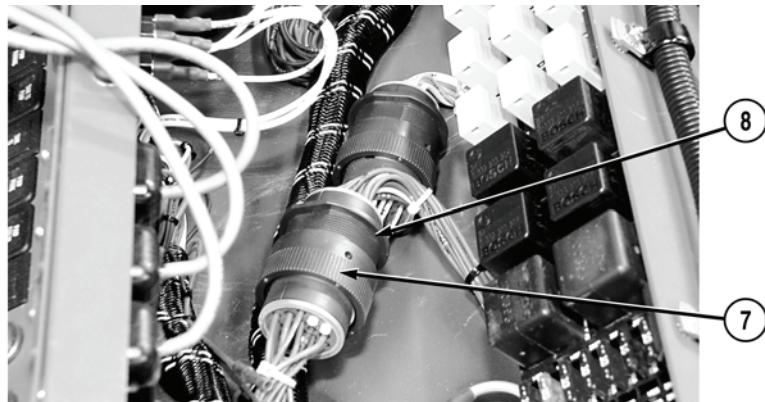
15. Connect wire 4075 (19), two wires 2768 (20), and wire 1023 (21) on PUMP RUNNING indicator (22).



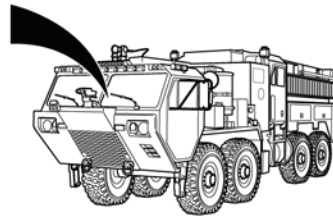
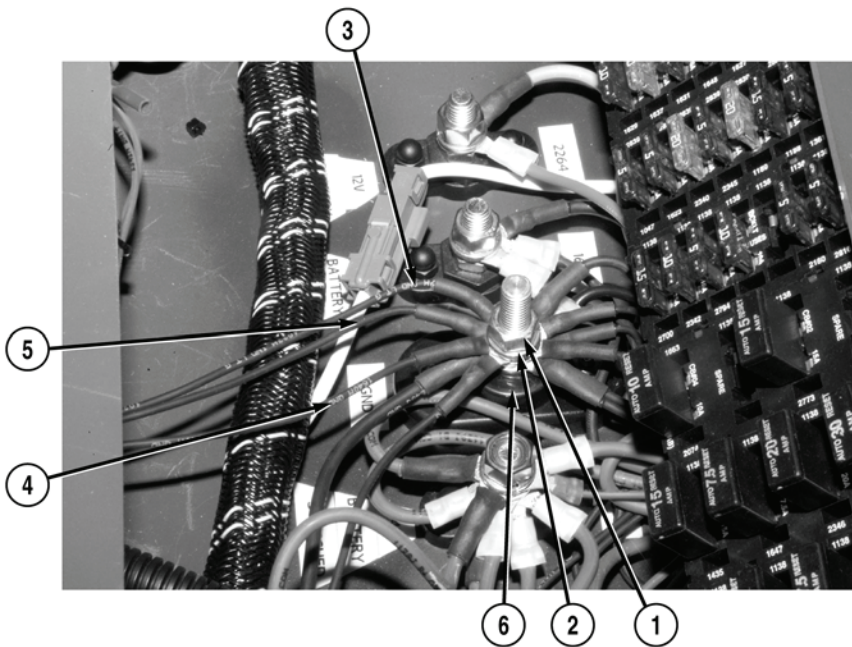
16. Connect cab pump control wire harness connector (17) on START PUMP STOP switch (18).
17. Connect wire 2670 (13), two wires 2768 (14), and wire 2539 (15) on CHECK PUMP ENGINE indicator (16).



18. Install cab instrument panel B (11) on cab instrument panel assembly (12) with five lockwashers (10) and screws (9).



19. Connect pump control wire harness connector (7) on cab power distribution wire harness connector (8).



20. Install wire 1027 (3), wire 1640 (4), and wire 1023 (5) on cab ground terminal block (6) with lockwasher (2) and nut (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Install siren control (WP 0341)
2. Install personnel cab instrument panel assembly (WP 0312)

**END OF TASK**

**END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## CAB WATER TANK LEVEL INDICATOR WIRE HARNESS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

**References**

WP 0615, Fig. 51

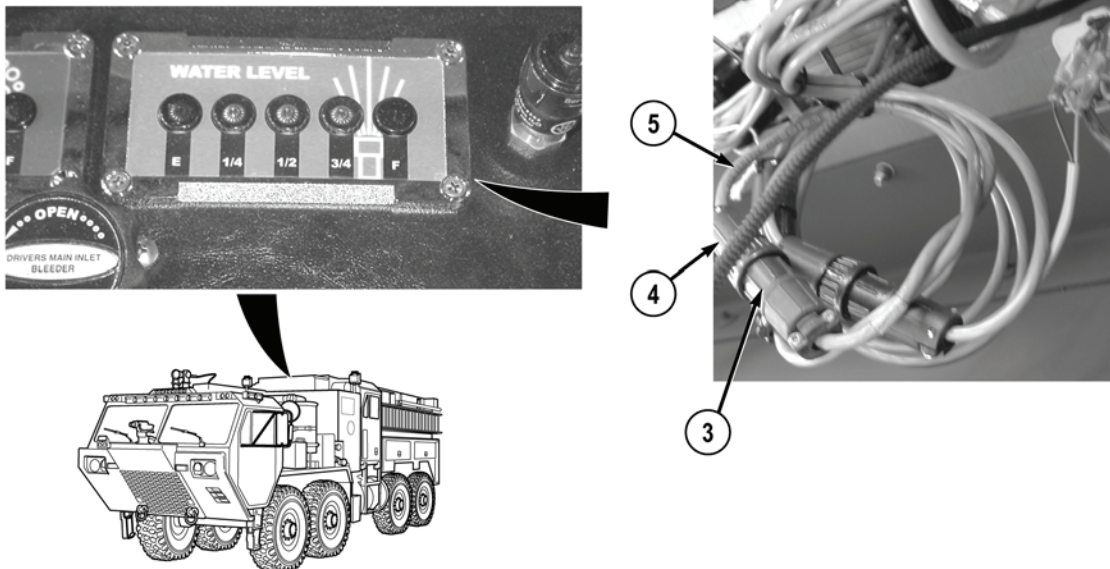
**Equipment Conditions**

Cab instrument panel B opened (WP 0311)  
Pump operator's panel housing  
opened (WP 0325)

## REMOVAL

**NOTE**

- Note routing of cab water tank level indicator wire harness prior to removal to ensure proper installation.
  - Note position and remove cable ties, split looms, and cushion clips as required.
  - Tag and mark connectors prior to removal to ensure proper installation.
1. Disconnect cab water tank level indicator wire harness connector (1) from cab water tank level indicator gauge connector (2).



2. Disconnect cab water tank level indicator wire harness connector (3) from pump operator's panel water tank level indicator gauge connector (4).
3. Remove cab water tank level indicator wire harness connector (5) from vehicle.

#### END OF TASK

#### INSTALLATION

#### NOTE

- Route cab water tank level indicator wire harness as noted prior to removal.
  - Install cable ties, split looms, and cushion clips as noted.
1. Install cab water tank level indicator wire harness connector (5) on vehicle.
  2. Connect pump operator's panel water tank level indicator gauge connector (4) to cab water tank level indicator wire harness connector (3).



3. Connect cab water tank level indicator gauge connector (2) to cab water tank level indicator wire harness connector (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Close pump operator's panel housing (WP 0325)
2. Close cab instrument panel B (WP 0311)

#### END OF TASK

#### END OF WORK PACKAGE





## FIELD LEVEL MAINTENANCE

## CREW CAB INTERCOM WIRE HARNESS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 84

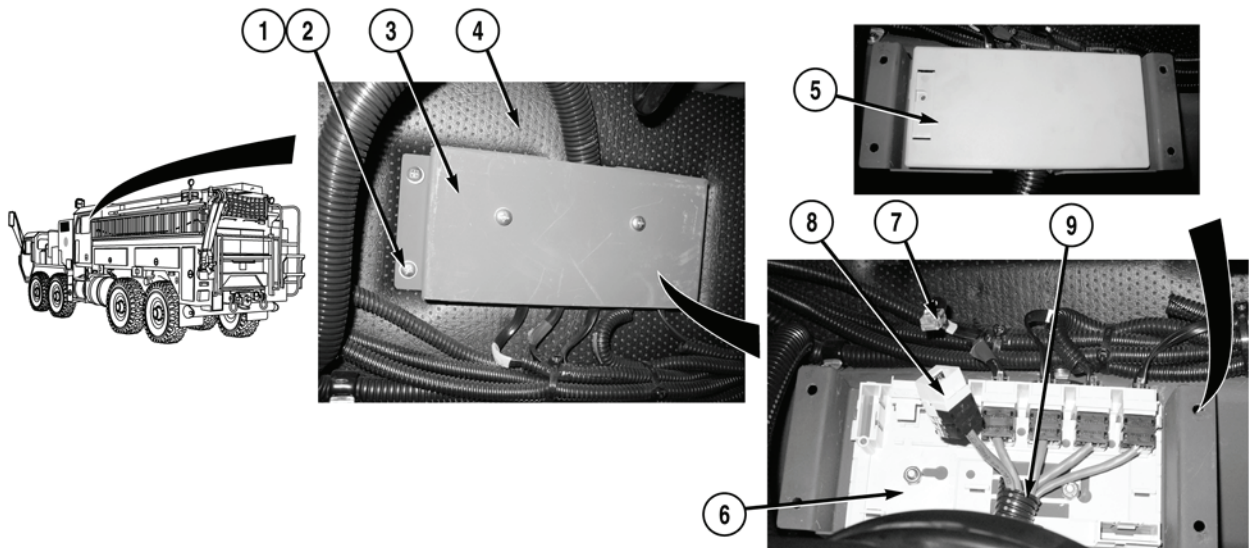
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Nylon washer (4)  
Lockwasher (1)

**Equipment Conditions**

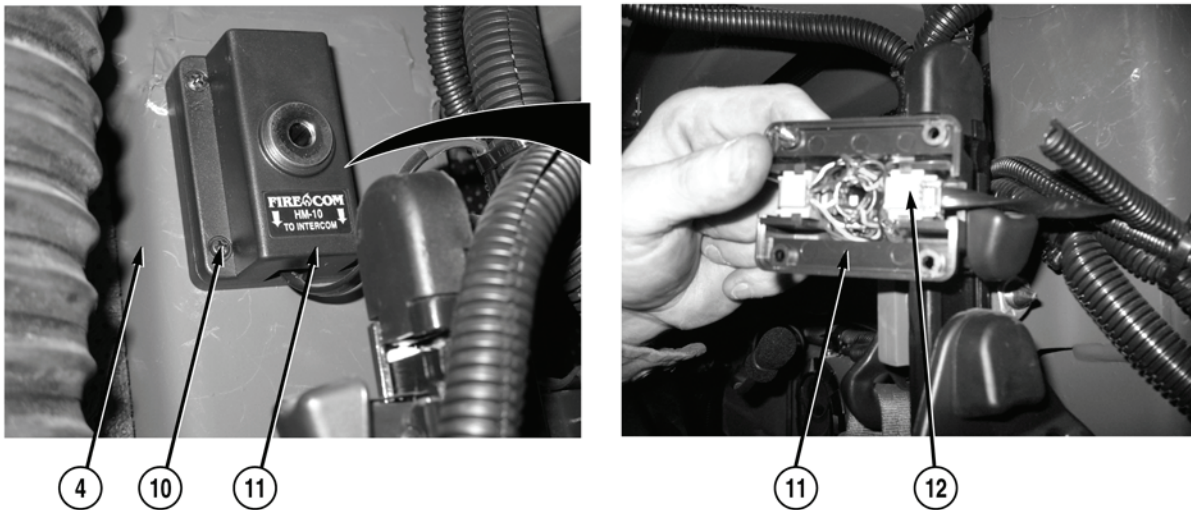
Crew cab bench seat removed (WP 0501)

## REMOVAL

**NOTE**

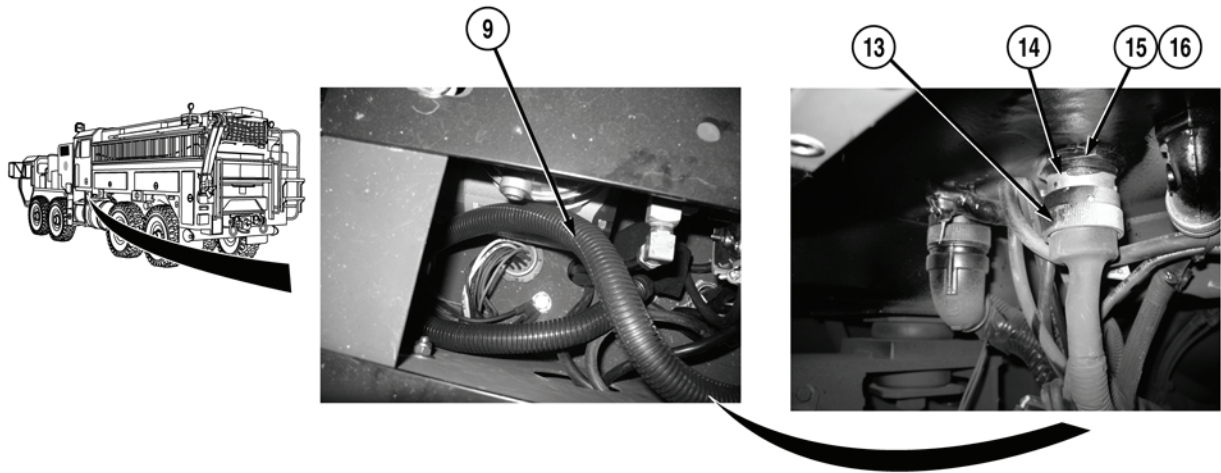
- Tag and mark connectors prior to removal to ensure proper installation.
- Note position and remove cable ties, split looms, and cushion clips as required.
- Note routing of wire harness prior to removal to ensure proper installation.

1. Remove four screws (1), nylon washers (2), and interface adapter bracket (3) from crew cab (4). Discard nylon washers.
2. Remove cover (5) from interface adapter (6).
3. Disconnect five RJ-12 connectors (7) from interface adapter (6).
4. Remove five RJ-12 modules (8) and crew cab intercom wire harness (9) from interface adapter (6).



### NOTE

- All HM-10 units are removed the same way. Passenger HM-10 unit shown.
  - Note position of screws prior to removal to ensure proper installation.
  - Two screws hold cover on box, and two longer screws hold cover on box and box on crew cab.
5. Remove four screws (10) and HM-10 remote module (11) from crew cab (4).
  6. Disconnect RJ-12 connector (12) from HM-10 remote module (11).



7. Disconnect intercom wire harness connector (13) from crew cab intercom wire harness connector (14).
8. Remove nut (15) and lockwasher (16) from crew cab intercom wire harness connector (14) and vehicle. Discard lockwasher.
9. Remove crew cab intercom wire harness (9) from vehicle.

#### END OF TASK

#### INSTALLATION

##### NOTE

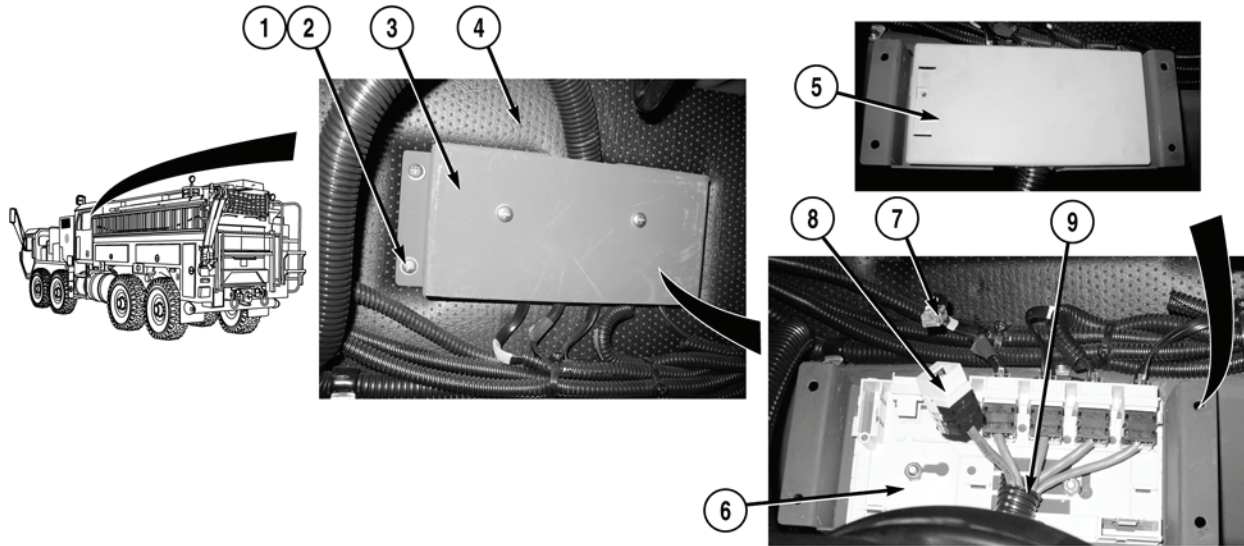
- Install wire harness as noted prior to removal.
- Install cushion clips, split looms, and cable ties as noted.

1. Install crew cab intercom wire harness (9) in vehicle.
2. Install crew cab intercom wire harness connector (14) on vehicle with lockwasher (16) and nut (15).
3. Connect intercom wire harness connector (13) to crew cab intercom wire harness connector (14).
4. Connect RJ-12 connector (12) to HM-10 remote module (11).

##### NOTE

- All HM-10 units are installed the same way. Passenger HM-10 unit shown.
- Install screws as noted prior to removal.

5. Install HM-10 remote module (11) on crew cab (4) with four screws (10).



6. Install crew cab intercom wire harness (9) and five RJ-12 modules (8) in interface adapter (6).
7. Connect five RJ-12 connectors (7) to interface adapter (6).
8. Install cover (5) on interface adapter (6).
9. Install interface adapter bracket (3) on crew cab (4) with four nylon washers (2) and screws (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

Install crew cab bench seat (WP 0501)

#### END OF TASK

#### END OF WORK PACKAGE

---

**FIELD LEVEL MAINTENANCE**  
**CREW CAB WIRE HARNESS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 91, 121

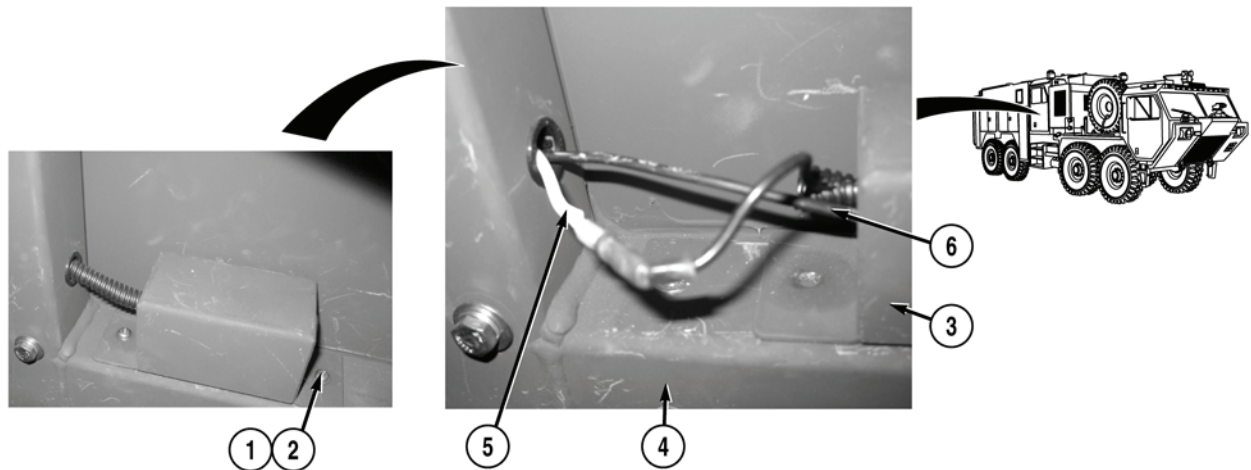
**Materials/Parts**

Compound, Sealing (WP 0625, Item 17)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Nylon washer (8)

**Equipment Conditions**

Wheels chocked (TM 9-2320-347-10)  
Batteries disconnected (TM 9-2320-325-14&P)

---

**REMOVAL****NOTE**

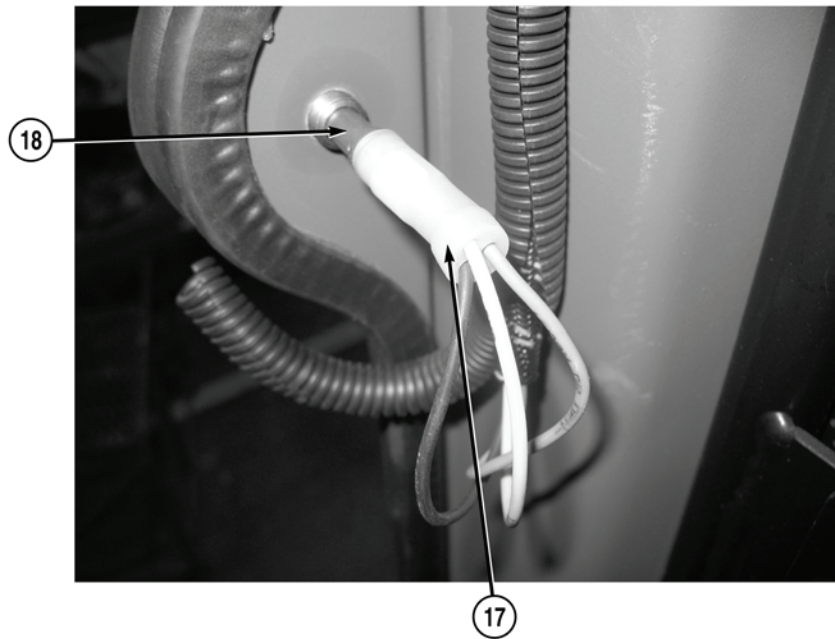
- Tag and mark wires and connectors prior to removal to ensure proper installation.
  - Note position and remove cable ties, split looms, and cushion clips as required.
  - Note routing of wire harness prior to removal to ensure proper installation.
1. Remove two screws (1), washers (2), and passenger side 12V power socket (3) from crew cab rail (4).
  2. Cut wire 2771 (5) and wire 1640 (6) (TM 9-2320-325-14&P).
  3. Repeat Steps (1) and (2) on driver side 12V power socket.



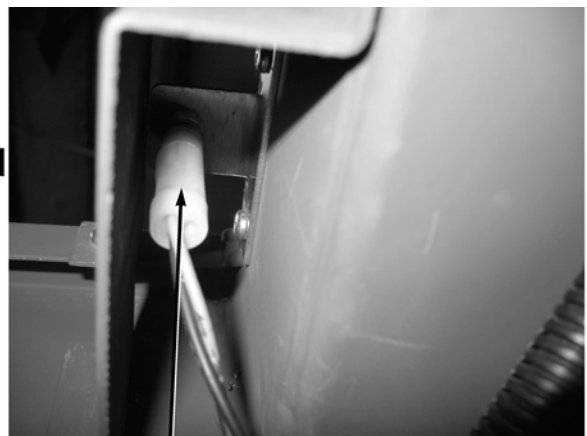
4. Cut wire 2771 (7) and wire 1640 (8) at passenger side radio charger connector (9) (TM 9-2320-325-14&P).
5. Repeat Step (4) for driver side radio charger.



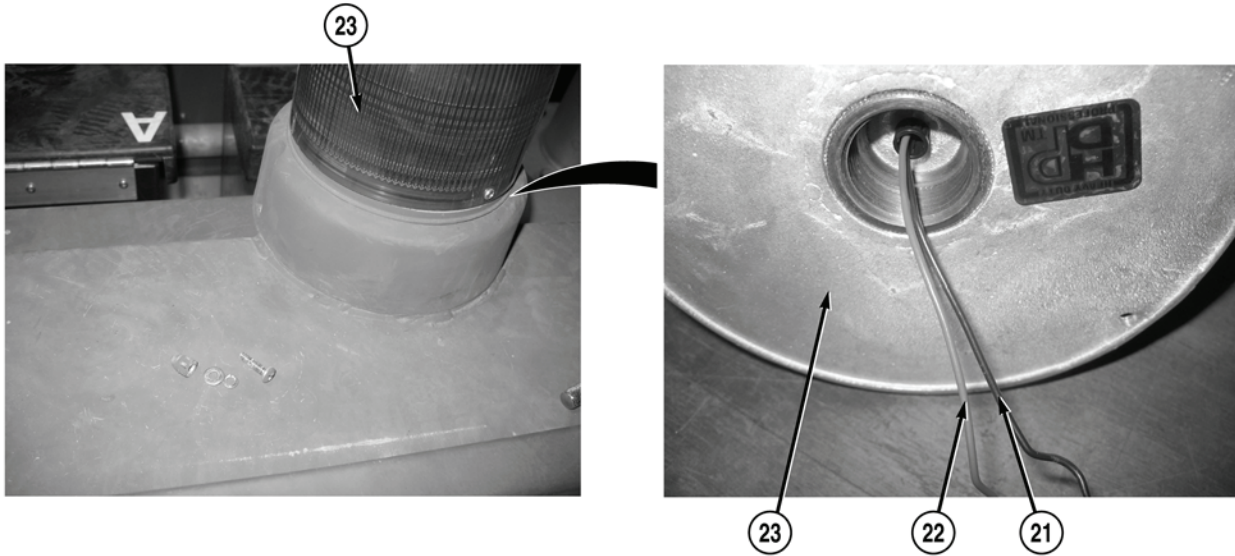
6. Remove four screws (10), nylon washers (11), and passenger side dome light assembly (12) from crew cab roof (13). Discard nylon washers.
7. Cut wire 1106 (14), wire 1640 (15), and wire 1047 (16) (TM 9-2320-325-14&P).
8. Repeat Steps (6) and (7) for driver side dome light assembly.



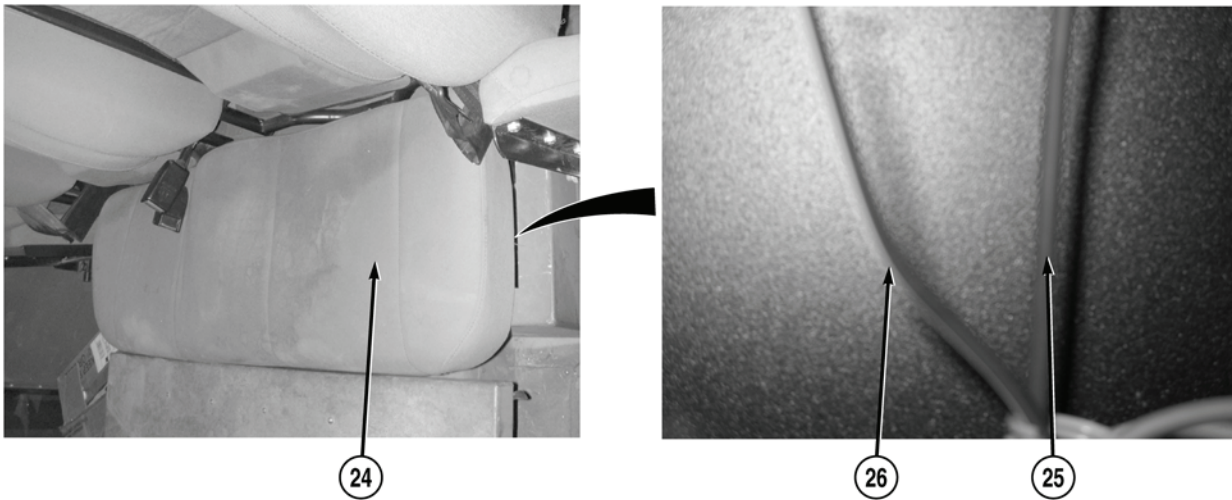
9. Disconnect passenger side door switch connector (17) from door switch (18).
10. Repeat Step (9) for driver side door switch connector.



11. Remove hatch door switch connector (19) from hatch door switch (20).



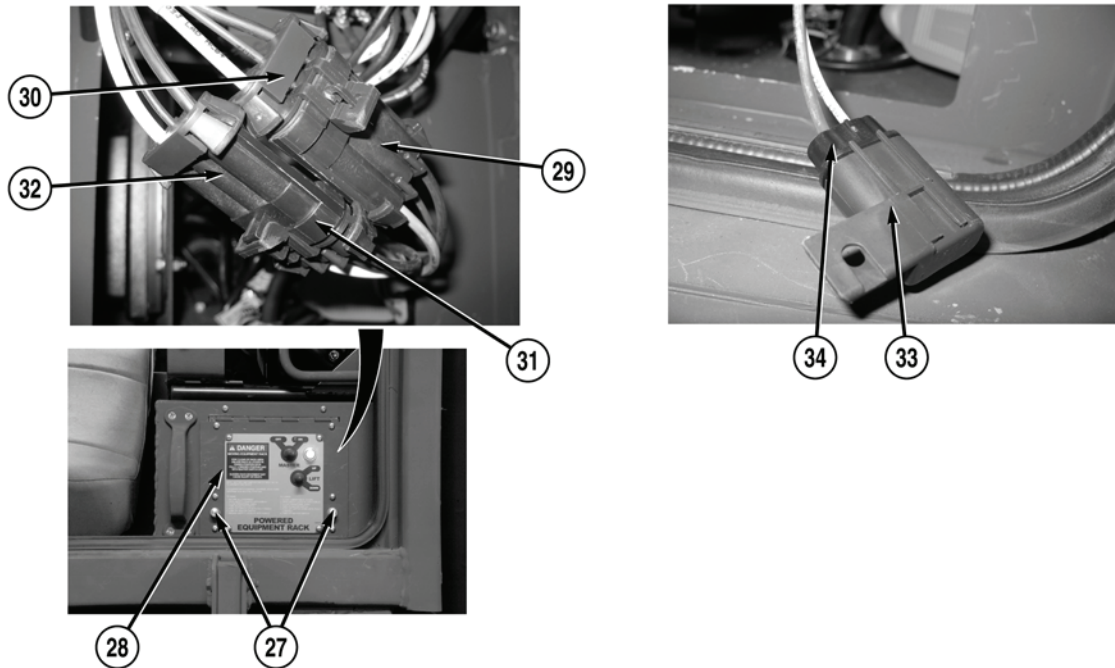
12. Cut wire 1640 (21) and wire 1630 (22) at overhead beacon (23) (TM 9-2320-325-14&P).



13. Remove crew cab bench seat (24) (WP 0501).

14. Cut wire 1640 (25) and wire 1104 (26) (TM 9-2320-325-14&P).

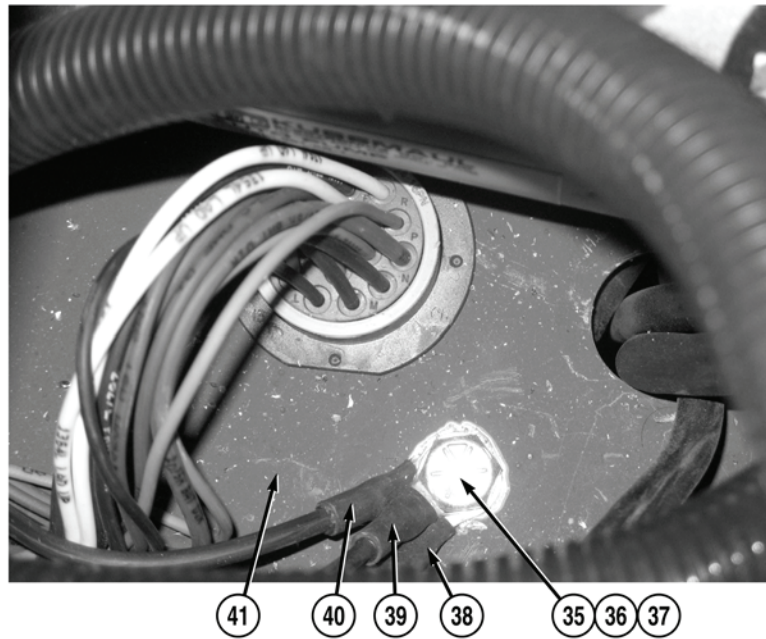




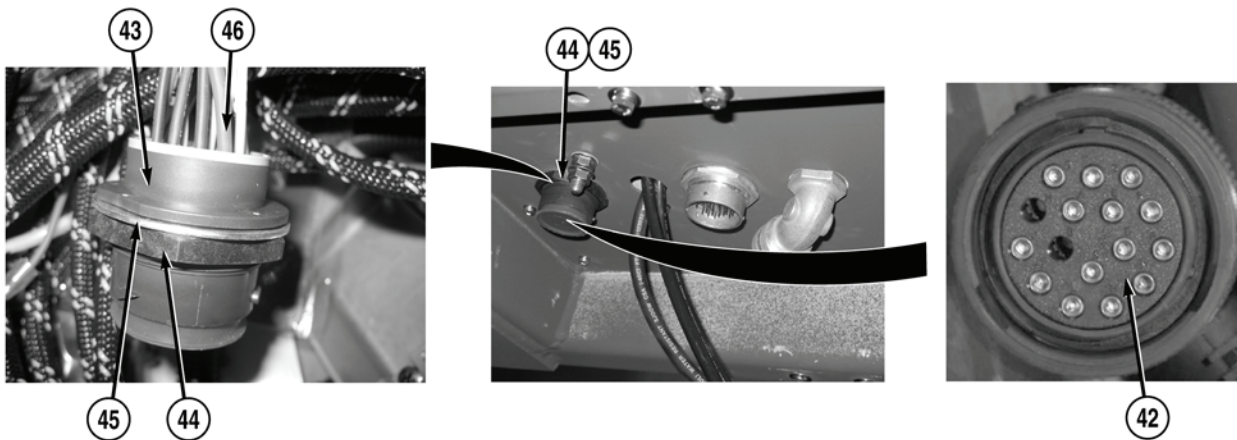
### NOTE

- Ladder rack control box is located under crew cab driver side seat.
- A prop is required to keep equipment (ladder) rack control box door opened.

15. Turn two screws (27) and open ladder rack control box door (28).
16. Disconnect equipment (ladder) rack control connector (29) from crew cab wire harness connector (30).
17. Disconnect equipment (ladder) rack control connector (31) from crew cab wire harness connector (32).
18. Remove in-line fuse (33) from equipment (ladder) rack control connector (34).



19. Remove nut (35), lockwasher (36), screw (37), and wire 1640 (38), wire 2313 (39), and wire 2200 (40) from crew cab floor (41). Discard lockwasher.



20. Disconnect main wire harness connector (42) from crew cab wire harness connector (43).
21. Remove nut (44) and lockwasher (45) from crew cab wire harness connector (43). Discard lockwasher.
22. Remove crew cab wire harness (46) from vehicle.

**END OF TASK**

---

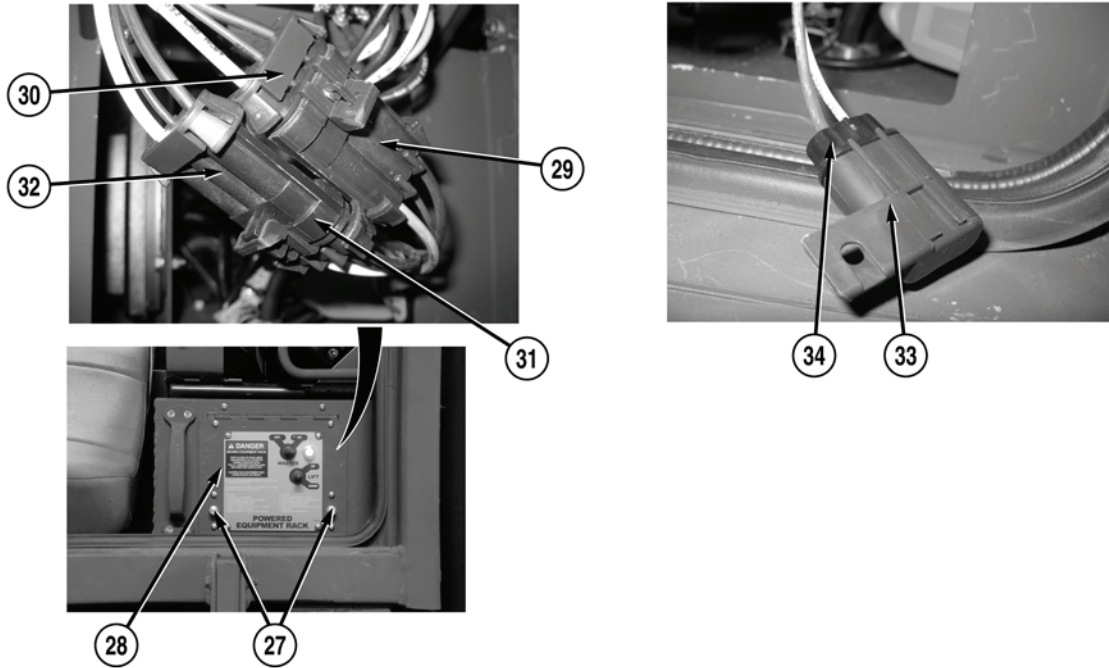
**INSTALLATION****NOTE**

- Route wire harness as noted prior to removal.
  - Install cushion clips, split looms, and cable ties as noted.
1. Install crew cab wire harness (46) in vehicle.
  2. Install crew cab wire harness connector (43) with lockwasher (45) and nut (44).
  3. Connect main wire harness connector (42) to crew cab wire harness connector (43).
  4. Install wire 2200 (40), wire 2313 (39), and wire 1640 (38) on crew cab floor (41) with screw (37), lockwasher (36), and nut (35).

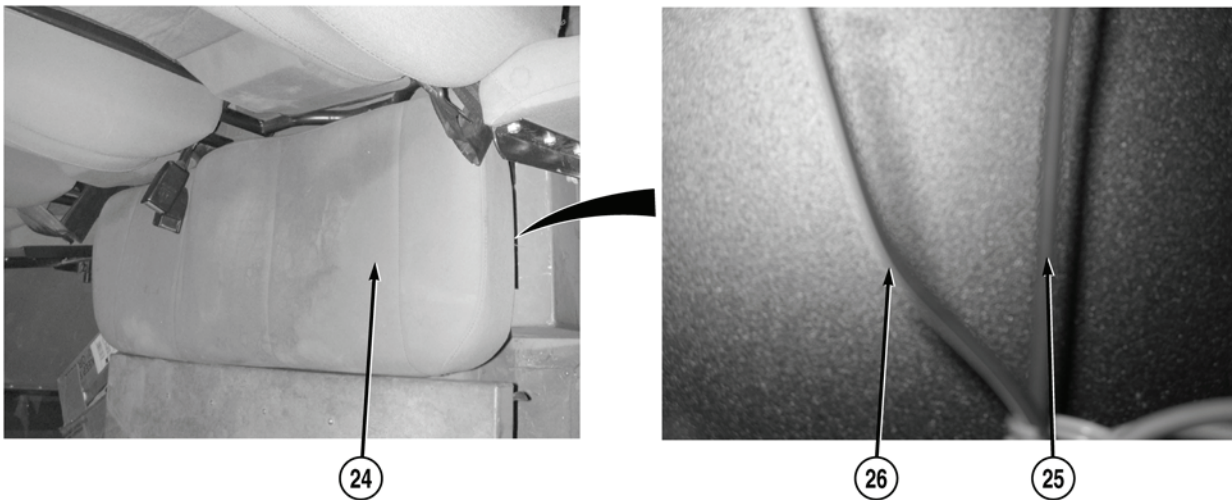
**WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

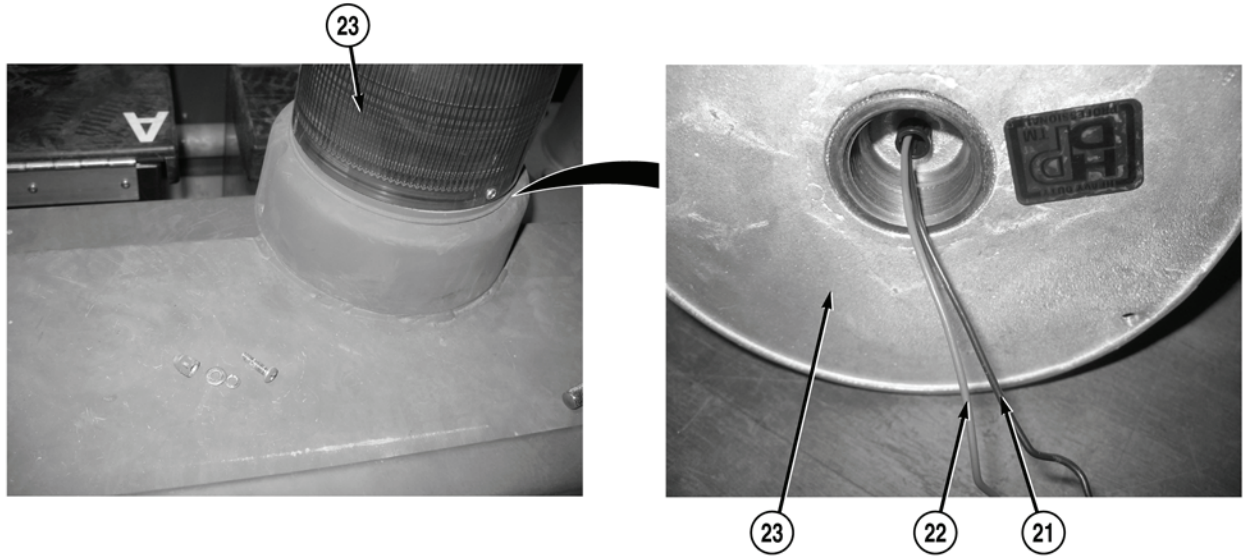
5. Apply sealing compound to wire connection on nut (35).



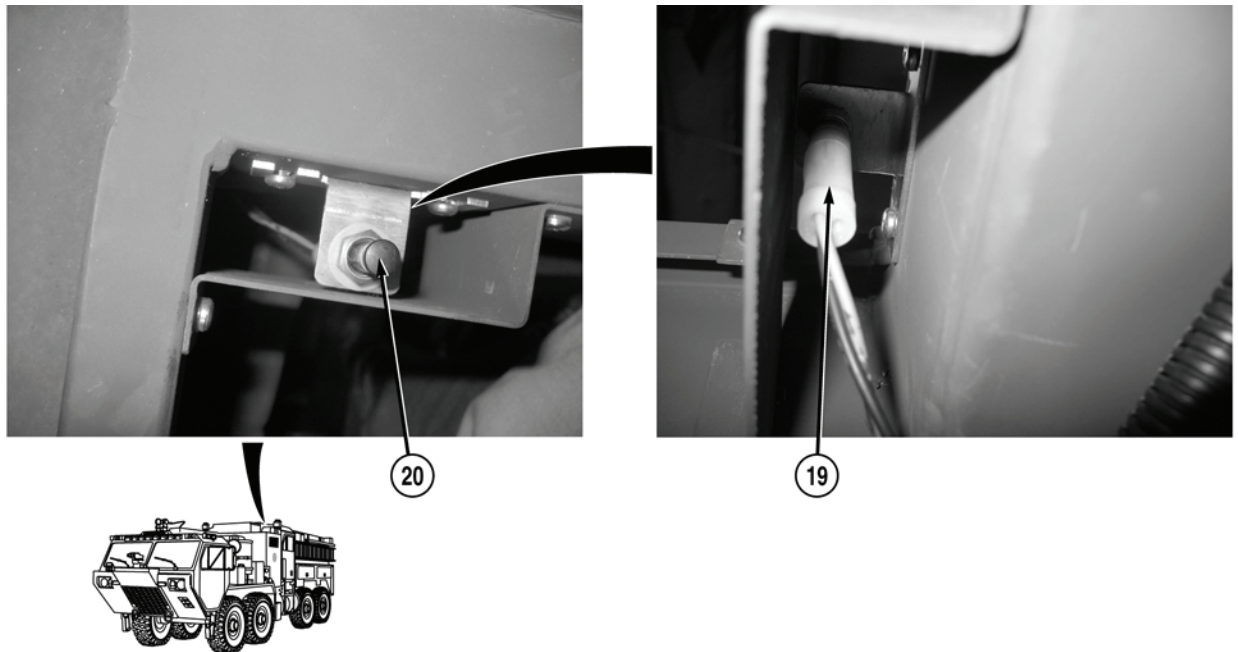
6. Install in-line fuse (33) in equipment (ladder) rack control connector (34).
7. Connect crew cab wire harness connector (32) to equipment (ladder) rack control connector (31).
8. Connect crew cab wire harness connector (30) to equipment (ladder) rack control connector (29).
9. Close equipment (ladder) rack control box door (28) and turn two screws (27).



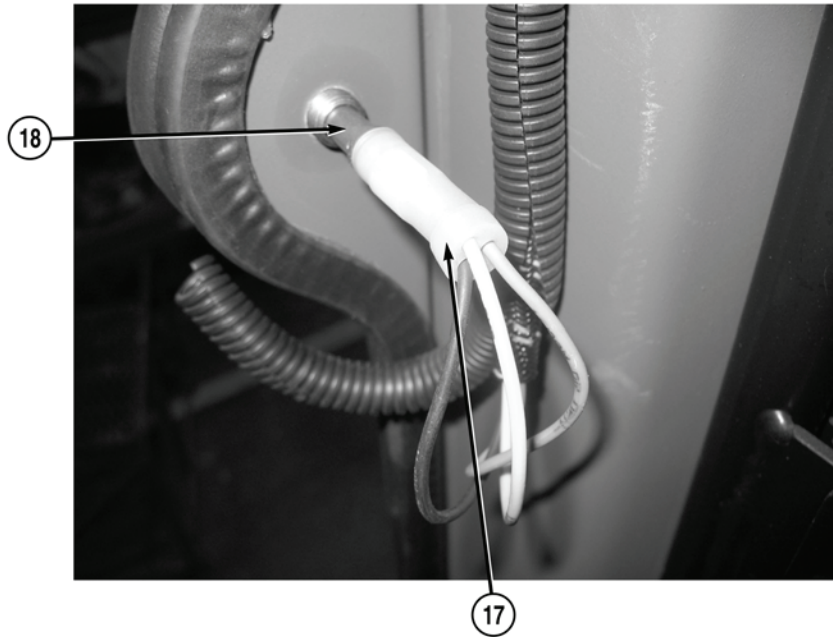
10. Repair wire 1104 (26) and wire 1640 (25) (TM 9-2320-325-14&P).
11. Install crew cab bench seat (24) (WP 0501).



12. Repair wire 1630 (22) and wire 1640 (21) at overhead beacon (23) (TM 9-2320-325-14&P).



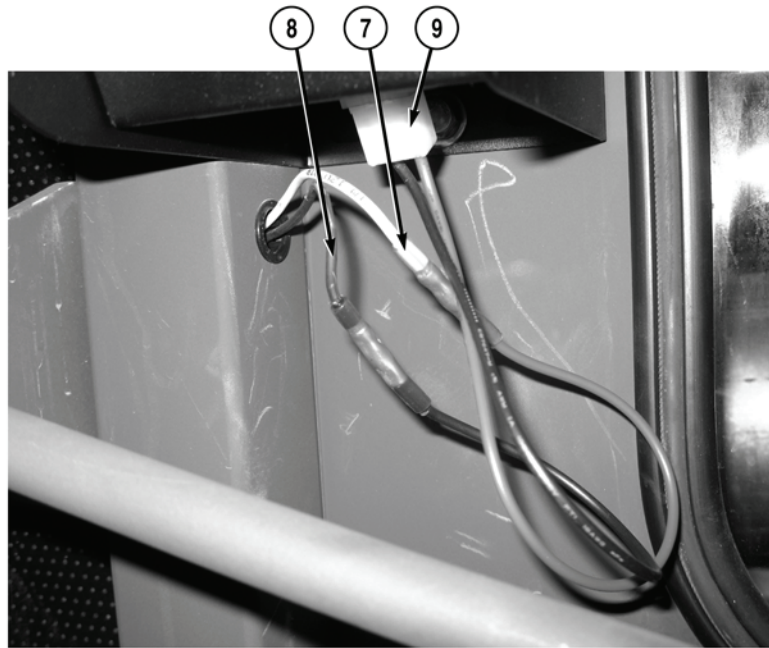
13. Install hatch door switch connector (19) to hatch door switch (20).



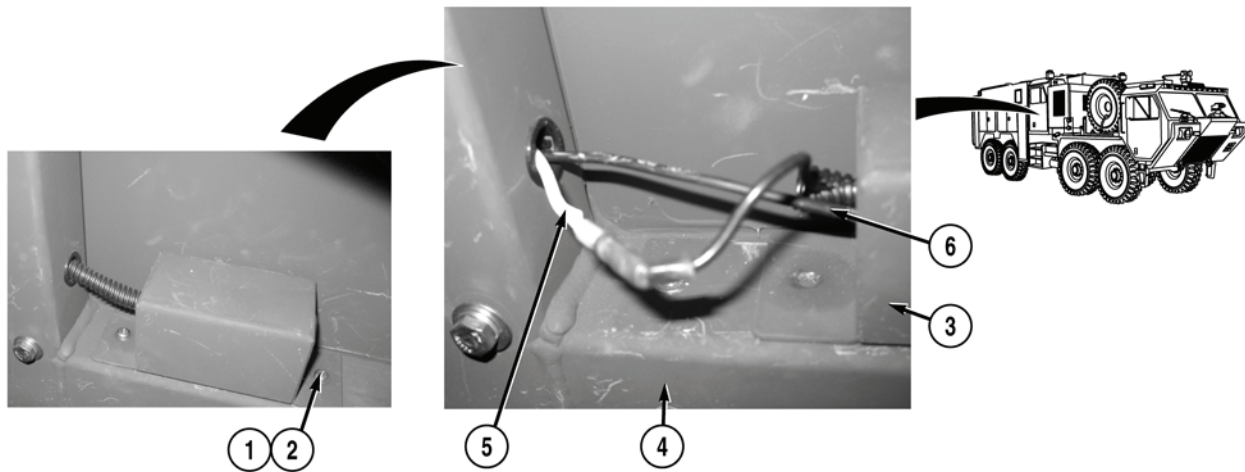
14. Connect passenger side door switch connector (17) to door switch (18).
15. Repeat Step (14) for driver side door switch.



16. Repair wire 1047 (16), wire 1640 (15), and wire 1106 (14) (TM 9-2320-325-14&P).
17. Install passenger side dome light assembly (12) on crew cab roof (13) with four nylon washers (11) and screws (10).
18. Repeat Steps (16) and (17) for driver side dome light assembly.



19. Repair wire 1640 (8) and wire 2771 (7) at passenger side radio charger connector (9) (TM 9-2320-325-14&P).
20. Repeat Step (19) for driver side radio charger.



21. Repair wires 1640 (6) and wire 2771 (5) (TM 9-2320-325-14&P).
22. Install passenger side 12V power socket (3) on crew cab rail (4) with two washers (2) and screws (1).
23. Repeat Steps (21) and (22) for driver side 12V power socket.

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Connect batteries (TM 9-2320-325-14&P)
2. Remove wheel chocks (TM 9-2320-347-10)

#### END OF TASK

#### END OF WORK PACKAGE



---

**FIELD LEVEL MAINTENANCE**  
**DIRECT TANK FILL VALVE WIRE HARNESS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

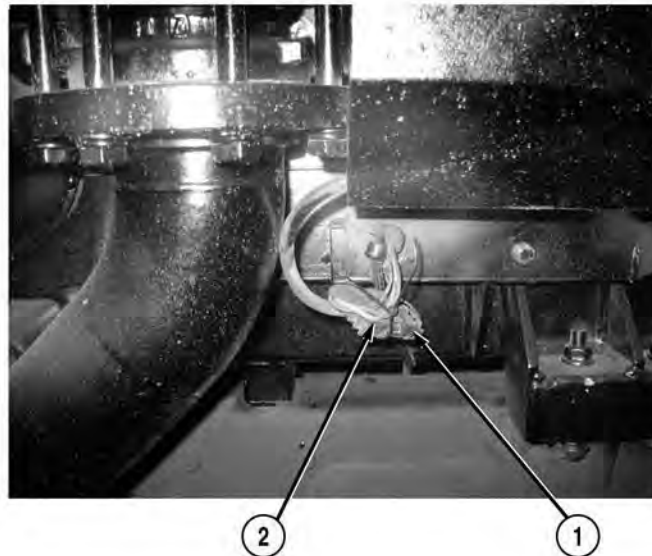
**References**

WP 0615, Fig. 51

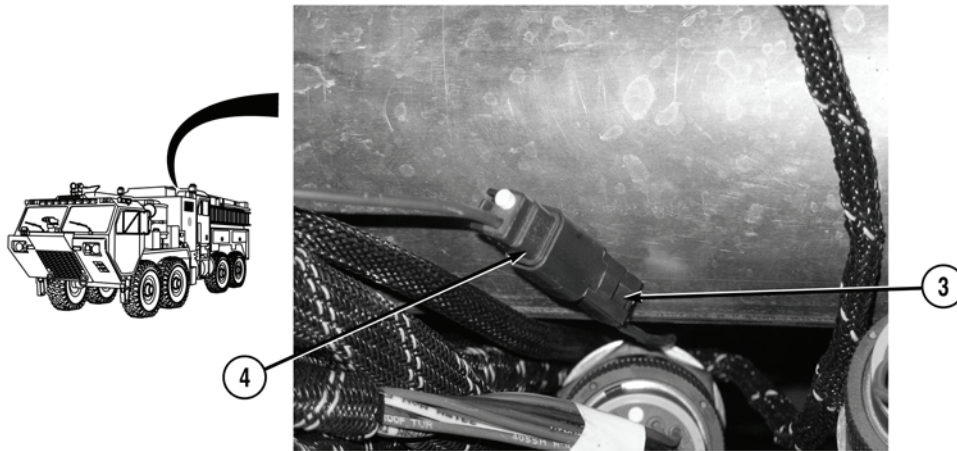
**Equipment Conditions**

Driver side crew cab access panel  
removed (WP 0499)  
Pump house panels Q and S removed (WP 0540)

---

**REMOVAL****NOTE**

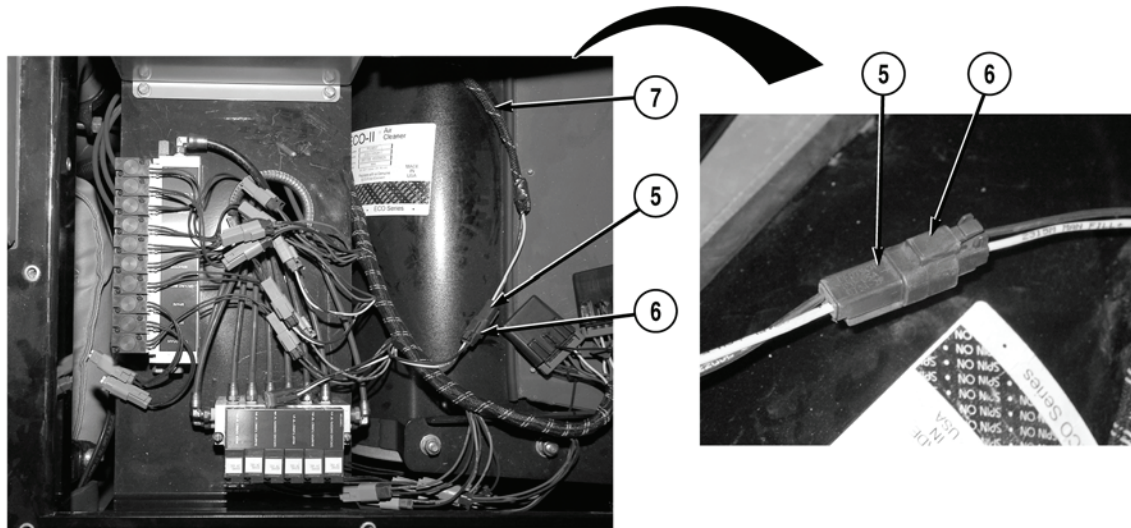
- Tag and mark connectors prior to removal to ensure proper installation.
  - Note position and remove cable ties, split looms, and cushion clips as required.
  - Note routing of wire harness prior to removal to ensure proper installation.
1. Disconnect direct tank fill valve connector (1) from direct tank fill valve wire harness connector (2).



### NOTE

Tank fill connector is accessed through driver side crew cab access panel.

2. Disconnect tank fill connector (3) from main wire harness connector (4).



### NOTE

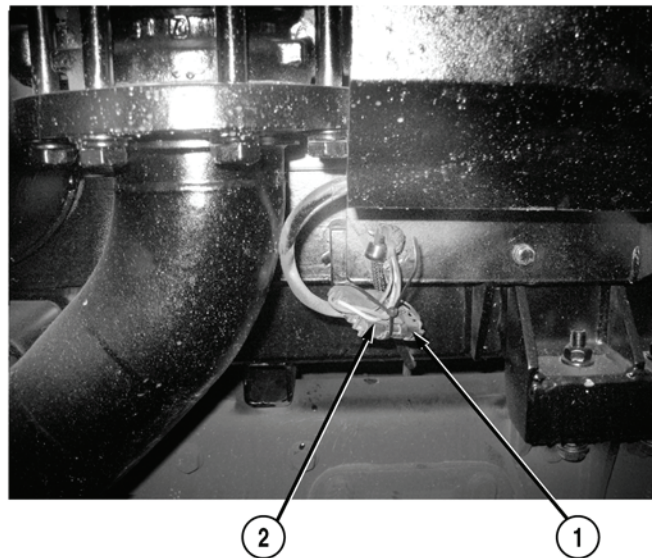
Manual fill connector is accessed from top at pump house panel S.

3. Disconnect manual fill connector (5) from direct tank fill wire harness connector (6).
4. Remove direct tank fill valve wire harness (7) from vehicle.

**END OF TASK**

**INSTALLATION****NOTE**

- Route wire harness as noted prior to removal.
  - Install cushion clips, split looms, and cable ties as noted.
1. Install direct tank fill valve wire harness (7) on vehicle.
  2. Connect manual fill connector (5) to direct tank fill wire harness connector (6).
  3. Connect tank fill connector (3) to main wire harness connector (4).



4. Connect direct tank fill valve connector (1) to direct tank fill valve wire harness connector (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install pump house panels S and Q (WP 0540)
2. Install driver side crew cab access panel (WP 0499)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE****DRIVER SIDE BODY WIRE HARNESS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Adhesive, RTV (WP 0625, Item 5)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Nylon washer (4)  
Locknut (1)  
Nylon washer (4)  
Lockwasher (1)

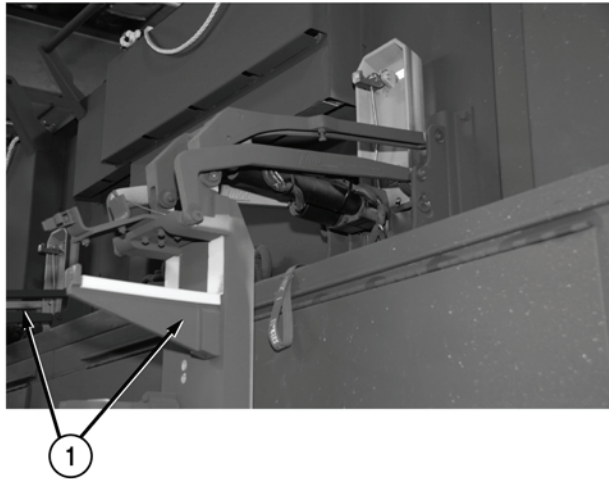
**References**

TM 9-2320-325-14&P  
WP 0615, Fig. 99

**Equipment Conditions**

Equipment (ladder) rack unstowed and ladders removed (WP 0011) (with power)  
Driver side stowage compartment doors opened (WP 0010)  
Driver side rear lower warning light removed (WP 0351)  
Driver side compartment lights removed (WP 0374)

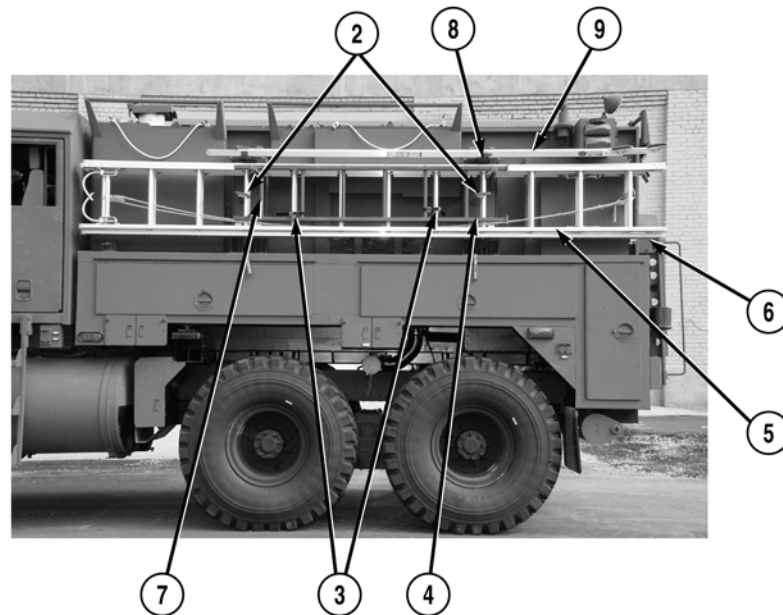
---

**REMOVAL**** CAUTION**

**Equipment (ladder) rack must be raised approximately 3/4 up to allow compartment doors to be opened. Failure to comply may result in damage to equipment.**

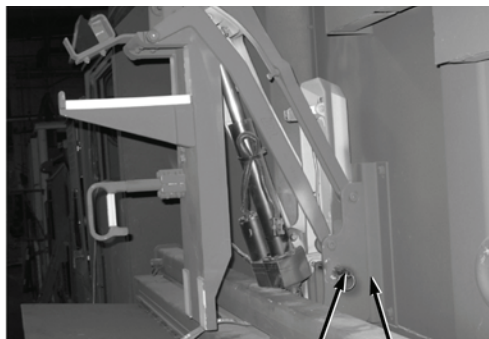
**NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
  - Note routing of driving side body wire harness prior to removal to ensure proper installation.
  - Note position and remove cable ties, split looms, and cushion clips as required.
  - Remove driver side body wire harness so that entire wire harness is routed into driver side stowage compartment D3.
  - Perform Step (1) and (2) if power is supplied to ladder rack motors.
1. Raise ladder rack (1) approximately 3/4 up.
  2. Disconnect batteries (TM 9-2320-325-14&P).

**NOTE**

Perform Steps (3) through (7) if no power is supplied to ladder rack motors.

3. With the aid of an assistant, pull two handles (2) straight out, turn 1/4 down, and release.
4. Remove two buckle straps (3), vehicle maintenance ladder (4), 14 ft. (4 m) roof ladder (5), and 24 ft. (7 m) two section extension ladder (6) from equipment (ladder) rack (7).
5. Remove pin (8) and 10 ft. (3 m) folding ladder (9) from equipment (ladder) rack (7).



10 11

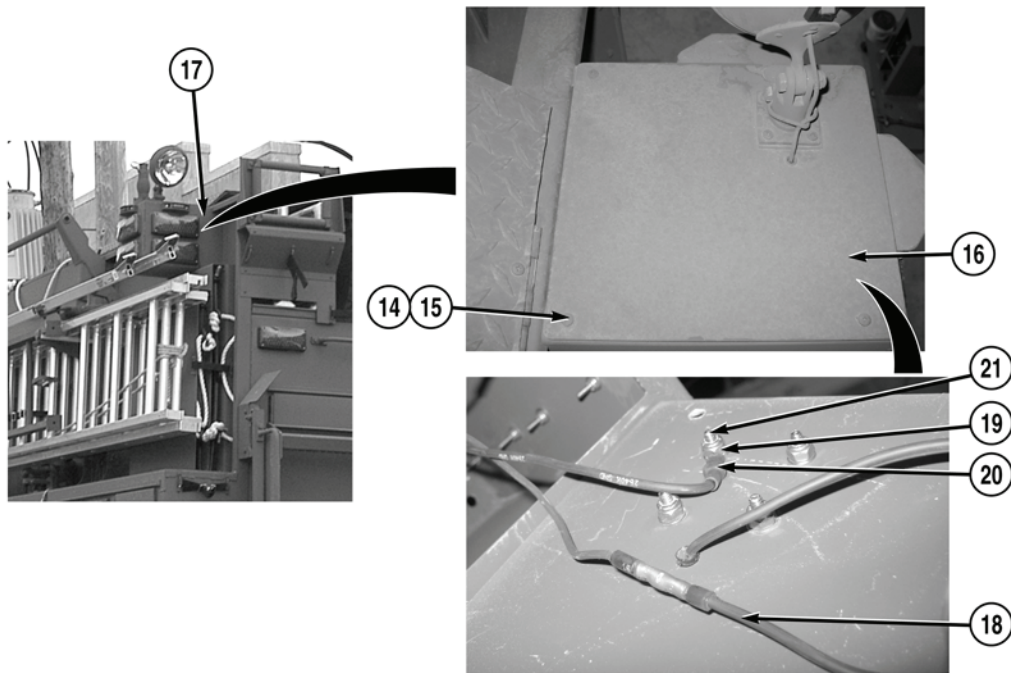


13 12

**NOTE**

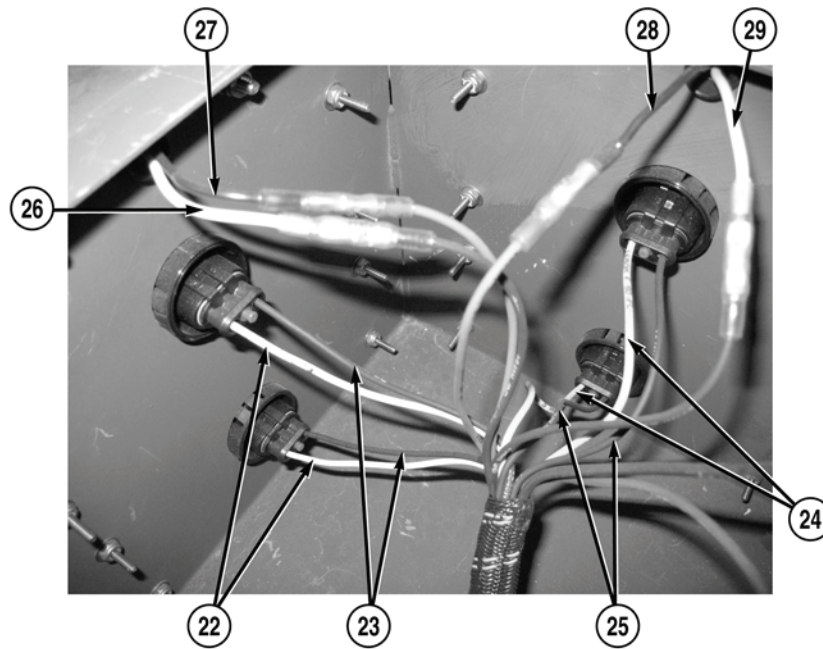
Note position of ladder rack motor cylinders to ensure proper installation.

6. Remove pin (10) from front ladder rack motor bracket (11).
7. Remove pin (12) from rear ladder rack motor bracket (13).

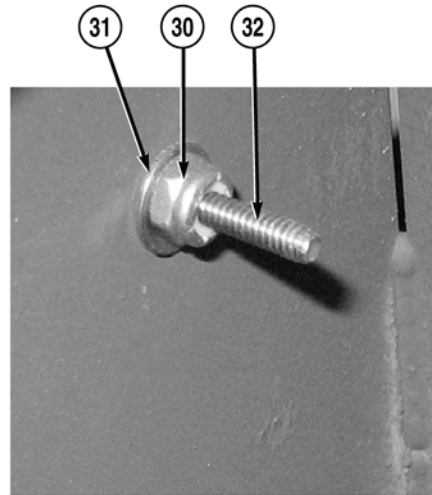
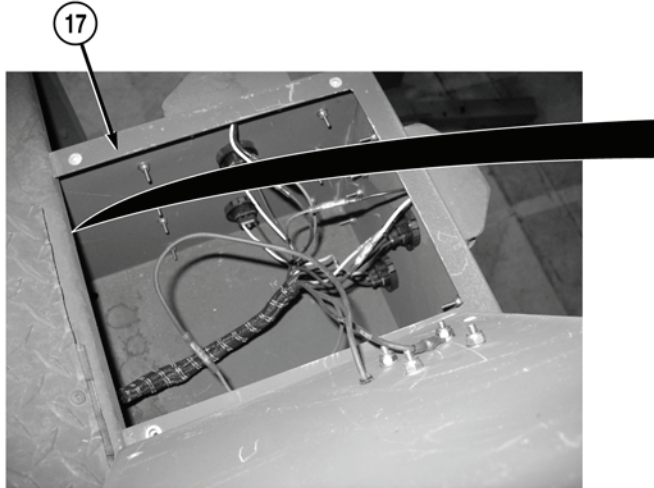


8. Remove four screws (14), nylon washers (15), and cover (16) from bezel box (17). Discard nylon washers.
9. Cut wire 1607 (18) (TM 9-2320-325-14&P).
10. Remove locknut (19) and wire 2640 (20) from driver side deck light mounting screw (21). Discard locknut.

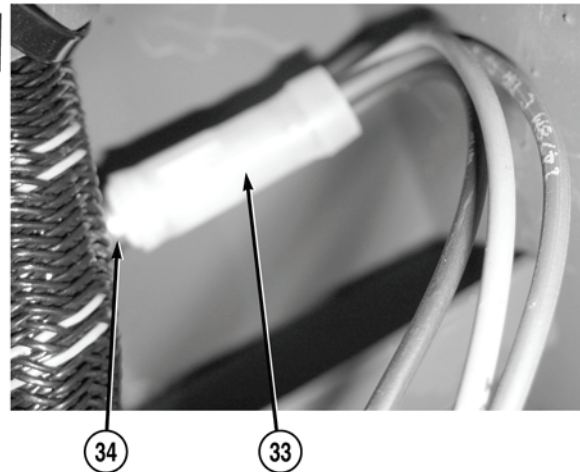




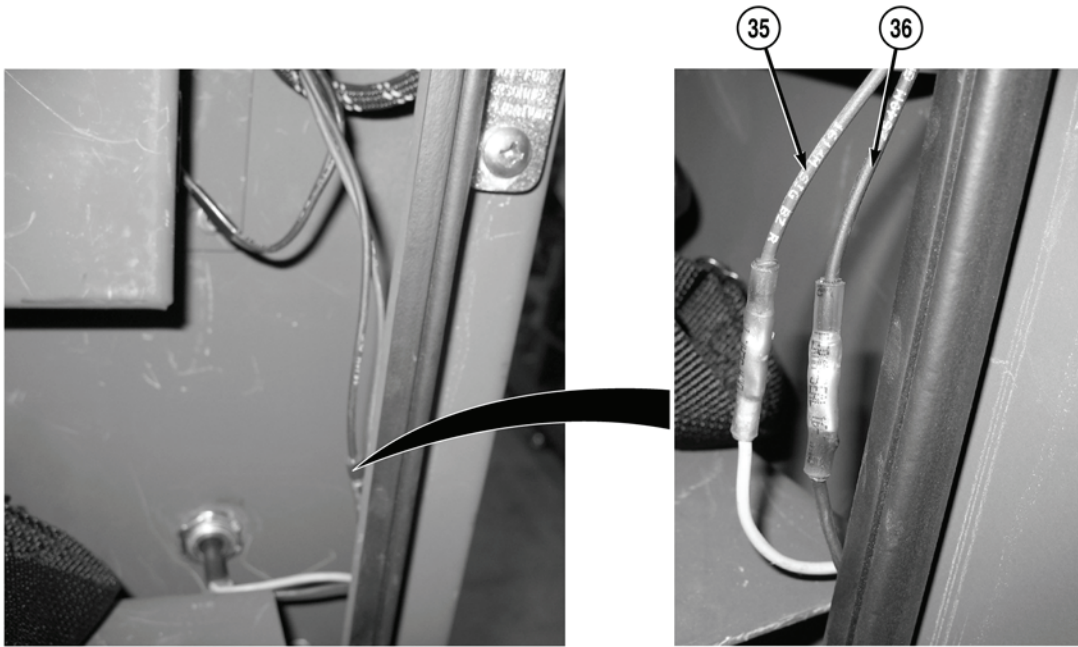
11. Cut two wires 1613 (22) and wires 2640 (23) (TM 9-2320-325-14&P).
12. Cut two wires 1650 (24) and wires 2640 (25) (TM 9-2320-325-14&P).
13. Cut wire 1606 (26) and wire 2640 (27) (TM 9-2320-325-14&P).
14. Cut wire 1606 (28) and wire 2640 (29) (TM 9-2320-325-14&P).



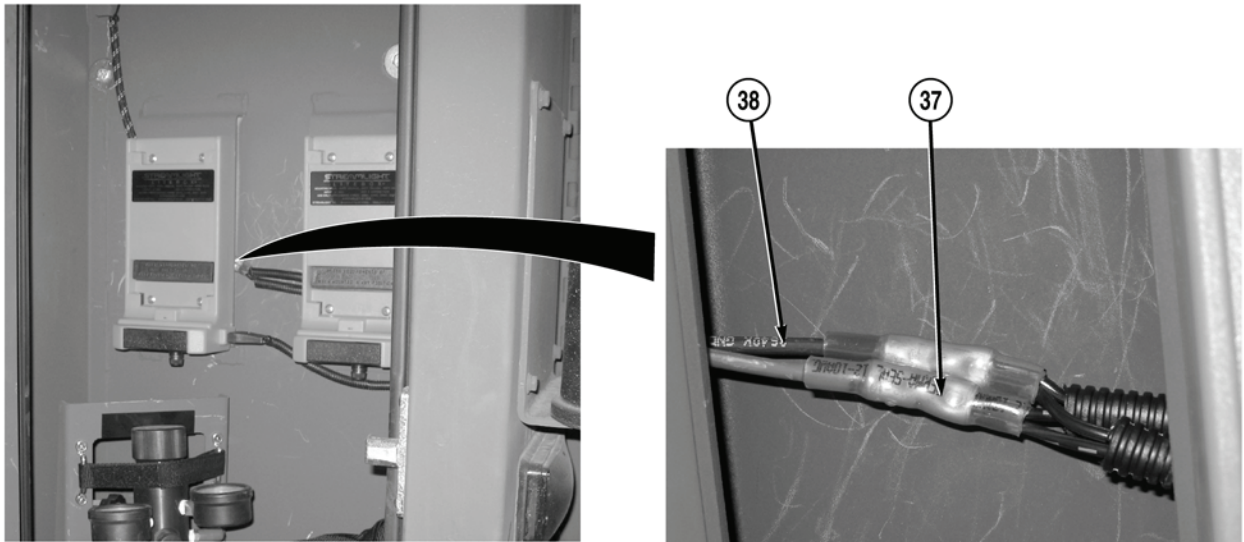
15. Remove four nuts (30), nylon washers (31), screws (32), and bezel box (17) from vehicle. Discard nylon washers.



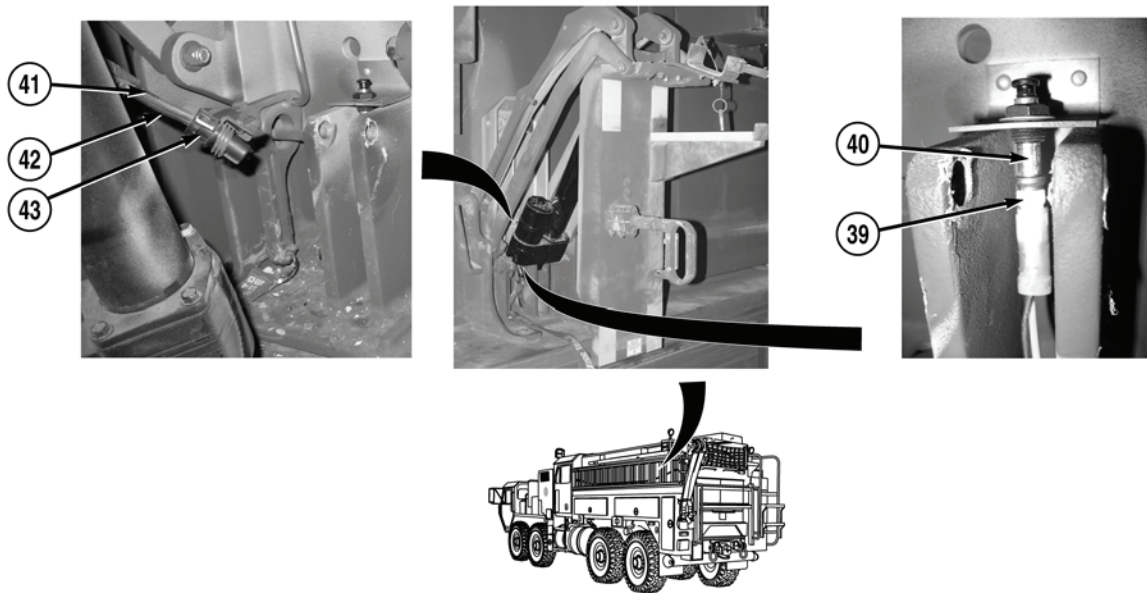
16. Disconnect driver side body wire harness connector (33) from driver side rear stowage compartment D1 door switch (34).



17. Cut wire 1614 (35) and wire 2640 (36) (TM 9-2320-325-14&P).



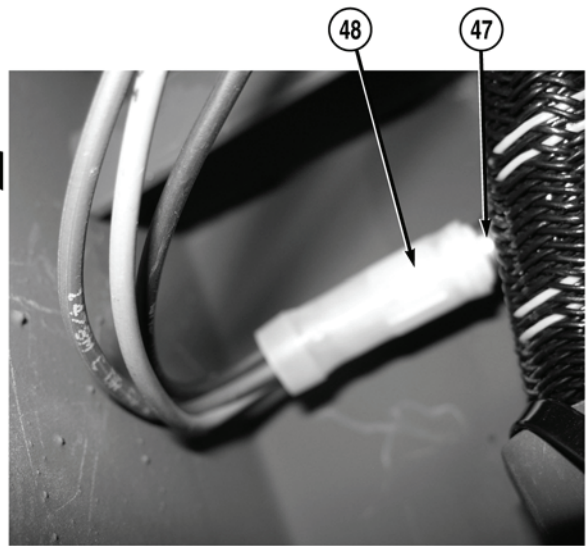
18. Cut wire 2075 (37) and wire 2640 (38) (TM 9-2320-325-14&P).



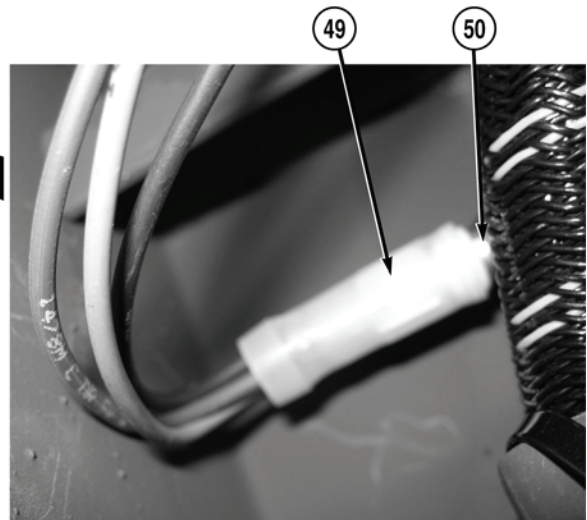
19. Disconnect driver side body wire harness connector (39) from equipment (ladder) rack down light switch (40).
20. Remove wire 2827 (41) and wire 2828 (42) from driver side body wire harness connector (43).



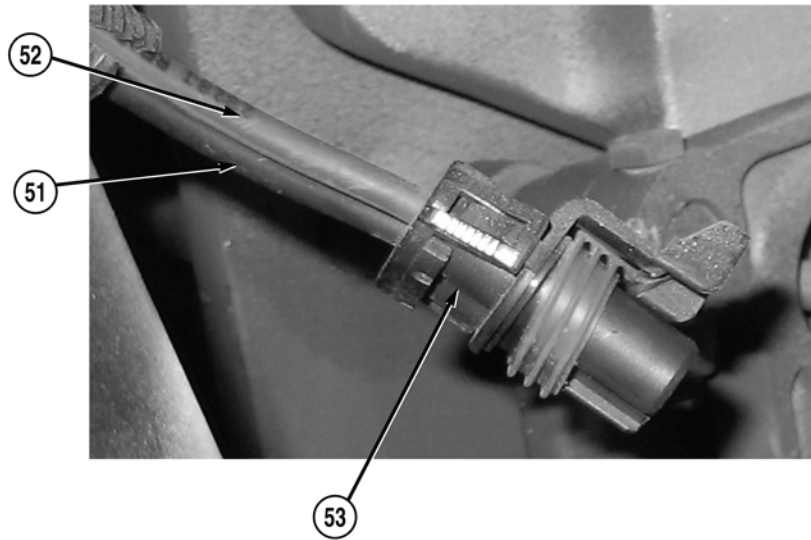
21. Pull driver side body wire harness (44) into driver side center stowage compartment D2 (45).
22. Remove grommet (46) from driver side center stowage compartment D2 (45).



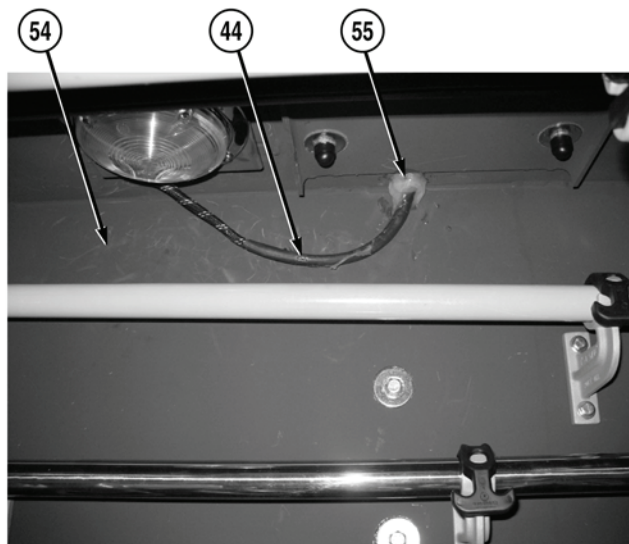
23. Disconnect driver side body wire harness connector (47) from driver side center stowage compartment D2 door switch (48).



24. Disconnect driver side body wire harness connector (49) from driver side front center stowage compartment D3 door switch (50).



25. Remove wire 2827 (51) and wire 2828 (52) from driver side body wire harness connector (53).

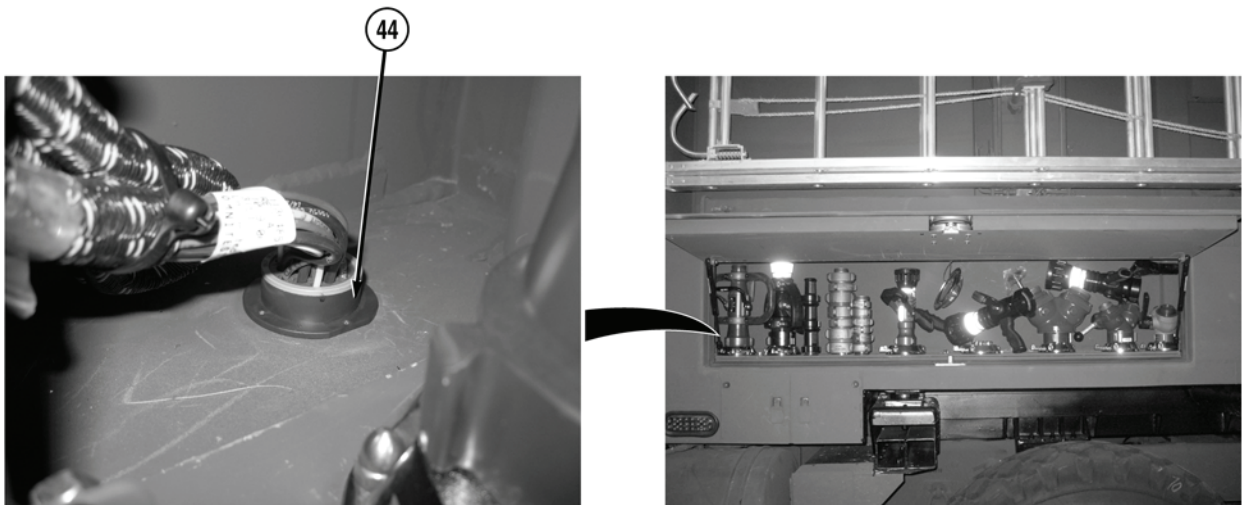


26. Pull driver side body wire harness (44) into driver side front stowage compartment D3 (54).

27. Remove grommet (55) from driver side front stowage compartment D3 (54).



28. Disconnect main wire harness connector (56) from driver side body wire harness connector (57).
29. Remove nut (58), lockwasher (59), and driver side body wire harness connector (57) from driver side front stowage compartment D3 (54). Discard lockwasher.



30. Remove driver side body wire harness (44) from vehicle.

**END OF TASK**

**INSTALLATION****NOTE**

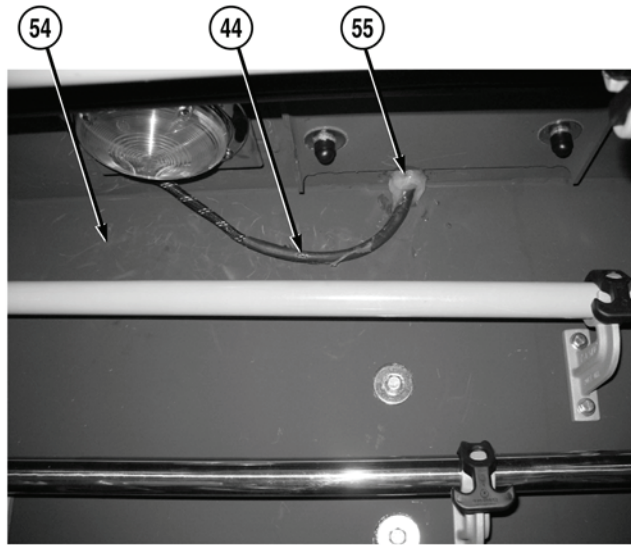
- Install cable ties, split looms, and cushion clips as noted.
- Begin routing driver side body wire harness at driver side stowage compartment D3.

1. Install driver side body wire harness (44) on vehicle.

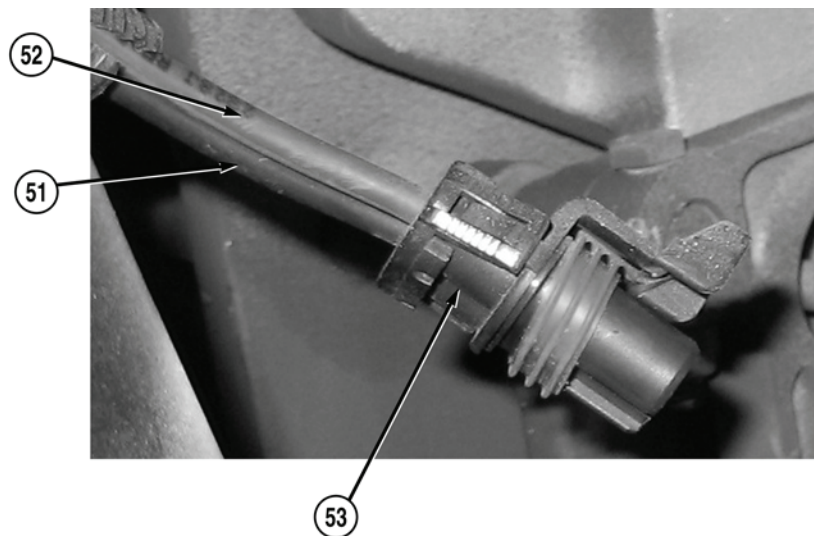


2. Install driver side body wire harness connector (57) into driver side front stowage compartment D3 (54) with lockwasher (59) and nut (58).
3. Connect main wire harness connector (56) to driver side body wire harness connector (57).

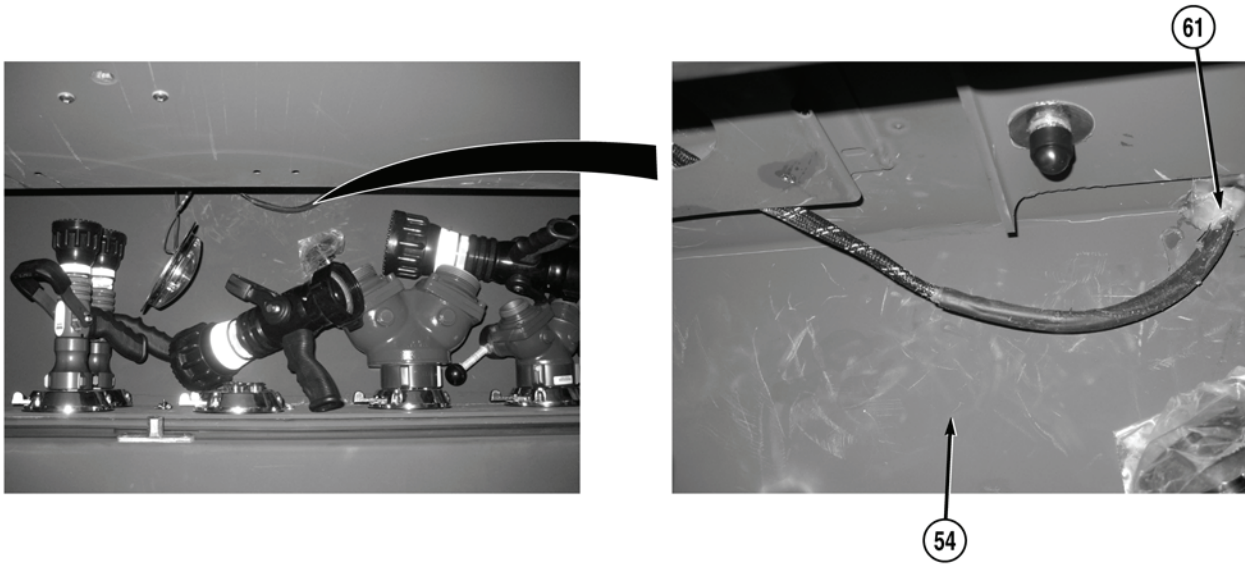




4. Install grommet (55) in driver side front stowage compartment D3 (54).
5. Pull driver side body wire harness (44) through driver side front stowage compartment D3 (54).



6. Install wire 2828 (52) and wire 2827 (51) in driver side body wire harness connector (53).

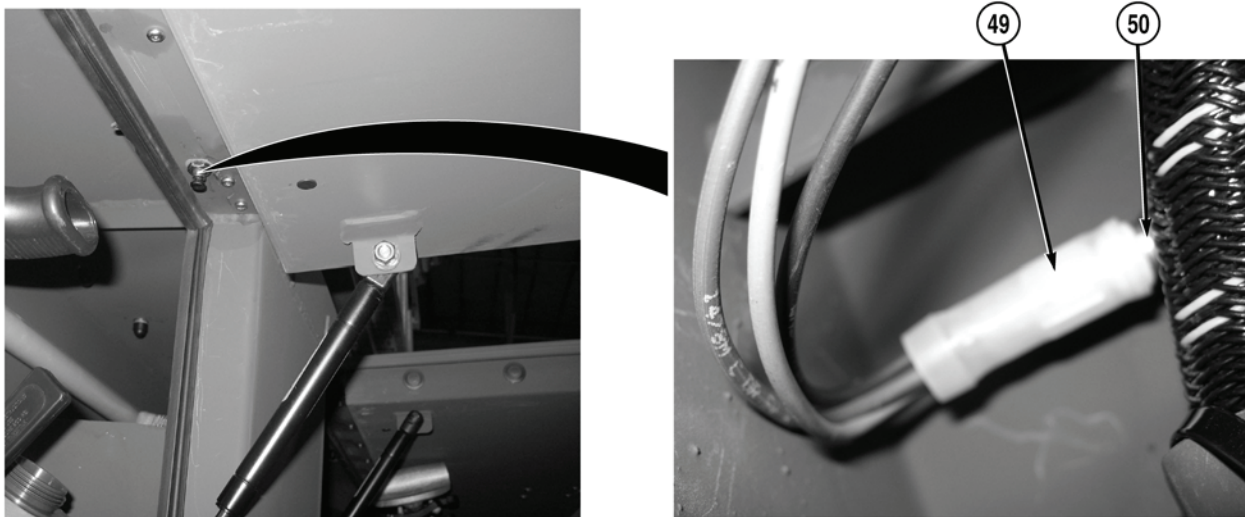


**WARNING**



Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

7. Seal hole (61) in driver side front stowage compartment D3 (54) with sealing compound.



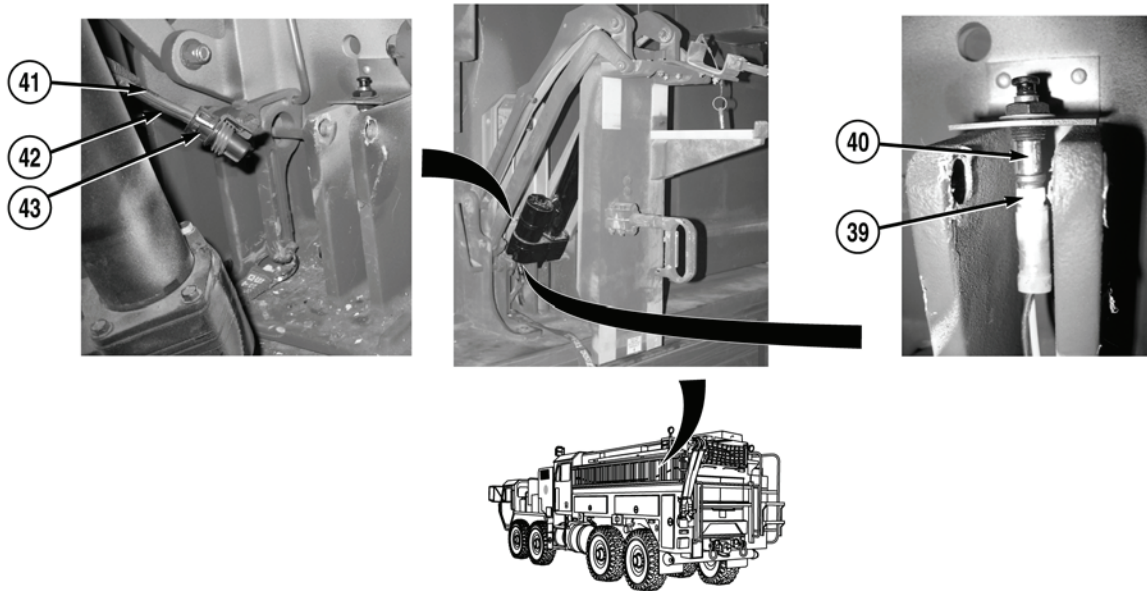
8. Connect driver side body wire harness connector (49) to driver side front center stowage compartment D3 door switch (50).



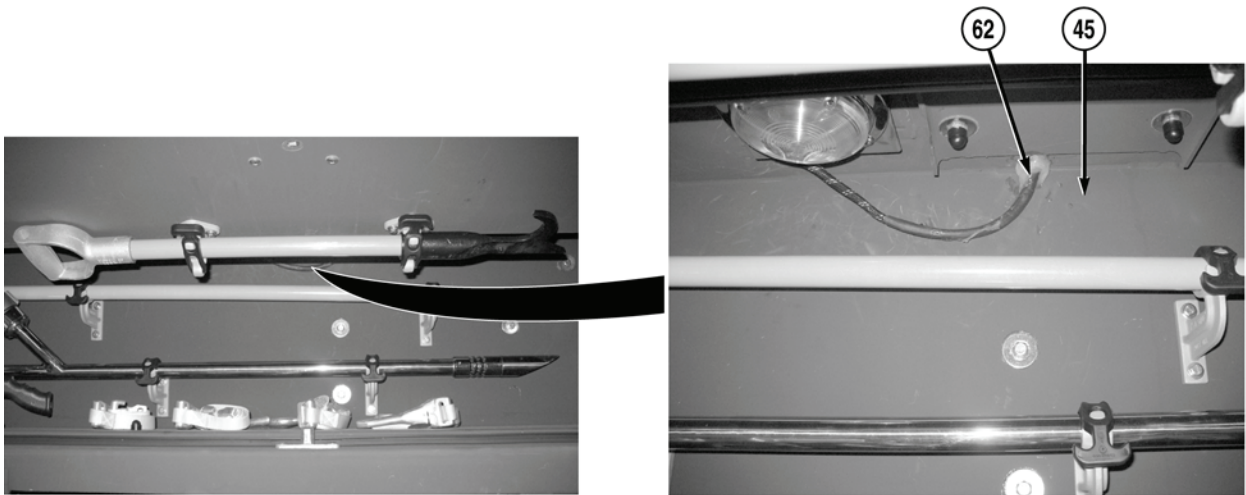
9. Connect driver side body wire harness connector (47) to driver side center stowage compartment D2 door switch (48).



10. Install grommet (46) in driver side center stowage compartment D2 (45).
11. Pull driver side body wire harness (44) through driver side center stowage compartment D2 (45).

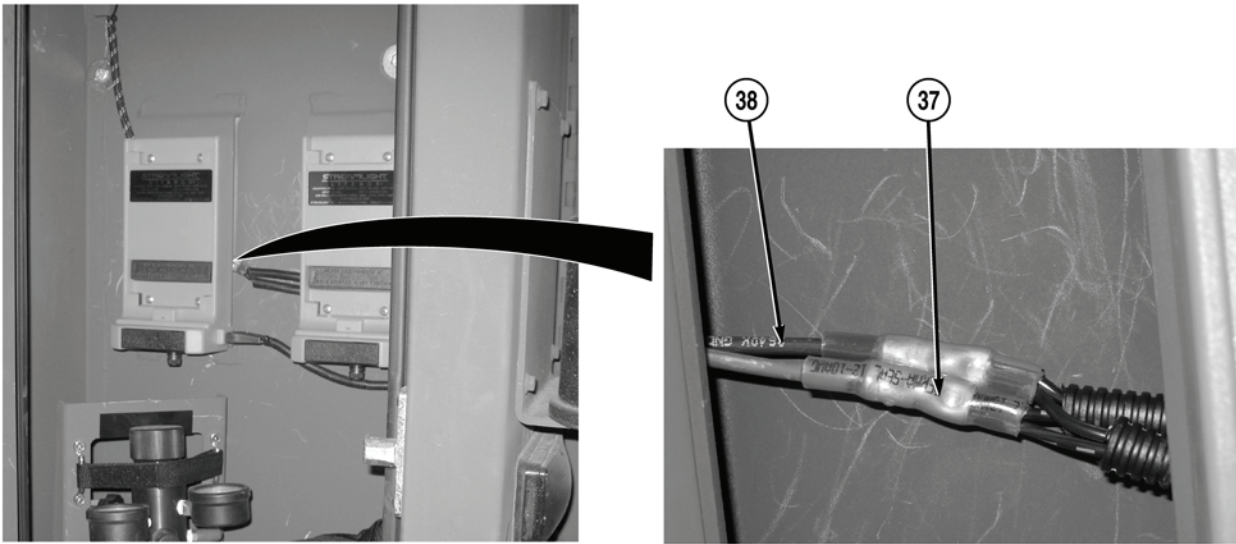


12. Install wire 2827 (41) and wire 2828 (42) in driver side body wire harness connector (43).
13. Connect driver side body wire harness connector (39) to equipment (ladder) rack down light switch (40).

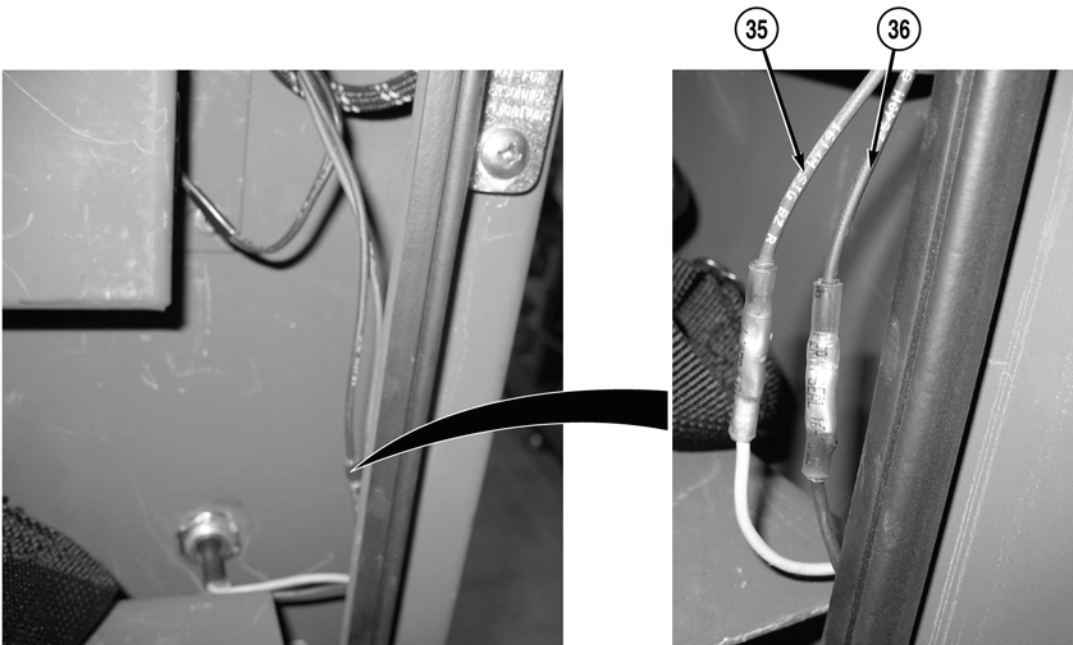
**WARNING**

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

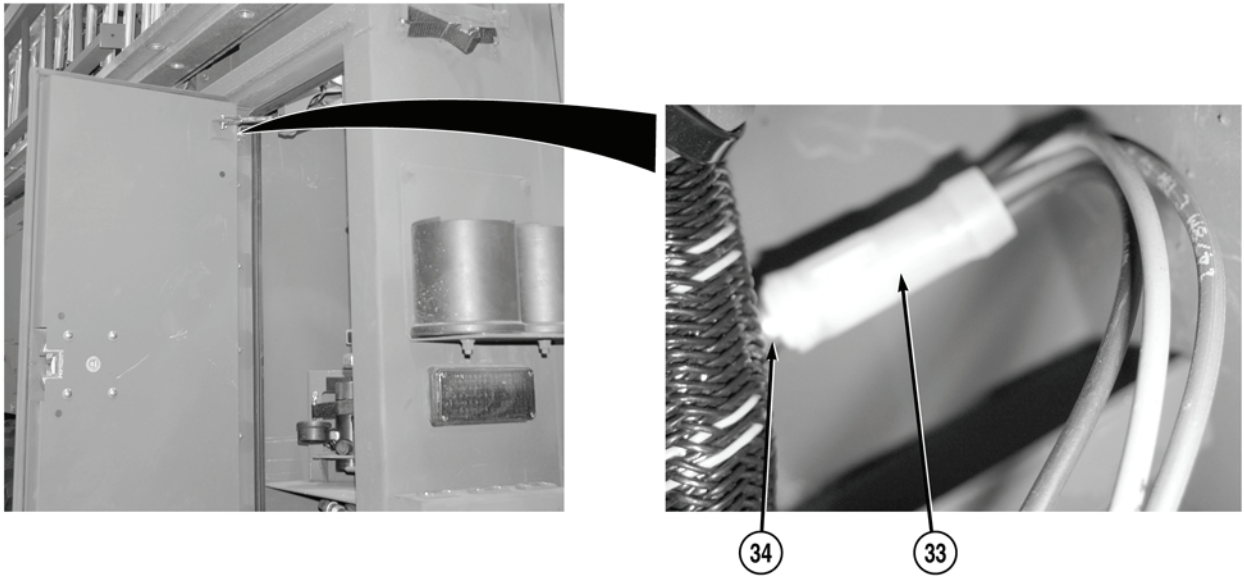
14. Seal hole (62) in driver side center stowage compartment D2 (45) with sealing compound.



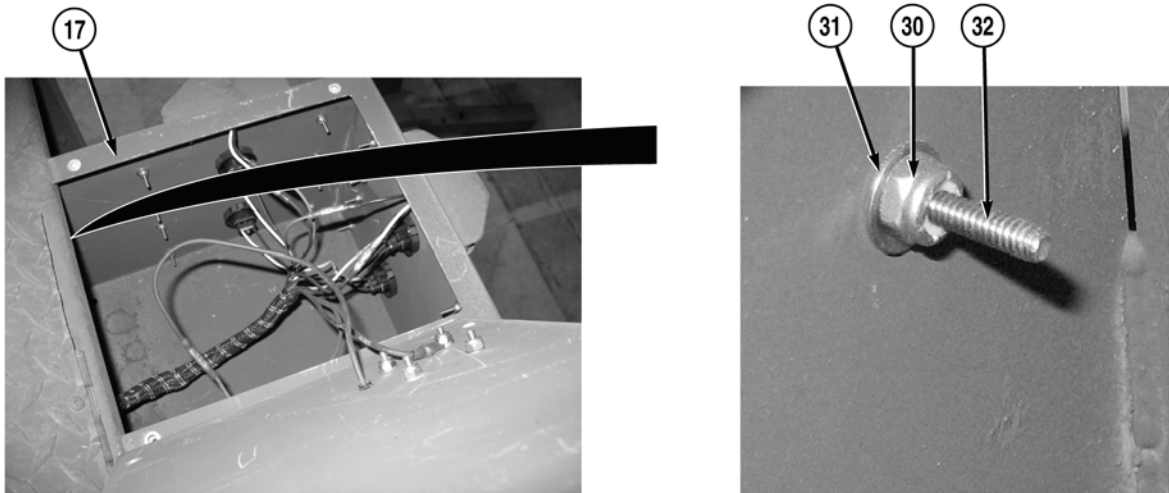
15. Repair wire 2640 (38) and wire 2075 (37) (TM 9-2320-325-14&P).



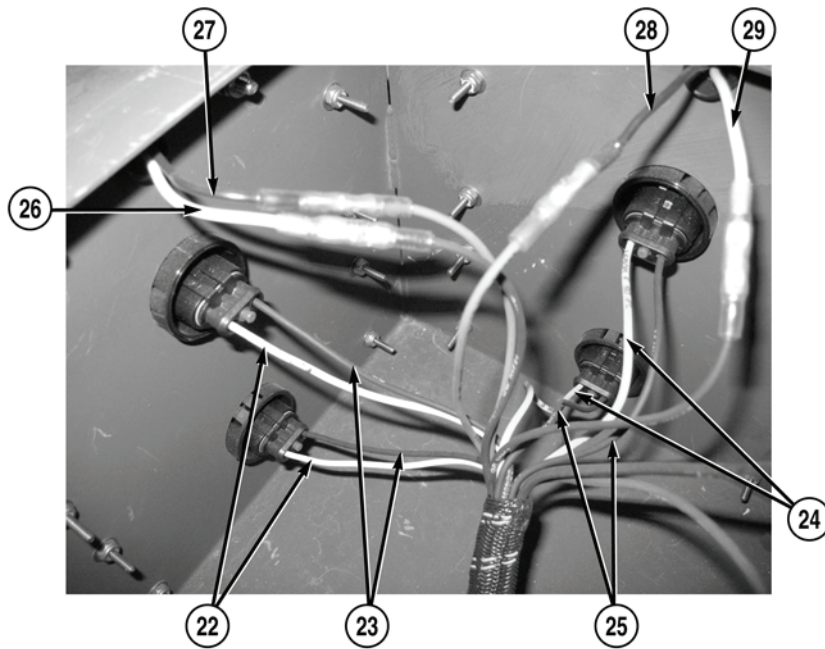
16. Repair wire 2640 (36) and wire 1614 (35) (TM 9-2320-325-14&P).



17. Connect driver side body wire harness connector (33) to driver side rear stowage compartment D1 door switch (34).

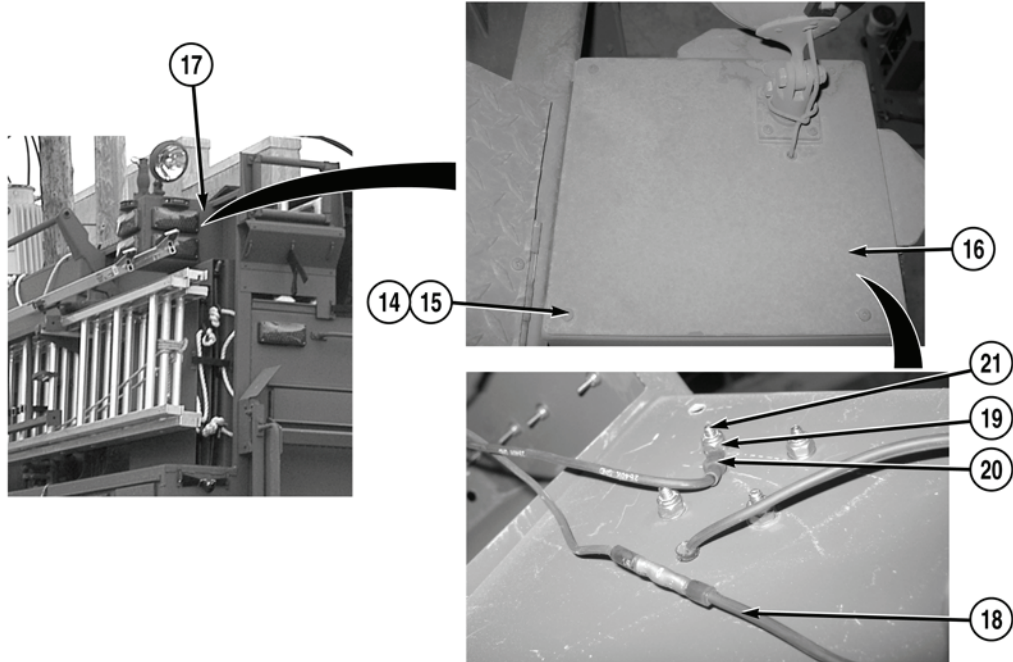


18. Install bezel box (17) on vehicle with four screws (32), nylon washers (31), and nuts (30).

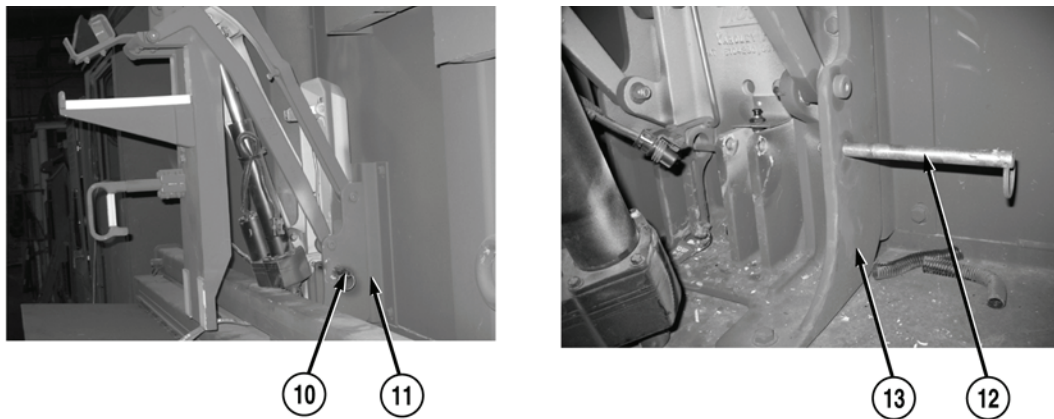


19. Repair wire 2640 (29) and wire 1606 (28) (TM 9-2320-325-14&P).
20. Repair wire 2640 (27) and wire 1606 (26) (TM 9-2320-325-14&P).
21. Repair two wires 2640 (25) and wires 1650 (24) (TM 9-2320-325-14&P).
22. Repair two wires 2640 (23) and wires 1613 (22) (TM 9-2320-325-14&P).





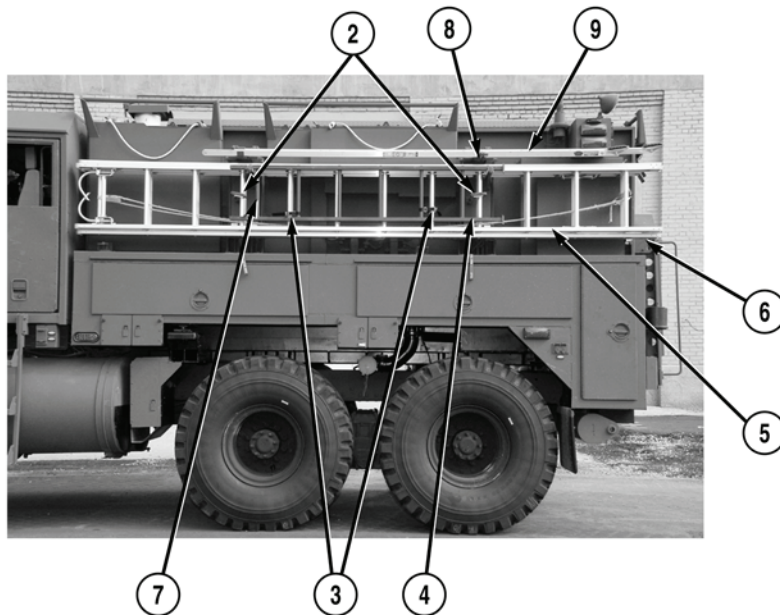
23. Install wire 2640 (20) on driver side deck light mounting screw (21) with locknut (19).
24. Repair wire 1607 (18) (TM 9-2320-325-14&P).
25. Install cover (16) on bezel box (17) with four nylon washers (15) and screws (14).



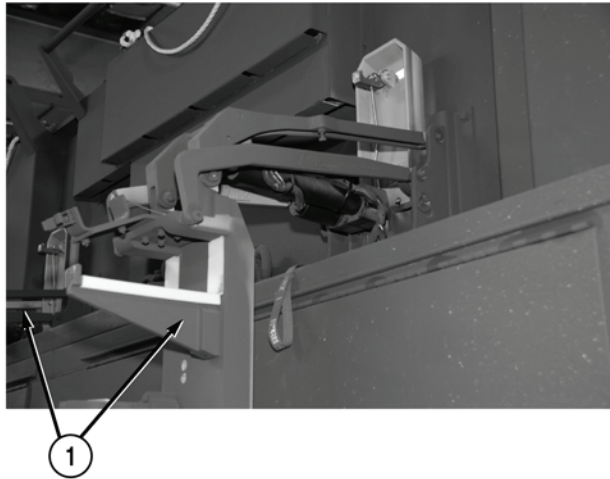
**NOTE**

- Perform Steps (26) through (30) if no power is available.
- Position ladder rack motor cylinders as noted prior to removal.

26. Install pin (12) in rear ladder rack motor bracket (13).
27. Install pin (10) in front ladder rack motor bracket (11).



28. Install 10 ft. (3 m) folding ladder (9) and pin (8) in equipment (ladder) rack (7).
29. Install 24 ft. (7 m) two section extension ladder (6), 14 ft. (4 m) roof ladder (5), and vehicle maintenance ladder (4) on equipment (ladder) rack (7) with two buckle straps (3).
30. Pull two handles (2) straight out, turn 1/4 up, and release.



### NOTE

Perform Steps (1) and (2) if power is available.

31. Connect batteries (TM 9-2320-325-14&P).
32. Raise ladder rack (1).

### END OF TASK

### FOLLOW-ON MAINTENANCE

1. Install driver side compartment lights (WP 0374)
2. Install driver side rear lower warning light (WP 0351)
3. Close driver side stowage compartment doors (WP 0010)
4. Install ladders and stow equipment (ladder) rack (WP 0011) (with power)

### END OF TASK

### END OF WORK PACKAGE



## FIELD LEVEL MAINTENANCE

## EQUIPMENT (LADDER) RACK CONTROL WIRE HARNESS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0010  
WP 0615, Fig. 92

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

**Equipment Conditions**

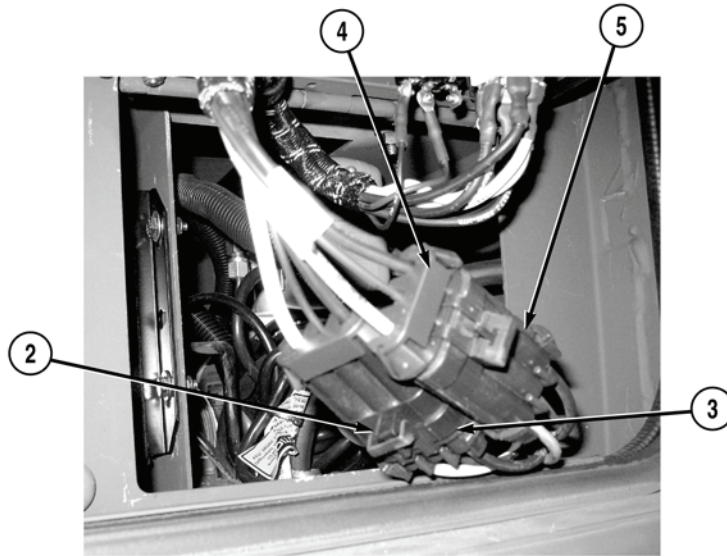
Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

## REMOVAL

**NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
- Note position and remove cable ties, split looms, and cushion clips as required.
- POWERED EQUIPMENT RACK access panel is located in crew cab under driver side seat.

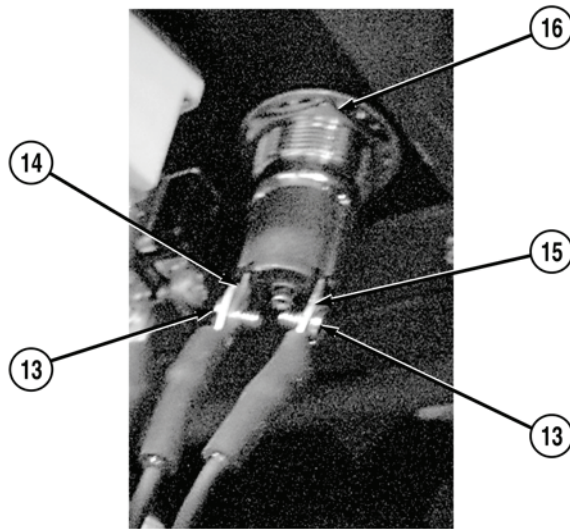
1. Open POWERED EQUIPMENT RACK access panel (1) (WP 0010).



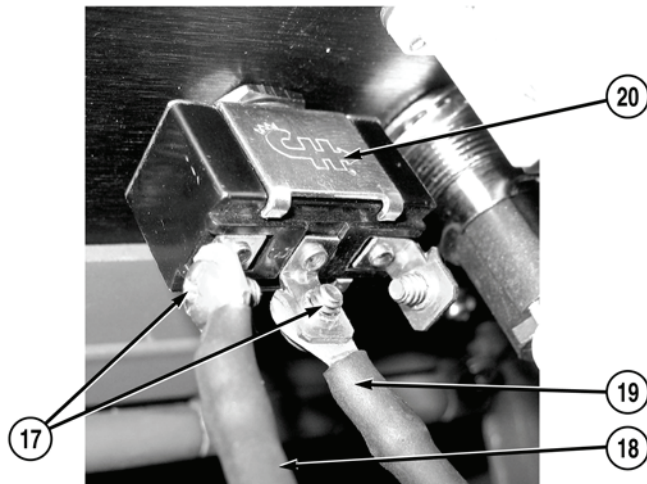
2. Disconnect equipment (ladder) rack wire harness connector (2) from crew cab wire harness connector (3).
3. Disconnect equipment (ladder) rack wire harness connector (4) from crew cab wire harness connector (5).



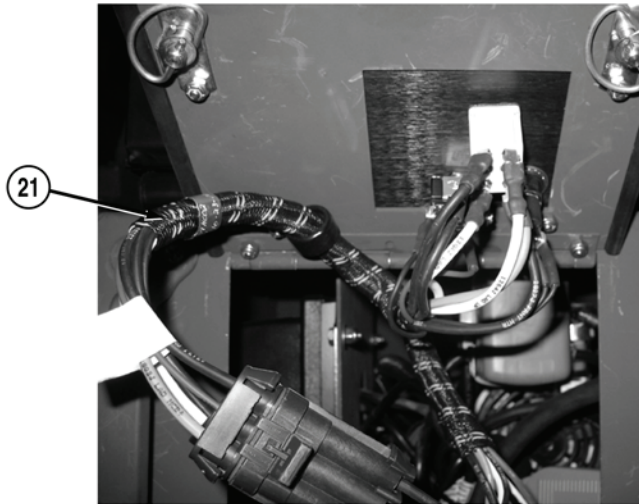
4. Remove wire 1364 (6) from LIFT switch (7).
5. Remove wire 2313 (8) from LIFT switch (7).
6. Remove wire 2827 (9) from LIFT switch (7).
7. Remove wire 1364 (10) from LIFT switch (7).
8. Remove wire 2803 (11) from LIFT switch (7).
9. Remove wire 2827 (12) from LIFT switch (7).



10. Remove two screws (13), wire 1821 (14), and wire 2313 (15) from indicator light (16).



11. Remove two screws (17), wire 1820 (18), and wire 1821 (19) from MASTER switch (20).



12. Remove equipment (ladder) rack wire harness (21) from vehicle.

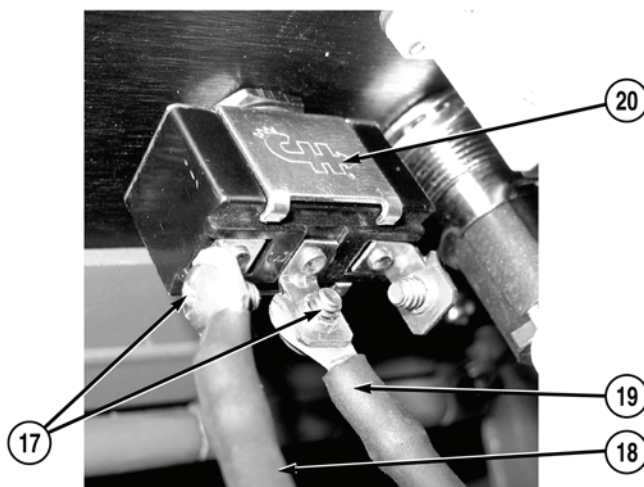
#### END OF TASK

#### INSTALLATION

#### NOTE

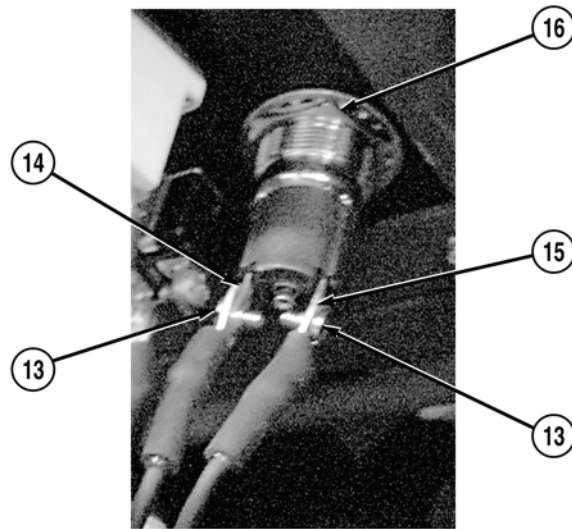
Install cable ties, split looms, and cushion clips as noted.

1. Install equipment (ladder) rack wire harness (21) on vehicle.



2. Install wire 1820 (18) and wire 1821 (19) with two screws (17) on MASTER switch (20).

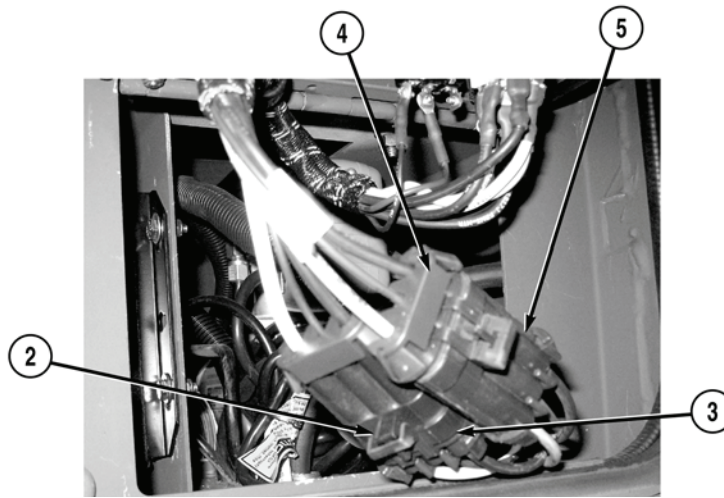




3. Install wire 1821 (14) and wire 2313 (15), with two screws (13) on indicator light (16).



4. Install wire 1364 (6) on LIFT switch (7).
5. Install wire 2313 (8) on LIFT switch (7).
6. Install wire 2827 (9) on LIFT switch (7).
7. Install wire 1364 (10) on LIFT switch (7).
8. Install wire 2803 (11) on LIFT switch (7).
9. Install wire 2827 (12) on LIFT switch (7).



- 10. Connect equipment (ladder) rack wire harness connector (4) on crew cab wire harness connector (5).
- 11. Connect equipment (ladder) rack wire harness connector (2) on crew cab wire harness connector (3).



- 12. Close POWERED EQUIPMENT RACK access panel (1) (WP 0010).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**EVAPORATOR WIRE HARNESS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (1)

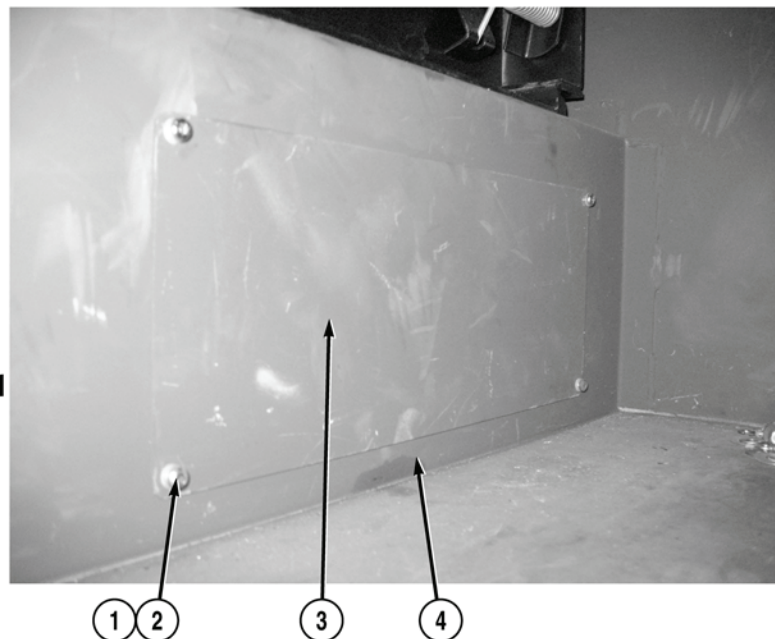
**References**

TM 9-2320-325-14&P  
WP 0614, Fig. 6

**Equipment Conditions**

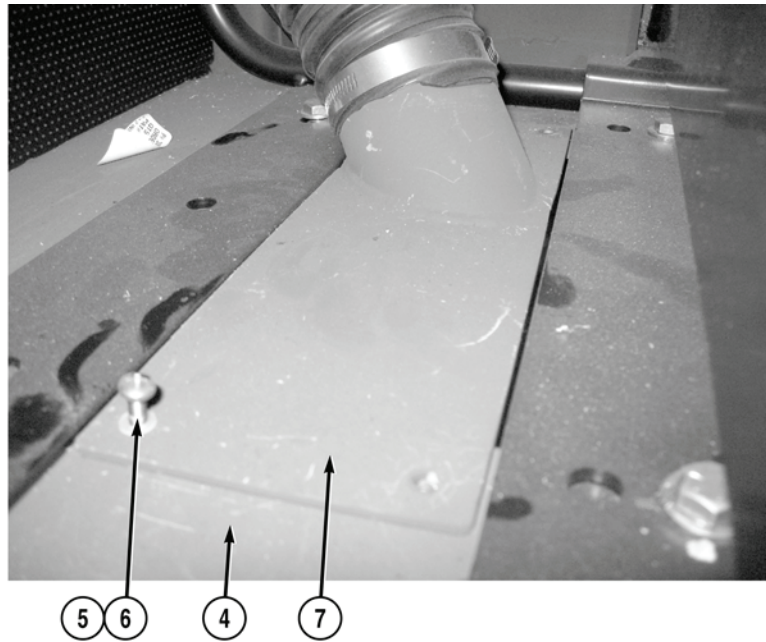
Batteries disconnected (TM 9-2320-325-14&P)  
Crew cab bench seat and access panel  
removed (WP 0501)

---

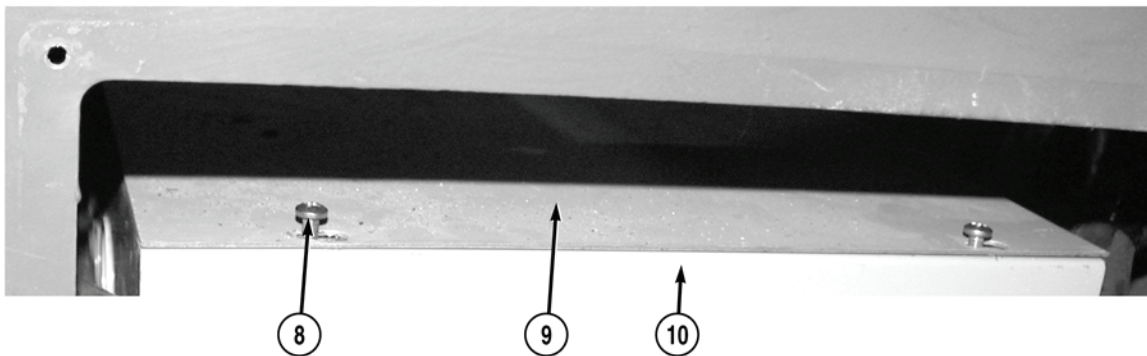
**REMOVAL****NOTE**

Control box is located under crew cab passenger side seat.

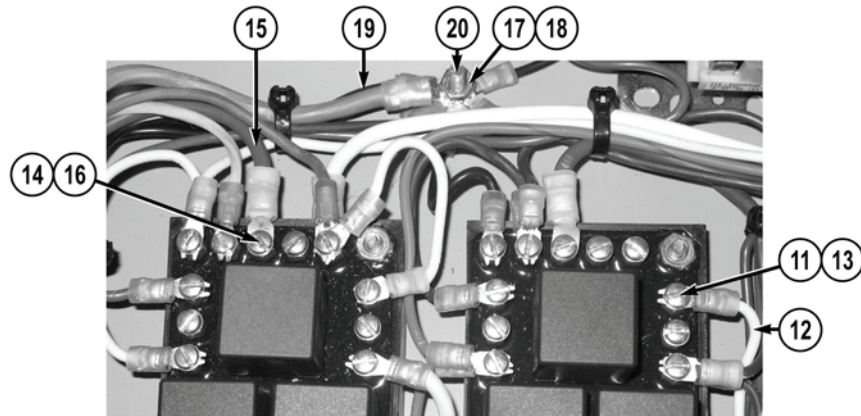
1. Remove four screws (1), washers (2), and cover (3) from crew cab (4).



2. Remove four screws (5) and washers (6) from fresh air bracket (7) and crew cab (4).
3. Move fresh air bracket (7) out of the way.

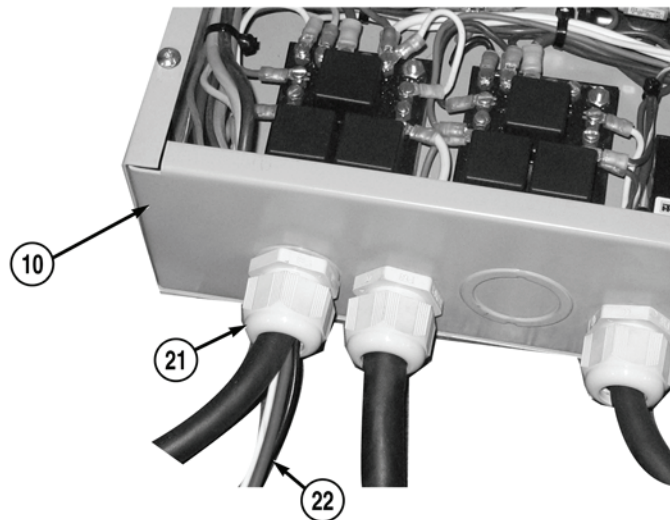


4. Remove four screws (8) and control box cover (9) from control box (10).

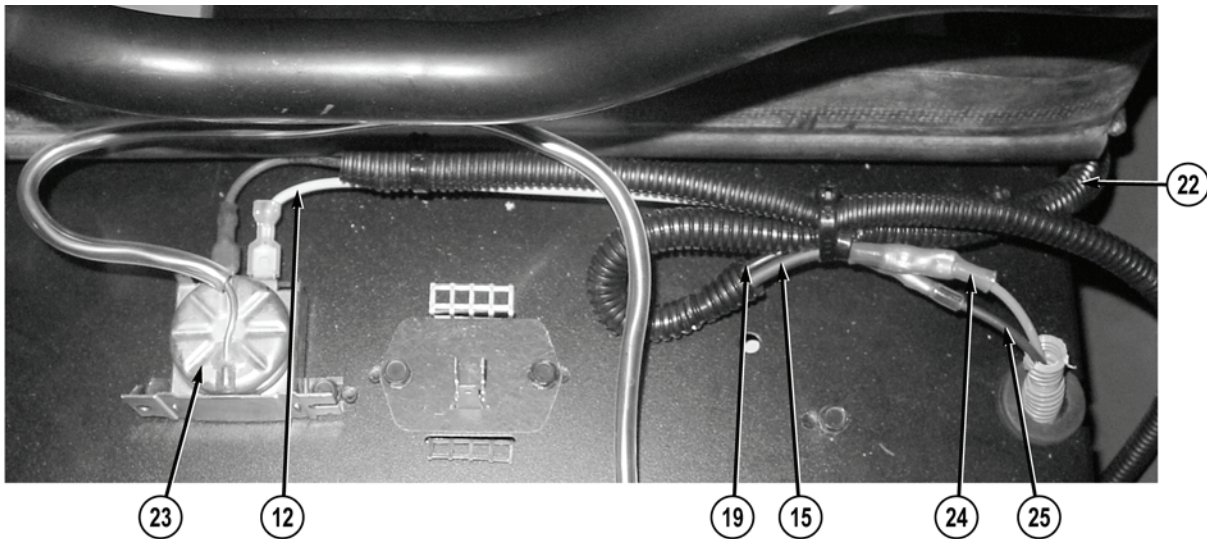


### NOTE

- Tag and mark wires prior to removal to ensure proper installation.
  - Note position and remove cable ties, split looms, and cushion clips as required.
  - Note routing of wire harness prior to removal to ensure proper installation.
5. Loosen screw (11) and remove gray wire (12) from clutch relay terminal 87 (13).
  6. Loosen screw (14) and remove red wire (15) from blower relay terminal 87 (16).
  7. Remove nut (17), lockwasher (18), and black wire (19) from ground stud (20). Discard lockwasher.



8. Loosen nut (21) and remove evaporator wire harness (22) from control box (10).



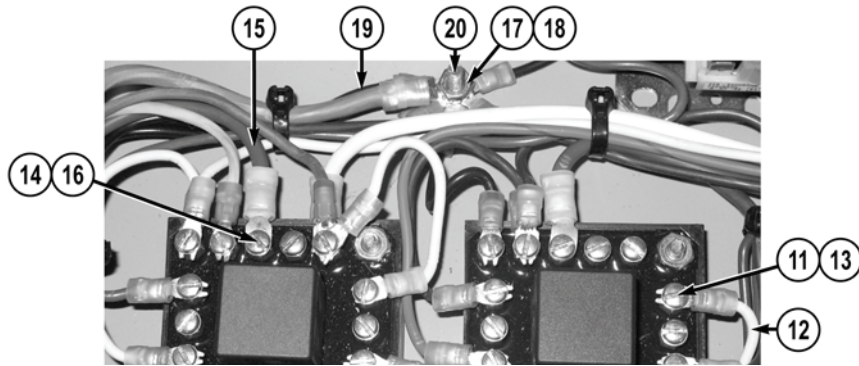
9. Disconnect gray wire (12) from thermostat (23).
10. Cut red wire (15) and orange wire (24) (TM 9-2320-325-14&P).
11. Cut black wire (19) and black wire (25) (TM 9-2320-325-14&P).
12. Remove evaporator wire harness (22) from vehicle.

#### END OF TASK

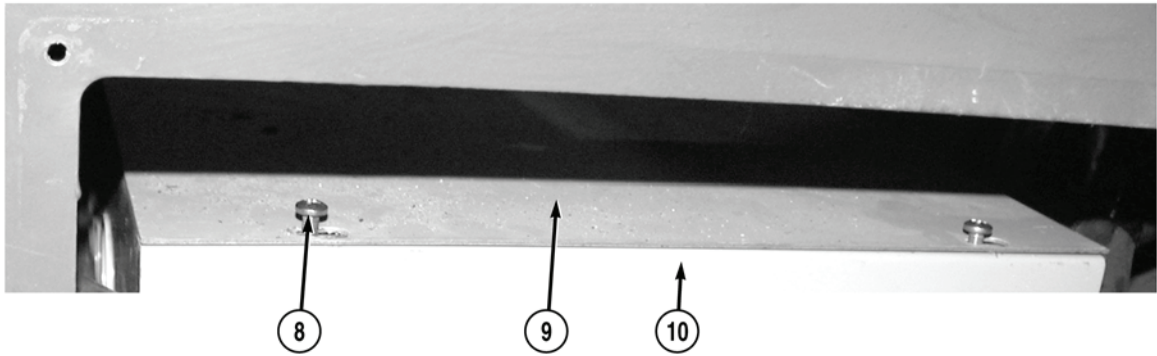
#### INSTALLATION

#### NOTE

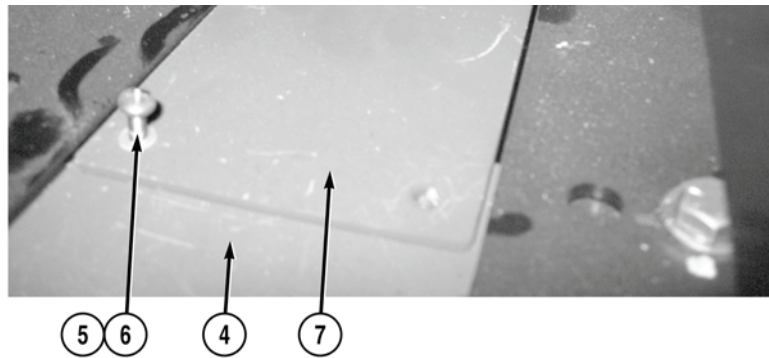
- Install wire harness as noted prior to removal.
  - Install cable ties, split looms, and cushion clips as required.
1. Install evaporator wire harness (22) in vehicle.
  2. Repair black wire (25) and black wire (19) (TM 9-2320-325-14&P).
  3. Repair red wire (15) and orange wire (24) (TM 9-2320-325-14&P).
  4. Connect gray wire (12) to thermostat (23).
  5. Install evaporator wire harness (22) in control box (10) and tighten nut (21).



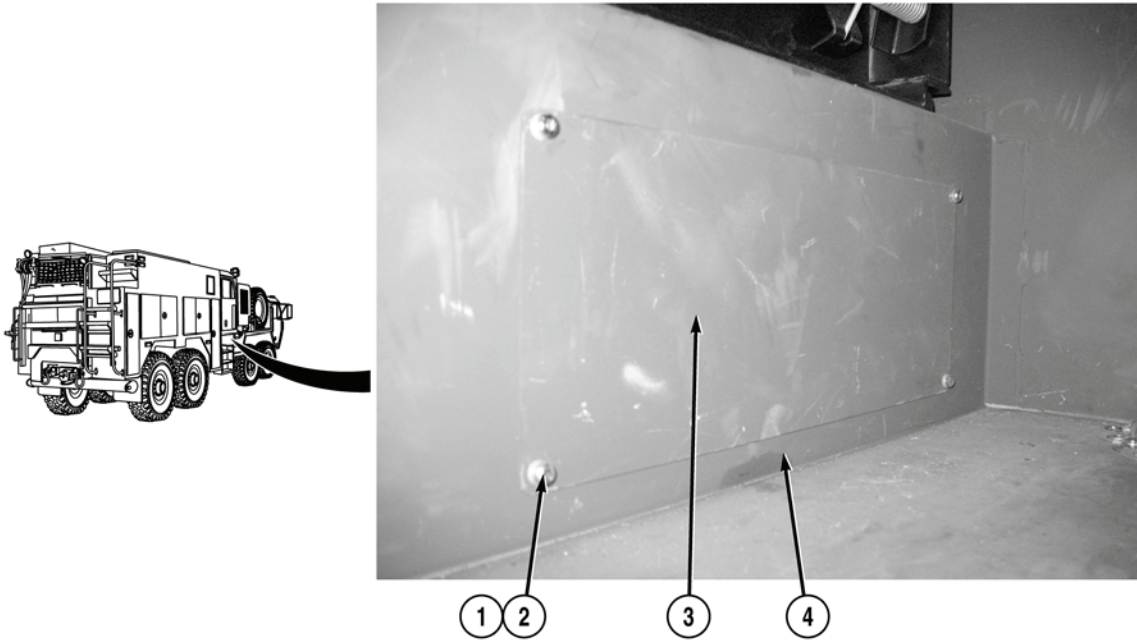
6. Install black wire (19) on ground stud (20) with lockwasher (18) and nut (17).
7. Install red wire (15) on blower relay terminal 87 (16) and tighten screw (14).
8. Install gray wire (12) on clutch relay terminal 87 (13) and tighten screw (11).



9. Install control box cover (9) on control box (10) with four screws (8).



10. Install fresh air bracket (7) on crew cab (4) with four washers (6) and screws (5).



11. Install cover (3) on crew cab (4) with four washers (2) and screws (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Install crew cab bench seat and access panel (WP 0501)
2. Connect batteries (TM 9-2320-325-14&P)

#### END OF TASK

#### END OF WORK PACKAGE



---

**FIELD LEVEL MAINTENANCE**  
**FLOW SENSOR WIRE HARNESS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Ties, Cable, Plastic (WP 0625, Item 58)

**References**

WP 0615, Fig. 100

**Equipment Conditions**

Pump house panel A opened (for No. 1 and No. 2  
driver side discharge flow sensor wire  
harnesses) (WP 0539)

**Equipment Conditions (continued)**

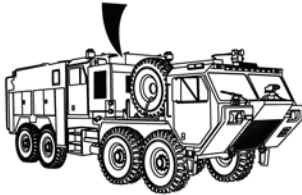
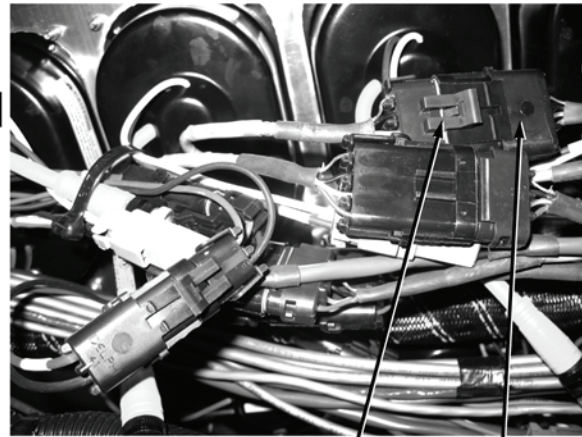
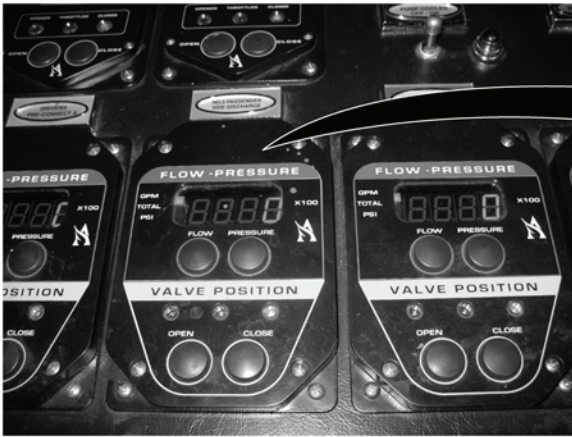
Pump house panel G removed (for No. 3 and  
No. 4 passenger side discharge flow sensor  
wire harnesses and driver side pre-connect B  
flow sensor wire harness) (WP 0540)  
Pump house panel I removed (for driver side  
pre-connect A flow sensor wire  
harness) (WP 0540)  
Pump operator's panel housing  
opened (WP 0325)

---

**NOTE**

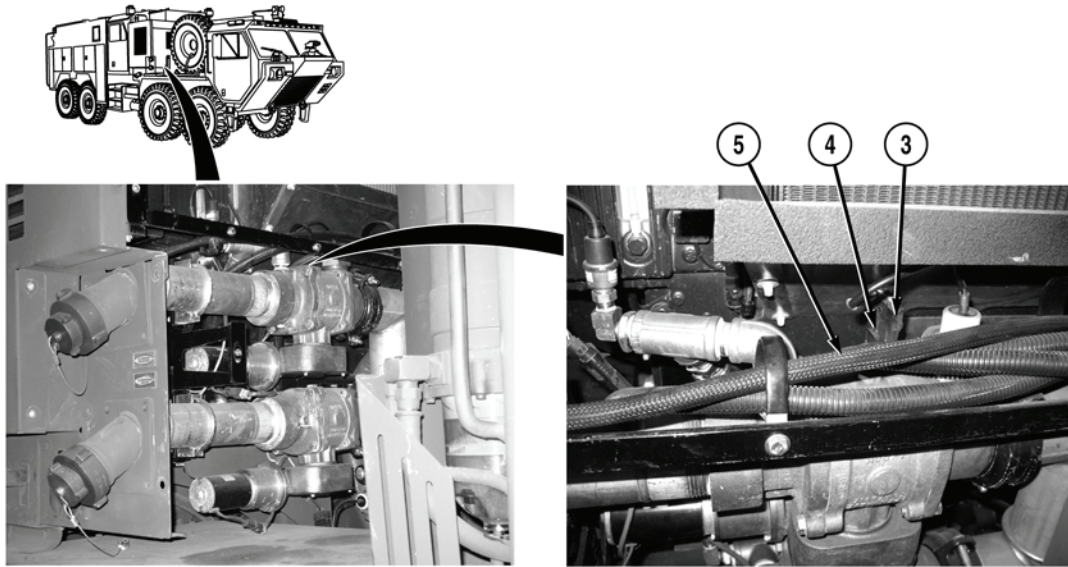
- No. 1 and No. 2 driver side discharge flow sensors are accessed by opening pump house panel A.
- No. 4 passenger side discharge and driver side pre-connect B flow sensors are accessed by removing pump house panel G.
- Driver side pre-connect A flow sensor is accessed by removing pump house panel I, located on driver side of transmission.

## REMOVAL



## NOTE

- All flow sensor wire harnesses are removed the same way. No. 3 passenger side flow sensor wire harness shown.
  - Remove cable ties, split looms, and cushion clips as required.
  - Note routing of wire harness prior to removal to ensure proper installation.
1. Disconnect No. 3 passenger side flow sensor gauge connector (1) from No. 3 passenger side flow sensor wire harness connector (2).



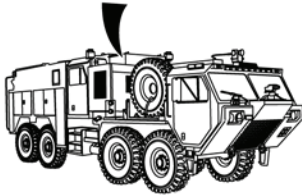
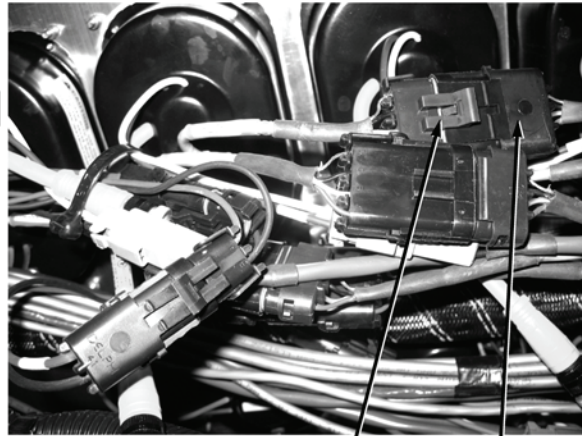
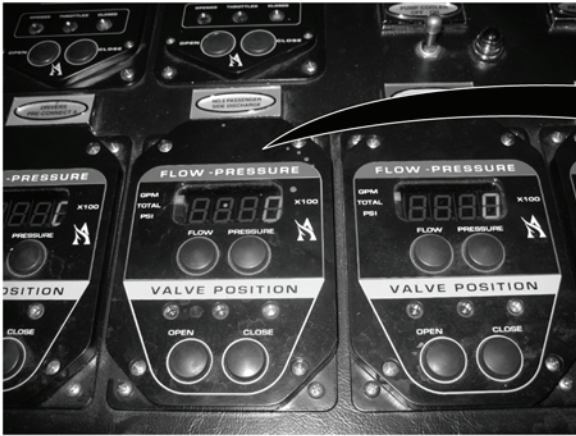
2. Disconnect No. 3 passenger side flow sensor connector (3) from No. 3 passenger side flow sensor wire harness connector (4).
3. Remove No. 3 passenger side flow sensor wire harness (5) from vehicle.

#### END OF TASK

#### INSTALLATION

#### NOTE

- Install wire harness as noted prior to removal.
  - Install cushion clips, split looms, and cable ties as noted.
1. Install No. 3 passenger side flow sensor wire harness (5) on vehicle.
  2. Connect No. 3 passenger side flow sensor connector (3) to No. 3 passenger side flow sensor wire harness connector (4).



3. Connect No. 3 passenger side flow sensor gauge connector (1) to No. 3 passenger side flow sensor wire harness connector (2).

**FOLLOW-ON MAINTENANCE**

1. Close pump operator's panel housing (WP 0325)
2. Install pump house panel I (Driver side pre-connect A flow sensor wire harness) (WP 0540)
3. Install pump house panel G (Driver side pre-connect B, No. 3 and No. 4 passenger side discharge flow sensor wire harnesses) (WP 0540)
4. Close pump house panel A (No. 1 and No. 2 driver side discharge flow sensor wire harnesses) (WP 0539)

**END OF TASK**

**END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## FOAM TANK LEVEL PROBE WIRE HARNESS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 51

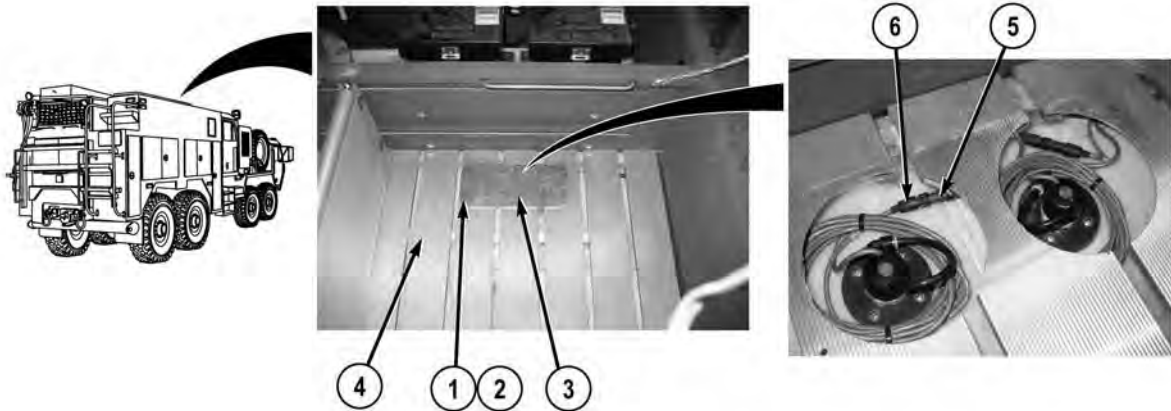
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

**Equipment Conditions**

Hose bed cover opened (WP 0015)  
Pump operator's panel housing  
opened (WP 0325)

## REMOVAL

**NOTE**

- Both foam probe wire harnesses are removed the same way. Foam A probe wire harness shown.
  - Note routing of foam A probe wire harness prior to removal to ensure proper installation.
  - Note position and remove cable ties, split looms, and cushion clips as required.
1. Remove four screws (1), washers (2), and cover (3) from hose bed (4).
  2. Disconnect foam probe wire harness connector (5) from foam probe connector (6).



9 7 8



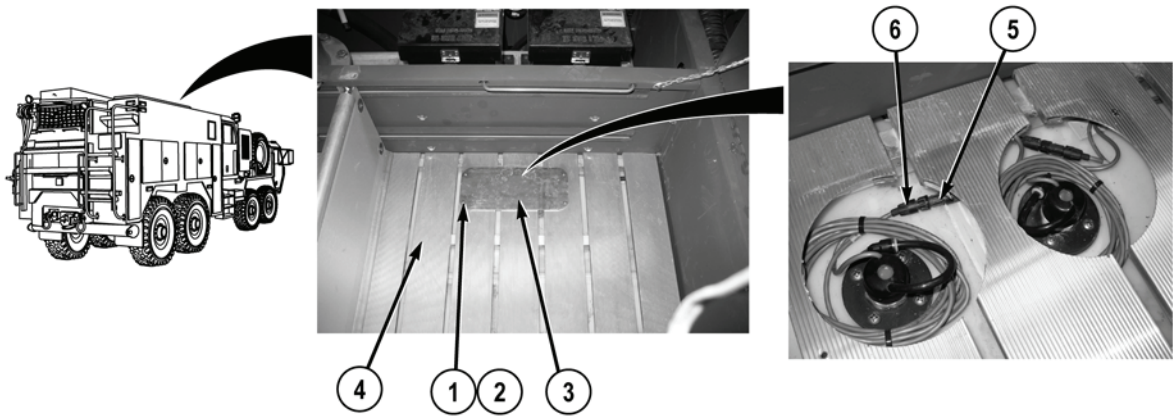
3. Disconnect foam probe wire harness connector (7) from foam level gauge connector (8).
4. Remove foam probe wire harness (9) from vehicle.

#### END OF TASK

#### INSTALLATION

#### NOTE

- Route foam A probe wire harness on vehicle as noted prior to removal.
  - Install cable ties, split looms, and cushion clips as noted.
1. Install foam probe wire harness (9) on vehicle.
  2. Connect foam probe wire harness connector (7) to foam level gauge connector (8).



3. Connect foam probe wire harness connector (5) to foam probe connector (6).
4. Install cover (3) to hose bed (4) with four washers (2) and screws (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Close pump operator's panel housing (WP 0325)
2. Close hose bed cover (WP 0015)

#### END OF TASK

#### END OF WORK PACKAGE





---

**FIELD LEVEL MAINTENANCE**
**INLET, DISCHARGE, AND TANK FILL AND RE-CIRCULATING CONTROL VALVE WIRE HARNESS REPLACEMENT**


---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Ties, Cable, Plastic (WP 0625, Item 58)

**References**

WP 0615, Fig. 56

**Equipment Conditions**

Pump house panel A opened (for No. 1 and No. 2 driver side discharge, tank fill and re-circulating, and driver main inlet valve power supply wire harnesses (WP 0539)

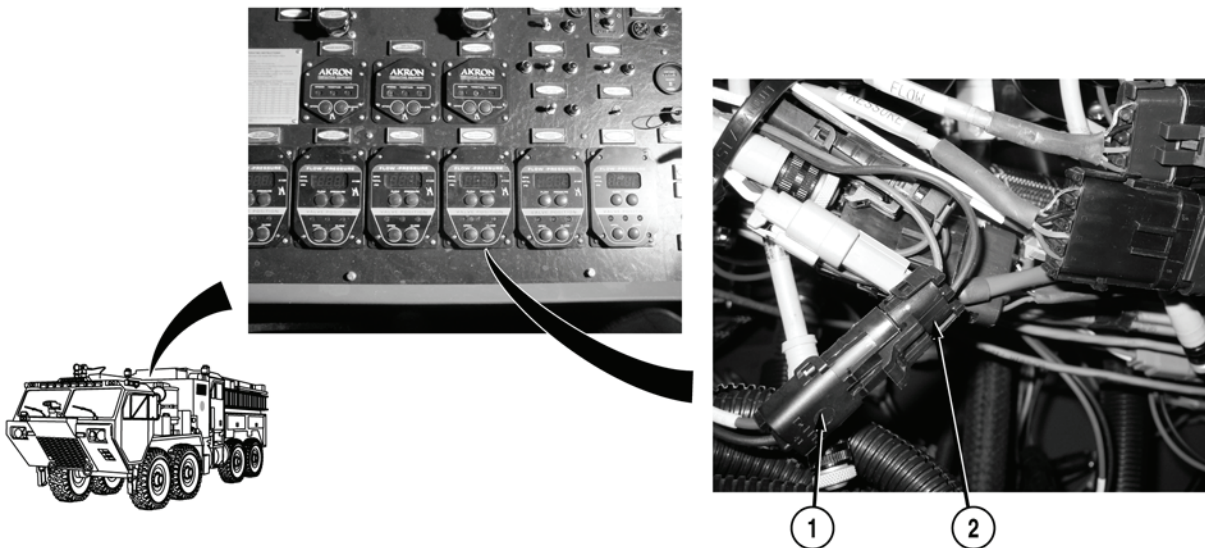
**Equipment Conditions (continued)**

Pump house panel G removed (for No. 3 and No. 4 passenger side discharge valve power supply wire harnesses (WP 0540)  
Pump house panel I removed (for driver side pre-connect A valve power supply wire harness) (WP 0540)  
Close pump house access door (for passenger side inlet valve power supply wire harness, if opened) (WP 0539)  
Remove pump house panel M (for passenger side inlet valve power supply wire harness) (WP 0540)  
Pump operator's panel housing opened (WP 0325)

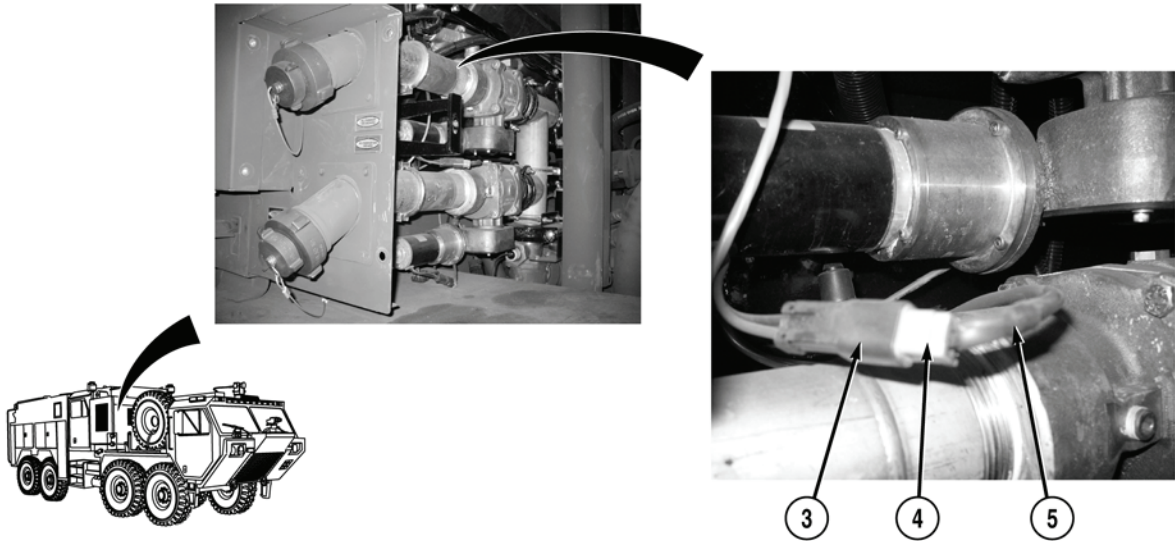
---

**NOTE**

- No. 1 and No. 2 driver side discharge, tank fill and re-circulating, and driver main inlet valve power supplies are accessed by opening pump house panel A.
- No. 3 and No. 4 passenger side discharge and driver side pre-connect B valve power supplies are accessed by removing pump house panel G.
- Driver side pre-connect A valve power supply is accessed by removing pump house I, located on driver side by transmission.
- Passenger side auxiliary inlet valve power supply is accessed by removing pump house panel M or pump house access door located below pump house panel J. (Orientation of valve may vary.)

**REMOVAL****NOTE**

- All valve power supply wire harnesses are removed the same way. No. 3 passenger side valve power supply wire harness shown.
  - Remove cable ties, split looms, and cushion clips as required.
  - Note routing of wire harness prior to removal to ensure proper installation.
1. Disconnect No. 3 passenger side valve power supply gauge connector (1) from No. 3 passenger side valve power supply wire harness connector (2).



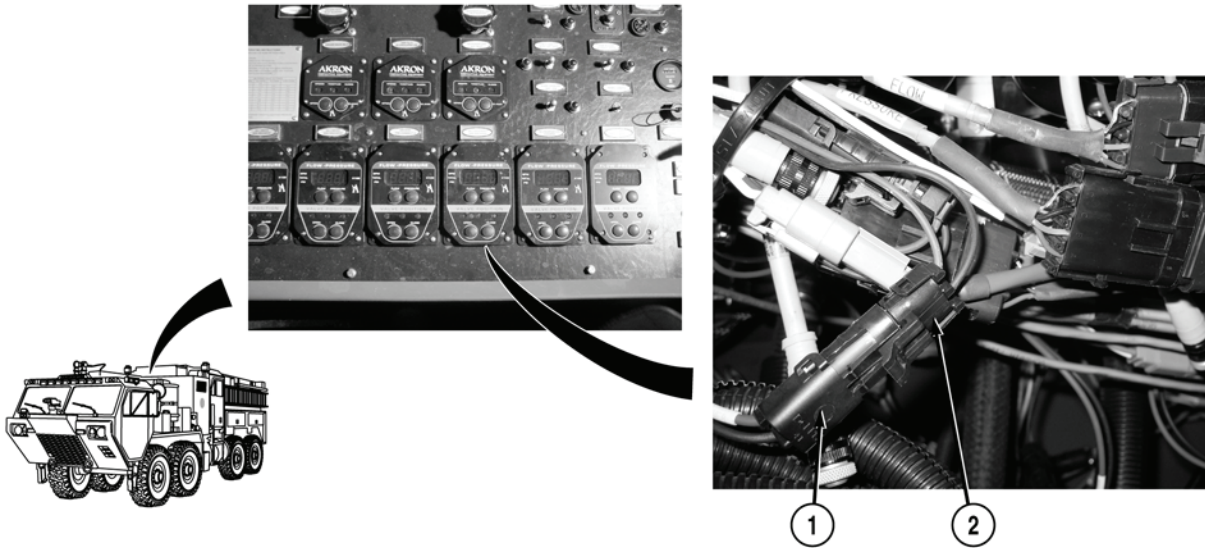
2. Disconnect No. 3 passenger side valve power supply connector (3) from No. 3 passenger side valve power supply wire harness connector (4).
3. Remove No. 3 passenger side valve power supply wire harness (5) from vehicle.

#### END OF TASK

#### INSTALLATION

#### NOTE

- Install wire harness as noted prior to removal.
  - Install cushion clips, split looms, and cable ties as noted.
1. Install No. 3 passenger side valve power supply wire harness (5) on vehicle.
  2. Connect No. 3 passenger side valve power supply connector (3) to No. 3 passenger side valve power supply wire harness connector (4).



3. Connect No. 3 passenger side valve power supply gauge connector (1) to No. 3 passenger side valve power supply wire harness connector (2).

#### **FOLLOW-ON MAINTENANCE**

1. Close pump operator's panel housing (WP 0325)
2. Install pump house panel M (for passenger side auxiliary inlet valve power supply wire harness, if needed) (WP 0540)
3. Close pump house access door (for passenger side auxiliary inlet valve power supply wire harness, if needed) (WP 0539)
4. Install pump house panel I (for driver side pre-connect A valve power supply wire harness) (WP 0540)
5. Install pump house panel G (No. 3 and No. 4 passenger side discharge valve power supply wire harnesses) (WP 0540)
6. Close pump house panel A (for No. 1 and No. 2 driver side discharge, tank fill and re-circulating, and driver main inlet valve power supply wire harnesses) (WP 0539)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**INTERCOM WIRE HARNESS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (7)

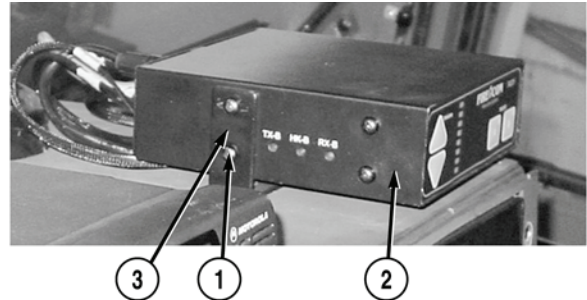
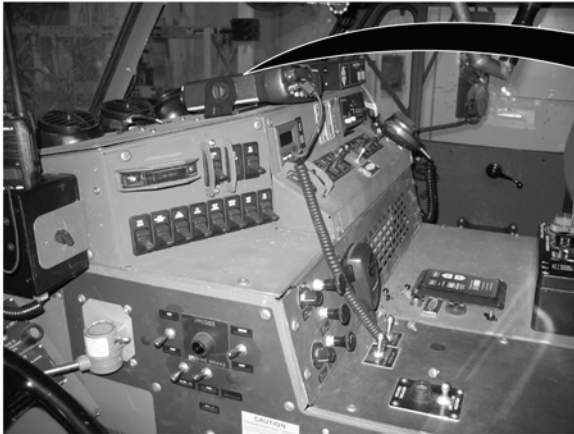
**References**

WP 0615, Fig. 91

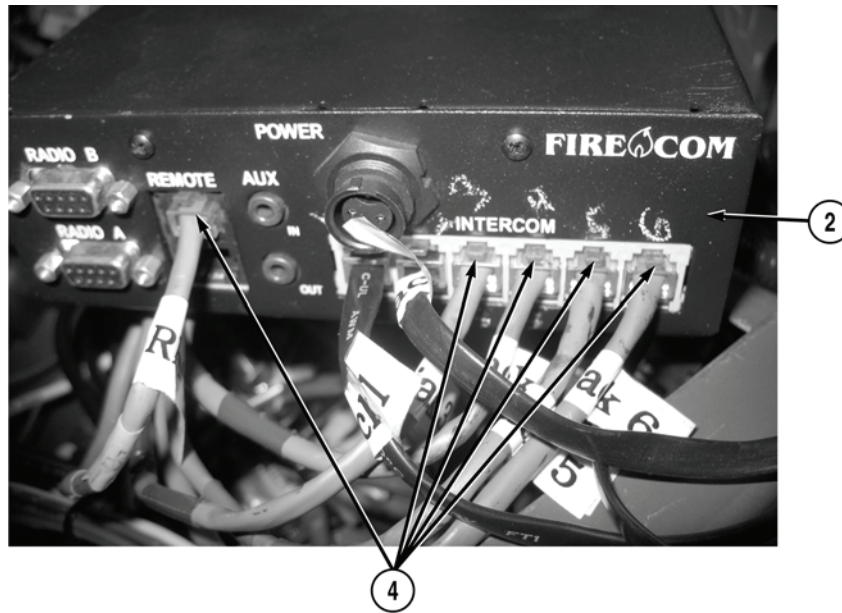
**Equipment Conditions**

Personnel cab instrument panel E  
removed (WP 0311)

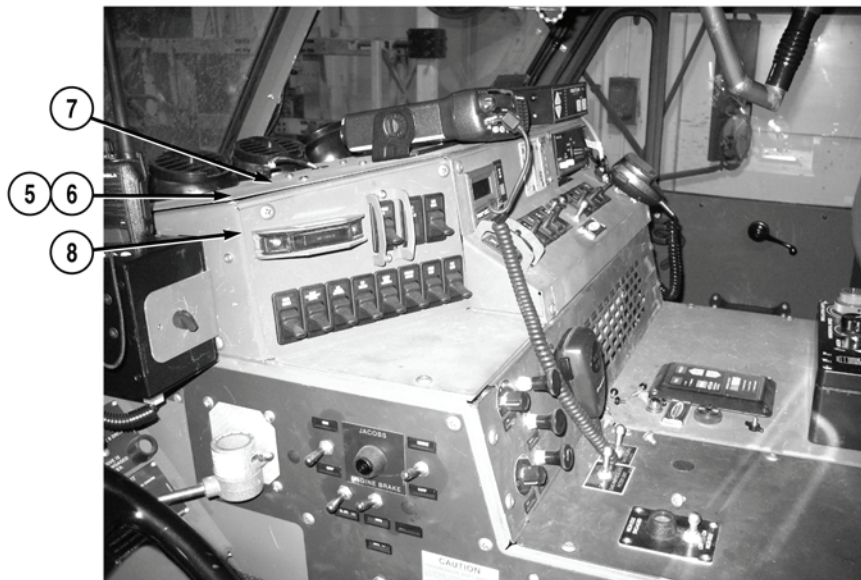
---

**REMOVAL****NOTE**

- Tag and mark connectors prior to removal to ensure proper installation.
  - Note position and remove cable ties, split looms, and cushion clips as required.
  - Note routing of wire harness prior to removal to ensure proper installation.
1. Remove four screws (1) and intercom radio (2) from bracket (3).



2. Remove five RJ-12 connectors (4) from intercom radio (2).

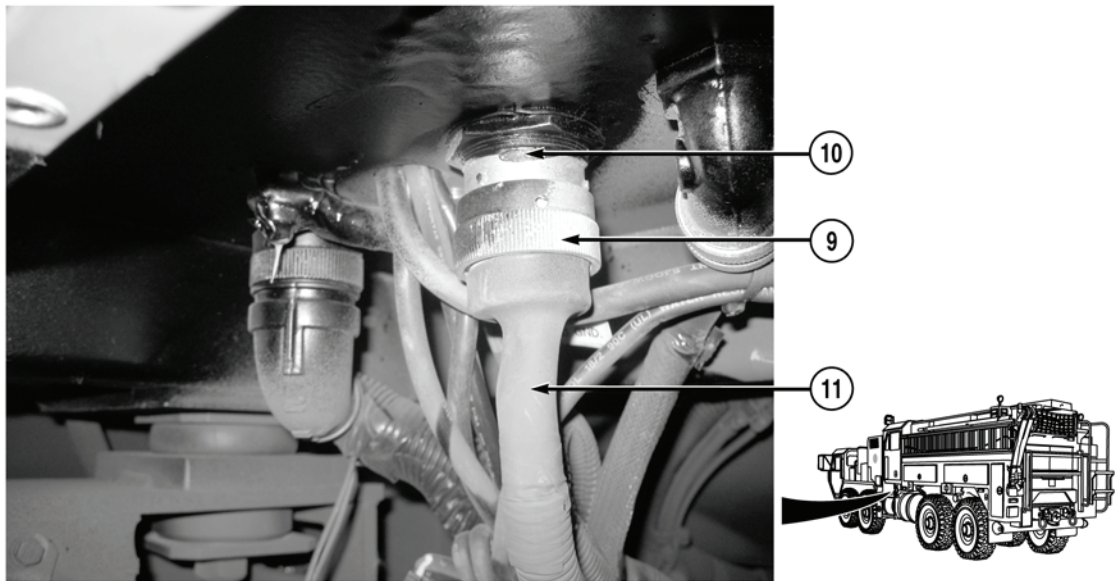


3. Remove seven screws (5) and lockwashers (6) from instrument panel A (7). Discard lockwashers.

** CAUTION**

**When performing Step (4), raise instrument panel A only enough to access wires. Two-way radio and flasher units are still attached. Failure to comply may result in damage to equipment.**

4. Raise instrument panel A (7) from instrument assembly (8).



5. Disconnect intercom wire harness connector (9) from crew cab intercom wire harness connector (10).
6. Remove intercom wire harness (11) from vehicle.

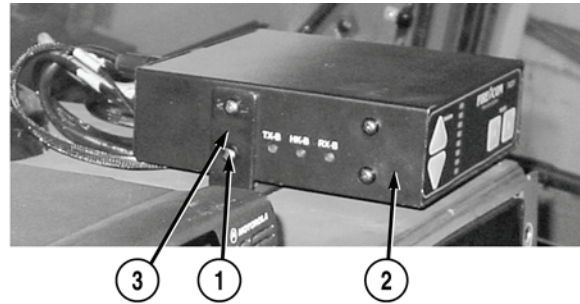
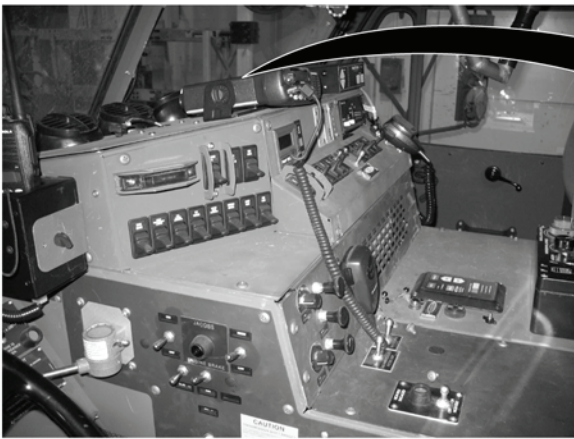
#### END OF TASK

#### INSTALLATION

1. Install intercom wire harness (11) on vehicle.
2. Connect intercom wire harness connector (9) to crew cab intercom wire harness connector (10).

#### NOTE

- Route wire harness as noted prior to removal.
  - Install cushion clips, split looms, and cable ties as noted.
3. Lower instrument panel A (7) on instrument assembly (8).
  4. Secure instrument panel A (7) with seven lockwashers (6) and screws (5).
  5. Install five RJ-12 connectors (4) in intercom radio (2).



6. Install intercom radio (2) on bracket (3) with four screws (1).

**END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

Install personnel cab instrument panel E (WP 0311)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**MAIN WIRE HARNESS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Adhesive, Sealant, Silicone  
RTV (WP 0625, Item 5)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (3)  
Locknut (7)  
Lockwasher (1)  
Lockwasher (1)  
Locknut (2)  
Lockwasher (2)

**Personnel Required**

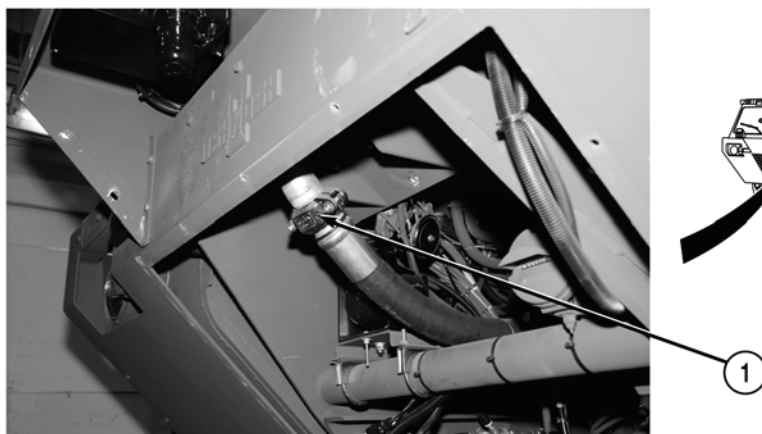
MOS 63B, Wheeled vehicle mechanic (2)

**References**

WP 0483  
WP 0615, Fig. 100

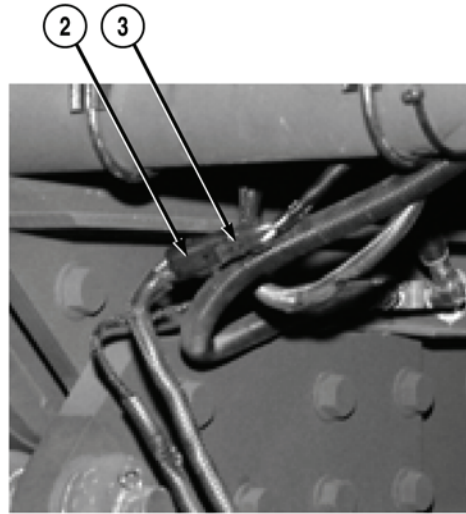
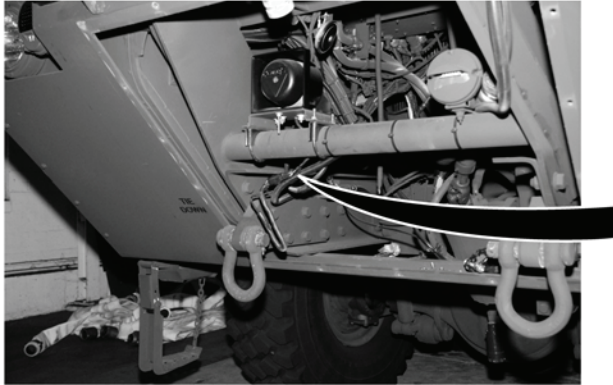
**Equipment Conditions**

Skid plate grille removed (WP 0550)  
Driver side and passenger side front lower  
warning lights removed (WP 0351)  
SINCGARS radio cover opened (WP 0017)  
Cab instrument panel E removed (WP 0311)  
Driver side crew cab access panel  
removed (WP 0499)  
Pump house panel S and Q removed (WP 0540)  
Passenger side center lower stowage  
compartment door opened (WP 0010)  
Engine cover opened (TM 9-2320-325-14&P)  
Engine side cover  
removed (TM 9-2320-325-14&P)  
Prop shaft from transmission to transfer case  
removed (TM 9-2320-325-14&P)  
Prop shaft from transfer case to #3 differential  
removed (TM 9-2320-325-14&P)

**REMOVAL****NOTE**

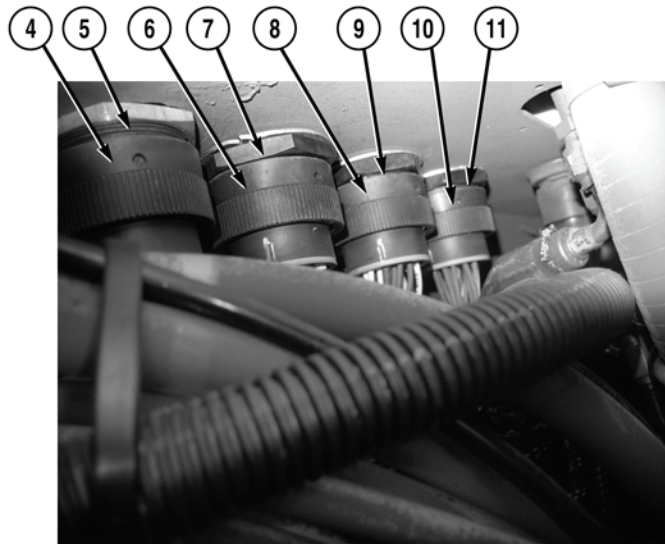
Bumper turret hose is being removed to provide access to main wire harness connectors.

1. Remove coupling (1) from vehicle (WP 0483).



### NOTE

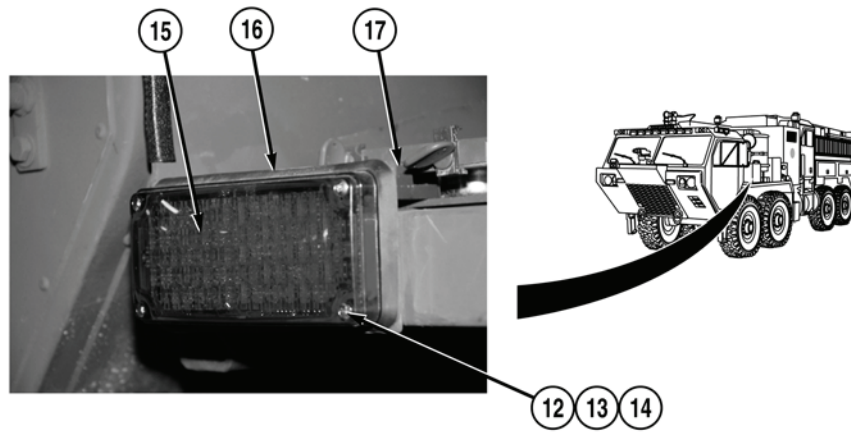
- Tag and mark wires prior to removal to ensure proper installation.
  - Note routing of main wire harness prior to removal to ensure proper installation.
  - Note position and remove cable ties, split looms, and cushion clips as required.
2. Disconnect main wire harness connector (2) from siren speaker connector (3).



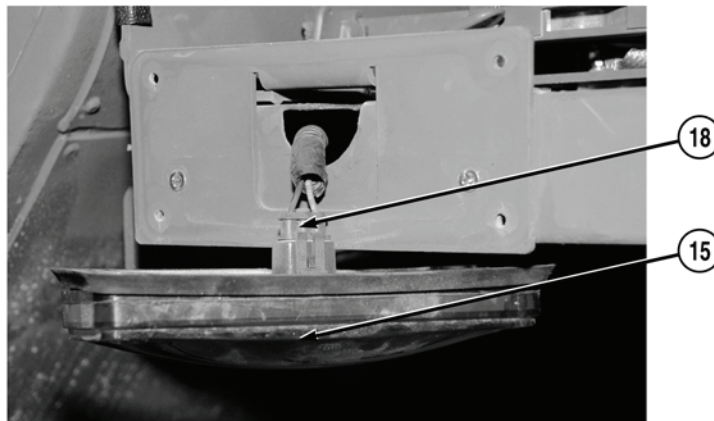
 **CAUTION**

**Extreme caution must be used when tagging and marking position of main 3 and main 5 connectors during removal and installation. Connectors are interchangeable and easily confused. Failure to note position will cause imminent damage to equipment.**

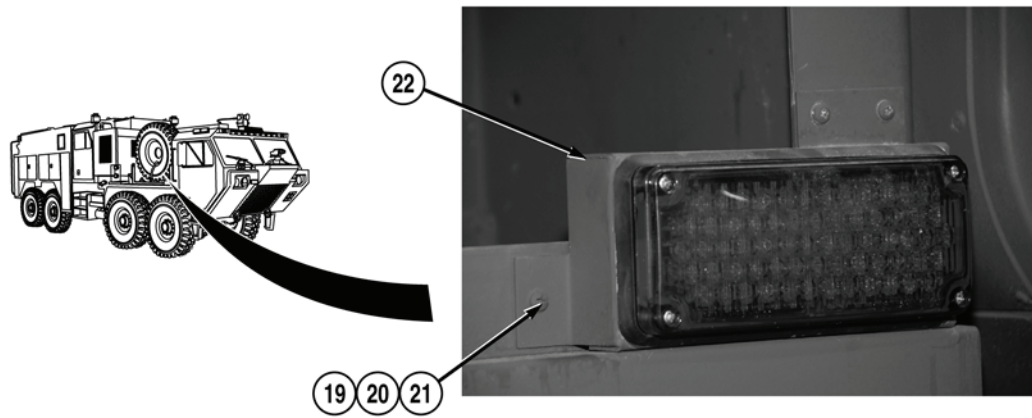
3. Disconnect main wire harness connector (4) from main 5 connector (5).
4. Disconnect main wire harness connector (6) from main 4 connector (7).
5. Disconnect main wire harness connector (8) from main 3 connector (9).
6. Disconnect main wire harness connector (10) from main 2 connector (11).



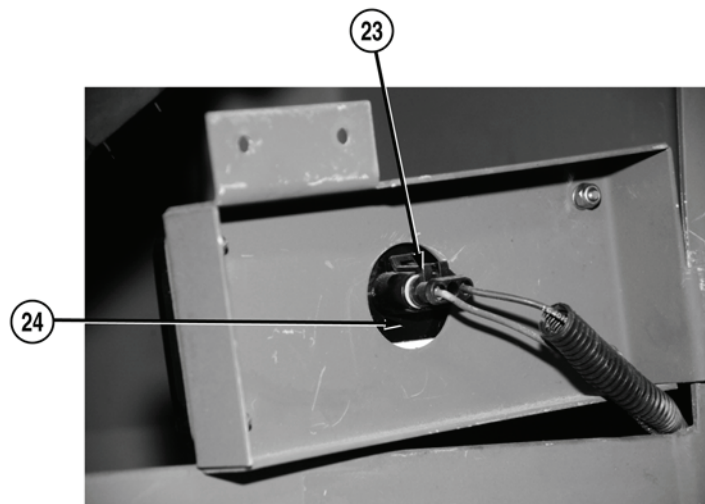
7. Remove four locknuts (12), washers (13), screws (14), driver side front side warning light (15), and seal (16) from bracket (17). Discard locknuts.



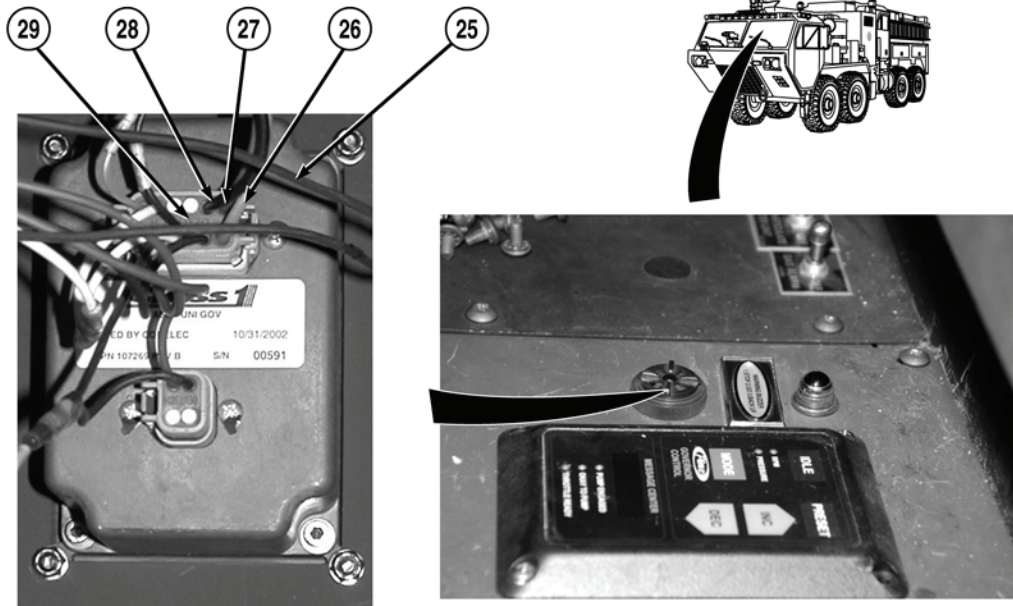
8. Disconnect main wire harness connector (18) from driver side front side warning light (15).



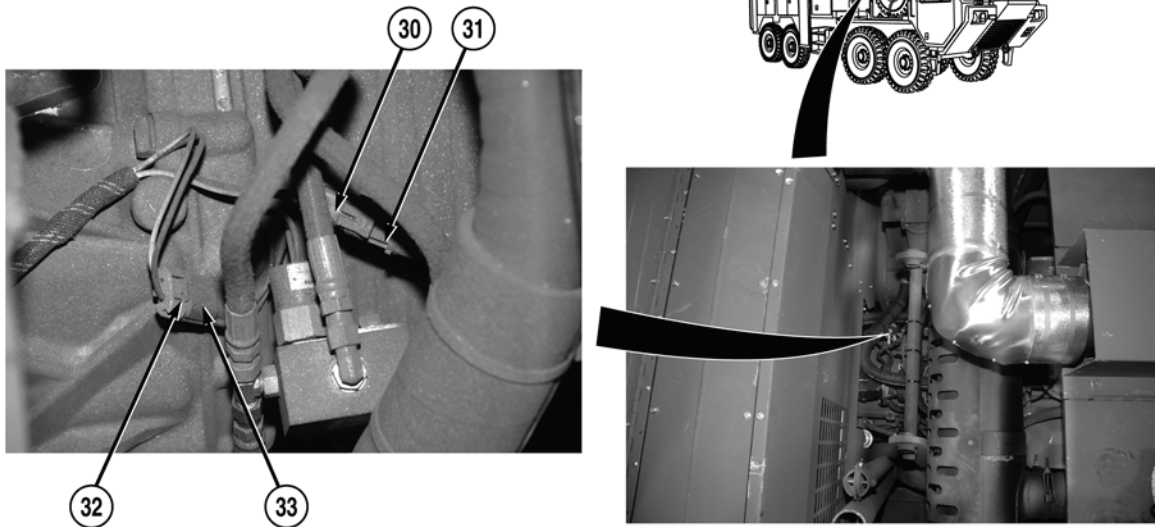
9. Remove three locknuts (19), washers (20), screws (21), and bracket (22) from vehicle. Discard locknuts.



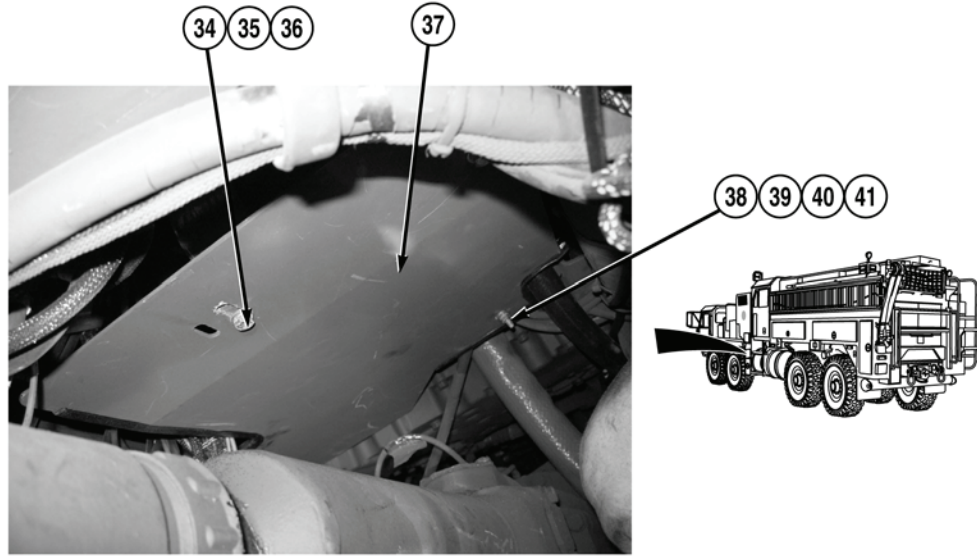
10. Disconnect main wire harness connector (23) from passenger side front side warning light (24).



11. Cut wire 1614 (25) (TM 9-2320-325-14&P).
12. Remove white wire (26), red wire (27), and black wire (28) from connector (29).



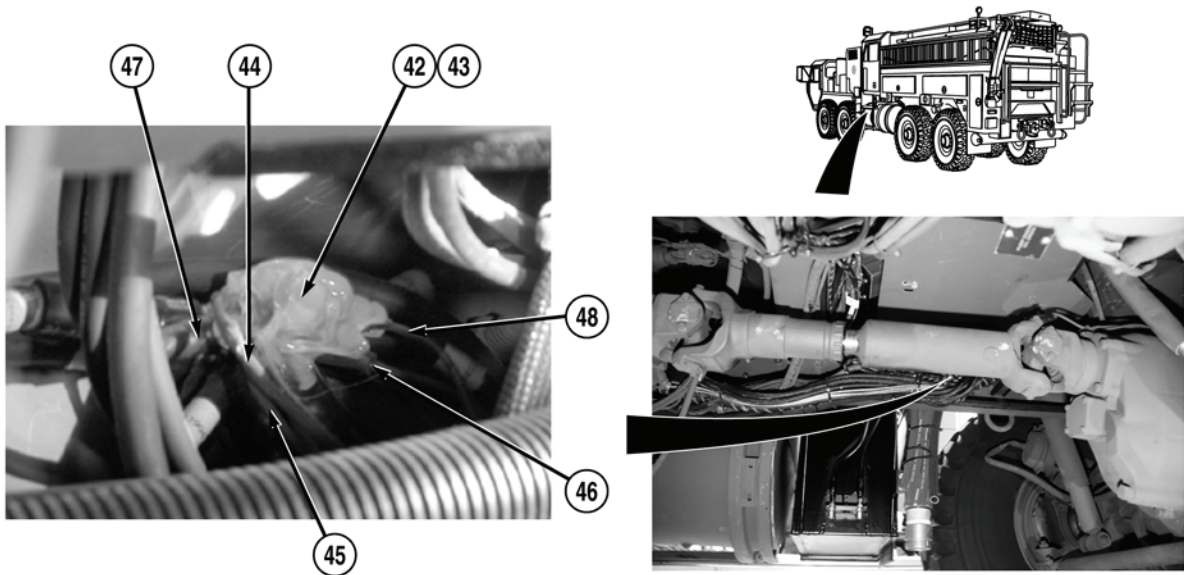
13. Disconnect main wire harness connector (30) from pump PTO solenoid connector (31).
14. Disconnect main wire harness connector (32) from pump PTO pressure switch connector (33).



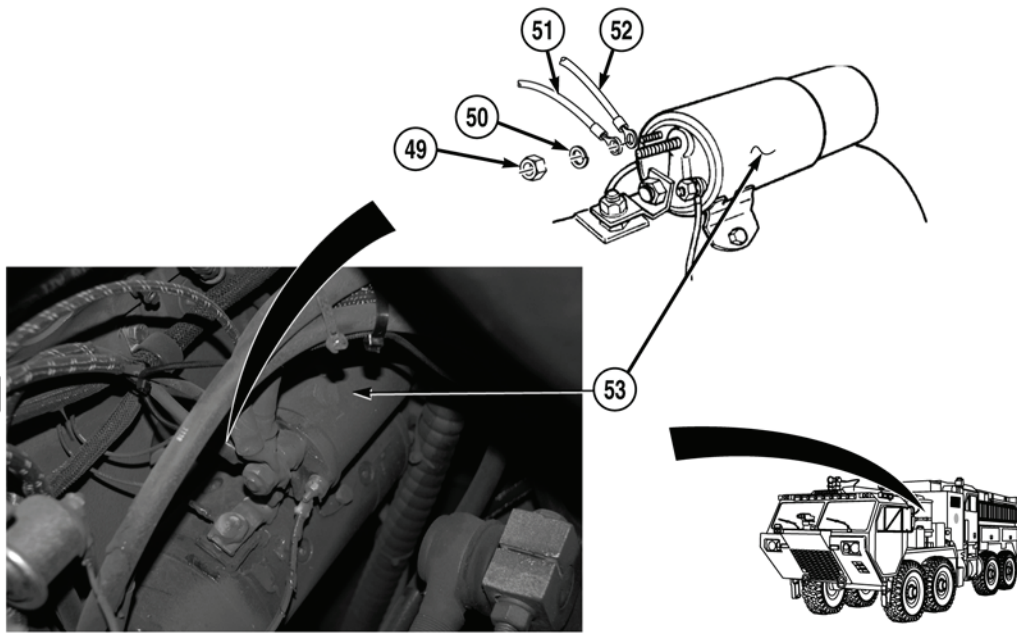
**NOTE**

Perform Steps (15) and (16) if shield needs to be removed.

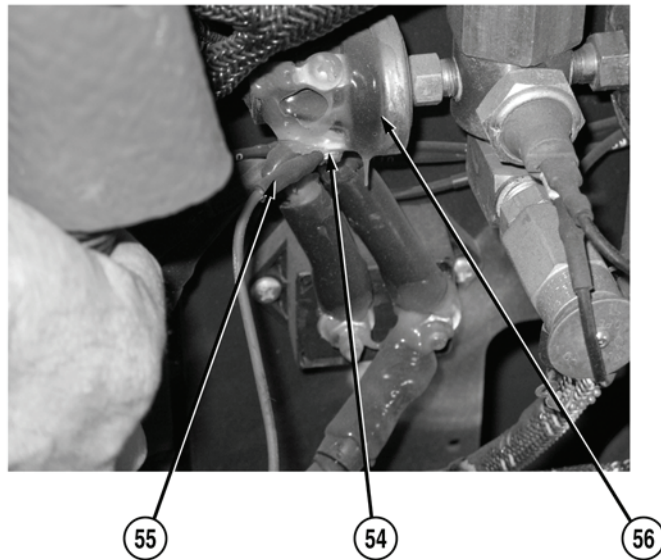
15. Remove two screws (34), lockwashers (35), and washers (36) from shield (37). Discard lockwashers.
16. Remove nut (38), lockwasher (39), two washers (40), screw (41), and shield (37) from vehicle. Discard lockwasher.



17. Remove nut (42), lockwasher (43), two wires 1640 (44), wire 1100 (45), wire 2640 (46), wire 2740 (47), and wire 2200 (48) from vehicle.

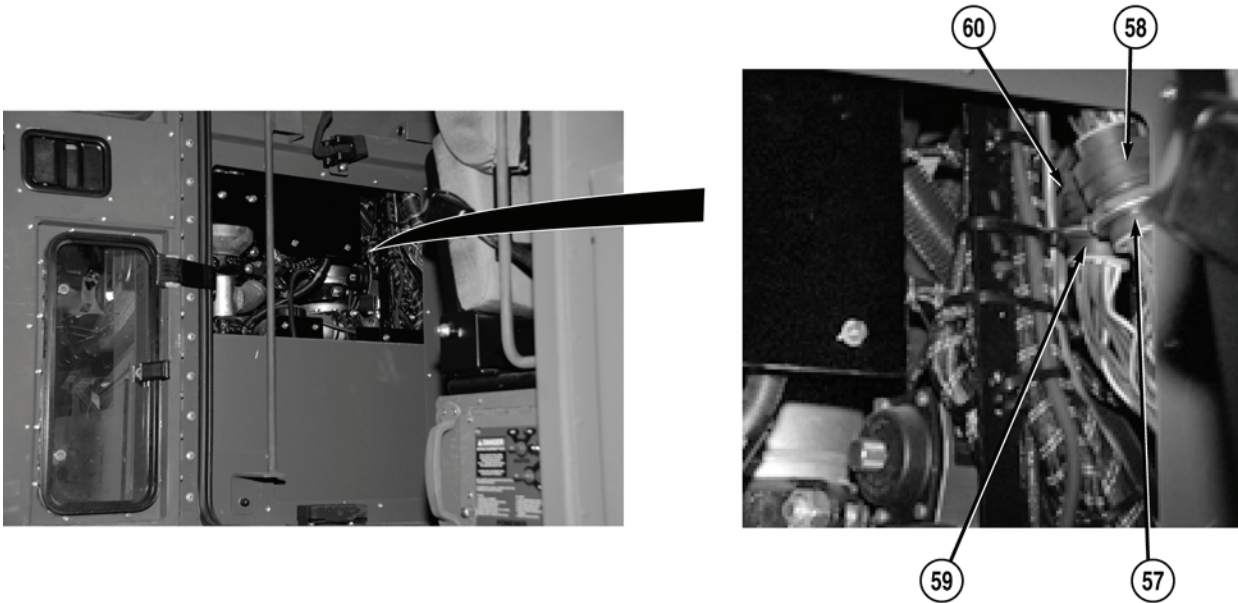


18. Remove nut (49), lockwasher (50), wire 1401 (51), and wire 1013 (52) from starter solenoid (53). Discard lockwasher.



19. Remove screw (54) and wire 1013 (55) from low oil pressure sending unit (56).

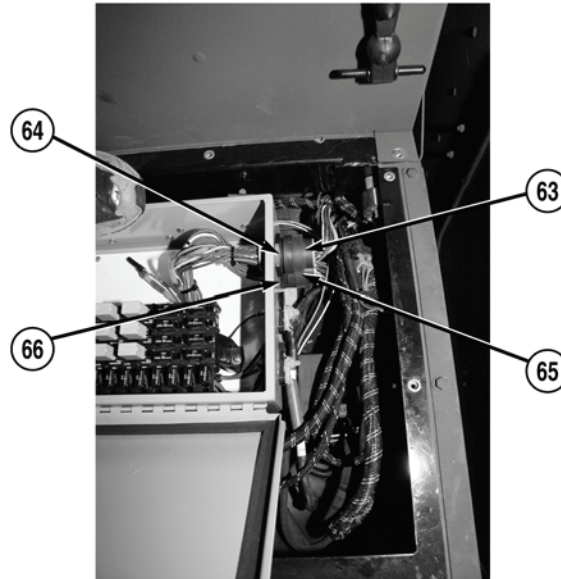




20. Disconnect main wire harness connector (57) from pump operator's panel wire harness connector DO1 (58).
21. Disconnect main wire harness connector (59) from pump operator's panel wire harness connector DO2 (60).



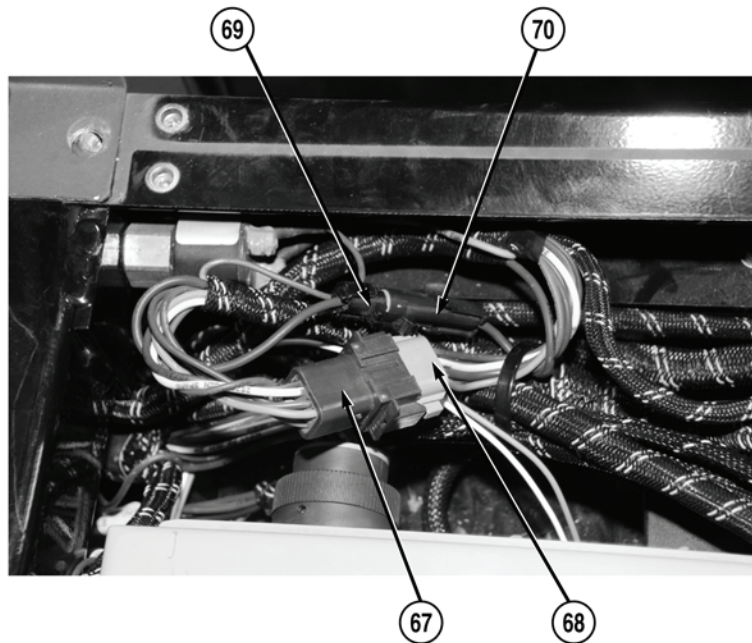
22. Disconnect main wire harness connector (61) from valve control wire harness connector DV1 (62).



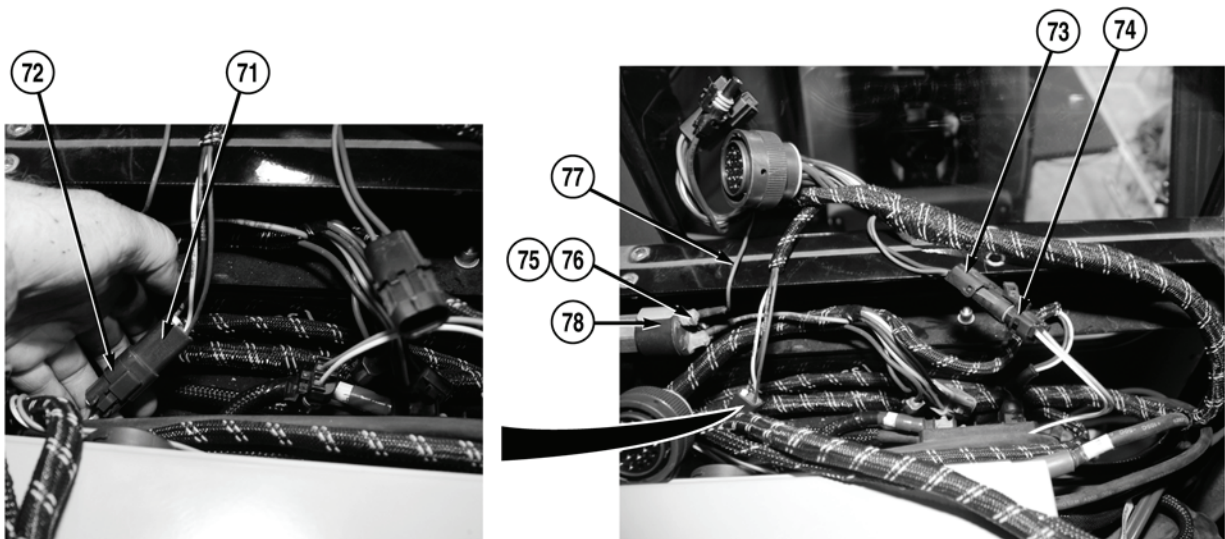
### NOTE

Pump operator's panel wire harness pump house power distribution wire harness connector DP2 is being removed to provide access to main wire harness pump house power distribution wire harness connector DP1.

23. Disconnect pump operator's panel wire harness connector (63) from pump house power distribution wire harness connector DP2 (64).
24. Disconnect main wire harness connector (65) from pump house power distribution wire harness connector DP1 (66).



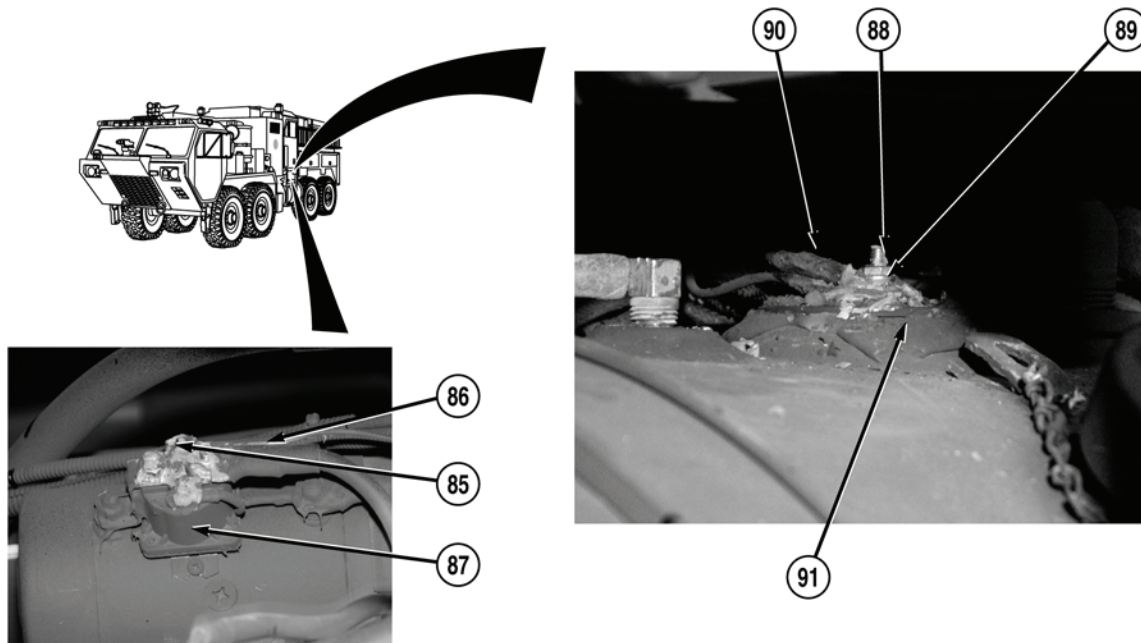
25. Disconnect main wire harness connector (67) from pump house wire harness connector (68).
26. Disconnect main wire harness connector (69) from pump house wire harness connector (70).



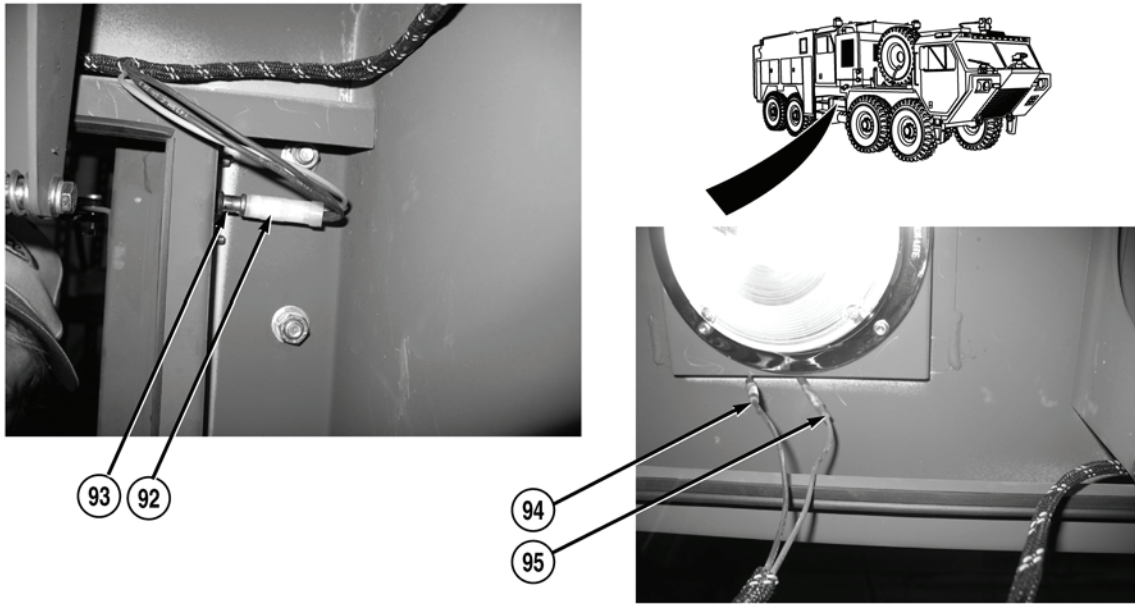
27. Disconnect main wire harness connector (71) from pump engine governor control connector (72).
28. Disconnect main wire harness connector (73) from auto direct tank fill control connector (74).
29. Remove nut (75), lockwasher (76), and wire 1687 (77) from pump house exhaust fan switch (78). Discard lockwasher.



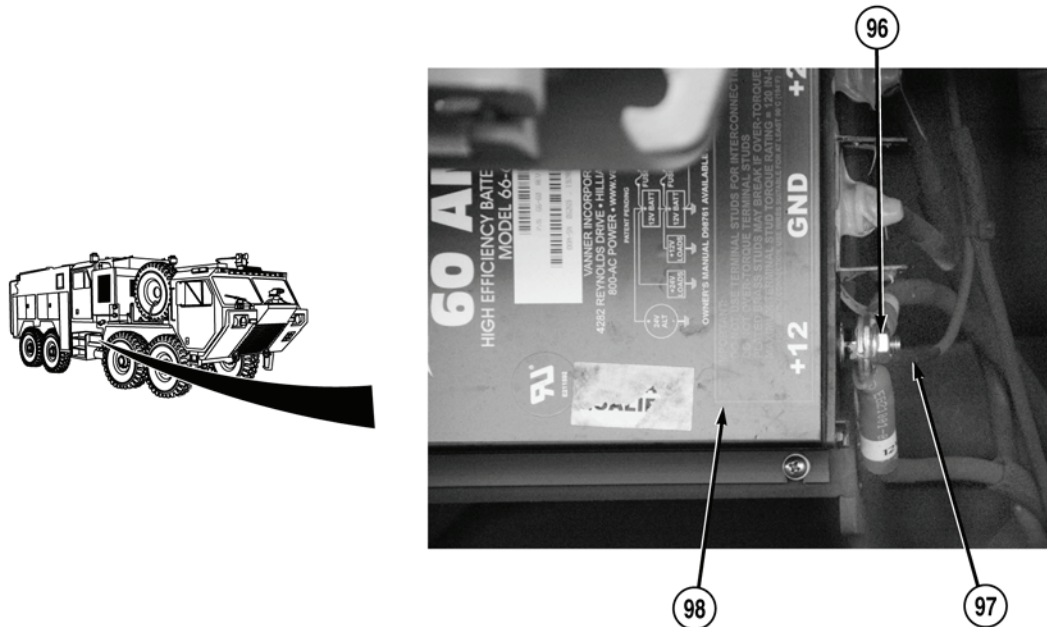
- 30. Disconnect wire 4089 (79) and 4090 (80) connectors from pump house heater fuel pump (81).
- 31. Disconnect wire 4091 (82) and 4092 (83) connectors from rear compartment heater fuel pump (84).



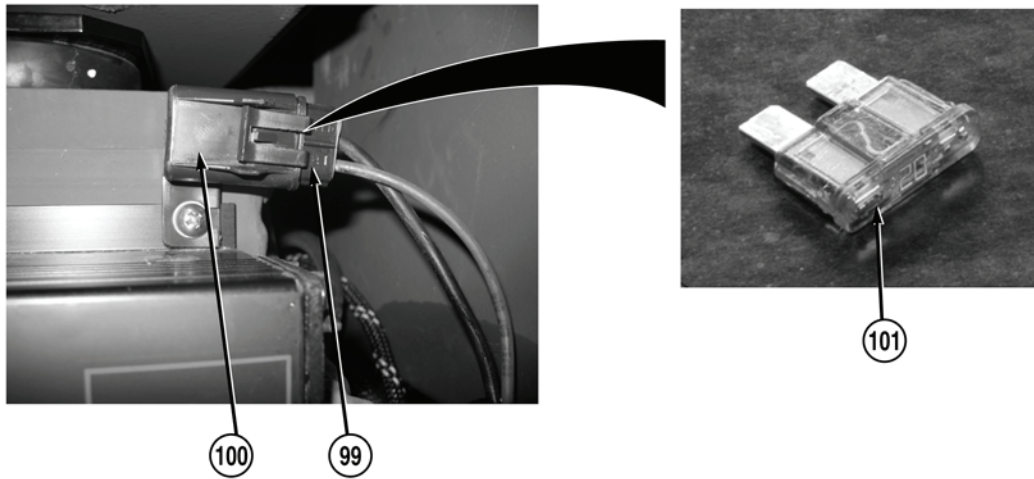
- 32. Remove locknut (85) and wire 2774 (86) from primer pump motor solenoid (87). Discard locknut.
- 33. Remove nut (88), washer (89), and wire H318 (90) from fuel tank level sending unit (91).



- 34. Disconnect main wire harness connector (92) from passenger side lower compartment door switch (93).
- 35. Cut wire 1189 (94) and wire 1479 (95) (TM 9-2320-325-14&P).

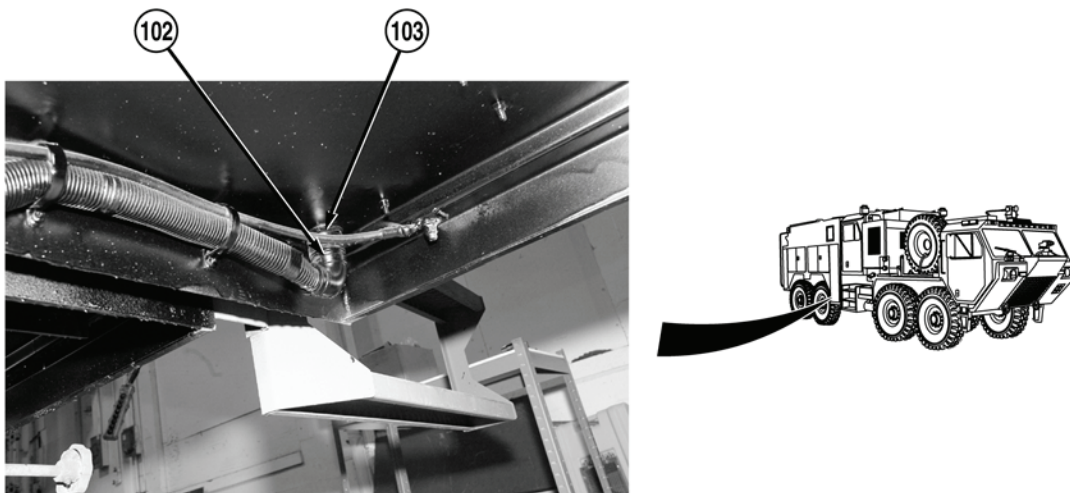


- 36. Remove nut (96) and wire 1663 (97) from battery equalizer (98).

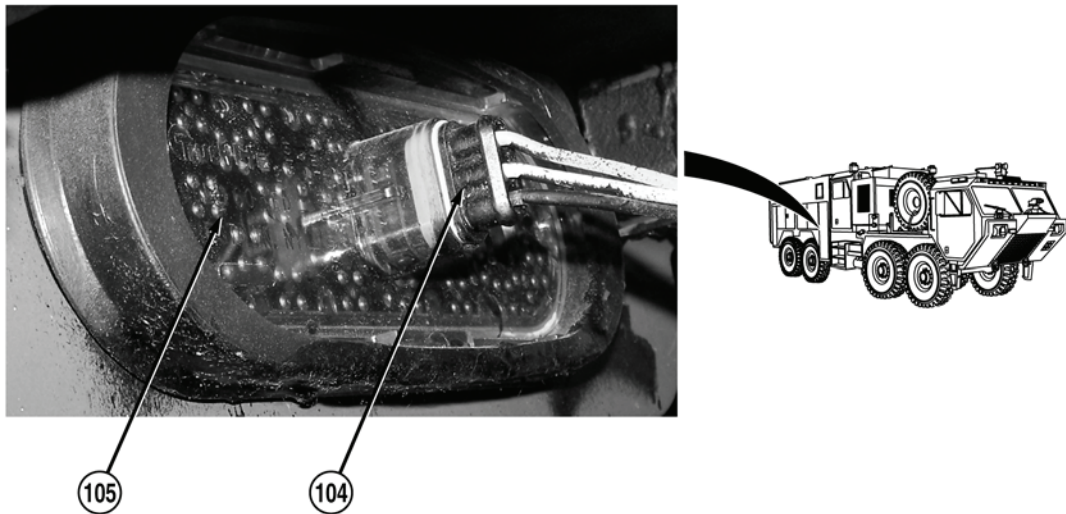


37. Remove fuse holder (99) from fuse holder bracket (100).

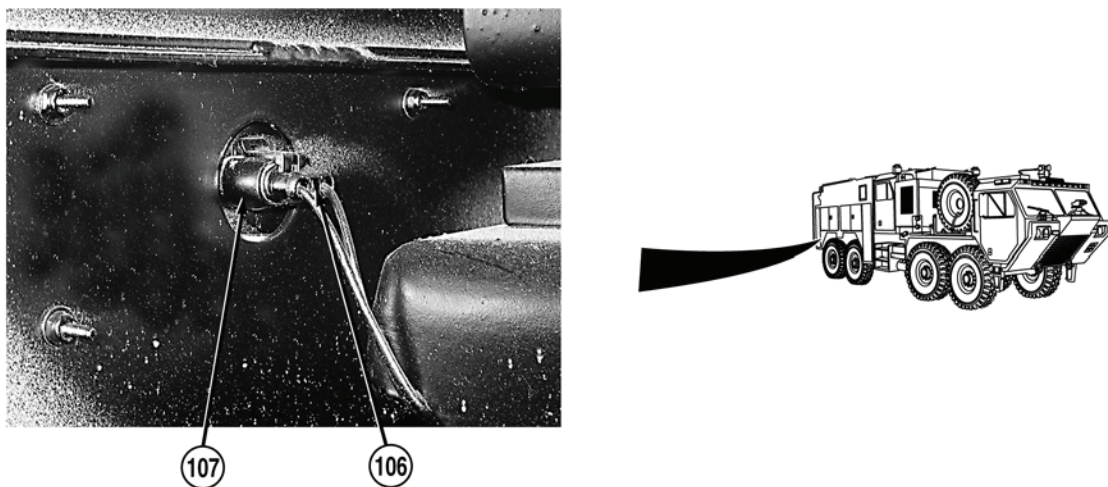
38. Remove fuse (101) from fuse holder (99).



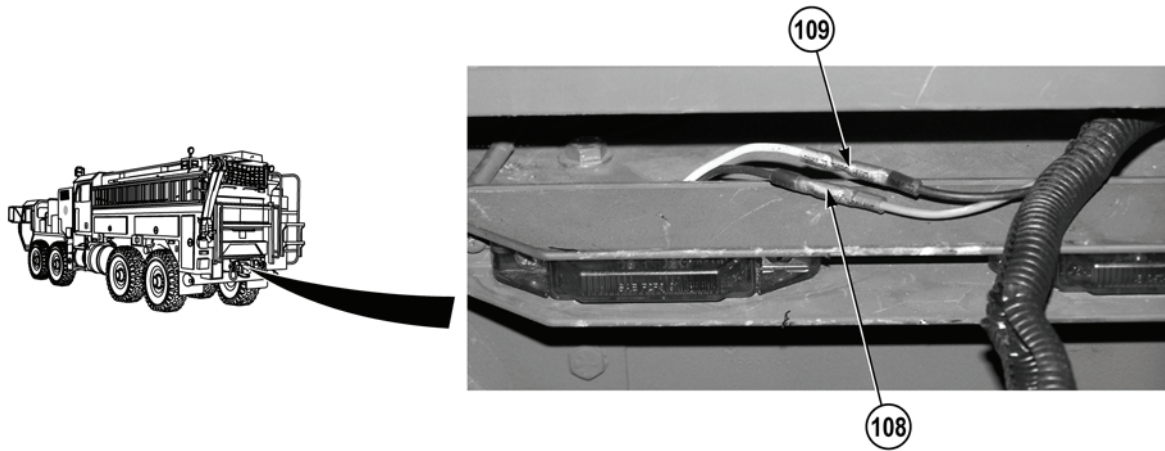
39. Disconnect main wire harness connector (102) from passenger side body wire harness connector (103).



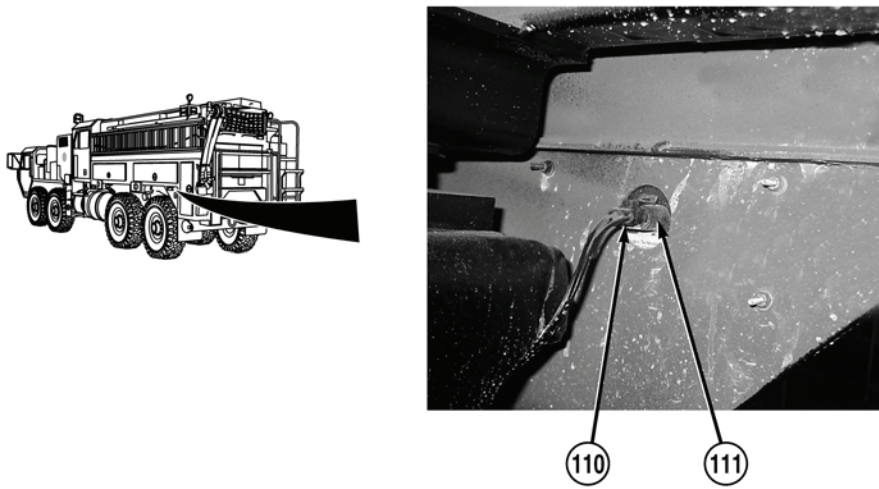
40. Disconnect main wire harness connector (104) from passenger side marker/clearance/side turn (amber) LED light assembly (105).



41. Disconnect main wire harness connector (106) from passenger side rear side warning light (107).

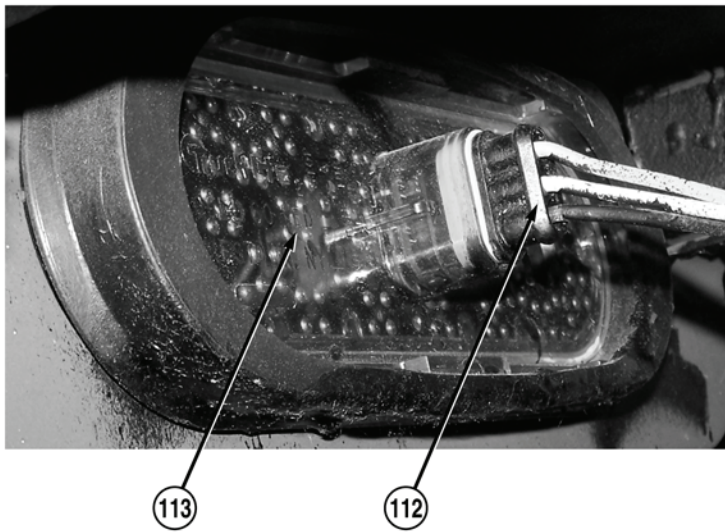


42. Cut wire 1606 (108) and wire 1640 (109) (TM 9-2320-325-14&P).

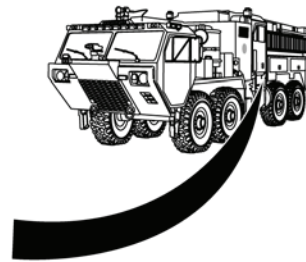


43. Disconnect main wire harness connector (110) from driver side rear side warning light (111).

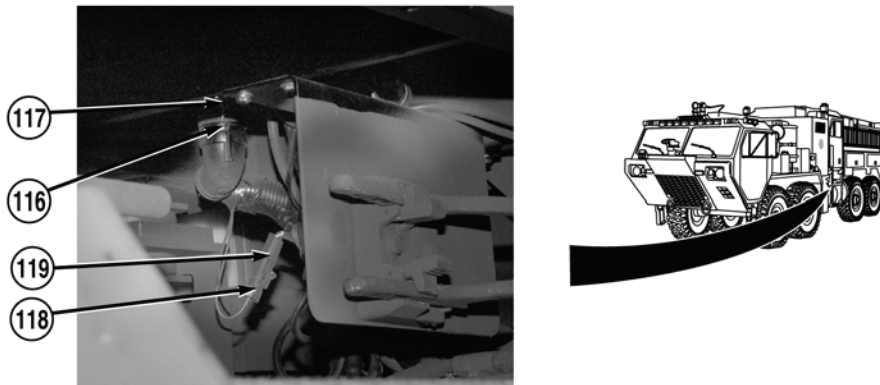




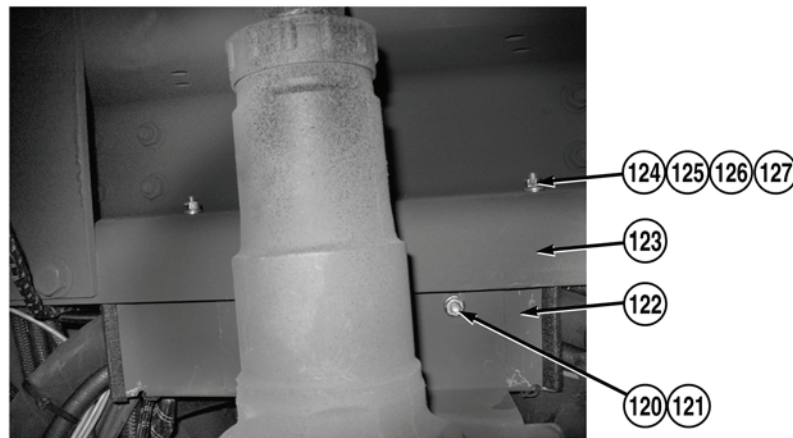
44. Disconnect main wire harness connector (112) from driver side marker/clearance/side turn (amber) LED light assembly (113).



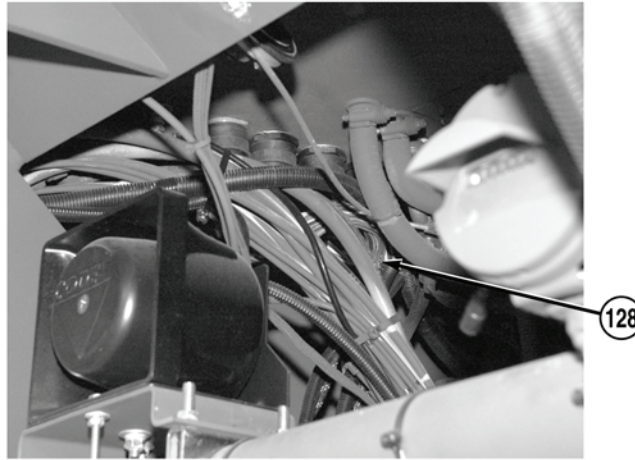
45. Disconnect main wire harness connector (114) from driver side body wire harness connector (115).



46. Disconnect main wire harness connector (116) from crew cab wire harness connector (117).
47. Disconnect main wire harness connector (118) from shoreline receptacle auto eject connector (119).



48. Remove two locknuts (120), screws (121), and guard (122) from guard (123). Discard locknuts.
49. Remove two nuts (124), lockwashers (125), washers (126), screws (127), and guard (123) from vehicle. Discard lockwashers.



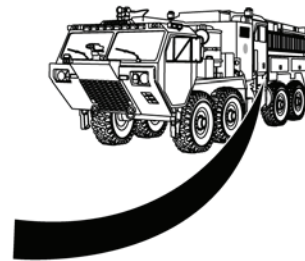
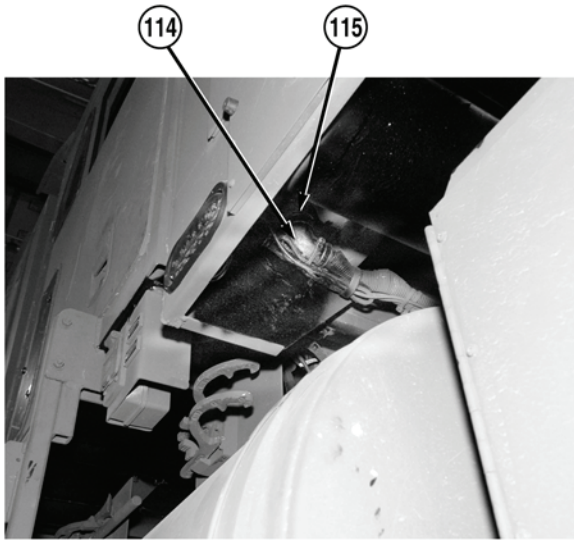
50. Remove main wire harness (128) from vehicle.

#### END OF TASK

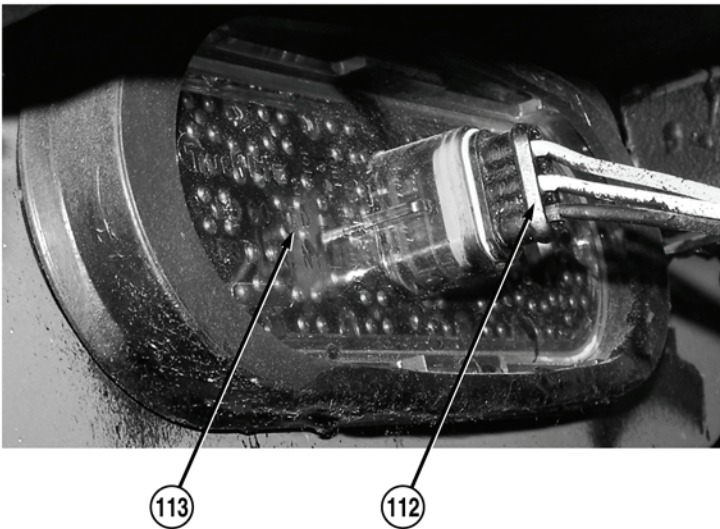
#### INSTALLATION

#### NOTE

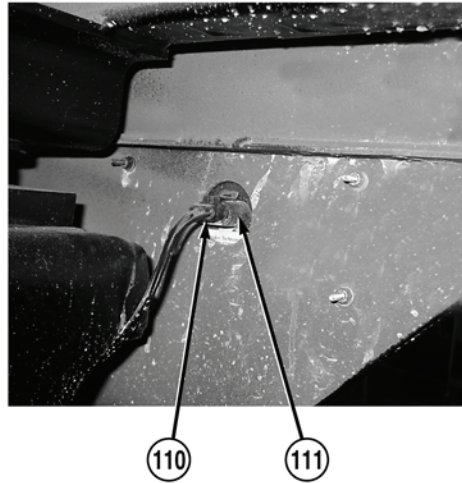
- Route main wire harness on vehicle as noted prior to removal.
  - Install cushion clips, split loom, and cable ties as noted.
1. Install main wire harness (128) on vehicle.
  2. Install guard (123) on vehicle with two screws (127), washers (126), lockwashers (125), and nuts (124).
  3. Install guard (122) on guard (123) with two screws (121) and locknuts (120).
  4. Connect main wire harness connector (118) on shoreline receptacle auto eject connector (119).
  5. Connect main wire harness connector (116) on crew cab wire harness connector (117).



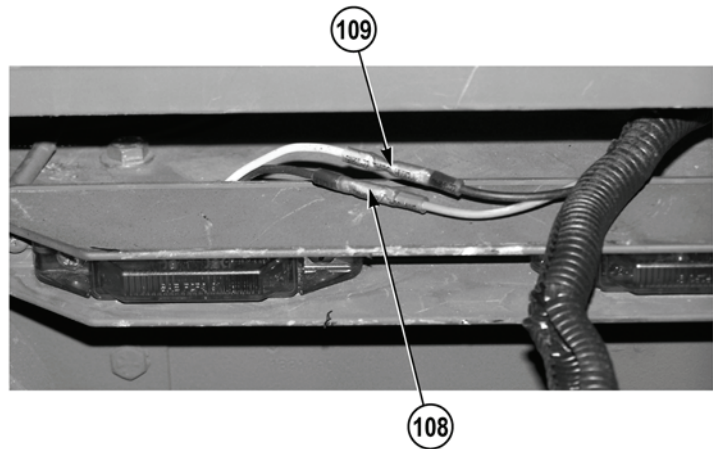
6. Connect main wire harness connector (114) on driver side body wire harness connector (115).



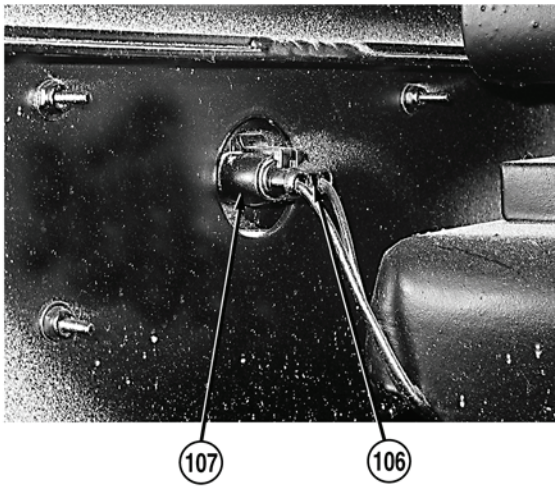
7. Connect main wire harness connector (112) on driver side marker/clearance/side turn (amber) LED light assembly (113).



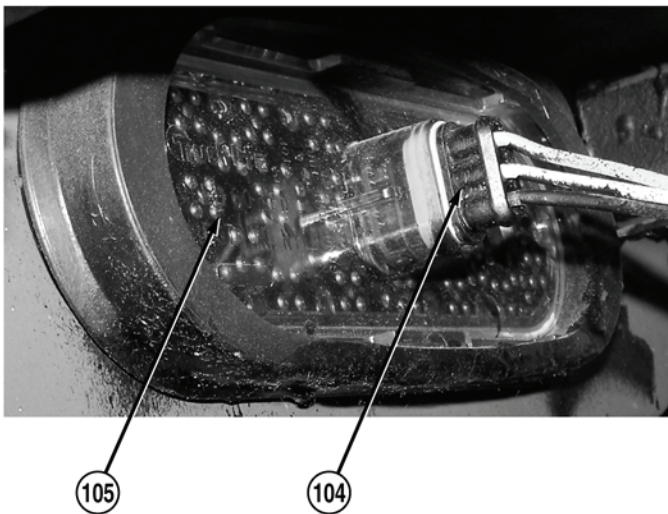
8. Connect main wire harness connector (110) on driver side rear side warning light (111).



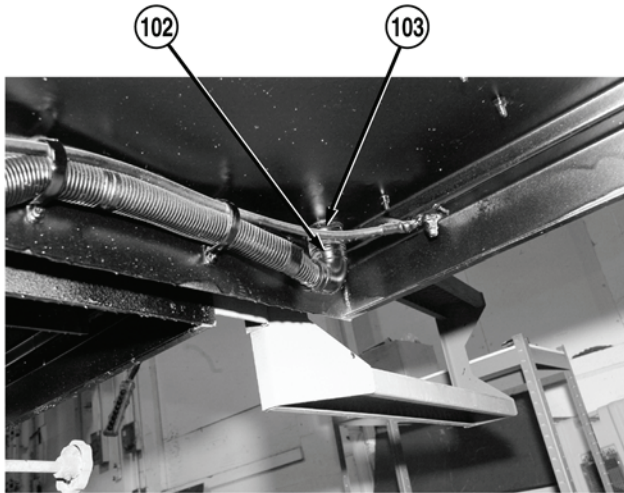
9. Repair wire 1606 (108) and wire 1640 (109) (TM 9-2320-325-14&P).



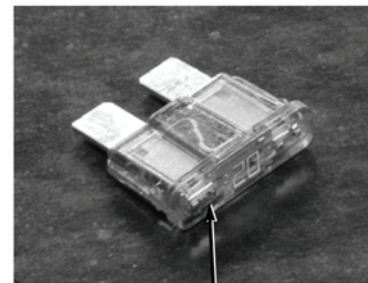
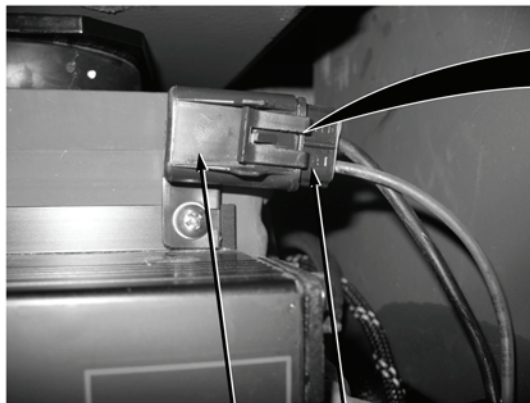
10. Connect main wire harness connector (106) on passenger side rear side warning light (107).



11. Connect main wire harness connector (104) on passenger side marker/clearance/side turn (amber) LED light assembly (105).



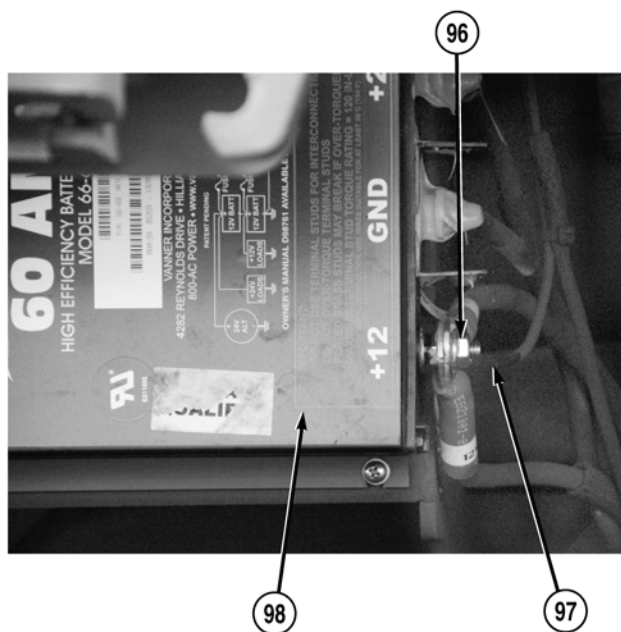
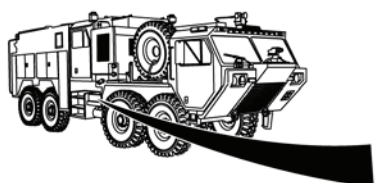
12. Connect main wire harness connector (102) on passenger side body wire harness connector (103).



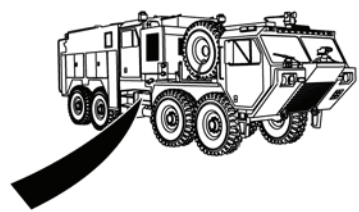
100 99

101

- 13. Install fuse (101) in fuse holder (99).
- 14. Install fuse holder (99) in fuse holder bracket (100).



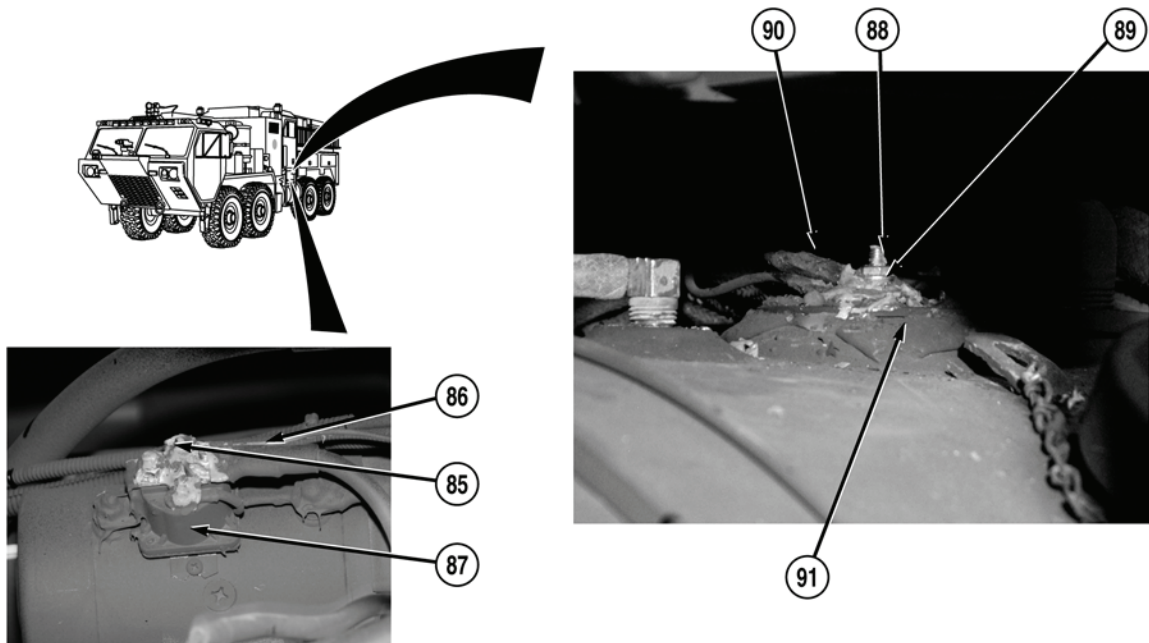
15. Install wire 1663 (97) on battery equalizer (98) with nut (96).



16. Repair wire 1189 (94) and wire 1479 (95) (TM 9-2320-325-14&P).

17. Connect main wire harness connector (92) on passenger side lower compartment door switch connector (93).

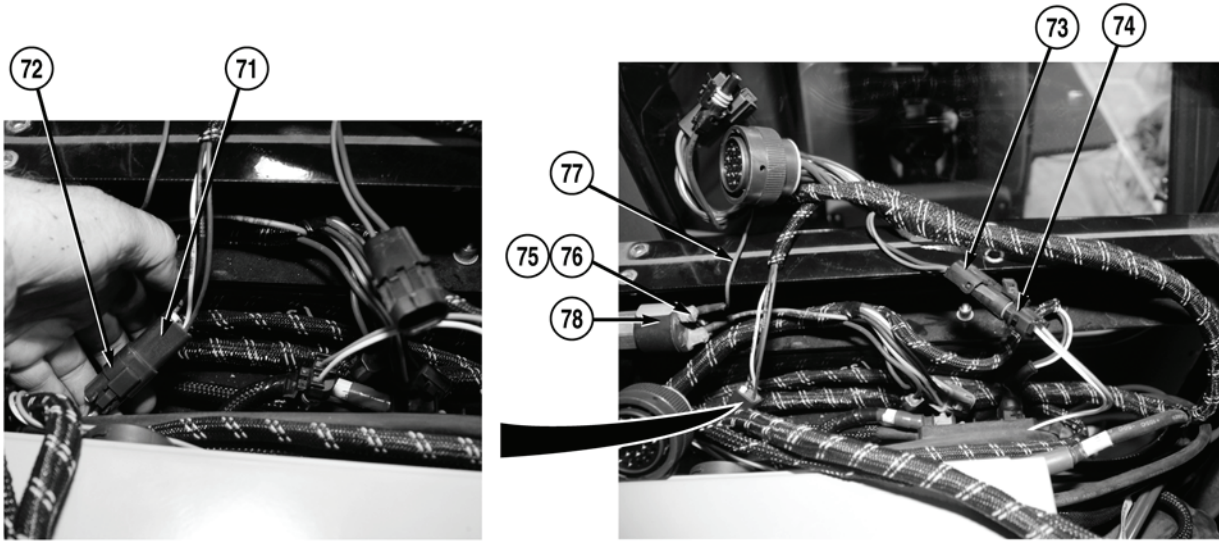




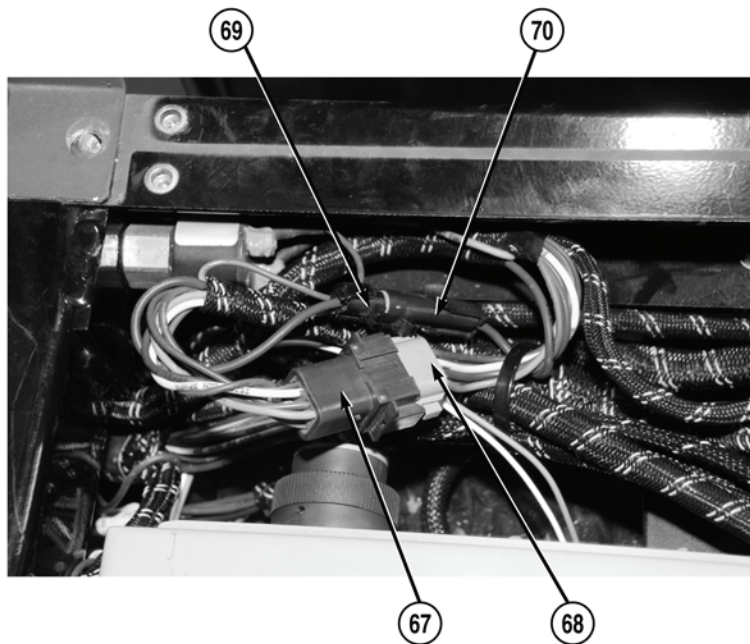
18. Install wire H318 (90) on fuel tank level sending unit (91) with washer (89) and nut (88).
19. Install wire 2774 (86) on primer pump motor solenoid (87) with locknut (85).



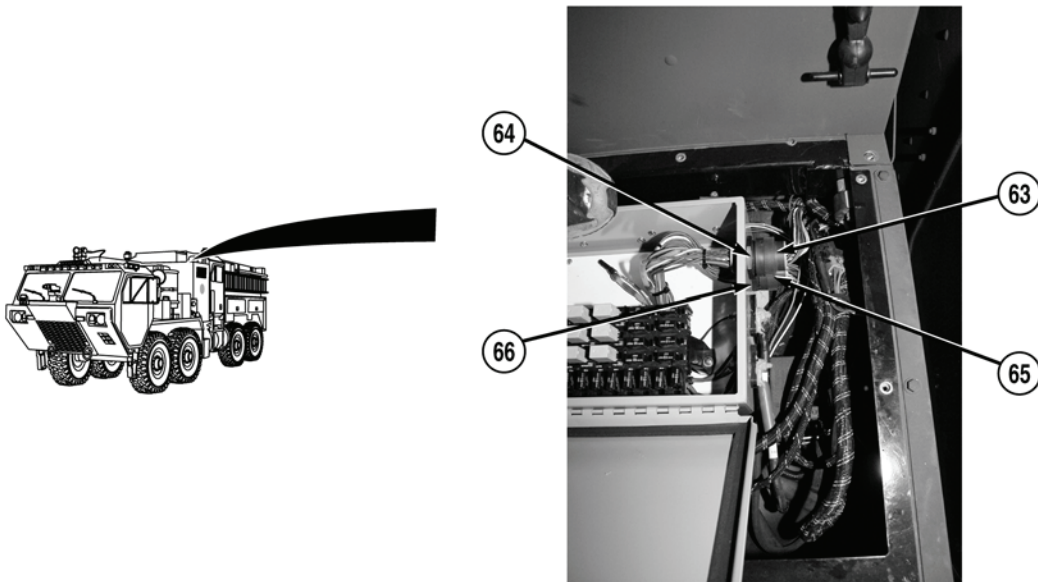
20. Connect wire 4091 (82) and 4092 (83) connectors on rear compartment heater fuel pump (84).
21. Connect wire 4089 (79) and 4090 (80) connectors on pump house heater fuel pump (81).



22. Install wire 1687 (77) on pump house exhaust fan switch (78) with lockwasher (76) and nut (75).
23. Connect main wire harness connector (73) on auto direct tank fill control connector (74).
24. Connect main wire harness connector (71) on pump engine governor control connector (72).



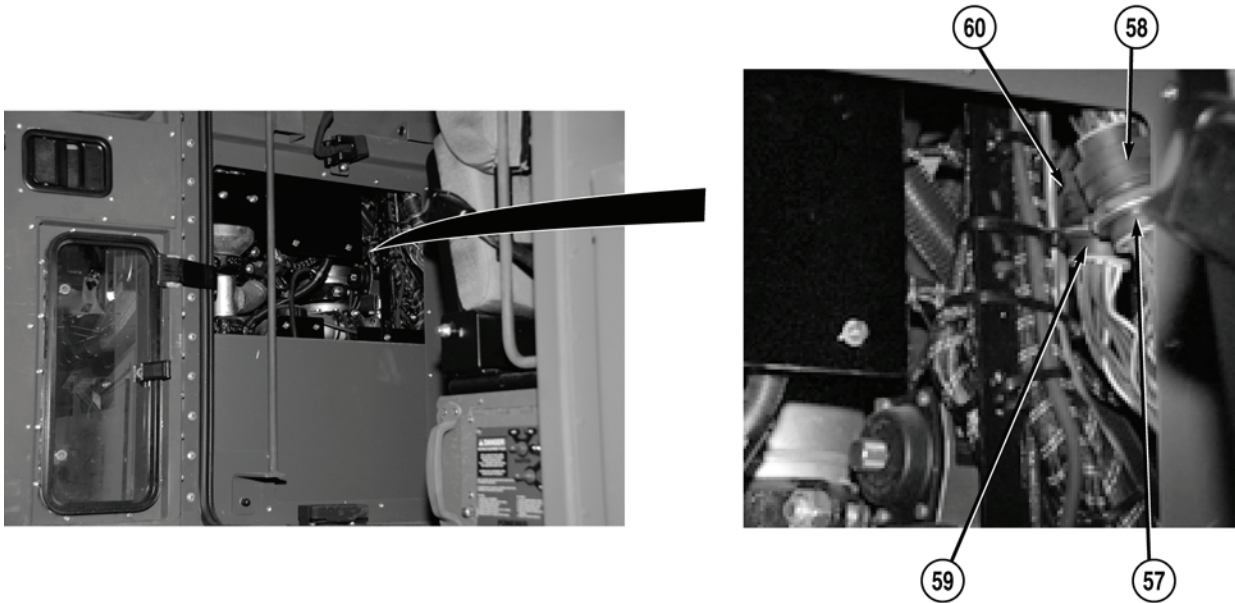
25. Connect main wire harness connector (69) on pump house wire harness connector (70).
26. Connect main wire harness connector (67) on pump house wire harness connector (68).



27. Connect main wire harness connector (65) on pump house power distribution wire harness connector DP1 (66).
28. Connect pump operator's panel wire harness connector (63) on pump house power distribution wire harness connector DP2 (64).

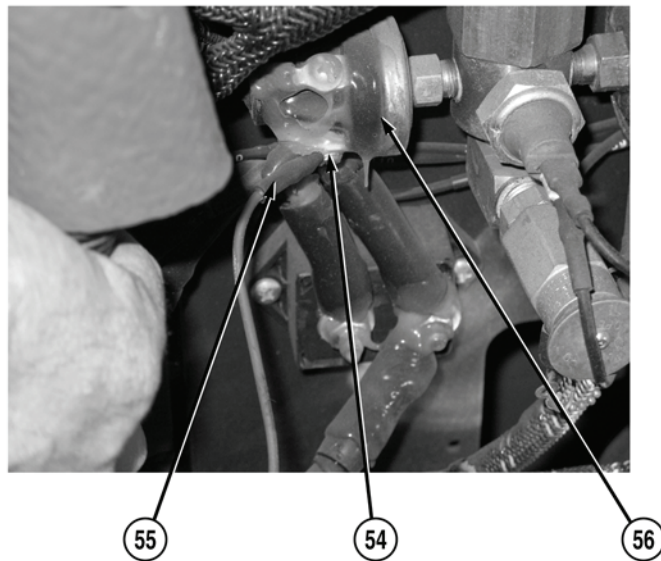


29. Connect main wire harness connector (61) on valve control wire harness connector DV1 (62).

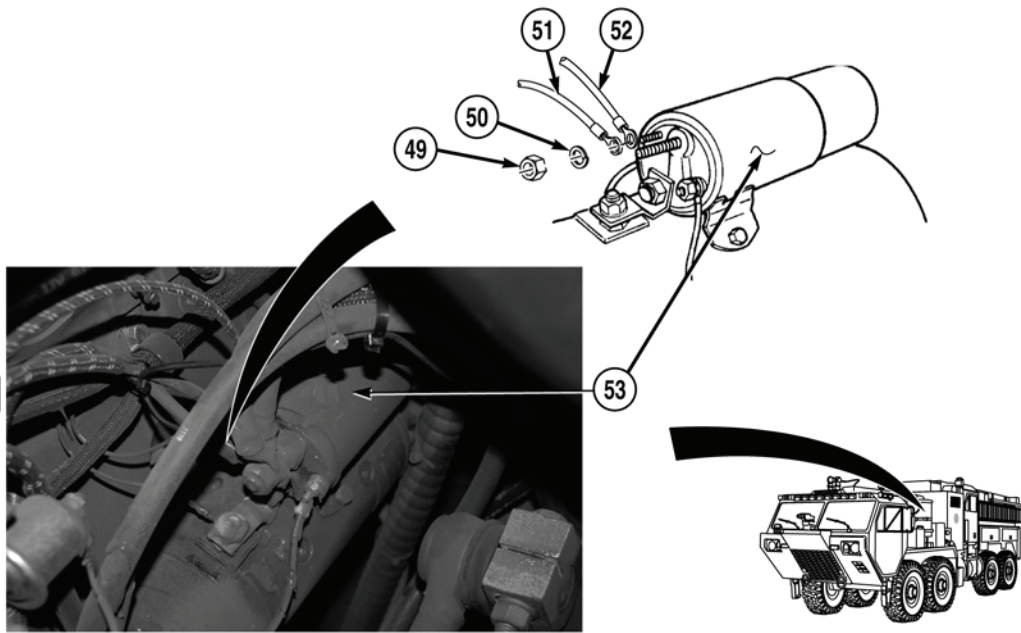


30. Connect main wire harness connector (59) on pump operator's panel wire harness connector DO2 (60).

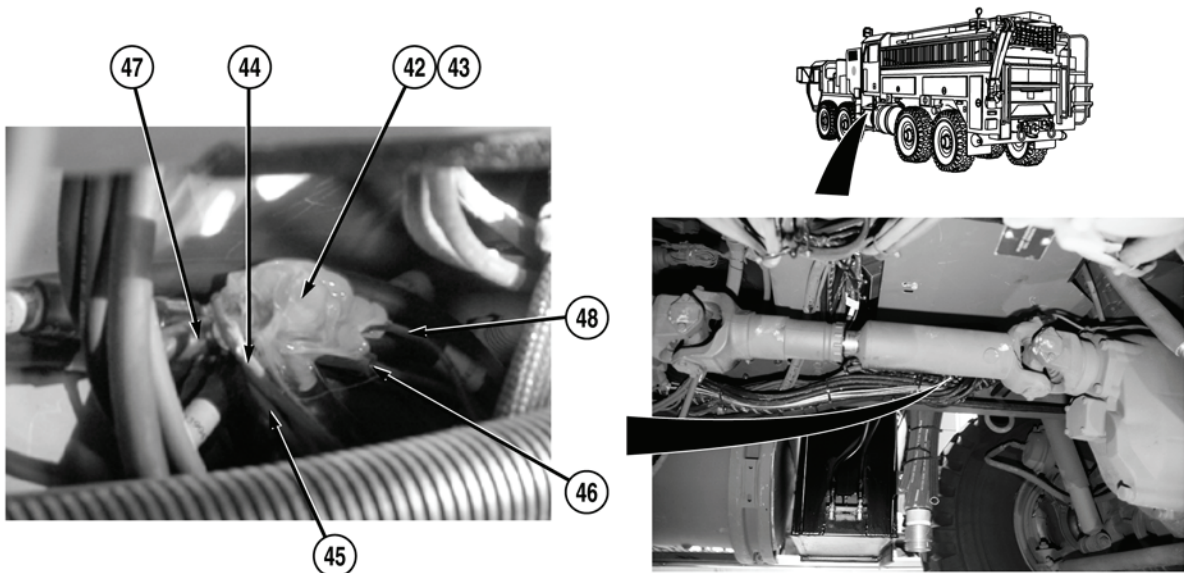
31. Connect main wire harness connector (57) on pump operator's panel wire harness connector DO1 (58).



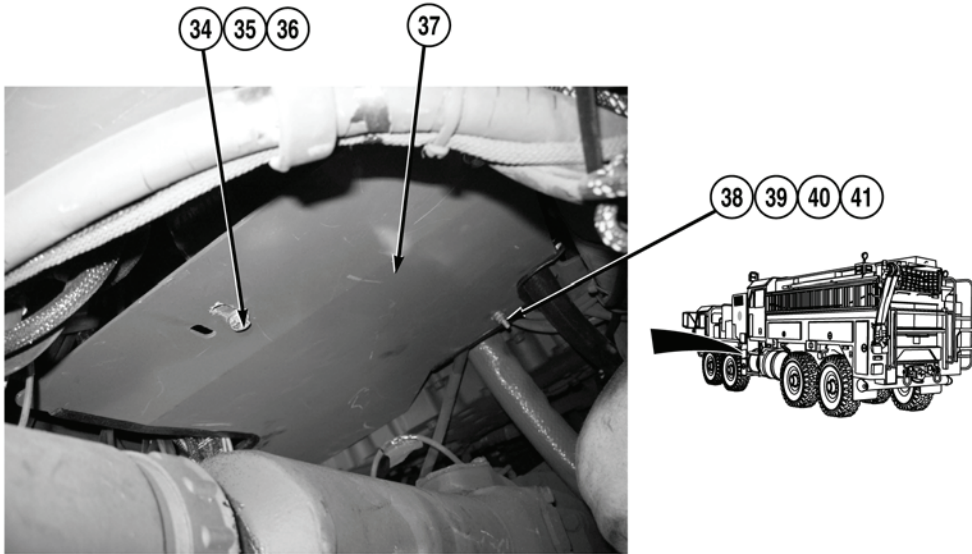
32. Install wire 1013 (55) on low oil pressure sending unit (56) with screw (54).



33. Install wire 1401 (51) and wire 1013 (52) on starter solenoid (53) with lockwasher (50) and nut (49).



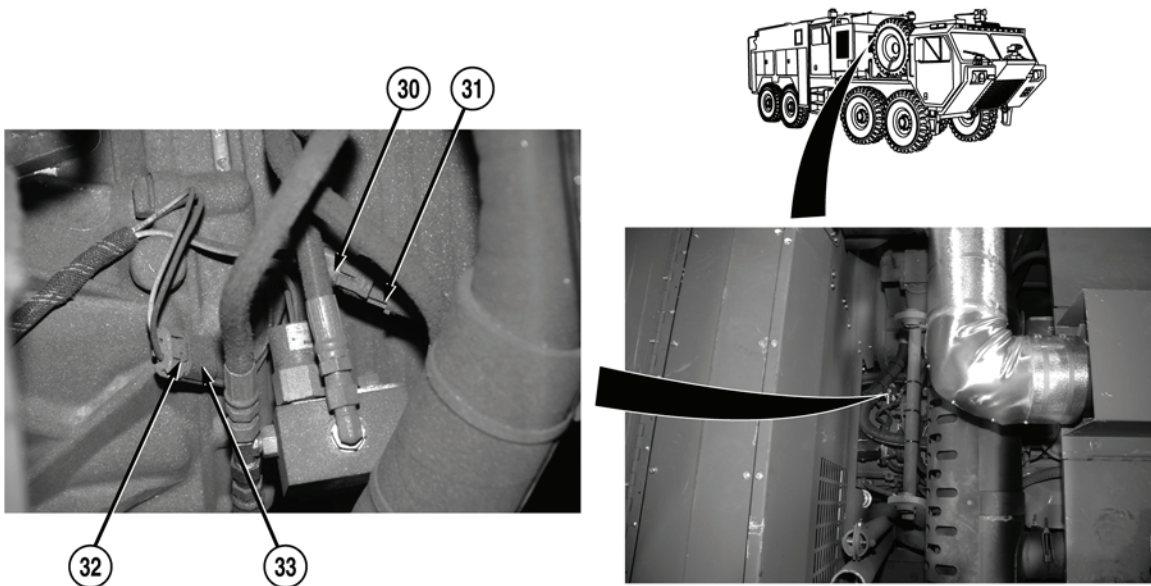
34. Install wire 1640 (44), wire 1100 (45), wire 2640 (46), wire 2740 (47), wire 2200 (48) on vehicle with lockwasher (43), and nut (42).



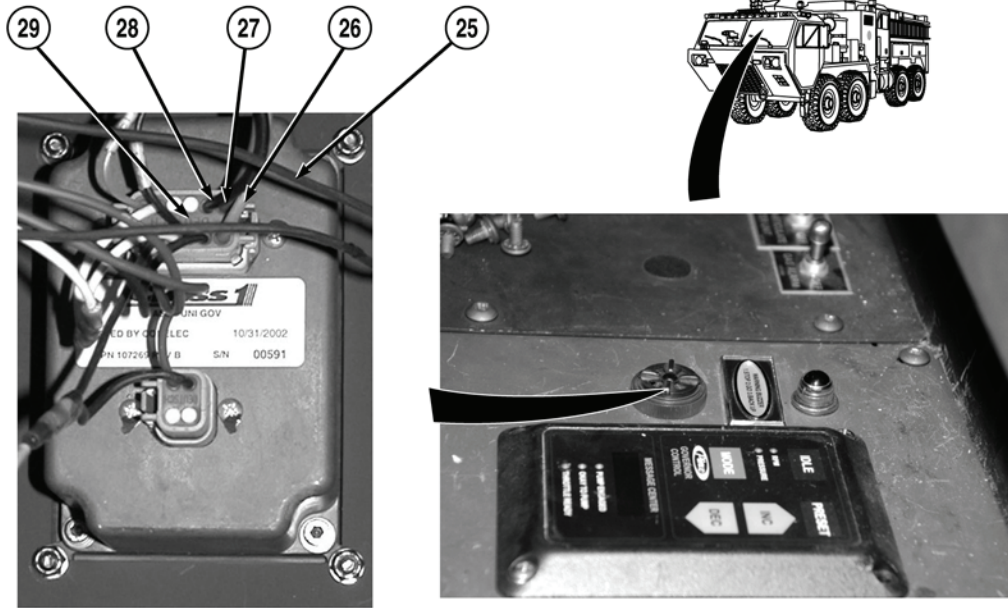
**NOTE**

Perform Steps (35) and (36) if shield was removed.

- 35. Install shield (37) on vehicle with screw (41), two washers (40), lockwasher (39), and nut (38).
- 36. Install two washers (36), lockwashers (35), and screws (34) on shield (37).

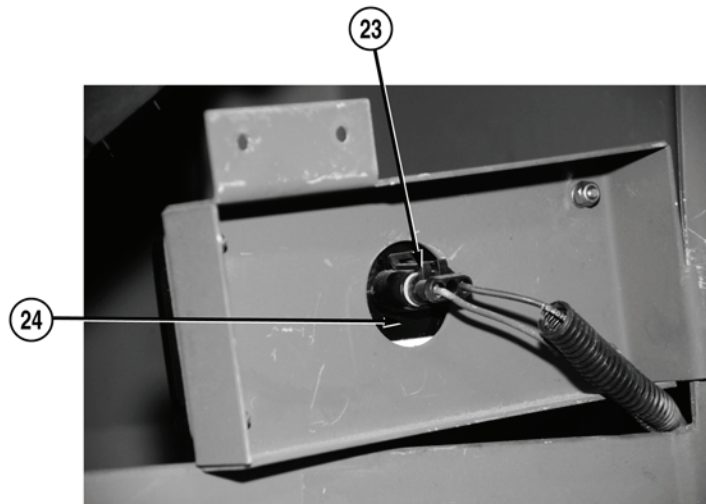


- 37. Connect main wire harness connector (32) on pump PTO pressure switch connector (33).
- 38. Connect main wire harness connector (30) on pump PTO solenoid connector (31).

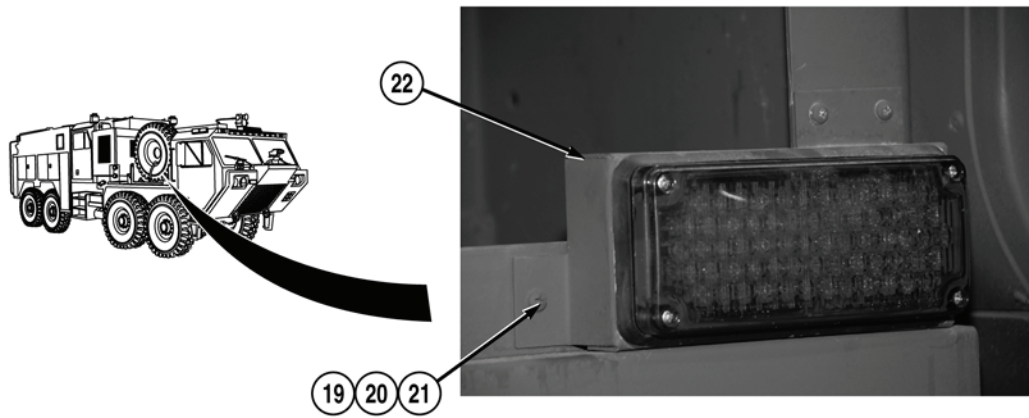


39. Install black wire (28), red wire (27), and white wire (26) in connector (29).

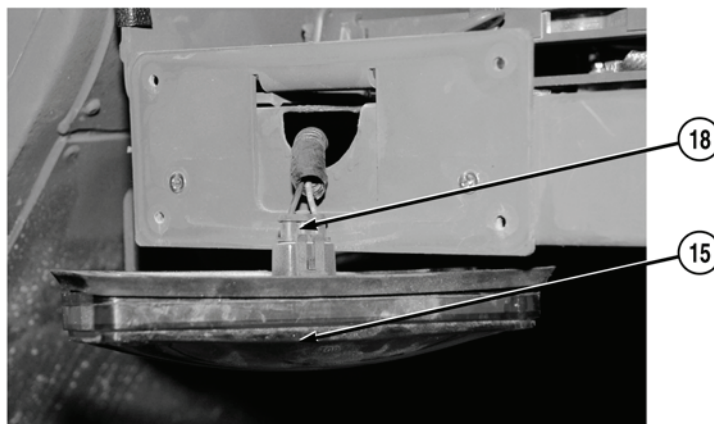
40. Repair wire 1614 (25) (TM 9-2320-325-14&P).



41. Connect main wire harness connector (23) on passenger side front side warning light (24).

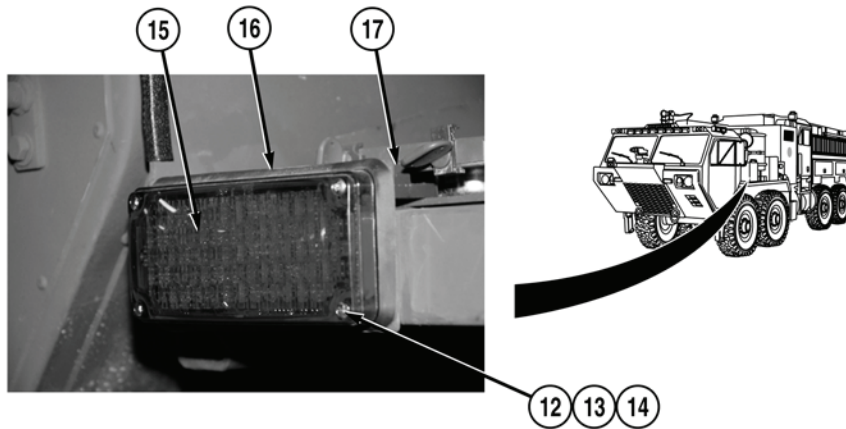


42. Install bracket (22) on vehicle with three screws (21), washers (20), and locknuts (19).

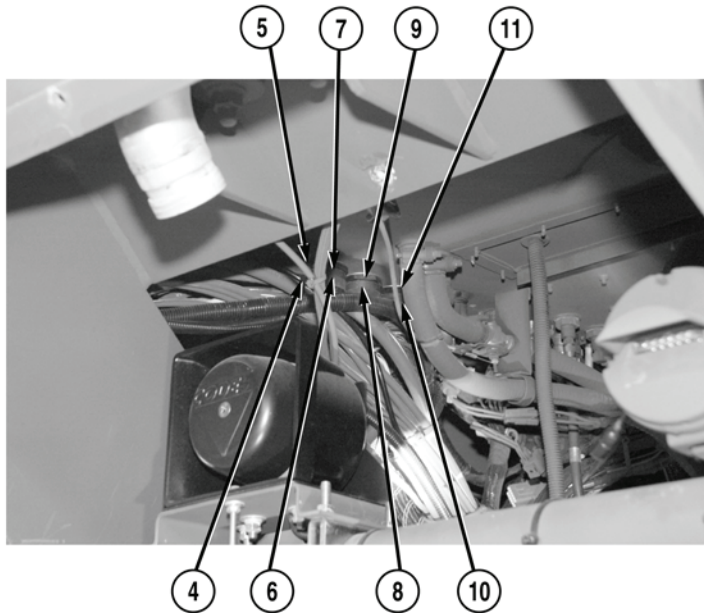


43. Connect main wire harness connector (18) on driver side front side warning light (15).





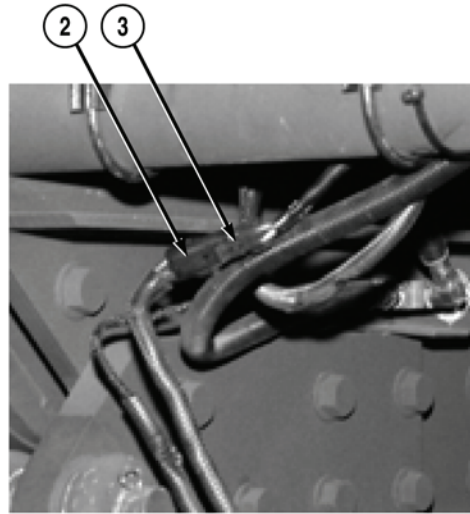
44. Install driver side front side warning light (15) and seal (16) on bracket (17) with four screws (14), washers (13), and locknuts (12).



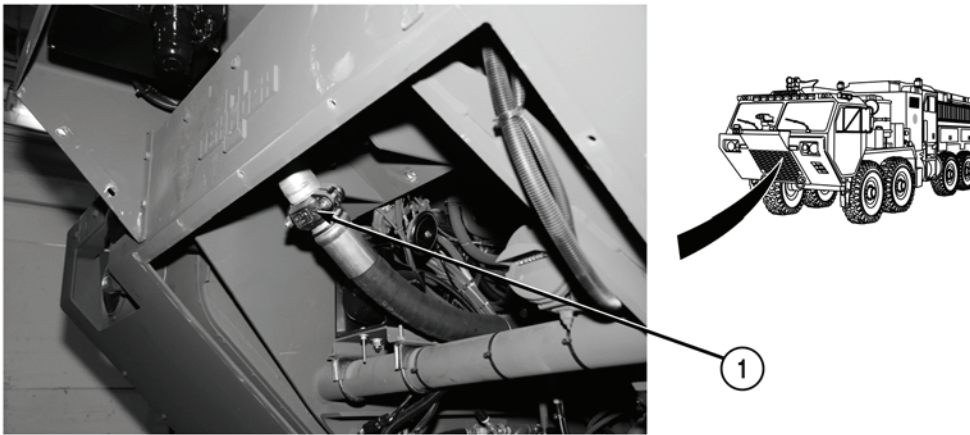
**⚠ CAUTION**

**Extreme caution must be exercised when installing main 3 and main 5 connectors. Connectors are interchangeable and easily confused. Placing connectors in improper positions will cause immediate damage to equipment once power is applied.**

45. Connect main wire harness connector (10) on main 2 connector (11).
46. Connect main wire harness connector (8) on main 3 connector (9).
47. Connect main wire harness connector (6) on main 4 connector (7).
48. Connect main wire harness connector (4) on main 5 connector (5).



49. Connect main wire harness connector (2) on siren speaker connector (3).



50. Install coupling (1) on vehicle (WP 0483).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Install prop shaft from transfer case to #3 differential (TM 9-2320-325-14&P)
2. Install prop shaft from transmission to transfer case (TM 9-2320-325-14&P)
3. Close passenger side center lower stowage compartment door (WP 0010)
4. Install pump house panel S and Q (WP 0540)
5. Install driver side crew cab access panel (WP 0499)
6. Install cab instrument panel E (WP 0311)
7. Close SINCGARS radio cover (WP 0017)
8. Install driver side and passenger side front lower warning lights (WP 0351)
9. Install skid plate grille (WP 0550)
10. Connect batteries (TM 9-2320-325-14&P)

#### END OF TASK

#### END OF WORK PACKAGE

---

**FIELD LEVEL MAINTENANCE****PASSENGER SIDE BODY WIRE HARNESS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing (WP 0625, Item 17)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (9)  
Lockwasher (3)  
Locknut (8)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

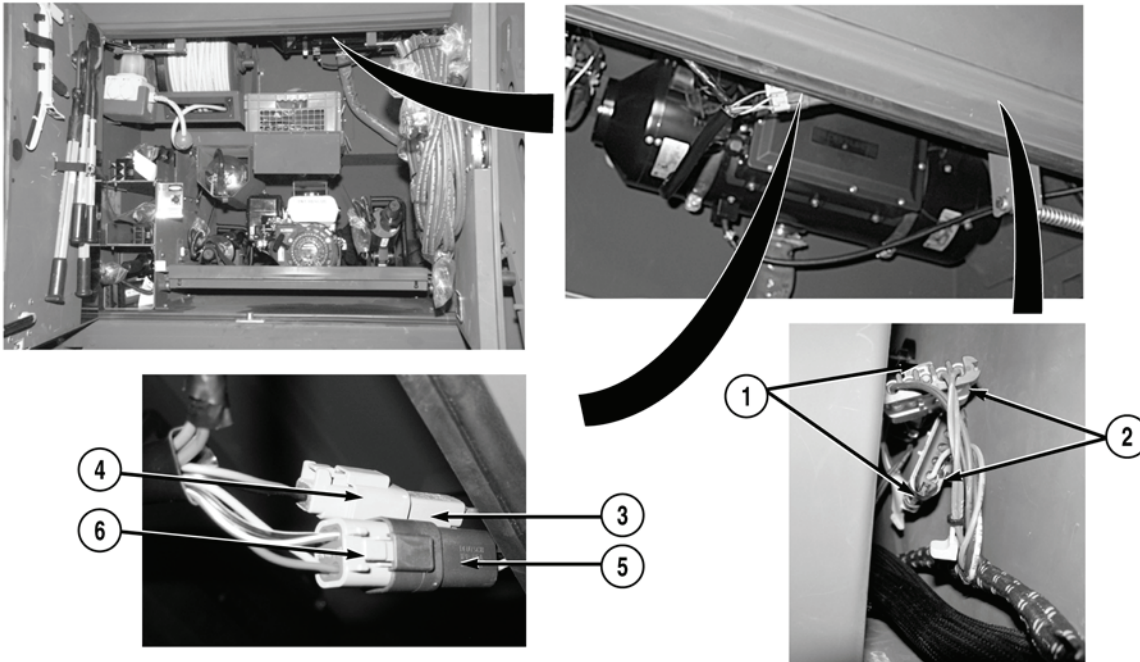
**References**

WP 0615, Fig. 98

**Equipment Conditions**

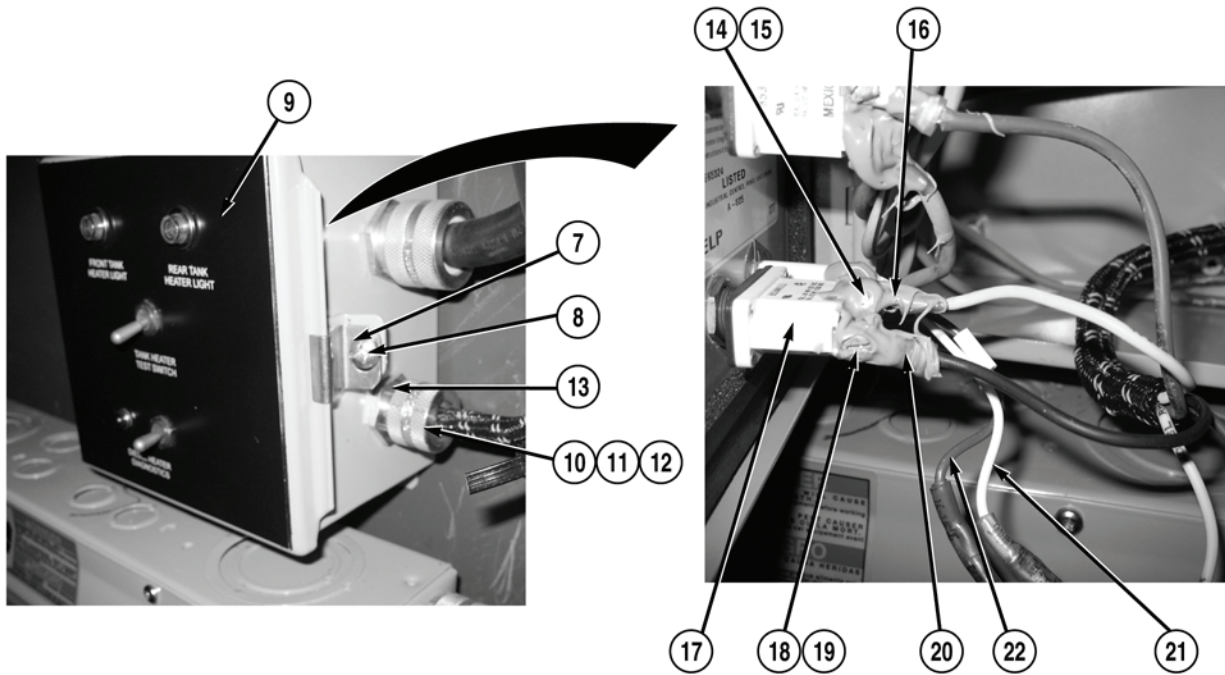
Passenger side stowage compartment doors  
opened (WP 0010)  
Passenger side rear lower warning light  
removed (WP 0351)  
Passenger side stowage compartment  
lights removed (WP 0374)

## REMOVAL

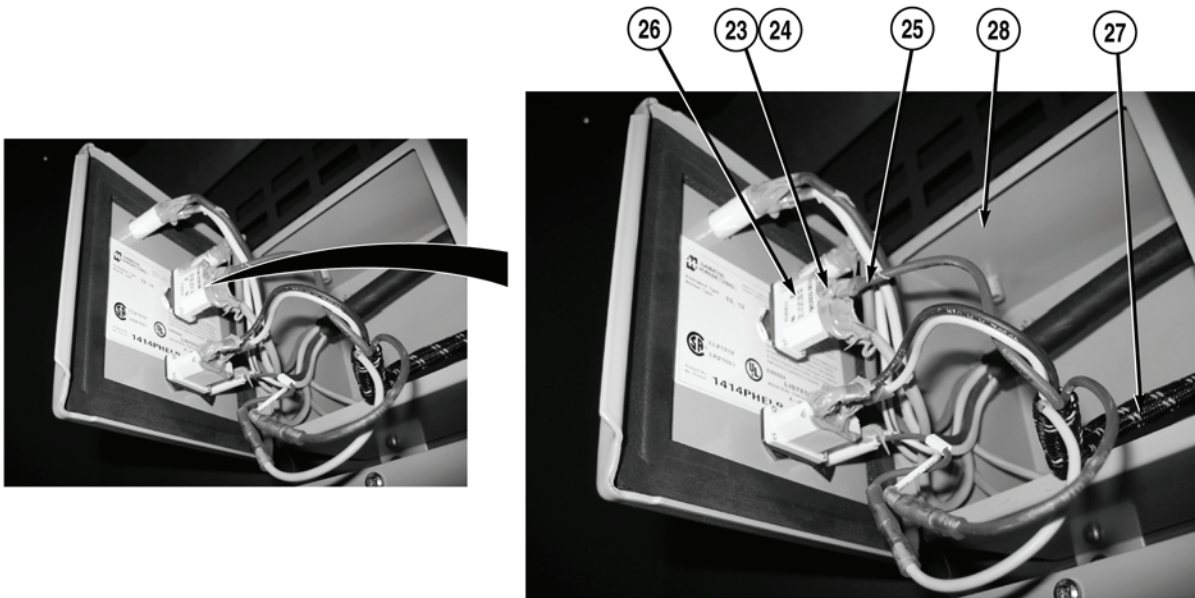
**NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
- Note routing of passenger side body wire harness prior to removal to ensure proper installation.
- Note position and remove cable ties, split looms, and cushion clips as required.
- Remove passenger side body wire harness so that entire harness is routed into passenger side stowage compartment P4.

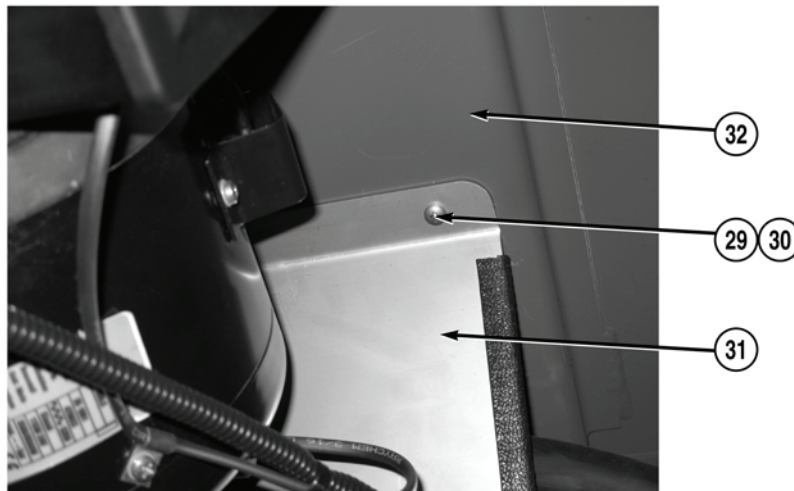
1. Disconnect two passenger side body wire harness connectors (1) from rear body wire harness connectors (2).
2. Disconnect passenger side body wire harness connector (3) from rear compartment heater fuel pump connector (4).
3. Disconnect passenger side body wire harness connector (5) from rear compartment heater connector (6).



4. Loosen screw (7) and rotate clamp (8) down, and open front panel (9).
5. Remove collar (10), washer (11), and grommet (12) from fitting (13).
6. Remove screw (14), lockwasher (15), and wire 4093 (16) from DIESEL HEATER DIAGNOSTICS switch (17). Discard lockwasher.
7. Remove screw (18), lockwasher (19), and wire 4095 (20) from DIESEL HEATER DIAGNOSTICS switch (17). Discard lockwasher.
8. Cut wire 4093 (21) and wire 4094 (22) (TM 9-2320-325-14&P).

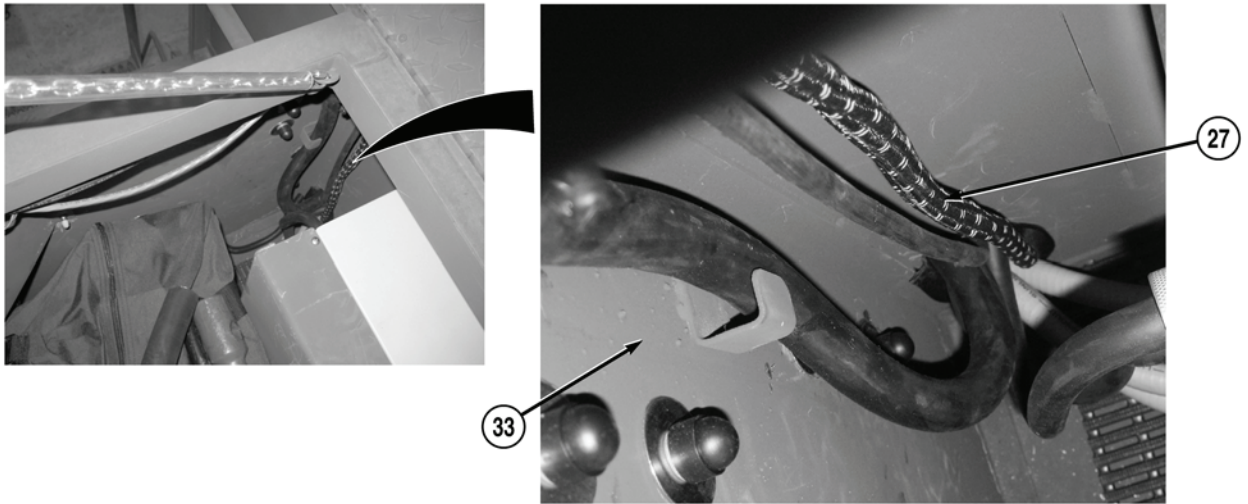


9. Remove screw (23), lockwasher (24), and wire 2352 (25) from tank heater test switch (26). Discard lockwasher.
10. Remove passenger side body wire harness (27) from heater diagnostic box (28).

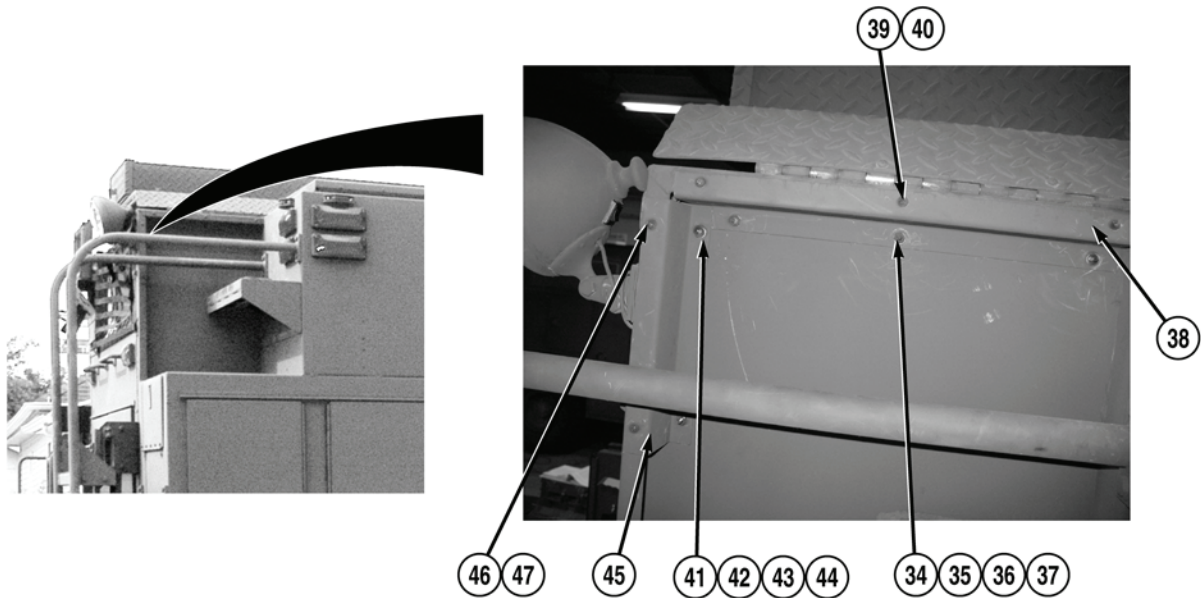


11. Remove two screws (29), washers (30), and heat shield (31) from rear storage compartment (32).





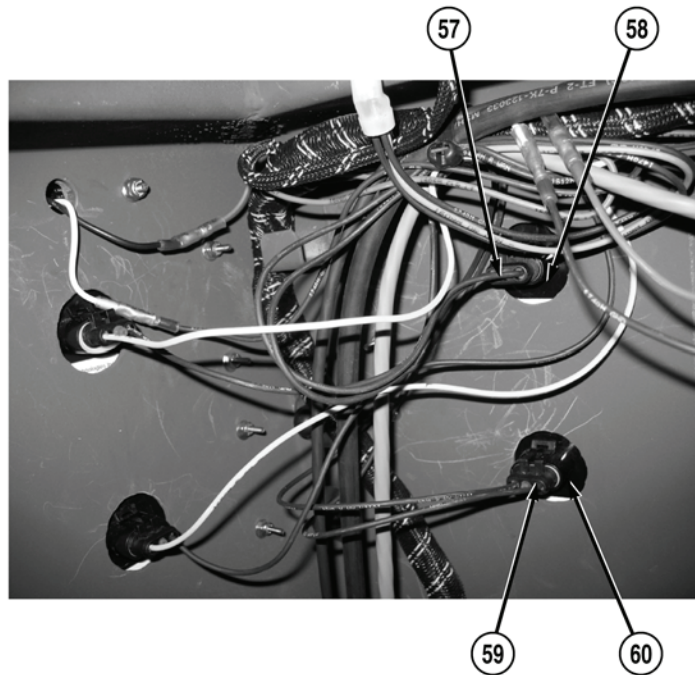
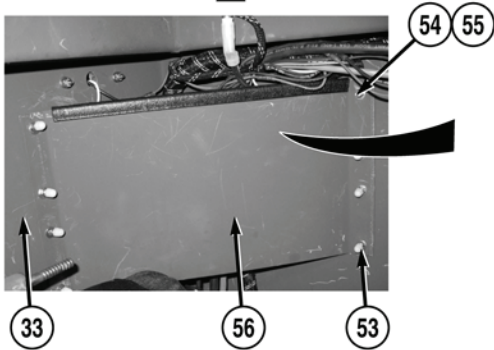
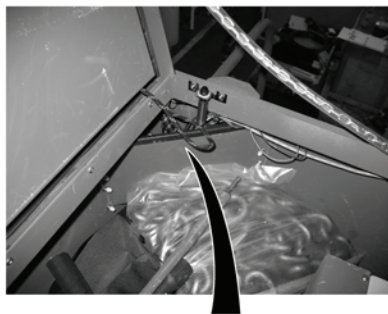
12. Route passenger side body wire harness (27) into passenger side top stowage compartment (33).



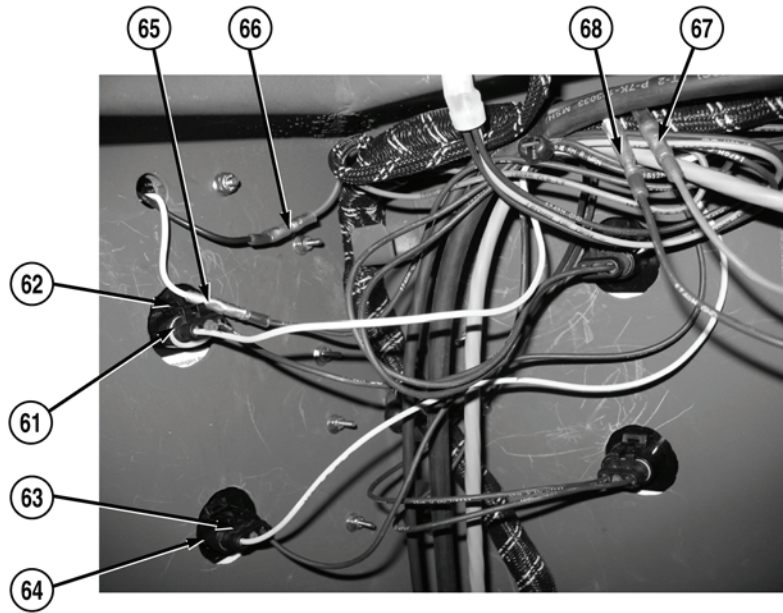
13. Remove three nuts (34), lockwashers (35), washers (36), and screws (37) from wire cover (38). Discard lockwashers.
14. Remove three screws (39), washers (40), and wire cover (38) from vehicle.
15. Remove two nuts (41), lockwashers (42), screws (43), and washers (44) from wire cover (45). Discard lockwashers.
16. Remove two screws (46), washers (47), and wire cover (45) from vehicle.



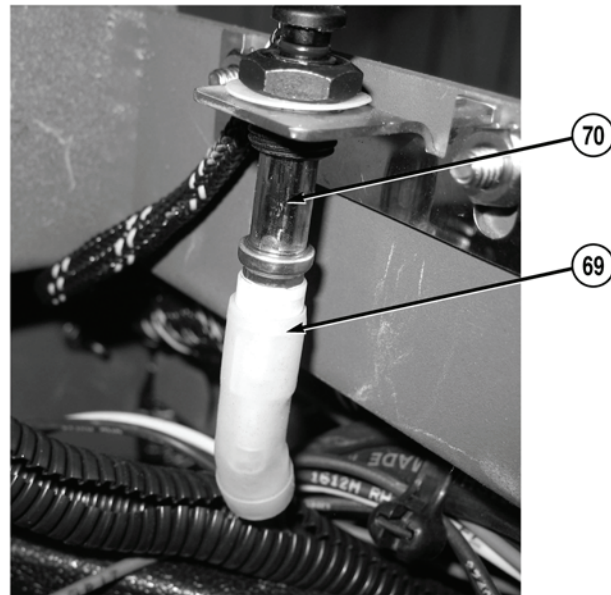
17. Cut wire 1607 (48) (TM 9-2320-325-14&P).
18. Remove nut (49), lockwasher (50), and wire 2740 (51) from passenger side deck light (52). Discard lockwasher.



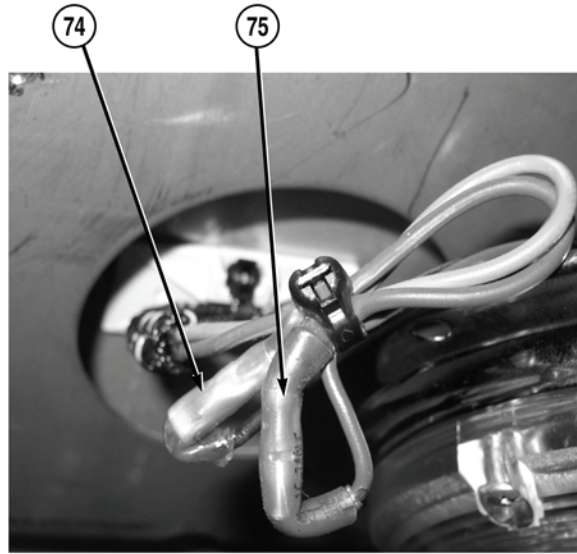
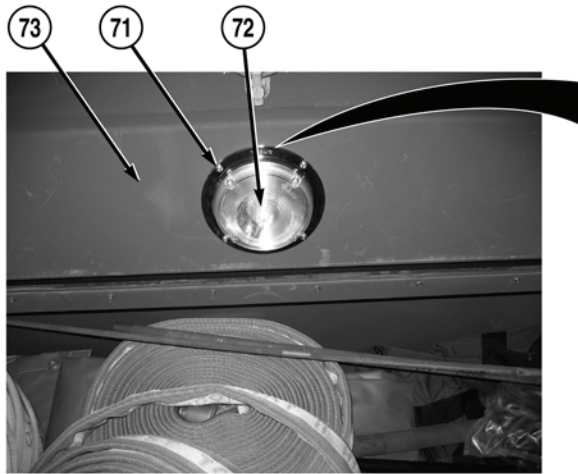
19. Remove eight caps (53), locknuts (54), washers (55), and cover bracket (56) from passenger side top stowage compartment (33). Discard locknuts.
20. Disconnect passenger side body wire harness connector (57) from (top upper) side warning light (58).
21. Disconnect passenger side body wire harness connector (59) from (bottom upper) side warning light (60).



22. Disconnect passenger side body wire harness connector (61) from (top outer) upper rear warning light (62).
23. Disconnect passenger side body wire harness connector (63) from (bottom outer) upper rear warning light (64).
24. Cut wire 1606 (65) and wire 2740 (66) (TM 9-2320-325-14&P).
25. Cut wire 1606 (67) and wire 2740 (68) (TM 9-2320-325-14&P).



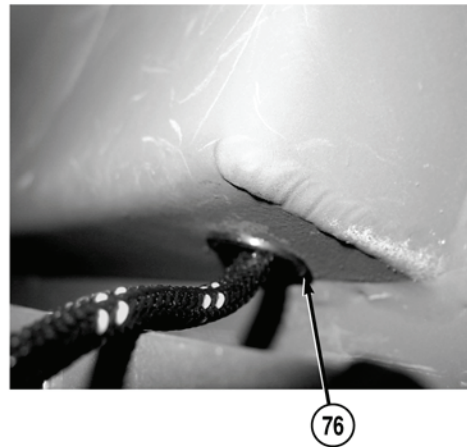
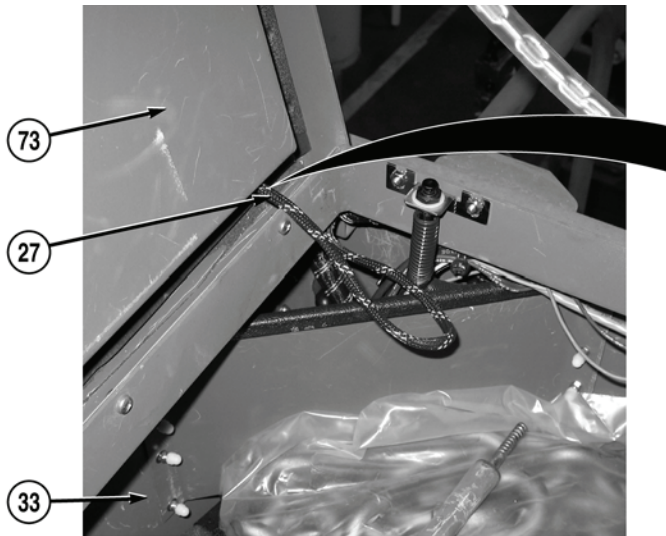
26. Disconnect passenger side body wire harness connector (69) from rear passenger side top stowage compartment door switch (70).



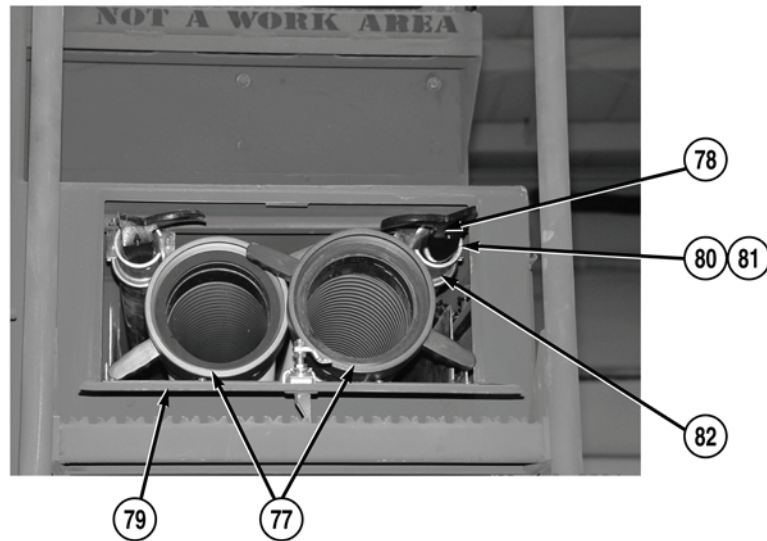
**NOTE**

To aid in installation, attach retrieval device (fish tape/rope) to wires before removing from compartment.

27. Remove four screws (71) and light (72) from rear passenger side top stowage compartment door (73).
28. Cut wire 1169 (74) and wire 1470 (75) (TM 9-2320-325-14&P).
29. Remove passenger side body wire harness (27) from rear passenger side top stowage compartment door (73).



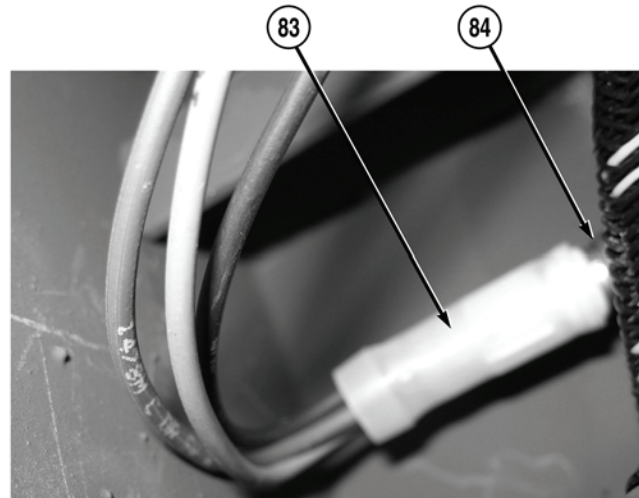
30. Route passenger side body wire harness (27) through grommet (76) into passenger side top stowage compartment (33).



### NOTE

To aid in removal and installation of wire harness, move pike pole storage tube out of the way.

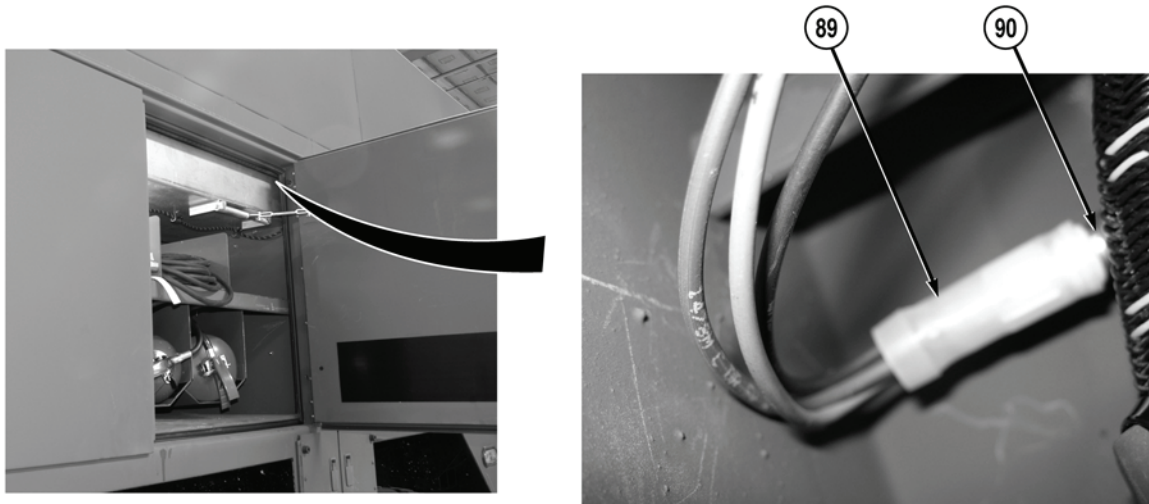
31. Remove two hard suction hoses (77) and pike pole (78) from stowage compartment (79).
32. Remove two locknuts (80) and U-bolt (81) from pike pole storage tube (82) and stowage compartment (79). Move pike pole storage tube (82) out of the way. Discard locknuts.



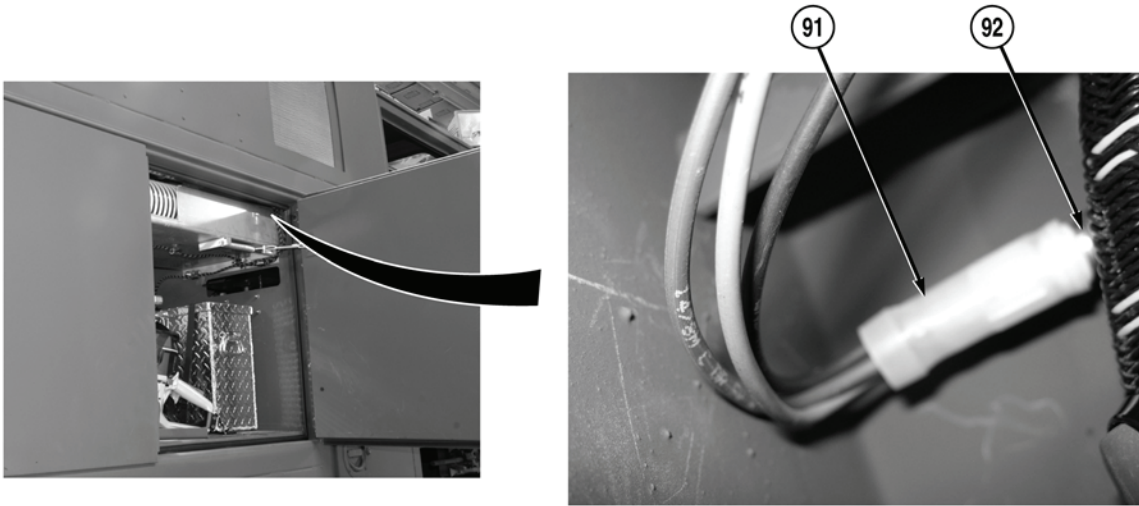
33. Disconnect passenger side body wire harness connector (83) from passenger side rear stowage compartment P1 door switch (84).



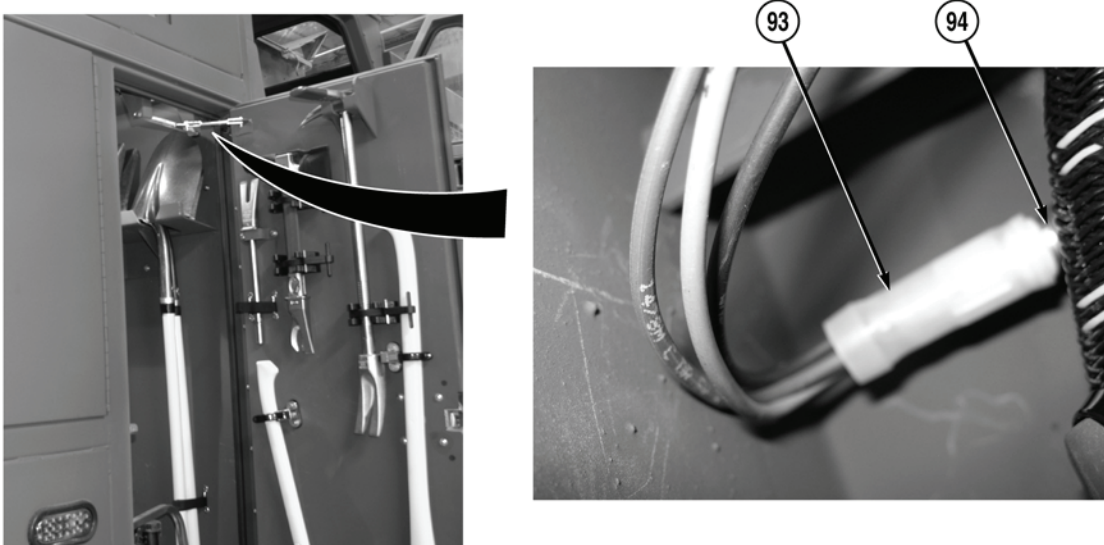
34. Disconnect passenger side body wire harness connector (85) from rear compartment heater switch connector (86).
35. Cut wire 2852 (87) and wire 2740 (88) (TM 9-2320-325-14&P).



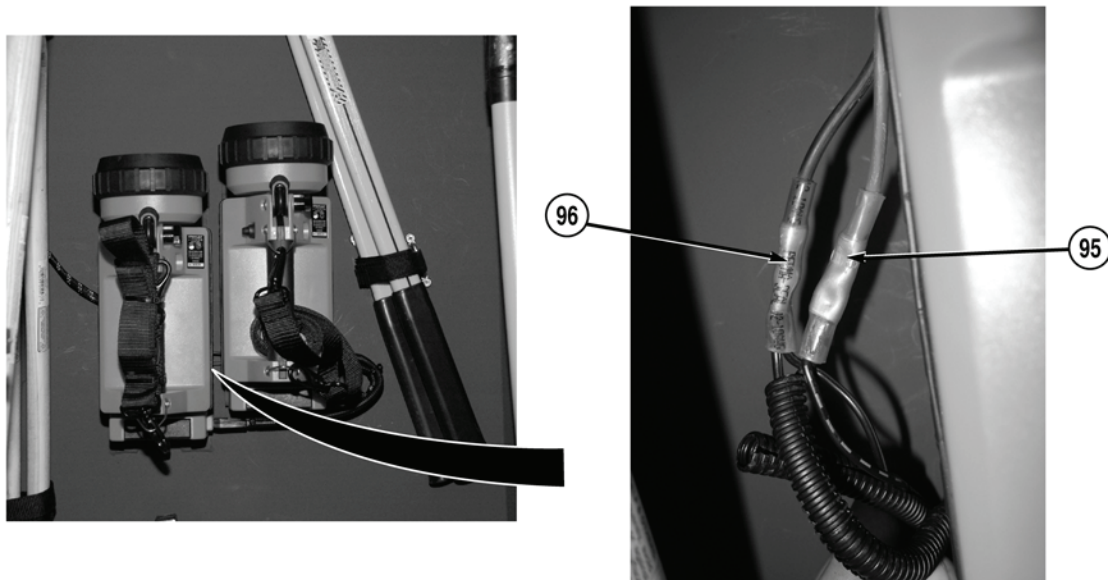
36. Disconnect passenger side body wire harness connector (89) from passenger side rear center stowage compartment P2 door switch (90).



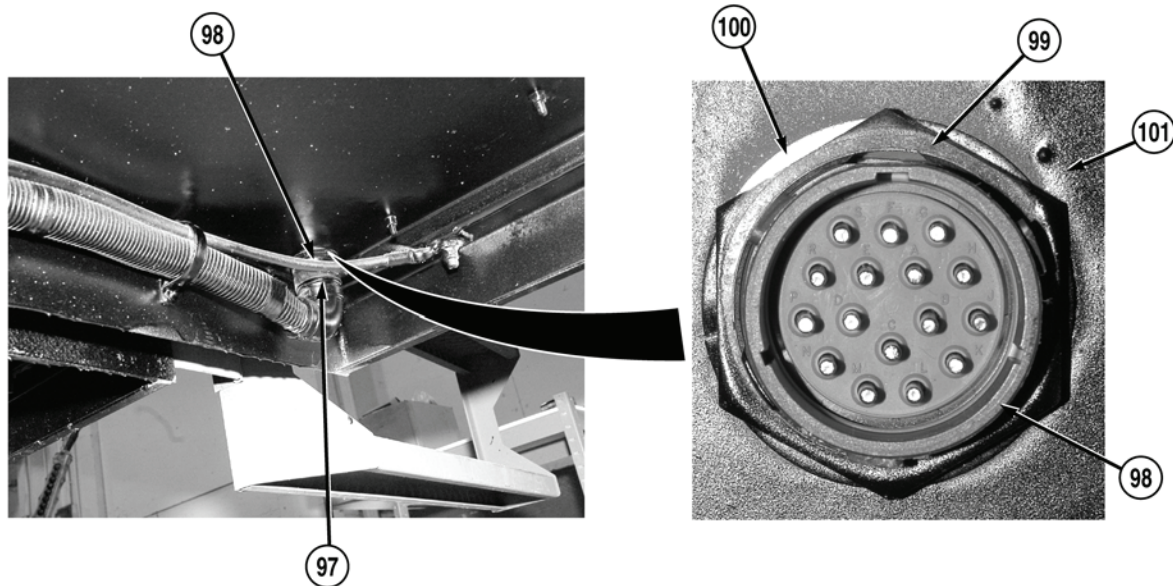
37. Disconnect passenger side body wire harness connector (91) from passenger side front center stowage compartment P3 door switch (92).



38. Disconnect passenger side body wire harness connector (93) from passenger side front stowage compartment P4 door switch (94).

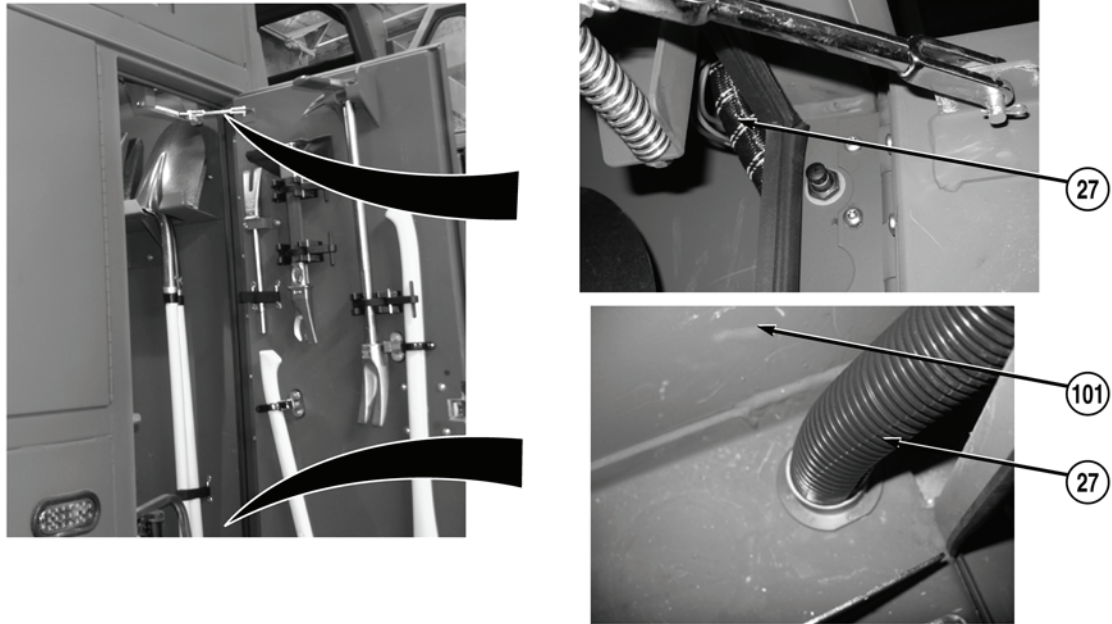


39. Cut wire 2075 (95) and wire 2740 (96) (TM 9-2320-325-14&P).



40. Disconnect main wire harness connector (97) from passenger side body wire harness connector (98).
41. Remove nut (99), lockwasher (100), and passenger side body wire harness connector (98) from passenger side front stowage compartment P4 (101).





42. Remove passenger side body wire harness (27) from vehicle.

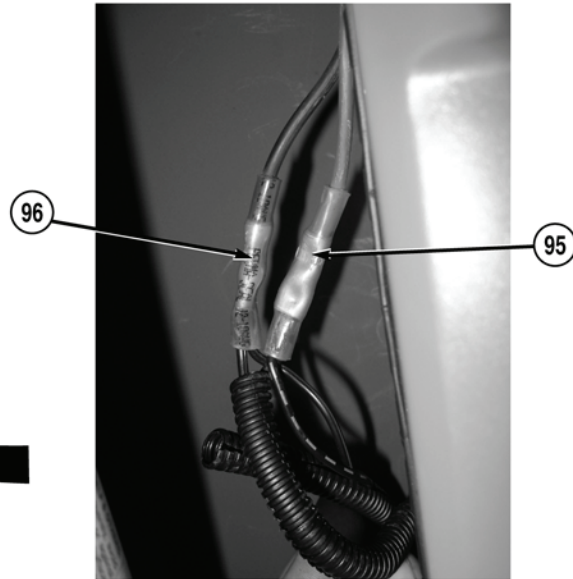
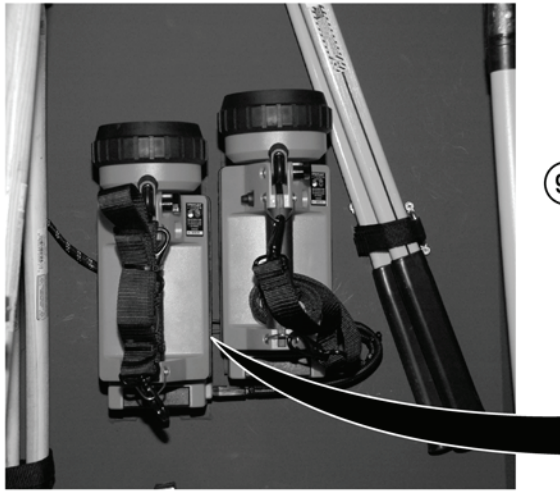
#### END OF TASK

#### INSTALLATION

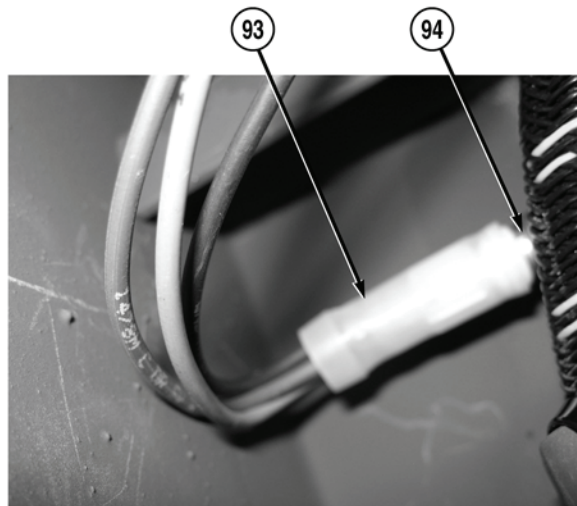
#### NOTE

- Install cable ties, split loom, and cushion clips as noted.
- Begin routing passenger side body wire harness at passenger side stowage compartment P4.

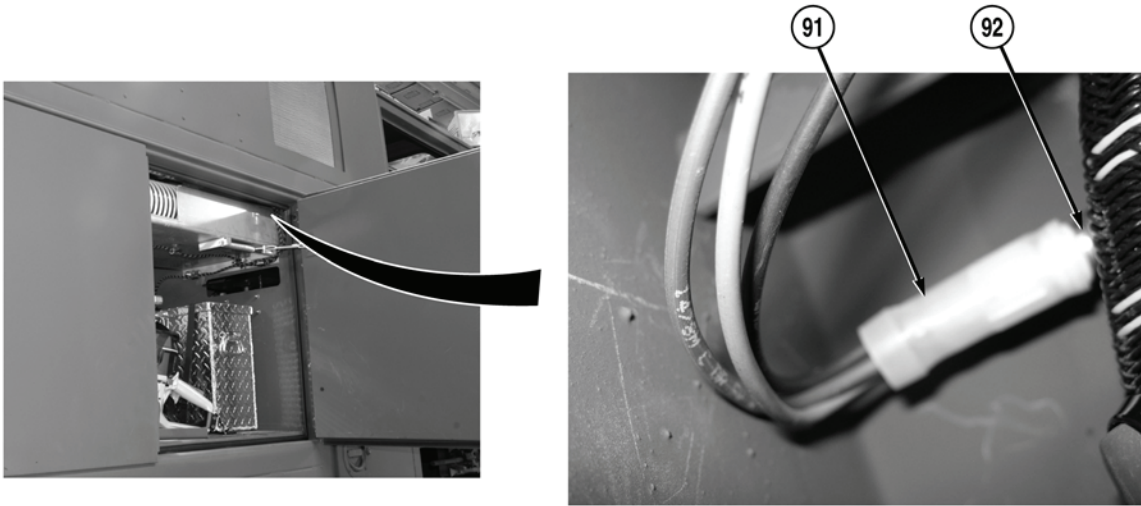
1. Install passenger side body wire harness (27) on vehicle.
2. Install lockwasher (100), nut (99), and passenger side body wire harness connector (98) to passenger side front stowage compartment P4 (101).
3. Connect main wire harness connector (97) to passenger side body main wire harness connector (98).



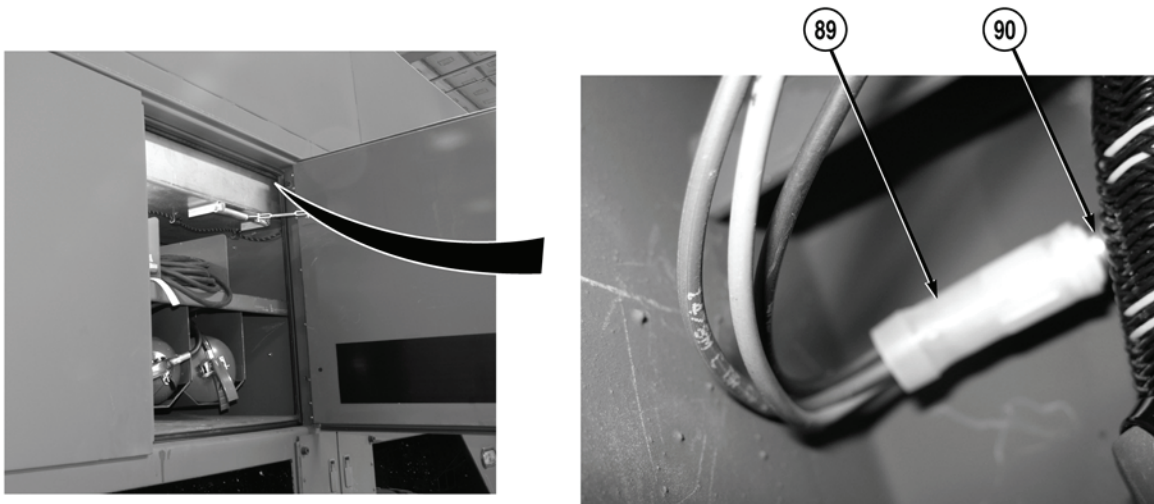
4. Repair wire 2075 (95) and wire 2740 (96) (TM 9-2320-325-14&P).



5. Connect passenger side body wire harness connector (93) to passenger side front stowage compartment P4 door switch (94).



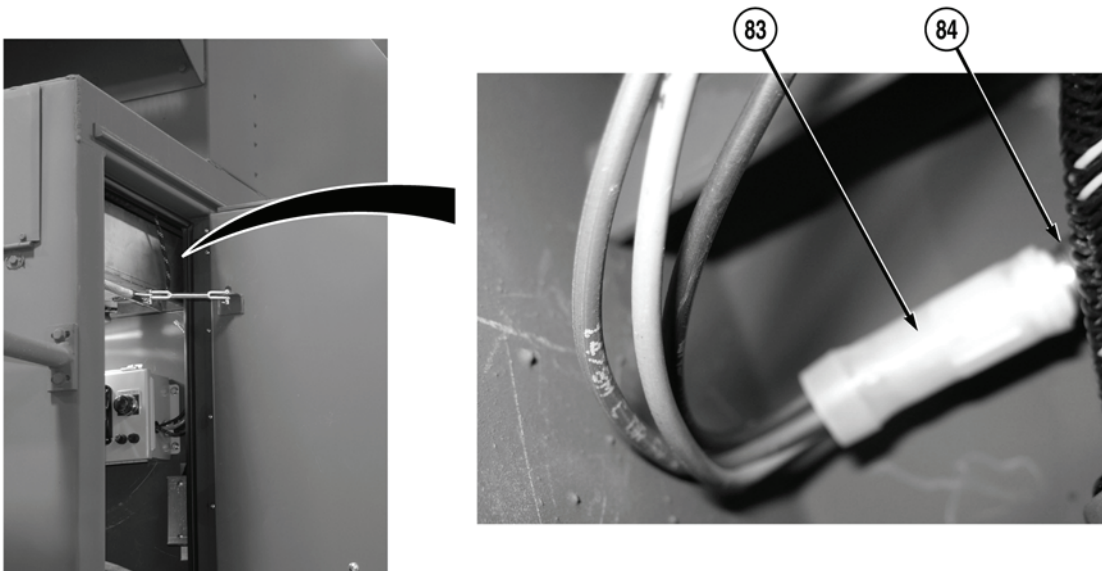
6. Connect passenger side body wire harness connector (91) to passenger side center stowage compartment P3 door switch (92).



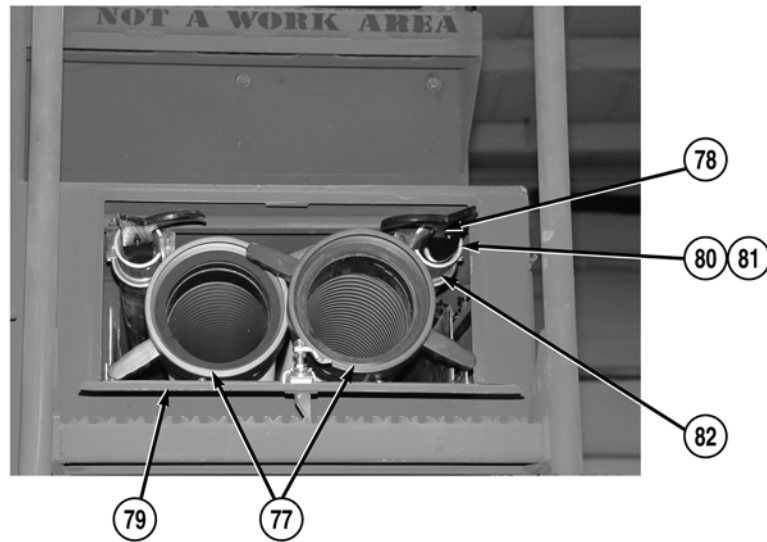
7. Connect passenger side body wire harness connector (89) to passenger side center stowage compartment P2 door switch (90).



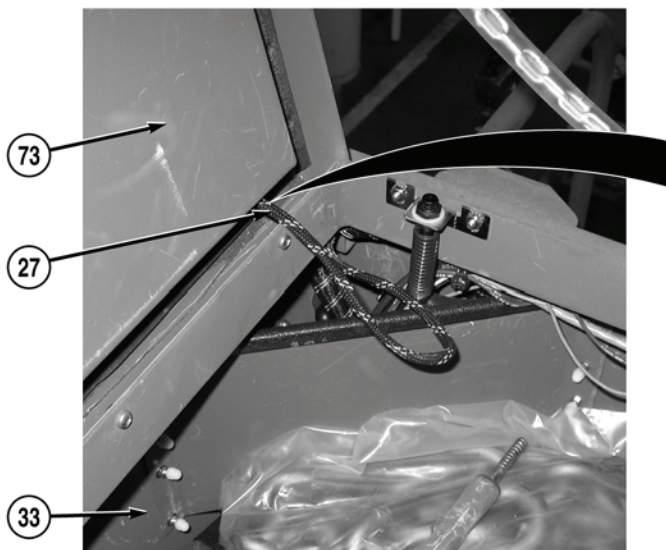
8. Repair wire 2852 (87) and wire 2740 (88) (TM 9-2320-325-14&P).
9. Connect passenger side body wire harness connector (85) to rear compartment heater switch connector (86).



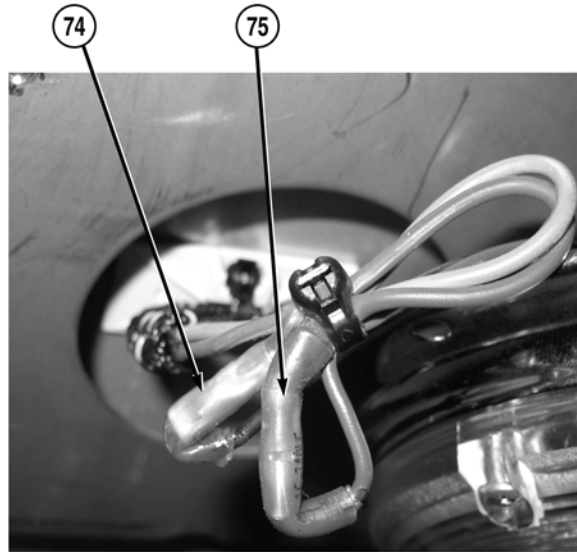
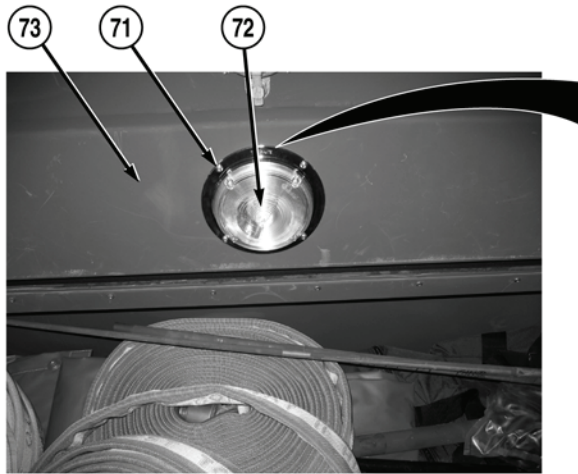
10. Connect passenger side body wire harness connector (83) to passenger side rear storage compartment P1 door switch (84).



11. Install U-bolt (81) and pike pole storage tube (82) on stowage compartment (79) with two locknuts (80).
12. Install pike pole (78) and two hard suction hoses (77) in stowage compartment (79).



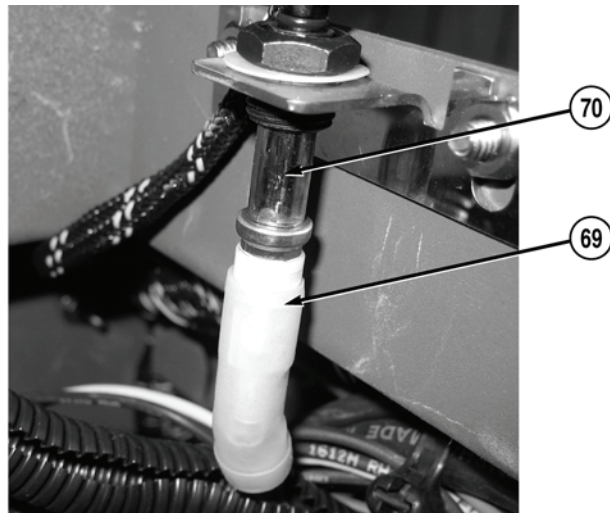
13. Route passenger side body wire harness (27) through grommet (76) into passenger side top stowage compartment (33).



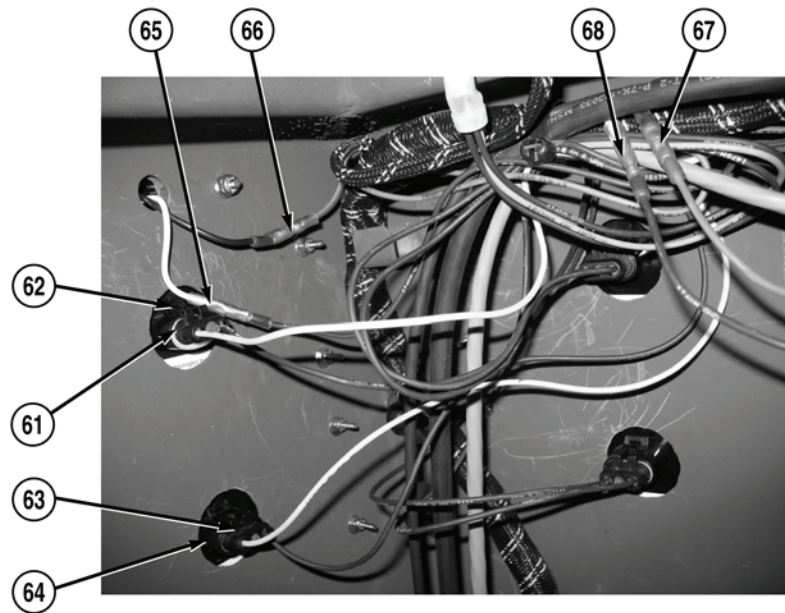
**NOTE**

Pull on retrieval device (fish tape) to get wire harness to light.

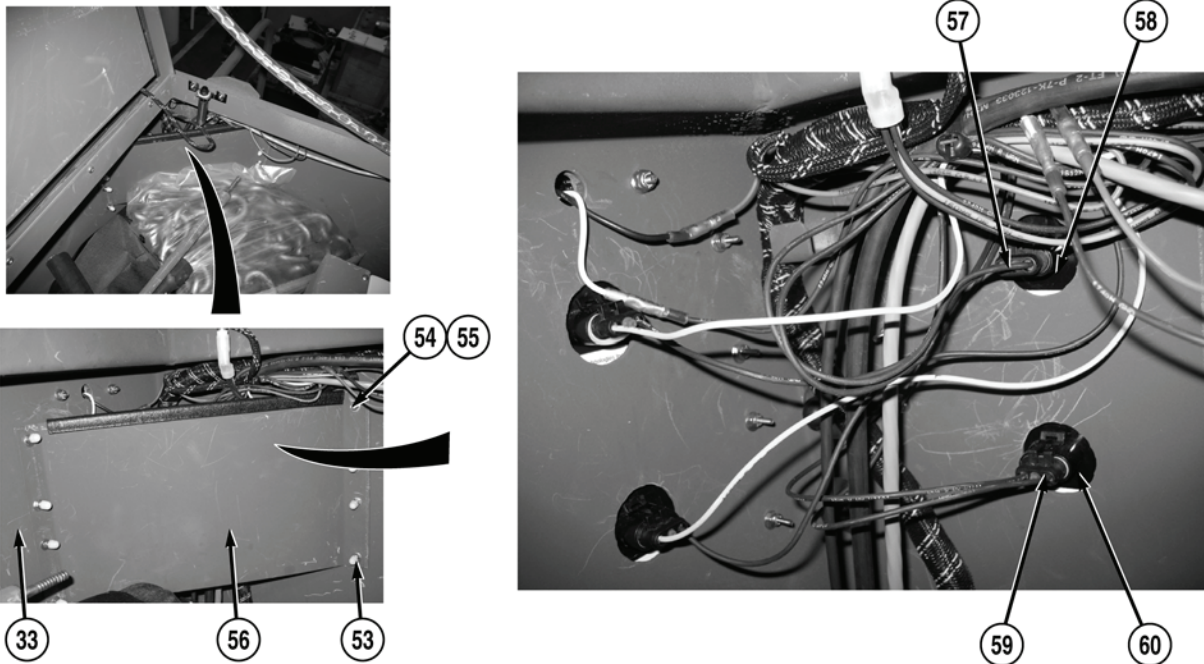
14. Install passenger side body wire harness (27) through rear passenger side top stowage compartment door (73).
15. Repair wires 1169 (74) and 1470 (75) (TM 9-2320-325-14&P).
16. Install light (72) and four screws (71) from rear passenger side top stowage compartment door (73).



17. Connect passenger side body wire harness connector (69) to rear passenger side top stowage compartment door switch (70).



18. Repair wire 1606 (67) and wire 2740 (68) (TM 9-2320-325-14&P).
19. Repair wire 1606 (65) and wire 2740 (66) (TM 9-2320-325-14&P).
20. Connect passenger side body wire harness connector (63) to (bottom outer) upper rear warning light (64).
21. Connect passenger side body wire harness connector (61) to (top outer) upper rear warning light (62).

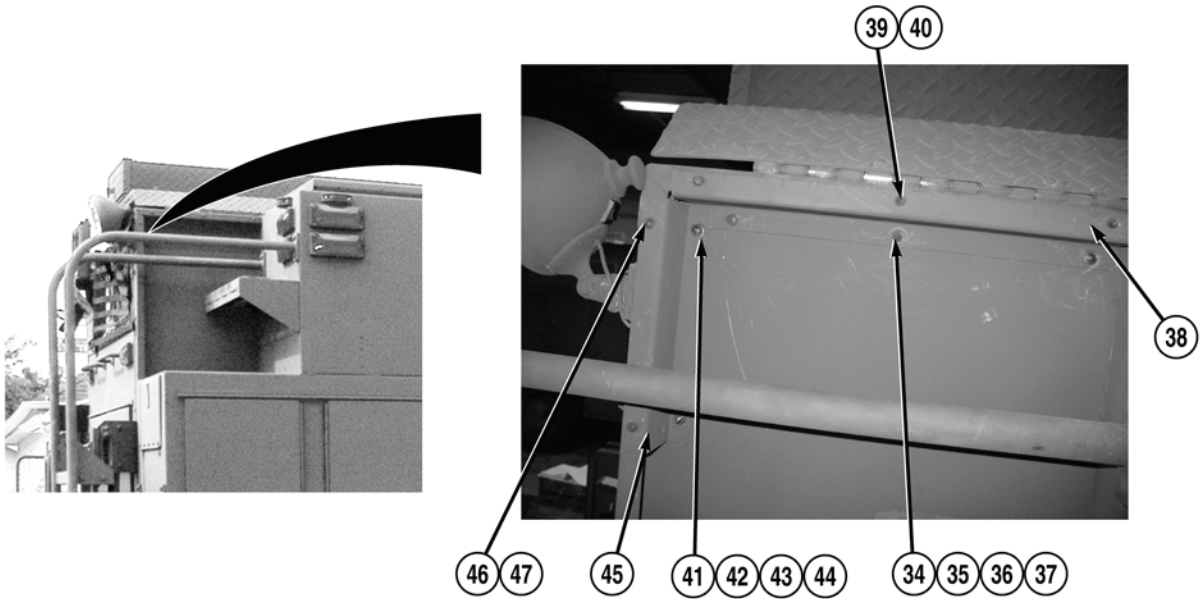


22. Connect passenger side body wire harness connector (59) to (bottom upper) side warning light (60).
23. Connect passenger side body wire harness connector (57) to (top upper) side warning light (58).
24. Install cover bracket (56) with eight washers (55), locknuts (54), and caps (53) on vehicle.
25. Route passenger side body wire harness (27) to passenger side deck light (52).

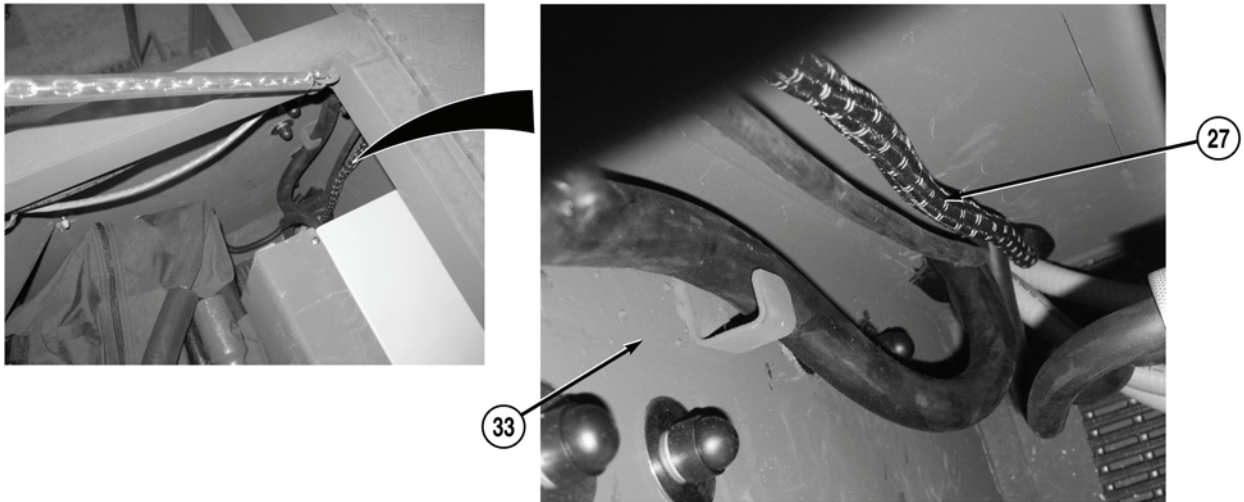


26. Install wire 2740 (51) on passenger side deck light (52) with lockwasher (50) and nut (49).
27. Repair wire 1607 (48) (TM 9-2320-325-14&P).





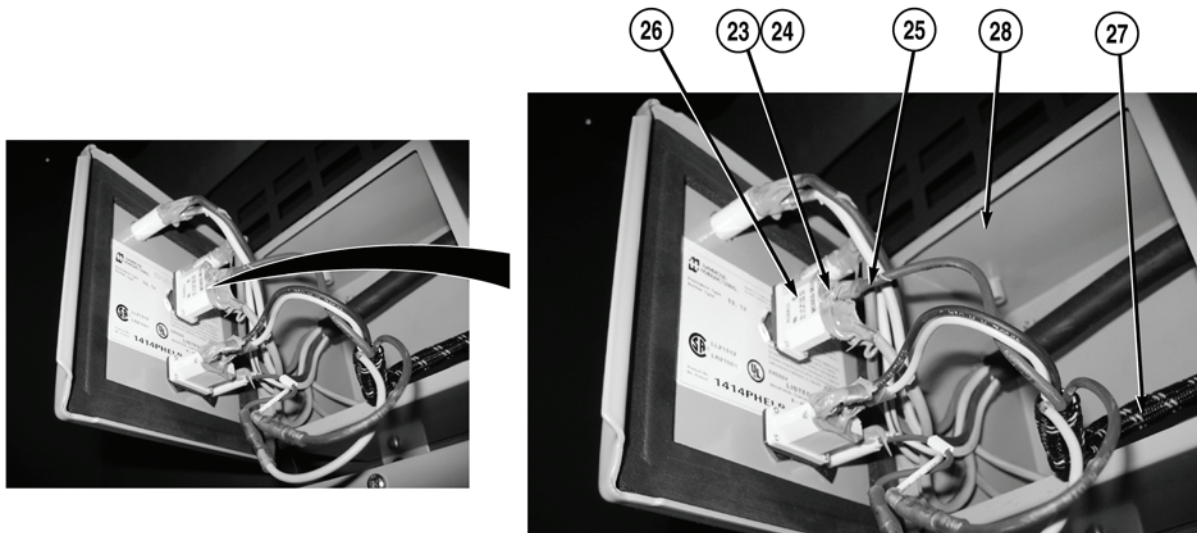
- 28. Install wire cover (45) on vehicle with two washers (47) and screws (46).
- 29. Secure wire cover (45) to vehicle with two screws (43), washers (44), lockwashers (42), and nuts (41).
- 30. Install wire cover (38) on vehicle with three washers (40) and screws (39).
- 31. Secure wire cover (38) to vehicle with three screws (37), washers (36), lockwashers (35), and nuts (34).



- 32. Route passenger side body wire harness (27) in passenger side top stowage compartment (33).

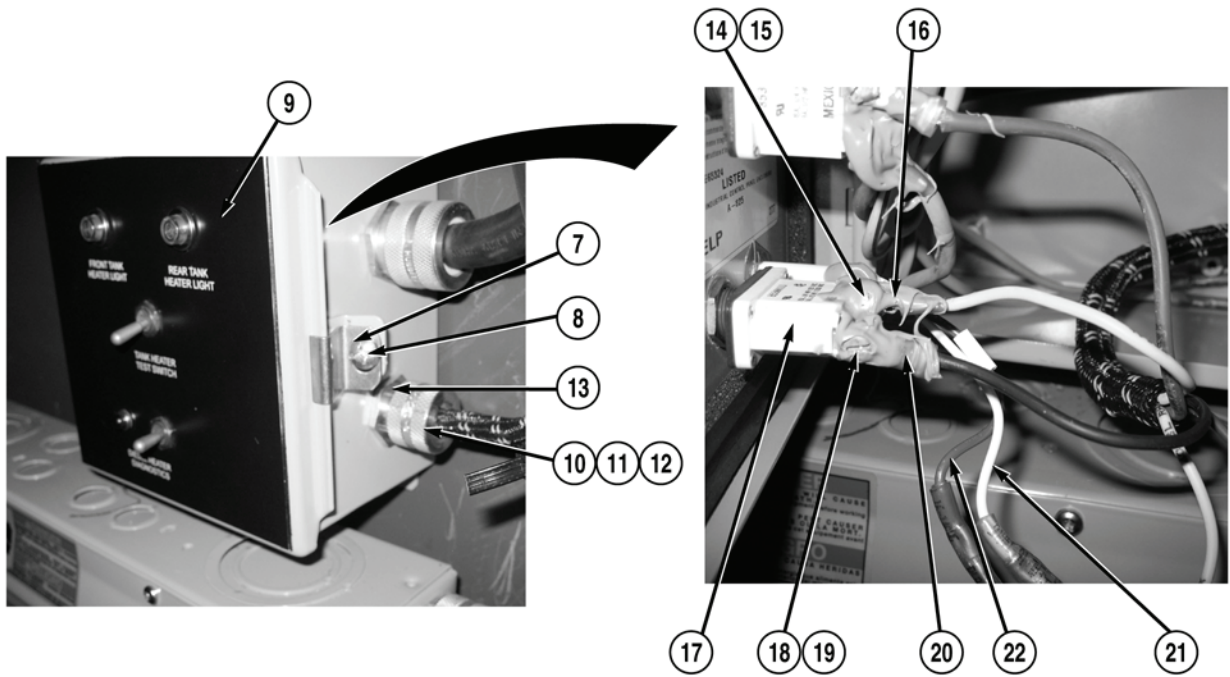


33. Install heat shield (31) in rear stowage compartment (32) with two washers (30) and screws (29).

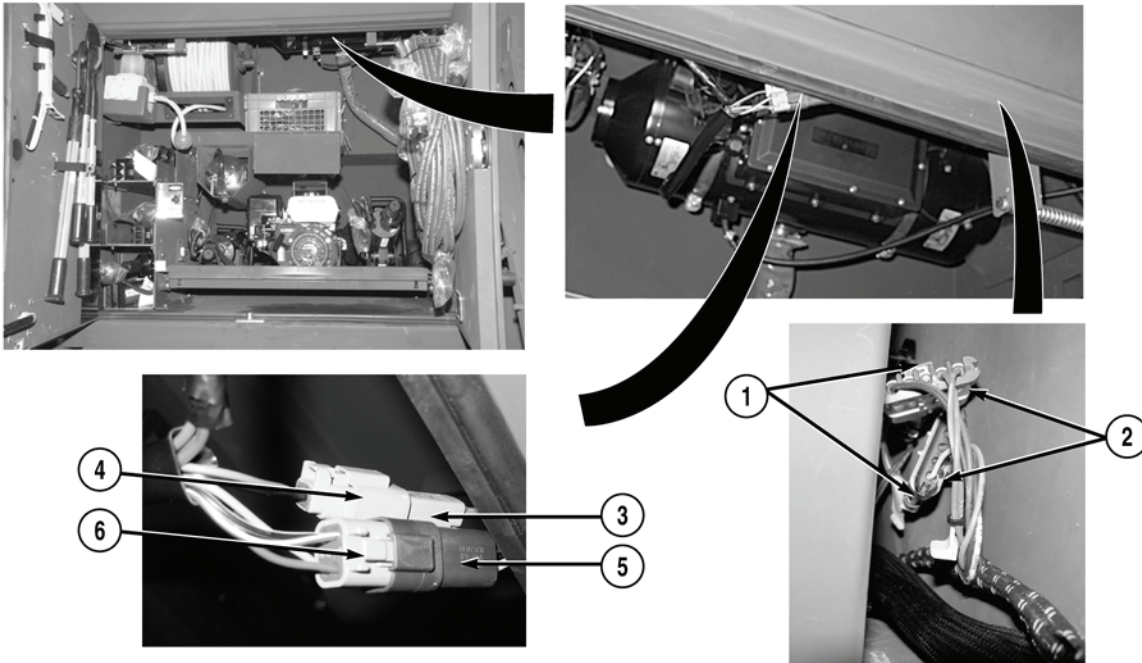


34. Install passenger side body wire harness (27) in heater diagnostics box (28).

35. Connect wire 2352 (25) to TANK HEATER TEST SWITCH (26) with lockwasher (24) and screw (23).



36. Repair wire 4093 (21) and wire 4094 (22) (TM 9-2320-325-14&P).
37. Connect wire 4095 (20) to DIESEL HEATER DIAGNOSTICS switch (17) with lockwasher (19) and screw (18).
38. Install wire 4093 (16) to DIESEL HEATER DIAGNOSTICS switch (17) with lockwasher (15) and screw (14).
39. Install grommet (12), washer (11), and collar (10) to fitting (13).
40. Close front panel (9), rotate clamp (8) up and tighten screw (7).



41. Connect passenger side body wire harness connector (5) to rear compartment heater connector (6).
42. Connect passenger side body wire harness connector (3) to rear compartment heater fuel pump connector (4).
43. Connect two passenger side body wire harness connectors (1) to rear body wire harness connectors (2).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Install passenger side compartment lights (WP 0374)
2. Install passenger side rear lower warning light (WP 0351)
3. Close passenger side stowage compartment doors (WP 0010)

#### END OF TASK

#### END OF WORK PACKAGE

## FIELD LEVEL MAINTENANCE

## PUMP HOUSE POWER DISTRIBUTION WIRE HARNESS AND BLOCK REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Adhesive, Sealant, Silicone RTV  
(WP 0625, Item 5)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

**Materials/Parts (continued)**

Lockwasher (2)  
Lockwasher (2)

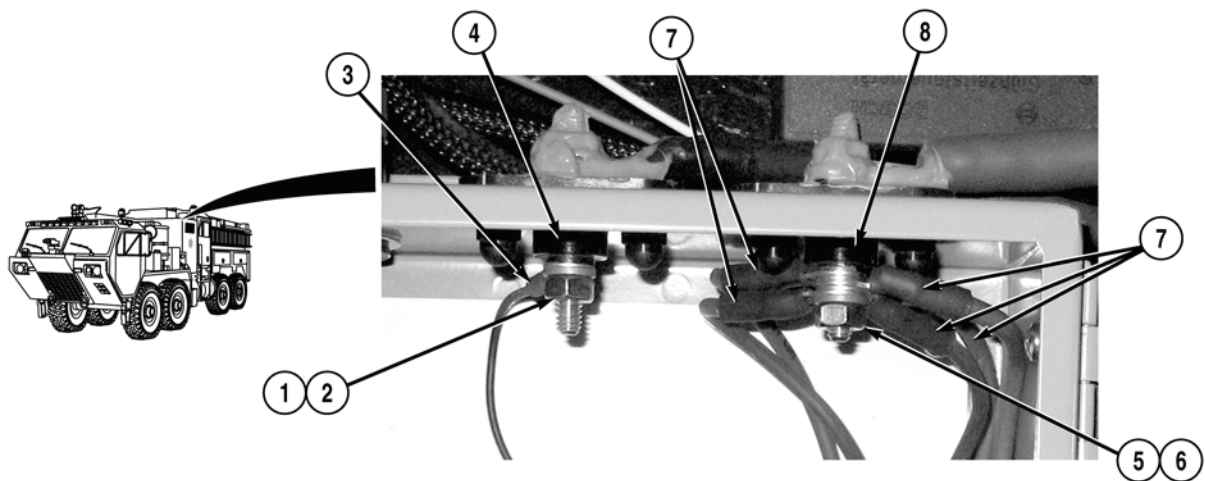
**References**

WP 0615, Fig. 94

**Equipment Conditions**

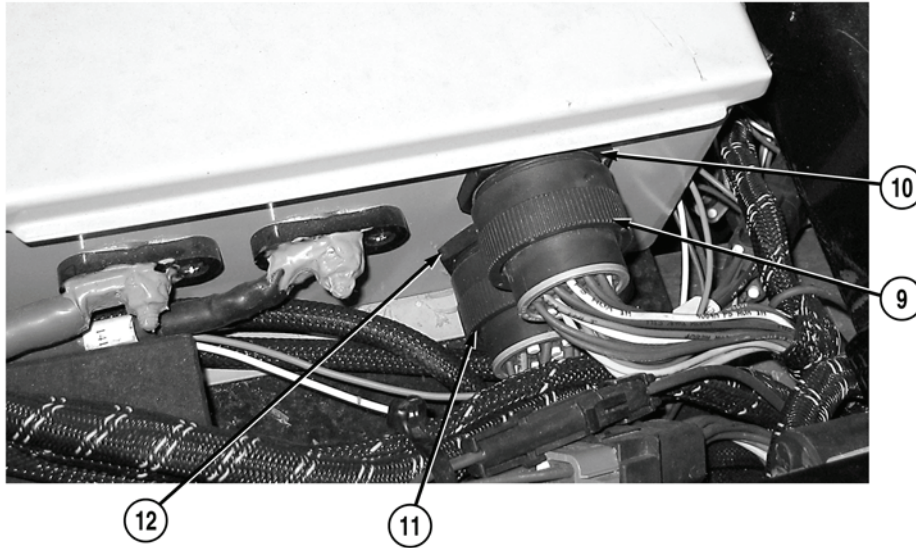
Pump house panel S removed (WP 0540)

## REMOVAL

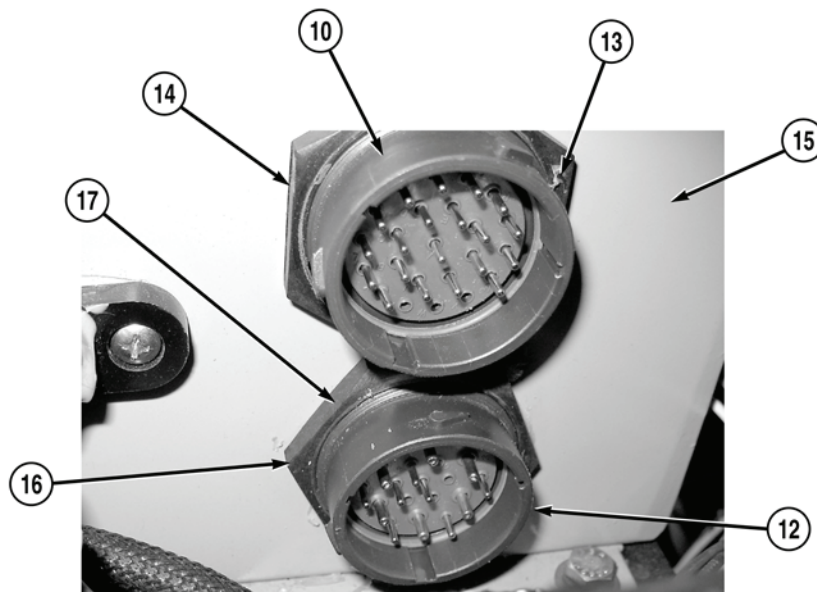
**NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
- Remove cable ties as required.

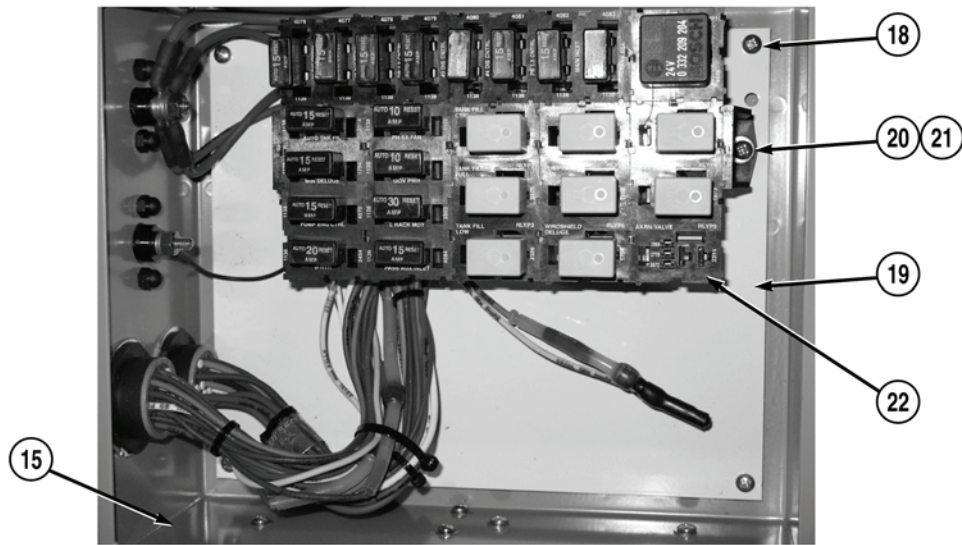
1. Remove nut (1), lockwasher (2), and wire 1640 (3) from pass-through terminal block (4). Discard lockwasher.
2. Remove nut (5), lockwasher (6), and five wires 1138 (7) from pass-through terminal block (8). Discard lockwasher.



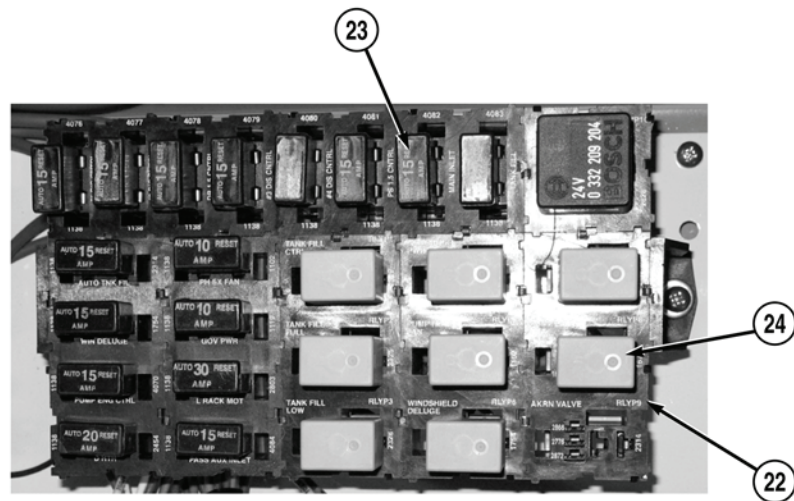
3. Disconnect pump house wire harness connector (9) from pump house power distribution wire harness connector DP2 (10).
4. Disconnect pump house wire harness connector (11) from pump house power distribution wire harness connector DP1 (12).



5. Remove nut (13), lockwasher (14), and pump house power distribution wire harness connector DP2 (10) from power distribution box (15). Discard lockwasher.
6. Remove nut (16), lockwasher (17), and pump house power distribution wire harness connector DP1 (12) from power distribution box (15). Discard lockwasher.



7. Remove four screws (18) and plate (19) from pump house power distribution box (15).
8. Remove two screws (20), washers (21), and pump house power distribution wire harness block (22) from plate (19).



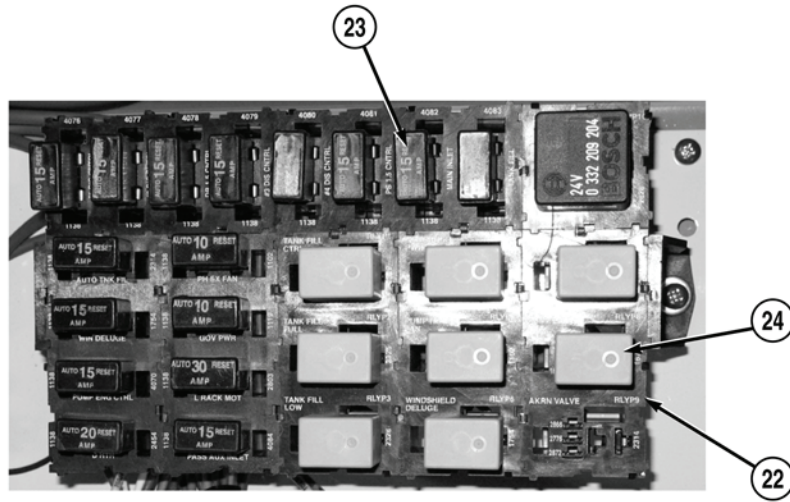
**NOTE**

Note position of circuit breakers and relays prior to removal to ensure proper installation.

9. Remove 16 circuit breakers (23) and nine relays (24), from pump house power distribution block (22).

**END OF TASK**

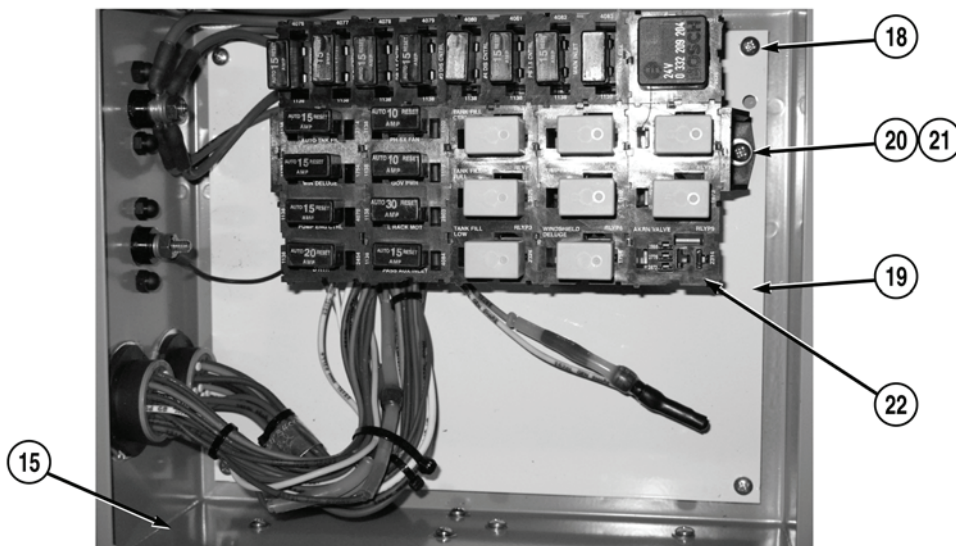
INSTALLATION



NOTE

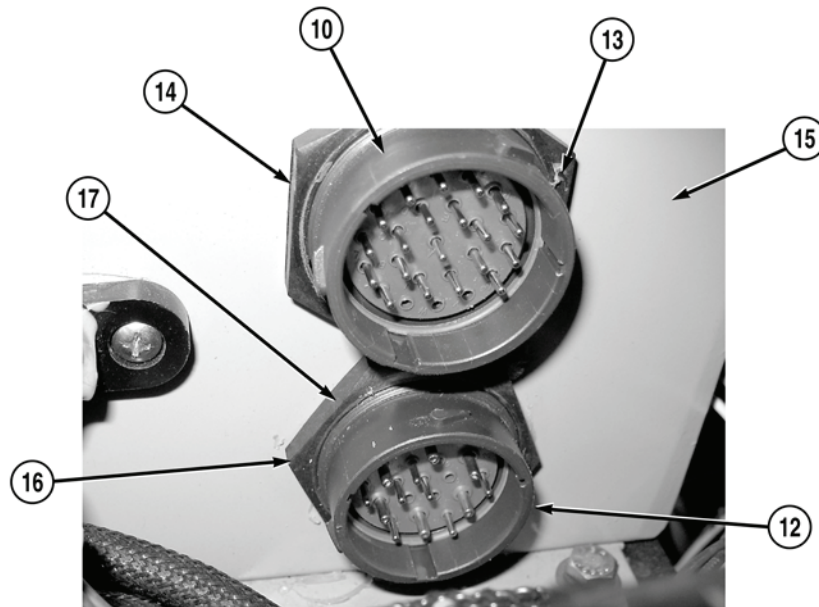
- Install circuit breakers and relays in same position as noted prior to removal.
- Install cable ties as required.

1. Install nine relays (24) and 16 circuit breakers (23) on pump house power distribution block (22).



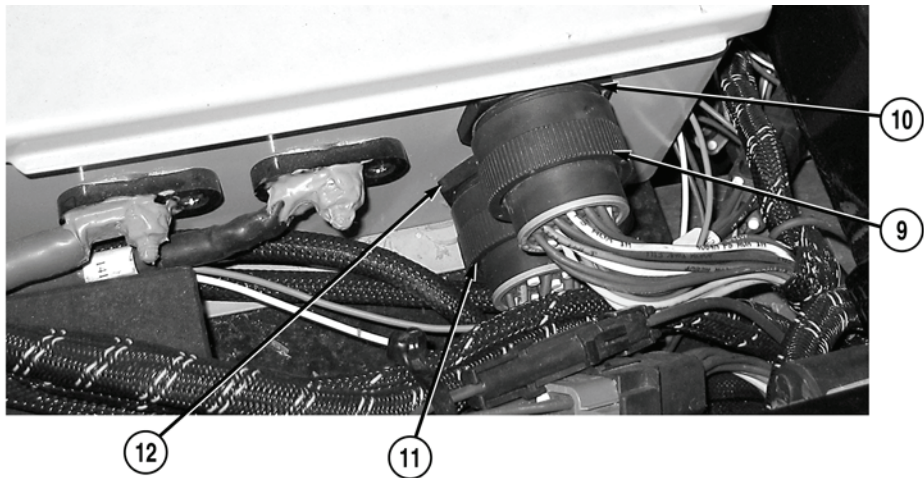
2. Install pump house power distribution wire harness block (22) on plate (19) with two washers (21) and screws (20).
3. Install plate (19) on pump house power distribution box (15) with four screws (18).



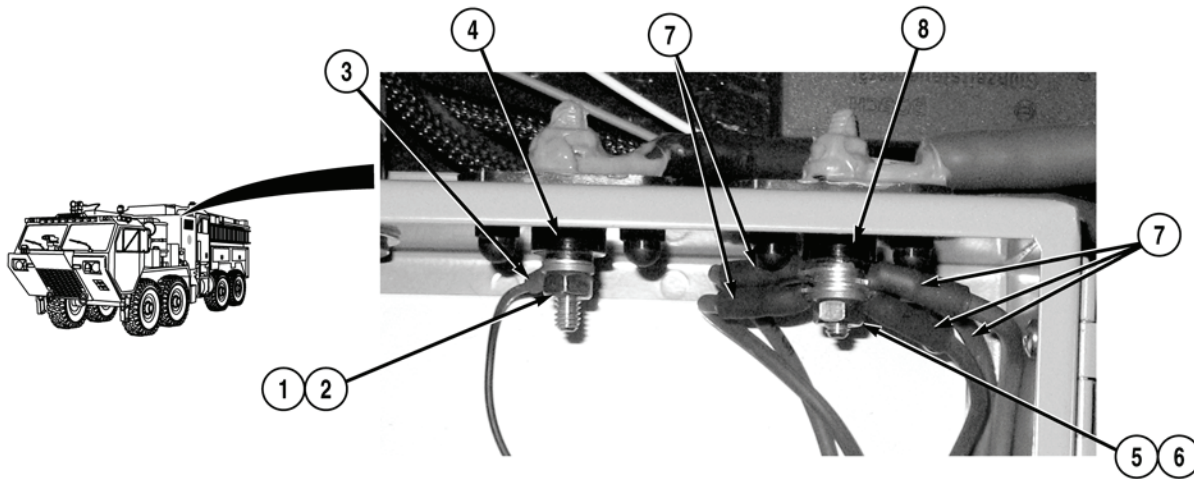
**WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

4. Apply silicone sealant to pump house power distribution wire harness connector DP1 (12).
5. Install pump house power distribution wire harness connector DP1 (12) on power distribution box (15) with lockwasher (17) and nut (16).
6. Apply silicone sealant to pump house power distribution wire harness connector DP2 (10).
7. Install pump house power distribution wire harness connector DP2 (10) on power distribution box (15) with lockwasher (14) and nut (13).



8. Connect pump house wire harness connector (11) on pump house power distribution wire harness connector DP1 (12).
9. Connect pump house wire harness connector (9) on pump house power distribution wire harness connector DP2 (10).



10. Install five wires 1138 (7) on pass-through terminal block (8) with lockwasher (6) and nut (5).
11. Install wire 1640 (3) on pass-through terminal block (4) with lockwasher (2) and nut (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Install pump house panel S (WP 0540)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**PUMP HOUSE WIRE HARNESS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Compound, Sealing (WP 0625, Item 17)  
Lockwasher (8)  
Locknut (2)  
Lockwasher (6)

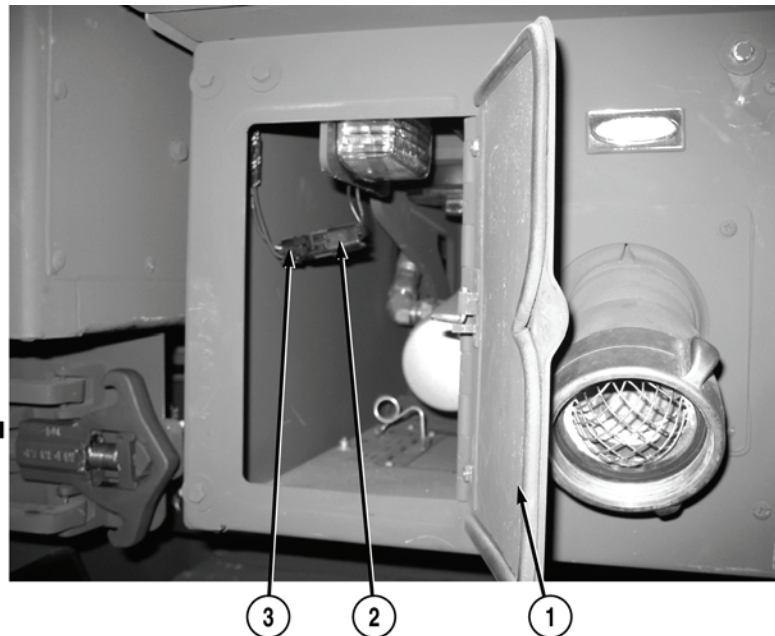
**References**

WP 0010  
WP 0615, Fig. 95

**Equipment Conditions**

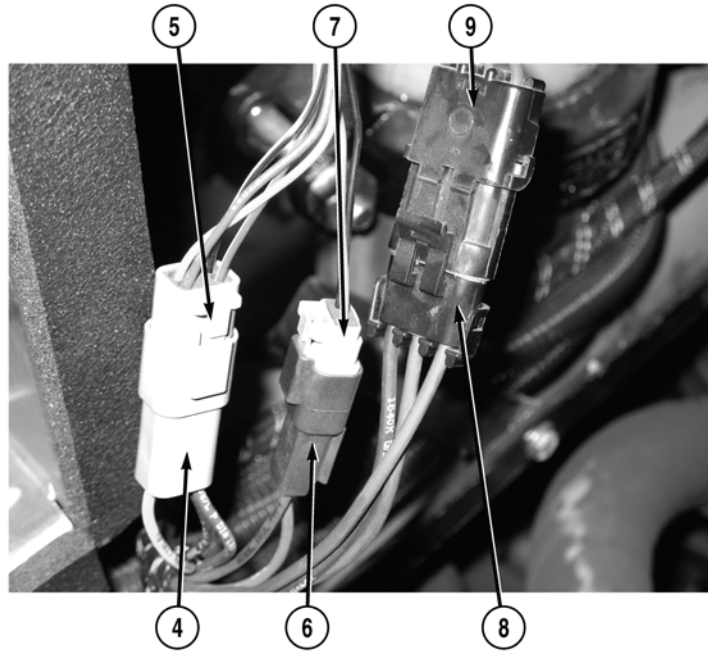
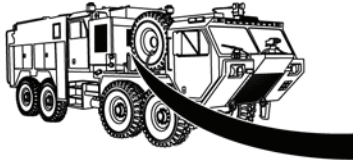
Pump house panels G, I, O, Q, and S  
removed (WP 0540)  
Pump house panel A opened (WP 0539)  
Crew cab access panels removed (WP 0499)  
Pump operator's panel housing  
opened (WP 0325)

---

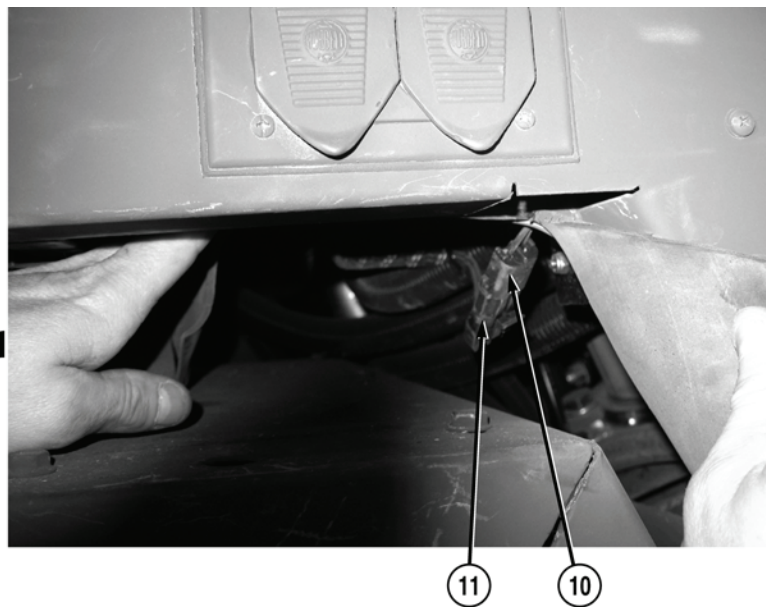
**REMOVAL****NOTE**

- Tag and mark connectors and wires prior to removal to ensure proper installation.
- Note position and remove cable ties, split looms, and cushion clips as required.
- Note routing of wire harness prior to removal to ensure proper installation.

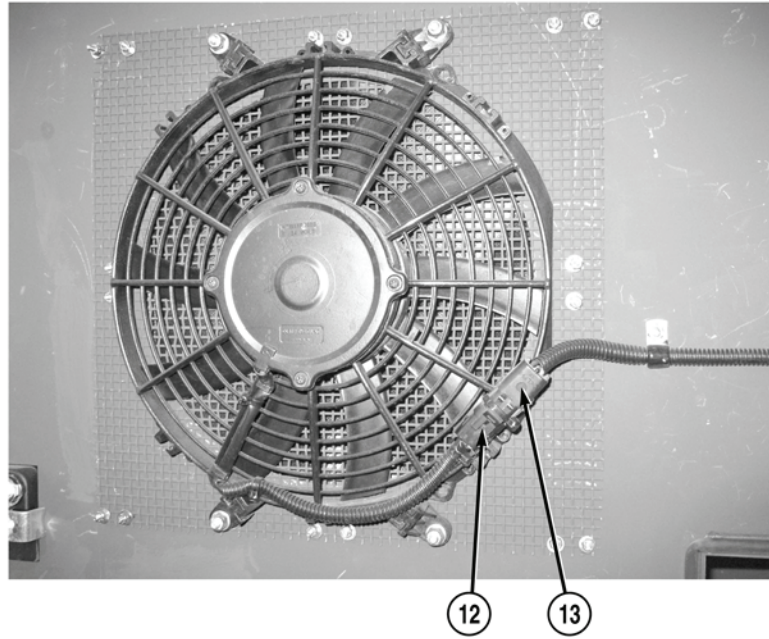
1. Open passenger side pump house access door (1) (WP 0010).
2. Disconnect passenger side drain work light connector (2) from pump house wire harness connector (3).



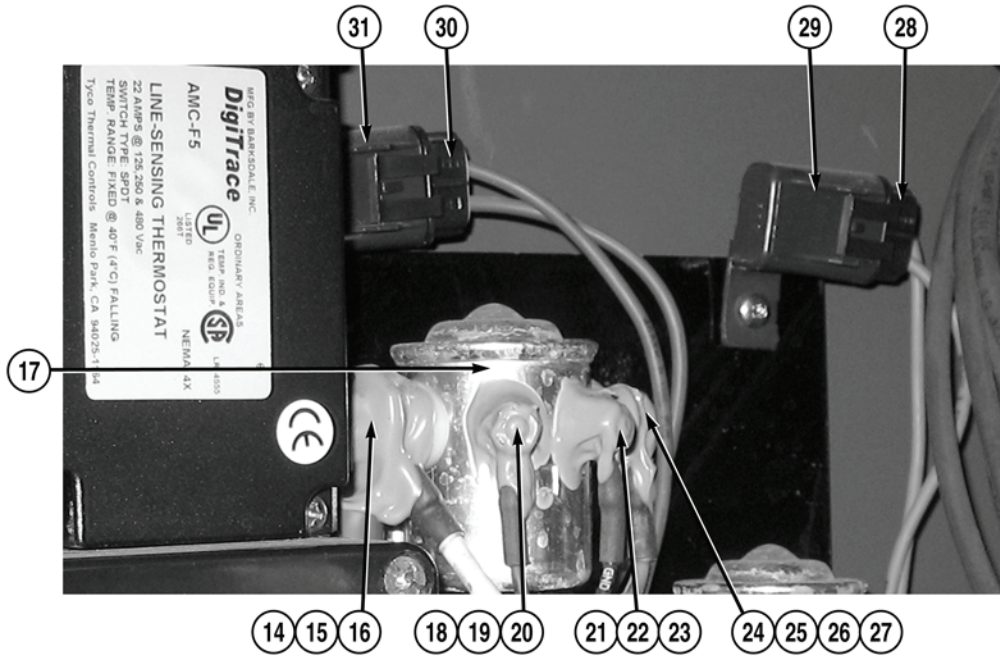
3. Disconnect heater control box connector (4) from pump house wire harness connector (5).
4. Disconnect heater fuel pump connector (6) from pump house wire harness connector (7).
5. Disconnect heater weather pack connector (8) from pump house wire harness connector (9).



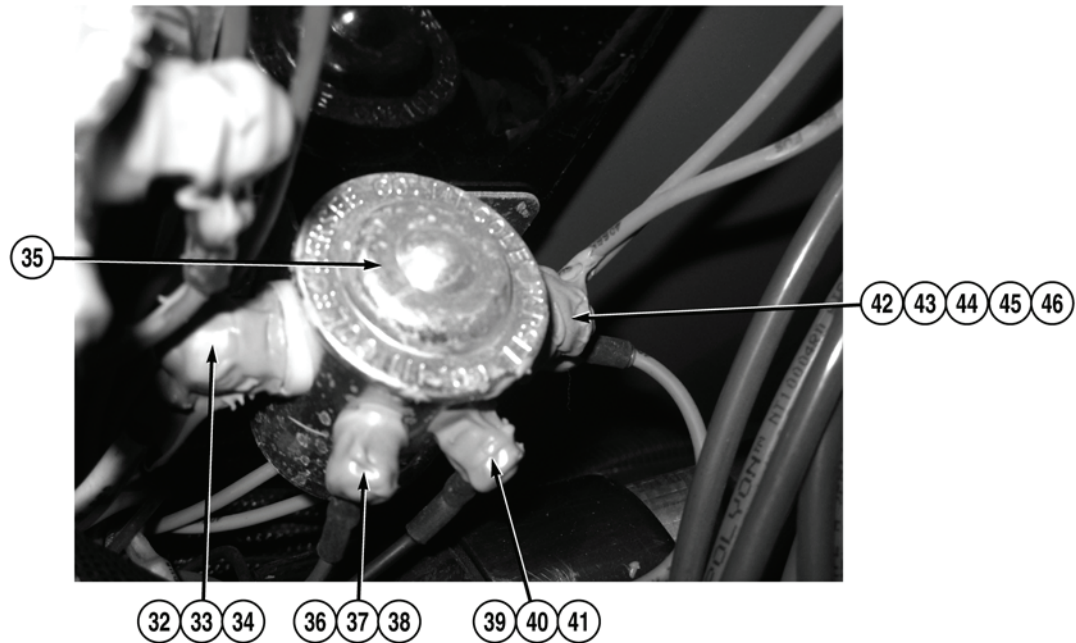
6. Disconnect driver side drain work light connector (10) from pump house wire harness connector (11).



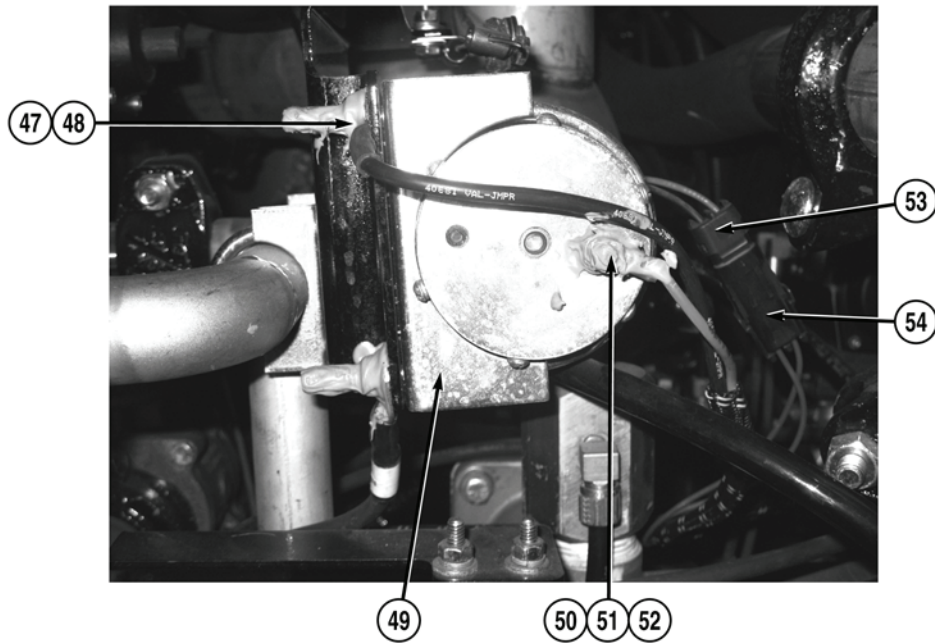
7. Disconnect exhaust fan connector (12) from pump house wire harness connector (13).



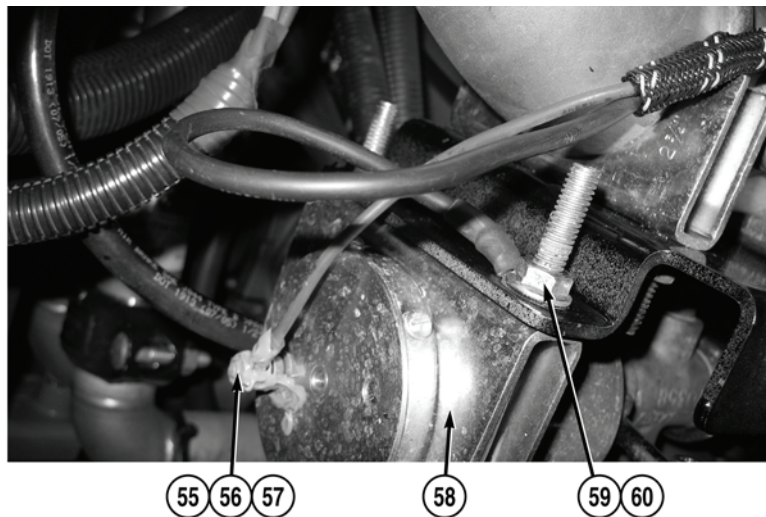
8. Remove nut (14), lockwasher (15), and jumperwire 2768 (16) from pump primer solenoid (17). Discard lockwasher.
9. Remove nut (18), lockwasher (19), and wire 4065 (20) from pump primer solenoid (17). Discard lockwasher.
10. Remove nut (21), lockwasher (22), and wire 4065 (23) from pump primer solenoid (17). Discard lockwasher.
11. Remove nut (24), lockwasher (25), wire 1590 (26), and wire 4064 (27) from pump primer solenoid (17). Discard lockwasher.
12. Disconnect fuse (28) from fuse holder (29).
13. Disconnect fuse (30) from fuse holder (31).



14. Remove nut (32), lockwasher (33), and wire 2768 (34) from driver side inlet prime valve solenoid (35). Discard lockwasher.
15. Remove nut (36), lockwasher (37), and wire 2788 (38) from driver side inlet prime valve solenoid (35). Discard lockwasher.
16. Remove nut (39), lockwasher (40), and jumperwire 1640 (41) from driver side inlet prime valve solenoid (35). Discard lockwasher.
17. Remove nut (42), lockwasher (43), wire 4066 (44), wire 4067 (45), and wire 4068 (46) from driver side inlet prime valve solenoid (35). Discard lockwasher.

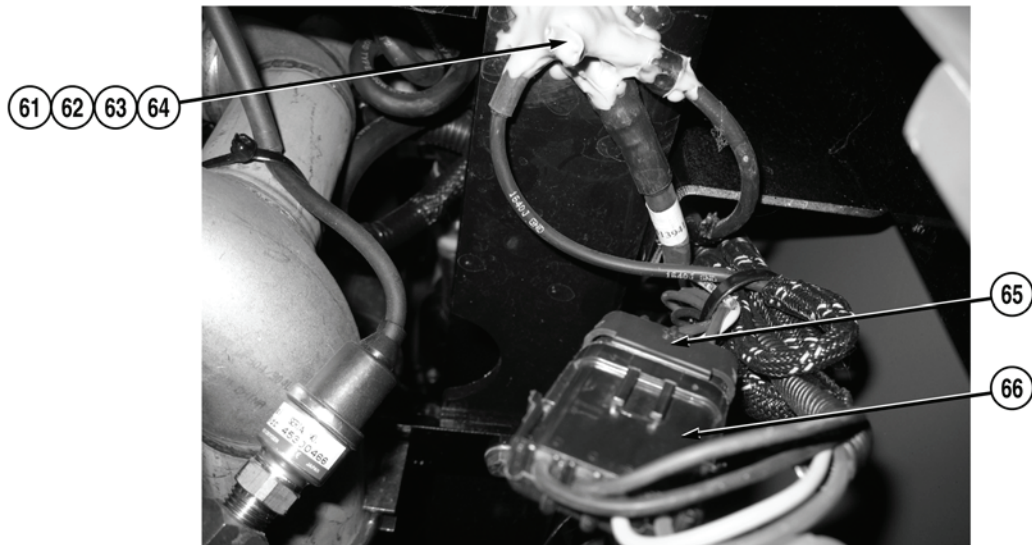


18. Remove locknut (47) and jumperwire 4068 (48) from driver side inlet prime valve solenoid (49). Discard locknut.
19. Remove nut (50), lockwasher (51), and wire 4067 (52) from driver side inlet prime valve solenoid (49). Discard lockwasher.
20. Disconnect thermo relief overheating switch connector (53) from pump house wire harness connector (54).

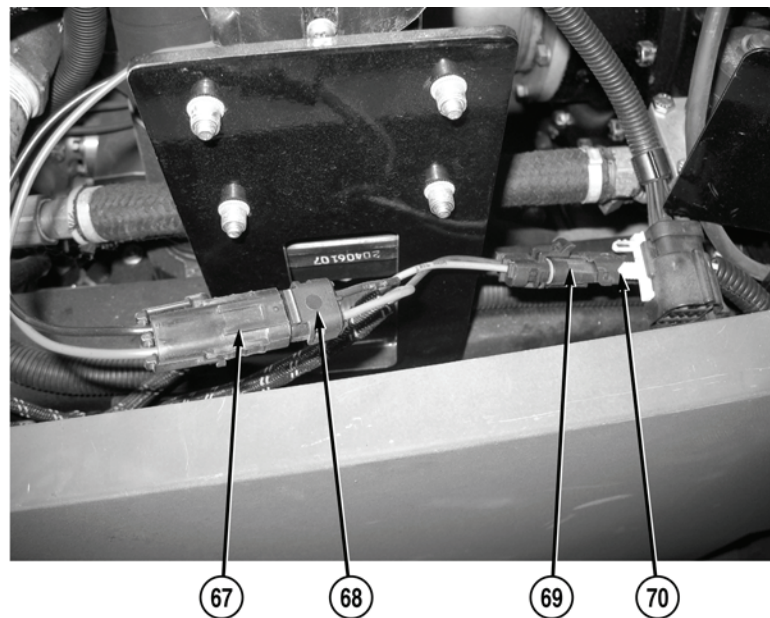


21. Remove nut (55), lockwasher (56), and wire 4065 (57) from pump prime valve solenoid (58). Discard lockwasher.
22. Remove locknut (59) and jumperwire 4068 (60) from pump prime valve solenoid (58). Discard locknut.

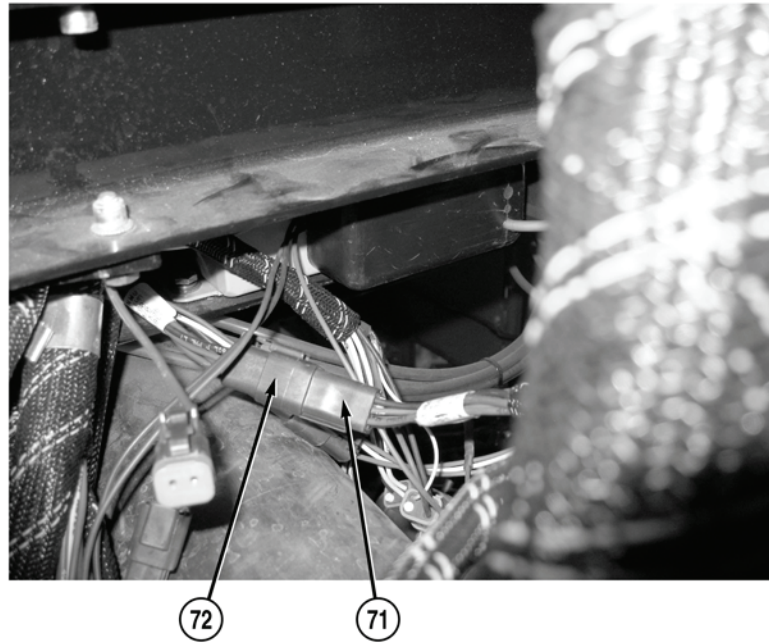




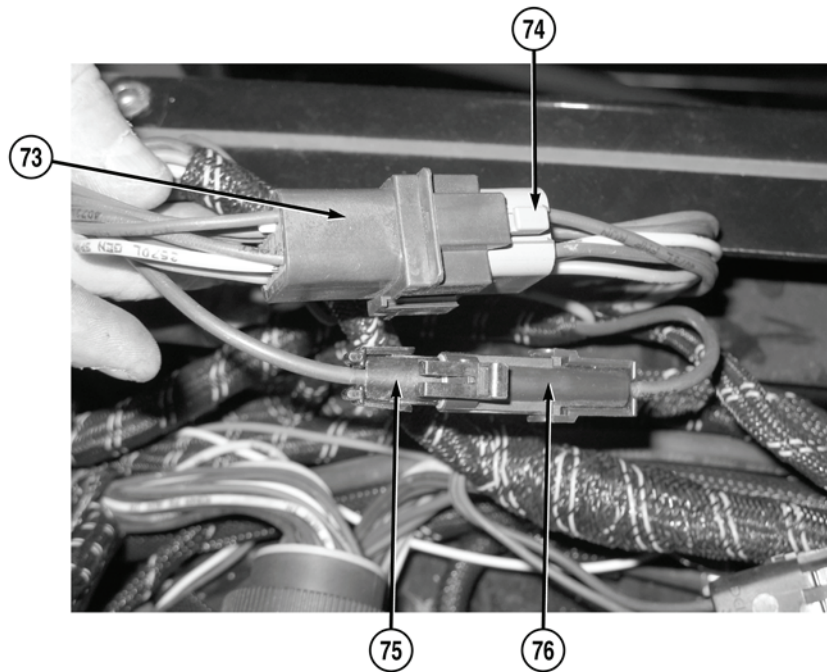
23. Remove nut (61), lockwasher (62), and wire 1640 (63) from ground stud (64). Discard lockwasher.
24. Disconnect weather pack connector (65) from pump house wire harness connector (66).



25. Disconnect windshield deluge pump connector (67) from pump house wire harness connector (68).
26. Disconnect windshield deluge valve connector (69) from pump house wire harness connector (70).

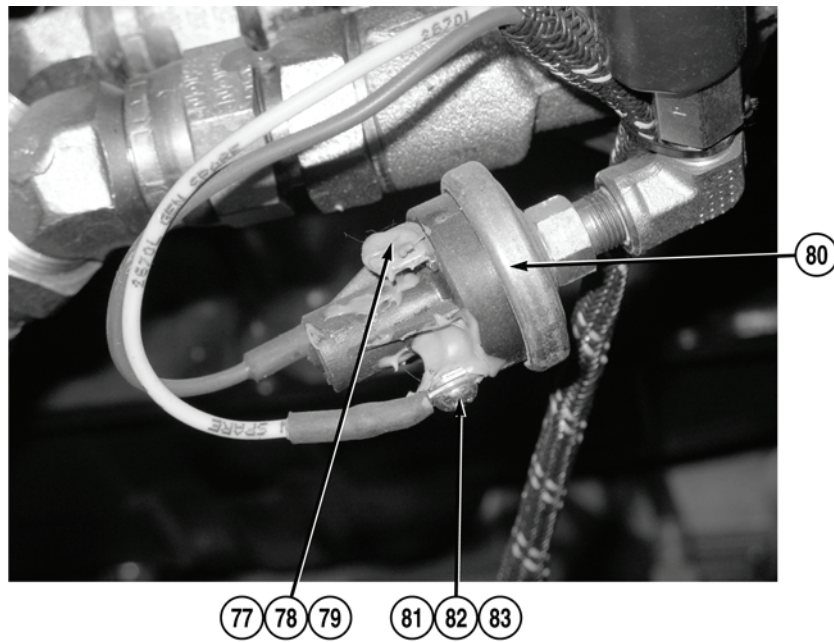


27. Disconnect pump house wire harness connector (71) from pump panel wire harness connector (72).

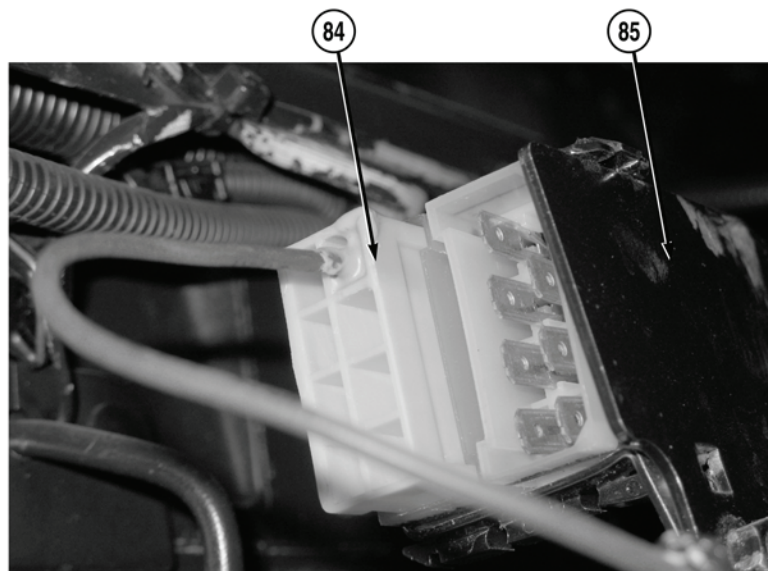


28. Disconnect pump house wire harness connector (73) from main wire harness connector (74).

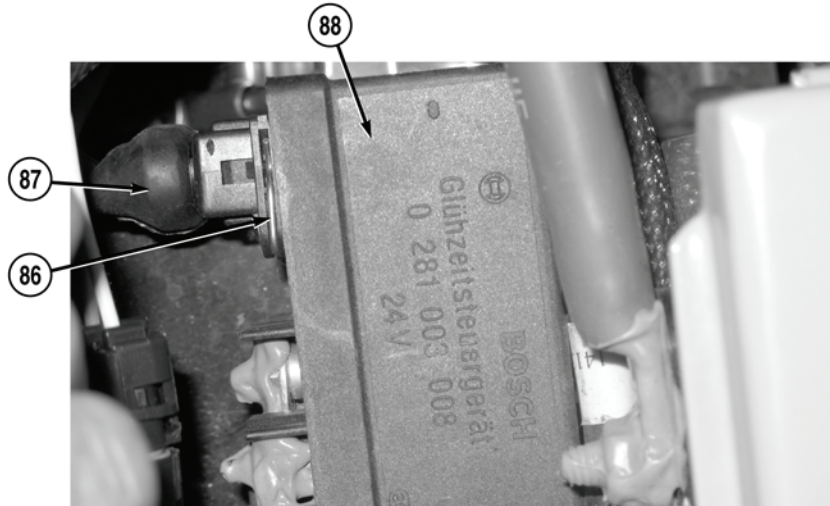
29. Disconnect pump house heater connector (75) from main wire harness connector (76).



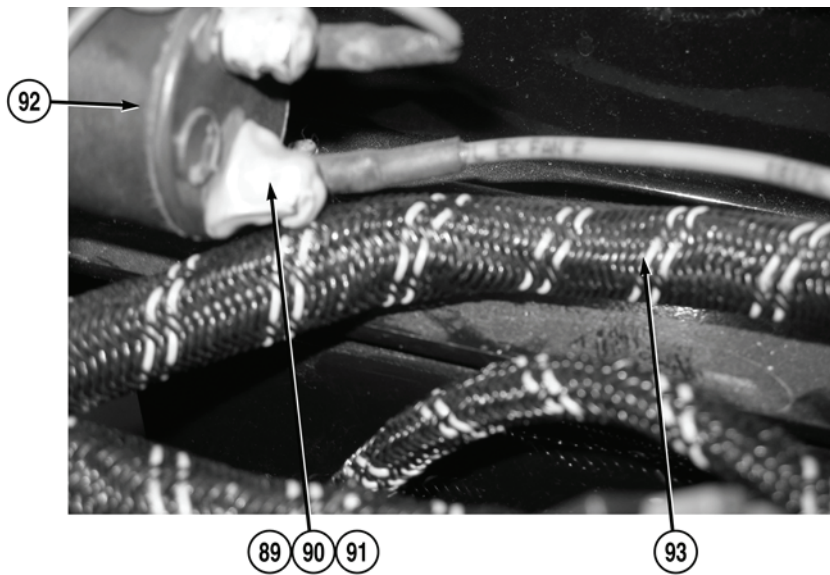
30. Remove screw (77), lockwasher (78), and wire 4075 (79) from PSI switch (80).
31. Remove screw (81), lockwasher (82), and wire 2670 (83) from PSI switch (80).



32. Disconnect pump start connector (84) from pump engine starter connector (85).



- 33. Remove retaining clip (86) from glow plug relay connector (87) and pre-heat control relay (88).
- 34. Disconnect glow plug relay connector (87) from pre-heat control relay (88).



- 35. Remove nut (89), lockwasher (90), and wire 1817 (91) from exhaust fan control (92). Discard lockwasher.
- 36. Remove pump house wire harness (93) from vehicle.

**END OF TASK**

## INSTALLATION

### NOTE

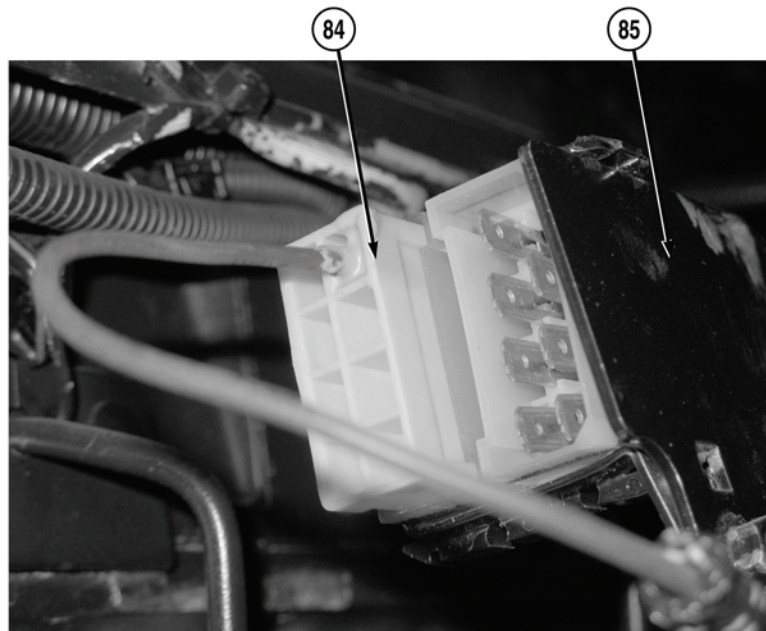
- Install wire harness as noted prior to removal.
  - Install cushion clips, split looms, and cable ties as noted.
1. Install pump house wire harness (93) in vehicle.
  2. Install wire 1817 (91) on exhaust fan control (92) with nut (89) and lockwasher (90).

### WARNING

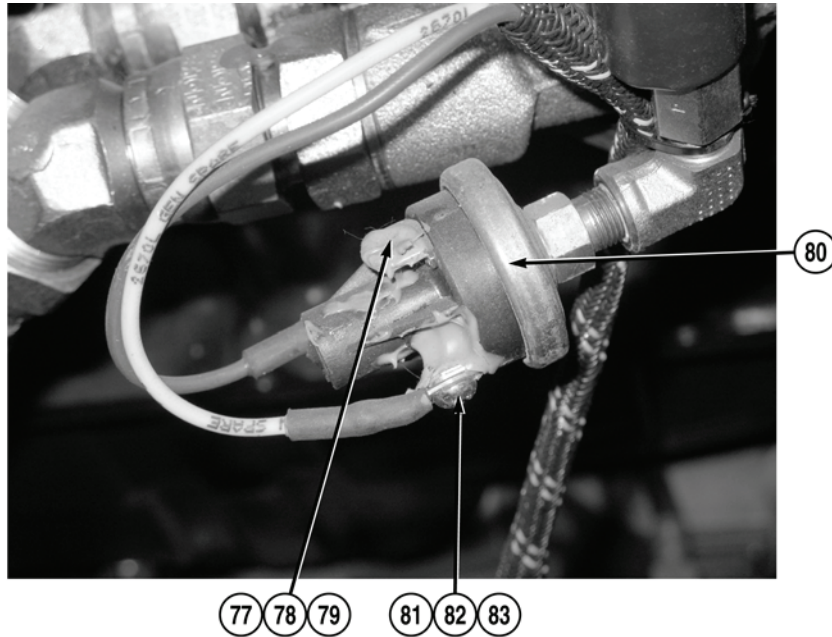


**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

3. Apply sealing compound to electrical connection on exhaust fan control (92).
4. Connect pre-heat control relay (88) to glow plug relay connector (87).
5. Install retaining clip (86) on pre-heat control relay (88) and glow plug relay connector (87).



6. Connect pump start connector (84) to pump engine connector (85).



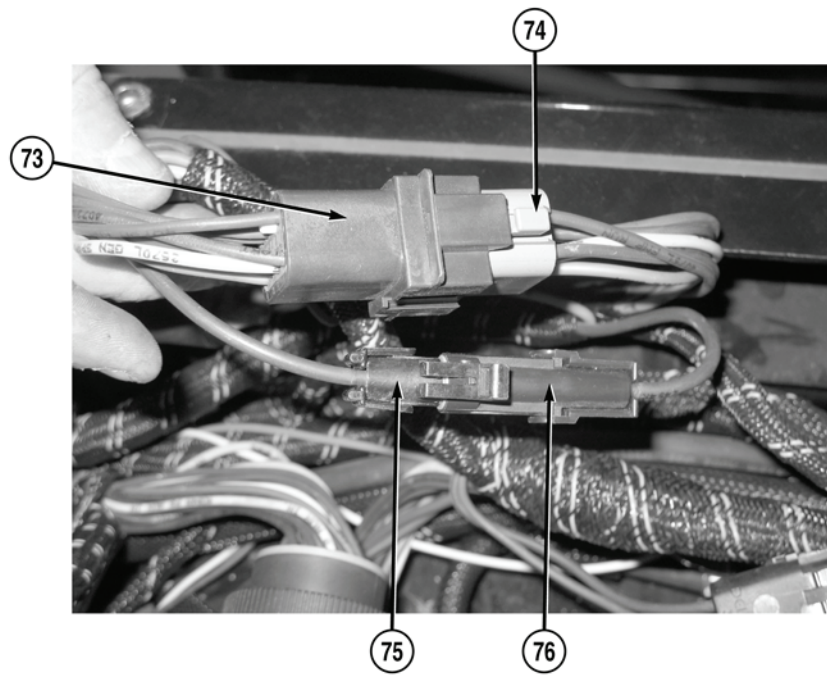
7. Install wire 2670 (83) to PSI switch (80) with lockwasher (82) and screw (81).
8. Install wire 4075 (79) to PSI switch (80) with lockwasher (78) and screw (77).

### **WARNING**

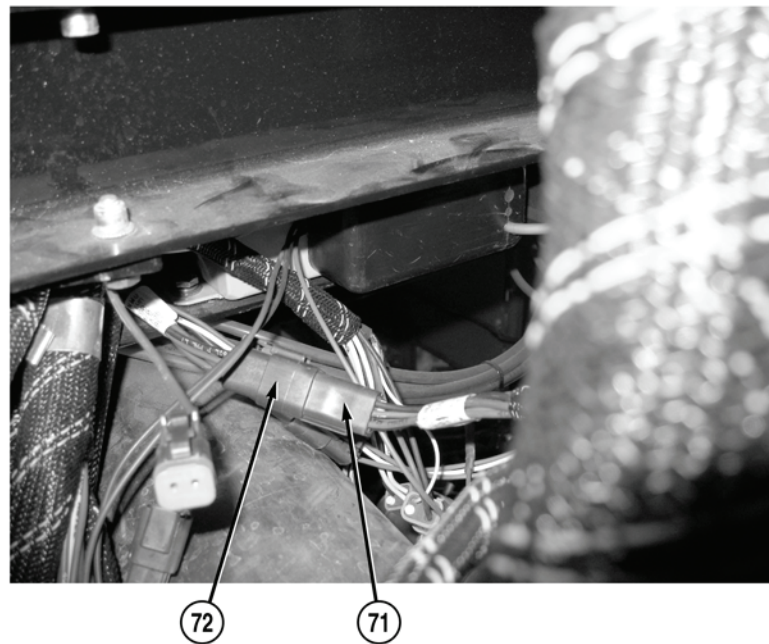


**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

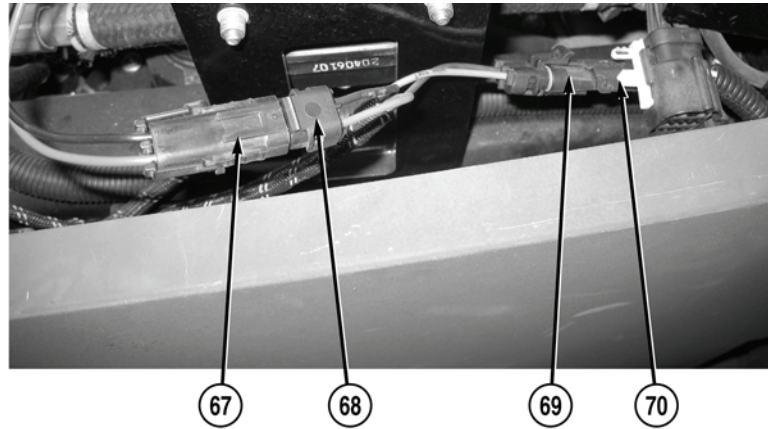
9. Apply sealing compound to electrical connections on PSI switch (80).



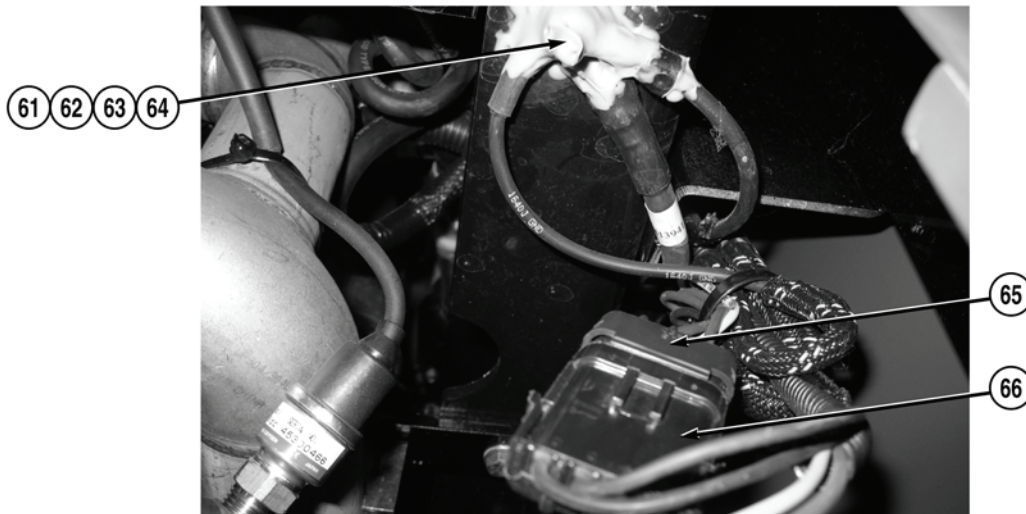
10. Connect pump house heater connector (75) to main wire harness connector (76).
11. Connect pump house heater connector (73) to main wire harness connector (74).



12. Connect pump house wire harness connector (71) to pump panel wire harness connector (72).



- 13. Connect windshield deluge valve connector (69) to pump house wire harness connector (70).
- 14. Connect windshield deluge pump connector (67) to pump house wire harness connector (68).



- 15. Connect weather pack connector (65) to pump house wire harness connector (66).
- 16. Install wire 1640 (63) to ground stud (64) with lockwasher (62) and nut (61).

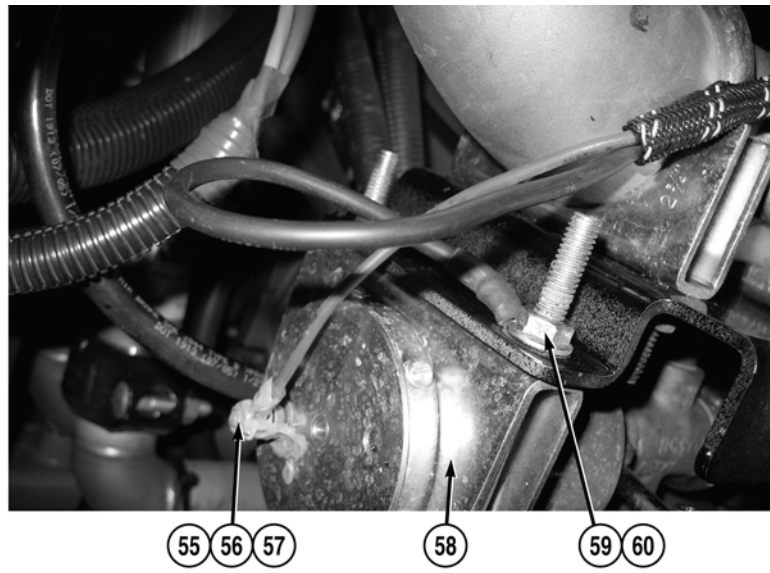
**WARNING**



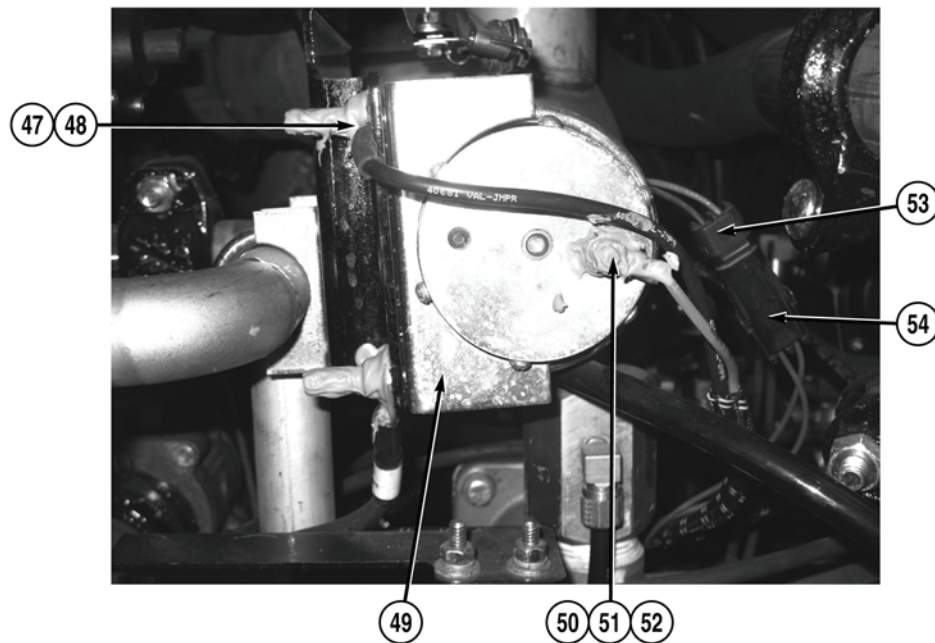
**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

- 17. Apply sealing compound to electrical connection on ground stud (64).

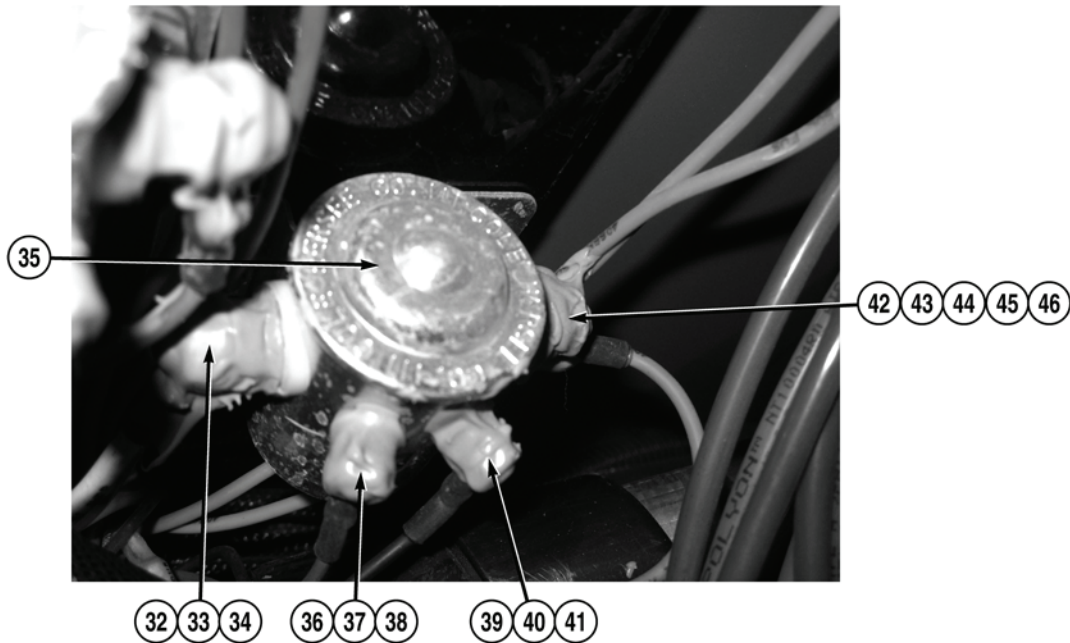




18. Install jumperwire 4068 (60) on pump prime valve solenoid (58) with locknut (59).
19. Install wire 4065 (57) on pump prime valve solenoid (58) with lockwasher (56) and nut (55).



20. Connect thermo relief overheated switch connector (53) to pump house wire harness connector (54).
21. Install wire 4067 (52) to driver side inlet prime valve solenoid (49) with lockwasher (51) and nut (50).
22. Install jumperwire 4068 (48) to driver side inlet prime valve solenoid (49) with locknut (47).



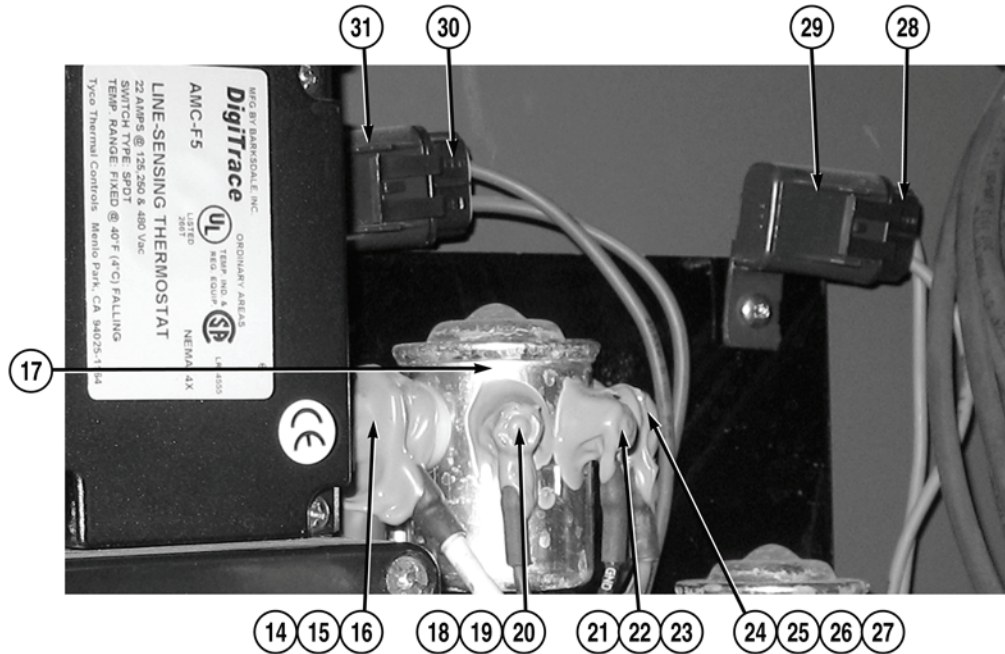
23. Install wire 4068 (46), wire 4067 (45), and wire 4066 (44) on driver side inlet prime valve solenoid (35) with lockwasher (43) and nut (42).
24. Install jumperwire 1640 (41) on driver side inlet prime valve solenoid (35) with lockwasher (40) and nut (39).
25. Install wire 2788 (38) on driver side inlet prime valve solenoid (35) with lockwasher (37) and nut (36).
26. Install wire 2768 (34) on driver side inlet prime valve solenoid (35) with lockwasher (33) and nut (32).

### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

27. Apply sealing compound to electrical connections on pump prime valve solenoid (58) and driver side inlet prime valve solenoid (35).



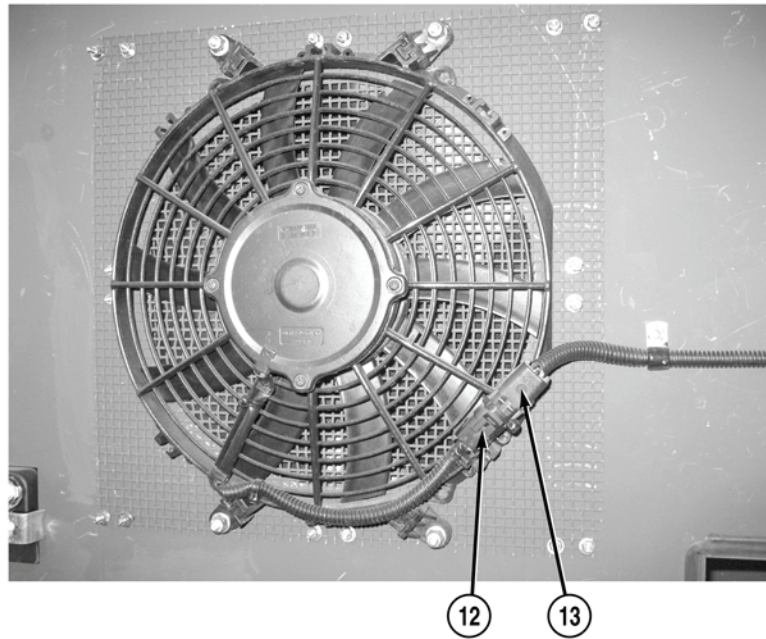
28. Install fuse (30) in fuse holder (31).
29. Install fuse (28) in fuse holder (29).
30. Install wire 4064 (27) and wire 1590 (26) on pump primer solenoid (17) with lockwasher (25) and nut (24).
31. Install wire 4065 (23) on pump primer solenoid (17) with lockwasher (22) and nut (21).
32. Install wire 4065 (20) on pump primer solenoid (17) with lockwasher (19) and nut (18).
33. Install jumperwire 2768 (16) on pump primer solenoid (17) with lockwasher (15) and nut (14).

### WARNING

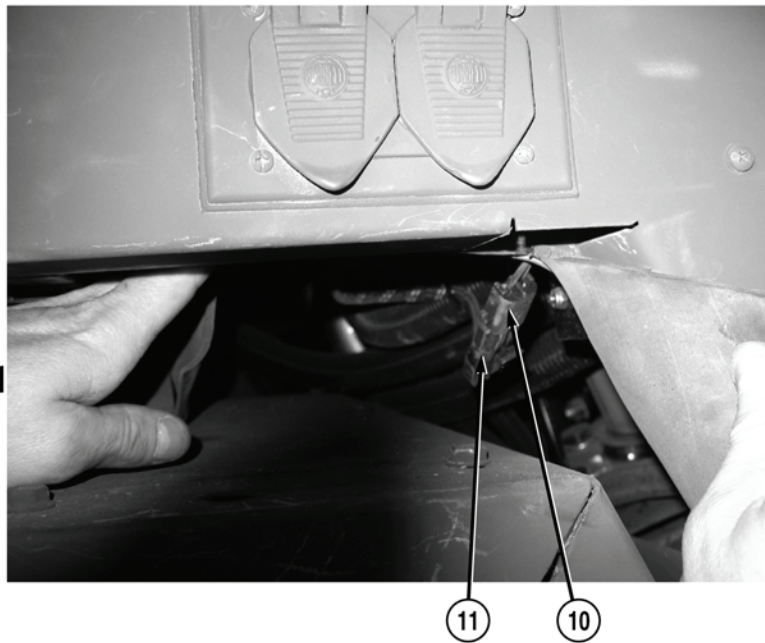


**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

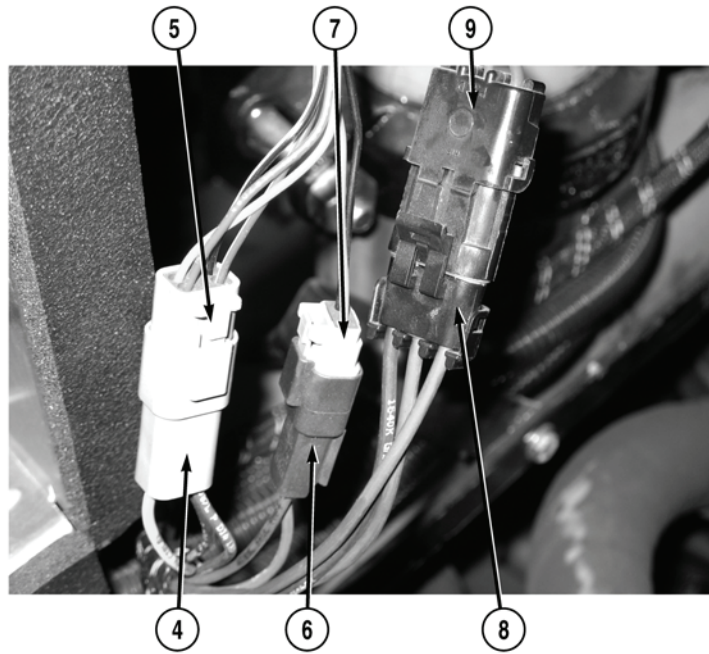
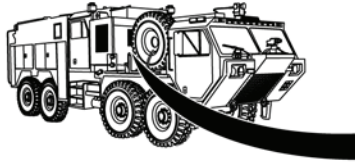
34. Apply sealing compound to electrical connections on pump primer solenoid (17).



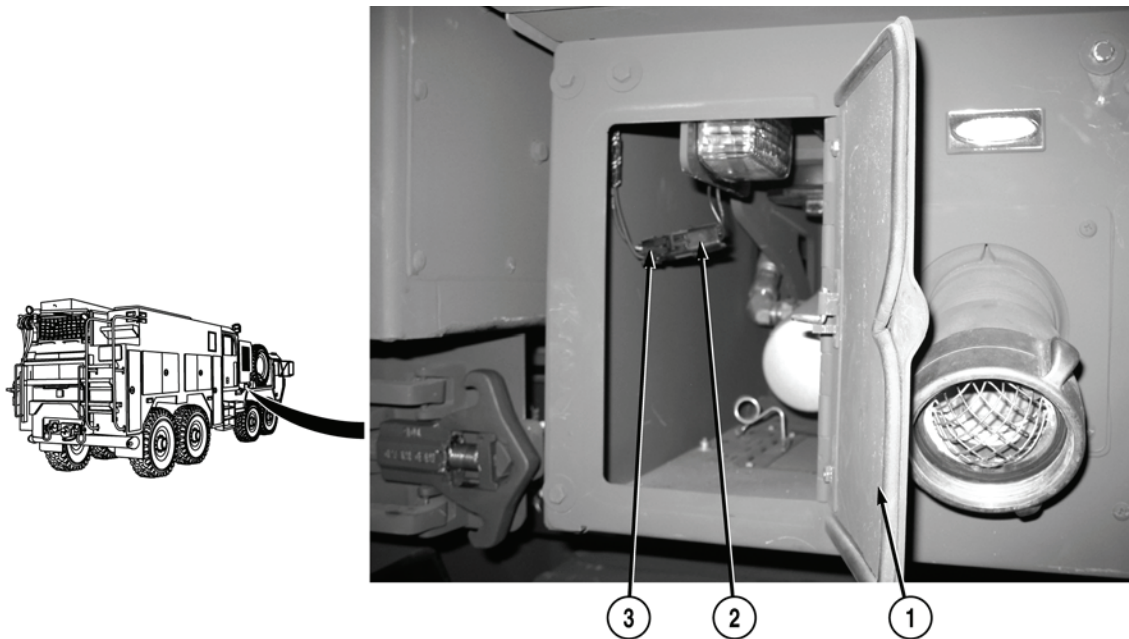
35. Connect exhaust fan connector (12) to pump house wire harness connector (13).



36. Connect driver side drain work light connector (10) to pump house wire harness connector (11).



37. Connect heater weather pack connector (8) to pump house wire harness connector (9).
38. Connect heater fuel pump connector (6) to pump house wire harness connector (7).
39. Connect heater control box connector (4) to pump house wire harness connector (5).



40. Connect passenger side drain work light connector (2) to pump house wire harness connector (3).
41. Close passenger side pump house access door (1) (WP 0010).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Close pump operator's panel housing (WP 0325)
2. Install crew cab access panels (WP 0428)
3. Close pump house panel A (WP 0539)
4. Install pump house panels S, Q, O, I, and G (WP 0540)

#### END OF TASK

#### END OF WORK PACKAGE

## FIELD LEVEL MAINTENANCE

## PUMP OPERATOR'S PANEL WIRE HARNESS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing (WP 0625, Item 17)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (51)  
Lockwasher (1)

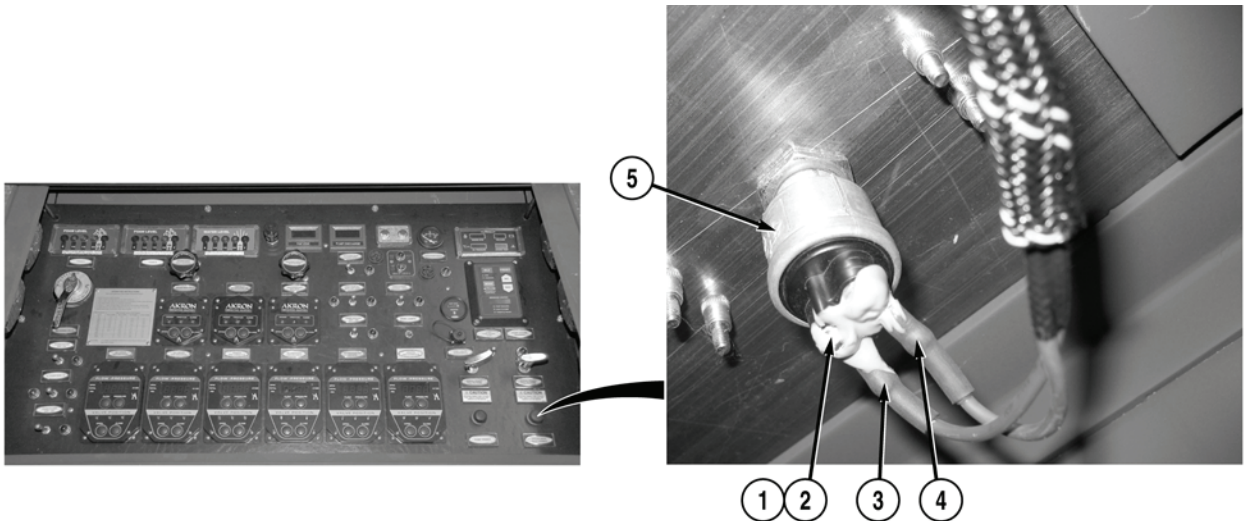
**References**

WP 0615, Fig. 96

**Equipment Conditions**

Crew cab access panels removed (WP 0499)  
Pump house panel Q removed (WP 0540)  
Passenger side auxiliary inlet and driver side  
main inlet bleeder valves removed (WP 0278)

## REMOVAL

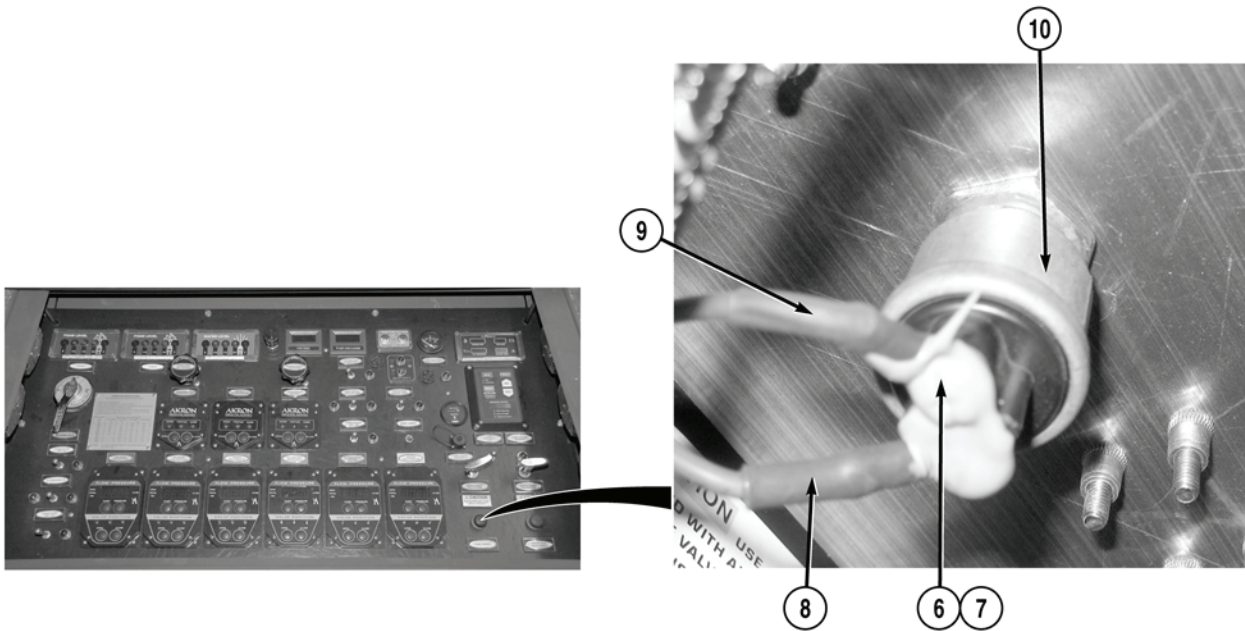


**⚠ CAUTION**

Care must be taken to ensure electronic parts do not come in contact with other parts of vehicle. Damage to equipment may result.

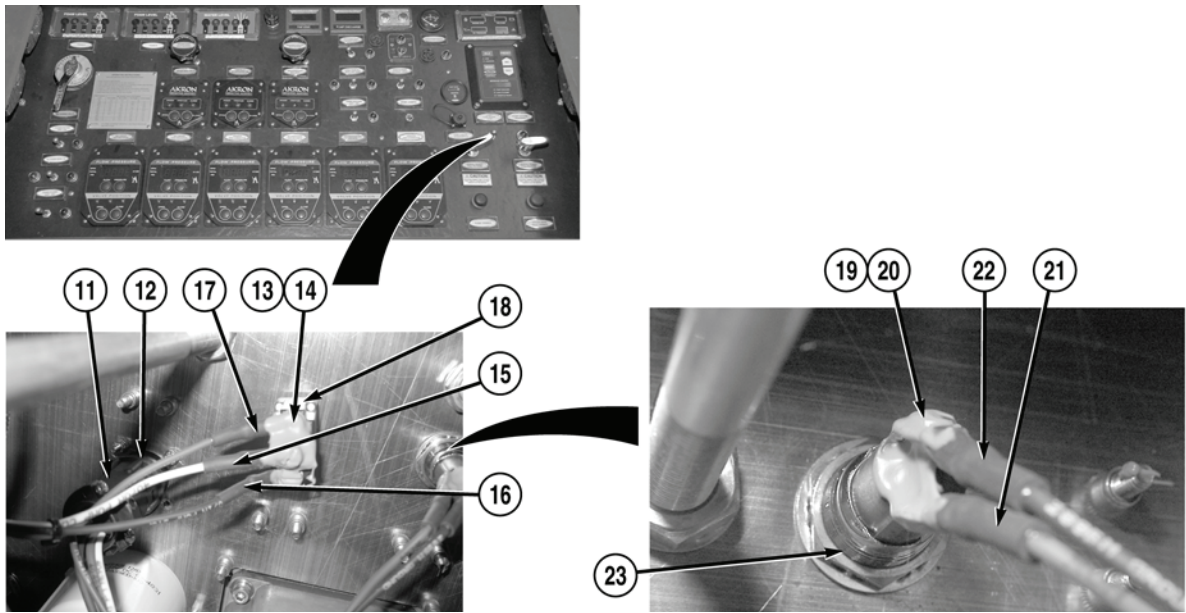
**NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
  - Note routing of pump operator's panel wire harness to ensure proper installation.
  - Note position and remove cable ties, split looms, and cushion clips as required.
  - An assistant may be required.
1. Remove two screws (1), lockwashers (2), wire 2773 (3), and wire 2788 (4) from DRIVER MAIN INLET PRIMER switch (5). Discard lockwashers.

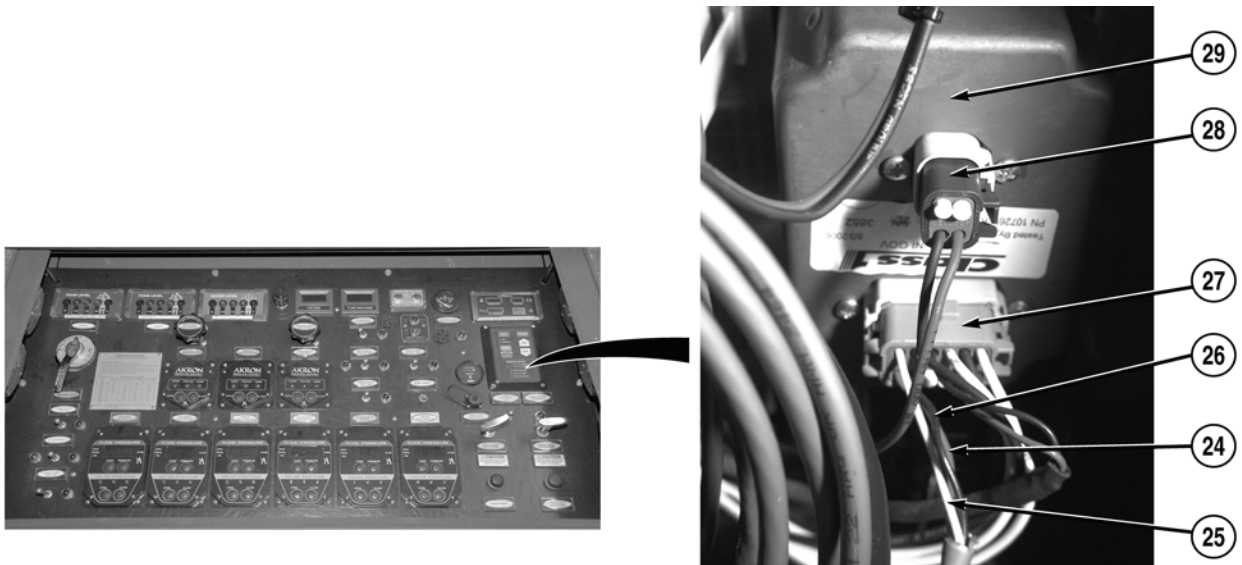


2. Remove two screws (6), lockwashers (7), wire 2773 (8), and wire 1590 (9) from PUMP PRIMER switch (10). Discard lockwashers.

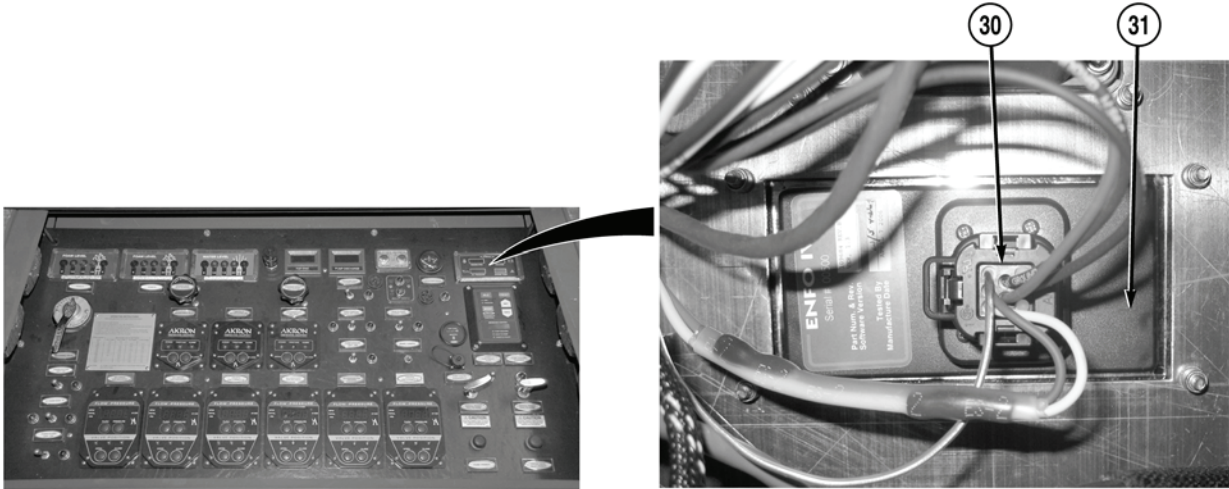




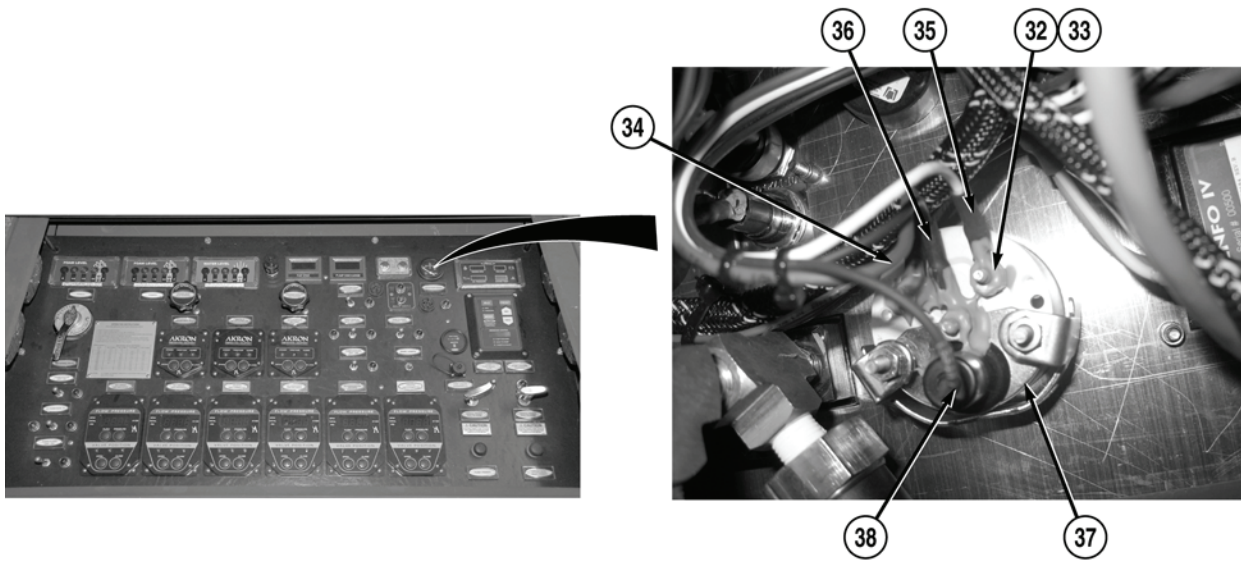
3. Disconnect pump operator's panel wire harness connector (11) from water pump engine diagnostic connector (12).
4. Remove three screws (13), lockwashers (14), wire 4070 (15), wire 4071 (16), and wire 4072 (17) from START PUMP ENGINE STOP switch (18). Discard lockwashers.
5. Remove two screws (19), lockwashers (20), wire 4075 (21), and wire 3895 (22) from PUMP ENGINE RUNNING indicator (23). Discard lockwashers.



6. Remove black wire (24), white wire (25), and red wire (26) from pump operator's panel wire harness connector (27).
7. Disconnect pump operator's panel wire harness connector (28) from governor control module (29).



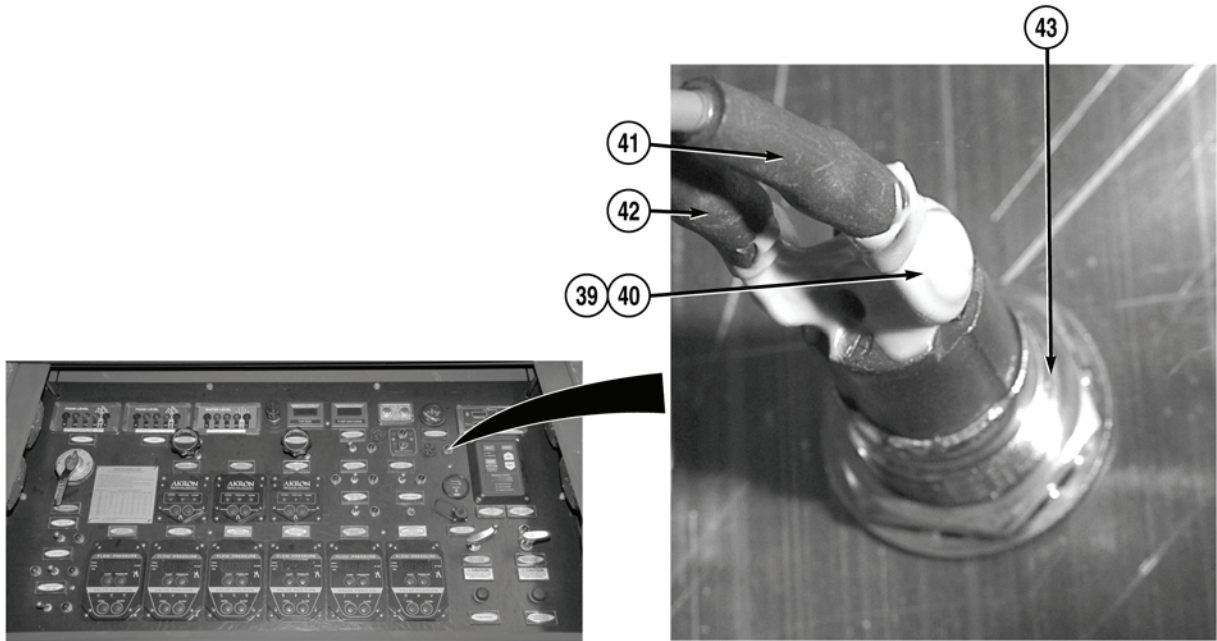
8. Disconnect pump operator's panel wire harness connector (30) from ENFO IV display module (31).



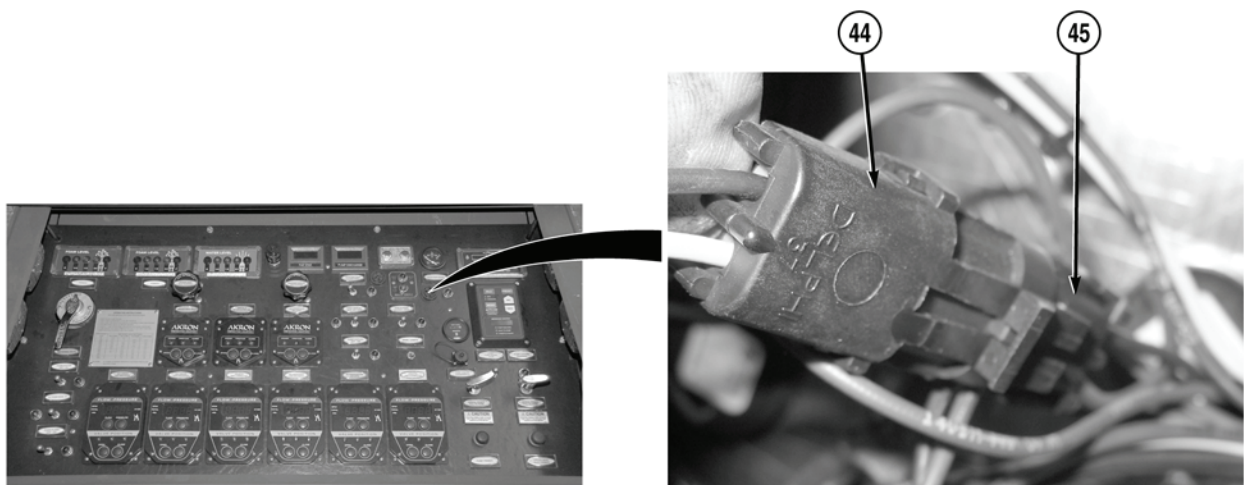
**NOTE**

A wire with an H prefix indicates HEMTT wires.

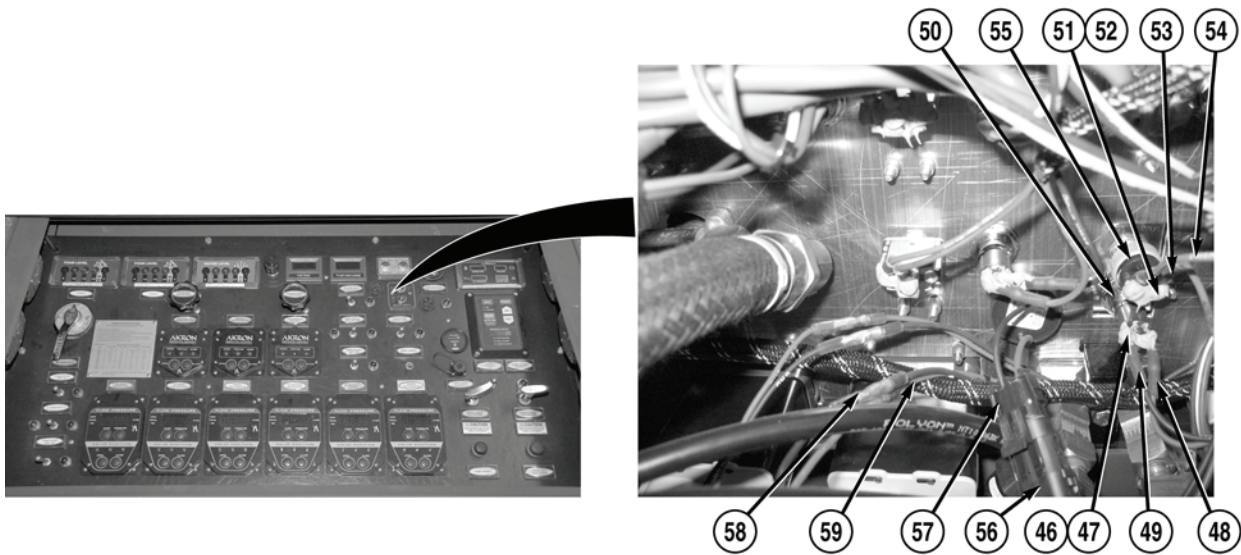
9. Remove three nuts (32), lockwashers (33), wire H076 (34), wire H318 (35), and wire 3895 (36) from fuel level gauge (37). Discard lockwashers.
10. Disconnect light bulb socket connector (38) from fuel level gauge (37).



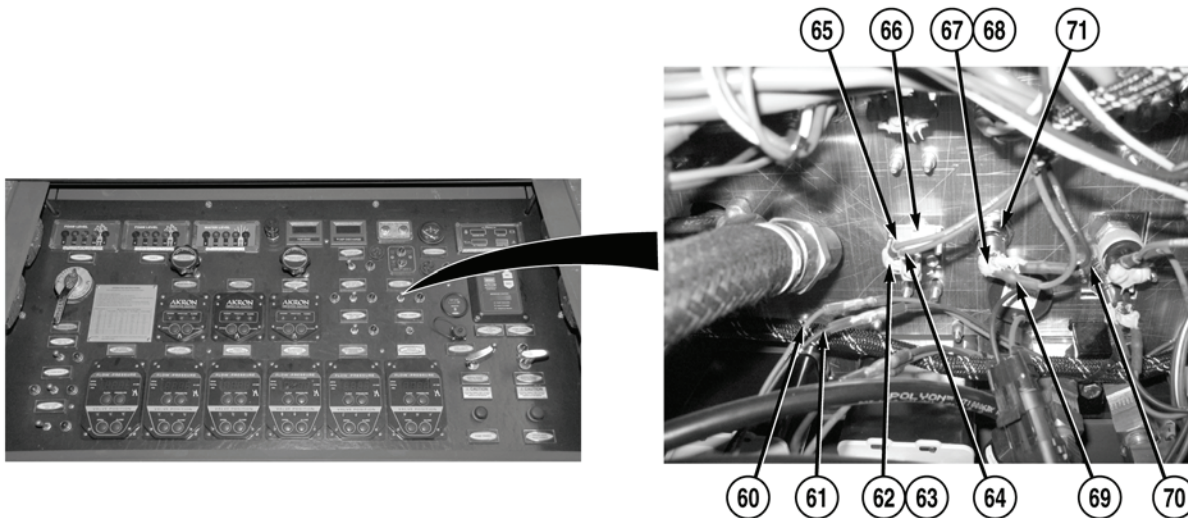
11. Remove two screws (39), lockwashers (40), wire 2670 (41), and wire 2871 (42) from CHECK PUMP ENGINE indicator (43). Discard lockwashers.



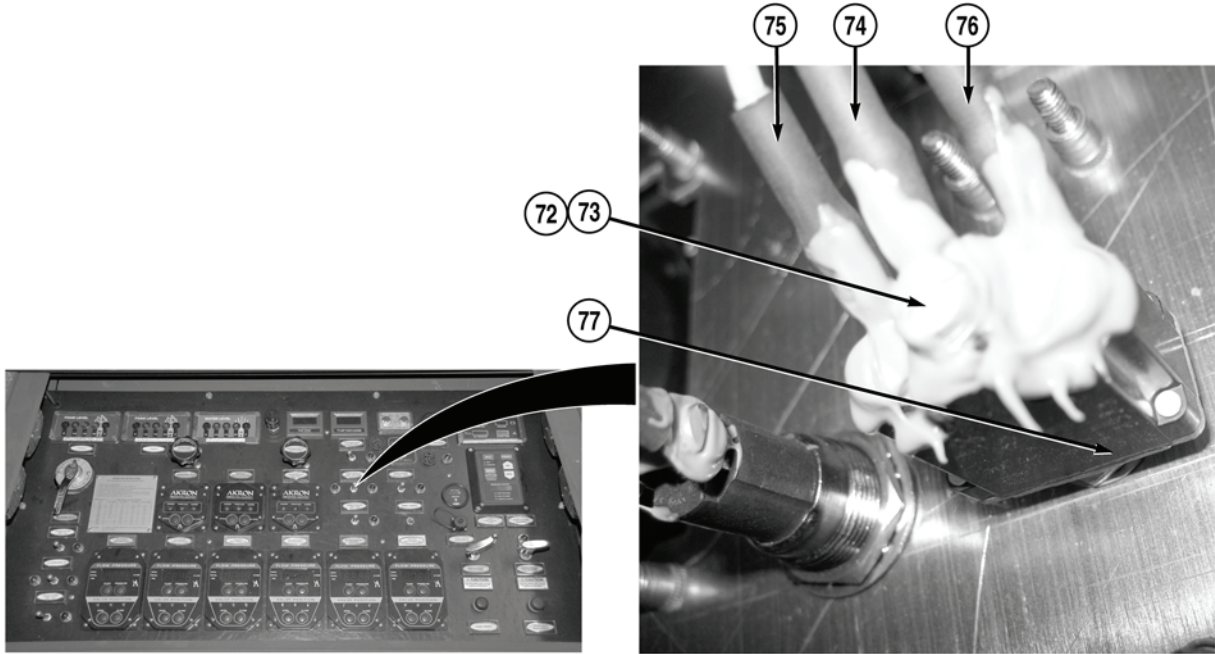
12. Disconnect pump operator's panel wire harness connector (44) from CHECK PUMP ENGINE audio alarm (45).



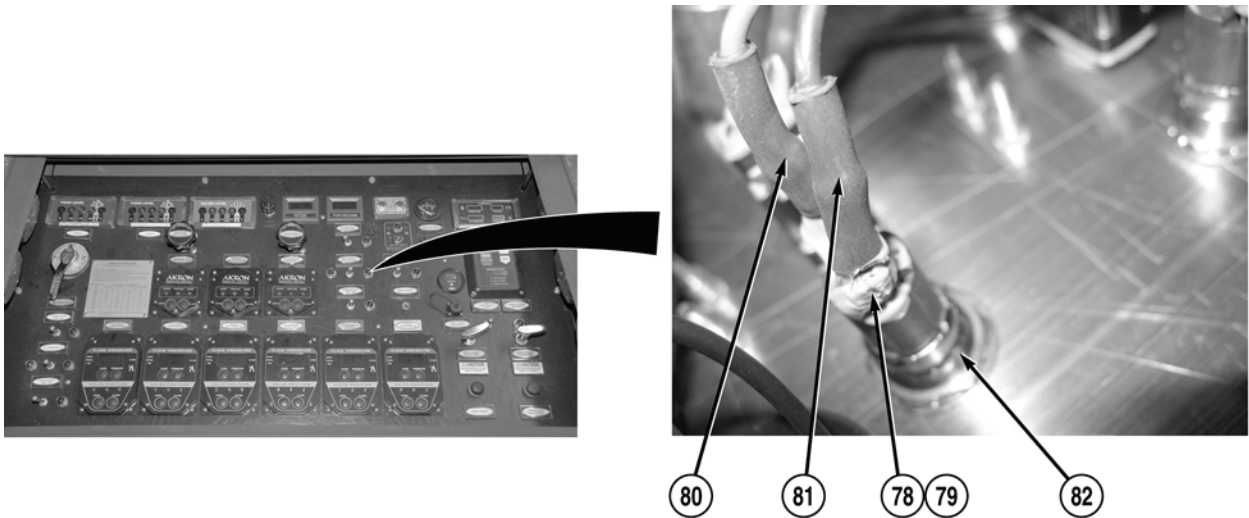
13. Remove two screws (46), lockwashers (47), wire 1405 (48), and wire 3895 (49) from overheating alarm indicator (50). Discard lockwashers.
14. Remove two screws (51), lockwashers (52), wire 2773 (53), and wire 1590 (54) from overheating alarm test switch (55). Discard lockwashers.
15. Disconnect pump operator's panel wire harness connector (56) from overheating audio alarm (57).
16. Cut wire 2341 (58) and wire 3895 (59) (TM 9-2320-325-14&P).



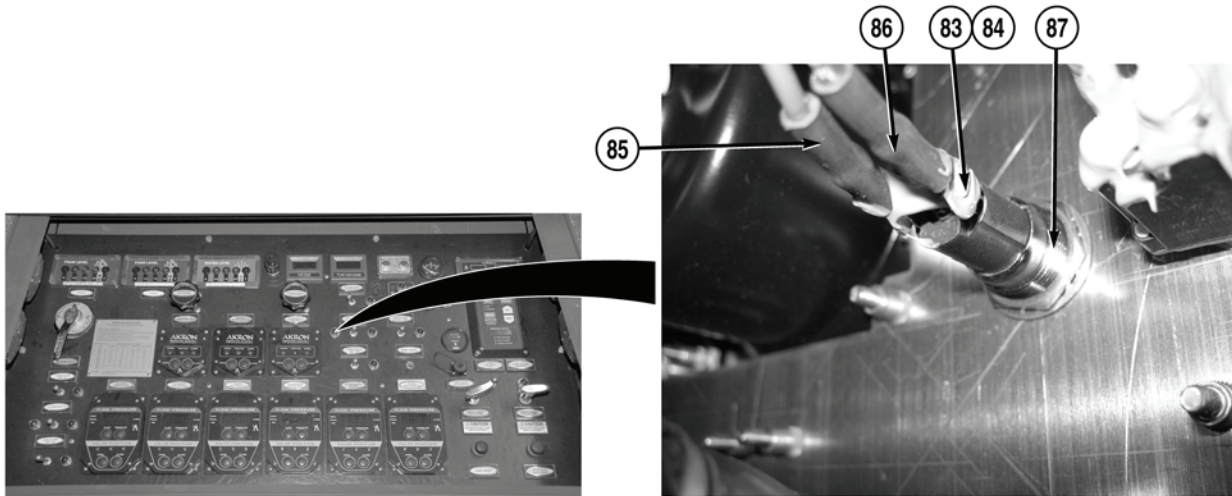
17. Cut wire 2341 (60) and wire 3895 (61) (TM 9-2320-325-14&P).
18. Remove two screws (62), lockwashers (63), wire 2834 (64), and wire 4053 (65) from WATER TANK DRAIN switch (66). Discard lockwashers.
19. Remove two screws (67), lockwashers (68), wire 4053 (69), and wire 3895 (70) from WATER TANK DRAIN indicator (71). Discard lockwashers.



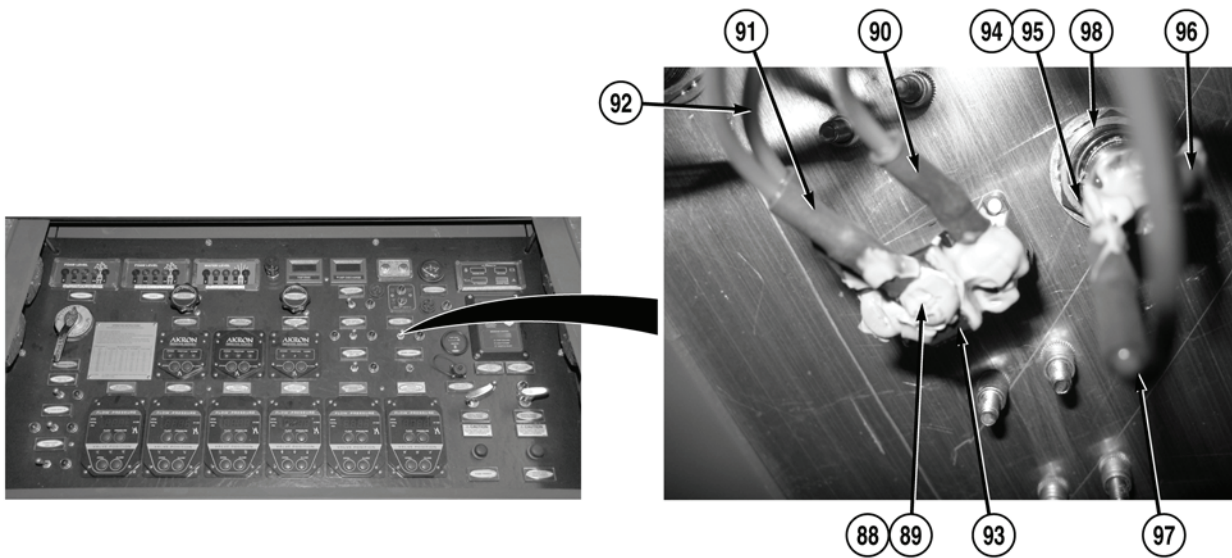
20. Remove three screws (72), lockwashers (73), wire 2314 (74), wire 2315 (75), and wire 2316 (76) from DIRECT TANK FILL switch (77). Discard lockwashers.



21. Remove two screws (78), lockwashers (79), wire 2315 (80), and wire 3895 (81) from DIRECT TANK FILL OPEN indicator (82). Discard lockwashers.

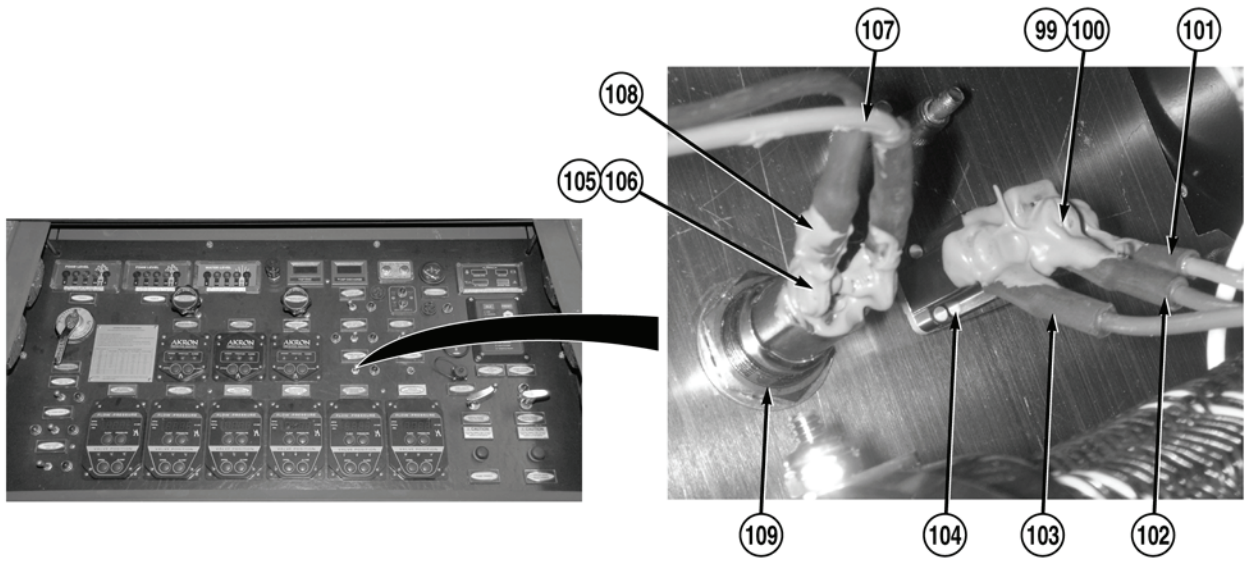


22. Remove two screws (83), lockwashers (84), wire 2316 (85), and wire 3895 (86) from DIRECT TANK FILL AUTO indicator (87). Discard lockwashers.

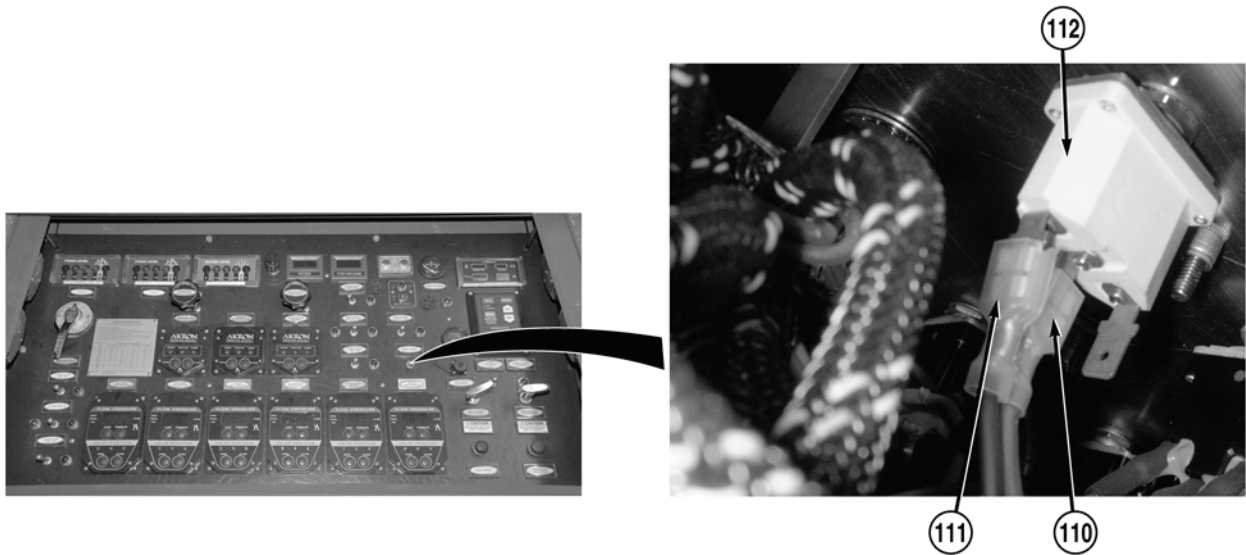


23. Remove three screws (88), lockwashers (89), wire 2770 (90), wire 2854 (91), and wire 2855 (92) from TANK TO PUMP switch (93). Discard lockwashers.

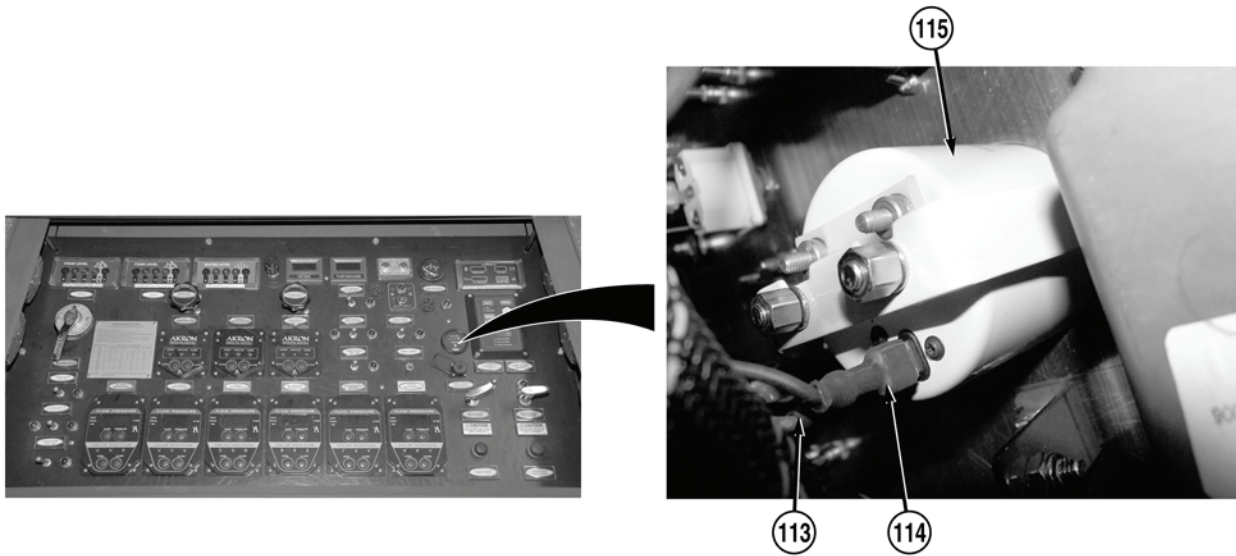
24. Remove two screws (94), lockwashers (95), wire 2855 (96), and wire 3895 (97) from TANK TO PUMP indicator (98). Discard lockwashers.



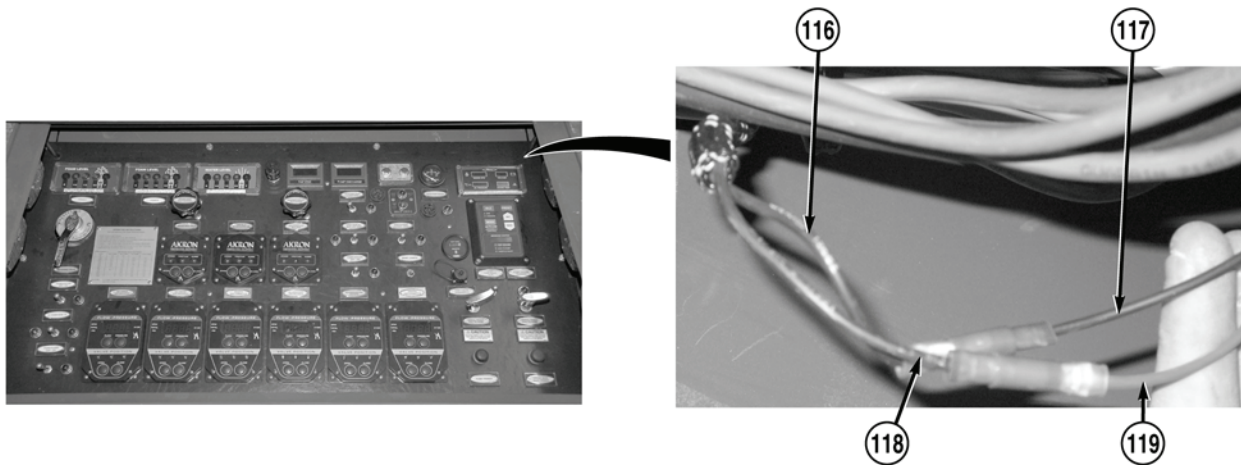
25. Remove three screws (99), lockwashers (100), wire 4037 (101), wire 2834 (102), and wire 4038 (103) from PUMP COOLER switch (104). Discard lockwashers.
26. Remove two screws (105), lockwashers (106), wire 4037 (107), and wire 3895 (108) from PUMP COOLER indicator (109). Discard lockwashers.



27. Disconnect wire 2346 (110) and wire 1661 (111) from PANEL LIGHTS switch (112).



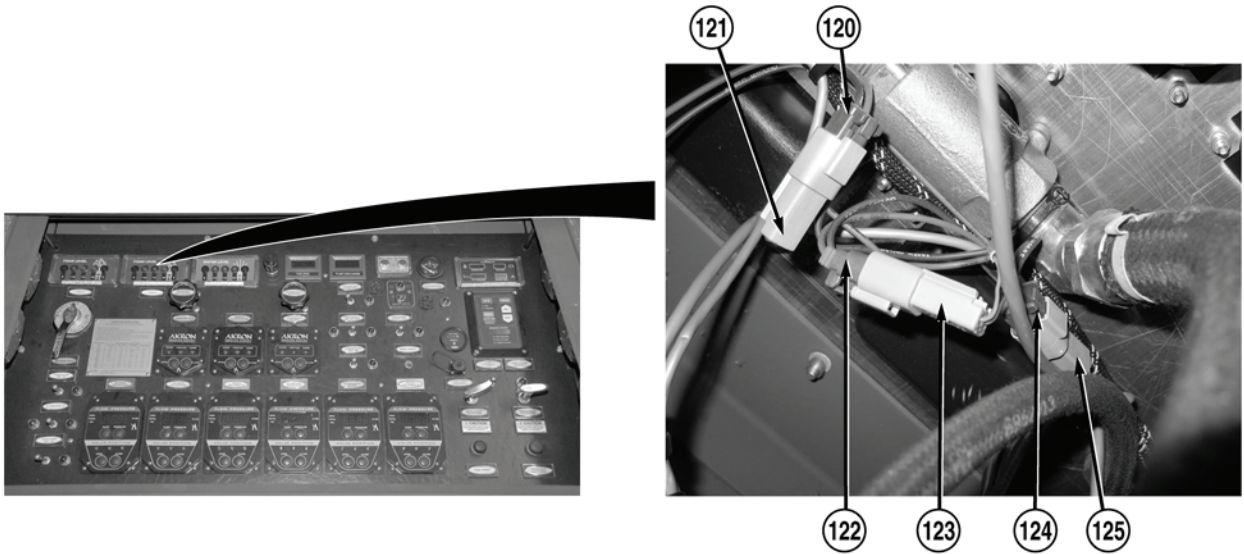
28. Disconnect wire 4075 (113) and wire 3895 (114) from water pump engine hourmeter (115).



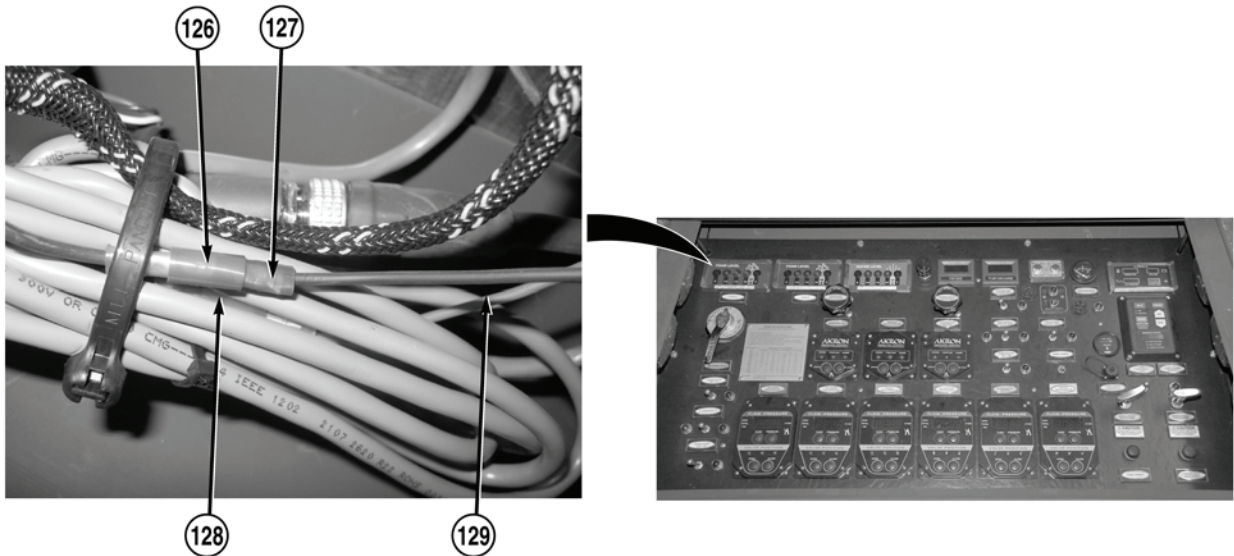
29. Disconnect pump operator's panel wire harness connector (116) from pump operator's panel light wire harness connector (117).

30. Disconnect pump operator's panel wire harness connector (118) from pump operator's panel light wire harness connector (119).

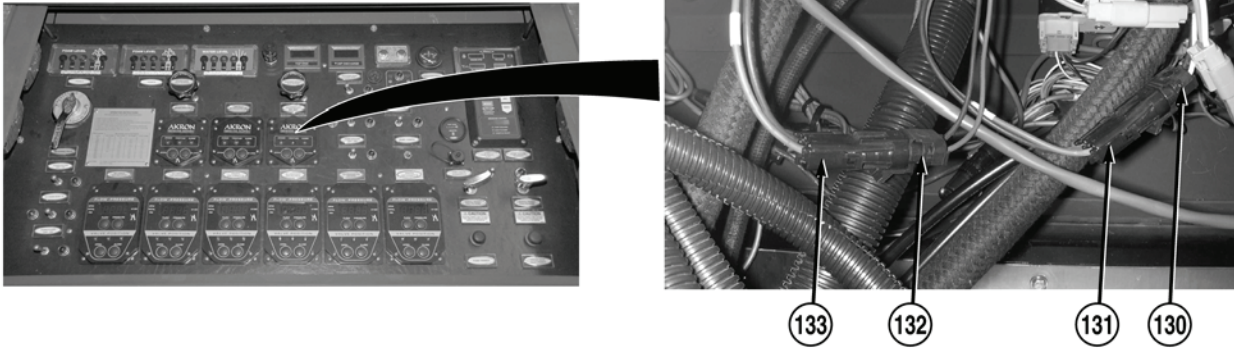




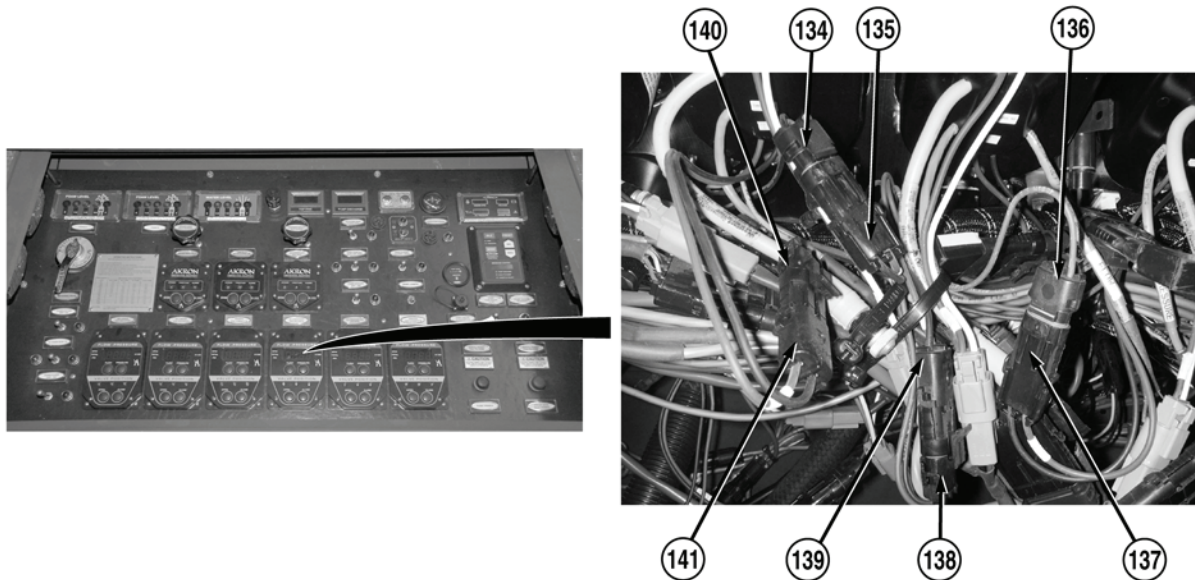
31. Disconnect pump operator's panel wire harness connector (120) from water level gauge wire harness connector (121).
32. Disconnect pump operator's panel wire harness connector (122) from FOAM "B" level gauge wire harness connector (123).
33. Disconnect pump operator's panel wire harness connector (124) from FOAM "A" level gauge wire harness connector (125).



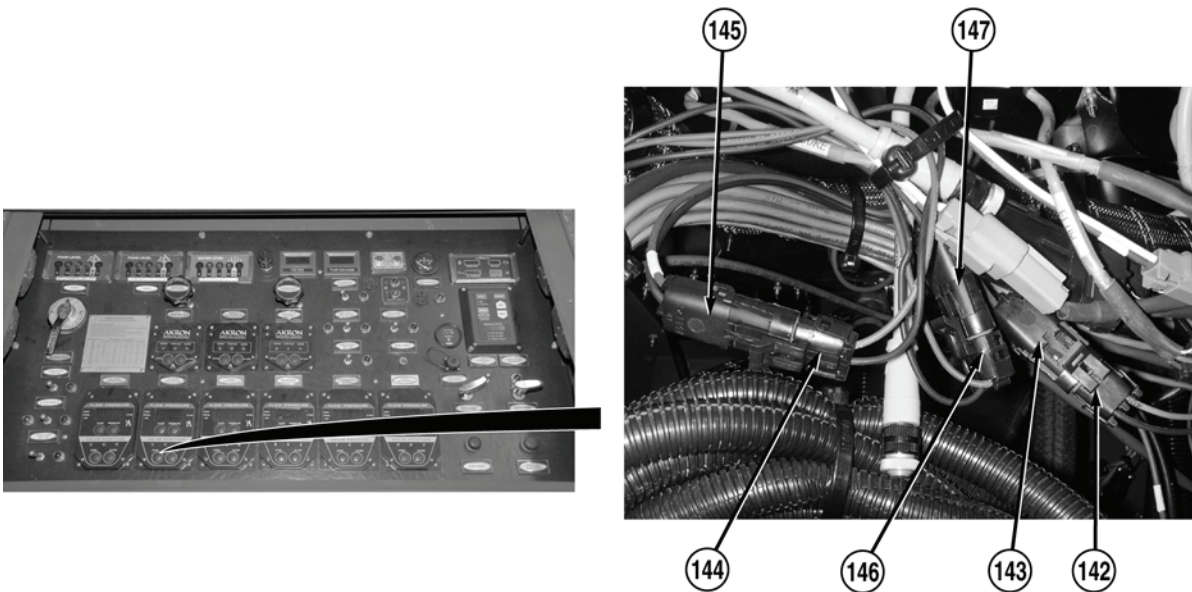
34. Disconnect pump operator's panel wire harness connector (126) from pump operator's panel light wire harness connector (127).
35. Disconnect pump operator's panel wire harness connector (128) from pump operator's panel light wire harness connector (129).



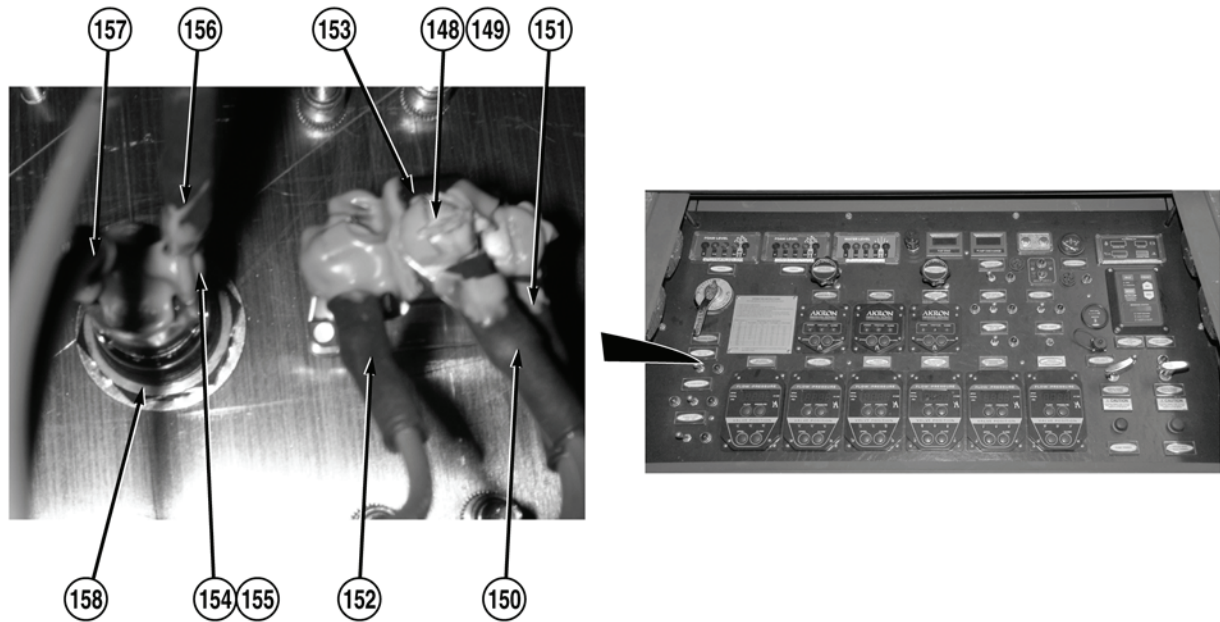
36. Disconnect pump operator's panel wire harness connector (130) from PASSENGER SIDE AUX. INLET control valve wire harness connector (131).
37. Disconnect pump operator's panel wire harness connector (132) from TANK FILL & RE-CIRCULATING LINE control valve wire harness connector (133).



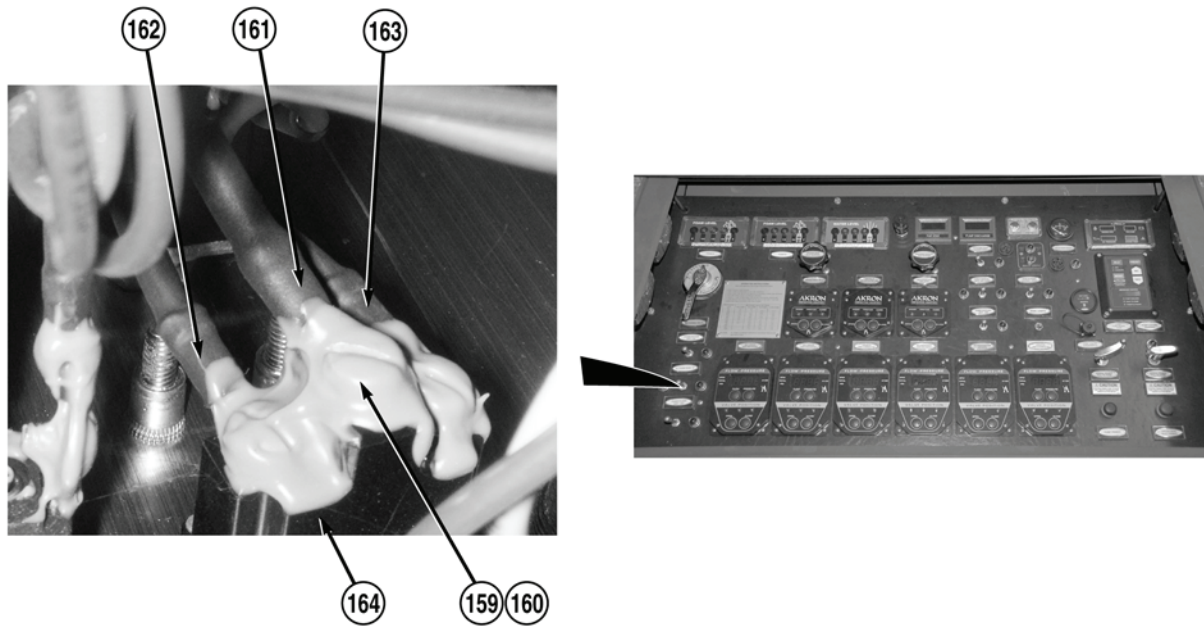
38. Disconnect pump operator's panel wire harness connector (134) from DRIVER PRE-CONNECT A control valve wire harness connector (135).
39. Disconnect pump operator's panel wire harness connector (136) from DRIVER PRE-CONNECT B control valve wire harness connector (137).
40. Disconnect pump operator's panel wire harness connector (138) from No. 4 PASSENGER SIDE DISCHARGE control valve wire harness connector (139).
41. Disconnect pump operator's panel wire harness connector (140) from No. 3 PASSENGER SIDE DISCHARGE control valve wire harness connector (141).



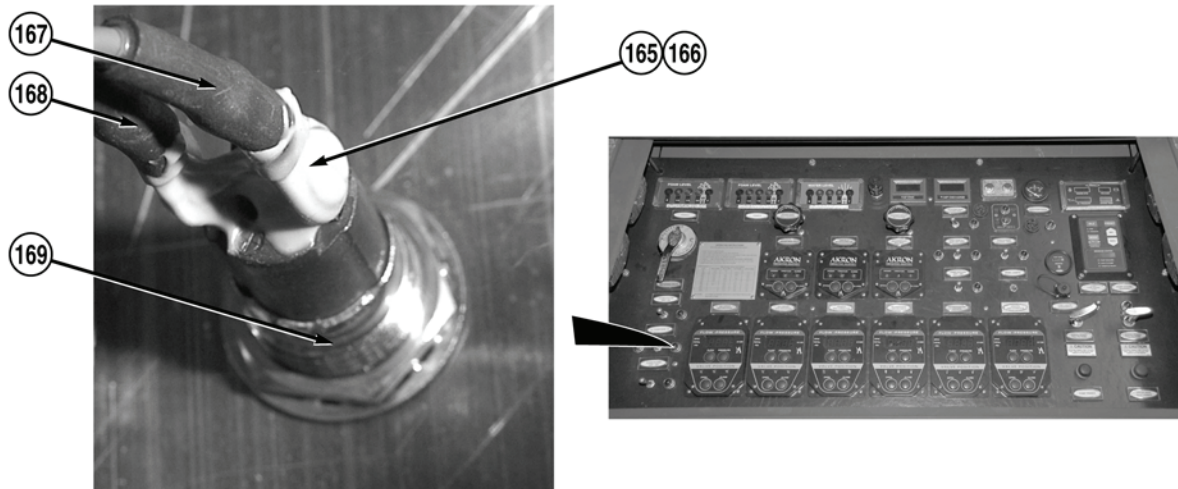
42. Disconnect pump operator's panel wire harness connector (142) from DRIVER MAIN INLET control valve wire harness connector (143).
43. Disconnect pump operator's panel wire harness connector (144) from No. 2 DRIVER SIDE DISCHARGE control valve wire harness connector (145).
44. Disconnect pump operator's panel wire harness connector (146) from No. 1 DRIVER SIDE DISCHARGE control valve wire harness connector (147).



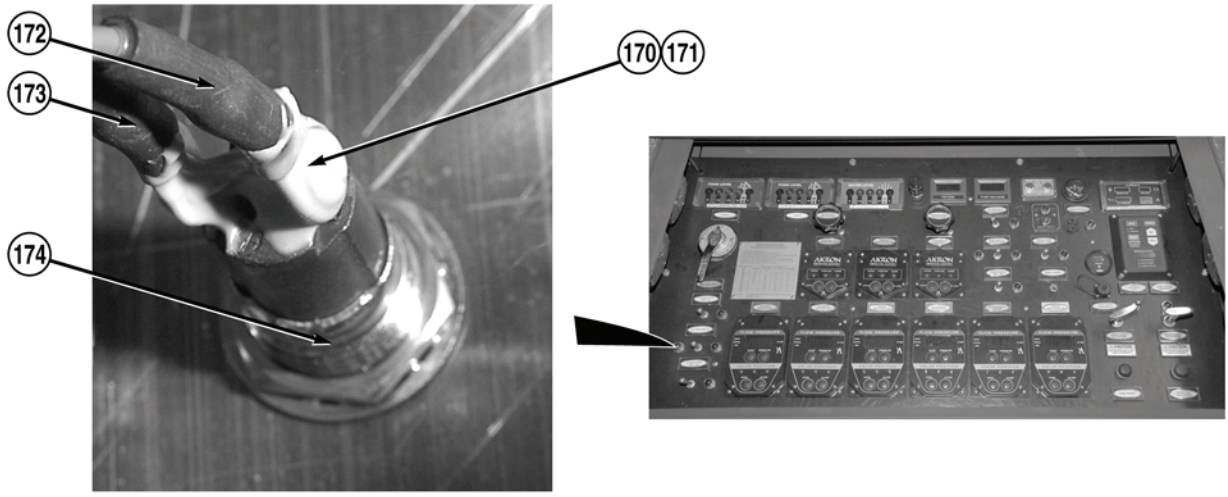
45. Remove three screws (148), lockwashers (149), wire 2816 (150), wire 2830 (151), and wire 2831 (152) from FOAM SYSTEM ON/OFF switch (153). Discard lockwashers.
46. Remove two screws (154), lockwashers (155), wire 2830 (156), and wire 3895 (157) from FOAM SYSTEM ON/OFF indicator (158). Discard lockwashers.



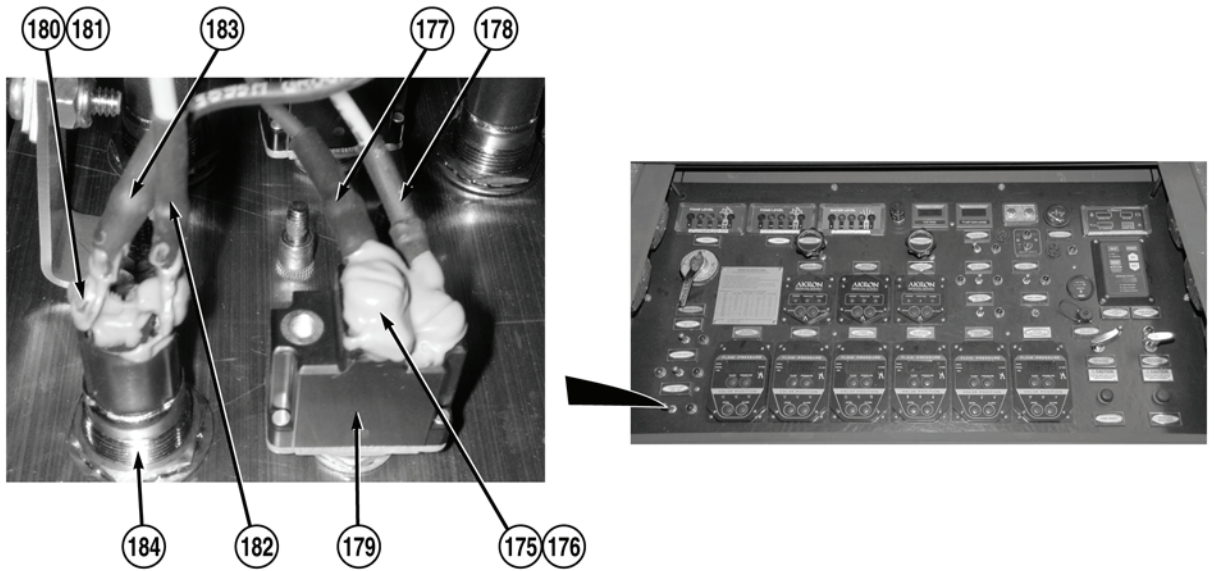
47. Remove three screws (159), lockwasher (160), wire 2830 (161), wire 2843 (162), and wire 2842 (163) from "A" FOAM TANK "B" switch (164). Discard lockwashers.



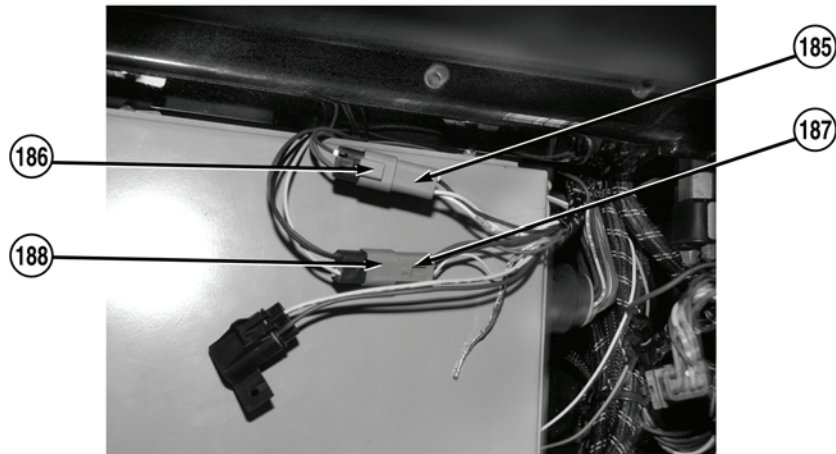
48. Remove two screws (165), lockwashers (166), wire 2843 (167), and wire 3895 (168) from FOAM "B" indicator (169). Discard lockwashers.



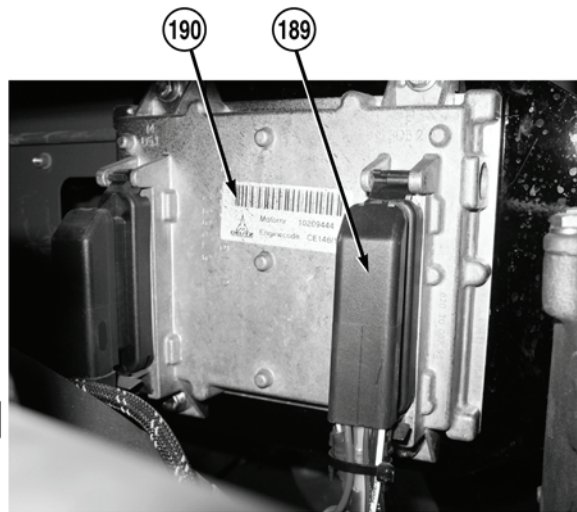
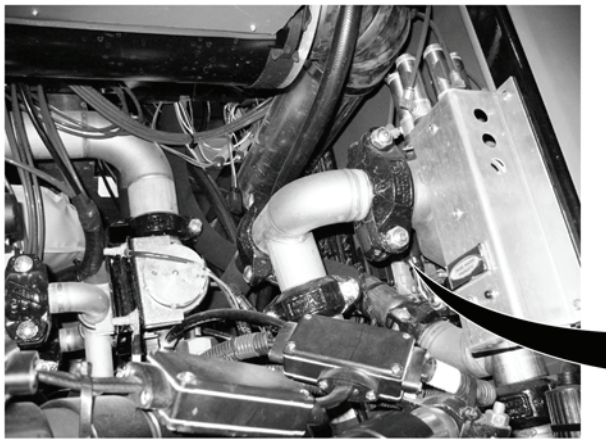
49. Remove two screws (170), lockwashers (171), wire 2842 (172), and wire 3895 (173) from FOAM "A" indicator (174). Discard lockwashers.



50. Remove two screws (175), lockwashers (176), wire 2834 (177), and wire 2849 (178) from FOAM FLUSH OFF-ON switch (179). Discard lockwashers.
51. Remove two screws (180), lockwashers (181), wire 2849 (182), and wire 3895 (183) from FOAM FLUSH indicator (184). Discard lockwashers.

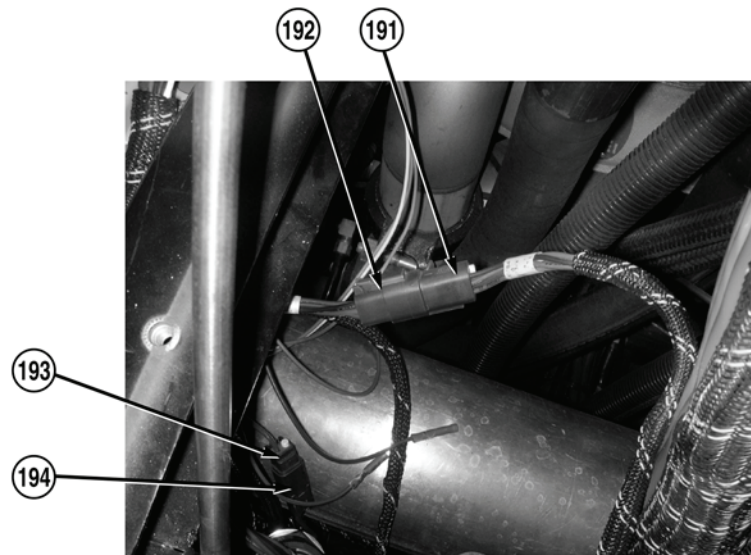


52. Disconnect pump operator's panel wire harness connector (185) from dual governor wire harness connector (186).
53. Disconnect pump operator's panel wire harness connector (187) from dual governor wire harness connector (188).



54. Disconnect pump operator's panel wire harness connector (189) from engine control module (190).

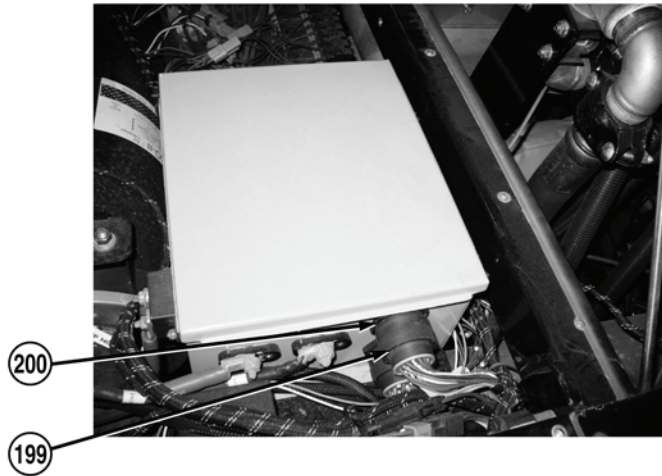




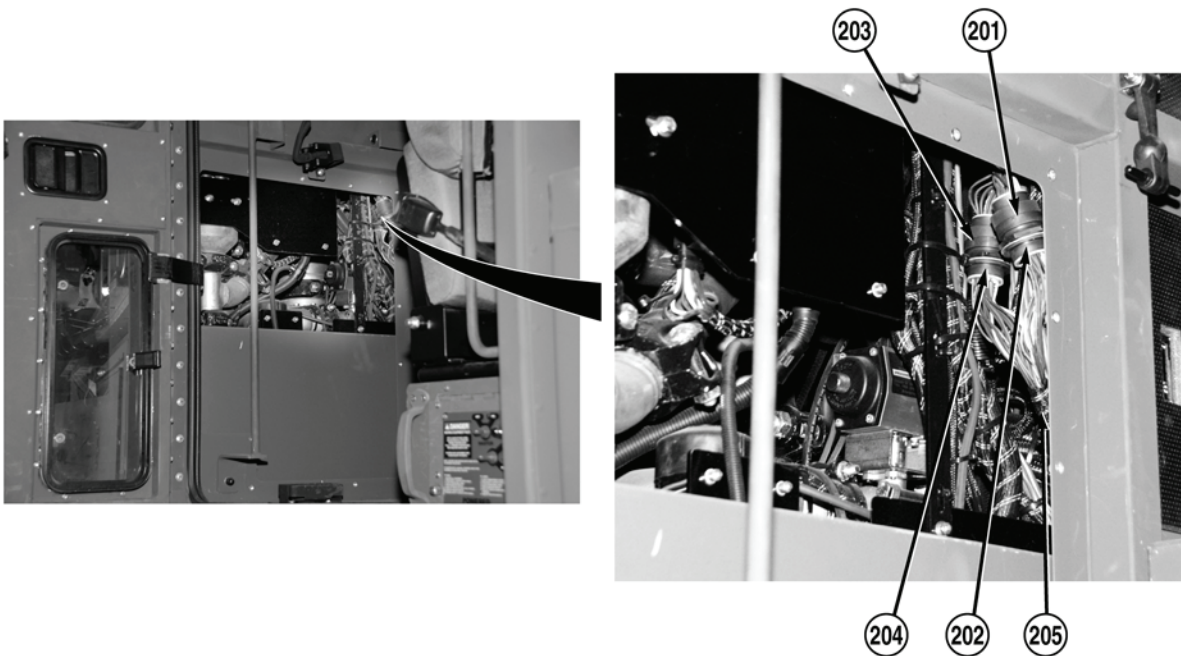
55. Disconnect pump operator's panel wire harness connector (191) from pump house wire harness connector (192).
56. Disconnect tank fill connector (193) from pump operator's panel wire harness connector (194).



57. Remove nut (195), lockwasher (196), and wire 3895 (197) from pump house ground bolt (198). Discard lockwasher.



58. Disconnect pump power distribution connector DP 2 (199) from pump house distribution box DP 2 connector (200).

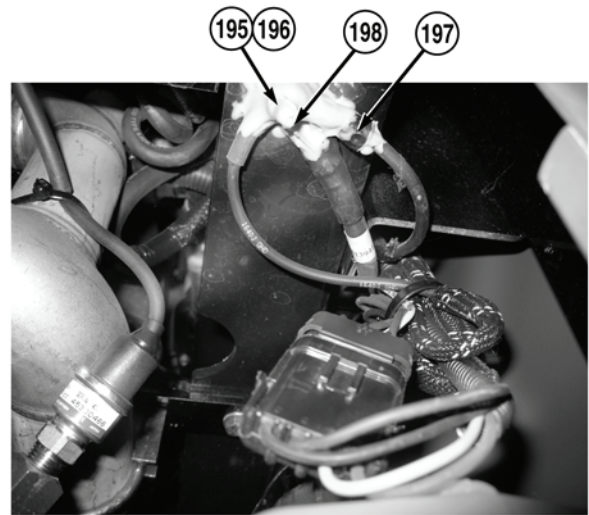


59. Disconnect pump operator's panel wire harness connector DO 1 (201) from main wire harness DO 1 connector (202).
60. Disconnect pump operator's panel wire harness connector DO 2 (203) from main wire harness DO 2 connector (204).
61. Remove pump operator's panel wire harness (205) from vehicle.

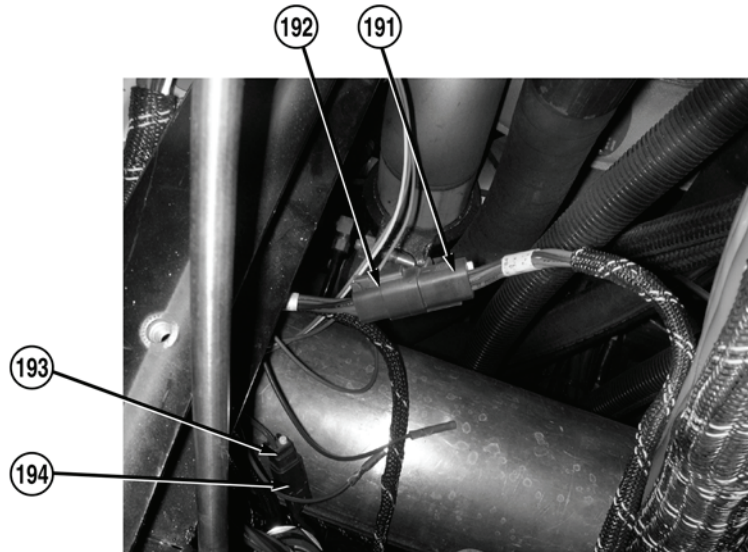
**END OF TASK**

**INSTALLATION****NOTE**

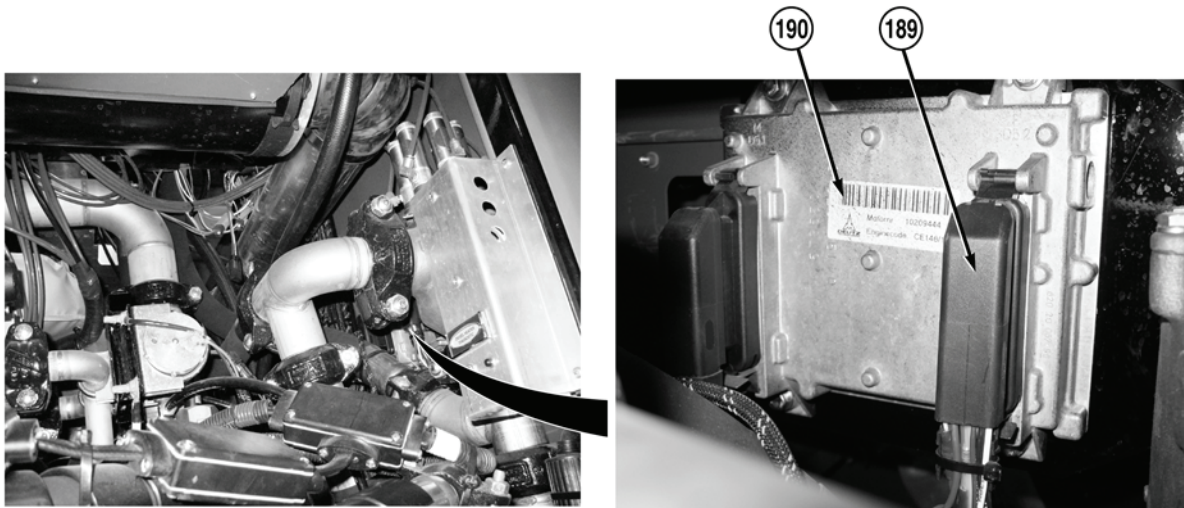
- Route pump operator's panel wire harness as noted prior to removal.
  - Install cable ties, split looms, and cushion clips as noted.
1. Install pump operator's panel wire harness (205) into vehicle.
  2. Connect pump operator's panel wire harness connector DO 2 (203) to main wire harness DO 2 connector (204).
  3. Connect pump operator's panel wire harness connector DO 1 (201) to main wire harness DO 1 connector (202).
  4. Connect pump power distribution connector DP 2 (199) to pump house distribution box DP 2 connector (200).



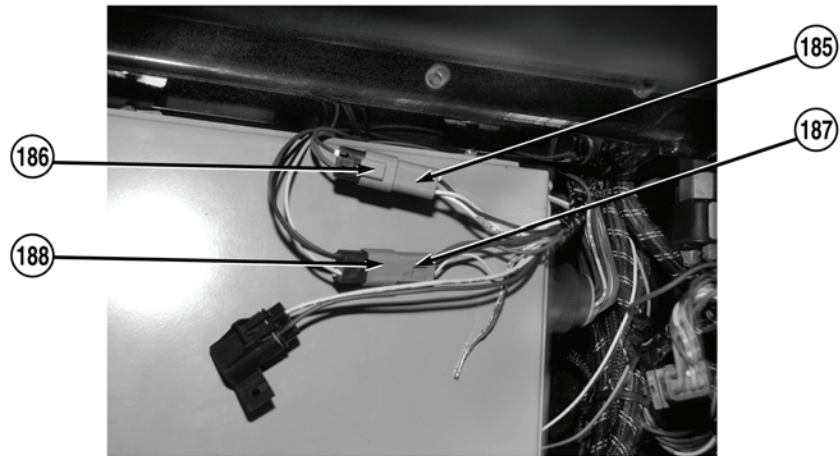
5. Install wire 3895 (197) to pump house ground bolt (198) with lockwasher (196) and nut (195).



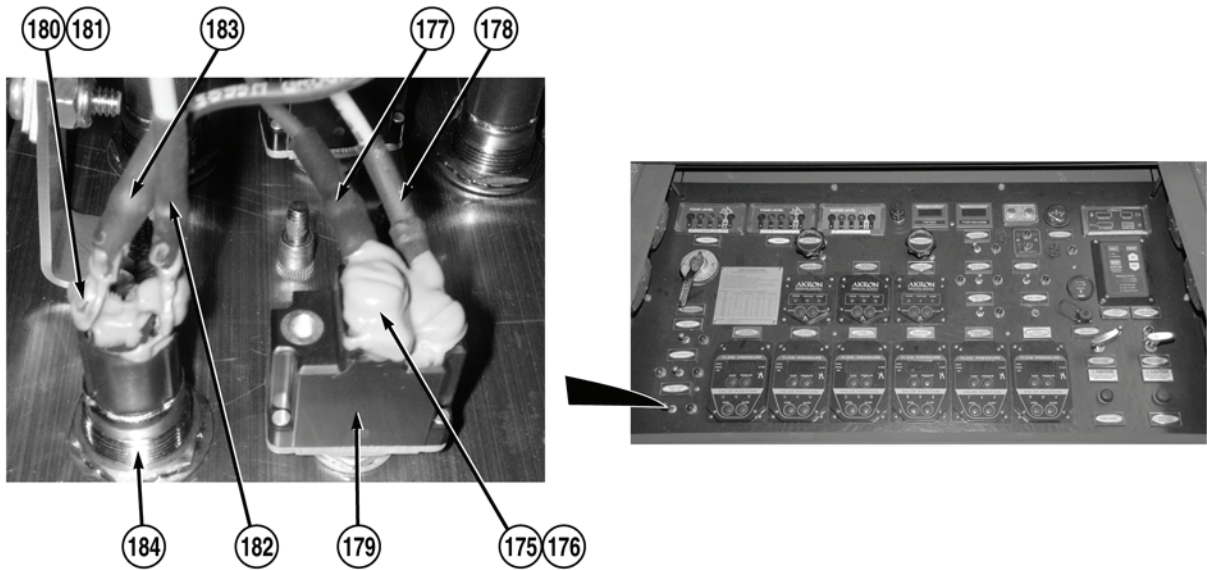
6. Connect tank fill connector (193) to pump operator's panel wire harness connector (194).
7. Connect pump operator's panel wire harness connector (191) to pump house wire harness connector (192).



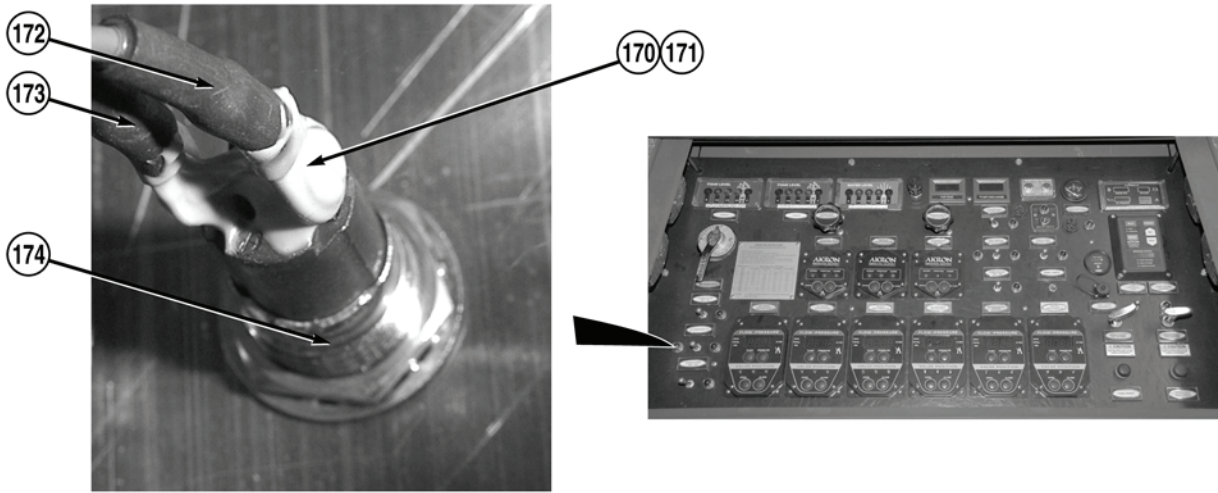
8. Connect pump operator's panel wire harness connector (189) to engine control module (190).



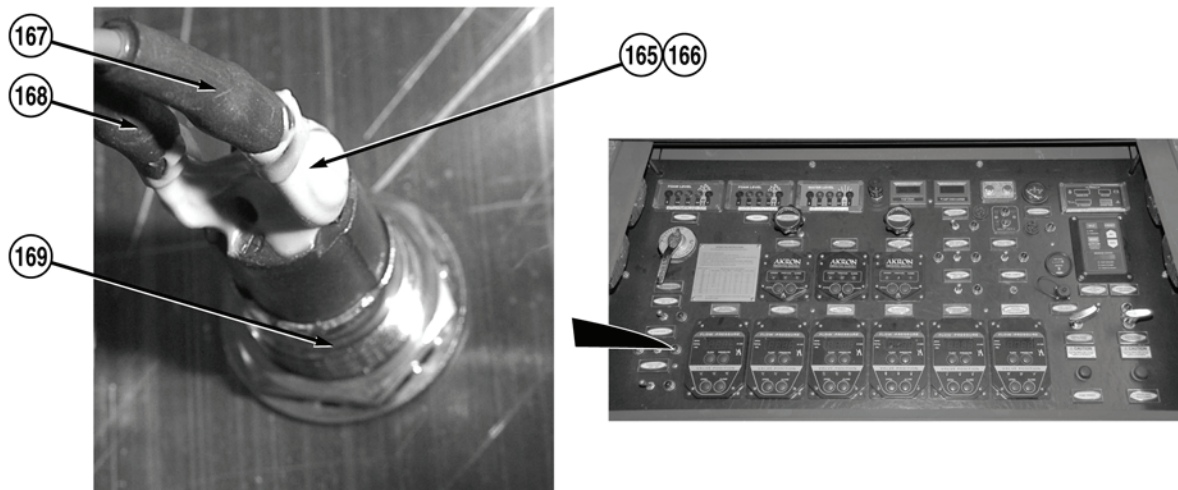
9. Connect pump operator's panel wire harness connector (187) to dual governor wire harness connector (188).
10. Connect pump operator's panel wire harness connector (185) to dual governor wire harness connector (186).



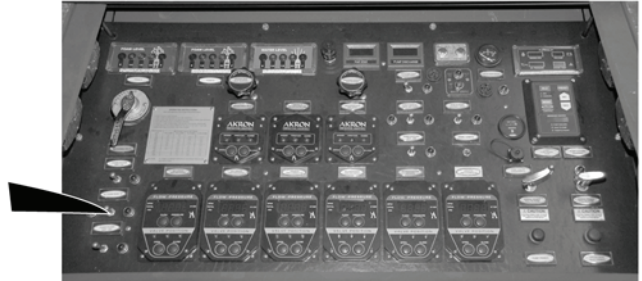
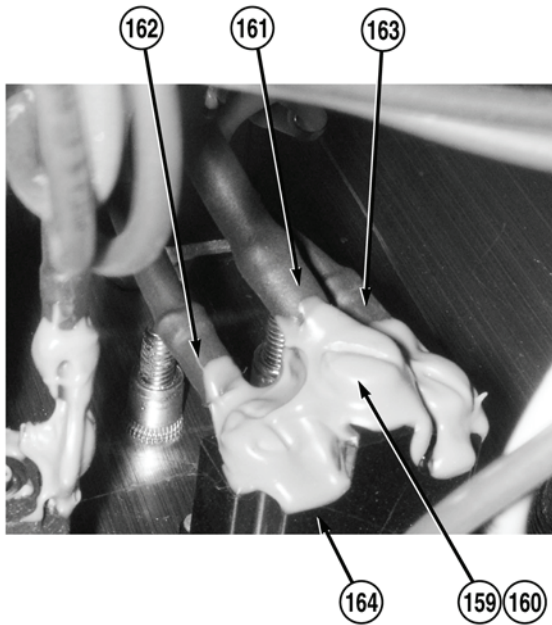
11. Install wire 2849 (182), wire 3895 (183) to FOAM FLUSH indicator (184) with two lockwashers (181) and screws (180).
12. Install wire 2834 (177) and wire 2849 (178) to FOAM FLUSH OFF-ON switch (179) with two lockwashers (176) and screws (175).



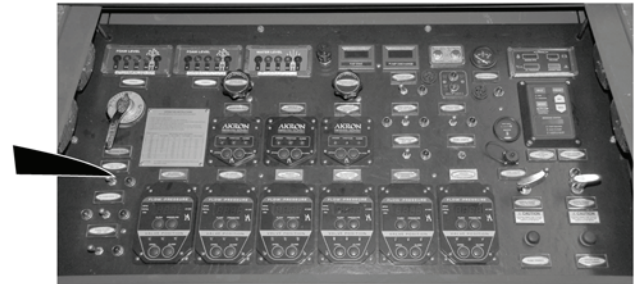
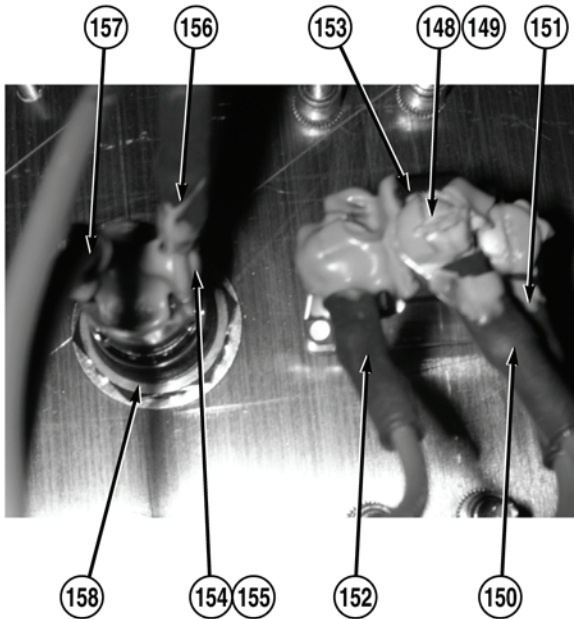
13. Install wire 2842 (172) and wire 3895 (173) to FOAM "A" indicator (174) with two lockwashers (171) and screws (170).



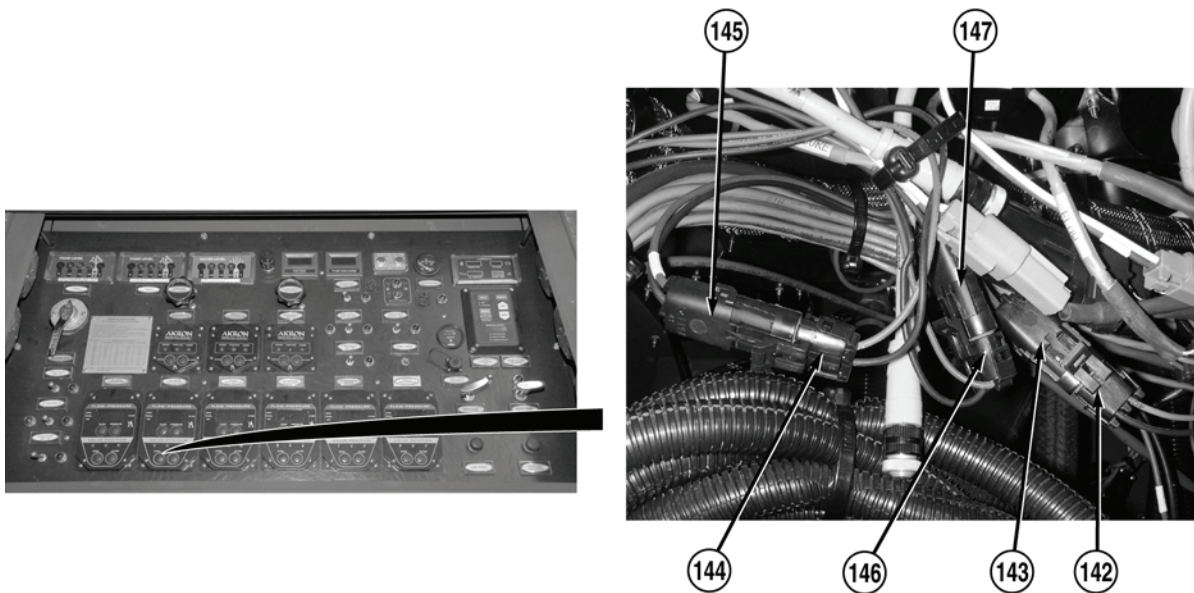
14. Install wire 2843 (167) and wire 3895 (168) to FOAM "B" indicator (169) with lockwashers (166) and two screws (165).



15. Install wire 2830 (161), wire 2843 (162), and wire 2842 (163) to "A" FOAM TANK "B" switch (164) with three lockwashers (160) and screws (159).

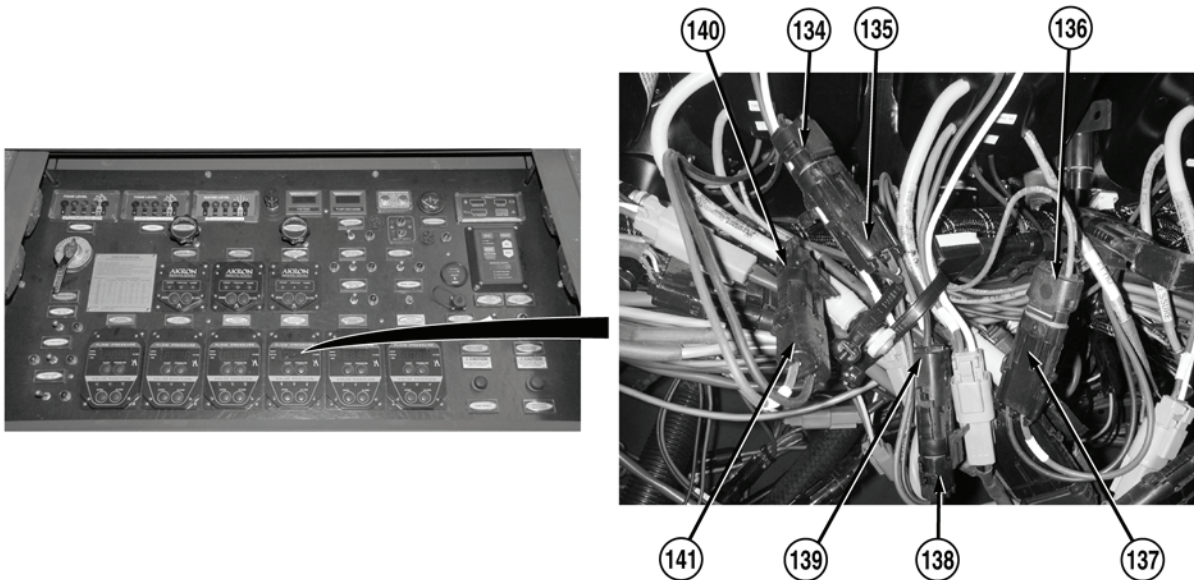


16. Install wire 2830 (156) and wire 3895 (157) to FOAM SYSTEM ON/OFF indicator (158) with two lockwashers (155) and screws (154).
17. Install wire 2816 (150), wire 2830 (151), and wire 2831 (152) to FOAM SYSTEM ON/OFF switch (153) with three lockwashers (149) and screws (148).

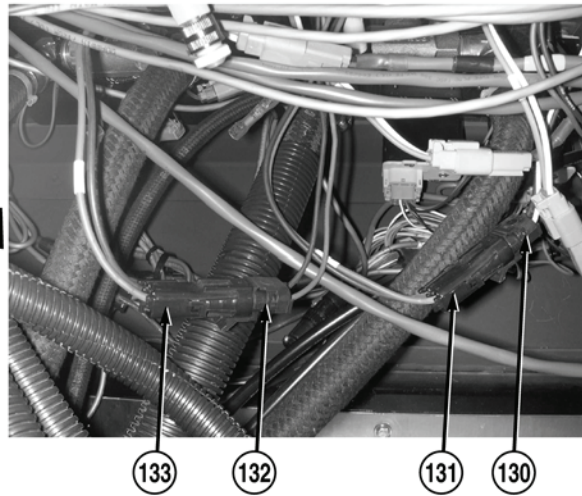
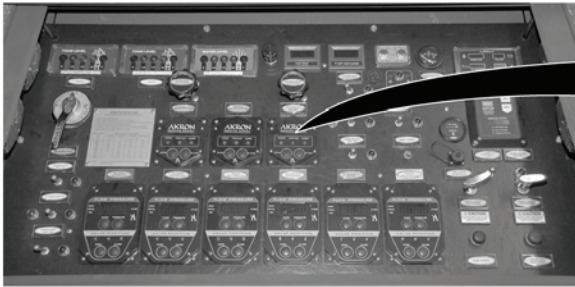


18. Connect pump operator's panel wire harness connector (146) to No. 1 DRIVER SIDE DISCHARGE control valve wire harness connector (147).
19. Connect pump operator's panel wire harness connector (144) to No. 2 DRIVER SIDE DISCHARGE control valve wire harness connector (145).
20. Connect pump operator's panel wire harness connector (142) to DRIVER MAIN INLET control valve wire harness connector (143).

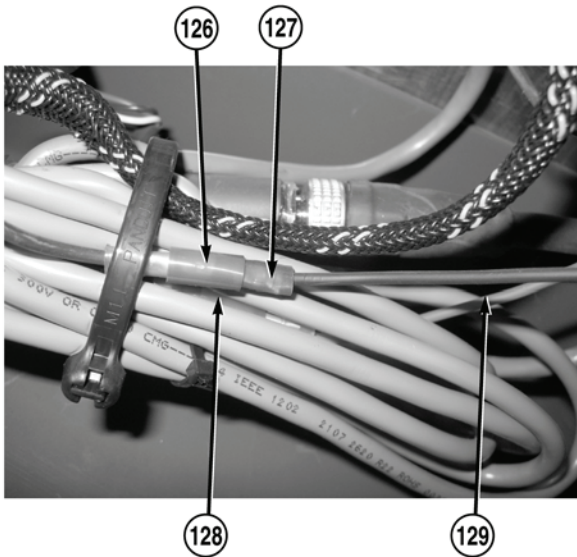




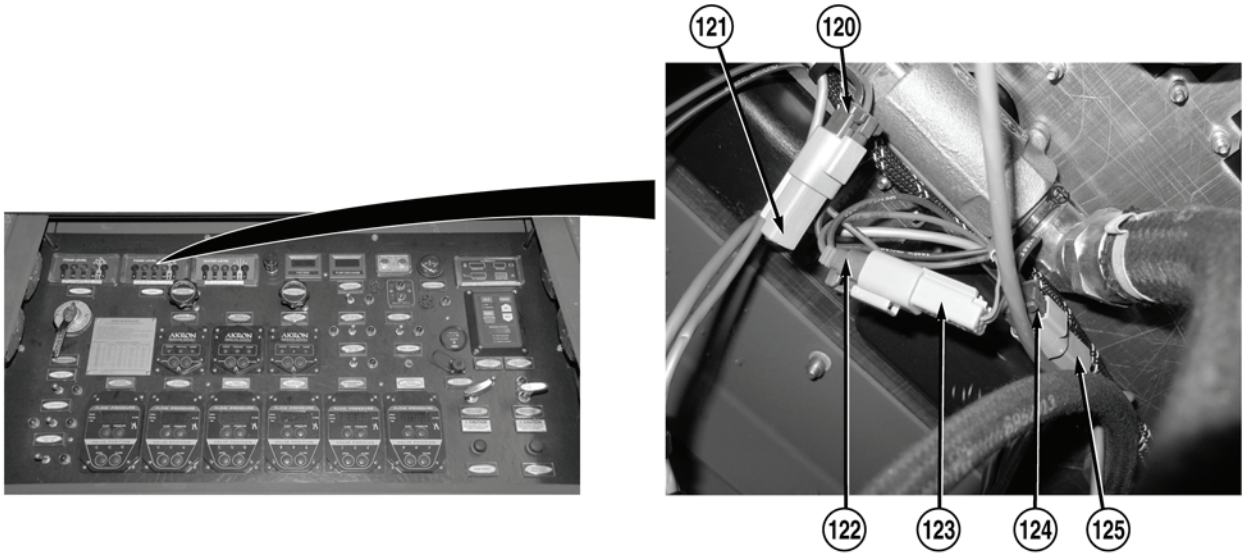
21. Connect pump operator's panel wire harness connector (140) to No. 3 PASSENGER SIDE DISCHARGE control valve wire harness connector (141).
22. Connect pump operator's panel wire harness connector (138) to No. 4 PASSENGER SIDE DISCHARGE control valve wire harness connector (139).
23. Connect pump operator's panel wire harness connector (136) to DRIVER PRE-CONNECT B control valve wire harness connector (137).
24. Connect pump operator's panel wire harness connector (134) to DRIVER PRE-CONNECT A control valve wire harness connector (135).



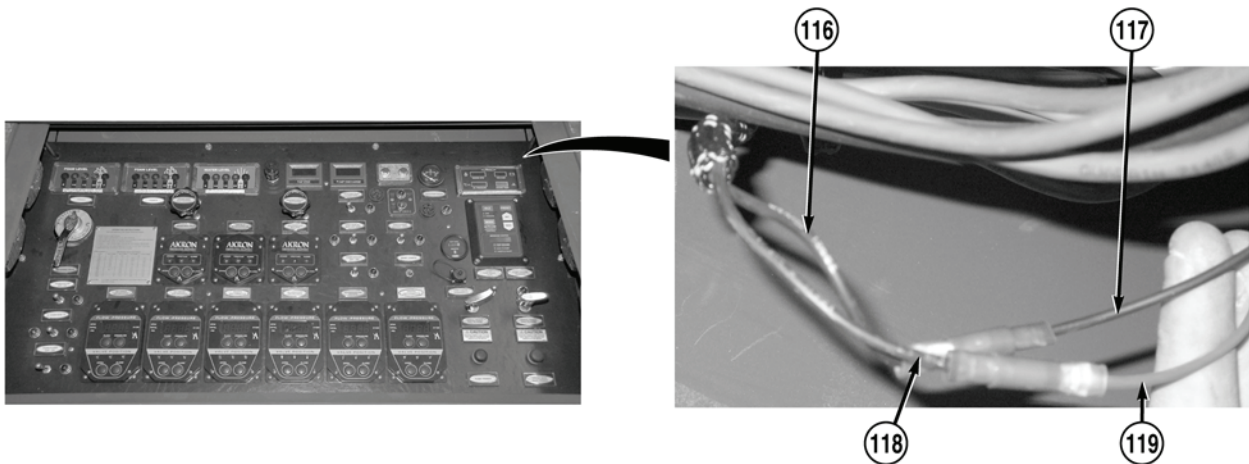
- 25. Connect pump operator's panel wire harness connector (132) to TANK FILL & RE-CIRCULATING LINE control valve wire harness connector (133).
- 26. Connect pump operator's panel wire harness connector (130) to PASSENGER SIDE AUX. INLET control valve wire harness connector (131).



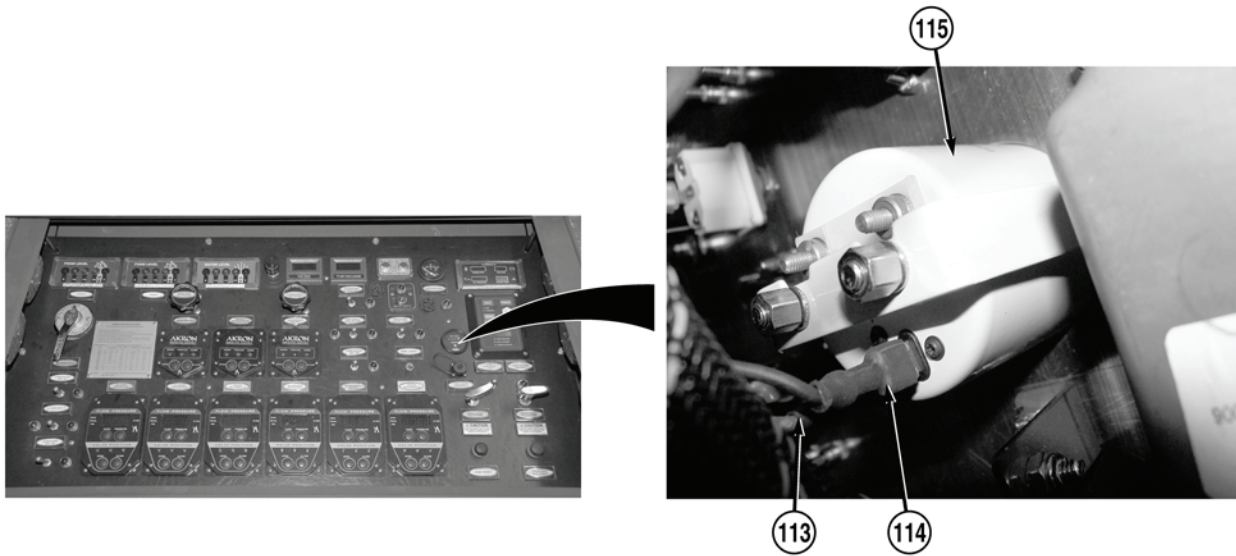
- 27. Connect pump operator's panel wire harness connector (128) to pump operator's panel light wire harness connector (129).
- 28. Connect pump operator's panel wire harness connector (126) to pump operator's panel light wire harness connector (127).



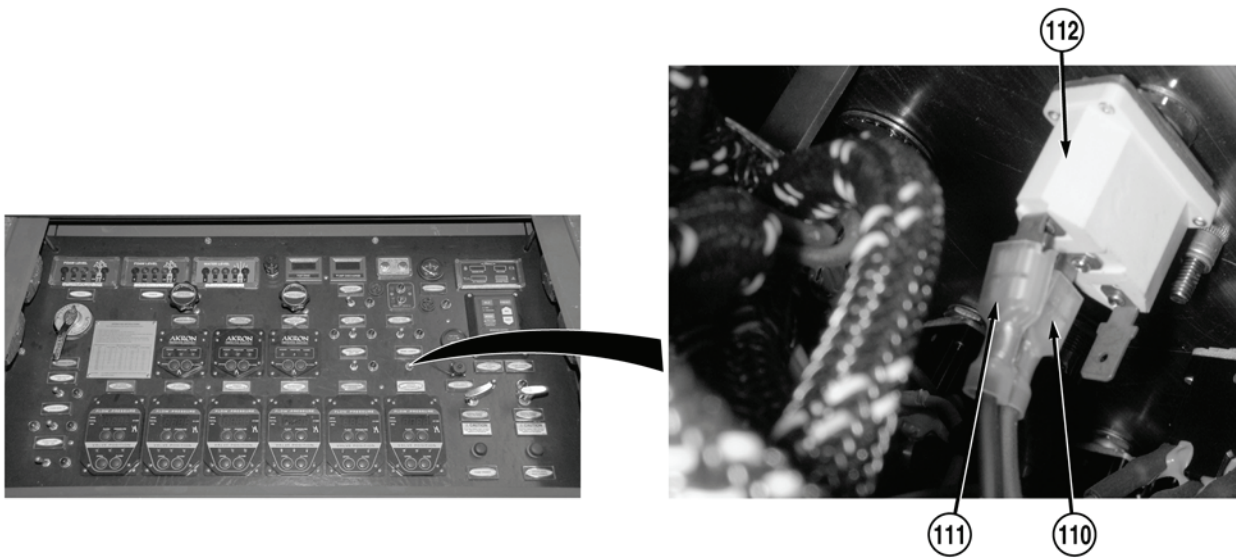
29. Connect pump operator's panel wire harness connector (124) to FOAM "A" level gauge wire harness connector (125).
30. Connect pump operator's panel wire harness connector (122) to FOAM "B" level gauge wire harness connector (123).
31. Connect pump operator's panel wire harness connector (120) to water level gauge wire harness connector (121).



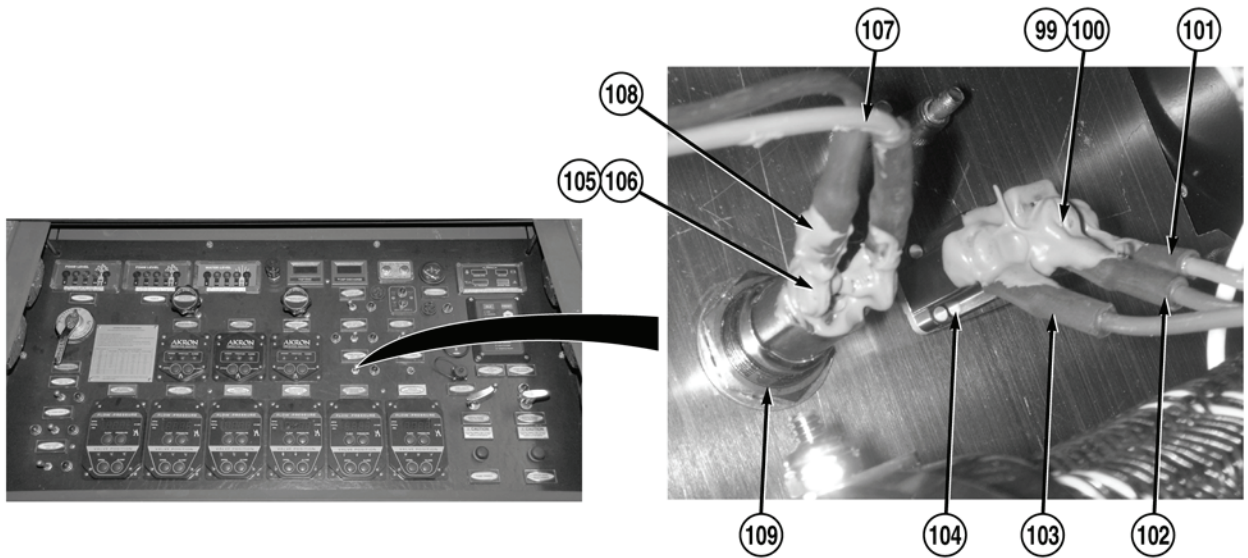
32. Connect pump operator's panel wire harness connector (118) to pump operator's panel light wire harness connector (119).
33. Connect pump operator's panel wire harness connector (116) to pump operator's panel light wire harness connector (117).



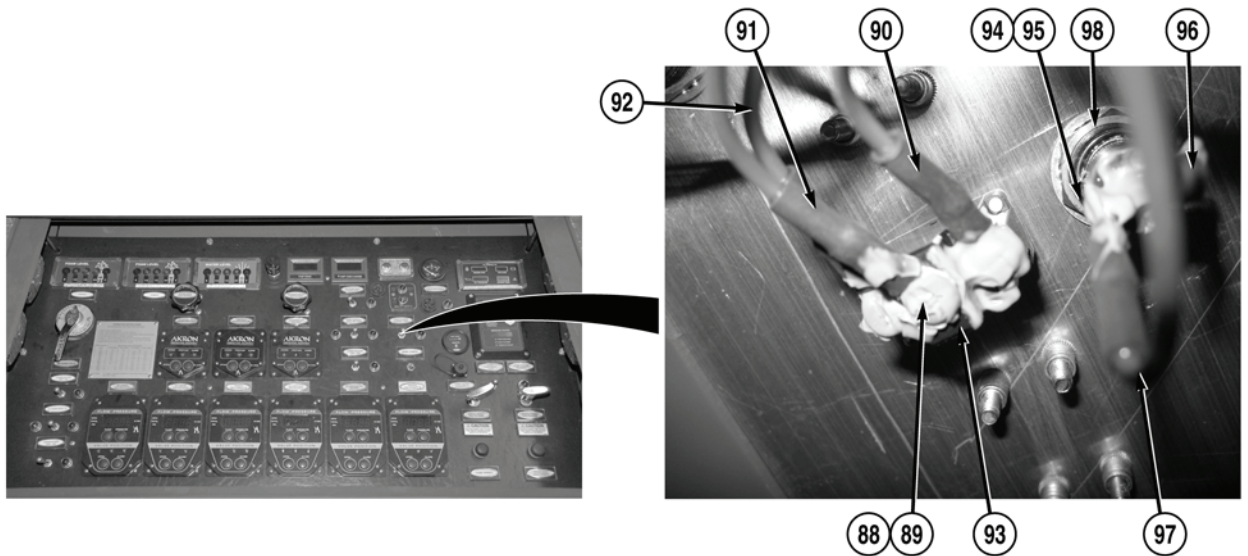
34. Connect wire 4075 (113) and wire 3895 (114) to water pump engine hourmeter (115).



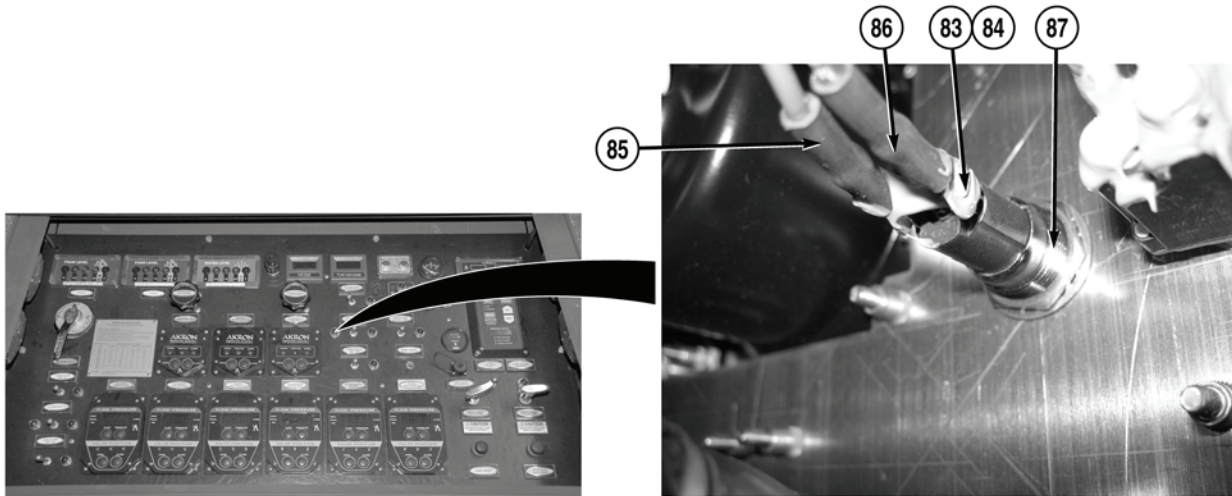
35. Connect wire 2346 (110) and wire 1661 (111) to PANEL LIGHTS switch (112).



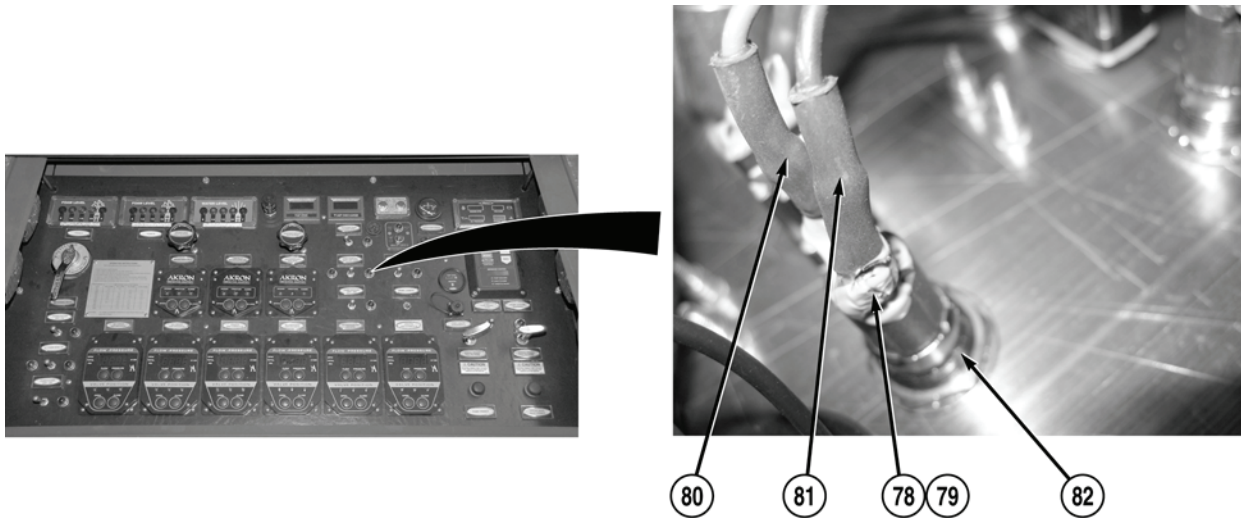
36. Install wire 4037 (107) and wire 3895 (108) from PUMP COOLER indicator (109) with two lockwashers (106) and screws (105).
37. Install wire 4037 (101), wire 2834 (102), and wire 4038 (103) to PUMP COOLER switch (104) with three lockwashers (100) and screws (99).



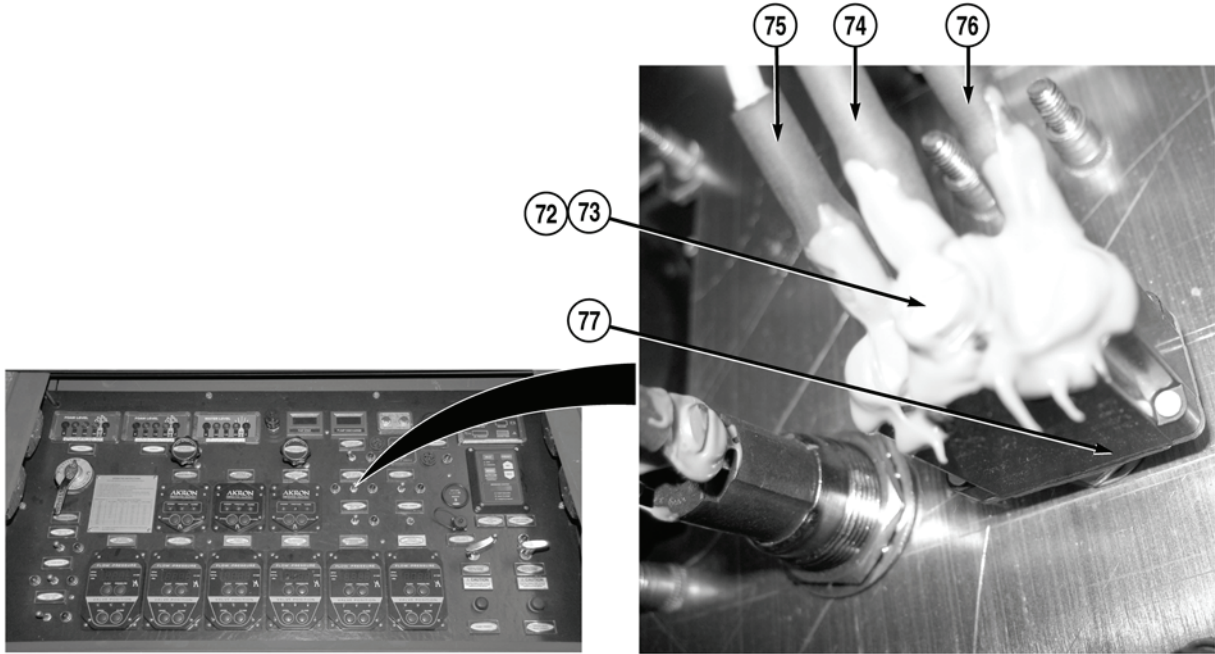
38. Install wire 2855 (96) and wire 3895 (97) to TANK TO PUMP indicator (98) with two lockwashers (95) and screws (94).
39. Install wire 2770 (90), wire 2854 (91), and wire 2855 (92) to TANK TO PUMP switch (93) with three lockwashers (89) and screws (88).



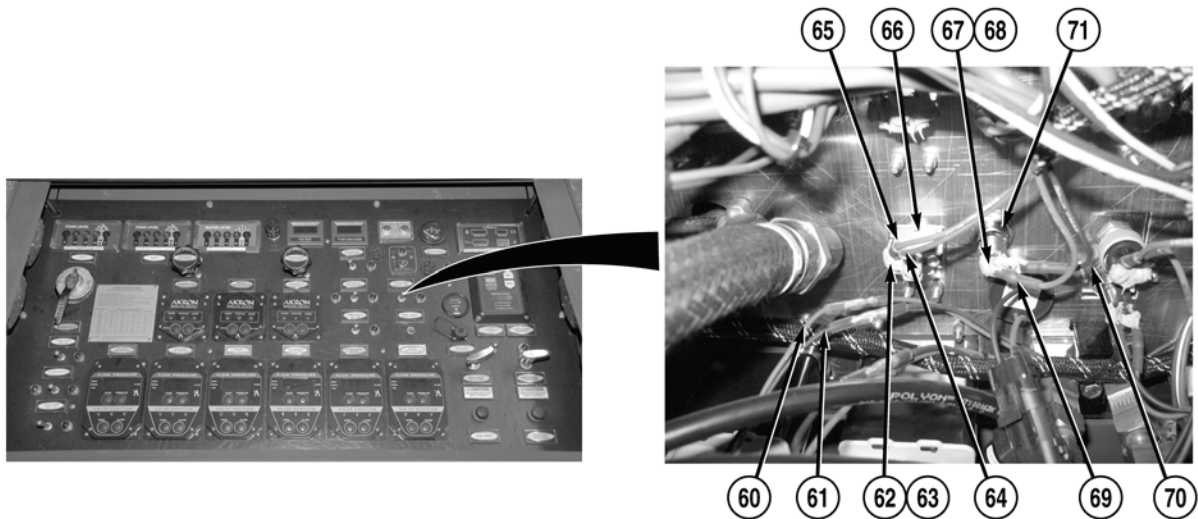
40. Install wire 2316 (85) and wire 3895 (86) to DIRECT TANK FILL AUTO indicator (87) with two lockwashers (84) and screws (83).



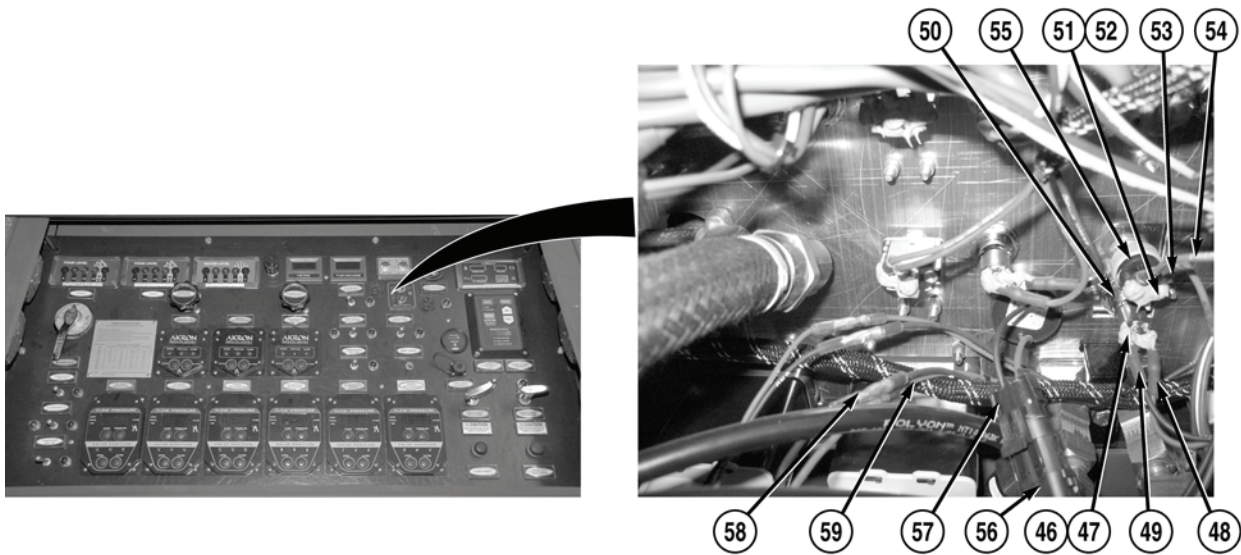
41. Install wire 2315 (80) and wire 3895 (81) to DIRECT TANK FILL OPEN indicator (82) with two lockwashers (79) and screws (78).



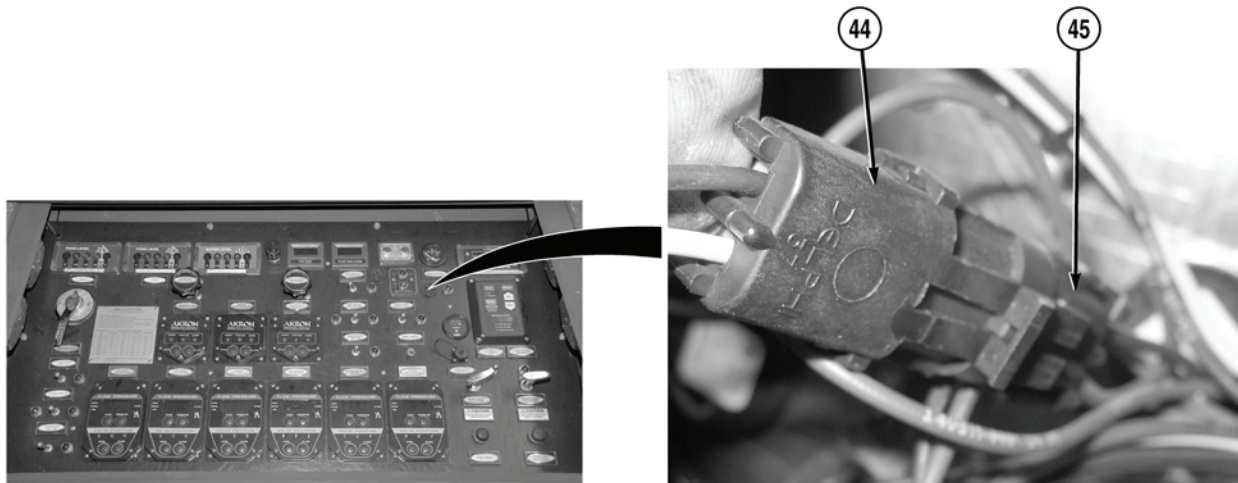
42. Install wire 2314 (74), wire 2315 (75), and wire 2316 (76) to DIRECT TANK FILL switch (77) with three lockwashers (73) and screws (72).



43. Install wire 4053 (69) and wire 3895 (70) to WATER TANK DRAIN indicator (71) with two lockwashers (68) and screws (67).
44. Install wire 2834 (64) and wire 4053 (65) to WATER TANK DRAIN switch (66) with two lockwashers (63) and screws (62).
45. Repair wire 2341 (60) and wire 3895 (61) (TM 9-2320-325-14&P).

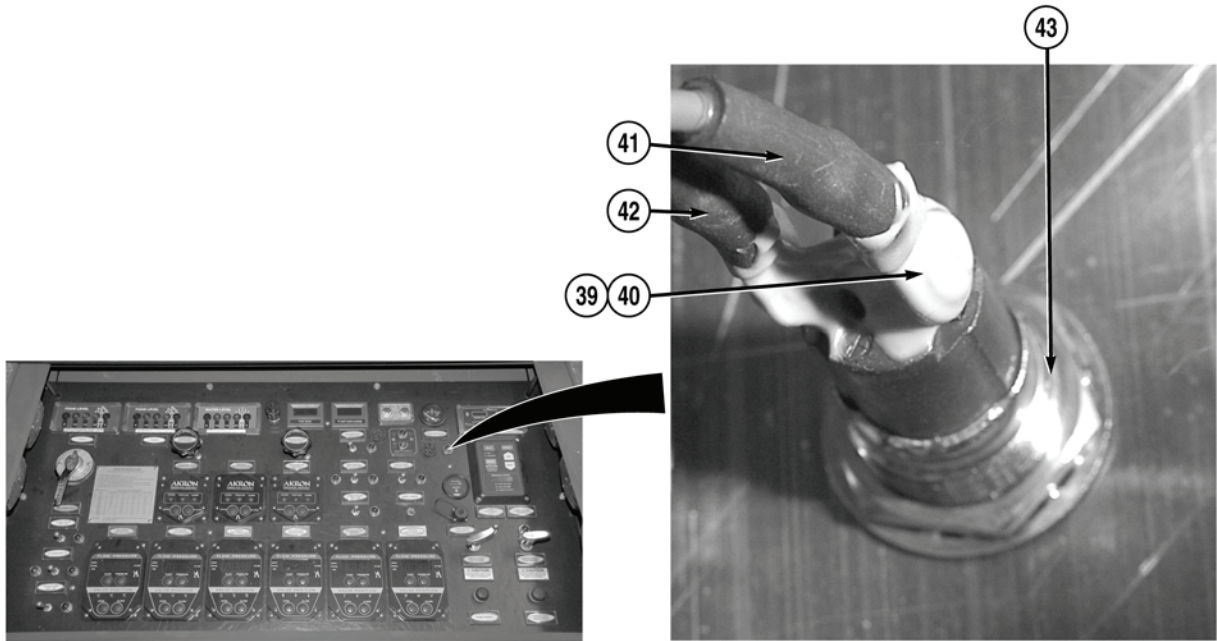


- 46. Repair wire 2341 (58) and wire 3895 (59) (TM 9-2320-325-14&P).
- 47. Connect pump operator's panel wire harness connector (56) from overheat audio alarm (57).
- 48. Install wire 2773 (53) and wire 1590 (54) to overheat alarm test switch (55) with two lockwashers (52) and screws (51).
- 49. Install wire 1405 (48) and wire 3895 (49) to overheat alarm indicator (50) with two lockwashers (47) and screws (46).

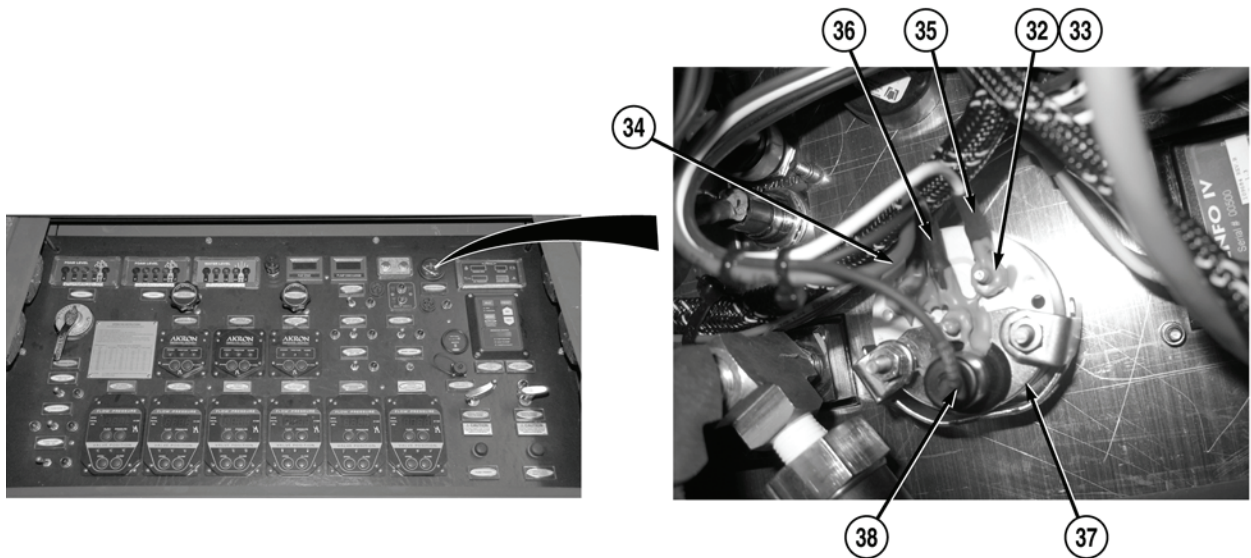


- 50. Connect pump operator's panel wire harness connector (44) from CHECK PUMP ENGINE audio alarm (45).

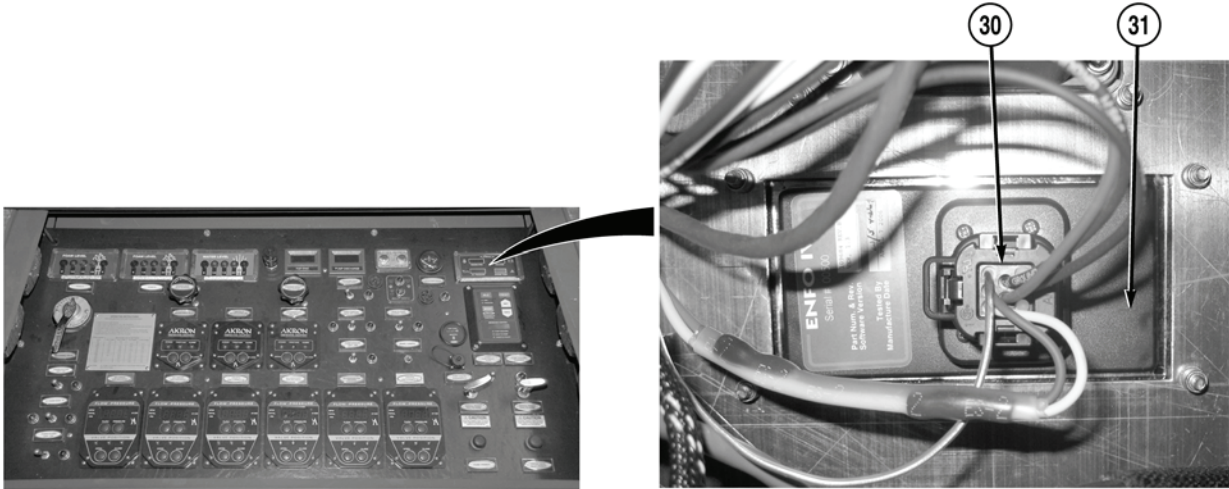




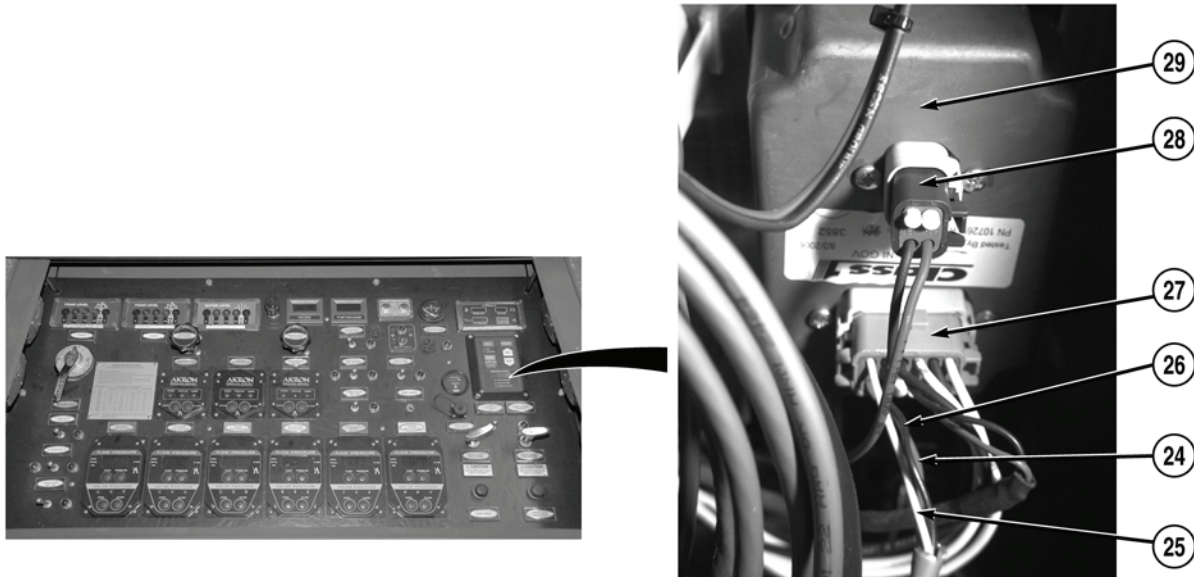
51. Install wire 2670 (41) and wire 2871 (42) to CHECK PUMP ENGINE indicator (43) with two lockwashers (40) and screws (39).



52. Connect light bulb socket connector (38) to fuel level gauge (37).
53. Install wire H076 (34), wire H318 (35), and wire 3895 (36) to fuel level gauge (37) with three lockwashers (33) and nuts (32).

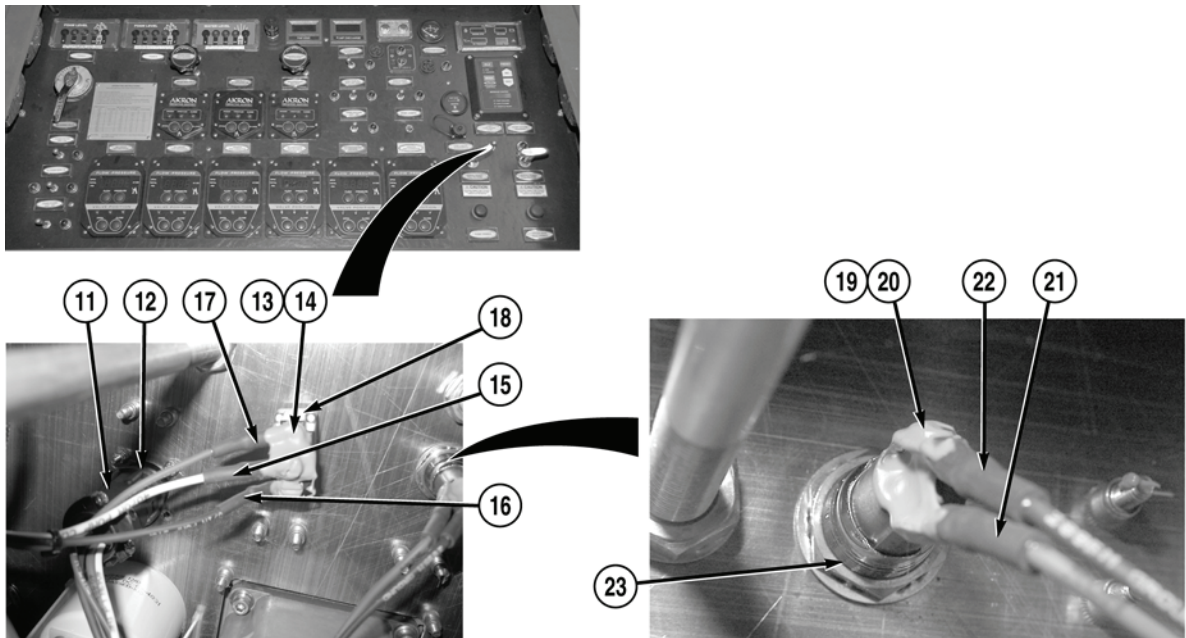


54. Connect pump operator's panel wire harness connector (30) to ENFO IV display module (31).

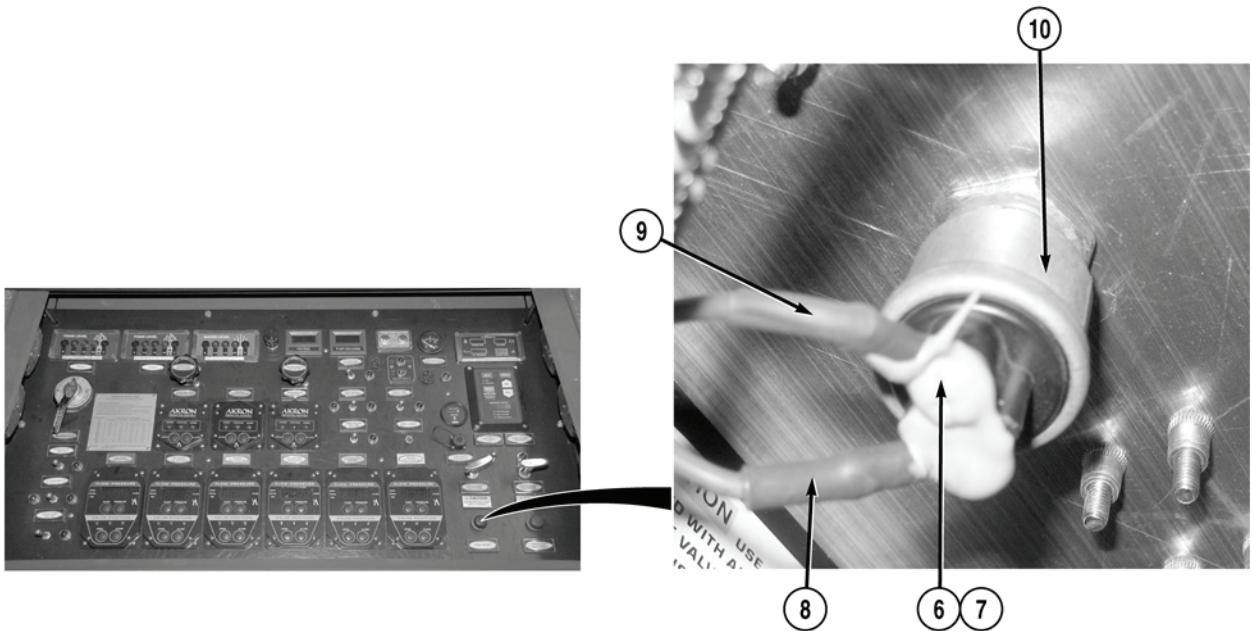


55. Connect pump operator's panel wire harness connector (28) to governor control module (29).

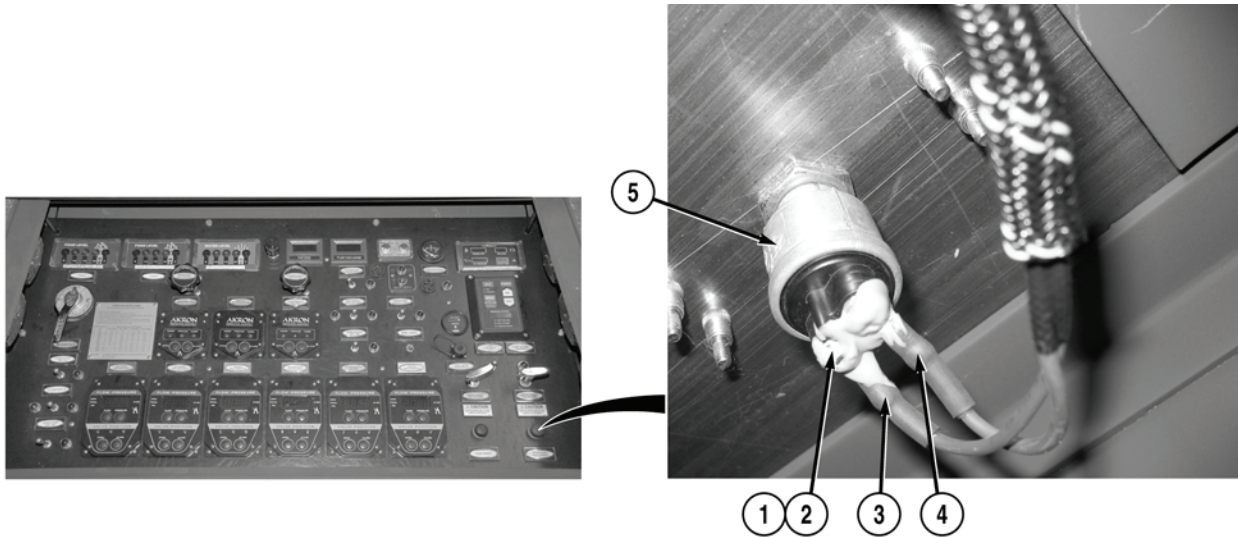
56. Install red wire (26), white wire (25), and black wire (24) in pump operator's panel wire harness connector (27).



- 57. Install wire 4075 (21) and wire 3895 (22) to PUMP ENGINE RUNNING indicator (23) with two lockwashers (20) and screws (19).
- 58. Install wire 4070 (15), wire 4071 (16), and wire 4072 (17) to START PUMP ENGINE STOP switch (18) with three lockwashers (14) and screws (13).
- 59. Connect pump operator's panel wire harness connector (11) to water pump engine diagnostic connector (12).



- 60. Install wire 2773 (8) and wire 1590 (9) to PUMP PRIMER switch (10) with two lockwashers (7) and screws (6).



61. Install wire 2773 (3) and wire 2788 (4) to DRIVER MAIN INLET PRIMER switch (5) with lockwashers (2) and two screws (1).

### **WARNING**



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

62. Apply sealing compound to electrical connections.

### **END OF TASK**

### **FOLLOW-ON MAINTENANCE**

1. Install passenger side auxiliary inlet and driver side main inlet bleeder valves (WP 0278)
2. Install pump house panel Q (WP 0540)
3. Install crew cab access panels (WP 0499)

### **END OF TASK**

### **END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**PRESSURE TRANSDUCER WIRE HARNESS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Ties, Cable, Plastic (WP 0625, Item 58)

**References**

WP 0325  
WP 0615, Fig. 56

**Equipment Conditions**

Pump house panel A opened (for No. 1 and No. 2  
driver side discharge pressure transducer wire  
harness) (WP 0539)

**Equipment Conditions (continued)**

Pump house panel G removed (for No. 3 and  
No. 4 passenger side discharge pressure  
transducer wire harness and driver side  
pre-connect B pressure transducer wire  
harness) (WP 0540)

Pump house panel I removed (for driver side  
pre-connect A pressure transducer wire  
harness) (WP 0540)

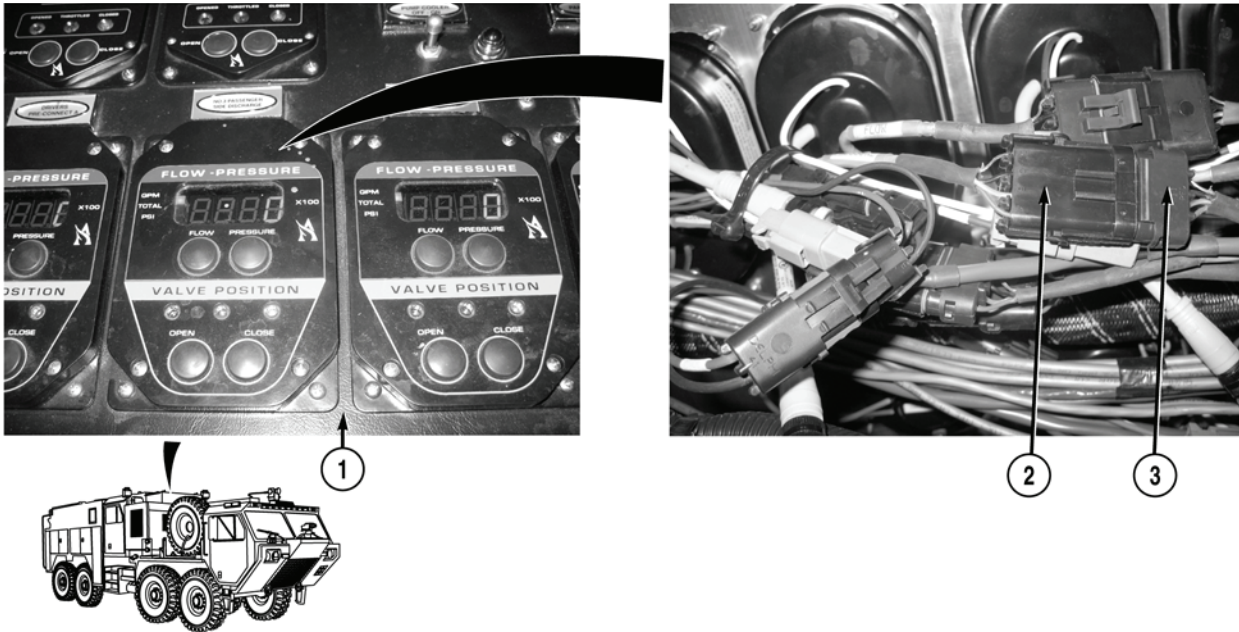
Pump operator's panel opened (for digital  
pressure gauge pressure transducers wire  
harness) (WP 0019)

---

**NOTE**

- No. 1 and No. 2 driver side discharge pressure transducers are accessed by opening pump house panel A.
- No. 3 and No. 4 passenger side discharge B pressure transducer is accessed by removing pump house panel G.
- Driver side pre-connect A pressure transducer is accessed by opening pump house access door below pump house panel B.
- Driver side pre-connect B pressure transducer is accessed by opening pump house access door on passenger side below pump house panel J.
- Digital pressure gauge pressure transducers are accessed by opening pump operator's panel.

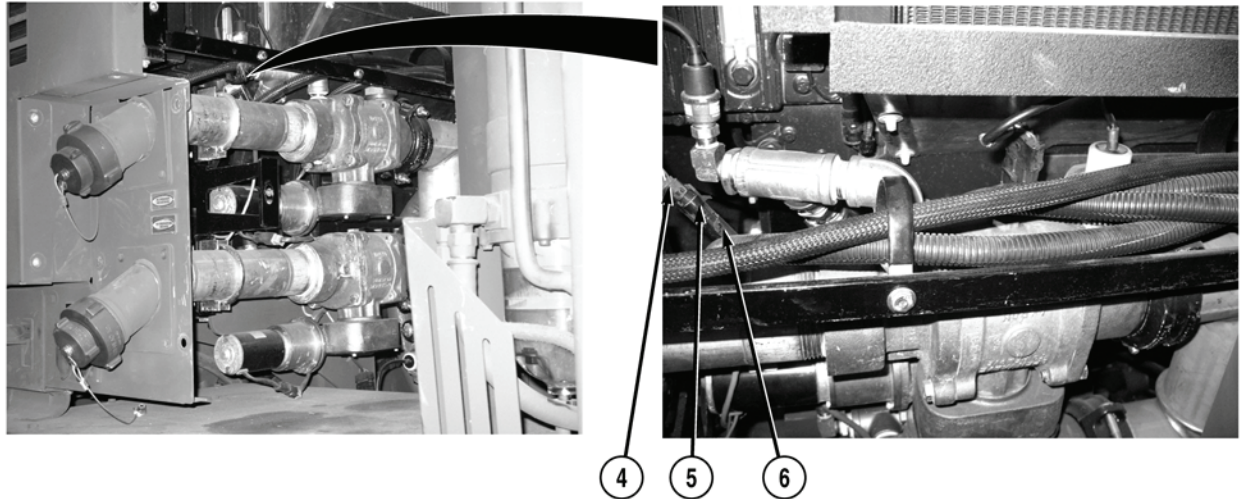
## REMOVAL



## NOTE

- All pressure transducer wire harnesses are removed the same way. No. 3 passenger side pressure transducer wire harness shown.
- Note position and remove cable ties, split looms, and cushion clips as required.
- Note routing of wire harness prior to removal to ensure proper installation.

1. Open pump operator's panel housing (1) (WP 0325).
2. Disconnect No. 3 passenger side pressure transducer gauge connector (2) from No. 3 passenger side pressure transducer wire harness connector (3).



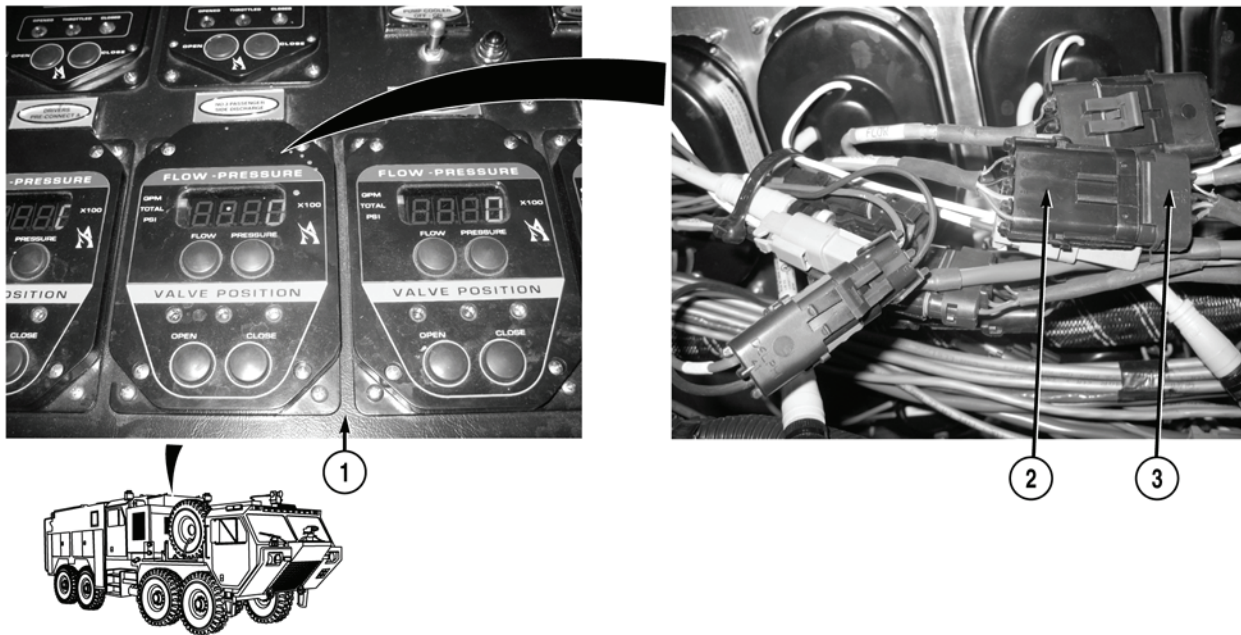
3. Disconnect No. 3 passenger side pressure transducer connector (4) from No. 3 passenger side pressure transducer wire harness connector (5).
4. Remove No. 3 passenger side pressure transducer wire harness (6) from vehicle.

#### END OF TASK

#### INSTALLATION

#### NOTE

- Install wire harness as noted prior to removal.
  - Install cushion clips, split looms, and cable ties as noted.
1. Install No. 3 passenger side pressure transducer wire harness (6).
  2. Connect No. 3 passenger side pressure transducer connector (4) to No. 3 passenger side pressure transducer wire harness connector (5).



3. Connect No. 3 passenger side pressure transducer gauge connector (2) to No. 3 passenger side pressure transducer wire harness connector (3).
4. Close pump operator's panel housing (1) (WP 0325).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Close pump house panel A (No. 1 and No. 2 driver side discharge pressure transducer wire harnesses) (WP 0540)
2. Install pump house panel G (No. 3 and No. 4 passenger side discharge pressure transducer wire harnesses) (WP 0540)
3. Install pump house panel I (driver side pre-connect A pressure transducer wire harness) (WP 0540)
4. Close pump operator's panel (digital pressure gauge pressure transducer wire harness) (WP 0019)

#### END OF TASK

#### END OF WORK PACKAGE



---

**FIELD LEVEL MAINTENANCE**  
**REAR BODY WIRE HARNESS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Locknut (8)  
Lockwasher (8)

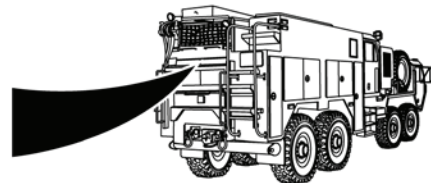
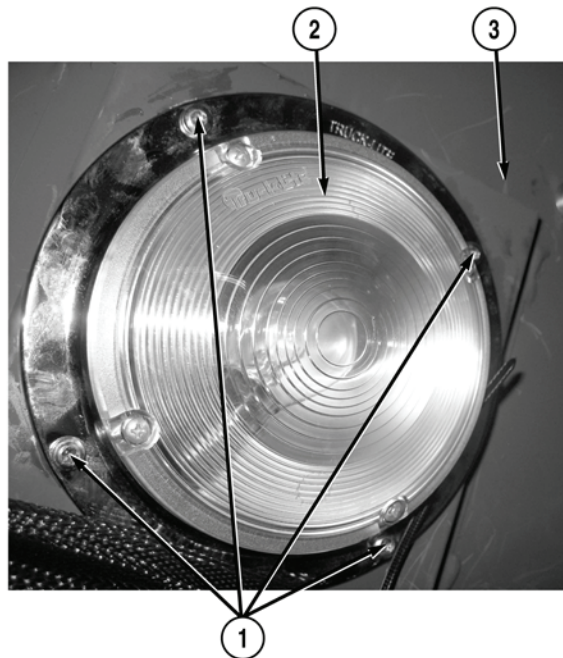
**References**

TM 9-2320-325-14&P  
WP 0615, Fig. 97

**Equipment Conditions**

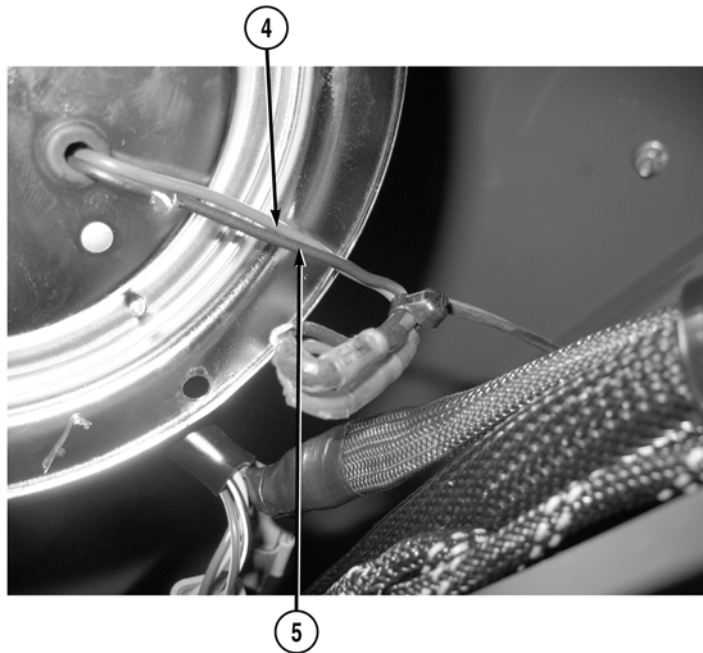
Rear stowage compartment doors  
opened (WP 0010)  
Center rear upper warning lights  
removed (WP 0351)

---

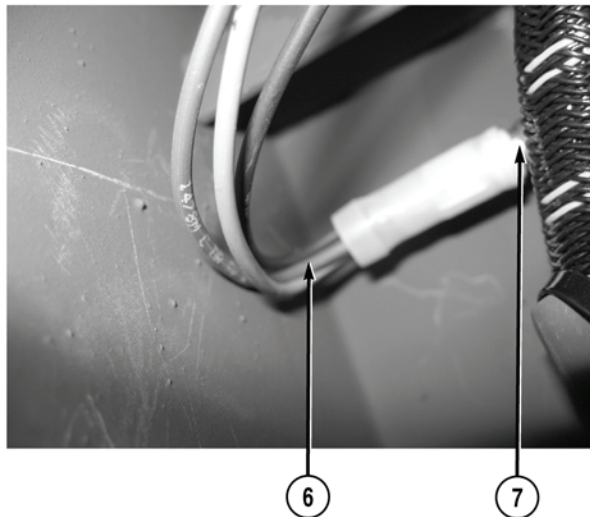
**REMOVAL****NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
- Note routing of driver side body wire harness prior to removal to ensure proper installation.
- Note position and remove cable ties, split looms, and cushion clips as required.

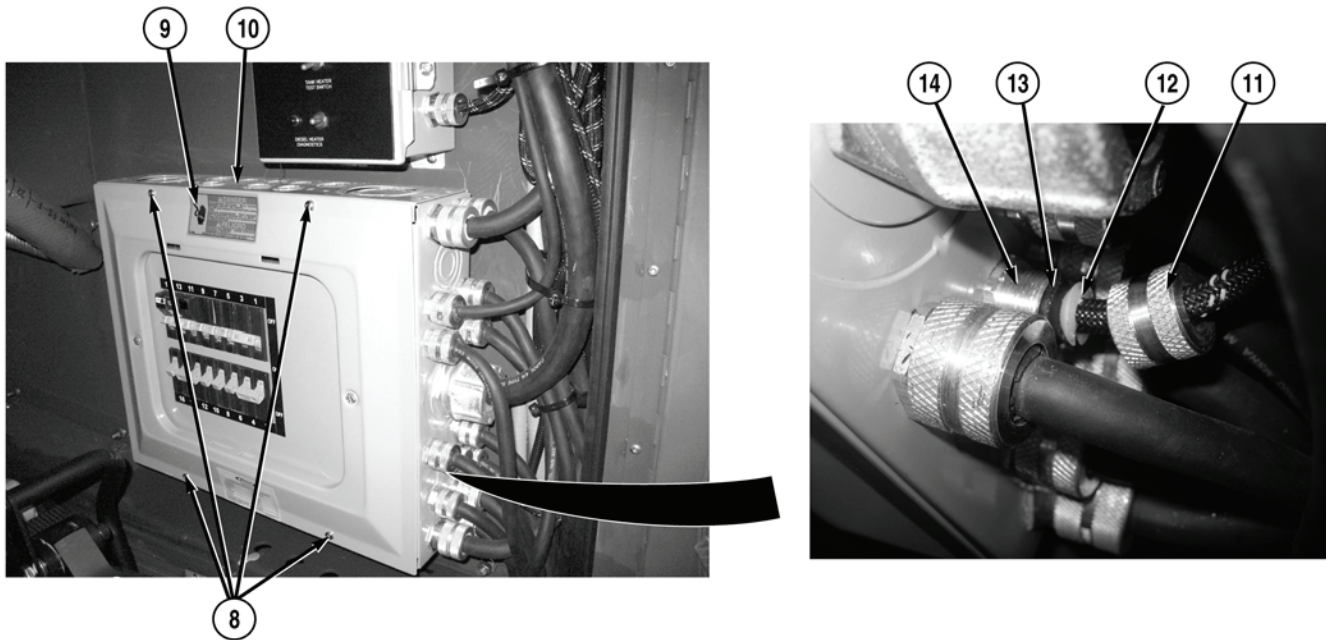
1. Remove four screws (1) and rear stowage compartment light (2) from housing (3).



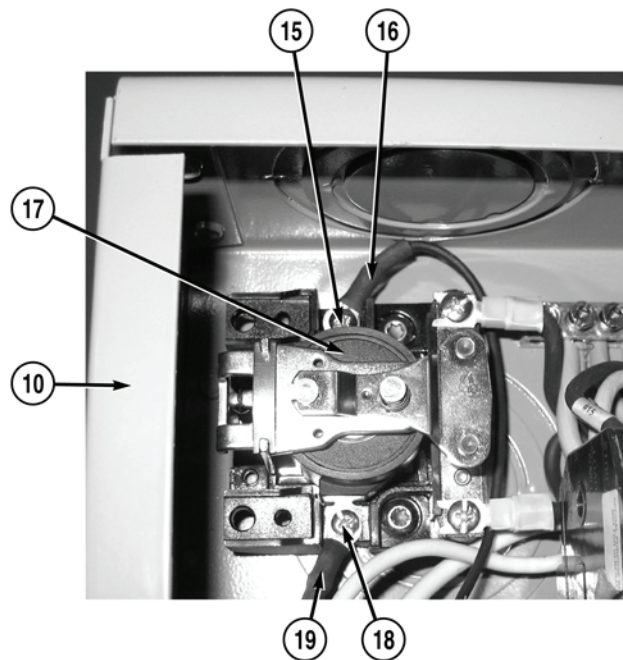
2. Cut wire 1189 (4) and wire 1471 (5) (TM 9-2320-325-14&P).



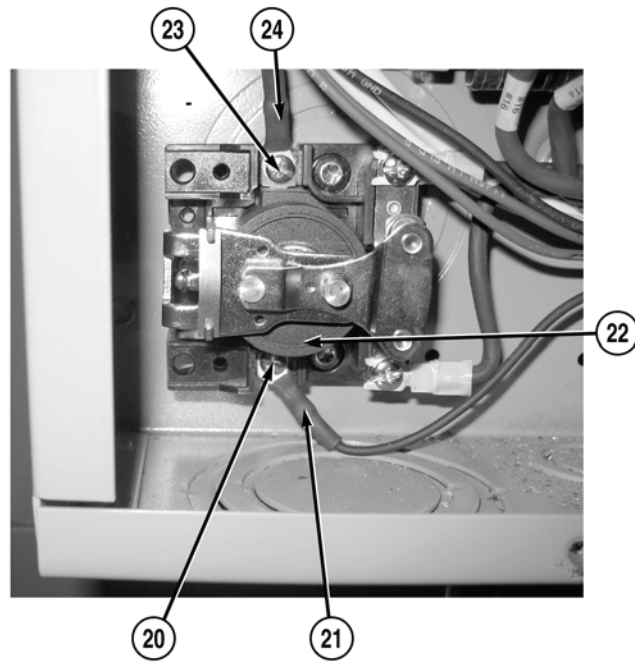
3. Disconnect rear body wire harness connector (6) from rear stowage compartment door switch (7).



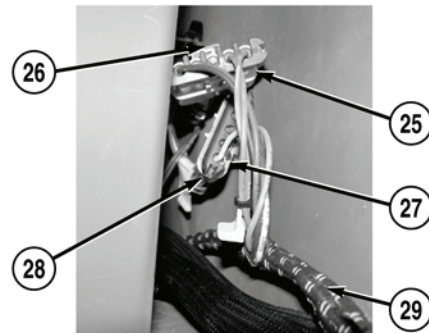
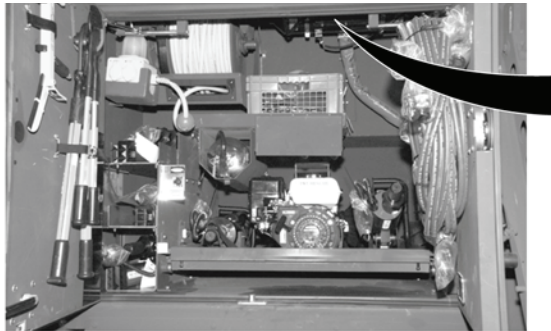
4. Remove four screws (8) and front panel (9) from air conditioner breaker box (10).
5. Remove compression nut (11), washer (12), and grommet (13) from air conditioner breaker box connector (14).



6. Remove screw (15) and wire 2740 (16) from driver side flood light control (17).
7. Remove screw (18) and rear body wire harness wire 1146 (19) from driver side flood light control (17).



8. Remove screw (20) and wire 2740 (21) from passenger side flood light control (22).
9. Remove screw (23) and wire 1147 (24) from passenger side flood light control (22).



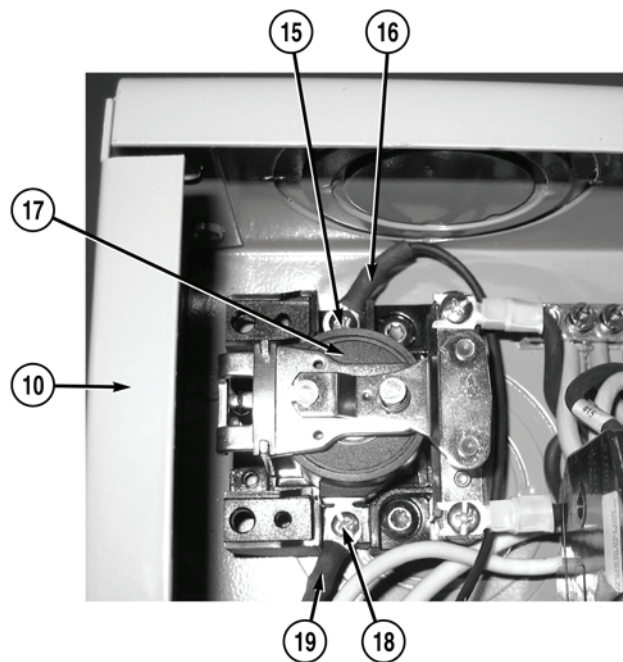
10. Disconnect rear body wire harness connector (25) from passenger side body wire harness connector (26).
11. Disconnect rear body wire harness connector (27) from passenger side body wire harness connector (28).
12. Remove rear body wire harness (29) from vehicle.

**END OF TASK**

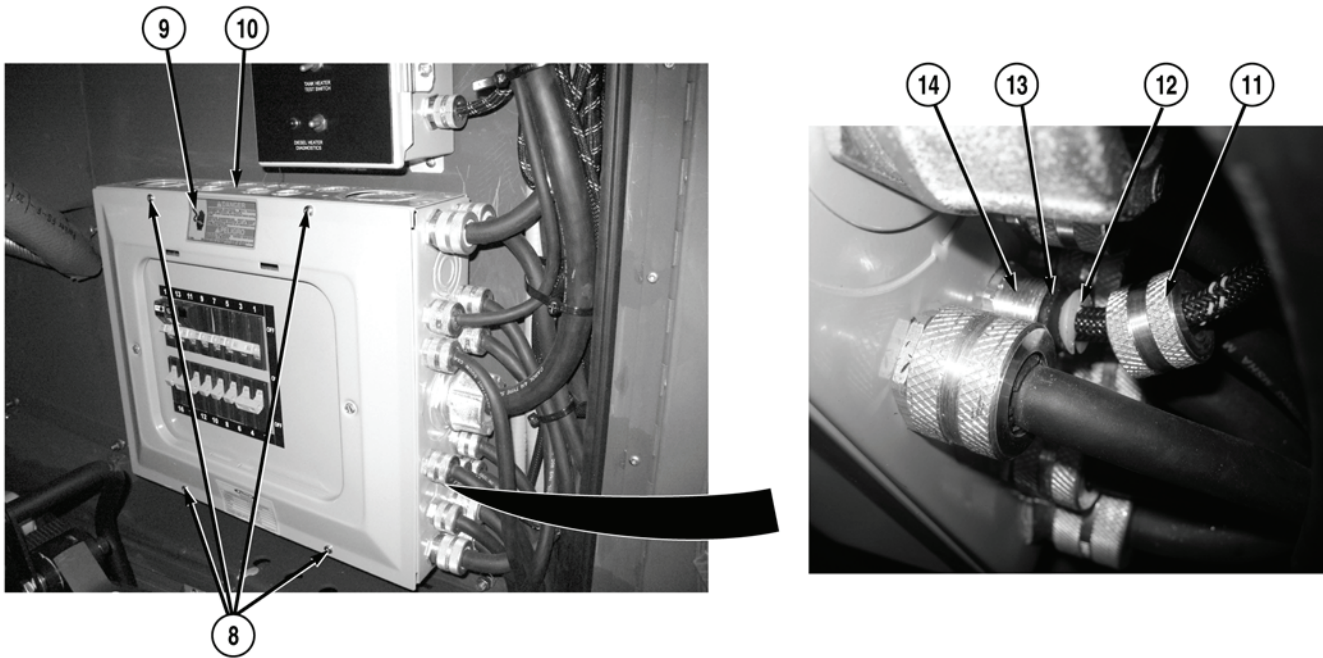
**INSTALLATION****NOTE**

Install cable ties and cushion clips as required.

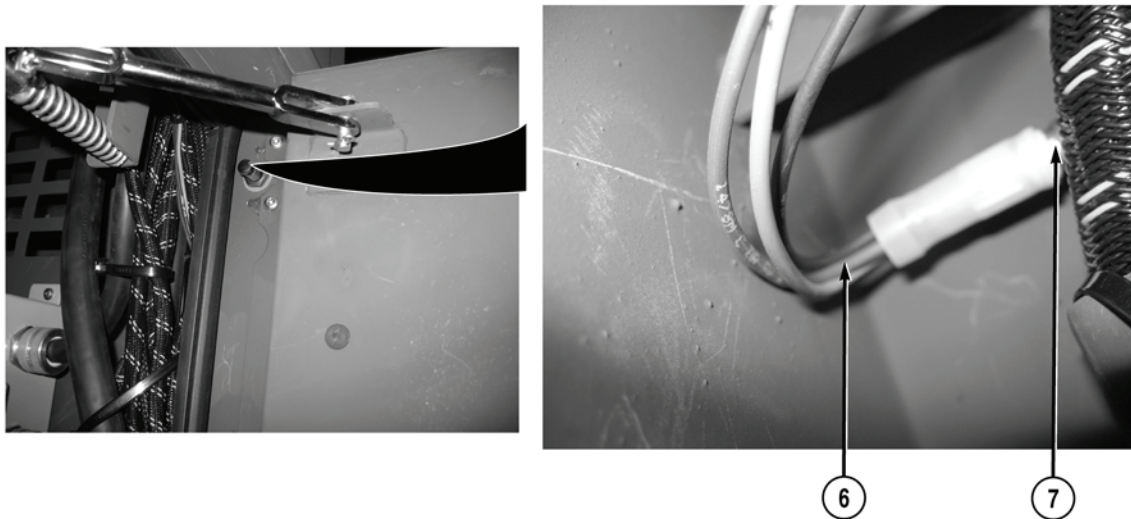
1. Install rear body wire harness (29) on vehicle.
2. Connect rear body wire harness connector (27) to passenger side body wire harness connector (28).
3. Connect rear body wire harness connector (25) to passenger side body wire harness connector (26).
4. Install wire 1147 (24) on passenger side flood light control (22) with screw (23).
5. Install wire 2740 (21) on passenger side flood light control (22) with screw (20).



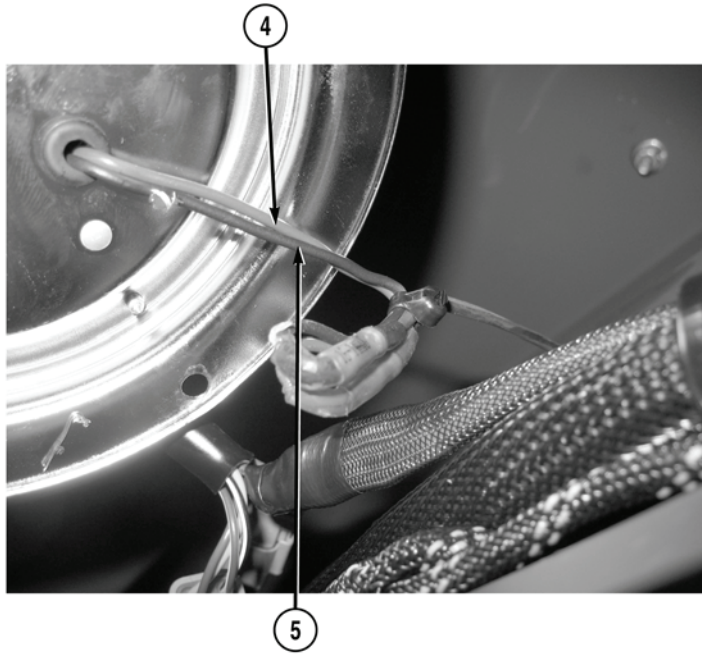
6. Install wire 1146 (19) on driver side flood light control (17) with screw (18).
7. Install wire 2740 (16) on driver side flood light control (17) with screw (15).



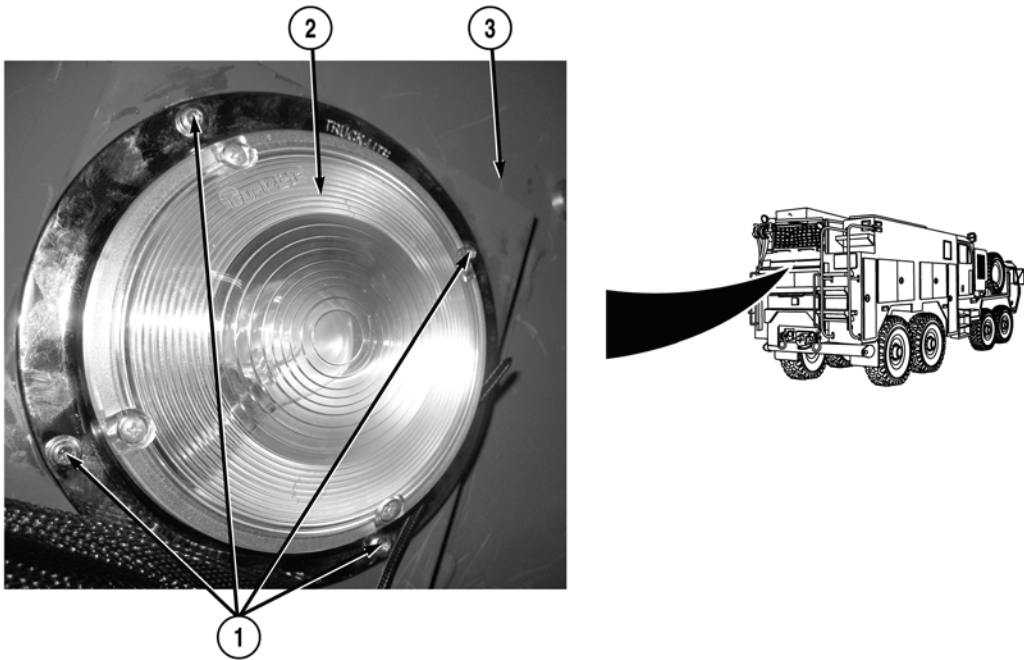
8. Install grommet (13), washer (12), and compression nut (11) to air conditioner breaker box connector (14).
9. Install front panel (9) with four screws (8) on air conditioner breaker box (10).



10. Connect rear body wire harness connector (6) to rear stowage compartment door switch (7).



11. Repair wire 1189 (4) and wire 1471 (5) (TM 9-2320-325-14&P).



12. Install rear stowage compartment light (2) with four screws (1) to housing (3).

#### **FOLLOW-ON MAINTENANCE**

1. Install center rear upper warning lights (WP 0351)
2. Close rear stowage compartment doors (WP 0010)

**END OF TASK**

**END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## SINGGARS AND TWO-WAY RADIO INTERCOM CABLE REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

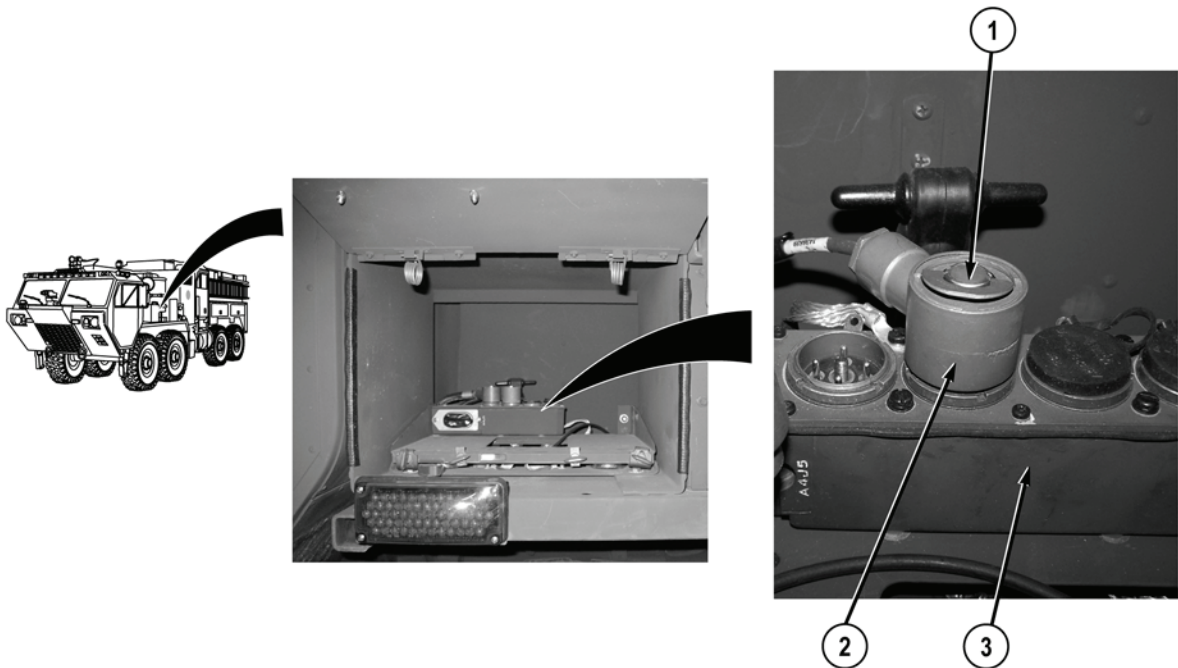
**References**

TM 9-2320-325-14&P  
WP 0615, Fig. 59

**Equipment Conditions**

Intercom removed (WP 0395)  
Personnel cab panel A removed (WP 0311)  
SINGGARS receiver/transmitter and power  
adapter removed (TM 11-5820-890-10)

## SINGGARS INTERFACE WIRE HARNESS REMOVAL

**NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
  - Note routing of intercom wire harness prior to removal to ensure proper installation.
  - Note position and remove cable ties, split loom, and cushion clips as required.
1. Loosen thumbscrew (1) and remove intercom wire harness connector (2) from electronic mounting base (3).



2. Remove intercom wire harness (4) from vehicle.

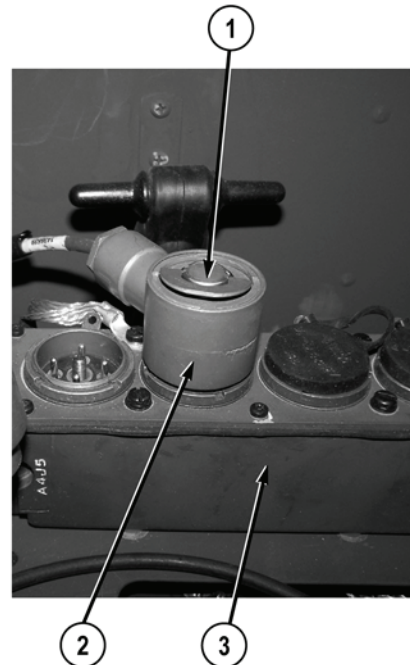
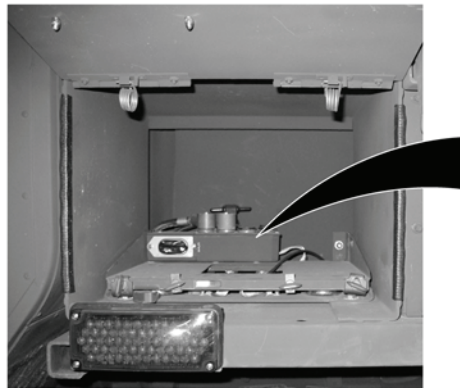
**END OF TASK**

**SINGGARS INTERFACE WIRE HARNESS INSTALLATION**

**NOTE**

- Route intercom wire harness on vehicle as noted prior to removal.
- Install cable ties, split loom, and cushion clips as required.

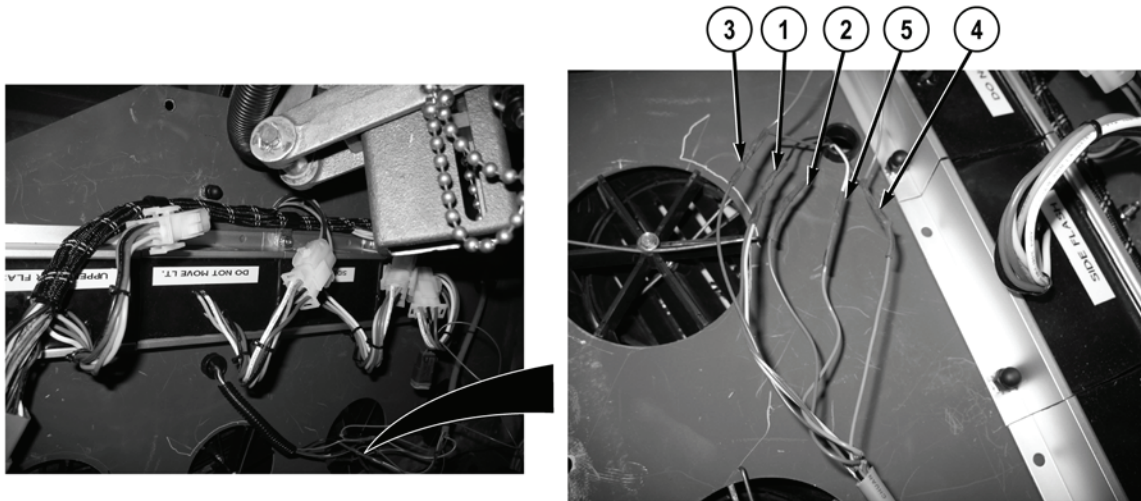
1. Install intercom wire harness (4) on vehicle.



2. Install intercom wire harness connector (2) on electronic mounting base (3) with thumbscrew (1).

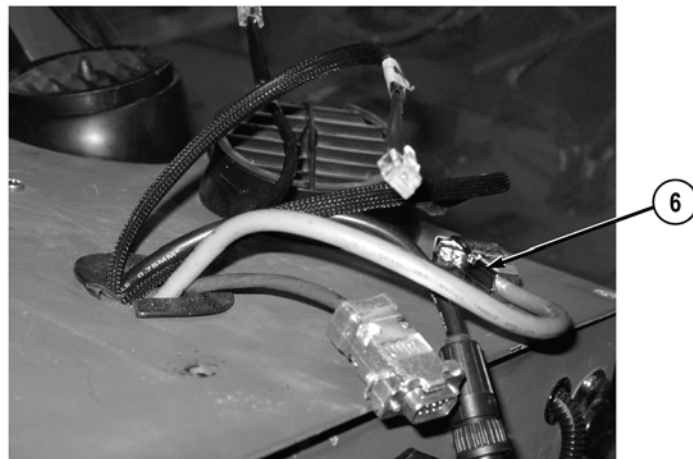
**END OF TASK**

## TWO-WAY RADIO INTERFACE WIRE HARNESS REMOVAL



### NOTE

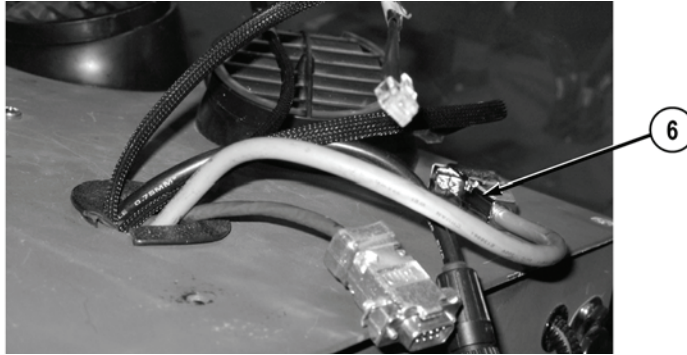
- Tag and mark wires prior to removal to ensure proper installation.
  - Note routing of intercom wire harness prior to removal to ensure proper installation.
  - Note position and remove cable ties as required.
1. Cut yellow wire (1), brown wire (2), blue wire (3), violet wire (4), and orange wire (5) (TM 9-2320-325-14&P).



2. Remove intercom wire harness (6) from vehicle.

**END OF TASK**

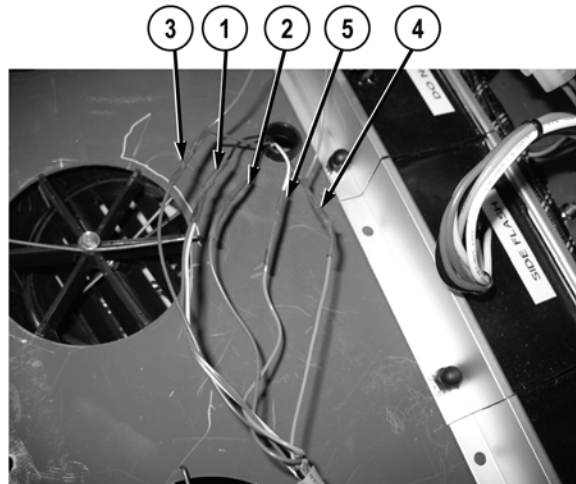
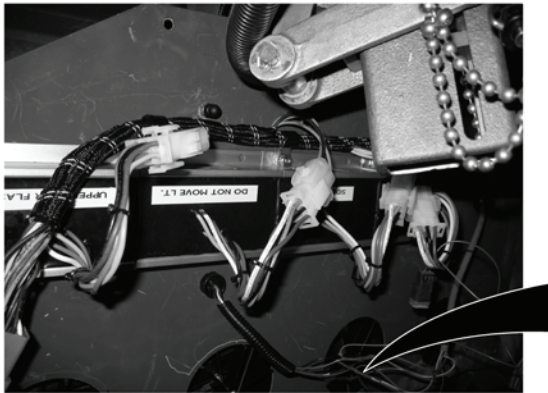
## TWO-WAY RADIO INTERFACE WIRE HARNESS INSTALLATION



### NOTE

- Route intercom wire harness as noted prior to removal.
- Install cable ties as required.

1. Install intercom wire harness (6) on vehicle.



2. Repair yellow wire (1), brown wire (2), blue wire (3), purple wire (4), and orange wire (5) (TM 9-2320-325-14&P).

### FOLLOW-ON MAINTENANCE

1. Install SINGARS receiver/transmitter and power adapter (TM 11-5820-890-10)
2. Install personnel cab instrument panel A (WP 0311)
3. Install intercom (WP 0395)

### END OF TASK

### END OF WORK PACKAGE

## FIELD LEVEL MAINTENANCE

## VALVE CONTROL WIRE HARNESS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 90

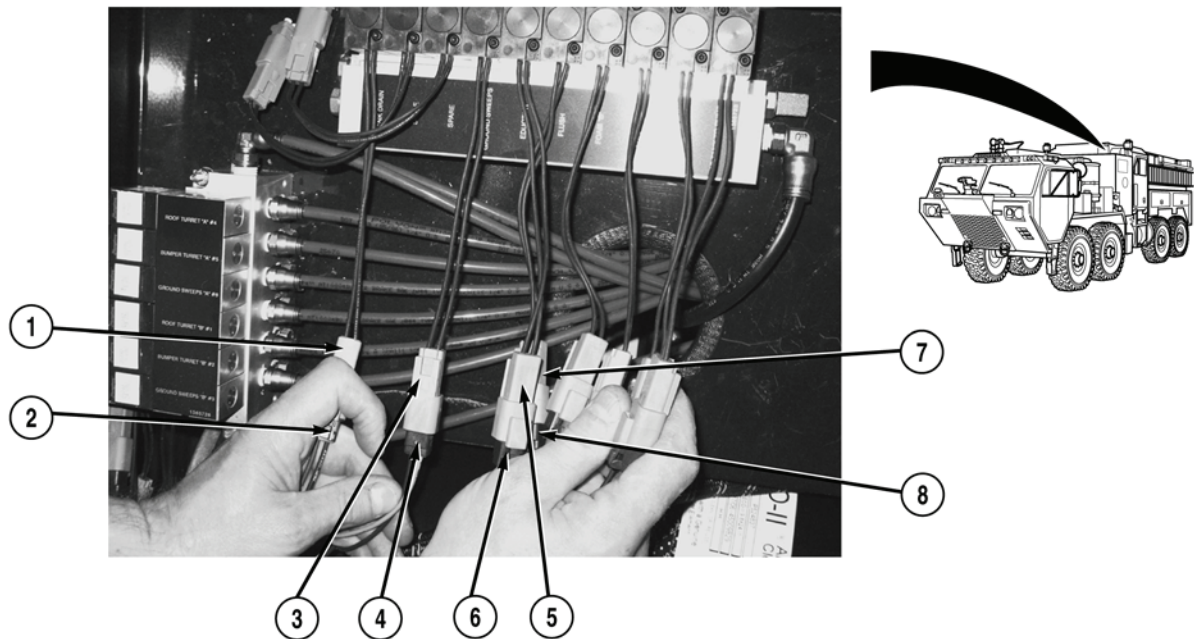
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

**Equipment Conditions**

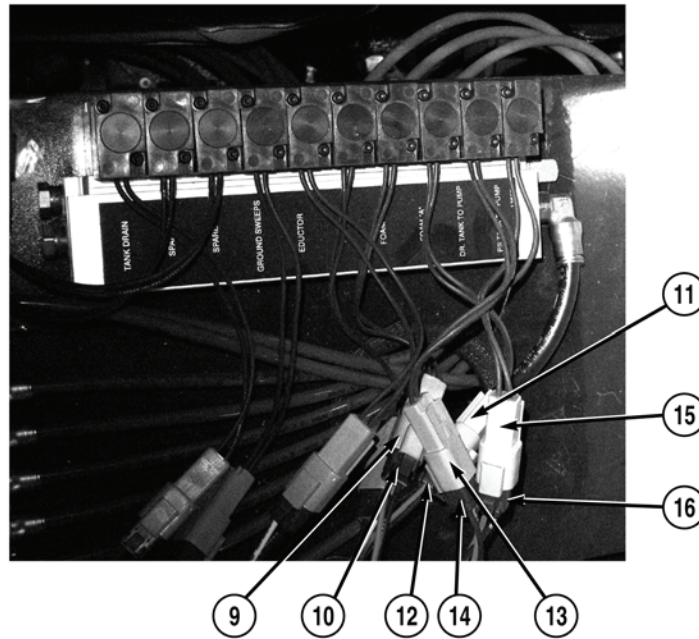
Driver side crew cab access panel  
removed (WP 0499)  
Pump house panels Q and S removed (WP 0540)

## REMOVAL

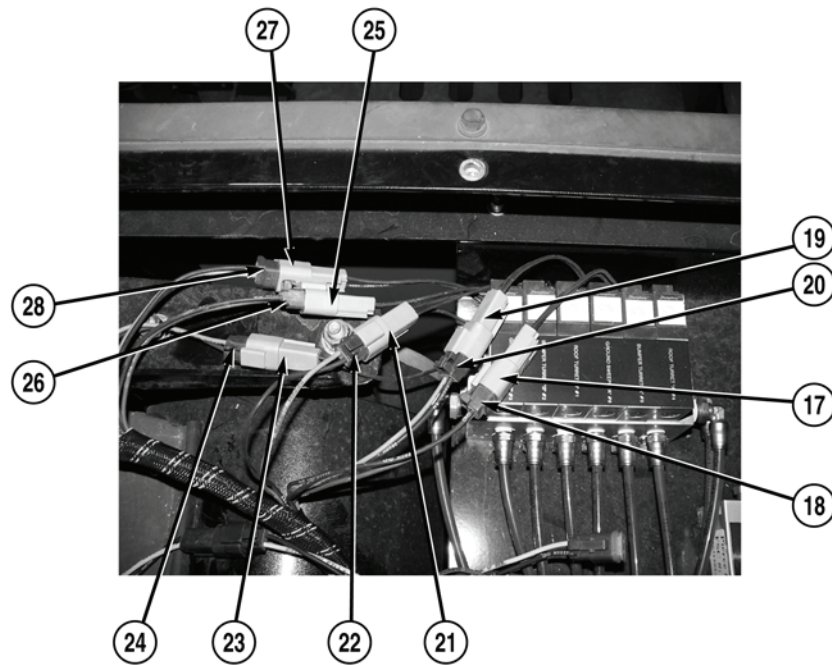
**NOTE**

- Tag and mark connectors prior to removal to ensure proper installation.
- Note position and remove cable ties, looms, and cushion clips as required.
- Note routing of wire harness prior to removal to ensure proper installation.

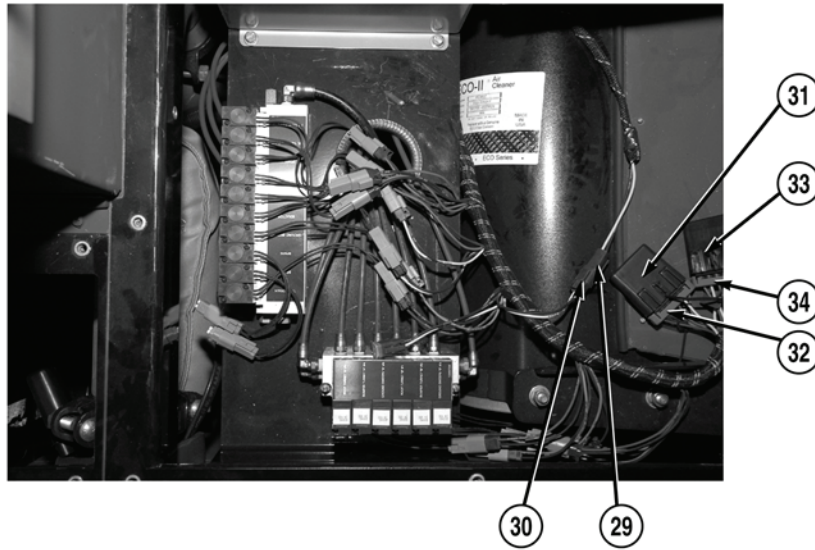
1. Disconnect TANK DRAIN valve control connector (1) from valve control wire harness connector (2).
2. Disconnect GROUND SWEEPS valve control connector (3) from valve control wire harness connector (4).
3. Disconnect EDUCTOR valve control connector (5) from valve control wire harness connector (6).
4. Disconnect FLUSH valve control connector (7) from valve control wire harness connector (8).



5. Disconnect FOAM "B" valve control connector (9) from valve control wire harness connector (10).
6. Disconnect FOAM "A" valve control connector (11) from valve control wire harness connector (12).
7. Disconnect DR TANK TO PUMP valve control connector (13) from valve control wire harness connector (14).
8. Disconnect PS TANK TO PUMP valve control connector (15) from valve control wire harness connector (16).



9. Disconnect ROOF TURRET "A" # 4 valve control connector (17) from valve control wire harness connector (18).
10. Disconnect BUMPER TURRET "A" # 5 valve control connector (19) from valve control wire harness connector (20).
11. Disconnect GROUND SWEEPS "A" # 6 valve control connector (21) from valve control wire harness connector (22).
12. Disconnect ROOF TURRET "B" # 1 valve control connector (23) from valve control wire harness connector (24).
13. Disconnect BUMPER TURRET "B" # 2 valve control connector (25) from valve control wire harness connector (26).
14. Disconnect GROUND SWEEPS "B" # 3 valve control connector (27) from valve control wire harness connector (28).



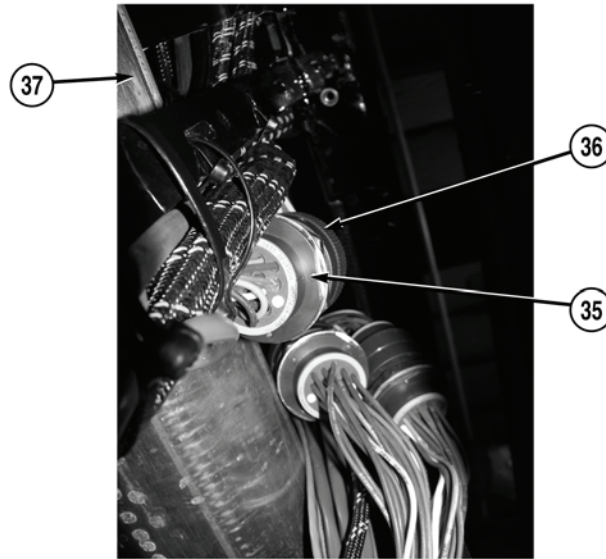
15. Disconnect auto tank fill valve control connector (29) from valve control wire harness connector (30).

**⚠ CAUTION**

**Note position and orientation of diodes prior to removal to ensure proper installation. Failure to comply may result in damage to equipment.**

16. Remove diode (31) from valve control wire harness connector (32).
17. Remove diode (33) from valve control wire harness connector (34).





### NOTE

Connection to main wire harness is on front, center of crew cab. Access and visibility limited.

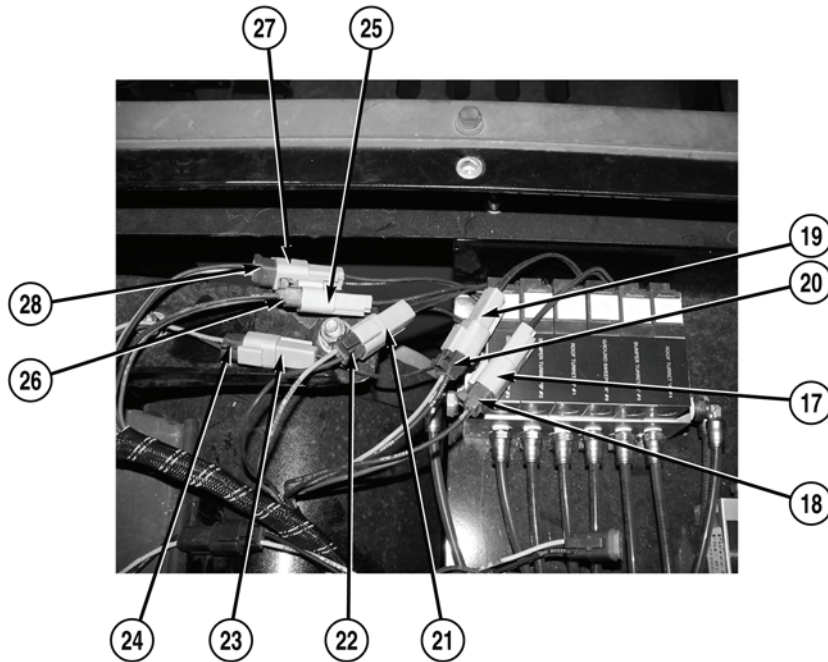
18. Disconnect valve control wire harness connector (35) from main wire harness connector (36).
19. Remove valve control wire harness (37) from vehicle.

### END OF TASK

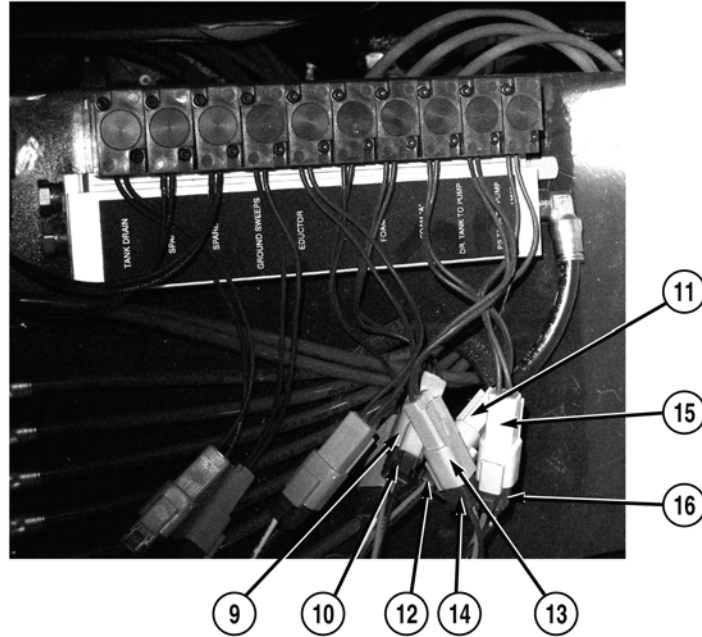
### INSTALLATION

### NOTE

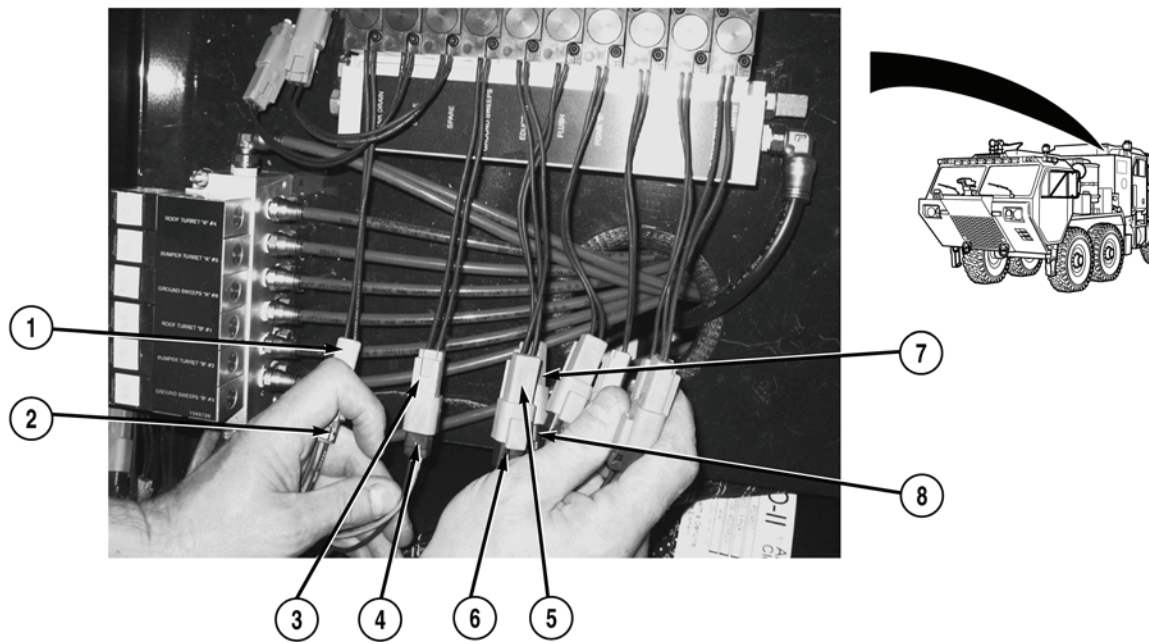
- Install diodes as noted prior to removal.
  - Install cable ties, looms, and cushion clips as noted.
  - Route wire harness as noted prior to removal.
1. Connect valve control wire harness connector (35) to main wire harness connector (36).
  2. Install diode (33) on valve control wire harness connector (34).
  3. Install diode (31) on valve control wire harness connector (32).
  4. Connect auto tank fill valve control connector (29) to valve control wire harness connector (30).



5. Connect GROUND SWEEPS "B" # 3 valve control connector (27) to valve control wire harness connector (28).
6. Connect BUMPER TURRET "B" # 2 valve control connector (25) to valve control wire harness connector (26).
7. Connect ROOF TURRET "B" # 1 valve control connector (23) to valve control wire harness connector (24).
8. Connect GROUND SWEEPS "A" # 6 valve control connector (21) to valve control wire harness connector (22).
9. Connect BUMPER TURRET "A" # 5 valve control connector (19) to valve control wire harness connector (20).
10. Connect ROOF TURRET "A" # 4 valve control connector (17) to valve control wire harness connector (18).



11. Connect PS TANK TO PUMP valve control connector (15) to valve control wire harness connector (16).
12. Connect DR TANK TO PUMP valve control connector (13) to valve control wire harness connector (14).
13. Connect FOAM "A" valve control connector (11) to valve control wire harness connector (12).
14. Connect FOAM "B" valve control connector (9) to valve control wire harness connector (10).



15. Connect FLUSH valve control connector (7) to valve control wire harness connector (8).
16. Connect EDUCTOR valve control connector (5) to valve control wire harness connector (6).
17. Connect GROUND SWEEPS valve control connector (3) to valve control wire harness connector (4).
18. Connect TANK DRAIN valve control connector (1) to valve control wire harness connector (2).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Install pump house panels S and Q (WP 0540)
2. Install driver side crew cab access panel (WP 0499)

#### END OF TASK

#### END OF WORK PACKAGE

## FIELD LEVEL MAINTENANCE

## WATER PUMP ENGINE WIRE HARNESS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 101

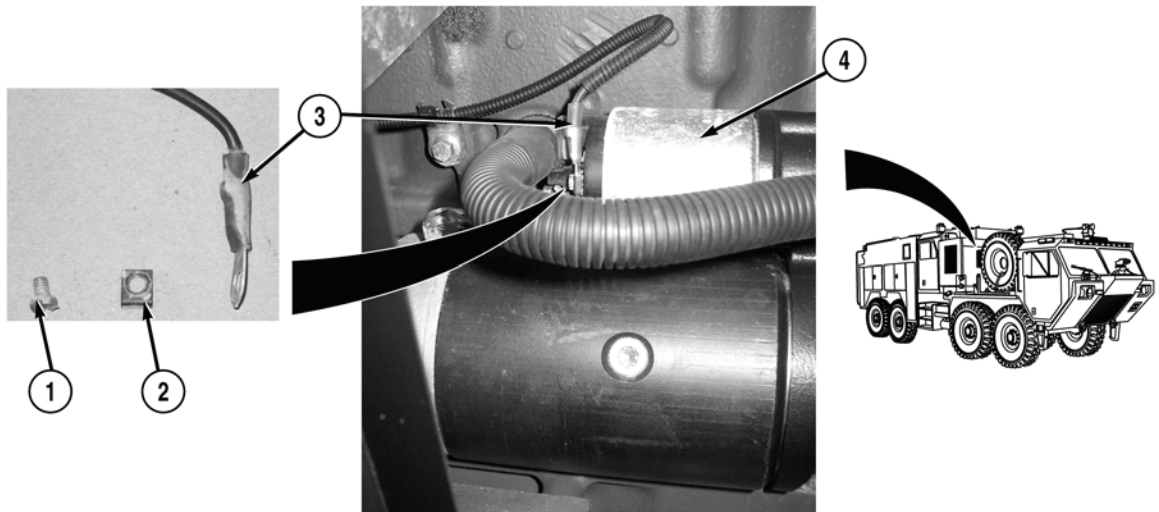
**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)

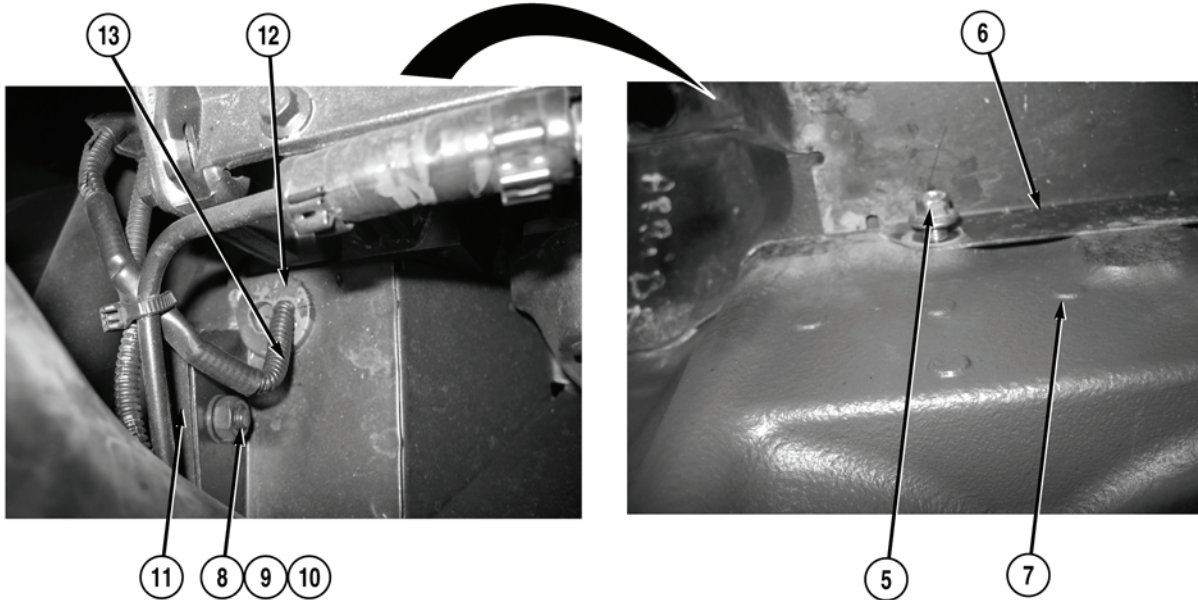
**Equipment Conditions**

Water pump engine radiator removed (WP 0481)  
Crew cab access panels removed (WP 0499)  
Pump house panels O and Q removed (WP 0540)

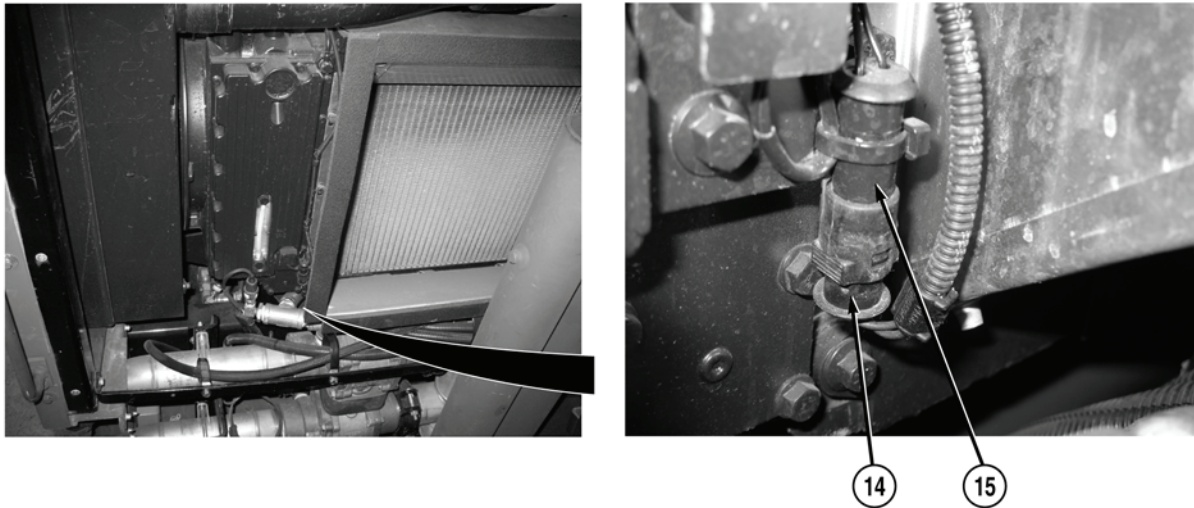
## WATER PUMP ENGINE WIRE HARNESS REMOVAL

**NOTE**

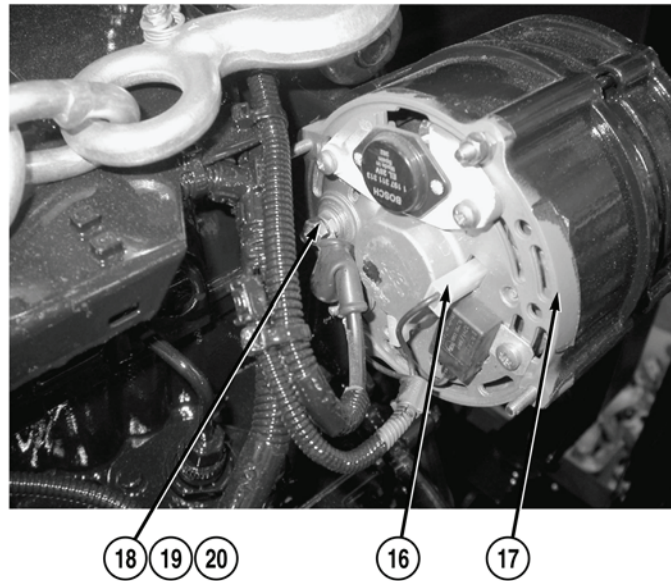
- Tag and mark wires prior to removal to ensure proper installation.
  - Note routing of pump house engine wire harness prior to removal to ensure proper installation.
  - Note position and remove cable ties, split loom, and cushion clips as required.
  - Starter solenoid is accessed through pump house panel G.
1. Remove screw (1), retaining clip (2), and wire (3) from starter solenoid (4).



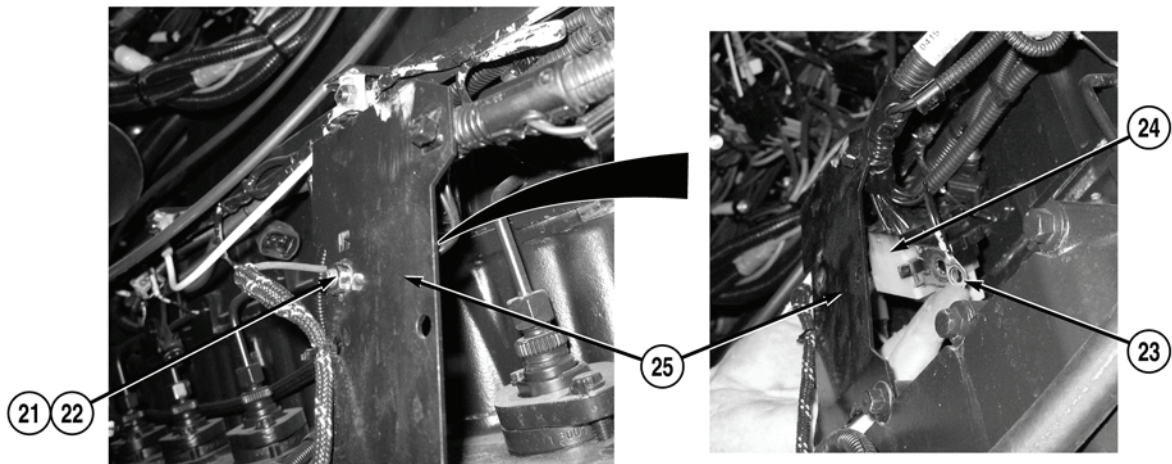
2. Remove two screws (5) from shroud (6) and engine block (7).
3. Remove nut (8), washer (9), screw (10), and shroud (6) from coolant fan assembly (11).
4. Remove grommet (12) and water pump engine wire harness (13) from shroud (6).



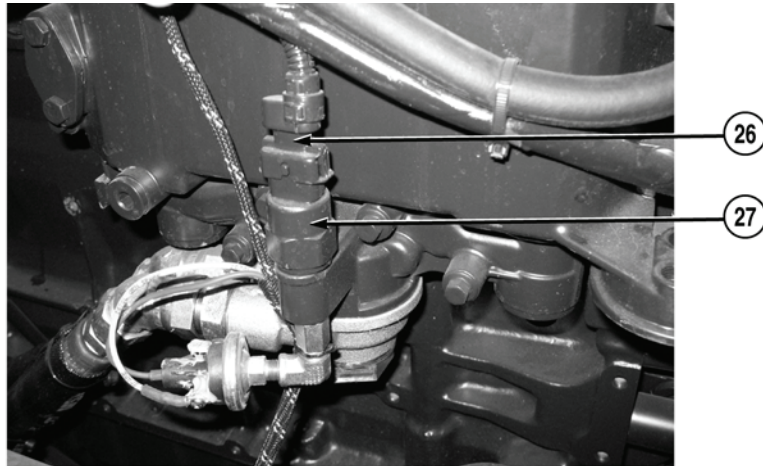
5. Disconnect water pump engine wire harness connector (14) from water temperature sensor connector (15).



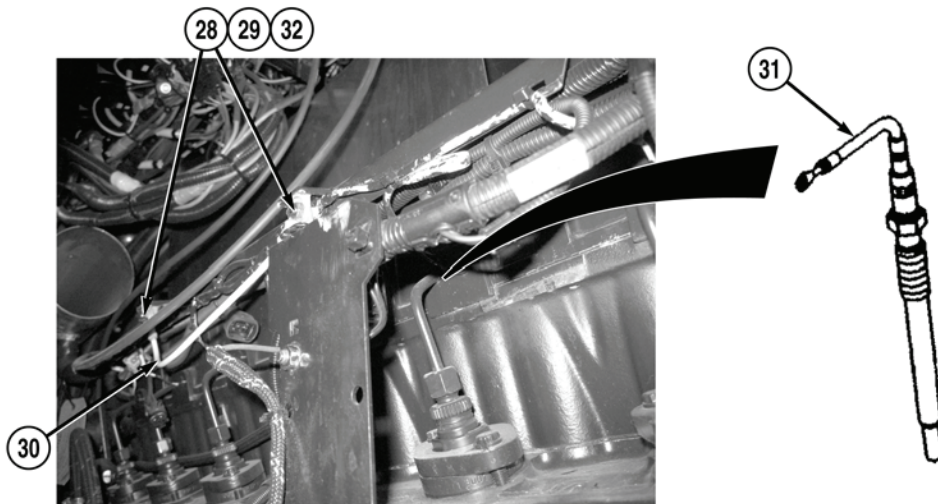
6. Disconnect water pump engine wire harness connector (16) from alternator (17).
7. Remove nut (18), washer (19), and wire (20) from alternator (17).



8. Remove nut (21), screw (22), ground wire (23), and water pump engine wire harness connector (24) from bracket (25).



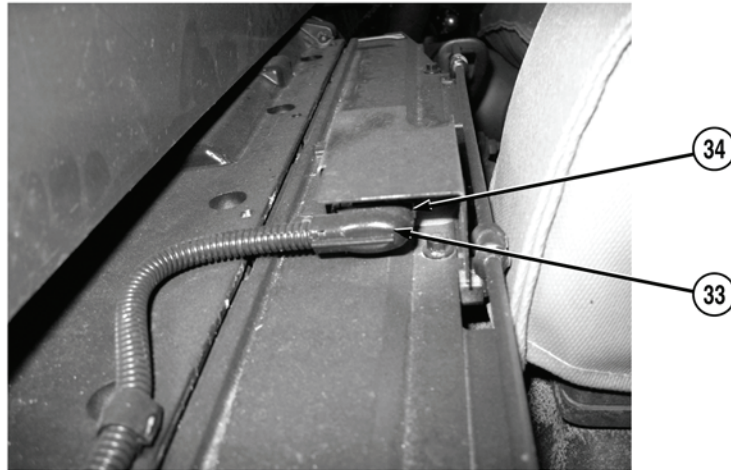
9. Disconnect water pump engine wire harness connector (26) from oil pressure sending unit (27).



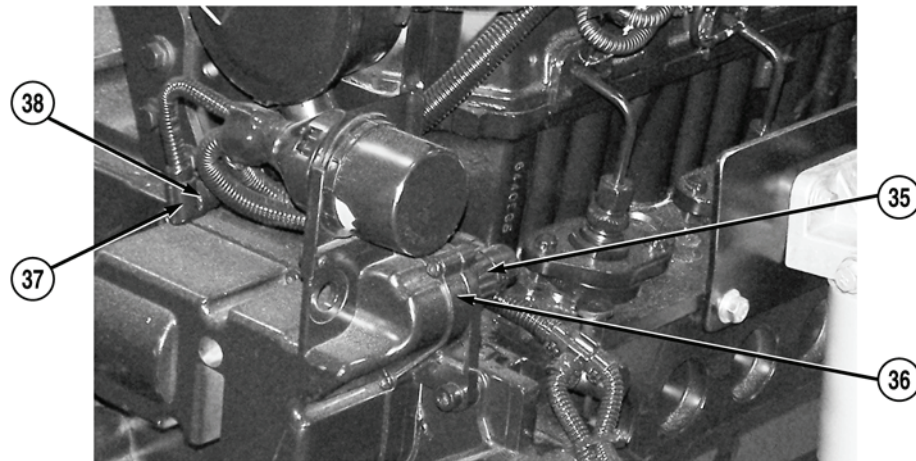
#### NOTE

- Removing glow plug feed wires and glow plug wires allows for easier removal of pump engine wire harness.
  - Second jumperwire is located behind glow plug wires. Note position of jumperwires prior to removal to ensure proper installation.
10. Remove two caps (28), nuts (29), jumperwires (30), and six glow plug wires (31) from two studs (32).

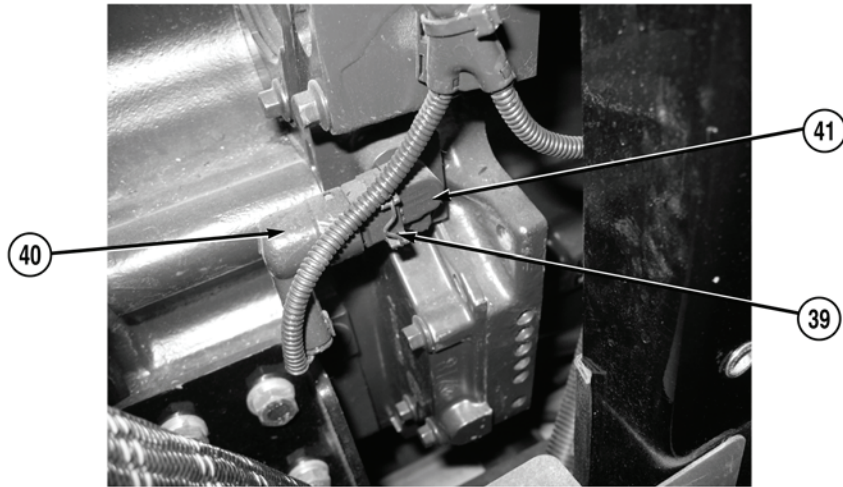




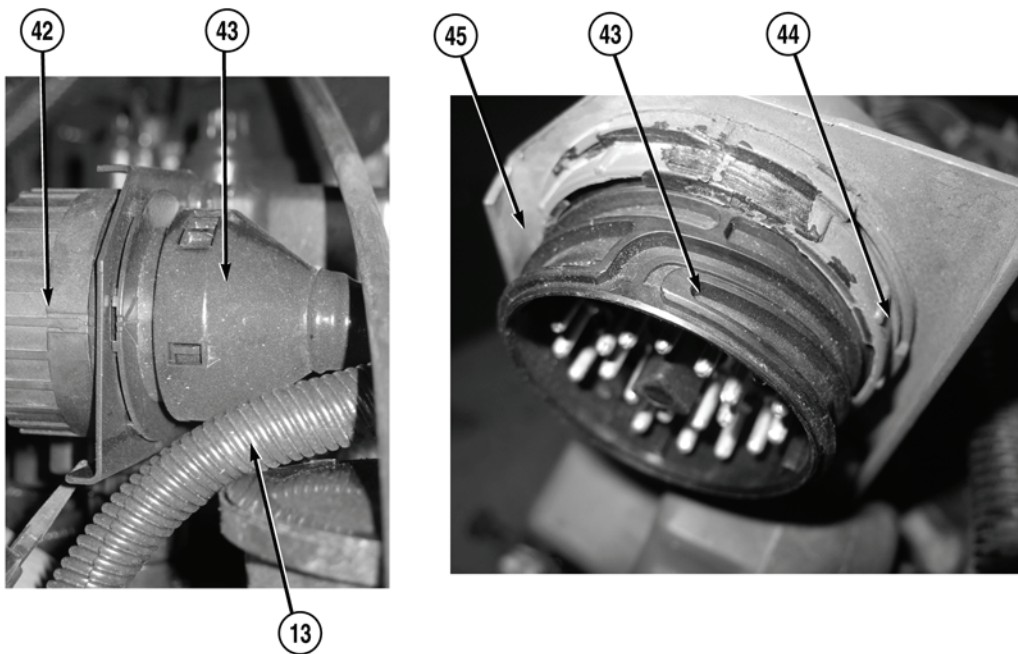
11. Disconnect water pump engine wire harness connector (33) from intake air pressure sensor (34).



12. Disconnect water pump engine wire harness connector (35) from governor (36).
13. Disconnect water pump engine wire harness connector (37) from temperature sensor (38).



14. Remove retaining clip (39) and water pump engine wire harness connector (40) from camshaft sensor (41).



15. Remove water pump engine wire harness (interconnect) connector (42) from water pump engine wire harness connector (43).

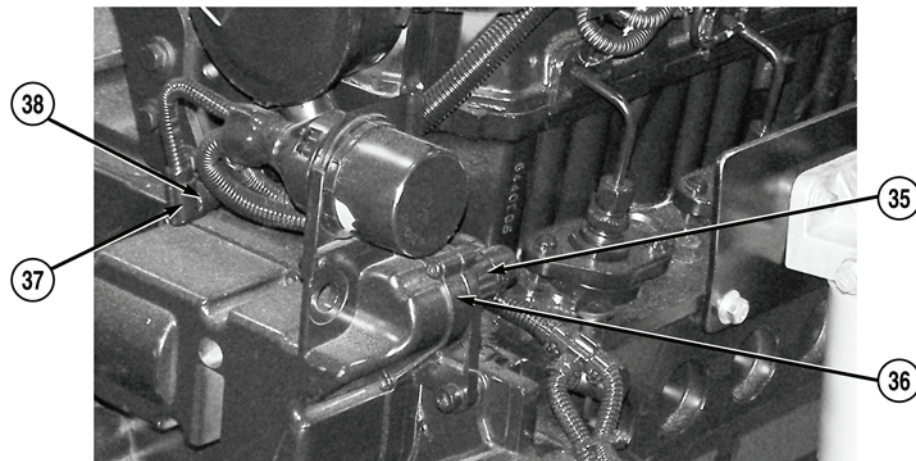
16. Remove retaining ring (44) and water pump engine wire harness connector (43) from bracket (45).

17. Remove water pump engine wire harness (13) from vehicle.

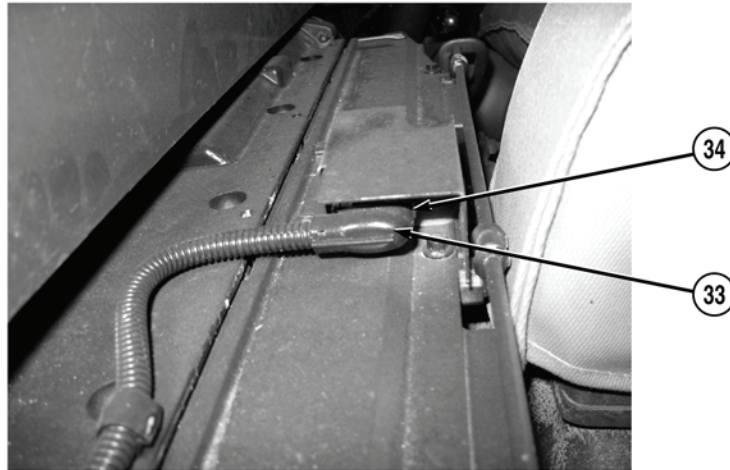
**END OF TASK**

**WATER PUMP ENGINE WIRE HARNESS INSTALLATION****NOTE**

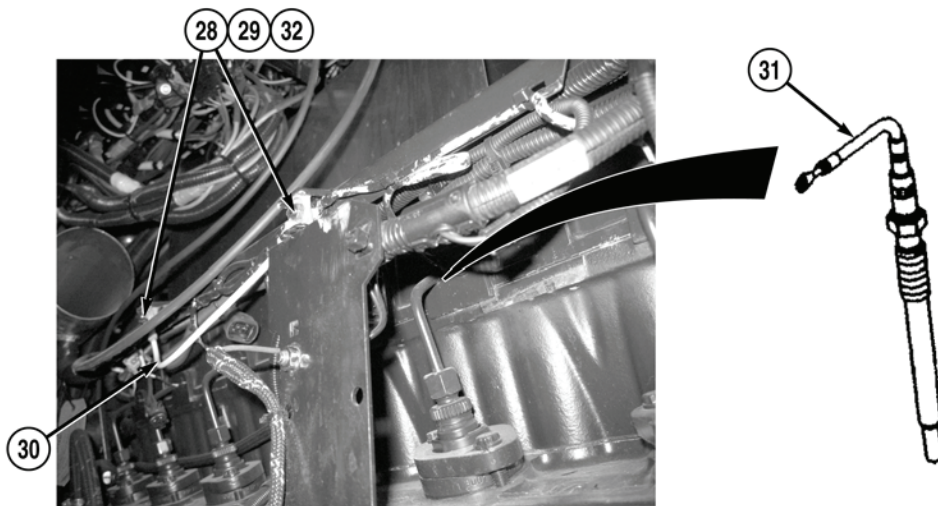
- Route wire harness as noted prior to removal.
  - Install cushion clips, split looms, and cable ties as noted.
1. Install water pump engine wire harness (13) on vehicle.
  2. Install water pump engine wire harness connector (43) on bracket (45) with retaining ring (44).
  3. Connect water pump engine wire harness (interconnect) connector (42) to water pump engine wire harness connector (43).
  4. Install water pump engine wire harness connector (40) on camshaft sensor (41) with retaining clip (39).



5. Connect water pump engine wire harness connector (37) to temperature sensor (38).
6. Connect water pump engine wire harness connector (35) to governor (36).



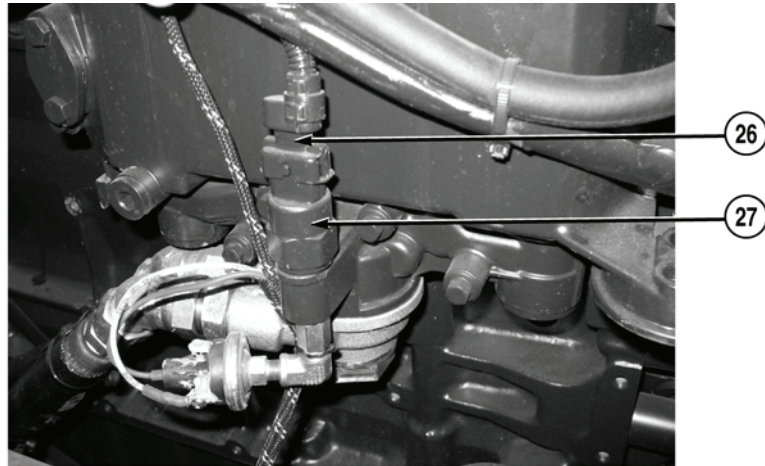
7. Connect water pump engine wire harness connector (33) to intake pressure sensor (34).



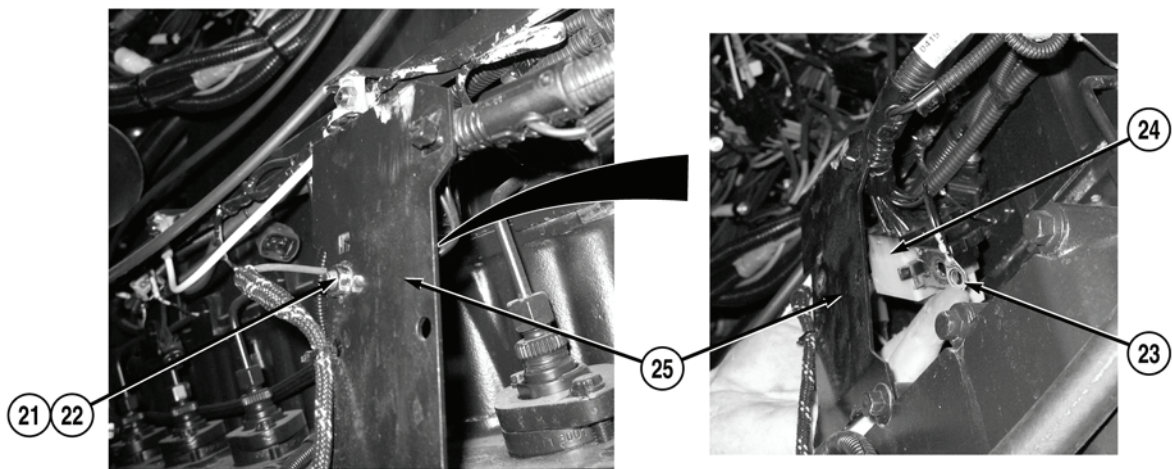
### NOTE

Install jumperwires as noted prior to removal.

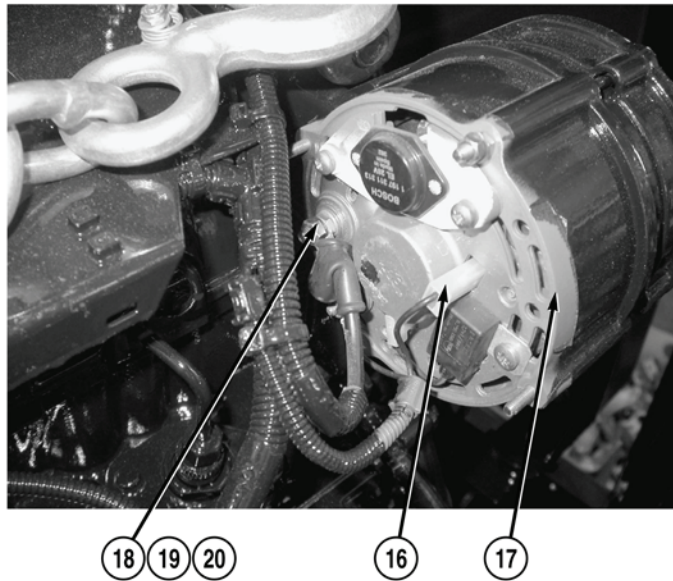
8. Install six glow plug wires (31) and two jumperwires (30) on studs (32) with two nuts (29) and caps (28).



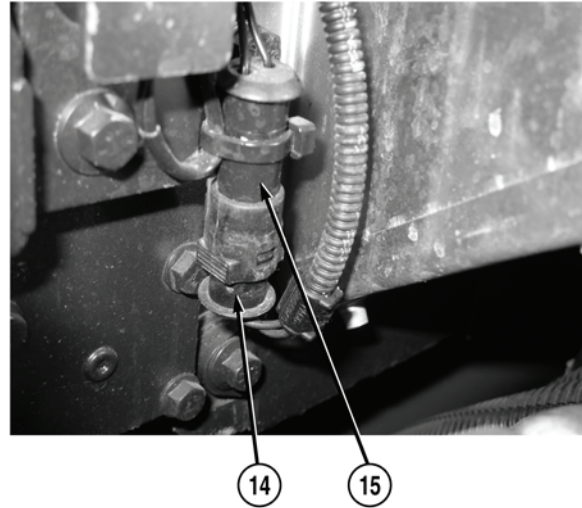
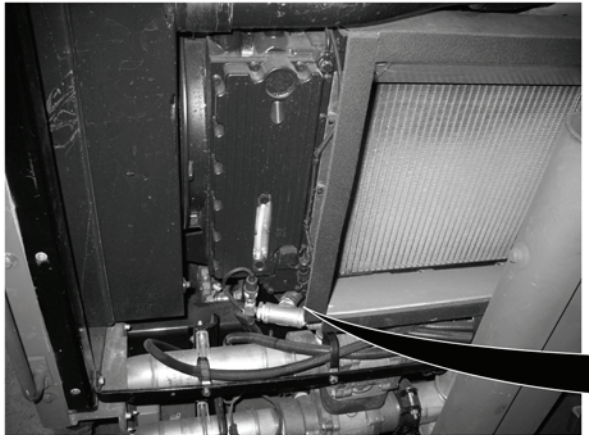
9. Connect water pump engine wire harness connector (26) to oil pressure sending unit (27).



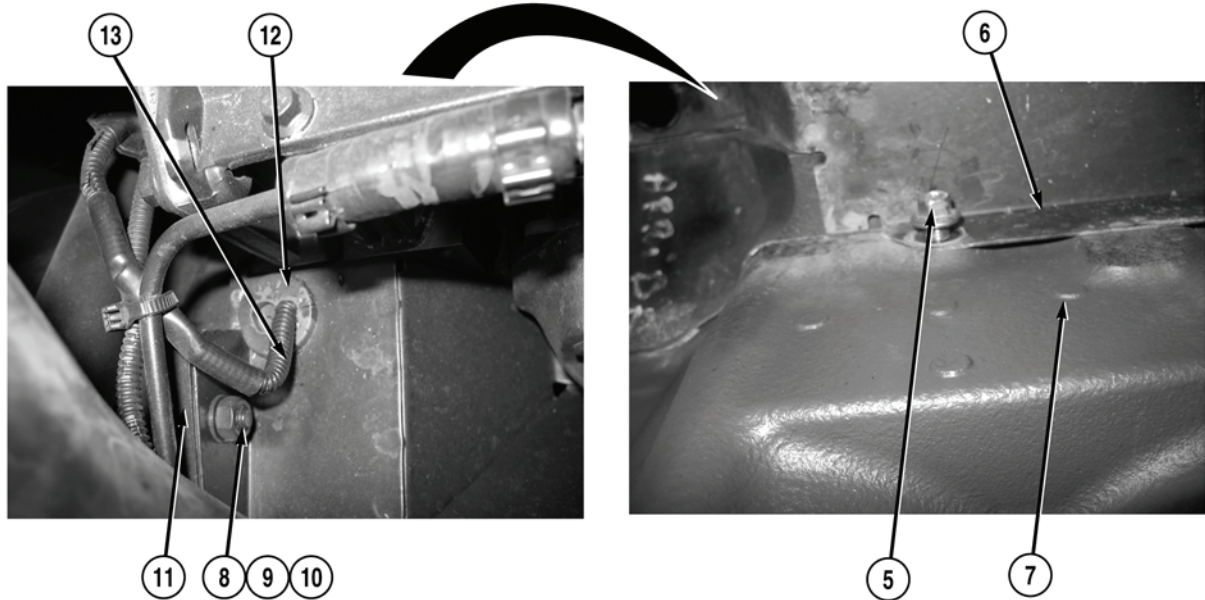
10. Install water pump engine wire harness connector (24) and ground wire (23) on bracket (25) with screw (22) and nut (21).



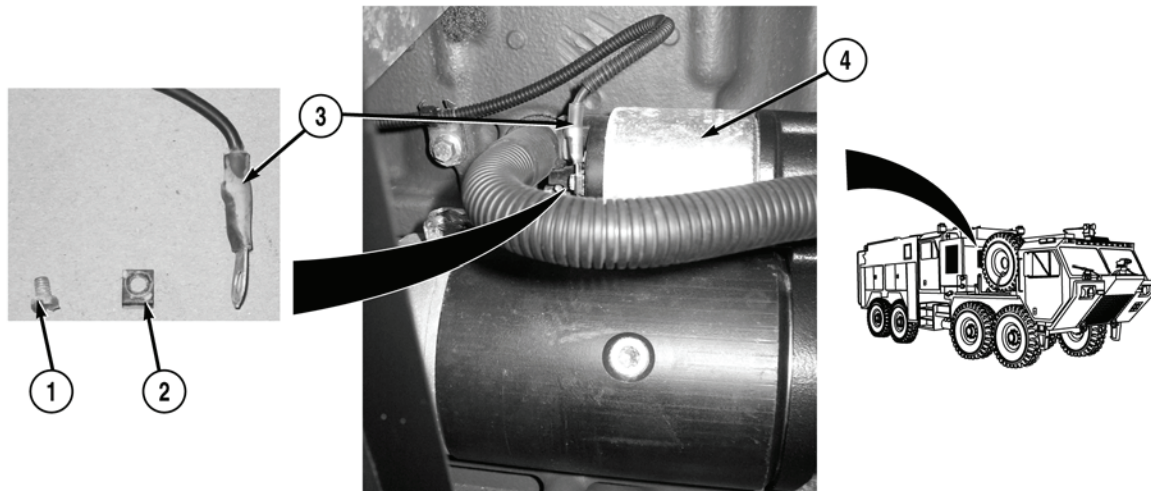
11. Install wire (20) on alternator (17) with washer (19) and nut (18).
12. Connect water pump engine wire harness connector (16) to alternator (17).



13. Connect water pump engine wire harness connector (14) to water temperature sensor connector (15).



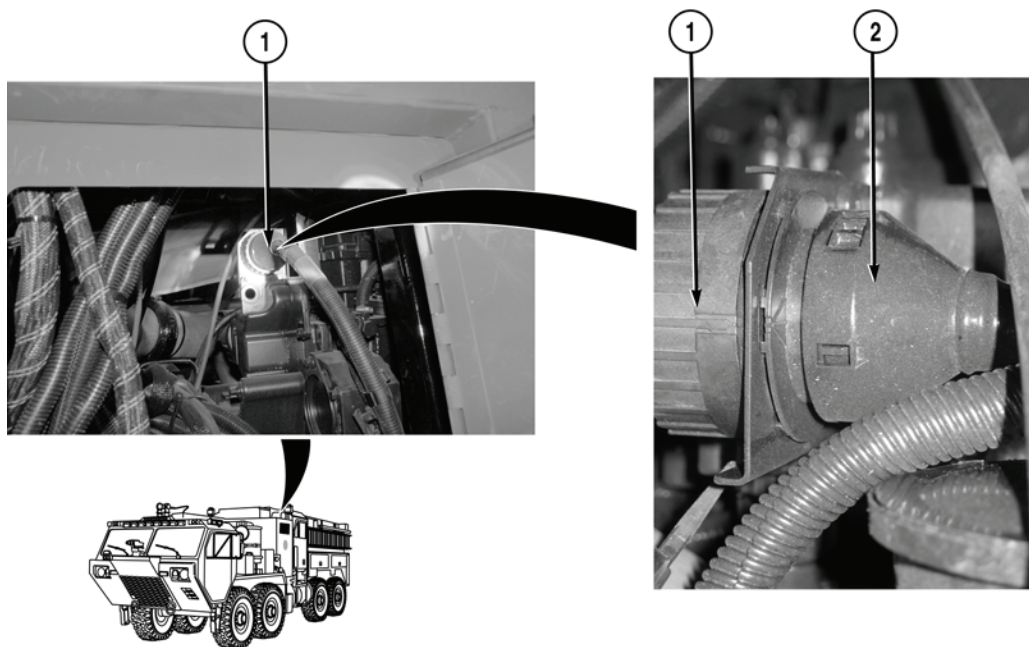
14. Install water pump engine wire harness (13) and grommet (12) in shroud (6).
15. Install shroud (6) on coolant fan assembly (11) with screw (10), washer (9), and nut (8).
16. Install shroud (6) on engine block (7) with two screws (5).



17. Install wire (3) on starter solenoid (4) with retaining clip (2) and screw (1).

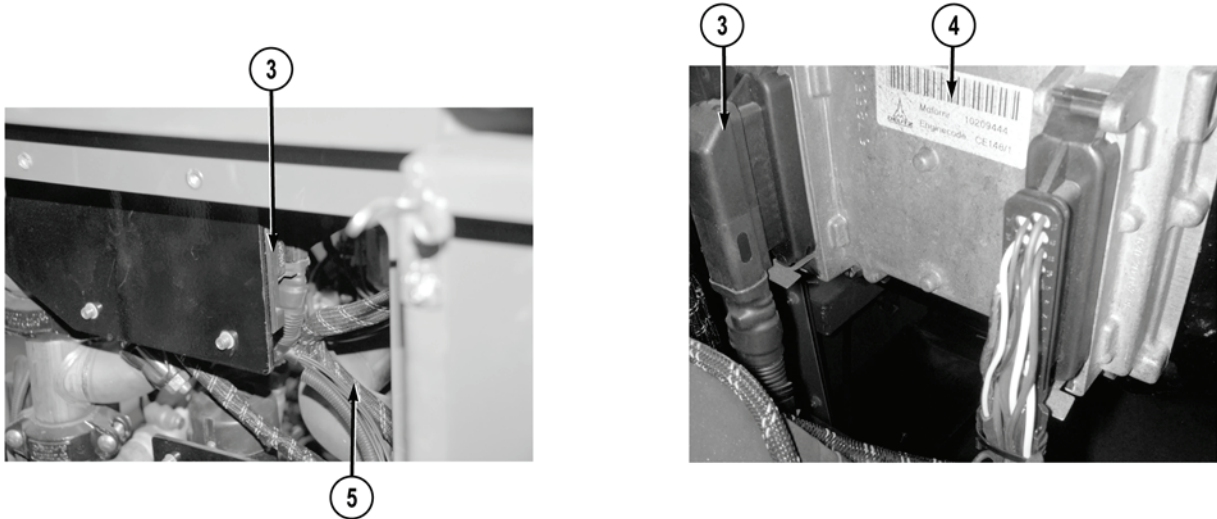
**END OF TASK**

**WATER PUMP ENGINE (INTERCONNECT) WIRE HARNESS REMOVAL**



1. Disconnect water pump engine (interconnect) wire harness connector (1) from water pump engine wire harness connector (2).





2. Disconnect water pump engine (interconnect) wire harness connector (3) from ECU (4).
3. Remove water pump engine (interconnect) wire harness (5) from vehicle.

#### END OF TASK

#### WATER PUMP ENGINE (INTERCONNECT) WIRE HARNESS INSTALLATION

1. Install water pump engine (interconnect) wire harness (5) on vehicle.
2. Connect water pump engine (interconnect) wire harness connector (3) to ECU (4).
3. Connect water pump engine (interconnect) wire harness connector (1) to water pump engine wire harness connector (2).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Install pump house panels Q and O (WP 0540)
2. Install crew cab access panels (WP 0499)
3. Install water pump engine radiator (WP 0481)

#### END OF TASK

#### END OF WORK PACKAGE



---

**FIELD LEVEL MAINTENANCE**  
**WATER VALVE WIRE HARNESS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Nylon Washer (4)  
Nylon Washer (4)  
Lockwasher (1)

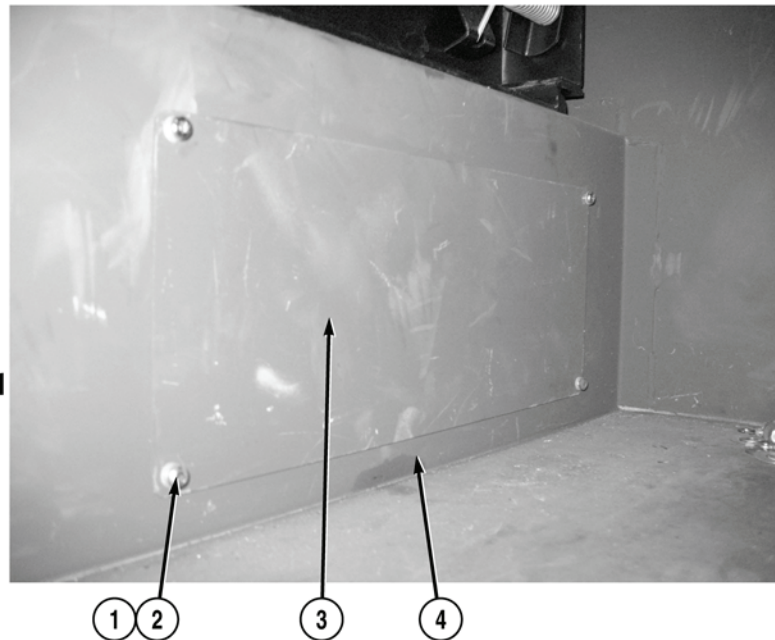
**References**

TM 9-2320-325-14&P  
WP 0615, Fig. 51

**Equipment Conditions**

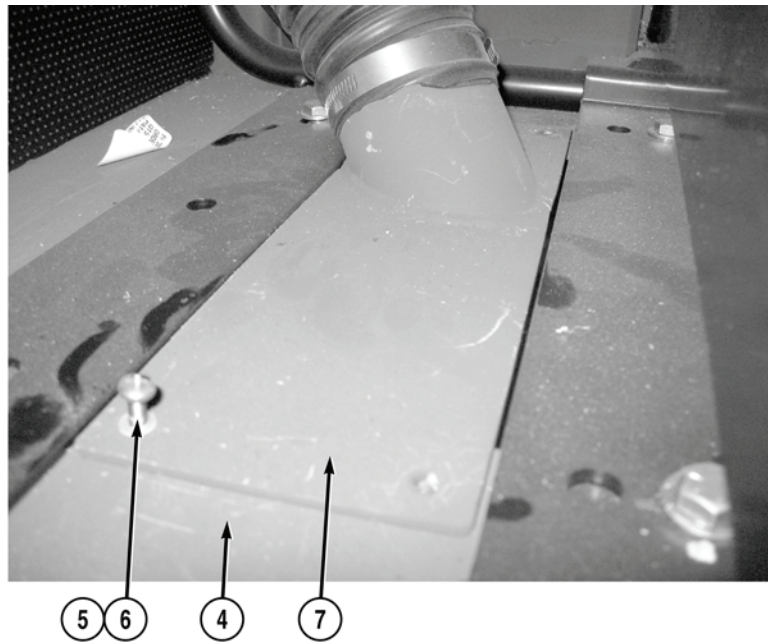
Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)  
Crew cab bench seat and access panel  
removed (WP 0501)

---

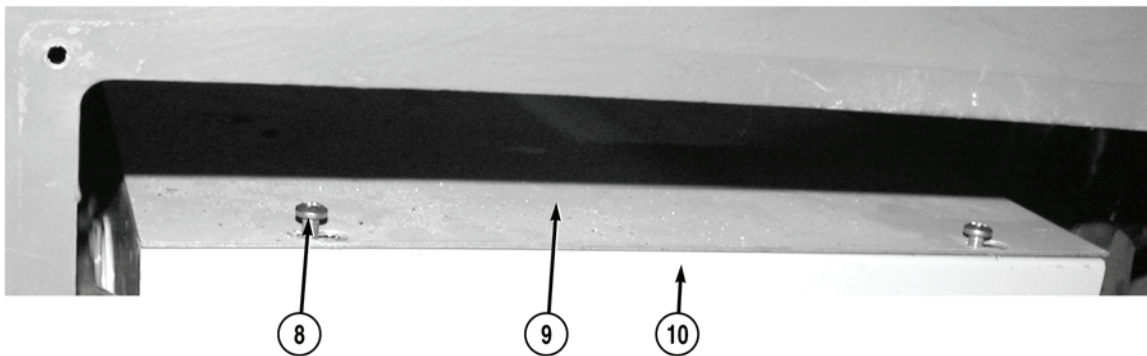
**REMOVAL****NOTE**

Control box is located under crew cab passenger side seat.

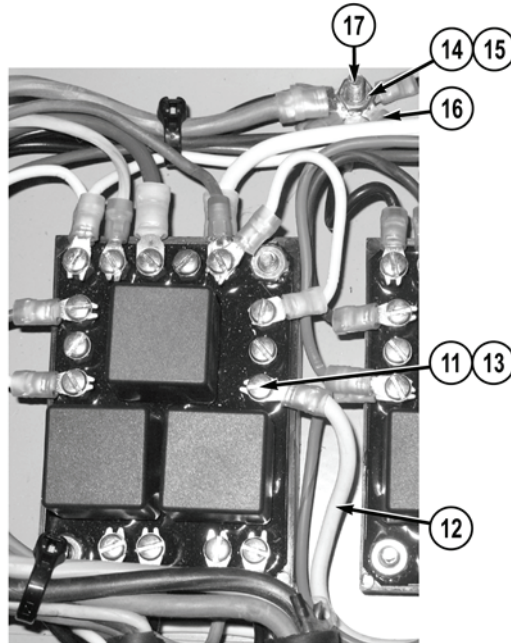
1. Remove four screws (1), nylon washers (2), and cover (3) from crew cab (4). Discard nylon washers.



2. Remove four screws (5) and nylon washers (6) from fresh air bracket (7) and crew cab (4). Discard nylon washers.
3. Move fresh air bracket (7) out of the way.

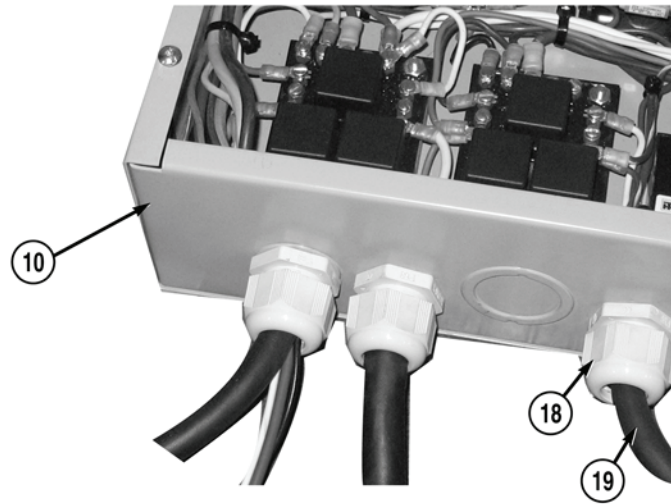


4. Remove four screws (8) and control box cover (9) from control box (10).

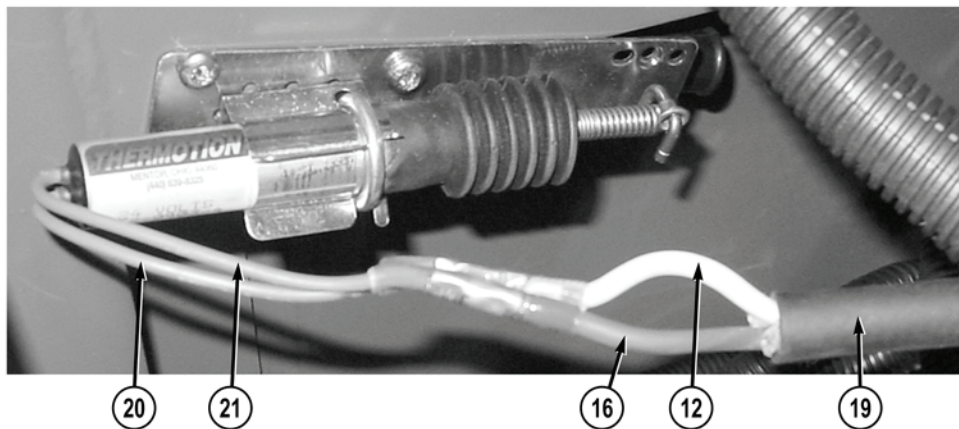


### NOTE

- Tag and mark wires prior to removal to ensure proper installation.
  - Note position and remove cable ties, split looms, and cushion clips as required.
  - Note routing of wire harness prior to removal to ensure proper installation.
5. Loosen screw (11) and remove yellow wire (12) from heat relay terminal 30 (13).
  6. Remove nut (14), lockwasher (15), and black wire (16) from ground stud (17). Discard lockwasher.



7. Loosen nut (18) and remove water valve wire harness (19) from control box (10).

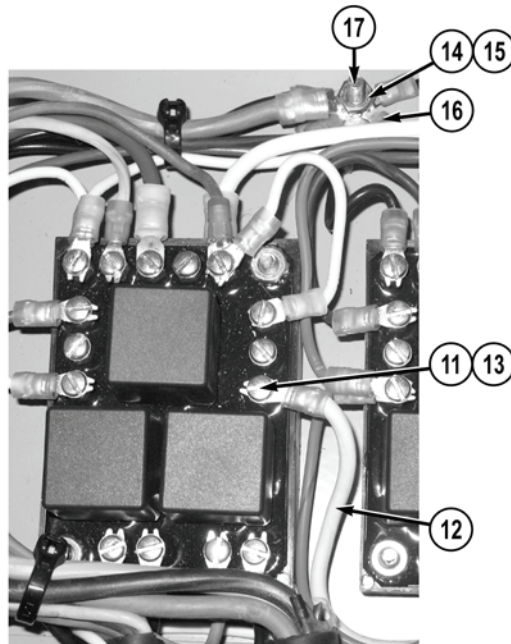


8. Cut yellow wire (12) from orange wire (20) (TM 9-2320-325-14&P).
9. Cut black wire (16) from orange wire (21) (TM 9-2320-325-14&P).
10. Remove water valve wire harness (19) from vehicle.

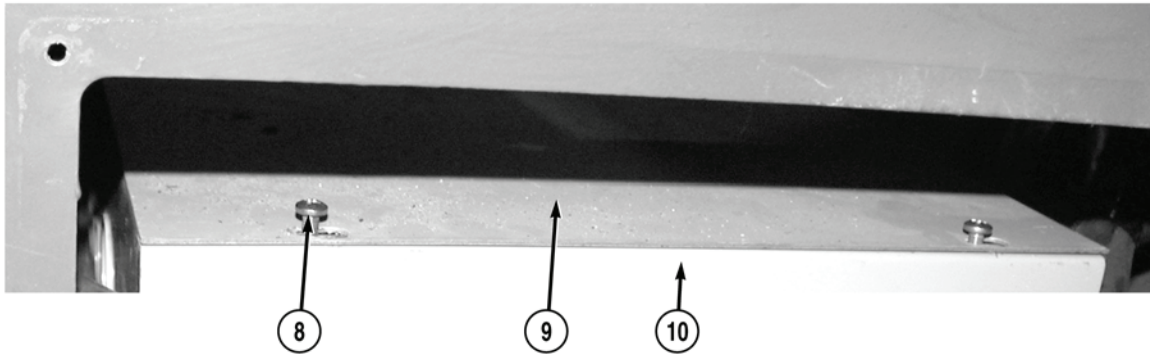
**END OF TASK**

**INSTALLATION****NOTE**

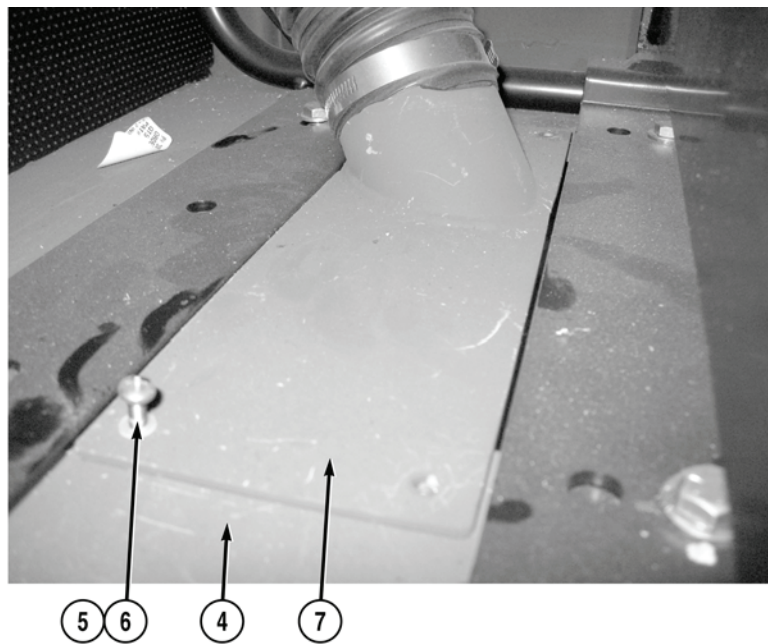
- Install wire harness as noted prior to removal.
  - Install cable ties, split looms, and cushion clips as required.
1. Install water valve wire harness (19) in vehicle.
  2. Repair orange wire (21) and black wire (16) (TM 9-2320-325-14&P).
  3. Repair orange wire (20) and yellow wire (12) (TM 9-2320-325-14&P).
  4. Install water valve wire harness (19) inside control box (10) and tighten nut (18).



5. Install black wire (16) on ground stud (17) with lockwasher (15) and nut (14).
6. install yellow wire (12) on heat relay terminal 30 (13) and tighten screw (11).

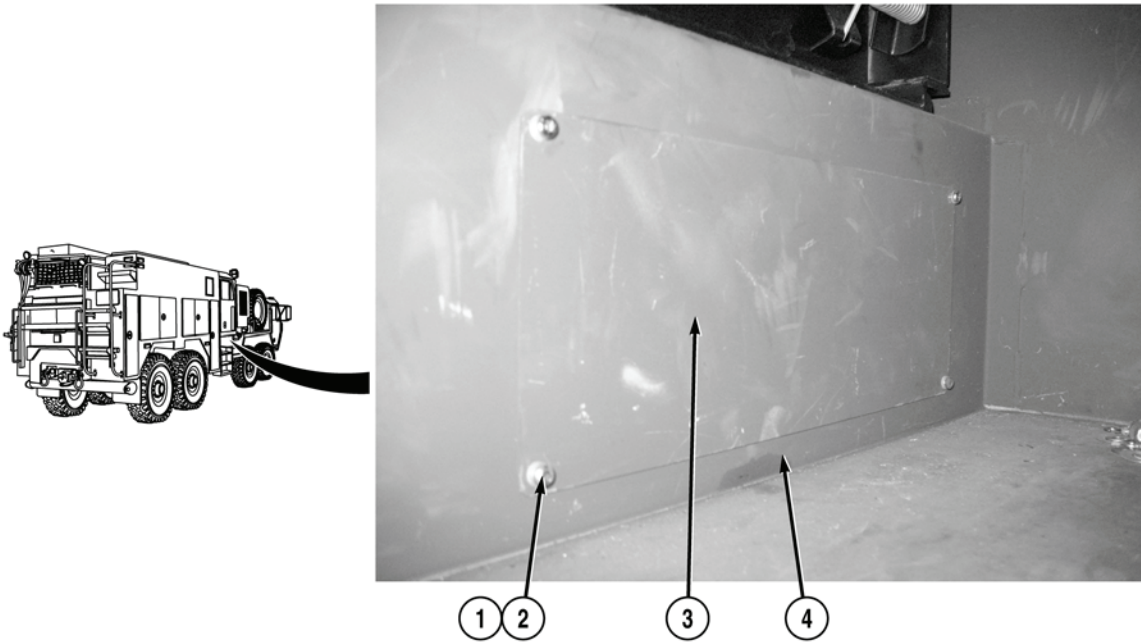


7. Install control box cover (9) on control box (10) with four screws (8).



8. Install fresh air bracket (7) on crew cab (4) with four nylon washers (6) and screws (5).





9. Install cover (3) on crew cab (4) with four nylon washers (2) and screws (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Install cab bench seat and access panel (WP 0501)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## WATER TANK LEVEL PROBE WIRE HARNESS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Ties, Cable, Plastic (WP 0625, Item 58)

**References**

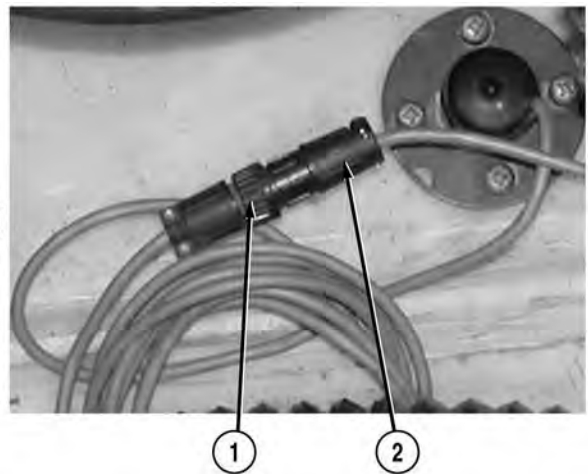
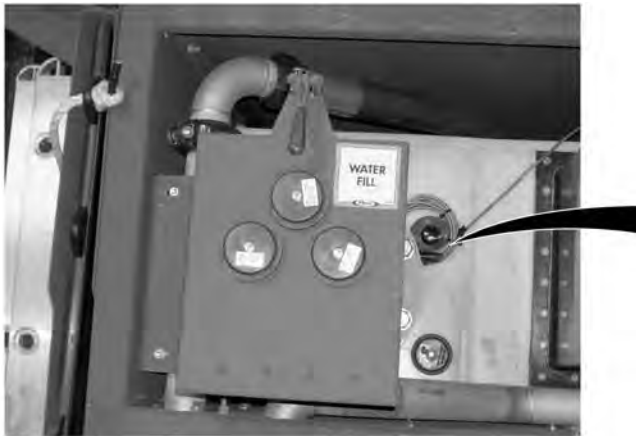
WP 0615, Fig. 51

**Equipment Conditions**

Water pump engine OFF (WP 0022)

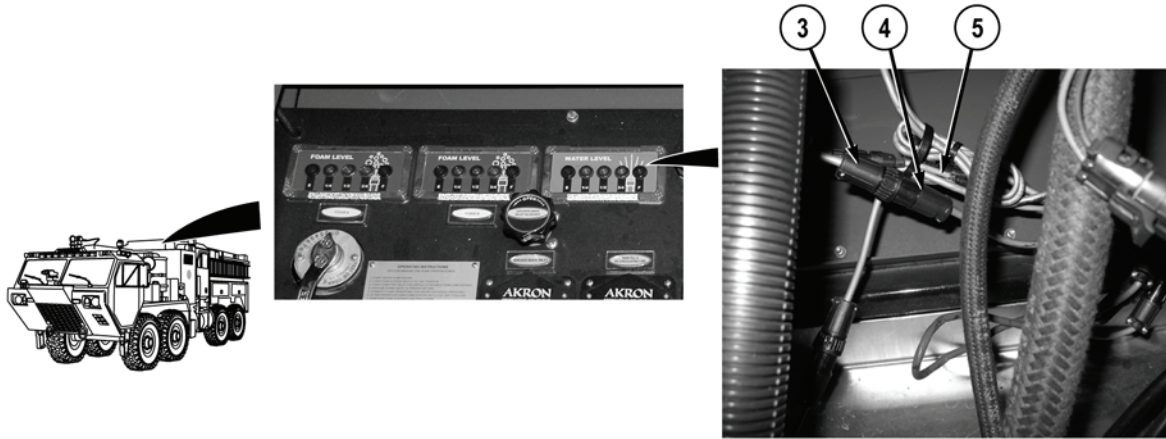
Batteries disconnected (TM 9-2320-325-14&P)

## REMOVAL

**NOTE**

- Note routing of water tank level probe wire harness prior to removal ensure proper installation.
- Note position and remove cable ties, split looms, and cushion clips as required.

1. Disconnect water tank level probe wire harness connector (1) from water tank level probe connector (2).

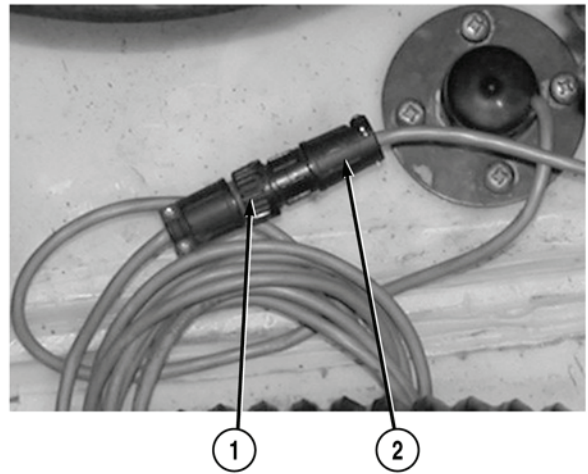
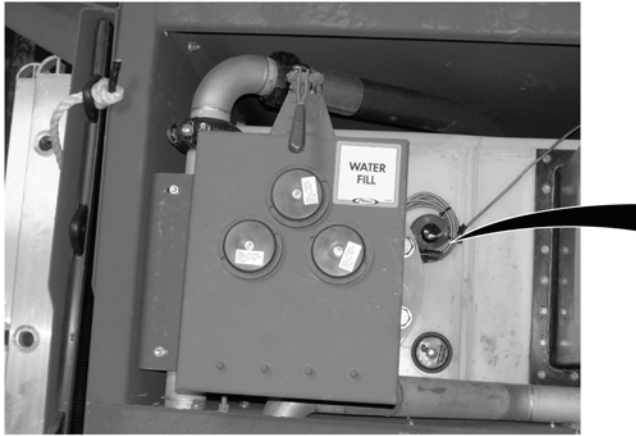


2. Disconnect water tank level probe wire harness connector (3) from water tank level gauge connector (4).
3. Remove water tank level probe wire harness (5) from vehicle.

## INSTALLATION

### NOTE

- Route water tank level probe wire harness on vehicle as noted prior to removal.
  - Install cable ties, split looms, and cushion clips as noted.
1. Install water tank level probe wire harness (5) on vehicle.
  2. Connect water tank level probe wire harness connector (3) to water tank level gauge connector (4).



3. Connect water tank level probe wire harness connector (1) to water tank level probe connector (2).

**END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**HEATER FUEL PUMPS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Drain Pan (WP 0622, Item 9)  
Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Lockwasher (2)

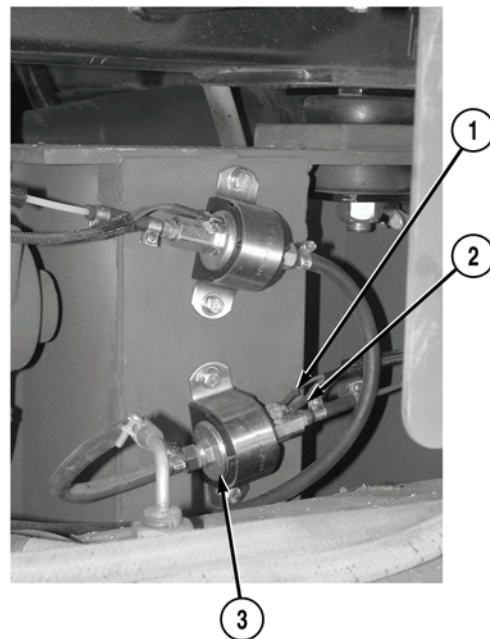
**References**

WP 0615, Fig. 21

**Equipment Conditions**

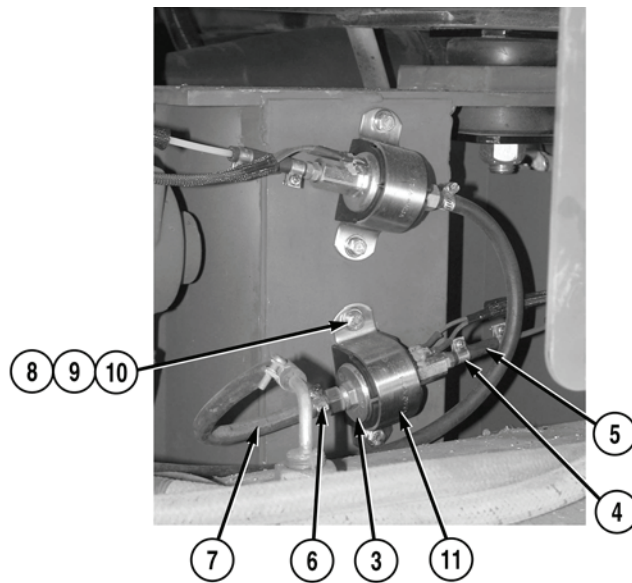
Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

**REMOVAL****NOTE**

- Both fuel pumps are removed the same way. Top fuel pump is for pump house heater and bottom fuel pump is for rear compartment heater. Bottom fuel pump shown.
- Tag and mark wires and hoses prior to removal to ensure proper installation.

1. Remove two wires (1) and (2) from fuel pump (3).



### **WARNING**



**Fuel is very flammable and can explode easily. To avoid serious injury or death, keep fuel away from open fire and keep fire extinguisher within easy reach when working with fuel. Do not work on fuel system when engine is hot. Fuel can be ignited by hot engine. When working with fuel, post signs that read NO SMOKING WITHIN 50 FEET of vehicle.**

### **NOTE**

- Fuel may spill when clamps and hoses are removed.
- Position suitable drain pan under hoses to catch excess fuel.

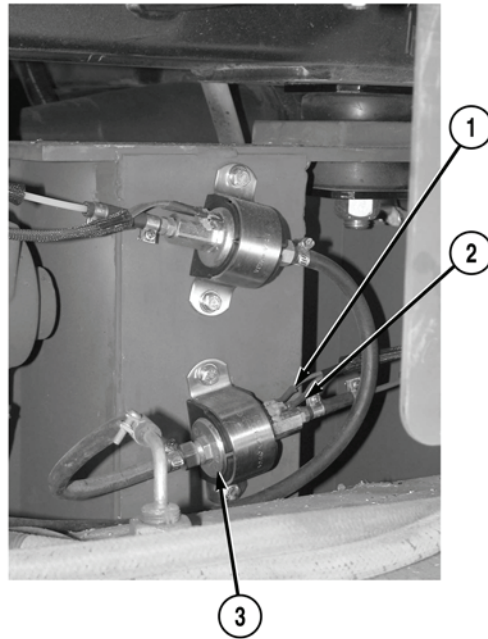
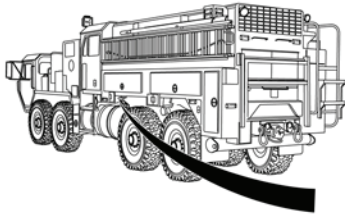
2. Remove clamp (4) and hose (5) from fuel pump (3).
3. Remove clamp (6) and hose (7) from fuel pump (3).
4. Remove two screws (8), lockwashers (9), washers (10), clamp (11), and fuel pump (3) from vehicle. Discard lockwashers.

### **END OF TASK**

### **INSTALLATION**

1. Install fuel pump (3) on vehicle with clamp (11), two washers (10), lockwashers (9) and screws (8).
2. Install hose (7) on fuel pump (3) with clamp (6).
3. Install hose (5) on fuel pump (3) with clamp (4).





4. Install two wires (1) and (2) on fuel pump (3).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**HEATER FUEL TANK PICKUPS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Ties, Cable, Plastic (WP 0625, Item 58)

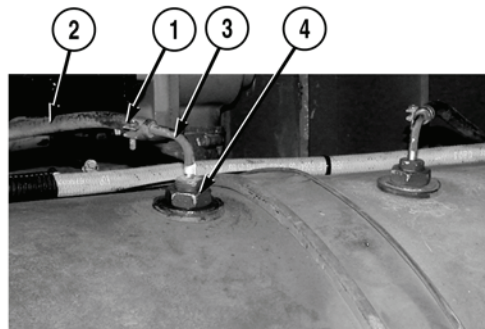
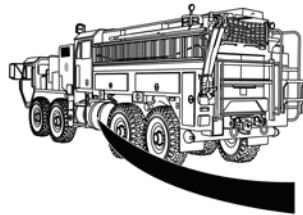
**References**

WP 0615, Fig. 21, 173, 174

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

**REMOVAL****WARNING**

**Fuel is very flammable and can explode easily. To avoid serious injury or death, keep fuel away from open fire and keep fire extinguisher within easy reach when working with fuel. Do not work on fuel system when engine is hot. Fuel can be ignited by hot engine. When working with fuel, post signs that read NO SMOKING WITHIN 50 FEET of vehicle.**

**NOTE**

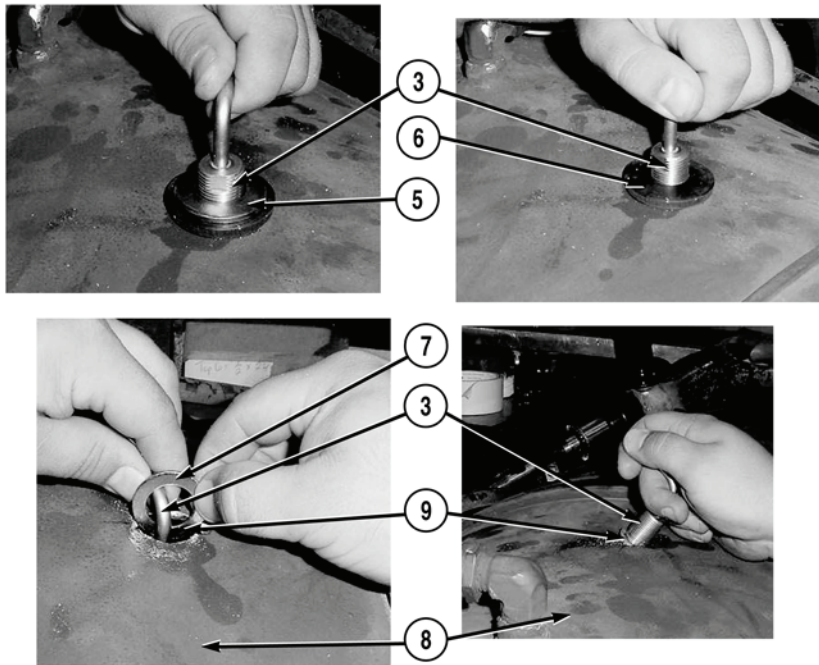
Front and rear pickup tube assemblies are removed the same way. Front pickup tube assembly shown.

1. Remove clamp (1) and hose (2) from pickup tube assembly (3).

**CAUTION**

**Hold pickup tube assembly after removing nut until assembly is removed from tank to prevent assembly from falling in tank.**

2. Remove nut (4) from pickup tube assembly (3).



3. Remove washer (5) from pickup tube assembly (3).
4. Remove seal (6) from pickup tube assembly (3).

**⚠ CAUTION**

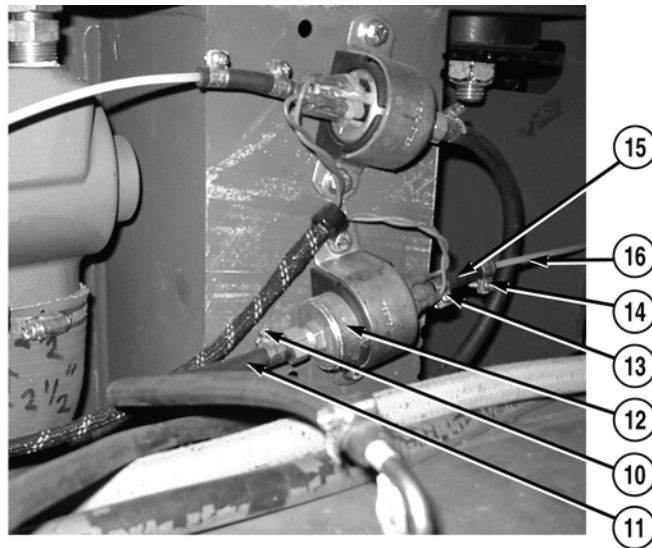
**Do not let go of pickup tube assembly when performing Step (5) and (6). Failure to comply may result in pickup tube assembly falling into tank, causing damage to equipment.**

5. Push pickup tube assembly (3) down and rotate pickup tube assembly (3) until washer (7) can be accessed.
6. Remove washer (7) from tank (8) through two notches on sides of hole (9).

**NOTE**

Rotate pickup tube assembly and slide it up until bottom of threaded portion will slide through two notches on sides of hole.

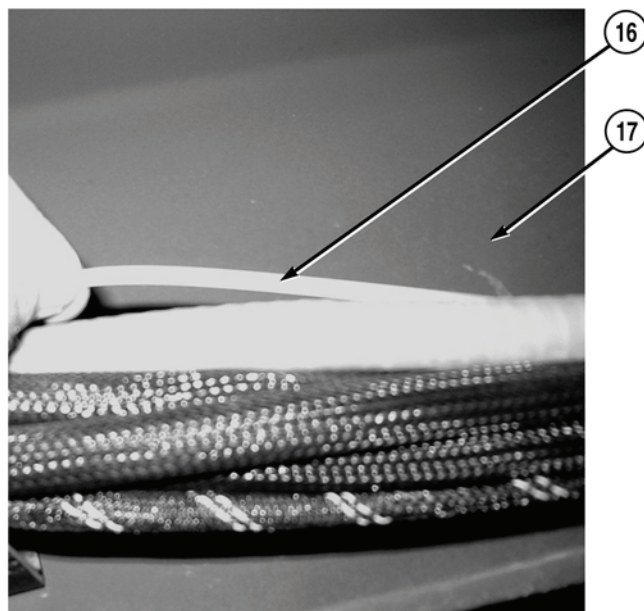
7. Remove pickup tube assembly (3) from tank (8) through two notches on side of hole (9).



### NOTE

Perform Steps (8) through (15) to remove fuel line and hoses for rear compartment heater.

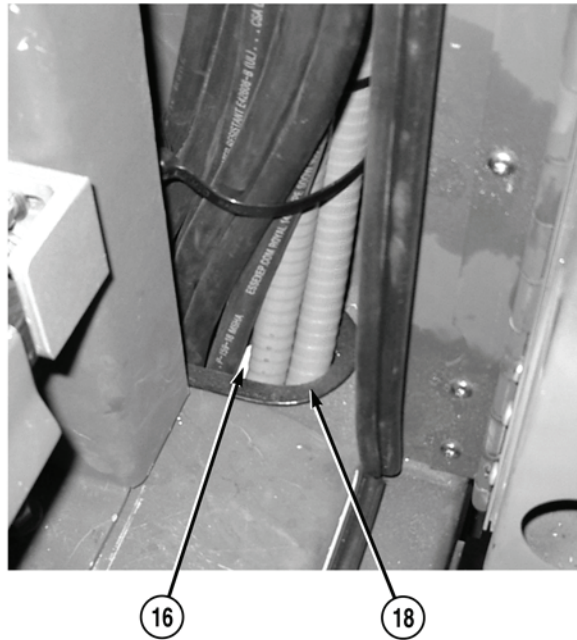
8. Remove clamp (10) and hose (11) from fuel pump (12).
9. Remove clamp (13) and hose (15) from fuel pump (12).
10. Remove clamp (14) and hose (15) from fuel line (16).



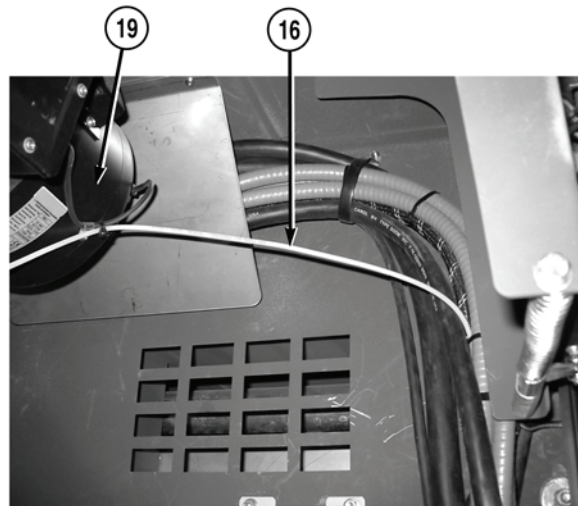
### NOTE

Remove cable ties as required.

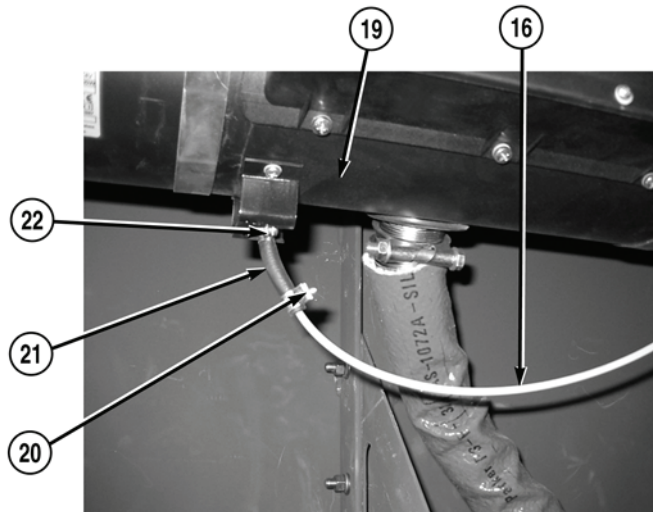
11. Remove fuel line (16) from frame (17).



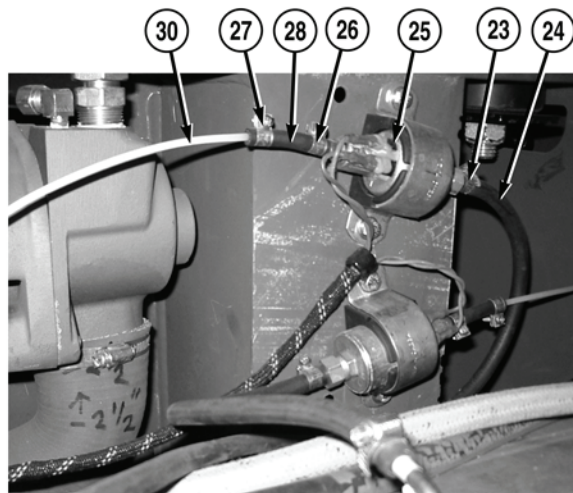
12. Remove fuel line (16) from rear compartment access hole (18).



13. Remove fuel line (16) from rear heater (19).



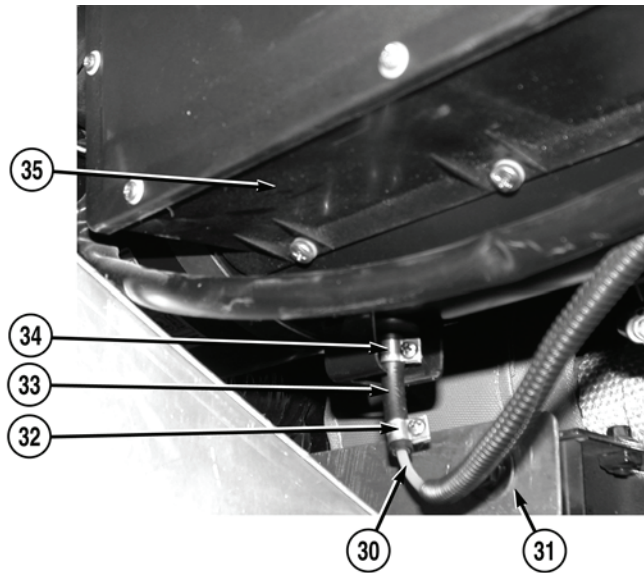
14. Remove clamp (20) and fuel line (16) from hose (21).
15. Remove clamp (22) and hose (21) from rear compartment heater (19).



### NOTE

Perform Steps (16) through (21) to remove fuel line and hoses for pump house heater.

16. Remove clamp (23) and hose (24) from fuel pump (25).
17. Remove clamp (26) and hose (28) from fuel pump (25).
18. Remove clamp (27) and hose (28) from fuel line (30).

**NOTE**

Remove cable ties as required.

19. Remove fuel line (30) from pump house (31).
20. Remove clamp (32) and fuel line (30) from hose (33).
21. Remove clamp (34) and hose (33) from pump house heater (35).

**END OF TASK****INSTALLATION****NOTE**

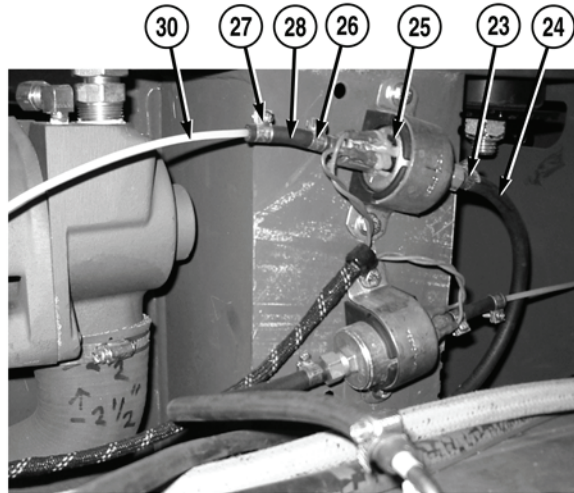
- Front and rear pickup tube assemblies are installed the same way. Front pickup tube assembly shown.
  - Remove cap from bottom of pickup tube assembly before installation, or fuel will not be able to enter tube.
  - Do not let go of pickup tube assembly after it is positioned in tank until nut is installed on top of tank, or assembly will fall in tank.
  - Perform Steps (1) through (6) to install fuel line and hoses for pump house heater.
1. Install hose (33) on pump house heater (35) with clamp (34).
  2. Install fuel line (30) on hose (33) with clamp (32).

**NOTE**

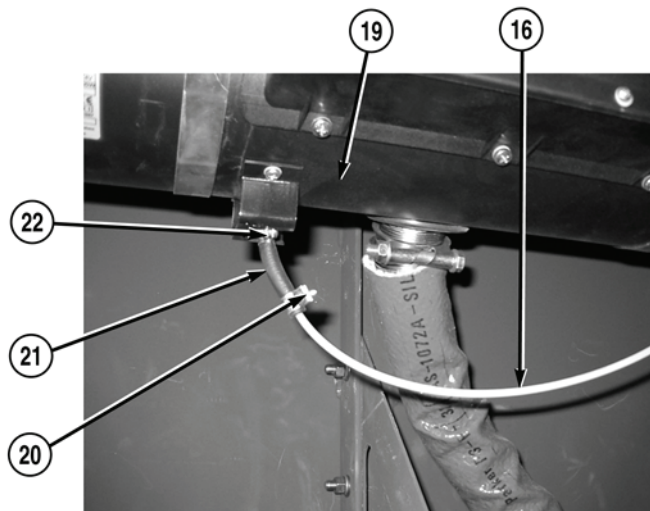
Install cable ties as required.

3. Install fuel line (30) through pump house (31).





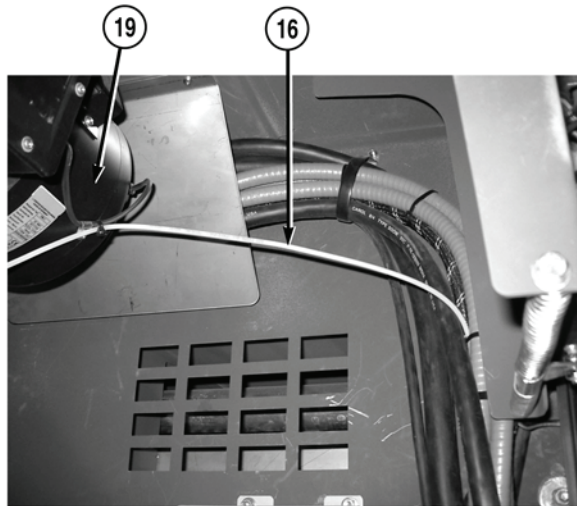
4. Install fuel line (30) on hose (28) with clamp (27).
5. Install hose (28) on fuel pump (25) with clamp (26).
6. Install hose (24) on fuel pump (25) with clamp (23).



#### NOTE

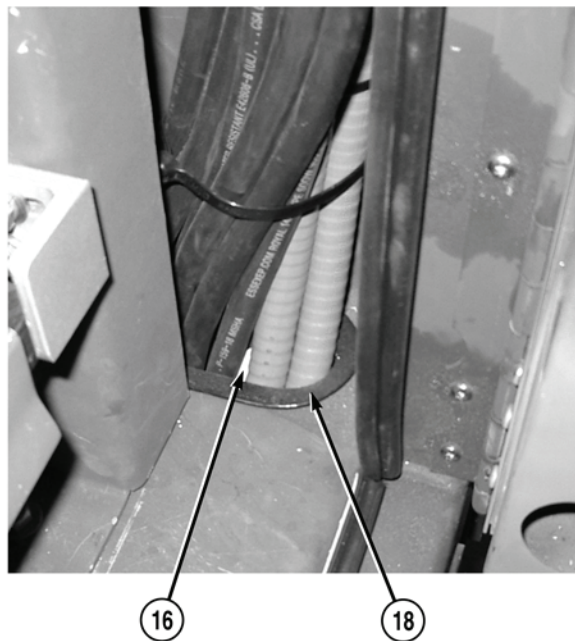
Perform Steps (7) through (14) to install fuel line and hoses for rear compartment heater.

7. Install hose (21) on rear compartment heater (19) with clamp (22).
8. Install fuel line (16) on hose (21) with clamp (20).

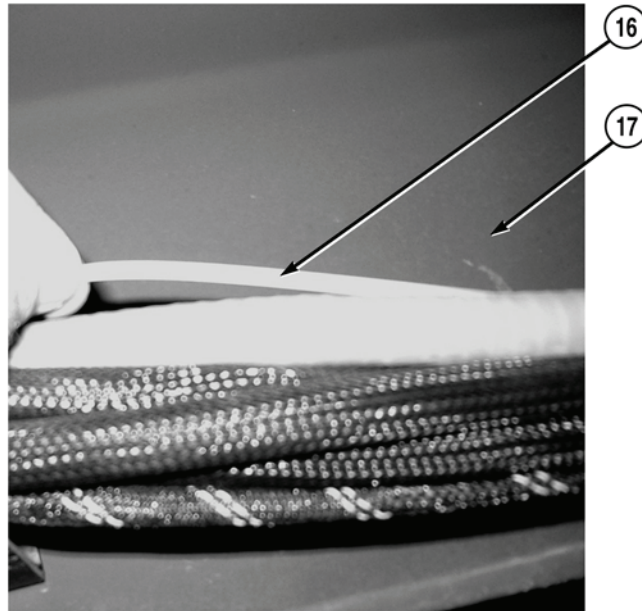
**NOTE**

Install cable ties as required.

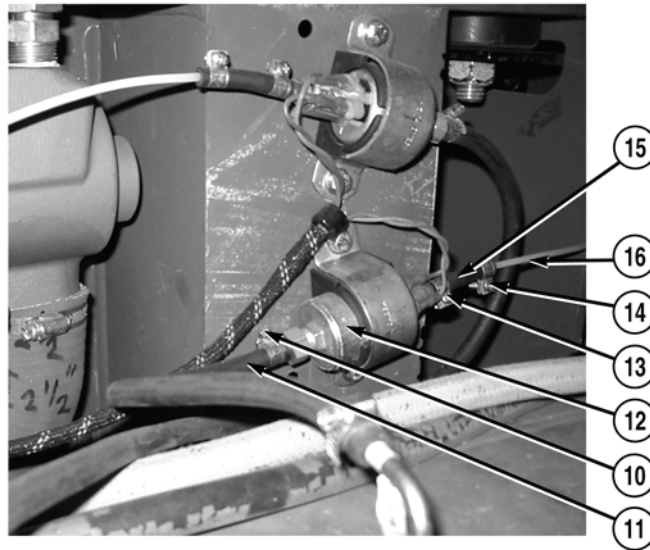
9. Install fuel line (16) on heater (19).



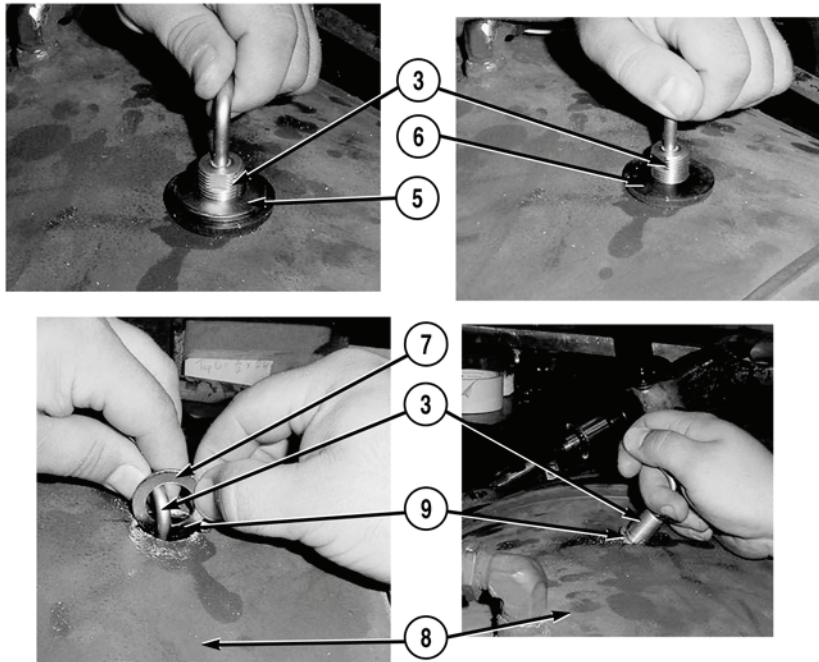
10. Install fuel line (16) in access hole (18).



11. Install fuel line (16) on frame (17).



12. Install fuel line (16) on hose (15) with clamp (14).
13. Install hose (15) on fuel pump (12) with clamp (13).
14. Install hose (11) on fuel pump (12) with clamp (10).

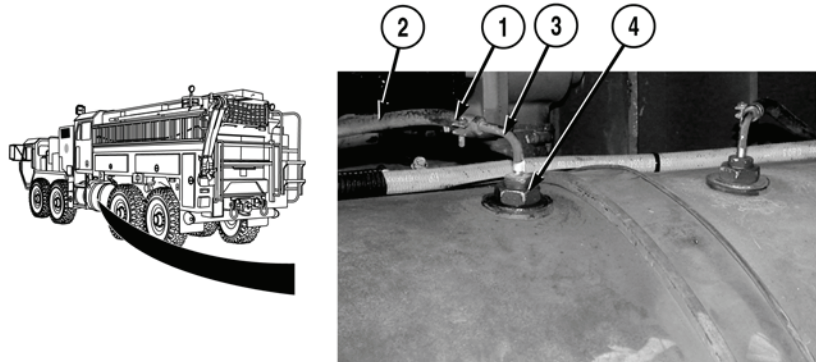


15. Rotate pickup tube assembly (3) until bottom of threaded portion will slide through two notches on sides of hole (9) to install pickup tube assembly (3) in tank (8).

#### NOTE

Washer will slide to bottom of threaded portion of pickup tube.

16. Install washer (8) on pickup tube assembly (3); rotate pickup tube assembly (3) and slide washer (7) in tank (8) through two notches on sides of hole (9).
17. Install washer (6) on pickup tube assembly (3).
18. Install washer (5) on pickup tube assembly (3).



19. Install nut (4) on pickup tube assembly (3).

#### **NOTE**

Angle front pickup tube assembly inward and toward front of vehicle. Angle rear pickup tube assembly inward and toward rear of vehicle.

20. Tighten nut (4) until washer (6) is compressed to form a tight seal and pickup tube assembly (3) is secure.
21. Install hose (2) on pickup tube assembly (3) with clamp (1).

**END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**PUMP HOUSE HEATER REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Locknut (4)

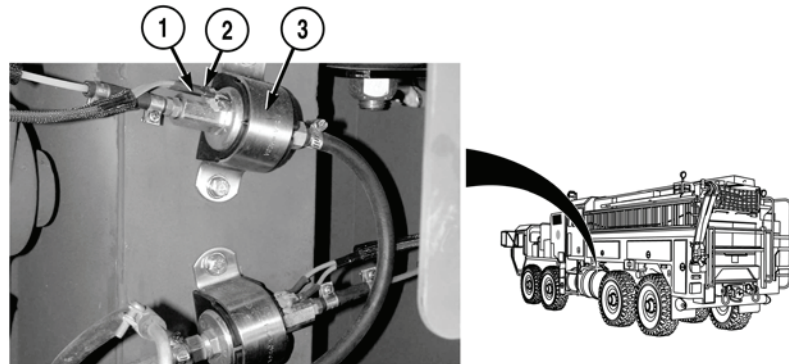
**References**

WP 0615, Fig. 173

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

**REMOVAL****WARNING**

Fuel is very flammable and can explode easily. To avoid serious injury or death, keep fuel away from open fire and keep fire extinguisher within easy reach when working with fuel. Do not work on fuel system when engine is hot. Fuel can be ignited by hot engine. When working with fuel, post signs that read **NO SMOKING WITHIN 50 FEET** of vehicle.

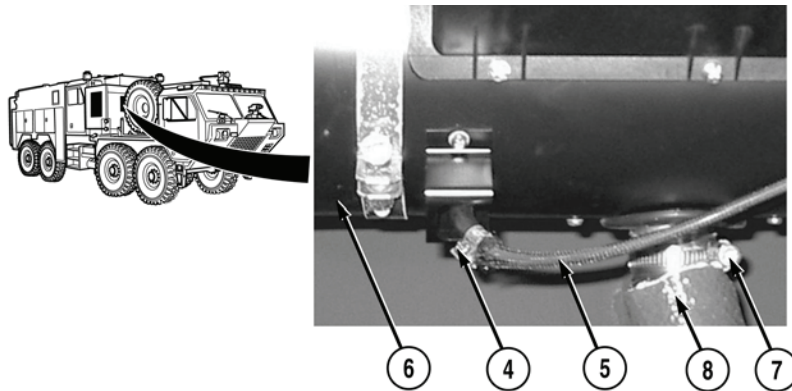
**CAUTION**

Disconnect fuel pump to prevent fuel pump from pumping fuel to heater.

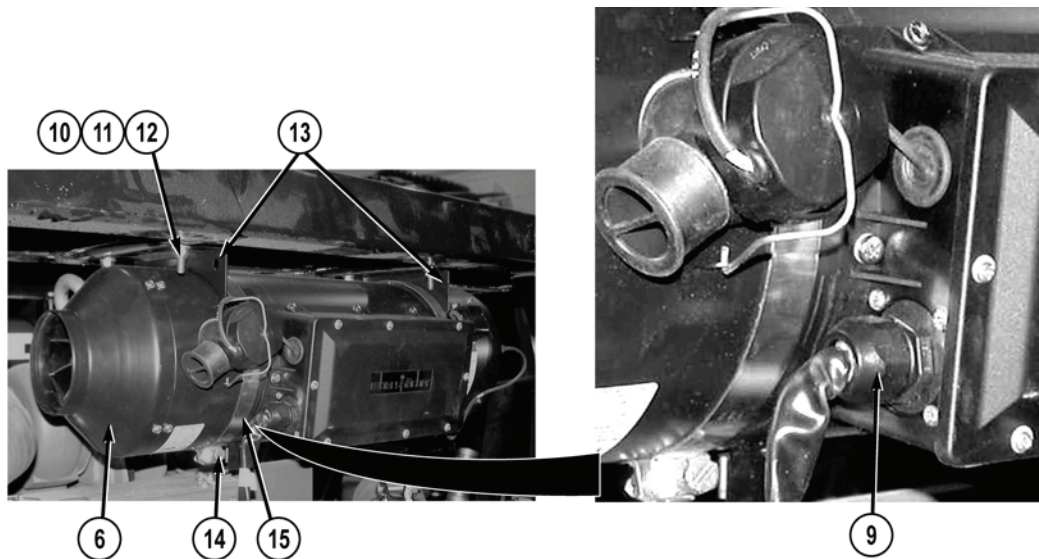
**NOTE**

- Drain fuel from fuel line into fuel container.
- Tag and mark wires prior to removal to ensure proper installation.

1. Remove two wires (1) and (2) from fuel pump (3).



2. Remove clamp (4) and fuel line (5) from heater (6).
3. Remove clamp (7) and exhaust pipe (8) from heater (6).



4. Disconnect connector (9) from heater (6).

#### NOTE

Note position of brackets prior to removal to ensure proper installation.

5. Remove four locknuts (10), washers (11), screws (12), two brackets (13), and heater (6) from vehicle. Discard locknuts.

#### NOTE

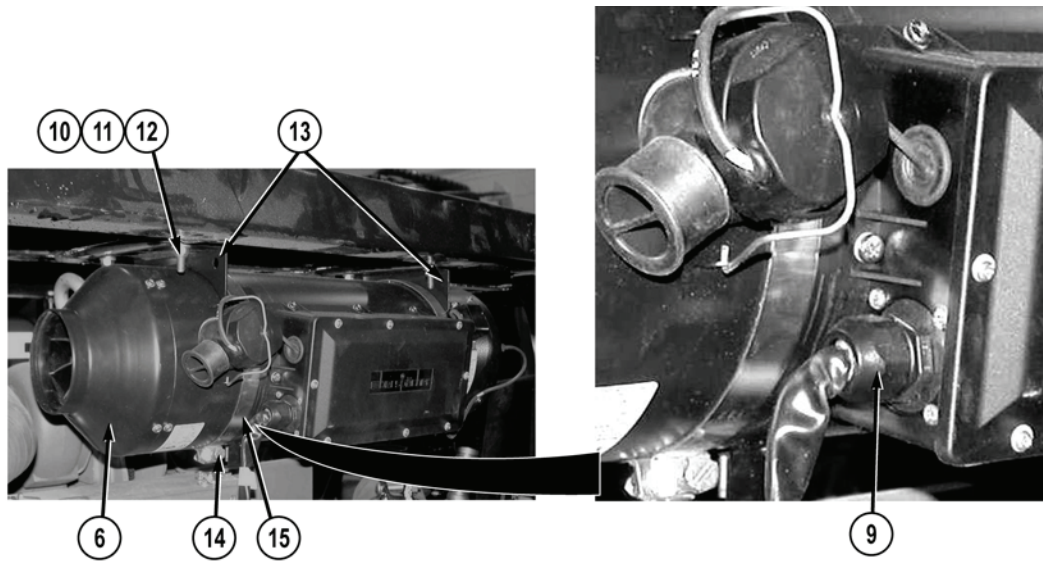
Note position of straps prior to removal to ensure proper installation.

6. Loosen two screws (14) and remove straps (15) and brackets (13) from heater (6).

**END OF TASK**



**INSTALLATION**



**NOTE**

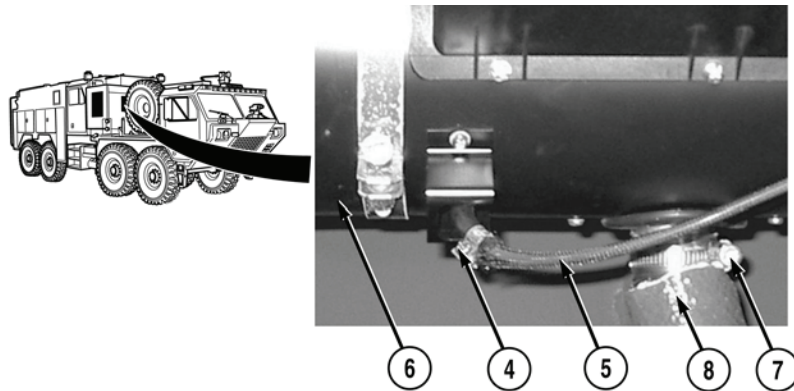
Install straps as noted prior to removal.

1. Install two brackets (13) and straps (15) on heater (6) and tighten two screws (14).

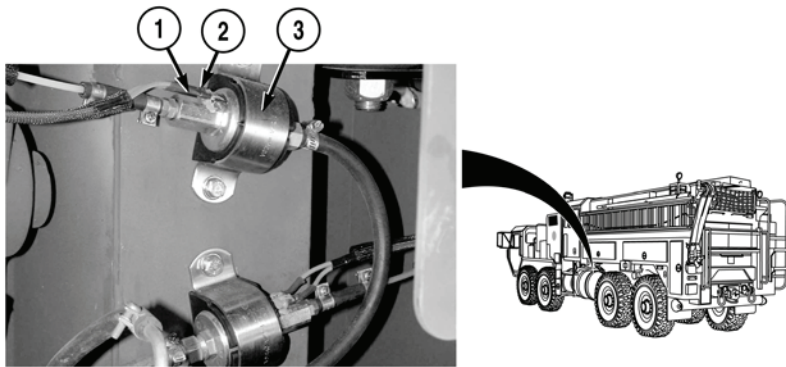
**NOTE**

Install brackets as noted prior to removal.

2. Install heater (6) and two brackets (13) on vehicle with four screws (12), washers (11), and locknuts (10).
3. Connect connector (9) to heater (6).



4. Install exhaust pipe (8) on heater (6) with clamp (7).
5. Install fuel line (5) on heater (6) with clamp (4).



6. Install two wires (2) and (1) on fuel pump (3).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## REAR COMPARTMENT HEATER DIAGNOSTIC MODULE REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

TM 9-2320-325-14&P  
WP 0615, Fig. 77

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (1)  
Lockwasher (1)  
Lockwasher (1)  
Lockwasher (1)  
Lockwasher (1)  
Lockwasher (4)  
Lockwasher (1)

**Equipment Conditions**

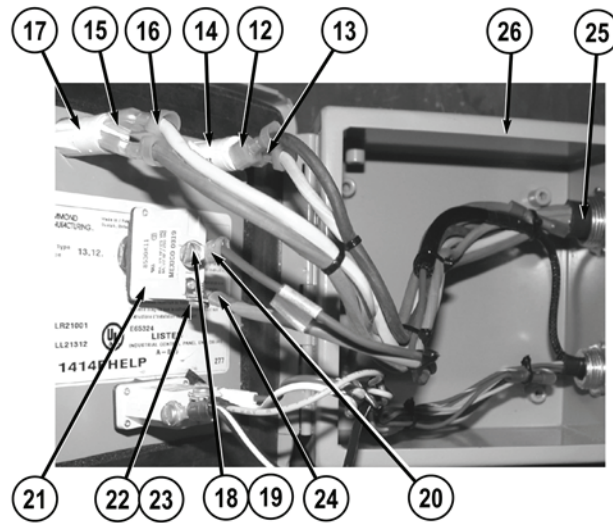
Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)  
Batteries disconnected (TM 9-2320-325-14&P)

## REMOVAL

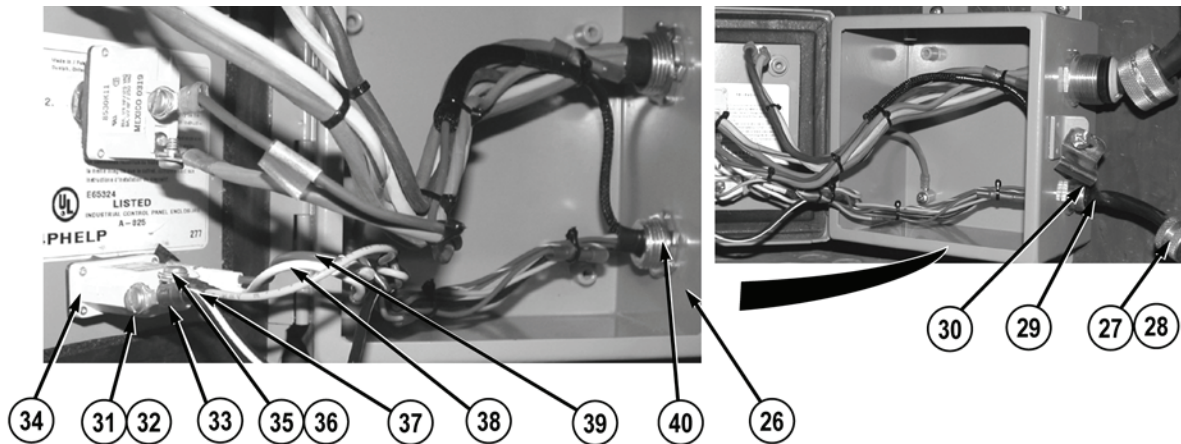
**NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
- Remove cable ties as required.

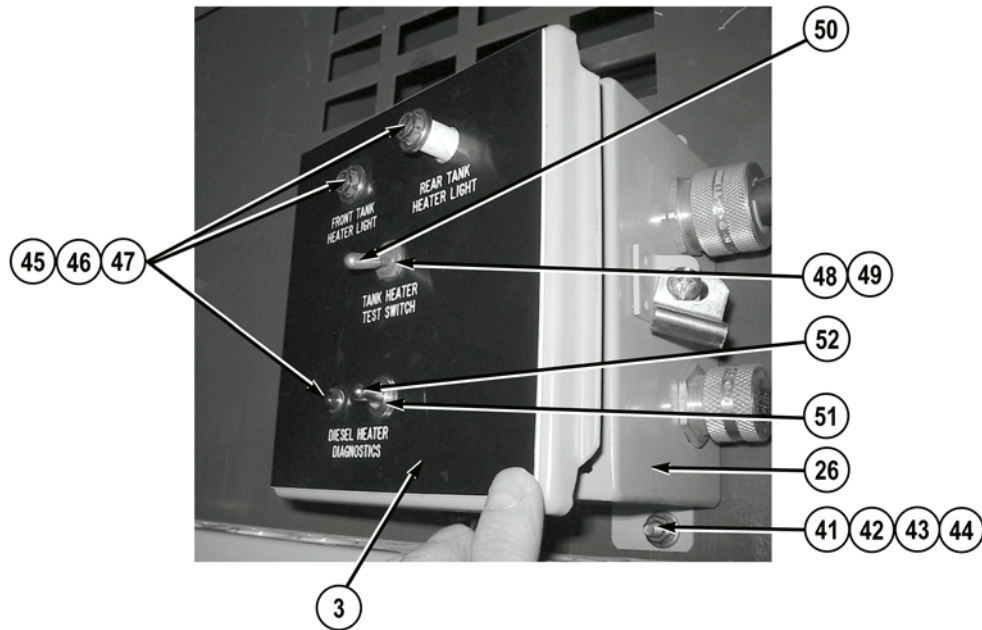
1. Loosen screw (1) and rotate clamp (2) down and open front panel (3).
2. Remove collar (4), washer (5), and grommet (6) from fitting (7).
3. Remove screw (8), lockwasher (9), and ground wire connector (10) from ground terminal (11). Discard lockwasher.



4. Remove two connectors (12) and (13) from front tank heater light (14).
5. Remove two connectors (15) and (16) from rear tank heater light (17).
6. Remove screw (18), lockwasher (19), and connector (20) from tank heater test switch (21). Discard lockwasher.
7. Remove screw (22), lockwasher (23), and connector (24) from tank heater test switch (21). Discard lockwasher.
8. Remove wire harness (25) from heater diagnostics box (26).



9. Remove collar (27), washer (28), and grommet (29) from fitting (30).
10. Remove screw (31), lockwasher (32), and connector (33) from diesel heater diagnostics switch (34). Discard lockwasher.
11. Remove screw (35), lockwasher (36), and connector (37) from diesel heater diagnostics switch (34). Discard lockwasher.
12. Cut two wires (38) and (39) (TM 9-2320-325-14&P).
13. Remove wire harness (40) from heater diagnostics box (26).



14. Remove four nuts (41), lockwashers (42), washers (43), screws (44), and diagnostics box (26) from vehicle. Discard lockwashers.
15. Remove three indicator lights (45), (46), and (47) from front panel (3).
16. Remove nut (48), lockwasher (49), and switch (50) from front panel (3). Discard lockwasher.
17. Remove nut (51) and switch (52) from front panel (3).

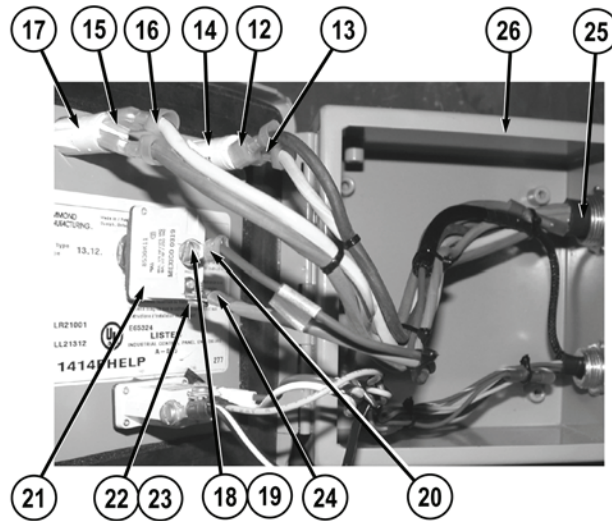
#### END OF TASK

#### INSTALLATION

#### NOTE

Install cable ties as required.

1. Install switch (52) in front panel (3) with nut (51).
2. Install switch (50) in front panel (3) with lockwasher (49) and nut (48).
3. Install three indicator lights (47), (46), and (45) in front panel (3).
4. Install diagnostics box (26) on vehicle with four screws (44), washers (43), lockwashers (42), and nuts (41).
5. Install wire harness (40) in heater diagnostics box (26).
6. Repair two wires (38) and (39) (TM 9-2320-325-14&P).
7. Install connector (37) on diesel heater diagnostics switch (34) with lockwasher (36) and screw (35).
8. Install connector (33) on diesel heater diagnostics switch (34) with lockwasher (32) and screw (31).
9. Install grommet (29) and washer (28) on fitting (30) with collar (27).



10. Install wire harness (25) in heater diagnostics box (26).
11. Install connector (24) on tank heater test switch (21) with lockwasher (23) and screw (22).
12. Install connector (20) on heater test switch (21) with lockwasher (19) and screw (18).
13. Install two connectors (16) and (15) on rear tank heater light (17).
14. Install two connectors (13) and (12) on front tank heater light (14).



15. Install ground wire connector (10) on ground terminal (11) with lockwasher (9) and screw (8).
16. Install grommet (6) and washer (5) on fitting (7) with collar (4).
17. Close front panel (3), rotate clamp (2) up and tighten clamp (2) with screw (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Connect batteries (TM 9-2320-325-14&P)
2. Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**REAR COMPARTMENT HEATER REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Drain Pan (WP 0622, Item 9)  
Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Adhesive, RTV 732 (WP 0625, Item 2)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (2)  
Locknut (4)  
Locknut (8)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

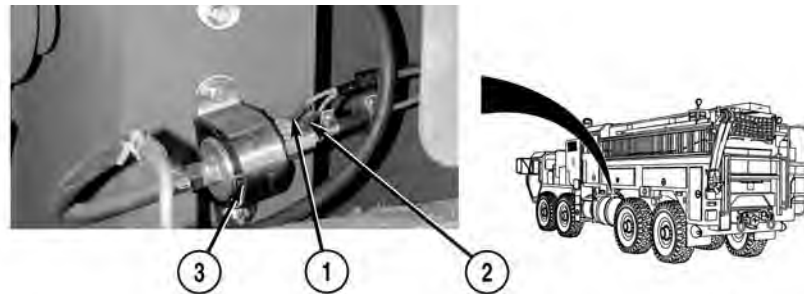
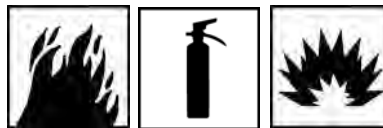
**References**

WP 0615, Fig. 76, 174

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

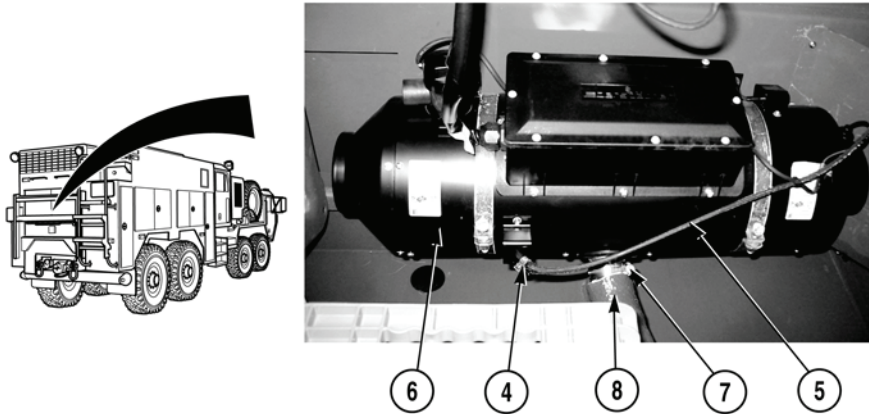
**REMOVAL****WARNING**

**Fuel is very flammable and can explode easily. To avoid serious injury or death, keep fuel away from open fire and keep fire extinguisher within easy reach when working with fuel. Do not work on fuel system when engine is hot. Fuel can be ignited by hot engine. When working with fuel, post signs that read NO SMOKING WITHIN 50 FEET of vehicle.**

**NOTE**

- Tag and mark wires prior to removal to ensure proper installation.
- Remove cable ties as required.
- Perform Step (1) to disconnect fuel pump to prevent fuel pump from pumping fuel to heater.

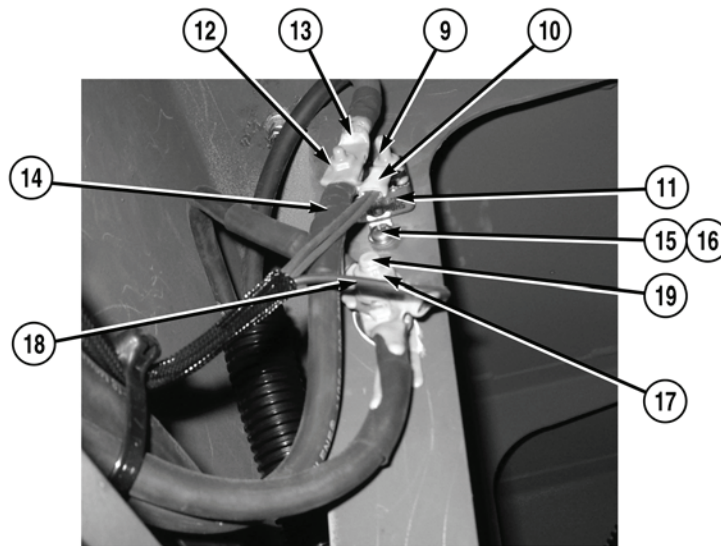
1. Remove two wires (1) and (2) from fuel pump (3).



**NOTE**

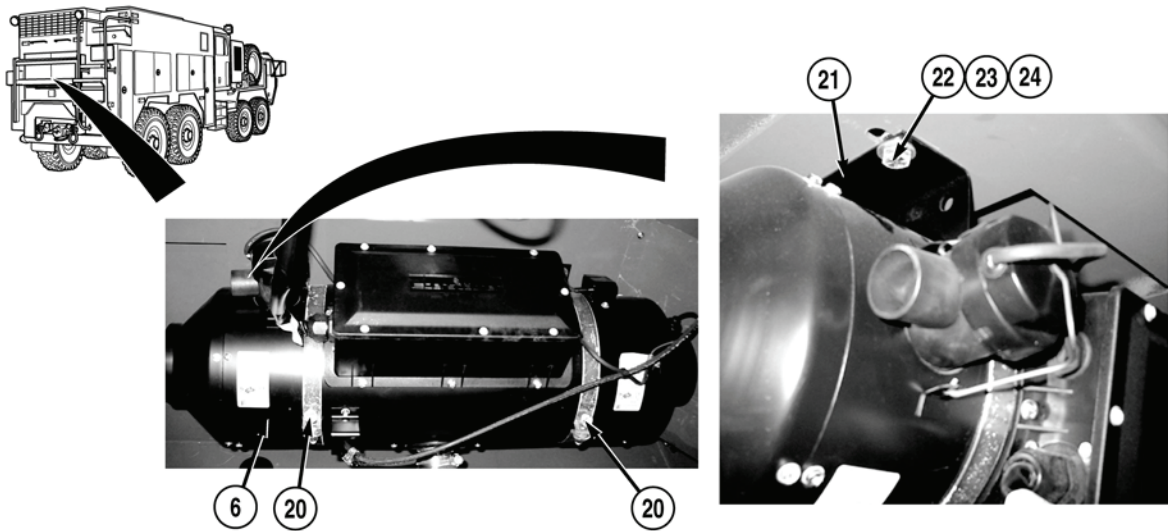
Drain fuel from fuel line into fuel container.

2. Remove clamp (4) and fuel line (5) from heater (6).
3. Remove clamp (7) and exhaust pipe (8) from heater (6).

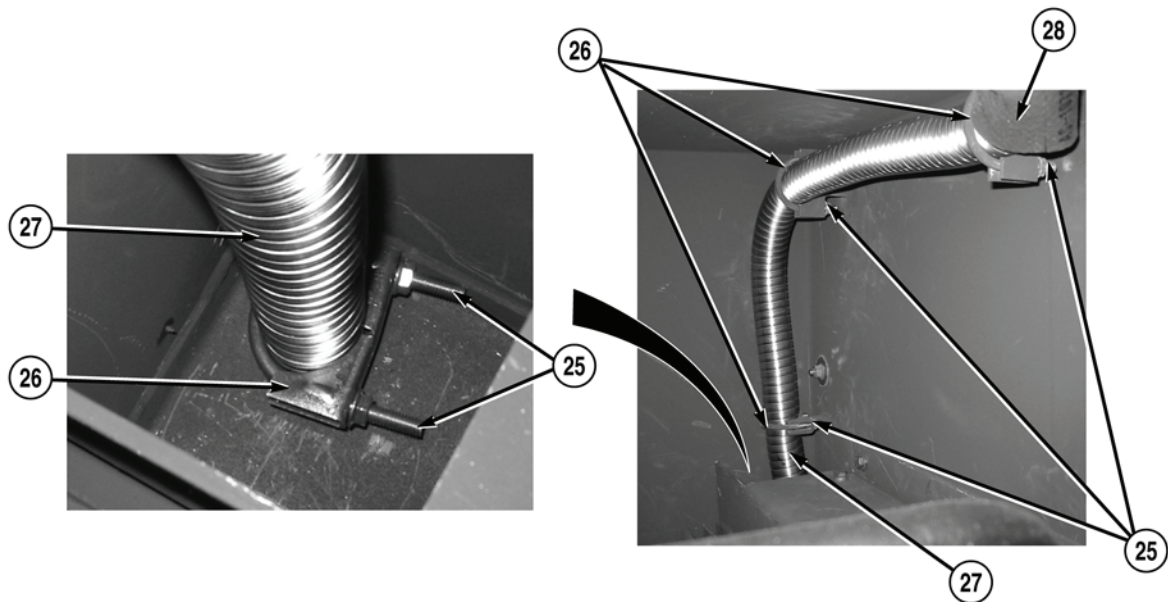


4. Remove nut (9) and wire (10) from circuit breaker (11).
5. Remove nut (12) and two wires (13) and (14) from circuit breaker (11).
6. Remove two screws (15), lockwashers (16), and circuit breaker (11) from vehicle. Discard lockwashers.
7. Remove nut (17) and wire (18) from stud (19).





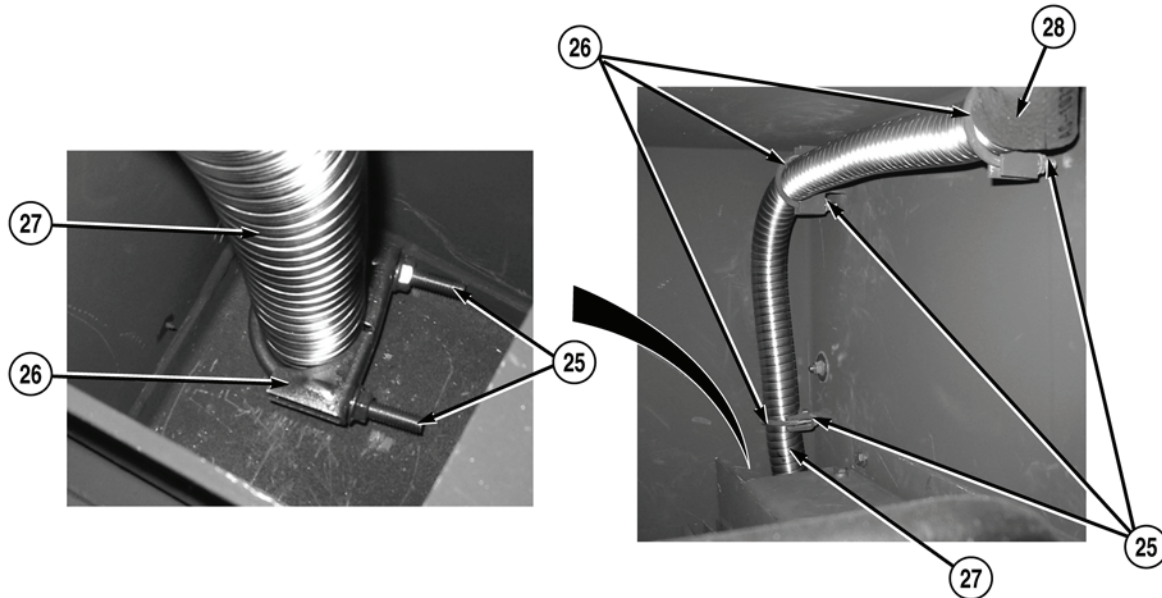
8. With the aid of an assistant, remove two clamps (20) from bracket (21) and heater (6).
9. With the aid of an assistant, remove heater (6) from vehicle.
10. Remove four locknuts (22), washers (23), screws (24), and bracket (21) from vehicle. Discard locknuts.



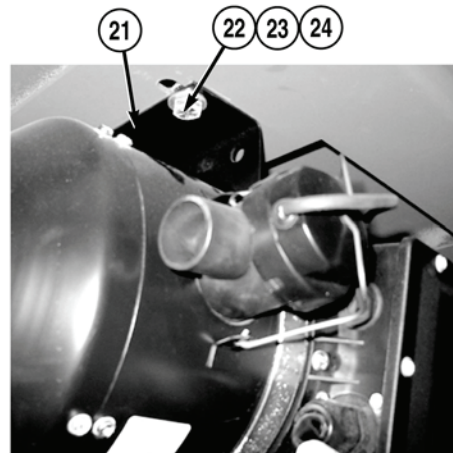
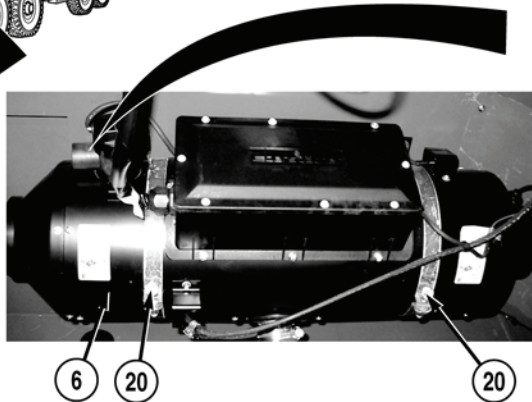
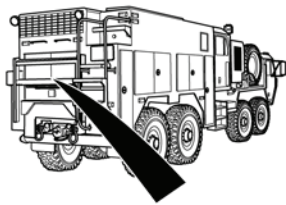
11. Remove eight locknuts (25), four clamps (26), and exhaust pipe (27) from vehicle. Discard locknuts.
12. Remove protector (28) from exhaust pipe (27).

**END OF TASK**

**INSTALLATION**



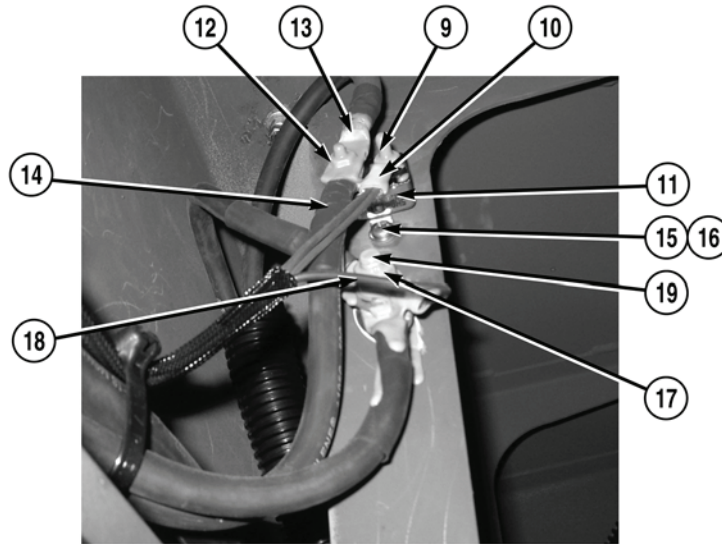
1. Install protector (28) on exhaust pipe (27).
2. Install exhaust pipe (27) on vehicle with four clamps (26) and eight locknuts (25).



**NOTE**

Install cable ties as required.

3. Install bracket (21) on vehicle with four screws (24), washers (23), and locknuts (22).
4. With the aid of an assistant, install heater (6) in vehicle.
5. With the aid of an assistant, install two clamps (20) on bracket (21) and heater (6).



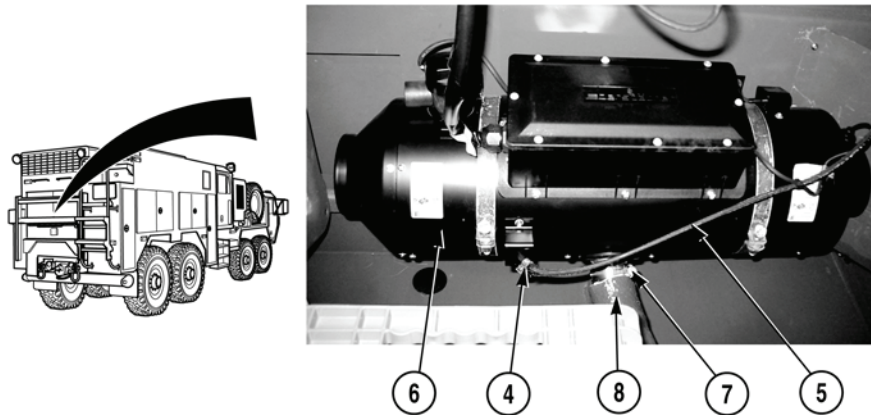
6. Install wire (18) on stud (19) with nut (17).
7. Install circuit breaker (11) on vehicle with two lockwashers (16) and screws (15).
8. Install two wires (14) and (13) on circuit breaker (11) with nut (12).
9. Install wire (10) on circuit breaker (11) with nut (9).

### WARNING

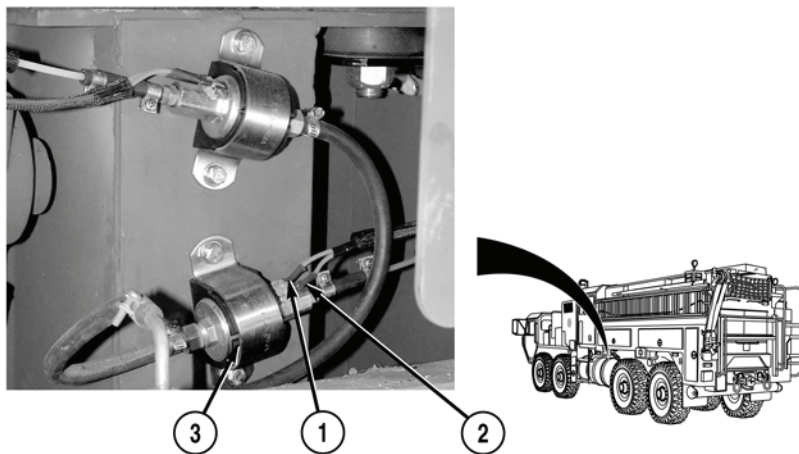


**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

10. Apply electrical sealant to ends of four wires (10), (13), (14), and (18) and three nuts (9), (12), and (17).



11. Install exhaust pipe (8) on heater (6) with clamp (7).
12. Install fuel line (5) on heater (6) with clamp (4).



13. Install two wires (2) and (1) on fuel pump (3).

**END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**REAR HEATER THERMOSTAT REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable (WP 0625, Item 58)  
Compound, Sealing (WP 0625, Item 17)  
Lockwasher (2)  
Lockwasher (1)  
Locknut (1)

**Materials/Parts (continued)**

Locknut (2)  
Locknut (2)

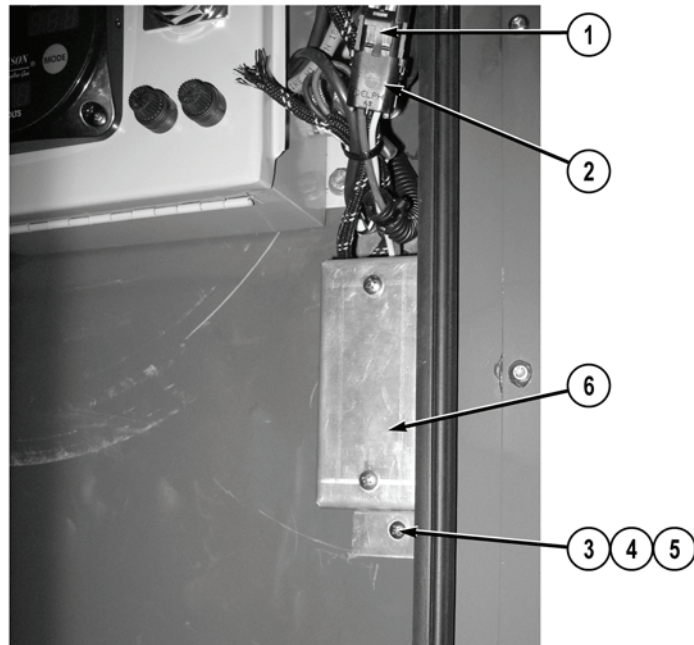
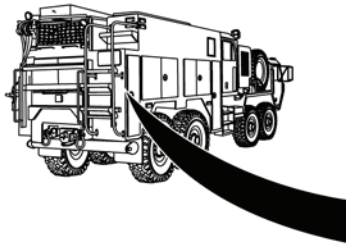
**References**

WP 0615, Fig. 173

**Equipment Conditions**

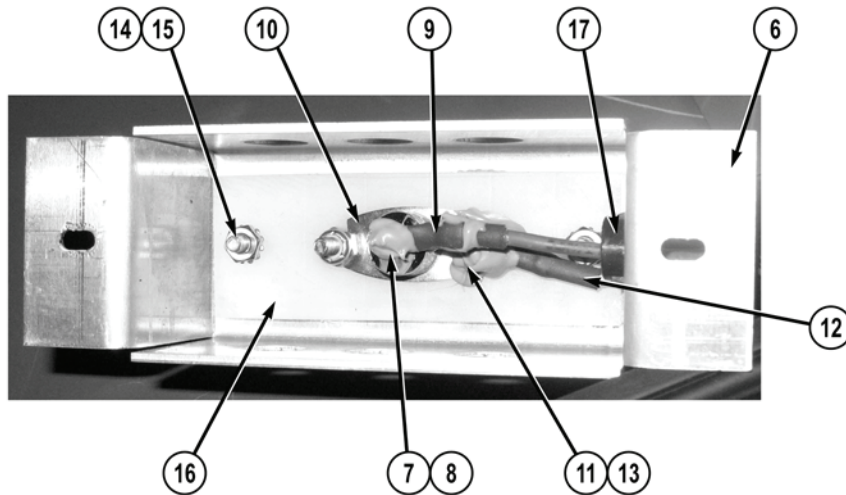
Water pump engine off (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

---

**REMOVAL****NOTE**

Remove cable ties as required.

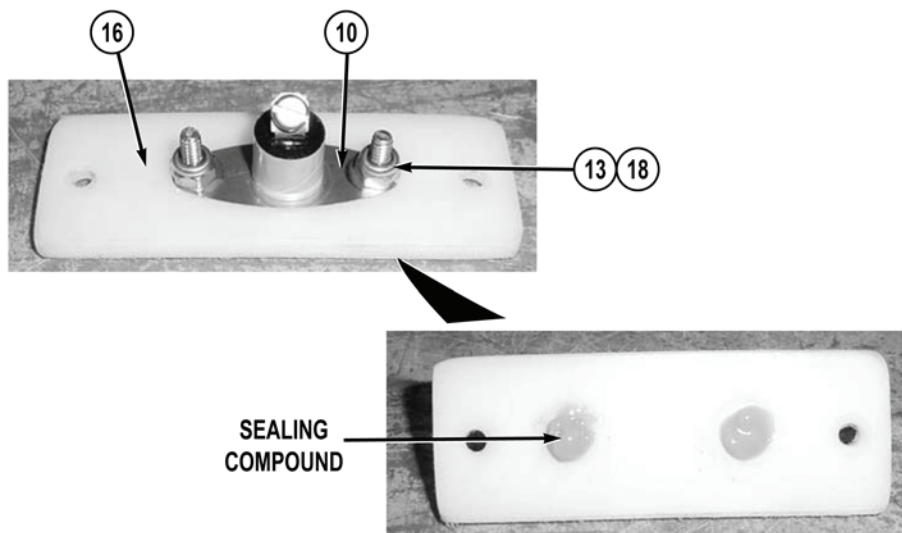
1. Disconnect passenger side body wire harness connector (1) from rear heater thermostat connector (2).
2. Remove two screws (3), lockwashers (4), washers (5), and box (6) from vehicle. Discard lockwashers.



### NOTE

Tag and mark wires prior to removal to ensure proper installation.

3. Remove screw (7), lockwasher (8), and wire (9) from thermostat (10). Discard lockwasher.
4. Remove locknut (11) and wire (12) from screw (13). Discard locknut.
5. Remove two locknuts (14), screws (15), and base (16) from box (6). Discard locknuts.
6. Remove grommet (17) from box (6).



7. Remove two locknuts (18), screws (13), and thermostat (10) from base (16). Discard locknuts.

**END OF TASK**

**INSTALLATION**

1. Install thermostat (10) on base (16) with two screws (13) and locknuts (18).

**WARNING**

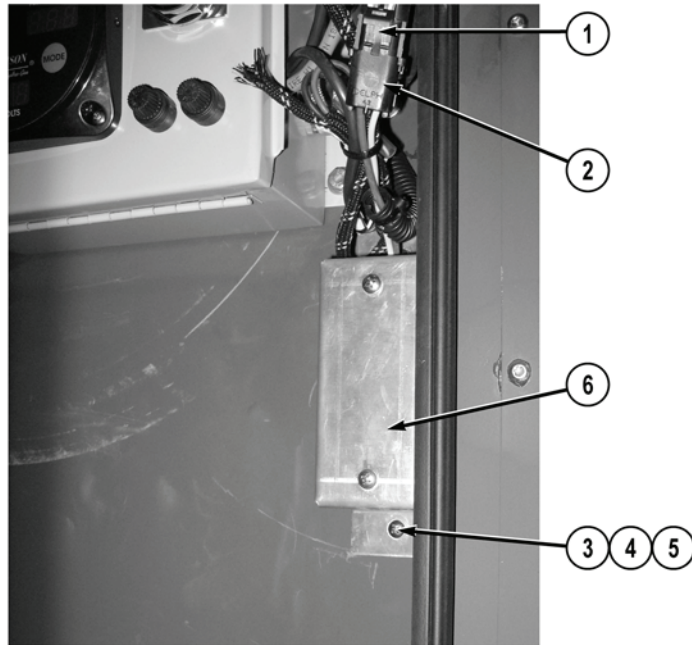
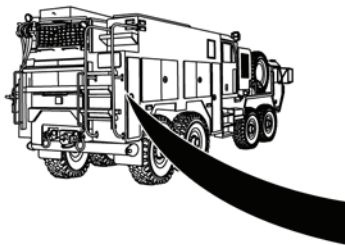
**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

2. Apply sealing compound on heads of two screws (13).
3. Install grommet (17) on box (6).
4. Install base (16) on box (6) with two screws (15) and locknuts (14).
5. Install wire (12) on screw (13) with locknut (11).
6. Install wire (9) on thermostat (10) with lockwasher (8) and screw (7).

**WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

7. Apply sealing compound to electrical connections on two screws (7) and (13).



8. Install box (6) on vehicle with two washers (5), lockwashers (4), and screws (3).
9. Connect passenger side body wire harness connector (1) on rear heater thermostat connector (2).

**END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## WATER PUMP ENGINE COOLANT/FUEL PUMP BELTS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Gauge, Belt Tensioner (WP 0622, Item 16)  
 Tool Kit, General Mechanic's: Automotive  
 (WP 0622, Item 27)

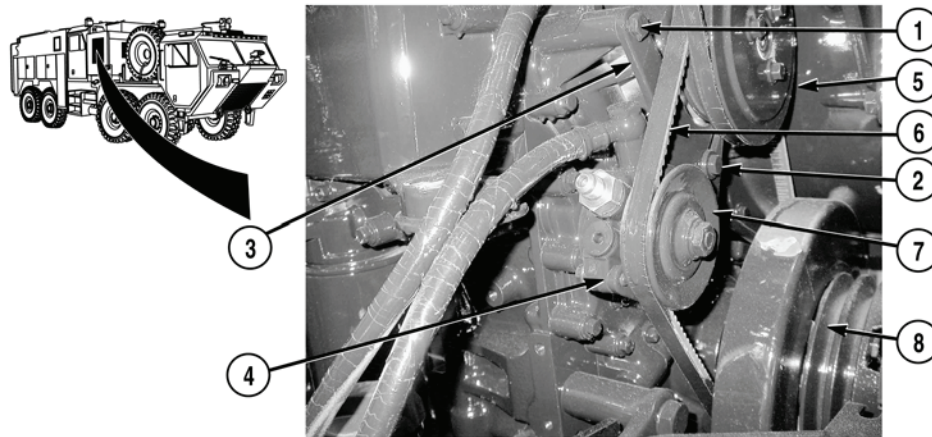
**References**

WP 0615, Fig. 15, 17

**Equipment Conditions**

Pump house panels S and J removed (WP 0540)  
 Water pump engine heat exchanger  
 removed (WP 0240)  
 Water pump engine alternator belt  
 removed (WP 0224)

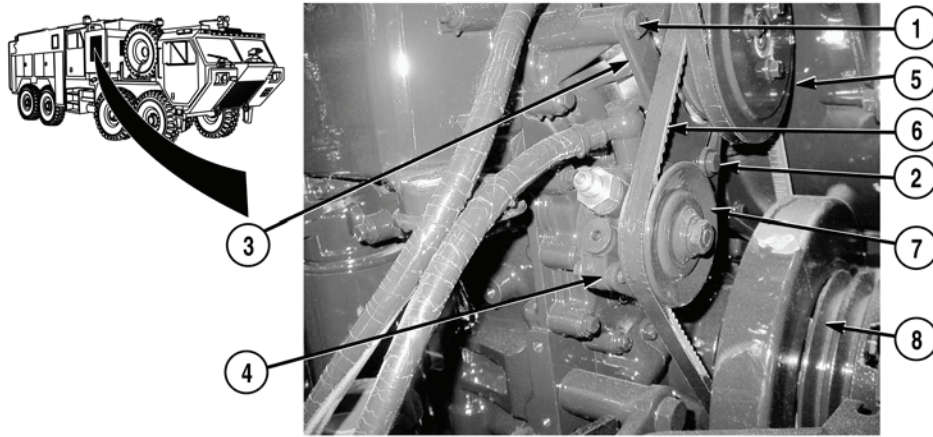
## REMOVAL

**NOTE**

Note routing of belt before removing to ensure proper installation.

1. Loosen two screws (1) and (2) on fuel pump bracket (3).
2. Push fuel pump (4) toward coolant pump pulley (5), to release tension on fuel pump drive belt (6).
3. Remove fuel pump drive belt (6) from three pulleys (7), (8), and (5).

## INSTALLATION/ADJUSTMENT



### NOTE

Install belts as noted prior to removal.

1. Install fuel pump drive belt (6) on three pulleys (7), (8), and (5).
2. Push fuel pump (4) away from coolant pump pulley (5) and tighten fuel pump drive belt (6) to 101 lb-ft (450 N•m) as indicated by V-belt tension gauge.
3. Hold fuel pump (4) in position and tighten two screws (1) and (2).

### NOTE

- Use the suggested tension setting for initial tensioning. When belt is installed, run water pump engine under load for 15 minutes, shut down and readjust belt tension.
  - Suggested belt tensions have a range of +/- 11 lb-ft (15 N•m).
4. Start pump engine and run under load for 15 minutes.
  5. Shut down engine and readjust fuel pump drive belt (6) tension to 67 lb-ft (300 N•m), as indicated by V-belt tension gauge.

## END OF TASK

## FOLLOW-ON MAINTENANCE

1. Install pump house panels J and S (WP 0540)
2. Install water pump engine alternator belt (WP 0224)
3. Install water pump engine heat exchanger (WP 0240)

## END OF TASK

## END OF WORK PACKAGE

## FIELD LEVEL MAINTENANCE

## WATER PUMP ENGINE COOLANT LEVEL SENSOR REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 34

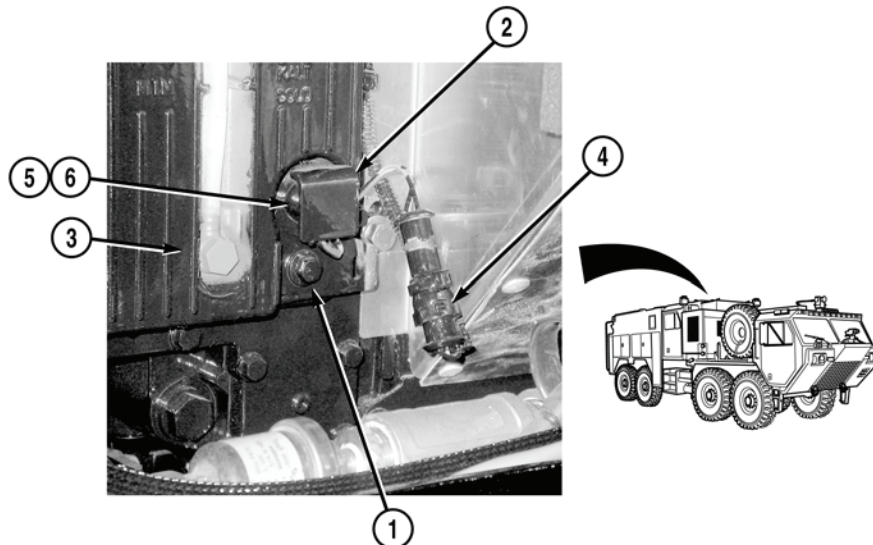
**Materials/Parts**

Antifreeze, Permanent (WP 0625, Item 9)  
Preformed Packing (1)

**Equipment Conditions**

Pump house panel G removed (WP 0540)  
Water pump engine coolant drained (WP 0479)

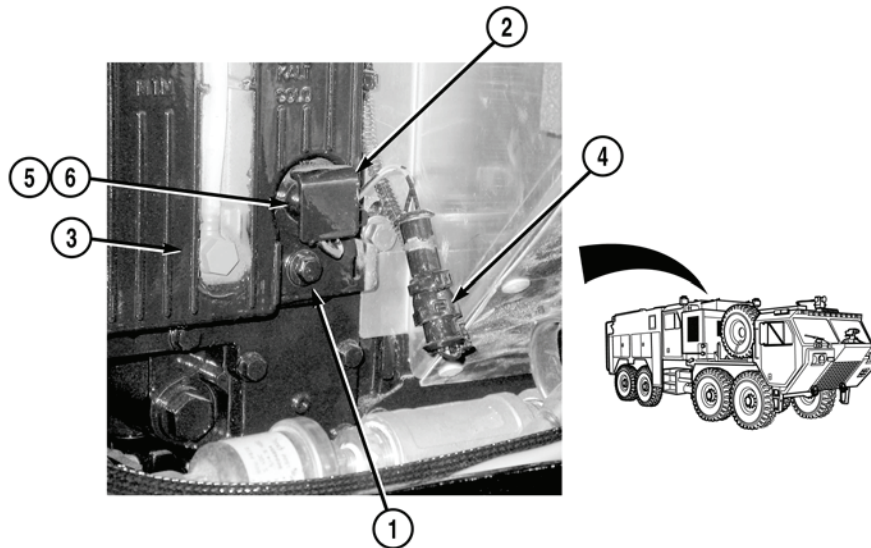
## REMOVAL

**WARNING**

**Allow engine to completely cool before handling any cooling system component or hose. Failure to comply can result in serious injury to personnel.**

1. Remove screw (1) and coolant level sensor guard (2) from radiator (3).
2. Disconnect connector (4).
3. Remove coolant level sensor (5) and preformed packing (6) from radiator (3). Discard preformed packing.

**END OF TASK**

**INSTALLATION**

1. Install coolant level sensor (5) and preformed packing (6) in radiator (3).
2. Connect connector (4) to sensor.
3. Install coolant level sensor guard (2) on radiator (3) with screw (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Fill water pump engine coolant (WP 0479)
2. Install pump house panel G (WP 0540)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## WATER PUMP ENGINE COOLANT LEVEL SIGHT GLASS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Preformed Packing (4)

**References**

WP 0615, Fig. 108

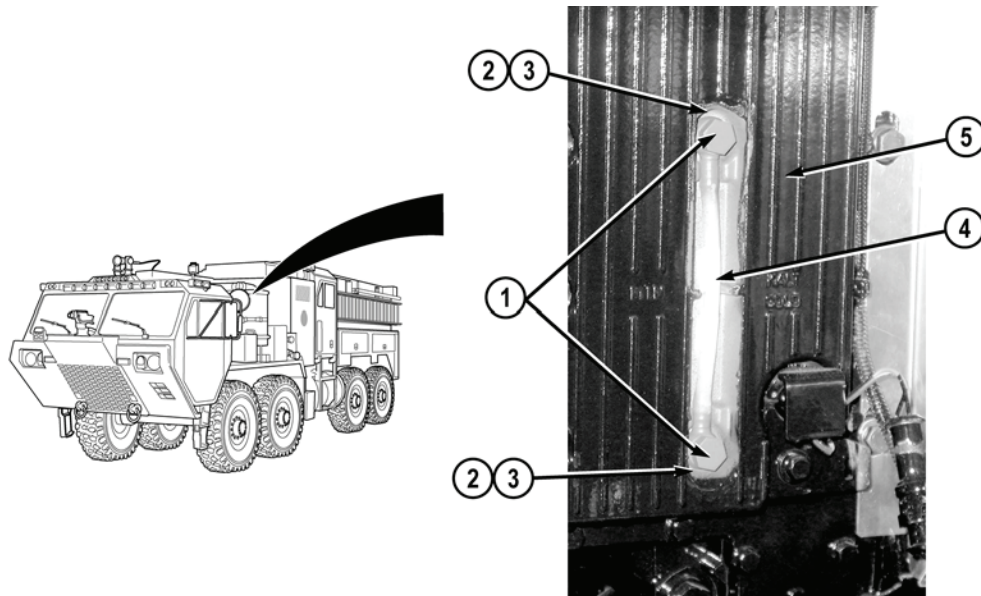
**Equipment Conditions**

Batteries disconnected (TM 9-2320-325-14&P)

Pump house panel G removed (WP 0540)

Water pump engine cooling system drained  
(WP 0479)

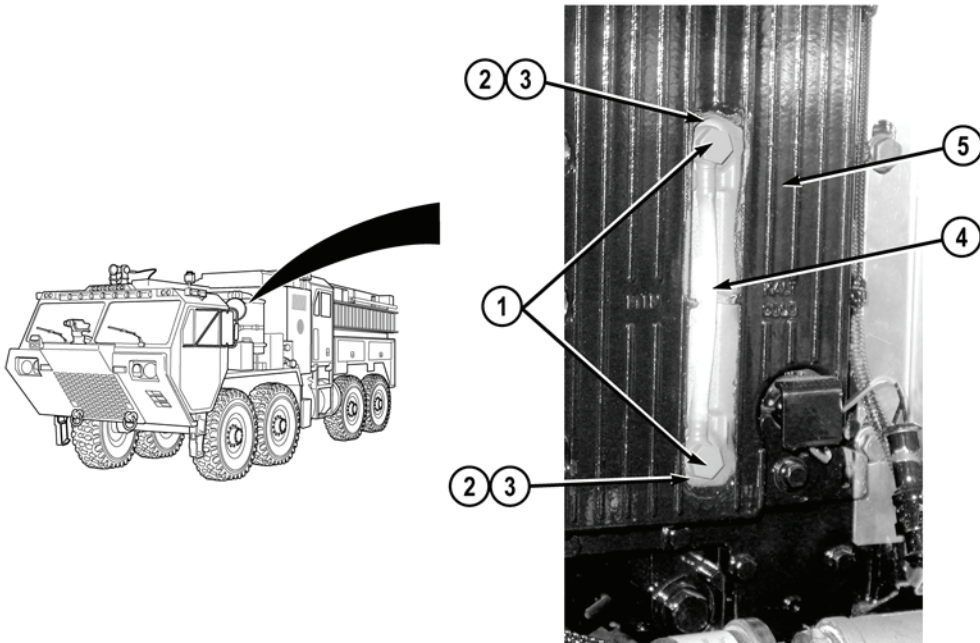
## REMOVAL

**WARNING**

**Allow engine to completely cool before handling any cooling system component or hose. Failure to comply can result in serious injury to personnel.**

1. Loosen two screws (1) on fittings (2).
2. Remove two fittings (2), four preformed packings (3), and sight glass (4) from radiator tank (5). Discard preformed packings.

**END OF TASK**

**INSTALLATION**

1. Install four preformed packings (3), sight glass (4), and two fittings (2) on radiator tank (5) with two screws (1).
2. Tighten two screws (1) on fittings (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Water pump engine cooling system filled (WP 0479)
2. Install pump house panel G (WP 0540)
3. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## WATER PUMP ENGINE COOLANT HOSES AND TUBES REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)  
Lockwire (WP 0625, Item 31)  
Preformed Packing (2)  
Preformed Packing (2)  
Preformed Packing (1)  
Preformed Packing (1)

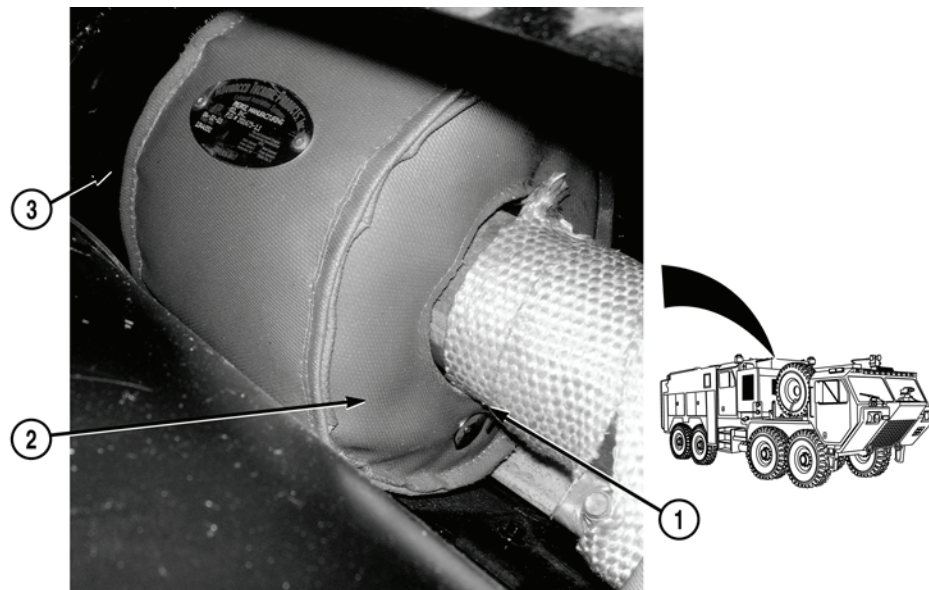
**References**

WP 0615, Fig. 108

**Equipment Conditions**

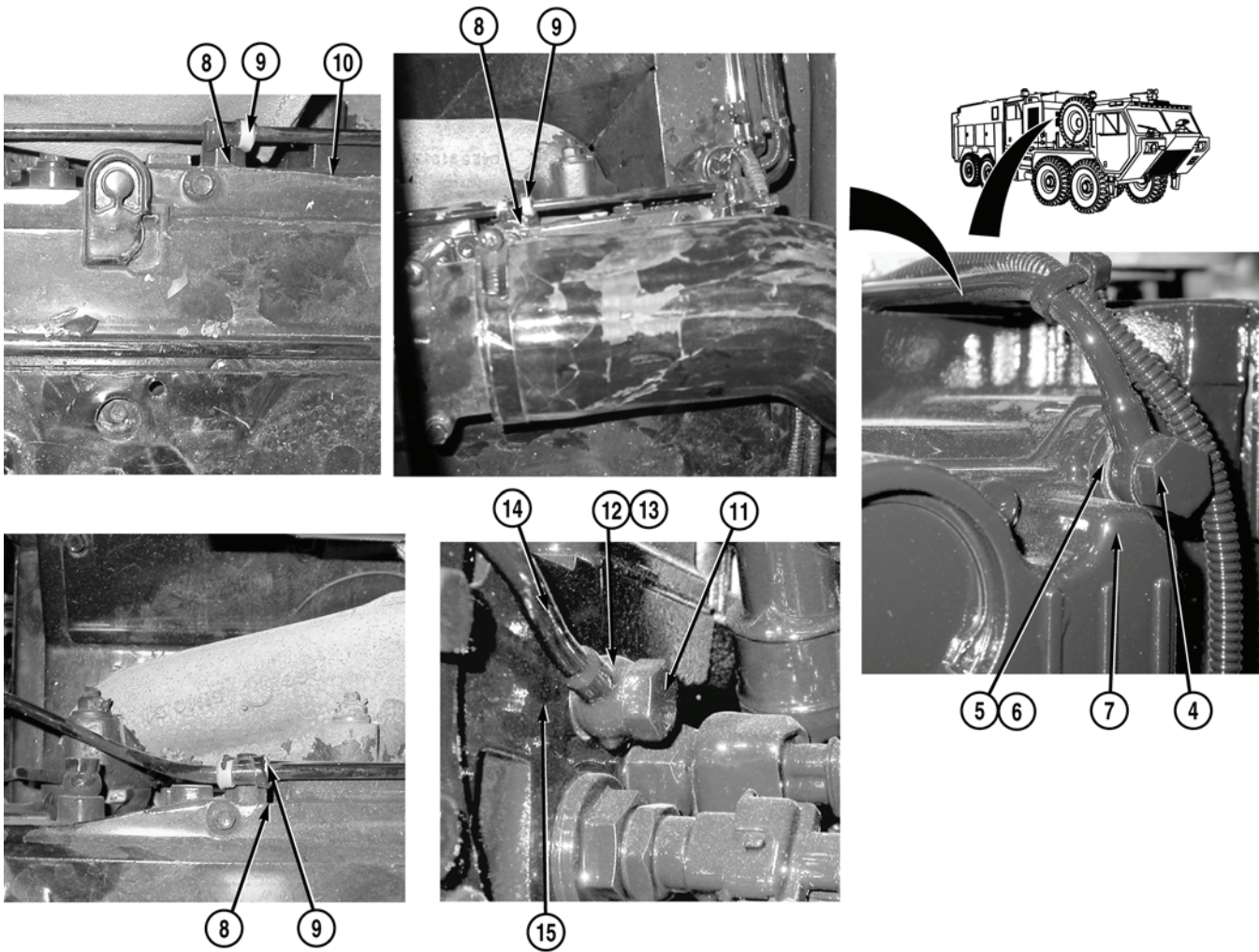
Pump house panels G, H, I, S, T and U  
removed (WP 0540)  
Pump house panel opened (WP 0540)  
Water pump engine noise panel  
removed (WP 0242)  
Pump engine coolant drained (WP 0479)  
Thermostat housing and upper coolant tube  
removed (WP 0249)  
Pump engine radiator removed (WP 0481)

## REMOVAL

**WARNING**

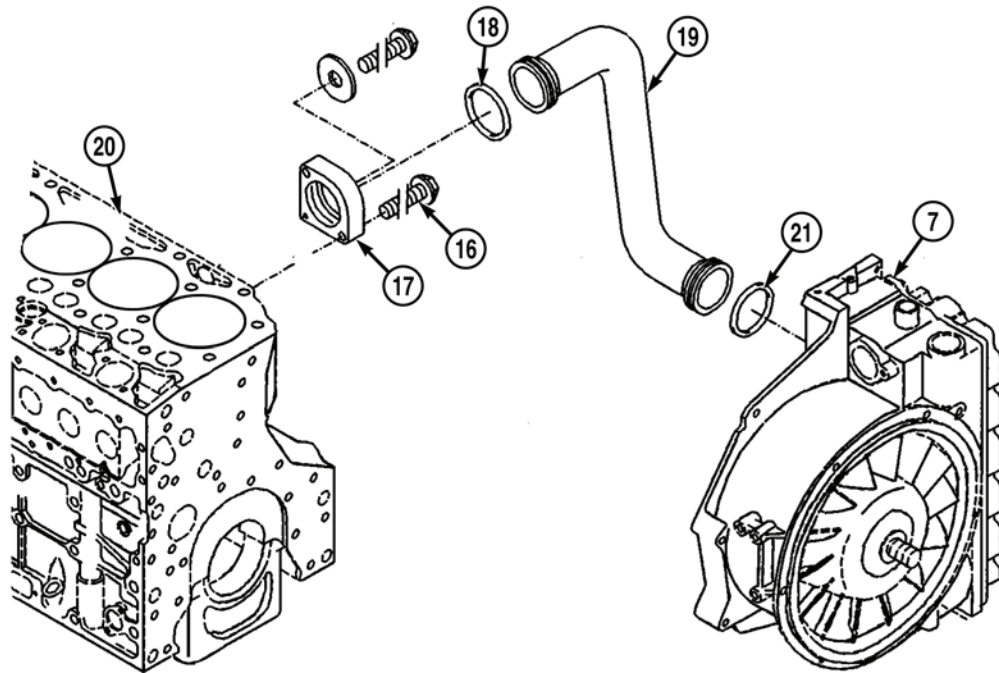
**Allow engine to completely cool before handling any cooling system component or hose. Failure to comply can result in serious injury to personnel.**

1. Remove safety wire (1) and insulating wrap (2) from water pump engine turbocharger (3).



2. Remove screw (4), two preformed packings (5) and fitting (6) from tank (7). Discard preformed packings.
3. Remove three screws (8) from clips (9) and intake manifold (10).
4. Remove screw (11), two preformed packings (12), fitting (13), and tube (14) from rear of cylinder head (15). Discard preformed packings.





5. Remove two screws (16), flange (17), preformed packing (18), and tube (19) from engine (20). Discard preformed packing.
6. Remove tube (19) and preformed packing (21) from tank (7). Discard preformed packing.

#### END OF TASK

#### INSTALLATION

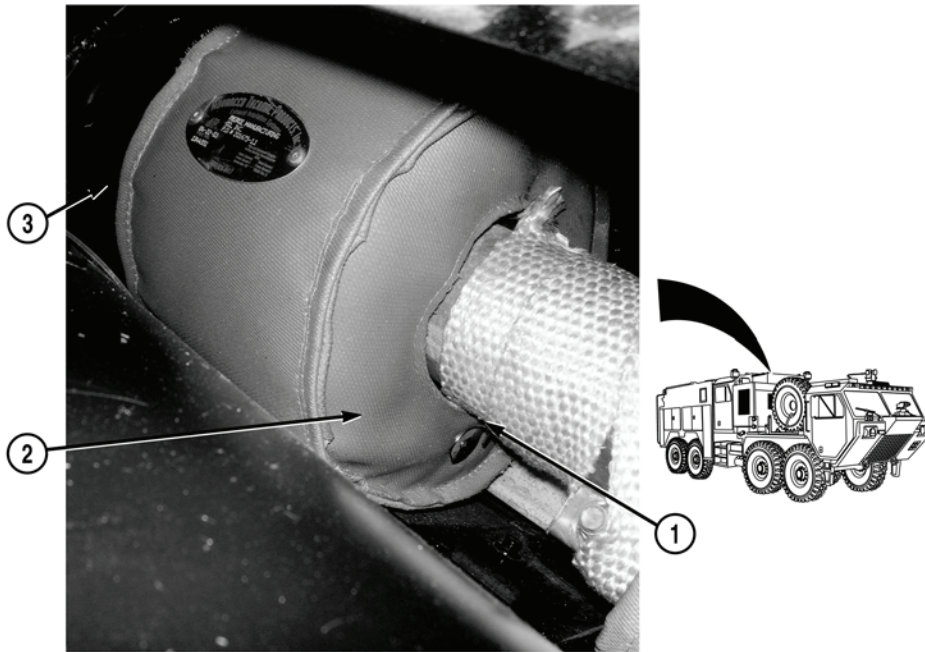
1. Install tube (19) and preformed packing (21) on tank (7).

#### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

2. Apply sealing compound to flange (17), and install tube (19), preformed packing (18), and flange (17) on engine (20) with two screws (16).
3. Install tube (14), fitting (13), and two preformed packings (5) on rear of cylinder head (15).
4. Install three clips (9) on intake manifold (10) with three screws (8).
5. Install tube (14), fitting (6), and two preformed packings (5) on tank (7) with screw (4).



6. Install insulation wrap (2) on water pump engine turbo charger (3) with safety wire (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Install pump engine radiator (WP 0481)
2. Install thermostat housing and upper coolant tube (WP 0249)
3. Fill pump engine coolant (WP 0479)
4. Install water pump engine noise panel (WP 0242)
5. Close pump house panel (WP 0325)
6. Install pump house panels G, H, I, S, T, and U (WP 0540)

#### END OF TASK

#### END OF WORK PACKAGE

## FIELD LEVEL MAINTENANCE

## WATER PUMP ENGINE COOLANT PUMP REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

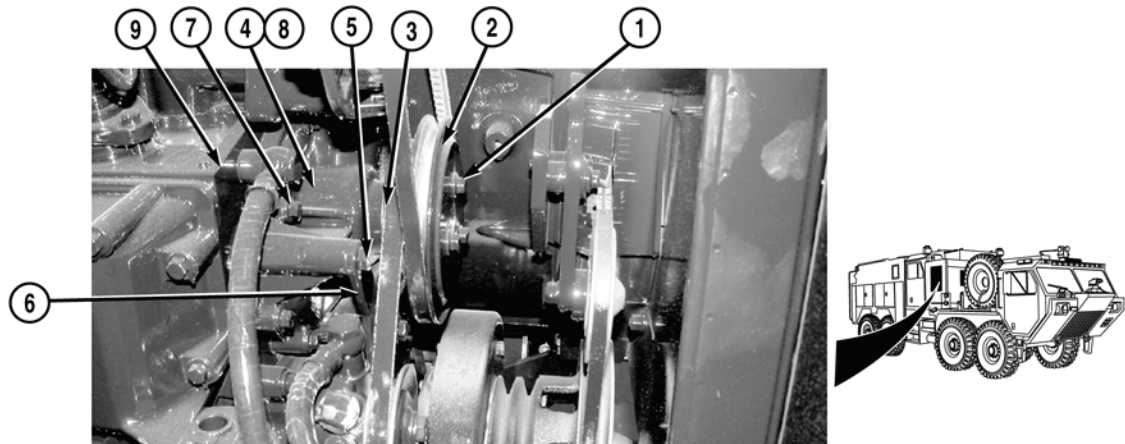
**Materials/Parts**

Adhesive, Thread, Locking (WP 0625, Item 7)  
Cloth, Cleaning (WP 0625, Item 13)  
Cleaning Compound, Solvent (WP 0625, Item 12)  
Seal, Sentry, Blue (WP 0625, Item 44)

**Equipment Conditions**

Water pump engine heat exchange  
removed (WP 0240)  
Water pump engine alternator belt  
removed (WP 0224)  
Water pump engine coolant/fuel pump belts  
removed (WP 0473)  
Water pump engine thermostat  
removed (WP 0249)

## REMOVAL



**⚠ CAUTION**

**Clean around coolant pump housing prior to removal to keep dust or dirt from entering engine. Failure to comply may result in damage to equipment.**

1. Remove three screws (1) and two pulleys (2) and (3) from coolant pump (4).
2. Remove screw (5) and bracket (6) from coolant pump (4).
3. Remove six screws (7), coolant pump (4), and gasket (8) from engine (9).

## END OF TASK

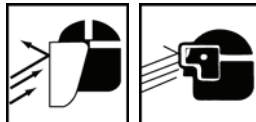
## CLEANING/INSPECTION

**WARNING**

Solvent cleaning compound MIL-PRF-680 Type II and III may be irritating to the eyes and skin. Use protective gloves and goggles. Use in well-ventilated areas. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract, may cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: do not induce vomiting. Seek immediate medical attention. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. If symptoms persist, seek medical attention. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. Keep away from open flames and other sources of ignition. Failure to follow this warning may result in injury or death to personnel.

- The flashpoint for Type II solvent cleaning compound is 141 to 198°F (61 to 92°C) and Type III is 200 to 241°F (93 to 116°C).
- Improper cleaning methods and use of unauthorized cleaning solvents may injure personnel and damage equipment.
- Fire extinguishers should be placed nearby when using solvent cleaning compound. Failure to follow this warning may result in injury or death.
- Cloths or rags saturated with solvent cleaning compound must be disposed of IAW authorized facilities' procedures. Failure to follow this warning may result in injury.
- Eye shields must be worn when cleaning with a wire brush. Flying rust and metal particle may cause injury.

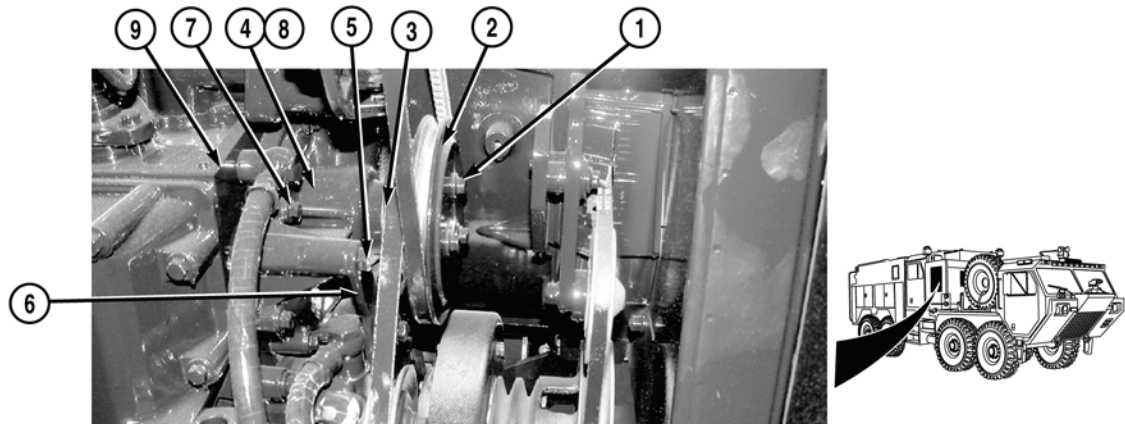
1. Clean all parts with solvent cleaning compound.

**WARNING**

Compressed air used for cleaning purposes shall not exceed 30 psi (207 kPa). Use only with effective chip guarding and personal protective equipment (goggles/shield, gloves, etc.), or injury to personnel may result.

2. Dry all parts with compressed air.
3. Inspect all parts for holes, cracks, chips or stripped threads. Replace damaged parts.

**END OF TASK**

**INSTALLATION****WARNING**

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

**NOTE**

Apply thread locking adhesive to screws before installing housing on engine.

1. Install gasket (8) and coolant pump (4) on engine (9) with six screws (7).
2. Install bracket (6) on coolant pump (4) with screw (5).
3. Install two pulleys (3) and (2) on coolant pump (4) with three screws (1). Tighten screws to 15 lb-ft (21 N•m).
4. Apply sealant to three screws (1) to mark torque point.

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install water pump engine thermostat (WP 0249)
2. Install water pump engine coolant/fuel pump belts (WP 0473)
3. Install water pump engine alternator belt (WP 0224)
4. Install water pump engine heat exchanger (WP 0240)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE****WATER PUMP ENGINE COOLING SYSTEM PRESSURE TEST**

---

**INITIAL SETUP:****Tools and Special Tools**

Cooling System Pressure  
Tester (WP 0622, Item 6)  
Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

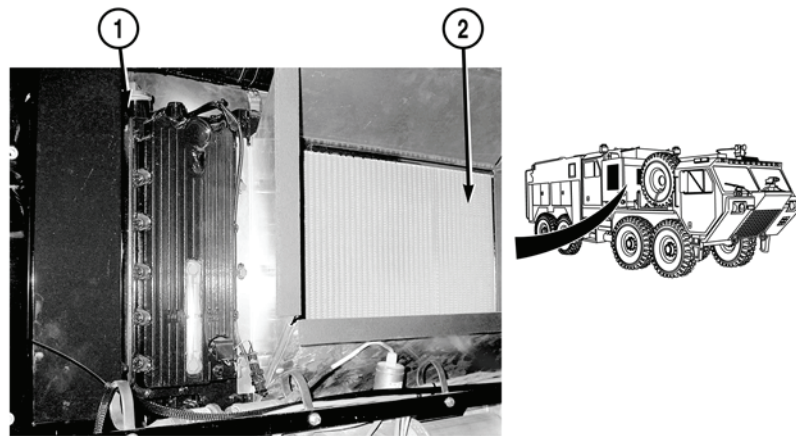
**References**

WP 0186

**Equipment Conditions**

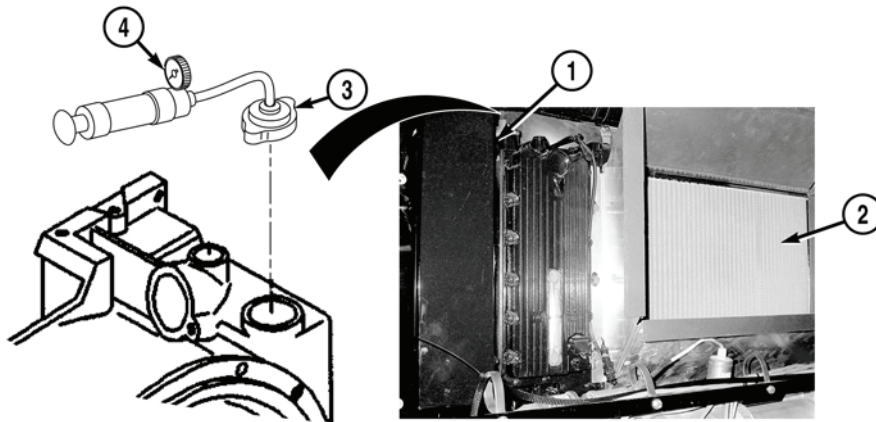
Pump house panel S removed (WP 0540)

---

**TEST****WARNING**

**Allow engine to completely cool before handling any cooling system component or hose. Failure to comply can result in serious injury to personnel.**

1. Remove cap (1) from radiator (2).
2. Check coolant level, fill as required (WP 0186).



3. Install cooling system pressure tester (3) on radiator (2).
4. Use cooling system pressure tester (3) to pressurize cooling system to 21.75 psi (150 kPa).
5. Allow cooling system to stabilize for two minutes, then verify pressure reading on the cooling system pressure tester gauge (4) is between 21.5 psi (148 kPa) and 21.75 psi (150 kPa).

### NOTE

If a drop in pressure is noted, check cooling system for leaks.

6. Observe cooling system for water leaks and loss of pressure on cooling system pressure tester gauge (4).
7. Release pressure from cooling system pressure tester (3).
8. Slowly remove cooling system pressure tester (3) from radiator (2).
9. Check coolant level, fill as required (WP 0186).
10. Install cap (1) on radiator (2).

### END OF TASK

### FOLLOW-ON MAINTENANCE

Install pump house panel S (WP 0540)

### END OF TASK

### END OF WORK PACKAGE



---

**FIELD LEVEL MAINTENANCE**
**WATER PUMP ENGINE COOLING SYSTEM SERVICE**


---

**INITIAL SETUP:****Tools and Special Tools**

Drain Pan, (WP 0622, Item 9)  
 Tool Kit, General Mechanic's: Automotive  
 (WP 0622, Item 27)

**Materials/Parts**

Antifreeze, Arctic Type (WP 0625, Item 8)  
 Antifreeze, Permanent (WP 0625, Item 9)  
 Inhibitor, Corrosion, Liquid Cooling  
 System (WP 0625, Item 28)  
 Preformed Packing (1)  
 Preformed Packing (2)

**Materials/Parts (continued)**

Preformed Packing (1)  
 Preformed Packing (1)

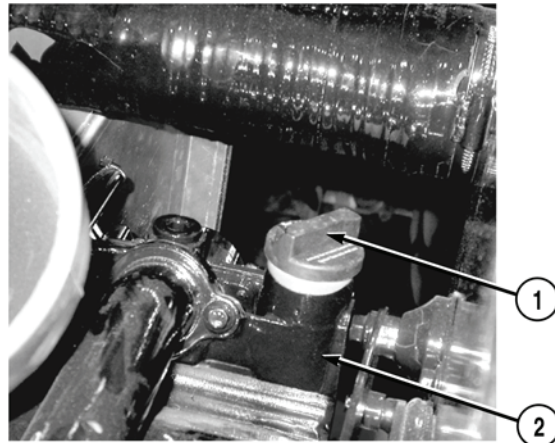
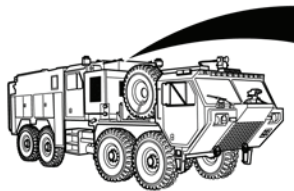
**References**

WP 0615, Fig. 108

**Equipment Conditions**

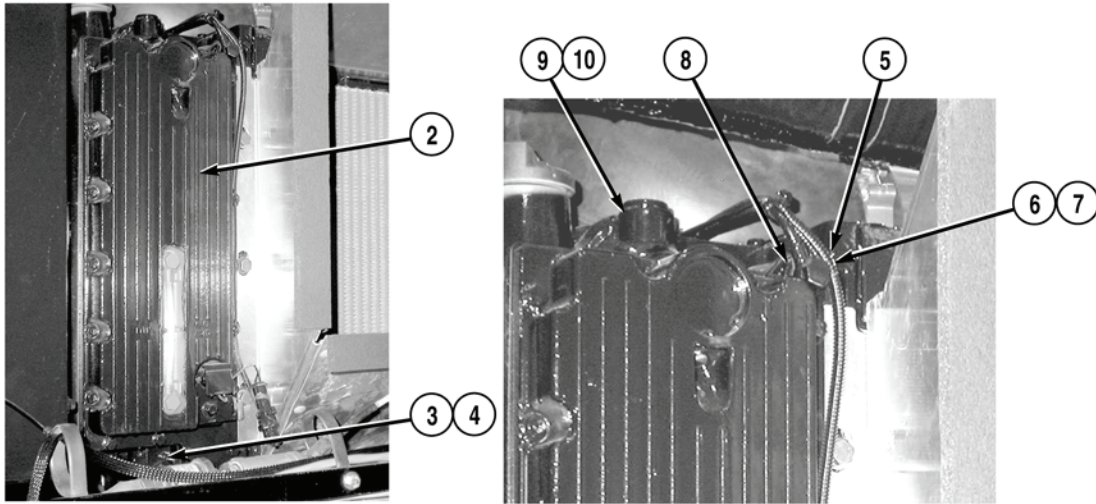
Batteries disconnected (TM 9-2320-325-14&P)  
 Pump house panel G removed (WP 0540)

---

**DRAIN COOLING SYSTEM****WARNING**

**Allow engine to completely cool before handling any cooling system component or hose. Failure to comply can result in serious injury to personnel.**

1. Slowly loosen radiator cap (1).
2. Remove radiator cap (1) from radiator (2).

**NOTE**

Place suitable container directly under drain plug to prevent antifreeze from draining on vehicle and ground.

3. Place suitable container under drain plug (3) and remove drain plug (3) and preformed packing (4) from radiator (2). Discard preformed packing.

**NOTE**

Perform Step (4) to allow remaining coolant to drain from duct.

4. Place suitable container under engine oil cooler duct fitting (5). Remove screw (6), two preformed packings (7), and engine oil cooler duct fitting (5) from oil cooler duct (8). Discard preformed packings.
5. Replace drain plug (3) and preformed packing (4) in radiator (2) and tighten drain plug (3).
6. Install engine oil cooler duct fitting (5) in oil cooler duct (8) with two preformed packings (7) and screw (6) and tighten screw (6) to 13 lb-ft (18 N•m).

**FILL COOLING SYSTEM**

1. Remove radiator cap (1) from radiator (2).
2. Loosen engine oil cooler duct fitting screw (6).
3. Remove vent plug (9) and preformed packing (10) from radiator (2). Discard preformed packing.

**NOTE**

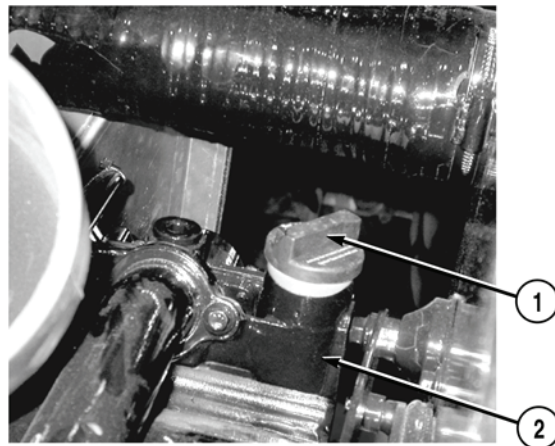
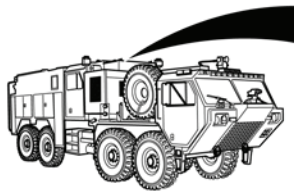
Loosen drain plug to first notch.

4. Loosen drain plug (3) on radiator (2).

**NOTE**

If using corrosion inhibitor, add it to radiator first, then add coolant.

5. Fill radiator (2) with approximately 17.25 qt. (16.3 l) of coolant, up to the maximum marking or fill-up limit.
6. Tighten engine oil cooler duct screw (6) to 13 lb-ft (18 N•m).
7. Install preformed packing (10) and vent plug (9) on radiator (2), and tighten vent plug (9) to 30 lb-ft (40 N•m).



8. Tighten drain plug (3) on radiator (2).
9. Install radiator cap (1) on radiator (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Connect batteries (TM 9-2320-325-14&P)
2. Install pump house panel G (WP 0540)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## WATER PUMP ENGINE COOLANT TEMPERATURE SENSOR REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Preformed Packing (1)

**References**

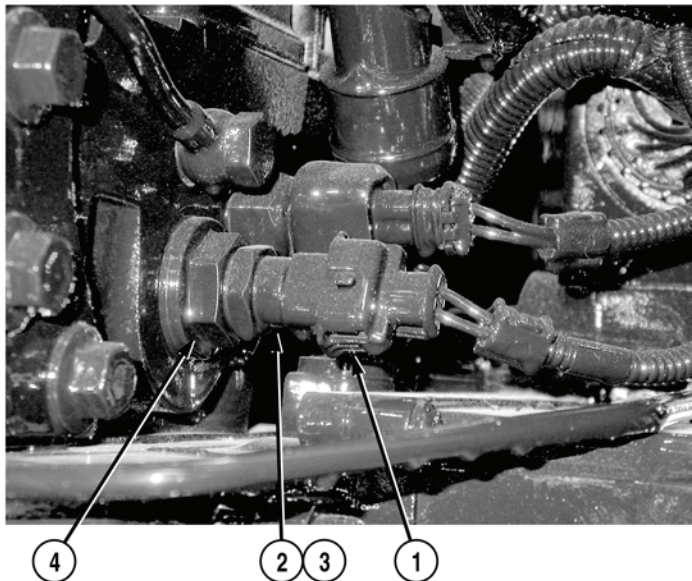
WP 0615, Fig. 108

**Equipment Conditions**

Pump house panel U removed (WP 0540)

Water pump engine coolant drained (WP 0479)

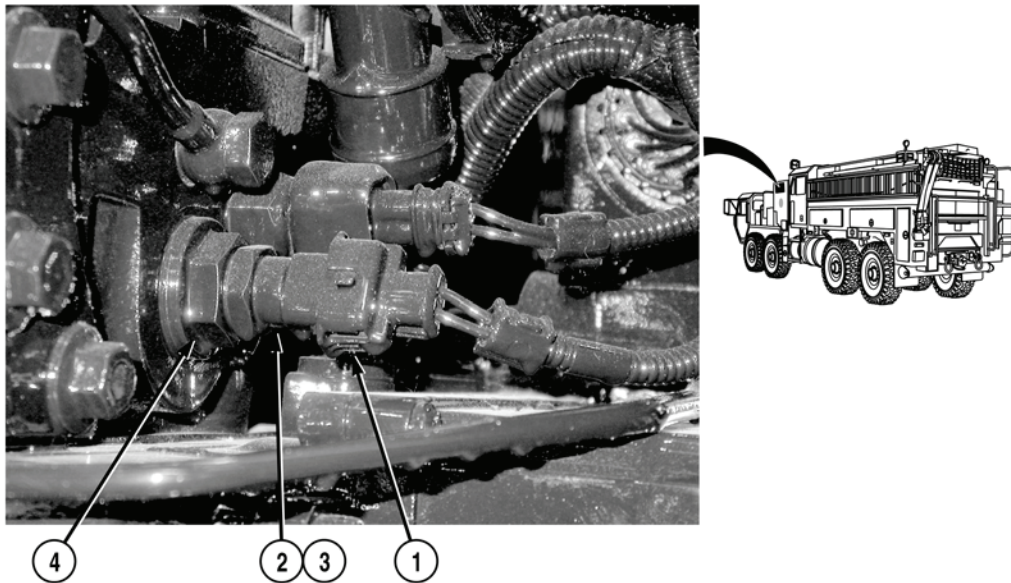
## REMOVAL

**WARNING**

**Allow engine to completely cool before handling any cooling system component or hose. Failure to comply can result in serious injury to personnel.**

1. Remove connector (1) from coolant temperature sensor (2).
2. Remove coolant temperature sensor (2) and preformed packing (3) from adapter (4). Discard preformed packing.

## END OF TASK

**INSTALLATION**

1. Install coolant temperature sensor (2) and preformed packing (3) into adapter (4).
2. Connect connector (1) to coolant temperature sensor (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Fill water pump engine coolant (WP 0479)
2. Install pump house panel U (WP 0540)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## WATER PUMP ENGINE RADIATOR REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Preformed Packing (2)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

**References**

WP 0615, Fig. 107

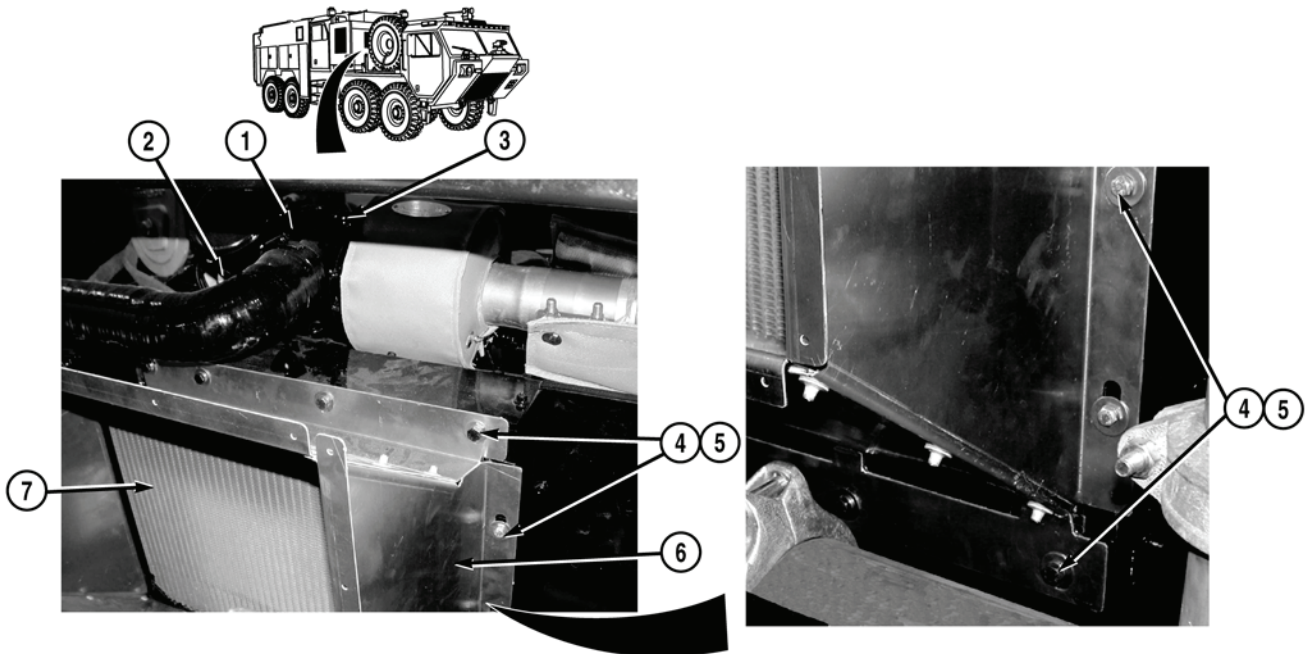
**Equipment Conditions**

Pump house panels G, H, I, S, T and U removed  
(WP 0540)

Pump operator's panel removed (WP 0334)

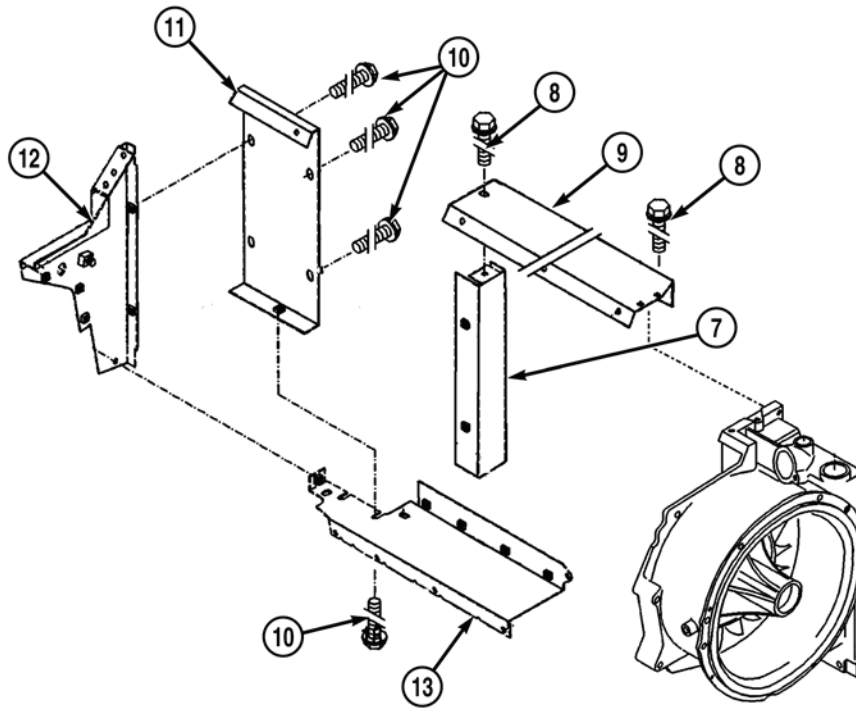
Water pump engine coolant drained (WP 0479)

## REMOVAL

**WARNING**

**Allow engine to completely cool before handling any cooling system component or hose. Failure to comply can result in serious injury to personnel.**

1. Loosen clamp (1) and remove hose (2) from turbocharger (3). Position hose (2) out of the way.
2. Remove 14 screws (4), washers (5), and air duct (6) from radiator (7).



3. Remove two screws (8) and plate (9) from radiator (7).
4. Remove three screws (10) and side plate assembly (11) from mounting brackets (12) and (13).

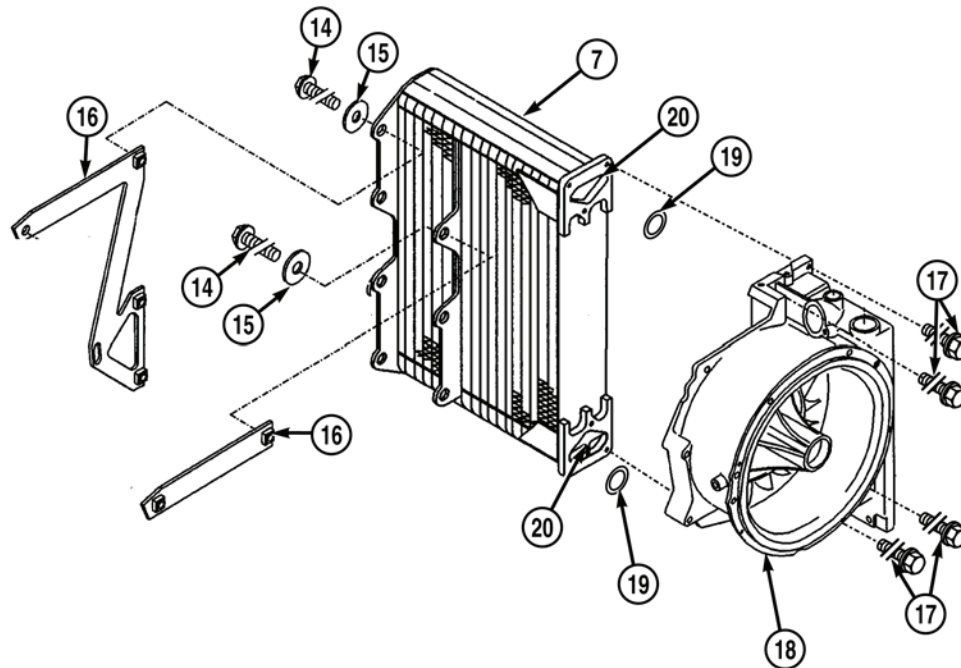
### **WARNING**



**Radiator weighs 121 lb. (55 kg). Attach suitable lifting device when removing radiator. Failure to comply may result in serious injury or death to personnel.**

5. Attach a suitable lifting device to radiator (7).





6. Remove five screws (14) and washers (15) from radiator (7) and two brackets (16).
7. Remove four screws (17) and radiator (7) from coolant tank/fan assembly (18) and vehicle.
8. Remove two preformed packings (19) from radiator outlets (20). Discard preformed packings.

#### END OF TASK

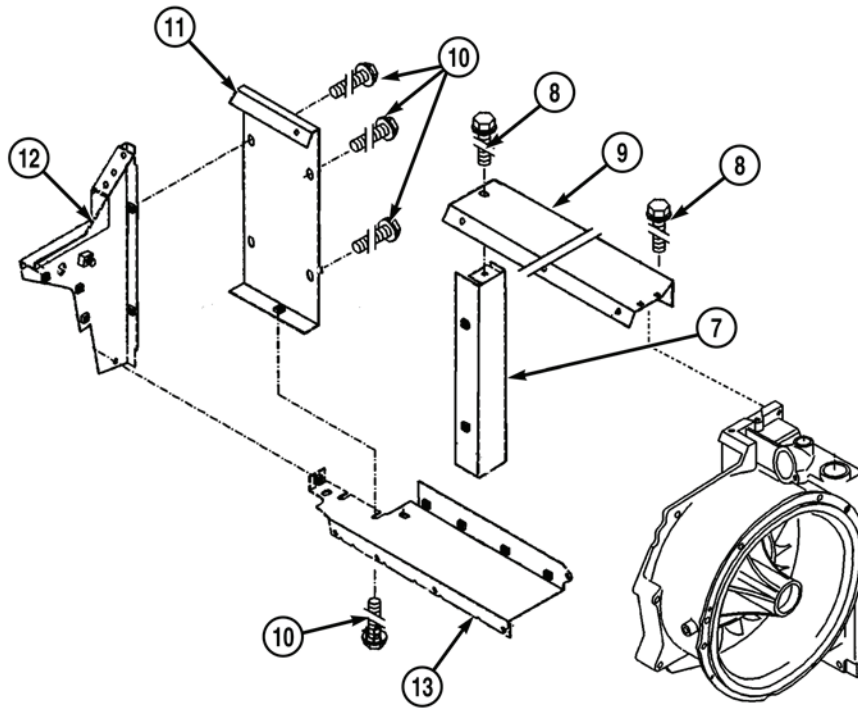
#### INSTALLATION

#### **WARNING**

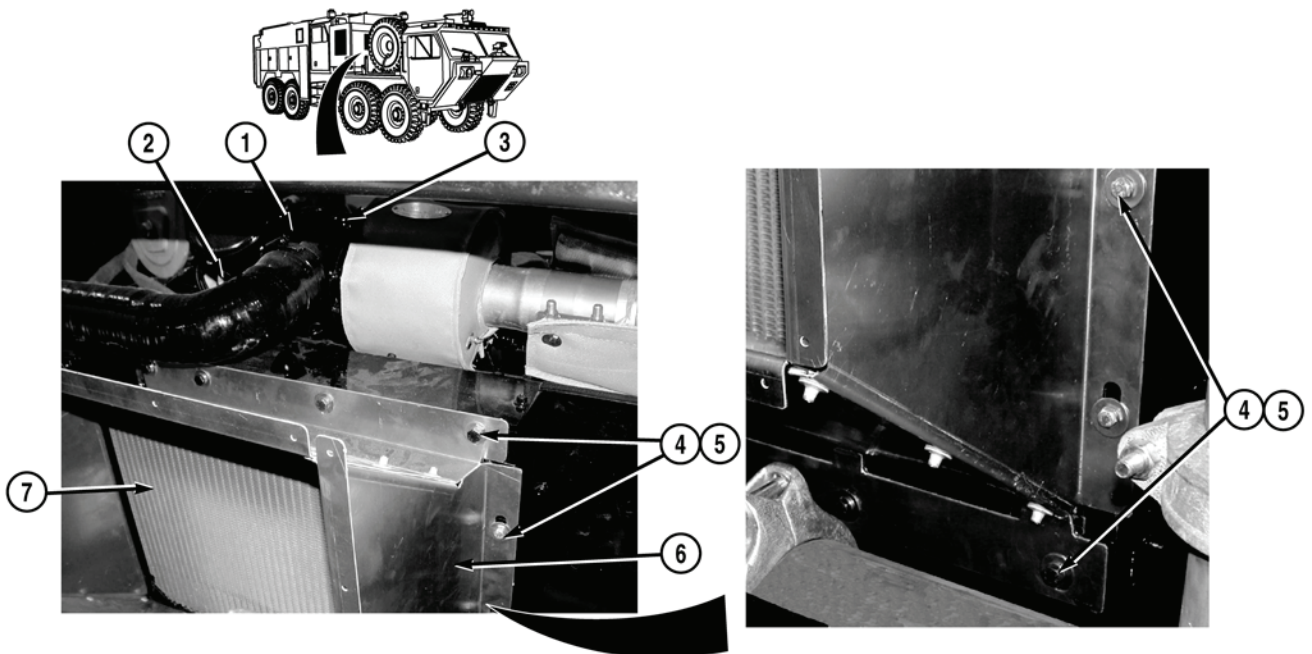


**Radiator weighs 121 lb. (55 kg). Attach suitable lifting device when removing radiator. Failure to comply may result in serious injury or death to personnel.**

1. Install two preformed packings (19) in radiator outlets (20).
2. Using suitable lifting device, position radiator (7) on vehicle.
3. Install radiator (7) on coolant tank/fan assembly (18) with four screws (17).
4. Install radiator (7) on two brackets (16) with five screws (14) and washers (15).
5. Remove suitable lifting device from radiator (7).



6. Install side plate assembly (11) on mounting brackets (12) and (13) with three screws (10).
7. Install plate (9) on radiator (7) with two screws (8).



8. Install air duct (6) on radiator (7) with 14 screws (4) and washers (5).
9. Connect hose (2) on turbocharger (3) with clamp (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Fill water pump engine coolant (WP 0479)
2. Install pump panel (WP 0334)
3. Install pump house panels S, G, H, T, and U (WP 0540)

#### END OF TASK

#### END OF WORK PACKAGE



---

**FIELD LEVEL MAINTENANCE**  
**BUMPER TURRET VALVE REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (2)  
Lockwasher (2)

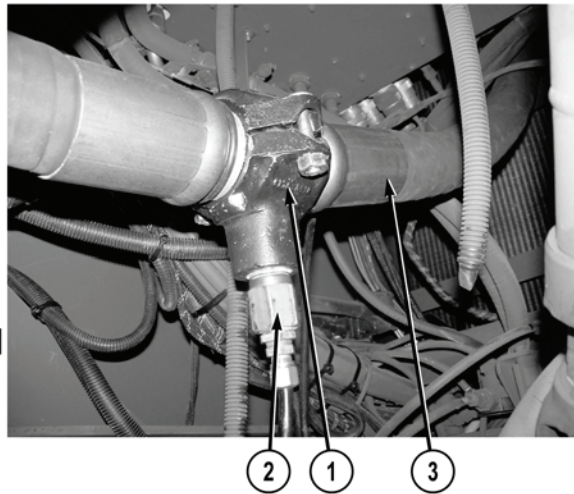
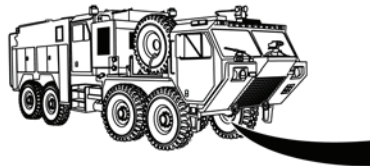
**References**

WP 0483  
WP 0615, Fig. 167

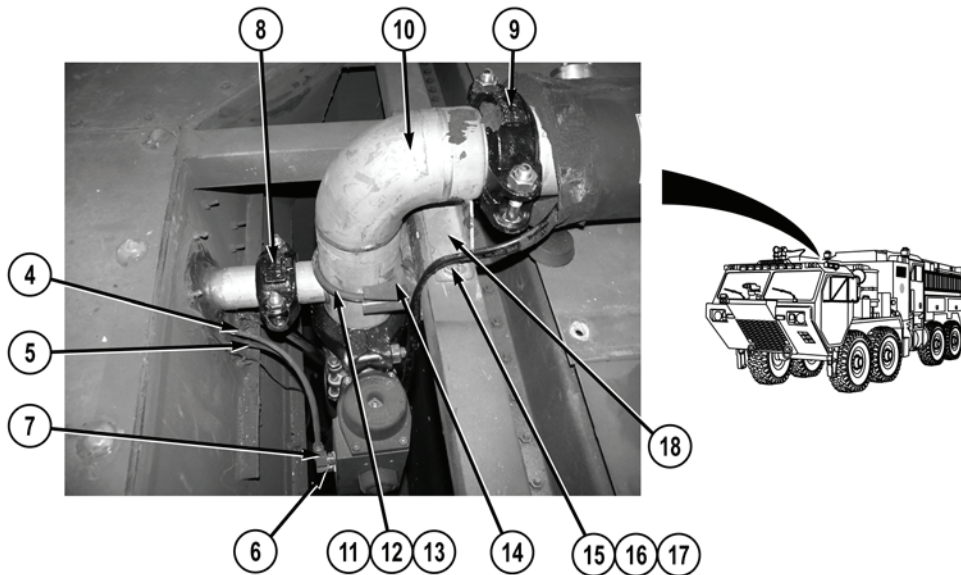
**Equipment Conditions**

Water system drained (WP 0029)  
Air system drained (TM 9-2320-347-10)  
Bumper and roof turret roof plumbing cover  
removed (WP 0548)  
Plumbing insulation removed (WP 0607)  
Skid plate grille removed (WP 0550)

---

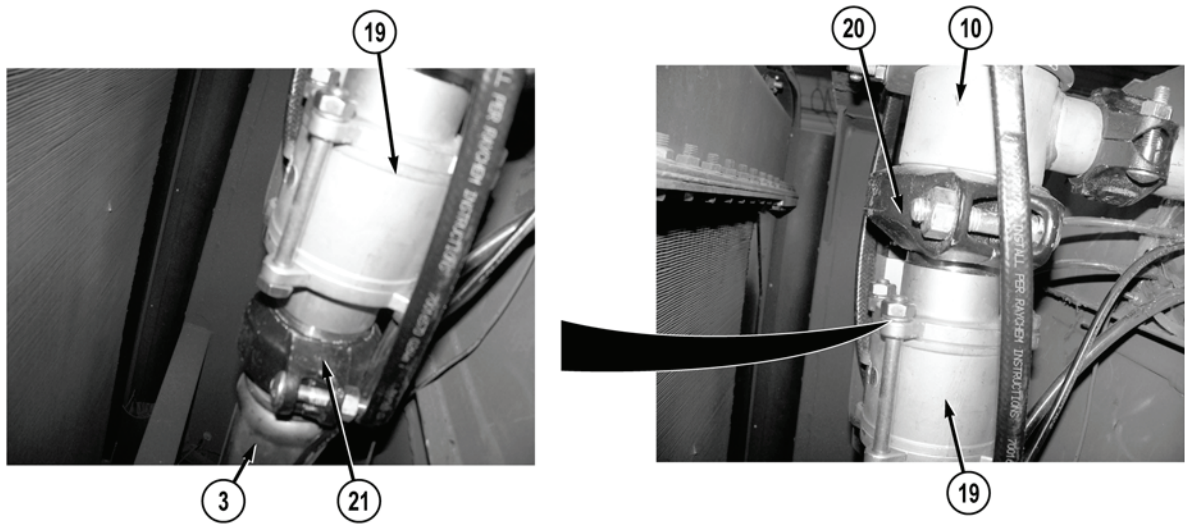
**REMOVAL**

1. Remove coupling (1) from automatic drain valve (2) and hose (3) (WP 0483).



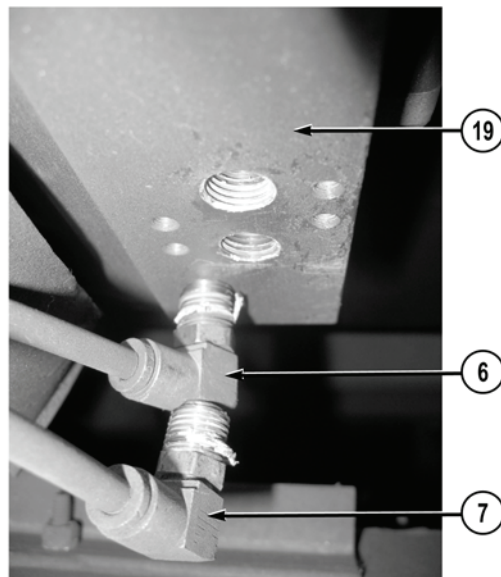
### NOTE

- Tag and mark air lines prior to removal to ensure proper installation.
  - Remove cable ties as required.
2. Remove two air lines (4) and (5) from two elbows (6) and (7).
  3. Remove two couplings (8) and (9) from pipe (10).
  4. Remove two nuts (11), lockwashers (12), U-bolt (13), and cradle (14) from pipe (10). Discard lockwashers.
  5. Remove two nuts (15), lockwashers (16), and screws (17) from bracket (18). Discard lockwashers.

**NOTE**

Valve, pipe, and hose are removed from top of vehicle as an assembly.

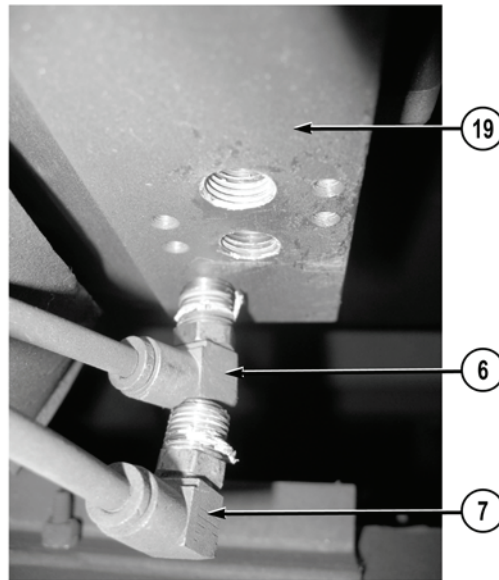
6. Remove valve (19), pipe (10), and hose (3) from vehicle.
7. Remove coupling (20) from valve (19) and pipe (10) (WP 0483).
8. Remove coupling (21) from valve (19) and hose (3) (WP 0483).



9. Remove two elbows (6) and (7) from valve (19).

**END OF TASK**

## INSTALLATION

**WARNING**

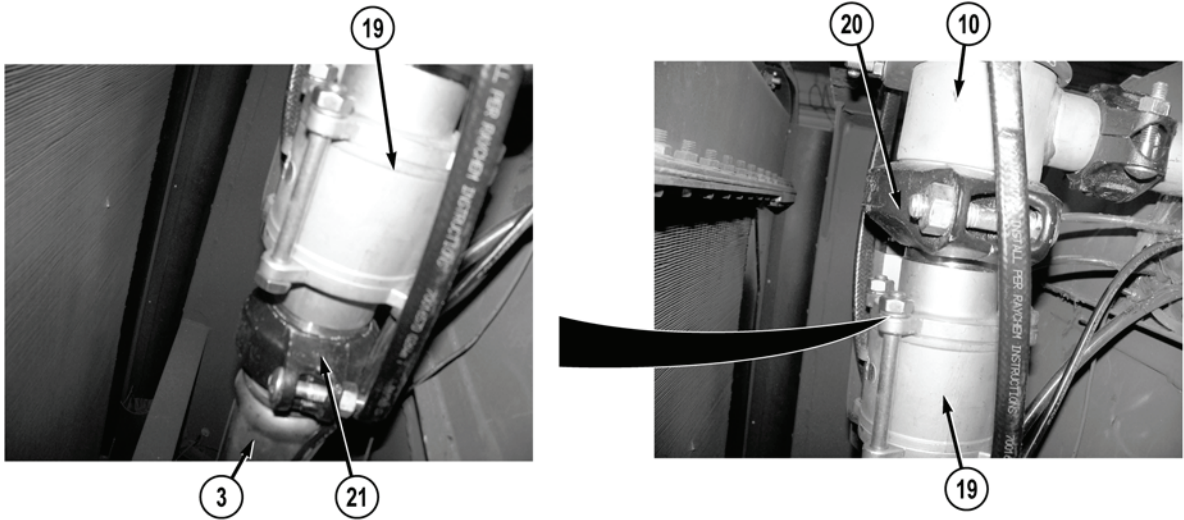
Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

**! CAUTION**

Use sealing compound sparingly only on pipe threads. Do not apply compound to hose connections. Damage to equipment may result.

1. Apply sealing compound to threads of two elbows (6) and (7).
2. Install two elbows (6) and (7) on valve (19).





3. Install coupling (21) on valve (19) and hose (3) (WP 0483).

**NOTE**

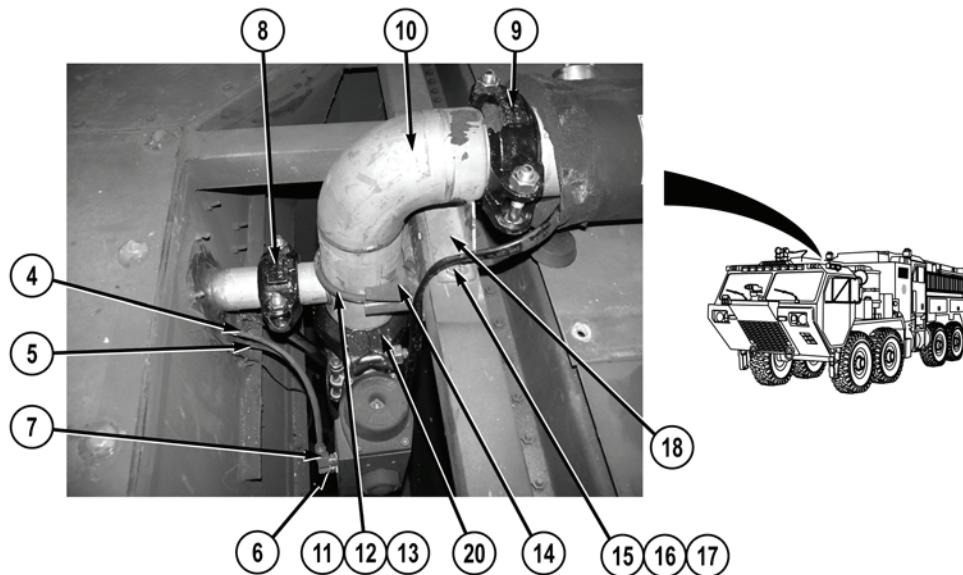
Coupling in Step (4) must be left loose for alignment purposes.

4. Install coupling (20) on valve (19) and pipe (10) (WP 0483). Do not tighten screws.

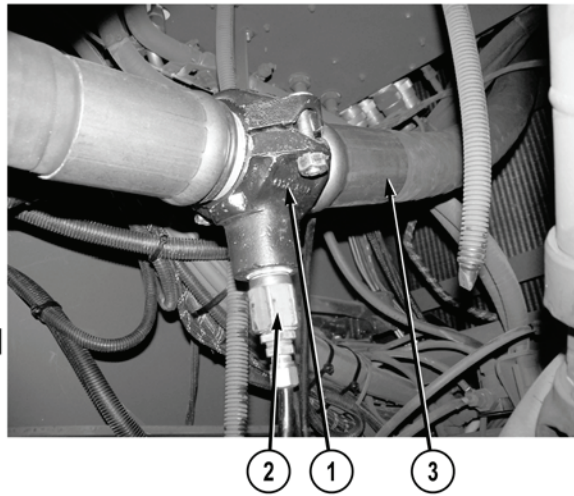
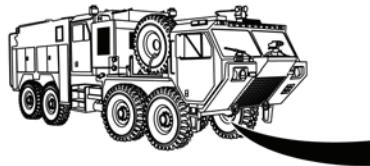
**NOTE**

Valve, pipe, and hose are installed on vehicle as an assembly.

5. Position valve (19), pipe (10), and hose (3) on vehicle.
6. Install two couplings (9) and (8) on pipe (10) (WP 0483). Do not tighten screws.



7. Install U-bolt (13) and cradle (14) on pipe (10) with two lockwashers (12) and nuts (11). Do not tighten screws.
8. Align piping and couplings; tighten screws on couplings (8), (9), and (20).
9. Tighten nuts (11) on U-bolt (13).
10. Install bracket (17) on vehicle with two screws (16), lockwashers (15), and nuts (14).
11. Install two air lines (4) and (5) on two elbows (6) and (7).



12. Install coupling (1) on automatic drain valve (2) and hose (3) (WP 0483).

#### **END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

1. Install skid plate grille (WP 0550)
2. Install plumbing insulation (WP 0607)
3. Install bumper and roof turret roof plumbing cover (WP 0548)

#### **END OF TASK**

#### **END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE****COUPLING REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Grease, Victaulic (WP 0625, Item 26)

**Equipment Conditions**

Pump house panel(s) removed  
(if required) (WP 0540)

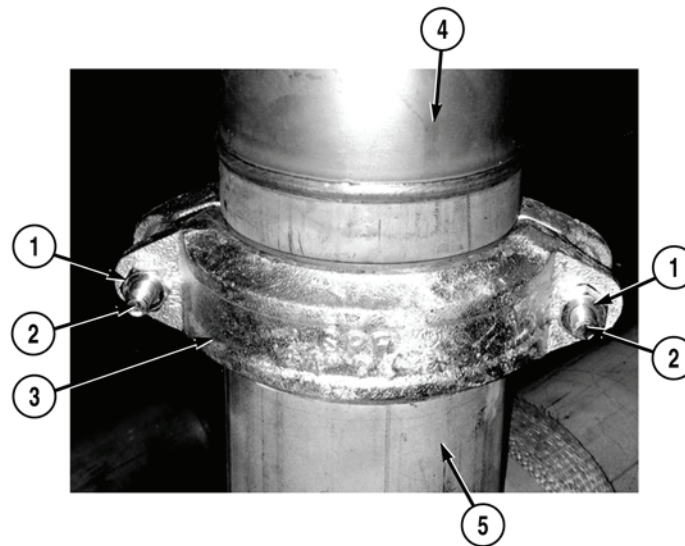
Plumbing insulation removed  
(if required) (WP 0607)

Piping heat trace removed (if required) (WP 0606)

Water tank drained (if required) (WP 0029)

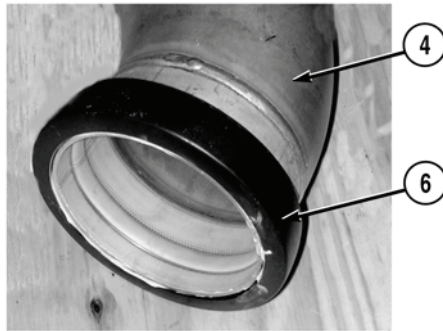
Foam tank drained (if required) (WP 0031)

---

**REMOVAL****NOTE**

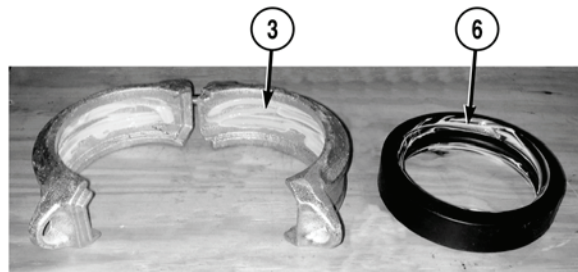
- Clamp consists of two halves.
- Note position of pipes prior to removal to ensure proper installation.

1. Remove two nuts (1) and screws (2) from clamp (3).
2. Remove clamp (3) from fitting (4) and pipe (5).
3. Remove fitting (4) from pipe (5).

**NOTE**

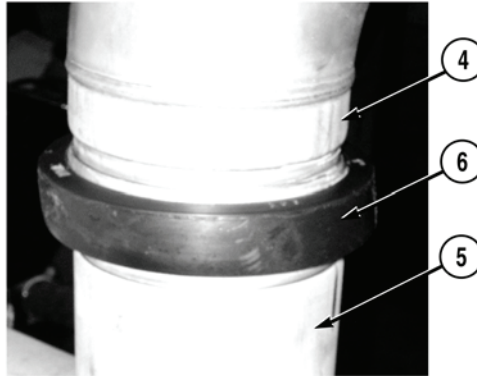
Discard and replace seal if damaged.

4. Remove seal (6) from fitting (4).

**END OF TASK****INSTALLATION****NOTE**

Clean fittings before assembling.

1. Apply motor assembly grease to inside of seal (6) and inside of clamp (3).

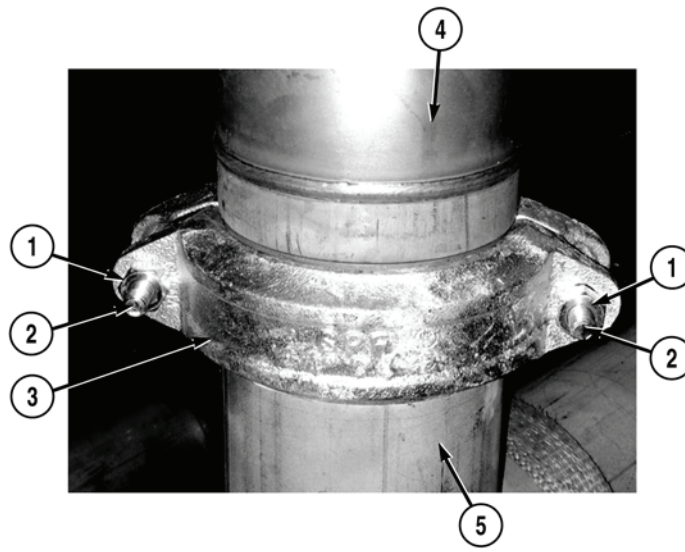


2. Install seal (6) on fitting (4).
3. Position fitting (4) on pipe (5).

#### **NOTE**

Seal is properly positioned when half of the seal is on fitting and the other half of the seal is on pipe.

4. Slide half of seal (6) from fitting (4) on to pipe (5).

**NOTE**

Tighten screws equally on each side of clamp.

5. Install clamp (3) on pipe (5) and fitting (4) with two nuts (1) and screws (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install piping heat trace (if removed) (WP 0606)
2. Install plumbing insulation (if removed) (WP 0607)
3. Install pump house panel(s) (if removed) (WP 0540)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## MAIN INLET VALVE (DRIVER SIDE) REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)  
Lockwasher (8)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

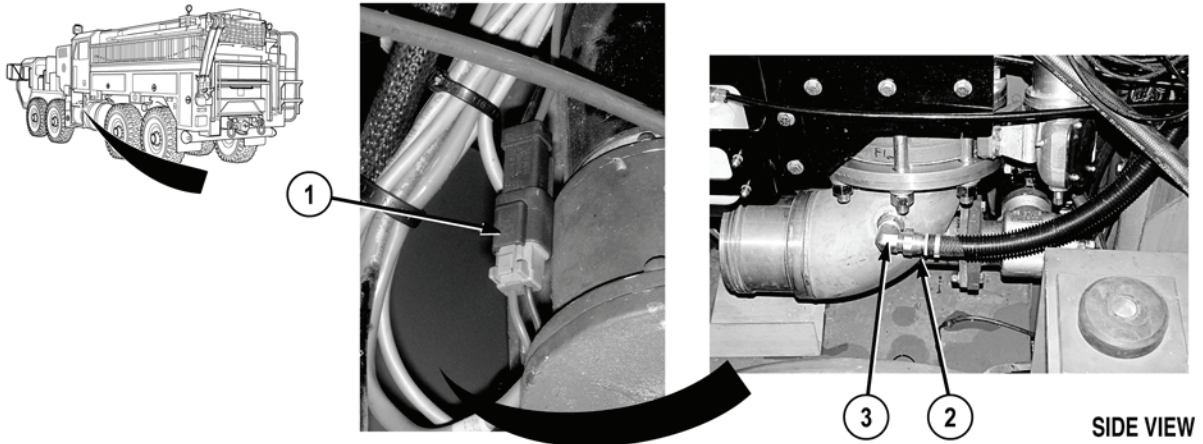
**References**

WP 0615, Fig. 50

**Equipment Conditions**

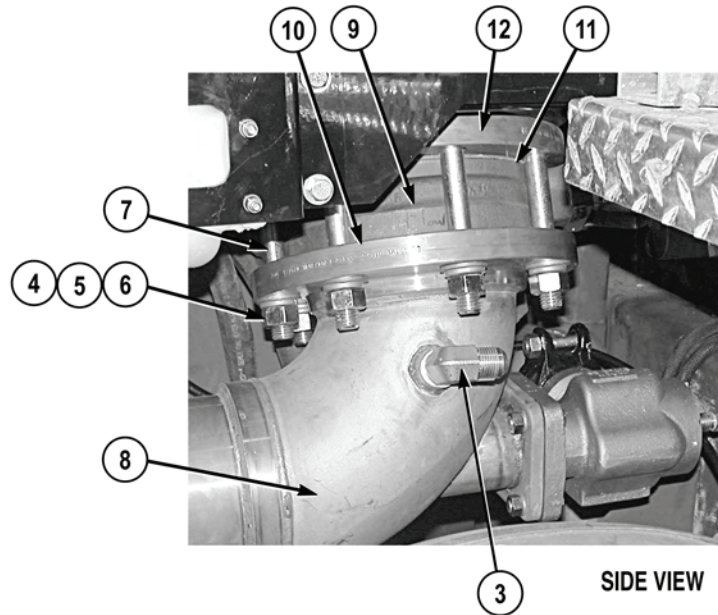
Main inlet relief/dump valve (driver side) removed  
(WP 0258)  
Pump house panel A opened (WP 0325)

## REMOVAL

**NOTE**

Valve shown removed with electric motor and drive assembly attached.

1. Disconnect connector (1).
2. Remove hose (2) from elbow (3).

**WARNING**

**Removing elbow and valve from vehicle is awkward. Care must be taken to support both elbow and valve when removing attaching hardware. Failure to comply may result in damage to equipment or injury to personnel.**

3. With the aid of an assistant, remove eight nuts (4), lockwashers (5), 16 washers (6), and eight screws (7) from elbow (8) and valve (9). Discard lockwashers.
4. With the aid of an assistant, remove elbow (8), gasket (10), valve (9) and gasket (11) from pipe (12) and vehicle.
5. Remove elbow (3) from elbow (8).

**END OF TASK**

---

**INSTALLATION****WARNING**

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

**CAUTION**

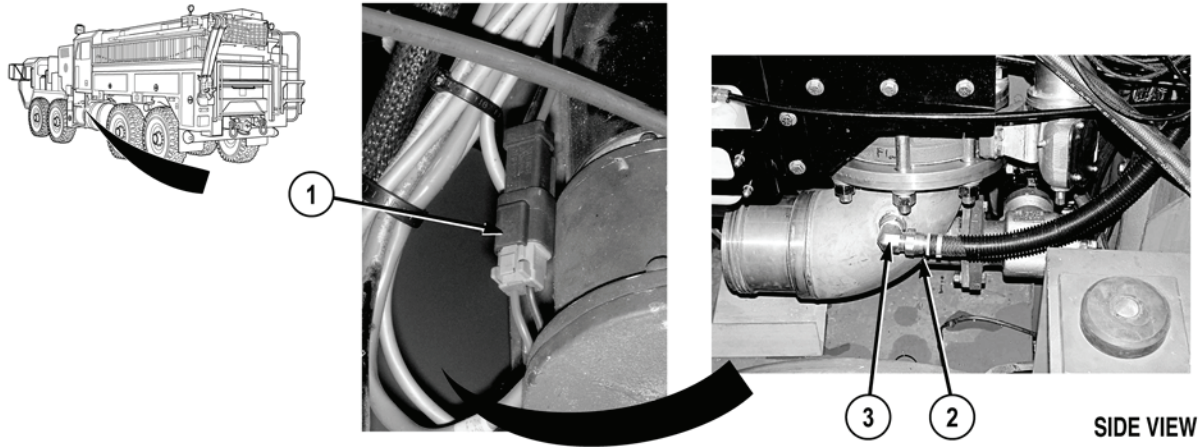
Use sealing compound sparingly only on pipe threads. Do not apply compound to hose connections. Damage to equipment may result.

1. Apply sealing compound to threads of elbow (3).
2. Install elbow (3) on elbow (8).

**WARNING**

Installing elbow and valve on vehicle is awkward. Care must be taken to support both elbow and valve while installing attaching hardware. Failure to comply may result in damage to equipment or injury to personnel.

3. With the aid of an assistant, position gasket (11) and valve (9) on pipe (12), and install gasket (10) and elbow (8) on valve (9) and pipe (12) with eight screws (7), 16 washers (6), eight lockwashers (5), and nuts (4).



4. Install hose (2) on elbow (3).
5. Connect connector (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Close pump house panel A (WP 0539)
2. Install main inlet relief/dump valve (WP 0258)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE****NO. 1 DISCHARGE VALVE (DRIVER SIDE) REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Locknut (2)  
Lockwasher (2)  
Locknut (2)

**Personnel Required**

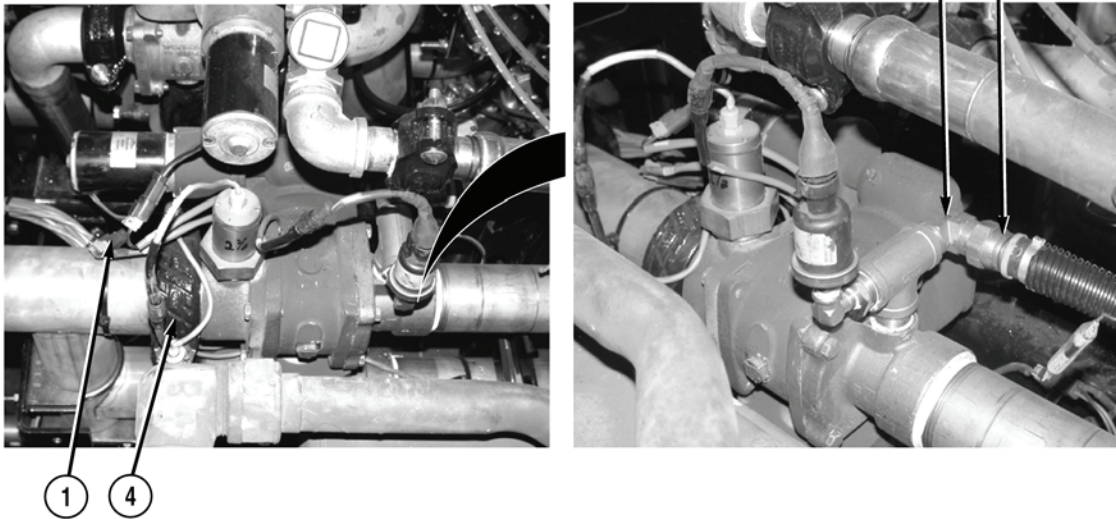
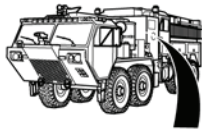
MOS 63B Wheeled vehicle mechanic (2)

**References**

WP 0047  
WP 0388  
WP 0483  
WP 0615, Fig. 113

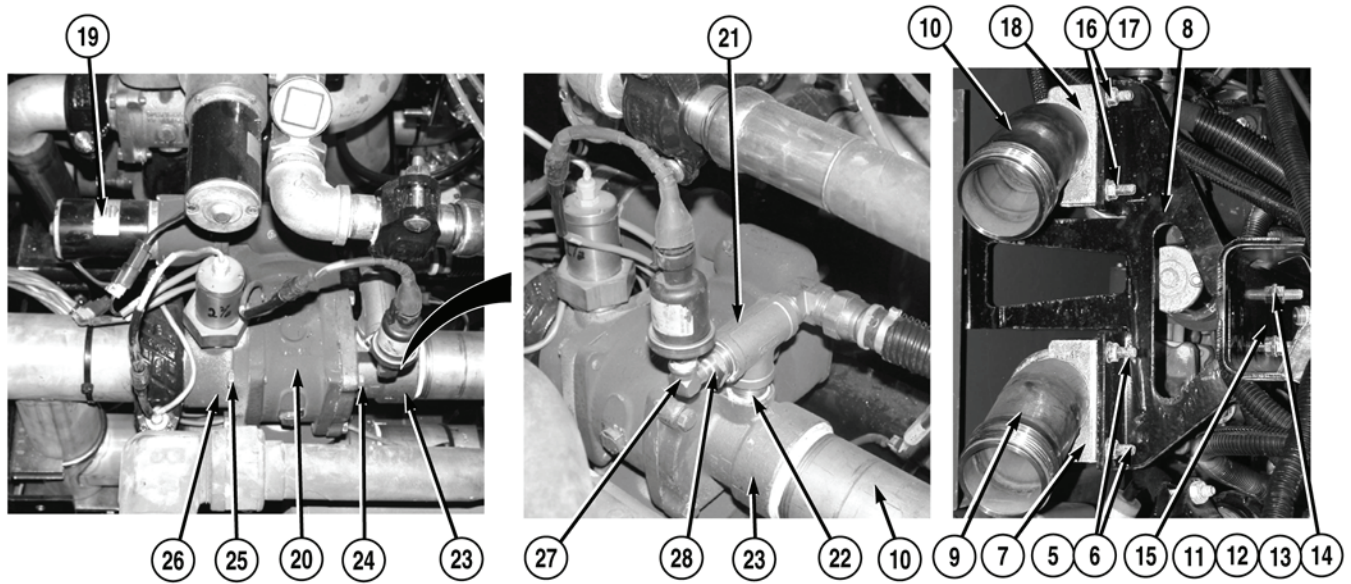
**Equipment Conditions**

Front pump house panels, A, D, E, and I removed  
(WP 0540)  
Flow sensor removed (WP 0390)  
Pressure transducer removed (WP 0411)

**REMOVAL****NOTE**

- Valve shown removed with electric motor and drive assembly attached.
- Remove cable ties as required.

1. Disconnect connector (1).
2. Remove hose (2) from elbow (3).
3. Remove coupling (4) (WP 0483).



### NOTE

- Support bracket holding discharge pipes must be removed with valve assembly to permit clearance for discharge valve replacement.
- Pipe and valve are replaced as an assembly.

4. Remove two locknuts (5), U-bolt (6), and cradle (7) from bracket (8) and pipe (9). Discard locknuts.
5. With the aid of an assistant, support pipe (10) and remove two nuts (11), lockwashers (12), four washers (13), and two screws (14) from bracket (8) and channel bracket (15). Discard lockwashers.
6. With the aid of an assistant, remove pipe (10) and bracket (8) from vehicle.
7. Remove two locknuts (16), U-bolt (17), cradle (18), and pipe (10) from bracket (8). Discard locknuts.
8. Remove electric motor and drive assembly (19) from valve (20) (WP 0388).
9. Remove tee (21) and nipple (22) from adapter (23).
10. Remove pipe (10) from adapter (23).

### NOTE

Note position of adapters on valve prior to replacement to ensure proper installation.

11. Remove four screws (24) and adapter (23) from valve (20).
12. Remove four screws (25) and adapter (26) from valve (20).
13. Remove elbow (27) from fitting (28).
14. Remove fitting (28), elbow (3), and nipple (22) from tee (21).

### END OF TASK

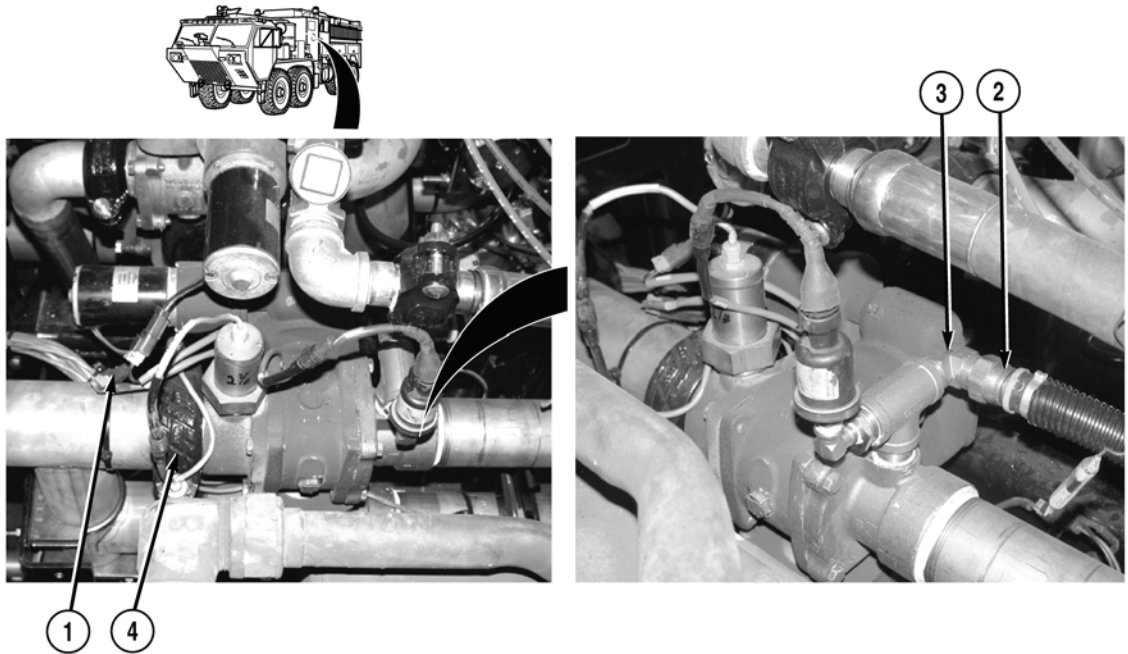
---

**INSTALLATION****WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

1. Apply sealing compound to threads of nipple (22), fitting (28), and two elbows (3) and (27).
2. Install nipple (22), elbow (3), and fitting (28) on tee (21).
3. Install elbow (27) on fitting (28).
4. Install adapter (26) on valve (20) with four screws (25).
5. Install adapter (23) on valve (20) with four screws (24).
6. Install pipe (10) on adapter (23) (WP 0489).
7. Install nipple (22) and tee (21) on adapter (23).
8. Install electric motor and drive assembly (19) on valve (20) (WP 0388).
9. Install pipe (10) on bracket (8) with U-bolt (17) and two locknuts (16). Do not tighten locknuts.
10. With the aid of an assistant, position pipe (10) and bracket (8) on vehicle.
11. With the aid of an assistant, support pipe and install bracket (8) on channel bracket (15) with two screws (14), four washers (13), lockwashers (12), and two nuts (11).
12. Install pipe (9) on bracket (8) with cradle (7), U-bolt (6), and two locknuts (5).





13. Install coupling (4) (WP 0483).
14. Tighten two locknuts (16).
15. Install hose (2) on elbow (3).
16. Connect connector (1).

#### **END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

1. Install flow sensor (WP 0390)
2. Install pressure transducer (WP 0411)
3. Install pump house panels A, D, E, and I (WP 0540)

#### **END OF TASK**

#### **END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## NO. 2 DISCHARGE VALVE (DRIVER SIDE) REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Locknut (2)  
Lockwasher (2)  
Locknut (2)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

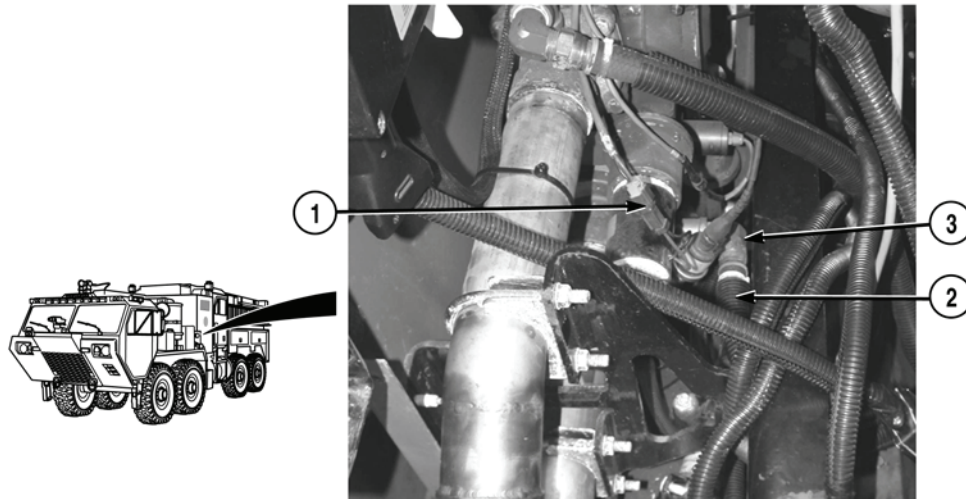
**References**

WP 0388  
WP 0483  
WP 0489  
WP 0615, Fig. 113

**Equipment Conditions**

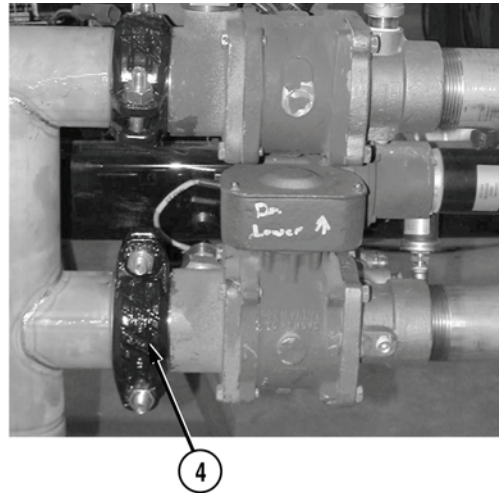
Pump house panels A, D, E, and I  
removed (WP 0540)  
Flow sensor removed (WP 0390)  
Pressure transducer removed (WP 0411)

## REMOVAL

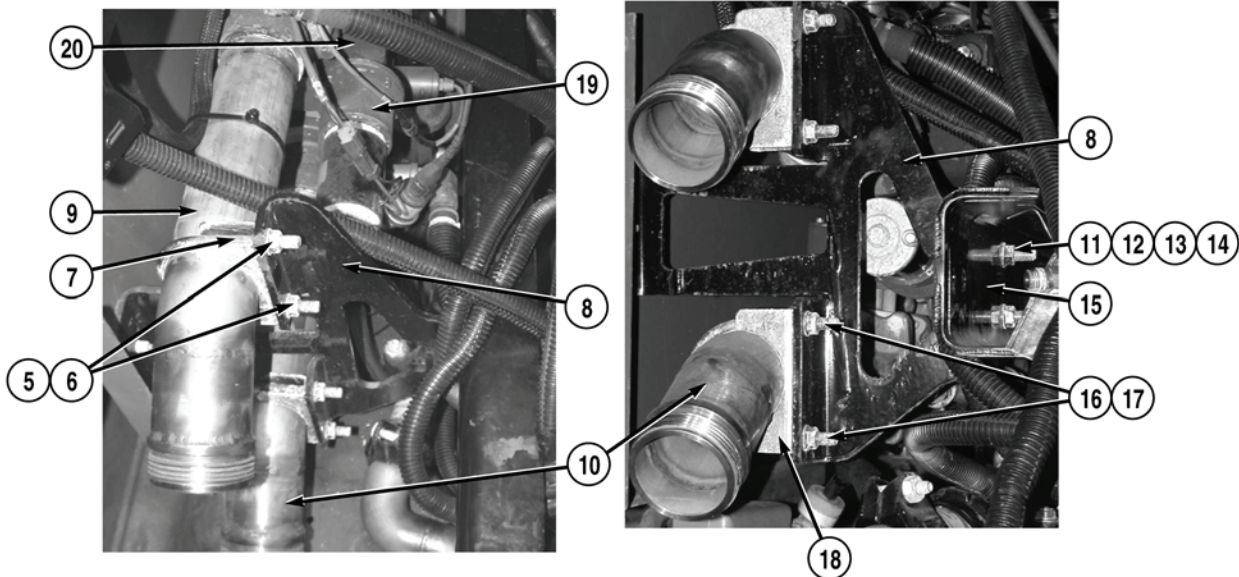
**NOTE**

- Tag and mark wire prior to removal to ensure proper installation.
- Valve shown removed with electric motor and drive assembly attached.
- Remove cable ties as required.

1. Disconnect connector (1).
2. Remove hose (2) from elbow (3).

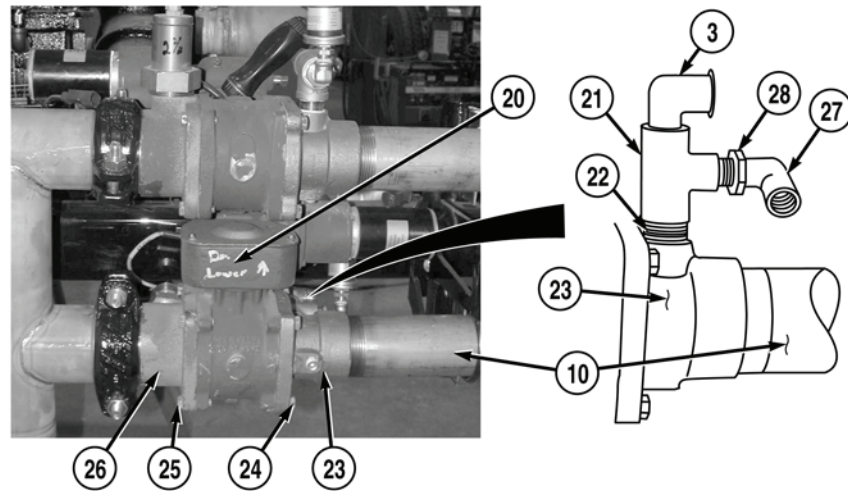


3. Remove coupling (4) from vehicle (WP 0483).



**NOTE**

- Support bracket holding discharge pipes must be removed with valve assembly to permit clearance for discharge valve replacement.
  - Pipe and valve are replaced as an assembly.
4. Remove two locknuts (5), U-bolt (6), and cradle (7) from bracket (8) and pipe (9). Discard locknuts.
  5. With the aid of an assistant, remove two nuts (11), lockwashers (12), four washers (13), and two screws (14) from bracket (8) and channel bracket (15). Discard lockwashers.
  6. With the aid of an assistant, remove pipe (10) and bracket (8) from vehicle.
  7. Remove two locknuts (16), U-bolt (17), cradle (18), and pipe (10) from bracket (8). Discard locknuts.
  8. Remove electric motor and drive assembly (19) from valve (20) (WP 0388).



9. Remove tee (21) and nipple (22) from adapter (23).
10. Remove pipe (10) from adapter (23).

### NOTE

Note position of adapters on valve prior to replacement to ensure proper installation.

11. Remove four screws (24) and adapter (23) from valve (20).
12. Remove four screws (25) and adapter (26) from valve (20).
13. Remove elbow (27) from fitting (28).
14. Remove fitting (28), elbow (3), and nipple (22) from tee (21).

### END OF TASK

### INSTALLATION

### WARNING

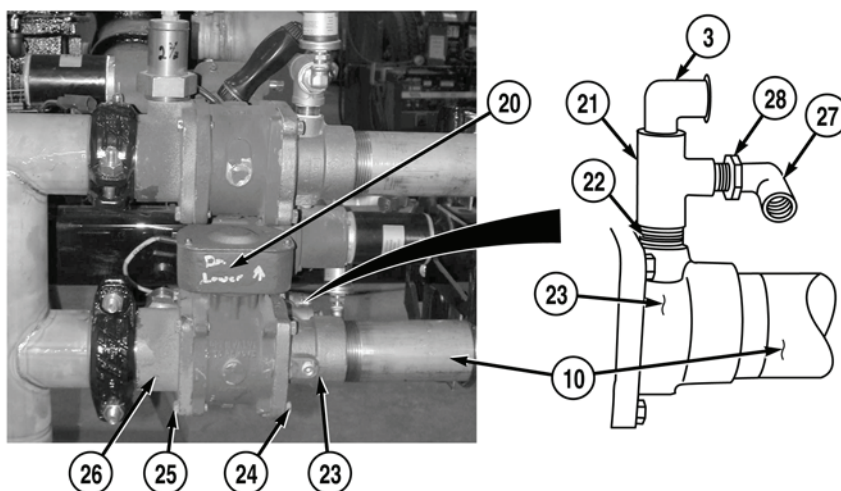


Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

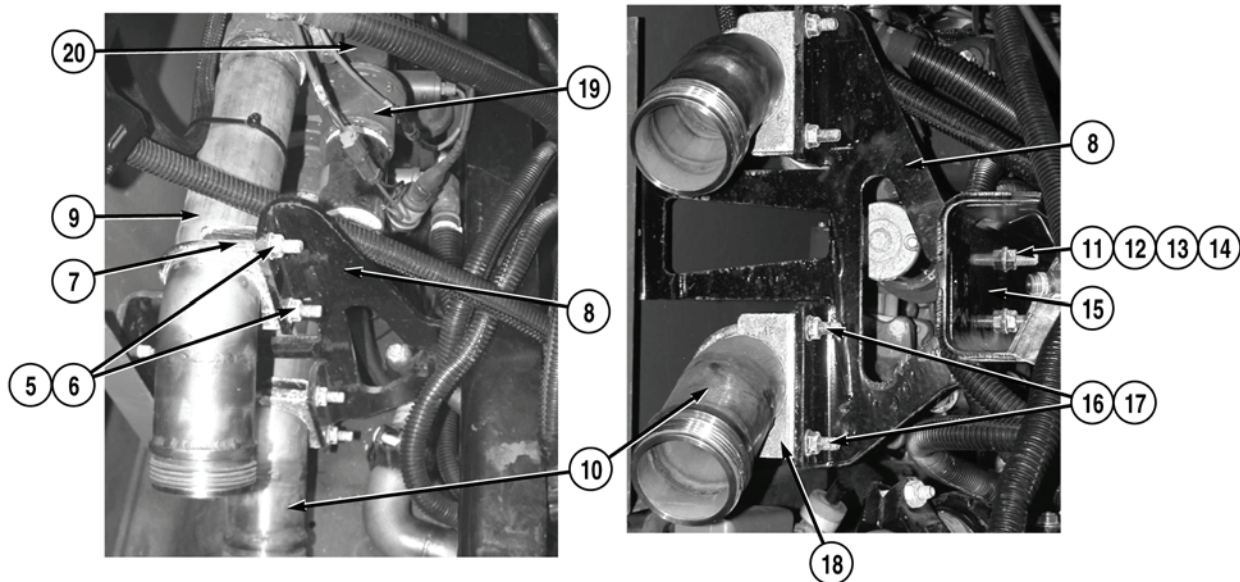
### NOTE

Install cable ties as required.

1. Apply sealing compound to threads of nipple (22), fitting (28), and two elbows (3) and (27).

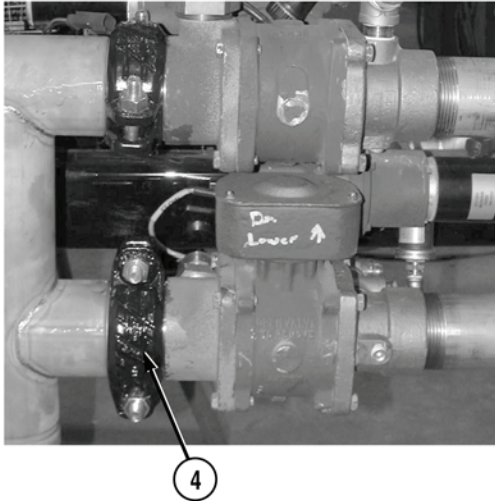


2. Install nipple (22), elbow (3), and fitting (28) on tee (21).
3. Install elbow (27) on fitting (28).
4. Install adapter (26) on valve (20) with four screws (25).
5. Install adapter (23) on valve (20) with four screws (24).
6. Install pipe (10) on adapter (23) (WP 0489).
7. Install nipple (22) and tee (21) on adapter (23).

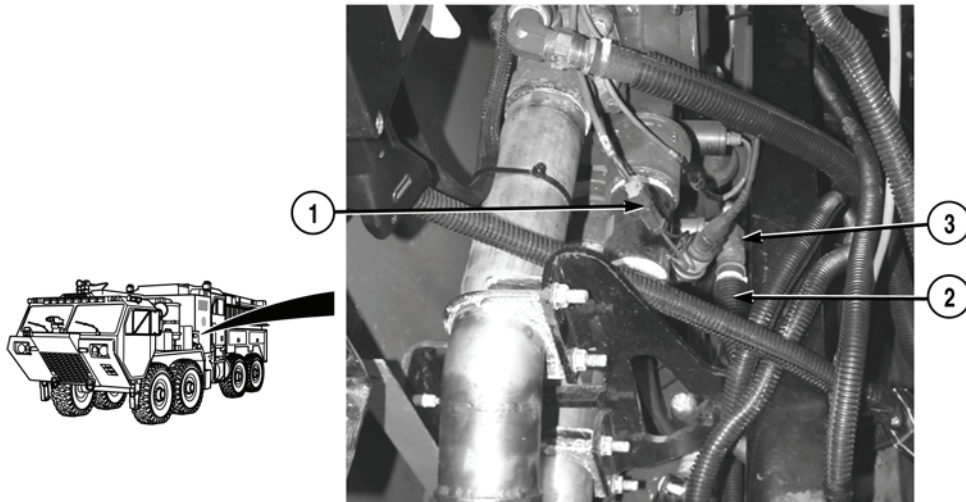


8. Install electric motor and drive assembly (19) on valve (20) (WP 0388).
9. Install pipe (10) on bracket (8) with cradle (18), U-bolt (17), and two locknuts (16). Do not tighten locknuts.
10. With the aid of an assistant, position pipe (10) and bracket (8) on vehicle.

11. With the aid of an assistant, install bracket (8) on channel bracket (15) with two screws (14), four washers (13), lockwashers (12), and two nuts (11).
12. Install pipe (9) on bracket (8) with cradle (7), U-bolt (6), and two locknuts (5).



13. Install coupling (4) on vehicle (WP 0483).
14. Tighten two locknuts (16).



15. Install hose (2) on elbow (3).

16. Connect connector (1).

#### **END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

1. Install flow sensor (WP 0390)
2. Install pressure transducer (WP 0411)
3. Install pump house panels A, D, E, and I (WP 0540)

#### **END OF TASK**

#### **END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## NO. 3 DISCHARGE VALVE (PASSENGER SIDE) REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 22)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Locknut (2)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

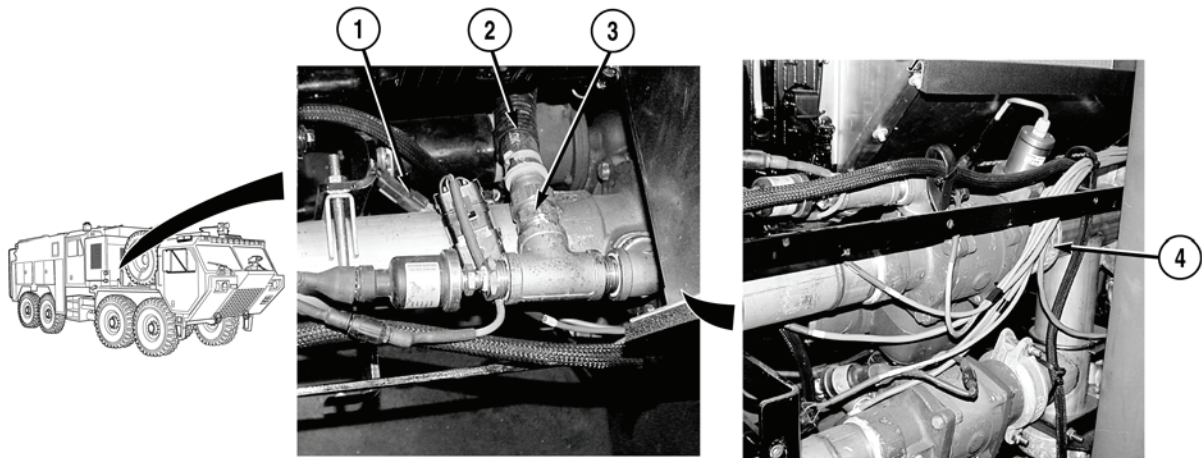
**References**

WP 0388  
WP 0483  
WP 0489  
WP 0615, Fig 113

**Equipment Conditions**

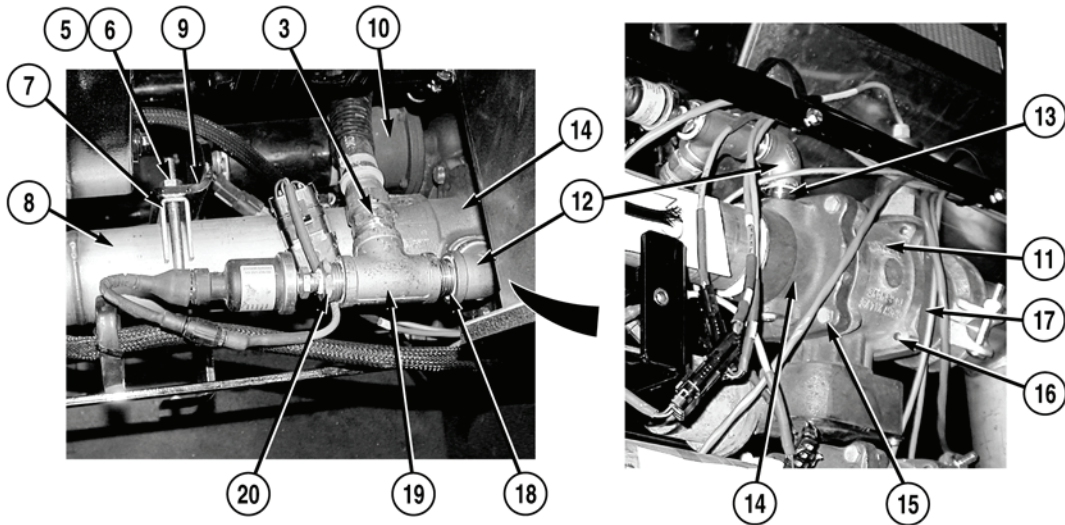
Pump house panels G and L removed (WP 0540)  
Flow sensor removed (WP 0390)  
Pressure transducer removed (WP 0411)

## REMOVAL

**NOTE**

- Valve shown removed with electric motor and drive assembly attached.
- Remove cable ties as required.

1. Disconnect connector (1).
2. Remove hose (2) from fitting (3).
3. Remove coupling (4) from vehicle (WP 0483).



**⚠ CAUTION**

Routing of wires and connectors may vary. Disconnect additional connectors if required. Failure to follow instructions may cause damage to equipment.

**NOTE**

Pipe and valve are replaced as an assembly.

4. With the aid of an assistant, remove two locknuts (5), U-bolt (6), cradle (7), and pipe (8) from bracket (9) and vehicle. Discard locknuts.
5. Remove electric motor and drive assembly (10) from valve (11) (WP 0388).
6. Remove elbow (12) and nipple (13) from adapter (14).
7. Remove pipe (8) from adapter (14).
8. Remove four screws (15) and adapter (14) from valve (11).
9. Remove four screws (16) and adapter (17) from valve (11).
10. Remove elbow (12) and nipple (18) from tee (19).
11. Remove two nipples (13) and (18) from elbow (12).
12. Remove two fittings (3) and (20) from tee (19).

**END OF TASK**

---

**INSTALLATION****WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

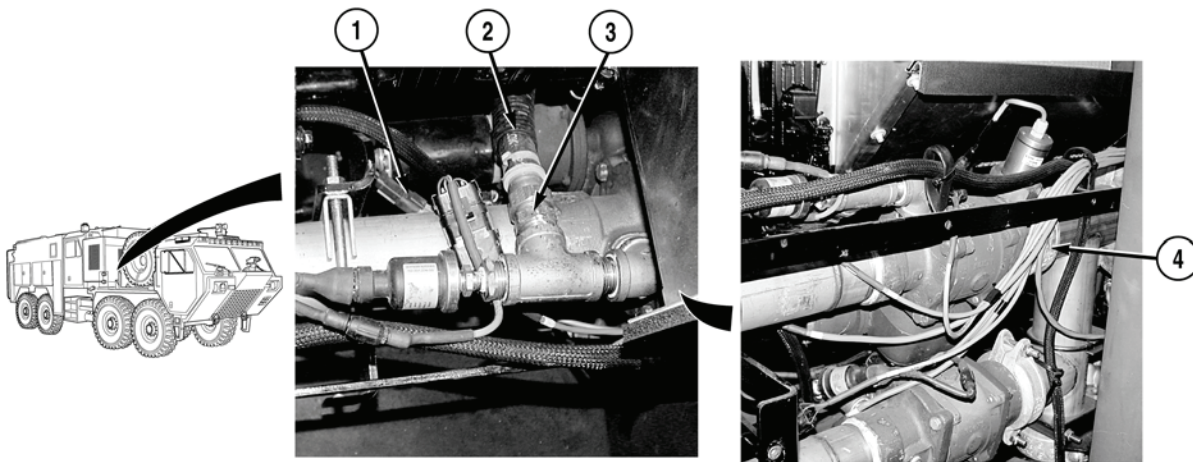
**CAUTION**

**Use sealing compound sparingly only on pipe threads. Do not apply compound to hose connections. Damage to equipment may result.**

**NOTE**

Install cable ties as required.

1. Apply sealing compound to threads of two nipples (13) and (18) and two fittings (3) and (20).
2. Install two fittings (20) and (3) on tee (19).
3. Install two nipples (18) and (13) on elbow (12).
4. Install nipple (18) and elbow (12) on tee (19).
5. Install adapter (17) on valve (11) with four screws (16).
6. Install adapter (14) on valve (11) with four screws (15).
7. Install pipe (8) on adapter (14) (WP 0489).
8. Install nipple (13) and elbow (12) on adapter (14).
9. Install electric motor and drive assembly (10) on valve (11) (WP 0388).
10. With the aid of an assistant, install pipe (8) on bracket (9) and vehicle with cradle (7), U-bolt (6), and two locknuts (5). Do not tighten locknuts.



11. Install coupling (4) on vehicle (WP 0483).
12. Tighten locknuts (5).
13. Install hose (2) on fitting (3).
14. Connect connector (1).

#### **END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

1. Install pressure transducer (WP 0411)
2. Install flow sensor (WP 0390)
3. Install pump house panels G and L (WP 0540)

#### **END OF TASK**

#### **END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## NO. 4 DISCHARGE VALVE (PASSENGER SIDE) REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)  
Ties, Cable, Plastic (WP 0625, Item 58)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

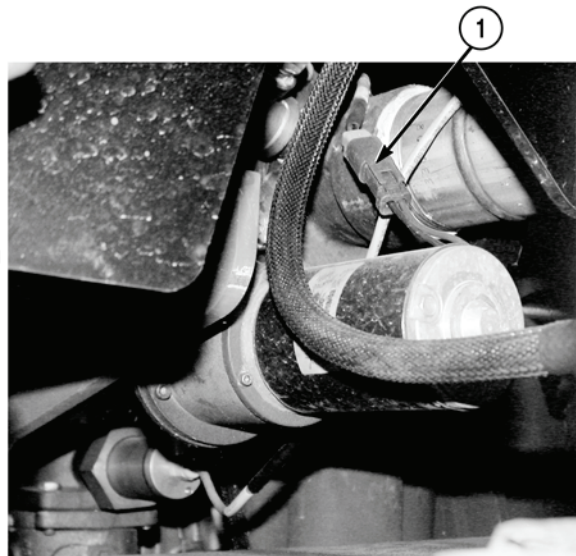
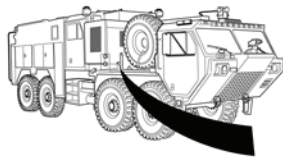
**References**

WP 0388  
WP 0483  
WP 0615, Fig. 113, 124

**Equipment Conditions**

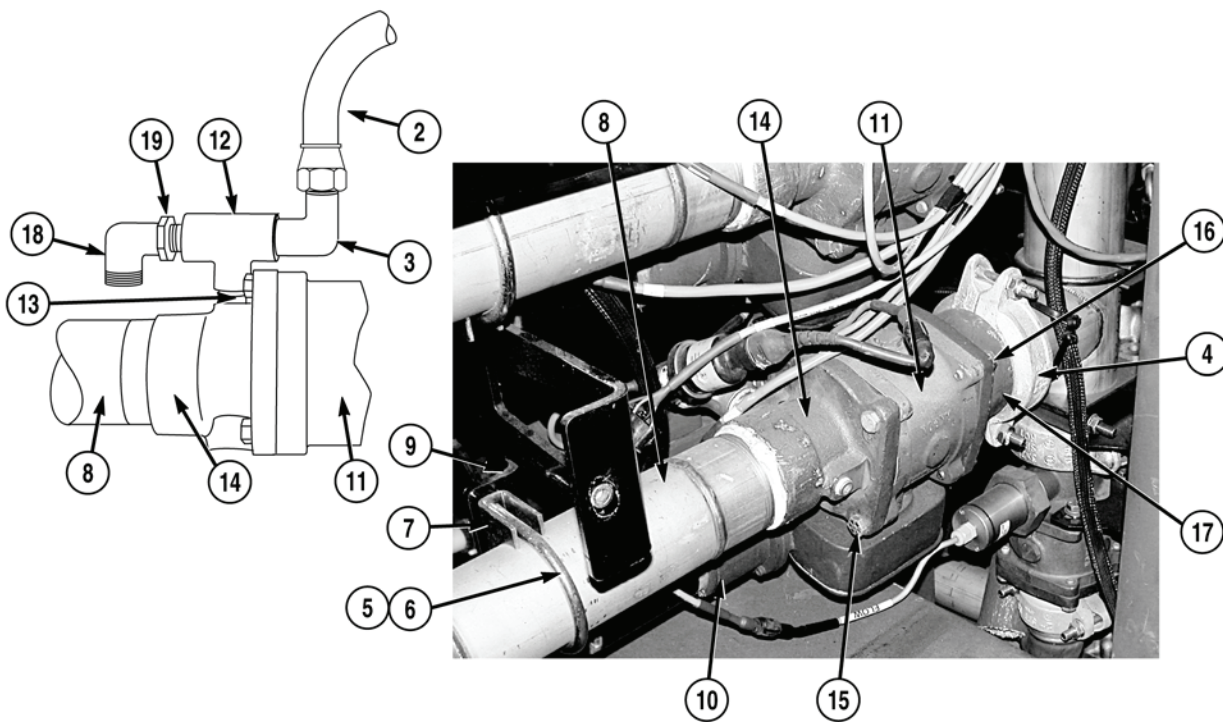
Pump house panels G and L removed (WP 0540)  
Flow sensor removed (WP 0390)  
Pressure transducer removed (WP 0411)

## REMOVAL

**NOTE**

- Valve shown removed with electric motor and drive assembly attached.
- Remove cable ties as required.

1. Disconnect connector (1).



2. Remove hose (2) from elbow (3).
3. Remove coupling (4) from vehicle (WP 0483).

### NOTE

Pipe and valve are replaced as an assembly.

4. With the aid of an assistant, remove two locknuts (5), U-bolt (6), cradle (7), and pipe (8) from bracket (9) and vehicle.
5. Remove electric motor and drive assembly (10) from valve (11) (WP 0388).
6. Remove tee (12) and nipple (13) from adapter (14).
7. Remove pipe (8) from adapter (14).
8. Remove four screws (15) and adapter (14) from valve (11).
9. Remove four screws (16) and adapter (17) from valve (11).
10. Remove elbow (18) from fitting (19).
11. Remove fitting (19), nipple (13), and elbow (3) from tee (12).

**END OF TASK**

---

**INSTALLATION****WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

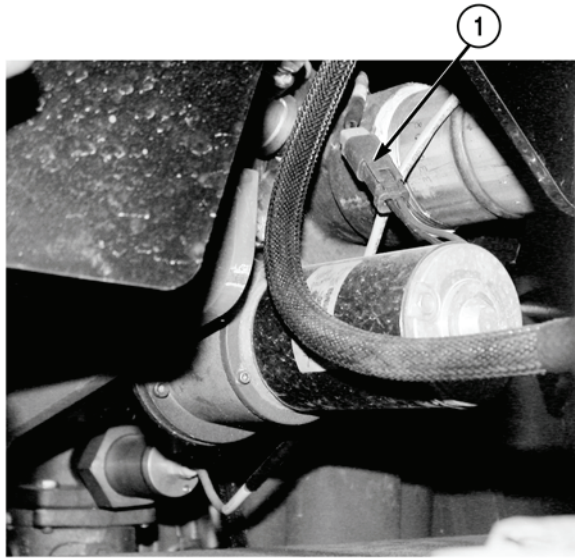
** CAUTION**

**Use pipe thread sealing compound sparingly only on pipe threads. Do not apply compound to hose connections. Damage to equipment may result.**

**NOTE**

Install cable ties as required.

1. Apply pipe thread sealing compound to threads of nipple (13), fitting (19), and two elbows (3) and (18).
2. Install nipple (13), fitting (19), and elbow (3) on tee (12).
3. Install elbow (18) on fitting (19).
4. Install adapter (17) on valve (11) with four screws (16).
5. Install adapter (14) on valve (11) with four screws (15).
6. Install pipe (8) on adapter (14) (WP 0489).
7. Install tee (12) and nipple (13) on adapter (14).
8. Install electric motor and drive assembly (10) on valve (11) (WP 0388).
9. With the aid of an assistant, install pipe (8) on bracket (9) and vehicle with cradle (7), U-bolt (6), and two locknuts (5). Do not tighten locknuts.
10. Install coupling (4) on vehicle (WP 0483).
11. Tighten locknuts (5).
12. Install hose (2) on elbow (3).



13. Connect connector (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Install pressure transducer (WP 0411)
2. Install flow sensor (WP 0390)
3. Install pump house panels G and L (WP 0540)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**PIPING ASSEMBLY (PIPE THREAD SEALING COMPOUND)**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

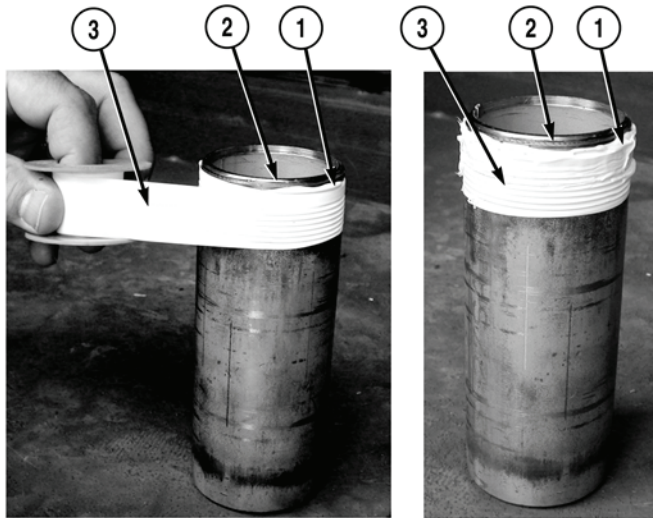
Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)  
Tape, Teflon (WP 0625, Item 57)

---

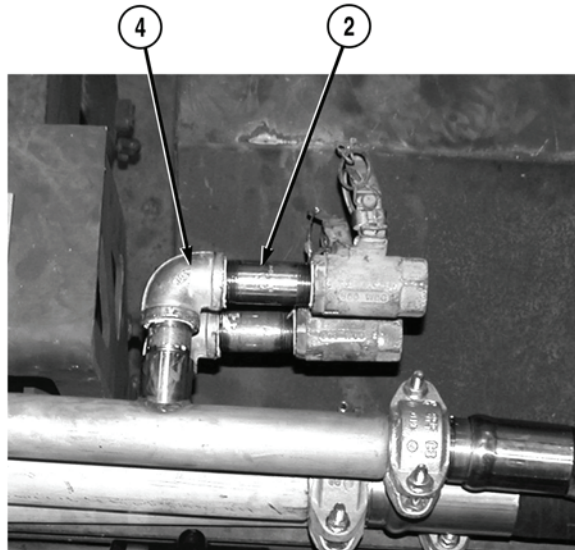
**ASSEMBLY****NOTE**

- For pipe under 1.5 in. (38.1 mm) diameter, only perform Steps (1) and (4) and apply pipe sealant only.
- For pipe 1.5 in. (38.1 mm) diameter or over, follow Steps (1) through (4) and apply pipe sealant and teflon tape.
- Leave first two or three threads exposed when applying pipe sealant and teflon tape.

1. Apply pipe sealant (1) to threads of pipe (2).



2. Apply four to five wraps of teflon tape (3) over threads of pipe (2) where pipe sealant (1) was applied.
3. Apply pipe sealant (1) over threads of pipe (2) again, where teflon tape (3) was applied.



4. Install pipe (2) into elbow (4). Screw pipe until completely tight and desired position is obtained.

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**PLUMBING, HOSES, AND PIPING REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0345  
WP 0483  
WP 0483  
WP 0500  
WP 0539  
WP 0540  
WP 0548

**References (continued)**

WP 0606  
WP 0607  
WP 0615, Fig. 37, 38, 41, 43, 44, 45, 46, 47, 48,  
49, 50, 113, 114

**Equipment Conditions**

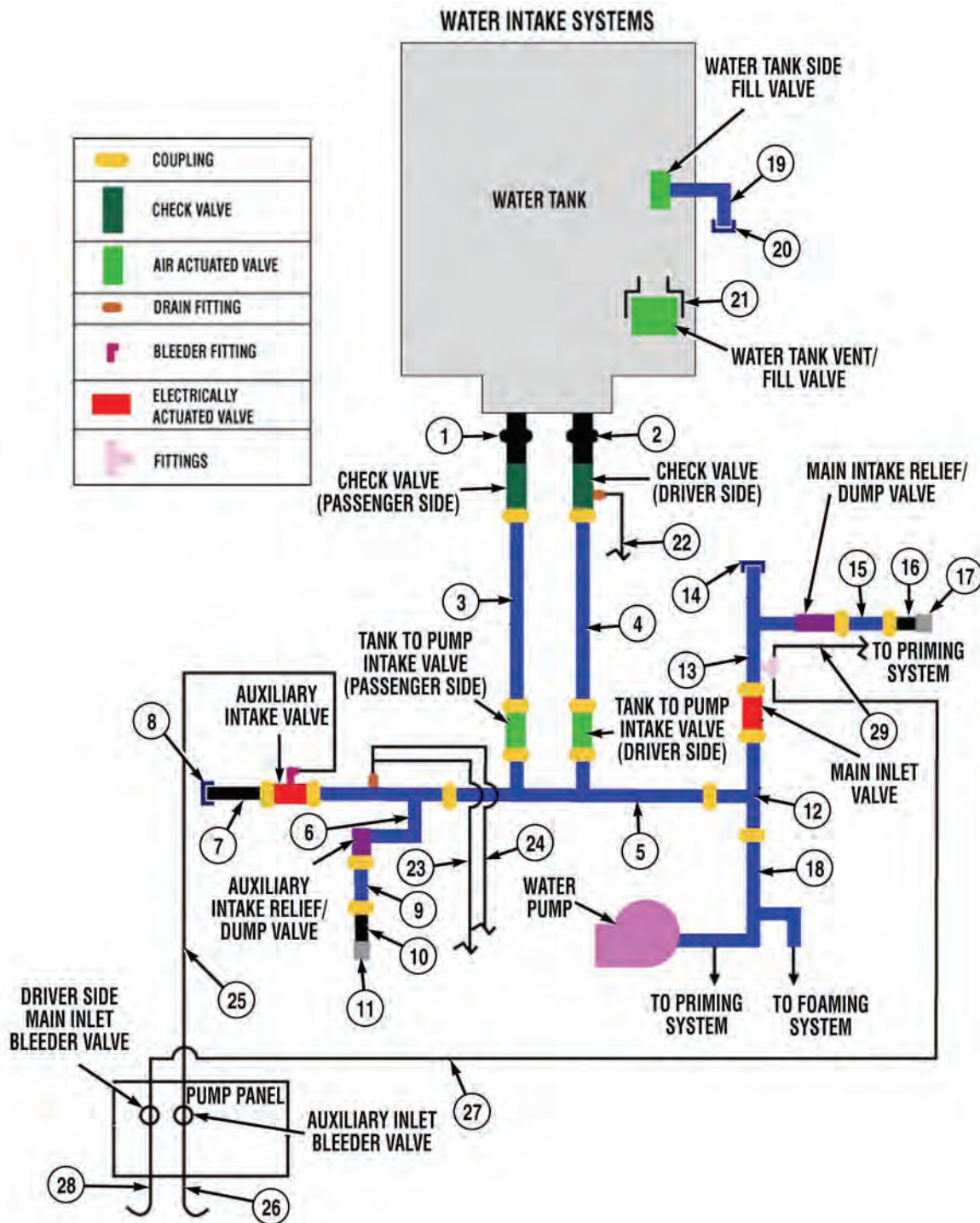
Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)  
Water system drained (WP 0041)

---

**WATER INTAKE SYSTEM****NOTE**

The following Steps may be necessary to access and replace water intake system plumbing:

1. Pump House Panel A Open/Close (WP 0539)
2. Pump House Panels Replacement (WP 0540)
3. Crew Cab Replacement (WP 0500)
4. Pump Operator's Panel Housing Open/Close (WP 0325)
5. Coupling Replacement (WP 0483)
6. Plumbing Insulation Replacement (WP 0607)
7. Piping Heat Trace Replacement (WP 0606)
8. Piping Assembly (pipe thread sealing compound) (WP 0489)

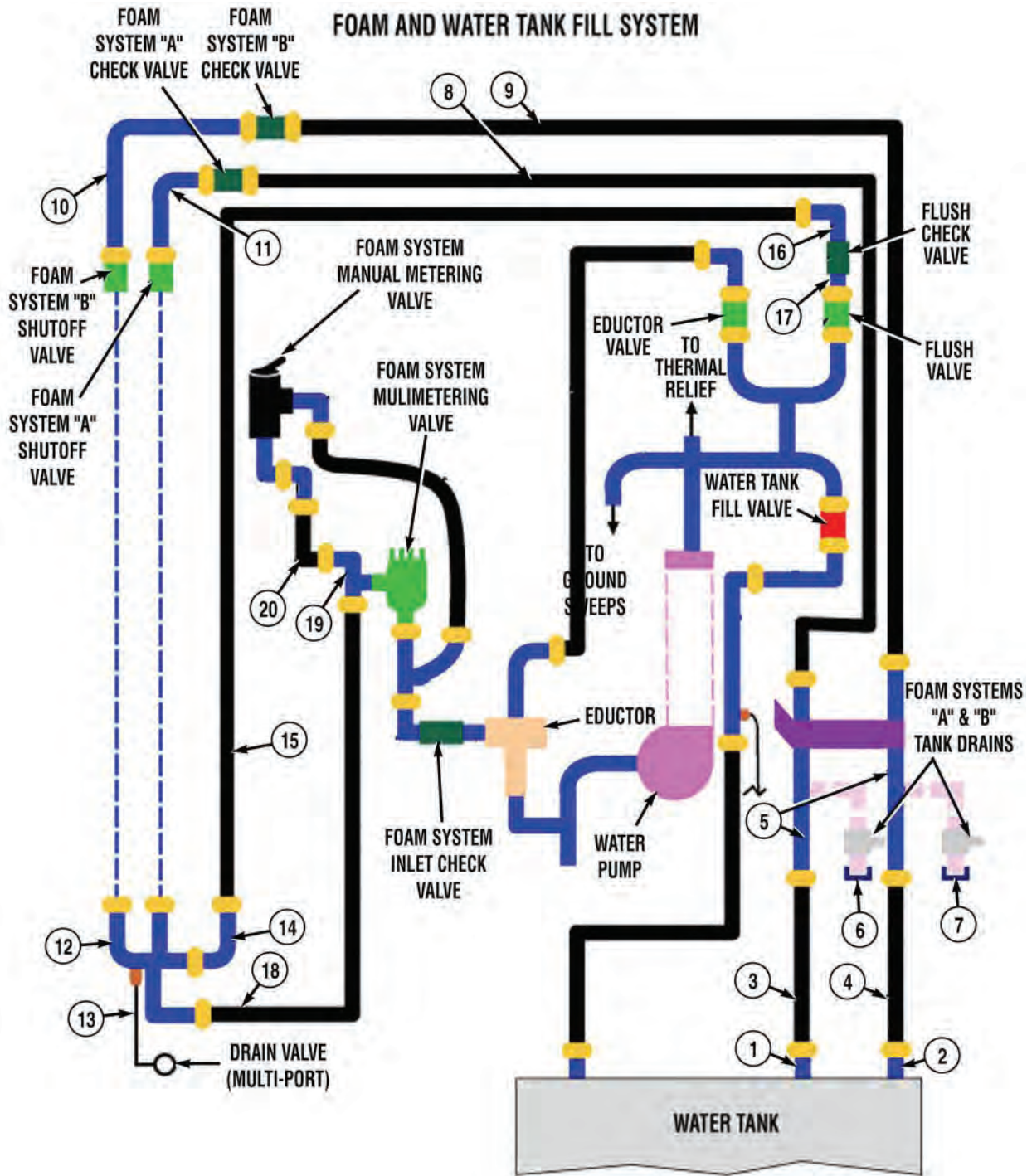


**Table 1. Water Intake System.**

Item No.	Description
1	Flexible Coupling (P.S.)
2	Flexible Coupling (D.S.)
3	Pipe Weldment (P.S.)
4	Pipe Weldment (D.S.)
5	Inlet Manifold Weldment
6	Auxiliary Inlet Weldment
7	After Auxiliary Intake Valve Weldment
8	Cap/Adapter
9	After Auxiliary Intake Relief/Dump Valve Weldment
10	Drain Hose
11	Hose Adapter
12	Main Inlet Tee Weldment
13	Main Inlet Weldment
14	Cap/Adapter
15	After Main Intake Relief/Dump Valve Weldment
16	Drain Hose
17	Hose Adapter
18	Main Inlet Weldment
19	Water Tank Side Fill Valve Weldment
20	Cap
21	Flange, Cover, Tank Vent
22	Drain Tube (To Tank Fill Weldment)
23	Drain Tube (To P.S. Discharge Tee Weldment)
24	Drain Tube (To D.S. Discharge Tee Weldment)
25	Auxiliary Inlet Bleeder Valve Hose
26	Auxiliary Inlet Bleeder Valve Drain Hose
27	Driver Side Main Inlet Bleeder Valve Hose
28	Driver Side Main Inlet Bleeder Valve Drain Hose
29	Tubing

**END OF TASK**

FOAM AND WATER TANK FILL SYSTEMS



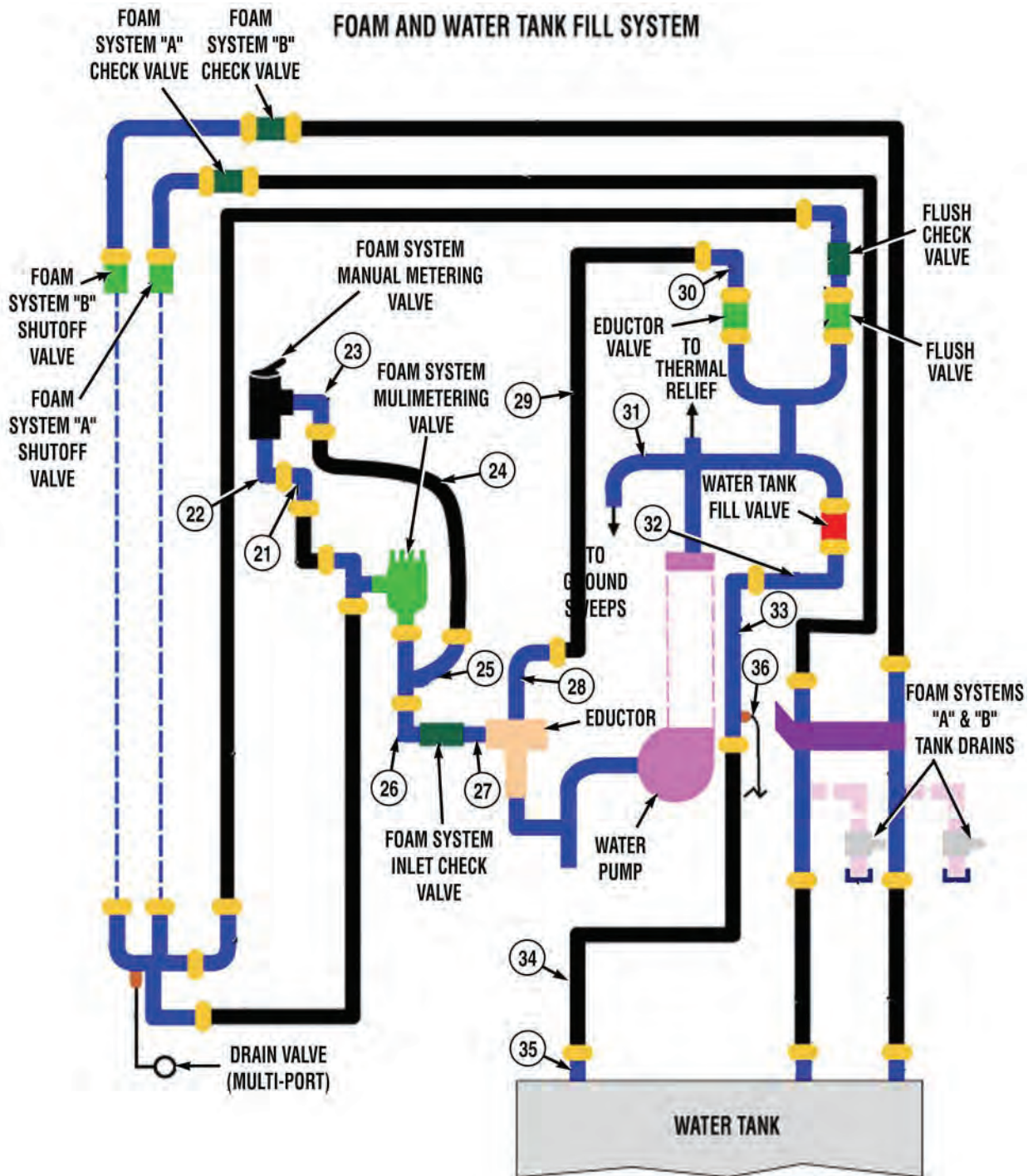
**NOTE**

The following Steps may be necessary to access and replace foam and water tank fill system:

1. Pump House Panel A Open/Close (WP 0539)
2. Pump House Panels Replacement (WP 0540)
3. Crew Cab Replacement (WP 0500)
4. Pump Operator’s Panel Housing Open/Close (WP 0325)
5. Coupling Replacement (WP 0483)
6. Plumbing Insulation Replacement (WP 0607)
7. Piping Heat Trace Replacement (WP 0606)
8. Piping Assembly (pipe thread sealing compound) (WP 0489)

**Table 2. Foam and Water Tank Fill Systems.**

Item No.	Description
1	Pipe
2	Pipe
3	Hose
4	Hose
5	Foam Tank Drain Weldment
6	Foam “A” Tank Drain Cap
7	Foam “B” Tank Drain Cap
8	Hose
9	Hose
10	Elbow Weldment
11	Elbow Weldment
12	Foam Supply Weldment
13	Foam System Drain Tube
14	Elbow Weldment
15	Hose
16	Flush/Eductor Weldment
17	Pipe
18	Hose
19	Multi-Metering Valve Weldment
20	Hose

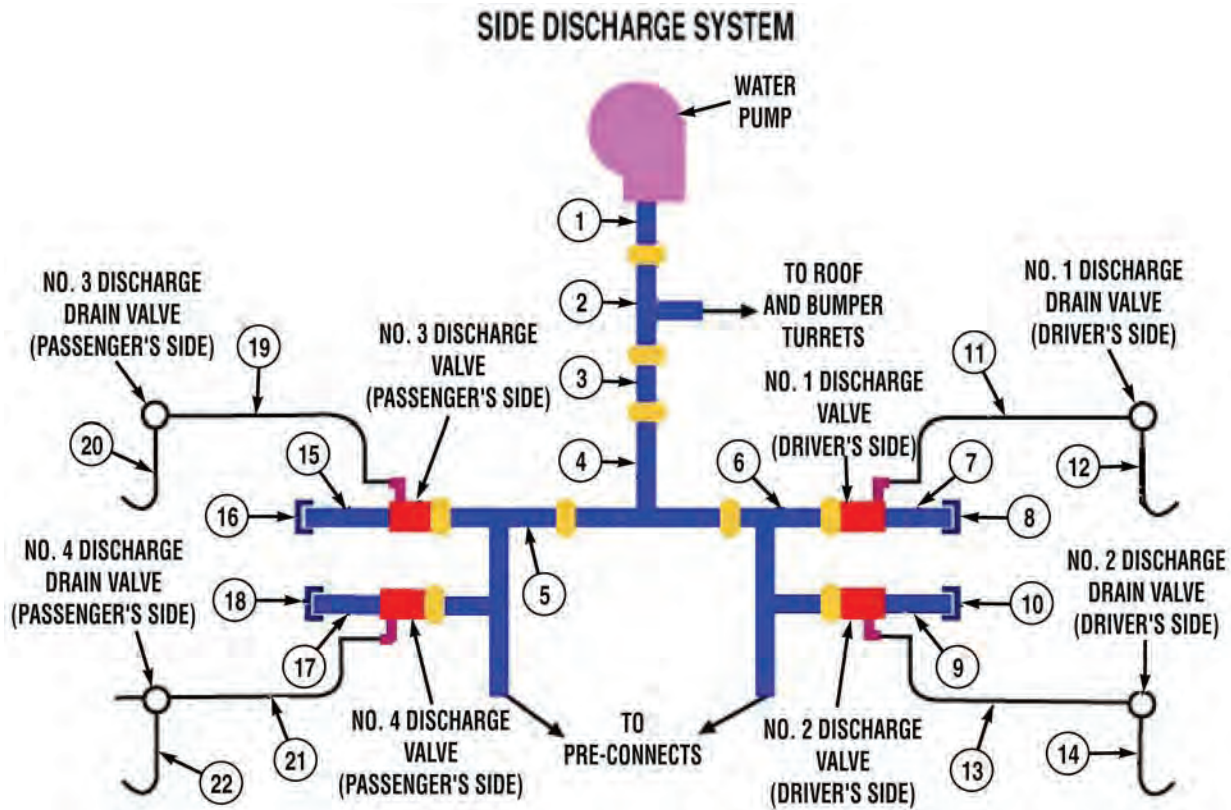




**Table 2. Foam and Water Tank Fill Systems. (Continued)**

Item No.	Description
21	Elbow Weldment
22	Elbow Weldment
23	Elbow Weldment
24	Hose
25	Multi-Metering Valve Weldment
26	Foam System Weldment
27	Pipe (Nipple)
28	Water Eductor Weldment
29	Hose
30	Elbow Weldment
31	Foam, Water Tank, Thermal Relief, and Ground Sweeps Weldment
32	Tank Fill After Valve Weldment
33	Tank Fill Before Hose Weldment
34	Hose
35	Pipe
36	Drain Tube (To Check Valve [Driver Side])

## SIDE DISCHARGE SYSTEM



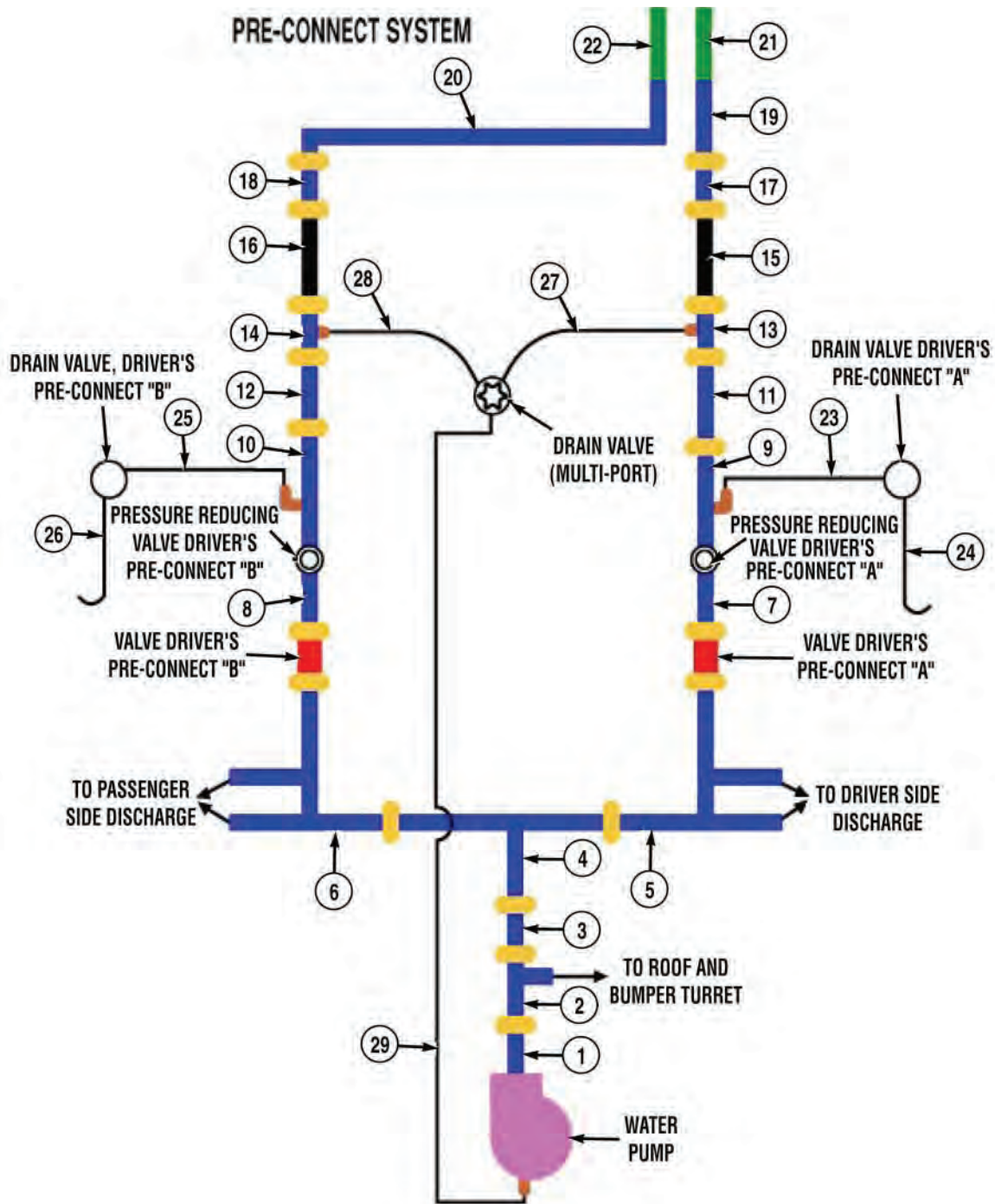
1. Pump House Panel A Open/Close (WP 0539)
2. Pump House Panels Replacement (WP 0540)
3. Coupling Replacement (WP 0483)
4. Piping Heat Trace Replacement (WP 0606)
5. Piping Assembly (sealing compound) (WP 0489)

**Table 3. Side Discharge System.**

Item No.	Description
1	Pump Outlet Weldment
2	Outlet Reducer Weldment
3	Pump Outlet Weldment
4	Pump Outlet Tee Weldment
5	Side Discharge Tee Weldment (D.S.)
6	Side Discharge Tee Weldment (P.S.)
7	No.1 Side Outlet Weldment (D.S.)
8	Cap
9	No.2 Side Outlet Weldment (D.S.)
10	Cap
11	No.1 Discharge Drain Valve Hose (D.S.)
12	No.1 Discharge Drain Valve Drain Hose (D.S.)
13	No.2 Discharge Drain Valve Hose (D.S.)
14	No.2 Discharge Drain Valve Drain Hose (D.S.)
15	No.3 Side Outlet Weldment (P.S.)
16	Cap
17	No.4 Side Outlet Weldment (P.S.)
18	Cap
19	No.3 Discharge Drain Valve Hose (P.S.)
20	No.3 Discharge Drain Valve Drain Hose (P.S.)
21	No.4 Discharge Drain Valve Hose (P.S.)
22	No.4 Discharge Drain Valve Drain Hose (P.S.)

**END OF TASK**

PRE-CONNECT SYSTEM



**NOTE**

The following Steps may be necessary to access and replace pre-connect system:

1. Pump House Panel A Open/Close (WP 0539)
2. Pump House Panels Replacement (WP 0540)

3. Crew Cab Replacement (WP 0500)
4. Coupling Replacement (WP 0483)
5. Piping Assembly (pipe thread sealing compound) (WP 0489)

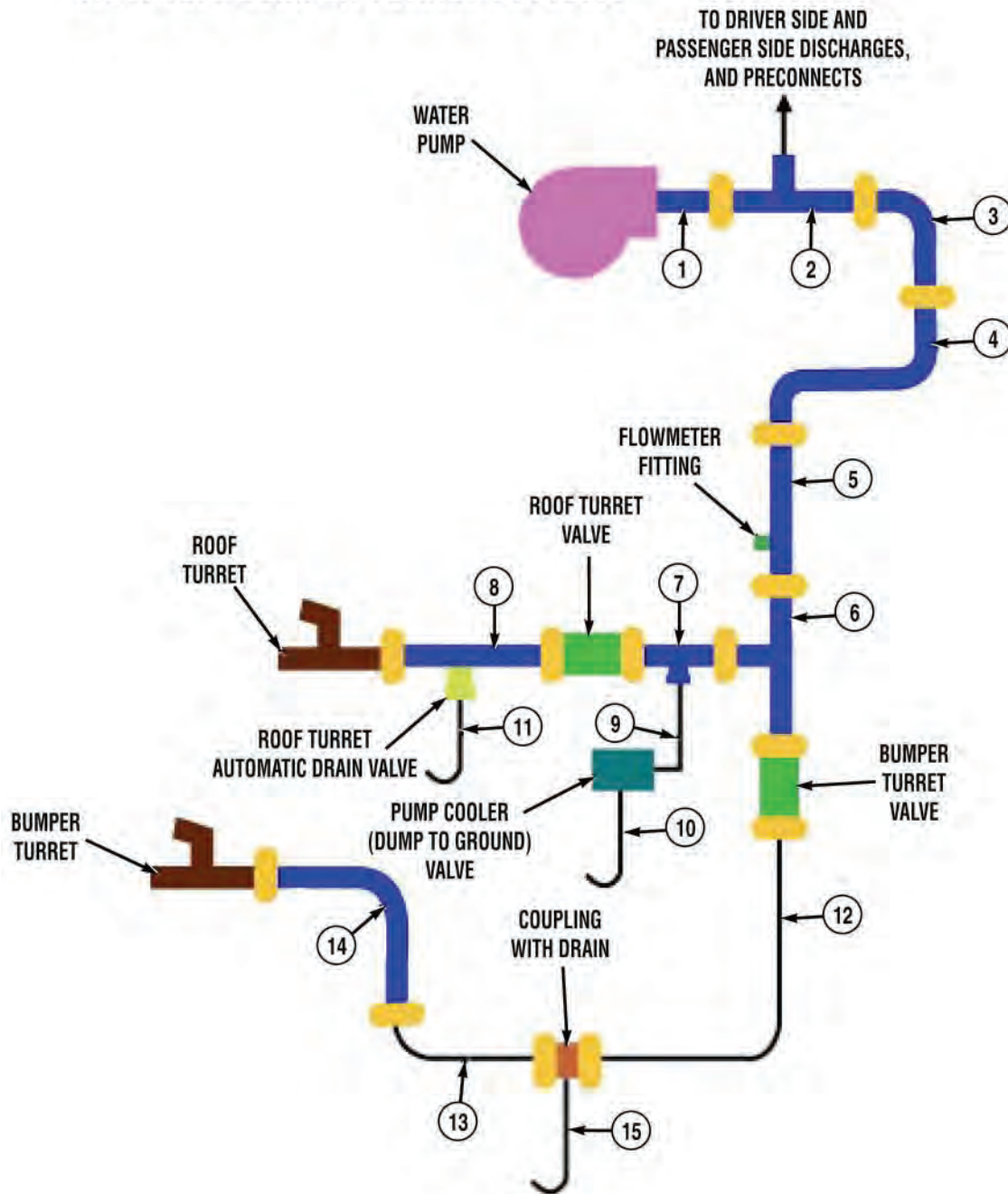
**Table 4. Pre-Connect System.**

Item No.	Description
1	Pump Outlet Weldment
2	Outlet Reducer Weldment
3	Pump Outlet Weldment
4	Pump Outlet Tee Weldment
5	Side Discharge Tee Weldment (D.S.)
6	Side Discharge Tee Weldment (P.S.)
7	Pressure Reducing Valve Supply Weldment, Driver Pre-Connect A
8	Pressure Reducing Valve Supply Weldment, Driver Pre-Connect B
9	Pressure Reducing Valve Discharge Weldment, Driver Pre-Connect A
10	Pressure Reducing Valve Discharge Weldment, Driver Pre-Connect B
11	Weldment, Driver Pre-Connect A
12	Weldment, Driver Pre-Connect B
13	Tank Face Weldment, Driver Pre-Connect A
14	Tank Face Weldment, Driver Pre-Connect B
15	Hose, Driver Pre-Connect A
16	Hose, Driver Pre-Connect B
17	Elbow Weldment, Driver Pre-Connect A
18	Elbow Weldment, Driver Pre-Connect B
19	Above Tank Weldment, Driver Pre-Connect A
20	Hose Bed Weldment, Driver Pre-Connect B
21	Driver Pre-Connect A Fire Hose
22	Driver Pre-Connect B Fire Hose
23	Driver Pre-Connect A Drain Valve Hose
24	Driver Pre-Connect A Drain Valve Drain Hose
25	Driver Pre-Connect B Drain Valve Hose
26	Driver Pre-Connect B Drain Valve Drain Hose
27	Driver Pre-Connect A Drain Tube
28	Driver Pre-Connect B Drain Tube
29	Water Pump Drain Tube

**END OF TASK**

ROOF AND BUMPER TURRET SYSTEMS

### ROOF AND BUMPER TURRET SYSTEMS



**NOTE**

The following Steps may be necessary to access and replace roof and bumper turret systems:

1. Pump House Panel A Open/Close (WP 0539)
2. Pump House Panels Replacement (WP 0540)
3. Roof Turret Plumbing Cover Replacement (WP 0548)
4. Coupling Replacement (WP 0483)
5. Piping Heat Trace Replacement (WP 0606)
6. Plumbing Insulation Replacement (WP 0607)
7. Piping Assembly (pipe thread sealing compound) (WP 0489)

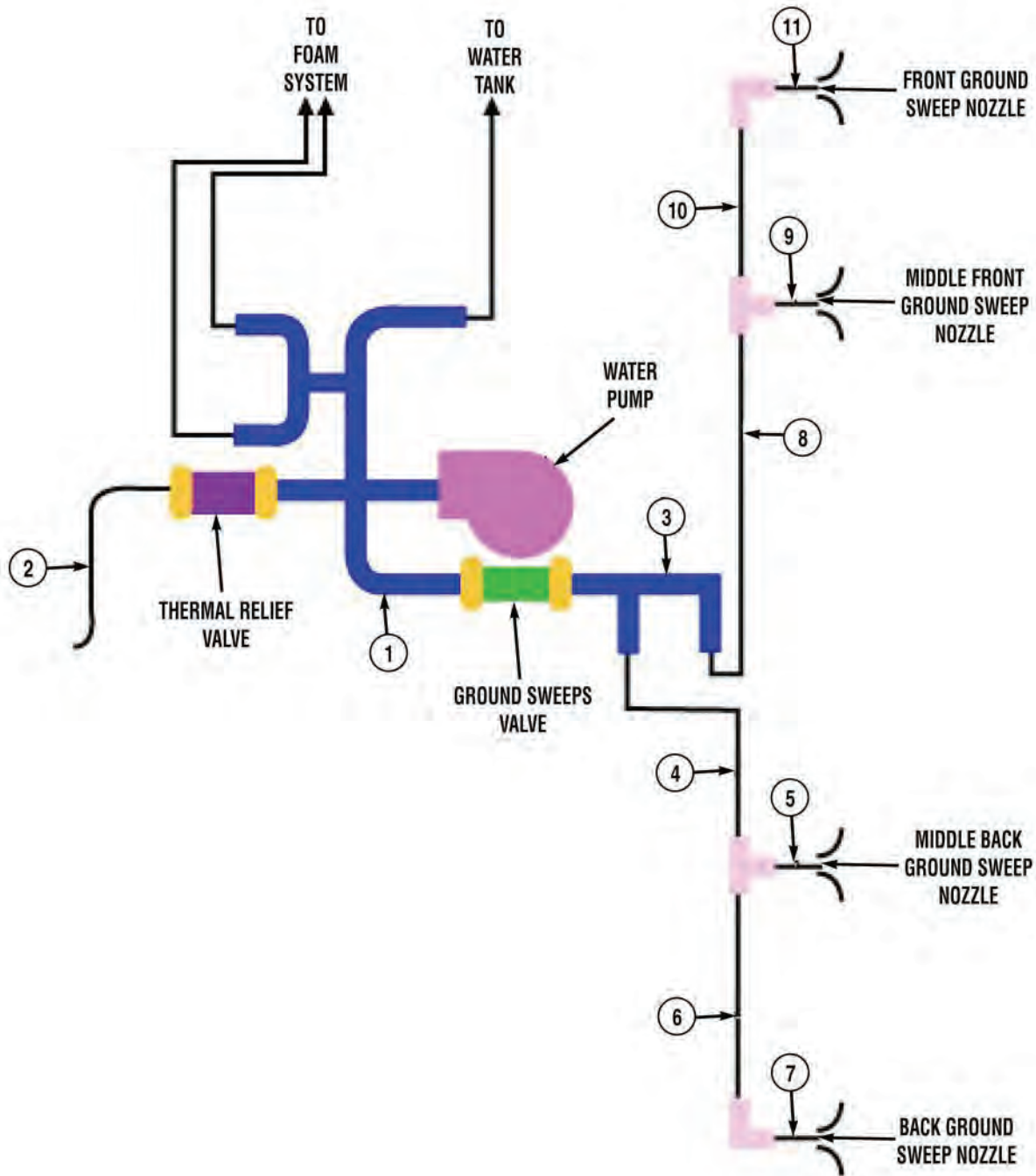
**Table 5. Roof and Bumper Turret Systems.**

Item No.	Description
1	Pump Outlet Weldment
2	Outlet Reducer Weldment
3	Turret Weldment
4	Turret Transition Weldment
5	Turret Flowmeter Weldment
6	Tee/Roof Tee Weldment
7	Turret/Pump Cooler Weldment
8	Roof Turret Inlet Weldment
9	Pump Cooler (Dump to Ground) Supply Tube
10	Pump Cooler (Dump to Ground) Drain Tube
11	Roof Turret Automatic Drain Tube
12	Bumper Turret Supply Hose
13	Bumper Turret Supply Hose
14	Bumper Turret Weldment
15	Drain Tube

**END OF TASK**

GROUND SWEEPS AND THERMAL RELIEF SYSTEMS

GROUND SWEEPS AND THERMAL RELIEF SYSTEM





**NOTE**

The following Steps may be necessary to access and replace ground sweeps and thermal relief systems:

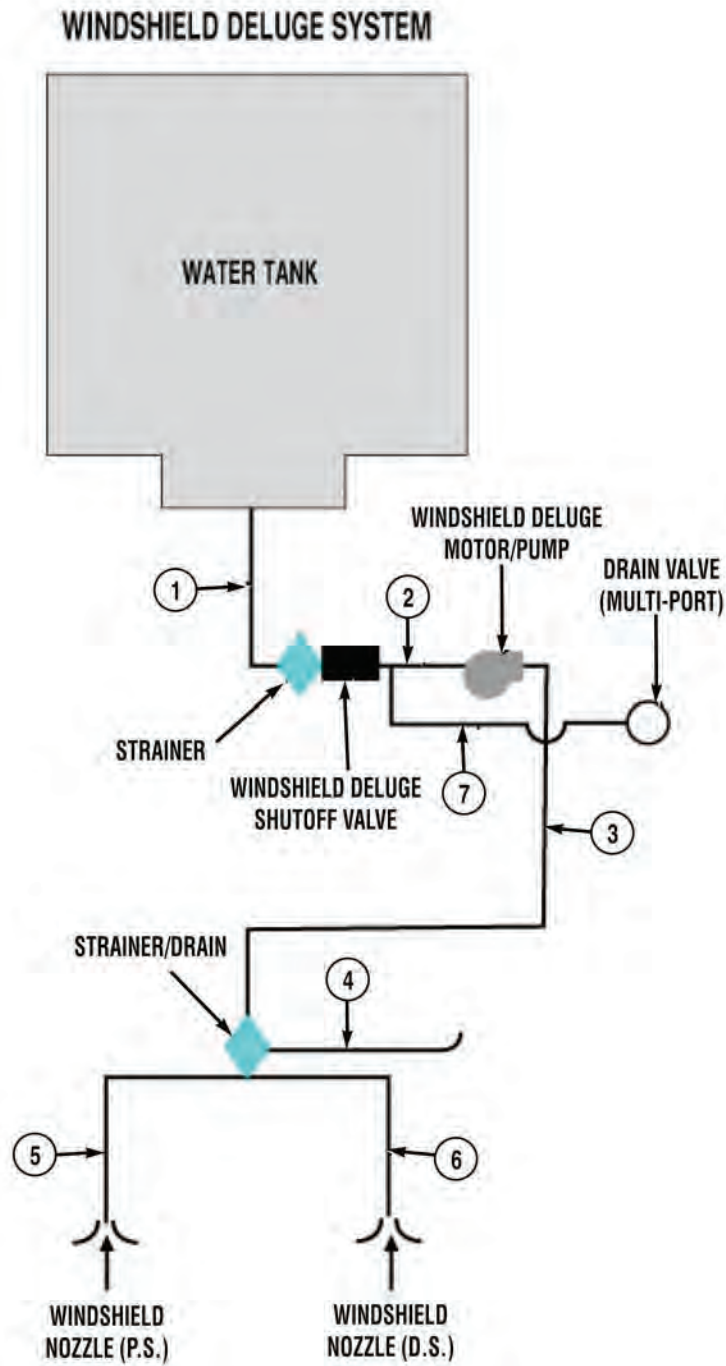
1. Pump House Panel A Open/Close (WP 0539)
2. Pump House Panels Replacement (WP 0540)
3. Piping Assembly (pipe thread sealing compound) (WP 0489)

**Table 6. Ground Sweeps and Thermal Relief Systems.**

Item No.	Description
1	Foam, Water Tank, Thermal Relief, and Ground Sweeps Weldment
2	Tubing (Drain)
3	Ground Sweeps Weldment
4	Hose
5	Hose
6	Hose
7	Hose
8	Hose
9	Hose
10	Hose
11	Hose

**END OF TASK**

WINDSHIELD DELUGE SYSTEM



**NOTE**

The following Steps may be necessary to access and replace windshield deluge system:

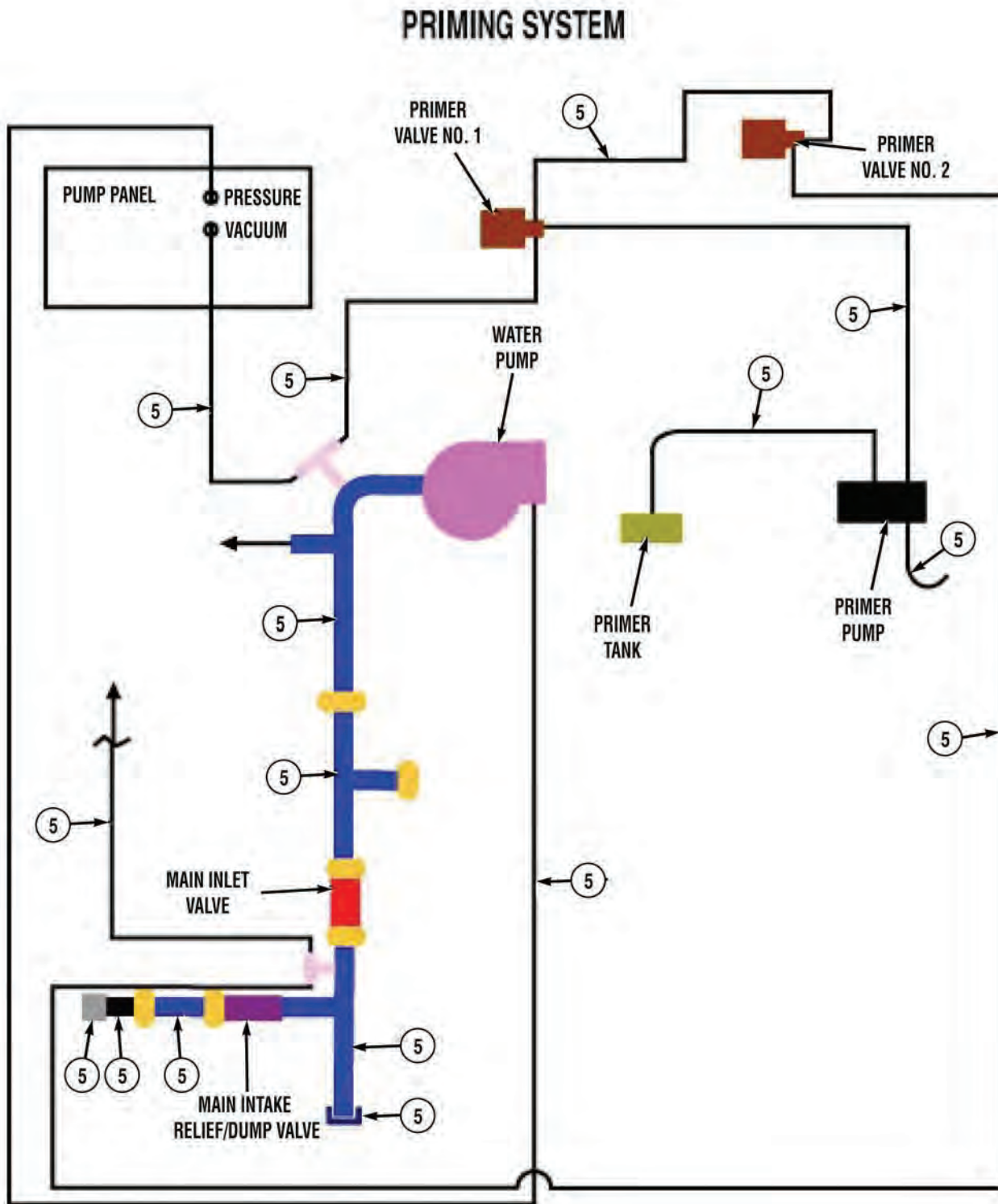
1. Pump House Panel A Open/Close (WP 0539)
2. Pump House Panels Replacement (WP 0540)
3. Piping Assembly (pipe thread sealing compound) (WP 0489)

**Table 7. Windshield Deluge System.**

<b>Item No.</b>	<b>Description</b>
1	Hose
2	Hose
3	Hose
4	Tubing (Drain)
5	Hose
6	Hose
7	Tubing (Drain)

**END OF TASK**

PRIMING SYSTEM



**NOTE**

The following Steps may be necessary to access and replace priming system:

1. Pump House Panel A Open/Close (WP 0539)
2. Pump House Panels Replacement (WP 0540)
3. Pump Operator's Panel Housing Open/Close (WP 0325)
4. Piping Assembly (pipe thread sealing compound) (WP 0489)

**Table 8. Priming System.**

Item No.	Description
1	Main Inlet Weldment
2	Tubing
3	Tubing
4	Hose
5	Tubing
6	Hose
7	Tubing
8	Tubing
9	Main Inlet Tee Weldment
10	Main Inlet Weldment
11	Cap/Adapter
12	After Main Intake Relief/Dump Valve Weldment
13	Drain Hose
14	Hose Adapter
15	Hose
16	Hose

**END OF TASK**

**END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## PRESSURE REDUCING VALVE DRIVER PRE-CONNECT "A" REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0483  
WP 0615, Fig. 113

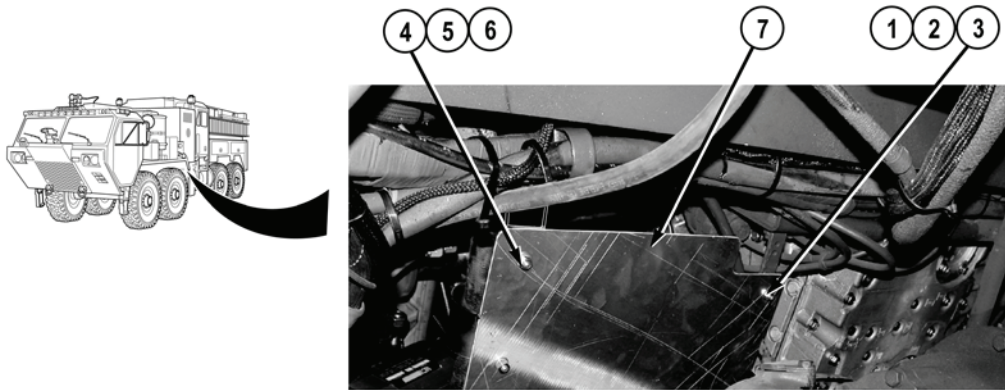
**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)  
Locknut (1)  
Lockwasher (2)

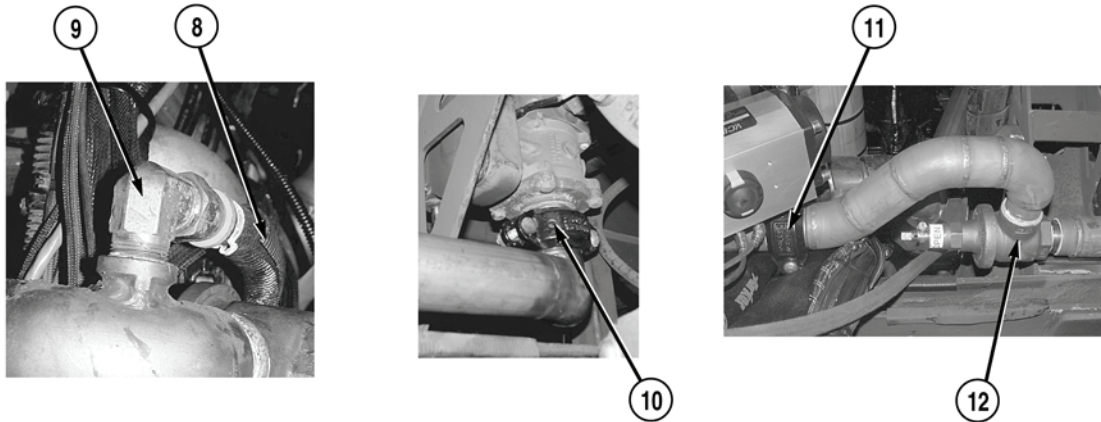
**Equipment Conditions**

Water system drained (WP 0041)  
Driver side splash guard removed  
(TM 9-2320-325-14&P)  
Propeller shaft removed (TM 9-2320-325-14&P)

## REMOVAL



1. Remove locknut (1) and washer (2) from stud (3). Discard locknut.
2. Remove two screws (4), lockwashers (5), washers (6), and shield (7) from vehicle. Discard lockwashers.

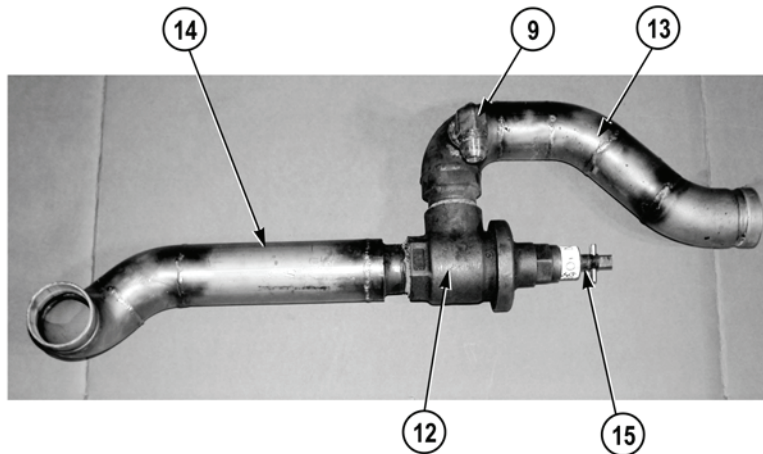


3. Remove hose (8) from elbow (9).

### NOTE

Reducing valve and piping are replaced as an assembly.

4. Remove two couplings (10) and (11) and pressure reducing valve (12) from vehicle (WP 0483).



### NOTE

Note position of elbows, pipes, and valve prior to removal to ensure proper installation.

5. Remove elbow (9) from pipe (13).
6. Remove two pipes (13) and (14) from pressure reducing valve (12).
7. Remove hose clamp (15) from pressure reducing valve (12).

**END OF TASK**



---

**INSTALLATION**** CAUTION**

**Pressure reducing valve must be open all the way before installing hose clamp. Failure to comply will not allow correct flow of water.**

**NOTE**

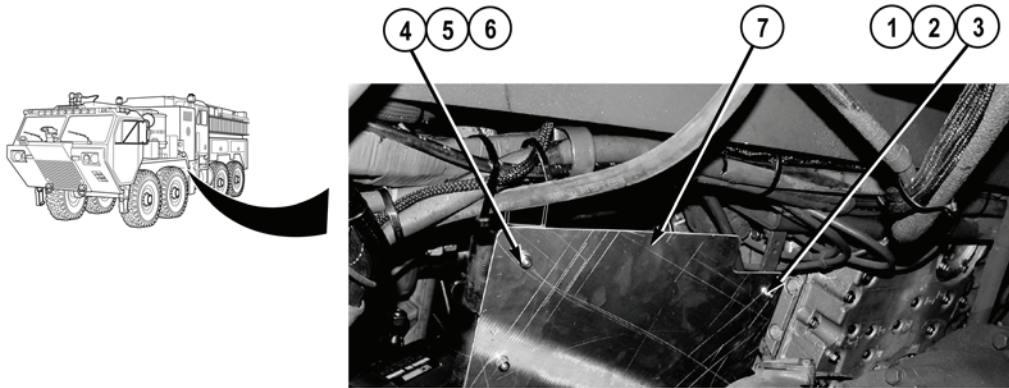
Install valve, pipes, and elbows as noted prior to removal.

1. Install hose clamp (15) on pressure reducing valve (12).
2. Install two pipes (14) and (13) on pressure reducing valve (12) (WP 0489).

**WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

3. Apply sealing compound to threads of elbow (9).
4. Install elbow (9) on pipe (13).
5. Install pressure reducing valve (12) and two couplings (11) and (10) on vehicle (WP 0483).
6. Install hose (8) on elbow (9).



7. Install shield (7) on vehicle with two washers (6), lockwashers (5), and screws (4).
8. Install washer (2) and locknut (1) on stud (3).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install propeller shaft (TM 9-2320-325-14&P)
2. Install driver side splash guard (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PRESSURE REDUCING VALVE DRIVER PRE-CONNECT "B" REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)  
Locknut (1)  
Lockwasher (2)

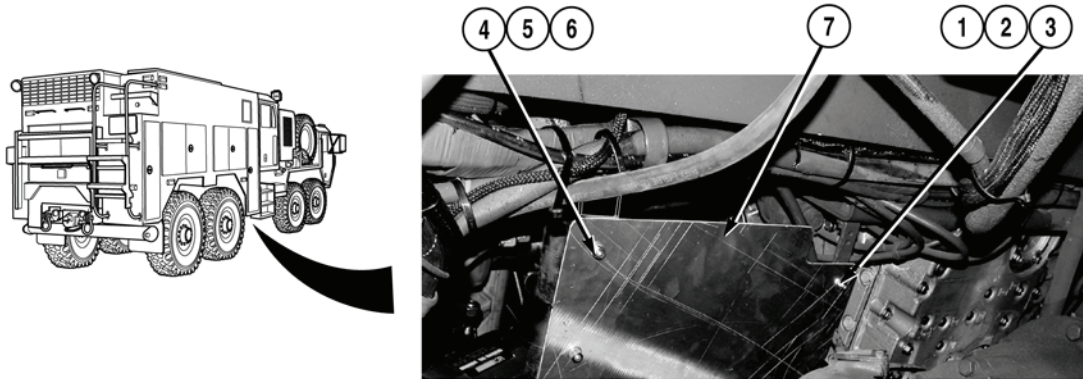
**References**

WP 0483  
WP 0489  
WP 0615, Fig. 113

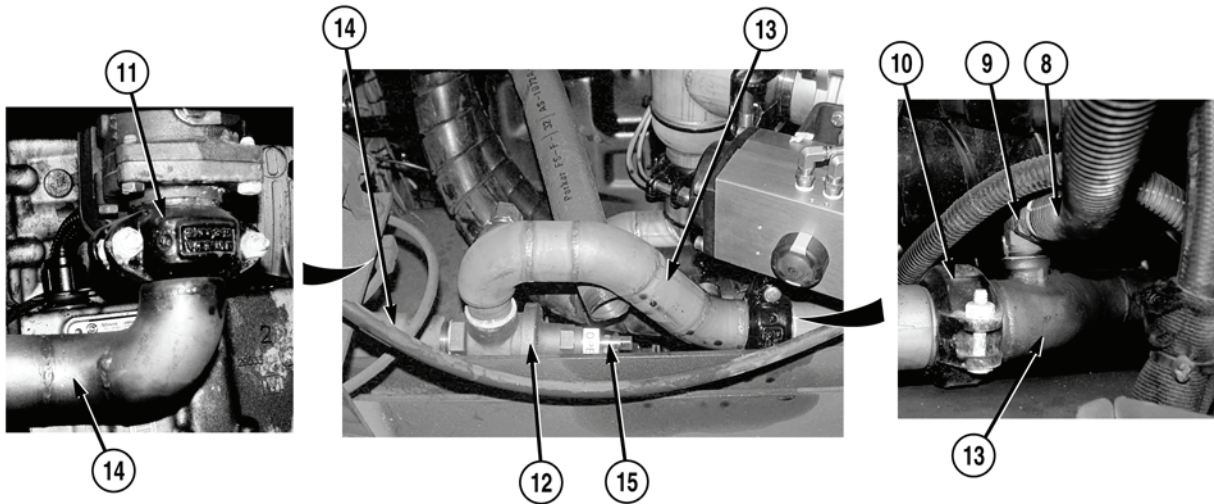
**Equipment Conditions**

Passenger side splash guard removed  
(TM 9-2320-325-14&P)  
Water system drained (WP 0041)  
Pump house panels K and M removed (WP 0540)  
Propeller shaft (transfer to axle)  
removed ((TM 9-2320-325-14&P)

## REMOVAL



1. Remove locknut (1) and washer (2) from stud (3). Discard locknut.
2. Remove two screws (4), lockwashers (5), washers (6), and shield (7) from vehicle. Discard lockwashers.



- Remove hose (8) from elbow (9).

### NOTE

Pressure reducing valve and piping are replaced as an assembly.

- Remove two couplings (10) and (11) and pressure reducing valve (12) from vehicle (WP 0483).

### NOTE

Note position of elbows, pipes, and valve prior to removal to ensure proper installation.

- Remove elbow (9) from pipe (13).
- Remove pipe (14) from pressure reducing valve (12).
- Remove pipe (13) from pressure reducing valve (12).
- Remove hose clamp (15) from pressure reducing valve (12).

### END OF TASK

### INSTALLATION

### CAUTION

**Pressure reducing valve must be open all the way before installing hose clamp. Failure to comply will not allow correct flow of water.**

### NOTE

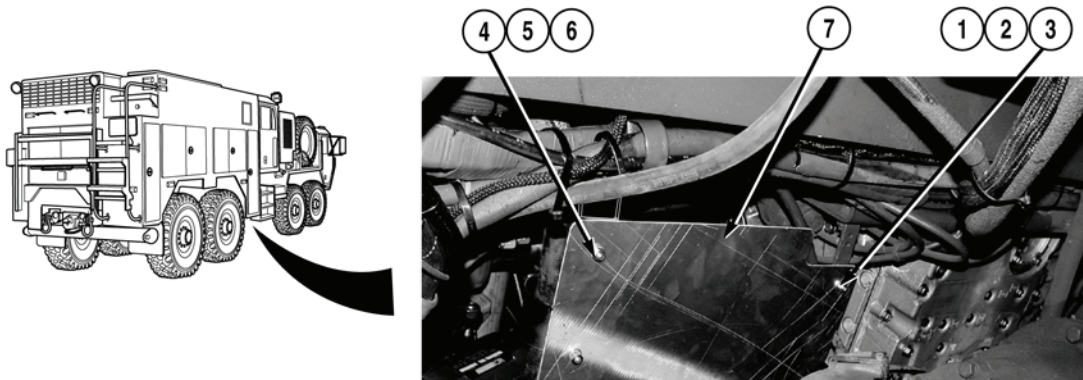
Install valve, pipes, and elbows as noted prior to removal.

- Install hose clamp (15) on pressure reducing valve (12).
- Install pipe (13) on pressure reducing valve (12) (WP 0489).
- Install pipe (14) on pressure reducing valve (12) (WP 0489).

**WARNING**

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

4. Apply sealing compound to threads of elbow (9).
5. Install elbow (9) on pipe (13).
6. Install pressure reducing valve (12) and two couplings (11) and (10) on vehicle (WP 0483).
7. Install hose (8) on elbow (9).



8. Install shield (7) on vehicle with two washers (6), lockwashers (5), and screws (4).
9. Install washer (2) and locknut (1) on stud (3).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install propeller shaft (transfer to axle) (TM 9-2320-325-14&P)
2. Install pump house panels K and M (WP 0540)
3. Install right side splash guard (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## TANK-TO-PUMP INTAKE VALVE (DRIVER SIDE) REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Locknut (1)  
Lockwasher (2)

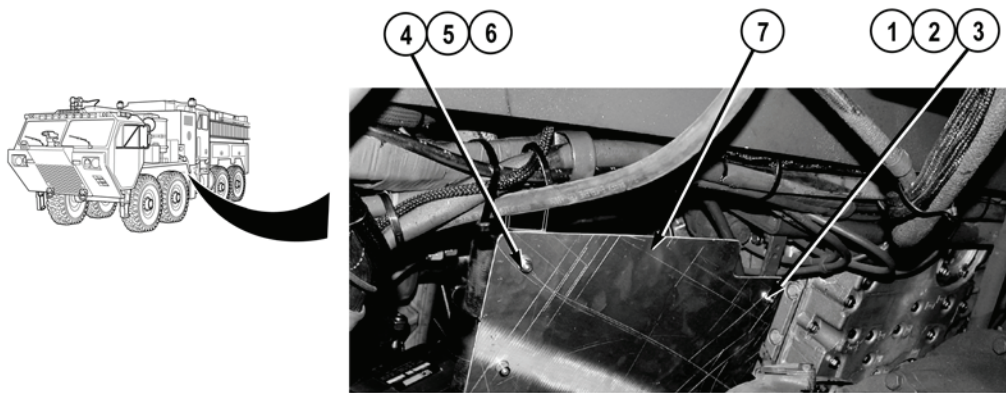
**References**

WP 0483  
WP 0615, Fig. 114

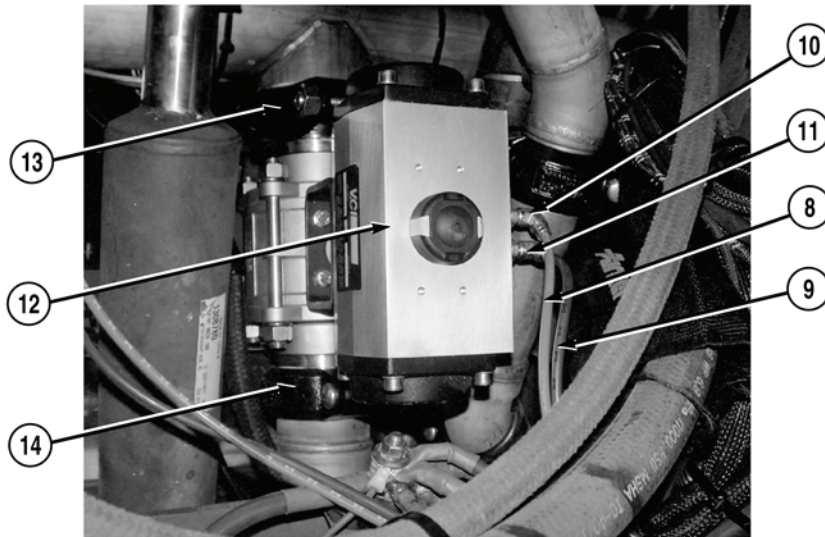
**Equipment Conditions**

Water system drained (WP 0041)  
Propeller shaft removed (TM 9-2320-325-14&P)  
Crew cab assembly removed (WP 0500)  
Pump house pane R removed (WP 0540)  
Plumbing insulation removed (WP 0607)

## REMOVAL



1. Remove locknut (1) and washer (2) from stud (3). Discard locknut.
2. Remove two screws (4), lockwashers (5), washers (6), and shield (7) from vehicle. Discard lockwashers.



**⚠ CAUTION**

**Air lines may be removed directly from elbow and fittings, or may remain attached to elbows and fittings and removed as an assembly. If air lines are removed from elbows and fittings, care must be taken not to damage air line. If sealing surface of air line is damaged air line must be repaired or replaced.**

**NOTE**

- Tag and mark air lines prior to removal to ensure proper installation.
  - Valve shown has air lines remaining attached to elbows.
3. Remove two air lines (8) and (9) and elbows (10) and (11) from tank-to-pump intake valve (driver side) (12).
  4. Remove two couplings (13) and (14) and tank-to-pump intake valve (driver side) (12) from vehicle (WP 0483).

**END OF TASK**

**INSTALLATION**

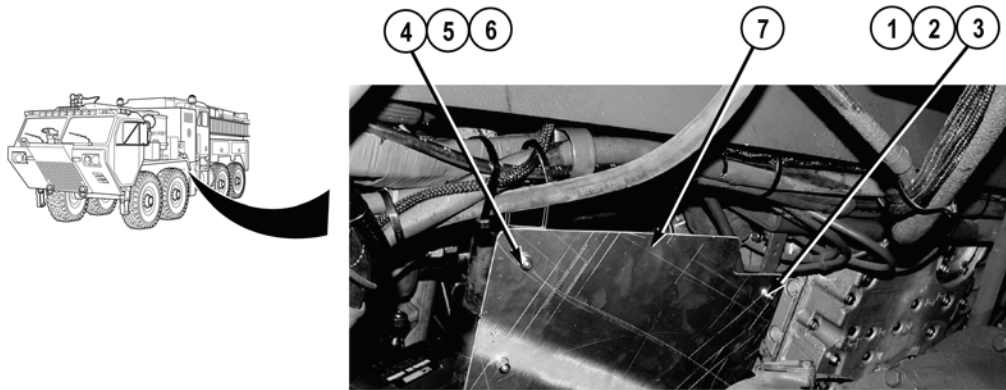
1. Install two couplings (13) and (14) and tank-to-pump intake valve (driver side) (12) on vehicle (WP 0483).



**WARNING**

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

2. Apply sealing compound to threads of two elbows (10) and (11).
3. Install two air lines (8) and (9) and elbows (10) and (11) on tank-to-pump intake valve (driver side) (12).



4. Install shield (7) on vehicle with washer (6), lockwasher (5), and two screws (4).
5. Install washer (2) and locknut (1) on stud (3).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install pump house panel R (WP 0540)
2. Install crew cab assembly (WP 0500)
3. Install plumbing insulation (WP 0607)
4. Install propeller shaft (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## TANK-TO-PUMP INTAKE VALVE (PASSENGER SIDE) REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)  
Locknut (1)  
Lockwasher (2)

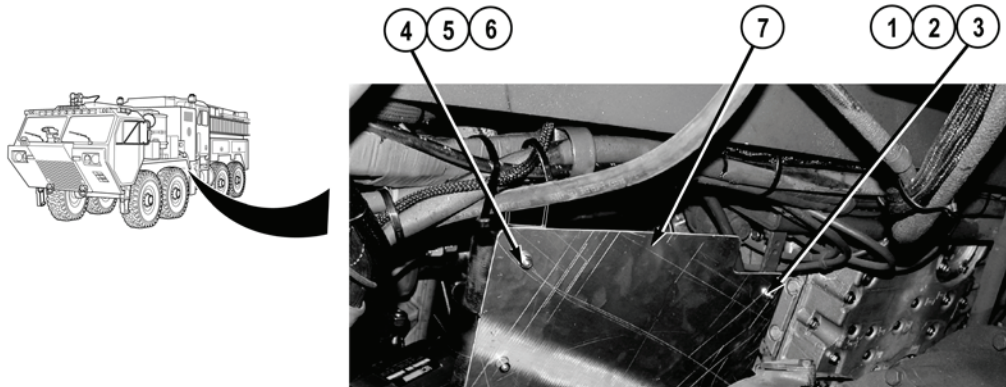
**References**

WP 0483  
WP 0615, Fig. 114

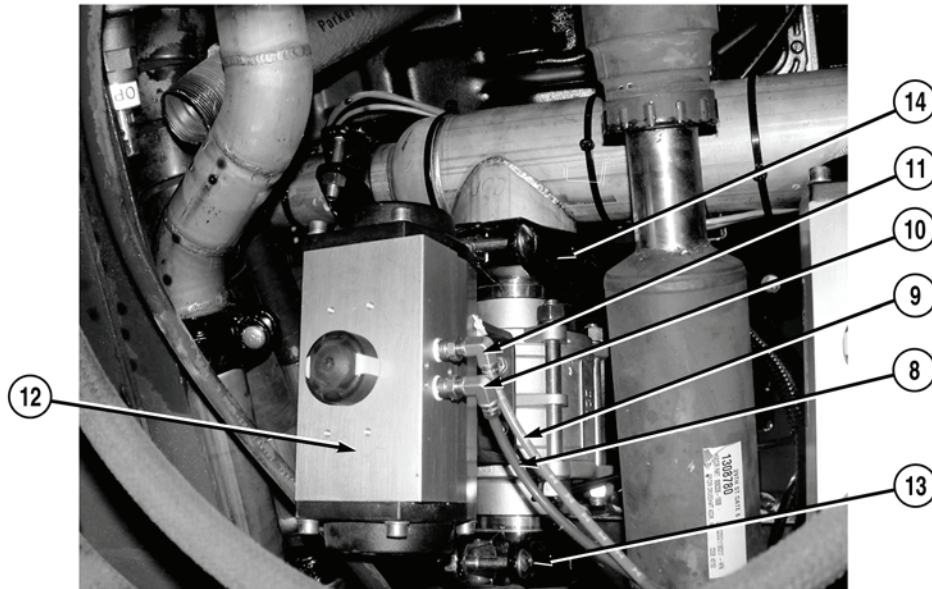
**Equipment Conditions**

Water system drained (WP 0041)  
Propeller shift removed (TM 9-2320-325-14&P)  
Crew cab assembly removed (WP 0500)  
Pump house panel P removed (WP 0540)  
Plumbing insulation removed (WP 0607)

## REMOVAL



1. Remove locknut (1) and washer (2) from stud (3). Discard locknut.
2. Remove two screws (4), lockwashers (5), washers (6), and shield (7) from vehicle. Discard lockwashers.



**⚠ CAUTION**

Air lines may be removed directly from elbows and fittings, or may remain attached to elbows and fittings and removed as an assembly. If air lines are removed from elbows and fittings, care must be taken not to damage air line. If sealing surface of air line is damaged, air line must be repaired or replaced.

**NOTE**

- Tag and mark air lines prior to removal to ensure proper installation.
  - Valve shown has air lines attached to elbows.
3. Remove two air lines (8) and (9) and elbows (10) and (11) from tank-to-pump intake valve (passenger side) (12).
  4. Remove two couplings (13) and (14) and tank-to-pump intake valve (passenger side) (12) from vehicle (WP 0483).

**END OF TASK**

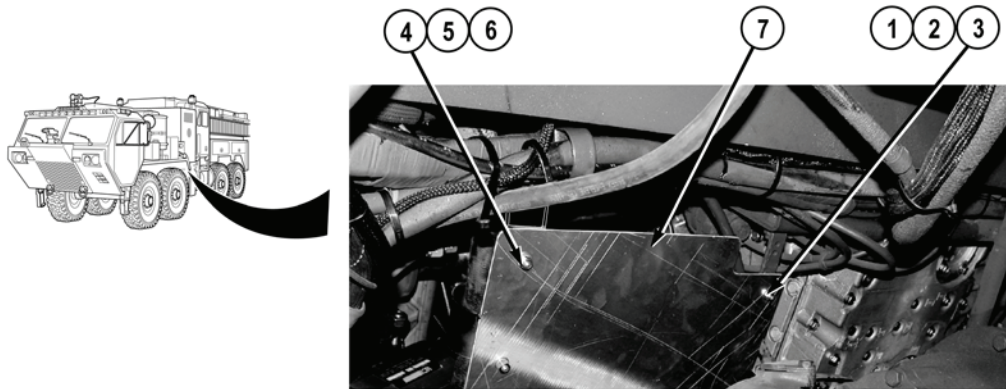
**INSTALLATION**

1. Install two couplings (14) and (13) and tank-to-pump intake valve (passenger side) (12) on vehicle (WP 0483).

**WARNING**

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

2. Apply sealing compound to threads of two elbows (10) and (11).
3. Install two air lines (9) and (8) and elbows (11) and (10) on tank-to-pump intake valve (passenger side) (12).



4. Install shield (7) on vehicle with two washers (6), lockwashers (5), and screws (4).
5. Install washer (2) and locknut (1) on stud (3).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install plumbing insulation (WP 0607)
2. Install propeller shaft (TM 9-2320-325-14&P)
3. Install pump house panel P (WP 0540)
4. Install crew cab assembly (WP 0500)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**VALVE DRIVER PRE-CONNECT "A" REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Locknut (2)  
Lockwasher (2)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

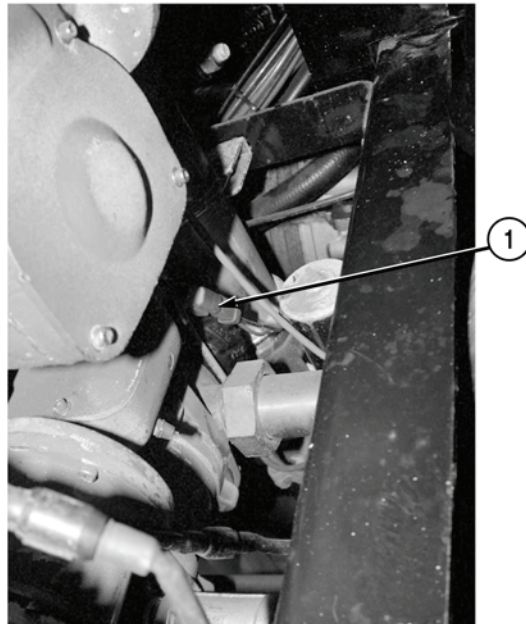
**References**

WP 0388  
WP 0483  
WP 0615, Fig. 113

**Equipment Conditions**

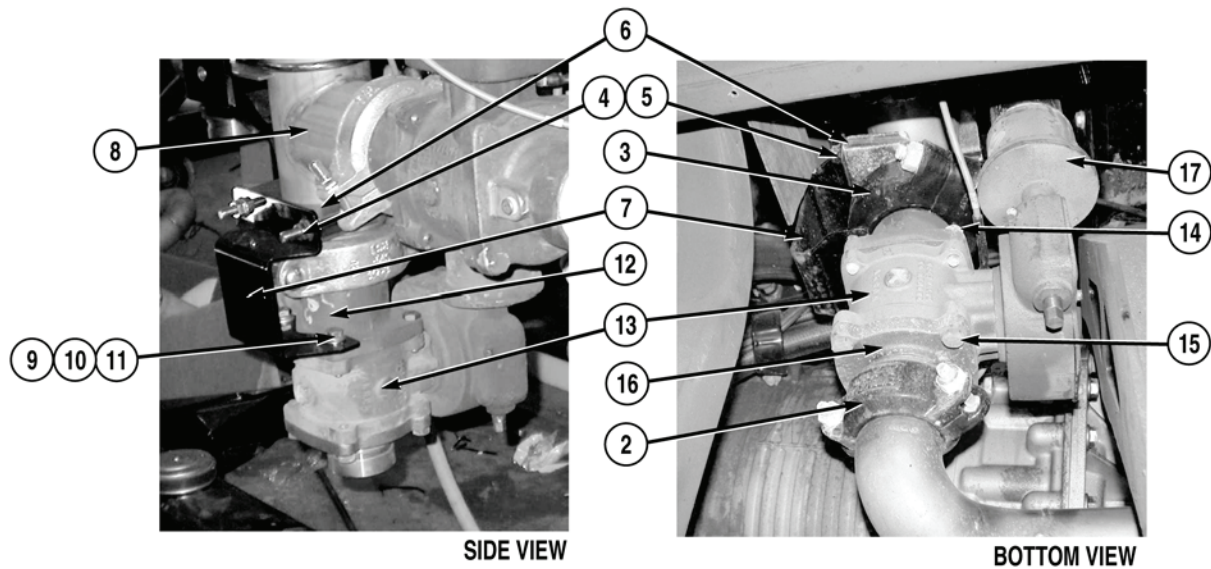
Left splash guard removed  
(TM 9-2320-325-14&P)  
Pump house panel I removed (WP 0540)  
Flow sensor removed (WP 0390)  
Pump house panel A removed (WP 0539)

---

**REMOVAL****NOTE**

Valve shown removed with electric motor and drive assembly attached.

1. Disconnect connector (1).



2. Remove two couplings (2) and (3) from vehicle (WP 0483).

#### NOTE

Valve remains attached to bottom of bracket when removing valve and bracket from vehicle.

3. With the aid of an assistant, remove two locknuts (4), U-bolt (5), cradle (6), and bracket (7) from pipe (8) and vehicle. Discard locknuts.
4. Remove two screws (9), lockwashers (10), washers (11), and bracket (7) from adapter (12) and valve (13). Discard lockwashers.
5. Remove two screws (14) and adapter (12) from valve (13).
6. Remove four screws (15) and adapter (16) from valve (13).
7. Remove electric motor and drive assembly (17) from valve (13) (WP 0388).

**END OF TASK**



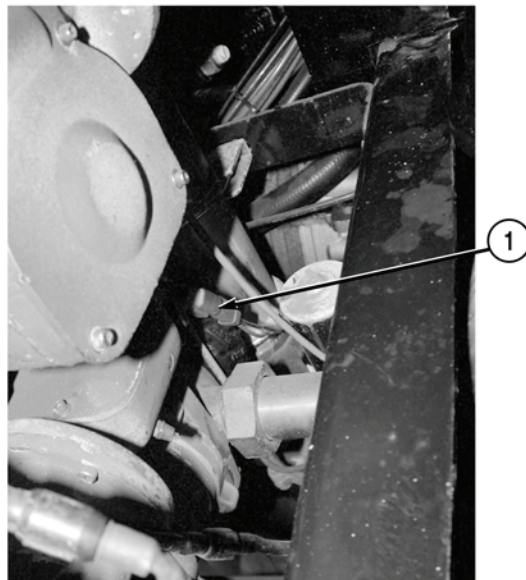
**INSTALLATION**

1. Install electric motor and drive assembly (17) on valve (13) (WP 0388).
2. Install adapter (16) on valve (13) with four screws (15).
3. Install adapter (12) on valve (13) with two screws (14). Do not tighten screws.
4. Install bracket (7) on adapter (12) and valve (13) with two washers (11), lockwashers (10), and screws (9).
5. Tighten two screws (14).
6. With the aid of an assistant, install bracket (7) on pipe (8) with U-bolt (5), cradle (6), and two locknuts (4).

**NOTE**

Install lower coupling first.

7. Install two couplings (3) and (2) on vehicle (WP 0483).



8. Connect connector (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Close pump house panel A (WP 0539)
2. Install left splash guard (TM 9-2320-325-14&P)
3. Install pump house panel I (WP 0540)
4. Install flow sensor (WP 0390)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## VALVE DRIVER PRE-CONNECT "B" REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Locknut (2)  
Lockwasher (2)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

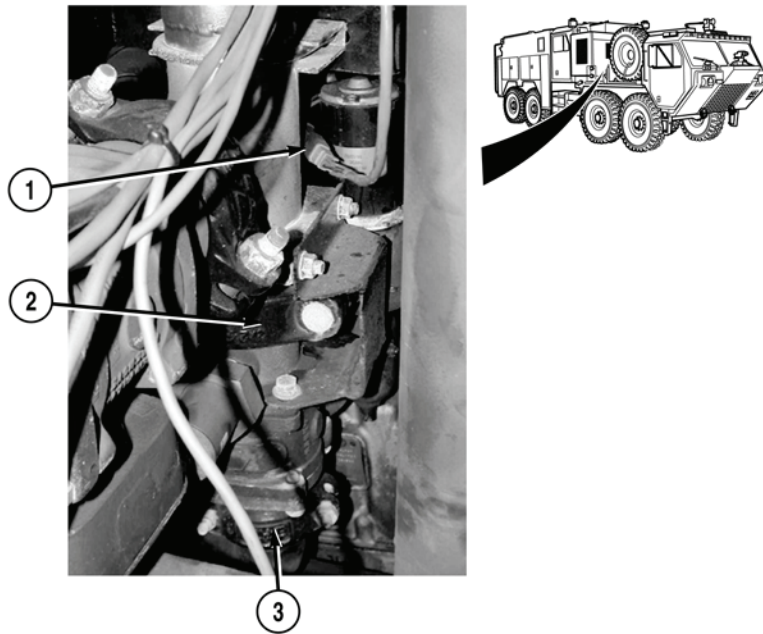
**References**

WP 0388  
WP 0483  
WP 0615, Fig. 113

**Equipment Conditions**

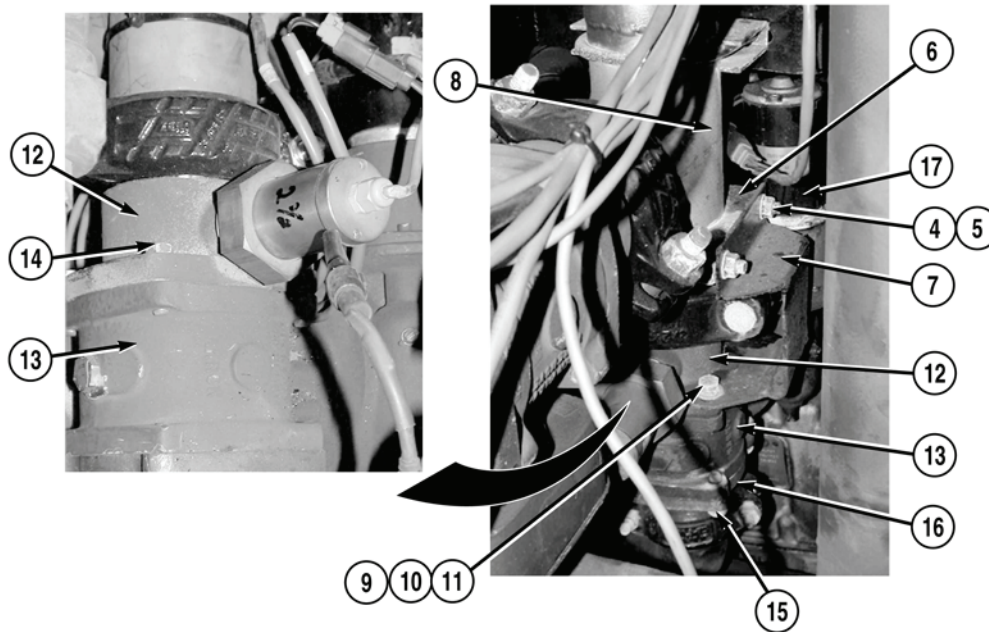
Right splash guard removed  
(TM 9-2320-325-14&P)  
Pump house panel G removed (WP 0540)  
Flow sensor removed (WP 0390)

## REMOVAL

**NOTE**

Valve shown removed with electric motor and drive assembly attached.

1. Disconnect connector (1).
2. Remove two couplings (2) and (3) from vehicle (WP 0483).



### NOTE

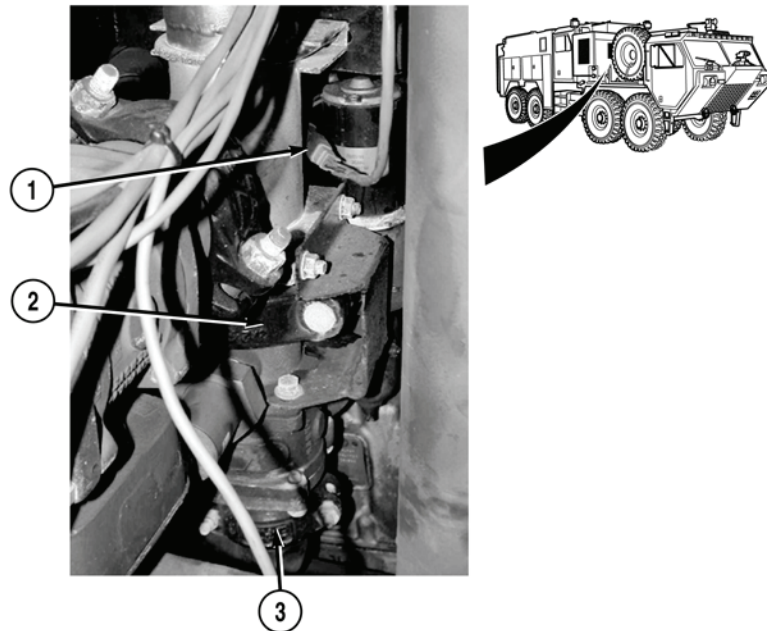
Valve remains attached to bottom of bracket when removing valve and bracket from vehicle, and is removed as an assembly.

3. With the aid of an assistant, remove two locknuts (4), U-bolt (5), cradle (6), and bracket (7) from pipe (8) and vehicle. Discard locknuts.
4. Remove two screws (9), lockwashers (10), washers (11), and bracket (7) from adapter (12) and valve (13). Discard lockwashers.
5. Remove two screws (14) and adapter (12) from valve (13).
6. Remove four screws (15) and adapter (16) from valve (13).
7. Remove electric motor and drive assembly (17) from valve (13) (WP 0388).

### END OF TASK

### INSTALLATION

1. Install electric motor and drive assembly (17) on valve (13) (WP 0388).
2. Install adapter (16) on valve (13) with four screws (15).
3. Install adapter (12) on valve (13) with two screws (14). Do not tighten screws.
4. Install bracket (7) on adapter (12) and valve (13) with two washers (11), lockwashers (10), and screws (9).
5. Tighten two screws (14).
6. With the aid of an assistant, install bracket (7) on pipe (8) with U-bolt (5), cradle (6), and two locknuts (4).



7. Install two couplings (3) and (2) on vehicle (WP 0483).
8. Connect connector (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Install right splash guard (TM 9-2320-325-14&P)
2. Install pump house panel G (WP 0540)
3. Install flow sensor (WP 0390)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**AIR LIFT BAG STORAGE BOX REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Lockwasher (6)  
Locknut (4)  
Lockwasher (1)  
Locknut (6)  
Lockwasher (6)  
Locknut (2)  
Nylon washer (2)  
Lockwasher (2)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

**References**

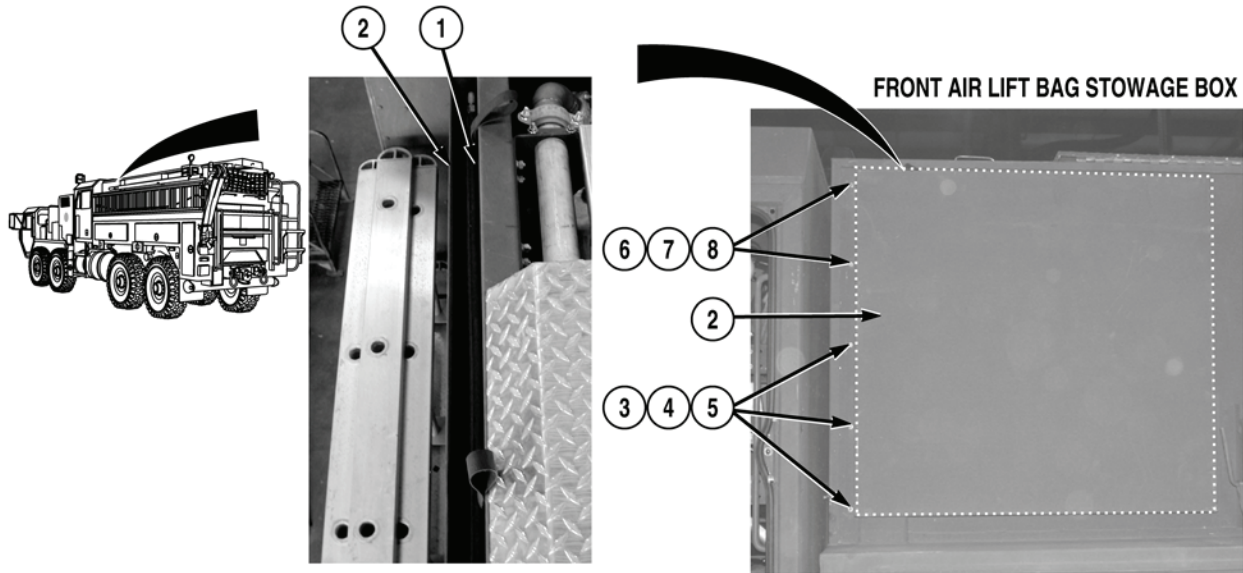
WP 0615, Fig. 116

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)  
Ladder rack unstowed (WP 0011)  
Hose bed cover opened (WP 0015)

---

## FRONT AIR LIFT BAG STOWAGE BOX REMOVAL



1. Remove air lift bag (1) from front air lift bag stowage box (2).
2. Remove six screws (3), lockwashers (4), and washers (5) from front air lift bag stowage box (2). Discard lockwashers.

### NOTE

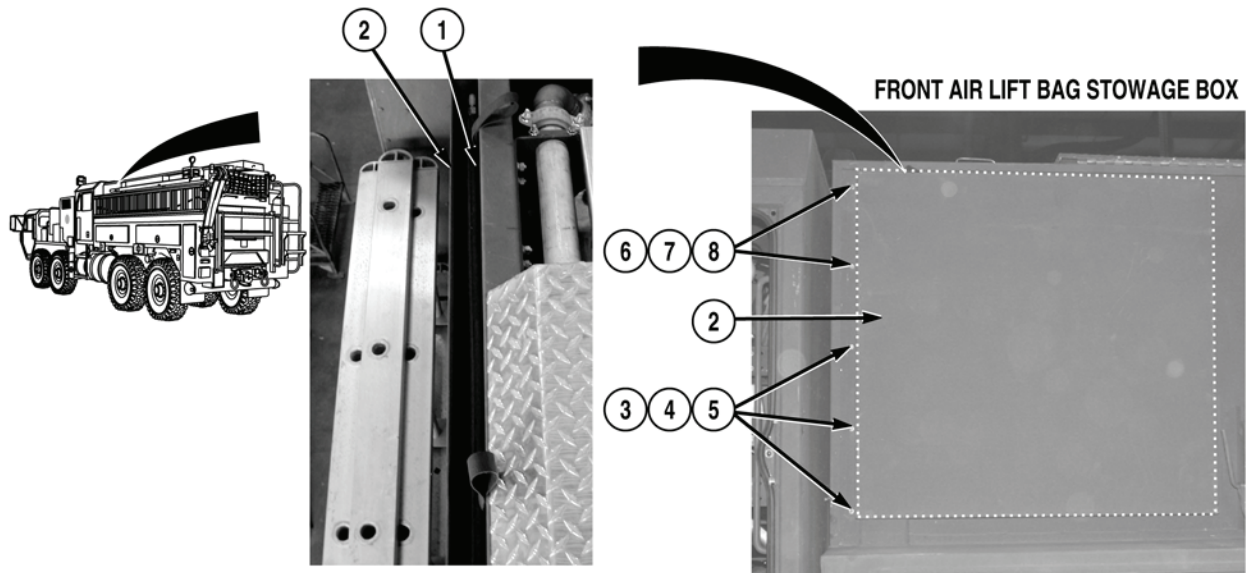
Note position of washers prior to removal to ensure proper installation.

3. Remove four locknuts (6), washers (7), screws (8), and front air lift bag stowage box (2) from vehicle. Discard locknuts.

**END OF TASK**



## FRONT AIR LIFT BAG STOWAGE BOX INSTALLATION

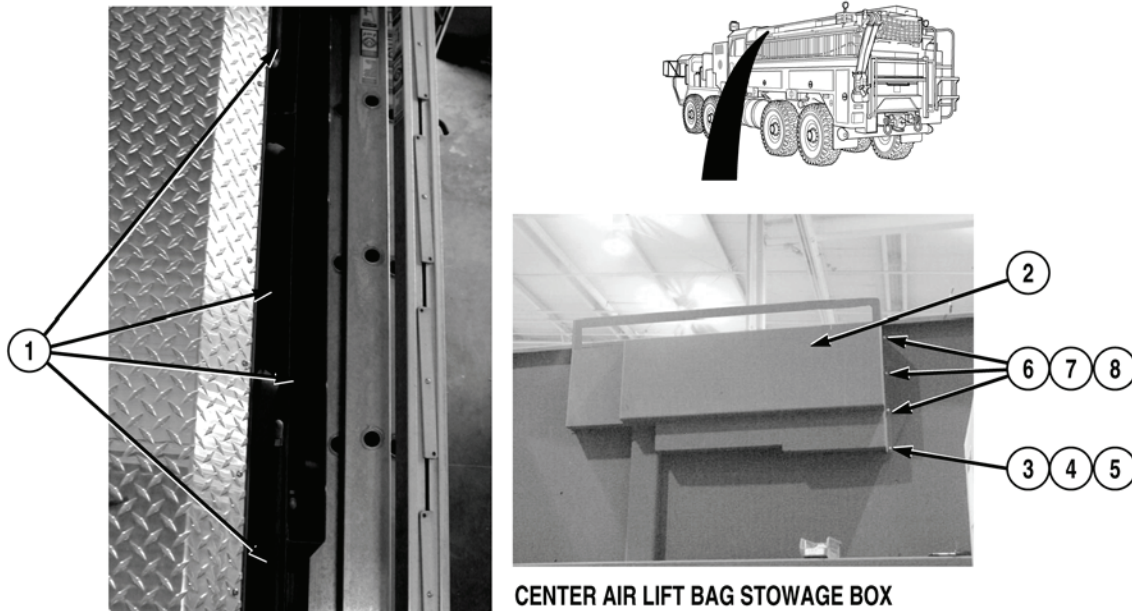


### NOTE

Install washers as noted prior to removal.

1. Install front air lift bag stowage box (2) on vehicle with four screws (8), washers (7), and locknuts (6).
2. Install six washers (5), lockwashers (4), and screws (3) on front air lift bag stowage box (2).
3. Install air lift bag (1) in front air lift bag stowage box (2).

**END OF TASK**

**CENTER AIR LIFT BAG STOWAGE BOX REMOVAL****CENTER AIR LIFT BAG STOWAGE BOX**

1. Remove four air lift bags (1) from center air lift bag stowage box (2).
2. Remove screw (3), lockwasher (4), and washer (5) from center air lift bag stowage box (2). Discard lockwasher.

**NOTE**

Note position of washers prior to removal to ensure proper installation.

3. Remove six locknuts (6), washers (7), screws (8), and center air lift bag stowage box (2) from vehicle. Discard locknuts.

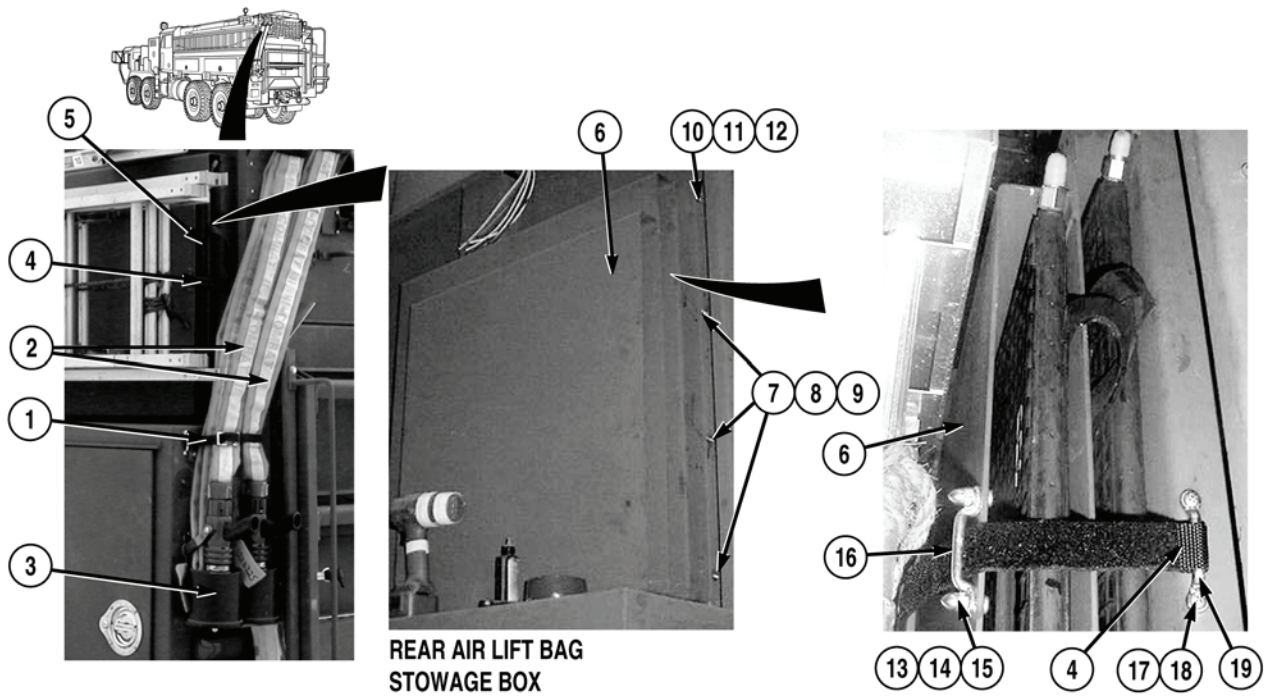
**END OF TASK****CENTER AIR LIFT BAG STOWAGE BOX INSTALLATION****NOTE**

Install washers as noted prior to removal.

1. Install center air lift bag stowage box (2) on vehicle with six screws (8), washers (7), and locknuts (6).
2. Install washer (5), lockwasher (4), and screw (3) on center air lift bag stowage box (2).
3. Install four air lift bags (1) in center air lift bag stowage box (2).

**END OF TASK**

## REAR AIR LIFT BAG STOWAGE BOX REMOVAL



1. Release buckle strap (1) from two pre-connect hoses (2).
2. Remove two pre-connect hoses (2) from stowage cups (3).
3. Release strap (4) and remove two air lift bags (5) from rear air lift bag stowage box (6).
4. Remove six screws (7), lockwashers (8), and washers (9) from rear air lift bag stowage box (6). Discard lockwashers.

### NOTE

Note position of washers prior to removal to ensure proper installation.

5. Remove two locknuts (10), washers (11), screws (12), and rear air lift bag stowage box (6) from vehicle. Discard locknuts.
6. Remove two nuts (13), nylon washers (14), screws (15), and footman loop (16) from rear air lift bag stowage box (6). Discard nylon washers.
7. Remove two screws (17), lockwashers (18), and footman loop (19) from rear air lift bag stowage box (6). Discard lockwashers.
8. Remove strap (4) from footman loop (19).

### END OF TASK

---

**REAR AIR LIFT BAG STOWAGE BOX INSTALLATION**

1. Install strap (4) on footman loop (19).
2. Install footman loop (19) on rear air lift bag stowage box (6) with two lockwashers (18) and screws (17).
3. Install footman loop (16) on rear air lift bag stowage box (6) with two screws (15), nylon washers (14), and nuts (13).

**NOTE**

Install washers as noted prior to removal.

4. Install rear air lift bag stowage box (6) on vehicle with two screws (12), washers (11), and locknuts (10).
5. Install six washers (9), lockwashers (8), and screws (7), on rear air lift bag stowage box (6).
6. Install two air lift bags (5) in rear air lift bag stowage box (6) and secure with strap (4).
7. Install two pre-connect hoses (2) in stowage cups (3).
8. Secure two pre-connect hoses (2) with buckle strap (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Close hose bed cover (WP 0015)
2. Stow ladder rack (WP 0011)
3. Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**AIR VENT GUARD REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 159

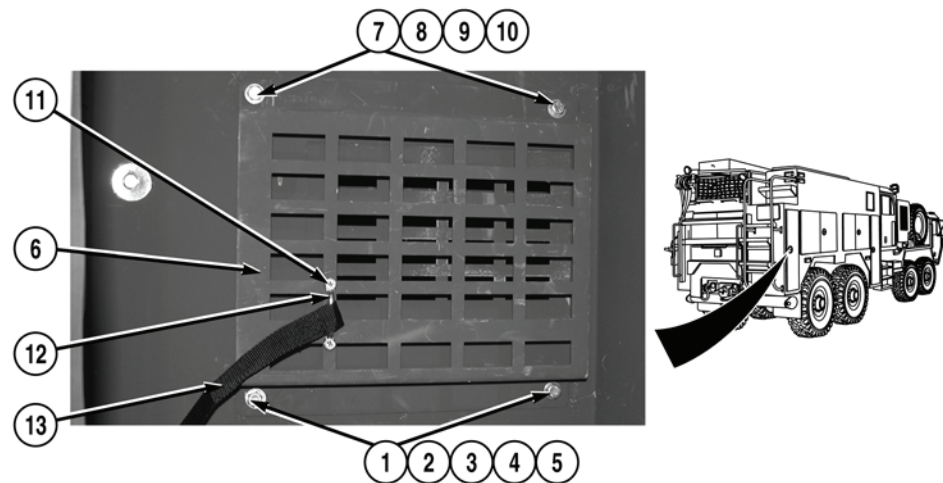
**Materials/Parts**

Adhesive, Sealant, Silicone RTV  
(WP 0625, Item 5)  
Lockwasher (4)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)  
Rear compartment door opened (WP 0010)

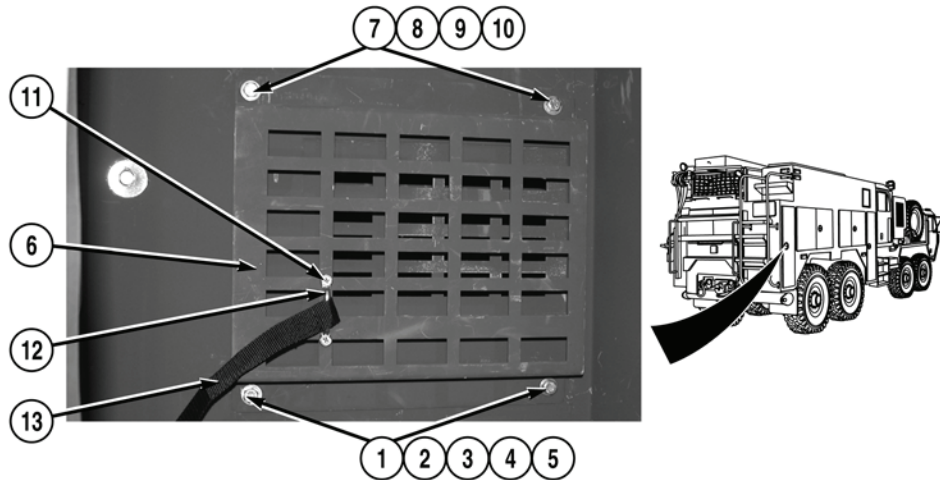
---

**REMOVAL**

1. Remove two nuts (1), lockwashers (2), four washers (3) and (4), and two screws (5) from air vent guard (6) and vehicle. Discard lockwashers.
2. Remove two nuts (7), lockwashers (8), four washers (9), two screws (10), and air vent guard (6) from vehicle. Discard lockwashers.
3. Remove two screws (11) and loop (12) from air vent guard (6).
4. Remove strap (13) from loop (12).

**END OF TASK**

## INSTALLATION



1. Install strap (13) on loop (12).
2. Install loop (12) on air vent guard (6) with two screws (11).
3. Install air vent guard (6) on vehicle with two screws (10), four washers (9), two lockwashers (8), and nuts (7).
4. Secure air vent guard (6) on vehicle with two screws (5), four washers (3) and (4), two lockwashers (2), and nuts (1).

### **WARNING**



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

5. Apply silicone sealant to two lockwashers (3) and four washers (4) and (5).

### END OF TASK

### FOLLOW-ON MAINTENANCE

1. Close rear compartment door (WP 0010)
2. Remove wheel chocks (TM 9-2320-347-10)

### END OF TASK

### END OF WORK PACKAGE

---

**FIELD LEVEL MAINTENANCE**  
**CREW CAB ACCESS PANELS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0603  
WP 0615, Fig. 121, 164

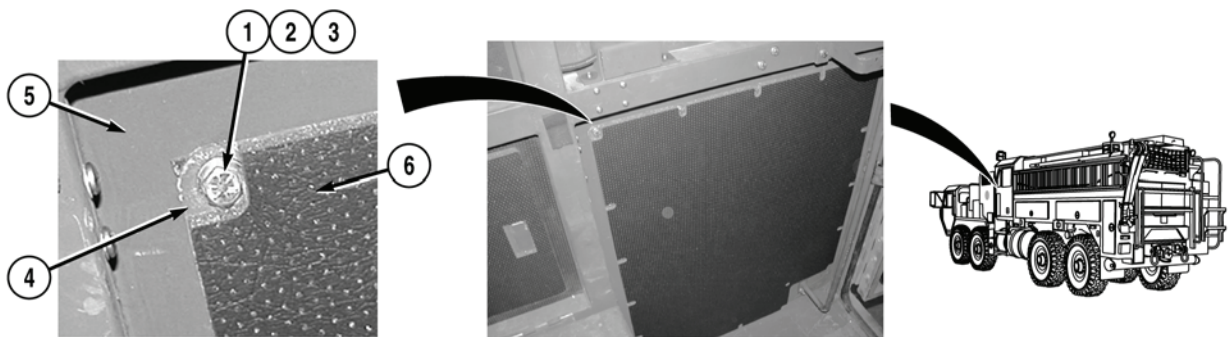
**Materials/Parts**

Lockwasher (18)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

**REMOVAL****NOTE**

Both crew cab access panels are removed the same way.

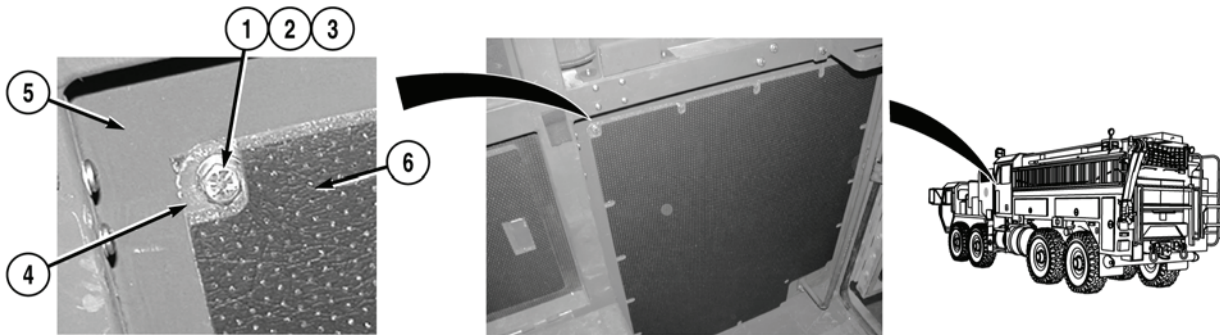
1. Remove 18 screws (1), lockwashers (2), washers (3), and crew cab access panel (4) from crew cab (5). Discard lockwashers.

**NOTE**

Perform Step (2) only if crew cab access panel insulation needs to be removed.

2. Remove crew cab access panel insulation (6) from crew cab access panel (4) (WP 0603).

**END OF TASK**

**INSTALLATION****NOTE**

- Both crew cab access panels are installed the same way.
- Perform Step (1) only if crew cab access panel insulation was removed.

1. Install crew cab access panel insulation (6) on access panel (4) (WP 0603).
2. Install crew cab access panel (4) on crew cab (5) with 18 washers (3), lockwashers (2), and screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**CREW CAB ASSEMBLY REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Crew Cab Lifting Fixture (WP 0622, Item 8)  
Standard Automotive Tool Set (SATS),  
(WP 0622, Item 25)  
Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Compound, Sealing (WP 0625, Item 17)  
Lockwasher (1)  
Preformed Packing (1)  
Preformed Packing (1)  
Lockwasher (1)  
Locknut (2)  
Locknut (2)

**Personnel Required**

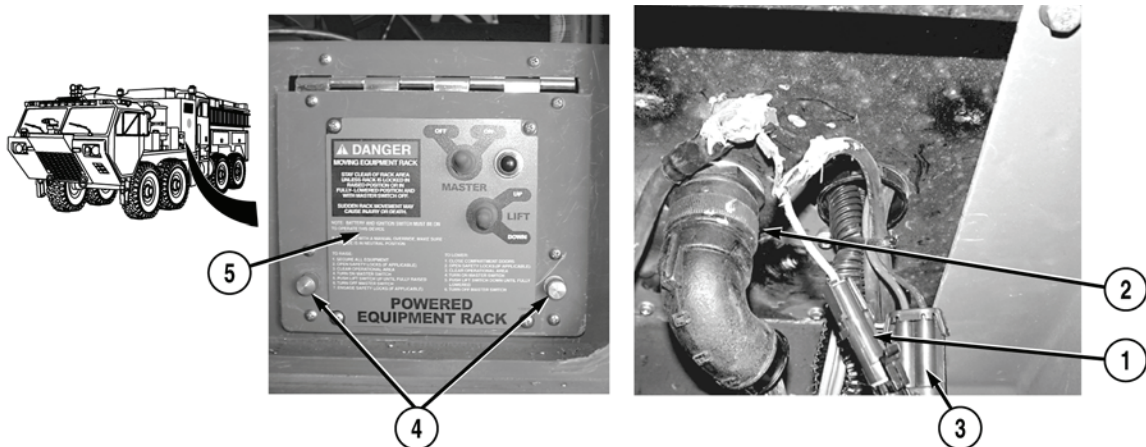
MOS 63B Wheeled vehicle mechanic (3)

**References**

WP 0614, Fig. 6  
WP 0615, Fig. 51, 164

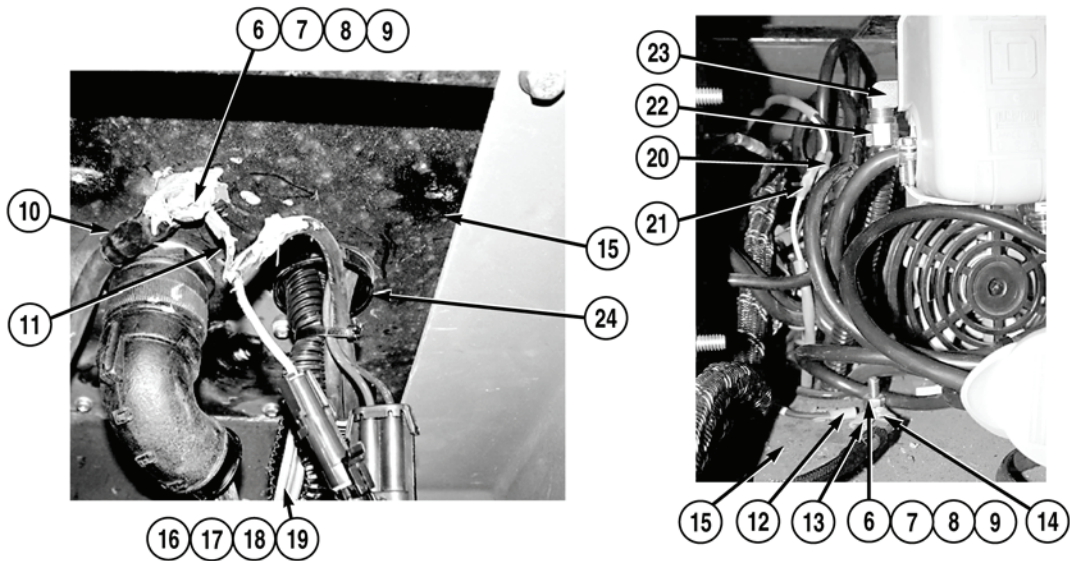
**Equipment Conditions**

On-board tool mounting brackets removed  
(WP 0528)  
Crew cab seat removed (WP 0512)  
Crew cab air conditioner coolant recovered  
(TB 9-2320-279-13)  
Batteries disconnected (TM 9-2320-325-14&P)  
Air system drained (TM 9-2320-347-10)  
Right side splash guard removed  
(TM 9-2320-325-14&P)  
Left side engine cover open and engine side  
panel removed (TM 9-2320-325-14&P)  
Driver side crew cab ladder removed (WP 0514)  
Door switch removed (WP 0385)  
Crew cab roof hatch opened (WP 0510)

**REMOVAL****NOTE**

- Tag and mark connectors, wires, and hoses prior to removal to ensure proper installation.
- Remove cable ties as required.

1. Disconnect three connectors (1), (2), and (3).
2. Loosen two screws (4), and open compartment door (5).

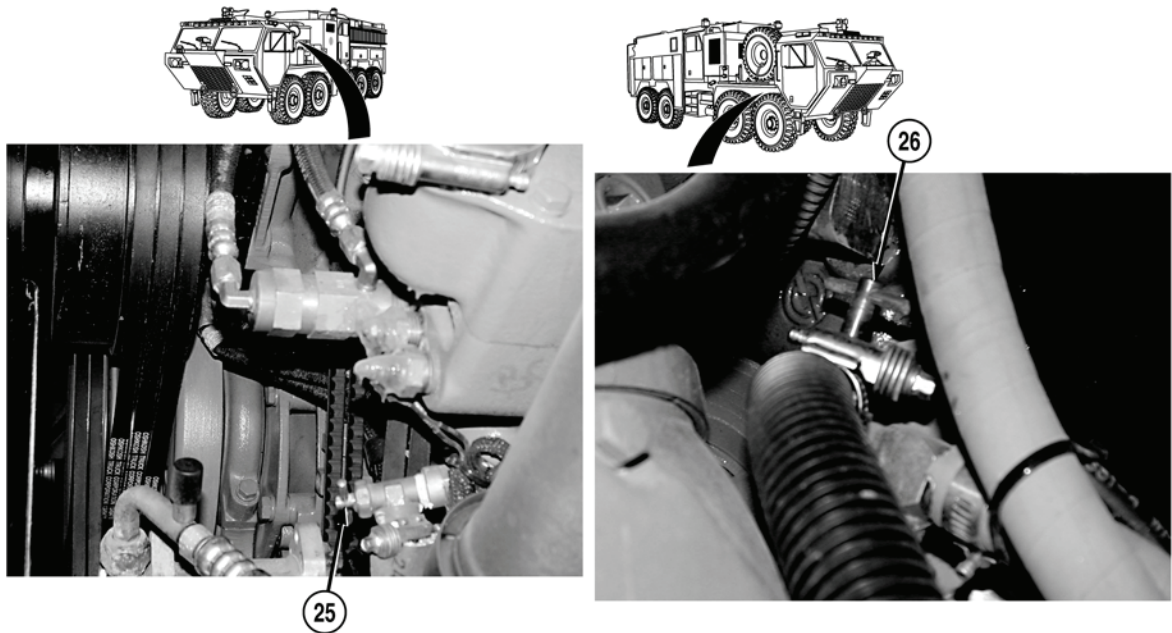


3. Remove nut (6), lockwasher (7), two washers (8), screw (9), and five wires (10), (11), (12), (13), and (14) from crew cab (15). Discard lockwasher.

**NOTE**

Open protective loom as required to access four intercom wires.

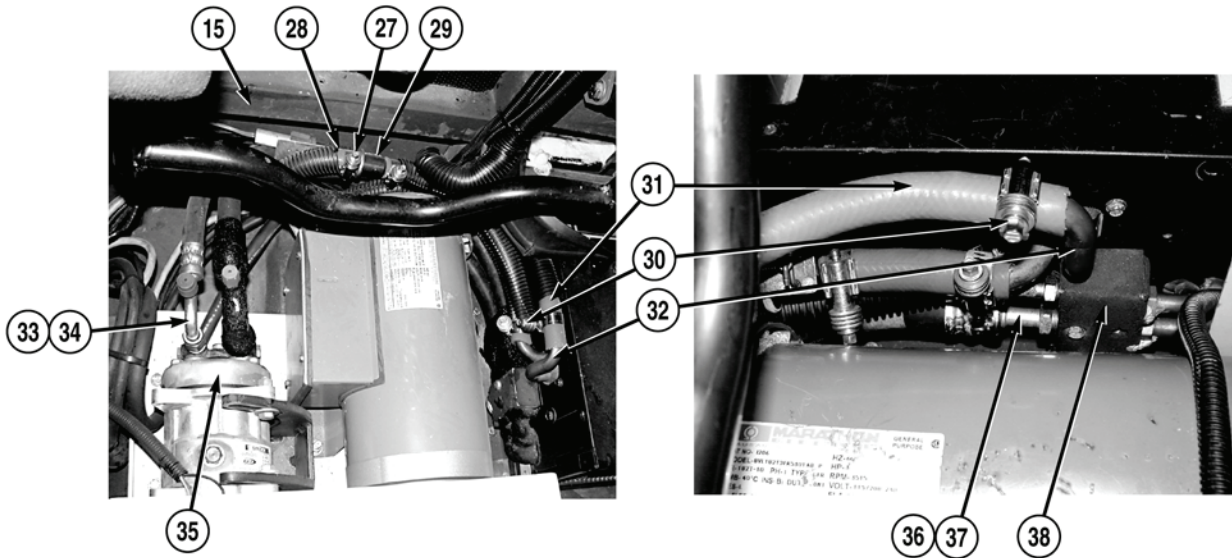
4. Cut four wires (16), (17), (18), and (19) (TM 9-2320-325-14&P).
5. Cut two beacon light wires (20) and (21) (TM 9-2320-325-14&P).
6. Remove air line (22) from elbow (23) and remove air line (22) from crew cab floor access port (24).



** CAUTION**

Valves allowing flow of vehicle engine coolant to crew cab must be closed before removing heater hose lines from crew cab heater. Failure to close valves will cause loss of a significant amount of engine coolant.

7. Close two valves (25) and (26).



**⚠ CAUTION**

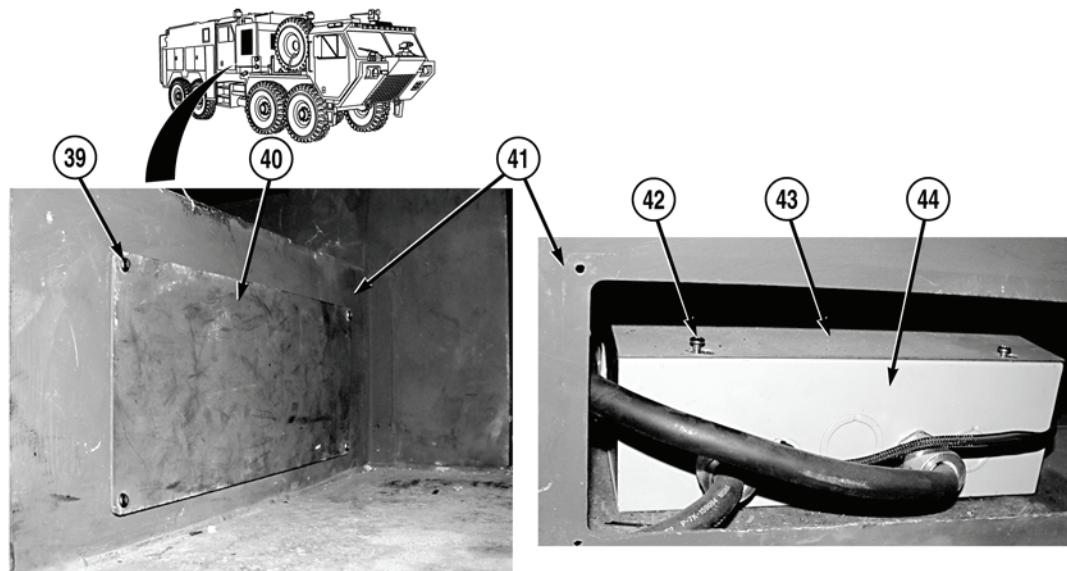
After removing two heater hoses from valve and fittings, two heater hoses must be pushed out of floor of crew cab as far as possible to allow for initial lifting of crew cab. Failure to comply may result in damage to equipment.

8. Loosen clamp (27) and remove hose (28) from valve (29) and crew cab (15).
9. Loosen clamp (30) and remove hose (31) from fitting (32) and crew cab (15).

**⚠ CAUTION**

- Hose fittings are assembled with preformed packing. Do not lose preformed packing when disconnecting hose fittings. Preformed packing must be installed on hose fittings when assembling, or refrigerant will leak from fittings.
- After removing two hoses from compressor and expansion valve, two hoses must be pushed out of rear of cab as far as possible to allow for initial lifting of crew cab. Failure to comply may cause damage to equipment.

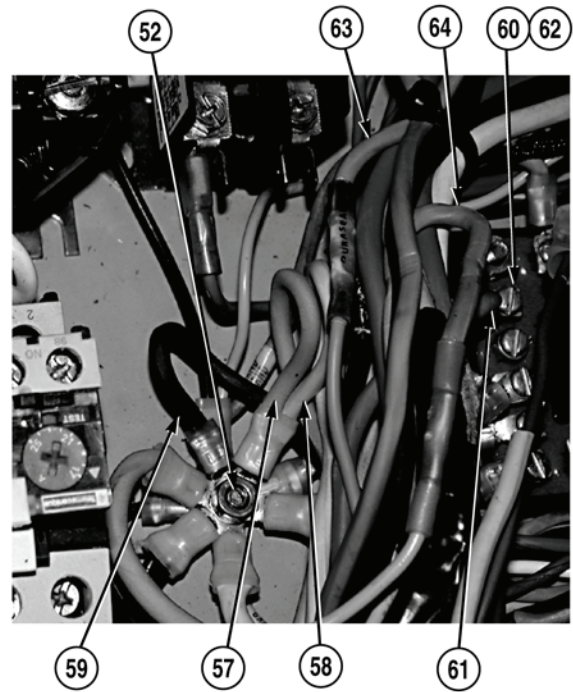
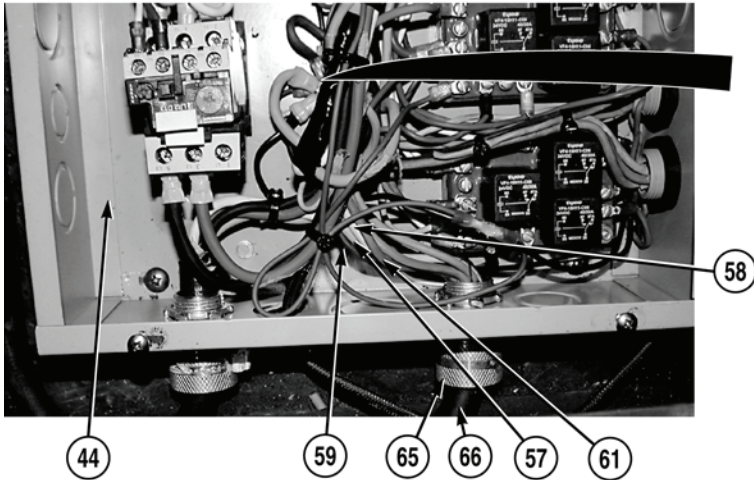
10. Remove hose (33) and preformed packing (34) from compressor (35) and crew cab (15). Discard preformed packing.
11. Remove hose (36) and preformed packing (37) from expansion valve (38) and crew cab (15). Discard preformed packing.



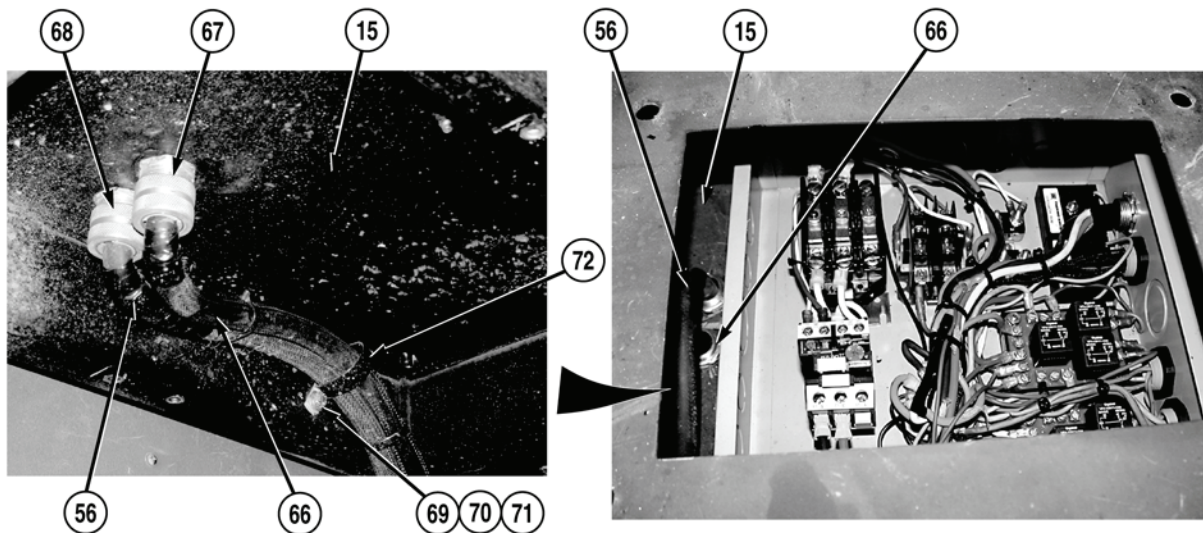
12. Remove four screws (39) and front access cover (40) from passenger side seat frame (41).
13. Loosen four screws (42) and remove top access cover (43) from junction box (44).



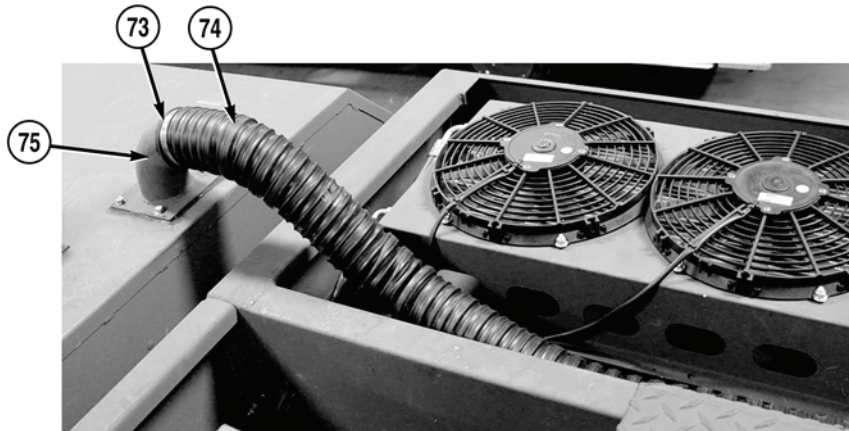
14. Loosen two screws (45) and (46) and remove two wires (47) and (48) from terminals (49) and (50).
15. Remove nut (51) and two wires (53) and (54) from stud (52).
16. Loosen strain relief (55) and remove cable (56) from junction box (44).



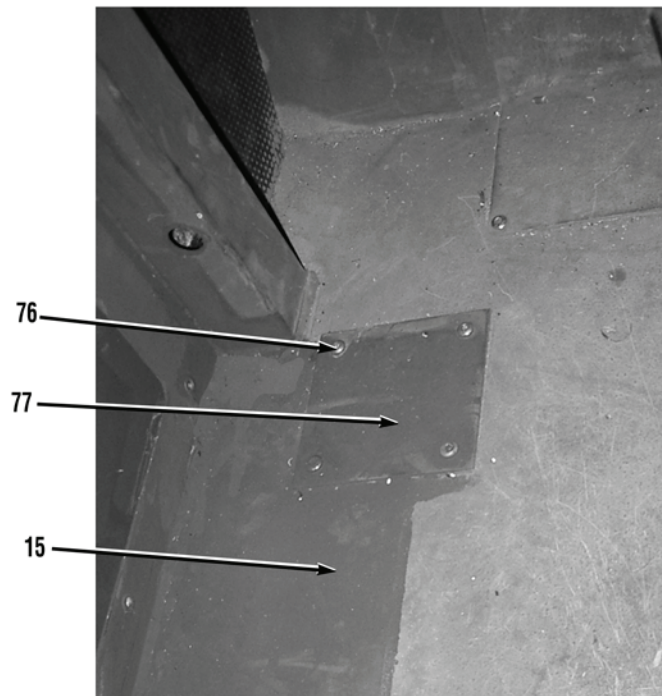
17. Remove three wires (57), (58), and (59) from stud (52).
18. Loosen screw (60) and remove wire (61) from terminal (62).
19. Cut two wires (63) and (64) (TM 9-2320-325-14&P).
20. Loosen strain relief (65) and remove cable (66) from junction box (44).



21. Loosen two strain reliefs (67) and (68) and remove two cables (56) and (66) from crew cab (15).
22. Remove screw (69), lockwasher (70), washer (71), two cables (56) and (66), and clamp (72) from crew cab (15). Discard lockwasher.



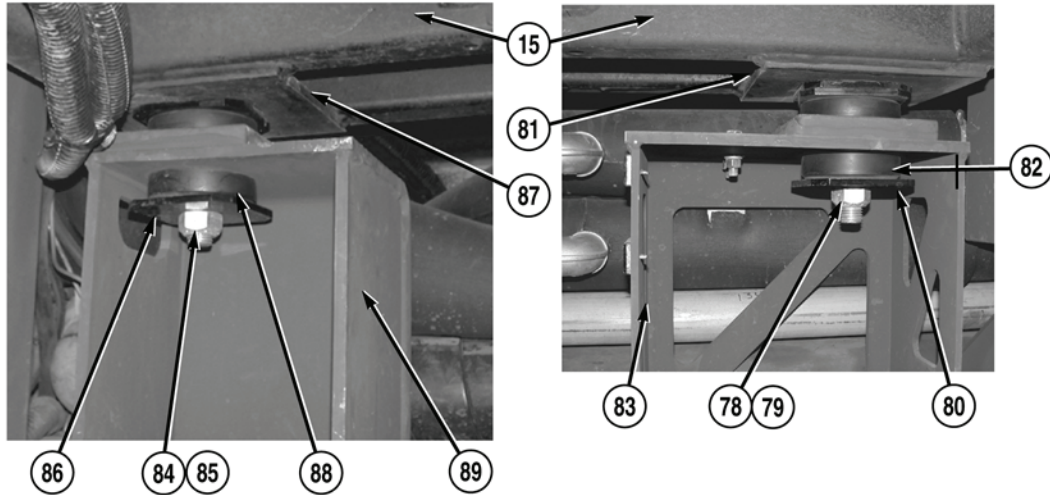
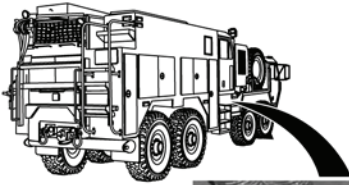
23. Loosen clamp (73) and remove fresh air hose (74) from pipe (75).



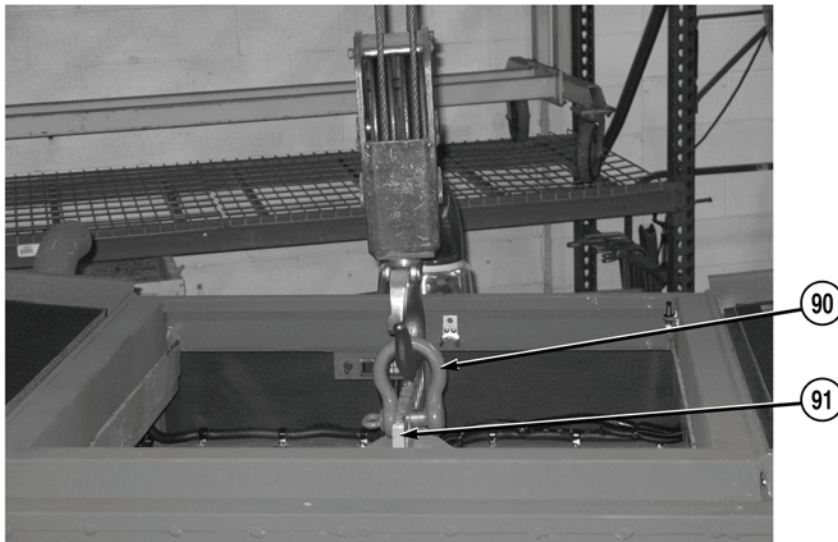
#### NOTE

Access plates on crew cab floor must be removed in order to access crew cab mounting bolts.

24. Remove 16 screws (76) and four access plates (77) from crew cab (15).



25. Remove two locknuts (78), screws (79), bottom snubbing washers (80), isolator bolt keeper plates (81), and lower rubber mounts (82) from crew cab (15) and front crew cab mounts (83). Discard locknuts.
26. Remove two locknuts (84), screws (85), bottom snubbing washers (86), isolator bolt keeper plates (87), and lower rubber mounts (88) from crew cab (15) and rear crew cab mounts (89). Discard locknuts.

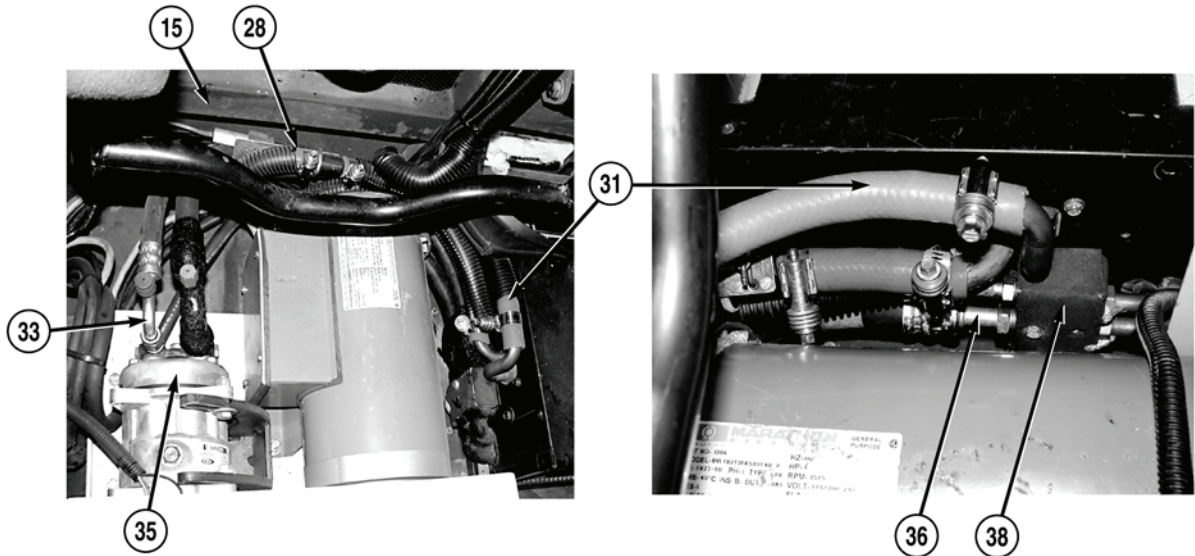


**NOTE**

Crew cab lifting bracket is positioned in crew cab roof opening and held in place with shackle pin and suitable lifting device.

27. With the aid of an assistant, attach suitable lifting device to clevis (90) on crew cab lifting bracket (91).





### **WARNING**

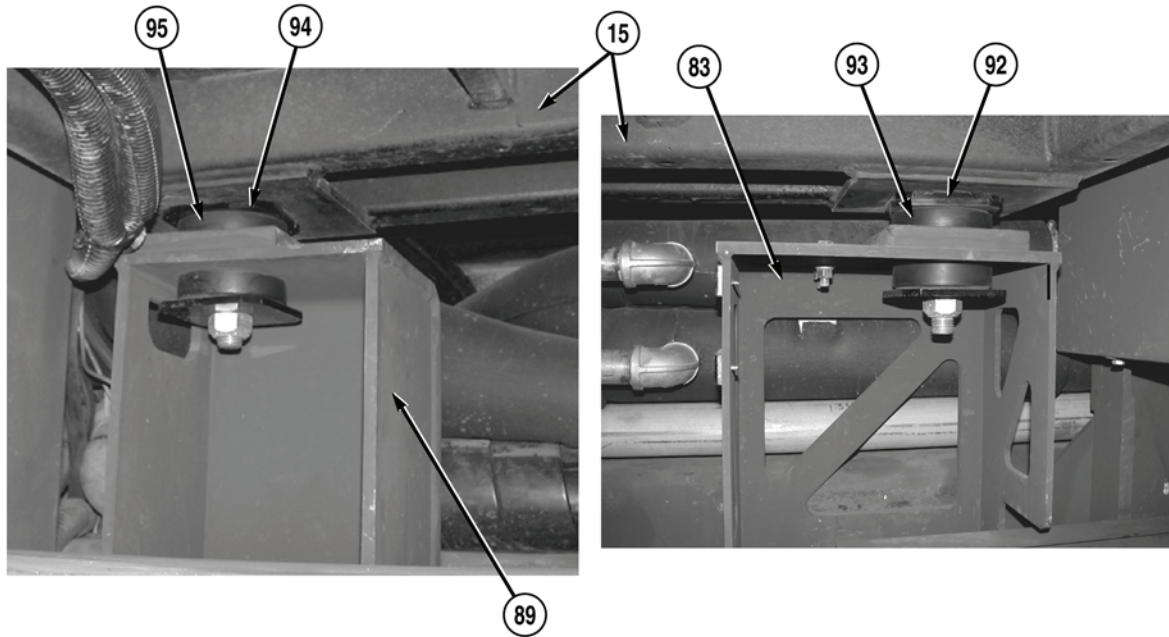


- Crew cab weighs 2,000 lb. (908 kg). Care must be taken when lifting and removing crew cab from vehicle.
- Crew cab must be lifted slowly and care must be taken so two heater hoses and two hoses from compressor do not catch on crew cab floor or frame members.
- Do not get under crew cab while it is supported by lifting device. Crew cab could fall. Failure to comply may result in serious injury or death to personnel.

### **CAUTION**

**When performing Steps (28) and (29), ensure hoses do not catch on cab floor or frame. Failure to comply could result in damage to equipment.**

28. With the aid of an assistant, raise crew cab (15) approximately 12 in. (30.5 cm).
29. With the aid of an assistant, remove two heater hoses (28) and (31) and hoses (33) and (36) from compressor (35), expansion valve (38) and crew cab (15).



### NOTE

- Crew cab mounts have snubbing washers between rubber mount and crew cab. Number of snubbing washers may vary.
  - Note position of washers prior to removal to ensure proper installation.
30. Remove top snubbing washers (92) and two rubber mounts (93) from front crew cab mounts (83).
  31. Remove top snubbing washers (94) and two rubber mounts (95) from rear crew cab mounts (89).

### WARNING

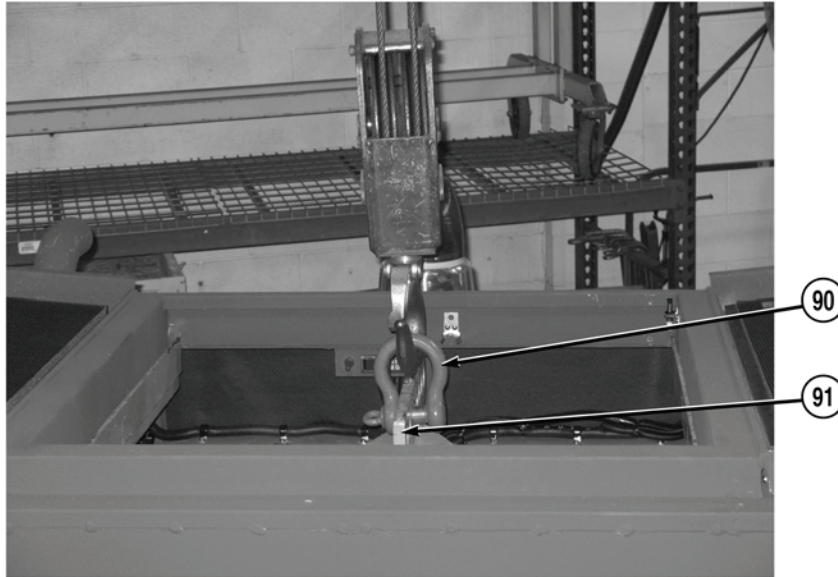


**Do not get under crew cab while it is supported by lifting device. Crew cab could fall. Failure to comply may result in serious injury or death to personnel.**

### CAUTION

**Crew cab must be lifted slowly and carefully. Make sure no wires or hoses are caught during removal or damage to crew cab and chassis will result.**

32. With the aid of two assistants, remove crew cab (15) from vehicle.
33. Place crew cab (15) on suitable supports.



34. Remove suitable lifting device from clevis (90) on crew cab lifting bracket (91).

#### END OF TASK

#### INSTALLATION

#### WARNING



Do not get under crew cab while it is supported by lifting device. Crew cab could fall. Failure to comply may result in serious injury or death to personnel.

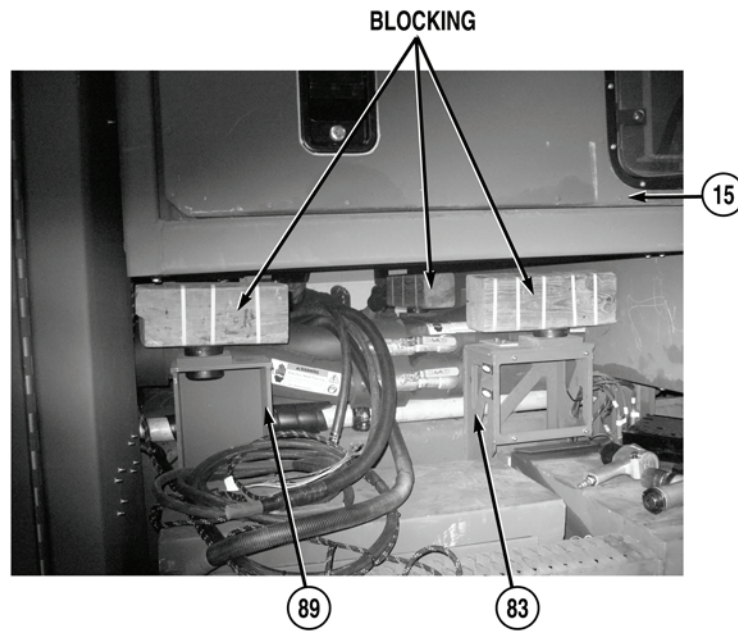
#### CAUTION

Crew cab must be lowered slowly and carefully on suitable blocking between crew cab supports and crew cab. Assistants make sure crew cab does not contact pump house, front water tank body panel, or other vehicle components. Failure to comply may result in damage to equipment.

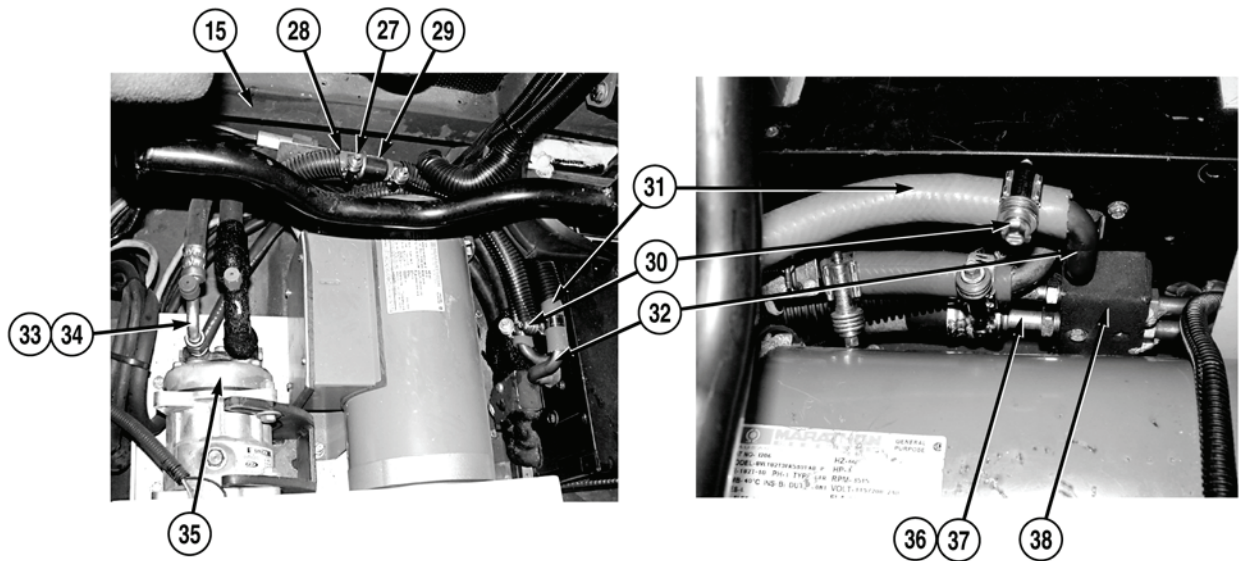
#### NOTE

Install cable ties as required.

1. Attach suitable lifting device on clevis (90) on crew cab lifting bracket (91).



2. With the aid of an assistant, guide and place crew cab (15) on suitable blocking placed between crew cab (15) and front and rear crew cab mounts (83) and (89).



### NOTE

- Two heater hoses and compressor hoses must be routed through crew cab floor before lifting crew cab from suitable blocking.
  - One assistant feeds hoses through crew cab, while other assistant is in crew cab, pulling heater hoses and compressor hoses through crew cab floor.
3. With the aid of an assistant, feed two hoses (36) and (33) through back of crew cab (15). Do not attach hoses.
  4. With the aid of an assistant, feed two heater hoses (31) and (28) through bottom of crew cab (15). Do not attach hoses.
  5. With the aid of an assistant, raise crew cab (15) from blocking. Remove blocking.

### CAUTION

**Crew cab must be positioned an equal distance between pump house and front water tank panel. Failure to comply may result in damage to equipment.**

### NOTE

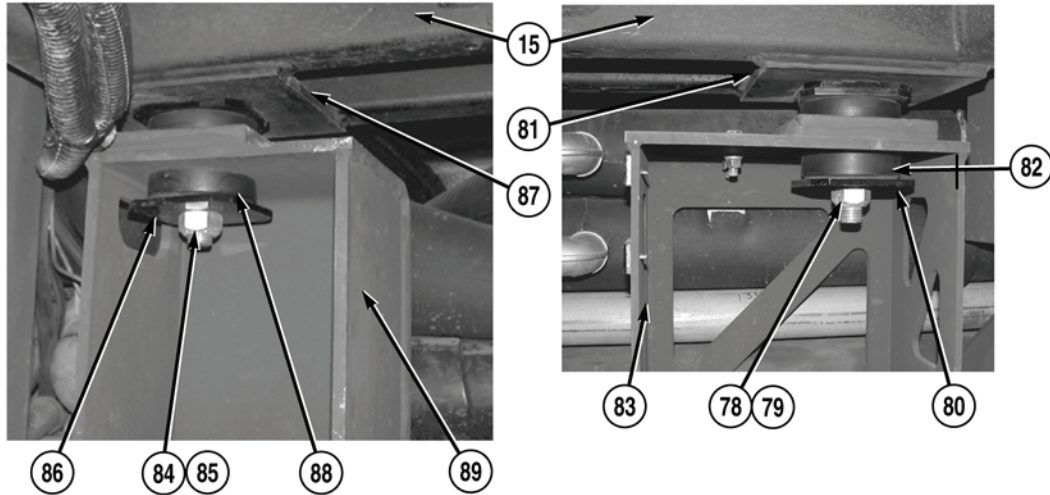
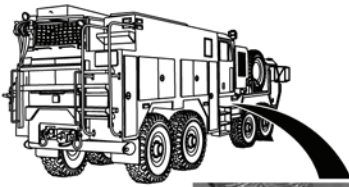
Rear crew cab mounts normally have one plate between rubber mounts and crew cab. Number of plates may vary.

6. Position two rubber mounts (93) and isolator bolt keeper plates (87) on rear crew cab mounts (89).

### NOTE

Front crew cab mounts normally have snubbing washers between rubber mounts and crew cab. Number of snubbing washers may vary.

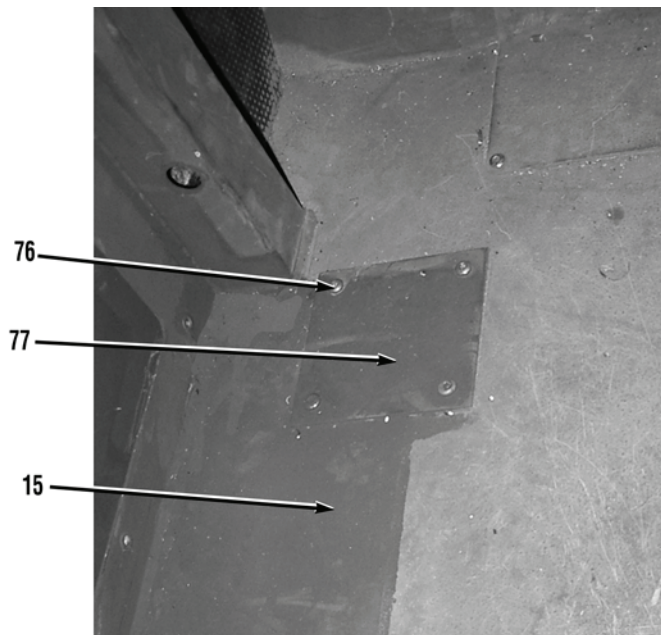
7. Position two rubber mounts (93) and snubbing washers (92) on front crew cab mounts (83).
8. With the aid of an assistant, guide crew cab (15) on front snubbing washers (92) and top snubbing washers (94).



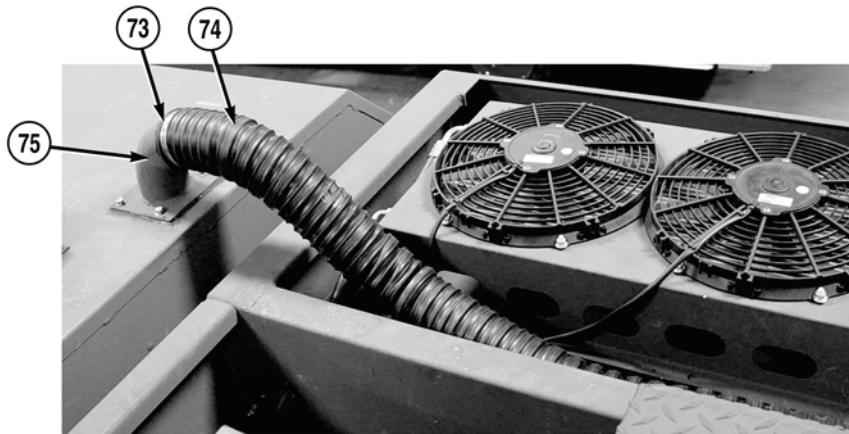
**NOTE**

Install washers as noted prior to removal.

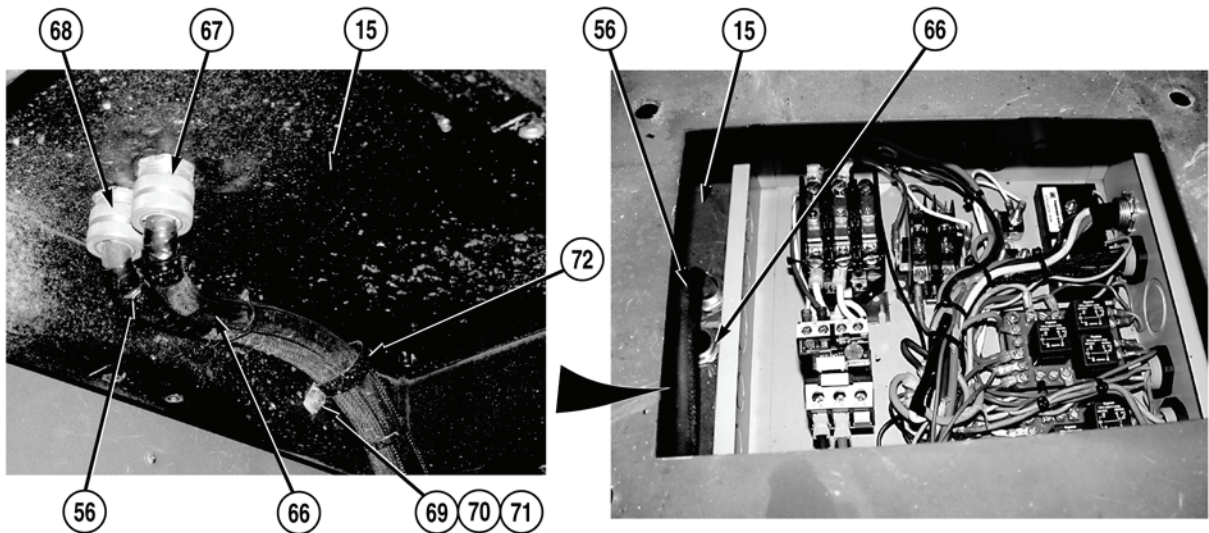
9. Install crew cab (15) on two rear crew cab mounts (89) with screws (85), lower rubber mounts (88), isolator bolt keeper plates (87), bottom snubbing washers (86), and two locknuts (84).
10. Install crew cab (15) on two front crew cab mounts (83) with screws (79), lower rubber mounts (82), isolator bolt keeper plates (81), bottom snubbing washers (80), and two locknuts (78).



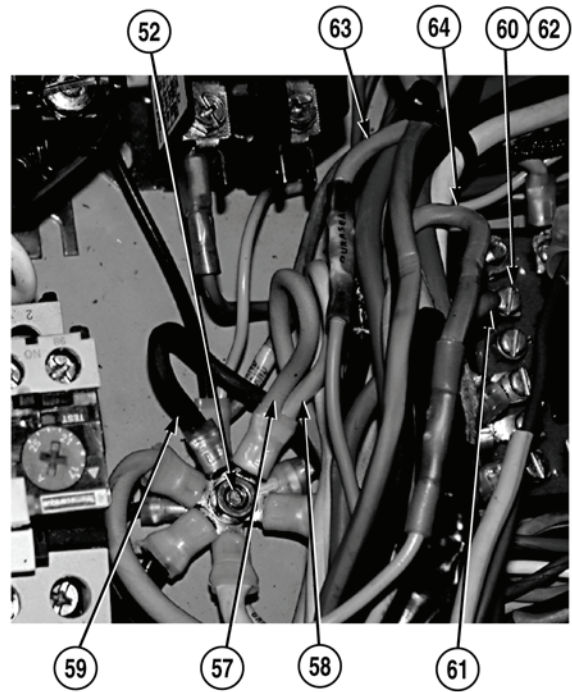
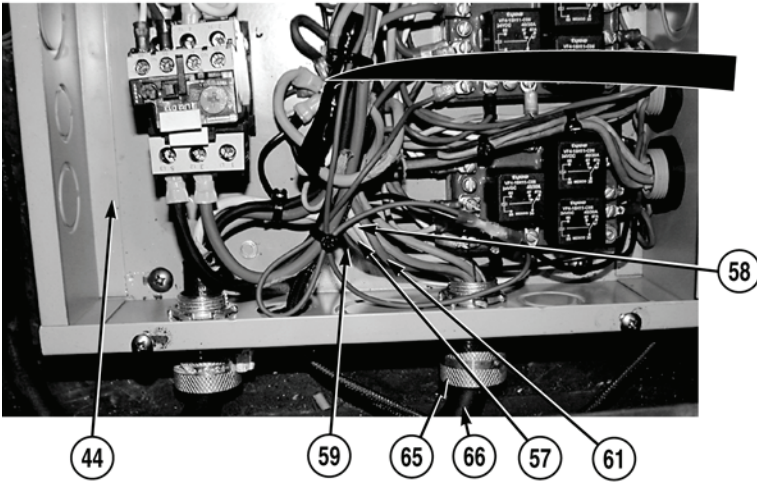
11. Install four access plates (77) on crew cab (15) with 16 screws (76).



12. Install fresh air hose (74) on pipe (75) and tighten clamp (73).



13. Install clamp (72) and two cables (66) and (56) on crew cab (15) with washer (71), lockwasher (70), and screw (69).
14. Install two cables (66) and (56) on crew cab (15) and tighten two strain reliefs (67) and (68).

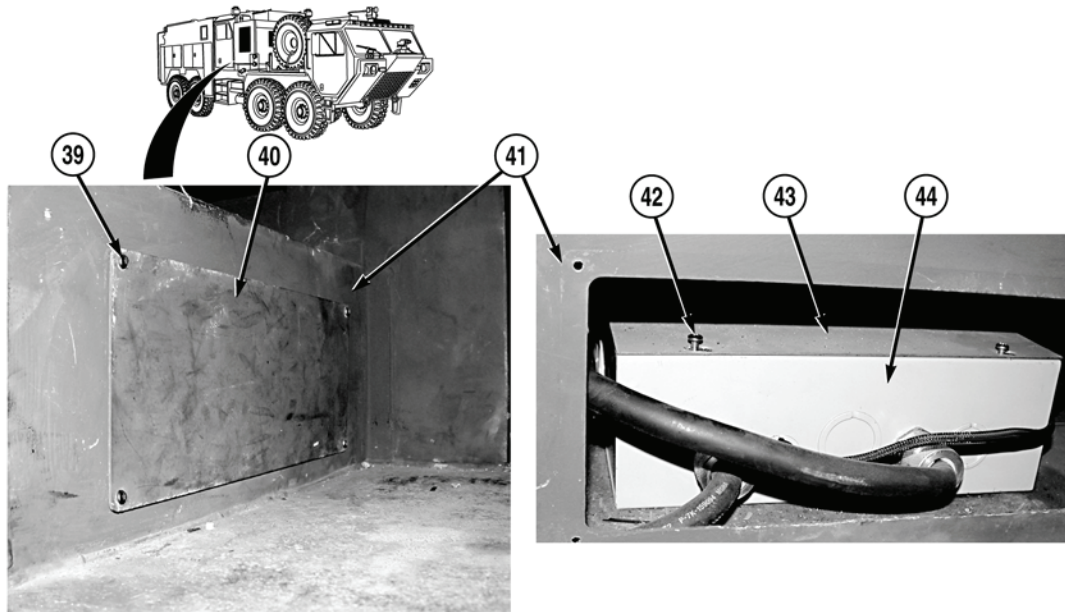


15. Install cable (66) on junction box (44) and tighten strain relief (65).
16. Repair two wires (63) and (64) (TM 9-2320-325-14&P).
17. Install wire (61) on terminal (62) and tighten screw (60).
18. Position three wires (59), (58), and (57) on stud (52).

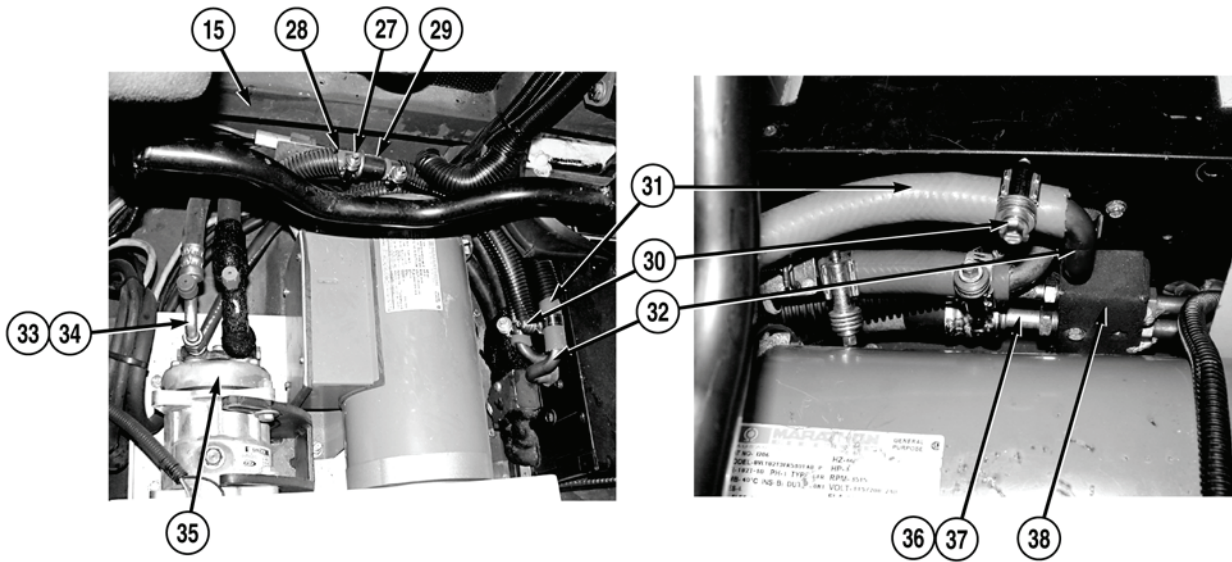




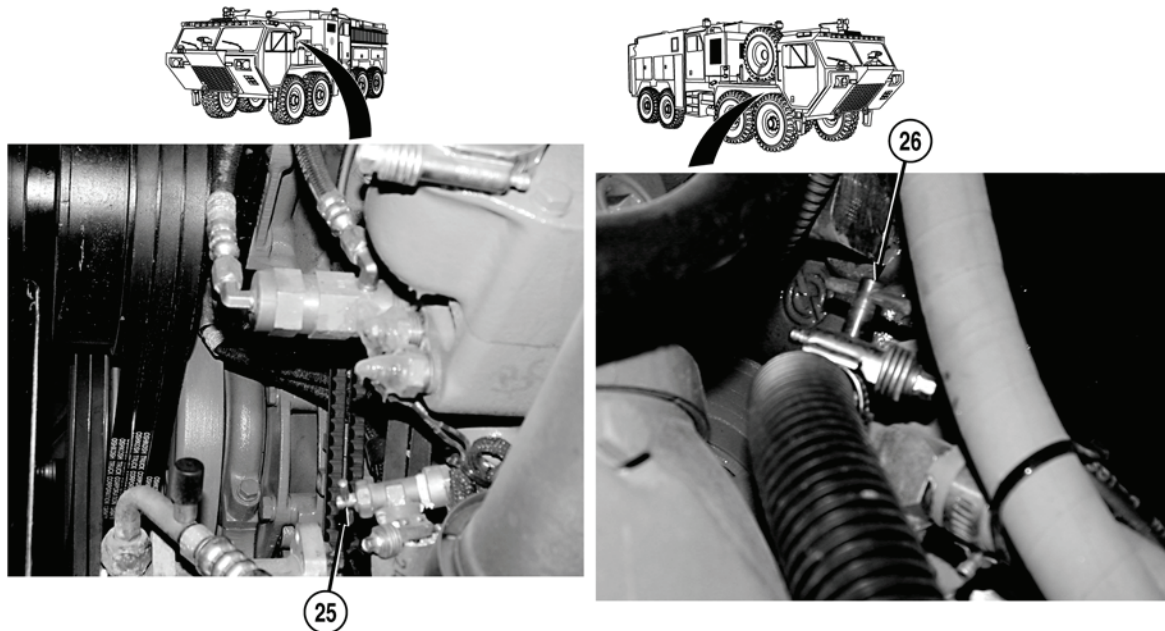
19. Install cable (56) on junction box (44) and tighten strain relief (55).
20. Install two wires (54) and (53) on stud (52) with nut (51).
21. Install two wires (48) and (47) on terminals (49) and (50) and tighten two screws (45) and (46).



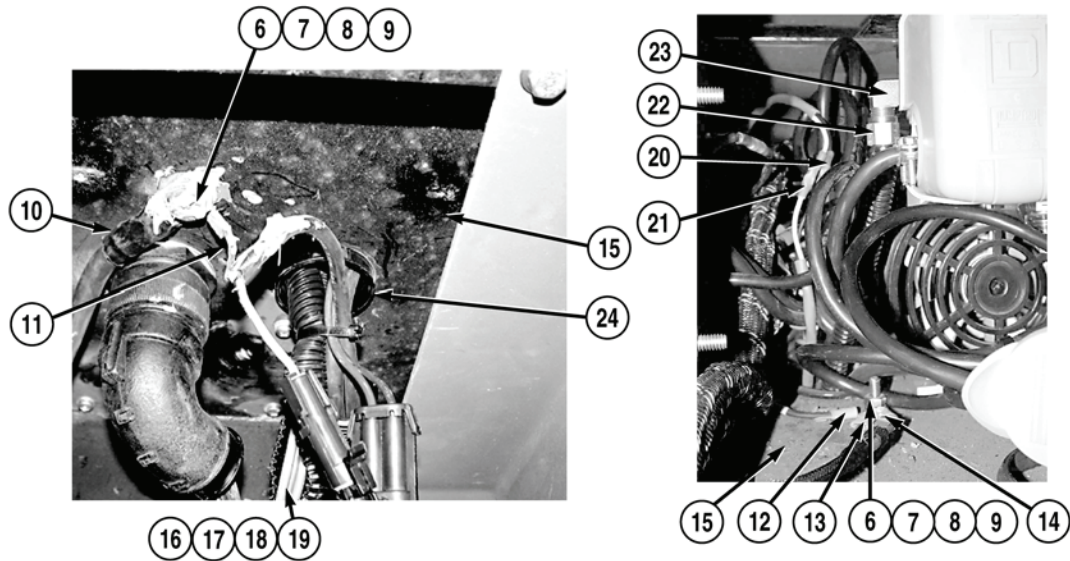
22. Install access cover (43) on junction box (44) and tighten four screws (42).
23. Install front access cover (40) on passenger side seat frame (41) with four screws (39).



- 24. Install preformed packing (37) and hose (36) on expansion valve (38).
- 25. Install preformed packing (34) and hose (33) on compressor (35).
- 26. Install hose (31) on fitting (32) and tighten clamp (30).
- 27. Install hose (28) on valve (29) and tighten clamp (27).



- 28. Open two valves (25) and (26).



- 29. Position air line (22) through crew cab floor access port (24), and install air line (22) on elbow (23).
- 30. Repair two beacon light wires (21) and (20) (TM 9-2320-325-14&P).
- 31. Repair four wires (19), (18), (17), and (16) (TM 9-2320-325-14&P).

**WARNING**

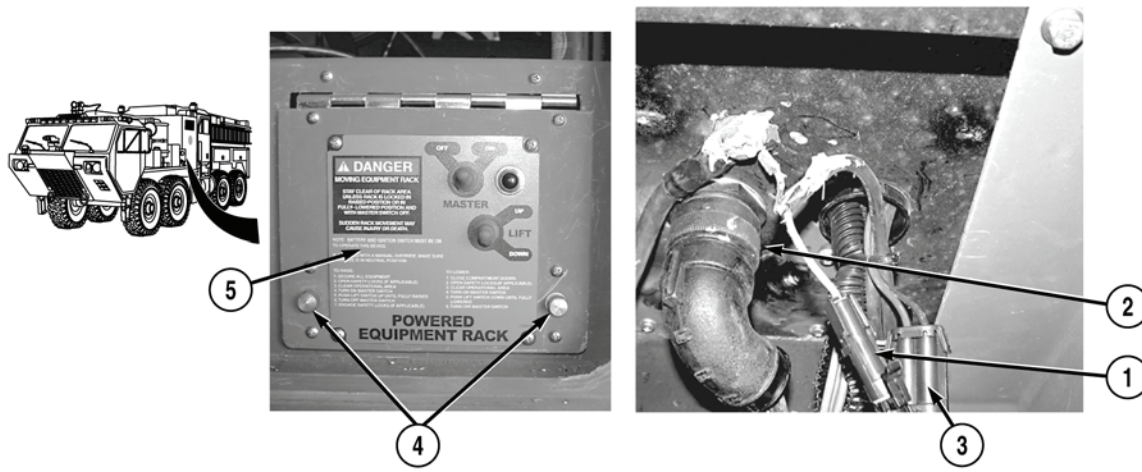


**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

**NOTE**

Apply electrical sealant to exposed wire connectors after installation.

- 32. Install five wires (10), (11), (12), (13), and (14) on crew cab (15) with screw (9), two washers (8), lockwasher (7), and nut (6).



33. Close compartment door (5) and tighten two screws (4).

34. Connect three connectors (1), (2), and (3).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Recharge crew cab air conditioner (TB 9-2320-279-13)
2. Install crew cab SCBA seat (WP 0512)
3. Install on-board tool mounting brackets (WP 0528)
4. Install right side splash guard (TM 9-2320-325-14&P)
5. Install left side engine panel and close engine cover (TM 9-2320-325-14&P)
6. Fill cooling system (TM 9-2320-325-14&P)
7. Connect batteries (TM 9-2320-325-14&P)
8. Install driver side crew cab ladder (WP 0514)
9. Install door switch (WP 0385)
10. Close crew cab roof hatch (WP 0510)

#### END OF TASK

#### END OF WORK PACKAGE

## FIELD LEVEL MAINTENANCE

## CREW CAB BENCH SEAT AND ACCESS PANEL REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

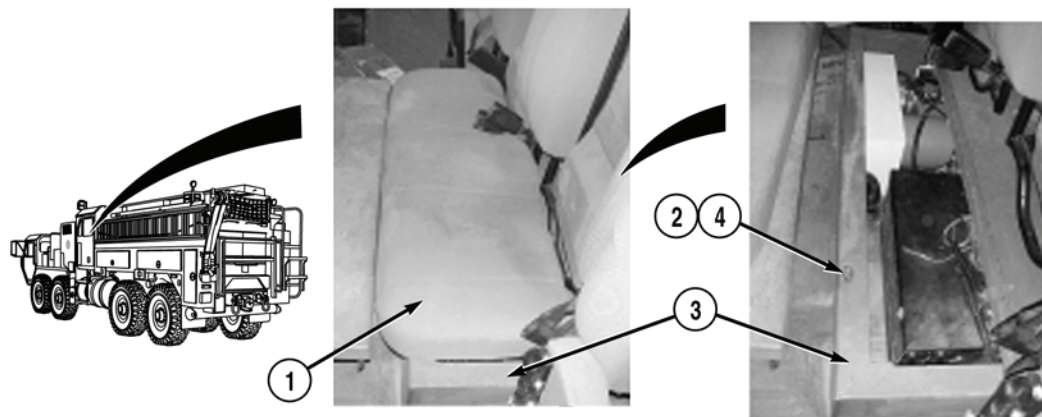
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

**References**

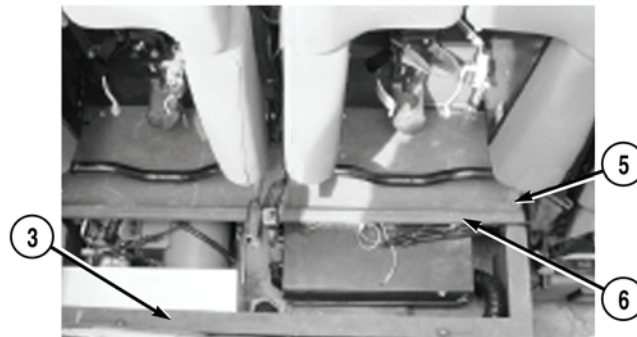
WP 0615, Fig. 117, 121

## REMOVAL

**NOTE**

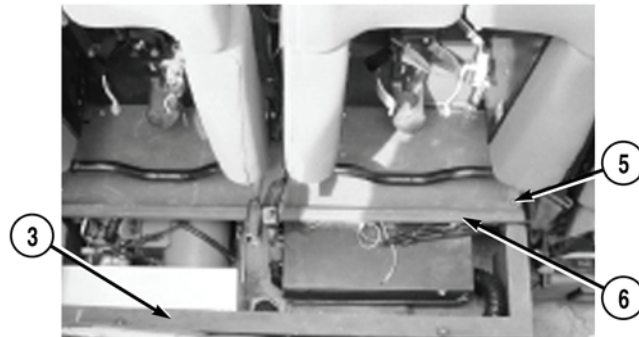
Bench seat is removed by lifting bench seat from seat frame.

1. Remove bench seat (1) from two retainers (2) and seat frame (3).
2. Remove two screws (4) and retainers (2) from seat frame (3).

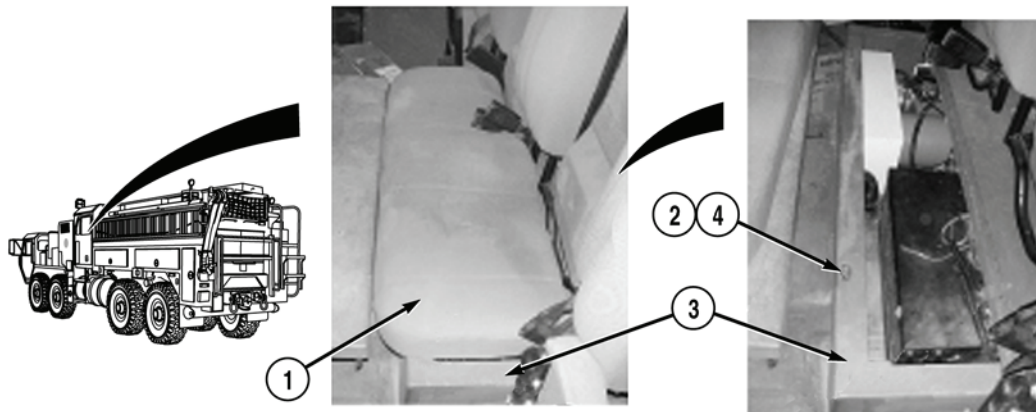


3. Remove eight screws (5) and access panel (6) from seat frame (3).

**END OF TASK**

**INSTALLATION**

1. Install access panel (6) on seat frame (3) with eight screws (5).



2. Install two retainers (2) on seat frame (3) with two screws (4).
3. Install bench seat (1) on two retainers (2) and seat frame (3).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**CREW CAB DOOR/DOOR HINGE REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 119

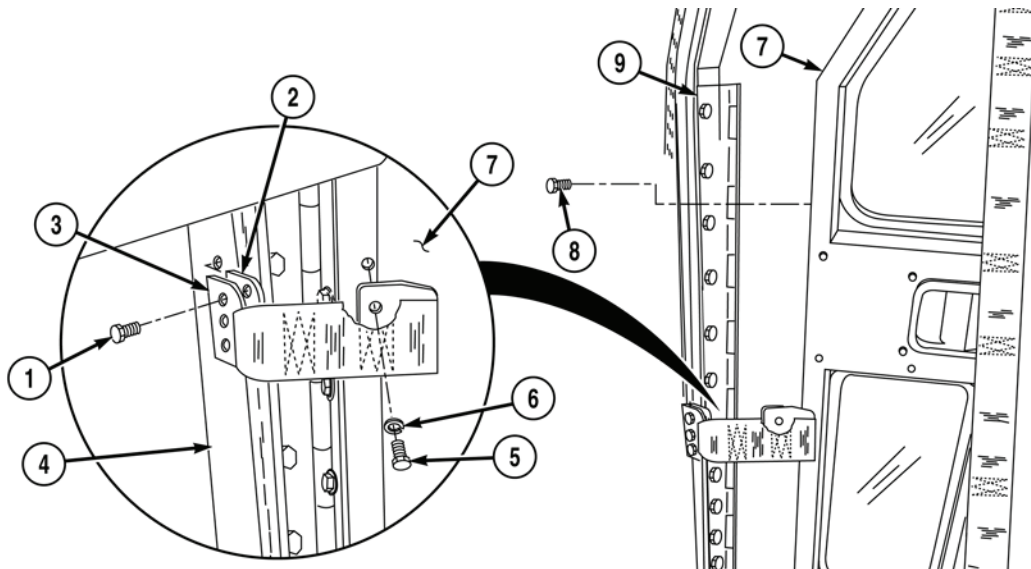
**Materials/Parts**

Lockwasher (2)  
Locknut (1)

**Equipment Conditions**

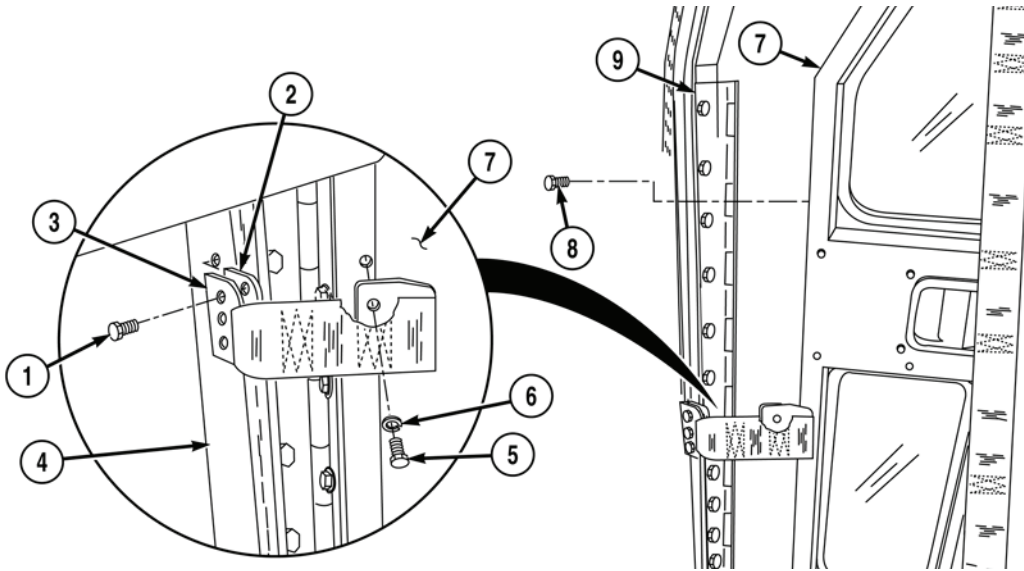
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

**REMOVAL****NOTE**

Left and right doors are removed the same way. Right door is shown.

1. Remove two screws (1) and spacer (2) from door strap (3) and crew cab (4).
2. Remove two screws (5), lockwashers (6), and door strap (3) from crew cab door (7). Discard lockwashers.
3. Attach suitable lifting device to crew cab door (7).

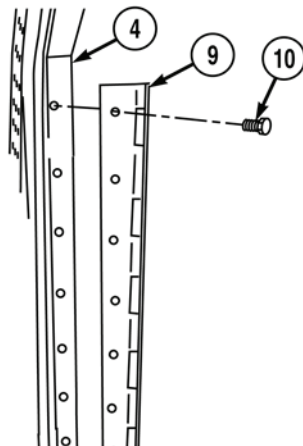


**WARNING**



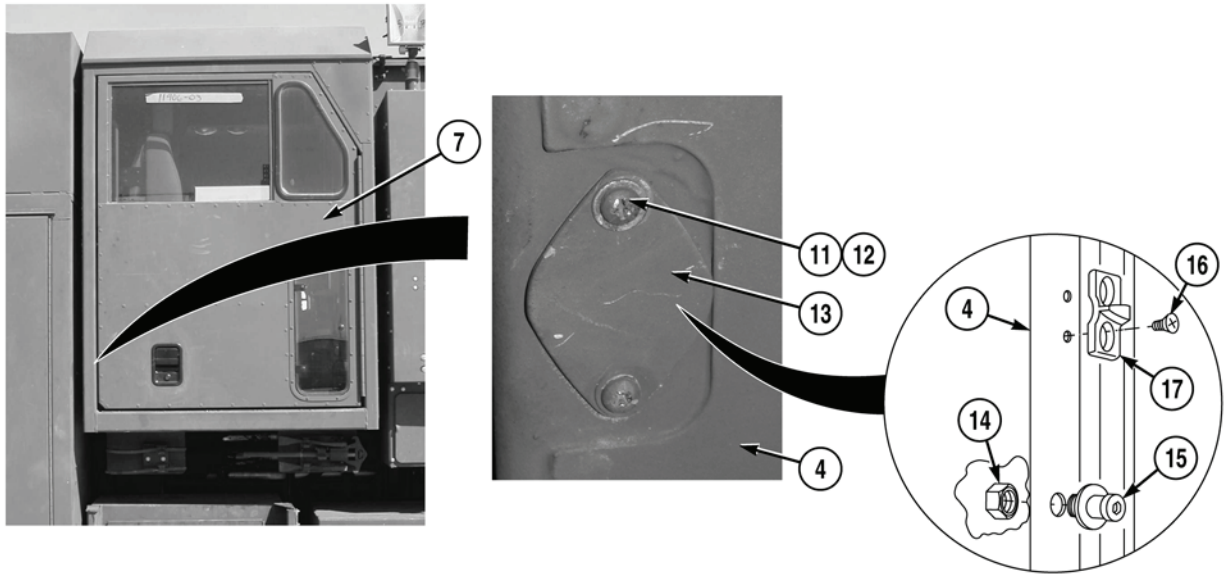
**Door is heavy. Stay clear of door when removing from crew cab. Attach suitable lifting device when removing. Failure to comply may result in serious injury to personnel.**

4. With the aid of an assistant, remove 11 screws (8) and crew cab door (7) from door hinge (9).



5. Remove 12 screws (10) and door hinge (9) from crew cab (4).



**NOTE**

Perform Step (6) only if replacing door hinge.

6. Remove two screws (11), washers (12), and access cover (13) from crew cab (4).

**NOTE**

Perform Steps (7) through (9) only if striker pin or dovetail is damaged.

7. Remove locknut (14) and striker pin (15) from crew cab (4). Discard locknut.
8. Remove two screws (16) and dovetail (17) from crew cab (4).
9. Remove lifting device from crew cab door (7).

**END OF TASK****INSTALLATION****NOTE**

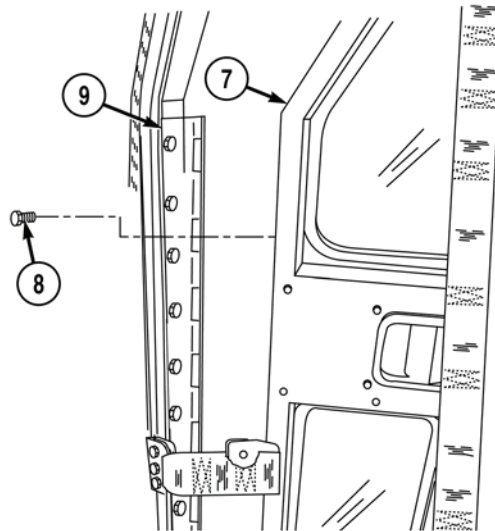
Perform Steps (1) through (3) only if installing new dovetail or striker pin.

1. Install dovetail (17) on crew cab (4) with two screws (16).
2. Install striker pin (15) on crew cab (4) with locknut (14).
3. Install access cover (13) on crew cab (4) with two washers (12) and screws (11).

**NOTE**

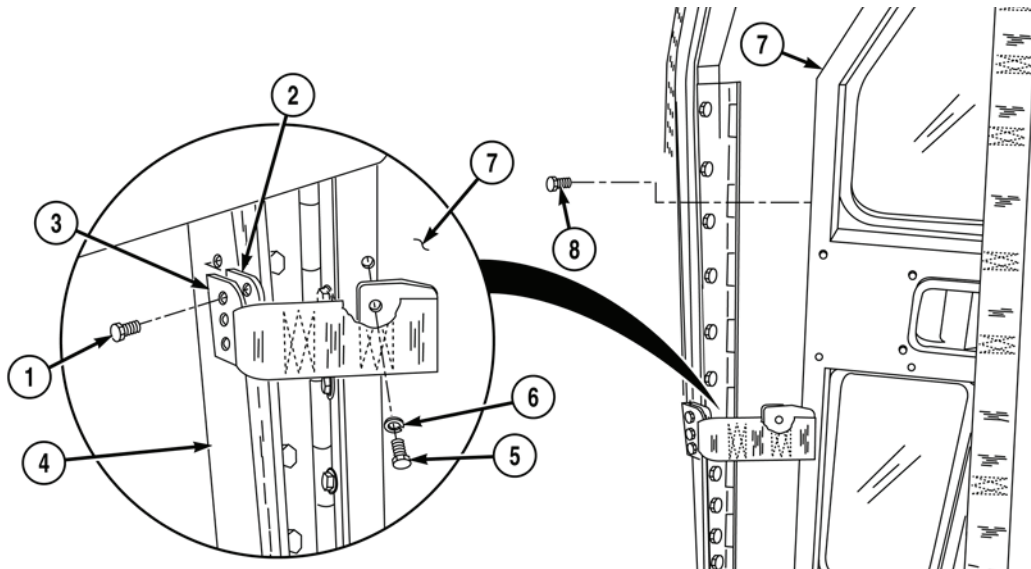
Perform Step (4) only if installing new door hinge.

4. Install door hinge (9) on crew cab (4) with 12 screws (10).

**WARNING**

**Door is heavy. Stay clear of door when installing on crew cab. Attach suitable lifting device when installing. Failure to comply may result in serious injury to personnel.**

5. Attach suitable lifting device to crew cab door (7).
6. With the aid of an assistant, guide crew cab door (7) to door hinge (9) and install 11 screws (8) through door hinge (9) to crew cab door (7).
7. Remove lifting device from crew cab door (7).



8. Install door strap (3) on crew cab door (7) with two lockwashers (6) and screws (5).
9. Install spacer (2) on door strap (3) and crew cab (4) with two screws (1).

**END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**CREW CAB DOOR HANDLE REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 119

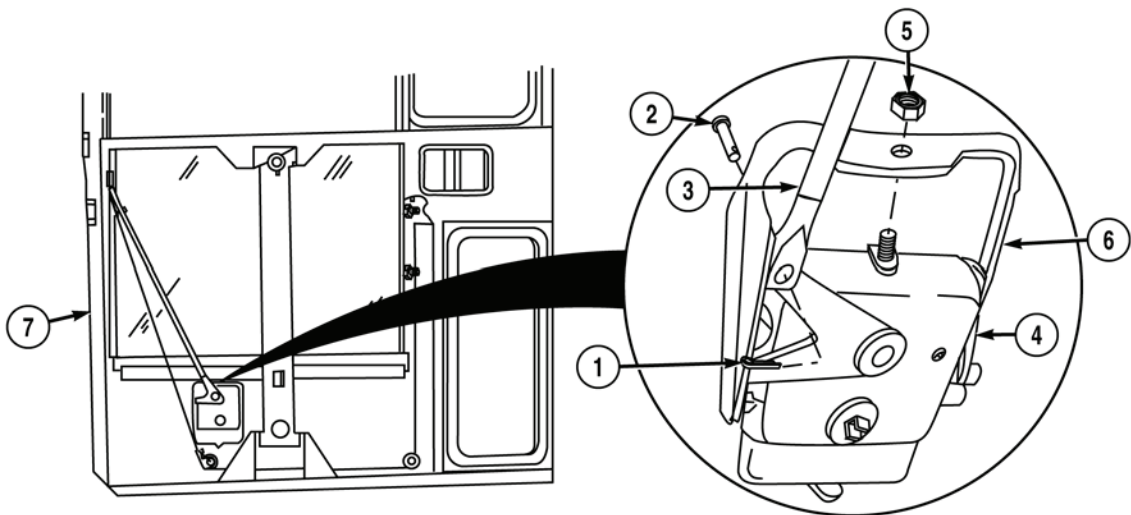
**Materials/Parts**

Locknut (1)  
Locknut (1)  
Cotter Pin (1)

**Equipment Conditions**

Crew cab inner door panel removed (WP 0507)

---

**OUTER DOOR HANDLE REMOVAL****NOTE**

Left side and right side door handles are replaced the same way. Left side shown.

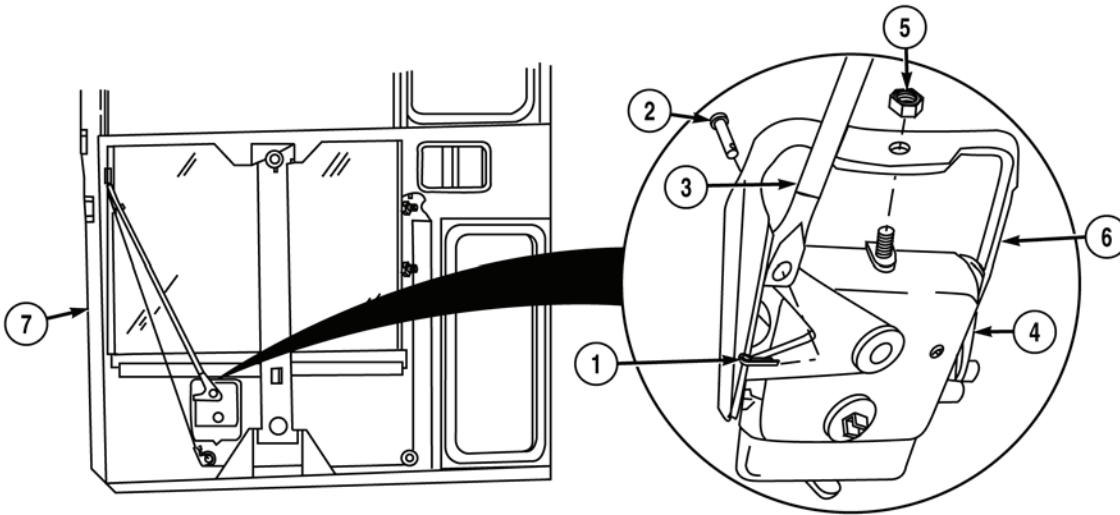
1. Remove cotter pin (1), pin (2), and clevis (3) from outer door handle (4).

**NOTE**

Locknut may come off stud or stud and locknut may come off together.

2. Remove locknut (5) from outer door handle (4). Discard locknut.
3. Remove handle retainer (6) from outer door handle (4).
4. Remove outer door handle (4) from door (7).

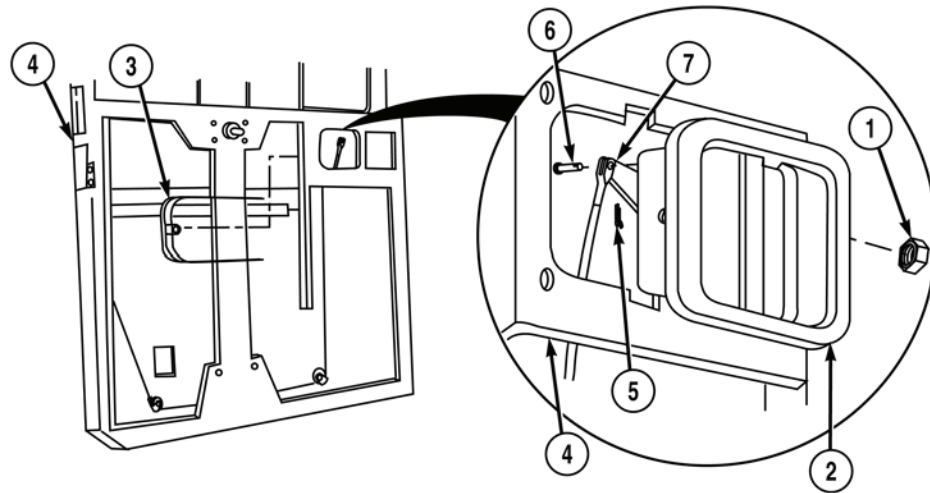
**END OF TASK**

**OUTER DOOR HANDLE INSTALLATION****NOTE**

- Wide flange of door handle retainer must be installed toward door.
- Door handle retainer slides under tab on handle.

1. Install outer door handle (4) on door (7) with door handle retainer (6) and locknut (5).
2. Install clevis (3) on outer door handle (4) with pin (2) and cotter pin (1).

**END OF TASK**

**INNER DOOR HANDLE REMOVAL****NOTE**

Locknut may come off stud or stud and locknut may come off together.

1. Remove locknut (1) from inner door handle (2). Discard locknut.
2. Remove door handle retainer (3) from inner door handle (2).
3. Remove inner door handle (2) from door (4).
4. Remove cotter pin (5) and pin (6) from wire rope assembly (7). Discard cotter pin.

**END OF TASK****INNER DOOR HANDLE INSTALLATION**

1. Install wire rope assembly (7) on inner door handle (2) with pin (6) and cotter pin (5).

**NOTE**

- Wide flange of door handle retainer must be installed toward door.
- Door handle retainer slides under tab on handle.

2. Install inner door handle (2) on door (4) with door handle retainer (3) and locknut (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install crew cab inner door panel (WP 0507)
2. Adjust crew cab door linkage (WP 0504)

**END OF TASK****END OF WORK PACKAGE**





## FIELD LEVEL MAINTENANCE

## CREW CAB DOOR LATCH/LINKAGE REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Cotter Pin (2)  
Self-Locking Screw (2)  
Self-Locking Screw (1)  
Cotter Pin (1)  
Locknut (1)

**Materials/Parts (continued)**

Cotter Pin (1)  
Cotter Pin (1)  
Cotter Pin (1)

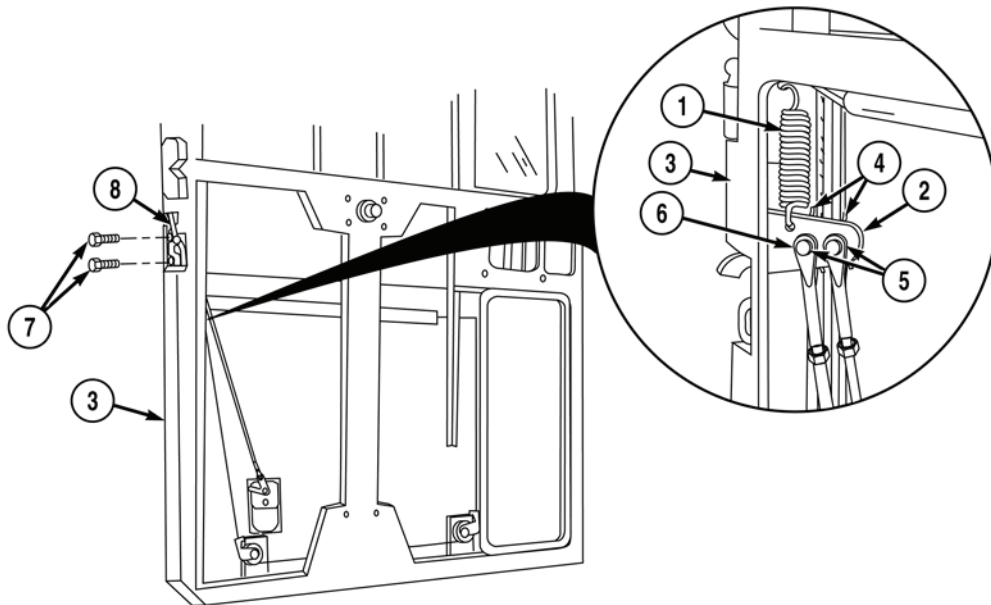
**References**

WP 0615, Fig. 119

**Equipment Conditions**

Crew cab inner door panel removed (WP 0507)

## REMOVAL

**NOTE**

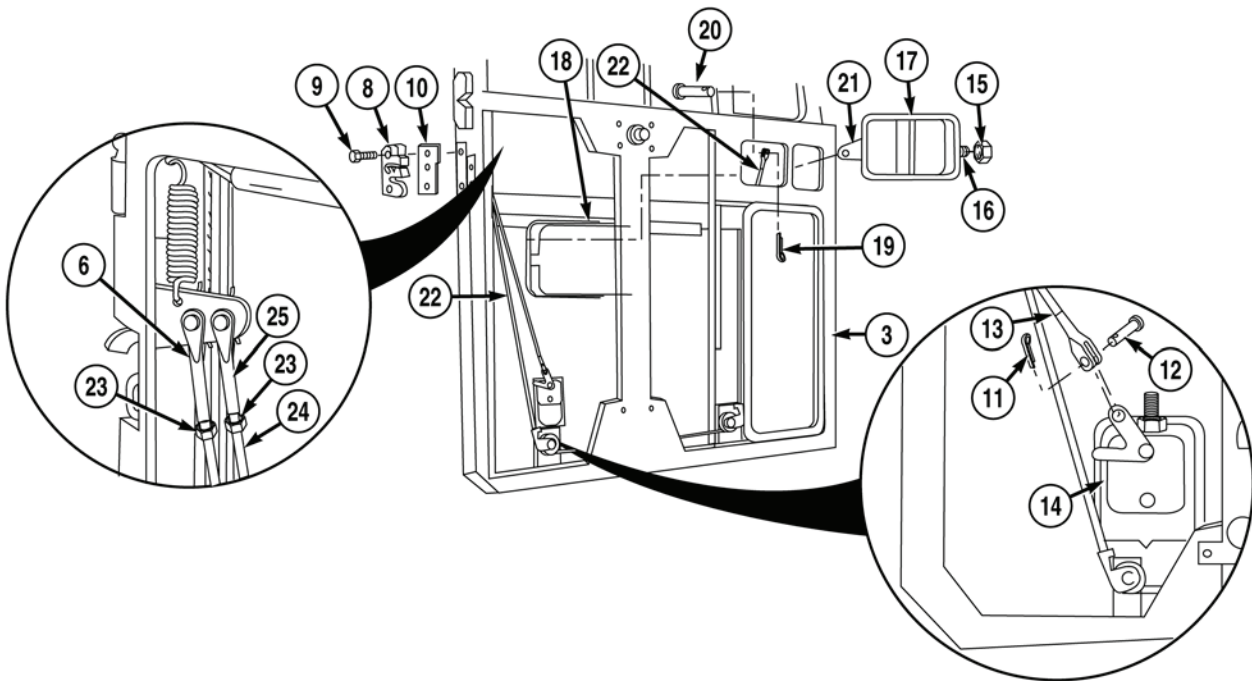
Driver side and Passenger side door latches and linkage are removed the same way. Driver side shown.

1. Remove spring (1) from door lock connecting lever (2) and door (3).
2. Remove two cotter pins (4) and pins (5) from clevis (6). Discard cotter pin.

**NOTE**

Latch must be in closed position to remove lock.

3. Remove two self-locking screws (7) from door lock mechanism (8). Discard self-locking screws.

**NOTE**

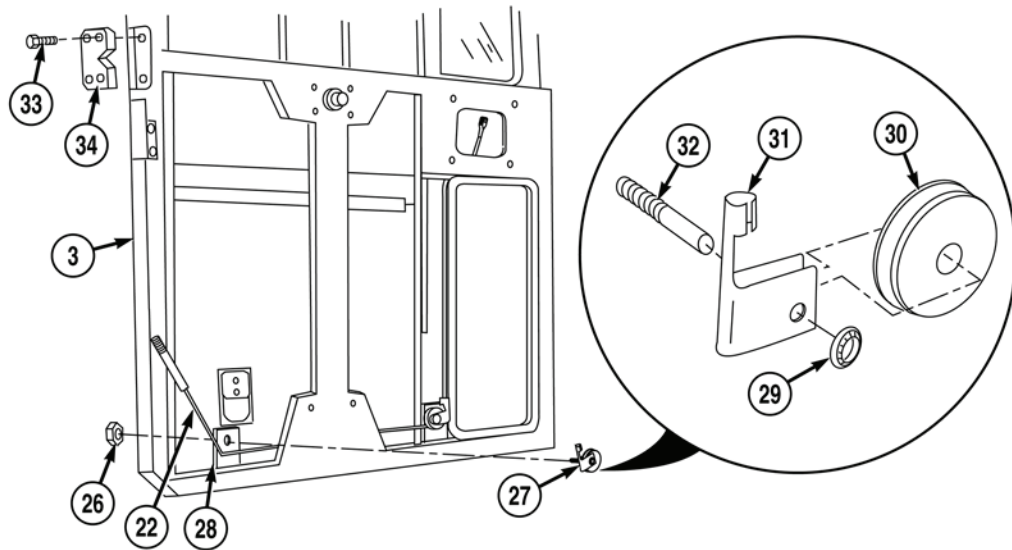
Hold lock spacer plates to prevent them from falling inside door.

4. Remove self-locking screw (9), door lock mechanism (8), and two lock spacer plates (10) from door (3). Discard self-locking screw.
5. Remove cotter pin (11), pin (12), and clevis (13) from outer door handle (14). Discard cotter pin.

**NOTE**

Locknut may come off stud or stud and locknut may come off together.

6. Remove locknut (15) and stud (16) from inner door handle (17). Discard locknut.
7. Remove door handle retainer (18) from inner door handle (17).
8. Remove inner door handle (17) from door (3).
9. Remove cotter pin (19), pin (20), and door handle lever (21) from cable (22). Discard cotter pin.
10. Loosen two jamnuts (23) on cable (22) and outer rod (24).
11. Remove two clevises (6) and (25) and jamnut (23) from cable (22) and outer rod (24).

**NOTE**

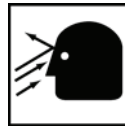
Perform Steps (12) through (15) if roller or cable needs to be removed.

12. Loosen two nuts (26) on rollers (27).

**NOTE**

Roller is threaded into bracket.

13. Remove two nuts (26) and rollers (27) from brackets (28).

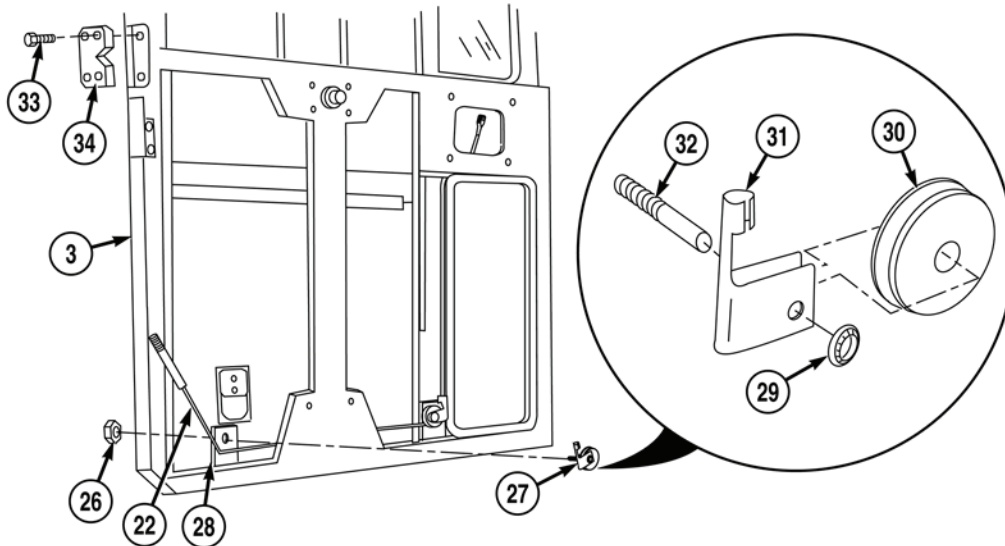
**WARNING**

**Wear eye protection and use care when removing retaining rings. Retaining rings are under spring tension and can act as projectiles when released, causing severe eye injury.**

14. Remove two retaining clips (29), pulleys (30), cable guards (31), and cable (22) from two studs (32).
15. Remove cable (22) from two cable guards (31).
16. Remove four screws (33) and dovetail (34) from door (3).

**END OF TASK**

## INSTALLATION



### NOTE

Driver side and passenger side door latches and linkage are installed the same way. Driver side shown.

1. Install dovetail (34) on door (3) with four screws (33).

### NOTE

Perform Steps (2) through (5) if roller or cable was removed.

2. Route cable (22) through two cable guards (31).

### WARNING



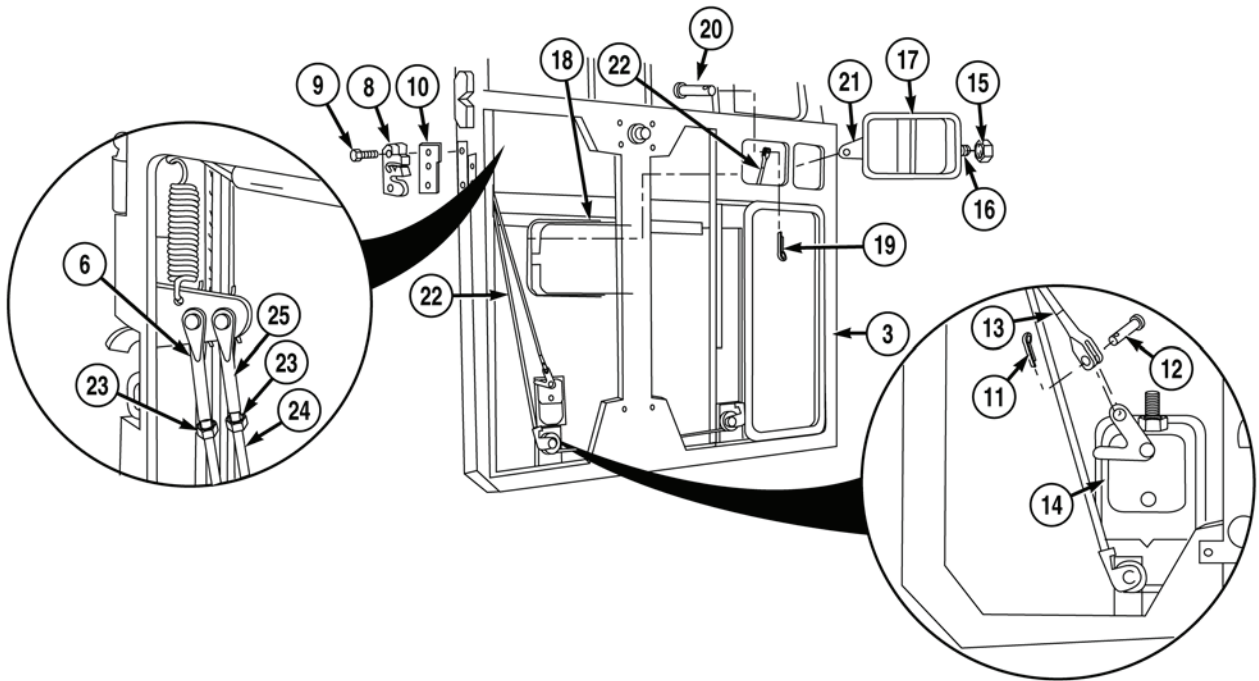
**Wear safety glasses while installing retaining rings to protect eyes from possible injury or blindness.**

3. Install two pulleys (30), cable guards (31), and cable (22) on two studs (32) with retaining clips (29).

### NOTE

Roller is threaded into bracket.

4. Thread two rollers (27) into brackets (28). Do not tighten rollers (27).
5. Install two nuts (26) on studs (32).



**NOTE**

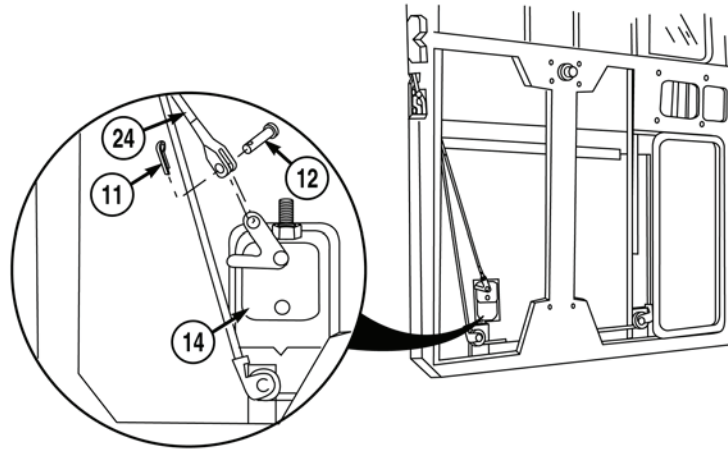
Perform Step (6) if stud was removed.

6. Install stud (16) on inner door handle (17).
7. Install cable (22) on inner door handle lever (21) with pin (20) and cotter pin (19).
8. Install inner door handle (17) on door (3) with door handle retainer (18) and locknut (15).

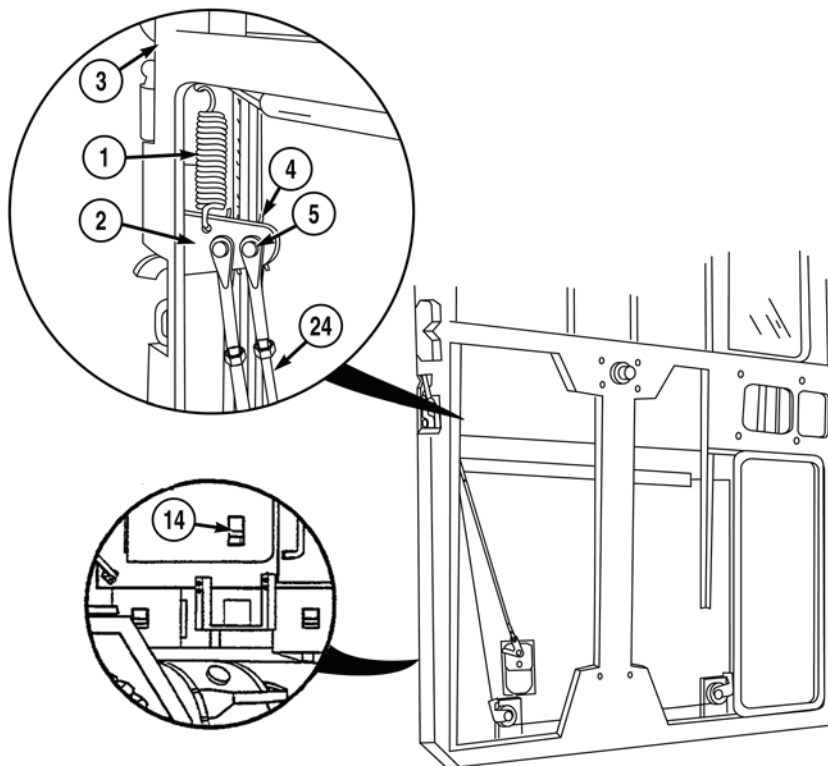
**NOTE**

Latch must be in closed position to install lock.

9. Install two lock spacer plates (10) and door lock mechanism (8) on door (3) with two self-locking screws (9).
10. Install two jamnuts (23) and clevises (6) and (25) on cable (22) and outer rod (24).



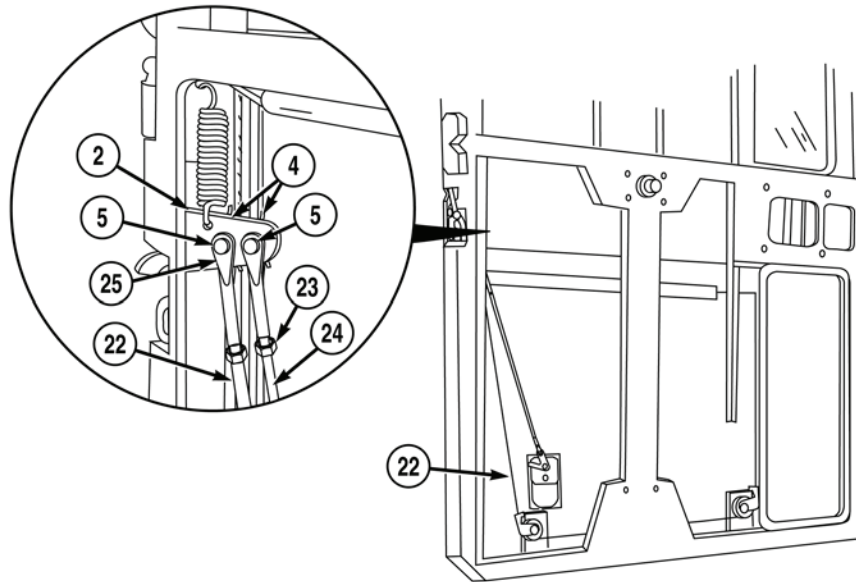
11. Install outer rod (24) on outer door handle (14) with pin (12) and cotter pin (11).



12. Install outer rod (24) on door lock connecting lever (2) with pin (5) and cotter pin (4).

13. Install spring (1) on door lock connecting lever (2) and door (3).

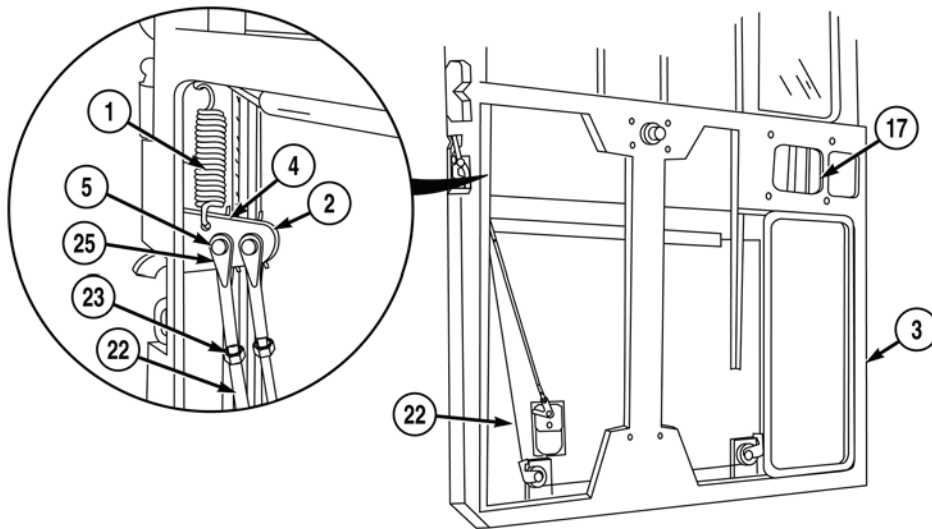
14. Check outer door handle (14) operation.



### NOTE

Perform Steps (15) through (18) to adjust outer rod.

15. Remove cotter pin (4), pin (5), and outer rod (24) from door lock connecting lever (2). Discard cotter pin.
16. Loosen jamnut (23) and turn outer rod (24) clockwise to shorten, counterclockwise to lengthen.
17. Tighten jamnut (23) and install outer rod (24) on door lock connecting lever (2).
18. Check outer door handle (14) operation. Repeat Steps (15) through (17) if necessary.
19. Pull cable (22) tight and install clevis (25) on door lock connecting lever (2) with pin (5) and cotter pin (4).
20. Check inner door handle (17) operation.



### NOTE

Perform Steps (21) through (24) to adjust cable if necessary.

21. Remove cotter pin (4), pin (5), and cable (22) from door lock connecting lever (2).
22. Loosen jamnut (23) and turn clevis end (25) clockwise on cable (22) to shorten, counterclockwise to lengthen.
23. Tighten jamnut (23) and install clevis (25) on door lock connecting lever (2) with pin (5) and cotter pin (4).
24. Check operation of inner door handle (17). Repeat Steps (21) through (23) if necessary.
25. Install spring (1) on door (3) and door lock connecting lever (2).

### END OF TASK

### FOLLOW-ON MAINTENANCE

Install crew cab inner door panel (WP 0507)

### END OF TASK

### END OF WORK PACKAGE



---

**FIELD LEVEL MAINTENANCE**  
**CREW CAB DOOR SEAL REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Adhesive, Sealant, Silicone RTV  
(WP 0625, Item 5)

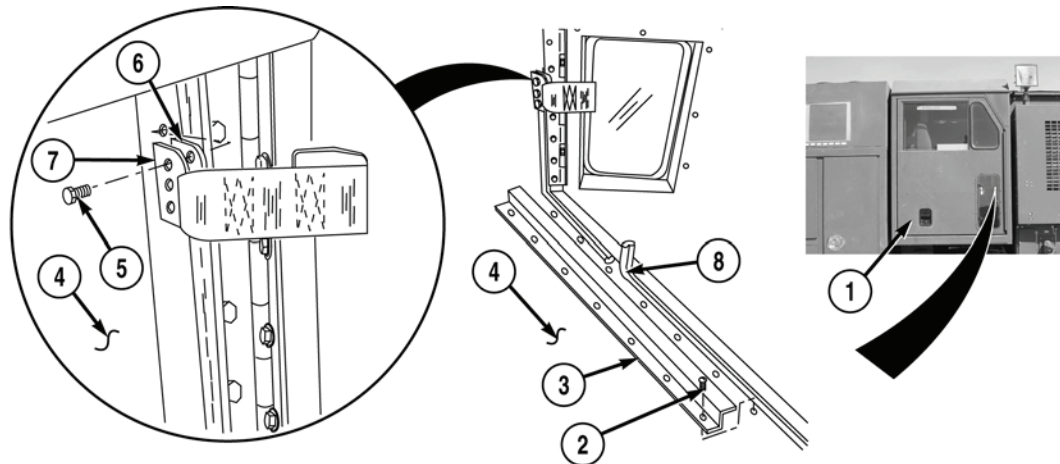
**References**

WP 0615, Fig. 119

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

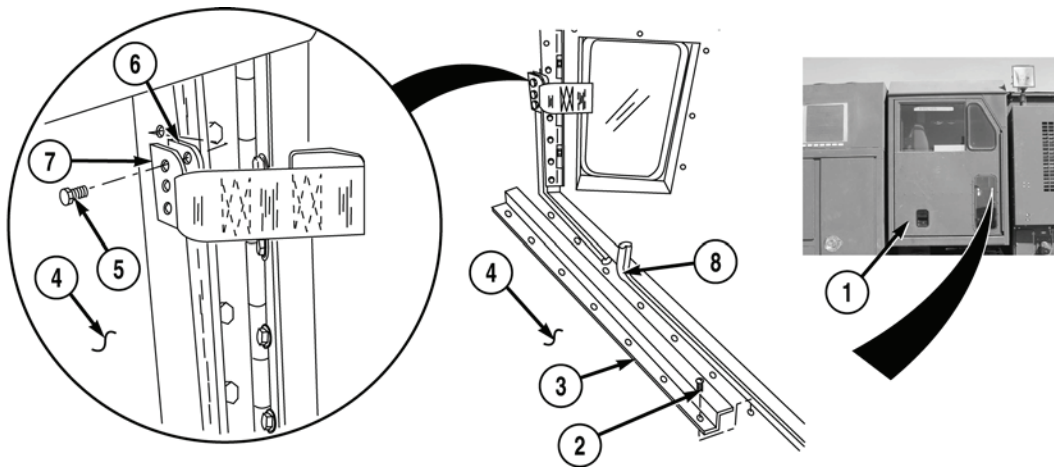
**REMOVAL****NOTE**

Left and right door seals are removed the same way. Right door is shown.

1. Open crew cab door (1).
2. Remove eight screws (2) and plate (3) from floor of crew cab (4).
3. Remove two screws (5) and spacer (6) from door strap (7) and crew cab (4).
4. Remove seal (8) from crew cab (4).

**END OF TASK**

## INSTALLATION

**NOTE**

- Door seal length is 162 in. (411 cm).
- Left and right door seals are installed the same way. Right door seal is shown.

1. Install seal (8) on crew cab (4).

**WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

**NOTE**

Allow 30 minutes for silicone adhesive-sealant to cure.

2. Coat ends of seal (8) with silicone adhesive-sealant.
3. Install door strap (7) and spacer (6) on crew cab (4) with two screws (5).
4. Install plate (3) on floor of crew cab (4) with eight screws (2).
5. Close crew cab door (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## CREW CAB DOOR WINDOW/REGULATOR REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 119

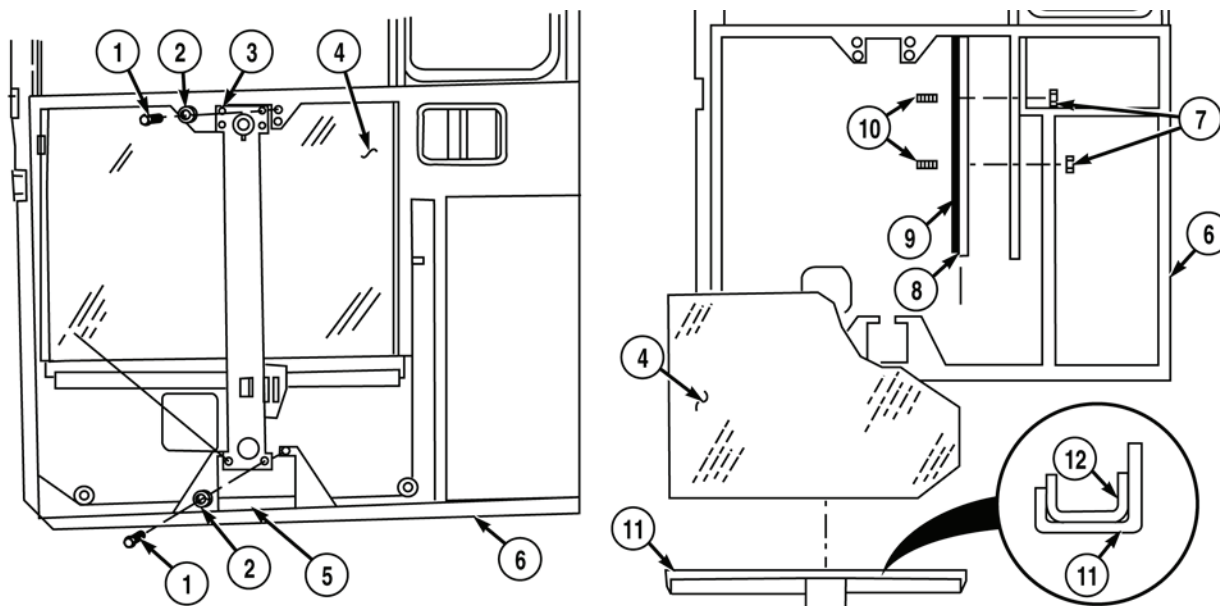
**Materials/Parts**

Lockwasher (6)  
Locknut (2)

**Equipment Conditions**

Crew cab outer door handle removed (WP 0503)

## REMOVAL

**NOTE**

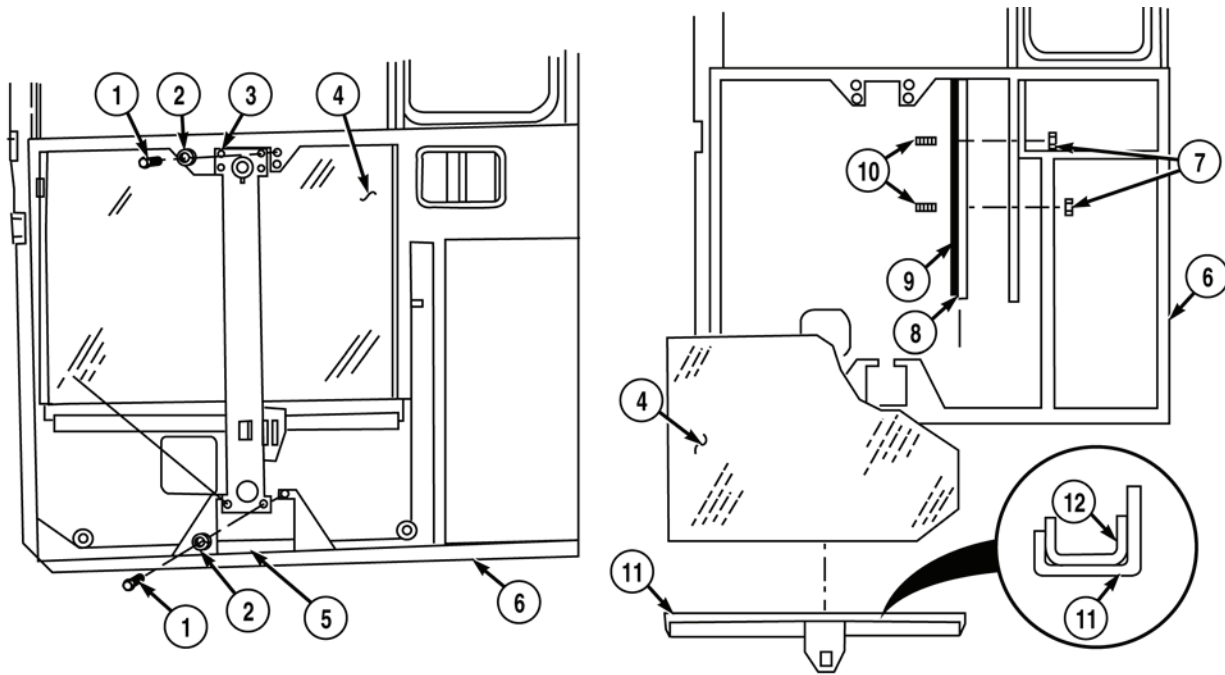
Left side and right side windows and regulators are replaced the same way. Left side is shown.

1. Remove two screws (1) and lockwashers (2) from bottom of regulator (3). Discard lockwashers.

**WARNING**

**Window must be supported when pulling regulator away from window. Failure to comply may result in injury to personnel and damage to equipment.**

2. Pull regulator (3) away from window (4).



3. Lower window (4) to stop (5).
4. Remove four remaining screws (1), lockwashers (2), and regulator (3) from door (5). Discard lockwashers.
5. Prop window (4) with wooden block.
6. Remove two locknuts (7) from channel (8) on door (6).
7. Push window (4) completely up and remove channel (8) from door (6).
8. Remove seal (9) from channel (8)
9. Remove two screws (10) from channel (8).
10. Lower window (4) to bottom of door (6).
11. Remove window (4) and channel (11) from door (6).
12. Remove channel (11) and rubber seal (12) from window (4).

## END OF TASK

## INSTALLATION

### NOTE

Flat side of regulator mounting bracket must face inside of vehicle. Angled corner of glass must be at bottom. Channel must be mounted to glass 1.5 in. (3.8 cm) from edge of glass at angled corner.

1. Install channel (11) and rubber seal (12) on window (4).
2. Install window (4) in bottom of door (6) and channel (11).

3. Push window (4) completely up.
4. Install two screws (10) on channel (8).
5. Install seal (9) on channel (8).
6. Install channel (8) in door (6).
7. Lower window (4) to stop (5).
8. Install two locknuts (7) on channel (8).
9. Install regulator (3) on door (6) with four lockwashers (2) and screws (1).
10. Lower window (4) and install regulator (3) in channel (11).
11. Install regulator (3) on door (6) with two remaining lockwashers (2) and screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install crew cab outer door handle (WP 0503)

**END OF TASK****END OF WORK PACKAGE**





**FIELD LEVEL MAINTENANCE**  
**CREW CAB INNER DOOR PANEL REPLACEMENT**

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

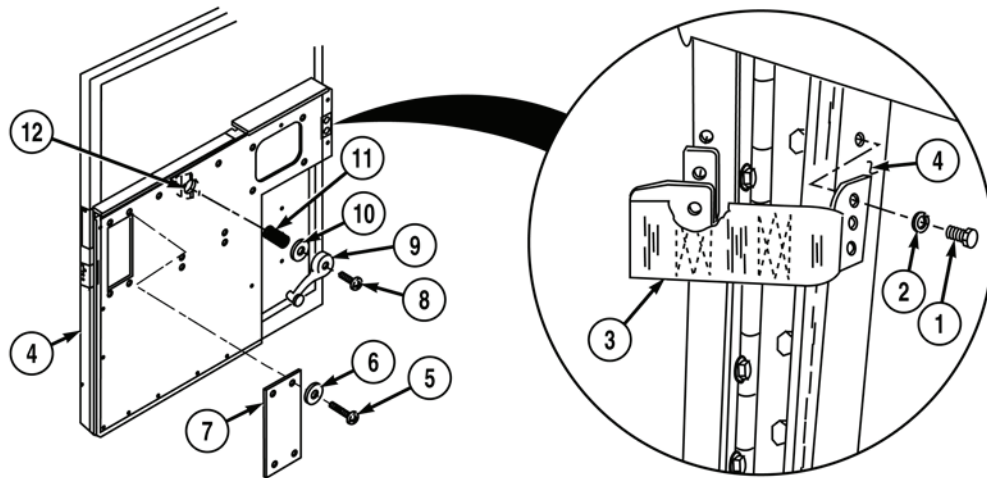
WP 0615, Fig. 119

**Materials/Parts**

Lockwasher (2)

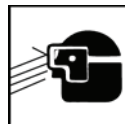
**Equipment Conditions**

Crew cab grab handle removed (WP 0521)  
Crew cab rifle mounts (door) removed (WP 0509)

**REMOVAL****NOTE**

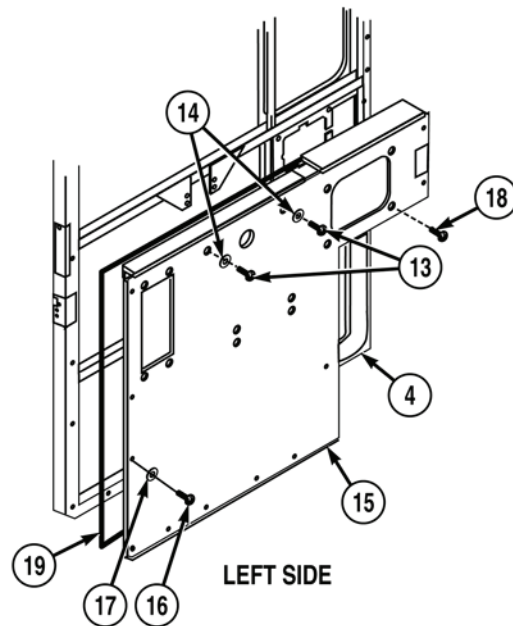
Left side and right side door panels are removed the same way. Left side shown.

1. Remove two screws (1), lockwashers (2), and door strap (3) from door (4). Discard lockwashers.
2. Remove four screws (5), washers (6), and access cover (7) from door (4).

**WARNING**

**Use extreme care when removing or installing springs. Springs are under tension and can act as projectiles when released. Ensure proper eye protection is worn to prevent injury to personnel.**

3. Remove screw (8), window crank (9), washer (10), and spring (11) from window regulator (12).



4. Remove two screws (13) and washers (14) from door panel (15).
5. Remove 14 screws (16) and washers (17) from door panel (15).
6. Remove four screws (18) and door panel (15) from door (4).

### NOTE

Perform Step (7) if rubber strip is damaged.

7. Remove rubber strip (19) from door panel (15).

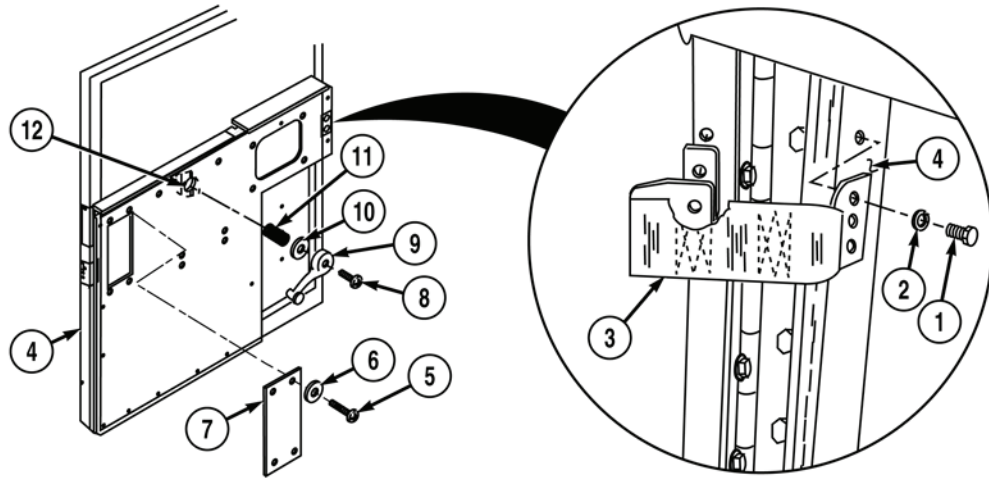
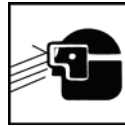
### END OF TASK

### INSTALLATION

### NOTE

- Perform Step (1) if rubber strip was removed.
- Ensure door and door panel mounting surfaces are clean prior to installing rubber strip.
- Left and right side door panels are installed the same way. Left side shown.

1. Install rubber strip (19) on door panel (15).
2. Install door panel (15) on door (4) with four screws (18).
3. Install 14 washers (17) and screws (16) on door panel (15).
4. Install two washers (14) and screws (13) on door panel (15).

**WARNING**

**Use extreme care when removing or installing springs. Springs are under tension and can act as projectiles when released. Ensure proper eye protection is worn to prevent injury to personnel.**

5. Install spring (11), washer (10), and window crank (9) on window regulator (12) with screw (8).
6. Install access cover (7) on door (4) with four washers (6) and screws (5).
7. Install door strap (3) on door (4) with two lockwashers (2) and screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install crew cab grab handle (WP 0521)
2. Install crew cab rifle mounts (door) (WP 0509)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**CREW CAB PEEP WINDOW REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 119

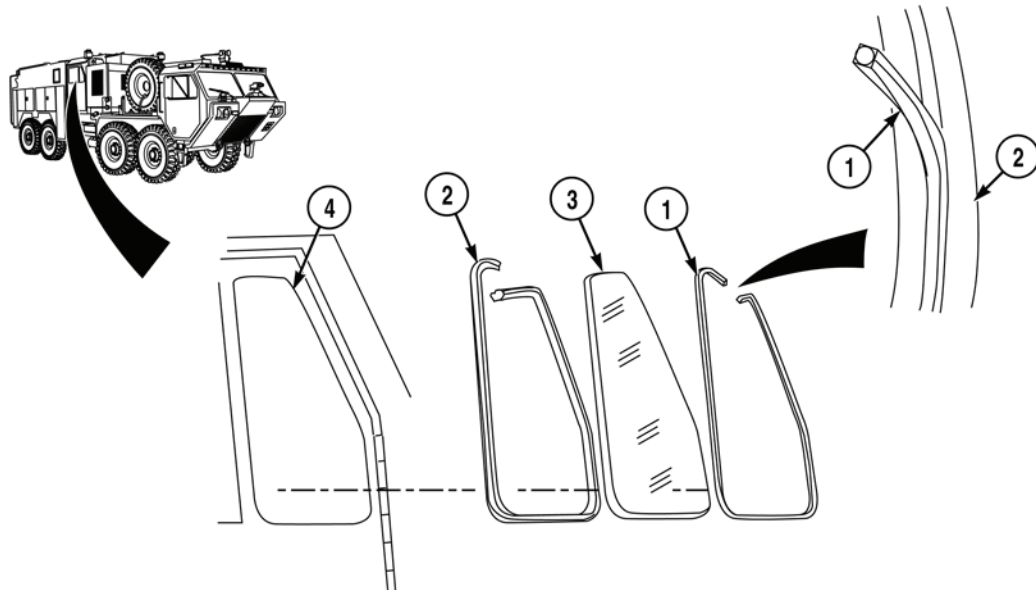
**Materials/Parts**

Window Weld (WP 0625, Item 59)  
Soap Chips (WP 0625, Item 50)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

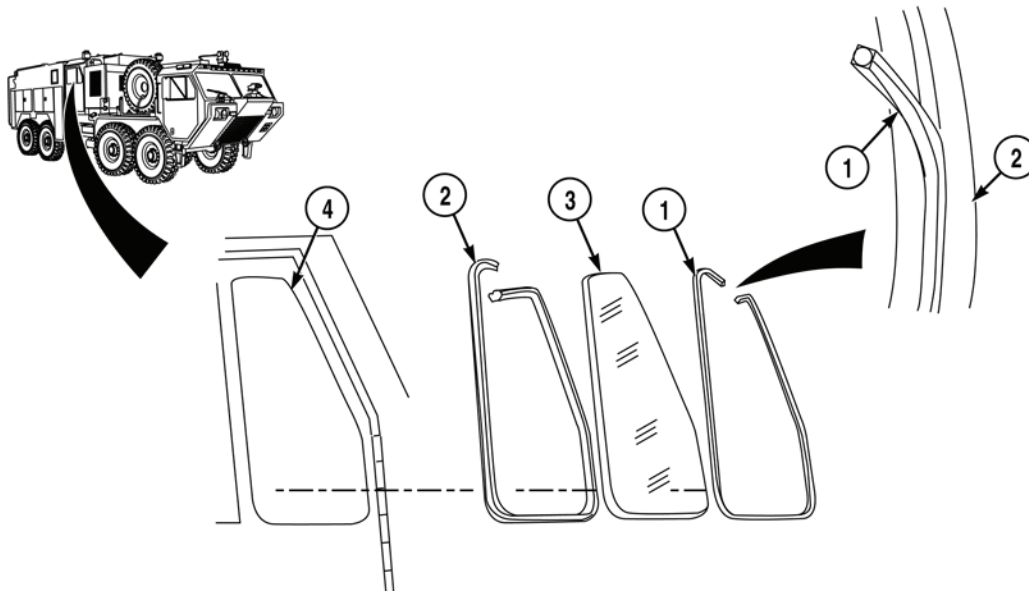
---

**REMOVAL**

1. Remove locking strip (1) from locking channel (2).
2. Remove window glass (3) from locking channel (2).
3. Remove locking channel (2) from crew cab door (4).

**END OF TASK**

## INSTALLATION



1. Install locking channel (2) on crew cab door (4) with locking strip (1) facing out.

### **WARNING**



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

2. Fill gap between ends of locking channel (2) with window weld.
3. Coat locking channel (2) and locking strip (1) with soapy water.
4. Install window glass (3) in locking channel (2).
5. Install locking strip (1) in locking channel (2).

**END OF TASK**

### **FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**CREW CAB RIFLE MOUNT(S) REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials**

Lockwasher (14)

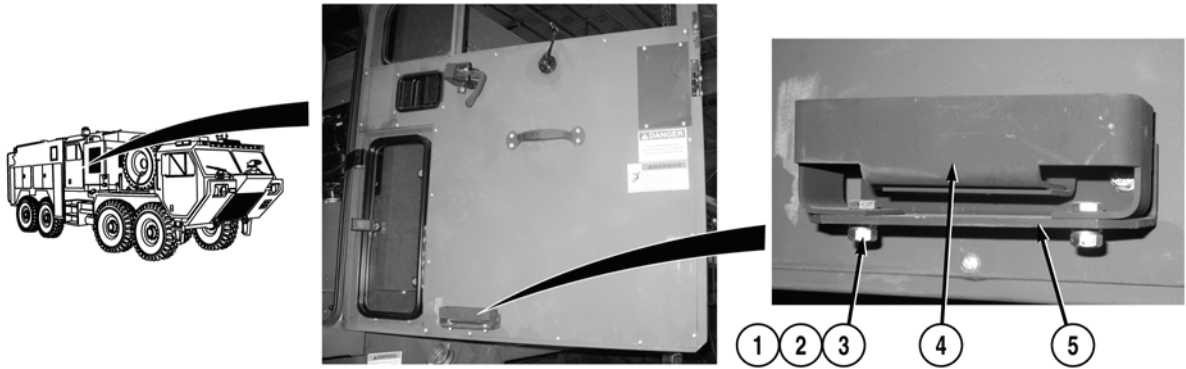
**References**

WP 0613, Fig. 3

**Equipment Conditions**

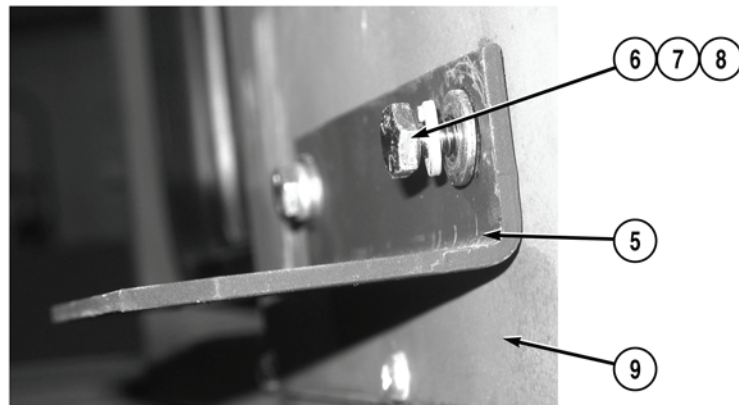
Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

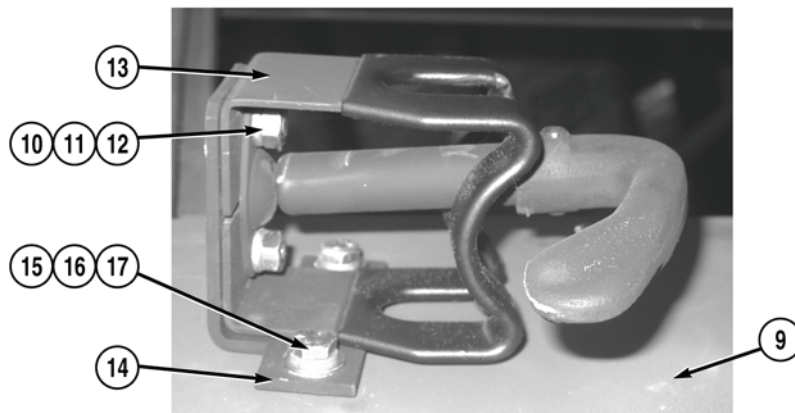
**CREW CAB DOOR RIFLE MOUNT REMOVAL****NOTE**

Driver side and passenger side rifle mounts are removed the same way. Passenger side shown.

1. Remove two nuts (1), lockwashers (2), screws (3), and rifle mount base (4) from bracket (5). Discard lockwashers.



2. Remove two screws (6), lockwashers (7), washers (8), and bracket (5) from door (9). Discard lockwashers.



3. Remove two nuts (10), lockwashers (11), screws (12), and upper rifle mount (13) from bracket (14). Discard lockwashers.
4. Remove two screws (15), lockwashers (16), washers (17), and bracket (14) from door (9). Discard lockwashers.

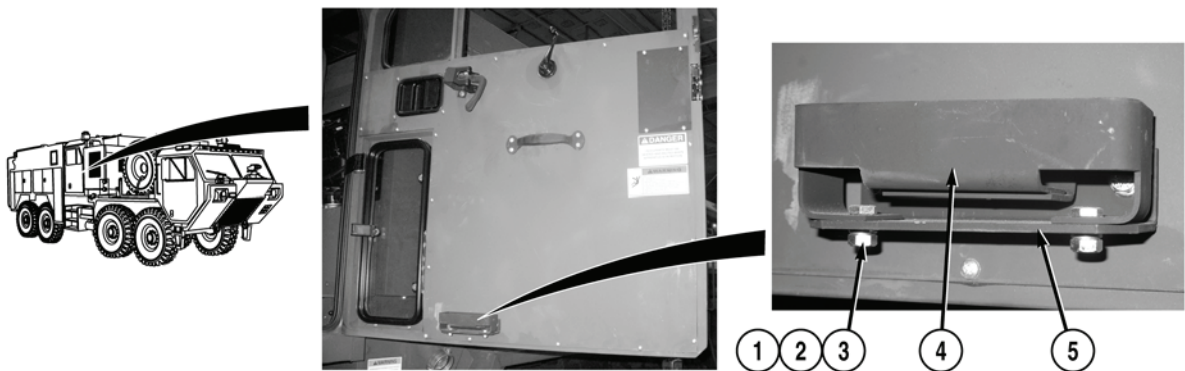
**END OF TASK**



**CREW CAB DOOR RIFLE MOUNT INSTALLATION****NOTE**

Driver side and passenger side rifle mounts are installed the same way. Passenger side shown.

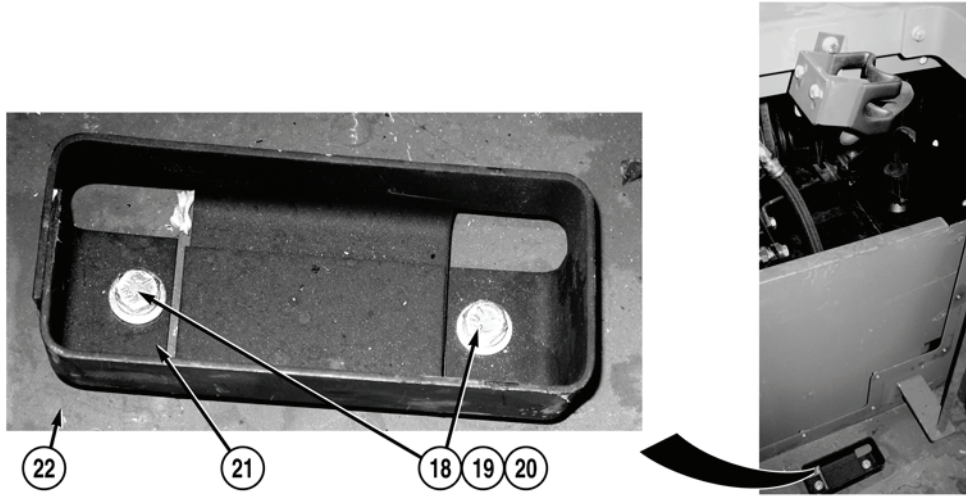
1. Install bracket (14) on door (9) with two washers (17), lockwashers (16), and screws (15).
2. Install upper rifle mount (13) on bracket (14) with two screws (12), lockwashers (11), and nuts (10).
3. Install bracket (5) on door (9) with two washers (8), lockwashers (7), and screws (6).



4. Install rifle mount base (4) on bracket (5) with two screws (3), lockwashers (2), and nuts (1).

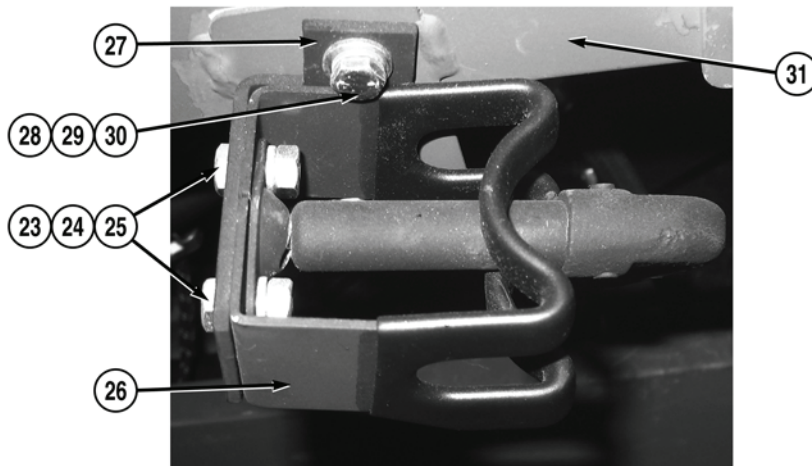
**END OF TASK**

## INSIDE CREW CAB RIFLE MOUNT REMOVAL

**NOTE**

Driver side and passenger side interior crew cab rifle mounts are removed the same way.  
Passenger side shown.

1. Remove two screws (18), lockwashers (19), washers (20), and rifle mount base (21) from crew cab floor (22). Discard lockwashers.



2. Remove two nuts (23), lockwashers (24), screws (25), and upper rifle mount (26) from bracket (27). Discard lockwashers.
3. Remove two screws (28), lockwashers (29), washers (30), and bracket (27) from crew cab (31).

**END OF TASK**

**INSIDE CREW CAB RIFLE MOUNT INSTALLATION****NOTE**

Driver side and passenger side interior crew cab rifle mounts are installed the same way.  
Passenger side shown.

1. Install bracket (27) on crew cab (31) with two washers (30), lockwashers (29), and screws (28).
2. Install upper rifle mount (26) on bracket (27) with two screws (25), lockwashers (24), and nuts (28).
3. Install rifle mount base (21) on crew cab floor (22) with two washers (20), lockwashers (19), and screws (18).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**CREW CAB ROOF HATCH REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0603  
WP 0615, Fig. 122

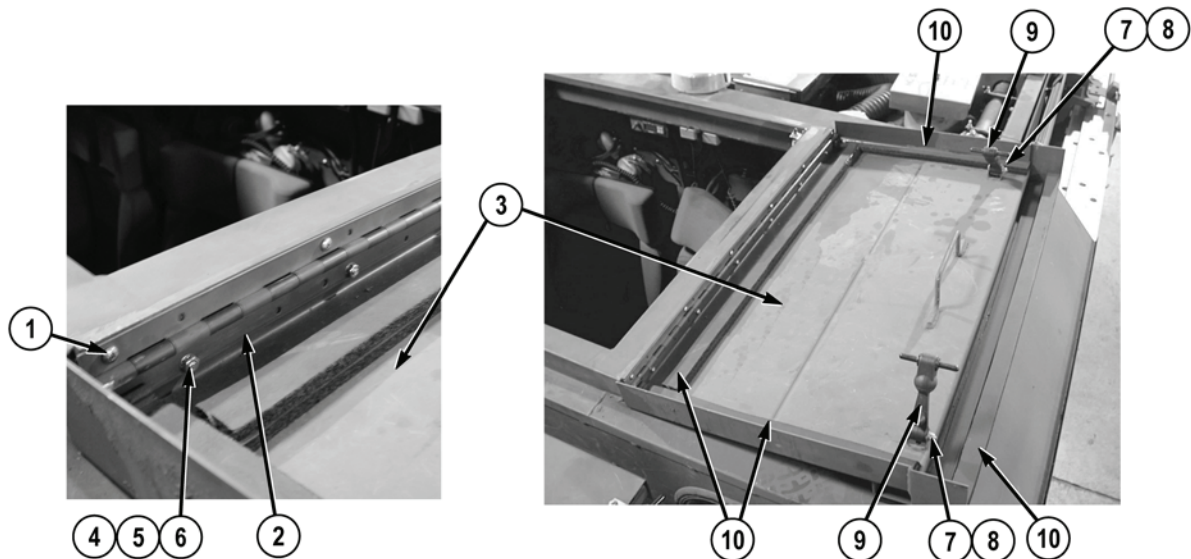
**Materials/Parts**

Tape, Foam, Vinyl (WP 0625, Item 53)  
Locknut (7)  
Locknut (2)  
Lockwasher (2)  
Locknut (1)  
Lockwasher (2)  
Locknut (2)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)  
Crew cab roof hatch opened (WP 0018)

---

**REMOVAL****NOTE**

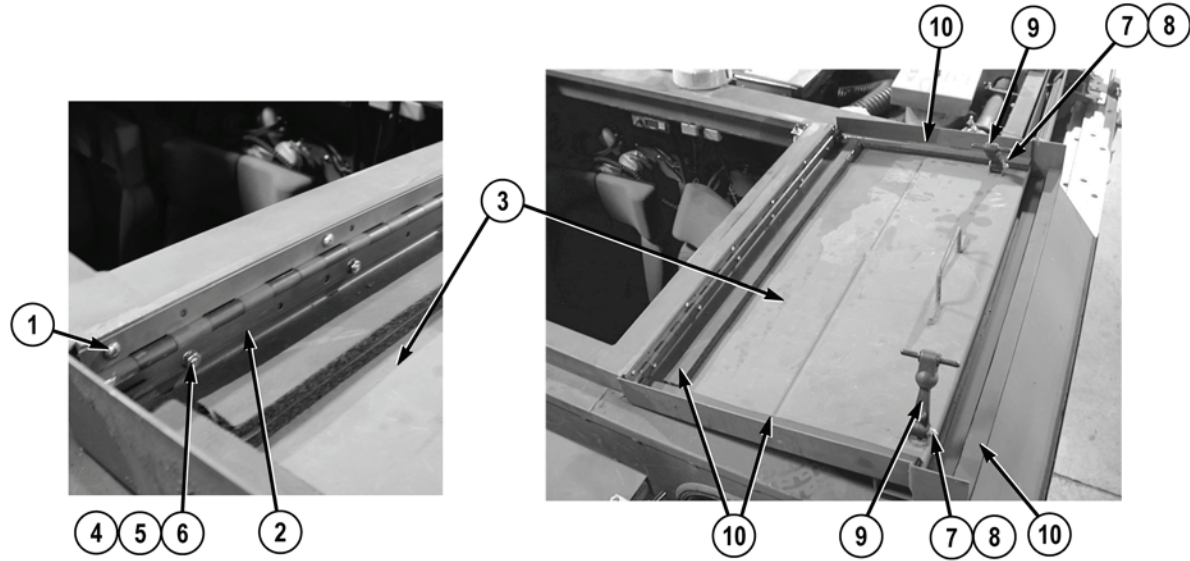
Perform Step (1) if roof hatch insulation needs to be removed.

1. Remove crew cab roof hatch insulation (WP 0603).

**NOTE**

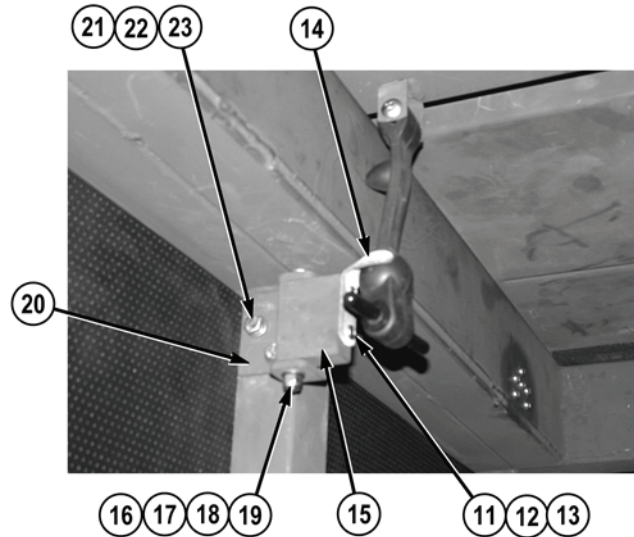
- Crew cab roof hatch insulation shown removed for clarity.
- Both doors are removed the same way. Driver side shown.

2. Remove six screws (1), hinge (2), and door (3) from vehicle.
3. Remove seven locknuts (4), washers (5), screws (6), and hinge (2), from door (3). Discard locknuts.

**NOTE**

Rubber hooks are replaced on driver side door only.

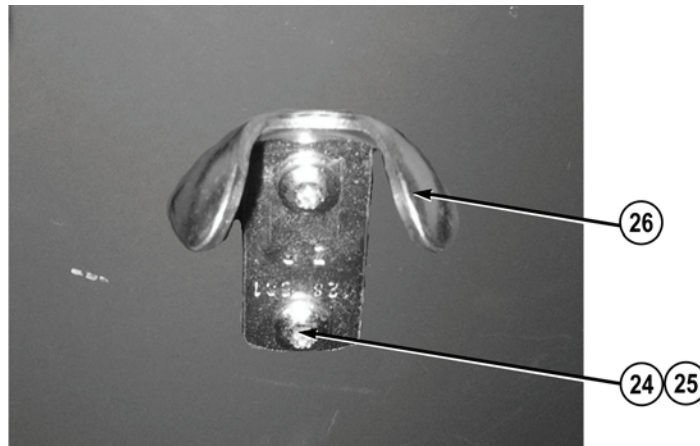
4. Remove two locknuts (7), screws (8), and rubber hooks (9) from door (3). Discard locknuts.
5. Remove foam tape (10) from door (3).



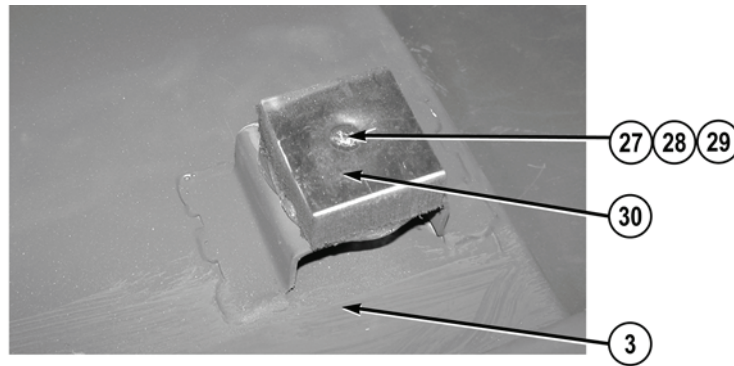
### NOTE

Note location of washers prior to removal to ensure proper installation.

6. Remove two screws (11), lockwashers (12), washers (13), and rubber hook latch (14) from pivot block (15). Discard lockwashers.
7. Remove locknut (16), four washers (17) and (18), screw (19), and pivot block (15) from bracket (20). Discard locknut.
8. Remove two screws (21), lockwashers (22), washers (23), and bracket (20) from vehicle. Discard lockwashers.



9. Remove two screws (24), washers (25), and bracket (26) from vehicle.



10. Remove two locknuts (27), washers (28), screws (29), and pads (30) from door (3). Discard locknuts.

### END OF TASK

### INSTALLATION

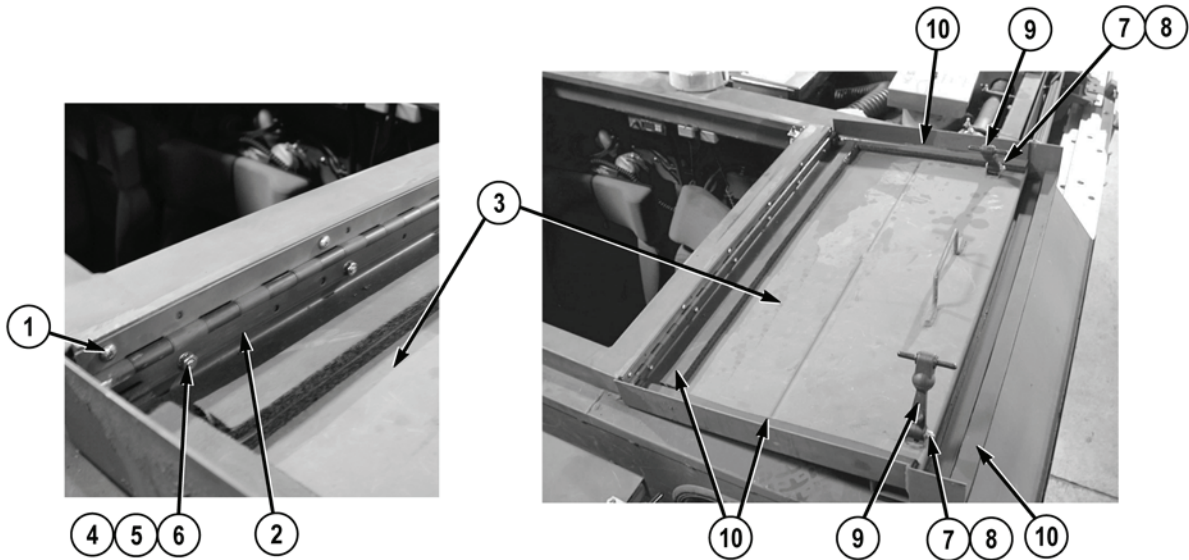
1. Install two pads (30) on door (3) with two screws (29), washers (28), and locknuts (27).
2. Install bracket (26) on vehicle with two washers (25) and screws (24).
3. Install bracket (20) on vehicle with two washers (23), lockwashers (22), and screws (21).

### NOTE

Install washers in same location as noted prior to removal.

4. Install pivot block (15) on bracket (20) with four washers (17) and (18), screw (19), and locknut (16).
5. Install rubber hook latch (14) on pivot block (15) with two washers (13), lockwashers (12), and screws (11).
6. Install foam tape (10) on door (3).
7. Install two rubber hooks (9) on door (3) with two screws (8) and locknuts (7).





8. Install hinge (2) on door (3) with seven washers (5), locknuts (4), and screws (6).
9. Install door (3) and hinge (2) on vehicle with six screws (1).

**NOTE**

Perform Step (10) if roof hatch insulation needs to be installed.

10. Install crew cab roof hatch insulation (WP 0603).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Close crew cab roof hatch (WP 0018)
2. Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE****CREW CAB ROOF HATCH DOOR SWITCH GUARD REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

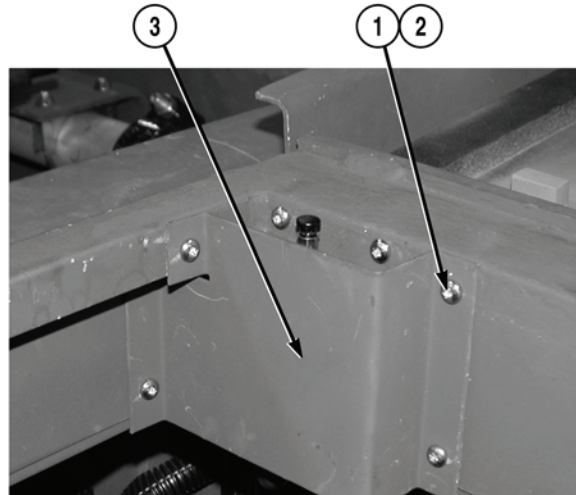
**References**

WP 0615, Fig. 122

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF TM 9-2320-347-10  
Wheels chocked TM 9-2320-347-10  
Crew cab roof hatch opened (WP 0018)

---

**REMOVAL**

Remove four screws (1), washers (2), and switch guard (3) from vehicle.

**END OF TASK****INSTALLATION**

Install switch guard (3) on vehicle with four washers (2) and screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Close crew cab roof hatch (WP 0018)
2. Remove wheel chocks TM 9-2320-347-10

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**CREW CAB SCBA SEAT REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 117

**Materials/Parts**

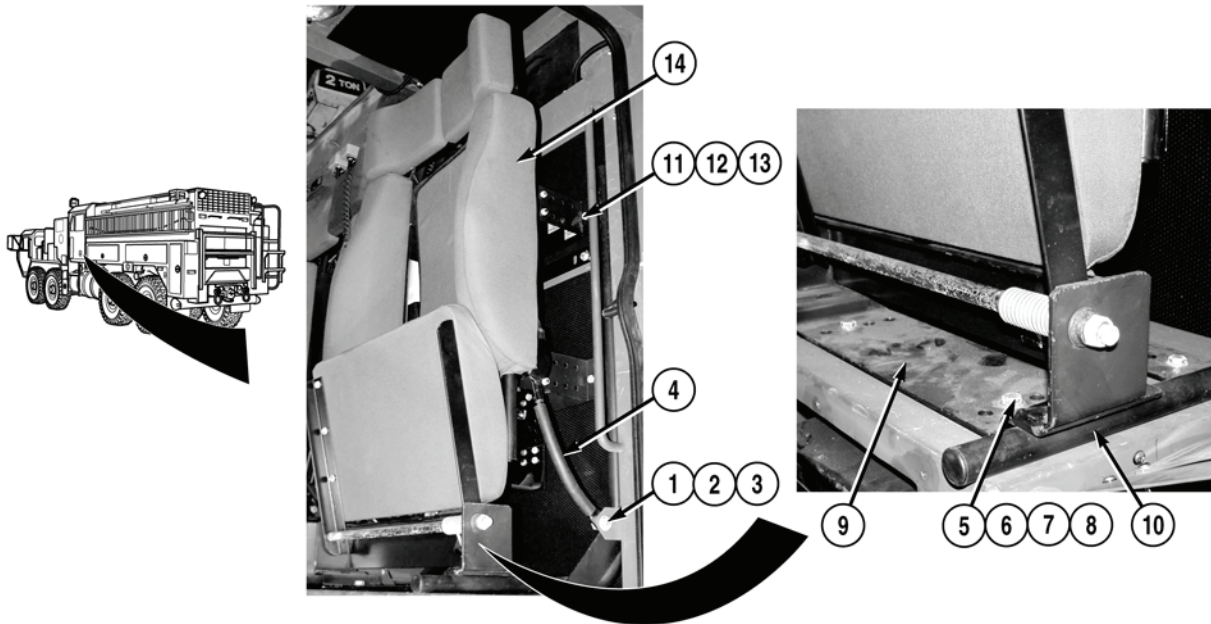
Locknut (1)  
Lockwasher (2)  
Lockwasher (2)  
Lockwasher (4)  
Lockwasher (2)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

## REMOVAL

**NOTE**

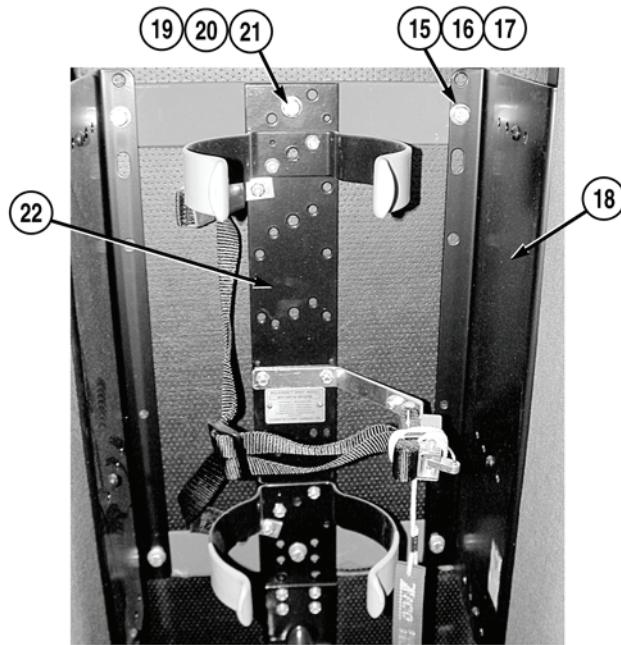
- Both passenger side and driver side SCBA seats are replaced the same way. Driver side shown.
- Seat belt anchor needs to be removed in order to provide clearance for SCBA seat removal.

1. Remove locknut (1), washer (2), screw (3), and seat belt anchor (4) from vehicle. Discard locknut.

**NOTE**

Note position of seat base prior to removal to ensure proper installation.

2. Remove two nuts (5), lockwashers (6), four washers (7), two screws (8), and seat base (9) from seat frame (10) and vehicle. Discard lockwashers.
3. Remove two screws (11), lockwashers (12), washers (13), and SCBA seat (14) from vehicle. Discard lockwashers.



### NOTE

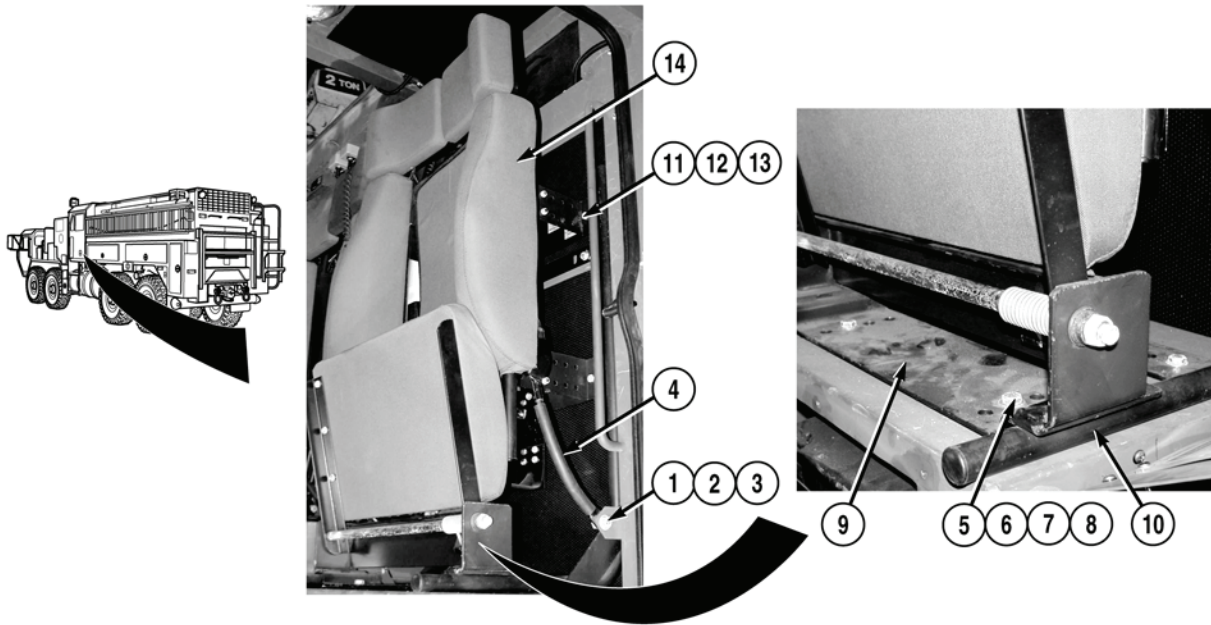
Both center SCBA seats are replaced the same way. Driver side shown.

4. Remove four screws (15), lockwashers (16), washers (17), and center SCBA seat (18) from vehicle. Discard lockwashers.
5. Remove two screws (19), lockwashers (20), washers (21), and air bottle bracket (22) from vehicle. Discard lockwashers.

### END OF TASK

### INSTALLATION

1. Install air bottle bracket (22) on vehicle with two screws (19), lockwashers (20), and washers (21).
2. Install center SCBA seat (18) on vehicle with four screws (15), lockwashers (16), and washers (17).



3. Install SCBA seat (14) on vehicle with two screws (11), lockwashers (12), and washers (13). Do not tighten screws.

### NOTE

Install seat base as noted prior to removal.

4. Install seat base (9) on seat frame (10) and vehicle with two screws (8), four washers (7), two lockwashers (6), and nuts (5).
5. Tighten two screws (11).
6. Install seat belt anchor (4) on vehicle with screw (3), washer (2), and locknut (1).

### END OF TASK

### FOLLOW-ON MAINTENANCE

Remove wheel chocks (TM 9-2320-347-10)

### END OF TASK

### END OF WORK PACKAGE



---

**FIELD LEVEL MAINTENANCE**  
**CREW CAB SCBA SEAT REPAIR**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 117

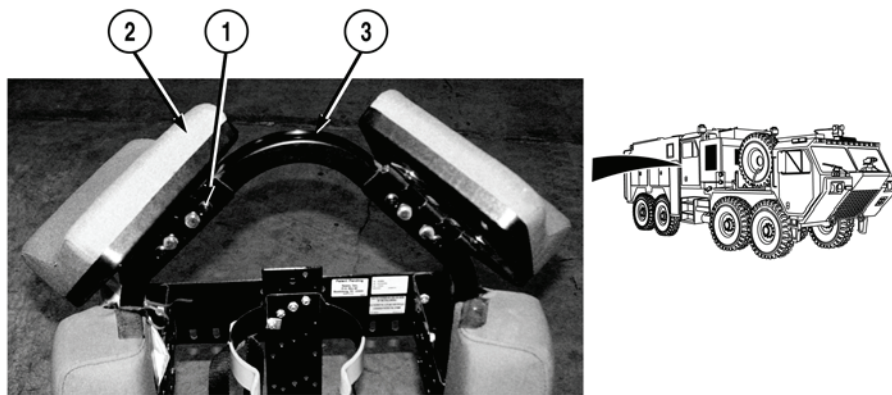
**Materials/Parts**

Locknut (8)  
Locknut (4)  
Locknut (2)

**Equipment Conditions**

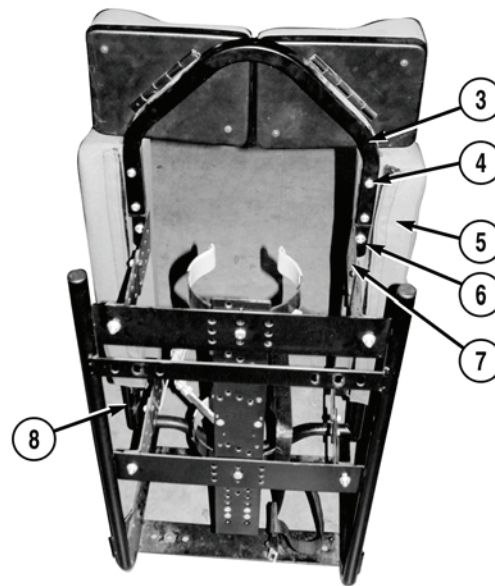
SCBA seat (crew cab, passenger)  
removed (WP 0497)

---

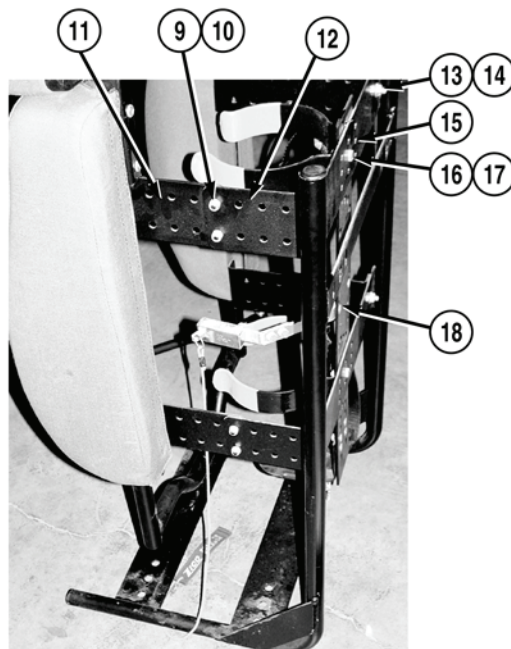
**REMOVAL****NOTE**

Both passenger side and driver side SCBA seats are repaired the same way. Passenger side shown.

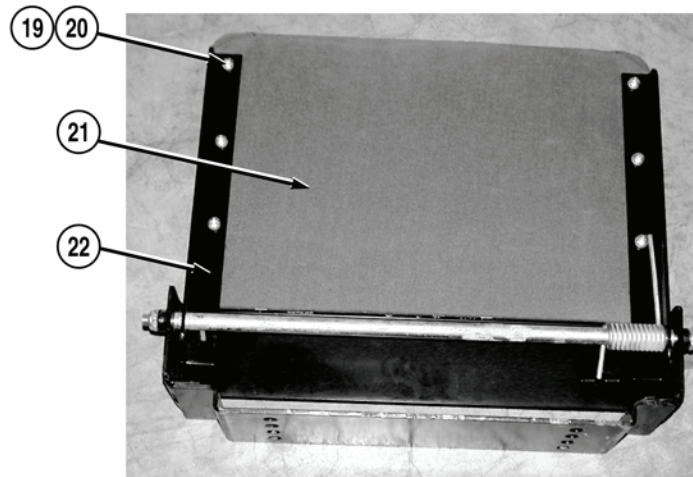
1. Remove four screws (1) and headrest (2) from seat frame (3).



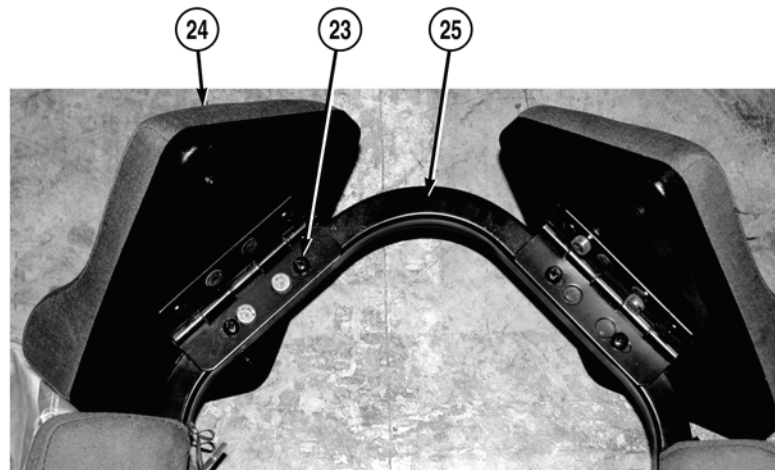
2. Remove four screws (4) from seat frame (3) and two pads (5).
3. Remove four screws (6) from bracket (7) and two pads (5).
4. Slide two pads (5) up away from bar (8).



5. Remove eight locknuts (9), screws (10) and four brackets (11) from brackets (12). Discard locknuts.
6. Remove four locknuts (13), screws (14), and four brackets (12) from two brackets (15). Discard locknuts.
7. Remove two locknuts (16), screws (17) and bracket (18) from two brackets (15). Discard locknuts.



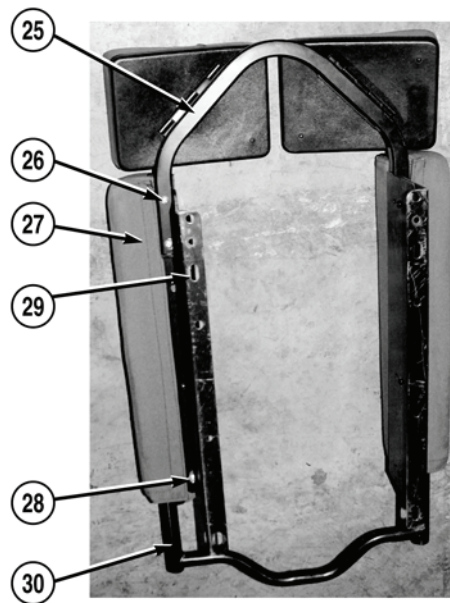
8. Remove six screws (19), washers (20) and seat cushion (21) from frame (22).



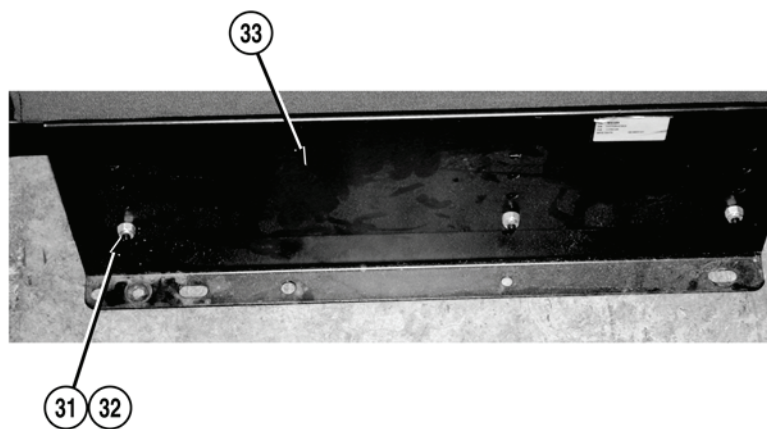
#### NOTE

Both center SCBA seats are repaired the same way. Passenger side shown.

9. Remove four screws (23) and headrest (24) from seat frame (25).



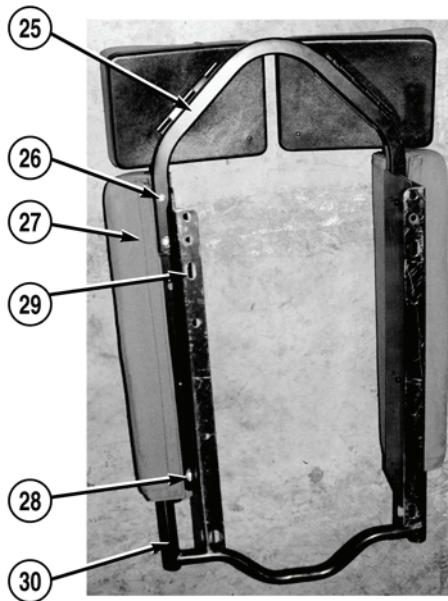
10. Remove four screws (26) from seat frame (25) and two pads (27).
11. Remove two screws (28) from brackets (29) and pads (27).
12. Slide pads (27) up away from bar (30).



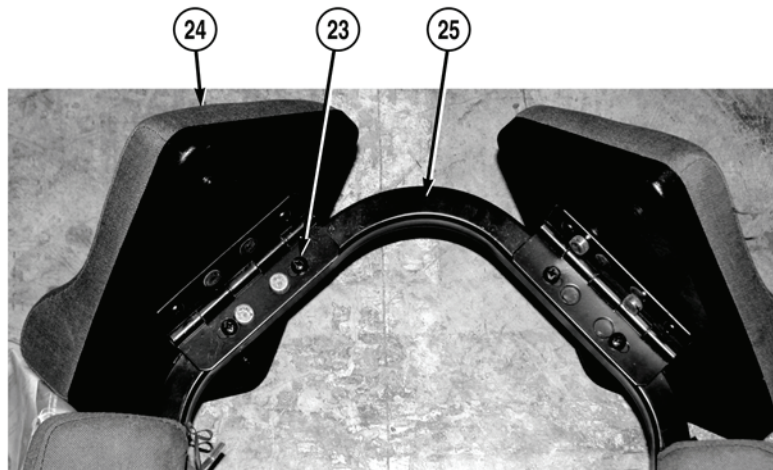
13. Remove three nuts (31), screws (32), and two brackets (29) from brackets (33).

## INSTALLATION

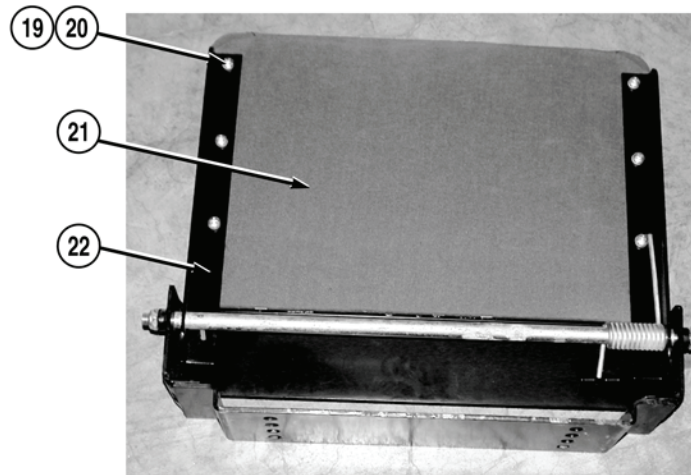
1. Install two brackets (29) on brackets (33) with three screws (32) and nuts (31).



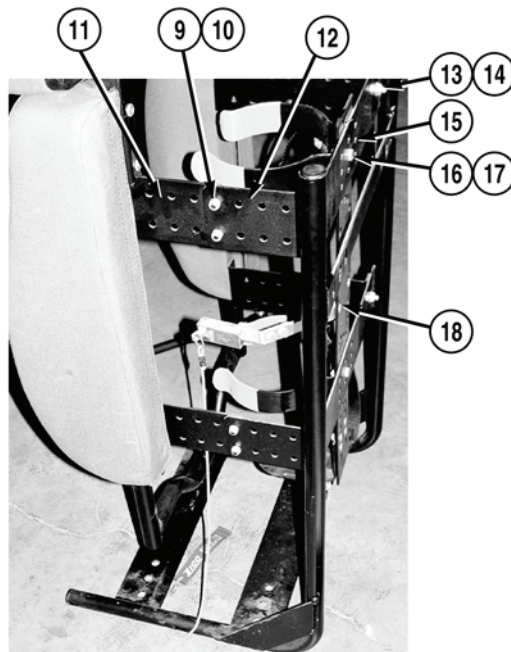
2. Slide two pads (27) on bar (30).
3. Install two brackets (29) on pads (27) with screws (28).
4. Install seat frame (25) on two pads (27) with four screws (26).



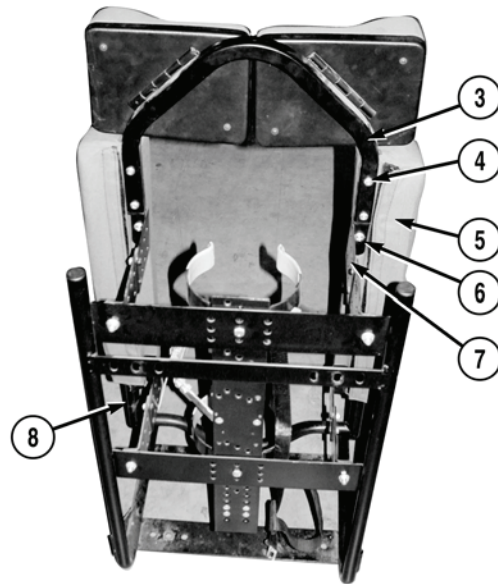
5. Install headrest (24) on seat frame (25) with four screws (23).



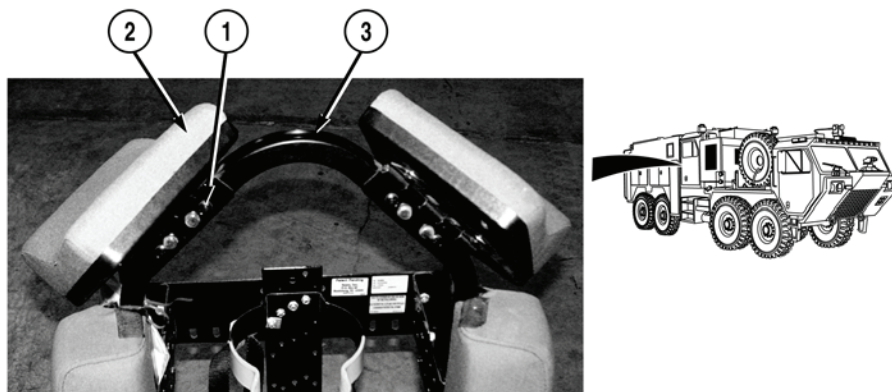
6. Install seat cushion (21) on frame (22) with six screws (19) and washers (20).



7. Install bracket (18) on two brackets (15) with screws (17) and locknuts (16).
8. Install four brackets (12) on two brackets (15) with four screws (14) and locknuts (13).
9. Install four brackets (11) on brackets (12) with eight screws (10) and locknuts (9).



10. Install two pads (5) on bar (8).
11. Install bracket (7) on two pads (5) with four screws (6).
12. Install seat frame (3) on two pads (5) with four screws (4).



13. Install headrest (2) on seat frame (3) with four screws (1).

**END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

Install SCBA seat (crew cab, passenger) (WP 0497)

**END OF TASK**

**END OF WORK PACKAGE**





---

**FIELD LEVEL MAINTENANCE****DRIVER SIDE AND PASSENGER SIDE CREW CAB LADDER REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0012  
WP 0615, Fig. 120

**Materials/Parts**

Lockwasher (22)  
Locknut (1)  
Locknut (2)

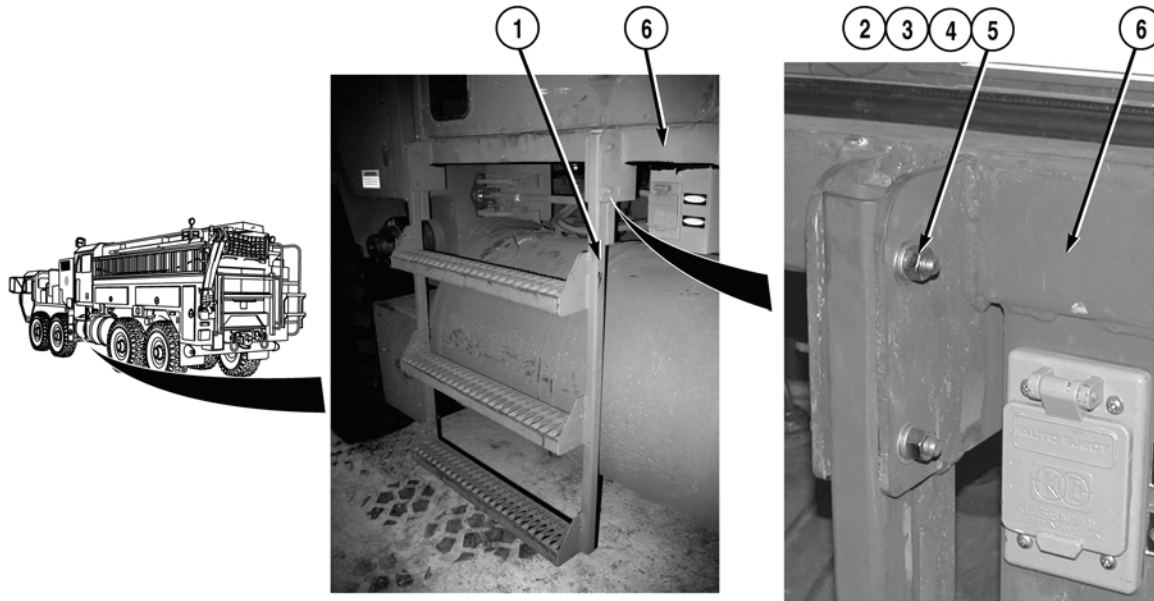
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

---

**DRIVER SIDE CREW CAB LADDER REMOVAL****WARNING**

Crew cab ladder must be properly supported prior to removal. Failure to comply may result in serious injury to personnel.

**NOTE**

Note direction of screw heads before removal to ensure proper installation.

With the aid of an assistant, support driver side crew cab ladder (1) and remove four nuts (2), lockwashers (3), eight washers (4), four screws (5), and driver side crew cab ladder (1) from crew cab (6). Discard lockwashers.

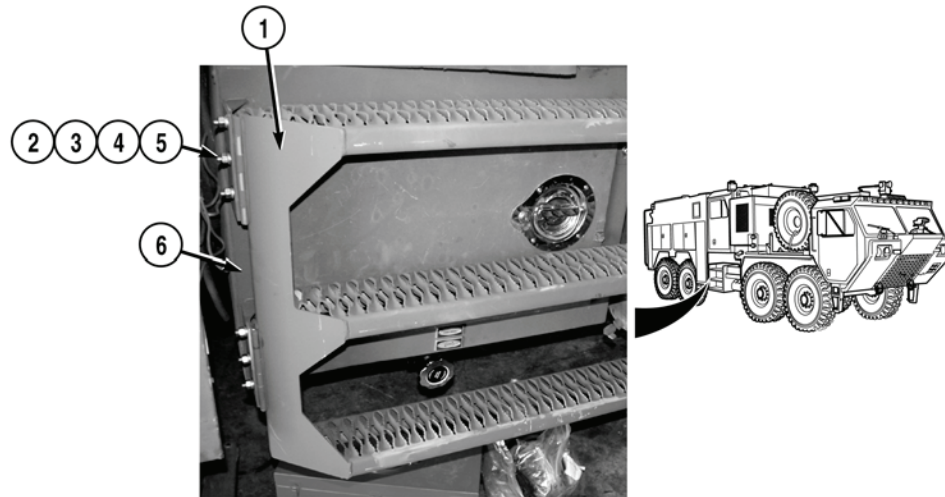
**END OF TASK**

**DRIVER SIDE CREW CAB LADDER INSTALLATION****NOTE**

Install screw heads in same direction as noted prior to removal.

With the aid of an assistant, install driver side crew cab ladder (1) on crew cab (6) with four screws (5), eight washers (4), four lockwashers (3), and screws (2).

**END OF TASK**

**PASSENGER SIDE CREW CAB LADDER REMOVAL**

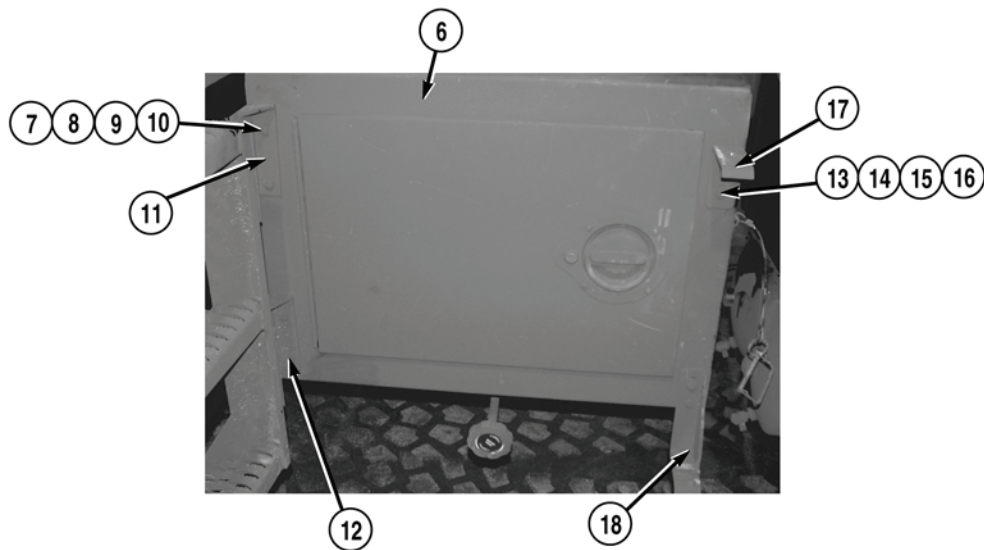
1. Unstow crew cab access ladder (1) (WP 0012).

**WARNING**

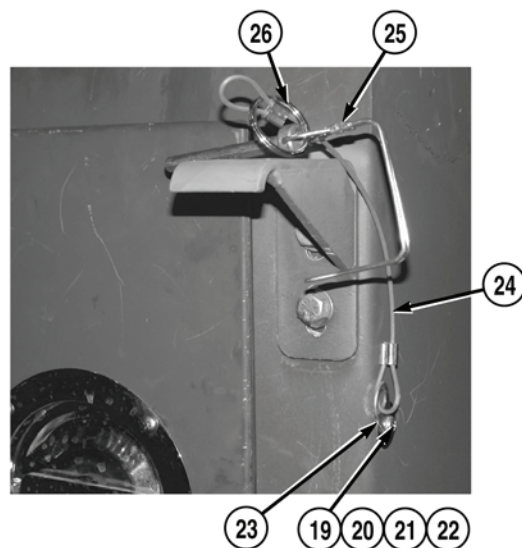
**Crew cab ladder must be properly supported prior to removal. Failure to comply may result in serious injury to personnel.**

**NOTE**

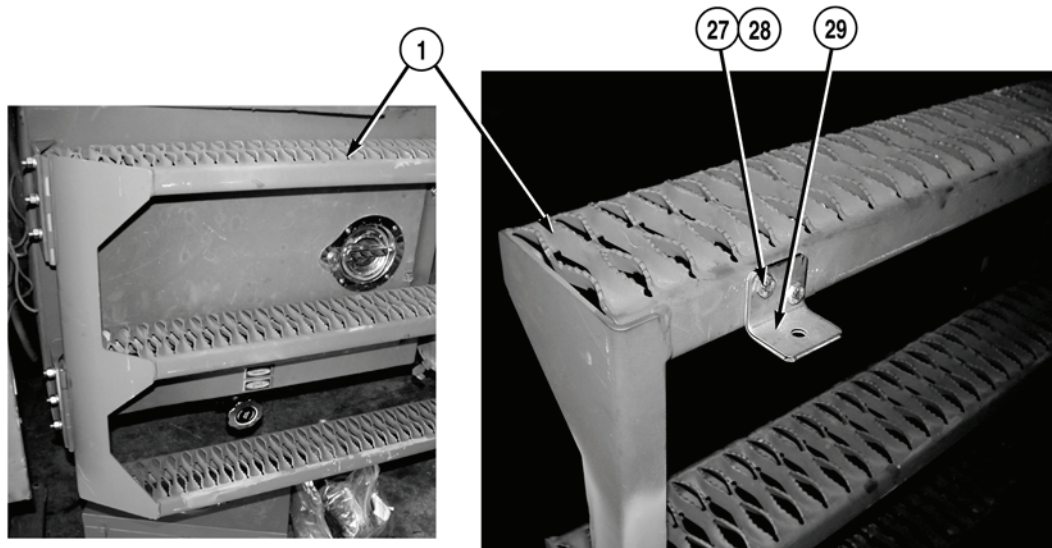
- Passenger side crew cab ladder is attached to stowage box with two hinges that are welded to crew cab ladder. Passenger side crew cab ladder and hinges are removed as an assembly.
  - Note direction of screw heads prior to removal to ensure proper installation.
2. With the aid of an assistant, remove six nuts (2), lockwashers (3), washers (4), screws (5), and crew cab ladder (1) from stowage box (6). Discard lockwashers.



3. Remove four nuts (7), lockwashers (8), eight washers (9), four screws (10), and two brackets (11) and (12) from stowage box (6). Discard lockwashers.
4. Remove four nuts (13), lockwashers (14), eight washers (15), four screws (16), and two brackets (17) and (18) from stowage box (6). Discard lockwashers.



5. Remove locknut (19), two washers (20) and (21), screw (22), clip (23), and wire (24) from stowage box (6). Discard locknut.
6. Remove pin (25) and wire (24) from ring (26).

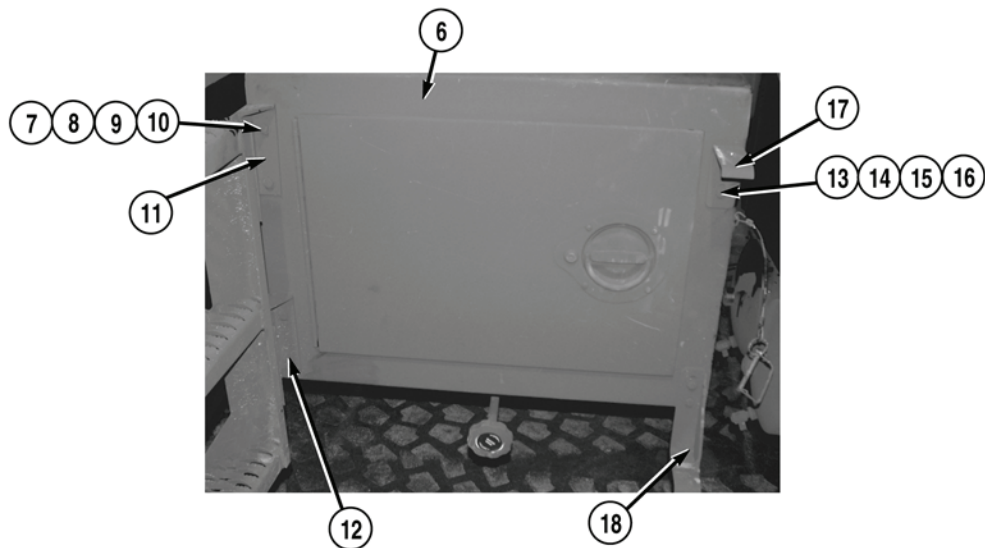


7. Remove two locknuts (27), screws (28), and bracket (29) from crew cab ladder (1). Discard locknuts.

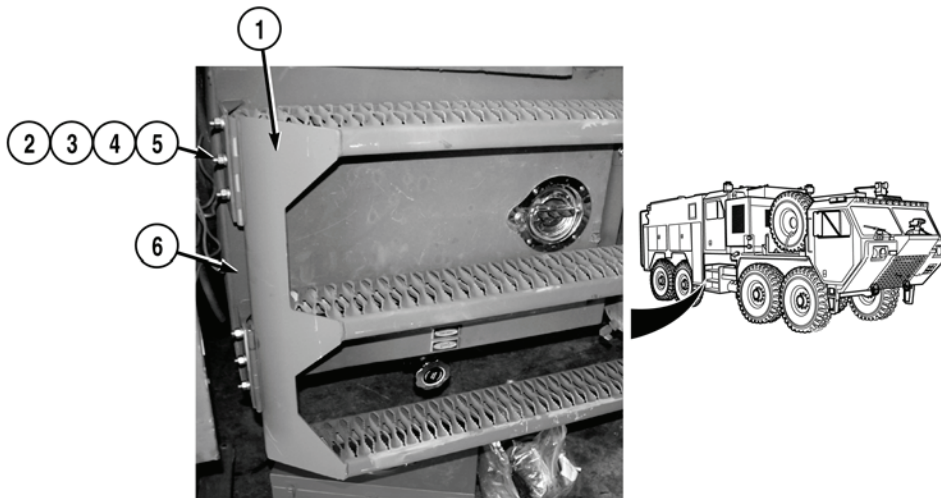
**END OF TASK**

**PASSENGER SIDE CREW CAB LADDER INSTALLATION**

1. Install bracket (29) on crew cab ladder (1) with two screws (28) and locknuts (27).
2. Install pin (25) and wire (24) on ring (26).
3. Install wire (24) and clip (23) on stowage box (6) with screw (22), two washers (20) and (21), and locknut (19).



4. Install two brackets (17) and (18) on stowage box (6) with four screws (16), eight washers (15), four lockwashers (14), and nuts (13).
5. Install two brackets (11) and (12) on stowage box (6) with four screws (10), eight washers (9), four lockwashers (8), and nuts (7).



### NOTE

Install screw heads in same direction as noted prior to removal.

6. With the aid of an assistant, install passenger side crew cab ladder (1) on stowage box (6) with six screws (5), washers (4), lockwashers (3), and nuts (2).
7. Stow crew cab access ladder (1) (WP 0012).

**END OF TASK**

### FOLLOW-ON MAINTENANCE

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**CREW CAB WINDOW REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 121

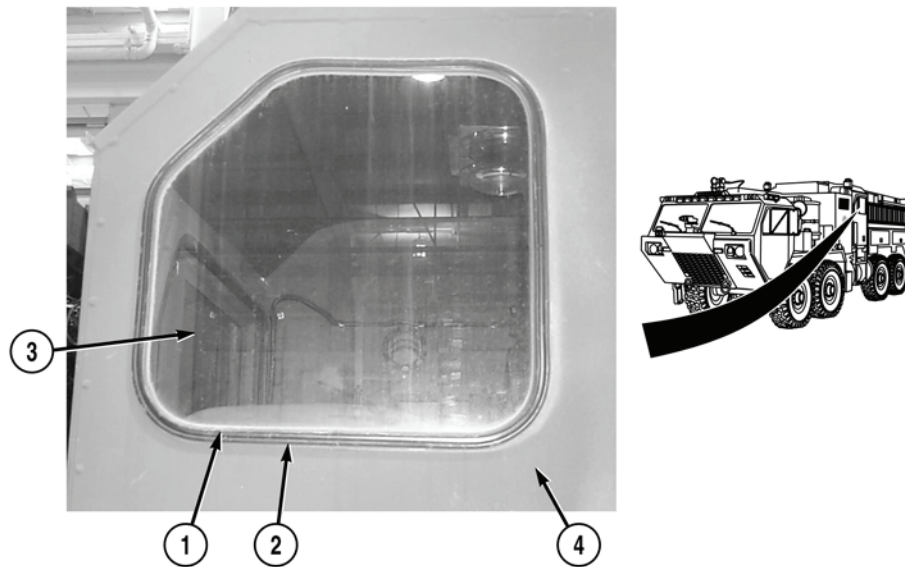
**Materials/Parts**

Window Weld (WP 0625, Item 59)

**Equipment Conditions**

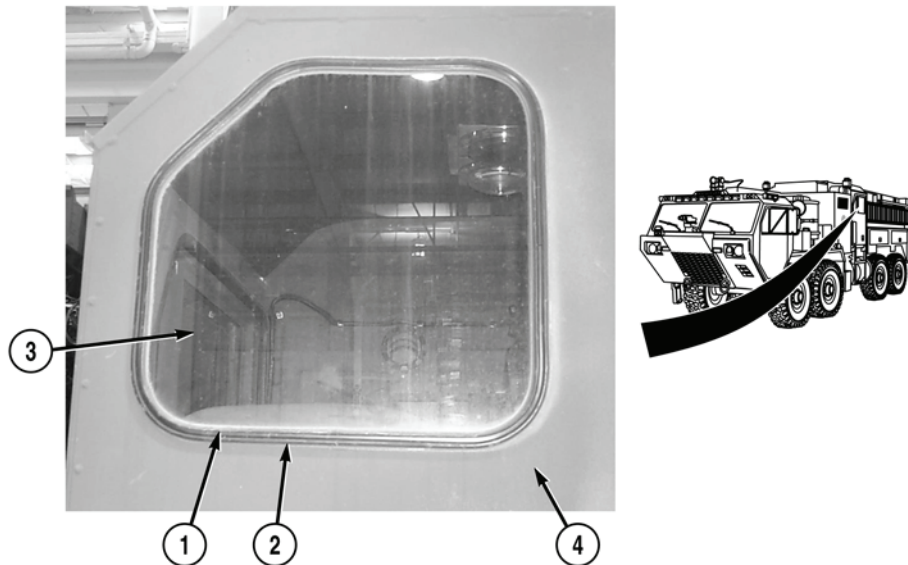
Crew cab assembly removed (WP 0500)

---

**REMOVAL**

1. Remove inner locking strip (1) from weather strip (2).
2. Remove window (3) from weather strip (2).
3. Remove weather strip (2) from crew cab (4).

**END OF TASK**

**INSTALLATION**

1. Install weather strip (2) on crew cab (4).

**NOTE**

Weather strip should be cut 3/4 in. to 1 in. past the starting point.

2. Cut end of weather strip (2) and join ends.
3. Apply window weld in channel of weather strip (2).
4. Install window (3) in weather strip (2).
5. Install inner locking strip (1) on weather strip (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install crew cab (WP 0500)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**CREW CAB VENT WINDOW REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Adhesive, Sealant, Silicone RTV  
(WP 0625, Item 5)  
Locknut (14)

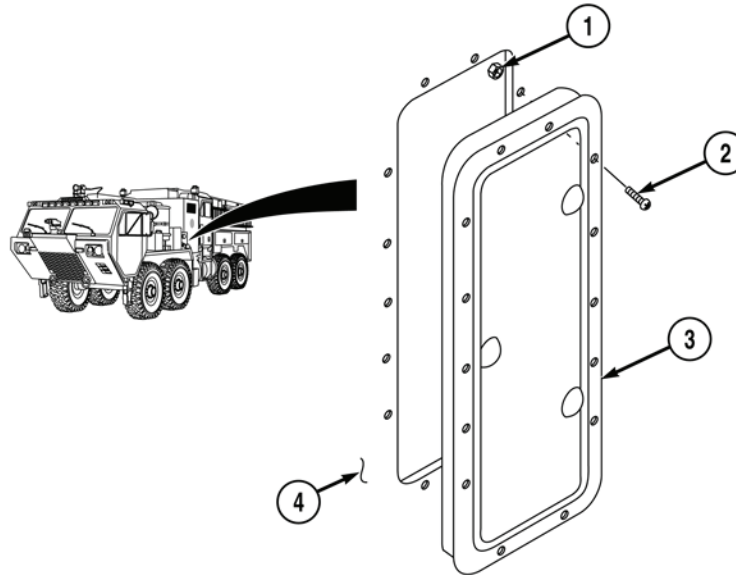
**References**

WP 0615, Fig. 121

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

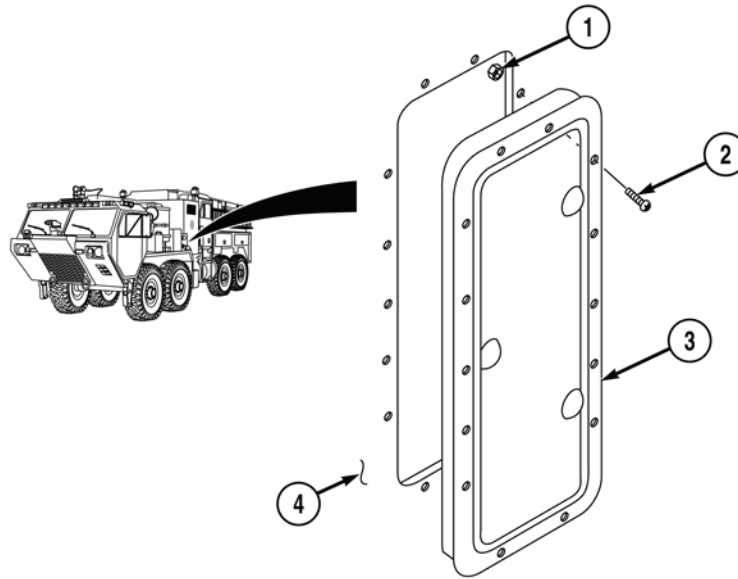
**REMOVAL****NOTE**

Both vent windows are removed the same way. Driver side shown.

Remove 14 locknuts (1), screws (2), and vent window (3) from door (4). Discard locknuts.

**END OF TASK**

## INSTALLATION



### WARNING



Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

### NOTE

- Both vent windows are installed the same way. Driver side shown.
- Vent window should be installed with latch toward the front of vehicle and hinges toward the rear.

1. Apply continuous bead of silicone adhesive sealant to sealing surface of vent window (3).
2. Install vent window (3) on door (4) with 14 screws (2) and locknuts (1).

### END OF TASK

### FOLLOW-ON MAINTENANCE

Remove wheel chocks (TM 9-2320-347-10)

### END OF TASK

### END OF WORK PACKAGE

---

**FIELD LEVEL MAINTENANCE**  
**CROSS DIVIDER REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 137

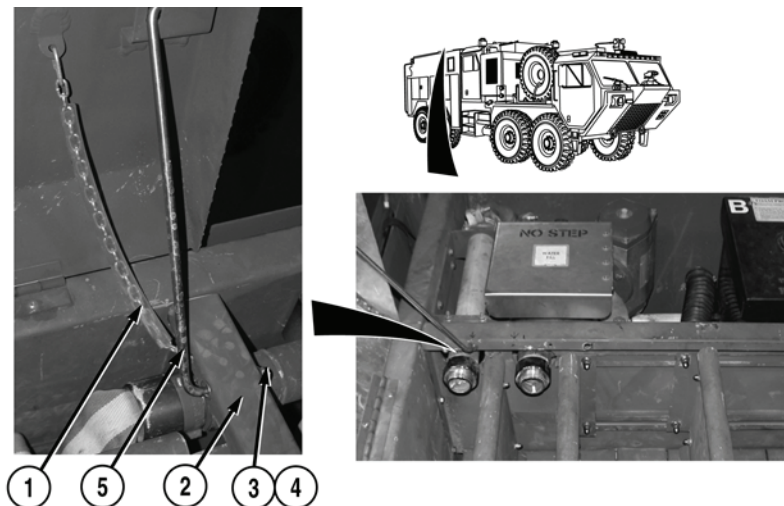
**Materials/Parts**

Locknut (1)  
Lockwasher (2)  
Lockwasher (6)

**Equipment Conditions**

Front air lift bag stowage box removed (WP 0497)  
Hose bed divider removed (WP 0525)  
Pre-connect removed (WP 0577)

---

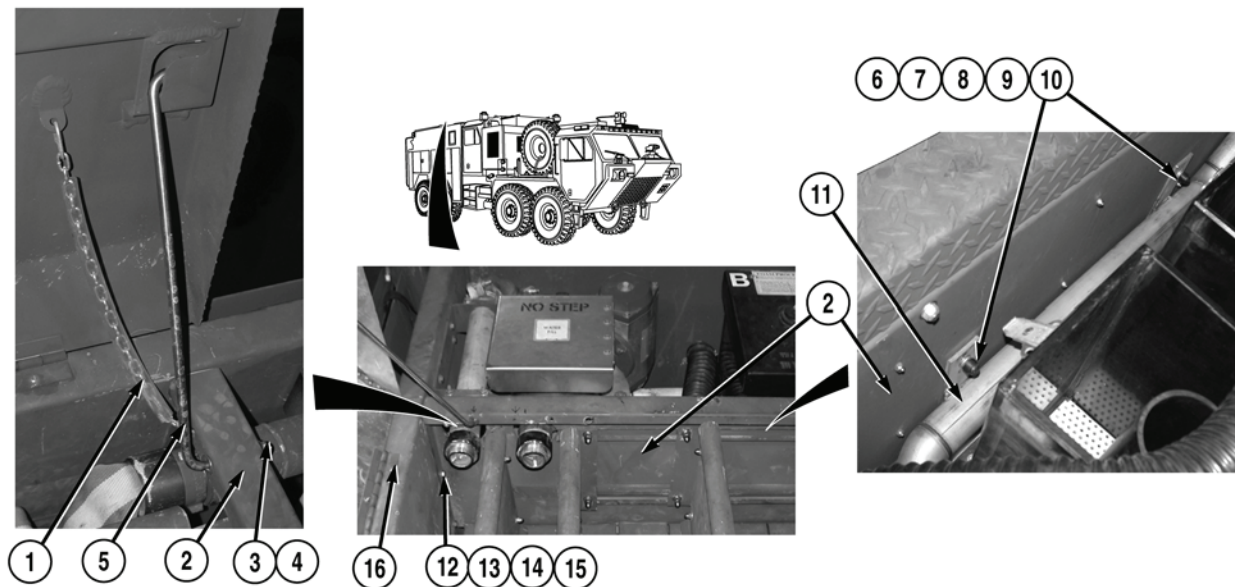
**REMOVAL****WARNING**

**Hose bed covers must be properly supported prior to removing support chain and support rod. Failure to comply may result in serious injury or death to personnel or damage to equipment.**

**NOTE**

Both passenger side and driver side support chains and support rods are removed the same way. Passenger side shown.

1. Remove chain (1) from cross divider (2).
2. Remove locknut (3), washer (4), and support rod (5) from cross divider (2). Discard locknut.



### NOTE

Note position of caps prior to removal to ensure proper installation.

3. Remove two caps (6), four nuts (7), lockwashers (8), eight washers (9), four screws (10), and pre-connect B (11) from cross divider (2). Discard lockwashers.
4. Remove six nuts (12), lockwashers (13), 12 washers (14), six screws (15), and cross divider (2) from vehicle. Discard lockwashers.

### END OF TASK

### INSTALLATION

1. Install cross divider (2) on vehicle with six screws (15), 12 washers (14), six lockwashers (13), and nuts (12). Do not tighten nuts.
2. Raise or lower cross divider (2) so that top of cross divider (2) is level with top of two side sheets (16).
3. Tighten six nuts (12).

### NOTE

Install caps as noted prior to removal.

4. Install pre-connect B (11) on cross divider (2) with four screws (10), eight washers (9), four lockwashers (8), nuts (7) and two caps (6).

**NOTE**

Both passenger side and driver side support chains and support rods are installed the same way. Passenger side shown.

5. Install support rod (5) on cross divider (2) with washer (4), and locknut (3).
6. Install chain (1) on cross divider (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install pre-connects (WP 0577)
2. Install hose bed divider (WP 0525)
3. Install front air lift bag stowage box (WP 0497)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**DECAL AND DATA PLATE REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 55, 56

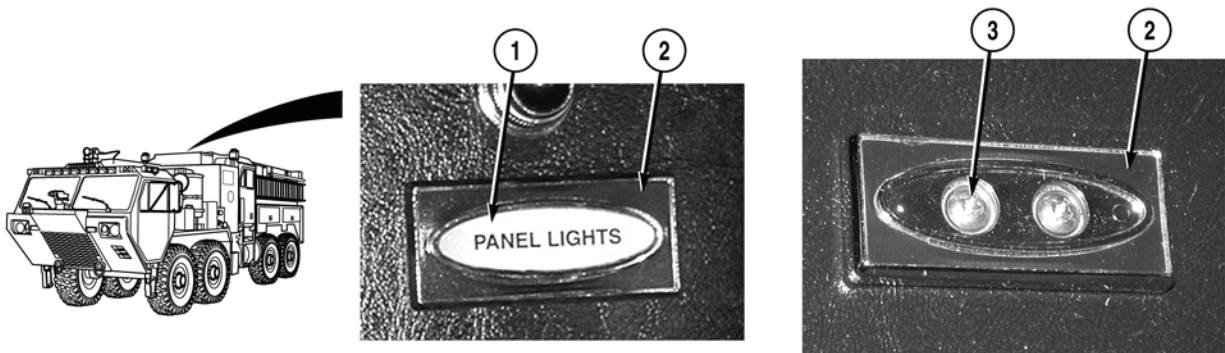
**Materials/Parts**

Adhesive, Spray (WP 0625, Item 6)  
Cleaning Compound, Solvent (WP 0625, Item 12)  
Cloth, Cleaning (WP 0625, Item 13)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

**DECAL PLATE REMOVAL**

**⚠ CAUTION**

**If replacing more than one decal plate, note position of decal prior to removal to ensure proper installation. Damage to equipment may occur if decal plates are not put in correct position.**

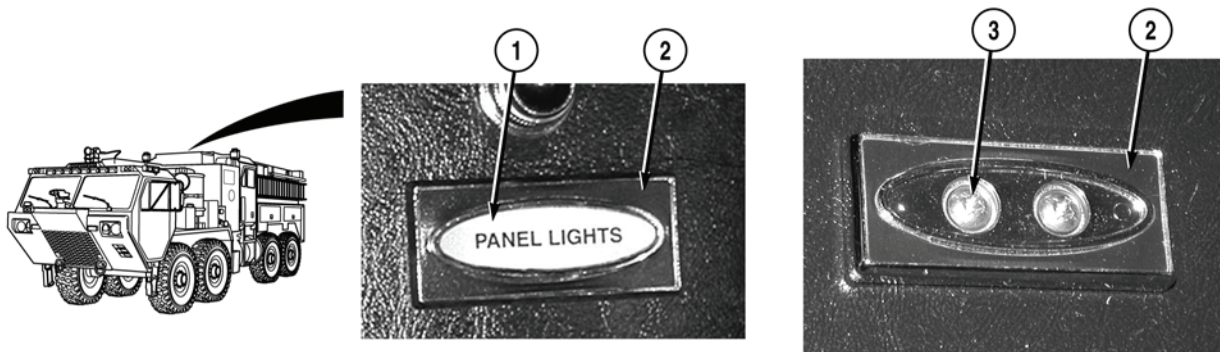
**NOTE**

All decal plates are removed the same way. Panel lights decal shown.

1. Remove decal (1) from plate (2).
2. Remove two screws (3) and plate (2) from vehicle.

**END OF TASK**

## DECAL PLATE INSTALLATION



1. Install plate (2) on vehicle with two screws (3).

**WARNING**

Solvent cleaning compound MIL-PRF-680 Type II and III may be irritating to the eyes and skin. Use protective gloves and goggles. Use in well-ventilated areas. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract, may cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: do not induce vomiting. Seek immediate medical attention. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. If symptoms persist, seek medical attention. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. Keep away from open flames and other sources of ignition. Failure to follow this warning may result in injury or death to personnel.

- The flashpoint for Type II solvent cleaning compound is 141 to 198°F (61 to 92°C) and Type III is 200 to 241°F (93 to 116°C).
- Improper cleaning methods and use of unauthorized cleaning solvents may injure personnel and damage equipment.
- Fire extinguishers should be placed nearby when using solvent cleaning compound. Failure to follow this warning may result in injury or death.
- Cloths or rags saturated with solvent cleaning compound must be disposed of IAW authorized facilities' procedures. Failure to follow this warning may result in injury.
- Eye shields must be worn when cleaning with a wire brush. Flying rust and metal particle may cause injury.

2. Clean plate (2) and back of decal (1) with solvent cleaning compound.



**WARNING**

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

**NOTE**

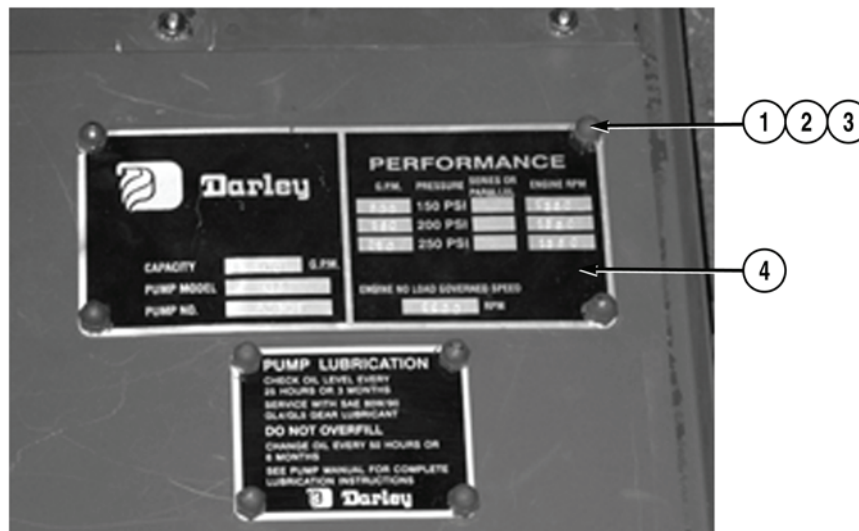
Adhesive is applied to mating surface of plate and decal.

3. Apply adhesive to decal (1).

**NOTE**

Install decal as noted prior to removal.

4. Install decal (1) on plate (2).

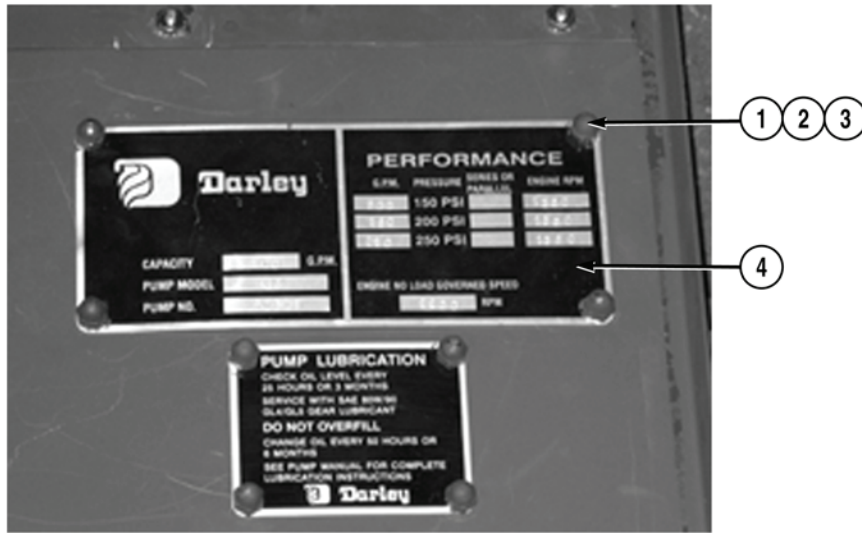
**END OF TASK****DATA PLATE REMOVAL****NOTE**

- All data plates are removed the same way.
- Darley data plate shown.

1. Remove four nuts (1), washers (2), screws (3), and data plate (4) from vehicle.

**END OF TASK**

**DATA PLATE INSTALLATION**



**NOTE**

- All data plates are installed the same way.
- Darley data plate shown.

1. Install data plate (4) on vehicle with four screws (3), washers (2), and nuts (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**

**FIELD LEVEL MAINTENANCE**  
**EQUIPMENT (LADDER) RACK REPLACEMENT**

**INITIAL SETUP:**

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts (continued)**

Lockwasher (2)  
Lockwasher (1)

**Materials/Parts**

Adhesive, Sealant, Silicone,  
RTV (WP 0625, Item 5)  
Cleaning Compound, Solvent (WP 0625, Item 12)  
Tags, Identification (WP 0625, Item 51)  
Lockwasher (4)  
Lockwasher (4)  
Lockwasher (4)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

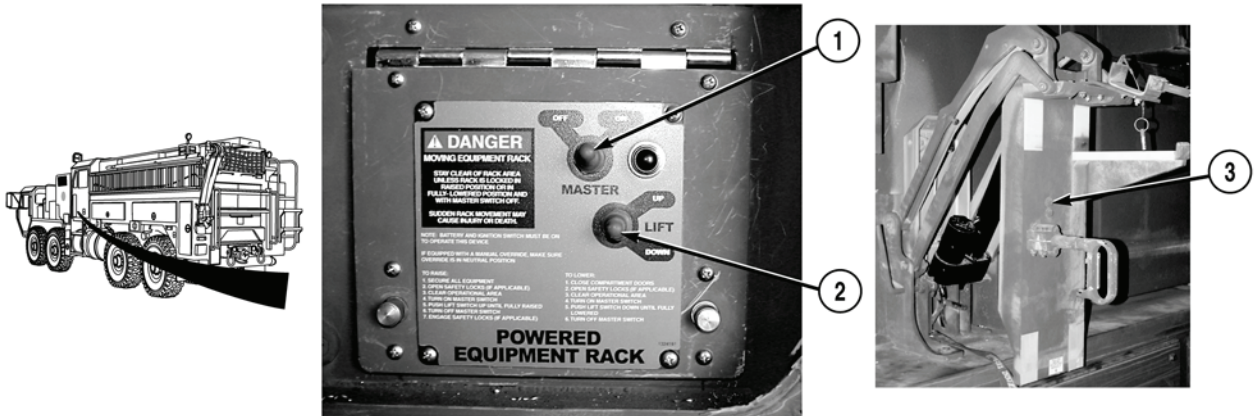
**References**

TM 9-2320-325-14&P  
WP 0615, Fig. 133

**Equipment Conditions**

Equipment (ladder) rack unstowed (WP 0011)

**REMOVAL**



**NOTE**

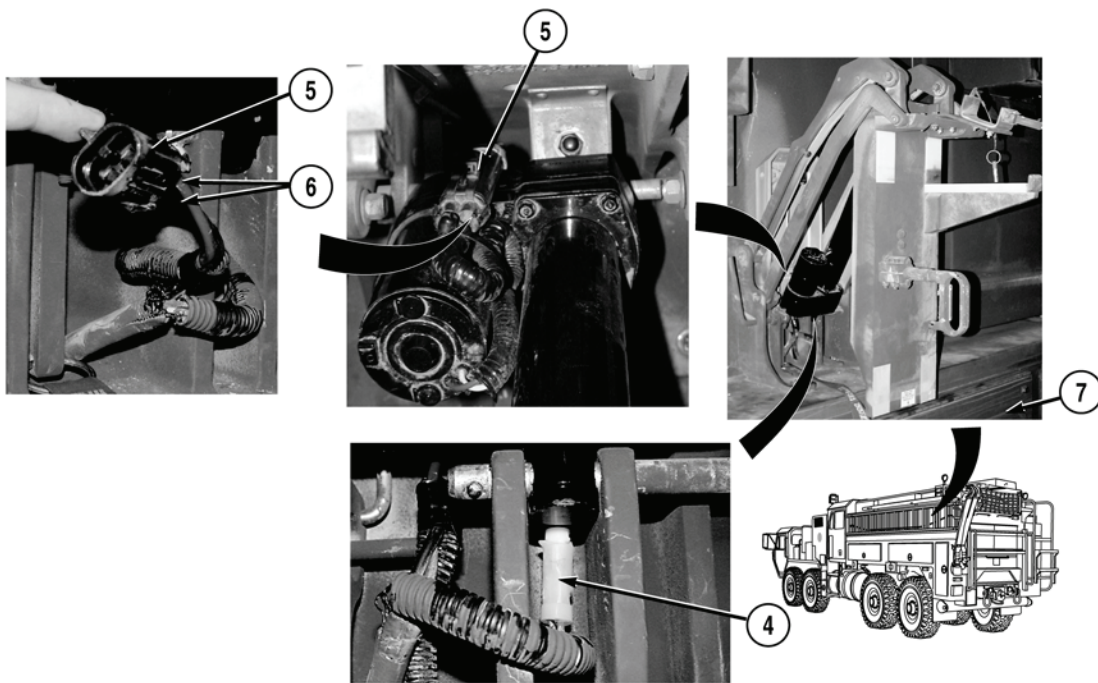
Front and rear equipment (ladder) racks are removed the same way except where noted.  
Rear equipment (ladder) rack shown.

1. Put MASTER SWITCH (1) in ON position.

**CAUTION**

**Equipment (ladder) rack must be raised approximately 3/4 of the way up to allow compartment door to be opened. Failure to comply may result in damage to equipment.**

2. Push LIFT SWITCH (2) up to raise equipment (ladder) rack (3).
3. Put MASTER SWITCH (1) in OFF position.



### NOTE

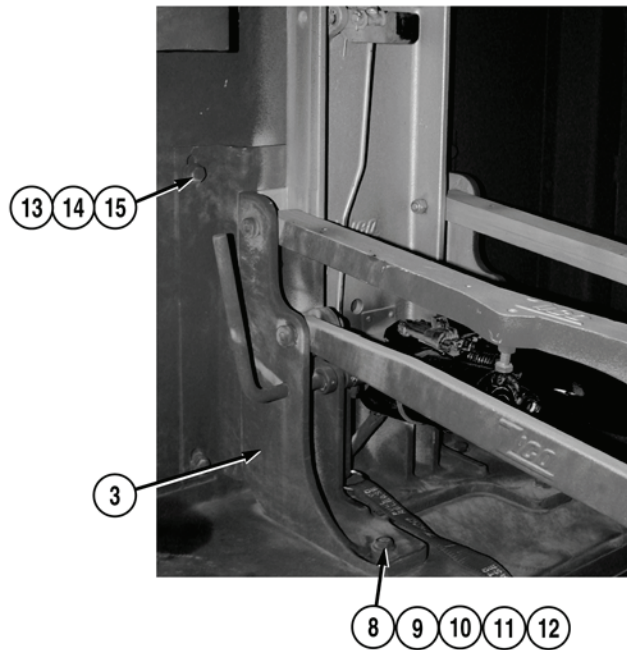
- Tag and mark connectors prior to removal to ensure proper installation.
- Perform Step (4) if removing rear equipment (ladder) rack only.

4. Disconnect connector (4).
5. Disconnect connector (5).

### NOTE

Tag and mark wires prior to removal to ensure proper installation.

6. Remove two wires (6) from connector (5) (TM 9-2320-325-14&P).
7. Open compartment door (7).



### NOTE

Note position of washers prior to removal to ensure proper installation.

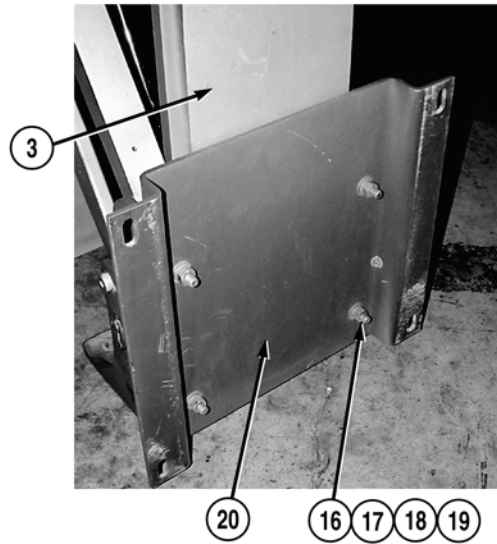
8. Remove four nuts (8), lockwashers (9), eight washers (10) and (11), and screws (12) from equipment (ladder) rack (3) and vehicle. Discard lockwashers.

### WARNING



**Equipment (ladder) rack weighs 80 lb. (36 kg). Do not lift equipment (ladder) rack without the aid of an assistant. Failure to comply may result in injury or death to personnel.**

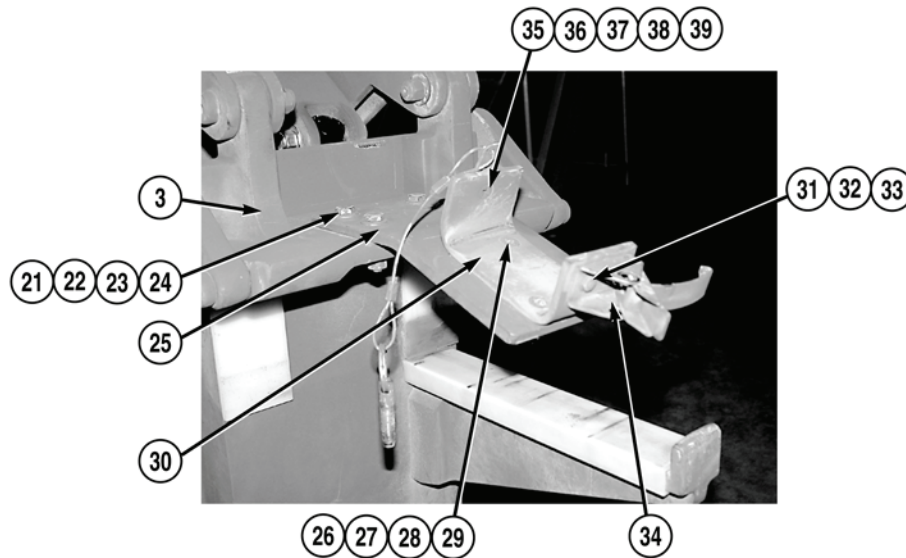
9. With the aid of an assistant, remove four screws (13), lockwashers (14), and washers (15). Discard lockwashers.
10. With the aid of an assistant, remove equipment (ladder) rack (3) from vehicle.



**NOTE**

Note position of mounting plate prior to removal to ensure proper installation.

11. Remove four nuts (16), lockwashers (17), eight washers (18), four screws (19), and mounting plate (20) from equipment (ladder) rack (3). Discard lockwashers.

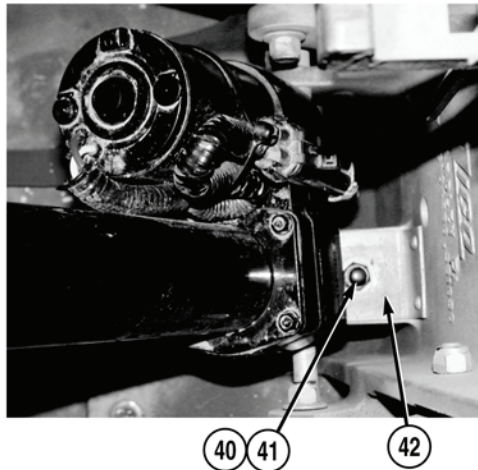


12. Remove four nuts (21), lockwashers (22), eight washers (23), four screws (24), and bracket (25) from equipment (ladder) rack (3). Discard lockwashers.
13. Remove two nuts (26), lockwashers (27), washers (28), screws (29), and retainer (30) from bracket (25). Discard lockwashers.

**NOTE**

Perform Steps (14) through (16) if removing rear equipment (ladder) rack only.

14. Remove two nuts (31), washers (32), screws (33), and latch (34) from retainer (30).
15. Remove nut (35), lockwasher (36), washer (37), clip (38), and screw (39) from retainer (30). Discard lockwasher.

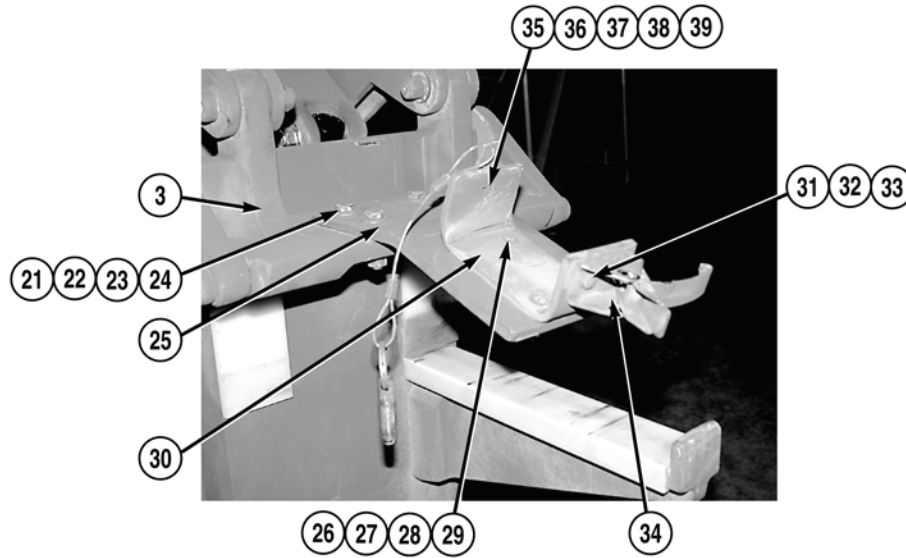


16. Remove switch (40) and washer (41) from bracket (42).

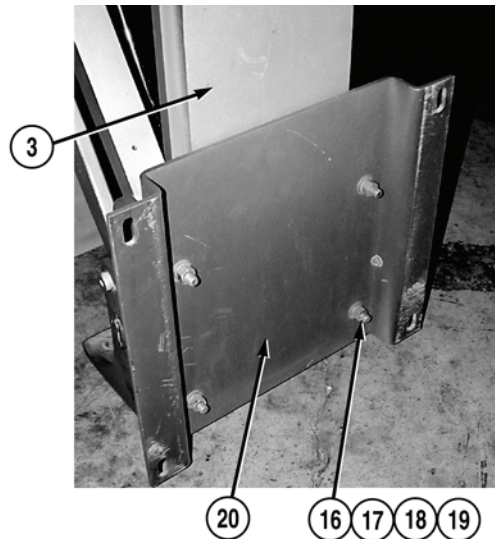
**END OF TASK****INSTALLATION****NOTE**

- Front and rear equipment (ladder) racks are installed the same way except where noted. Rear equipment (ladder) rack shown.
- Perform Steps (1) through (3) if installing rear equipment (ladder) rack only.

1. Install washer (41) and switch (40) on bracket (42).



2. Install clip (38) on retainer (30) with screw (39), washer (37), lockwasher (36), and nut (35).
3. Install latch (34) on retainer (30) with two screws (33), washers (32), and nut (31).
4. Install retainer (30) on bracket (25) with two screws (29), washers (28), lockwashers (27), and nuts (26).
5. Install bracket (25) on equipment (ladder) rack (3) with four screws (24), eight washers (23), four lockwashers (22), and nuts (21).



**NOTE**

Install mounting plate as noted prior to removal.

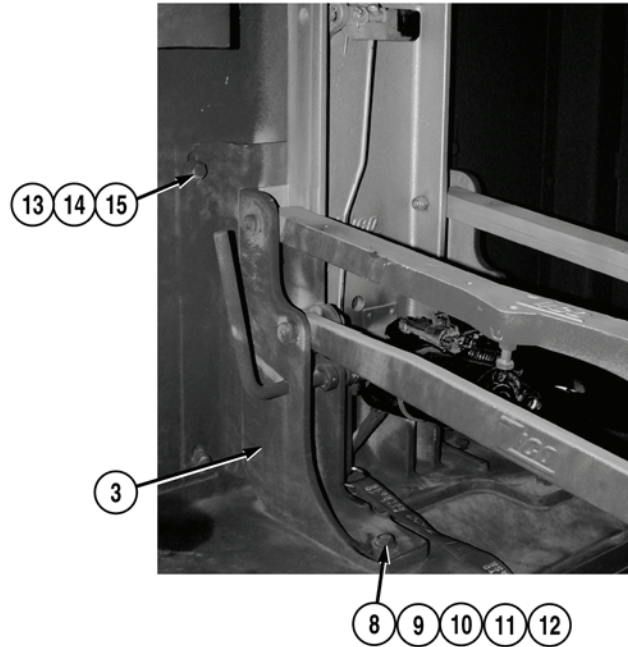
6. Install mounting plate (20) on equipment (ladder) rack (3) with four screws (19), eight washers (18), four lockwashers (17), and nuts (16).



**WARNING**

Solvent cleaning compound MIL-PRF-680 Type II and III may be irritating to the eyes and skin. Use protective gloves and goggles. Use in well-ventilated areas. Use respirator as needed. Accidental ingestion can cause irritation of digestive tract and respiratory tract, may cause lung and central nervous system damage. Can be fatal if swallowed. Inhalation of high/massive concentrations can cause coma or be fatal. First aid for ingestion: do not induce vomiting. Seek immediate medical attention. First aid for skin contact: remove contaminated clothing. Wash skin thoroughly with soap and water. If symptoms persist, seek medical attention. First aid for eye contact: flush with water for 15 minutes or until irritation subsides. If symptoms persist, seek medical attention. First aid for inhalation: move to fresh air. If not breathing, provide artificial respiration. If symptoms persist, seek medical attention. Keep away from open flames and other sources of ignition. Failure to follow this warning may result in injury or death to personnel.

- The flashpoint for Type II solvent cleaning compound is 141 to 198°F (61 to 92°C) and Type III is 200 to 241°F (93 to 116°C).
- Improper cleaning methods and use of unauthorized cleaning solvents may injure personnel and damage equipment.
- Fire extinguishers should be placed nearby when using solvent cleaning compound. Failure to follow this warning may result in injury or death.
- Cloths or rags saturated with solvent cleaning compound must be disposed of IAW authorized facilities' procedures. Failure to follow this warning may result in injury.
- Eye shields must be worn when cleaning with a wire brush. Flying rust and metal particle may cause injury.



7. Clean four mounting holes, screws (12), and washers (10) with solvent cleaning compound.

**WARNING**



**Equipment (ladder) rack weighs 80 lb. (36 kg). Do not lift equipment (ladder) rack without the aid of an assistant. Failure to comply may result in injury or death to personnel.**

8. With the aid of an assistant, lift equipment (ladder) rack (3) into mounting position.
9. With the aid of an assistant, install equipment (ladder) rack (3) on vehicle with four washers (15), lockwasher (14), and screws (13). Do not tighten screws.

**WARNING**



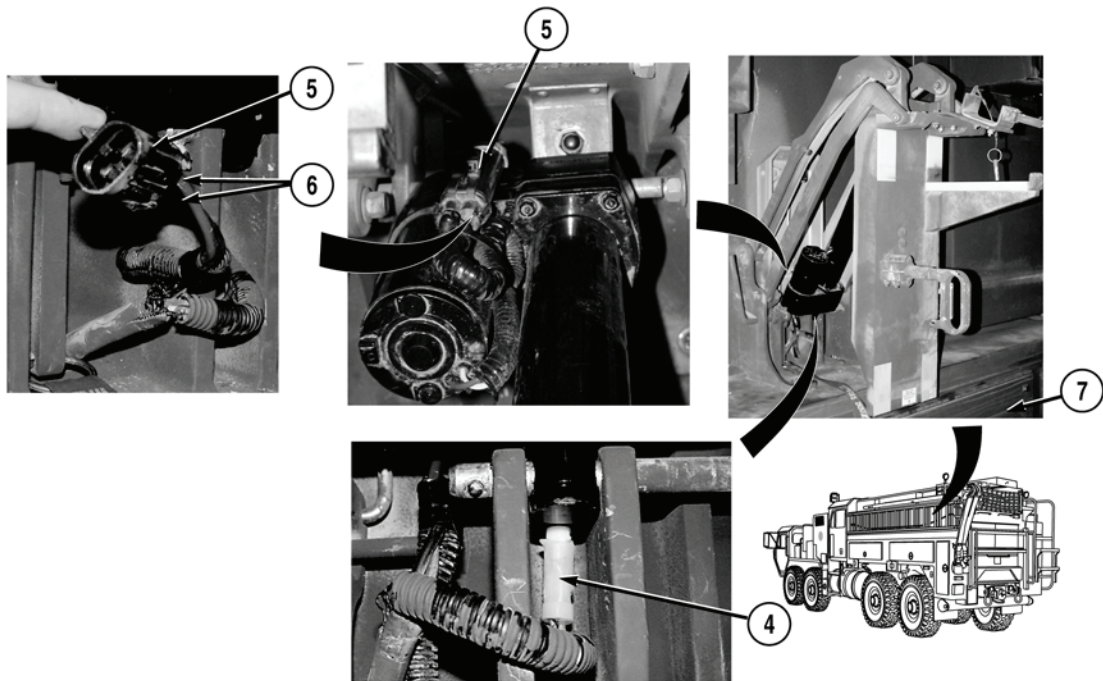
**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

10. Apply silicone sealant to four screws (12).

**NOTE**

Install washers as noted prior to removal.

11. Secure equipment (ladder) rack (3) to vehicle with four screws (12), eight washers (11) and (10), lockwashers (9), and nuts (8).
12. Tighten screws (13).

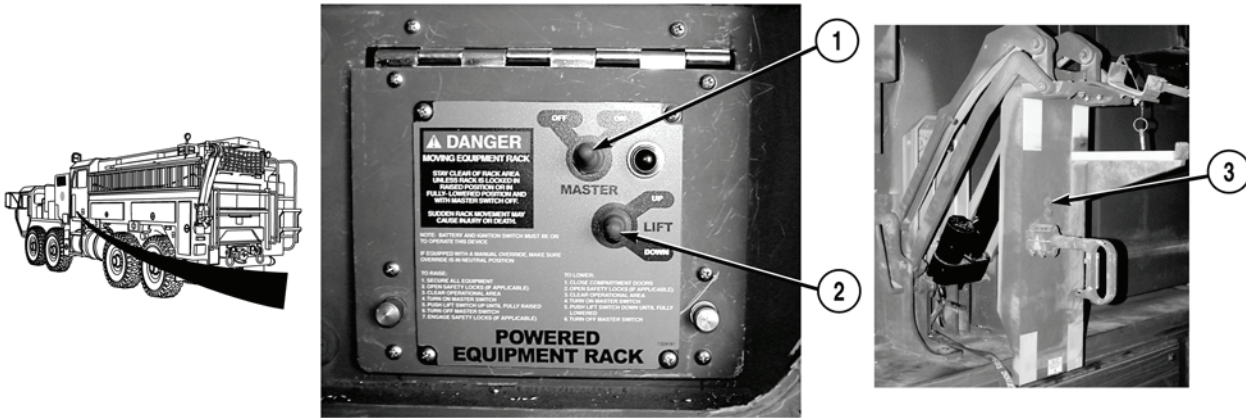


13. Close compartment door (7).
14. Install two wires (6) in connector (5) (TM 9-2320-325-14&P).
15. Connect connector (5).

**NOTE**

Perform Step (16) if installing rear equipment (ladder) rack.

16. Connect connector (4).



17. Put MASTER SWITCH (1) in ON position.
18. Push LIFT SWITCH (2) up and completely raise both front and back equipment (ladder) racks (3).
19. Push LIFT SWITCH (2) down to completely lower both equipment (ladder) racks (3).
20. Put MASTER SWITCH (1) in OFF position.

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Stow equipment (ladder) rack (WP 0011)

**END OF TASK**

**END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## GASOLINE CAN STOWAGE COMPARTMENT REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 134

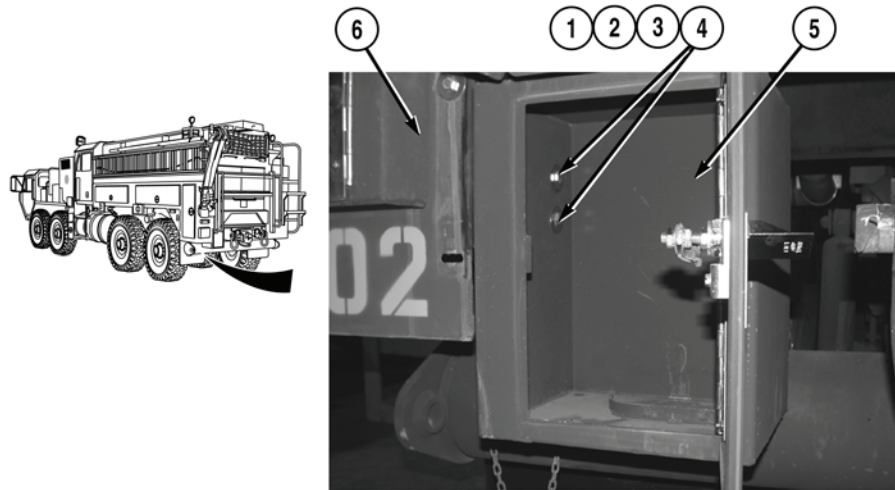
**Materials/Parts**

Lockwasher (4)

**Equipment Conditions**

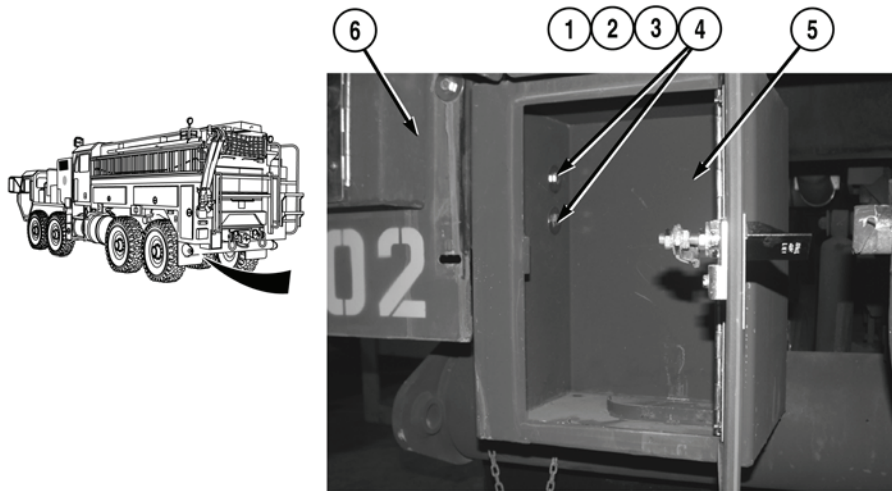
Rear compartment door opened (WP 0010)  
Rear BII bracket removed (WP 0527)

## REMOVAL



Remove four nuts (1), lockwashers (2), eight washers (3), four screws (4), and gasoline can stowage compartment (5) from rear compartment (6). Discard lockwashers.

## END OF TASK

**INSTALLATION**

Install gasoline can storage compartment (5) on rear compartment (6) with four screws (4), eight washers (3), four lockwashers (2), and nuts (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install rear BII bracket (WP 0527)
2. Rear compartment door closed (WP 0010)

**END OF TASK****END OF WORK PACKAGE**

FIELD LEVEL MAINTENANCE

GRAB HANDLE REPLACEMENT

INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0010  
WP 0014  
WP 0615, Fig. 121

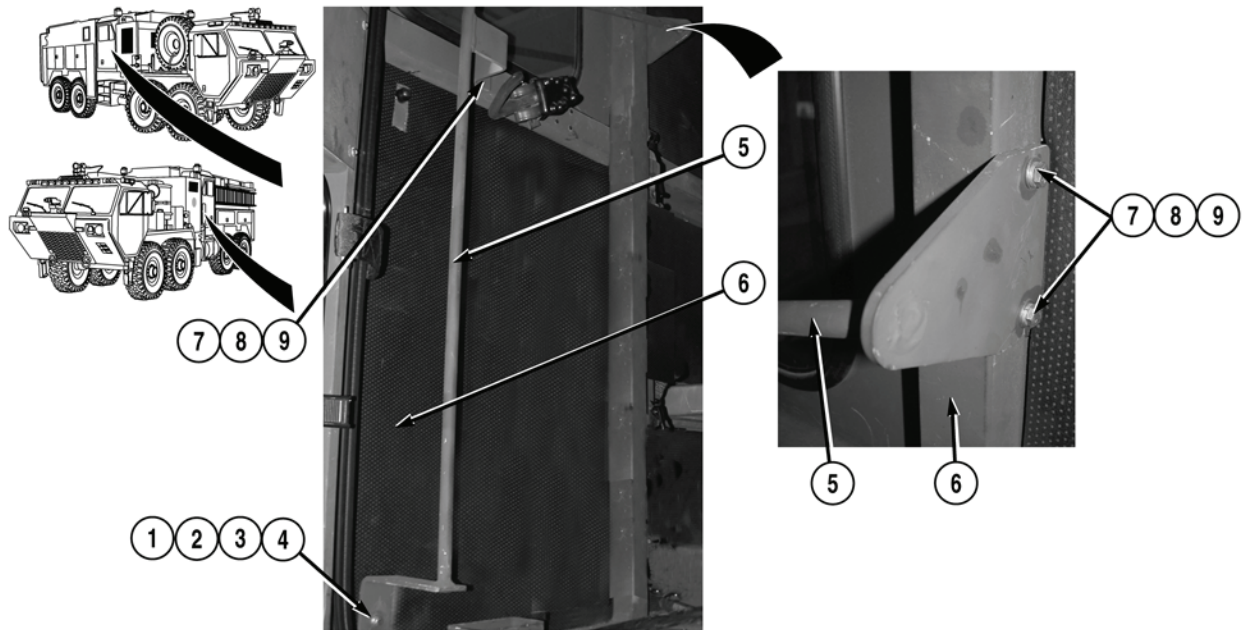
**Materials/Parts**

Lockwasher (1)  
Lockwasher (3)  
Lockwasher (2)  
Locknut (4)  
Lockwasher (2)  
Lockwasher (2)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

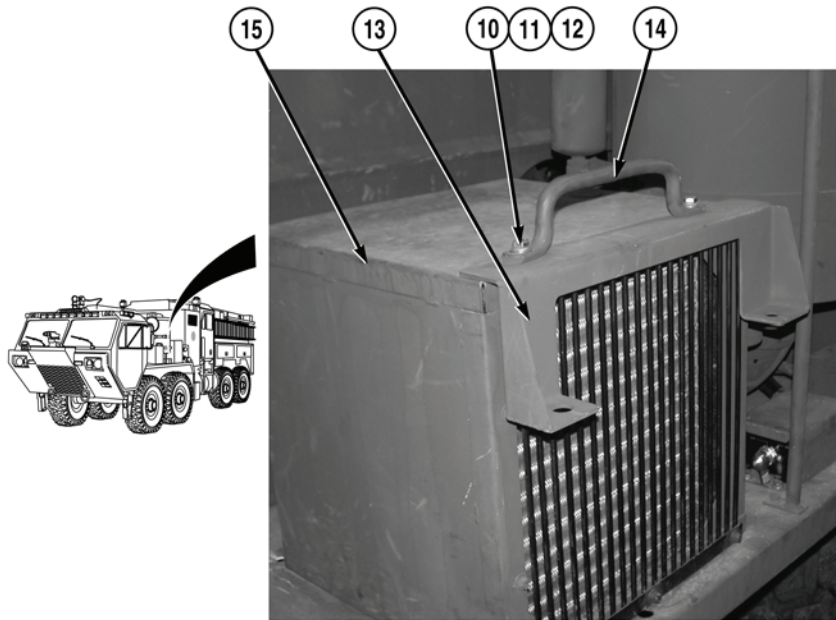
REMOVAL



**NOTE**

Perform Steps (1) and (2) to remove grab handle from inside front of crew cab.

1. Remove nut (1), lockwasher (2), two washers (3), and screw (4) from grab handle (5) and crew cab (6). Discard lockwasher.
2. Remove three screws (7), lockwashers (8), washers (9), and grab handle (5) from crew cab (6). Discard lockwashers.

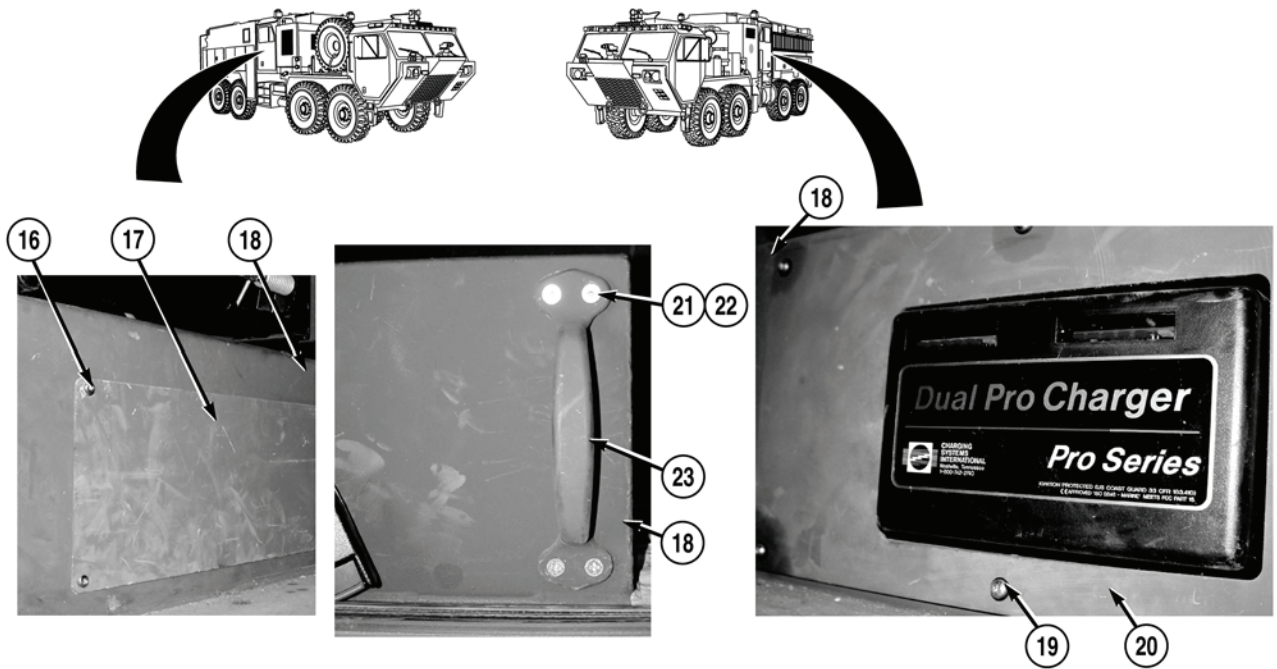


### NOTE

Perform Step (3) to remove grab handle from air conditioning condenser.

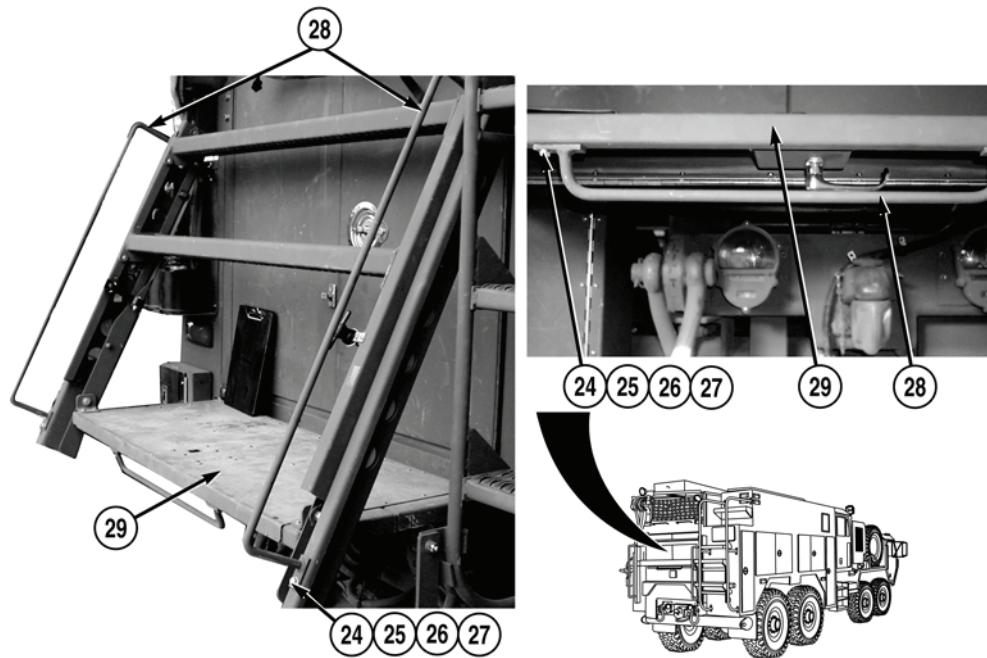
3. Remove two screws (10), lockwashers (11), washers (12), chassis ladder bracket (13), and grab handle (14) from air conditioning condenser (15). Discard lockwashers.





**NOTE**

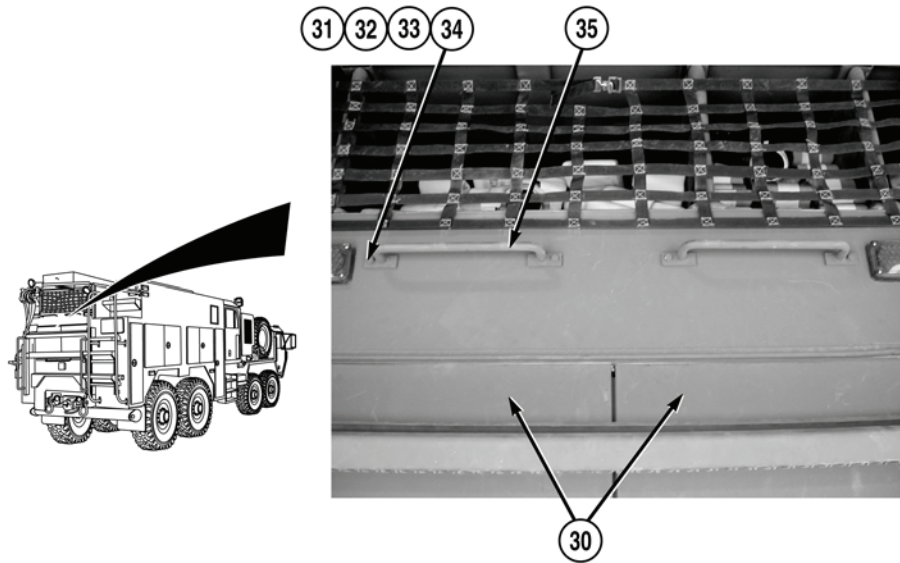
- Perform Steps (4) through (6) to remove grab handle under crew cab seats.
  - Perform Step (4) for passenger side access.
  - Perform Step (5) for driver side access.
4. Remove four screws (16) and access panel (17) from compartment (18).
  5. Remove six screws (19) and access panel (20) from compartment (18).
  6. Remove four locknuts (21), screws (22), and grab handle (23) from compartment (18). Discard locknuts.



### NOTE

Perform Steps (7) and (8) to remove grab handle from rear work platform.

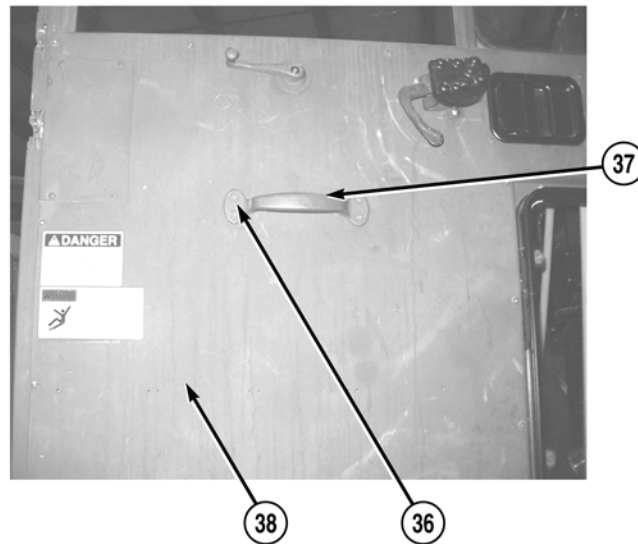
7. Unstow rear work platform (WP 0014).
8. Remove two nuts (24), lockwashers (25), washers (26), screws (27), and grab handle (28) from rear work platform (29). Discard lockwashers.



### NOTE

Perform Steps (9) through (11) to remove grab handle from rear of vehicle.

9. Unstow rear work platform (WP 0014).
10. Open rear compartment doors (30) (WP 0010).
11. Remove two nuts (31), lockwashers (32), washers (33), screws (34), and grab handle (35) from vehicle. Discard lockwashers.



### NOTE

- Perform Step (12) to remove grab handles from crew cab doors.
- Both driver side and passenger side crew cab door grab handles are removed the same way. Driver side shown.

12. Remove four screws (36) and grab handle (37) from inside of crew cab door (38).

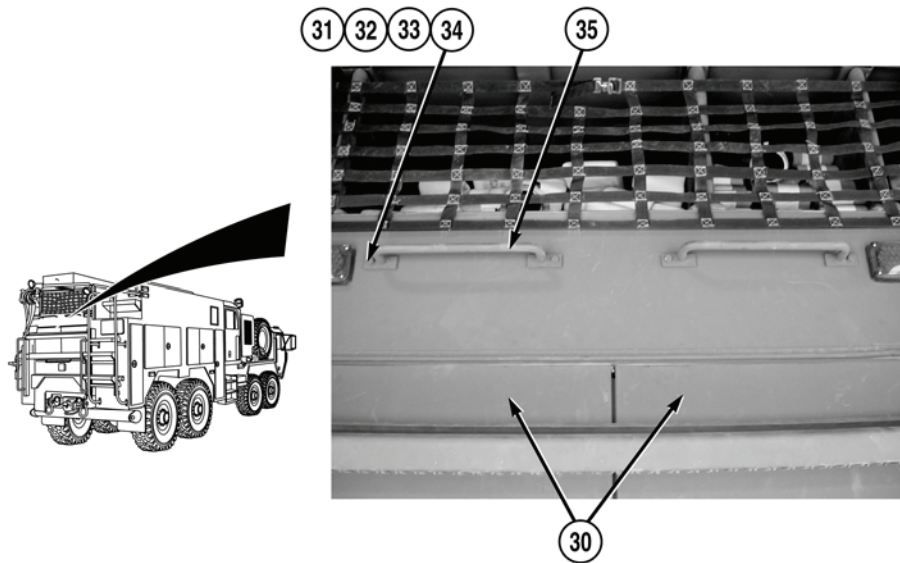
### END OF TASK

### INSTALLATION

### NOTE

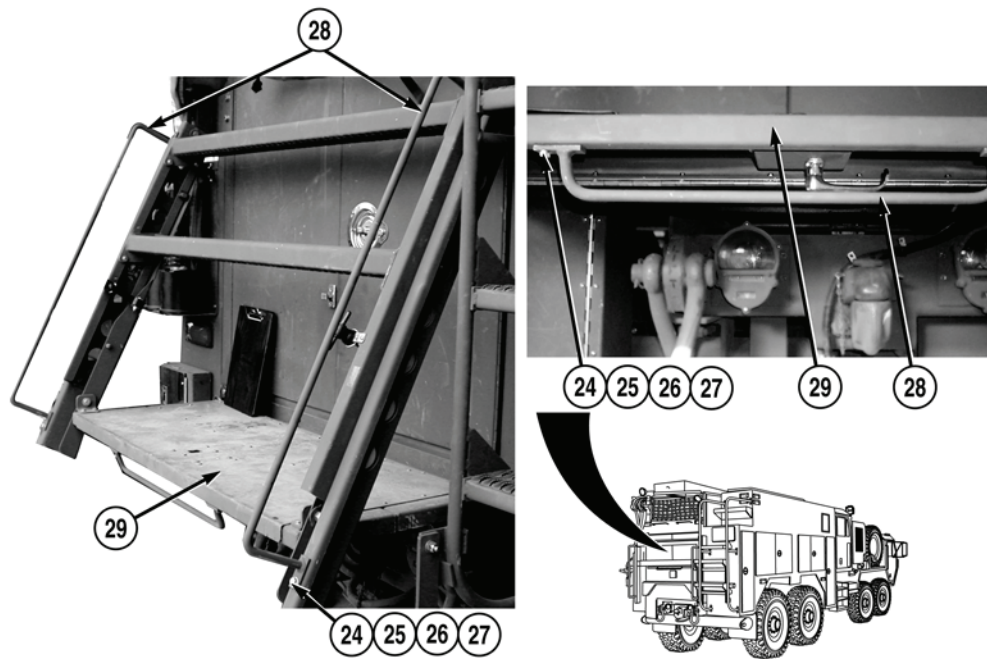
- Perform Step (1) to install grab handles on crew cab doors.
- Both driver side and passenger side crew cab door grab handles are installed the same way. Driver side shown.

1. Install grab handle (37) on inside of crew cab door (38) with four screws (36).

**NOTE**

Perform Steps (2) through (4) to install grab handle on rear of vehicle.

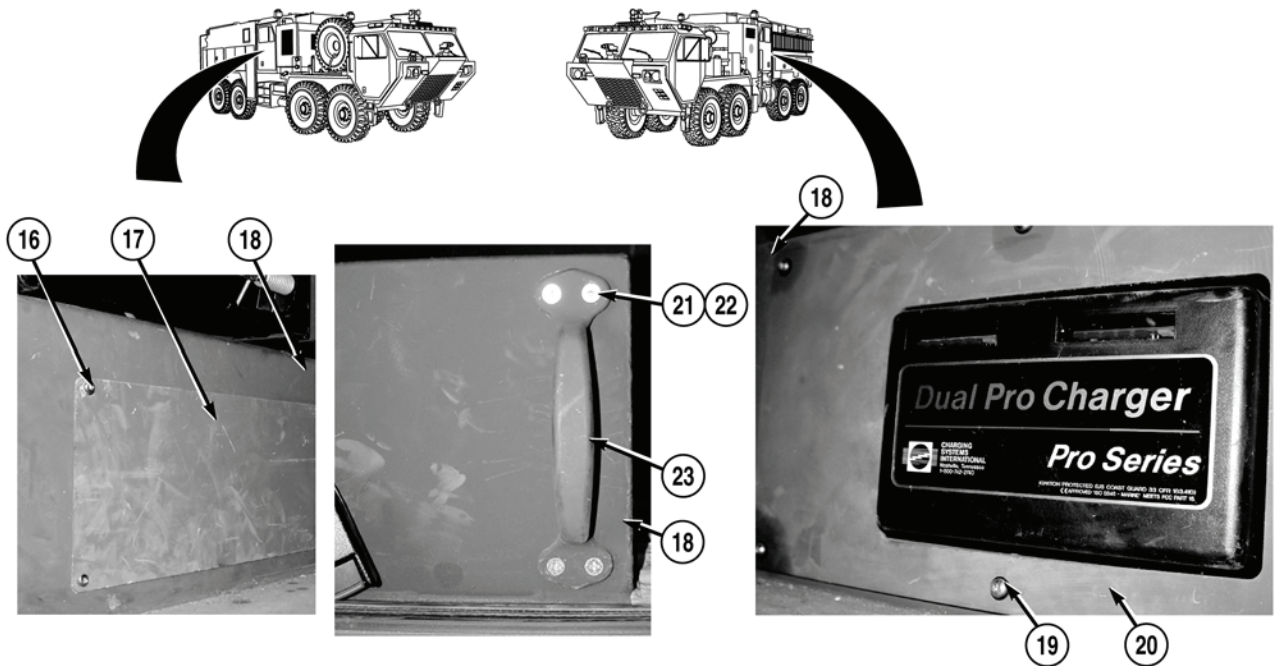
2. Install grab handle (35) on vehicle with two screws (34), washers (33), lockwashers (32), and nuts (31).
3. Close rear compartment doors (30) (WP 0010).
4. Stow rear work platform (WP 0014).



### NOTE

Perform Steps (5) and (6) to install grab handle on rear work platform.

5. Install grab handle (28) on rear work platform (29) with two screws (27), washers (26), lockwashers (25), and locknuts (24).
6. Stow rear work platform (WP 0014).



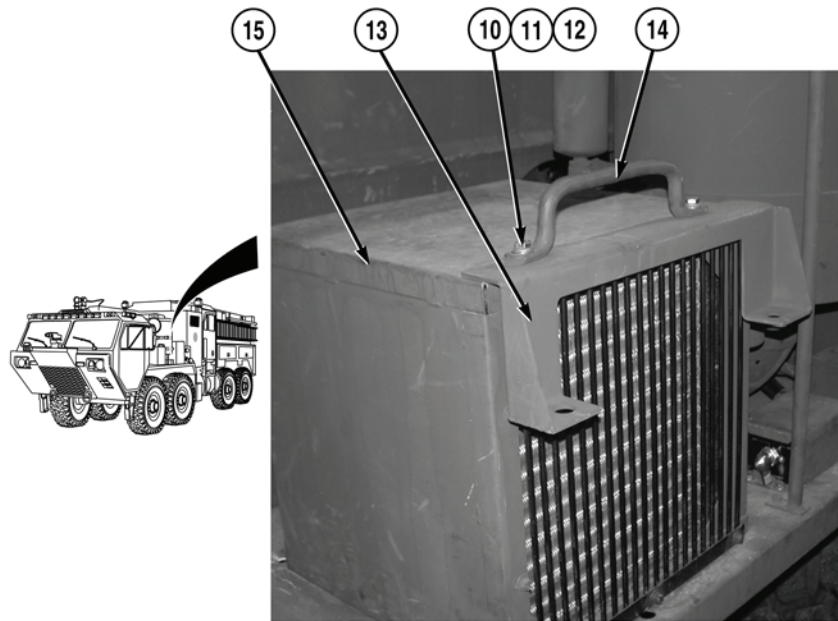
**NOTE**

Perform Steps (7) through (9) to install grab handle under crew cab seats.

7. Install grab handle (23) on compartment (18) with four screws (22), and locknuts (21).

**NOTE**

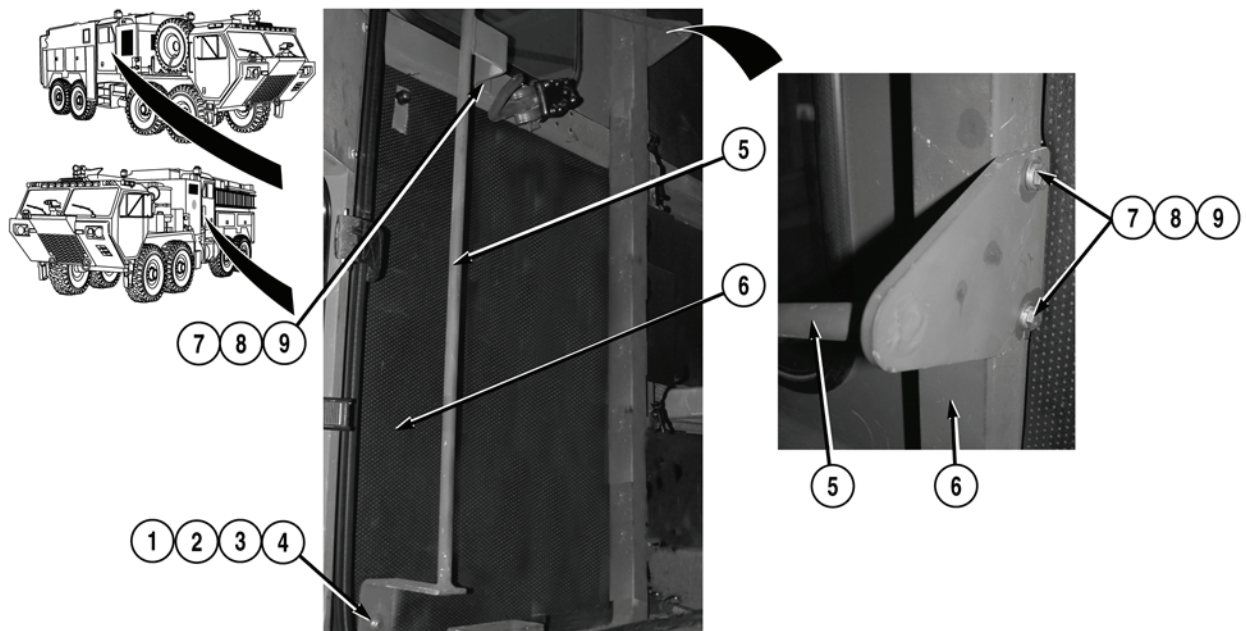
- Perform Step (8) for driver side access.
  - Perform Step (9) for passenger side access.
8. Install access panel (20) on compartment (18) with six screws (19).
  9. Install access panel (17) on compartment (18) with four screws (16).

**NOTE**

Perform Step (10) to install grab handle on air conditioning condenser.

10. Install chassis ladder bracket (13) and grab handle (14) on air conditioning condenser (15) with two washers (12), lockwashers (11), and screws (10).





### NOTE

Perform Steps (11) and (12) to install grab handle on inside front of crew cab.

11. Install grab handle (5) on crew cab (6) with three washers (9), lockwashers (8), and screws (7).
12. Secure grab handle (5) to crew cab (6) with screw (4), two washers (3), lockwasher (2), and nut (1).

**END OF TASK**

### FOLLOW-ON MAINTENANCE

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**HEATER ACCESS PANEL REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

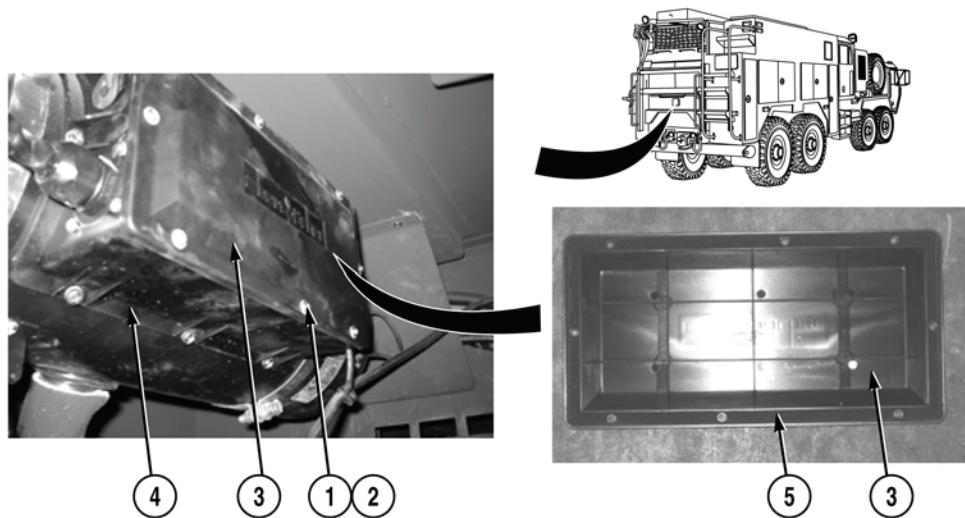
Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 173, 174

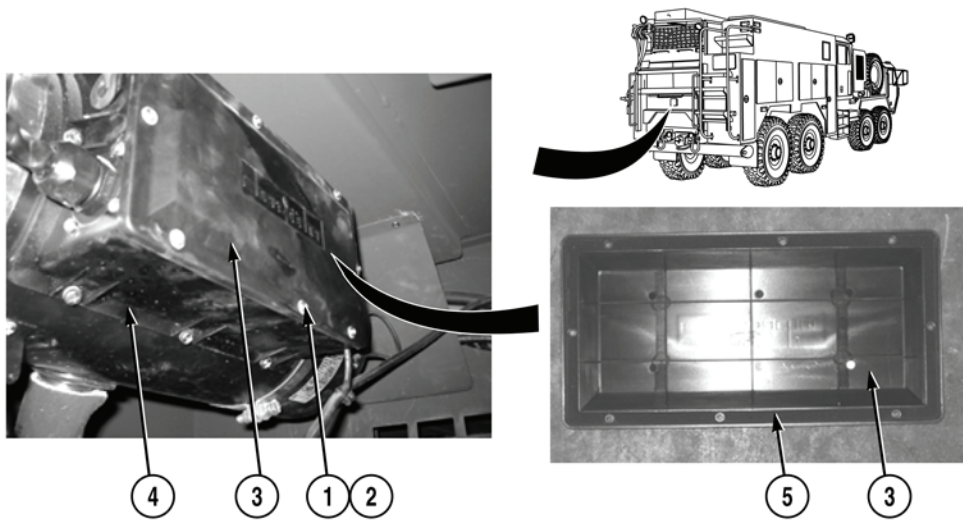
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)  
Rear compartment door open (WP 0010)

**REMOVAL**

1. Remove eight screws (1), washers (2), and access cover (3) from rear heater (4).
2. Remove gasket (5) from access cover (3).

**END OF TASK**

**INSTALLATION**

1. Install gasket (5) on access cover (3).
2. Install access cover (3) on rear heater (4) with eight washers (2) and screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Close rear compartment door (WP 0010)
2. Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**HOSE RESTRAINT NET REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

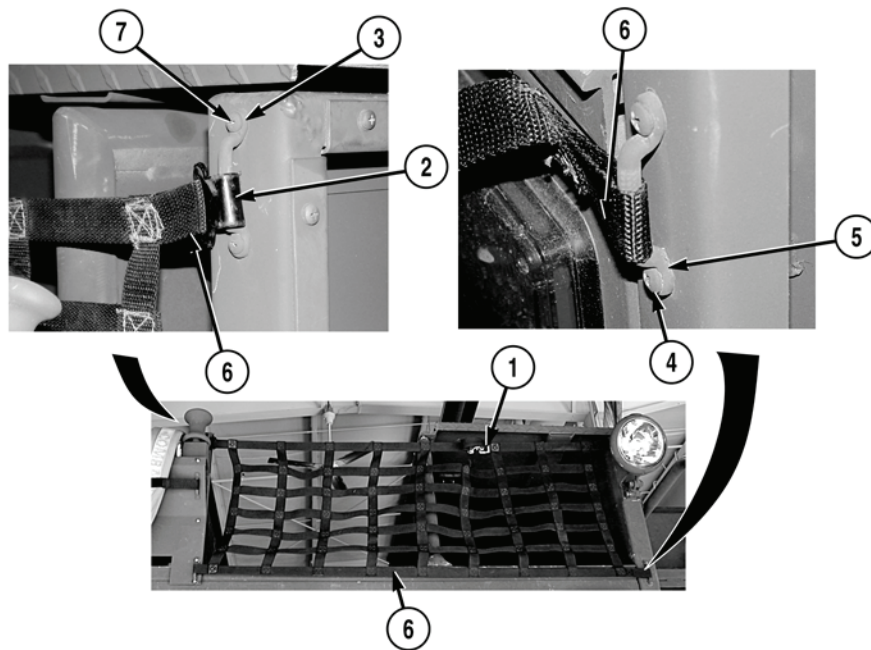
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

**References**

WP 0615, Fig. 136, 137, 138

---

**REMOVAL**

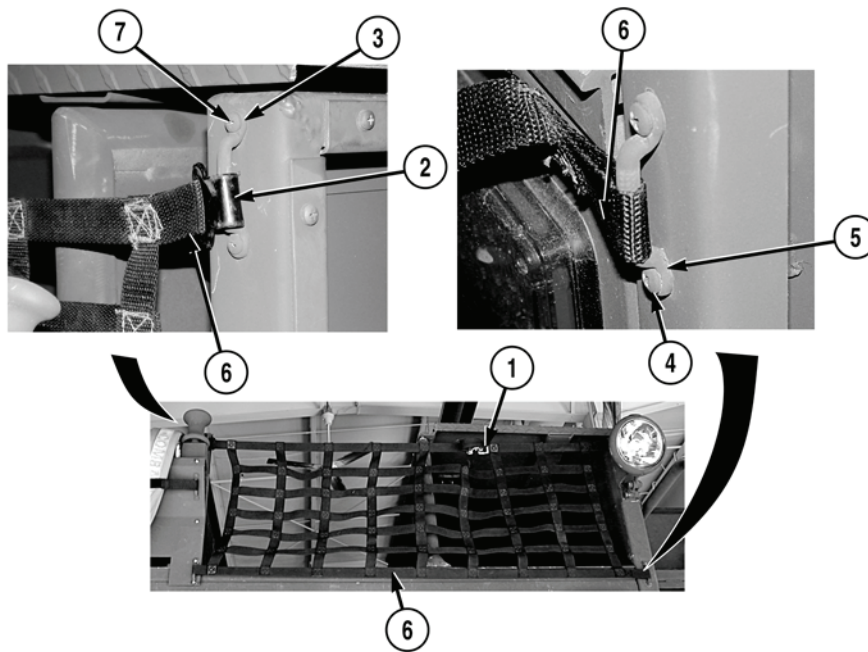
1. Loosen net fastener (1).
2. Remove two latches (2) from upper brackets (3).
3. Remove four screws (4), two lower brackets (5), and net (6) from vehicle.
4. Remove two lower brackets (5) from net (6).

**NOTE**

Perform Step (5) if upper brackets need to be removed.

5. Remove four screws (7) and two upper brackets (3) from vehicle.

**END OF TASK**

**INSTALLATION****NOTE**

Perform Step (1) if upper brackets were removed.

1. Install two upper brackets (3) on vehicle with four screws (7).
2. Install two lower brackets (5) on net (6).
3. Install net (6) and two lower brackets (5) on vehicle with four screws (4).
4. Install two latches (2) on upper brackets (3).
5. Tighten net fastener (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**HOSE BED COVER(S) REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Adhesive, Sealant, Silicone, RTV  
(WP 0625, Item 5)

Locknut (1)  
Locknut (20)  
Locknut (4)  
Locknut (2)  
Lockwasher (6)  
Locknut (1)  
Locknut (22)  
Locknut (4)  
Locknut (2)  
Locknut (3)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

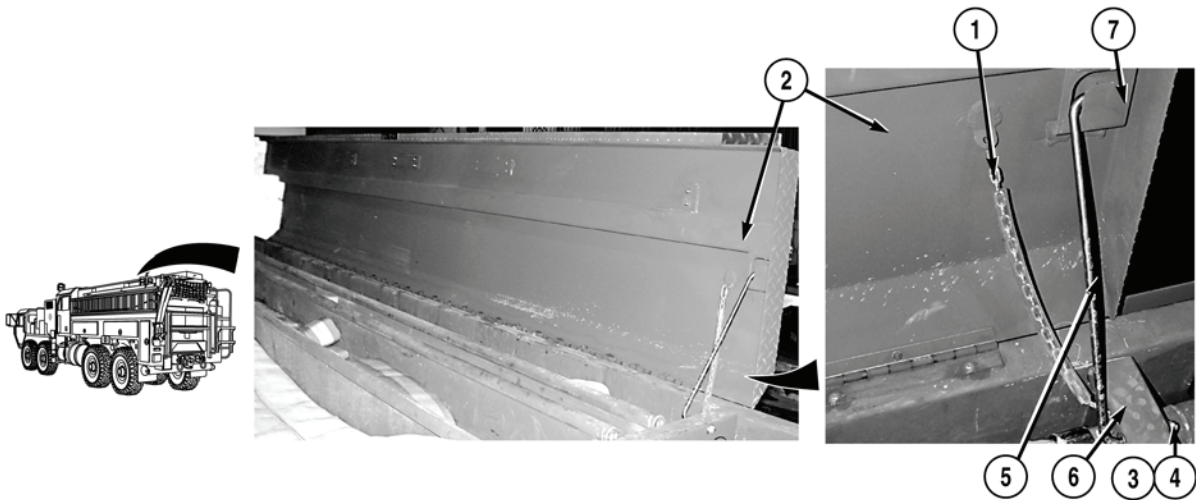
**References**

WP 0014  
WP 0015  
WP 0615, Fig. 137

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

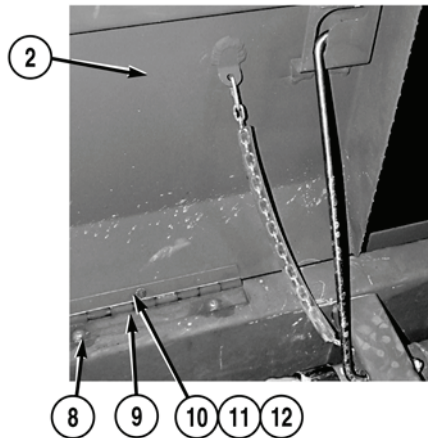
---

**DRIVER SIDE HOSE BED COVER REMOVAL****WARNING**

**Driver side hose bed cover must be properly supported prior to removing support chain and rod. Failure to comply may result in serious injury or death to personnel or damage to equipment.**

1. Remove chain (1) from driver side hose bed cover (2).
2. Remove locknut (3), washer (4), and support rod (5) from cross divider (6). Discard locknut.
3. Remove support rod (5) from rod support (7).





**WARNING**



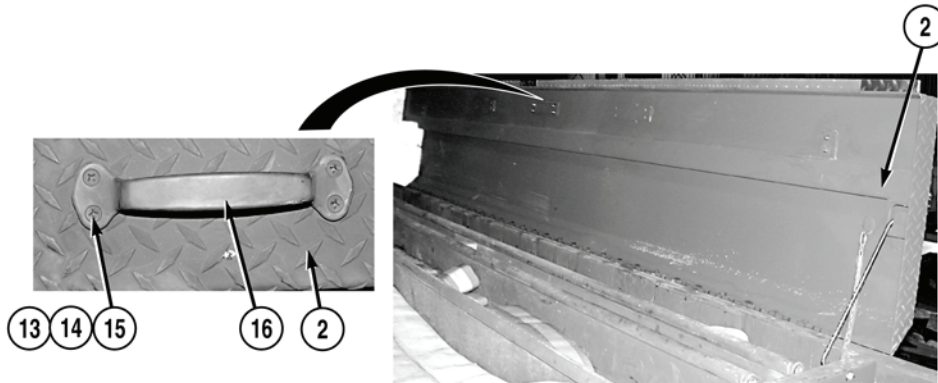
**Driver side hose bed cover is heavy. Do not attempt to lift driver side hose bed cover without the aid of an assistant and a suitable lifting device. Failure to comply may result in serious injury or death to personnel and damage to equipment.**

4. Attach suitable lifting device to driver side hose bed cover (2).

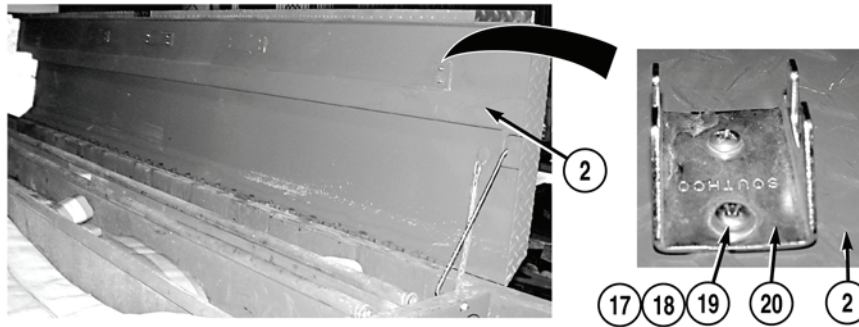
**CAUTION**

**When removing screws attaching driver side hose bed cover hinge, first remove middle eighteen screws only. Failure to comply may result in damage to equipment.**

5. Remove 18 screws (8) from driver side hose bed cover hinge (9) and vehicle.
6. With the aid of an assistant, remove two screws (8) and driver side hose bed cover hinge (9) from hose bed cover (2) and vehicle.
7. Remove 20 locknuts (10), washers (11), screws (12), and driver side hose bed cover hinge (9) from driver side hose bed cover (2). Discard locknuts.



8. Remove four locknuts (13), washers (14), screws (15), and handle (16) from driver side hose bed cover (2). Discard locknuts.



### NOTE

- Both latch catches are removed the same way.
- Note position of latch catches prior to removal to ensure proper installation.

9. Remove two locknuts (17), washers (18), screws (19), and latch catch (20) from driver side hose bed cover (2). Discard locknuts.

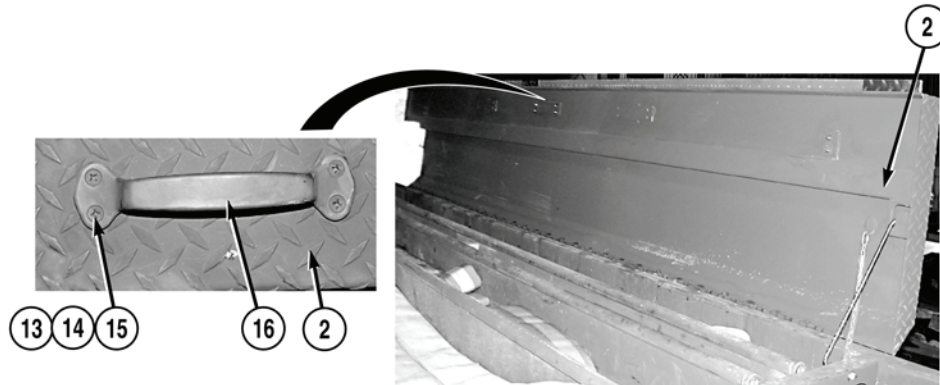
### END OF TASK

### DRIVER SIDE HOSE BED COVER INSTALLATION

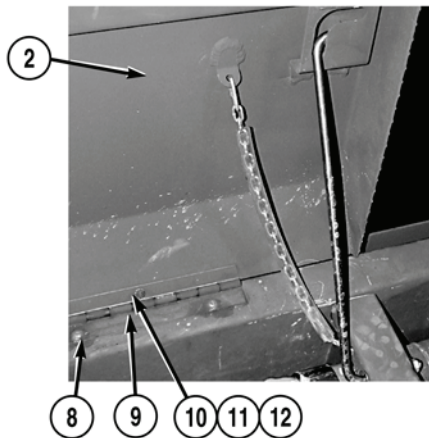
### NOTE

- Both latch catches are installed the same way.
- Install latch catches as noted prior to removal.

1. Install latch catch (20) on driver side hose bed cover (2) with two screws (19), washers (18), and locknuts (17).



2. Install handle (16) on driver side hose bed cover (2) with four screws (15), washers (14), and locknuts (13).

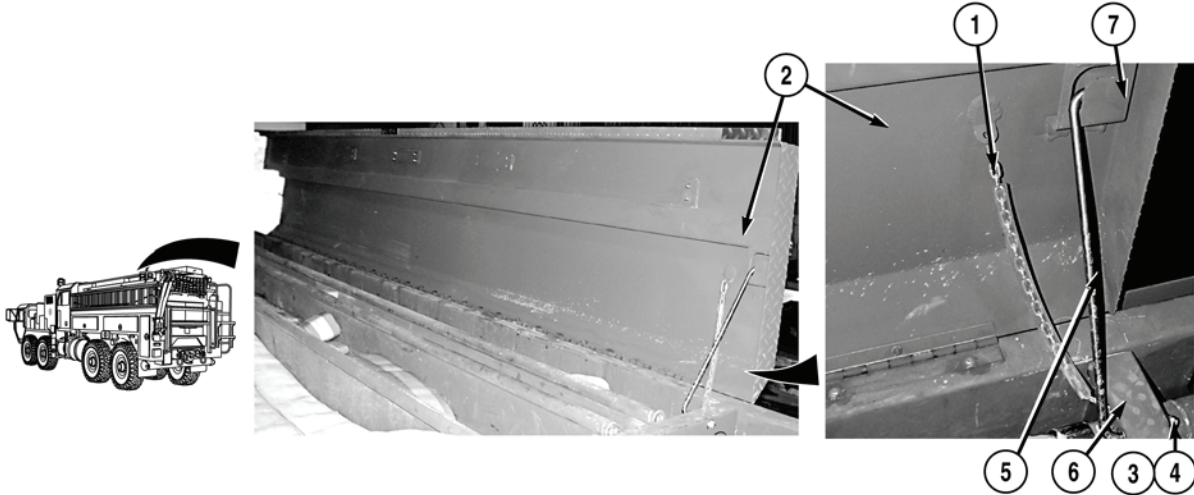


3. Install driver side hose bed cover hinge (9) on driver side hose bed cover (2) with 20 screws (12), washers (11), and locknuts (10).

**⚠ CAUTION**

**When installing screws attaching driver side hose bed cover hinge to vehicle, install two outside screws first. Failure to comply may result in damage to equipment.**

4. With the aid of an assistant, guide driver side hose bed cover (2) into mounting position.
5. Install driver side hose bed cover hinge (9) on vehicle with two screws (8).
6. Secure driver side hose bed cover hinge (9) on vehicle with 18 screws (8).



7. Install support rod (5) into rod support (7).
8. Install support rod (5) on cross divider (6) with washer (4) and locknut (3).
9. Install chain (1) on driver side hose bed cover (2).
10. Remove suitable lifting device from driver side hose bed cover (2).

### **WARNING**

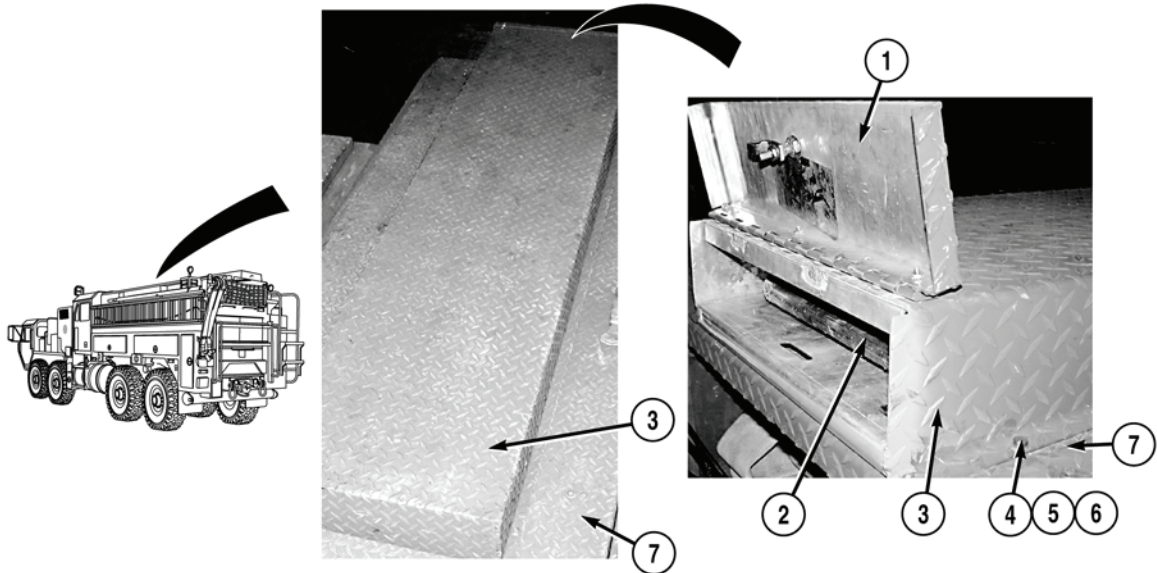


**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

11. Apply silicone sealant to heads of 20 screws (8).

**END OF TASK**

## PASSENGER SIDE HOSE BED COVER REMOVAL

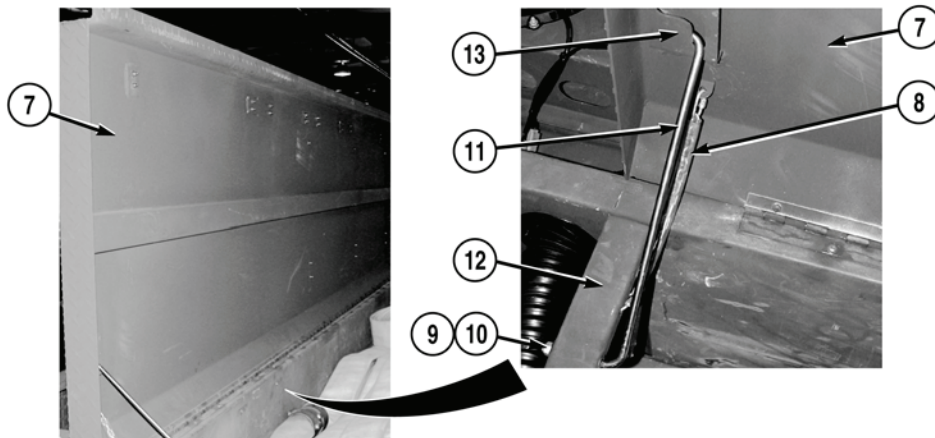


1. Unstow rear work platform (WP 0014).
2. Open door (1).
3. Remove backboard (2) from backboard cover (3).
4. Remove six screws (4), lockwashers (5), and washers (6) from backboard cover (3) and passenger side hose bed cover (7). Discard lockwashers.

**WARNING**

**Backboard cover is heavy. Do not lift backboard cover without the aid of an assistant. Failure to comply could result in injury or death to personnel or damage to equipment.**

5. With the aid of an assistant, remove backboard cover (3) from vehicle.

**WARNING**

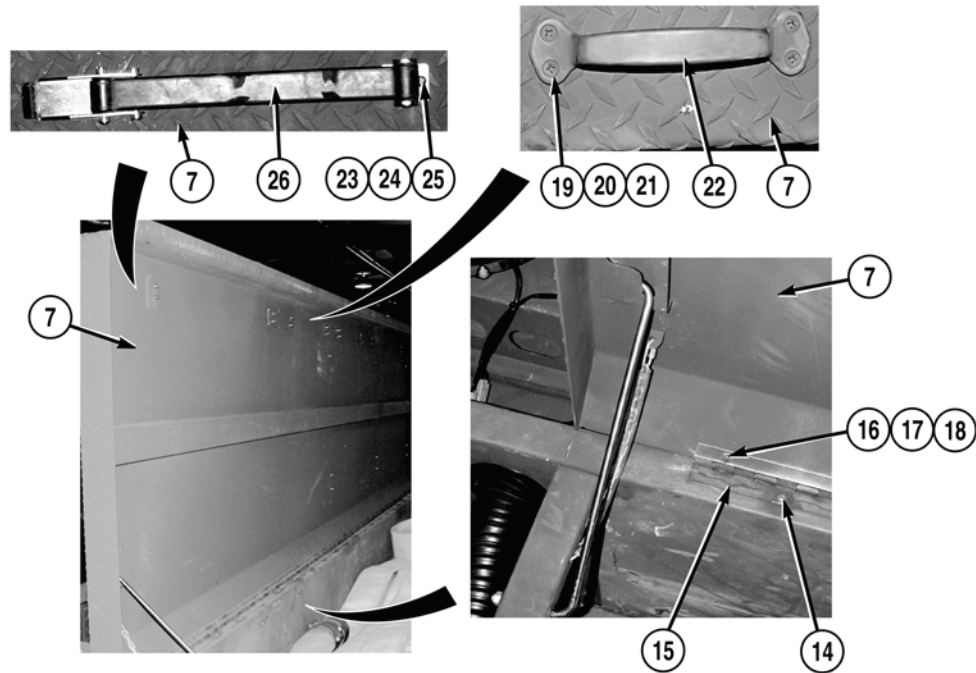
**Passenger side hose bed cover must be properly supported prior to removing support chain and rod. Failure to comply may result in serious injury or death to personnel or damage to equipment.**

6. Remove chain (8) from passenger side hose bed cover (7).
7. Remove locknut (9), washer (10), and support rod (11) from cross divider (12). Discard locknut.
8. Remove support rod (11) from rod support (13).

**CAUTION**

**Suitable lifting device must be attached to passenger side hose bed cover prior to removing mounting hardware. Failure to comply may result in passenger side hose bed cover twisting, not allowing removal of mounting hardware and causing damage to passenger side hose bed cover hinge.**

9. Attach suitable lifting device to passenger side hose bed cover (7).



**⚠ CAUTION**

**When removing screws attaching passenger side hose bed cover hinge, first remove middle 20 screws only. Failure to comply may result in damage to equipment.**

10. Remove 20 screws (14) from passenger side hose bed cover hinge (15) and vehicle.
11. With the aid of an assistant, remove two screws (14) and passenger side hose bed cover hinge (15) from passenger side hose bed cover (7) and vehicle.
12. Remove 22 locknuts (16), washers (17), screws (18), and passenger side hose bed cover hinge (15) from passenger side hose bed cover (7). Discard locknuts.

**NOTE**

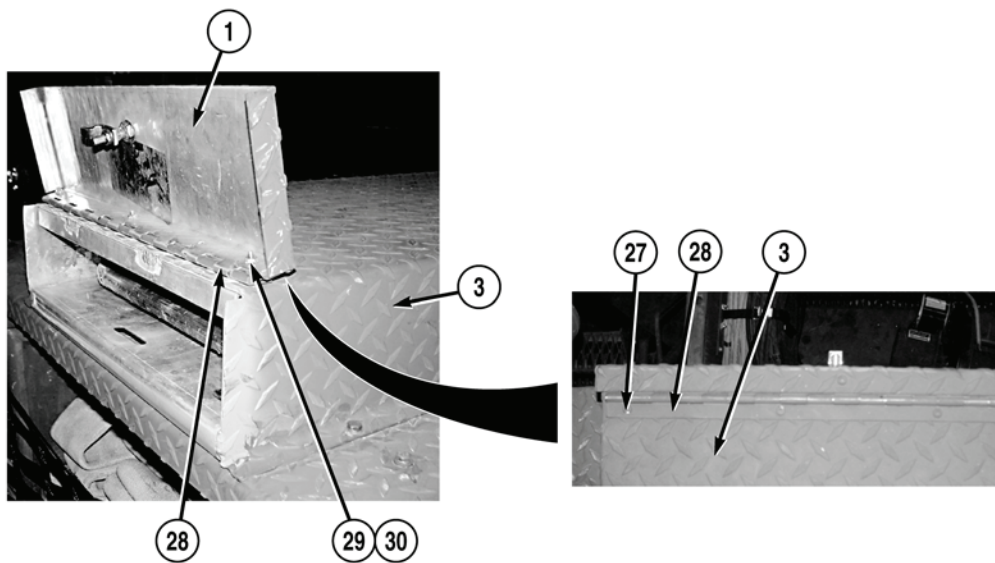
Both latches and handles are replaced the same way.

13. Remove four locknuts (19), washers (20), screws (21), and handle (22) from passenger side hose bed cover (7). Discard locknuts.

**NOTE**

Note position of latches prior to removal to ensure proper installation.

14. Remove two locknuts (23), washers (24), screws (25), and latch (26) from passenger side hose bed cover (7). Discard locknuts.



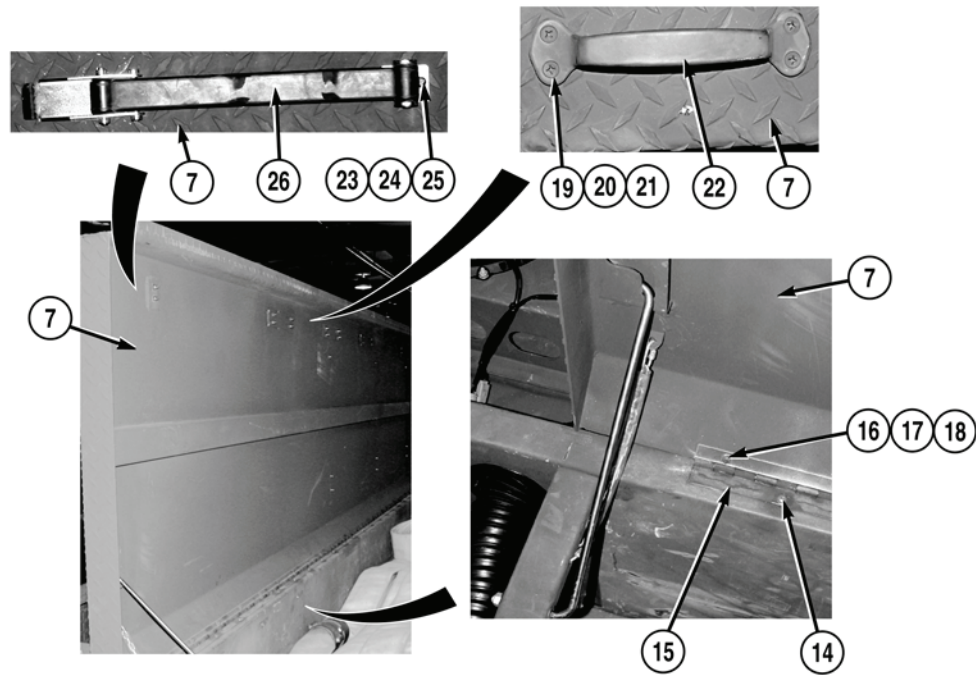
15. Remove four screws (27), and hinge (28) from backboard cover (3).
16. Remove three locknuts (29), screws (30), and hinge (28) from cover (1). Discard locknuts.

#### **END OF TASK**

#### **PASSENGER SIDE HOSE BED COVER INSTALLATION**

1. Install hinge (28) on cover (1) with three screws (30) and locknuts (29).
2. Install hinge (28) on backboard cover (3) with four screws (27).





### NOTE

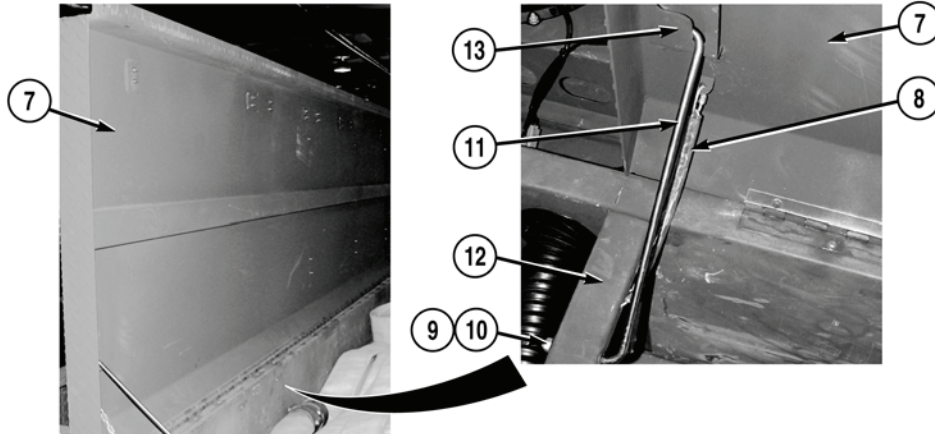
Install latches in same position as noted prior to removal.

3. Install latch (26) on passenger side hose bed cover (7) with two screws (25), washers (24), and locknuts (23).
4. Install handle (22) on passenger side hose bed cover (7) with four screws (21), washers (20), and locknuts (19).
5. Install passenger side hose bed cover hinge (15) on passenger side hose bed cover (7) with 22 screws (18), washers (17), and locknuts (16).
6. With the aid of an assistant, guide passenger side hose bed cover (7) into mounting position.

### CAUTION

**When installing screws attaching passenger side hose bed cover hinge, first install two outside screws first. First to comply may result in damage to equipment.**

7. Install passenger side hose bed cover hinge (15) on vehicle with two screws (14).
8. Secure passenger side hose bed cover hinge (15) to vehicle with 20 screws (14).



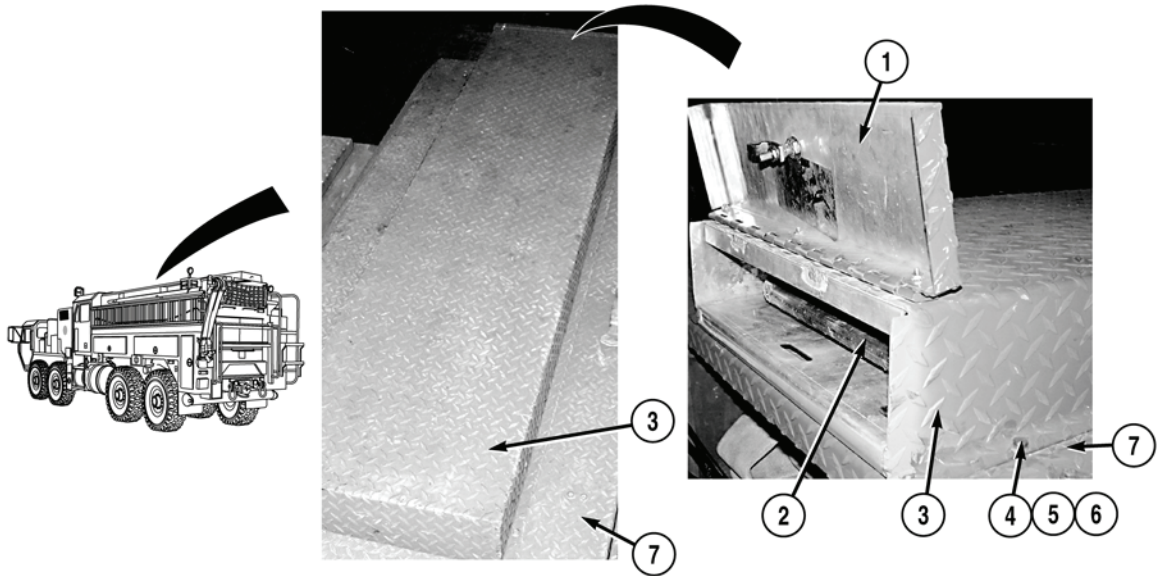
9. Install support rod (11) in rod support (13).
10. Install support rod (11) on cross divider (12) with washer (10) and locknut (9).
11. Install chain (8) on passenger side hose bed cover (7).
12. Remove suitable lifting device from passenger side hose bed cover (7).

### **WARNING**



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

13. Apply silicone sealant to heads of 22 screws (14).
14. Close passenger side hose bed cover (7) (WP 0015).



15. Install backboard cover (3) on passenger side hose bed cover (7) with six washers (6), lockwashers (5), and screws (4).
16. Install backboard (2) in backboard cover (3).
17. Close door (1).
18. Stow rear work platform (WP 0014).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

Remove wheel chocks (TM 9-2320-347-10)

#### END OF TASK

#### END OF WORK PACKAGE



---

**FIELD LEVEL MAINTENANCE**  
**HOSE BED DIVIDER REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0537  
WP 0615, Fig. 136

**Materials/Parts**

Lockwasher (2)  
Lockwasher (2)  
Lockwasher (2)

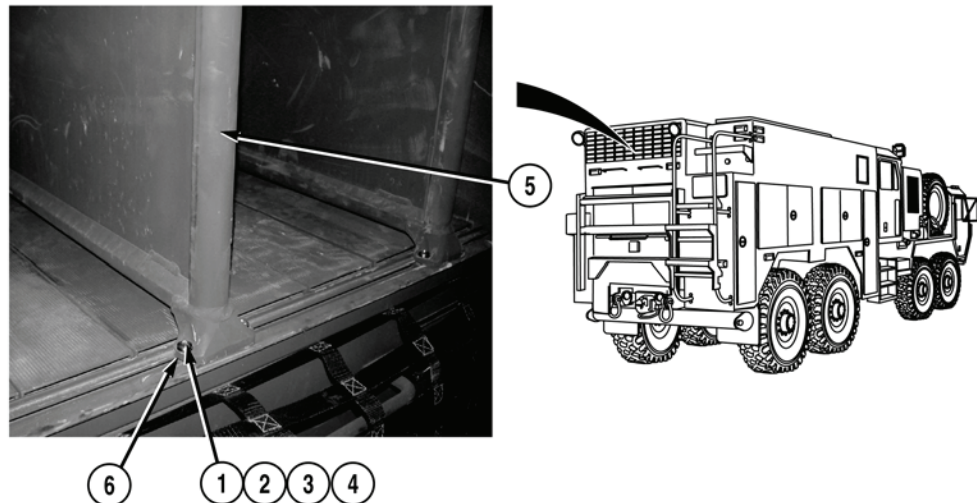
**Equipment Conditions**

Rear work platform unstowed (WP 0014)  
Hose bed restraint net removed (WP 0523)  
Hose bed cover opened (WP 0015)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

---

**REMOVAL****NOTE**

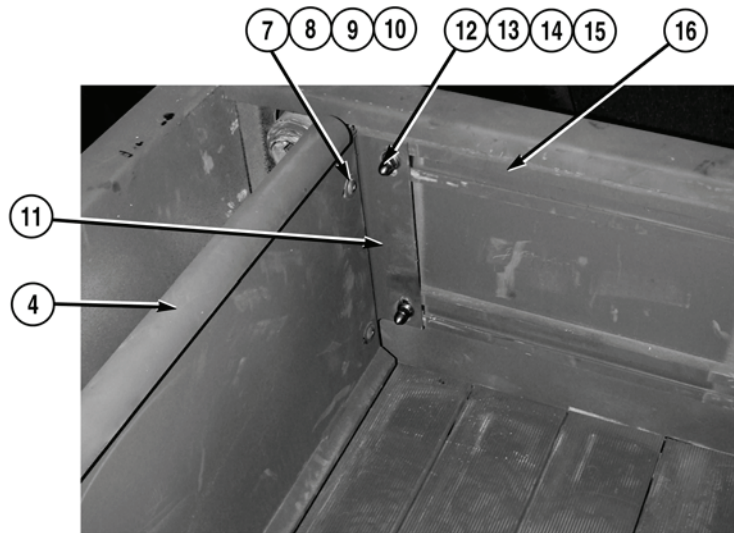
Perform Step (1) if removing pre-connect hose bed dividers.

1. Remove pre-connect roller assembly (WP 0537).

**NOTE**

Note position of hose bed dividers prior to removal to ensure proper installation.

2. Remove two nuts (1), lockwashers (2), washers (3), screws (4), and hose bed divider (5) from guide bracket (6). Discard lockwashers.



3. Remove two nuts (7), lockwashers (8), four washers (9), two screws (10), and hose bed divider (4) from bracket (11). Discard lockwashers.
4. With the aid of an assistant, remove hose bed divider (4) from vehicle.

#### **NOTE**

Perform Step (5) if bracket needs to be removed.

5. Remove two nuts (12), lockwashers (13), four washers (14), and bracket (11) from two channel screws (15) and crossdivider (16). Discard lockwashers.

#### **END OF TASK**

#### **INSTALLATION**

#### **NOTE**

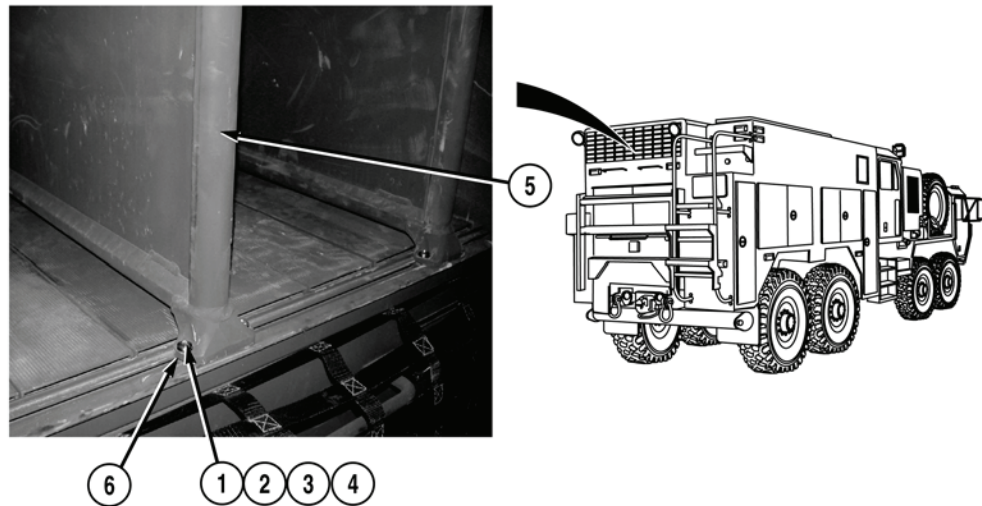
- All hose bed dividers are installed the same way.
- Perform Step (1) if bracket was removed.

1. Install bracket (11) on two channel screws (15) and crossdivider (16) with four washers (14), two lockwashers (13), and nuts (12).

#### **NOTE**

Install hose bed dividers as noted prior to removal.

2. With the aid of an assistant, position hose bed divider (4) into mounting position.
3. Install hose bed divider (4) on bracket (11) with two screws (10), four washers (9), two lockwashers (8), and nuts (7).



4. Install hose bed divider (5) on guide bracket (6) with two screws (4), washers (3), lockwashers (2), and nuts (1).

#### NOTE

Perform Step (5) if pre-connect hose bed dividers were removed.

5. Install pre-connect roller assembly (WP 0537).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Install hose bed restraint net (WP 0523)
2. Stow rear work platform (WP 0014)
3. Close hose bed cover (WP 0015)

#### END OF TASK

#### END OF WORK PACKAGE





---

**FIELD LEVEL MAINTENANCE**  
**HOSE BED GRATING REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

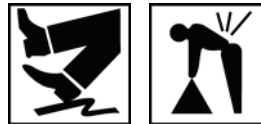
**Equipment Conditions**

Hose bed dividers removed (WP 0525)

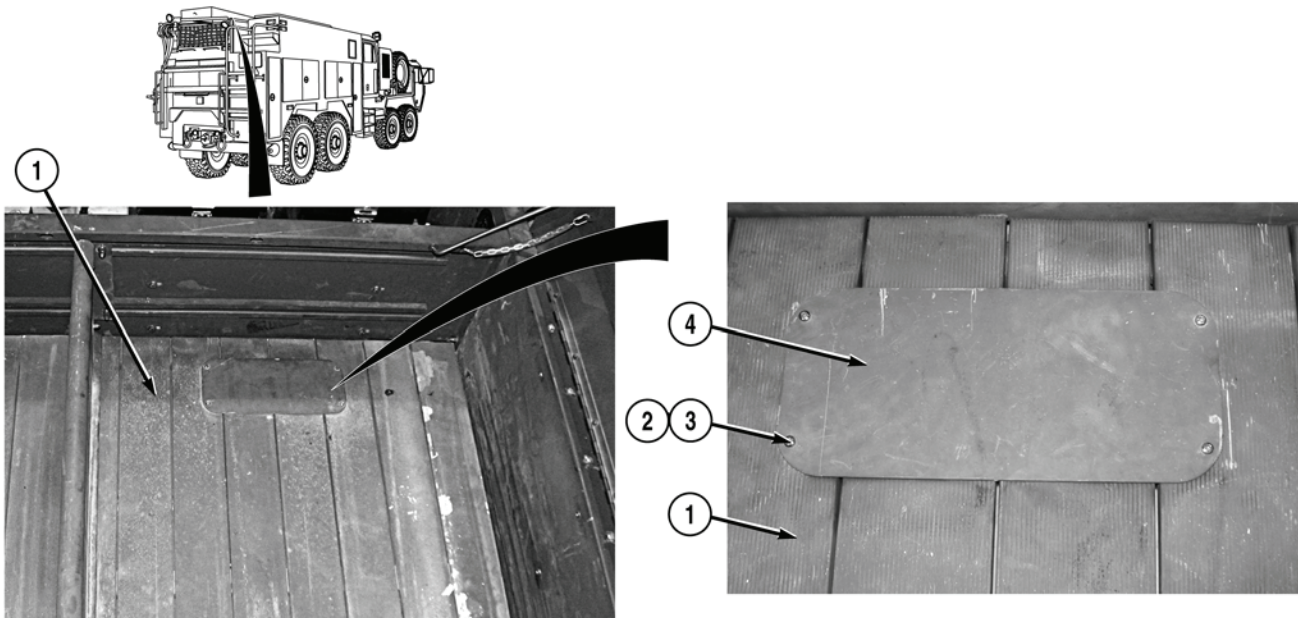
**Personnel Required**

MOS 63B Wheeled vehicle mechanic (4)

---

**REMOVAL****WARNING**

- Care must always be taken when climbing ON and OFF vehicle. Always face vehicle, use steps and grab handles, maintain three points of contact with vehicle (two feet/one hand or two hands/one foot). Keep steps, grab handles, and walkways clean, and be extra careful in wet, icy, or muddy conditions. Failure to comply may result in personnel slipping and falling, causing injury or death to personnel.
- Use extreme care when walking on hose bed cover and on top of vehicle. Be extra careful in wet, icy, or muddy conditions. Failure to comply may result in personnel slipping and falling causing injury or death to personnel.
- Hose bed grating is heavy. Do not attempt to lift hose bed cover without the aid of an assistant at each of the four corners of the hose bed cover. Failure to comply may result in serious injury or death to personnel or damage to equipment.



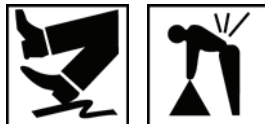
1. With the aid of three assistants, remove hose bed grating (1) from vehicle.
2. Remove four screws (2), washers (3), and cover (4) from hose bed grating (1).

#### END OF TASK

#### INSTALLATION

1. Install cover (4) on hose bed grating (1) with four washers (3) and screws (2).

#### **WARNING**



**Hose bed grating is heavy. Do not attempt to lift hose bed cover without the aid of an assistant at each of the four corners of the hose bed cover. Failure to comply may result in serious injury or death to personnel or damage to equipment.**

2. With the aid of three assistants, install hose bed grating (1) on vehicle.

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

Install hose bed dividers (WP 0525)

#### END OF TASK

#### END OF WORK PACKAGE

## FIELD LEVEL MAINTENANCE

## LOOSE EQUIPMENT (COMPONENTS OF END ITEM) MOUNTING BRACKET(S) REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Adhesive, Thread, Locking (WP 0625, Item 7)  
Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)  
Mineral Spirits (WP 0625, Item 32)  
Tape, Teflon (WP 0625, Item 57)  
Lockwasher (2)  
Locknut (4)  
Lockwasher (2)  
Lockwasher (4)  
Lockwasher (2)

**Materials/Parts (continued)**

Lockwasher (2)  
Lockwasher (3)  
Lockwasher (3)  
Locknut (6)  
Locknut (2)

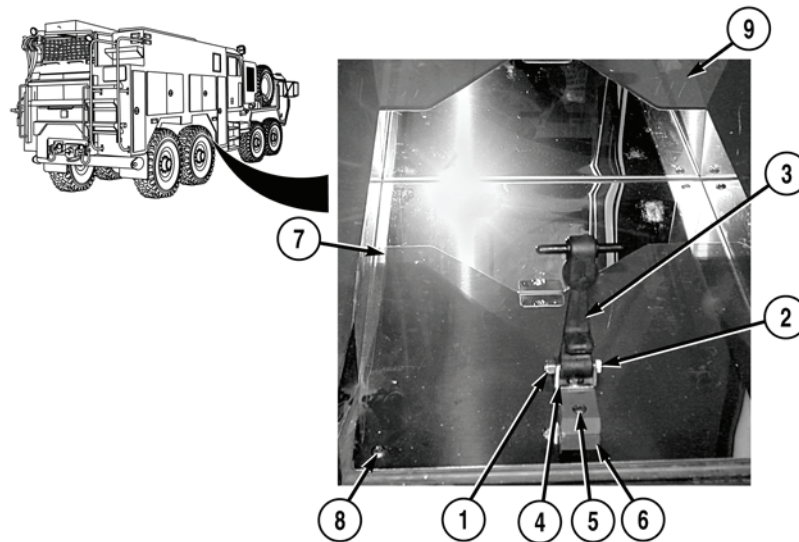
**References**

WP 0615, Fig. 156, 157, 158, 159, 160, 162

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

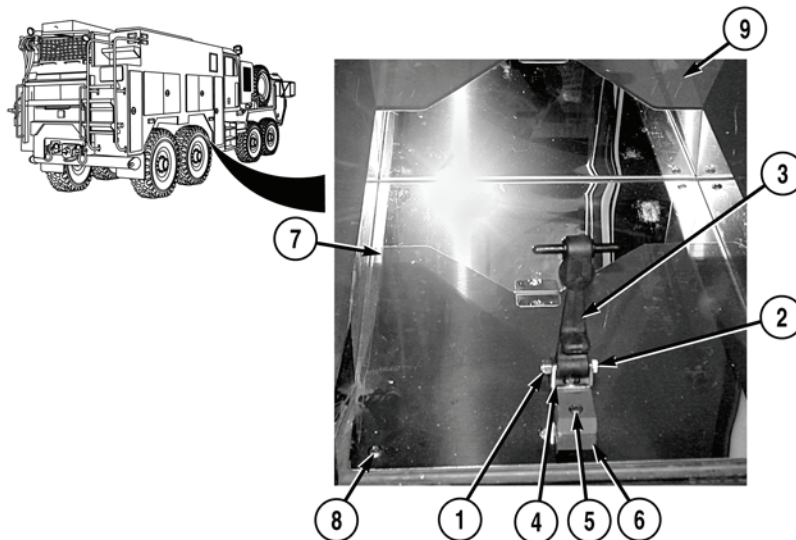
## FAN BRACKET REMOVAL



1. Remove nut (1), screw (2), and rubber latch (3) from bracket (4).
2. Remove two screws (5), bracket (4), and block (6) from bracket (7).
3. Remove four screws (8) and bracket (7) from compartment (9).

## END OF TASK

## FAN BRACKET INSTALLATION

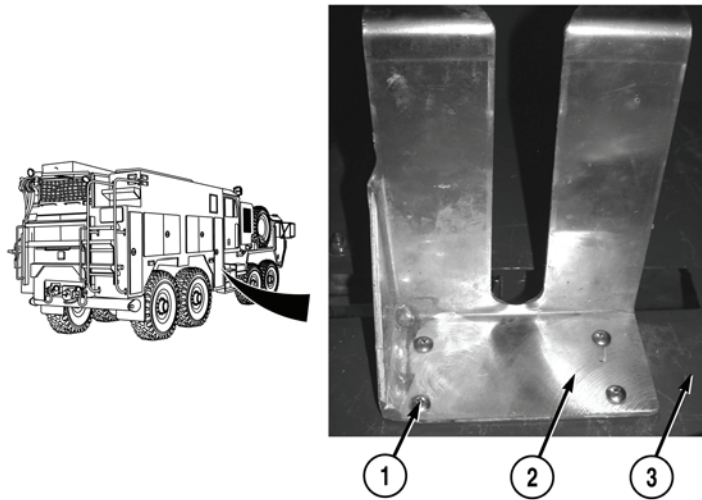
**WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

1. Apply thread lock adhesive on threads of screws (5) and (8).
2. Install bracket (7) in compartment (9) with four screws (8).
3. Install bracket (4) and block (6) on bracket (7) with two screws (5).
4. Install rubber latch (3) on bracket (4) with screw (2) and nut (1).

**END OF TASK**

## FORESTRY TOOL BRACKET REMOVAL



Remove four screws (1) and bracket (2) from compartment (3).

**END OF TASK**

## FORESTRY TOOL BRACKET INSTALLATION

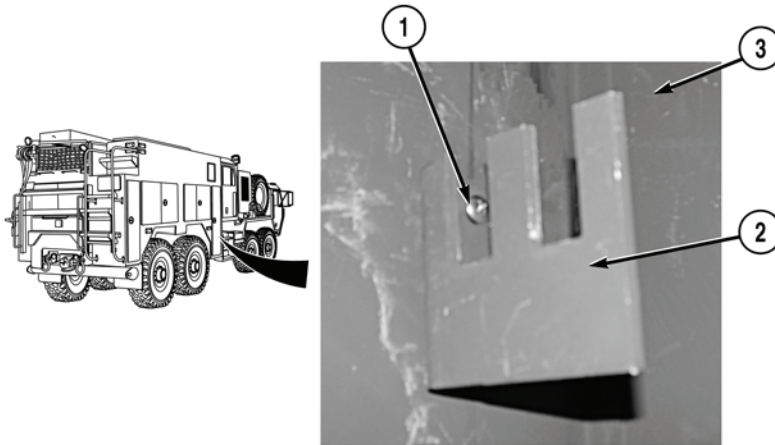
### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

1. Apply thread lock adhesive on threads of four screws (1).
2. Install bracket (2) in compartment (3) with four screws (1).

**END OF TASK**

**PULASKI AXE BRACKET REMOVAL**

Remove two screws (1) and bracket (2) from compartment (3).

**END OF TASK**

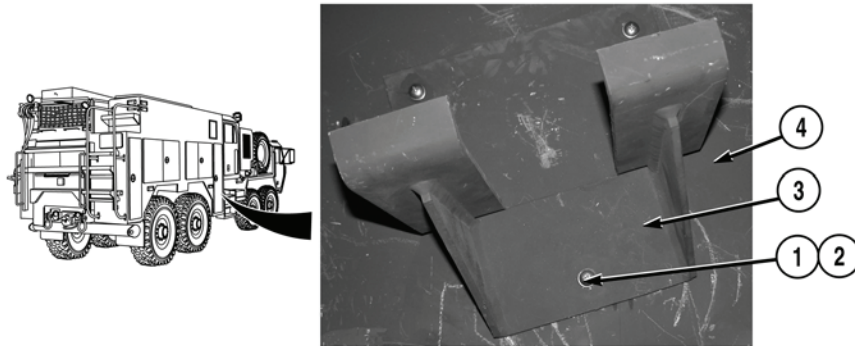
**PULASKI AXE BRACKET INSTALLATION****WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

1. Apply thread lock adhesive on threads of two screws (1).
2. Install bracket (2) in compartment (3) with two screws (1).

**END OF TASK**

## MATTOCK PICK BRACKET REMOVAL



Remove three screws (1), washers (2), and bracket (3) from compartment (4).

**END OF TASK**

## MATTOCK PICK BRACKET INSTALLATION

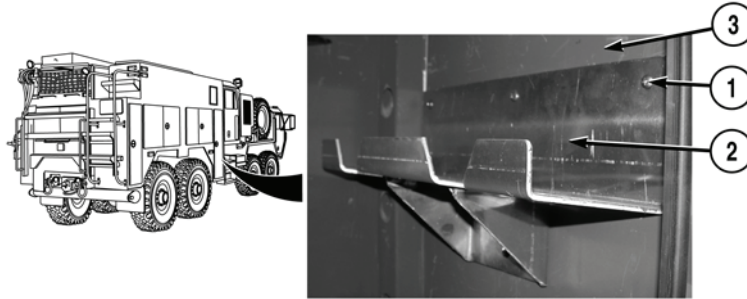
### **WARNING**



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

1. Apply thread lock adhesive on threads of three screws (1).
2. Install bracket (3) in compartment (4) with three washers (2) and screws (1).

**END OF TASK**

**SHOVEL BRACKET REMOVAL**

Remove four screws (1) and bracket (2) from compartment (3).

**END OF TASK**

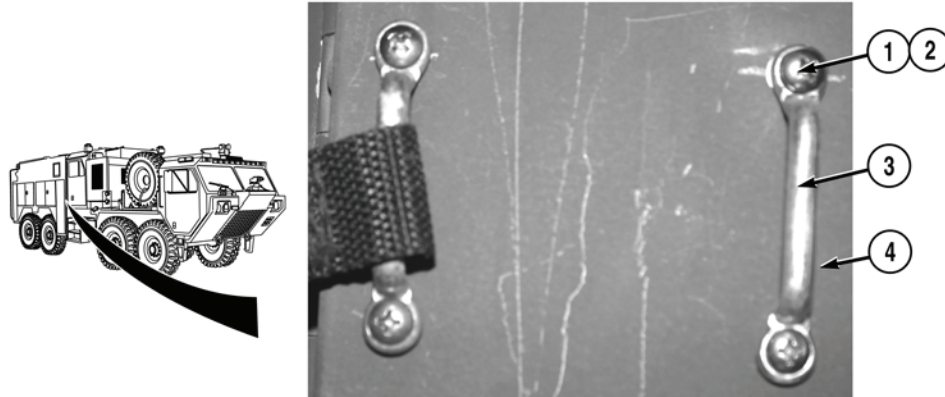
**SHOVEL BRACKET INSTALLATION**

Install bracket (2) in compartment (3) with four screws (1).

**END OF TASK**



## LOOP BRACKET REMOVAL



### NOTE

All loop brackets are removed the same way. Shovel handle loop brackets shown.

Remove four screws (1), washers (2), and two brackets (3) from compartment (4).

### END OF TASK

## LOOP BRACKET INSTALLATION

### WARNING



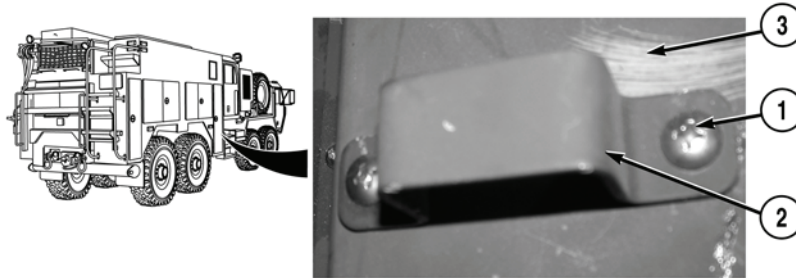
**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

### NOTE

All loop brackets are installed the same way. Shovel handle loop brackets shown.

1. Apply thread lock adhesive on threads of four screws (1).
2. Install two brackets (3) in compartment (4) with four washers (2) and screws (1).

### END OF TASK

**PRY AXE ATTACHMENT BRACKET REMOVAL**

Remove two screws (1) and bracket (2) from compartment (3).

**END OF TASK**

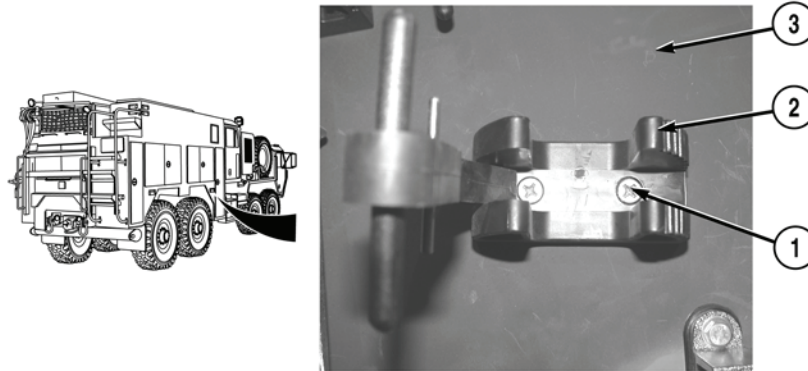
**PRY AXE ATTACHMENT BRACKET INSTALLATION****WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

1. Apply thread lock adhesive on threads of two screws (1).
2. Install bracket (2) in compartment (3) with two screws (1).

**END OF TASK**

## HOOLIGAN TOOL BRACKET REMOVAL



### NOTE

All hooligan tool brackets are removed the same way.

Remove two screws (1) and bracket (2) from compartment (3).

### END OF TASK

## HOOLIGAN TOOL BRACKET INSTALLATION

### WARNING



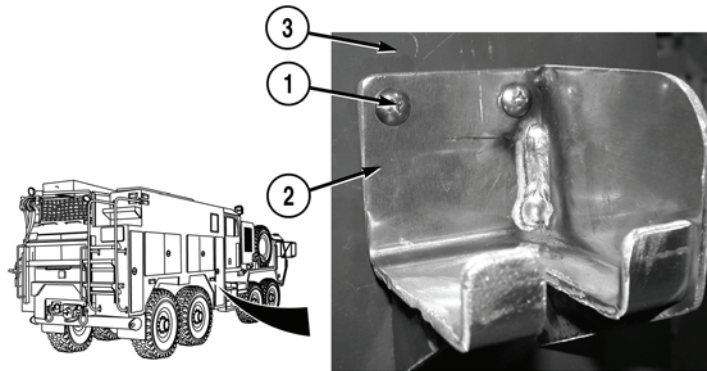
Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

### NOTE

All hooligan tool brackets are installed the same way.

1. Apply thread lock adhesive on threads of two screws (1).
2. Install bracket (2) in compartment (3) with two screws (1).

### END OF TASK

**PRY AXE W/CLAW BRACKET REMOVAL**

Remove two screws (1) and bracket (2) from compartment (3).

**END OF TASK**

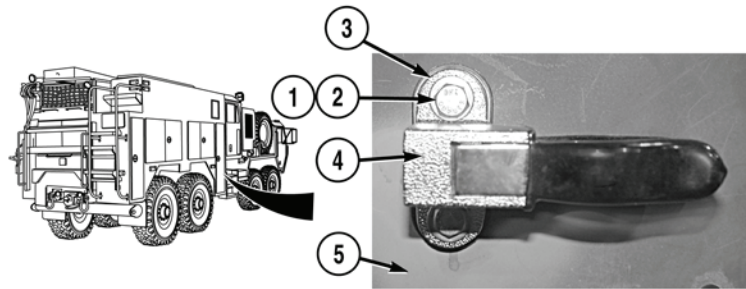
**PRY AXE W/CLAW BRACKET INSTALLATION****WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

1. Apply thread lock adhesive on threads of two screws (1).
2. Install bracket (2) in compartment (3) with two screws (1).

**END OF TASK**

## AXE HANDLE BRACKET REMOVAL



### NOTE

Both axe handle brackets are removed the same way.

Remove two screws (1), washers (2), gasket (3), and bracket (4) from compartment (5).

### END OF TASK

## AXE HANDLE BRACKET INSTALLATION

### WARNING



Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

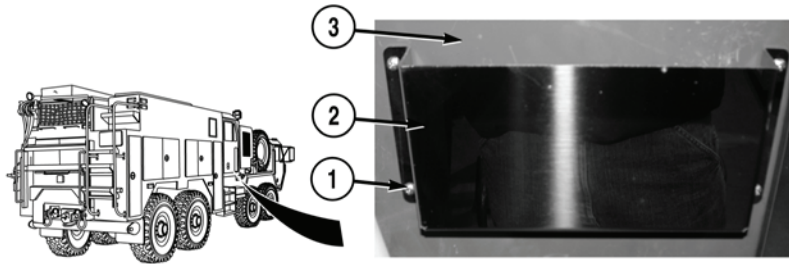
### NOTE

Both axle handle brackets are installed the same way.

1. Apply thread lock adhesive on threads of two screws (1).
2. Install bracket (4) in compartment (5) with gasket (3), two washers (2), and screws (1).

### END OF TASK

## AXE PROTECTOR BRACKET REMOVAL



### NOTE

Both axe protector brackets are removed the same way. Flat head axe protector bracket shown.

Remove four screws (1) and bracket (2) from compartment (3).

### END OF TASK

## AXE PROTECTOR BRACKET INSTALLATION

### WARNING



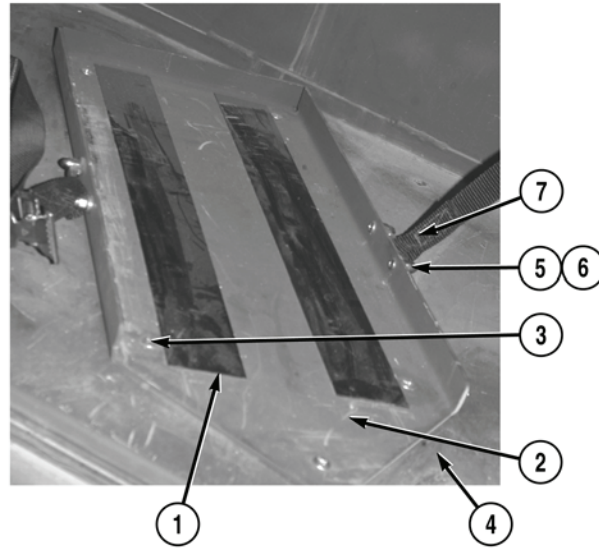
Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

### NOTE

Both axe protector brackets are installed the same way. Flat head axe protector bracket shown.

1. Apply thread lock adhesive on the threads of four screws (1).
2. Install bracket (2) in compartment (3) with four screws (1).

### END OF TASK

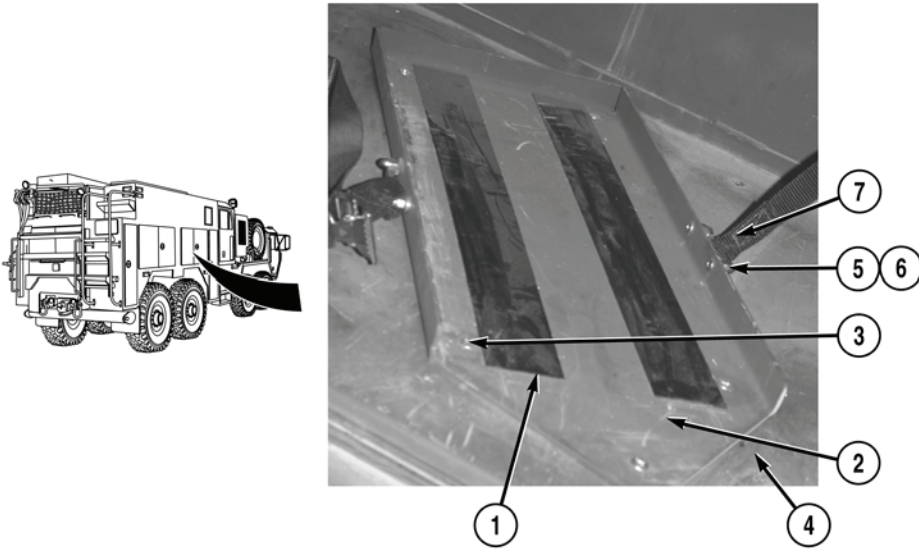
**BASE BRACKET REMOVAL****NOTE**

- All base brackets are removed the same way. Circular saw base bracket shown.
- Number of screws may vary.
- Perform Step (1) if Teflon tape is covering mounting screws.

1. Remove Teflon tape (1) from bracket (2).
2. Remove four screws (3) and bracket (2) from compartment (4).
3. Remove four nuts (5), screws (6), and two loop brackets (7) from bracket (2).

**END OF TASK**

## BASE BRACKET INSTALLATION



1. Install two loop brackets (7) on bracket (2) with four screws (6) and nuts (5).

### **WARNING**



Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

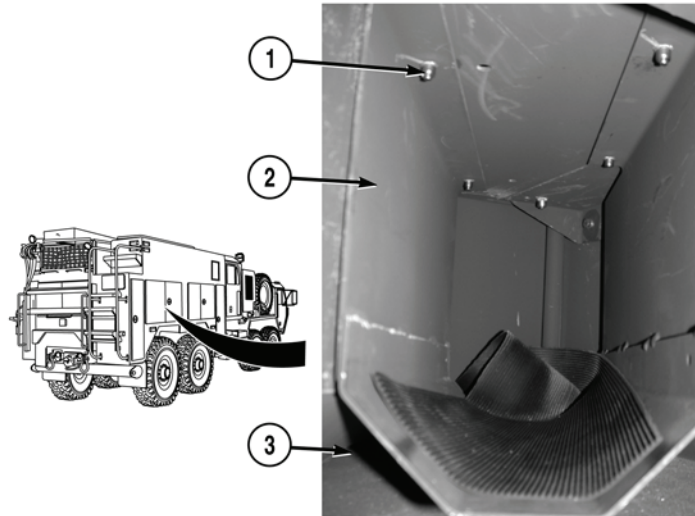
### **NOTE**

- All base brackets are installed the same way. Circular saw base bracket shown.
  - Number of screws may vary.
2. Apply thread lock adhesive on threads of four screws (3).
  3. Install bracket (2) in compartment (4) with four screws (3).
  4. Clean mating surface of Teflon tape and bracket (2) with mineral spirits.
  5. Install Teflon tape (1) on bracket (2).

**END OF TASK**



## FIRE EXTINGUISHER BRACKET REMOVAL



### NOTE

Both fire extinguisher brackets are removed the same way.

Remove four screws (1) and bracket (2) from compartment (3).

### END OF TASK

## FIRE EXTINGUISHER BRACKET INSTALLATION

### WARNING



Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

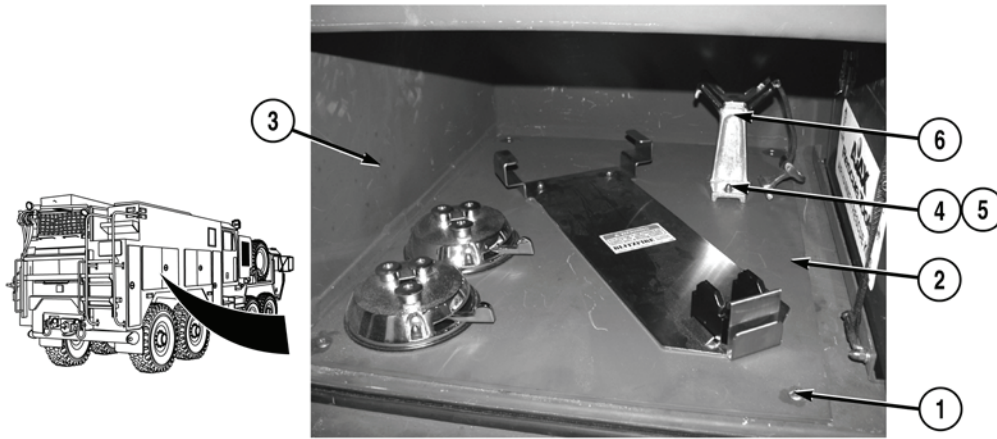
### NOTE

Both fire extinguisher brackets are installed the same way.

1. Apply thread lock adhesive on threads of four screws (1).
2. Install bracket (2) in compartment (3) with four screws (1).

### END OF TASK

## Y BRACKET REMOVAL



1. Remove four screws (1) and plate (2) from compartment (3).
2. Remove two nuts (4), screws (5), and bracket (6) from plate (2).

### END OF TASK

## Y BRACKET INSTALLATION

1. Install bracket (6) on plate (2) with two screws (5) and nuts (4).

### **WARNING**

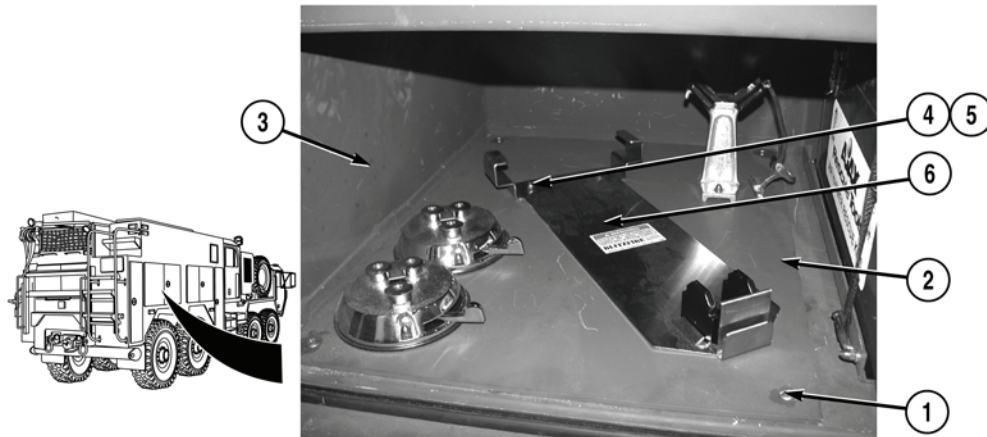


**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

2. Apply thread lock adhesive on threads of four screws (1).
3. Install plate (2) in compartment (3) with four screws (1).

### END OF TASK

## MONITOR PACKAGE BRACKET REMOVAL



1. Remove four screws (1) and plate (2) from compartment (3).
2. Remove three nuts (4), screws (5), and bracket (6) from plate (2).

**END OF TASK**

## MONITOR PACKAGE BRACKET INSTALLATION

1. Install bracket (6) on plate (2) with three screws (5) and nuts (4).

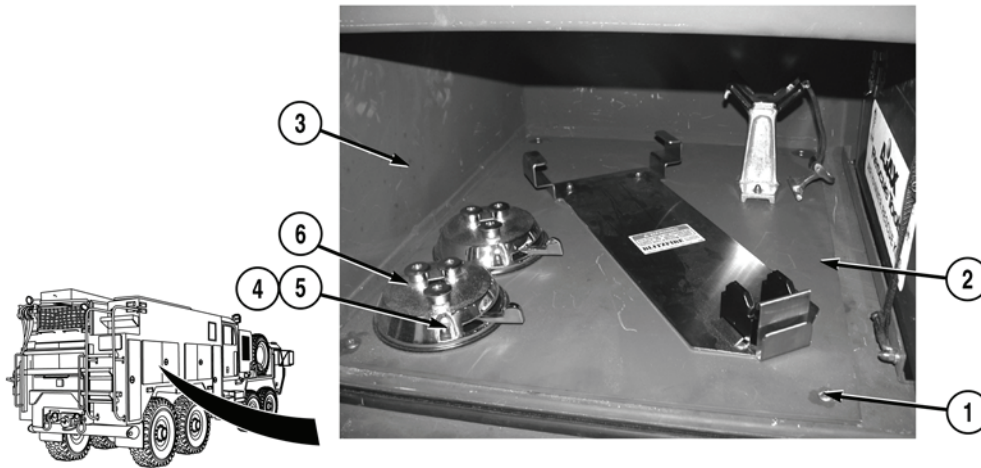
### **WARNING**



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

2. Apply thread lock adhesive on threads of four screws (1).
3. Install plate (2) in compartment (3) with four screws (1).

**END OF TASK**

**NOZZLE TIP BRACKET REMOVAL****NOTE**

Both nozzle tip brackets are removed the same way.

1. Remove four screws (1) and plate (2) from compartment (3).
2. Remove three nuts (4), screws (5), and bracket (6) from plate (2).

**END OF TASK****NOZZLE TIP BRACKET INSTALLATION**

1. Install bracket (6) on plate (2) with three screws (5) and nuts (4).

**WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

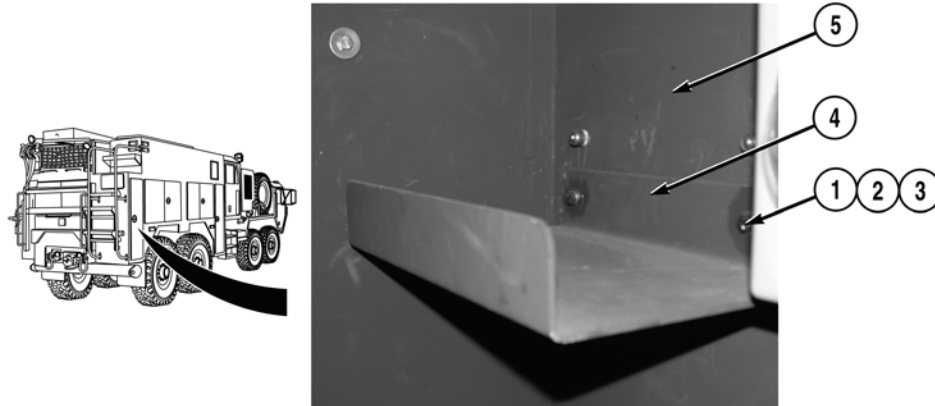
**NOTE**

Both nozzle tip brackets are installed the same way.

2. Apply thread lock adhesive on threads of four screws (1).
3. Install plate (2) in compartment (3) with four screws (1).

**END OF TASK**

## MILLENNIUM DETECTOR BRACKET REMOVAL



Remove two screws (1), lockwashers (2), washers (3), and bracket (4) from compartment (5). Discard lockwashers.

**END OF TASK**

## MILLENNIUM DETECTOR BRACKET INSTALLATION

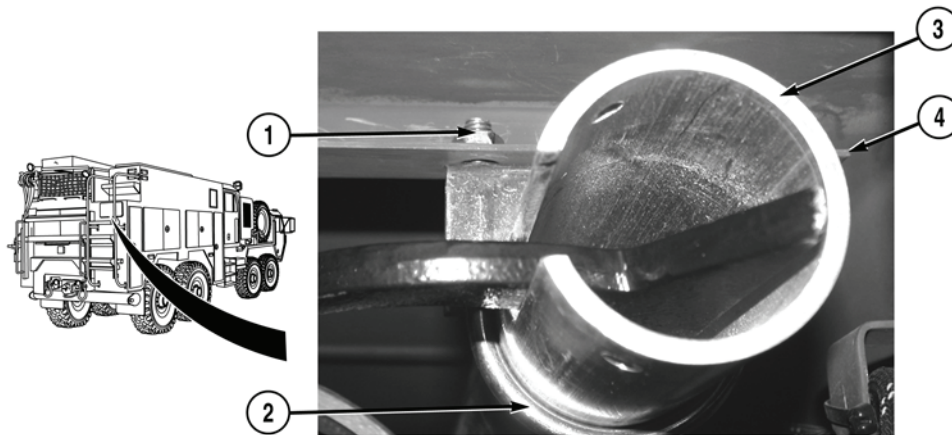
### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

1. Apply thread lock adhesive on threads of two screws (1).
2. Install bracket (4) in compartment (5) with two washers (3), lockwashers (2), and screws (1).

**END OF TASK**

**PIKE POLE BRACKET REMOVAL****NOTE**

Both pike pole brackets are removed the same way.

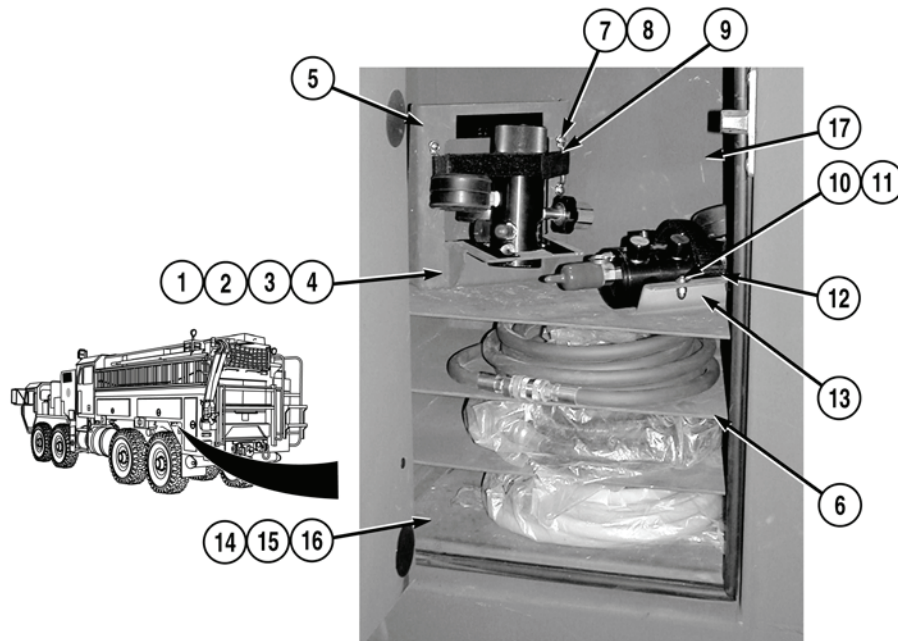
Remove four locknuts (1), two U-bolts (2), and pipe (3) from compartment (4). Discard locknuts.

**END OF TASK****PIKE POLE BRACKET INSTALLATION****NOTE**

Both pike pole brackets are installed the same way.

Install pipe (3) in compartment (4) with two U-bolts (2) and four locknuts (1).

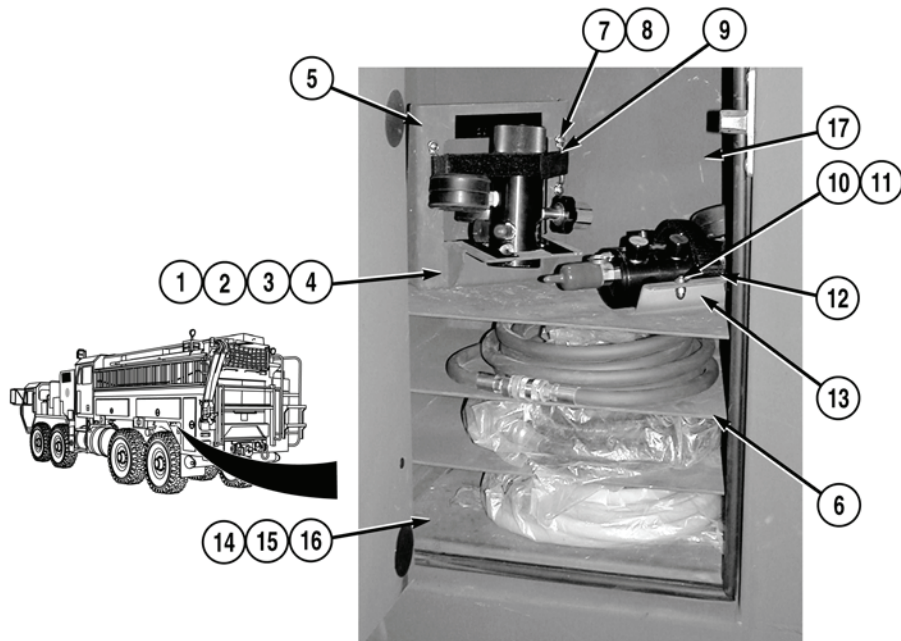
**END OF TASK**

**AIR LIFTING KIT BRACKET REMOVAL**

1. Remove two nuts (1), lockwashers (2), four washers (3), two screws (4), and bracket (5) from bracket (6). Discard lockwashers.
2. Remove four nuts (7), screws (8), and two loop brackets (9) from bracket (5).
3. Remove four nuts (10), screws (11), and two loop clamps (12) from bracket (13).
4. Remove four screws (14), lockwashers (15), washers (16), and bracket (6) from compartment (17). Discard lockwashers.

**END OF TASK**

## AIR LIFTING KIT BRACKET INSTALLATION

**WARNING**

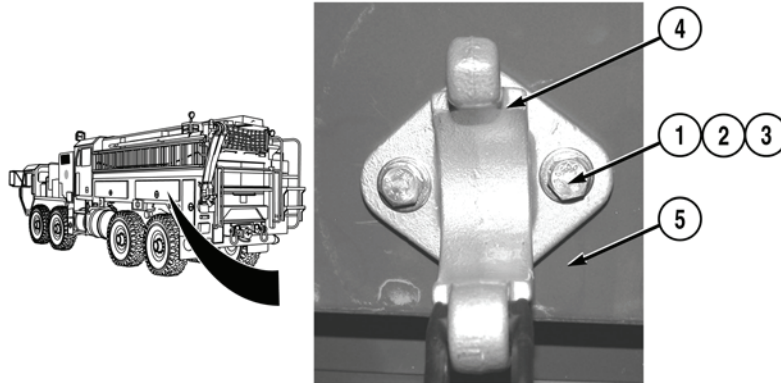
**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

1. Apply thread lock adhesive on threads of four screws (14).
2. Install bracket (6) in compartment (17) with four washers (16), lockwashers (15), and screws (14).
3. Install two loop clamps (12), on bracket (13) with four screws (11) and nuts (10).
4. Install two loop brackets (9) on bracket (5) with four screws (8) and nuts (7).
5. Install bracket (5) on bracket (6) with two screws (4), four washers (3), two lockwashers (2), and nuts (1).

**END OF TASK**



## PIKE HANDLE BRACKET REMOVAL



### NOTE

Both brackets are removed the same way.

Remove two screws (1), lockwashers (2), washers (3), and bracket (4) from compartment (5). Discard lockwashers.

### END OF TASK

## PIKE HANDLE BRACKET INSTALLATION

### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

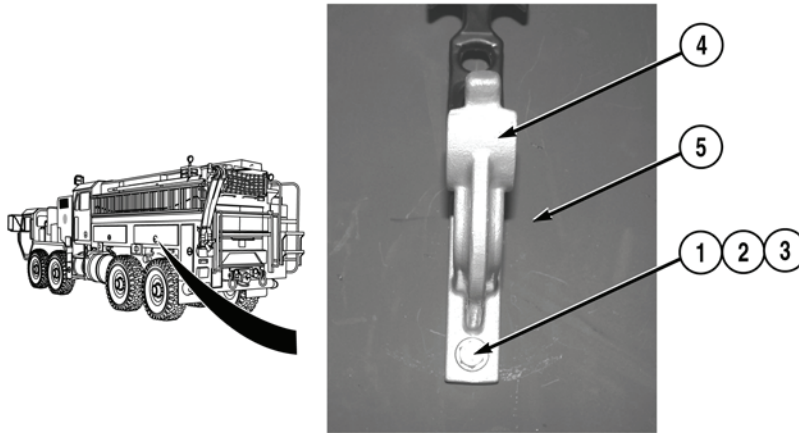
### NOTE

Both brackets are installed the same way.

1. Apply lock adhesive on threads of two screws (1).
2. Install bracket (4) in compartment (5) with four washers (3), lockwashers (2), and screws (1).

### END OF TASK

## ARSON HANDLE BRACKET REMOVAL



### NOTE

All arson handle brackets are removed the same way.

Remove two screws (1), lockwashers (2), washers (3), and bracket (4) from compartment (5). Discard lockwashers.

### END OF TASK

## ARSON HANDLE BRACKET INSTALLATION

### WARNING



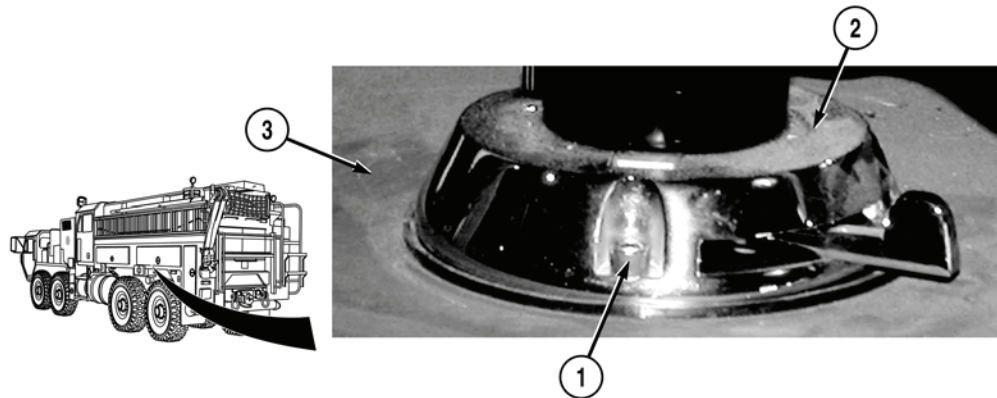
**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

### NOTE

All arson handle brackets installed the same way.

1. Apply thread lock adhesive on threads of two screws (1).
2. Install bracket (4) in compartment (5) with two washers (3), lockwashers (2), and screws (1).

### END OF TASK

**NOZZLE BRACKET REMOVAL**

Remove three screws (1) and bracket (2) from compartment (3).

**END OF TASK**

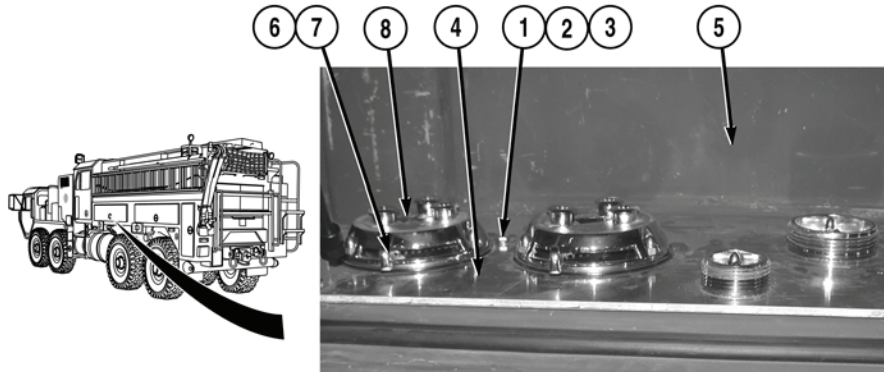
**NOZZLE BRACKET INSTALLATION****WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

1. Apply lock thread adhesive on threads of three screws (1).
2. Install bracket (2) in compartment (3) with three screws (1).

**END OF TASK**

## NOZZLE TOOL BRACKET REMOVAL



### NOTE

All nozzle tool brackets are removed the same way.

1. Remove three screws (1), lockwashers (2), washers (3), and plate (4) from compartment (5). Discard lockwashers.
2. Remove three nuts (6), screws (7) and bracket (8) from plate (4).

### END OF TASK

## NOZZLE TOOL BRACKET INSTALLATION

1. Install bracket (8) on plate (4) with three screws (7) and nuts (6).

### WARNING



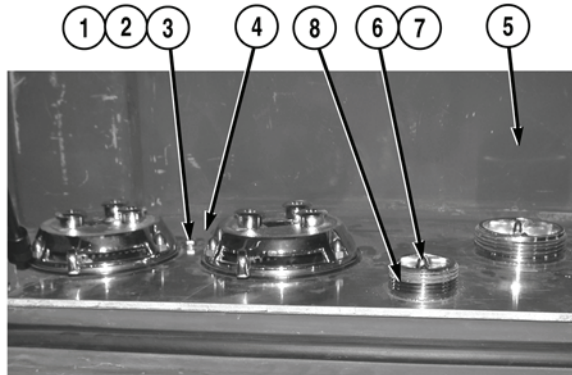
**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

### NOTE

All nozzle tool brackets are installed the same way.

2. Apply thread lock adhesive on threads of three screws (1).
3. Install plate (4) in compartment (5) with three washers (3), lockwashers (2), and screws (1).

### END OF TASK

**ADAPTER BRACKET REMOVAL****NOTE**

All adapter brackets are removed the same way.

1. Remove three screws (1), lockwashers (2), washers (3), and plate (4) from compartment (5). Discard lockwashers.
2. Remove two nuts (6), screws (7) and bracket (8) from plate (4).

**END OF TASK****ADAPTER BRACKET INSTALLATION**

1. Install bracket (8) on plate (4) with two screws (7) and nuts (6).

**WARNING**

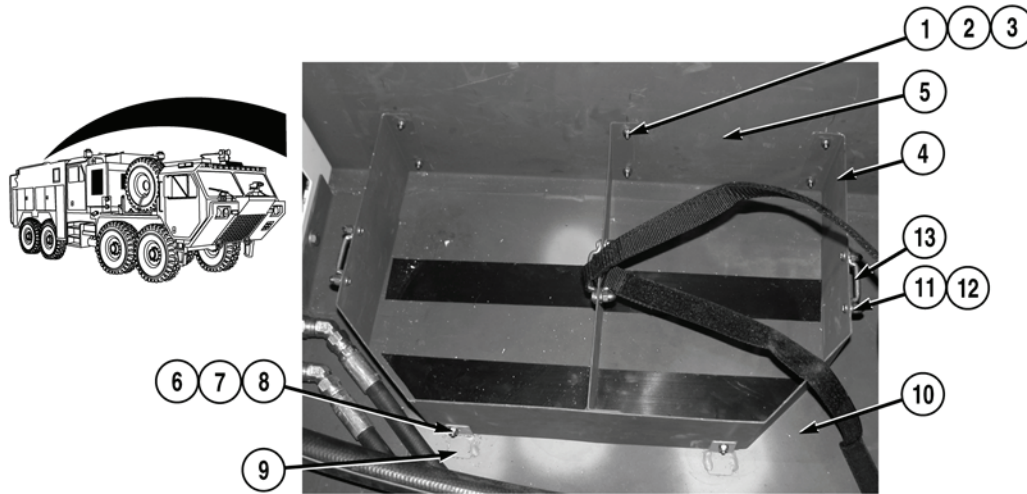
**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

**NOTE**

All adapter brackets are installed the same way.

2. Apply thread lock adhesive on threads of three screws (1).
3. Install plate (4) in compartment (5) with three washers (3), lockwashers (2), and screws (1).

**END OF TASK**

**STREAMLIGHT BRACKET REMOVAL**

1. Remove six screws (1), 12 washers (2), and six locknuts (3) from bracket (4) and wall (5). Discard locknuts.
2. Remove two locknuts (6), four washers (7), and two screws (8) from brackets (9) and bracket (4). Discard locknuts.
3. Remove bracket (4) from compartment (10).
4. Remove six nuts (11), screws (12), and four loops (13) from bracket (4).

**END OF TASK****STREAMLIGHT BRACKET INSTALLATION**

1. Position bracket (4) in compartment (10).
2. Install four loops (13) on bracket (4) with six screws (12) and nuts (11).
3. Install bracket (4) on two brackets (9) with screws (8), four washers (7), and two locknuts (6).
4. Install bracket (4) on wall (5) with six locknuts (3), 12 washers (2) and six screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**ON-BOARD TOOL MOUNTING BRACKET(S) REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 165

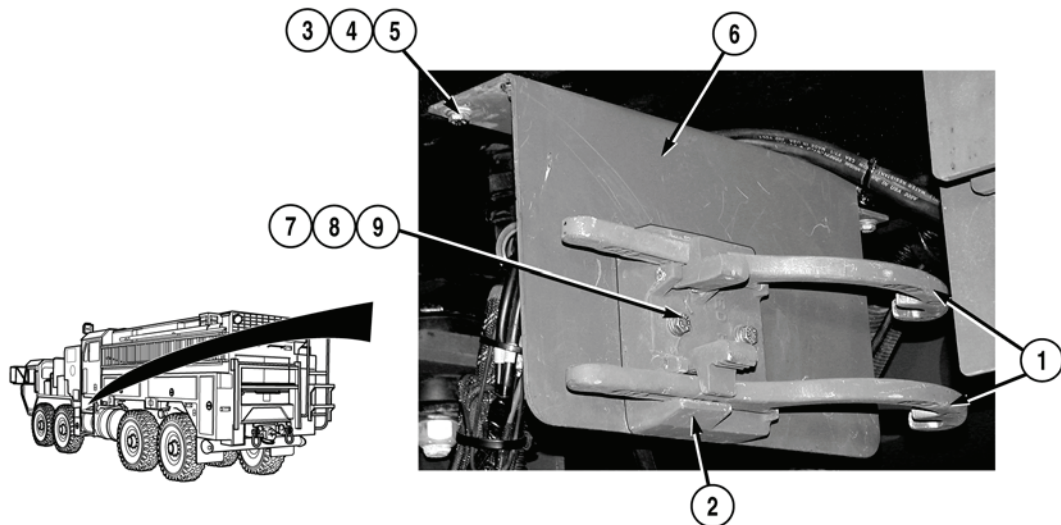
**Materials/Parts**

Lockwasher (4)  
Lockwasher (2)  
Lockwasher (2)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

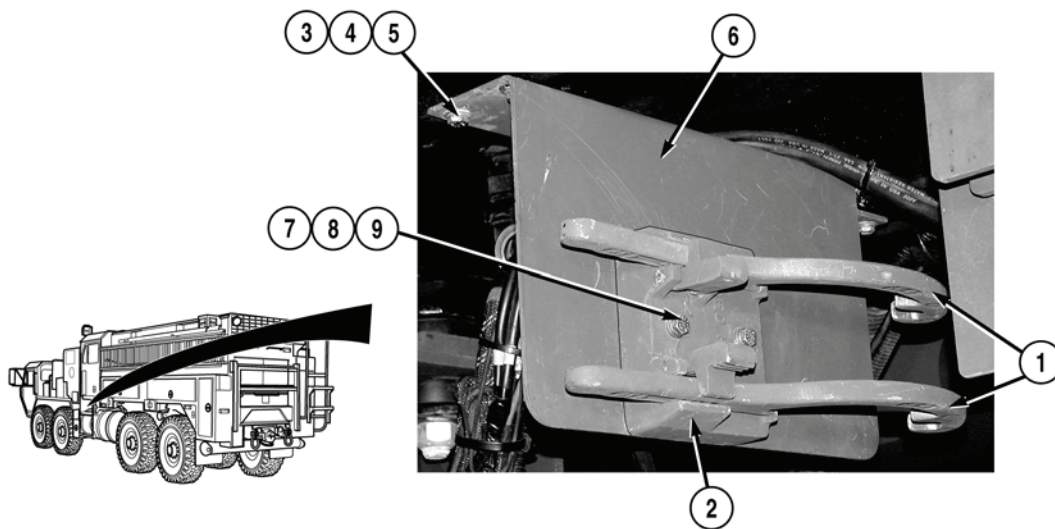
**CREW CAB ON-BOARD TOOL MOUNTING BRACKET REMOVAL****NOTE**

- All four tool mounting brackets are removed the same way. Rear driver side mounting bracket shown.
- Front wrench holder requires removal of hydrant wrench and two hose picks.

1. Remove two spanner wrenches (1) from wrench holder (2).
2. Remove four screws (3), lockwashers (4), washers (5), and mounting bracket (6) from vehicle. Discard lockwashers.
3. Remove two screws (7), lockwashers (8), washers (9), and wrench holder (2) from mounting bracket (6). Discard lockwashers.

**END OF TASK**

---

**CREW CAB ON-BOARD TOOL MOUNTING BRACKET INSTALLATION**
**NOTE**

All four mounting brackets are installed the same way. Rear driver side mounting bracket shown.

1. Install wrench holder (2) on mounting bracket (6) with two screws (7), lockwashers (8), and washers (9).
2. Install mounting bracket (6) on vehicle with four screws (3), lockwashers (4), and washers (5).

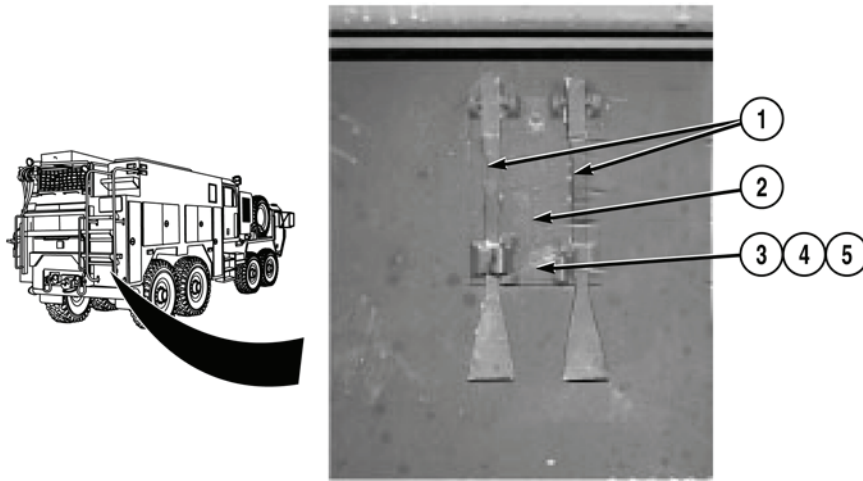
**NOTE**

Front wrench holder requires installation of hydrant wrench and two hose picks.

3. Install two spanner wrenches (1) on wrench holder (2).

**END OF TASK**



**REAR ON-BOARD TOOL MOUNTING BRACKET REMOVAL**

1. Remove two hose picks (1) from wrench holder (2).
2. Remove two screws (3), lockwashers (4), washers (5), and wrench holder (2) from vehicle. Discard lockwashers.

**END OF TASK****REAR ON-BOARD TOOL MOUNTING BRACKET INSTALLATION**

1. Install wrench holder (2) on vehicle with two washers (5), lockwashers (4), and screws (3).
2. Install two hose picks (1) on wrench holder (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**PASSENGER SEAT MOUNT REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Locknut (6)

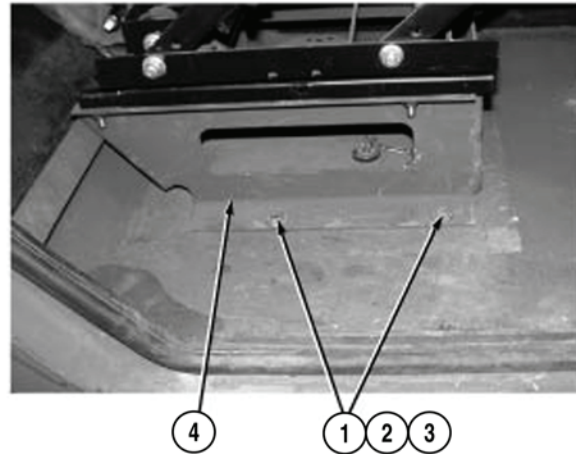
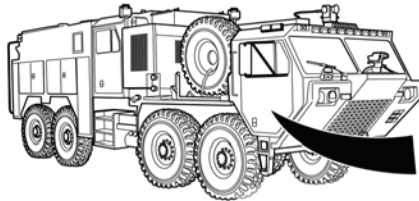
**References**

WP 0615, Fig. 118

**Equipment Conditions**

Passenger seat removed (WP 0530)

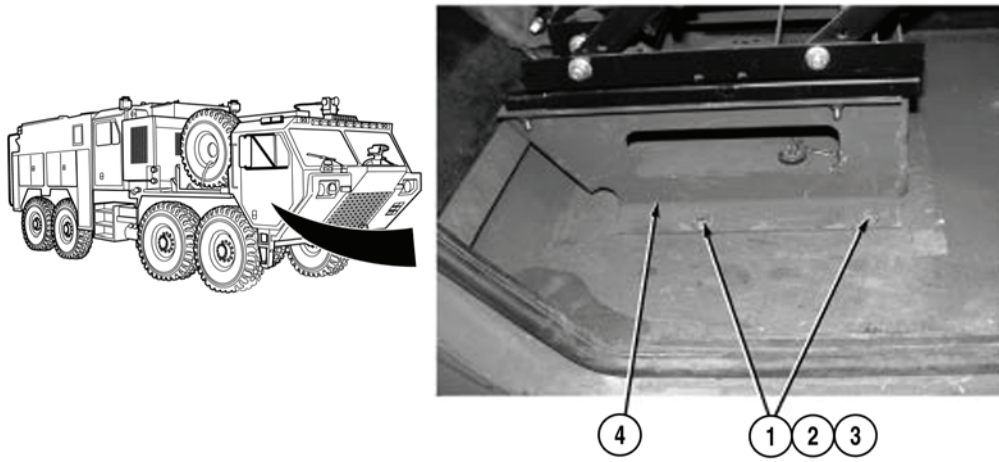
---

**REMOVAL****NOTE**

Note position of passenger seat mount prior to removal to ensure proper installation.

Remove six locknuts (1), washers (2), screws (3), and passenger seat mount (4) from vehicle. Discard locknuts.

**END OF TASK**

**INSTALLATION****NOTE**

Install passenger seat mount as noted prior to removal.

Install passenger seat mount (4) on vehicle with six screws (3), washers (2), and locknuts (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Install passenger seat (WP 0530)

**END OF TASK****END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**PASSENGER SEAT REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Locknut (1)  
Locknut (1)  
Locknut (4)  
Lockwasher (2)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

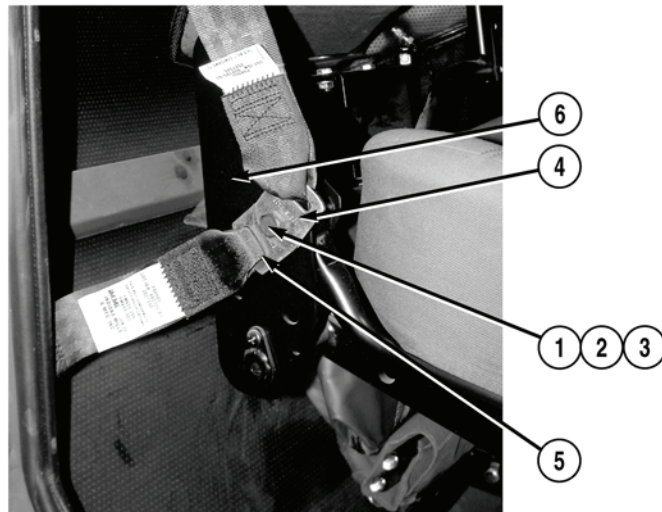
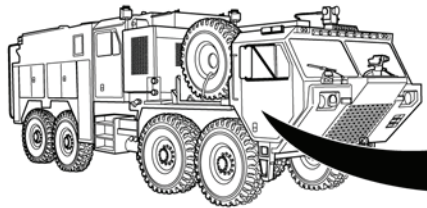
**References**

WP 0615, Fig. 118

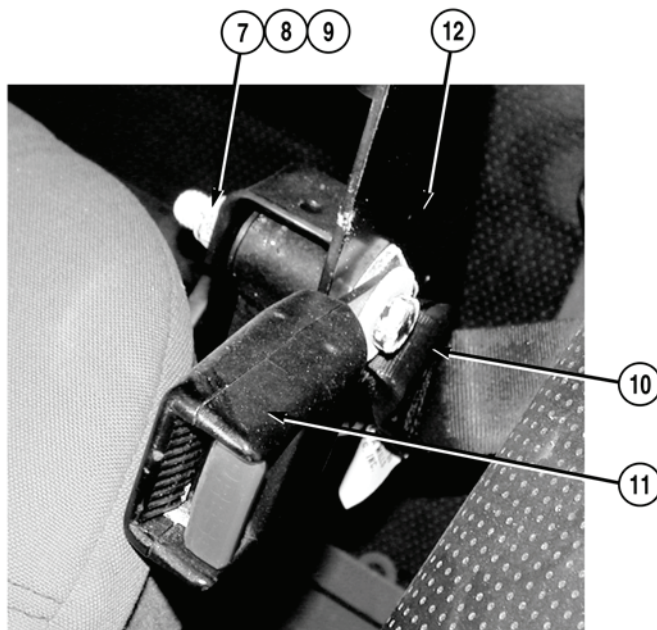
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

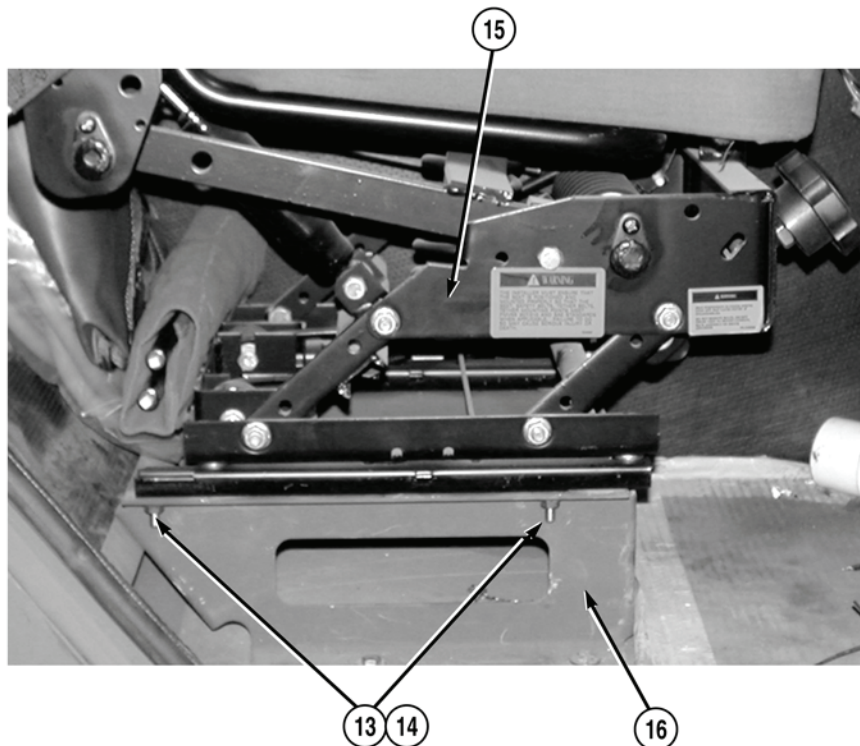
**REMOVAL**

1. Remove locknut (1), washer (2), screw (3), shoulder/lap restraint mount (4), and tether mount (5), from right side seat bracket (6). Discard locknut.

**NOTE**

Note position of washers prior to removal to ensure proper installation.

2. Remove locknut (7), three washers (8), screw (9), tether mount (10), and seat belt latch (11) from left side seat bracket (12). Discard locknut.

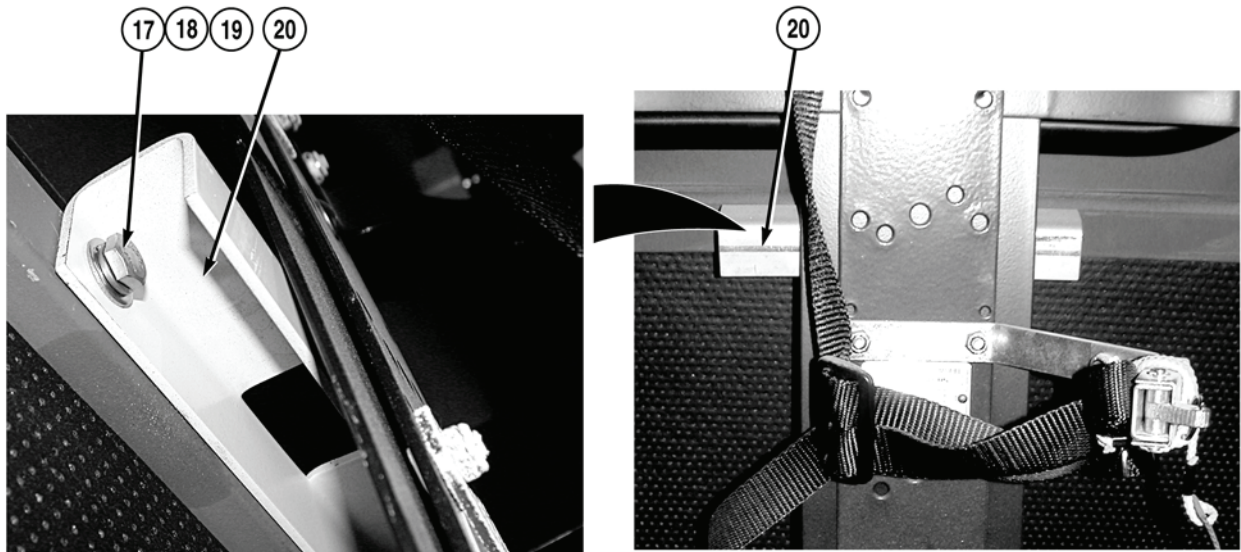


3. Remove four locknuts (13) and washers (14) from seat (15). Discard locknuts.

**WARNING**

**Use extreme care when removing passenger seat to avoid pinching fingers. Failure to comply may result in injury to personnel.**

4. With the aid of an assistant, remove seat (15) from seat mount (16).



5. Remove two screws (17), lockwashers (18), washers (19), and wear plate (20) from vehicle. Discard lockwashers.

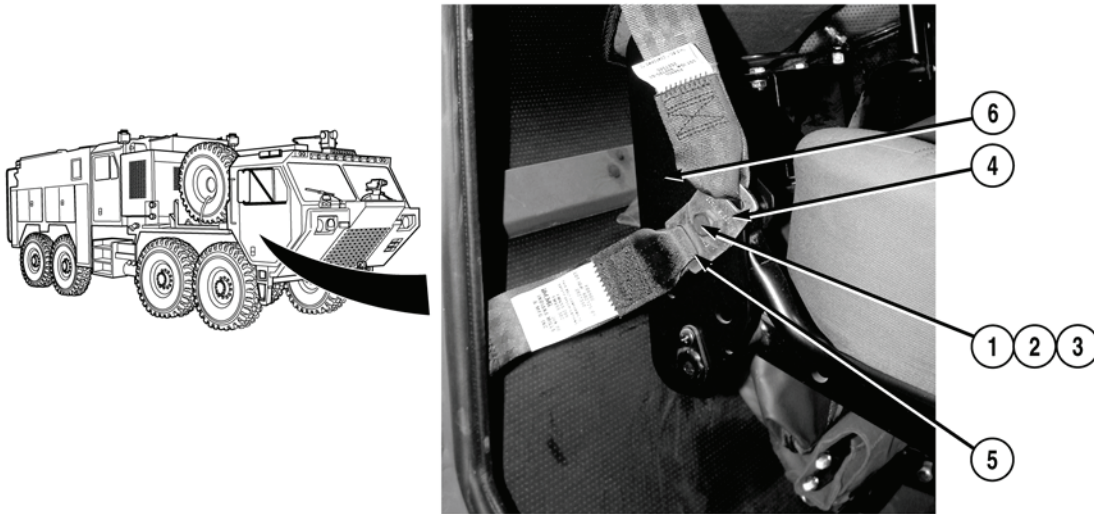
**END OF TASK****INSTALLATION**

1. Install wear plate (20) on vehicle with two washers (19), lockwashers (18), and screws (17).
2. With the aid of an assistant, install seat (15) on seat mount (16).
3. Secure seat (15) on seat mount (16) with four washers (14) and locknuts (13).

**NOTE**

Install washers as noted prior to removal.

4. Install seat belt latch (11) and tether mount (10) on left side seat bracket (12) with screw (9), three washers (8), and locknut (7).



5. Install tether mount (5) and shoulder lap restraint mount (4) on right side seat bracket (6) with screw (3), washer (2), and locknut (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## PERSONNEL CAB RIFLE MOUNT(S) AND DOOR STRAP(S) REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0613, Fig. 3

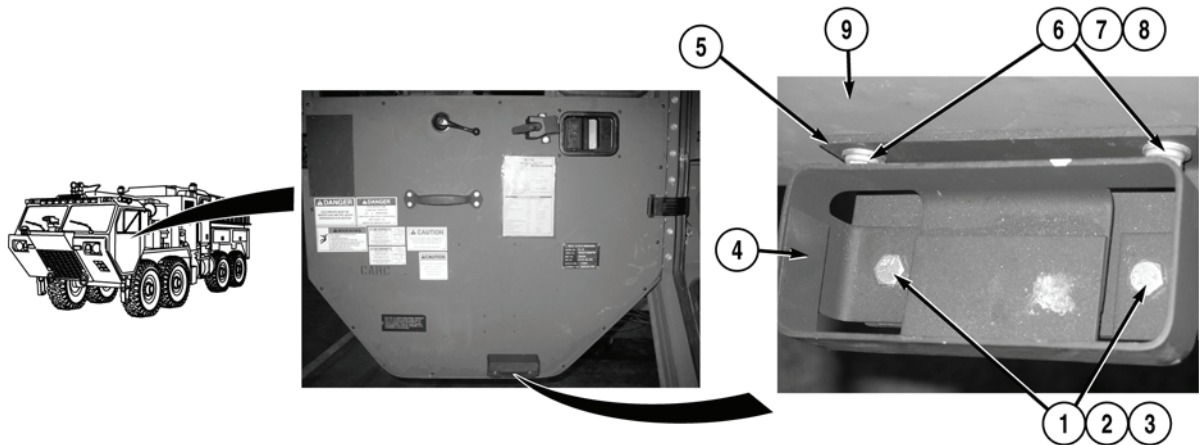
**Materials/Parts**

Lockwasher (8)  
Lockwasher (2)

**Equipment Conditions**

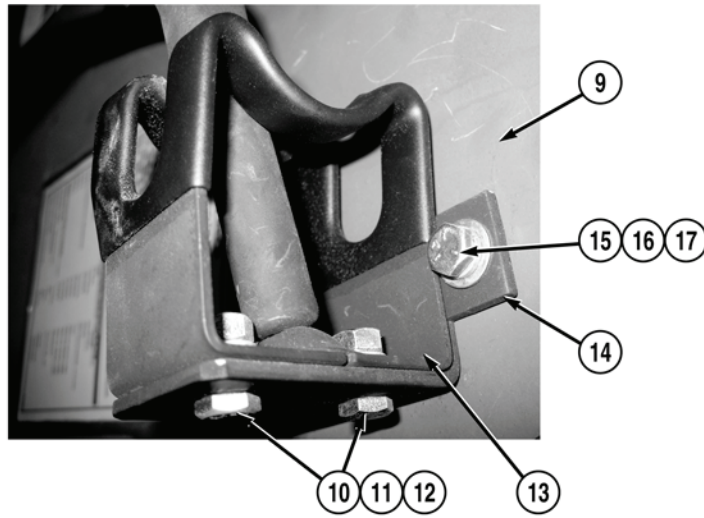
Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

## REMOVAL

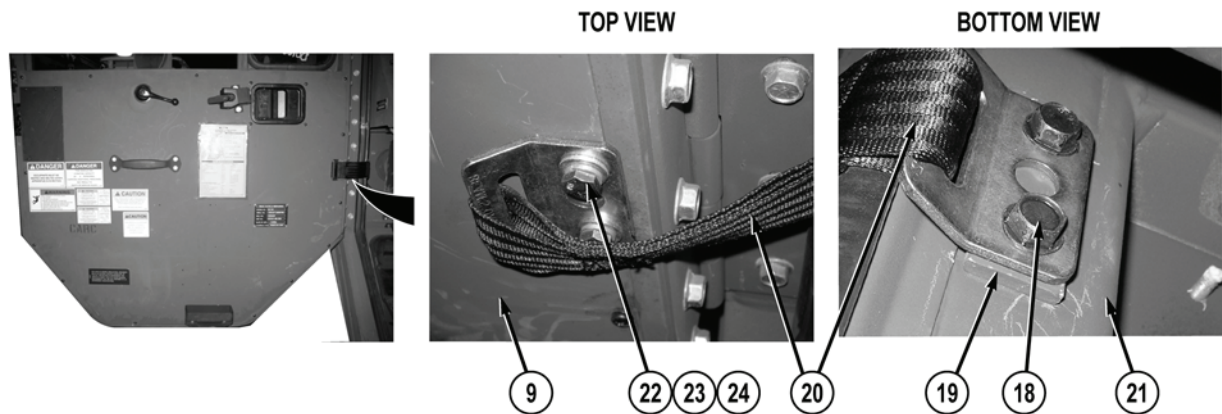
**NOTE**

- Perform Steps (1) through (4) if rifle mount(s) need to be removed.
- Driver side and passenger side rifle mounts are removed the same way. Driver side shown.

1. Remove two nuts (1), lockwashers (2), screws (3), and rifle mount base (4) from bracket (5). Discard lockwashers.
2. Remove two screws (6), lockwashers (7), washers (8), and bracket (5) from door (9). Discard lockwashers.



3. Remove two nuts (10), lockwashers (11), screws (12), and upper rifle mount (13) from bracket (14). Discard lockwashers.
4. Remove two screws (15), lockwashers (16), washers (17), and bracket (14) from door (9). Discard lockwashers.



### NOTE

- Perform Steps (5) and (6) if door strap(s) need to be removed.
- Both driver side and passenger side door straps are removed the same way. Driver side shown.

5. Remove two screws (18), spacer (19), and door strap (20) from cab (21).
6. Remove two screws (22), lockwashers (23), washers (24), and door strap (20) from door (9). Discard lockwashers.

### END OF TASK

### INSTALLATION

### NOTE

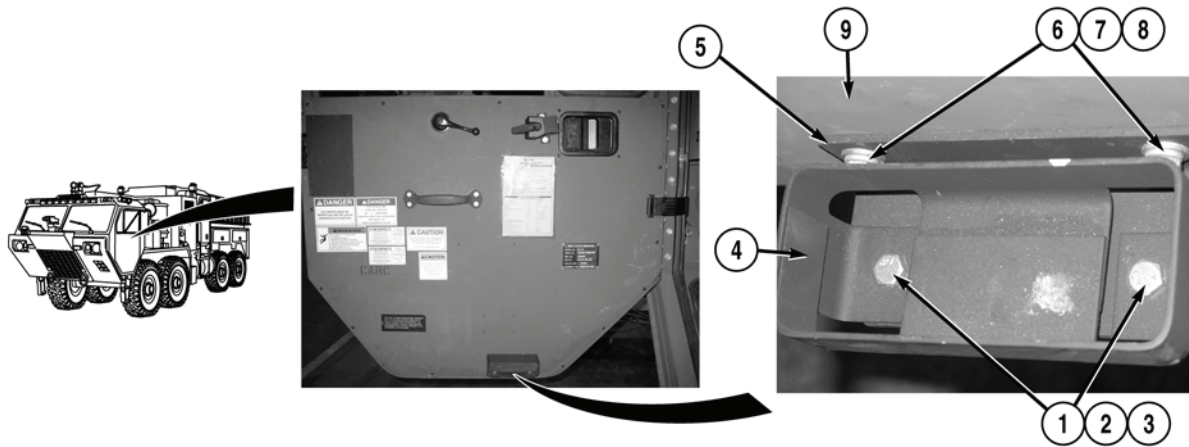
- Perform Steps (1) and (2) if door strap(s) need to be installed.
- Both driver side and passenger side door straps are installed the same way. Driver side shown.

1. Install door strap (20) on door (9) with two washers (24), lockwashers (23), and screws (22).
2. Install spacer (19) and door strap (20) on cab (21) with two screws (18).

### NOTE

- Driver side and passenger side rifle mounts are installed the same way.
- Perform Steps (3) through (6) if rifle mount(s) need to be installed.

3. Install bracket (14) on door (9) with two washers (17), lockwashers (16), and screws (15).
4. Install upper rifle mount (13) on bracket (14) with two screws (12), lockwashers (11), and nuts (10).



5. Install bracket (5) on door (9) with two washers (8), lockwashers (7), and screws (6).
6. Install rifle mount base (4) on bracket (5) with two screws (3), lockwashers (2), and nuts (1).

**END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**PERSONNEL CAB SCBA SEAT REPAIR**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

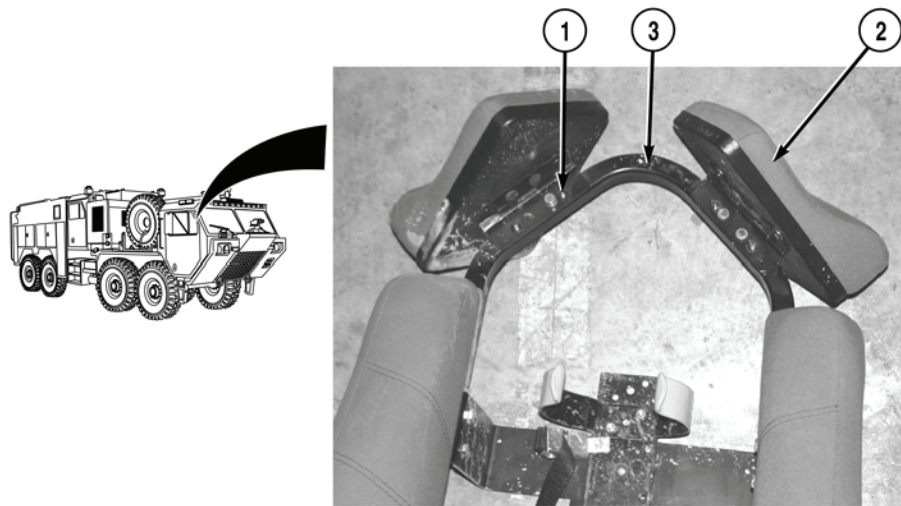
**Equipment Conditions**

Passenger seat removed (WP 0530)

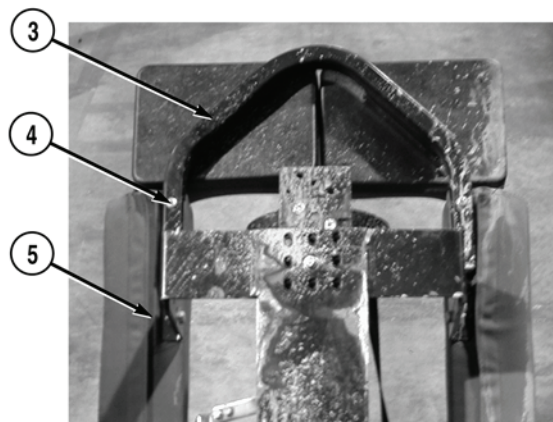
**References**

WP 0615, Fig. 118

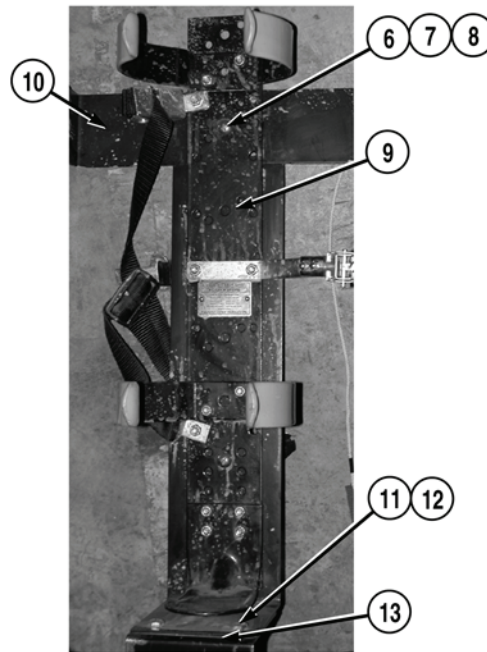
---

**REMOVAL**

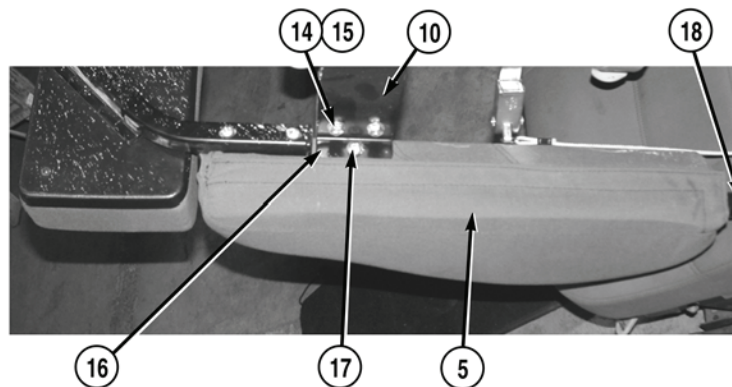
1. Remove four screws (1) and two headrests (2) from seat frame (3).



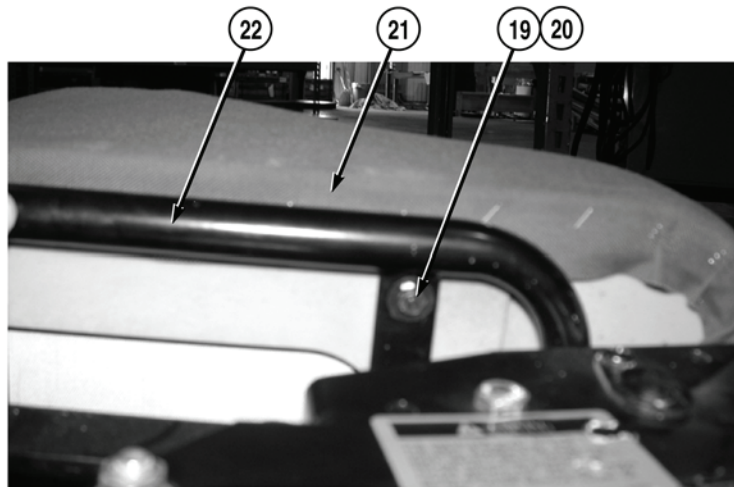
2. Remove four screws (4) from seat frame (3) and two pads (5).



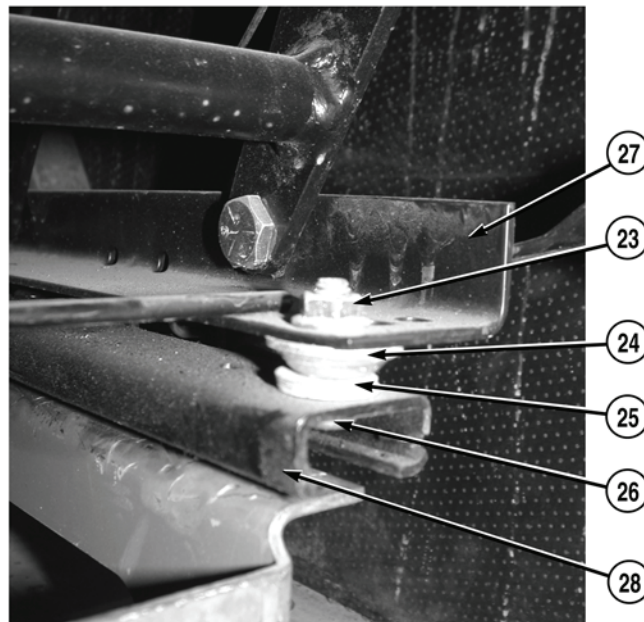
3. Remove two nuts (6), washers (7), screws (8), and bracket (9) from bracket (10).
4. Remove two nuts (11), and screws (12), from bracket (9) and bracket (13).



5. Remove four nuts (14), screws (15) and bracket (10) from two brackets (16).
6. Remove two screws (17) and brackets (16) from pads (5).
7. Slide two pads (5) from bar (18).

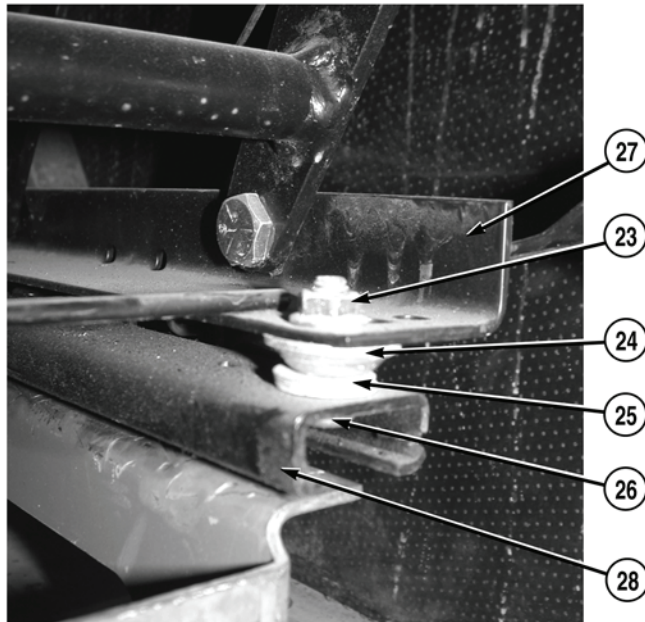


8. Remove two screws (19), washers (20), and seat cushion (21) from frame (22).

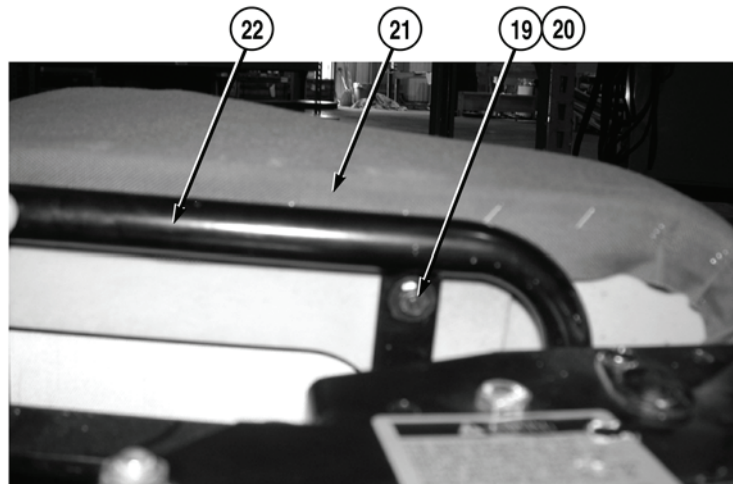


9. Remove four nuts (23), spacers (24), eight washers (25), four screws (26), and bracket (27) from bracket (28).

**END OF TASK**

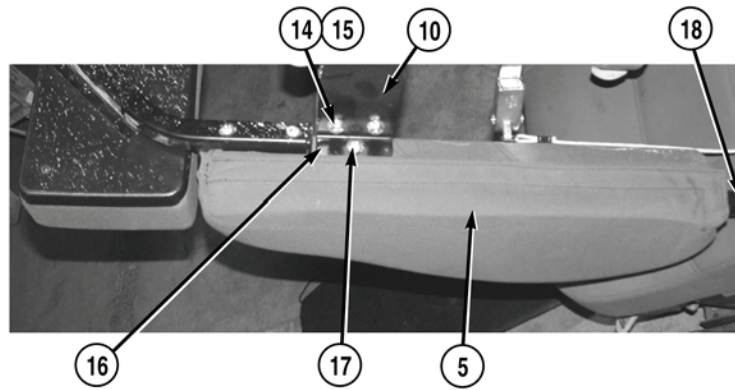
**INSTALLATION**

1. Install bracket (27) on bracket (28) with four screws (26), eight washers (25), four spacers (24), and nuts (23).

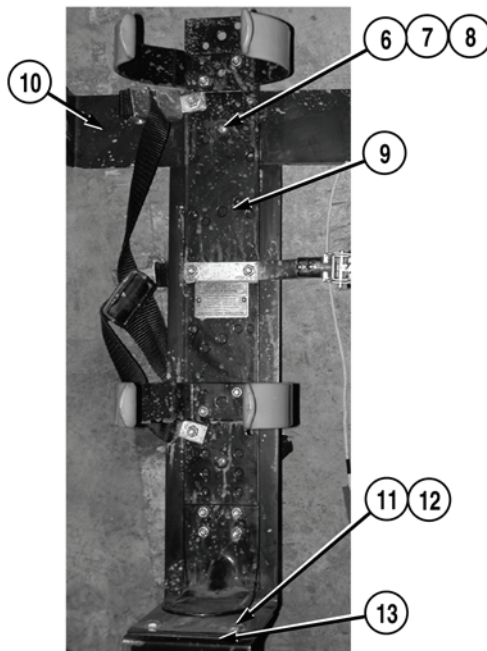


2. Install seat cushion (21) on frame (22) with two screws (19) and washers (20).





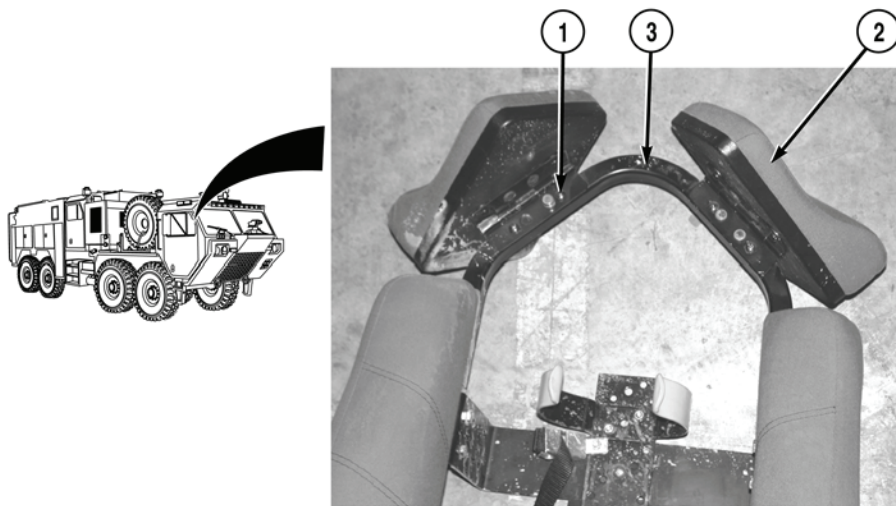
3. Slide two pads (5) on bar (18).
4. Install two brackets (16) on pads (5) with screws (17).
5. Install bracket (10) on two brackets (16) with four screws (15) and nuts (14).



6. Install bracket (9) on bracket (13) with two screws (12) and nuts (11).
7. Install bracket (9) on bracket (10) with two screws (8), washers (7), and nuts (6).



8. Install two pads (5) on seat frame (3) with four screws (4).



9. Install two headrests (2) on seat frame (3) with four screws (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Install passenger seat (WP 0530)

**END OF TASK**

**END OF WORK PACKAGE**

**FIELD LEVEL MAINTENANCE**  
**PERSONNEL CAB STEP REPLACEMENT**

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

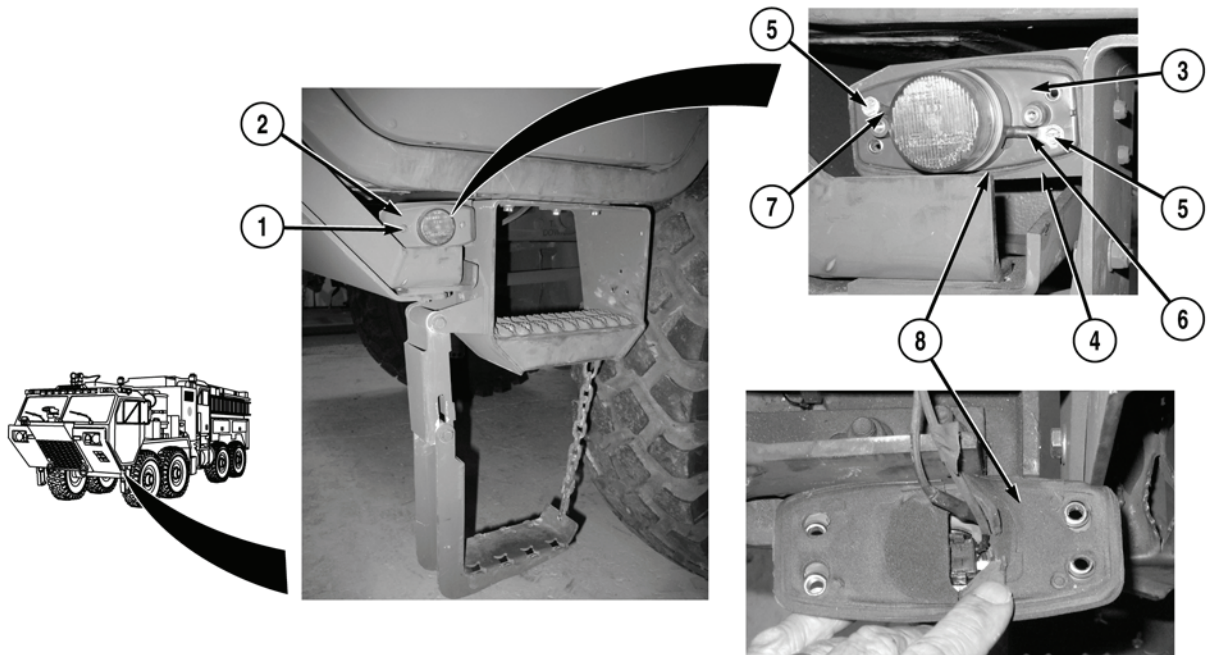
WP 0615, Fig. 120

**Materials/Parts**

Tags, Identification (WP 0625, Item 51)  
Lockwasher (4)  
Locknut (2)  
Locknut (3)  
Locknut (2)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Batteries disconnected (TM 9-2320-325-14&P)

**REMOVAL****NOTE**

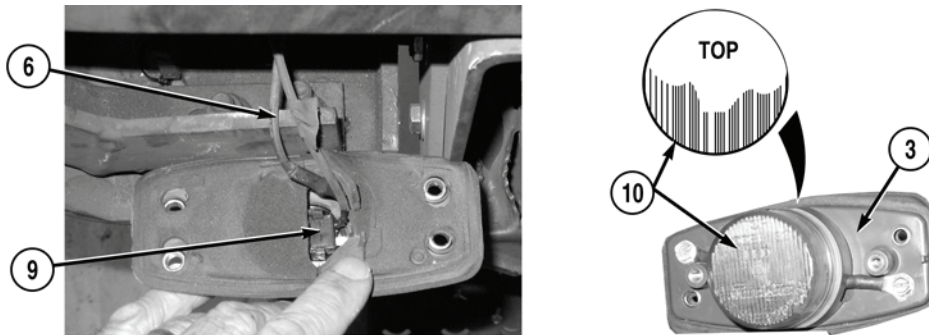
Driver side and passenger side steps are removed the same way. Driver side shown.

1. Remove two screws (1) and light cover (2) from mounting base (3) and bracket (4).

**NOTE**

Tag and mark wires prior to removal to ensure proper installation.

2. Remove two screws (5), wire 2640 (6), wire (7), mounting base (3), and seal (8) from bracket (4).

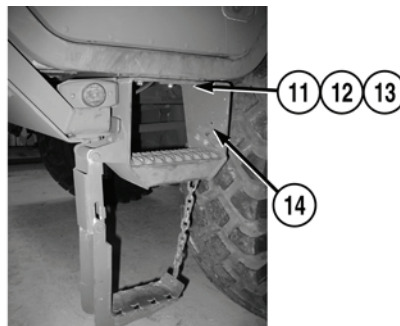


**⚠ CAUTION**

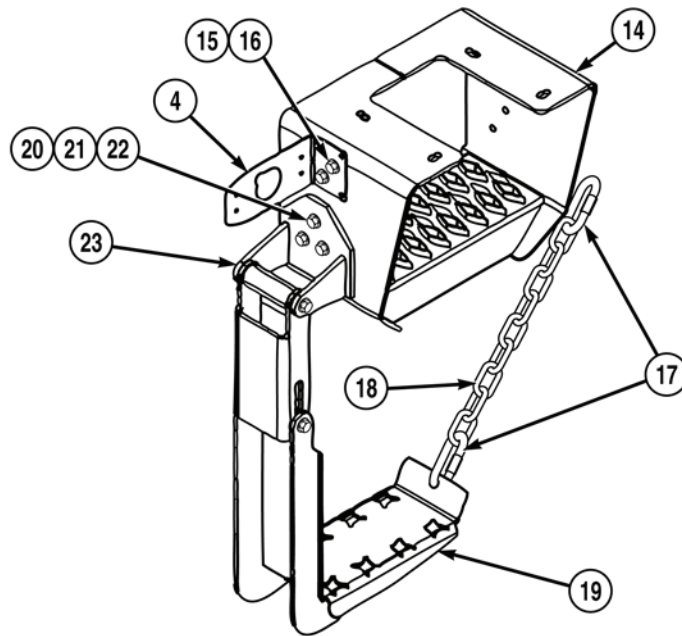
Use caution when removing rubber mounting of pigtail from lamp. Do not break light tabs.

**NOTE**

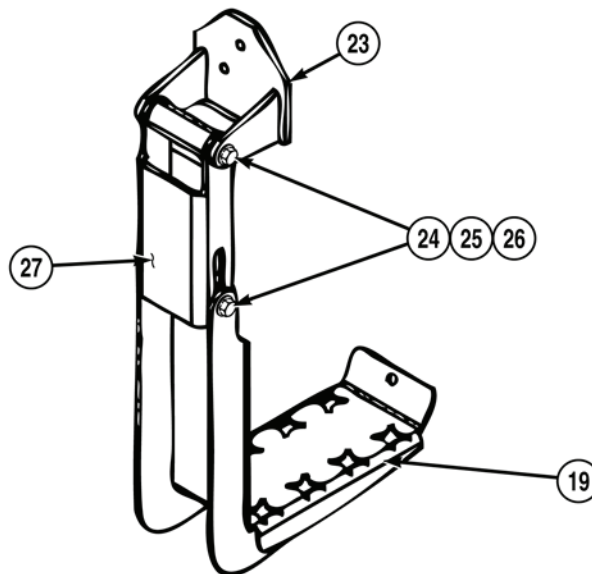
- Lamp will only function if correctly installed on rubber mounting of pigtail. Plastic tabs on lamp must align with openings on rubber mounting of pigtail. It is possible to force lamp on rubber mounting of pigtail in opposite position, which will not allow lamp to operate.
  - Note position of lamp on rubber mounting of pigtail and light cover prior to removal to ensure proper installation.
  - Wire and rubber mounting of pigtail is routed through bracket after removal.
3. Remove rubber mounting of pigtail (9) and wire 1606 (6) from lamp (10) and mounting base (3).



4. Remove four screws (11), lockwashers (12), washers (13), and upper step mounting bracket (14) from vehicle. Discard lockwashers.



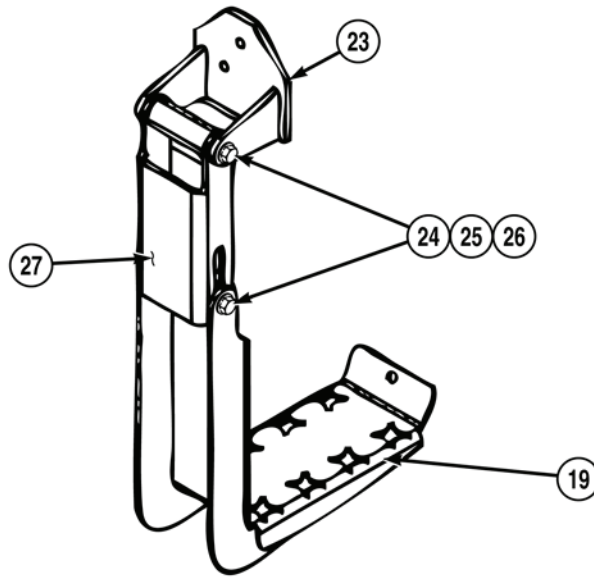
5. Remove two locknuts (15), screws (16), and bracket (4) from upper step mounting bracket (14). Discard locknuts.
6. Remove two links (17) and chain (18) from upper step (14) and lower step (19).
7. Remove two links (17) from chain (18).
8. Remove three locknuts (20), six washers (21), three screws (22), and bracket (23) from upper step mounting bracket (14). Discard locknuts.



9. Remove two locknuts (24), four washers (25), two screws (26), and bracket (27) from bracket (23) and lower step (19). Discard locknuts.

**END OF TASK**

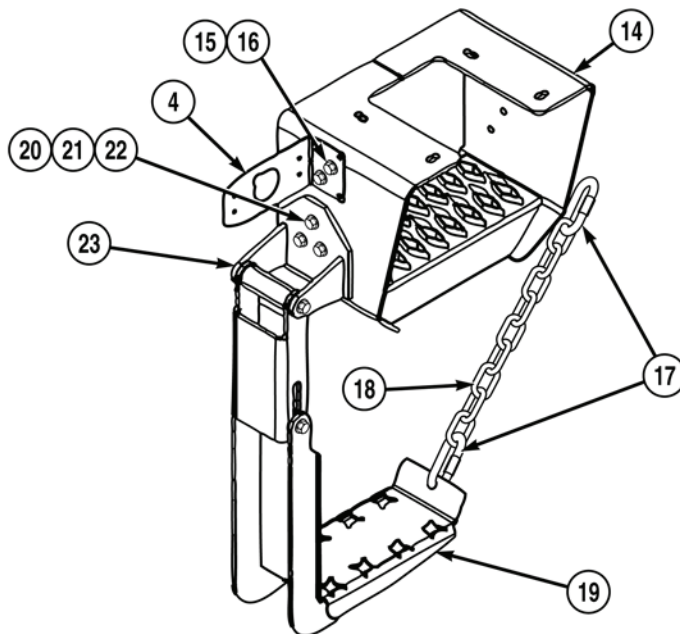
INSTALLATION



**NOTE**

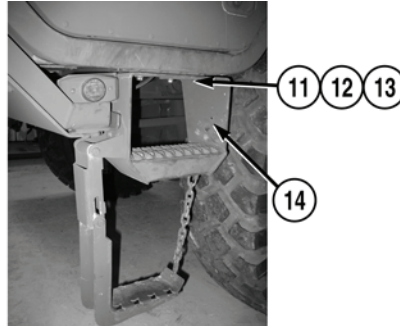
Driver side and passenger side steps are installed the same way. Driver side shown.

1. Install bracket (27) on lower step (19) and bracket (23) with two screws (26), four washers (25), and locknuts (24).

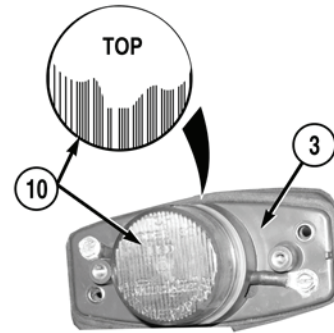
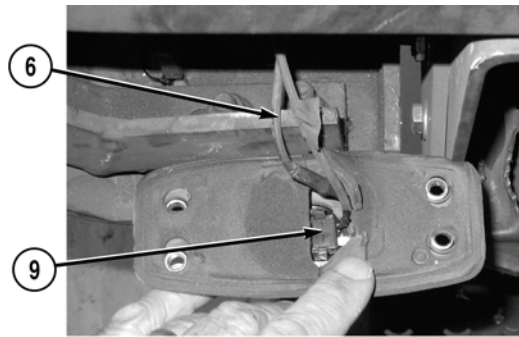


2. Install bracket (23) on upper step mounting bracket (14) with three screws (22), six washers (21), and three locknuts (20).
3. Position two links (17) on chain (18).

4. Install chain (18) on lower step (19) and upper step mounting bracket (14) with two links (17).
5. Install bracket (4) on upper step mounting bracket (14) with two screws (16) and locknuts (15).

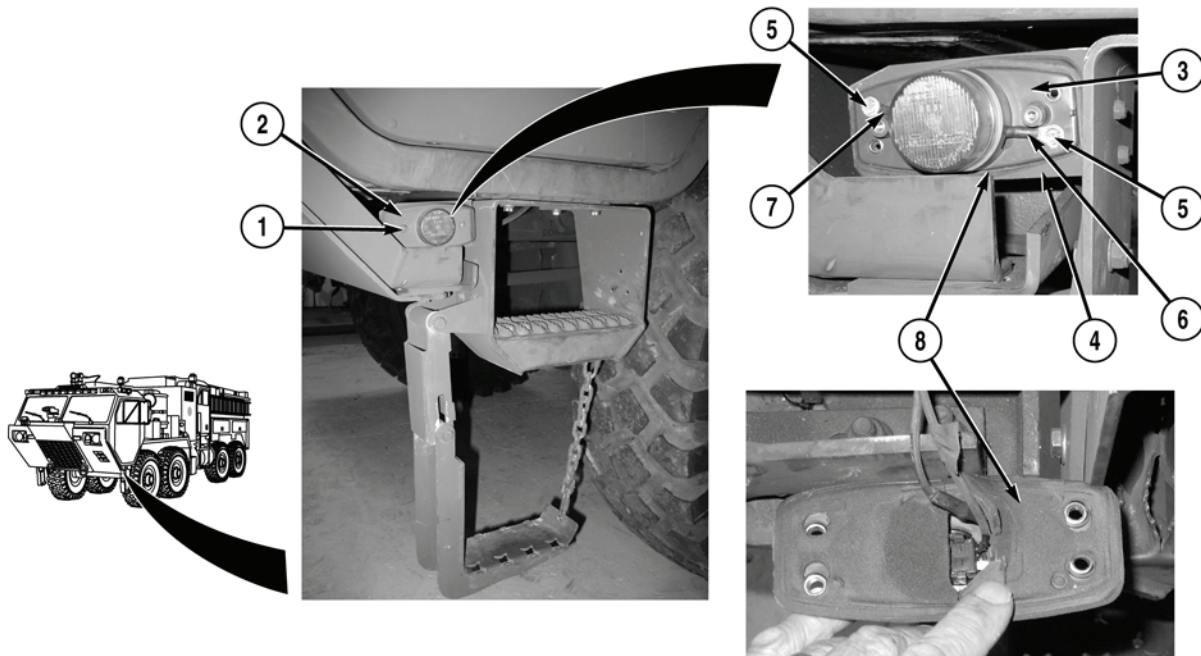


6. Install upper step mounting bracket (14) on vehicle with four washers (13), lockwashers (12), and screws (11).



**NOTE**

- Lamp will only function if correctly installed on rubber mounting of pigtail. Plastic tabs on lamp must align with openings on rubber mounting of pigtail. It is possible to force lamp on rubber mounting of pigtail in opposite position, which will not allow lamp to operate.
  - Install lamp on rubber mounting of pigtail and light cover as noted prior to removal.
7. Install rubber mounting of pigtail (9) and wire 1606 (6) on lamp (10) and mounting base (3).



8. Install seal (8), mounting base (3), wire (7), and wire 2640 (6) on bracket (4) with two screws (5).
9. Install light cover (2) on mounting base (3) and bracket (4) with two screws (1).

**END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

Connect batteries (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**PNEUMATIC SPRING REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Locknut (2)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

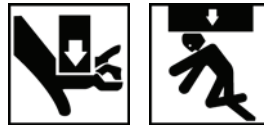
**References**

WP 0615, Fig. 148, 151, 152, 153, 155

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)  
Compartment door open (WP 0010)

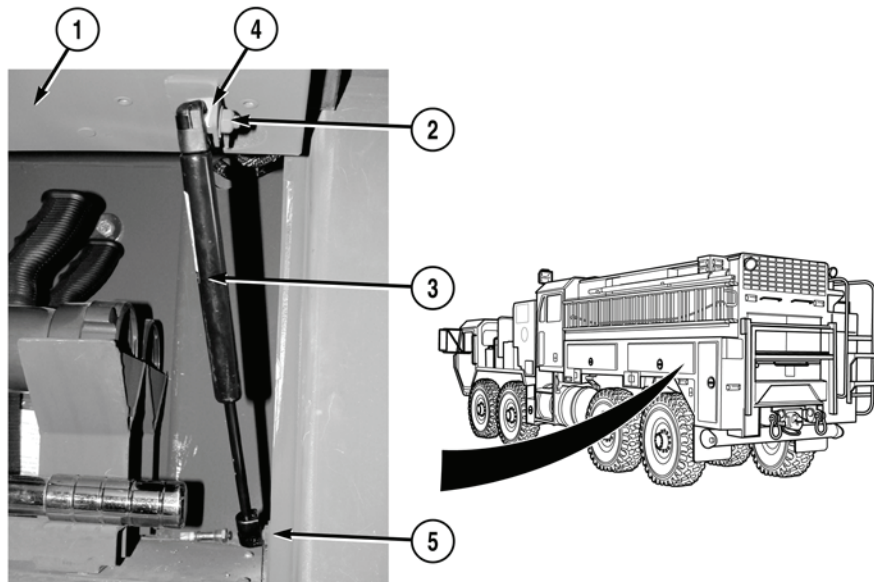
---

**REMOVAL****WARNING**

- Do not allow compartment door to drop. Compartment door is heavy and can cause injury if dropped on hands or head.
- Pneumatic springs must be replaced when compartment doors start to drift down when in open position or when they are no longer able to push up on compartment door when opening. Failure to comply may result in injury to personnel or damage to equipment.

**NOTE**

- Note position of pneumatic spring prior to removal to ensure proper installation.
- All pneumatic springs are removed the same way.



With the aid of an assistant, support compartment door (1) and remove two locknuts (2) and pneumatic spring (3) from compartment door bracket (4) and compartment (5). Discard locknuts.

#### END OF TASK

#### INSTALLATION

#### NOTE

Install pneumatic spring as noted prior to removal.

1. With the aid of an assistant, support compartment door (1) and install pneumatic spring (3) on compartment door bracket (4) and compartment (5) with two locknuts (2).
2. Check compartment door (1) operation.

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Close compartment door (WP 0010)
2. Remove wheel chocks (TM 9-2320-347-10)

#### END OF TASK

#### END OF WORK PACKAGE

---

**FIELD LEVEL MAINTENANCE**  
**POWER STEERING PUMP MODIFICATION**

---

**INITIAL SETUP:****Tools and Special Tools**

Cap Set, Protective (WP 0622, Item 3)  
 Drain Pan (WP 0622, Item 9)  
 Tool Kit, General Mechanic's: Automotive  
 (WP 0622, Item 27)

**Materials/Parts**

Adhesive, Sealant (WP 0625, Item 5)  
 Compound, Sealing (WP 0625, Item 17)  
 Sealing Compound Loctite 592  
 (WP 0625, Item 21)  
 Tags, Identification (WP 0625, Item 51)  
 Ties, Cable, Plastic (WP 0625, Item 58)

**Materials/Parts (continued)**

Lockwasher (5)  
 Gasket (1)  
 Preformed Packing (1)  
 Preformed Packing (2)

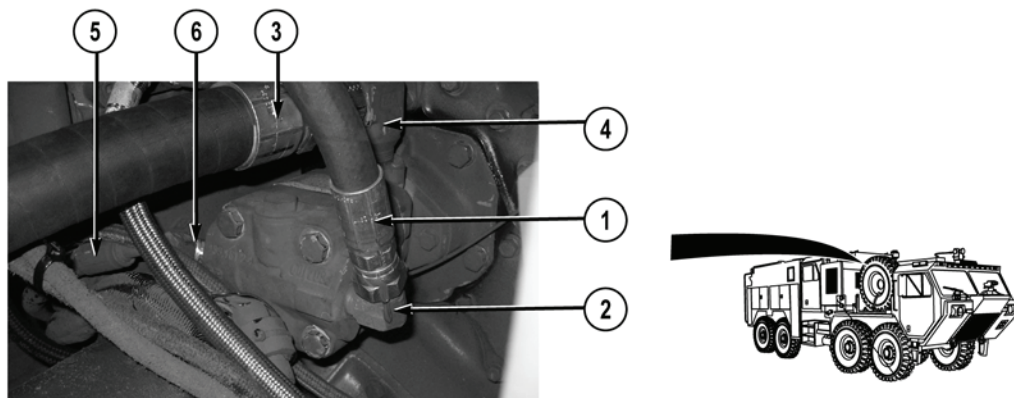
**References**

WP 0615, Fig. 115

**Equipment Conditions**

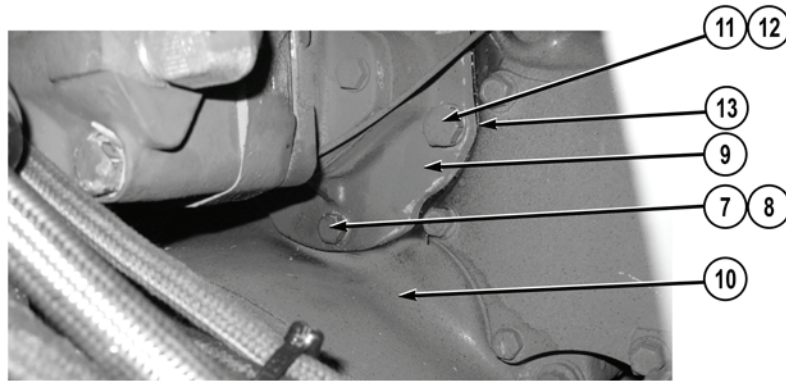
Hydraulic reservoir drained  
 (TM 9-2320-325-14&P)

---

**REMOVAL****NOTE**

- The vehicle engine air compressor and steering pump have switched positions (WP 0002). By switching positions, fittings, and rotor vane housing positions have changed on steering pump.
- Tag and mark hoses prior to removal to ensure proper installation.
- Remove cable ties as required.
- Position suitable drain pan under hoses to catch excess oil.
- Cap and plug hoses upon removal.

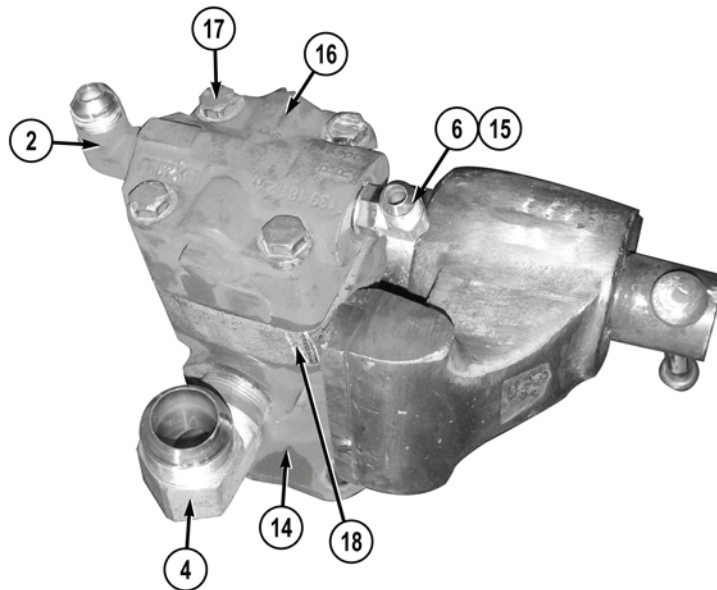
1. Remove hose (1) from elbow (2).
2. Remove hose (3) from elbow (4).
3. Remove hose 2301 (5) from elbow (6).



4. Remove screw (7) and lockwasher (8) from adapter (9) and engine (10). Discard lockwasher.
5. Remove four screws (11), lockwashers (12), adapter (9), and gasket (13) from engine (10). Discard lockwashers and gasket.

#### END OF TASK

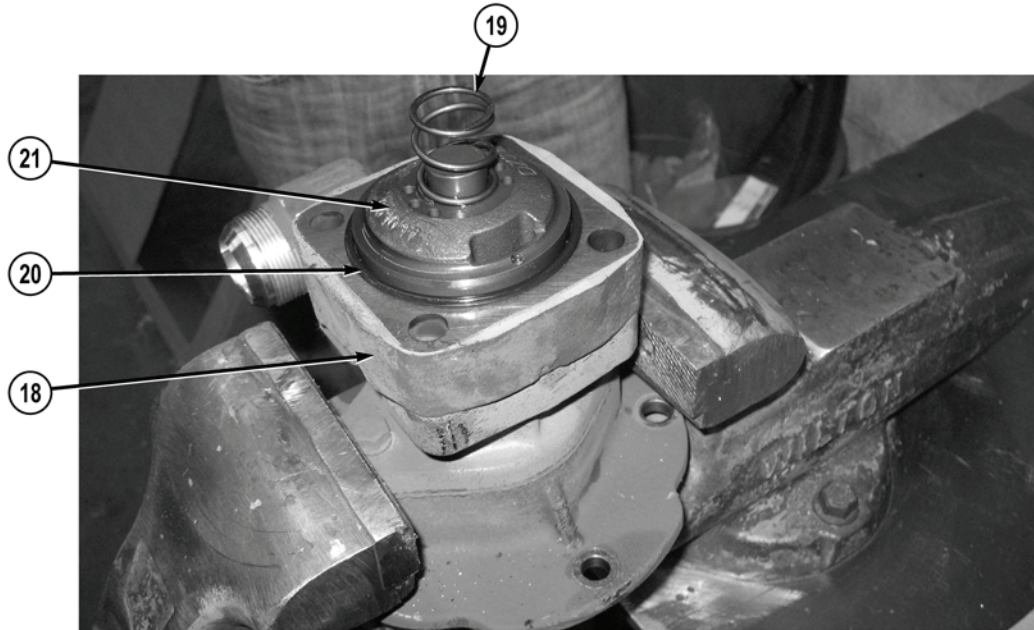
#### MODIFICATION OF NEW STEERING PUMP



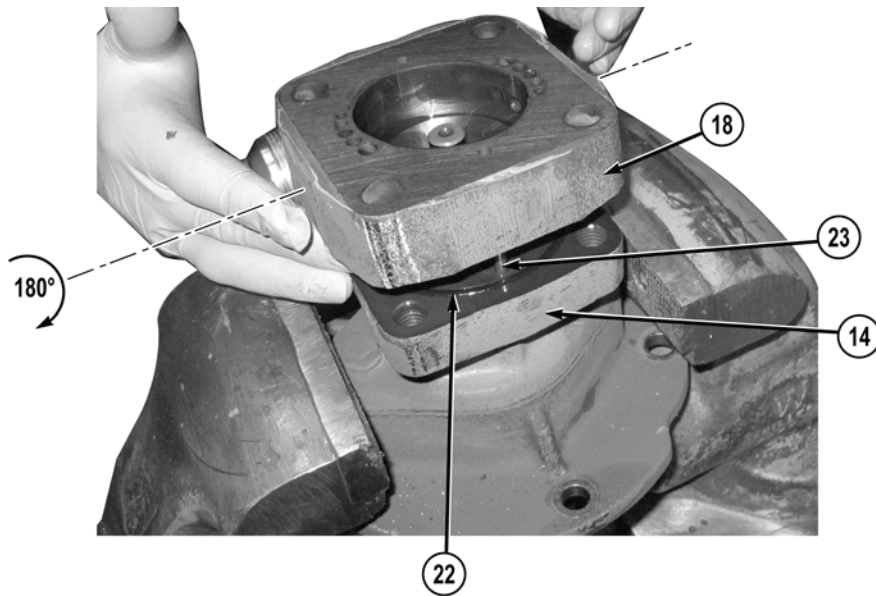
#### NOTE

- Perform Steps (6) through (19) if installing a new steering pump.
  - Fittings removed from steering pump will need to be installed on new steering pump.
  - Note position of elbows prior to removal to ensure proper installation.
6. Remove elbow (4) from body (14).
  7. Remove elbow (6) and preformed packing (15) from cover (16). Discard preformed packing.

8. Remove elbow (2) from cover (16).
9. Remove four screws (17) and cover (16) from rotor vane housing (18) and body (14).



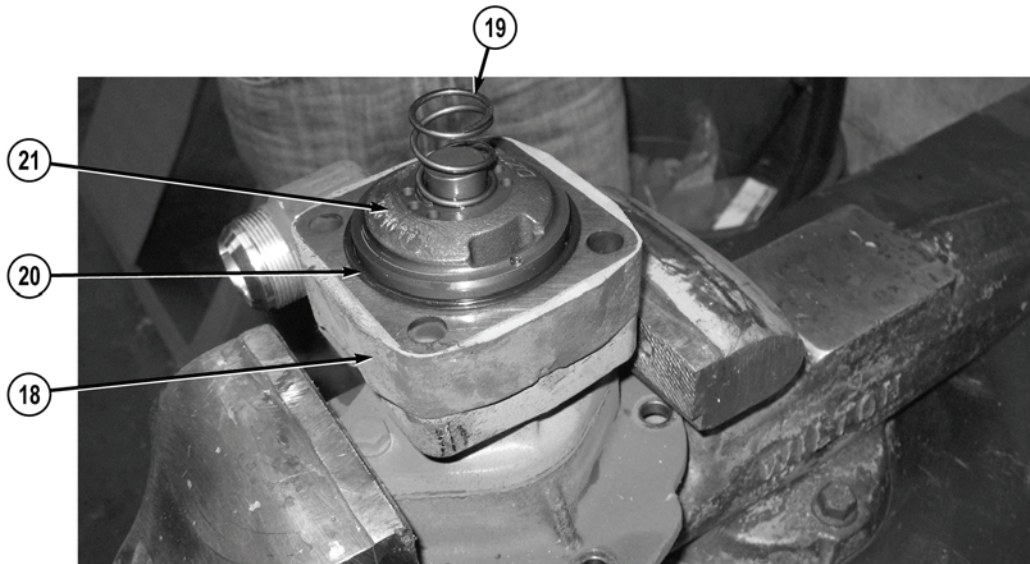
10. Remove spring (19), preformed packing (20), and pressure plate (21) from rotor vane housing (18). Discard preformed packing.



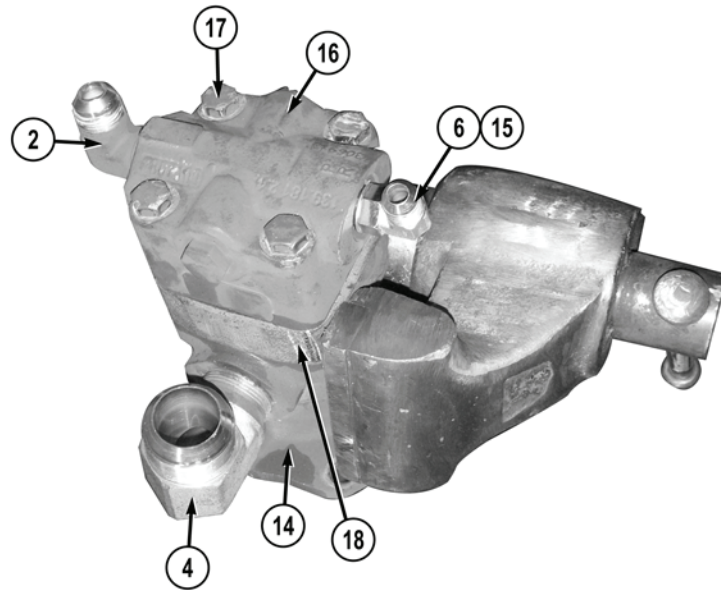
**⚠ CAUTION**

**Rotor vane housing needs to be flipped 180 degrees in order for the steering pump to operate correctly with the air compressor and steering pump change of position. Failure to comply will not allow steering pump to operate correctly.**

11. Remove rotor vane housing (18) and preformed packing (22) from body (14). Discard preformed packing.
12. Lightly lubricate preformed packing (22) with clean oil, and install preformed packing (22) on body (14).
13. Flip rotor vane housing (18) 180 degrees and position rotor vane housing (18) on two alignment pins (23), preformed packing (22), and body (14).



14. Lightly lubricate preformed packing (20) with clean oil, and position pressure plate (21), preformed packing (20), and spring (19) on rotor vane housing (18).



15. Install cover (16) on rotor vane housing (18) and body (14) with four screws (17).

### NOTE

Install elbows as noted prior to removal.

16. Lightly lubricate preformed packing (15) with clean oil, and install preformed packing (15) and elbow (6) on cover (16).

### WARNING

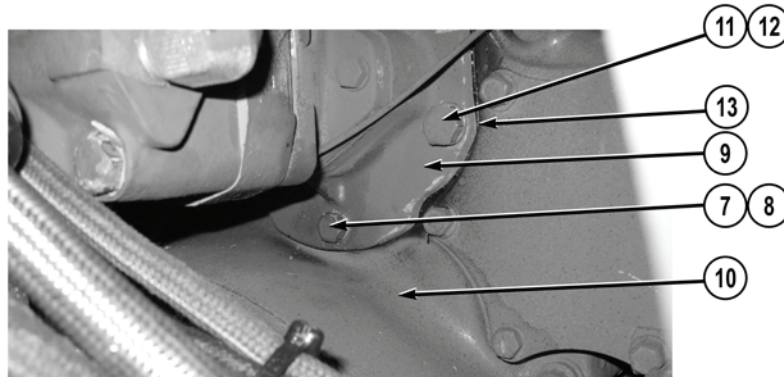


**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

17. Apply sealing compound to threads of two elbows (2) and (4).  
 18. Install elbow (2) on cover (16).  
 19. Install elbow (4) on body (14).

**END OF TASK**

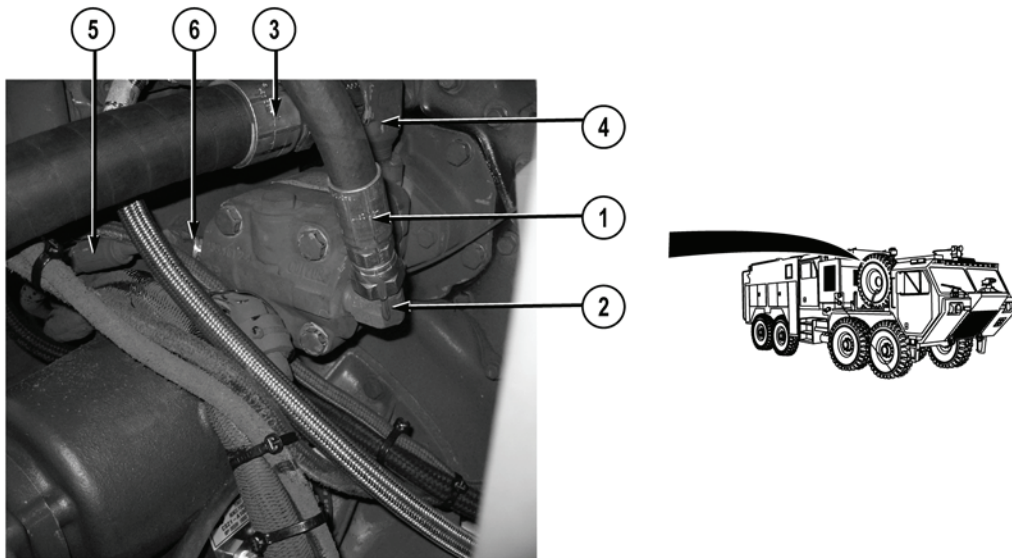
## INSTALLATION

**WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

1. Apply silicone adhesive sealant on both sides of gasket (13).
2. Install gasket (13) and adapter (9) on engine (10) with four lockwashers (12) and screws (11).
3. Install lockwasher (8) and screw (7) on adapter (9) and engine (10).



**NOTE**

Install cable ties as required.

4. Install hose 2301 (5) on elbow (6).
5. Install hose (3) on elbow (4).
6. Install hose (1) on elbow (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Fill hydraulic reservoir (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## PRE-CONNECT NOZZLE STORAGE CUPS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 138

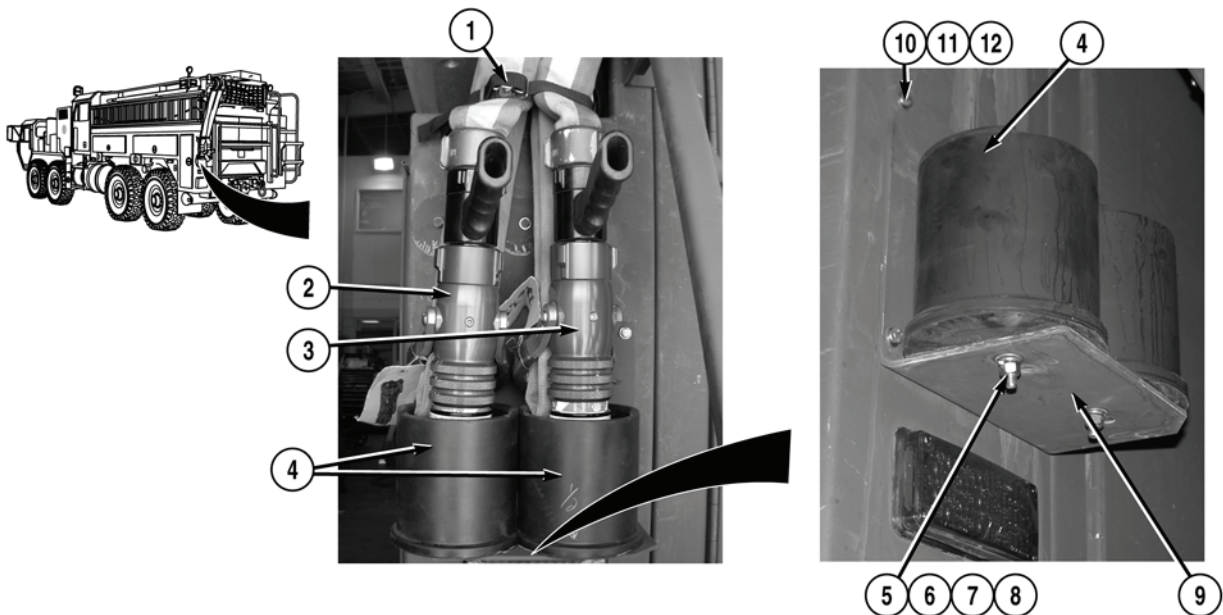
**Materials/Parts**

Lockwasher (2)  
Lockwasher (4)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

## REMOVAL

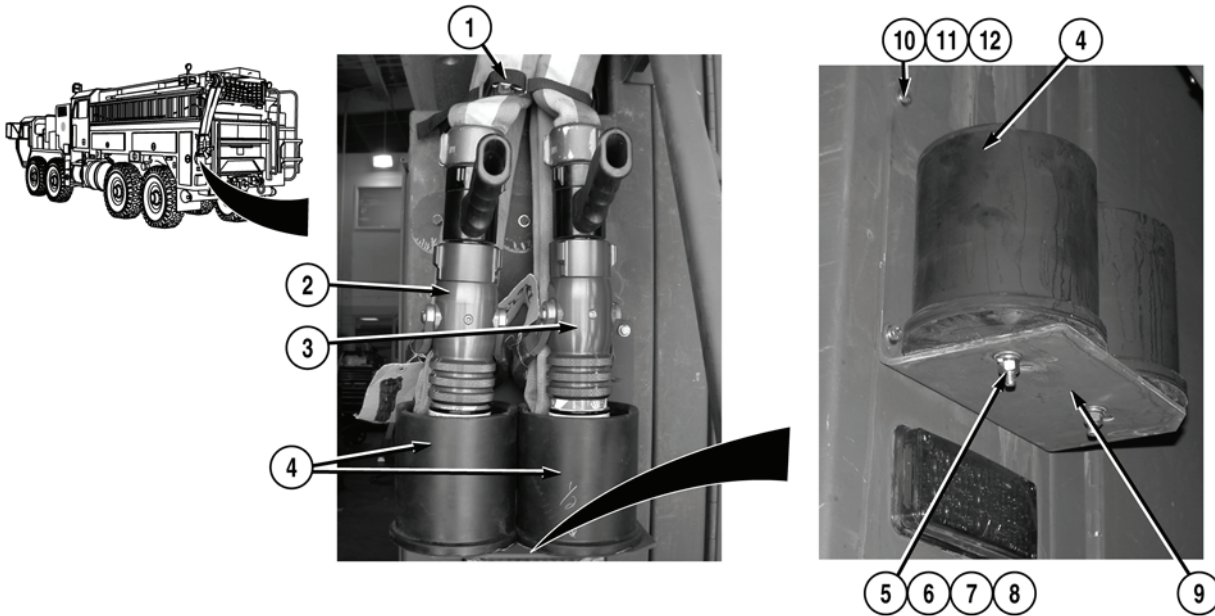


1. Release strap (1) and remove pre-connect A nozzle (2) and pre-connect B nozzle (3) from two pre-connect nozzle storage cups (4).

**NOTE**

- Note position of washers prior to removal to ensure proper installation.
  - Note position of pre-connect nozzle storage cups prior to removal to ensure proper installation.
2. Remove two nuts (5), lockwashers (6), washers (7), screws (8), and pre-connect nozzle storage cups (4) from mounting plate (9). Discard lockwashers.
  3. Remove four screws (10), lockwashers (11), washers (12), and mounting plate (9) from vehicle. Discard lockwashers.

**END OF TASK**

**INSTALLATION**

1. Install mounting bracket (9) on vehicle with four washers (12), lockwashers (11), and screws (10).

**NOTE**

- Install pre-connect nozzle storage cups as noted prior to removal. Drain holes on pre-connect nozzle storage cups must match up with drain holes on mounting plate.
  - Install washers as noted prior to removal.
2. Install two pre-connect nozzle storage cups (4) on mounting plate (9) with two screws (8), washers (7), lockwashers (6), and nuts (5).
  3. Install pre-connect A nozzle (2) and pre-connect B nozzle (3) in two pre-connect nozzle storage cups (4) and secure with buckle strap (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## PRE-CONNECT ROLLER ASSEMBLY REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Lockwasher (1)  
Lockwasher (4)  
Lockwasher (2)  
Locknut (3)  
Locknut (3)  
Locknut (8)

**Materials/Parts (continued)**

Lockwasher (2)  
Lockwasher (4)

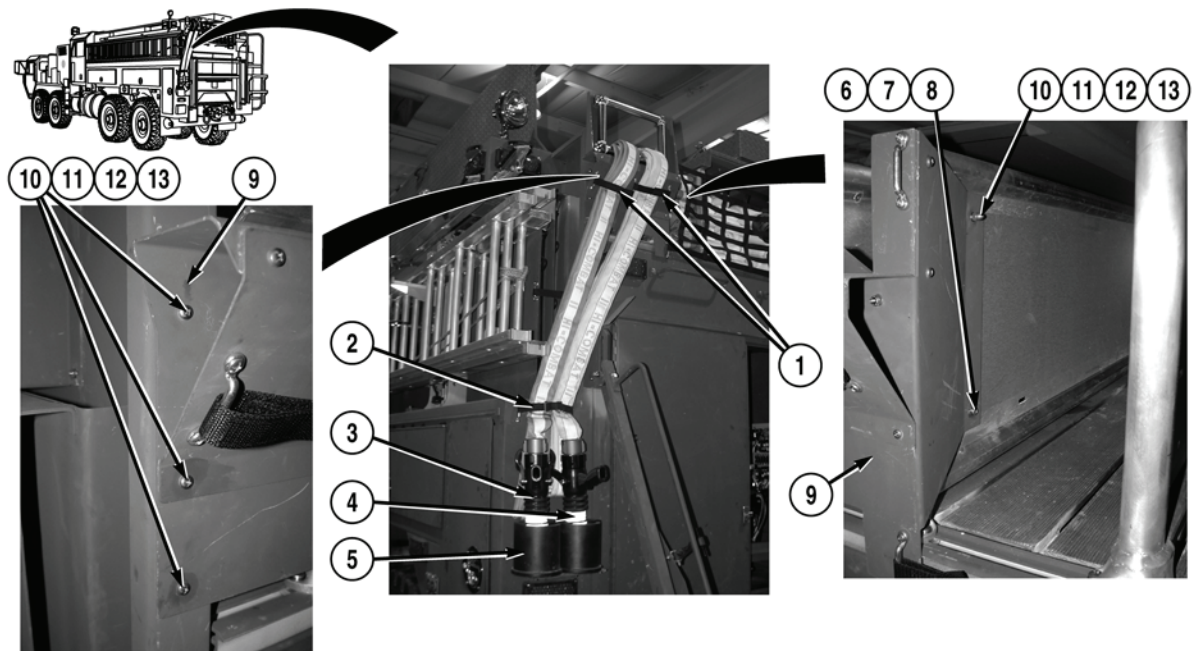
**References**

WP 0615, Fig. 138

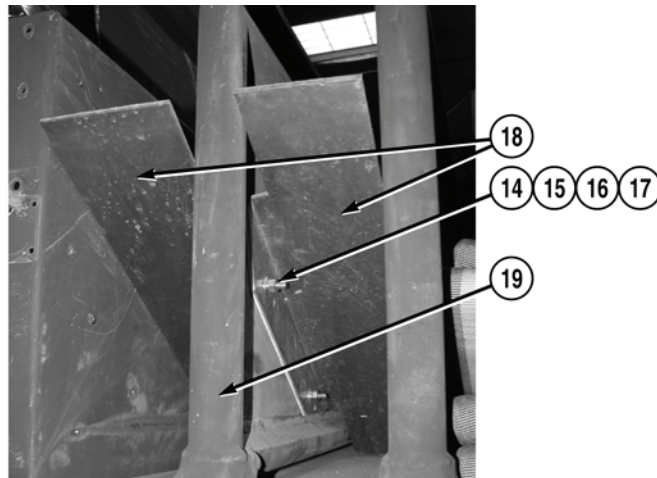
**Equipment Conditions**

Hose bed cover opened (WP 0015)  
Hose restraint net removed (WP 0523)

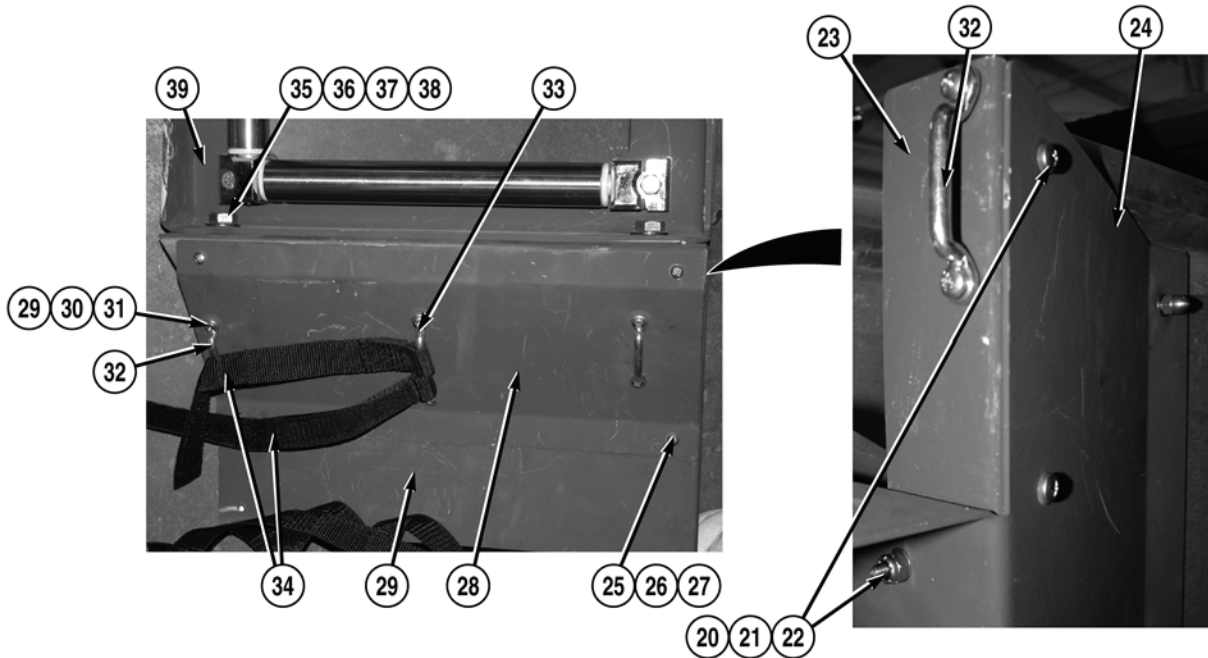
## REMOVAL



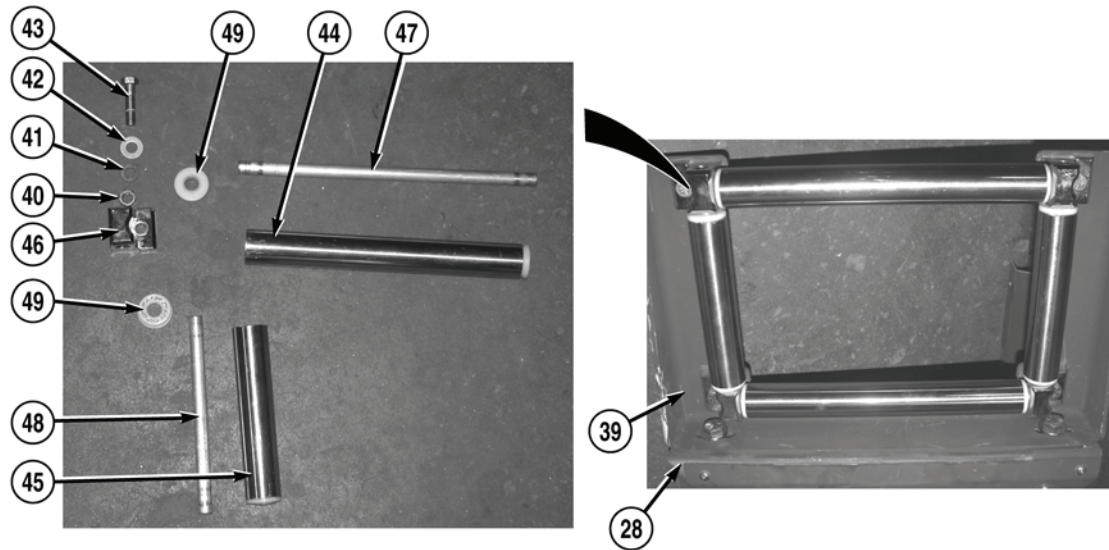
1. Release two straps (1).
2. Release buckle strap (2) and remove pre-connect A nozzle (3) and pre-connect B nozzle (4) from two pre-connect nozzle storage cups (5).
3. Remove screw (6), lockwasher (7), and washer (8) from pre-connect roller assembly (9). Discard lockwasher.
4. Remove four nuts (10), lockwashers (11), washers (12), screws (13), and pre-connect roller assembly (9) from vehicle. Discard lockwashers.



5. Remove two nuts (14), lockwashers (15), four washers (16), two screws (17), and transition plates (18) from hose bed divider (19). Discard lockwashers.



6. Remove three locknuts (20), washers (21), screws (22), and deflector plate (23) from plate A (24). Discard locknuts.
7. Remove three locknuts (25), washers (26), screws (27), and plate B (28) from plate A (24). Discard locknuts.
8. Remove eight locknuts (29), washers (30), screws (31), two brackets (32), and bracket (33) from plate B (28). Discard locknuts.
9. Remove two straps (34) from bracket (33).
10. Remove two nuts (35), lockwashers (36), four washers (37), two screws (38), and roller bracket (39) from plate B (28). Discard lockwashers.



### NOTE

Note position of washers prior to removal to ensure proper installation.

11. Remove four nuts (40), lockwashers (41), washers (42), screws (43), rollers (44) and (45), mounts (46), and rods (47) and (48) from roller bracket (39). Discard lockwashers.
12. Remove four rods (47) and (48) from rollers (44) and (45).
13. Remove eight bushings (49) from four rollers (44) and (45).

### END OF TASK

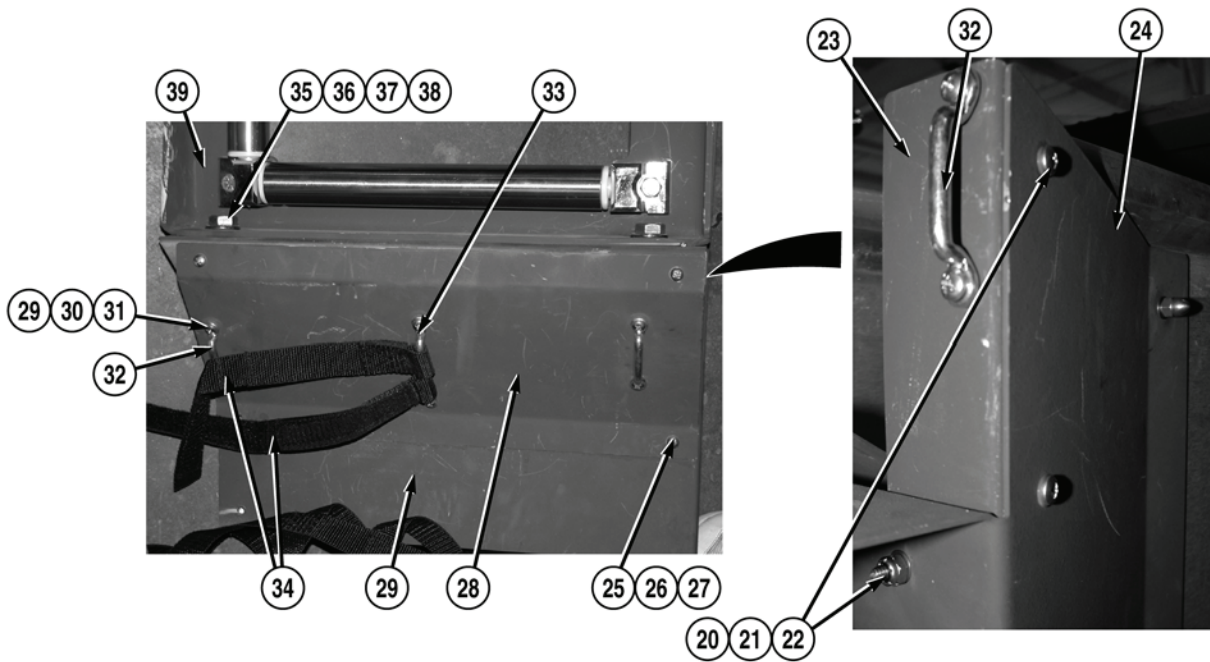
### INSTALLATION

1. Install eight bushings (49) on four rollers (44) and (45).
2. Install four rods (47) and (48) through rollers (44) and (45).
3. Position four rods (47) and (48) in mounts (46).

### NOTE

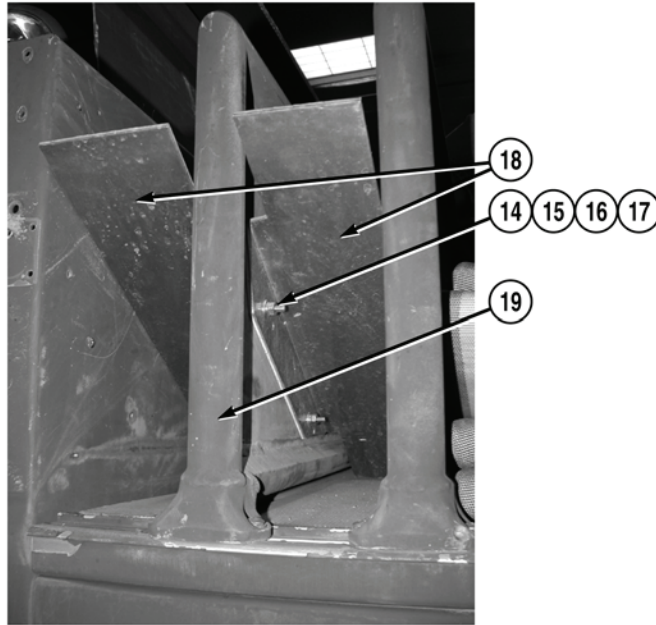
Install washers as noted prior to removal.

4. Install four mounts (46) and rollers (44) and (45) on roller bracket (39) with four screws (43), washers (42), lockwashers (41), and nuts (40).

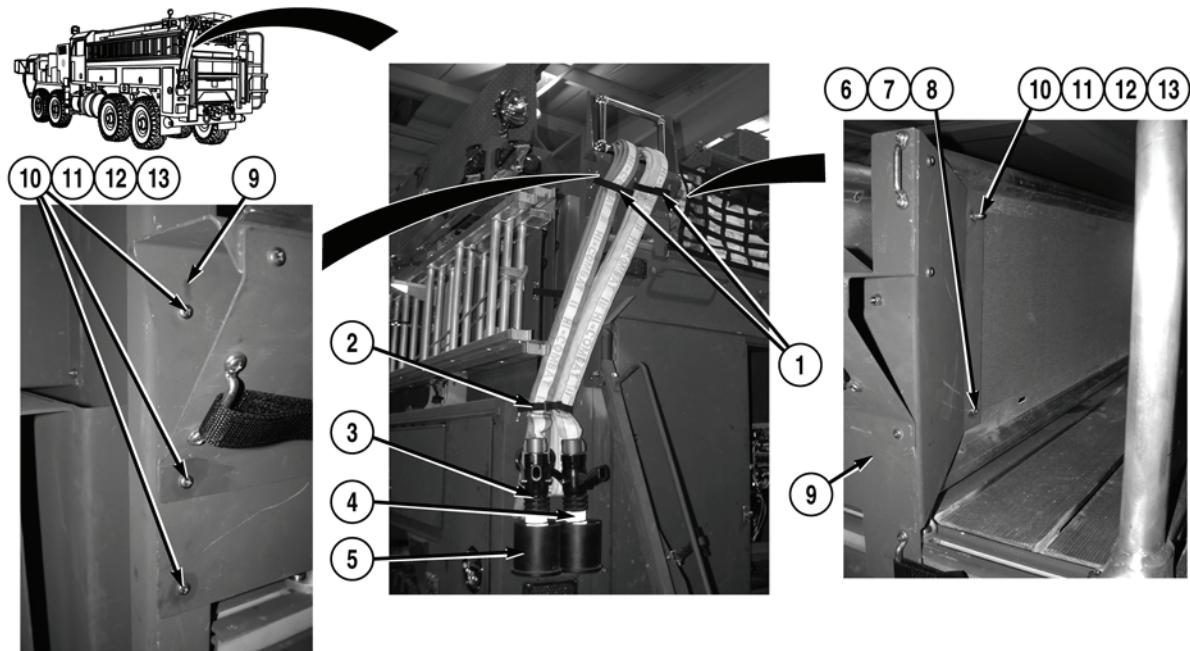


5. Install roller bracket (39) on plate B (28) with two screws (38), four washers (37), two lockwashers (36) and nuts (35).
6. Install two straps (34) on bracket (33).
7. Install two brackets (32) and bracket (33) on plate B (28) with eight screws (31), washers (30), and locknuts (29).
8. Install plate B (28) on plate A (24) with three screws (27), washers (26), and locknuts (25).
9. Install deflector plate (23) on plate A (24) with three screws (22), washers (21), and locknuts (20).





10. Install two transition plates (18) on hose bed divider (19) with two screws (17), four washers (16), two lockwashers (15), and nuts (14).



11. Install pre-connect roller assembly (9) on vehicle with four screws (13), washers (12), lockwashers (11), and nuts (10).
12. Install washer (8), lockwasher (7), and screw (6) on pre-connect roller assembly (9).
13. Install pre-connect A nozzle (3) and pre-connect B nozzle (4) in two pre-connect nozzle storage cups (5) and secure buckle strap (2).
14. Secure two straps (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Install hose restraint netting (WP 0523)
2. Close hose bed cover (WP 0015)

#### END OF TASK

#### END OF WORK PACKAGE

---

**FIELD LEVEL MAINTENANCE**  
**PUMP HOUSE ACCESS DOORS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 125

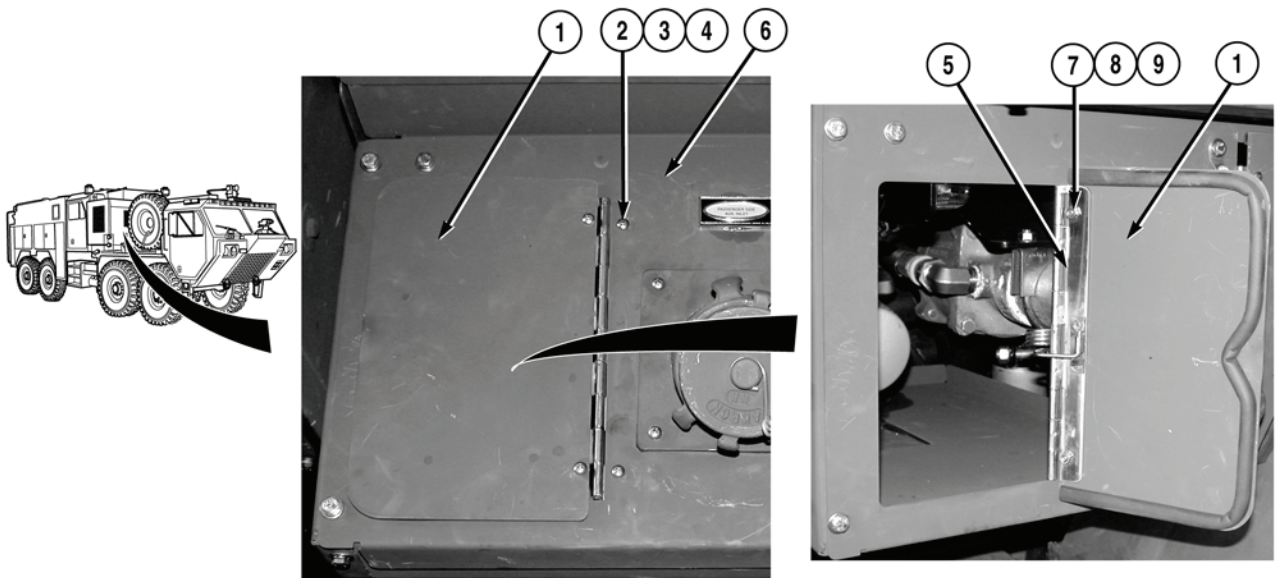
**Materials/Parts**

Mineral Spirits (WP 0625, Item 32)  
Locknut (2)  
Locknut (2)

**Equipment Conditions**

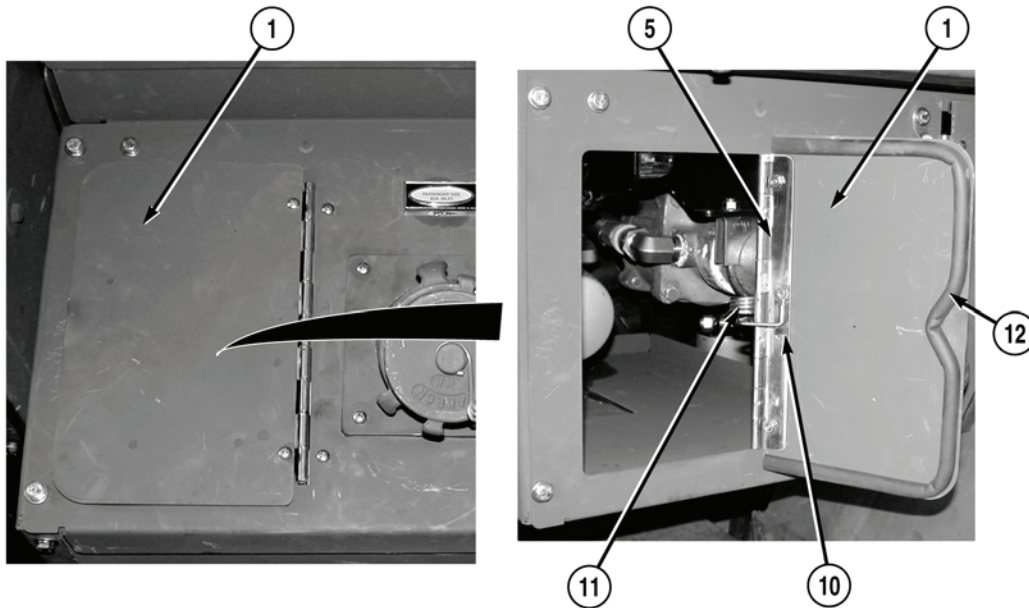
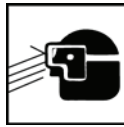
Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

**REMOVAL****NOTE**

All pump house access doors are removed the same way.

1. Open pump house access door (1).
2. Remove two locknuts (2), washers (3), screws (4), and hinge (5) from pump panel (6). Discard locknuts.
3. Remove two locknuts (7), washers (8), screws (9), and hinge (5) from pump house access door (1). Discard locknuts.

**WARNING**

**Wear goggles and use care when replacing spring. Spring is under tension and can act as a projectile when released. Failure to comply may result in injury to personnel.**

**NOTE**

Note position of spring prior to removal to ensure proper installation.

4. Bend two tabs (10) back, and remove spring (11) from hinge (5).
5. Remove seal (12) from pump house access door (1).

**WARNING**

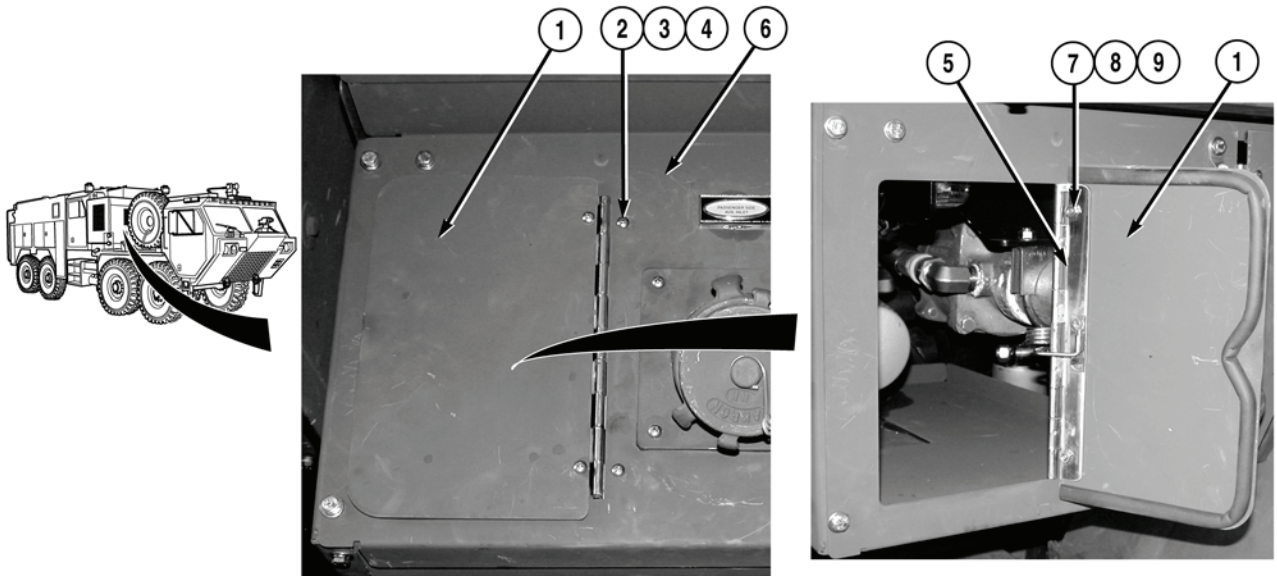
**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

6. Clean seal (12) residue from pump house access door (1) with mineral spirits.

**END OF TASK**

**INSTALLATION**

1. Install seal (12) on pump access door (1).
2. Install spring (11) in place by bending two tabs (10).
3. Secure spring (11) in place by bending two tabs (10).



4. Install hinge (5) on pump house access door (1) with two screws (9), washers (8), and locknuts (7).
5. Install hinge (5) on pump panel (6) with two screws (4), washers (3), and locknuts (2).
6. Close pump house access door (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**PUMP HOUSE PANEL A OPEN/CLOSE**

---

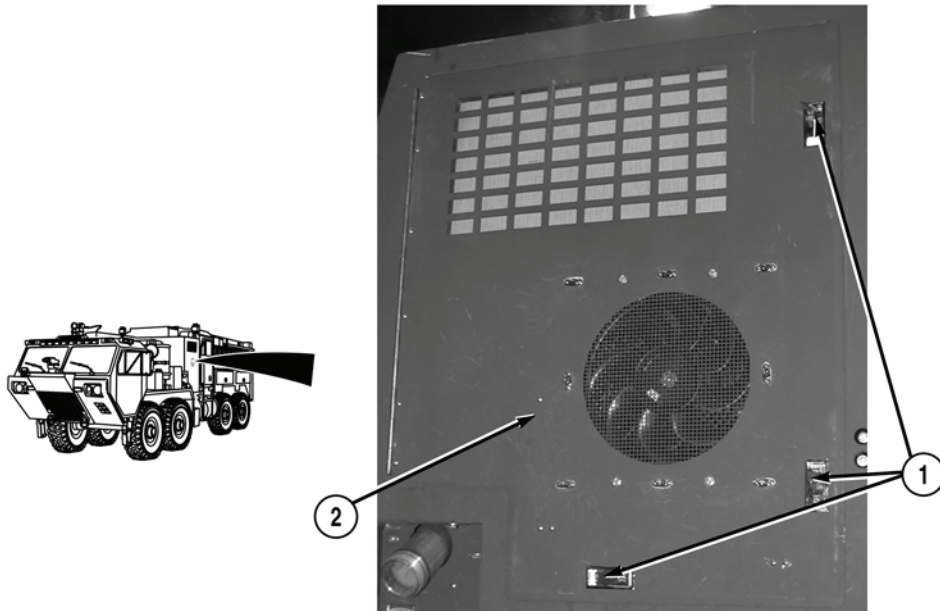
**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

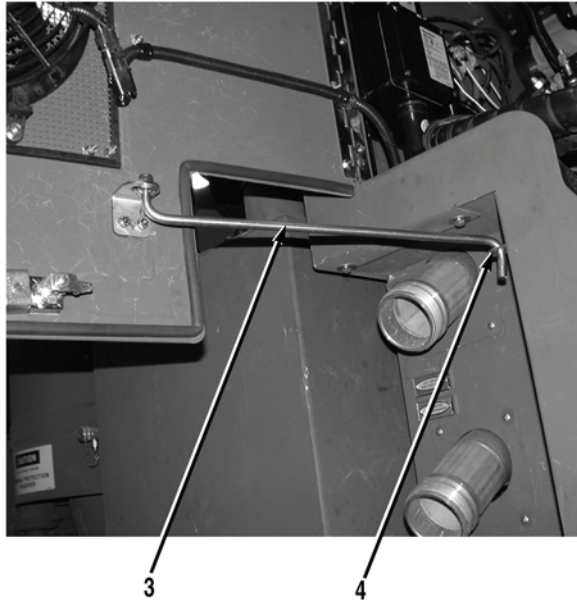
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

**OPEN PUMP HOUSE PANEL A**

1. Release three quick release fasteners (1) and pull open pump house panel A (2).



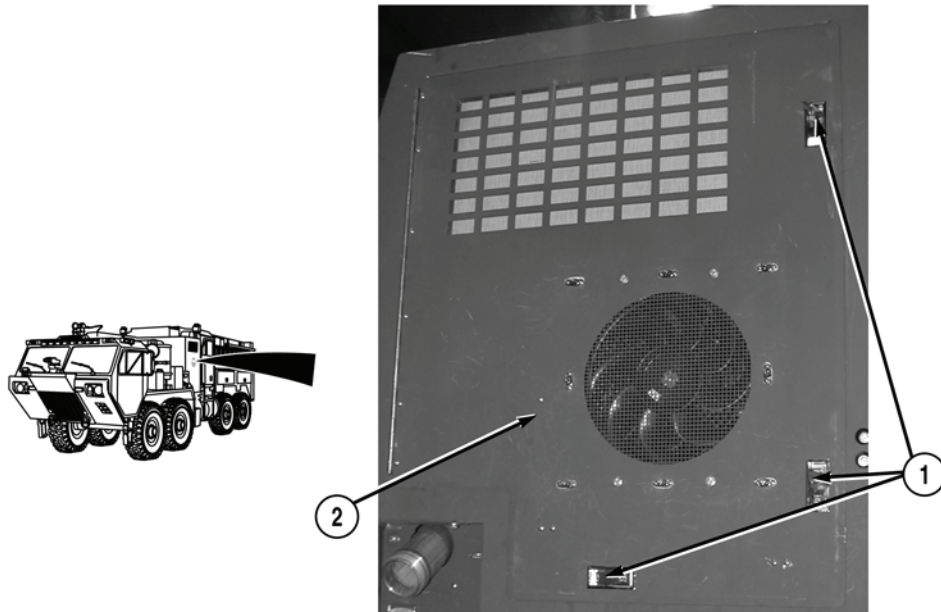
2. Install support rod (3) in bracket (4).

**END OF TASK**

**CLOSE PUMP HOUSE PANEL A**

1. Remove support rod (3) from bracket (4).





2. Push pump house panel A (2) closed and secure with three quick release fasteners (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**



**FIELD LEVEL MAINTENANCE**  
**PUMP HOUSE PANELS REPLACEMENT**

**INITIAL SETUP:**

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)  
Mineral Spirits (WP 0625, Item 32)  
Tags, Identification (WP 0625, Item 51)  
Locknut (2)  
Locknut (5)  
Locknut (1)  
Locknut (4)  
Locknut (16)  
Lockwasher (91)  
Lockwasher (82)  
Lockwasher (12)  
Lockwasher (6)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

**References**

WP 0220  
WP 0241  
WP 0538  
WP 0416  
WP 0518  
WP 0551  
WP 0615, Fig. 125

**Equipment Conditions**

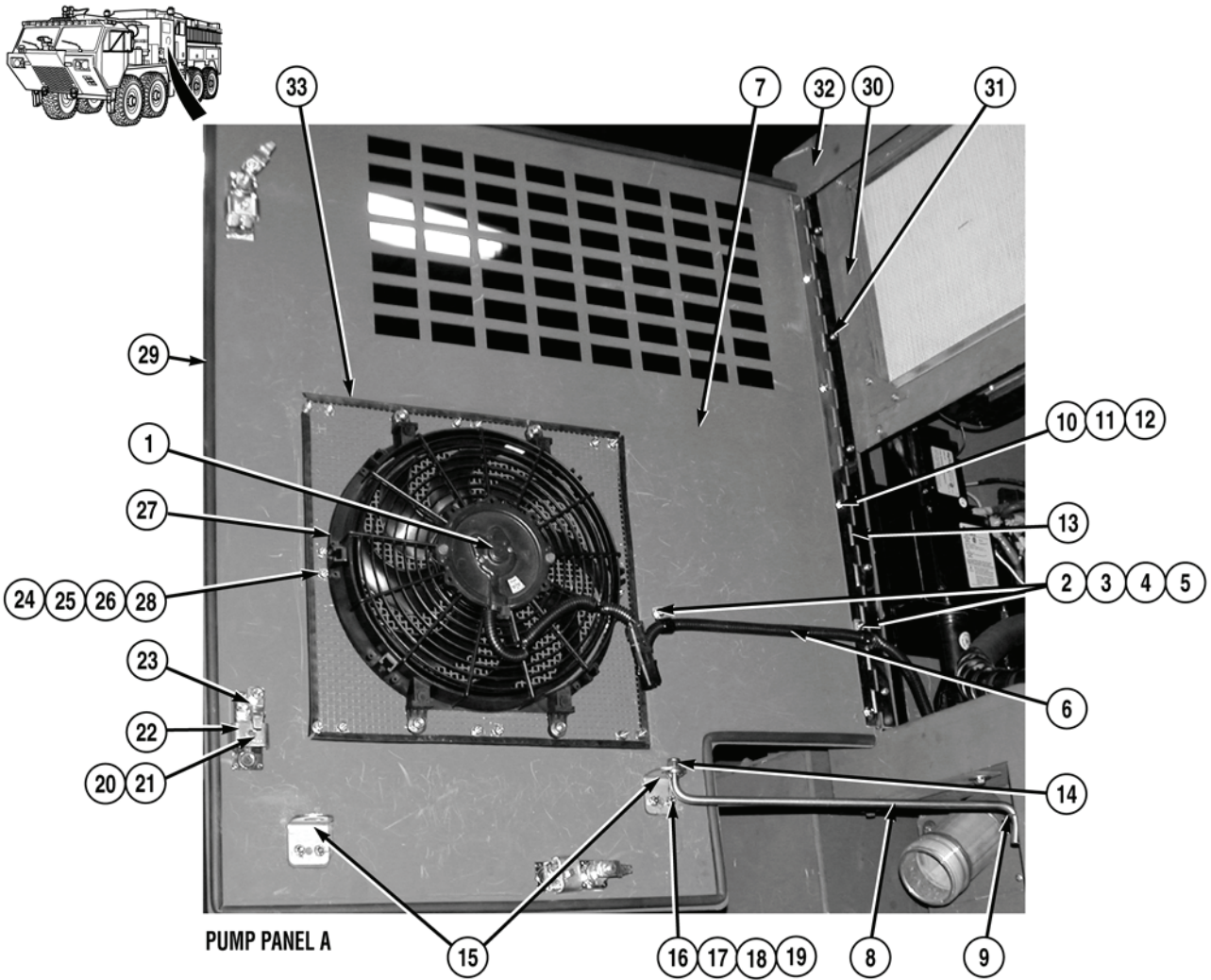
Batteries disconnected (TM 9-2320-325-14&P)  
Wheels chocked (TM 9-2320-347-10)

**GENERAL**

**Table 1. Pump House Panels Locations.**

Location	Panels
Driver side	A through E
Front	F through I
Passenger side	J through N
Back	O through R
Top	S through U

PUMP PANEL A REMOVAL



1. Remove pump house ventilation fan (1) (WP 0416).
2. Remove two locknuts (2), cushion clips (3), washers (4), screws (5), and wire (6) from pump panel A (7). Discard locknuts.
3. Remove support rod (8) from bracket (9).
4. With the aid of an assistant, remove five locknuts (10), washers (11), screws (12), and pump panel A (7) from hinge (13). Discard locknuts.
5. Remove locknut (14) and support rod (8) from bracket (15). Discard locknut.
6. Remove four locknuts (16), washers (17), washers (18), screws (19), and two brackets (15) from pump panel A (7). Discard locknuts.

### NOTE

Note position of quick release fasteners prior to removal to ensure proper installation.

7. Remove three screws (20), washers (21), retainers (22), and quick release fasteners (23) from pump panel A (7).
8. Remove 16 locknuts (24), washers (25), screws (26), screen (27), and eight locks (28) from pump panel A (7). Discard locknuts.
9. Remove seal (29) from pump panel A (7).

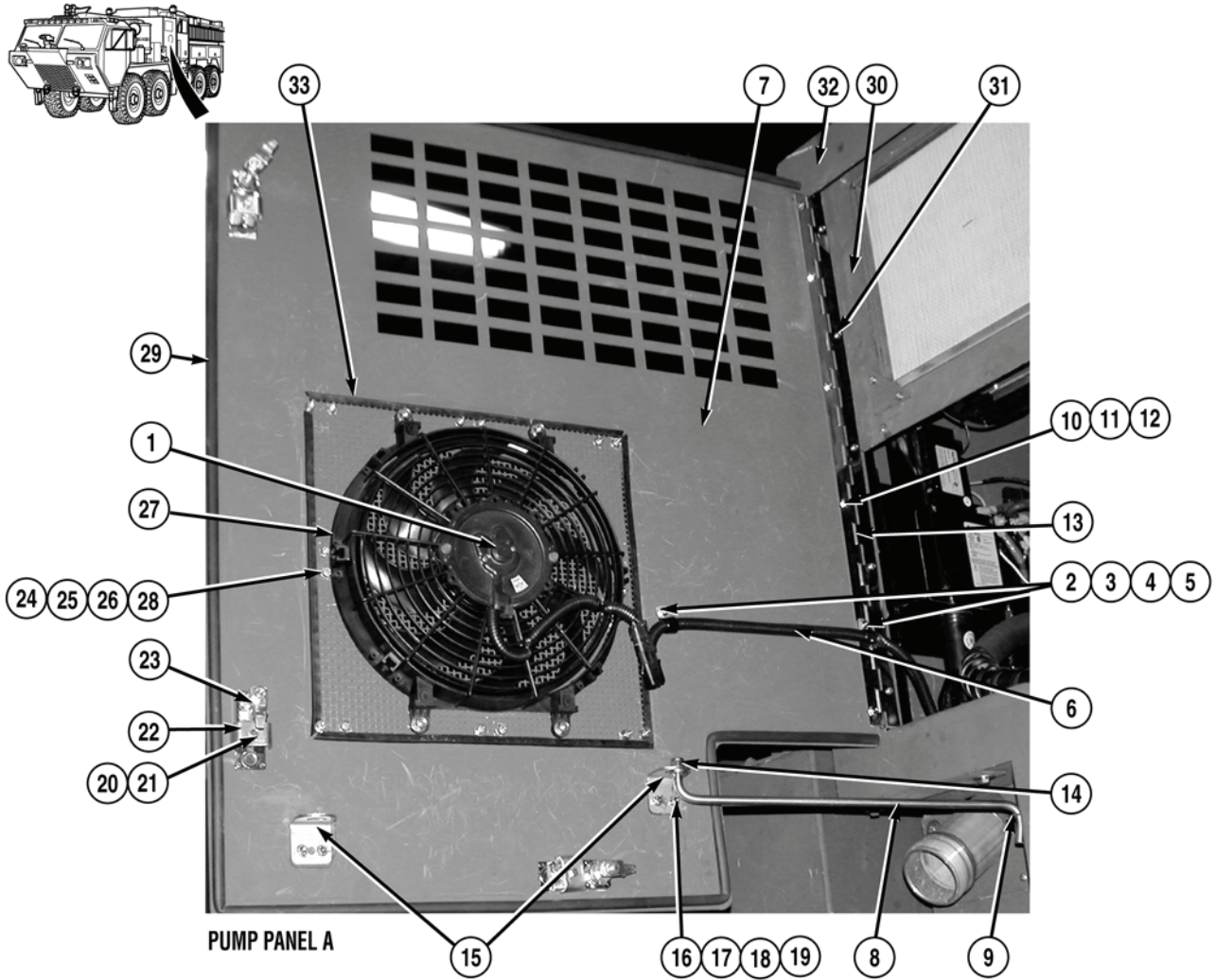
### NOTE

Perform Steps (10) and (11) if hinge needs to be removed.

10. Remove water pump engine air cleaner assembly (30) (WP 0220).
11. Remove five screws (31) and hinge (13) from pump panel B (32).
12. Remove four rubber seals (33) from screen (27).

**END OF TASK**

PUMP PANEL A INSTALLATION



1. Install four rubber seals (33) on screen (27).

### NOTE

Perform Steps (2) and (3) if hinge was removed.

2. Install hinge (13) on pump panel B (32) with five screws (31).
3. Install water pump engine air cleaner assembly (30) (WP 0220).

### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

4. Clean seal residue from pump panel A (7) with mineral spirits.
5. Install seal (29) on pump panel A (7).
6. Install eight locks (28) and screen (27) on pump panel A (7) with 16 screws (26), washers (25), and locknuts (24).

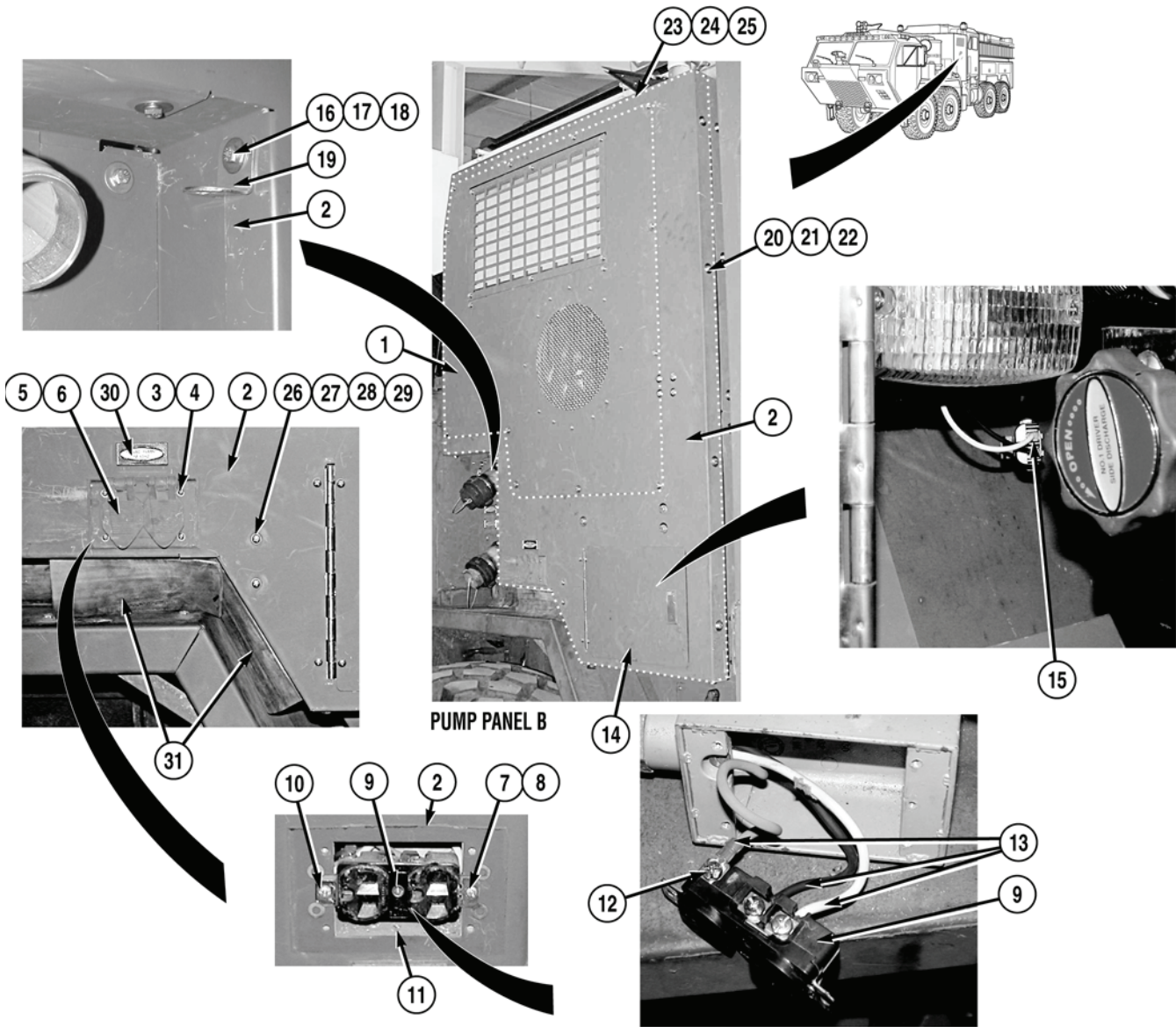
### NOTE

Install quick release fasteners as noted prior to removal.

7. Install three quick release fasteners (23) on pump panel A (7) with three retainers (22), washers (21), and screws (20).
8. Install two brackets (15) on pump panel A (7) with four screws (19), washers (18), washers (17), and locknuts (16).
9. Install support rod (8) on bracket (15) with locknut (14).
10. With the aid of an assistant, install pump panel A (7) on hinge (13) with five screws (12), washers (11), and locknuts (10).
11. Install support rod (8) in bracket (9).
12. Install wire (6) on pump panel A (7) with two cushion clips (3), screws (5), washers (4), and locknuts (2).
13. Install pump house ventilation fan (1) (WP 0416).

### END OF TASK

**PUMP PANEL B REMOVAL**



1. Remove pump panel A (1) from pump panel B (2).
2. Remove four screws (3), washers (4), receptacle cover (5), and gasket (6) from pump panel B (2).
3. Remove screw (7) and washer (8) from receptacle (9) and pump panel B (2).
4. Remove screw (10), receptacle (9), and box (11) from pump panel B (2).

**NOTE**

Tag and mark wires and connectors prior to removal to ensure proper installation.

5. Loosen three screws (12) and remove wires (13) from receptacle (9).
6. Open small compartment door (14) and disconnect connector (15).



7. Remove screw (16), lockwasher (17), washer (18), and bracket (19) from pump panel B (2). Discard lockwasher. Discard lockwasher.
8. Remove 13 screws (20), lockwashers (21), and washers (22) from pump panel B (2). Discard lockwashers. Discard lockwashers.
9. Remove five screws (23), lockwashers (24), washers (25), and pump panel B (2) from vehicle. Discard lockwashers. Discard lockwashers.
10. Remove two screws (26), lockwashers (27), washers (28), and light bracket (29) from pump panel B (2). Discard lockwashers.
11. Remove small compartment door (14) from pump panel B (2) (WP 0551).
12. Remove decal plate (30) from pump panel B (2) (WP 0518).
13. Remove two rubber guards (31) from pump panel B (2).

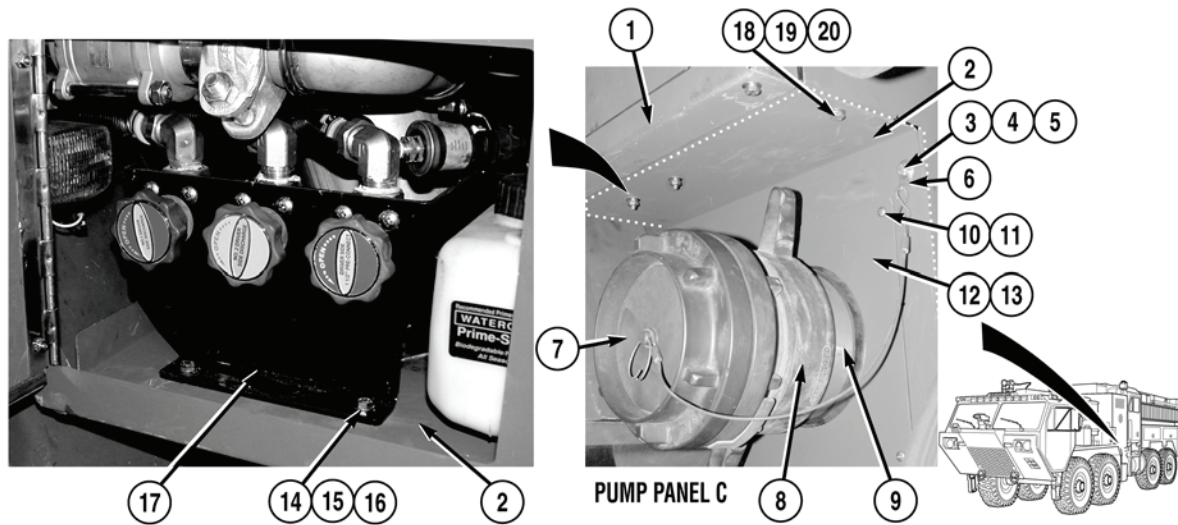
#### **END OF TASK**

#### **PUMP PANEL B INSTALLATION**

1. Install two rubber guards (31) on pump panel B (2).
2. Install decal plate (30) on pump panel B (2) (WP 0518).
3. Install small compartment door (14) on pump panel B (2) (WP 0551).
4. Install light bracket (29) on pump panel B (2) with two washers (28), lockwashers (27), and screws (26).
5. Install pump panel B (2) on vehicle with five washers (25), lockwashers (24), and screws (23).
6. Install 13 washers (22), lockwashers (21), and screws (20) on pump panel B (2).
7. Install bracket (19) on pump panel B (2) with washer (18), lockwasher (17), and screw (16).
8. Connect connector (15) and close small compartment door (14).
9. Install three wires (13) on receptacle (9) and tighten three screws (12).
10. Install box (11) and receptacle (9) on pump panel B (2) with screw (10).
11. Install receptacle (9) on pump panel B (2) with washer (8) and screw (7).
12. Install gasket (6) and receptacle cover (5) on pump panel B (2) with four washers (4) and screws (3).
13. Install pump panel A (1) on pump panel B (2).

#### **END OF TASK**

**PUMP PANEL C REMOVAL**



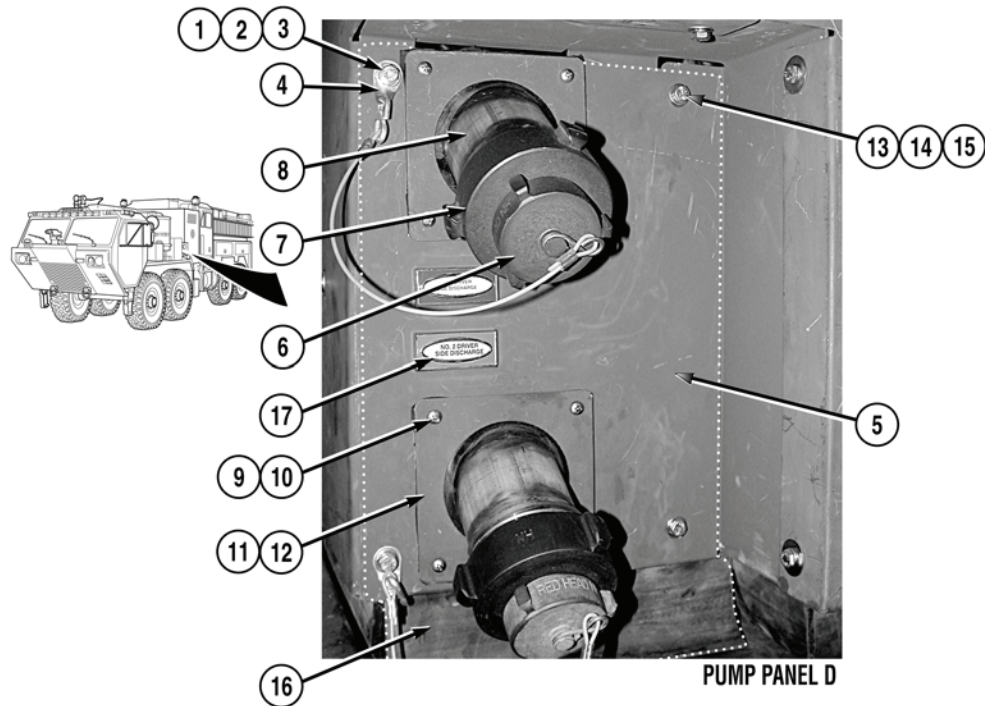
1. Remove pump panel B (1) from pump panel C (2).
2. Remove screw (3), lockwasher (4), washer (5), and clip (6) from pump panel C (2). Discard lockwasher.
3. Remove cap (7) from coupling (8).
4. Remove coupling (8) from driver side main inlet pipe (9).
5. Remove four screws (10), washers (11), cover plate (12), and gasket (13) from pump panel C (2).
6. Remove two locknuts (14), four washers (15), two screws (16), and bracket (17) from pump panel C (2). Discard locknuts.
7. Remove two screws (18), lockwashers (19), washers (20), and pump panel C (2) from vehicle. Discard lockwashers.

**END OF TASK**

**PUMP PANEL C INSTALLATION**

1. Install pump panel C (2) on vehicle with two washers (20), lockwashers (19), and screws (18).
2. Install bracket (17) on pump panel C (2) with two screws (16), four washers (15), and two locknuts (14).
3. Install gasket (13) and cover plate (12) on pump panel C (2) with four washers (11) and screws (10).
4. Install coupling (8) on driver side main inlet pipe (9).
5. Install cap (7) on coupling (8).
6. Install clip (6) on pump panel C (2) with washer (5), lockwasher (4), and screw (3).
7. Install pump panel B (1) on pump panel C (2).

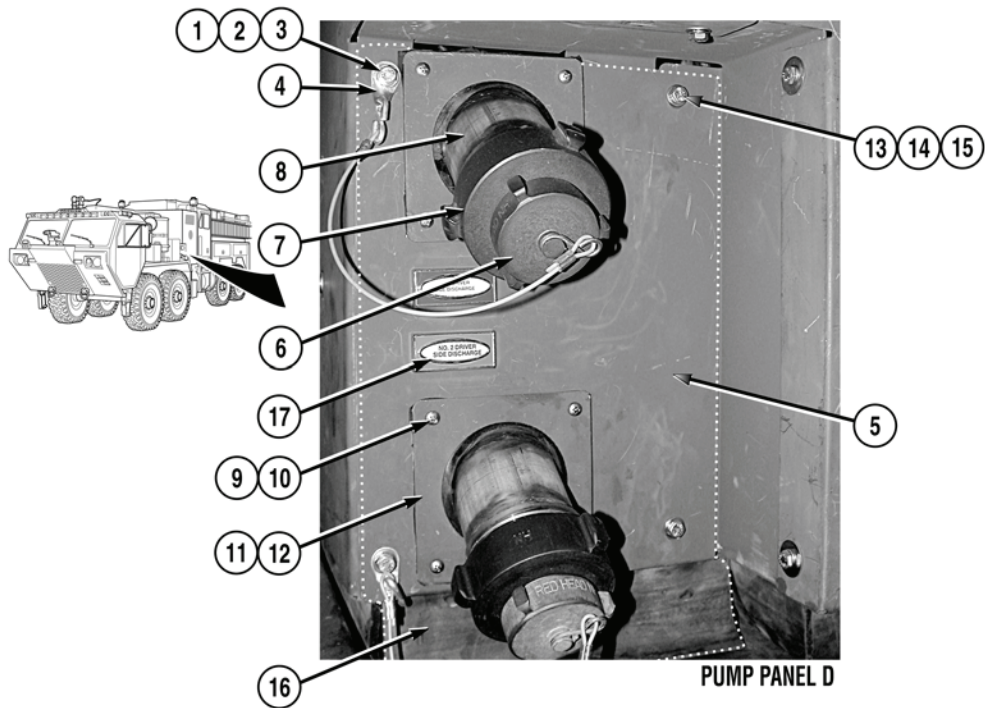
**END OF TASK**

**PUMP PANEL D REMOVAL**

1. Remove two screws (1), lockwashers (2), washers (3), and clips (4) from pump panel D (5). Discard lockwashers.
2. Remove two caps (6) from couplings (7).
3. Remove two couplings (7) from driver side discharge pipes (8).
4. Remove eight screws (9), washers (10), two cover plates (11), and gaskets (12) from pump panel D (5).
5. Remove two screws (13), lockwashers (14), washers (15), and pump panel D (5) from vehicle. Discard lockwashers.
6. Remove rubber guard (16) from pump panel D (5).
7. Remove two decal plates (17) from pump panel D (5) (WP 0518).

**END OF TASK****PUMP PANEL D INSTALLATION**

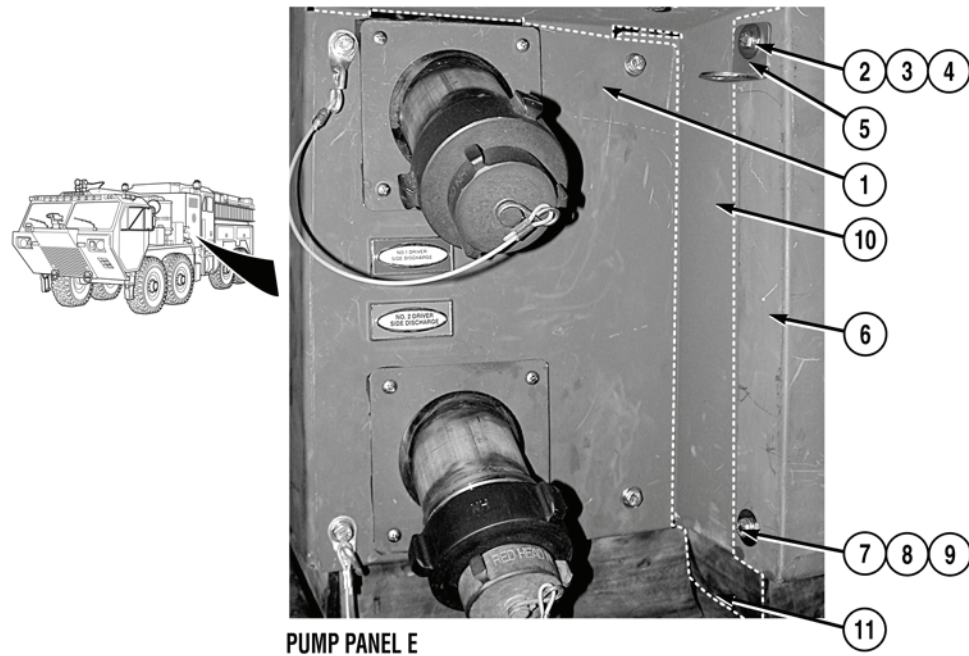
1. Install two decal plates (17) on pump panel D (5) (WP 0518).
2. Install rubber guard (16) on pump panel D (5).
3. Install pump panel D (5) on vehicle with two washers (15), lockwashers (14), and screws (13).
4. Install two gaskets (12) and cover plates (11) on pump panel D (5) with eight washers (10) and screws (9).
5. Install two couplings (7) on driver side discharge pipes (8).



6. Install two caps (6) on couplings (7).
7. Install two clips (4) on pump panel D (5) with two washers (3), lockwashers (2), and screws (1).

**END OF TASK**

## PUMP PANEL E REMOVAL



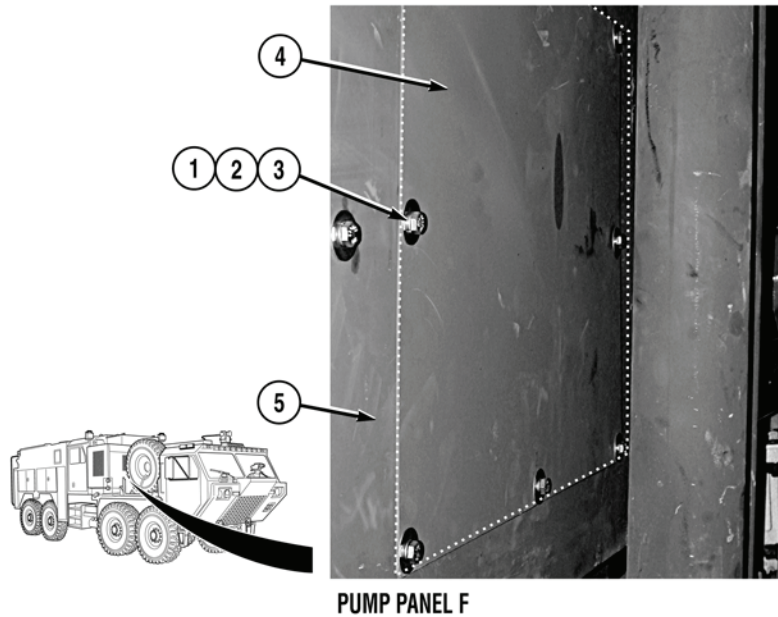
1. Remove pump panel D (1).
2. Remove screw (2), lockwasher (3), washer (4), and bracket (5) from pump panel B (6). Discard lockwasher.
3. Remove three screws (7), lockwashers (8), washers (9), and pump panel E (10) from vehicle. Discard lockwashers.
4. Remove rubber guard (11) from pump panel E (10).

### END OF TASK

## PUMP PANEL E INSTALLATION

1. Install rubber guard (11) on pump panel E (10).
2. Install pump panel E (10) on vehicle with four washers (9), lockwashers (8), and screws (7).
3. Install bracket (5) on pump panel B (6) with washer (4), lockwasher (3), and screw (2).
4. Install pump panel D (1).

### END OF TASK

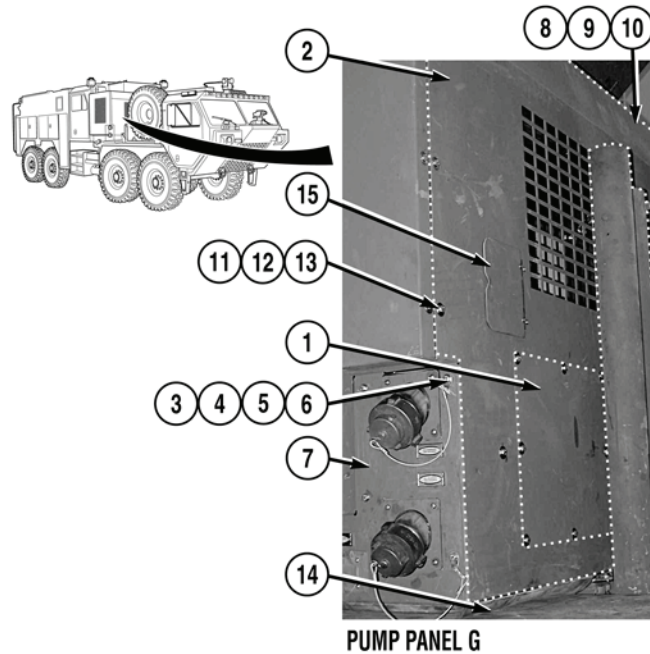
**PUMP PANEL F REMOVAL****PUMP PANEL F**

Remove eight screws (1), lockwashers (2), washers (3), and pump panel F (4) from pump panel G (5). Discard lockwashers.

**END OF TASK****PUMP PANEL F INSTALLATION**

Install pump panel F (4) on pump panel G (5) with eight washers (3), lockwashers (2), and screws (1).

**END OF TASK**

**PUMP PANEL G REMOVAL**

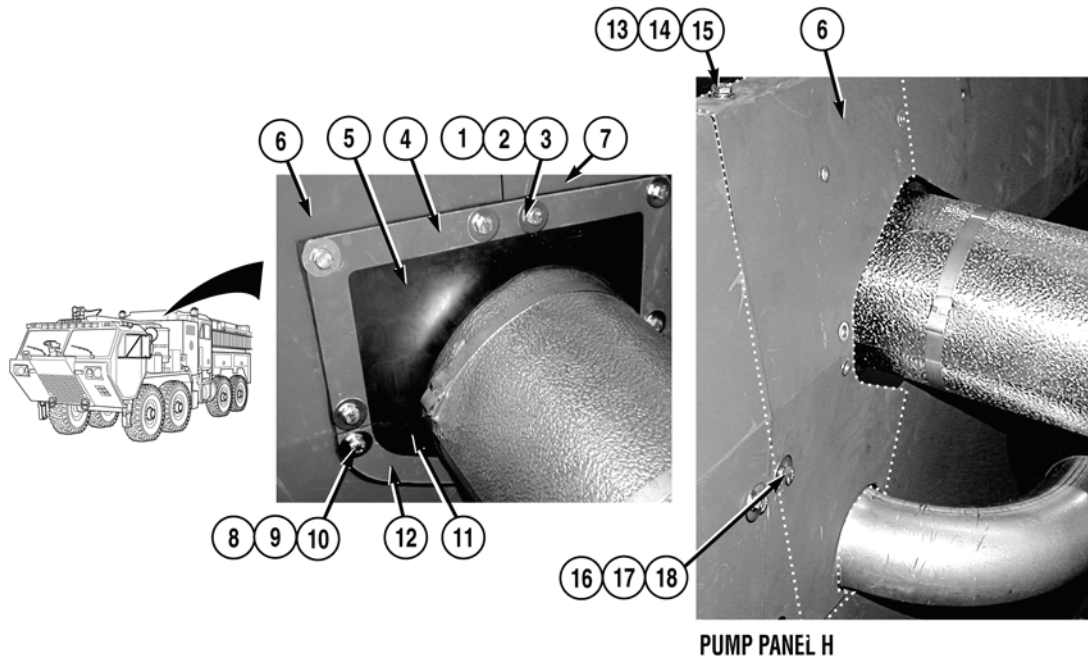
1. Remove pump panel F (1) from pump panel G (2).
2. Remove two screws (3), lockwashers (4), washers (5), and clips (6) from pump panel L (7). Discard lockwashers.
3. Remove six screws (8), lockwashers (9), and washers (10) from pump panel G (2). Discard lockwashers.
4. Remove eight screws (11), lockwashers (12), washers (13), and pump panel G (2) from vehicle. Discard lockwashers.
5. Remove rubber guard (14) from pump panel G (2).
6. Remove pump house access door (15) from pump panel G (2) (WP 0538).

**END OF TASK****PUMP PANEL G INSTALLATION**

1. Install pump house access door (15) on pump panel G (2) (WP 0538).
2. Install rubber guard (14) on pump panel G (2).
3. Install pump panel G (2) on vehicle with eight washers (13), lockwashers (12), and screws (11).
4. Install six washers (10), lockwashers (9), and screws (8) on pump panel G (2).
5. Install two clips (6) on pump panel L (7) with two washers (5), lockwashers (4), and screws (3).
6. Install pump panel F (1) on pump panel G (2).

**END OF TASK**

## PUMP PANEL H REMOVAL



1. Remove six screws (1), lockwashers (2), washers (3), hold-down (4), and rubber seal (5) from pump panel H (6) and pump panel I (7). Discard lockwashers.
2. Remove four screws (8), lockwashers (9), washers (10), hold-down (11), and rubber seal (12) from pump panel H (6) and pump panel I (7). Discard lockwashers.
3. Remove two screws (13), lockwashers (14), and washers (15) from pump panel H (6). Discard lockwashers.
4. Remove two screws (16), lockwashers (17), washers (18), and pump panel H (6) from vehicle. Discard lockwashers.

### END OF TASK

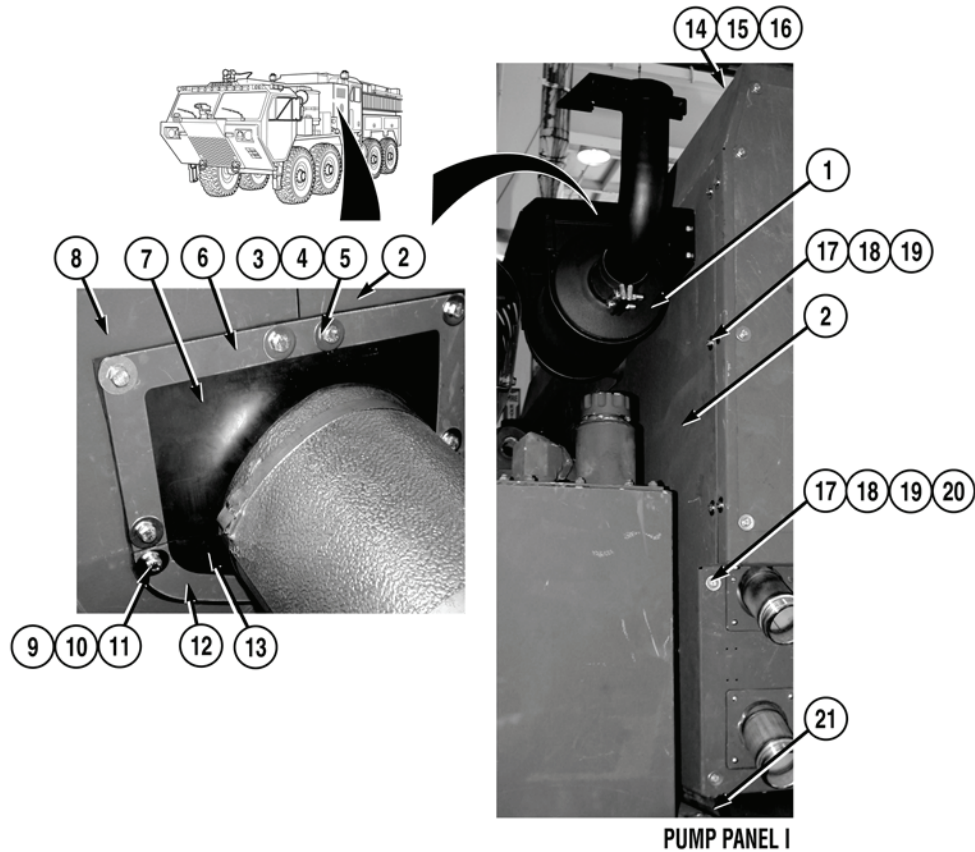
## PUMP PANEL H INSTALLATION

1. Install pump panel H (6) on vehicle with two washers (18), lockwashers (17), and screws (16).
2. Install two washers (15), lockwashers (14), and screws (13) on pump panel H (6).
3. Install rubber seal (12) on pump panel H (6) and pump panel I (7) with hold-down (11), four washers (10), lockwashers (9), and screws (8).
4. Install rubber seal (5) on pump panel H (6) and pump panel I (7) with hold-down (4), six washers (3), lockwashers (2), and screws (1).

### END OF TASK



## PUMP PANEL I REMOVAL



1. Remove water pump engine muffler (1) from pump panel I (2) (WP 0241).
2. Remove six screws (3), lockwashers (4), washers (5), hold-down (6), and rubber seal (7) from pump panel I (2) and pump panel H (8). Discard lockwashers.
3. Remove four screws (9), lockwashers (10), washers (11), hold-down (12), and rubber seal (13) from pump panel I (2) and pump panel H (8). Discard lockwashers.
4. Remove three screws (14), lockwashers (15), and washers (16) from pump panel I (2). Discard lockwashers.
5. Remove nine screws (17), lockwashers (18), washers (19), two clips (20), and pump panel I (2) from vehicle. Discard lockwashers.
6. Remove rubber guard (21) from pump panel I (2).

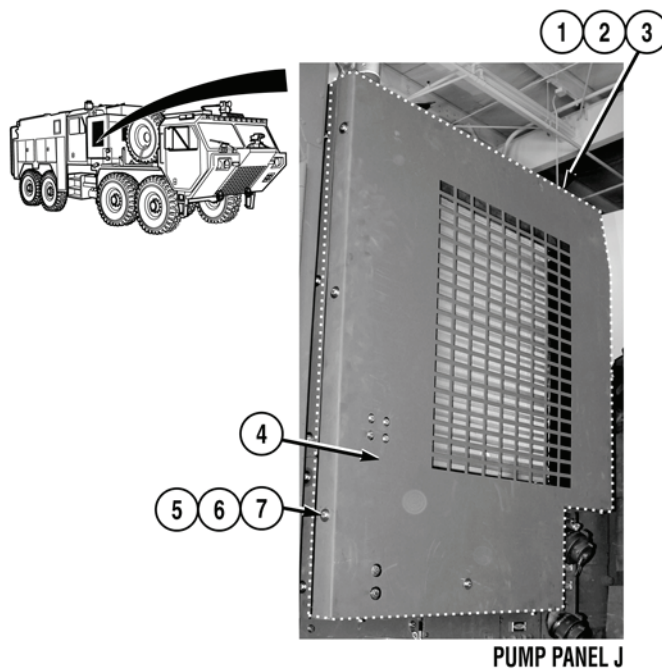
**END OF TASK**

## PUMP PANEL I INSTALLATION

1. Install rubber guard (21) on pump panel I (2).
2. Install pump panel I (2) on vehicle with two clips (20), nine washers (19), lockwashers (18), and screws (17).
3. Install three washers (16), lockwashers (15), and screws (14) on pump panel I (2).
4. Install rubber seal (13) on pump panel I (2) and pump panel H (8) with hold-down (12), four washers (11), lockwashers (10), and screws (9).
5. Install rubber seal (7) on pump panel I (2) and pump panel H (8) with hold-down (6), six washers (5), lockwashers (4), and screws (3).
6. Install water pump engine muffler (1) on pump panel I (2) (WP 0241).

## END OF TASK

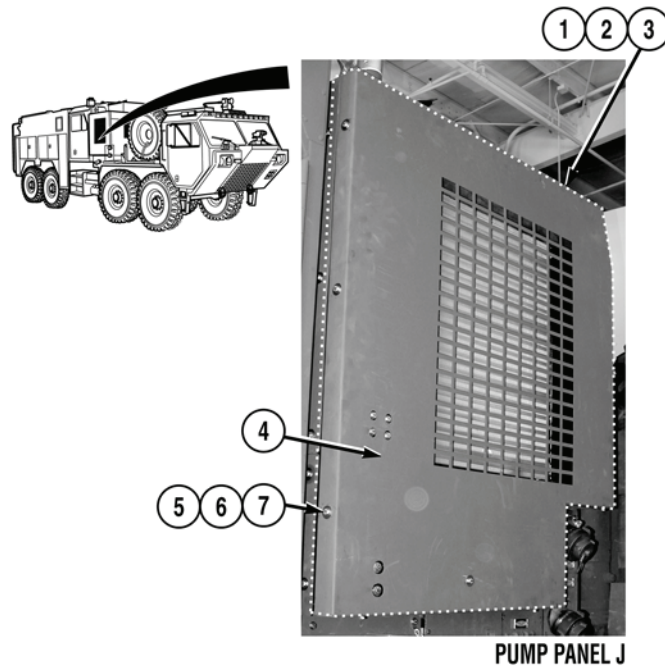
## PUMP PANEL J REMOVAL



1. Remove five screws (1), lockwashers (2), and washers (3) from pump panel J (4). Discard lockwashers.
2. With the aid of an assistant, remove 12 screws (5), lockwashers (6), washers (7), and pump panel J (4) from vehicle. Discard lockwashers.

## END OF TASK

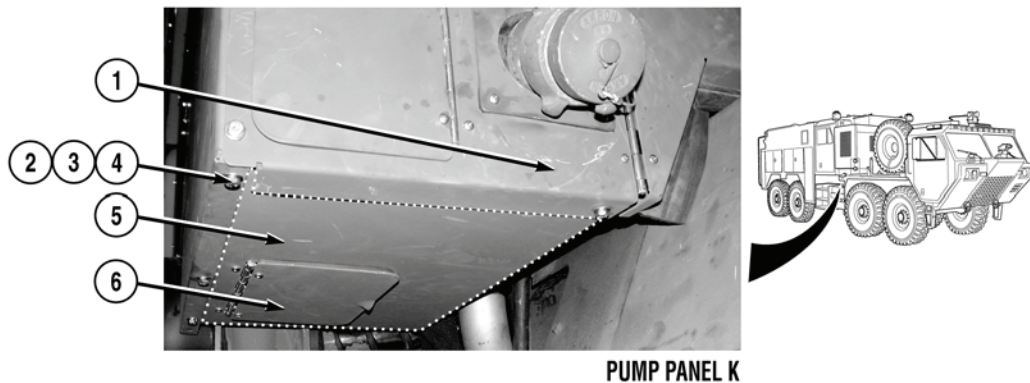
**PUMP PANEL J INSTALLATION**



1. With the aid of an assistant, install pump panel J (4) on vehicle with 12 washers (7), lockwashers (6), and screws (5).
2. Install five washers (3), lockwashers (2), and screws (1) on pump panel J (4).

**END OF TASK**

**PUMP PANEL K REMOVAL**



1. Remove pump panel M (1).
2. Remove four screws (2), lockwashers (3), washers (4), and pump panel K (5) from vehicle. Discard lockwashers.
3. Remove pump house access door (6) from pump panel K (5) (WP 0538).

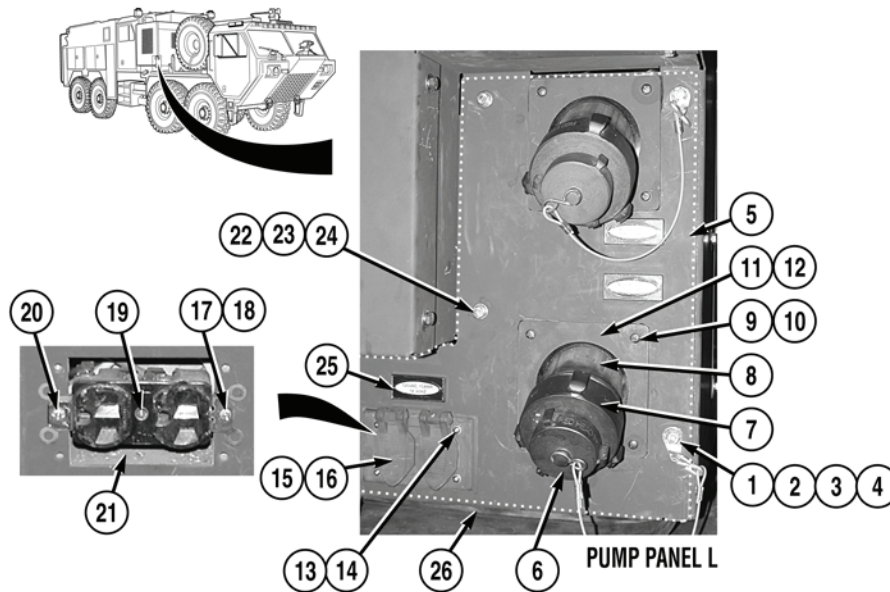
**END OF TASK**

## PUMP PANEL K INSTALLATION

1. Install pump house access door (6) on pump panel K (5) (WP 0538).
2. Install pump panel K (5) on vehicle with four washers (4), lockwashers (3), and screws (2).
3. Install pump panel M (1).

## END OF TASK

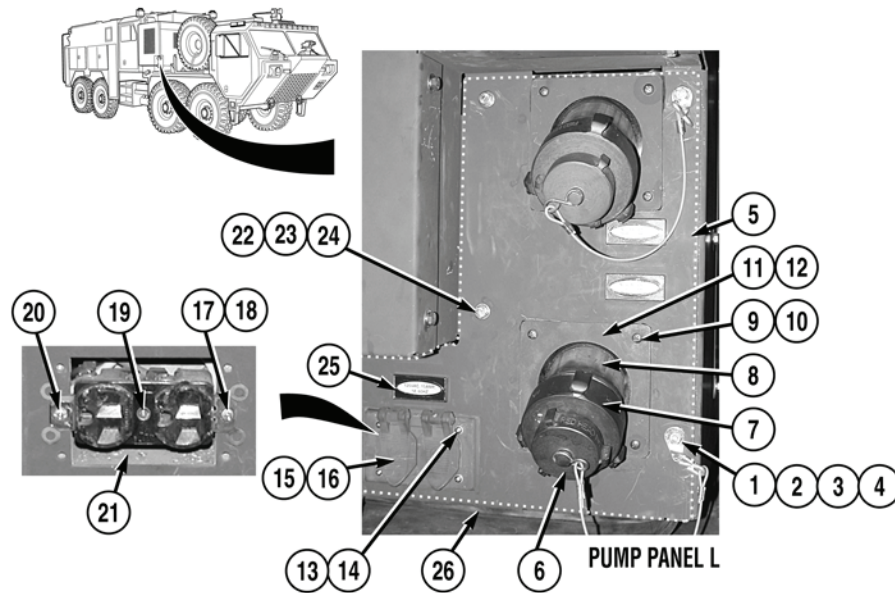
## PUMP PANEL L REMOVAL



1. Remove two screws (1), lockwashers (2), washers (3), and clips (4) from pump panel L (5). Discard lockwashers.
2. Remove two caps (6) from couplings (7).
3. Remove two couplings (7) from passenger side discharge pipes (8).
4. Remove eight screws (9), washers (10), two cover plates (11), and gaskets (12) from pump panel L (5).
5. Remove four screws (13), washers (14), receptacle cover (15), and gasket (16) from pump panel L (5).
6. Remove screw (17) and washer (18) from receptacle (19) and pump panel L (5).
7. Remove screw (20), receptacle (19), and box (21) from pump panel L (5).
8. Remove three screws (22), lockwashers (23), washers (24), and pump panel L (5) from vehicle. Discard lockwashers.
9. Remove three decal plates (25) from pump panel L (5) (WP 0518).
10. Remove rubber guard (26) from pump panel L (5).

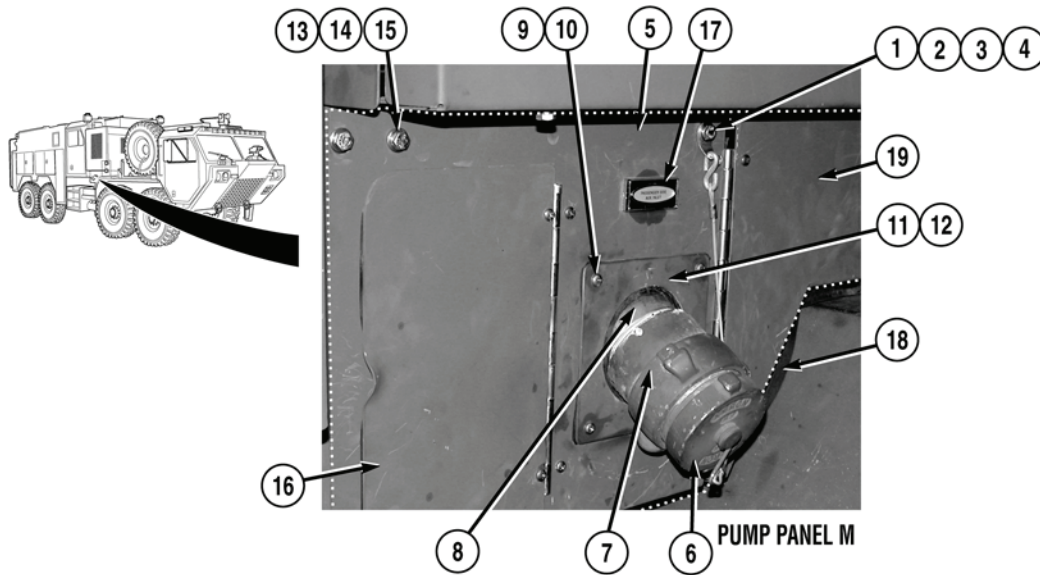
## END OF TASK

## PUMP PANEL L INSTALLATION



1. Install rubber guard (26) on pump panel L (5).
2. Install three decal plates (25) on pump panel L (5) (WP 0518).
3. Install pump panel L (5) on vehicle with three washers (24), lockwashers (23), and screws (22).
4. Install box (21) and receptacle (19) on pump panel L (5) with screw (20).
5. Install receptacle (19) on pump panel L (5) with washer (18) and screw (17).
6. Install gasket (16) and receptacle cover (15) on pump panel L (5) with four washers (14) and screws (13).
7. Install two gaskets (12) and cover plates (11) on pump panel L (5) with eight washers (10) and screws (9).
8. Install two couplings (7) on passenger side discharge pipes (8).
9. Install two caps (6) on couplings (7).
10. Install two clips (4) on pump panel L (5) with two washers (3), lockwashers (2), and screws (1).

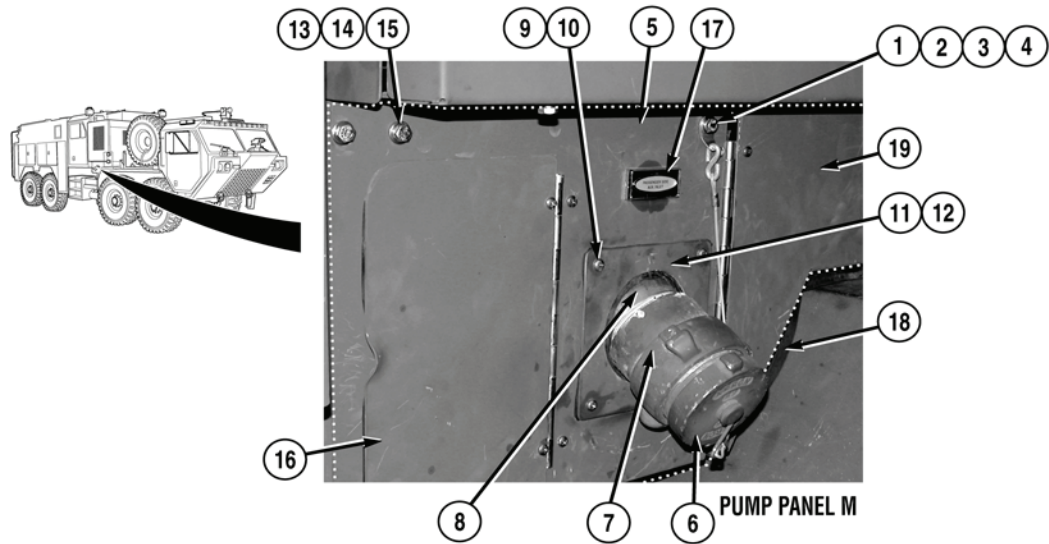
**END OF TASK**

**PUMP PANEL M REMOVAL**

1. Remove screw (1), lockwasher (2), washer (3), and clip (4) from pump panel M (5). Discard lockwasher.
2. Remove cap (6) from coupling (7).
3. Remove coupling (7) from passenger side auxiliary inlet pipe (8).
4. Remove four screws (9), washers (10), cover plate (11), and gasket (12) from pump panel M (5).
5. Remove four screws (13), lockwashers (14), washers (15), and pump panel M (5) from vehicle. Discard lockwashers.
6. Remove pump house access door (16) from pump panel M (5) (WP 0538).
7. Remove decal plate (17) from pump panel M (5) (WP 0518).
8. Remove two rubber guards (18) from small compartment door (19).
9. Remove small compartment door (19) from pump panel M (5) (WP 0551).

**END OF TASK**

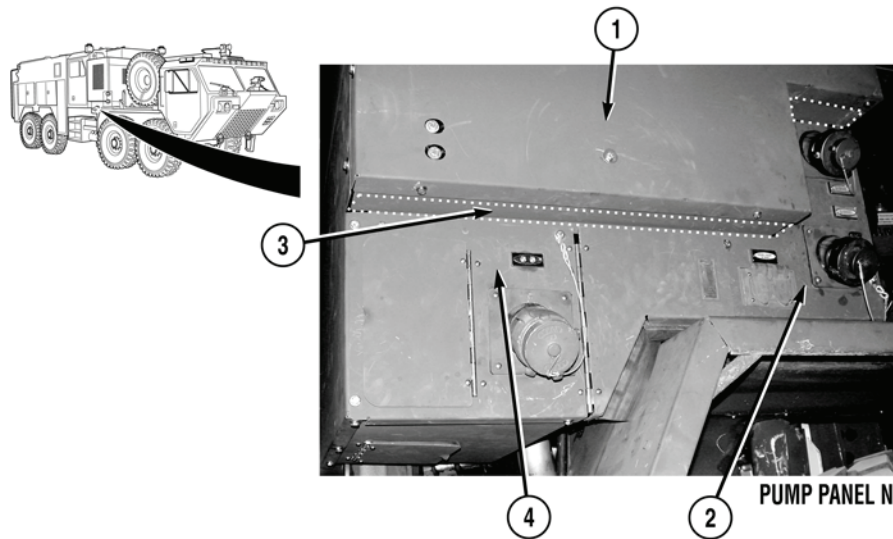
## PUMP PANEL M INSTALLATION

**WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

1. Install small compartment door (19) on pump panel M (5) (WP 0551).
2. Install two rubber guards (18) on small compartment door (19).
3. Install decal plate (17) on pump panel M (5) (WP 0518).
4. Install pump house access door (16) on pump panel M (5) (WP 0538).
5. Install pump house panel M (5) on vehicle with four washers (15), lockwashers (14), and screws (13).
6. Install gasket (12) and cover plate (11) on pump panel M (5) with four washers (10) and screws (9).
7. Apply sealing compound to threads of passenger side auxiliary inlet pipe (8).
8. Install coupling (7) on passenger side auxiliary inlet pipe (8).
9. Install cap (6) on coupling (7).
10. Install clip (4) on pump panel M (5) with washer (3), lockwasher (2), and screw (1).

**END OF TASK**

**PUMP PANEL N REMOVAL**

1. Remove pump panel J (1).
2. Remove pump panel L (2).

**⚠ CAUTION**

**Pump panel N must be properly supported prior to removing pump panel M. Failure to comply may result in pump panel N falling.**

3. With the aid of an assistant, support pump panel N (3) and remove pump panel M (4).

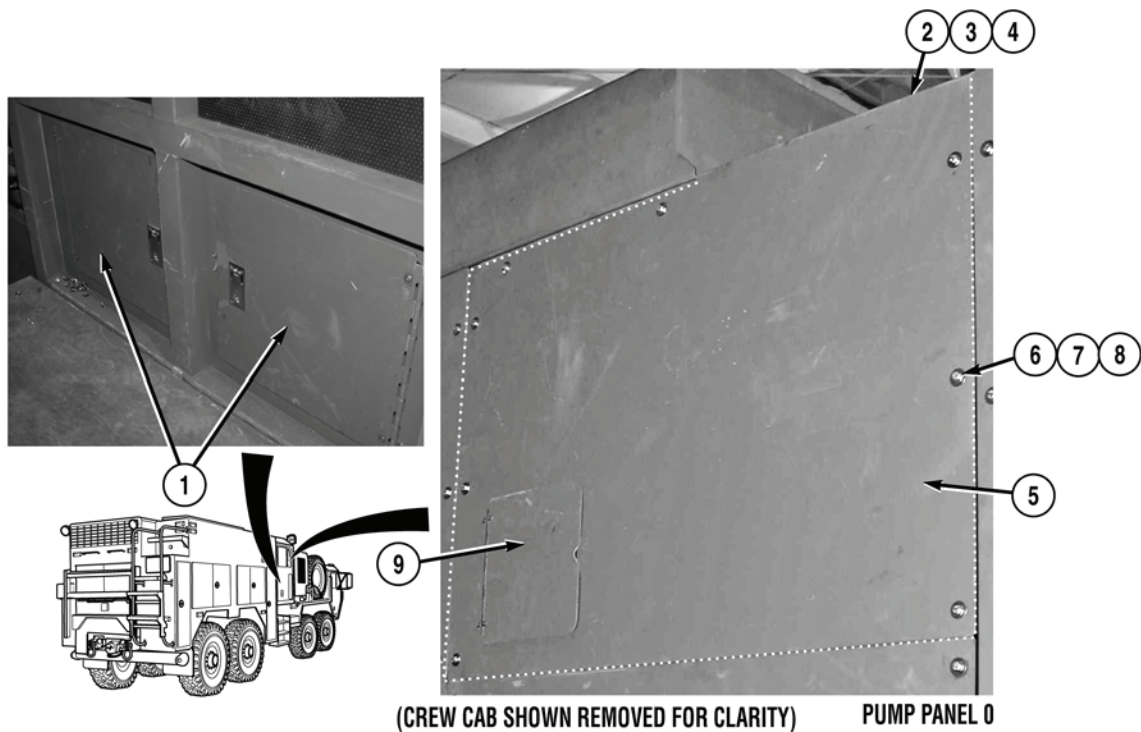
**END OF TASK**

**PUMP PANEL N INSTALLATION**

1. With the aid of an assistant, support pump panel N (3) and install pump panel M (4).
2. Install pump panel L (2).
3. Install pump panel J (1).

**END OF TASK**



**PUMP PANEL O REMOVAL**

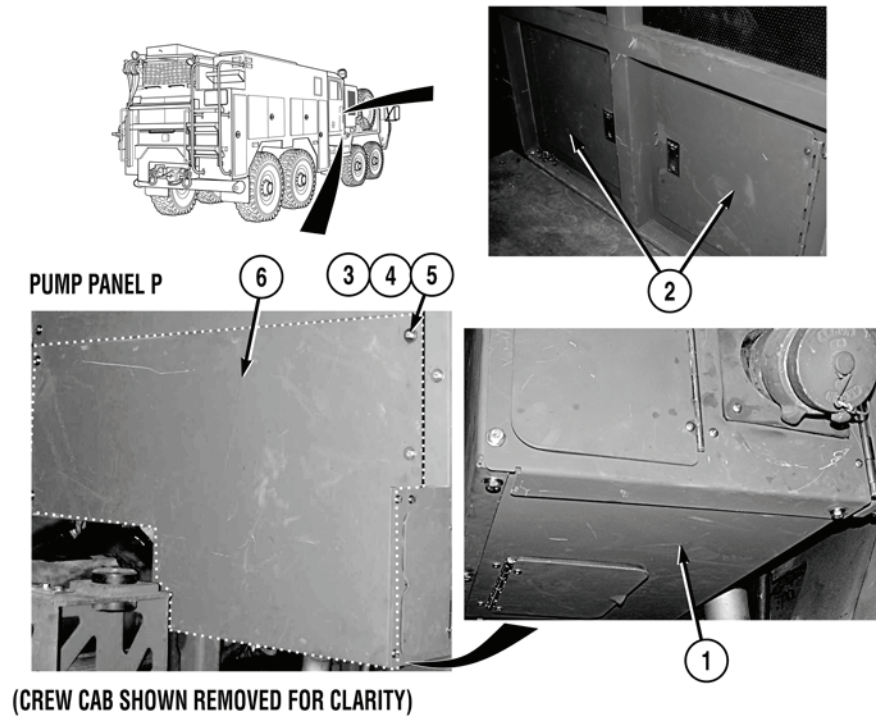
1. Open two access doors (1).
2. Remove three screws (2), lockwashers (3), and washers (4) from pump panel O (5). Discard lockwashers.
3. Remove eight screws (6), lockwashers (7), washers (8), and pump panel O (5) from vehicle. Discard lockwashers.
4. Remove pump house access door (9) from pump panel O (5) (WP 0538).

**END OF TASK****PUMP PANEL O INSTALLATION**

1. Install pump house access door (9) on pump panel O (5) (WP 0538).
2. Install pump panel O (5) on vehicle with eight washers (8), lockwashers (7), and screws (6).
3. Install three washers (4), lockwashers (3), and screws (2) on pump panel O (5).
4. Close two access doors (1).

**END OF TASK**

## PUMP PANEL P REMOVAL



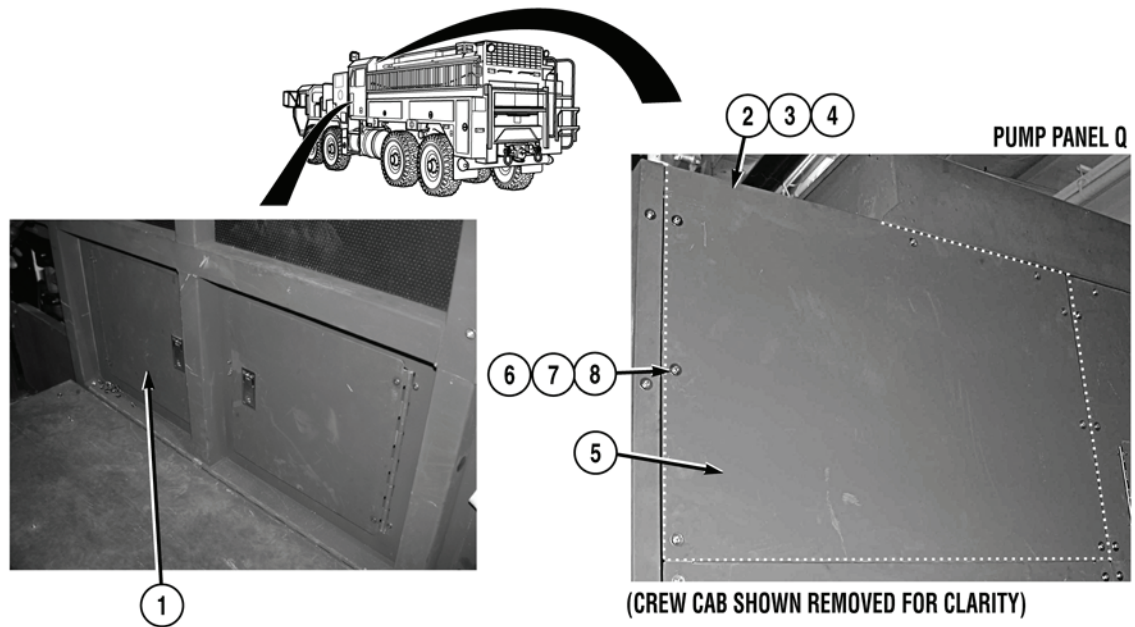
1. Remove pump panel K (1).
2. Open two access doors (2).
3. Remove six screws (3), lockwashers (4), washers (5), and pump panel P (6) from vehicle. Discard lockwashers.

### END OF TASK

## PUMP PANEL P INSTALLATION

1. Install pump panel P (6) on vehicle with six washers (5), lockwashers (4), and screws (3).
2. Close two access doors (2).
3. Install pump panel K (1).

### END OF TASK

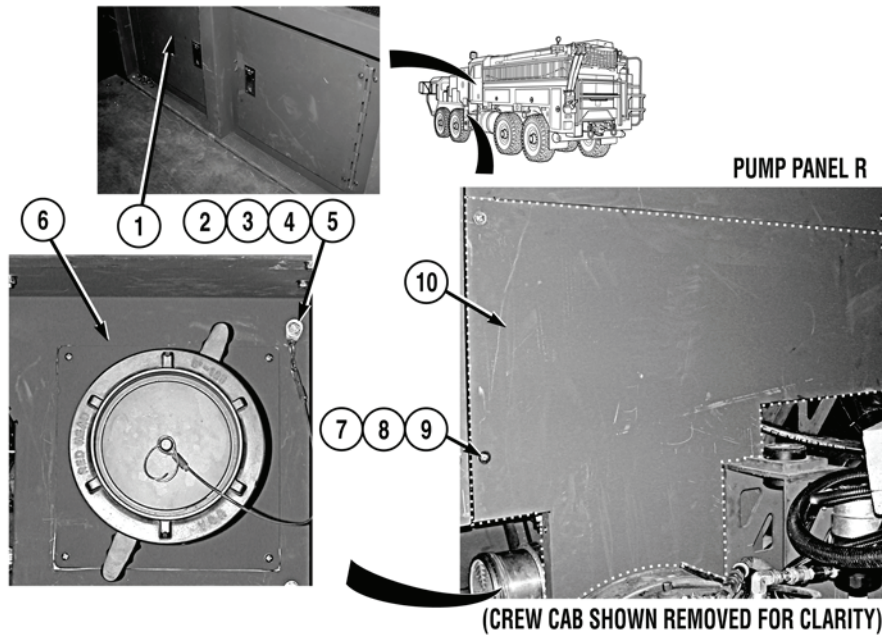
**PUMP PANEL Q REMOVAL**

1. Open access door (1).
2. Remove three screws (2), lockwashers (3), and washers (4) from pump panel Q (5). Discard lockwashers.
3. Remove seven screws (6), lockwashers (7), washers (8), and pump panel Q (5) from vehicle. Discard lockwashers.

**END OF TASK****PUMP PANEL Q INSTALLATION**

1. Install pump panel Q (5) on vehicle with seven washers (8), lockwashers (7), and screws (6).
2. Install three washers (4), lockwashers (3), and screws (2) on pump panel Q (5).
3. Close access door (1).

**END OF TASK**

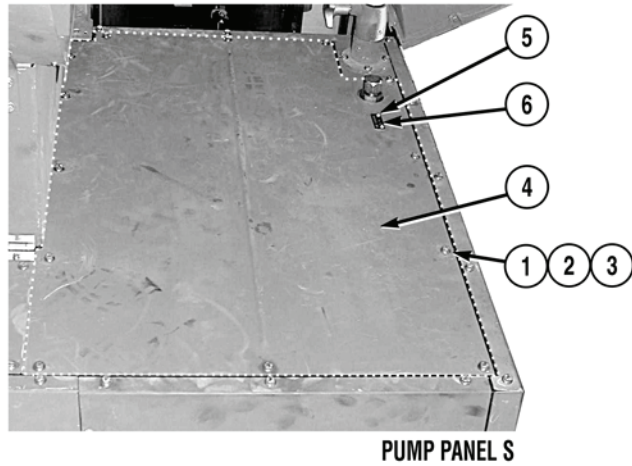
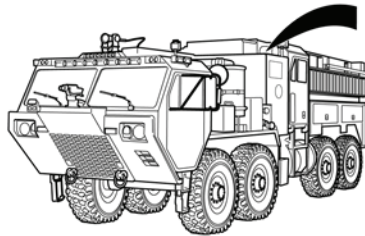
**PUMP PANEL R REMOVAL**

1. Open access door (1).
2. Remove two screws (2), lockwashers (3), washers (4), and clip (5) from pump panel C (6). Discard lockwashers.
3. Remove six screws (7), lockwashers (8), washers (9), and pump panel R (10) from vehicle. Discard lockwashers.

**END OF TASK****PUMP PANEL R INSTALLATION**

1. Install pump panel R (10) on vehicle with six washers (9), lockwashers (8), and screws (7).
2. Install clip (5) on pump panel C (6) with washer (4), lockwasher (3), and screw (2).
3. Close access door (1).

**END OF TASK**

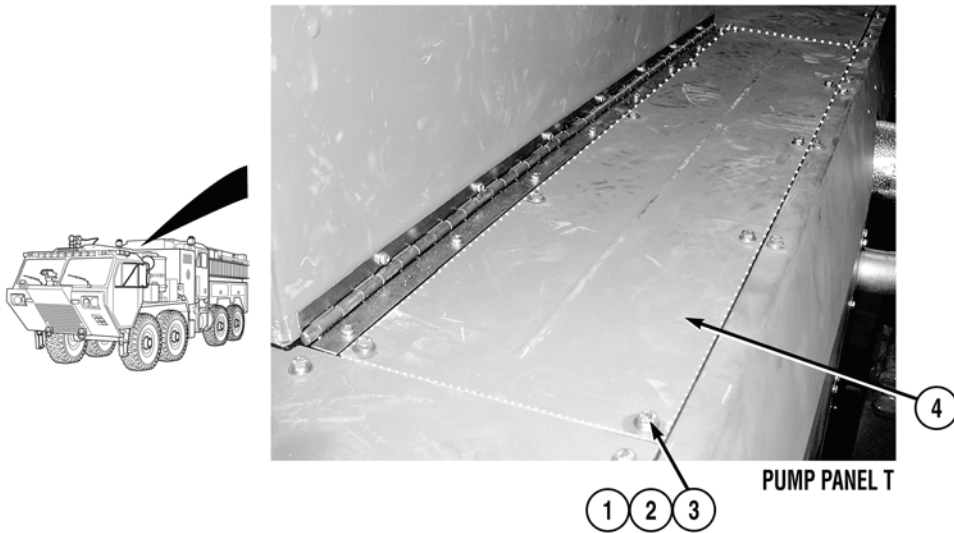
**PUMP PANEL S REMOVAL**

1. Remove 12 screws (1), lockwashers (2), washers (3), and pump panel S (4) from vehicle. Discard lockwashers.
2. Remove two screws (5) and plate (6) from pump panel S (4).

**END OF TASK****PUMP PANEL S INSTALLATION**

1. Install plate (6) on pump panel S (4) with two screws (5).
2. Install pump panel S (4) on vehicle with 12 washers (3), lockwashers (2), and screws (1).

**END OF TASK**

**PUMP PANEL T REMOVAL**

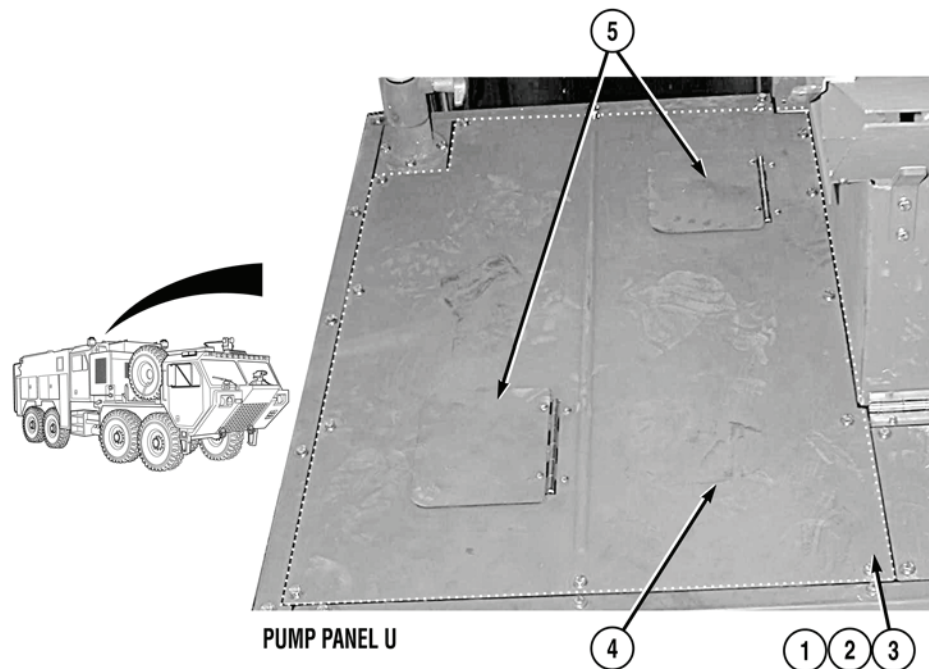
Remove 10 screws (1), lockwashers (2), washers (3), and pump panel T (4) from vehicle. Discard lockwashers.

**END OF TASK**

**PUMP PANEL T INSTALLATION**

Install pump panel T (4) on vehicle with 10 washers (3), lockwashers (2), and screws (1).

**END OF TASK**

**PUMP PANEL U REMOVAL**

1. Remove 12 screws (1), lockwashers (2), washers (3), and pump panel U (4) from vehicle. Discard lockwashers.
2. Remove two pump house access doors (5) from pump panel U (4) (WP 0538).

**END OF TASK****PUMP PANEL U INSTALLATION**

1. Install two pump house access doors (5) on pump panel U (4) (WP 0538).
2. Install pump panel U (4) on vehicle with 12 washers (3), lockwashers (2), and screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Remove wheel chocks (TM 9-2320-347-10)
2. Connect batteries (TM 9-2320-325-14&P)

**END OF TASK****END OF WORK PACKAGE**





---

**FIELD LEVEL MAINTENANCE**  
**PUMP OPERATOR'S PLATFORM REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 121

**Materials/Parts**

Locknut (5)  
Locknut (4)  
Locknut (2)  
Locknut (1)

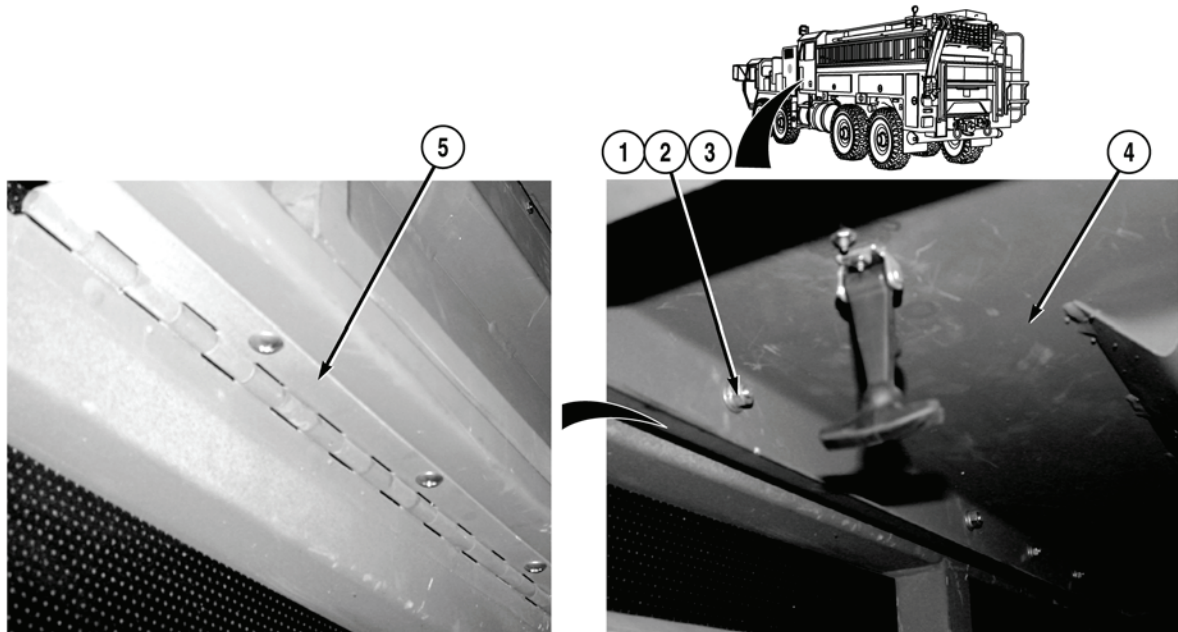
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)  
Pump operator's platform unstowed (WP 0016)

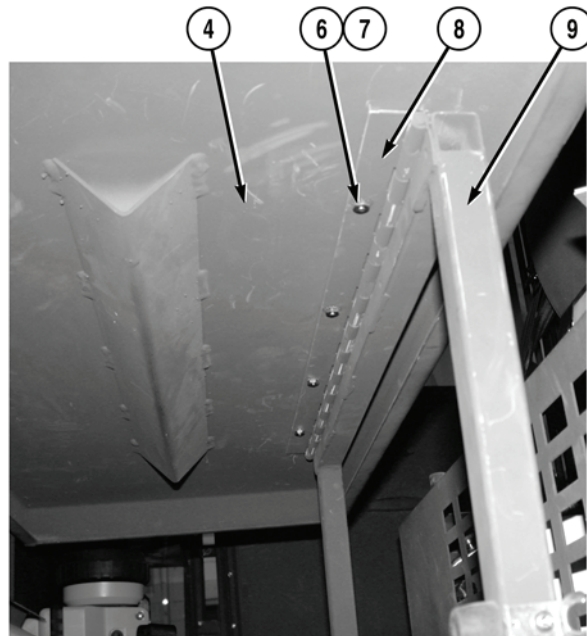
**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

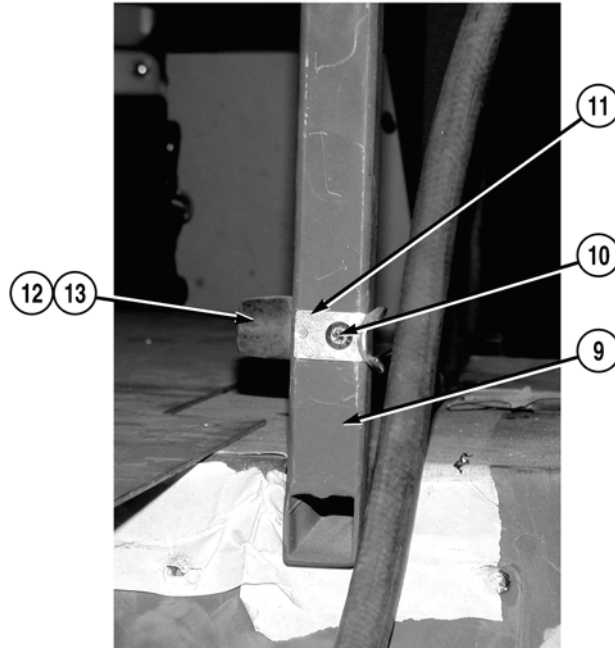
---

**REMOVAL**

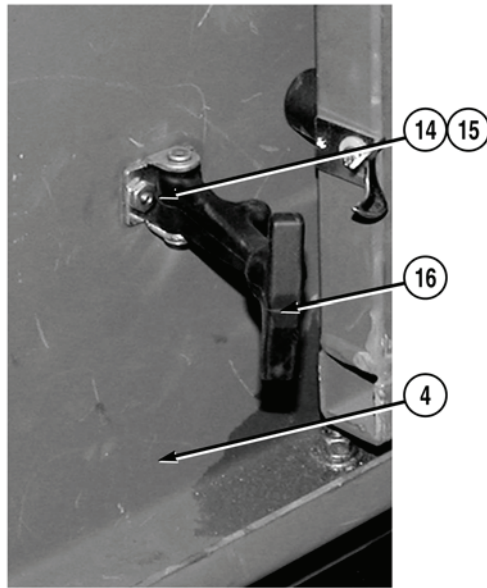
1. With the aid of an assistant, remove five locknuts (1), washers (2), screws (3), and pump operator's platform (4) from hinge (5). Discard locknuts.



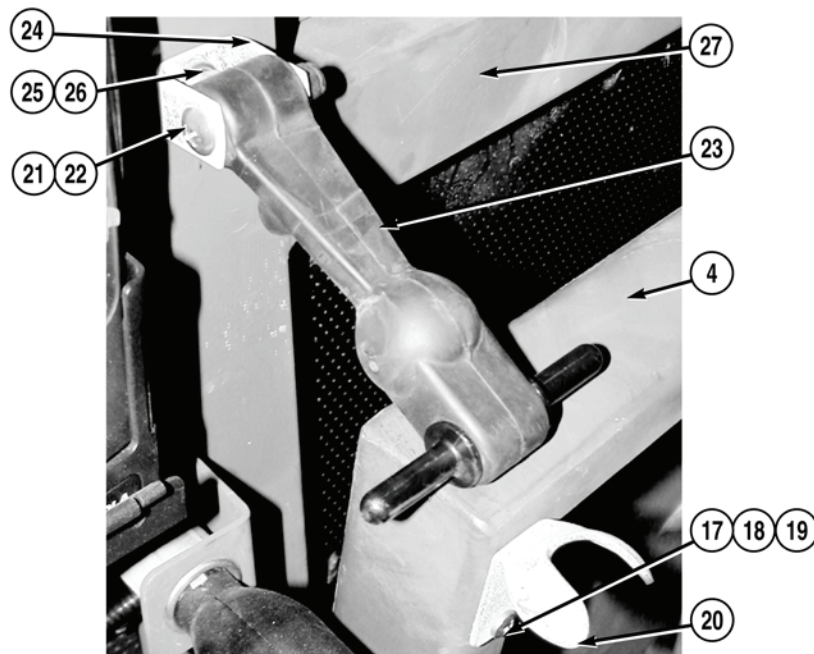
2. Remove four locknuts (6), screws (7), hinge (8), and vertical platform support (9) from pump operator's platform (4). Discard locknuts.



3. Remove two screws (10) and rubber holddown (11) from vertical platform support (9).
4. Remove screw (12) and rubber stop (13) from vertical platform support (9).



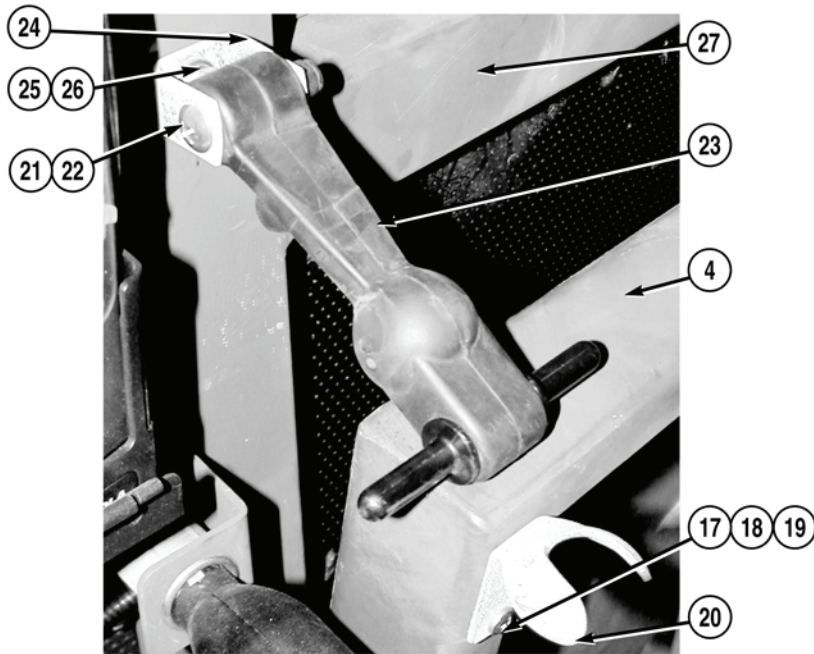
5. Remove two nuts (14), screws (15), and rubber handle (16) from pump operator's platform (4).



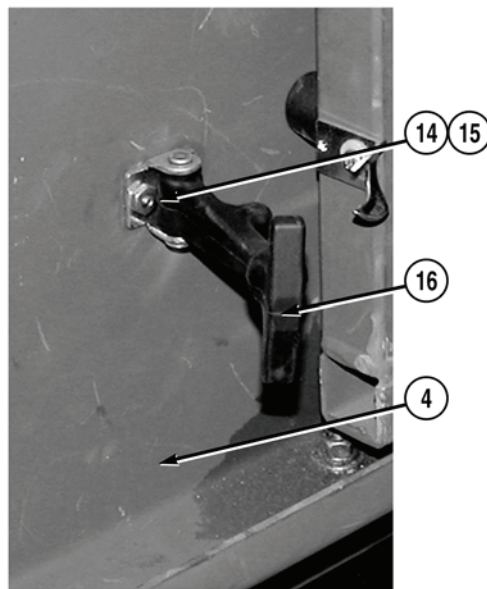
6. Remove two locknuts (17), four washers (18), two screws (19), and rubber holddown (20) from pump operator's platform (4). Discard locknuts.
7. Remove locknut (21), screw (22), and rubber holddown (23) from bracket (24). Discard locknut.
8. Remove screw (25), washer (26), and bracket (24) from crew cab wall (27).

**END OF TASK**

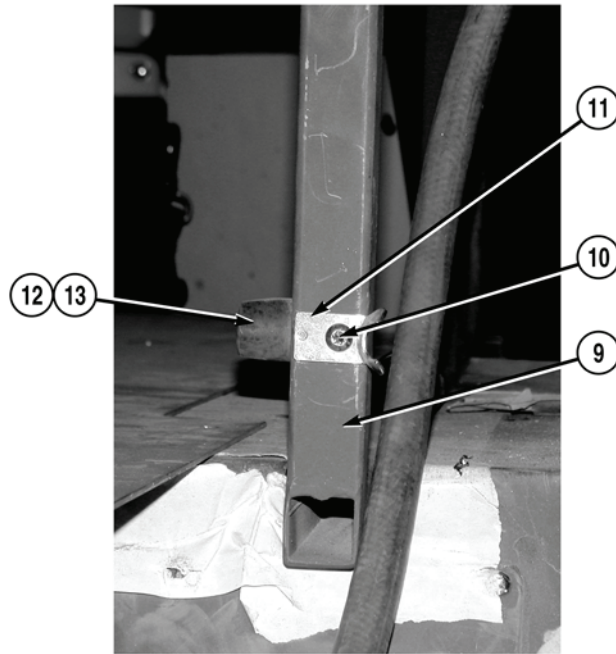
INSTALLATION



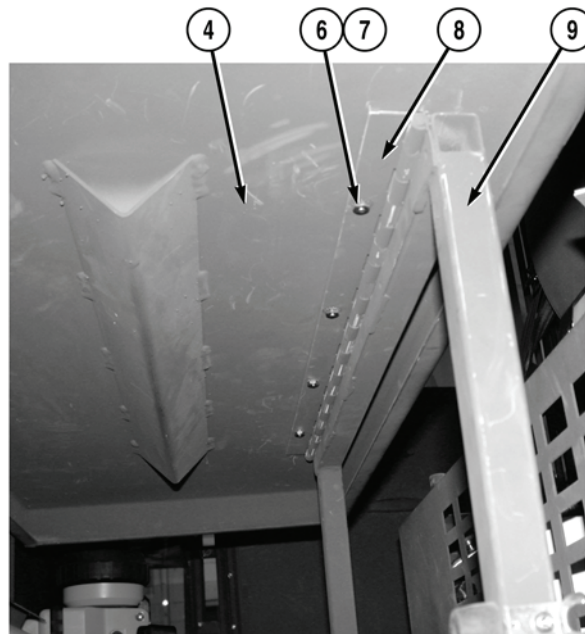
1. Install bracket (24) on crew cab wall (27) with washer (26) and screw (25).
2. Install rubber holddown (23) on bracket (24) with screw (22) and locknut (21).
3. Install rubber holddown (20) on pump operator's platform (4) with two screws (19), four washers (18), and two locknuts (17).



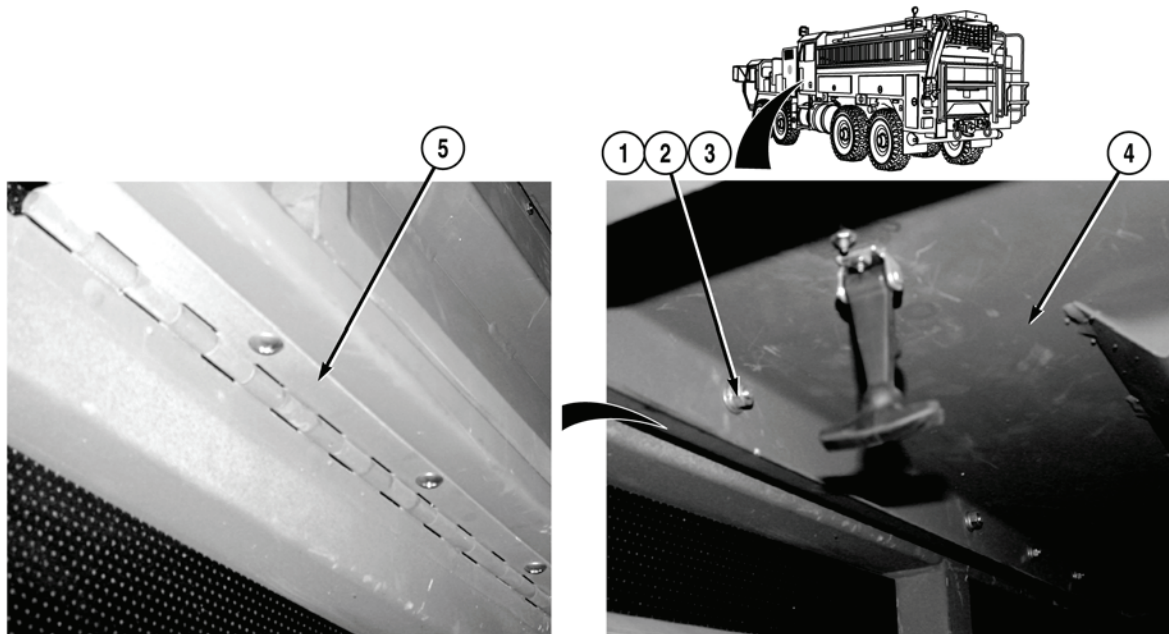
4. Install rubber handle (16) on pump operator's platform (4) with two screws (15) and nuts (14).



5. Install rubber stop (13) on vertical platform support (9) with screw (12).
6. Install rubber holddown (11) on vertical platform support (9) with two screws (10).



7. Install vertical platform support (9) on pump operator's platform (4) with hinge (8), four screws (7), and locknuts (6).



8. With the aid of an assistant, install pump operator's platform (4) on hinge (5) with five screws (3), washers (2) and locknuts (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Remove wheel chocks (TM 9-2320-347-10)
2. Stow pump operator's platform (WP 0016)

#### END OF TASK

#### END OF WORK PACKAGE

---

**FIELD LEVEL MAINTENANCE**  
**REAR ACCESS LADDER REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Lockwasher (6)  
Lockwasher (12)  
Locknut (2)  
Lockwasher (4)  
Locknut (1)  
Locknut (1)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

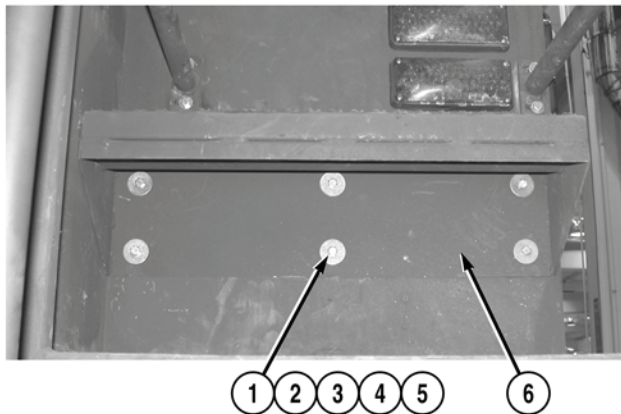
**References**

WP 0615, Fig. 140

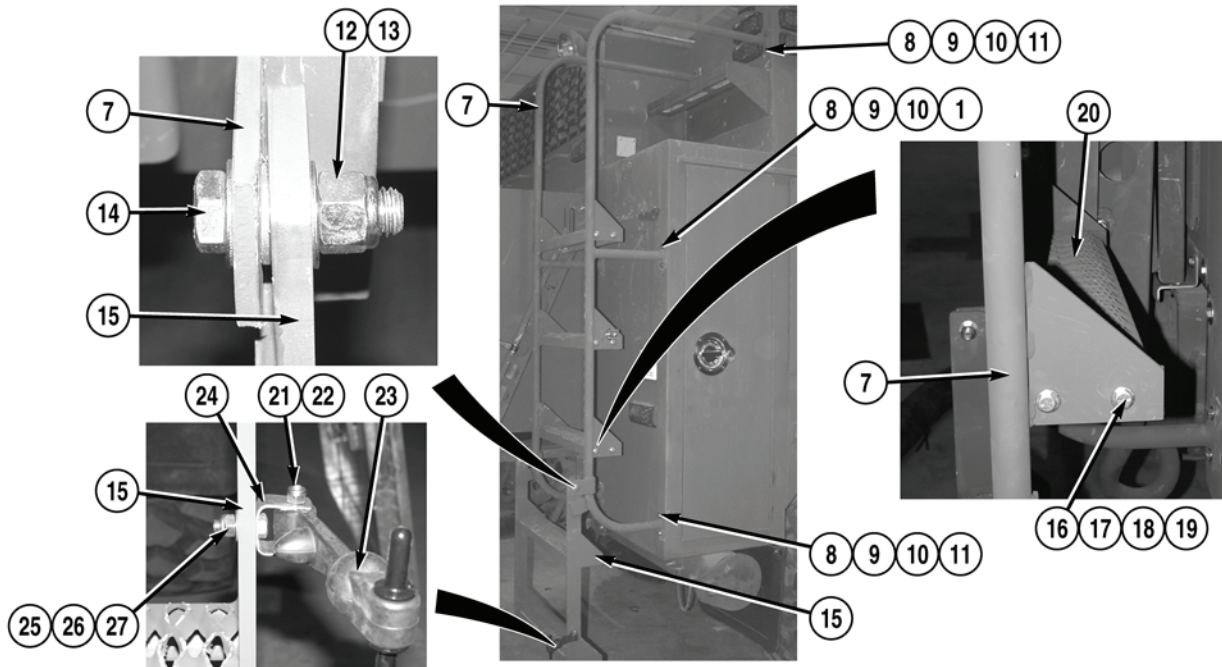
**Equipment Conditions**

Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)  
Unstow right rear swing down ladder (WP 0013)

---

**REMOVAL**

1. Remove six caps (1), nuts (2), lockwashers (3), 12 washers (4), six screws (5), and step (6) from vehicle. Discard lockwashers.

**WARNING**

**Rear access ladder weighs 95 lb. (43 kg). Attach suitable lifting device when removing rear access ladder. Failure to comply may result in serious injury to personnel or damage to equipment.**

2. Attach suitable lifting device to right rear ladder (7).

**NOTE**

Note position of washers prior to removal to ensure proper installation.

3. With the aid of an assistant, remove 12 nuts (8), lockwashers (9), 24 washers (10), 12 screws (11), and right rear ladder (7) from vehicle. Discard lockwashers.
4. Remove suitable lifting device from right rear ladder (7).
5. Remove two locknuts (12), six washers (13), two screws (14), and swing down lower ladder section (15) from right rear ladder (7). Discard locknuts.



**NOTE**

- Note position of rungs prior to removal to ensure proper installation.
  - All rungs are removed the same way.
  - Rungs on swing down lower ladder section are not removable.
6. Remove four nuts (16), lockwashers (17), eight washers (18), four screws (19), and rung (20) from right rear ladder (7). Discard lockwashers.
  7. Remove locknut (21), screw (22), and rubber hook (23) from bracket (24). Discard locknut.
  8. Remove locknut (25), washer (26), screw (27), and bracket (24) from swing down lower ladder section (15). Discard locknut.

**END OF TASK****INSTALLATION**

1. Install bracket (24) on swing down lower ladder section (15) with screw (27), washer (26), and locknut (25).
2. Install rubber hook (23) on bracket (24) with screw (22) and locknut (21).

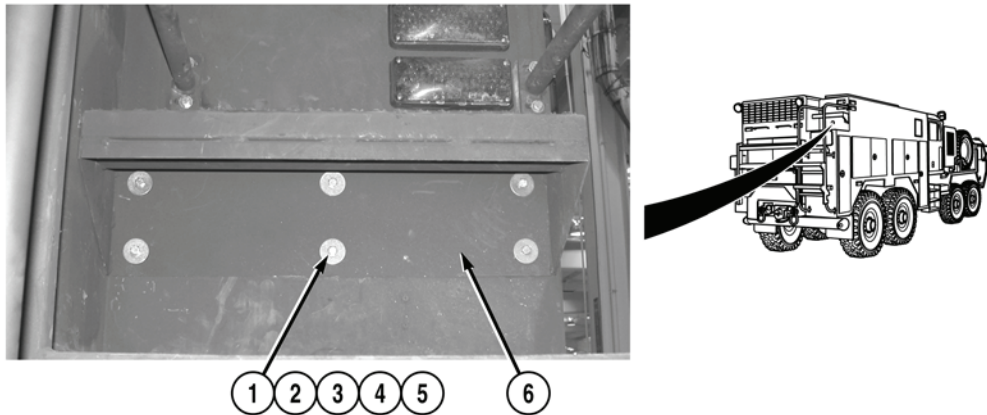
**NOTE**

- Install rungs as noted prior to removal.
  - Install washers as noted prior to removal.
3. Install rung (20) on right rear ladder (7) with four screws (19), eight washers (18), four lockwashers (17), and nuts (16).
  4. Install swing down lower ladder section (15) on right rear ladder (7) with two screws (14), six washers (13), and two locknuts (12).

**WARNING**

**Rear access ladder weighs 95 lb. (43 kg). Attach suitable lifting device when installing rear access ladder. Failure to comply may result in serious injury to personnel or damage to equipment.**

5. Attach suitable lifting device to right rear ladder (7).
6. With the aid of an assistant, install right rear ladder (7) on vehicle with 12 screws (11), 24 washers (10), 12 lockwashers (9), and nuts (8).
7. Remove suitable lifting device from right rear ladder (7).



8. Install step (6) on vehicle with six screws (5), 12 washers (4), six lockwashers (3), nuts (2), and caps (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Stow right rear swing down ladder (WP 0013)
2. Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## REAR COMPARTMENT MOUNTING BRACKETS REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Adhesive, Thread, Locking (WP 0625, Item 7)  
Lockwasher (1)  
Lockwasher (2)  
Lockwasher (7)  
Lockwasher (3)  
Lockwasher (4)  
Lockwasher (4)

**Materials/Parts (continued)**

Lockwasher (4)  
Lockwasher (4)  
Lockwasher (4)

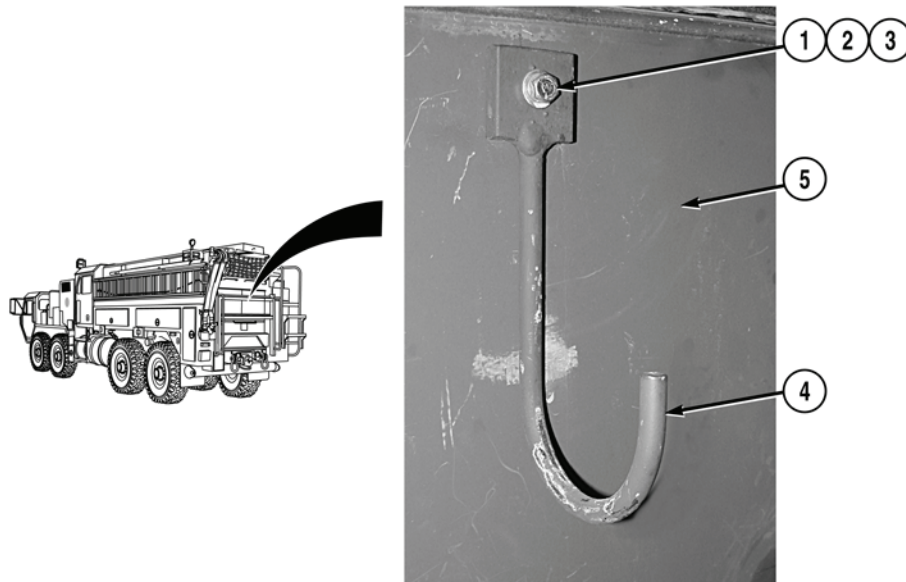
**References**

WP 0380  
WP 0615, Fig. 163

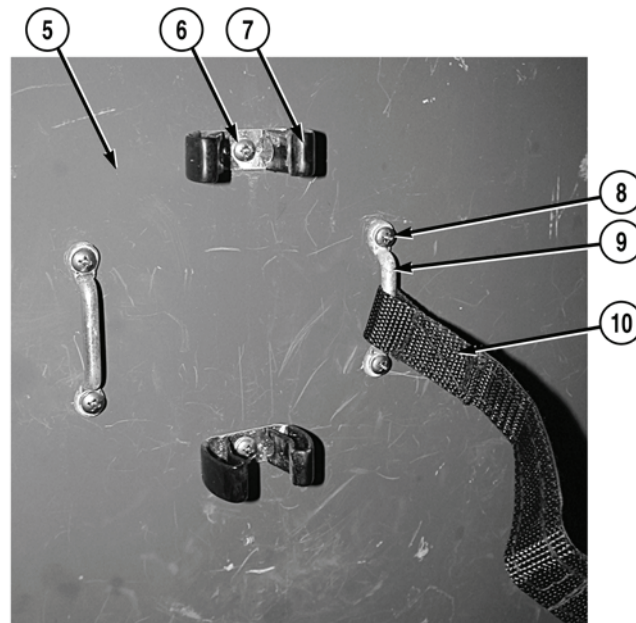
**Equipment Conditions**

Rear compartment utility tilt tray removed (if  
necessary) (WP 0544)

## REMOVAL



1. Remove screw (1), lockwasher (2), washer (3), and hook (4) from door (5). Discard lockwasher.



2. Remove two screws (6) and clamps (7) from door (5).

#### **NOTE**

All loops are replaced the same way, except where noted. Glass cutting and removal tool loop brackets shown.

3. Remove two screws (8) and loop (9) from door (5).

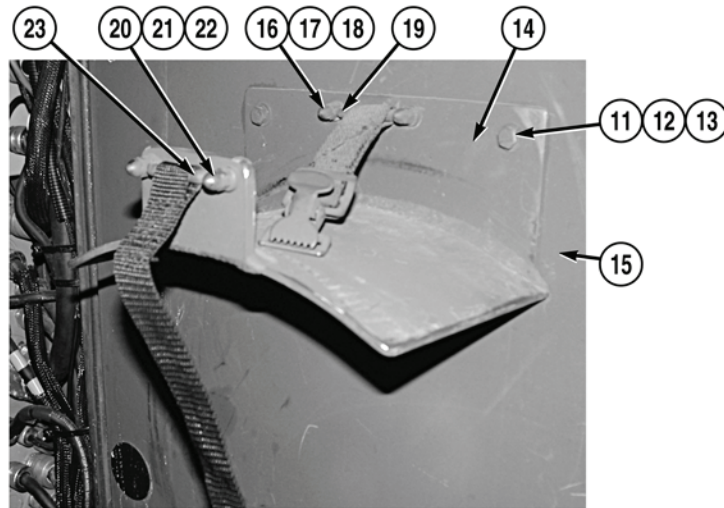
#### **⚠ CAUTION**

**Note position of straps prior to removal to ensure proper installation. If straps are not installed in proper position, straps may release and cause damage to equipment.**

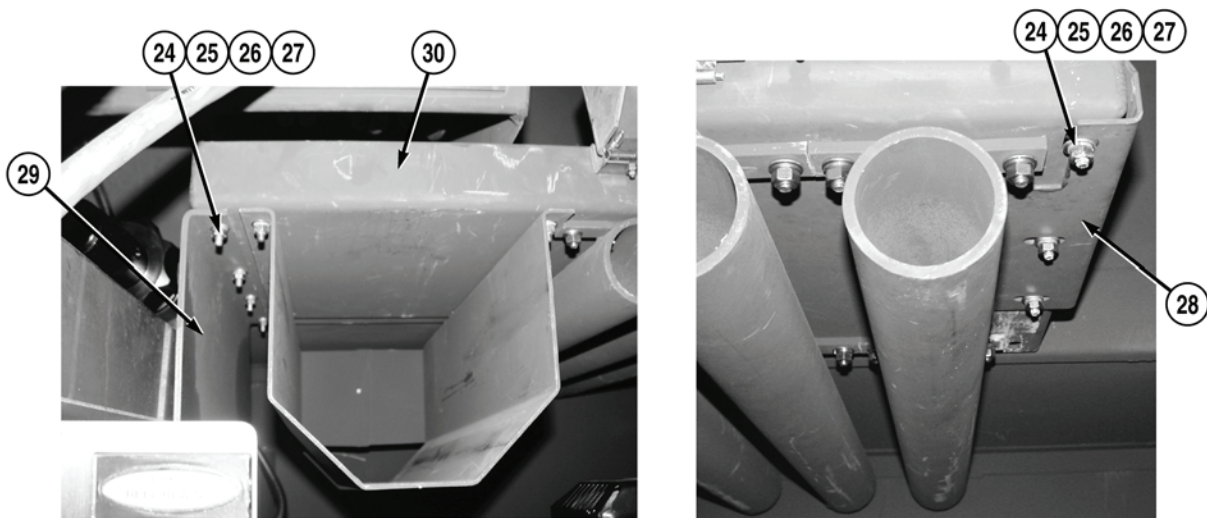
#### **NOTE**

All straps are replaced the same way.

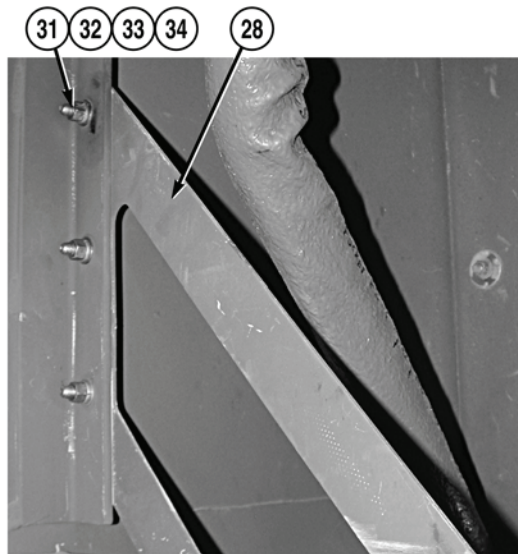
4. Remove strap (10) from loop (9).



5. Remove two screws (11), lockwashers (12), washers (13), and hose bracket (14) from door (15). Discard lockwashers.
6. Remove two nuts (16), washers (17), screws (18), and loop (19) from hose bracket (14).
7. Remove two nuts (20), washers (21), screws (22), and loop (23) from hose bracket (14).

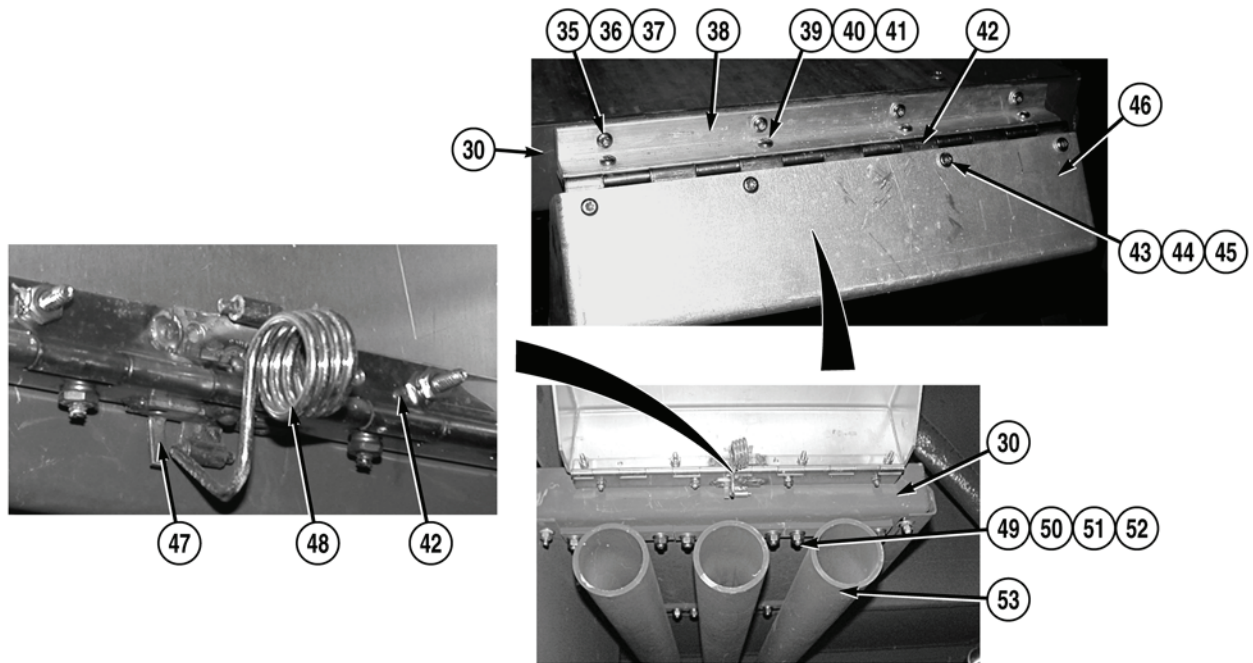


8. Remove seven nuts (24), lockwashers (25), 14 washers (26), and seven screws (27) from two shelf supports (28) and (29) and shelf (30). Discard lockwashers.

**WARNING**

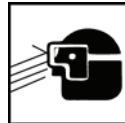
**Shelf is heavy. Do not attempt to lift shelf without the aid of an assistant. Failure to comply may result in injury to personnel.**

9. With the aid of an assistant, remove shelf (30) from vehicle.
10. Remove three nuts (31), lockwashers (32), six washers (33), three screws (34), and shelf support (28) from vehicle. Discard lockwashers.



11. Remove four nuts (35), washers (36), screws (37), and angle cover (38) from shelf (30).
12. Remove four nuts (39), washers (40), screws (41), and hinge (42) from angle cover (38).
13. Remove four nuts (43), washers (44), screws (45), and hinge (42) from cover (46).

### **WARNING**



**Wear goggles and use care when replacing spring. Spring is under tension and can act as a projectile when released. Failure to comply may result in injury to personnel.**

### **NOTE**

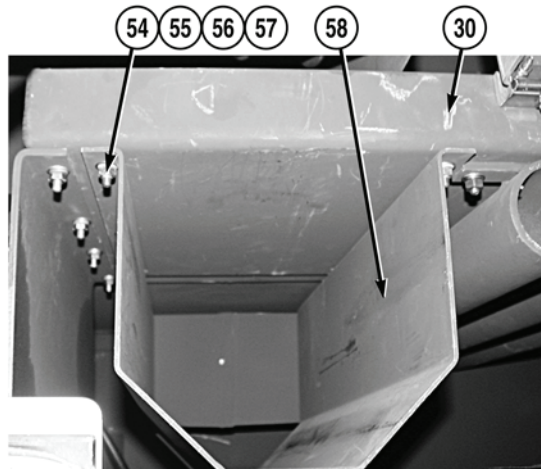
Note position of spring prior to removal to ensure proper installation.

14. Bend two tabs (47) back and remove spring (48) from hinge (42).

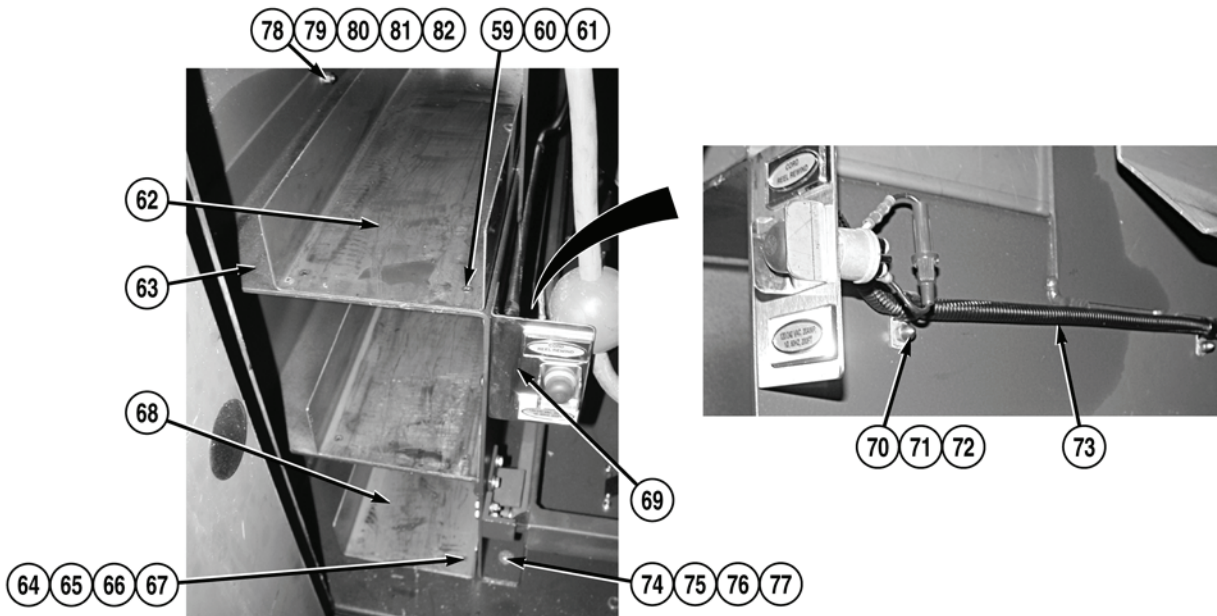
### **NOTE**

All three tubes are removed the same way. Sledge hammer tube shown.

15. Remove four nuts (49), lockwashers (50), eight washers (51), four screws (52), and tube (53) from shelf (30). Discard lockwashers.



- Remove four nuts (54), lockwashers (55), eight washers (56), four screws (57), and tray (58) from shelf (30). Discard lockwashers.



**NOTE**

Both large troughs are replaced the same way. R-40 ram trough shown.

- Remove four nuts (59), washers (60), screws (61), and large trough (62) from side shelf (63).
- Remove four nuts (64), lockwashers (65), washers (66), screws (67), and small trough (68) from vehicle. Discard lockwashers.

**NOTE**

Perform Steps (19) through (22) if side shelf needs to be removed.

- Remove cord reel control assembly (69) (WP 0380).



20. Remove two nuts (70), screws (71), cushion clips (72), and cable (73) from side shelf (63).
21. Remove four nuts (74), lockwashers (75), eight washers (76), and four screws (77) from side shelf (63) and vehicle. Discard lockwashers.

**WARNING**

**Side shelf is heavy. Do not attempt to lift side shelf without the aid of an assistant. Failure to comply may result in injury to personnel.**

22. With the aid of an assistant, remove four nuts (78), lockwashers (79), washers (80), washers (81), screws (82), and side shelf (63) from vehicle. Discard lockwashers.

**END OF TASK****INSTALLATION****WARNING**

**Side shelf is heavy. Do not attempt to lift side shelf without the aid of an assistant. Failure to comply may result in injury to personnel.**

**NOTE**

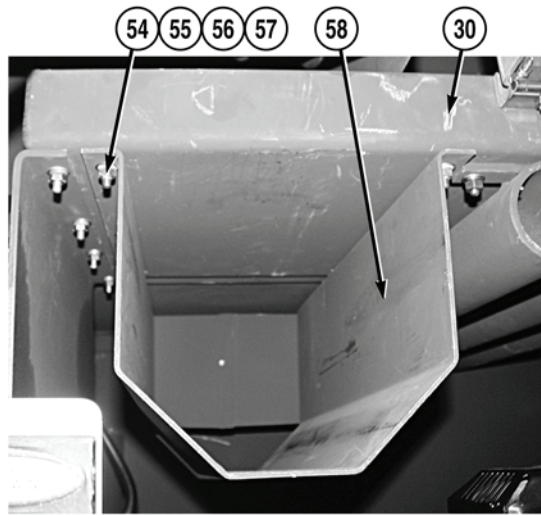
Perform Steps (1) through (4) if side shelf was removed.

1. With the aid of an assistant, install side shelf (63) on vehicle with four screws (82), washers (81), washers (80), lockwashers (79), and nuts (78).
2. Secure side shelf (63) to vehicle with four screws (77), eight washers (76), four lockwashers (75), and nuts (74).
3. Install cable (73) on side shelf (63) with two cushion clips (72), screws (71), and nuts (70).
4. Install cord reel cord assembly (69) (WP 0380).
5. Install small trough (68) on vehicle with four screws (67), washers (66), lockwashers (65), and nuts (64).

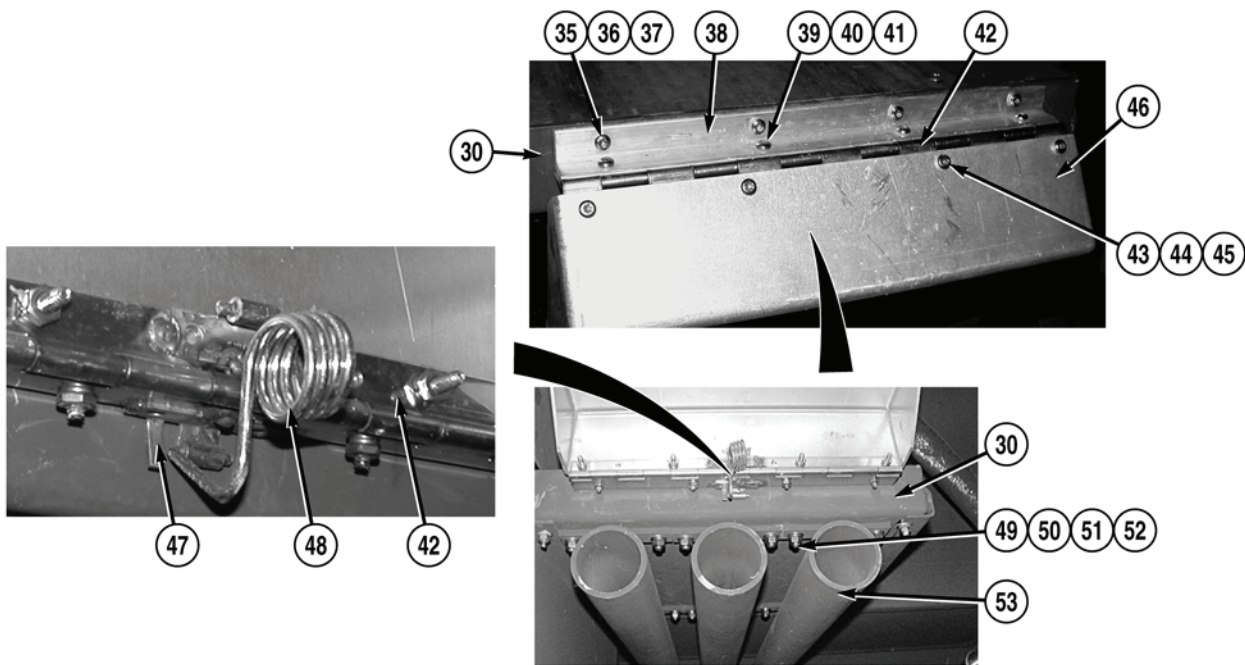
**NOTE**

Both large troughs are installed the same way. R-40 ram trough shown.

6. Install large trough (62) on side shelf (63) with four screws (61), washers (60), nuts (59).



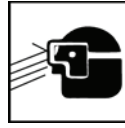
7. Install tray (58) on shelf (30) with four screws (57), eight washers (56), four lockwashers (55), and nuts (54).



**NOTE**

All three tubes are installed the same way. Sledge hammer tube shown.

8. Install tube (53) on shelf (30) with four screws (52), eight washers (51), four lockwashers (50), and nuts (49).

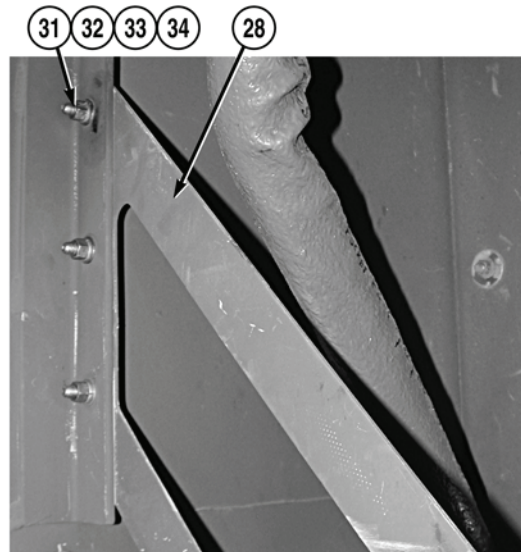
**WARNING**

**Wear goggles and use care when replacing spring. Spring is under tension and can act as a projectile when released. Failure to comply may result in injury to personnel.**

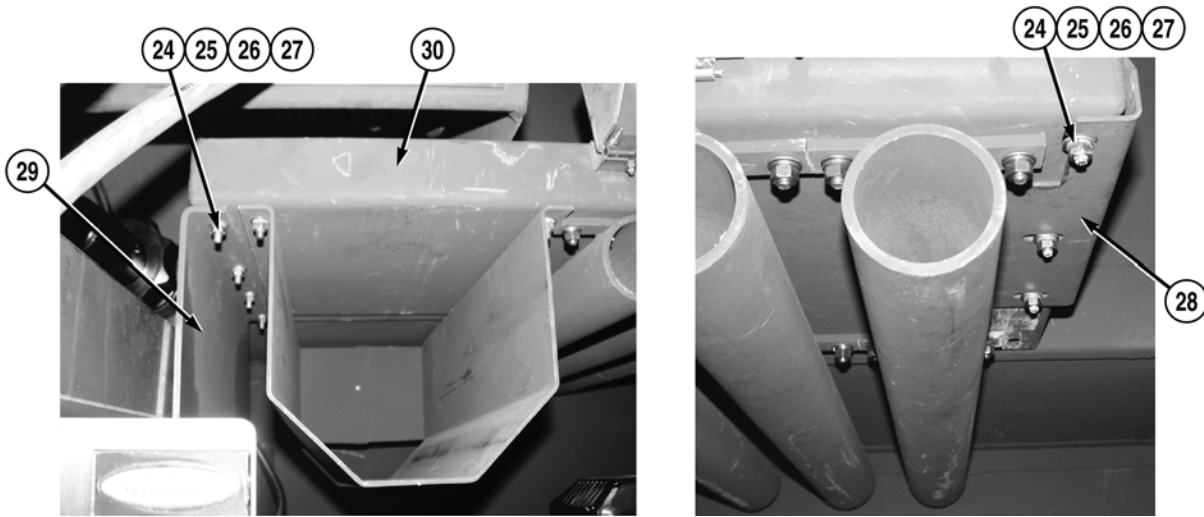
**NOTE**

Install spring as noted prior to removal.

9. Install spring (48) on hinge (42).
10. Secure spring (48) in place by bending two tabs (47).
11. Install hinge (42) on cover (46) with four screws (45), washers (44), and nuts (43).
12. Install hinge (42) on angle cover (38) with four screws (41), washers (40), and nuts (39).
13. Install angle cover (38) on shelf (30) with four screws (37), washers (36), and nuts (35).



14. Install shelf support (28) on vehicle with three screws (34), six washers (33), three lockwashers (32), and nuts (31).

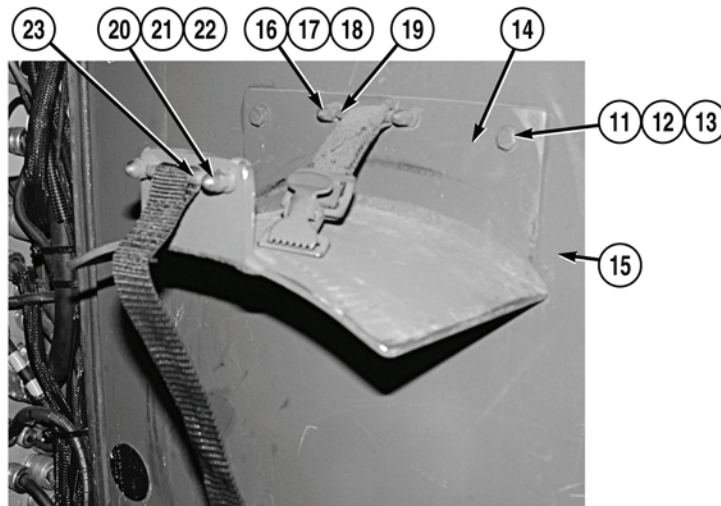


**WARNING**

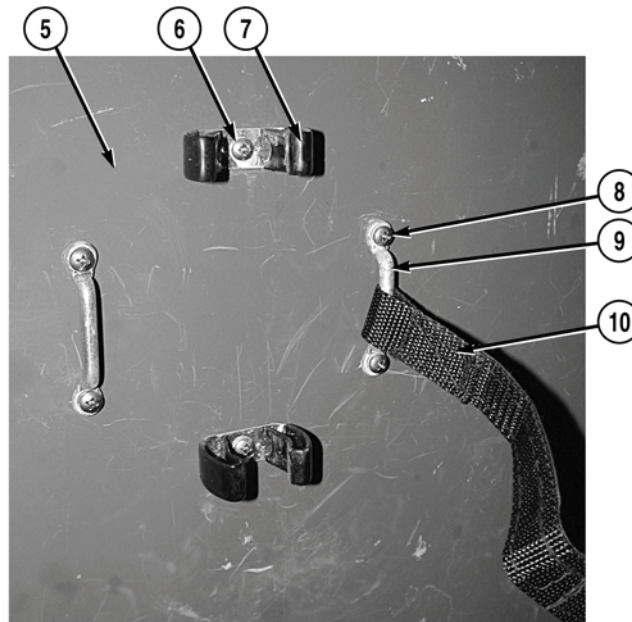


**Shelf is heavy. Do not attempt to lift shelf without the aid of an assistant. Failure to comply may result in injury to personnel.**

15. With the aid of an assistant, position shelf (30) on two shelf supports (28) and (29).
16. Secure shelf (30) to two shelf supports (28) and (29) with seven screws (27), 14 washers (26), seven lockwashers (25), and nuts (24).



17. Install loop (23) on hose bracket (14) with two screws (22), washers (21), and nuts (20).
18. Install loop (19) on hose bracket (14) with two screws (18), washers (17), and nuts (16).
19. Install hose bracket (14) on door (15) with two washers (13), lockwashers (12), and screws (11).



**⚠ CAUTION**

**Straps must be installed as noted prior to removal. If straps are not installed in proper position, straps may release causing damage to equipment.**

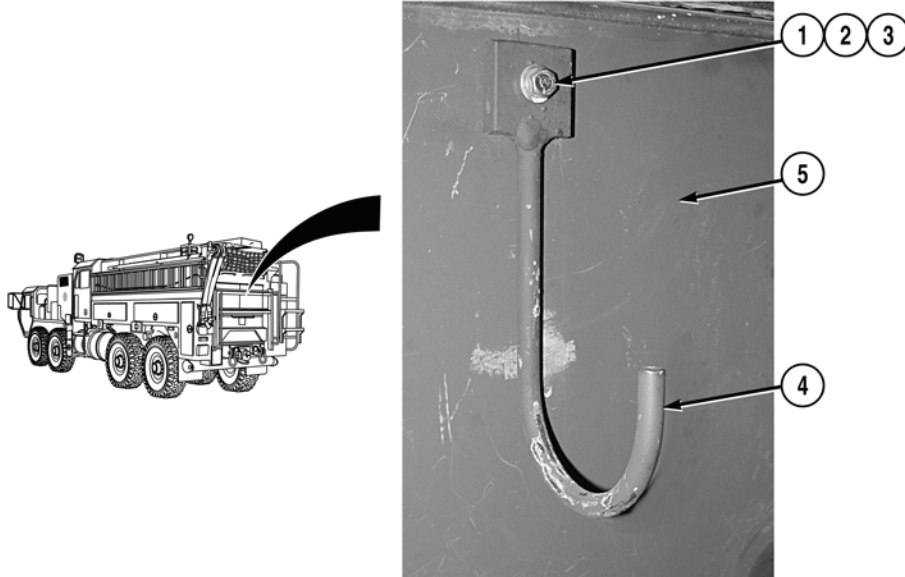
20. Install strap (10) on loop (9).

**WARNING**



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

21. Apply sealing compound to threads of four screws (6) and (8).  
 22. Install loop (9) on door (5) with two screws (8).  
 23. Install two clamps (7) on door (5) with two screws (6).



24. Install hook (4) on door (5) with washer (3), lockwasher (2), and screw (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Install rear compartment utility tilt tray (if necessary) (WP 0544)

**END OF TASK**

**END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## REAR COMPARTMENT UTILITY TILT TRAY REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Lockwasher (4)  
Lockwasher (4)  
Lockwasher (6)  
Lockwasher (8)  
Locknut (2)  
Lockwasher (4)  
Lockwasher (4)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

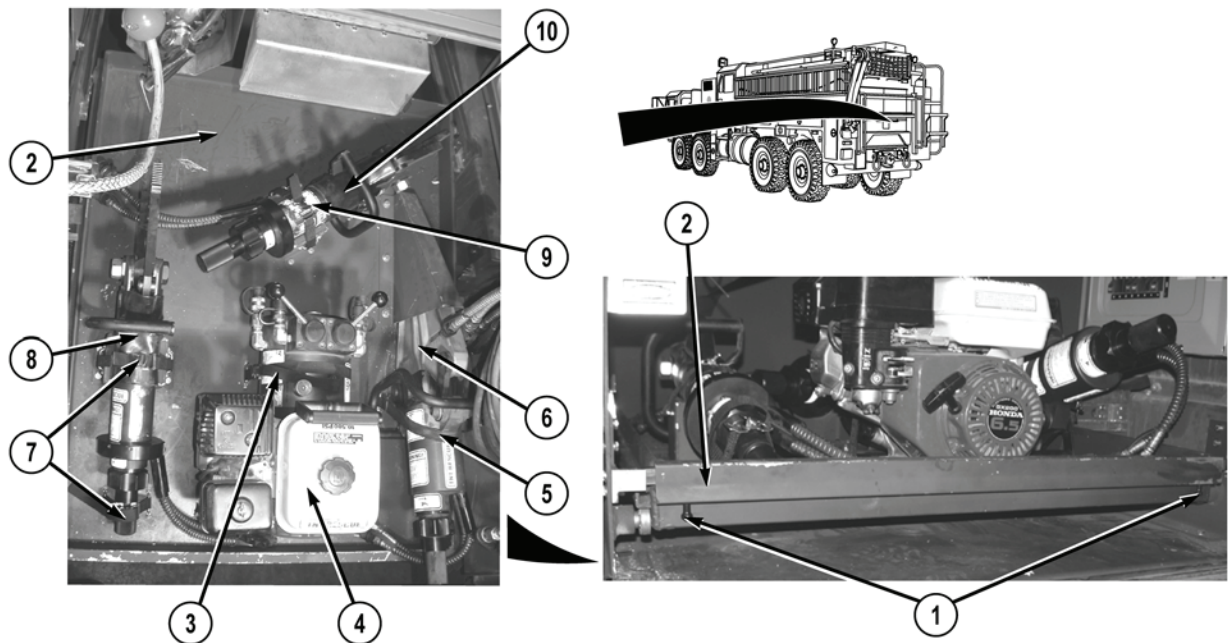
**References**

WP 0010  
WP 0615, Fig. 139

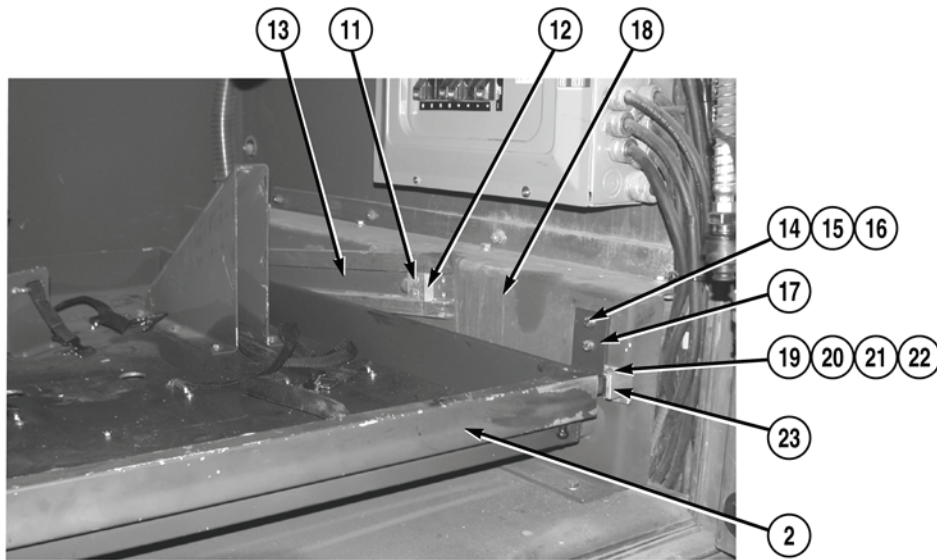
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)  
Unstow rear work platform (WP 0014)

## REMOVAL



1. Push in two finger latches (1) and pull rear compartment utility tray (2) out.
2. Release strap (3) and remove hydraulic power unit (4) from rear compartment utility tray (2).
3. Release strap (5) and remove spreader (6) from rear compartment utility tray (2).
4. Release two straps (7) and remove combination tool (8) from rear compartment utility tray (2).
5. Release two straps (9) and remove cutter (10) from rear compartment utility tray (2).
6. Push rear compartment utility tray (2) shut.



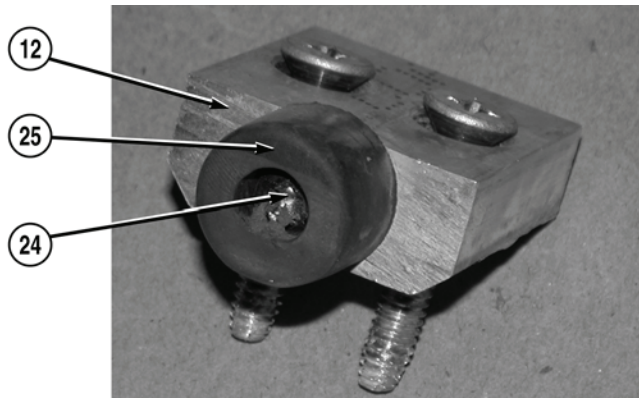
7. Remove four screws (11) and two tray stops (12) from tracks (13).
8. Remove four screws (14), lockwashers (15), washers (16), and two L-brackets (17) from brackets (18). Discard lockwashers.
9. Remove four nuts (19), lockwashers (20), eight washers (21), four screws (22), and two drawer catches (23) from brackets (18). Discard lockwashers.

**WARNING**



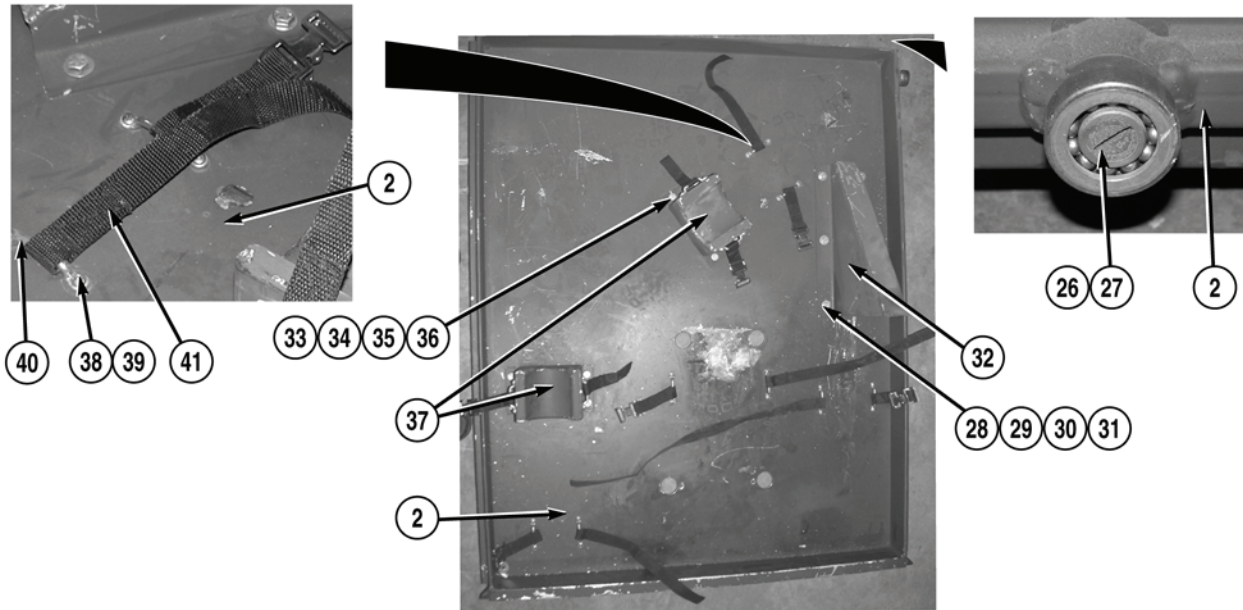
**Rear compartment utility tray is heavy. Do not lift rear compartment utility tray without the aid of an assistant. Failure to comply could result in injury to personnel.**

10. With the aid of an assistant, remove rear compartment utility tray (2) from vehicle.



11. Remove four screws (24) and rubber bumpers (25) from two tray stops (12).





12. Remove four bearings (26) and 16 washers (27) from rear compartment utility tray (2).
13. Remove six nuts (28), lockwashers (29), 12 washers (30), six screws (31), and bracket (32) from rear compartment utility tray (2). Discard lockwashers.
14. Remove eight nuts (33), lockwashers (34), 16 washers (35), eight screws (36), and two brackets (37) from rear compartment utility tray (2). Discard lockwashers.

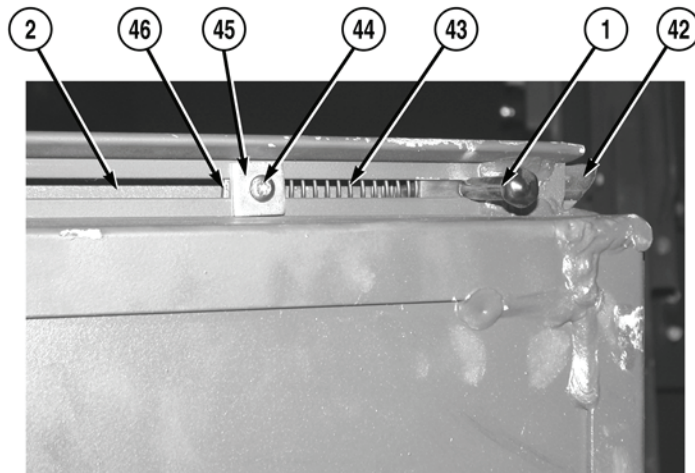
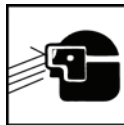
**⚠ CAUTION**

**Note position of straps prior to removal to ensure proper installation. If straps are not installed in proper position, straps may release and cause damage to equipment.**

**NOTE**

All straps are removed the same way.

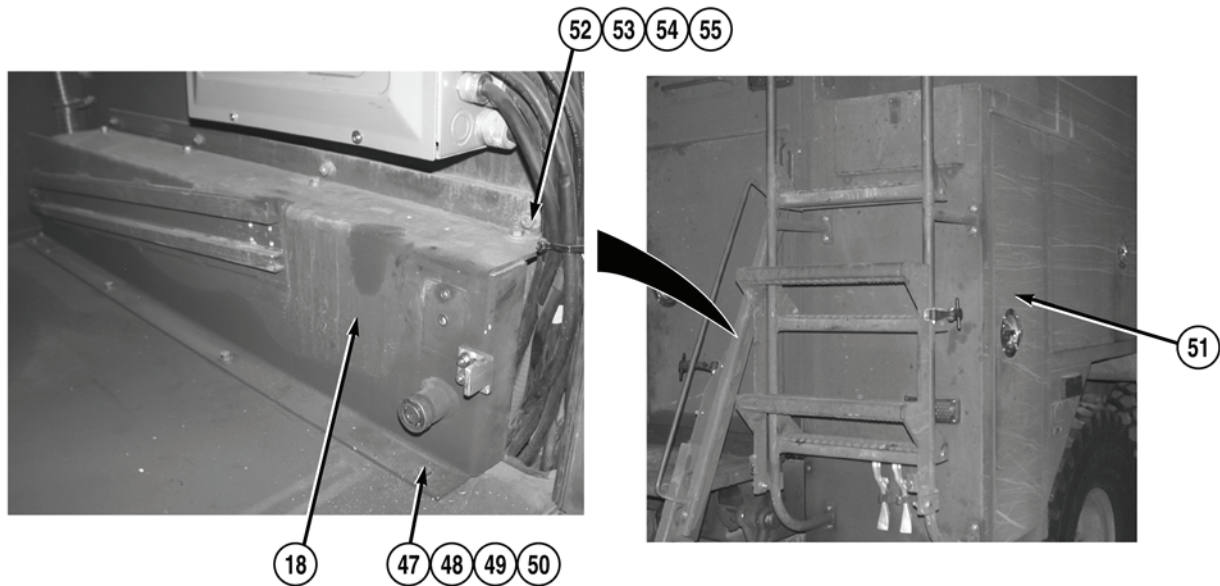
15. Remove two locknuts (38), screws (39), and loop (40) from rear compartment utility tray (2). Discard locknuts.
16. Remove strap (41) from loop (40).

**WARNING**

**Latches are under extreme spring tension and can act as projectiles when being removed or installed. Wear safety goggles. Failure to comply may result in injury to personnel.**

**NOTE**

- Note position of latches prior to removal to ensure proper installation.
  - Both latches are removed the same way.
17. Depress latch (42) and remove finger latch (1), latch (42), and spring (43) from rear compartment utility tray (2).
  18. Remove screw (44), guide (45), and spring stop (46) from rear compartment utility tray (2).



19. Remove four nuts (47), lockwashers (48), eight washers (49), and four screws (50) from bracket (18) and vehicle. Discard lockwashers.
20. Open compartment door (51) (WP 0010).
21. Remove four nuts (52), lockwashers (53), eight washers (54), four screws (55), and bracket (18) from vehicle. Discard lockwashers.

### END OF TASK

### INSTALLATION

1. Install bracket (18) on vehicle with four screws (55), eight washers (54), four lockwashers (53), and nuts (52).
2. Close compartment door (51) (WP 0010).
3. Secure bracket (18) on vehicle with four screws (50), eight washers (49), four lockwashers (48), and nuts (47).
4. Install spring stop (46) and guide (45) on rear compartment utility tray (2) with screw (44). Do not tighten screw.

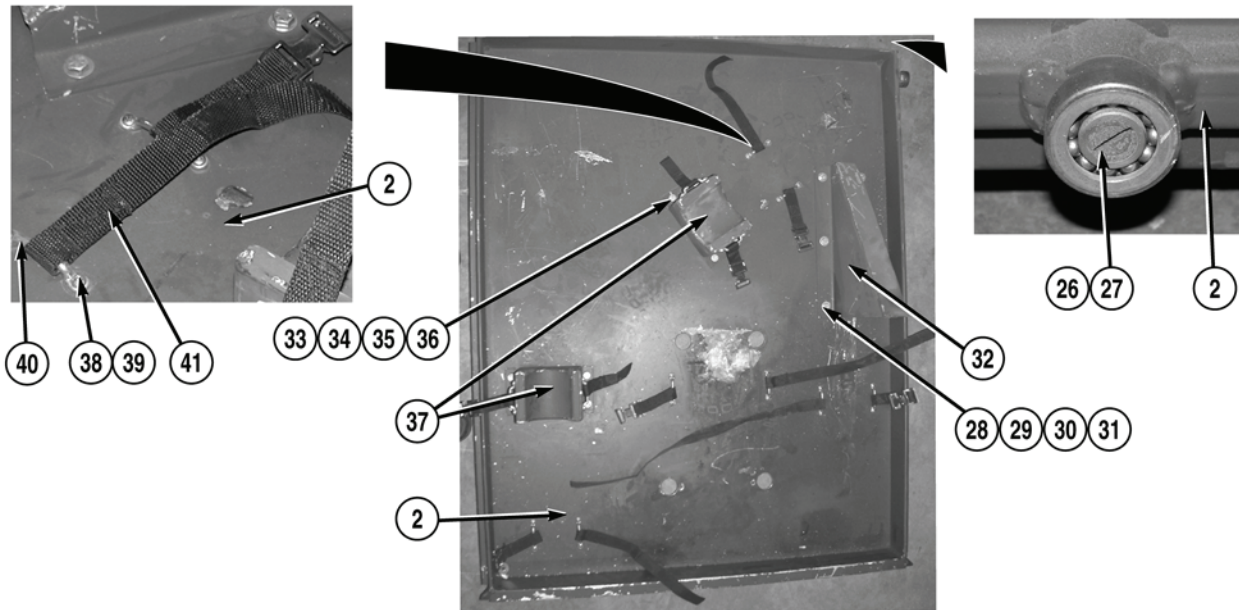
### NOTE

- Install latches as noted prior to removal.
  - Both latches are installed the same way.
5. Install spring (43) and latch (42) on rear compartment utility tray (2) with finger latch (1).

### NOTE

Moving spring stop closer to rear compartment utility tray edge increases spring tension, moving spring stop further from rear compartment utility tray edge decreases spring tension.

6. Adjust spring stop (46) to desired spring tension and tighten screw (44).



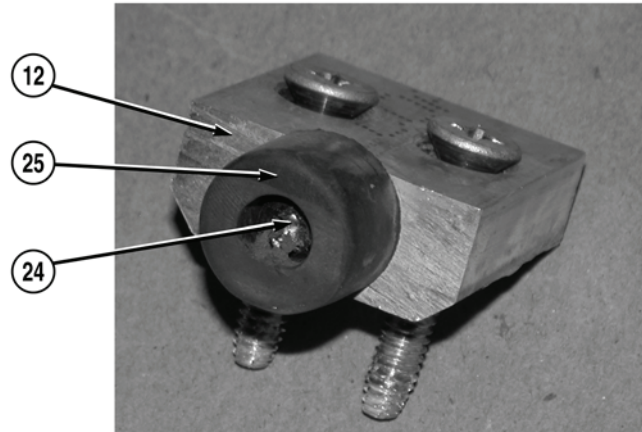
**⚠ CAUTION**

**Straps must be installed as noted prior to removal. If straps are not installed in proper position, straps may release causing damage to equipment.**

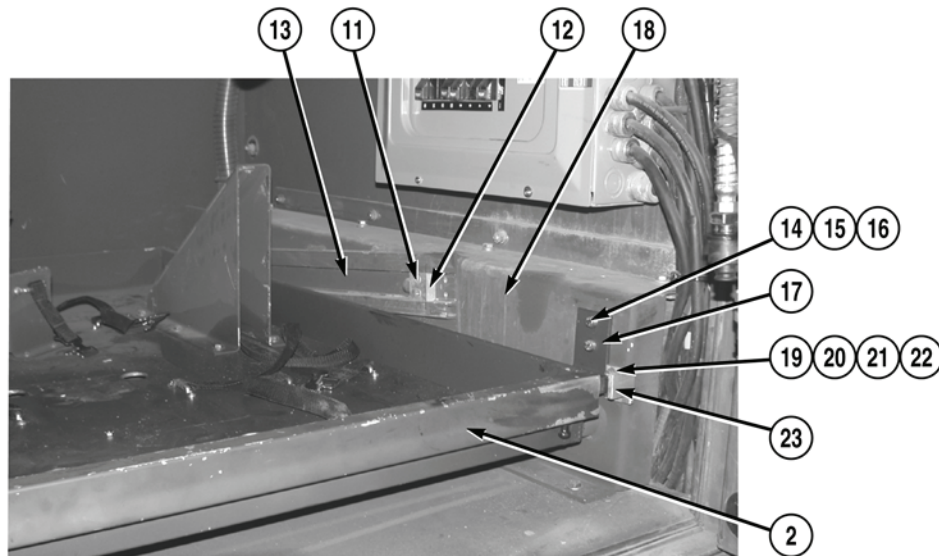
**NOTE**

All straps are installed the same way.

7. Install strap (41) on loop (40).
8. Install loop (40) on rear compartment utility tray (2) with two screws (39) and locknuts (38).
9. Install two brackets (37) on rear compartment utility tray (2) with eight screws (36), 16 washers (35), eight lockwashers (34), and nuts (33).
10. Install bracket (32) on rear compartment utility tray (2) with six screws (31), 12 washers (30), six lockwashers (29), and nuts (28).
11. Install 16 washers (27) on rear compartment utility tray (2) with four bearings (26).



12. Install four rubber bumpers (25) on tray stop (12) with four screws (24).

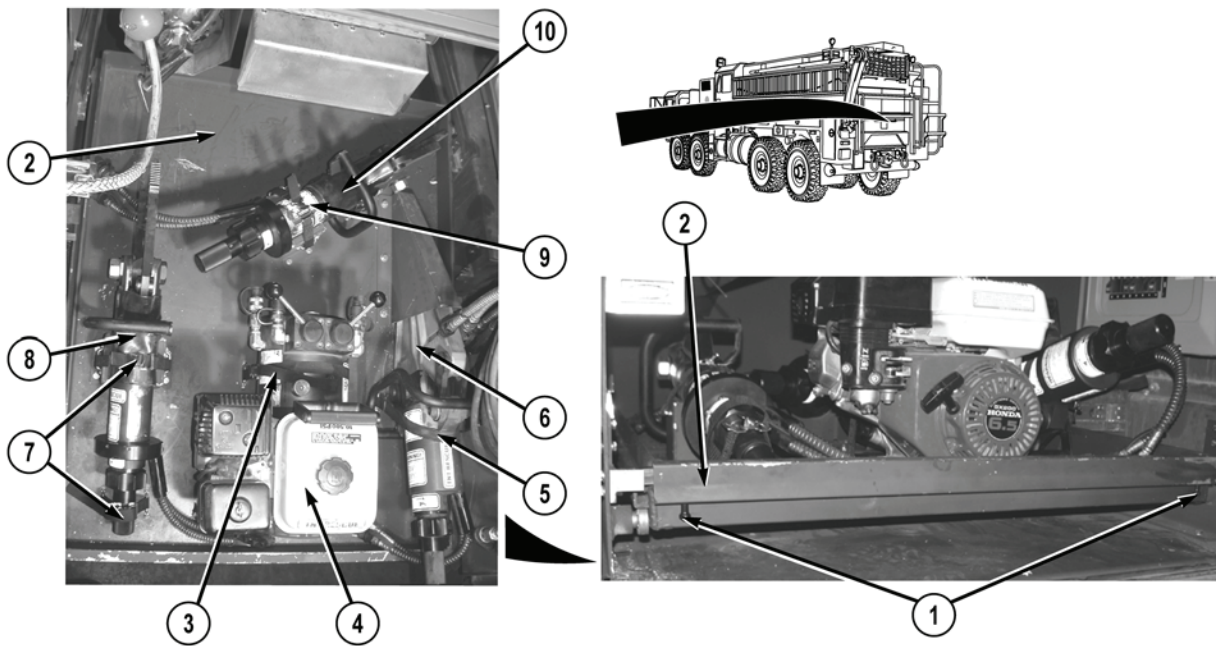


13. With the aid of an assistant, install rear compartment utility tray (2) on vehicle.
14. Install two L-brackets (17) on brackets (18) with four washers (16), lockwashers (15), and screws (14).

**NOTE**

Drawer catches must be mounted flush with L-brackets to allow latches to secure rear compartment utility tray shut.

15. Install two drawer catches (23) on brackets (18) with four screws (22), eight washers (21), four lockwashers (20), and nuts (19).
16. Install two tray stops (12) on tracks (13) with four screws (11).



17. Install cutter (10) on rear compartment utility tray (2) with two straps (9).
18. Install combination tool (8) on rear compartment utility tray (2) with two straps (7).
19. Install spreader (6) on rear compartment utility tray (2) with strap (5).
20. Install hydraulic power unit (4) on rear compartment utility tray (2) with strap (3).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

1. Stow rear work platform (WP 0014)
2. Remove wheel chocks (TM 9-2320-347-10)

#### END OF TASK

#### END OF WORK PACKAGE

---

**FIELD LEVEL MAINTENANCE**  
**REAR HARD LIFT REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

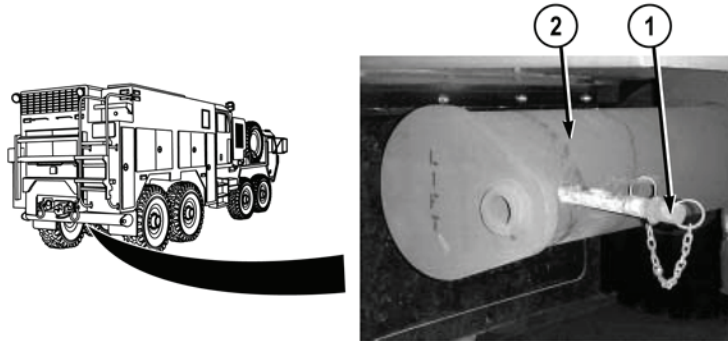
**References**

WP 0615, Fig. 143

**Equipment Conditions**

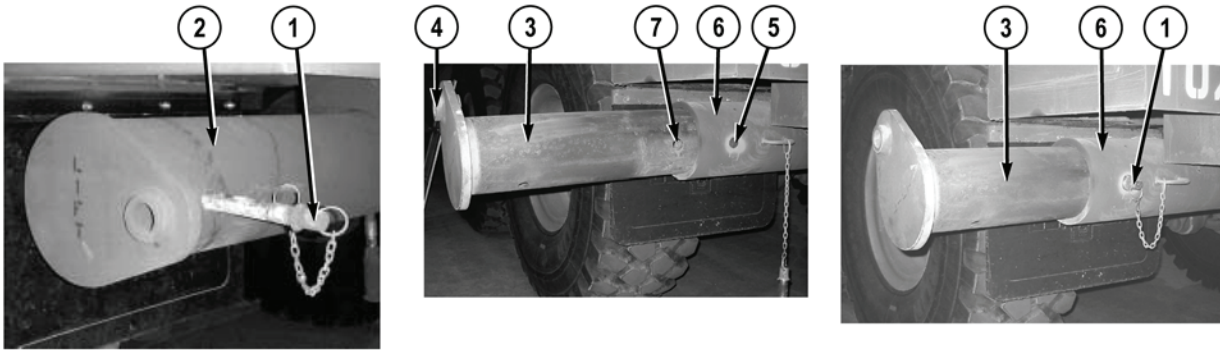
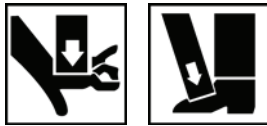
Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

**REMOVAL****NOTE**

- Perform Steps (1) through (4) to position end plate lift tubes in lift position.
- Driver side and passenger side end plate tubes are installed the same way. Driver side shown.

1. Remove lock pin (1) from rear hard lift assembly (2).

**WARNING**

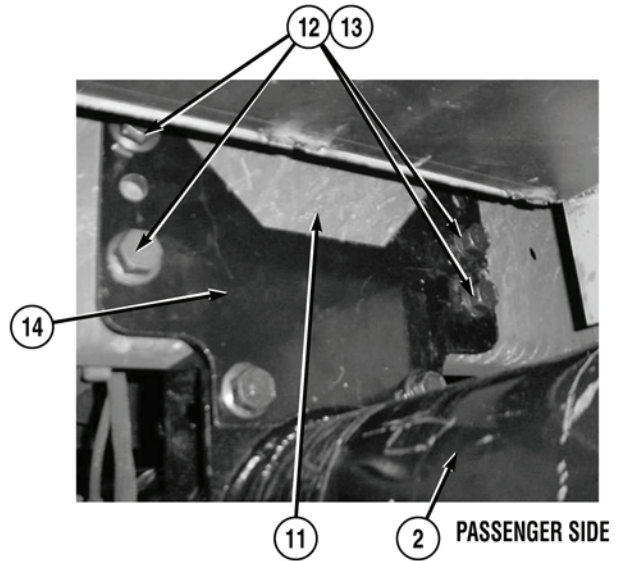
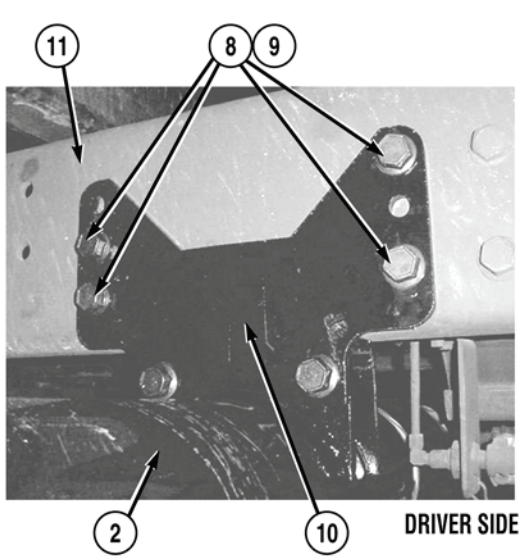
**Do not extend end plate tube too far out of rear hard lift tube. End plate tube is heavy and may come out of rear hard lift tube and drop suddenly causing injury to personnel.**

2. Pull end plate tube (3) out and rotate until bushing (4) on end plate tube (3) is pointing toward top center of vehicle.
3. Push end plate tube (3) in and align hole (5) in rear hard lift tube (6) with hole (7) in end plate tube (3).
4. Install lock pin (1) in rear hard lift tube (6) and end plate tube (3).

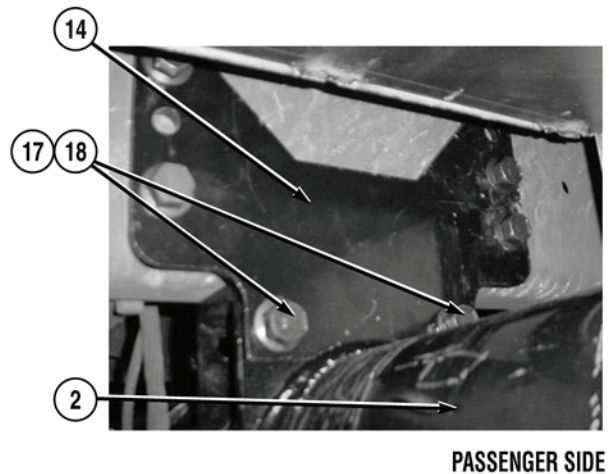
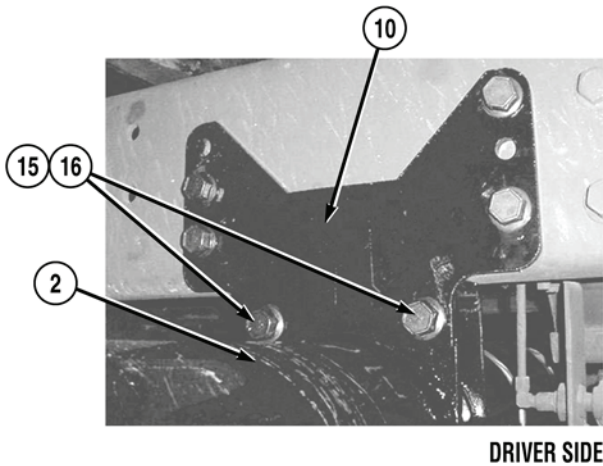
**WARNING**

- **Do not stand between vehicle and rear hard lift assembly or under hard lift assembly when removing hard lift assembly from brackets. Hard lift assembly may swing toward vehicle or fall causing injury to personnel.**
  - **Hard lift assembly weighs approximately 1,000 lb. (454 kg). Attach a suitable lifting device prior to removal or installation to prevent possible injury to personnel.**
  - **All personnel must stand clear during lifting operations. A swinging or shifting load may cause death or injury to personnel.**
5. Attach suitable lifting device to rear hard lift assembly (2).

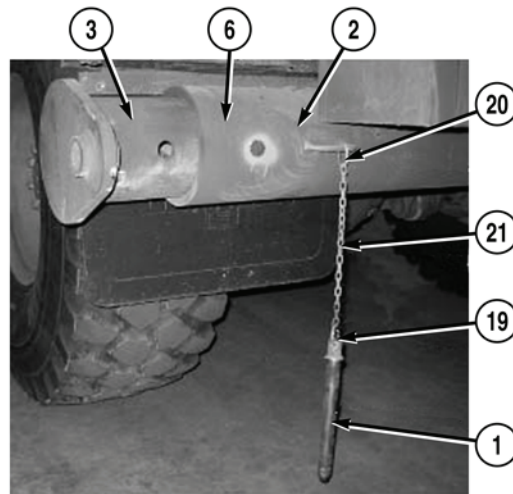




6. With the aid of an assistant, remove four screws (8), nuts (9), and bracket (10) from frame (11).
7. With the aid of an assistant, remove four screws (12), nuts (13), and bracket (14) from frame (11).
8. Using a suitable lifting device, remove rear hard lift assembly (2) from vehicle.



9. Remove two screws (15) and nuts (16) from bracket (10) and rear hard lift assembly (2).
10. Remove two screws (17) and nuts (18) from bracket (14) and rear hard lift assembly (2).



### **WARNING**



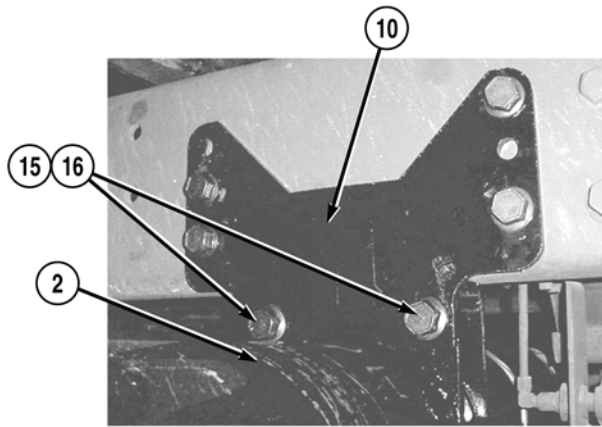
- **End plate tube weighs approximately 70 lb. (31.8 kg). Attach a suitable lifting device prior to removal or installation, to prevent possible injury to personnel.**
- **All personnel must stand clear during lifting operations. A swinging or shifting load may cause death or injury to personnel.**

11. Attach suitable lifting device to end plate tube (3).
12. Remove lock pin (1) from rear hard lift assembly (2).
13. With the aid of an assistant, remove end plate tube (3) from hard lift tube (6).
14. Remove keyring (19) from lock pin (1).
15. Remove keyring (20) from rear hard lift assembly (2).
16. Remove two keyrings (19) and (20) from chain (21).

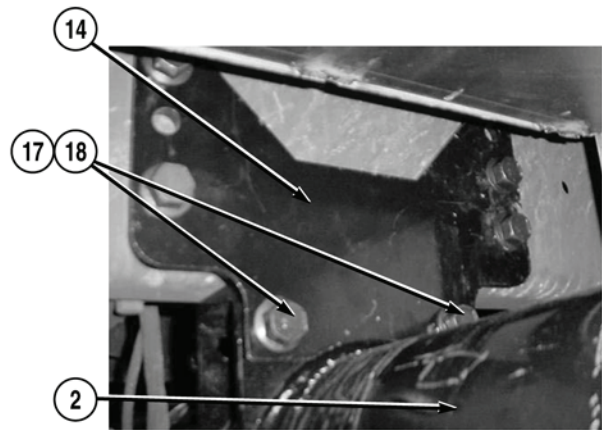
### **END OF TASK**

### **INSTALLATION**

1. Install two keyrings (20) and (19) on chain (21).
2. Install keyring (20) on hard lift assembly (2).
3. Install keyring (19) on lock pin (1).

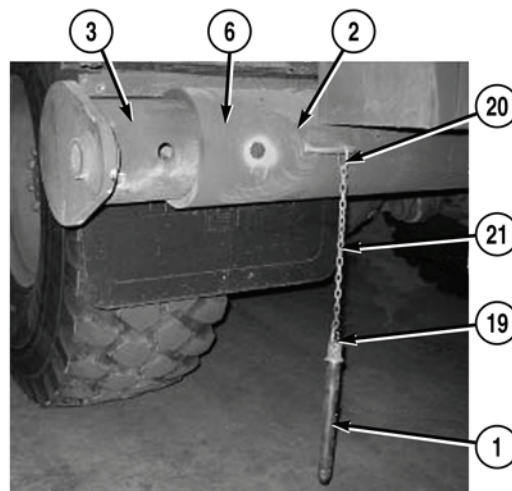


DRIVER SIDE



PASSENGER SIDE

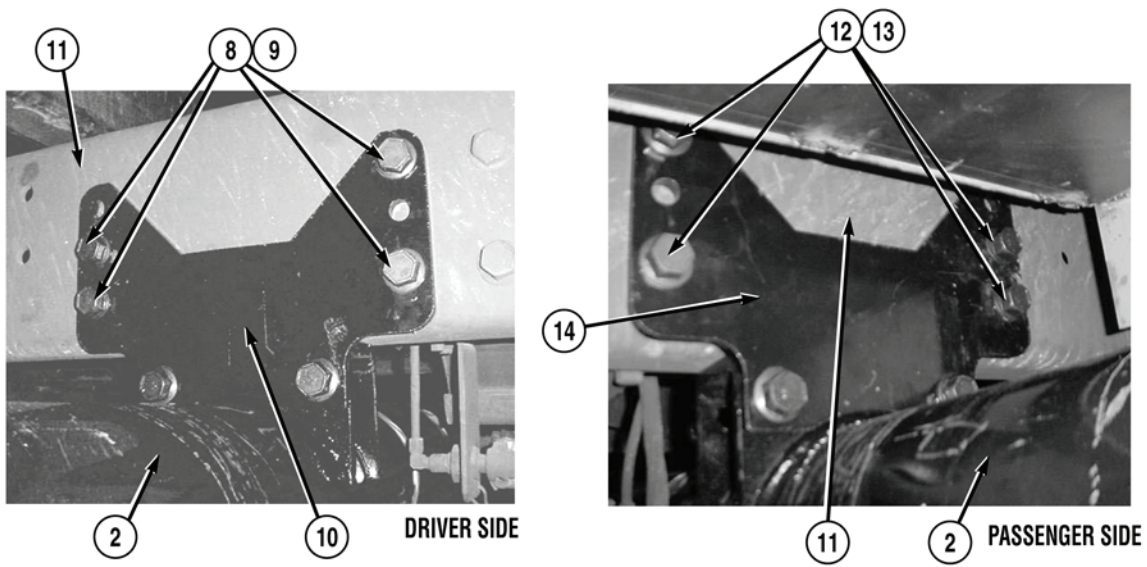
4. Install bracket (14) on hard lift assembly (2) with two nuts (18) and screws (17).
5. Install bracket (10) on hard lift assembly (2) with two nuts (16) and screws (15).



**WARNING**



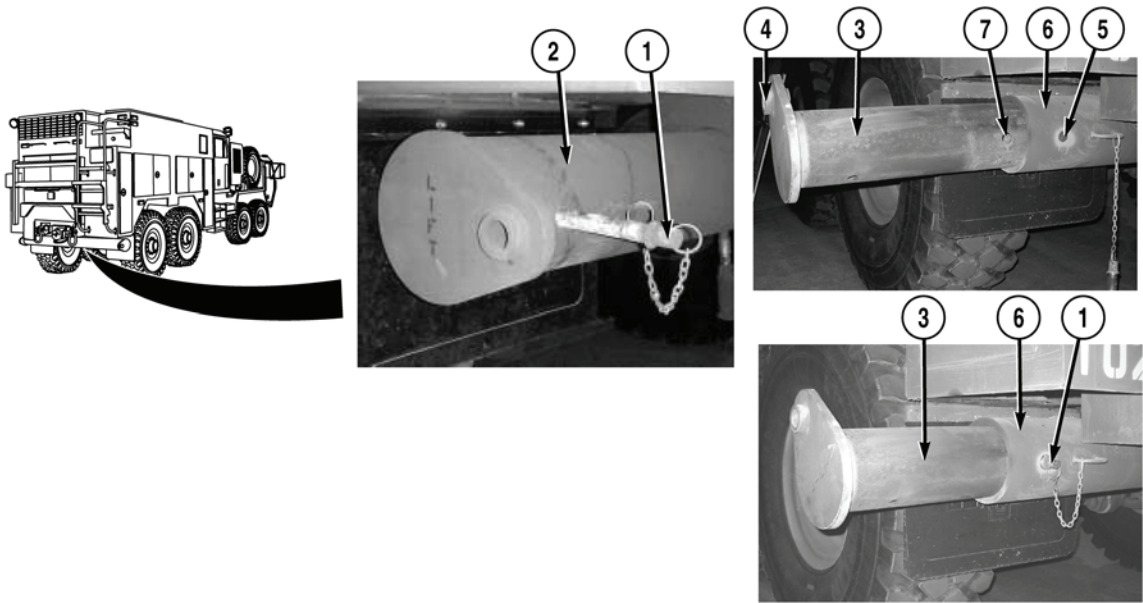
- End plate tube weighs approximately 70 lb. (31.8 kg). Attach a suitable lifting device prior to removal or installation, to prevent possible injury to personnel.
  - All personnel must stand clear during lifting operations. A swinging or shifting load may cause death or injury to personnel.
6. Attach a suitable lifting device to end plate tube (3).
  7. With the aid of an assistant, install end plate tube (3) in hard lift tube (6).
  8. Install lock pin (1) in rear hard lift assembly (2).



**WARNING**



- **Hard lift assembly weighs approximately 1,000 lb. (454 kg). Attach a suitable lifting device prior to removal or installation, to prevent possible injury to personnel.**
  - **All personnel must stand clear during lifting operations. A swinging or shifting load may cause death or injury to personnel.**
9. With the aid of an assistant, place rear hard lift assembly (2) in position with suitable lifting device and install rear hard lift assembly (2) on frame (11) with four nuts (13) and screws (12).
  10. With the aid of an assistant, place hard lift assembly (2) in position with suitable lifting device and install hard lift assembly (2) on frame (11) with four nuts (9) and screws (8).

**NOTE**

Perform Steps (11) through (14) to place rear hard lift assembly in operating position.

**NOTE**

Driver side and passenger side end plate tubes are installed the same way. Passenger side shown.

11. Remove lock pin (1) from rear hard lift assembly (2).
12. Push end plate tube (3) in and rotate until bushing (4) on end plate tube (3) is pointing to rear of vehicle.
13. Align hole (5) in rear hard lift tube (6) with hole (7) in end plate tube (3).
14. Install lock pin (1) in rear hard lift tube (6) and end plate tube (3).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**REAR SPLASH GUARD REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 141

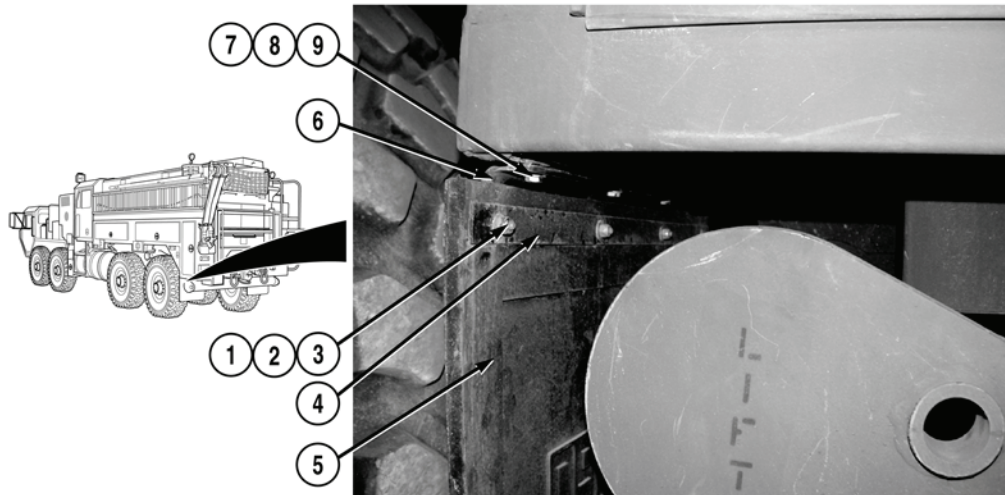
**Materials/Parts**

Locknut (4)  
Locknut (3)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

**REMOVAL****NOTE**

Driver side and passenger side rear splash guards are removed the same way. Driver side rear splash guard shown.

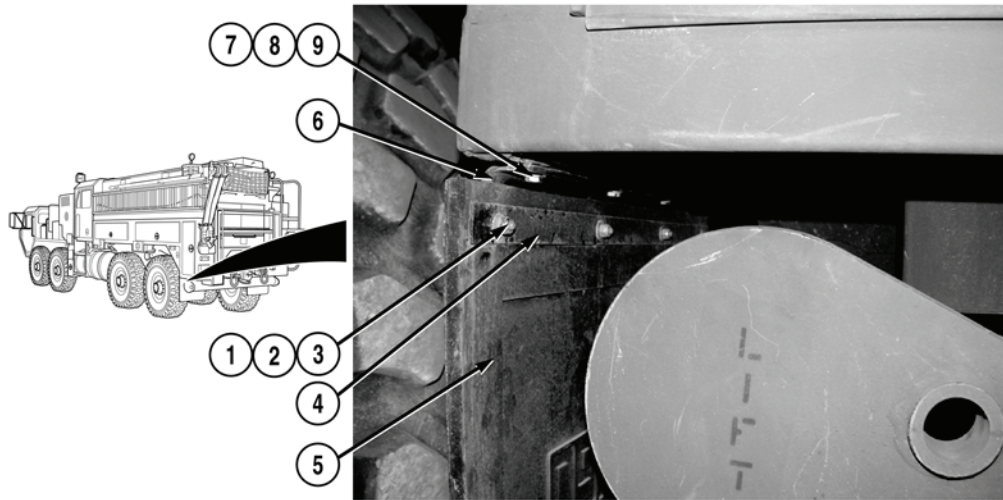
1. Remove four locknuts (1), eight washers (2), four screws (3), retainer (4), and splash guard (5) from bracket (6). Discard locknuts.

**NOTE**

Passenger side bracket is mounted to vehicle with four screws.

2. Remove three locknuts (7), six washers (8), three screws (9), and bracket (6) from vehicle. Discard locknuts.

**END OF TASK**

**INSTALLATION****NOTE**

Driver side and passenger side rear splash guards are installed the same way. Driver side shown.

1. Install bracket (6) on vehicle with three screws (9), six washers (8), and three locknuts (7).
2. Install splash guard (5) on bracket (6) with retainer (4), four screws (3), eight washers (2), and four locknuts (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**REAR WORK PLATFORM REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Locknut (2)  
Locknut (2)  
Locknut (4)  
Locknut (2)  
Lockwasher (3)  
Locknut (2)  
Locknut (18)  
Locknut (17)  
Locknut (4)  
Locknut (4)  
Lockwasher (4)

**Materials/Parts (continued)**

Locknut (2)  
Locknut (2)  
Locknut (2)  
Locknut (8)  
Lockwasher (2)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

**References**

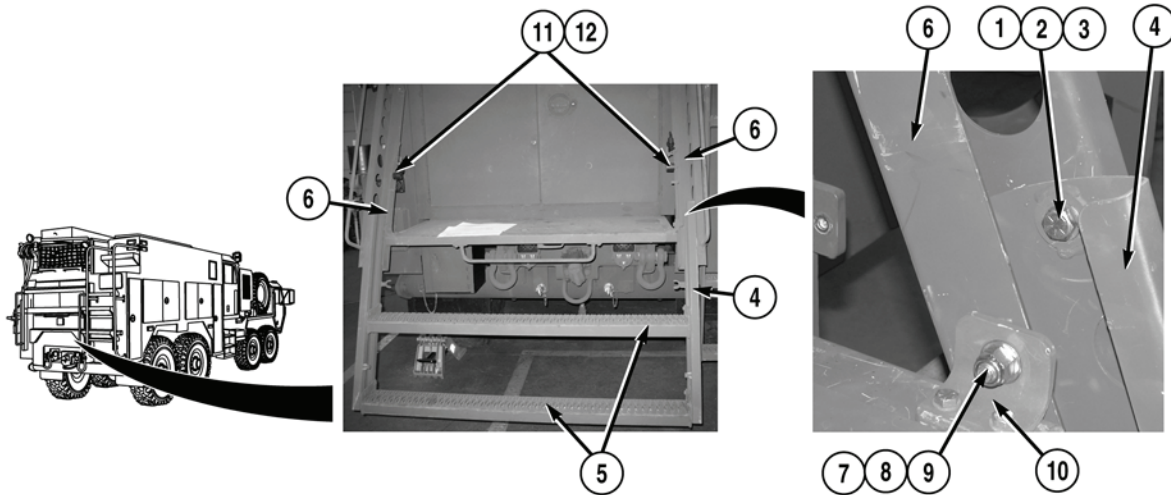
WP 0521  
WP 0615, Fig. 142

**Equipment Conditions**

Rear work platform unstowed (WP 0014)  
Lower rear marker light bracket  
removed (WP 0342)

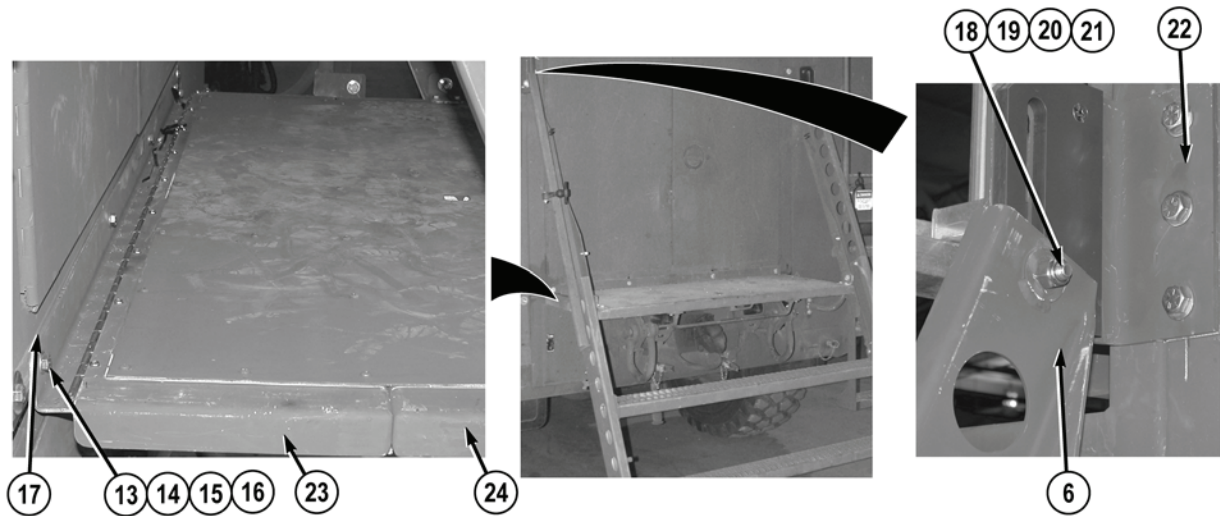
---

## REMOVAL

**WARNING**

**Support steps when removing steps from platform support rails. Failure to comply may result in injury to personnel.**

1. With the aid of an assistant, remove two locknuts (1), washers (2), screws (3), step rails (4), and steps (5) from two platform support rails (6). Discard locknuts.
2. Remove two locknuts (7), four washers (8), two screws (9), and platform support rails (6) from two brackets (10). Discard locknuts.
3. Remove two screws (11) and rubber bumpers (12) from platform support rails (6).

**WARNING**

**Support rear work platform sections when removing platform sections from vehicle.  
Failure to comply may result in injury to personnel.**

4. With the aid of an assistant, remove four nuts (13), locknuts (14), eight washers (15), four screws (16), and rear work platform mounting bracket (17) from vehicle. Discard locknuts.

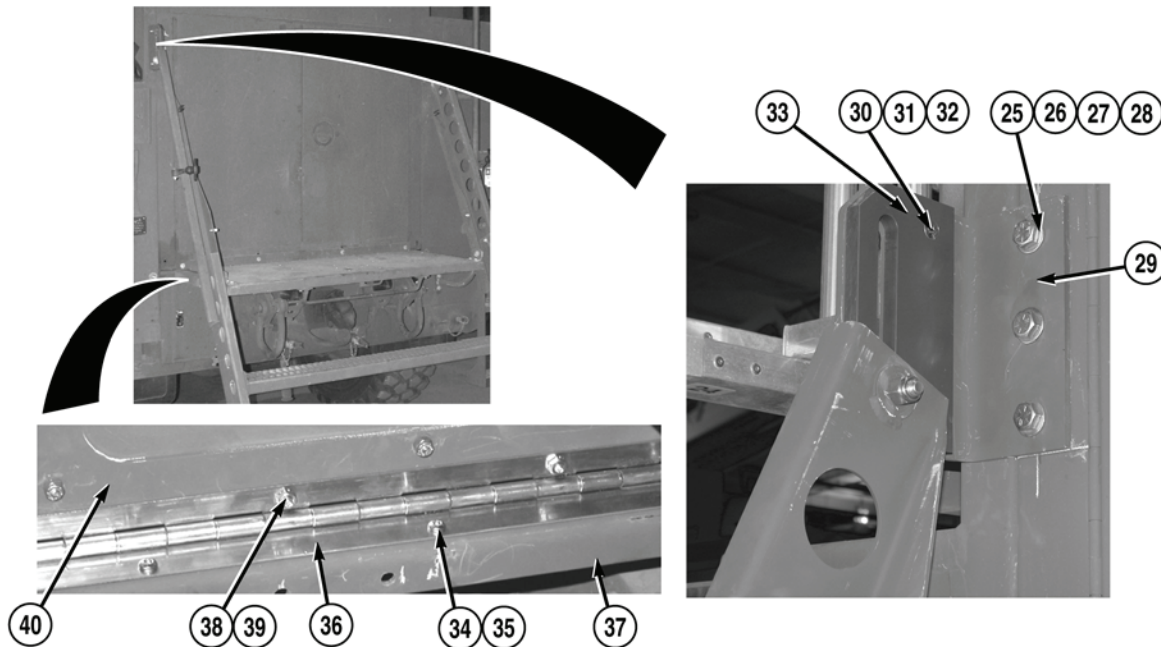
**NOTE**

Rear work platform is removed from vehicle as an assembly.

5. Remove two locknuts (18), washers (19), screws (20), bushing (21), and platform support rails (6) from support mounting brackets (22) and two rear work platform sections (23) and (24) from vehicle. Discard locknuts.

**END OF TASK**

## DISASSEMBLY

**NOTE**

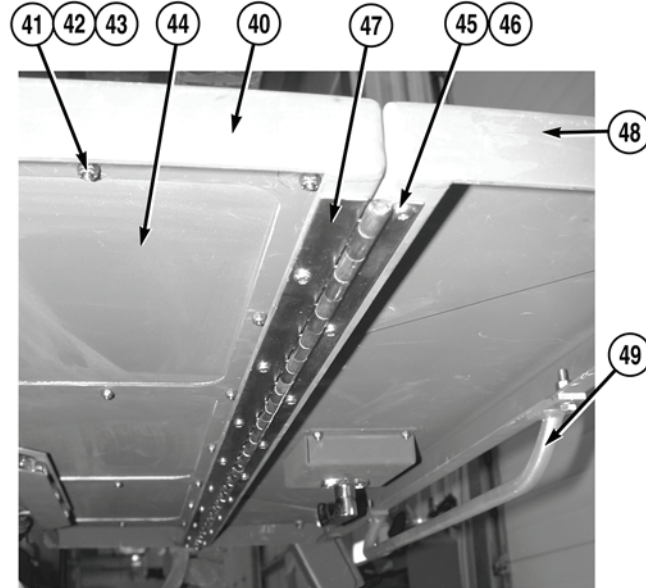
Both support mounting brackets and guide pads are removed the same way.

1. Remove three nuts (25), lockwashers (26), six washers (27), three screws (28), and support mounting bracket (29) from vehicle. Discard lockwashers.
2. Remove two locknuts (30), washers (31), screws (32), and guide pad (33) from support mounting bracket (29). Discard locknuts.
3. Remove nine nuts (34), screws (35), and hinge (36) from rear work platform mounting bracket (37).

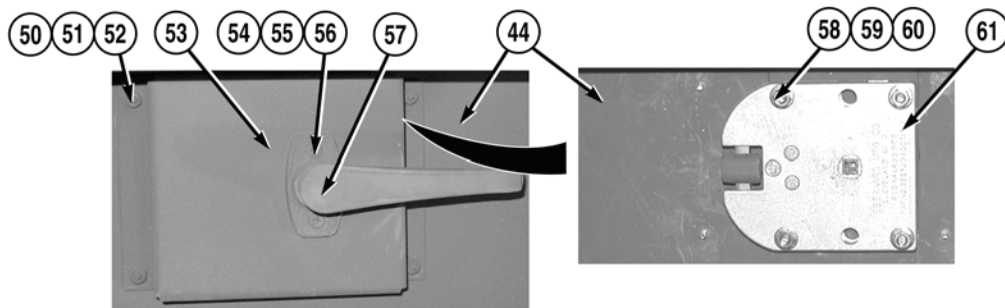
**NOTE**

Note position of washers prior to removal to ensure proper installation.

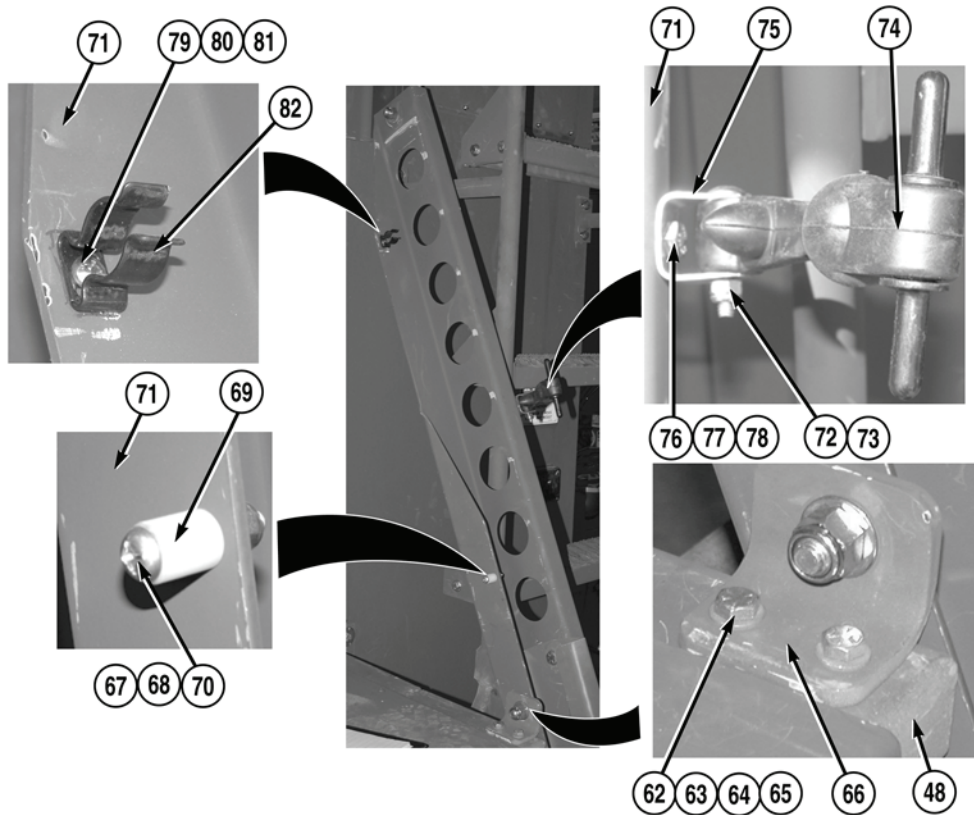
4. Remove nine nuts (38), screws (39), and hinge (36) from rear work platform section (40).



5. Remove 18 locknuts (41), 36 washers (42), 18 screws (43), and platform cover plate (44) from platform section (40). Discard locknuts.
6. Remove 17 locknuts (45), screws (46), and hinge (47) from two rear work platform sections (40) and (48). Discard locknuts.
7. Remove grab handle (49) from platform cover plate (44) (WP 0521).



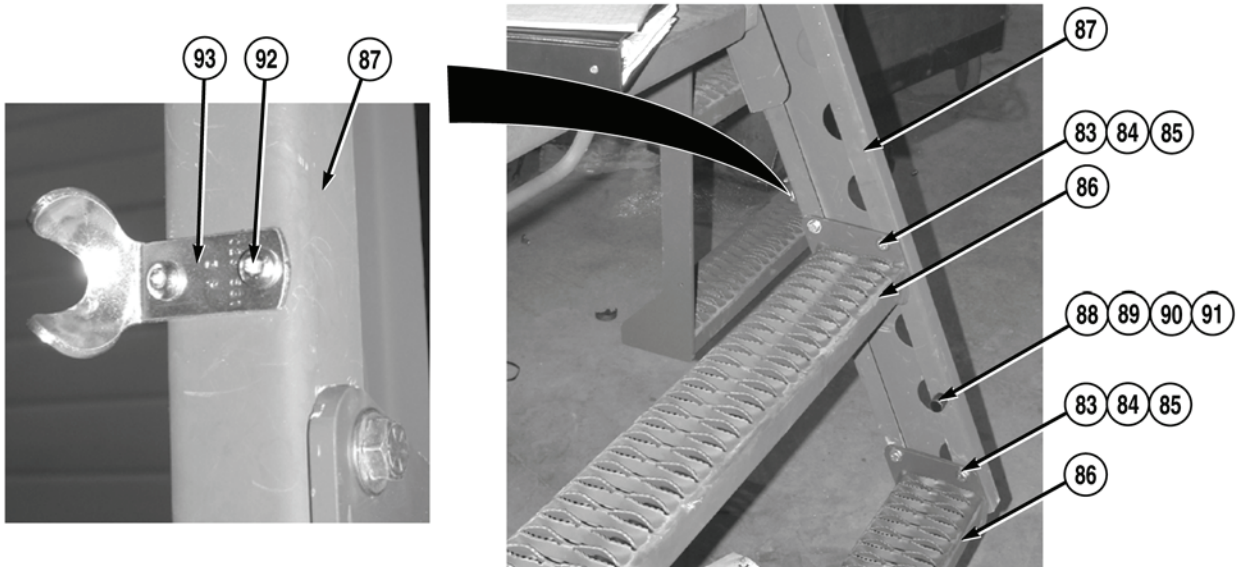
8. Remove four locknuts (50), eight washers (51), four screws (52), and handle cover (53) from platform cover plate (44). Discard locknuts.
9. Remove two nuts (54), screws (55), washer (56), and handle (57) from handle cover (53).
10. Remove four locknuts (58), washers (59), screws (60), and latch (61) from platform cover plate (44). Discard locknuts.



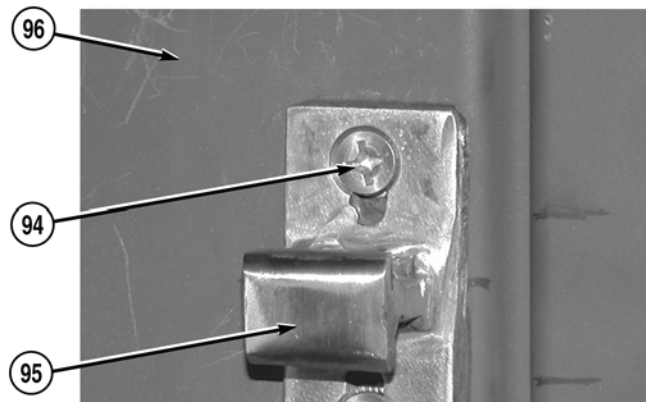
### NOTE

Note position of brackets prior to removal to ensure proper installation.

11. Remove four nuts (62), lockwashers (63), eight washers (64), four screws (65), and two brackets (66) from rear work platform section (48). Discard lockwashers.
12. Remove two locknuts (67), washers (68), retainers (69), and screws (70) from platform supports (71). Discard locknuts.
13. Remove two locknuts (72), screws (73), and rubber hooks (74) from brackets (75). Discard locknuts.
14. Remove two nuts (76), washers (77), screws (78), and brackets (75) from platform supports (71).
15. Remove two locknuts (79), washers (80), screws (81), and clips (82) from platform supports (71). Discard locknuts.



16. Remove eight locknuts (83), washers (84), screws (85), and two steps (86) from step rails (87). Discard locknuts.
17. Remove two screws (88), lockwashers (89), washers (90), and rubber catches (91) from step rails (87). Discard lockwashers.
18. Remove two screws (92) and rubber hold-downs (93) from step rails (87).

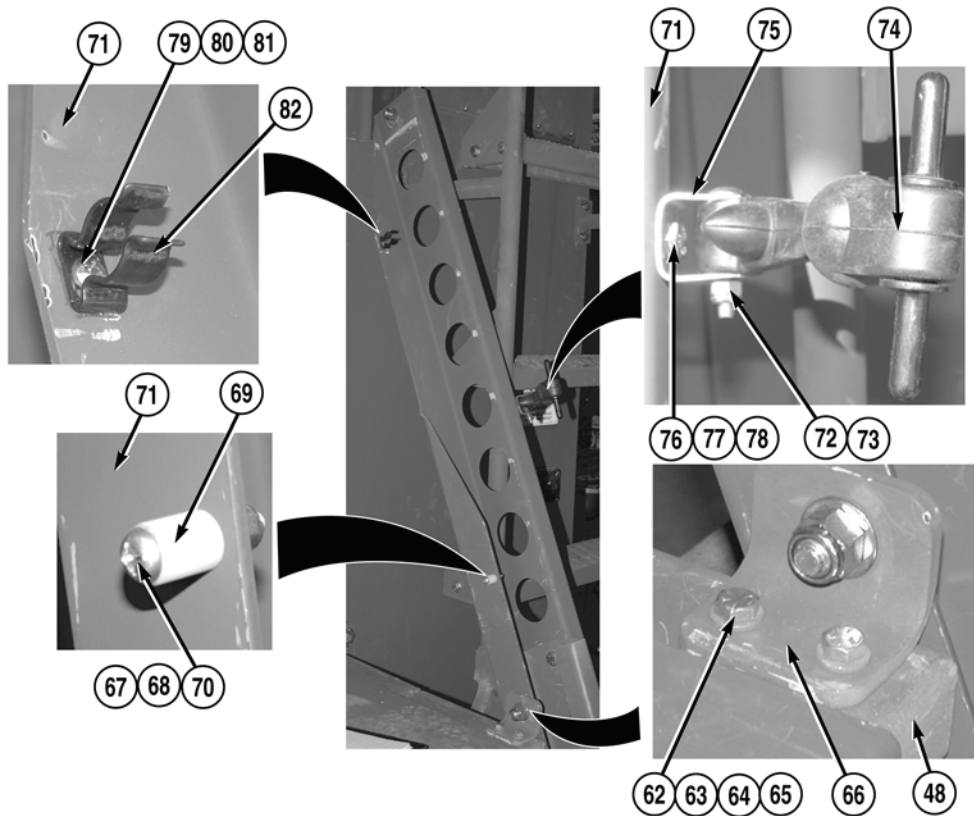


19. Remove two screws (94) and latch hook (95) from compartment door (96).

## END OF TASK

## ASSEMBLY

1. Install latch hook (95) on compartment door (92) with two screws (94).
2. Install two rubber hold-downs (93) on step rails (87) with two screws (92).
3. Install two rubber catches (91) on step rails (87) with two washers (90), lockwashers (89), and screws (88).
4. Install two steps (86) on step rails (87) with eight screws (85), washers (84), and locknuts (83).



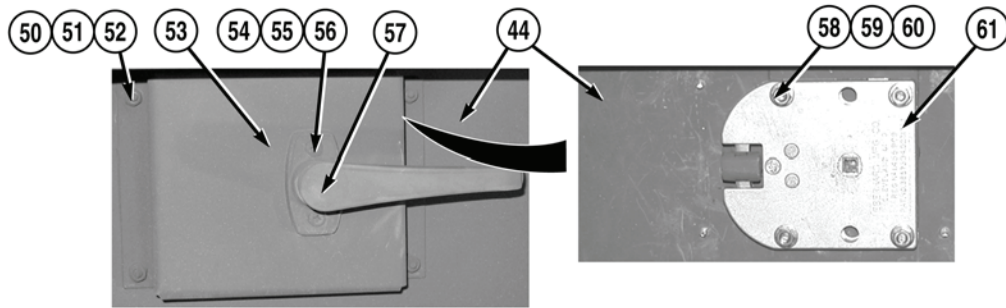
5. Install two clips (82) on platform supports (71) with two screws (81), washers (80), and locknuts (79).
6. Install two brackets (75) on platform supports (71) with two screws (78), washers (77), and nuts (76).
7. Install two rubber hooks (74) on brackets (75) with two screws (73) and locknuts (72).
8. Install two retainers (69) on platform supports (71) with two screws (70), washers (68), and locknuts (67).

### NOTE

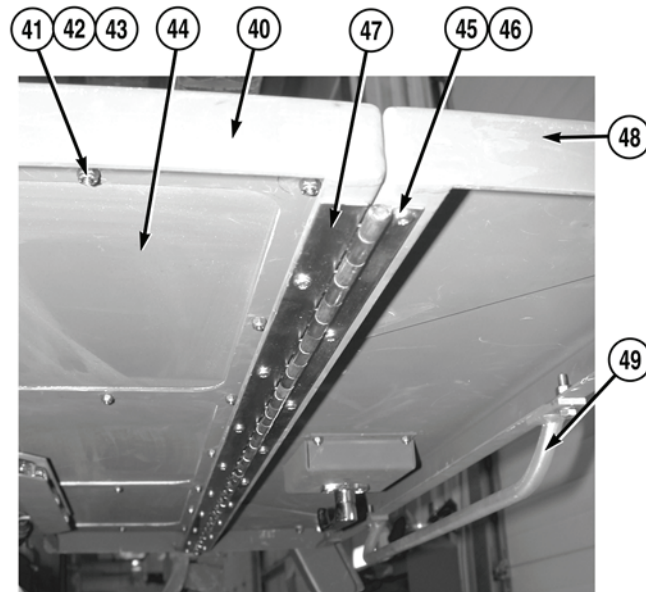
Install brackets as noted prior to removal.

9. Install two brackets (66) on rear work platform section (48) with four screws (65), eight washers (64), four lockwashers (63), and nuts (62).

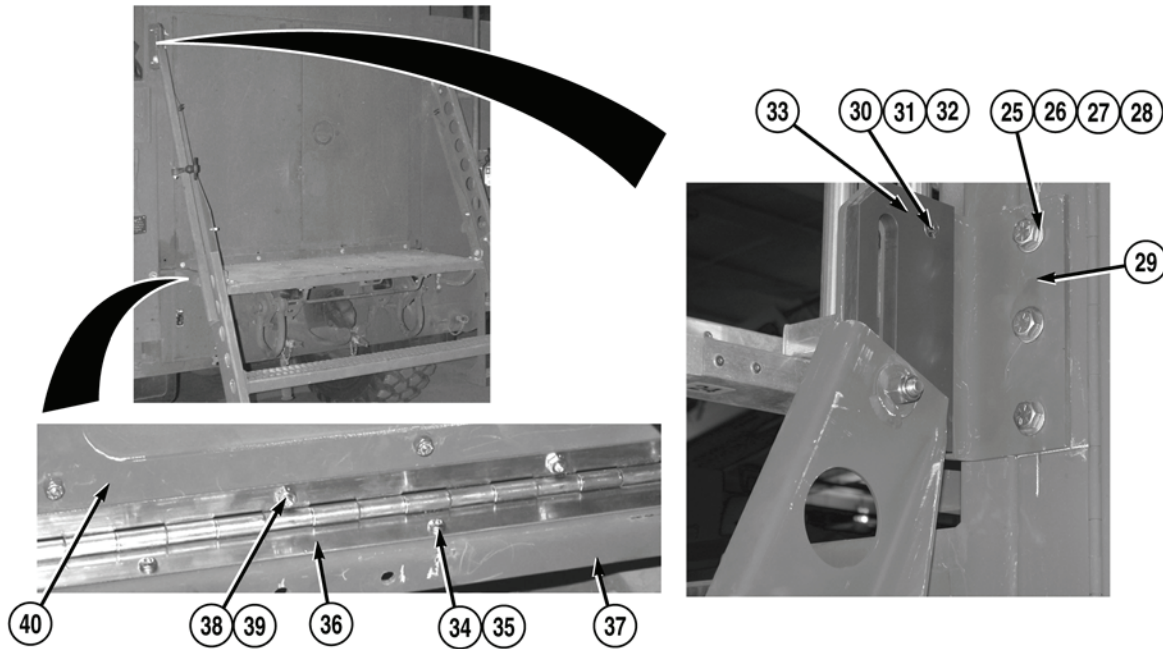




10. Install latch (61) on platform cover plate (44) with four screws (60), washers (59), and locknuts (58).
11. Install handle (57) on handle cover (53) with two washers (56), screws (55), and nuts (54).
12. Install handle cover (53) on platform cover plate (44), with four screws (52), eight washers (51), and four locknuts (50).



13. Install grab handle (49) on platform cover plate (44) (WP 0521).
14. Install hinge (47) on two rear work platform sections (40) and (48) with 17 screws (46), and locknuts (45).
15. Install platform cover plate (44) on platform section (40) with 18 screws (43), 36 washers (42), and 18 locknuts (41).



**NOTE**

Install washers as noted prior to removal.

- 16. Install hinge (36) on rear work platform section (40) with nine screws (39) and nuts (38).
- 17. Install hinge (36) on rear work platform mounting bracket (37) with nine screws (35) and nuts (34).

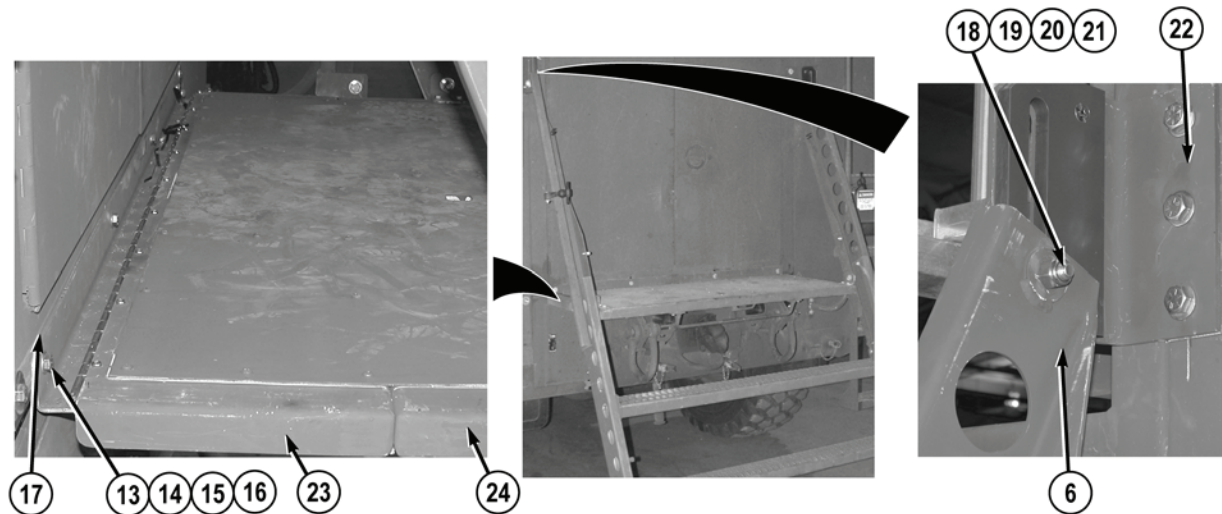
**NOTE**

Both platform support rails, support mounting brackets, and guide pads are installed the same way.

- 18. Install guide pad (33) on support mounting bracket (29) with two screws (32), washers (31), and locknuts (30).
- 19. Install support mounting bracket (29) on vehicle with three screws (28), six washers (27), three lockwashers (26), and nuts (25).

**END OF TASK**

## INSTALLATION

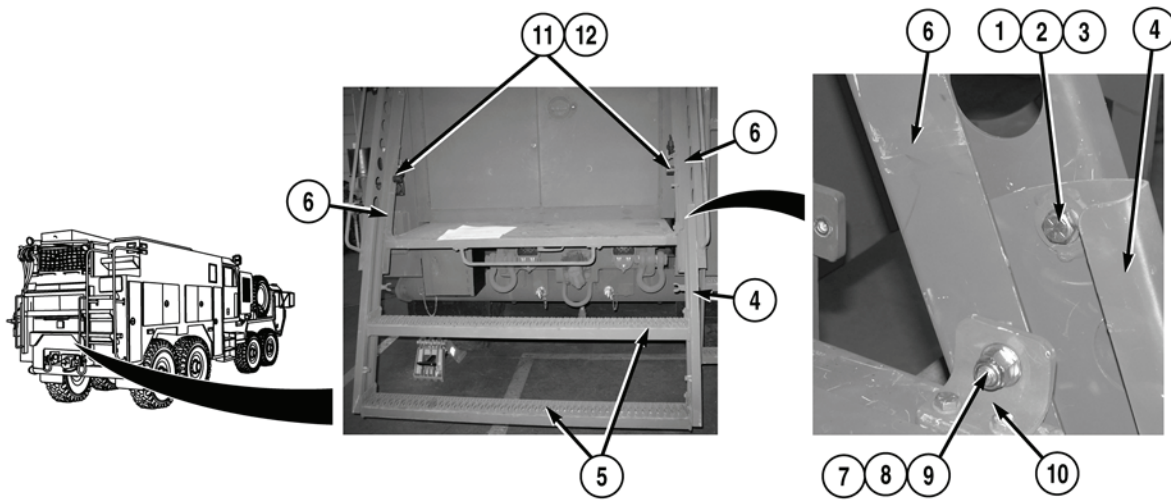


1. Install two platform support rails (6) on support mounting brackets (22) and rear work platform sections (23) and (24) with two bushings (21), screws (20), washers (19), and locknuts (18).

**WARNING**

**Support rear work platform sections when installing platform sections from vehicle.  
Failure to comply may result in injury to personnel.**

2. With the aid of an assistant, install rear work platform mounting bracket (17) on vehicle with four screws (16), eight washers (15), four locknuts (14), and nuts (13).



3. Install two rubber bumpers (12) on platform support rails (6) with screws (11).
4. Install two support rails (6) on brackets (10) with two screws (9), four washers (8), and two locknuts (7).
5. With the aid of an assistant, install two steps (5) and step rails (4) on platform supports rails (6) with two screws (3), washers (2) and locknut (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Install lower rear marker light bracket (WP 0342)
2. Stow rear work platform (WP 0014)
3. Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**

FIELD LEVEL MAINTENANCE

ROOF TURRET PLUMBING COVER REPLACEMENT

INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 167

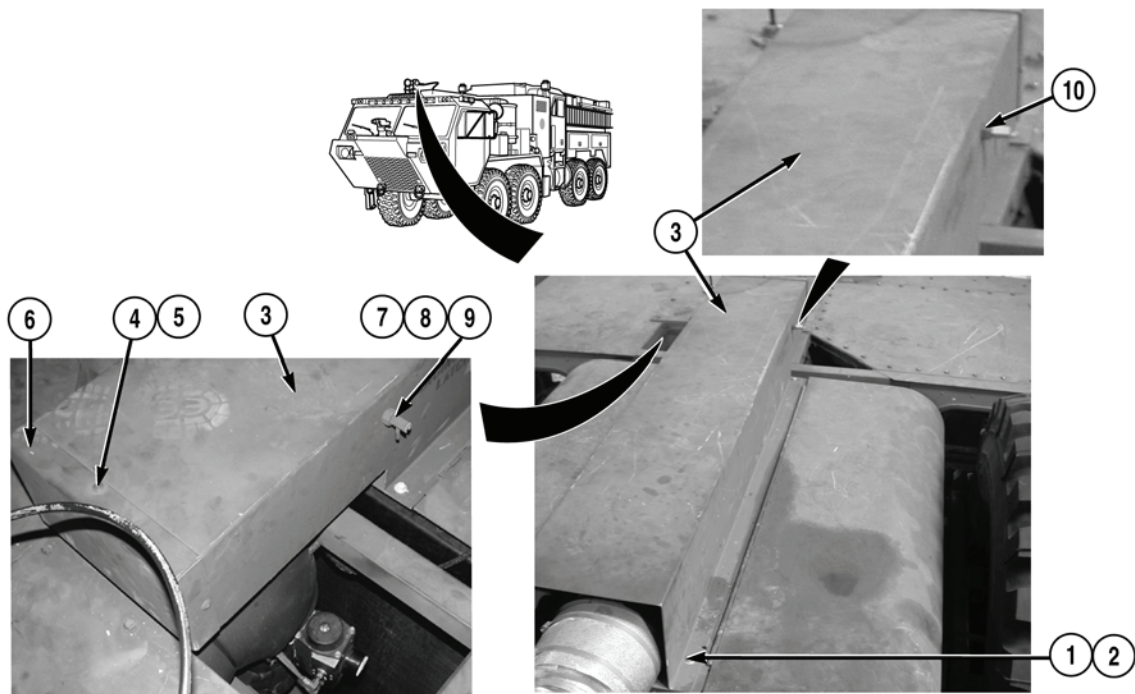
**Materials/Parts**

Locknut (4)  
Locknut (3)  
Lockwasher (2)  
Lockwasher (2)

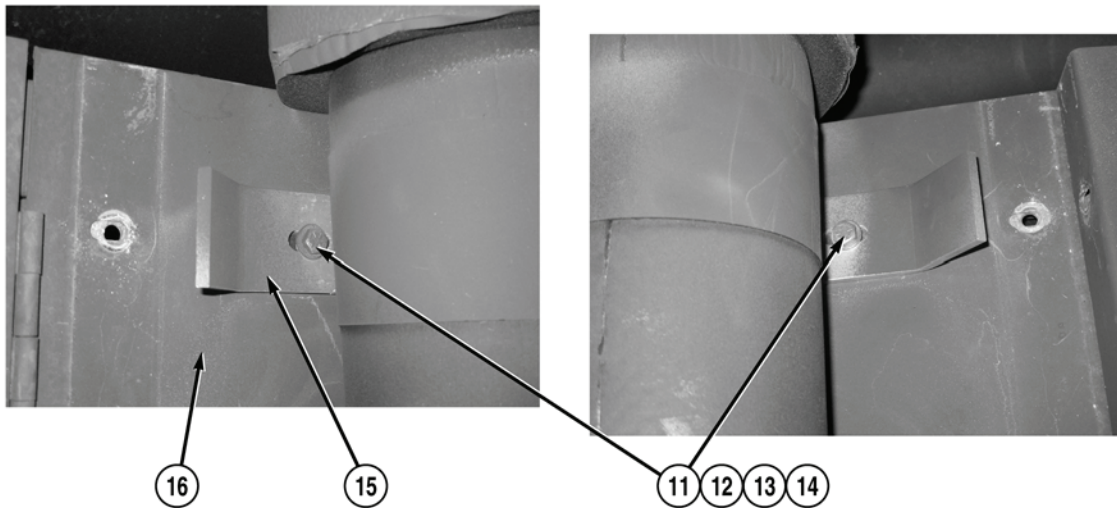
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

REMOVAL



1. Remove four locknuts (1), screws (2), and plumbing cover (3) from vehicle. Discard locknuts.
2. Remove three locknuts (4), screws (5), and end cover (6) from plumbing cover (3). Discard locknuts.
3. Remove two nuts (7), lockwashers (8), and two engine cover retainers (9) and (10) from plumbing cover (3). Discard lockwashers.

**NOTE**

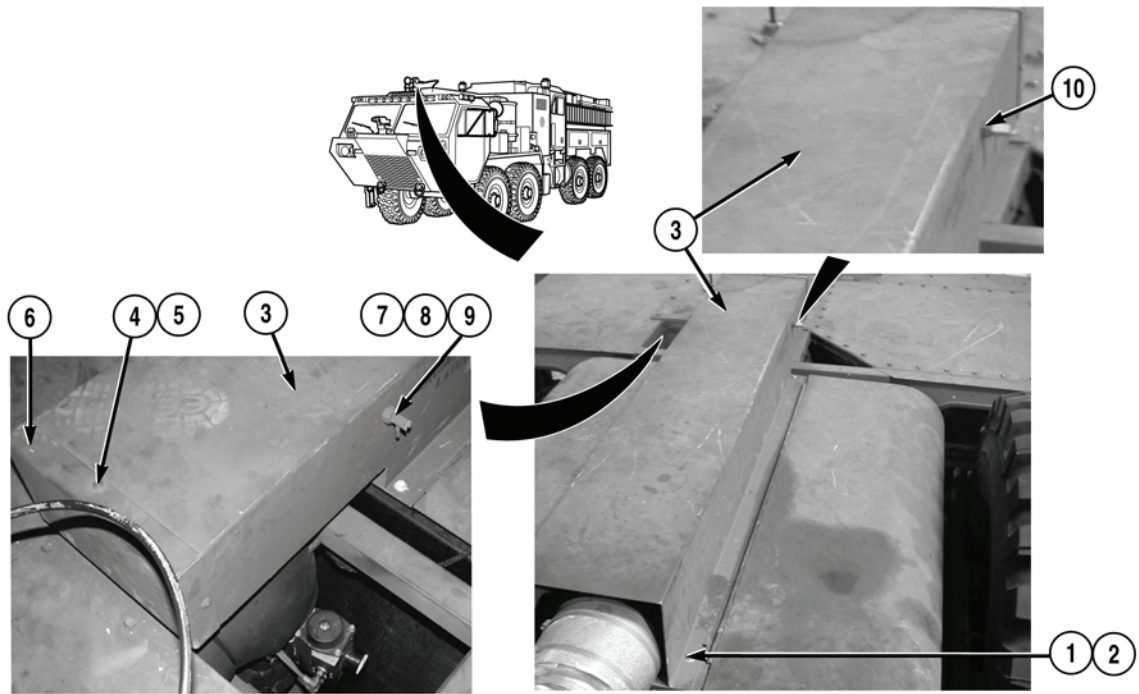
Perform Step (4) if bracket needs to be removed.

4. Remove two nuts (11), lockwashers (12), four washers (13), two screws (14), and bracket (15) from engine cover (16). Discard lockwashers.

**END OF TASK****INSTALLATION****NOTE**

Perform Step (1) if bracket was removed.

1. Install bracket (15) on engine cover (16) with two screws (14), four washers (13), two lockwashers (12), and nuts (11).



2. Install two engine cover retainers (10) and (9) on plumbing cover (3) with two lockwashers (8) and nuts (7).
3. Install end cover (6) on plumbing cover (3) with three screws (5) and locknuts (4).
4. Install plumbing cover (3) on vehicle with four screws (2) and locknuts (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

Remove wheel chocks (TM 9-2320-347-10)

#### END OF TASK

#### END OF WORK PACKAGE





---

**FIELD LEVEL MAINTENANCE**  
**SCBA SEAT BELT REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Reference**

WP 0615, Fig. 117

**Materials/Parts**

Seal, Sentry, Blue (WP 0625, Item 44)  
Locknut (1)  
Locknut (1)  
Locknut (1)  
Locknut (2)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

**REMOVAL**

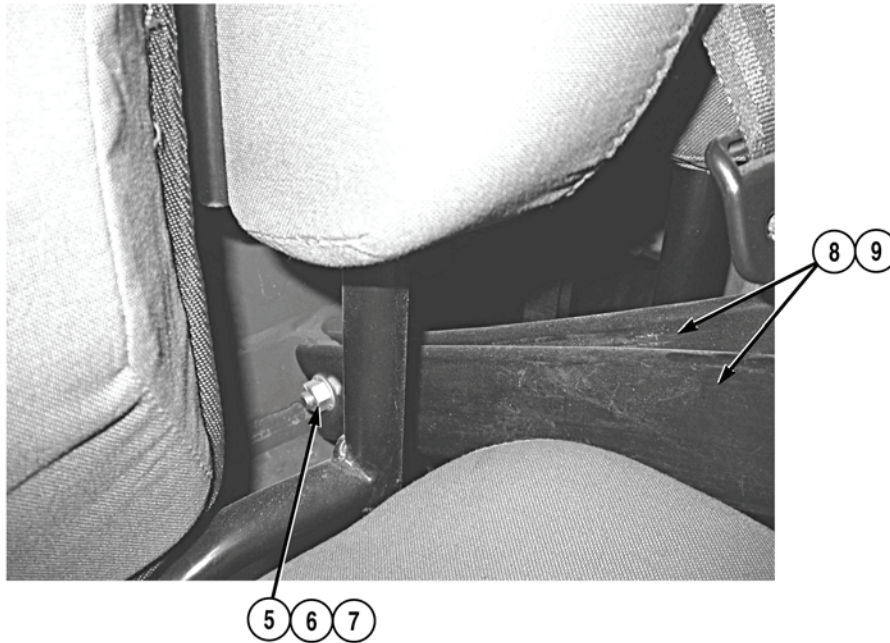
**⚠ CAUTION**

**Do not release seatbelt and allow seatbelt to retract into seatbelt retractor. Failure to comply may cause damage to equipment.**

**NOTE**

- Note position of seatbelt anchor prior to removal to ensure proper installation.
- All SCBA seatbelts are removed the same way. Driver side crew cab SCBA seatbelt shown.

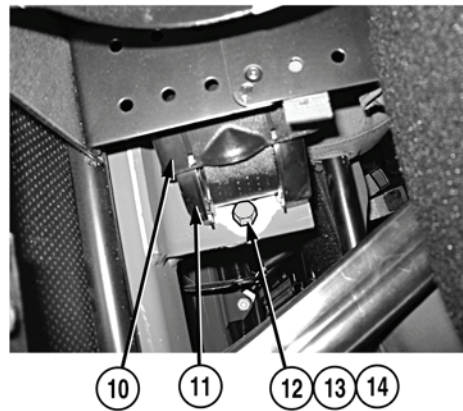
1. Remove locknut (1), screw (2), washer (3), and seatbelt anchor (4) from vehicle. Discard locknut.



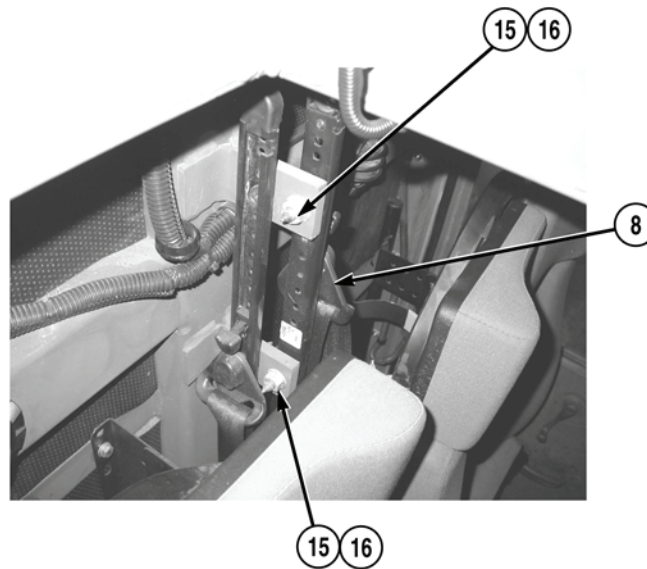
### NOTE

All seatbelts and retractors are removed the same way.

2. Remove locknut (5), screw (6), washer (7), two seatbelts (8), and sleeves (9) from vehicle. Discard locknut.



3. Remove two plastic covers (10) from retractors (11).
4. Remove locknut (12), screw (13), washer (14), and two retractors (11) from vehicle. Discard locknut.



5. Remove two locknuts (15), screws (16), and seatbelt (8) from vehicle. Discard locknuts.

#### END OF TASK

#### INSTALLATION

#### NOTE

- All SCBA seatbelts are installed the same way. Driver side crew cab SCBA seatbelt shown.
  - Torque locknuts to 58 lb-ft (80 N•m).
1. Install seatbelt (8) on vehicle with two screws (16) and locknuts (15).
  2. Install two retractors (11) on vehicle with washer (14), screw (13), and locknut (12).
  3. Install two plastic covers (10) on retractors (11).
  4. Install two sleeves (9) and seatbelts (8) on vehicle with washer (7), screw (6), and locknut (5).



### NOTE

Install seatbelt anchor in same position as noted prior to removal.

5. Install seatbelt anchor (4) on vehicle with washer (3), screw (2), and locknut (1).

### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

6. Apply sealant to six locknuts (15), (12), and (5) and six screws (15), (12), and (5) to mark torque point.

**END OF TASK**

### FOLLOW-ON MAINTENANCE

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**SKID PLATE GRILLE REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Cotter Pin (2)  
Locknut (6)  
Locknut (16)

**References**

WP 0615, Fig. 121

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

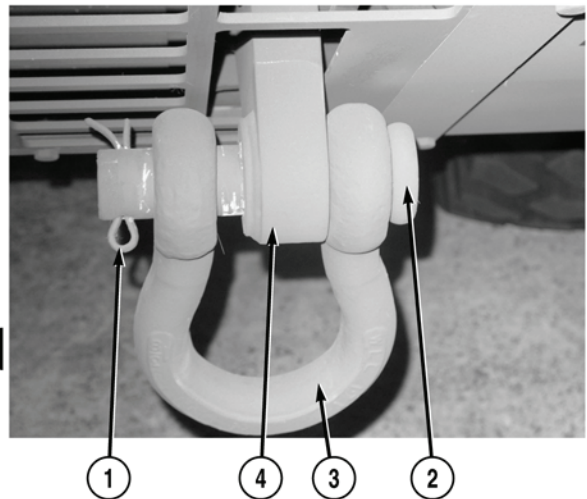
**References**

TM 9-2320-325-14&P

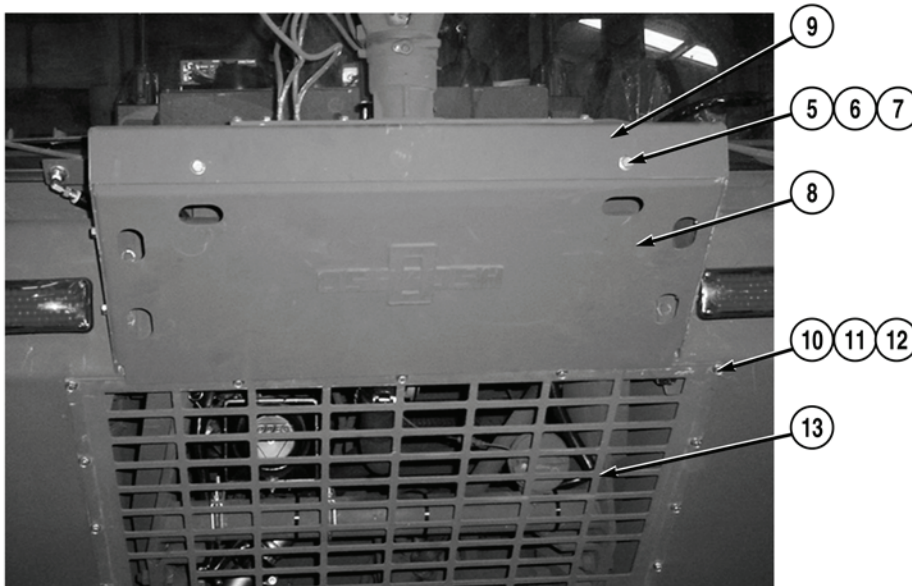
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

**REMOVAL**

1. Remove two cotter pins (1), pins (2), and clevises (3) from brackets (4). Discard cotter pins.

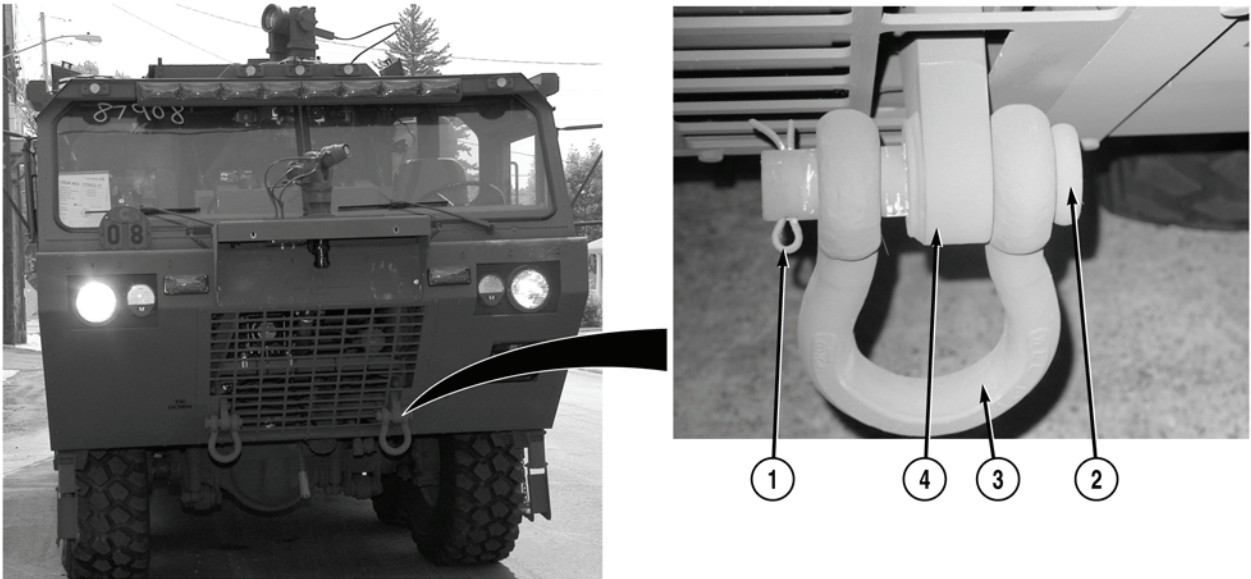


2. With the aid of an assistant, remove six locknuts (5), 12 washers (6), six screws (7), and cover (8) from turret bumper mount (9). Discard locknuts.
3. With the aid of an assistant, remove 16 screws (10), washers (11), locknuts (12), and skid plate grille (13) from vehicle. Discard locknuts.

#### END OF TASK

#### INSTALLATION

1. With the aid of an assistant, install skid plate grille (13) on vehicle with 16 locknuts (12), washers (11), and screws (10).
2. With the aid of an assistant, install cover (8) on turret bumper mount (9) with six screws (7), 12 washers (6), and six locknuts (5).



3. Install two clevises (3) on brackets (4) with two pins (2) and cotter pins (1).

#### **FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**





---

**FIELD LEVEL MAINTENANCE**  
**SMALL COMPARTMENT DOORS REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

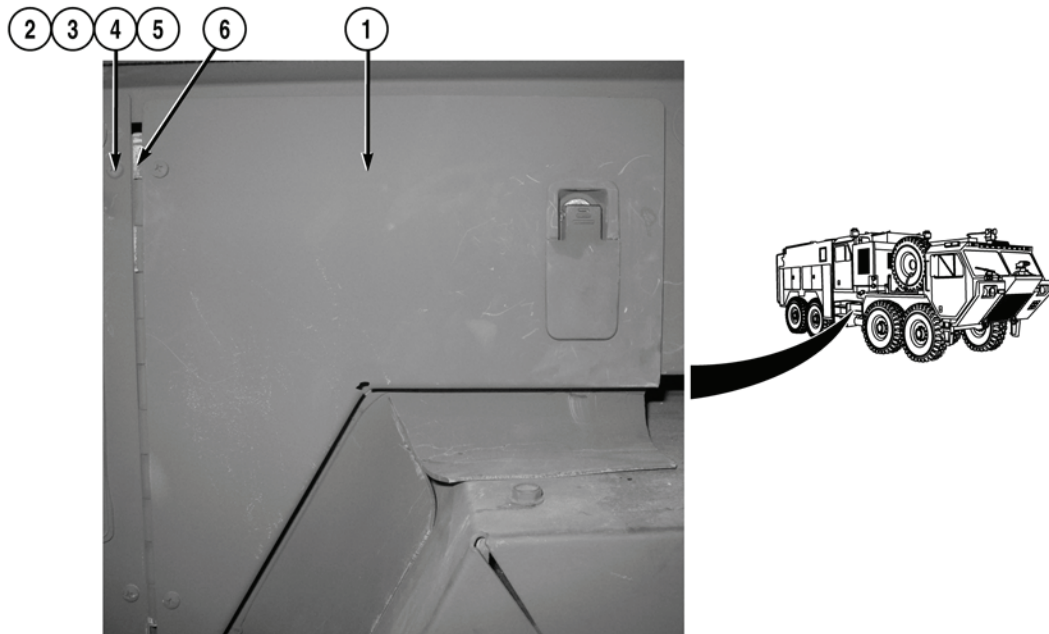
Mineral Spirits (WP 0625, Item 32)  
Lockwasher (2)  
Lockwasher (2)  
Lockwasher (1)  
Lockwasher (2)

**References**

WP 0615, Fig. 126, 127, 128, 129, 130, 132, 144

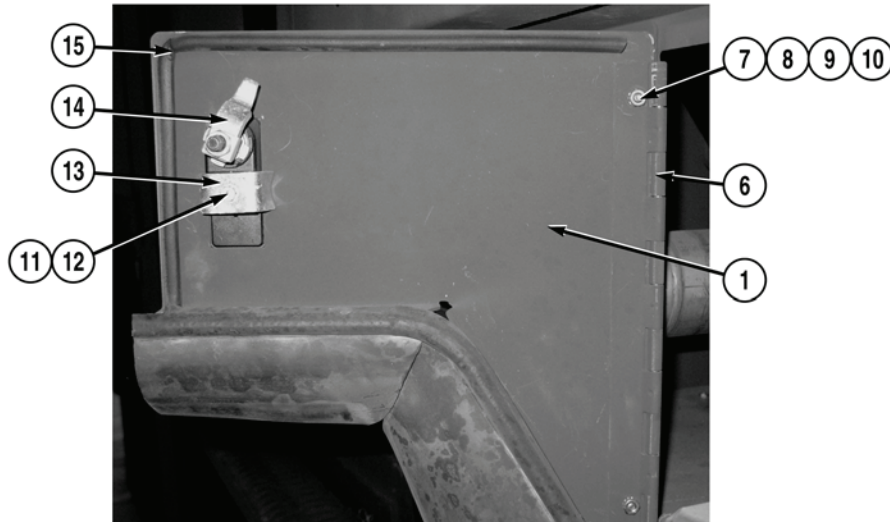
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

**PUMP HOUSE PANEL DOORS REMOVAL****NOTE**

Both driver side and passenger side access doors are removed the same way. Passenger side shown.

1. Open pump house access door (1).
2. Remove two nuts (2), lockwashers (3), washers (4), screws (5), and hinge (6), and pump house panel access door (1) from vehicle. Discard lockwashers.



3. Remove two nuts (7), lockwashers (8), washers (9), screws (10), and hinge (6) from pump house access door (1). Discard lockwashers.
4. Remove screw (11), washer (12), retainer (13), and twist lock (14) from pump house access door (1).
5. Remove seal (15) from pump house access door (1).

### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

6. Clean seal (15) residue from pump house access door (1) with mineral spirits.

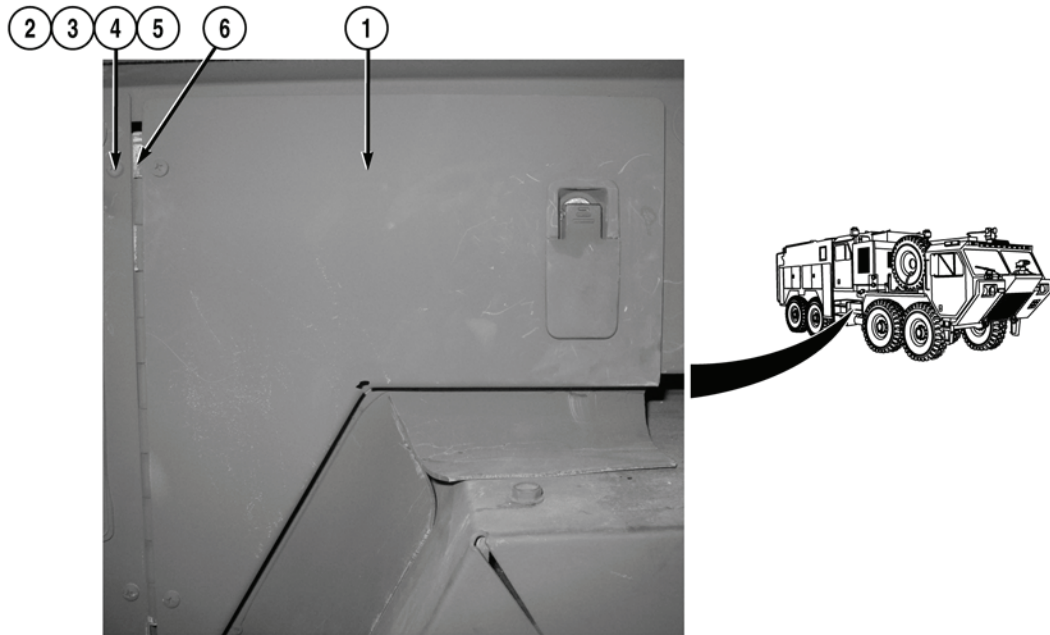
### END OF TASK

### PUMP HOUSE PANEL DOORS INSTALLATION

#### NOTE

Both driver side and passenger side access doors are installed the same way. Passenger side shown.

1. Install seal (15) on pump access door (1).
2. Install twist lock (14) on access door (1) with retainer (13), washer (12), and screw (11).
3. Install hinge (6) on pump house access door (1) with two screws (10), washers (9), lockwashers (8) and nuts (7).



4. Install pump house panel access door (1) and hinge (6) on vehicle with two screws (5), washers (4), lockwashers (3), and nuts (2).

**END OF TASK**

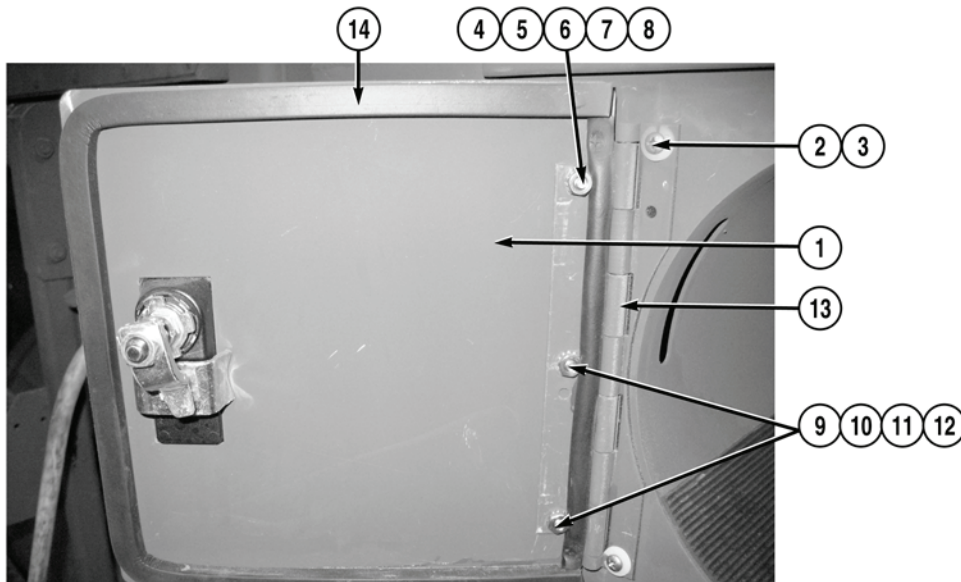
SCBA TANK ACCESS DOOR/REAR STEP BUZZER ACCESS DOOR REMOVAL



**NOTE**

All SCBA tank access doors and rear step buzzer access door are removed the same way. SCBA tank access door shown.

1. Open SBCA tank access door (1).



2. Remove two screws (2), washers (3), and SCBA tank access door (1) from vehicle.
3. Remove nut (4), lockwasher (5), washer (6), screw (7), and rubber bumper (8), from SCBA tank access door (1). Discard lockwasher.

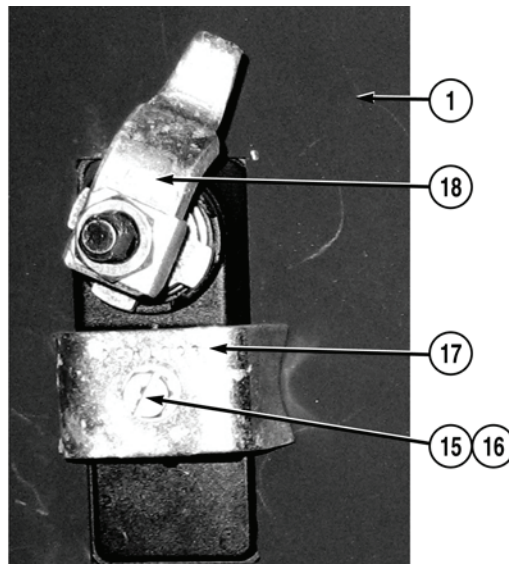
4. Remove two nuts (9), lockwashers (10), washers (11), screws (12), and hinge (13) from SCBA tank access door (1). Discard lockwashers.
5. Remove seal (14) from SCBA tank access door (1).

**WARNING**



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

6. Clean seal (14) residue from access door (1) with mineral spirits.



7. Remove screw (15), washer (16), retainer (17), and twist lock (18) from SCBA tank access door (1).

**END OF TASK**

**SCBA TANK ACCESS DOOR/REAR STEP BUZZER ACCESS DOOR INSTALLATION**

1. Install twist lock (18) on SCBA tank access door (1) with retainer (17), washer (16), and screw (15).
2. Install seal (14) on SCBA tank access door (1).
3. Install hinge (13) on SCBA tank access door (1) with two screws (12), washers (11), lockwashers (10), and nuts (9).
4. Install rubber bumper (8) on SCBA tank access door (1) with screw (7), washer (6), lockwasher (5), and nut (4).
5. Install SCBA tank access door (1) on vehicle with two washers (3) and screws (2).



6. Close SCBA tank access door (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**SPREADER BAR BRACKET REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Adhesive, Sealant, Silicone  
RTV (WP 0625, Item 5)  
Lockwasher (4)  
Cotter Pin (4)  
Lockwasher (3)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

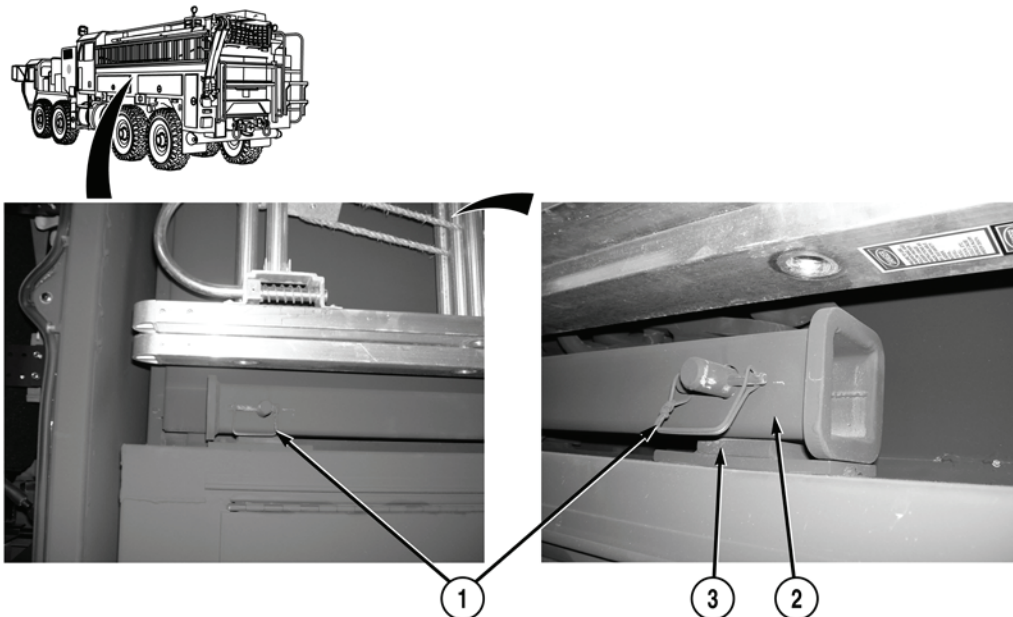
**References**

WP 0615, Fig. 157, 158

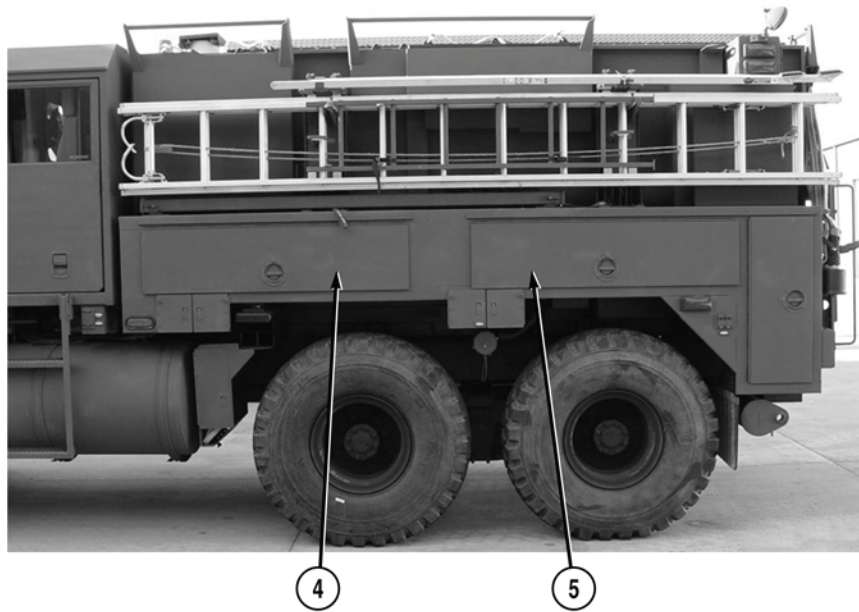
**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)  
Equipment (ladder) rack unstowed (WP 0011)

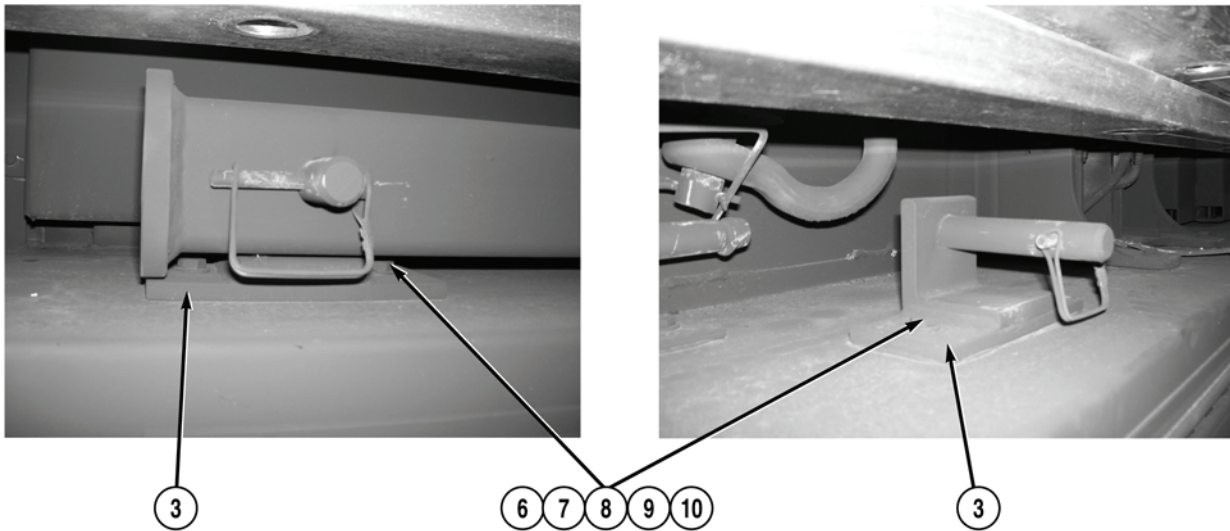
---

**REMOVAL**

1. With the aid of an assistant, remove two safety snap pins (1) and spreader bar (2) from two spreader bar brackets (3).

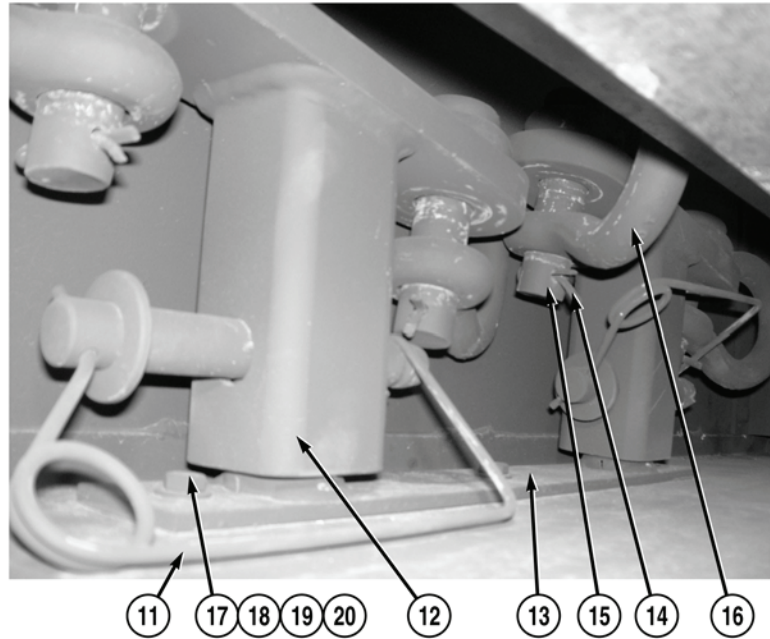


2. Open two compartment doors (4) and (5).



3. Remove plastic caps (6), four nuts (7), lockwashers (8), eight washers (9), four screws (10), and two spreader bar brackets (3) from vehicle. Discard lockwashers.





### NOTE

Perform Steps (4) through (6) if spreader bar link assemblies and spreader bar link assembly bracket must be removed.

4. Remove two safety snap pins (11) and spreader bar link assemblies (12) from spreader bar link assembly bracket (13).
5. Remove four cotter pins (14), pins (15), and clevises (16) from spreader bar link assemblies (12). Discard cotter pins.
6. Remove three nuts (17), lockwashers (18), six washers (19), three screws (20), and spreader bar link assembly (13) from vehicle. Discard lockwashers.

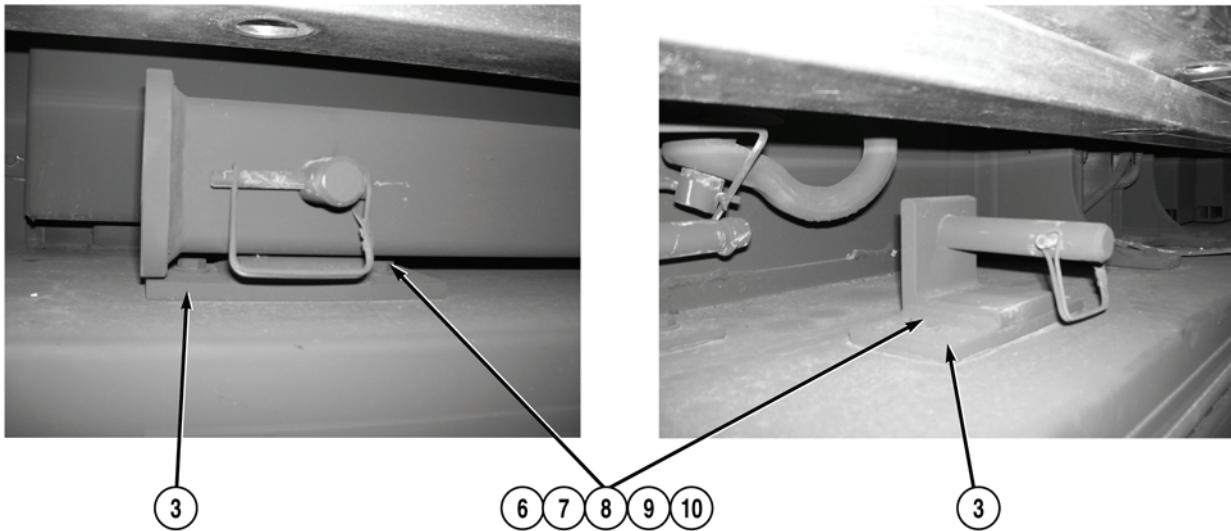
### END OF TASK

### INSTALLATION

### NOTE

Performs Steps (1) through (3) if spreader bar link assemblies and spreader bar link assembly bracket was removed.

1. Install spreader bar link assembly bracket (13) on vehicle with three screws (20), six washers (19), three lockwashers (18), and nuts (17).
2. Install four clevises (16) on spreader bar link assemblies (12) with four pins (15) and cotter pins (14).
3. Install two spreader bar link assemblies (12) on spreader bar link assembly bracket (13) with two safety snap pins (11).



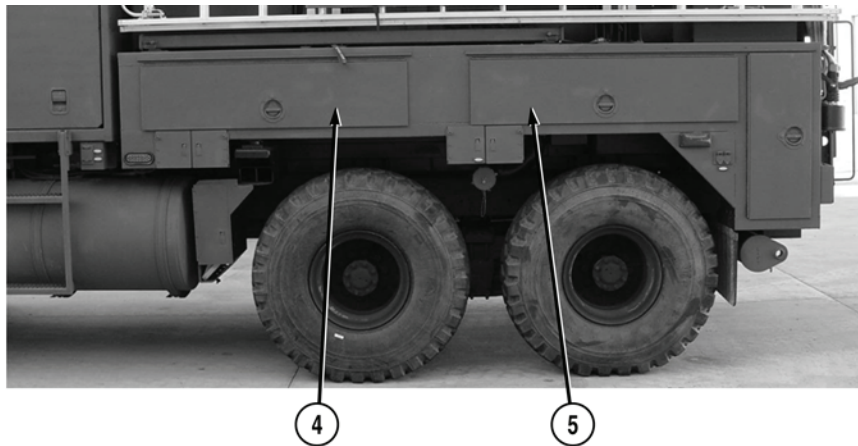
4. Install two spreader bar brackets (3) on vehicle with four screws (10), eight washers (9), four lockwashers (8), nuts (7), and plastic caps (6).

**WARNING**

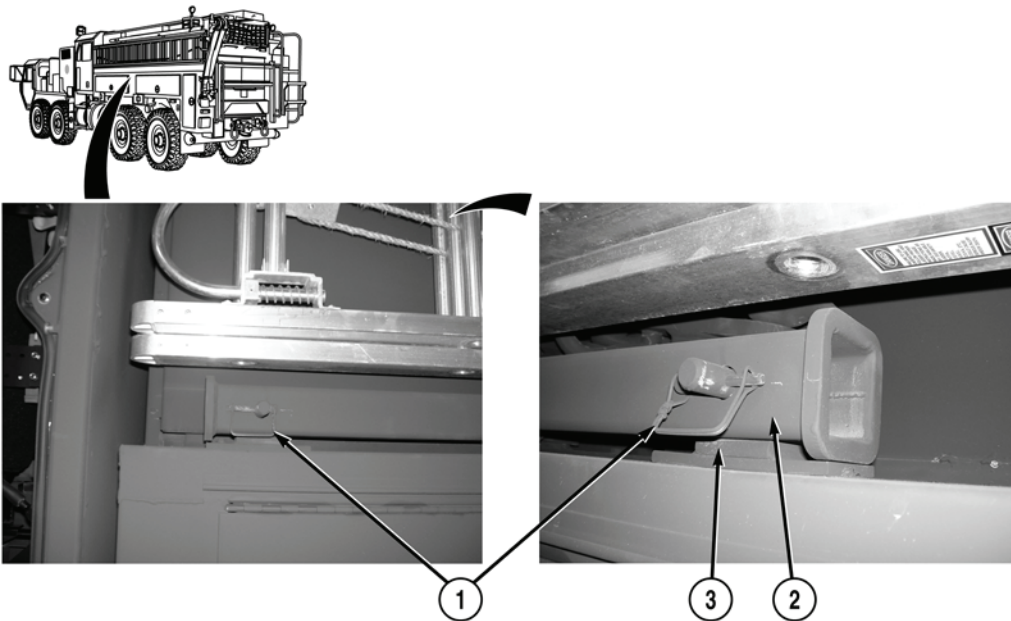


**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

5. Apply sealant to four screws (10).



6. Close two compartment doors (5) and (4).



7. With the aid of an assistant, install spreader bar (2) on two spreader bar brackets (3) with two safety snap pins (1).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Stow equipment (ladder) rack (WP 0011)
2. Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**STOWAGE BOX REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Lockwasher (4)

**Personnel Required**

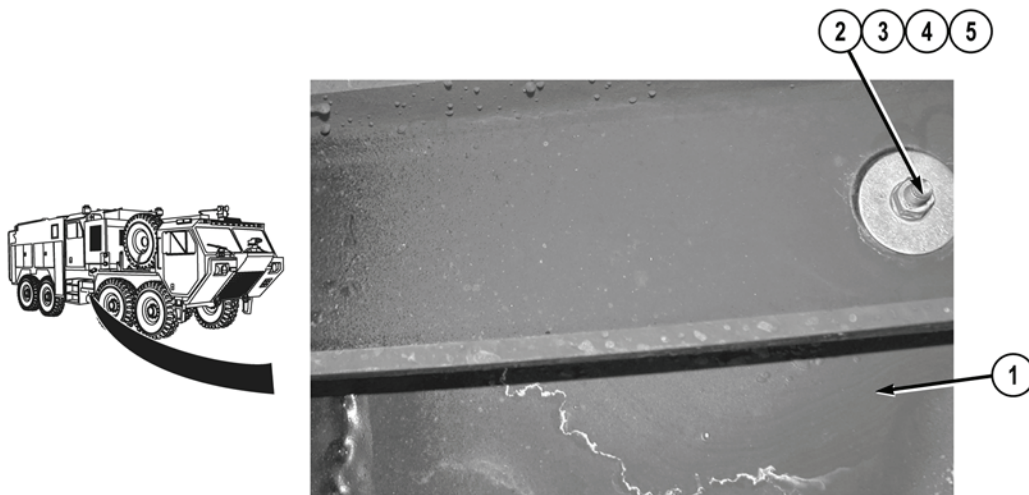
MOS 63B Wheeled vehicle mechanic (2)

**References**

WP 0615, Fig. 154

**Equipment Conditions**

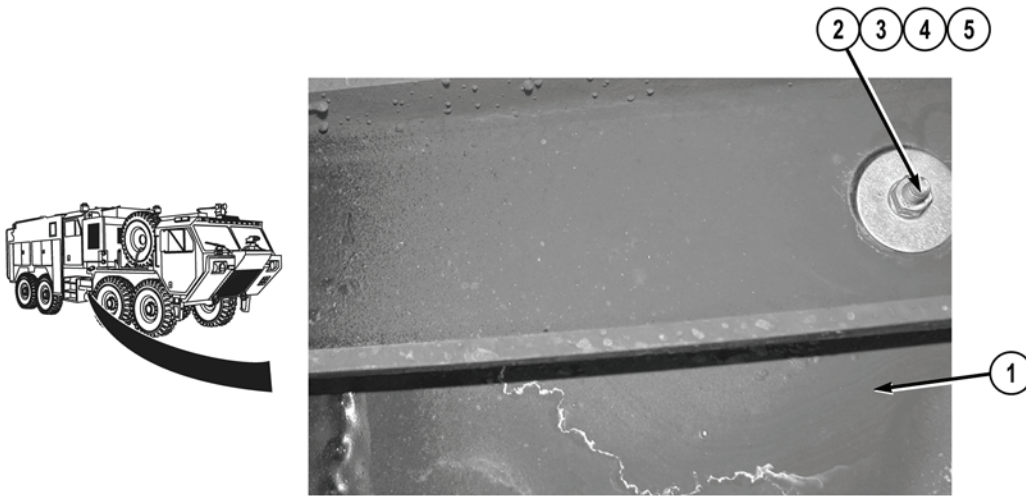
Crew cab ladder removed (WP 0514)  
Drain valve (multi-port) removed (WP 0272)  
Door switch removed (WP 0385)  
Door light removed (WP 0374)

**REMOVAL****WARNING**

**Stowage box weighs 90 lb. (40.8 kg). Do not attempt to move or lift stowage box without the aid of an assistant and suitable lifting device. Failure to comply may result in injury to personnel.**

1. Attach suitable lifting device to stowage box (1).
2. With the aid of an assistant, remove four nuts (2), lockwashers (3), eight washers (4), four screws (5), and stowage box (1) from vehicle.

**END OF TASK**

**INSTALLATION****WARNING**

**Stowage box weighs 90 lb. (40.8 kg). Do not attempt to move or lift stowage box without the aid of an assistant and suitable lifting device. Failure to comply may result in injury to personnel.**

1. Attach suitable lifting device to stowage box (1).
2. With the aid of an assistant, install stowage box (1) on vehicle with four screws (5), eight washers (4), four lockwashers (3), and nuts (2).

**END OF TASK****FOLLOW-ON MAINTENANCE**

1. Install door light (WP 0374)
2. Install door switch (WP 0385)
3. Install drain valve (multi-port) (WP 0272)
4. Install crew cab ladder (WP 0514)

**END OF TASK****END OF WORK PACKAGE**

**FIELD LEVEL MAINTENANCE**  
**STOWAGE COMPARTMENT DOOR LATCH REPLACEMENT**

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
 (WP 0622, Item 27)

**Equipment Conditions**

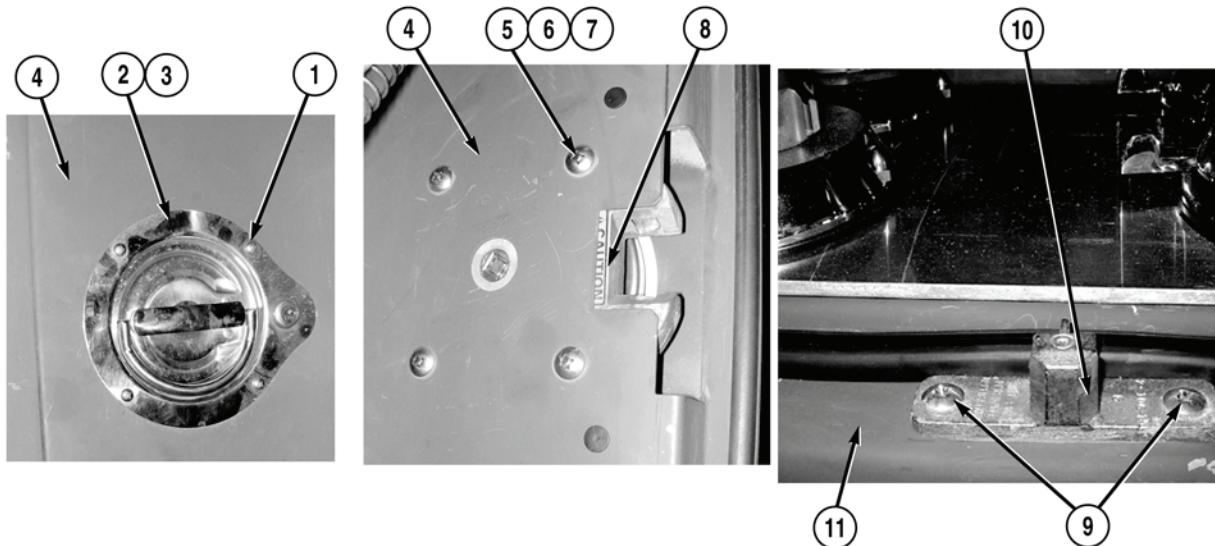
Water pump engine OFF (WP 0022)  
 Engine OFF (TM 9-2320-347-10)  
 Wheels chocked (TM 9-2320-347-10)

**Materials/Parts**

Locknut (4)

**References**

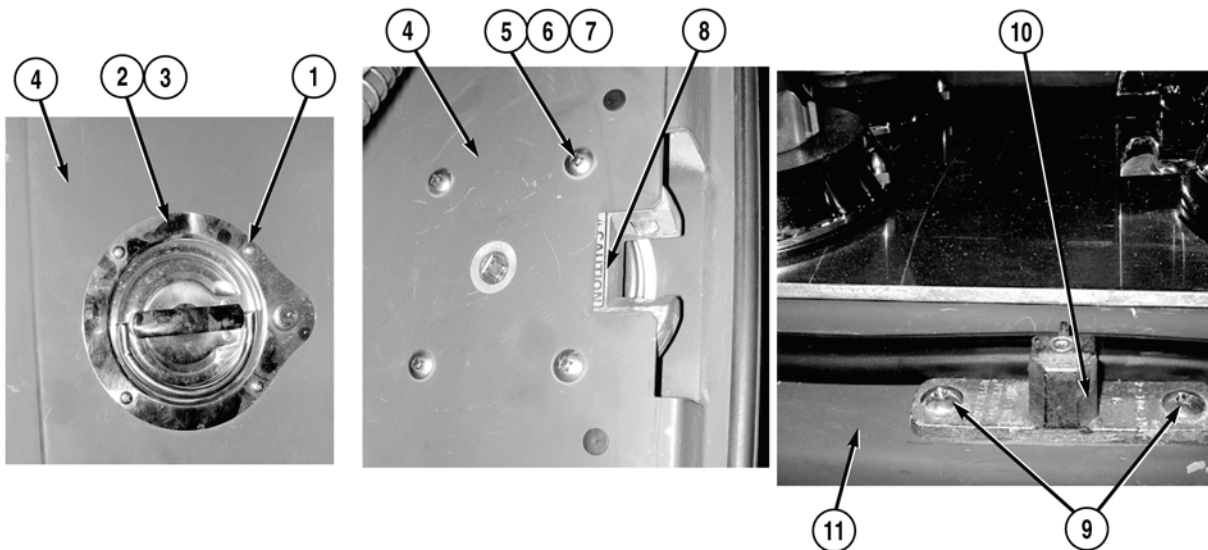
WP 0615, Fig. 146, 148, 149, 150, 151, 152, 153,  
 154, 155,

**REMOVAL****NOTE**

Note position of latch prior to removal to ensure proper installation.

1. Remove four screws (1), latch cover (2), and gasket (3) from compartment door (4).
2. Remove four locknuts (5), screws (6), washers (7), and latch assembly (8) from compartment door (4). Discard locknuts.
3. Remove two screws (9) and striker (10) from compartment (11).

**END OF TASK**

**INSTALLATION****NOTE**

Install latch in same position as noted prior to removal.

1. Install striker (10) on compartment (11) with two screws (9).
2. Install latch assembly (8) in compartment door (4) with four washers (7), screws (6), and locknuts (5).
3. Install latch cover (2) and gasket (3) on compartment door (4) with four screws (1).

**END OF TASK****FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK****END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**STOWAGE COMPARTMENT DOOR REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Lockwasher (2)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

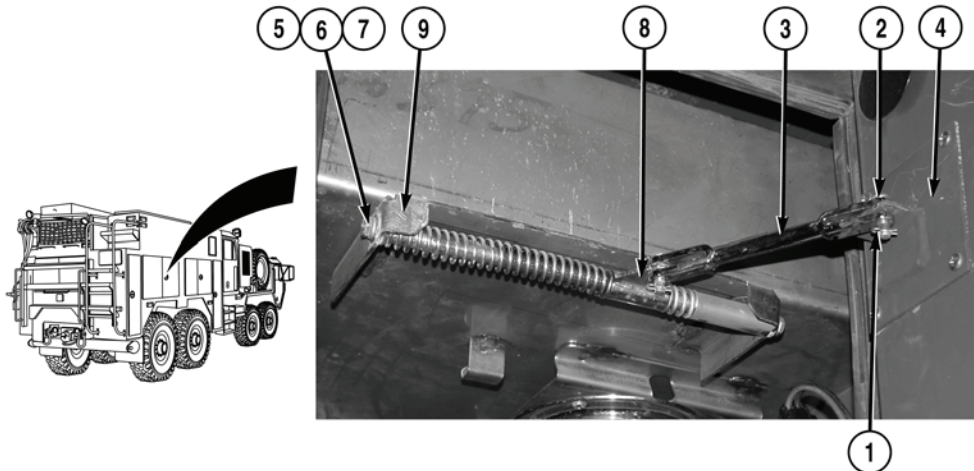
**References**

WP 0534  
WP 0554  
WP 0615, Fig. 148, 149

**Equipment Conditions**

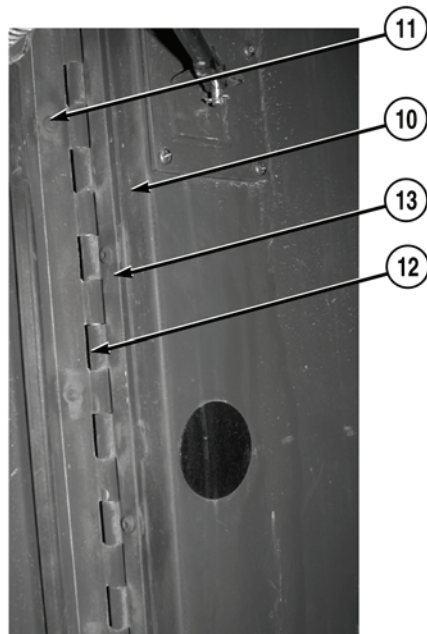
Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

---

**VERTICAL HINGED DOOR REMOVAL****NOTE**

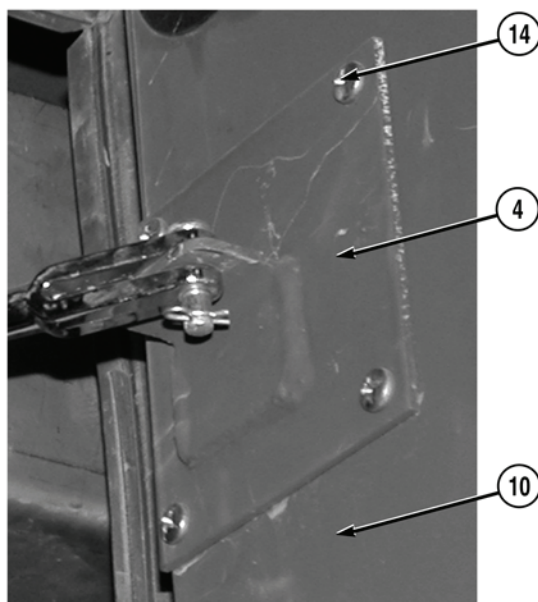
All positive door holder stay arms are removed the same way.

1. Remove quick-release pin (1) from pin (2).
2. Remove pin (2) and connecting rod (3) from door bracket (4).
3. Remove two screws (5), lockwashers (6), washers (7), and positive door holder stay arm (8) from two brackets (9). Discard lockwashers.

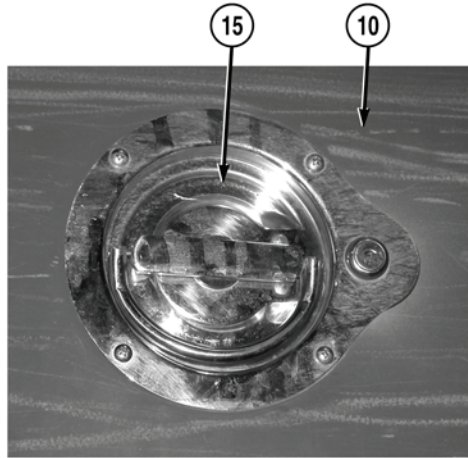
**NOTE**

All vertical hinged doors equipped with positive door holder stay arms are removed the same way. Number of screws may vary.

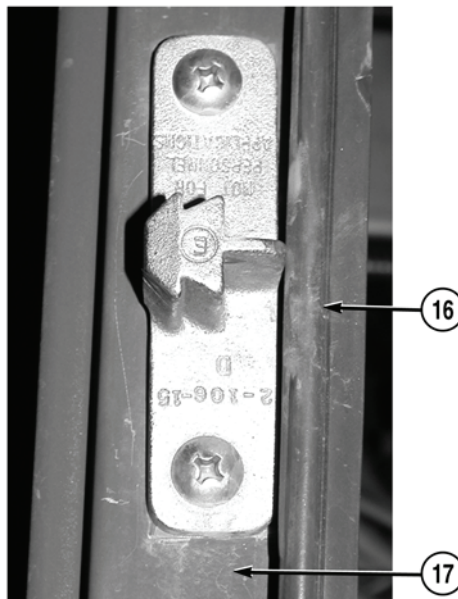
4. With the aid of an assistant, remove eight screws (11), door hinge (12), and door (10) from vehicle.
5. Remove nine screws (13) and door hinge (12) from door (10).



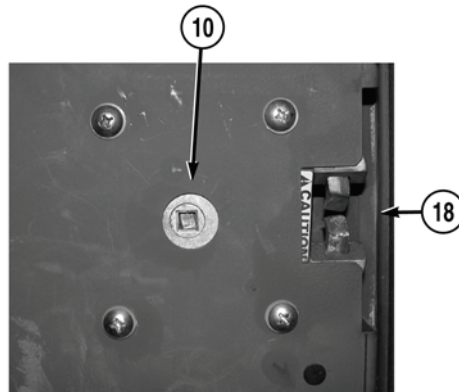
6. Remove four screws (14) and door bracket (4) from door (10).



7. Remove door latch (15) from door (10) (WP 0554).



8. Remove seal (16) from frame (17).



9. Remove seal (18) from door (10).

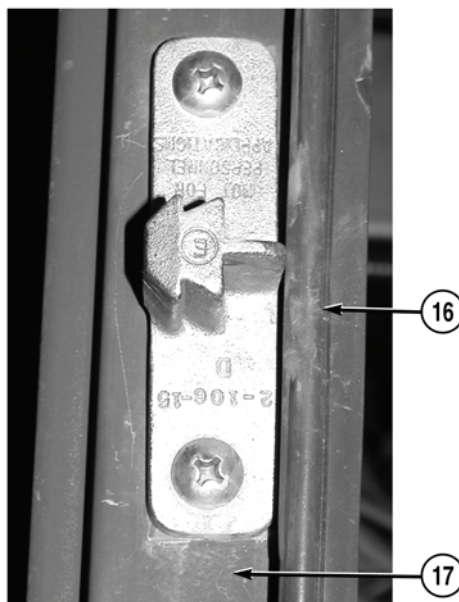
**END OF TASK**

### **VERTICAL HINGED DOOR INSTALLATION**

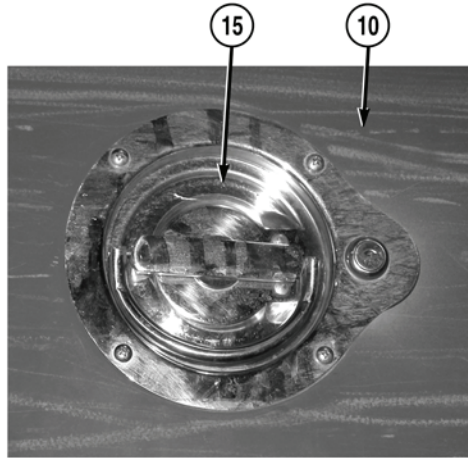
#### **NOTE**

All position door holder stay arms are installed the same way.

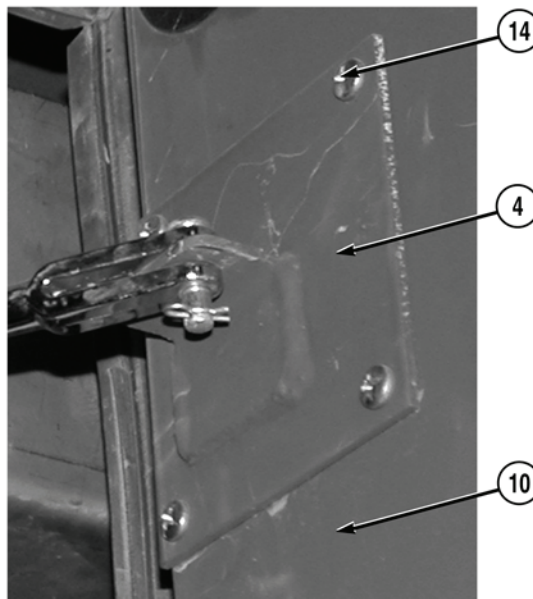
1. Install seal (16) on door (10).



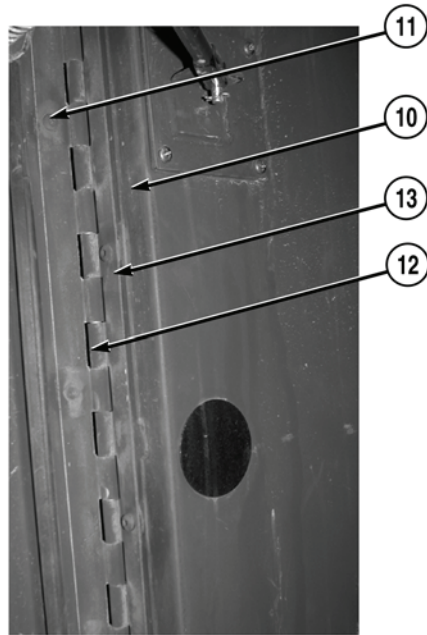
2. Install seal (16) on frame (17).



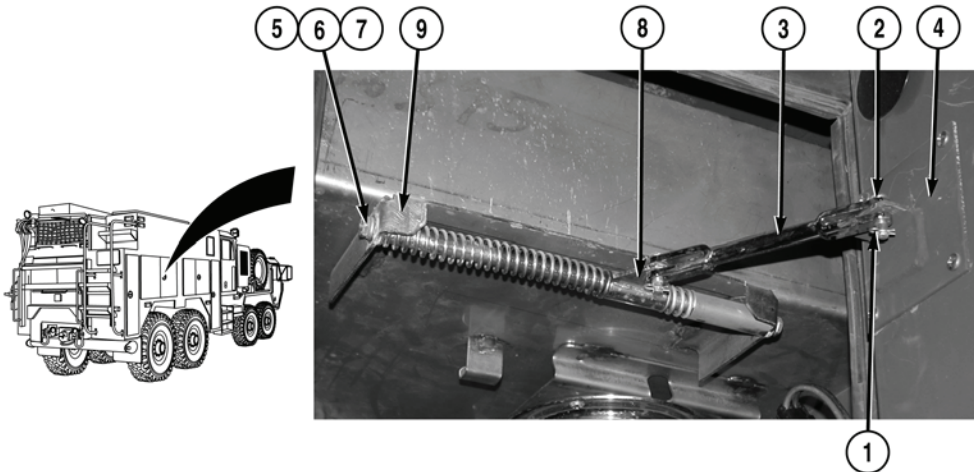
3. Install door latch (15) on door (10) (WP 0554).



4. Install door bracket (4) on door (10) with four screws (14).



5. Install door hinge (12) on door (10) with nine screws (13).
6. With the aid of an assistant, install door hinge (12) on vehicle with eight screws (11).

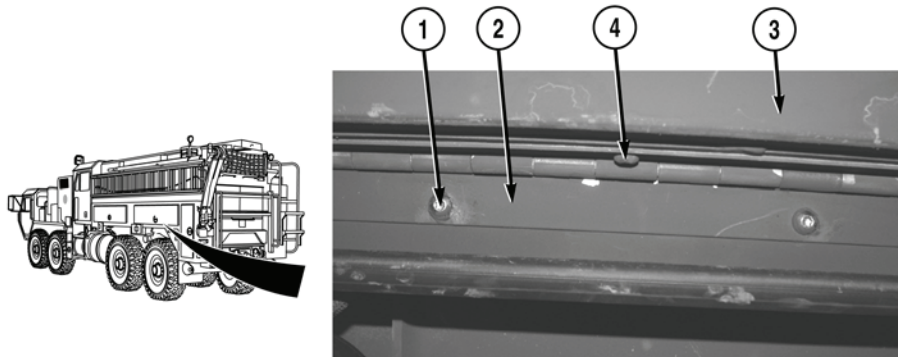


TFFT01730

7. Install positive door holder stay arm (8) on two brackets (9) with two washers (7), lockwashers (6), and screws (5).
8. Install connecting rod (3) on door bracket (4) with pin (2).
9. Install quick-release pin (1) on pin (2).

**END OF TASK**

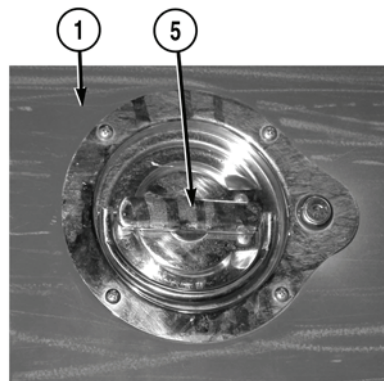
## HORIZONTAL HINGED DOOR REMOVAL



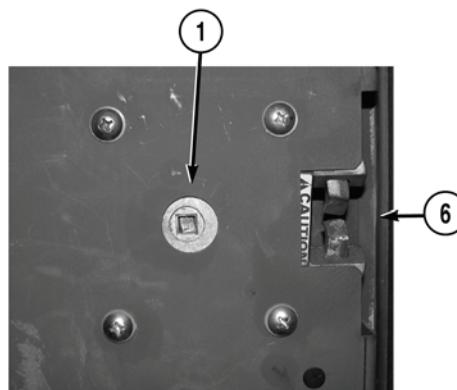
### NOTE

Both horizontal hinged doors equipped with pneumatic springs are removed the same way. Number of screws may vary.

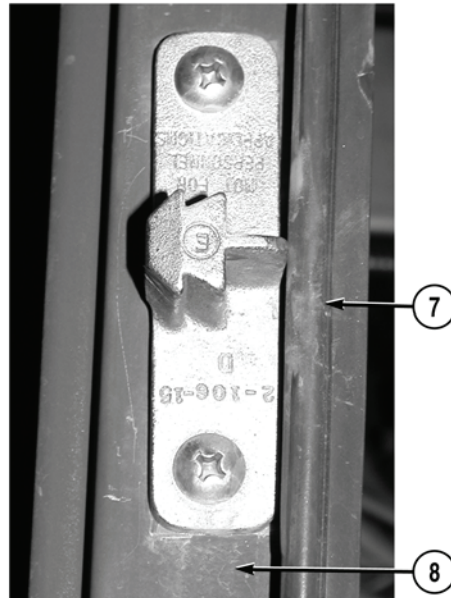
1. Remove two pneumatic springs (WP 0534).
2. With the aid of an assistant, remove 12 screws (1), door hinge (2), and compartment door (3) from vehicle.
3. Remove 12 screws (4) and door hinge (2) from compartment door (3).



4. Remove door latch (5) from compartment door (3) (WP 0554).



5. Remove seal (6) from compartment door (3).



6. Remove seal (7) from frame (8).

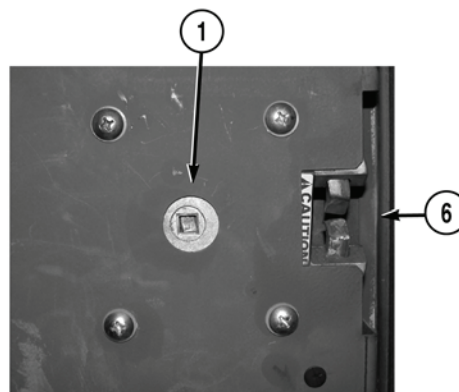
#### END OF TASK

#### HORIZONTAL HINGED DOOR INSTALLATION

#### NOTE

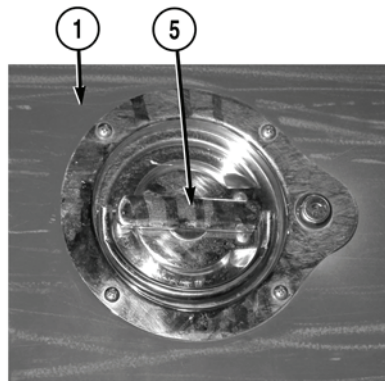
Both horizontal hinged doors equipped with pneumatic springs are installed the same way. Number of screws may vary.

1. Install seal (7) on frame (8).

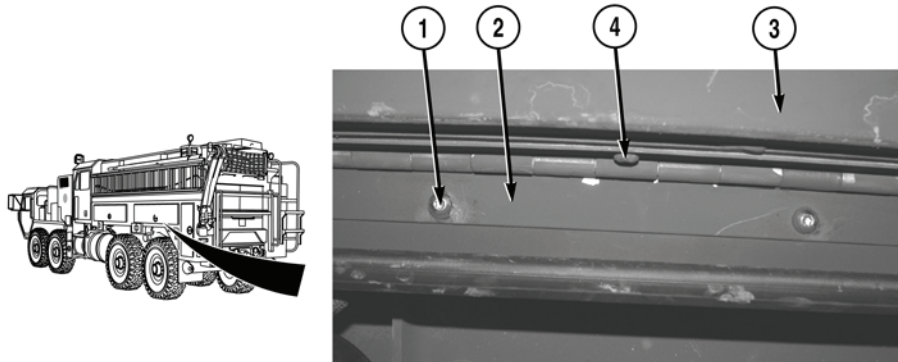


2. Install seal (6) on compartment door (3).





3. Install door latch (5) on compartment door (3) (WP 0554).



4. Install door hinge (2) on compartment door (3) with 12 screws (4).
5. With the aid of an assistant, install door hinge (2) and compartment door (3) to vehicle with 12 screws (1).
6. Install two pneumatic springs (WP 0534).

**END OF TASK**

#### **FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**



---

**FIELD LEVEL MAINTENANCE**  
**THREADED SCREW INSERT REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Installation Tool, AVK (WP 0622, Item 20)  
Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

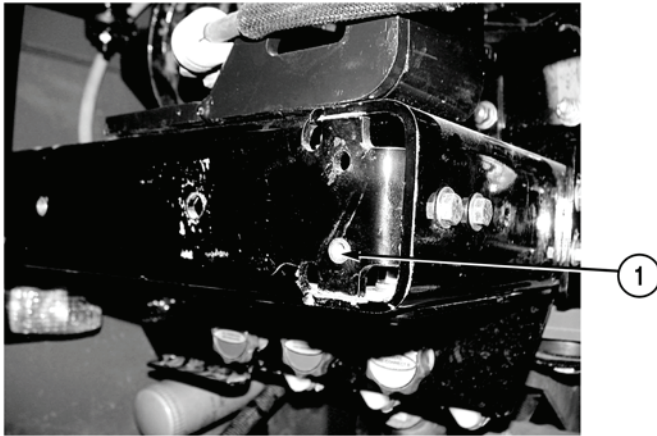
---

**REMOVAL****NOTE**

- All threaded screw inserts are replaced the same way.
- When replacing threaded screw inserts, refer to Table 1 below to determine which twist drill to use.

**Table 1. Threaded Screw Insert Replacement Parts.**

<b>Part Number</b>	<b>Twist Drill Size (In.)</b>	<b>Thread Size</b>
95-1598	17/64	8-32
82-0260-0002	19/64	10-24
82-0260-0003	19/64	10-24
82-0257-002	25/64	1/4-20
82-0257-003	25/64	1/4-20
82-0258-002	14/32	5/16-18
82-0258-003	17/32	5/16-18



**⚠ CAUTION**

When drilling out threaded screw insert, do not enlarge existing hole. The new threaded screw insert will not seat properly if hole is enlarged.

**NOTE**

Threaded screw inserts are used in various locations throughout the vehicle.

Drill out damaged threaded screw insert (1).

**END OF TASK**

**INSTALLATION**

Using installation tool, install threaded screw insert (1) in hole.

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**

## FIELD LEVEL MAINTENANCE

## TOP STOWAGE COMPARTMENT DOOR REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 150

**Materials/Parts**

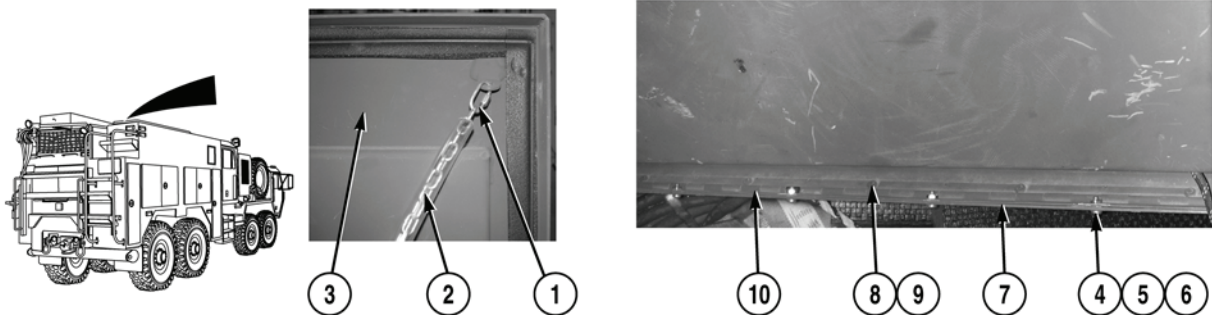
Adhesive, Sealant, Silicone RTV  
(WP 0625, Item 5)

Adhesive, Thread, Locking (WP 0625, Item 7)  
Lockwasher (4)

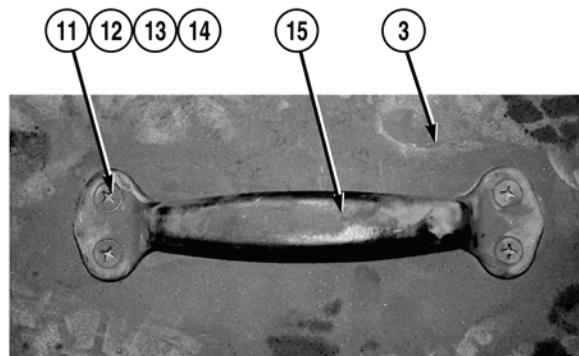
**Equipment Conditions**

Compartment light removed (WP 0374)

## REMOVAL



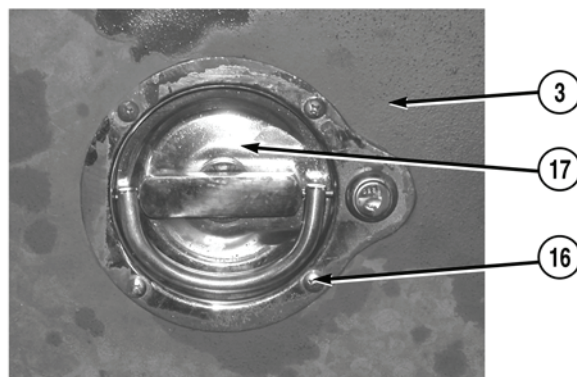
1. Remove two fasteners (1) and chains (2) from top stowage compartment door (3).
2. Remove 11 nuts (4), washers (5), screws (6), and top stowage compartment door (3) from top stowage compartment (7).
3. Remove 12 nuts (8), screws (9), and hinge (10) from top stowage compartment door (3).



### NOTE

Both grab handles are removed the same way.

- Remove four nuts (11), washers (12), lockwashers (13), screws (14), and grab handle (15) from top stowage compartment door (3). Discard lockwashers.



- Remove four screws (16) and door lock (17) from top stowage compartment door (3).

### END OF TASK

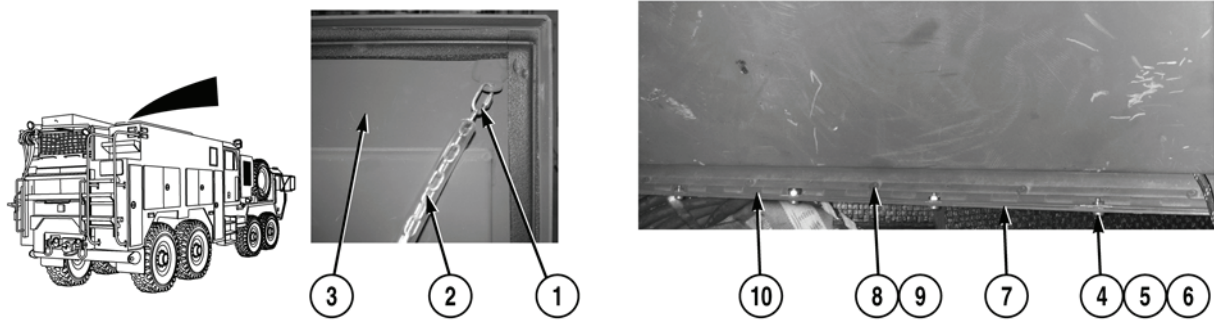
### INSTALLATION

- Install door lock (17) on top stowage compartment door (3) with four screws (16).

### NOTE

Both grab handles are installed the same way.

- Install grab handle (15) on top stowage compartment door (3) with four screws (14), lockwashers (13), washers (12), and nuts (11).



3. Install hinge (10) on top stowage compartment door (3) with 12 screws (9) and nuts (8).
4. Install top stowage compartment door (3) on top stowage compartment (7) with 11 screws (6), washers (5), and nuts (4).
5. Install two chains (2) on top stowage compartment door (3) with fasteners (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

Install compartment light (WP 0374)

#### END OF TASK

#### END OF WORK PACKAGE





---

**FIELD LEVEL MAINTENANCE**  
**TRANSMISSION REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Drain Pan (WP 0622, Item 9)  
Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Compound, Sealing, Thread  
Locking (WP 0625, Item 20)  
Oil, Lubricating (WP 0625, Item 37)  
Seal, Sentry, Blue (WP 0625, Item 44)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (1)  
Lockwasher (1)  
Preformed Packing (1)  
Preformed Packing (1)  
Locknut (3)  
Lockwasher (6)  
Preformed Packing (1)  
Preformed Packing (1)  
Preformed Packing (1)  
Preformed Packing (1)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

**References**

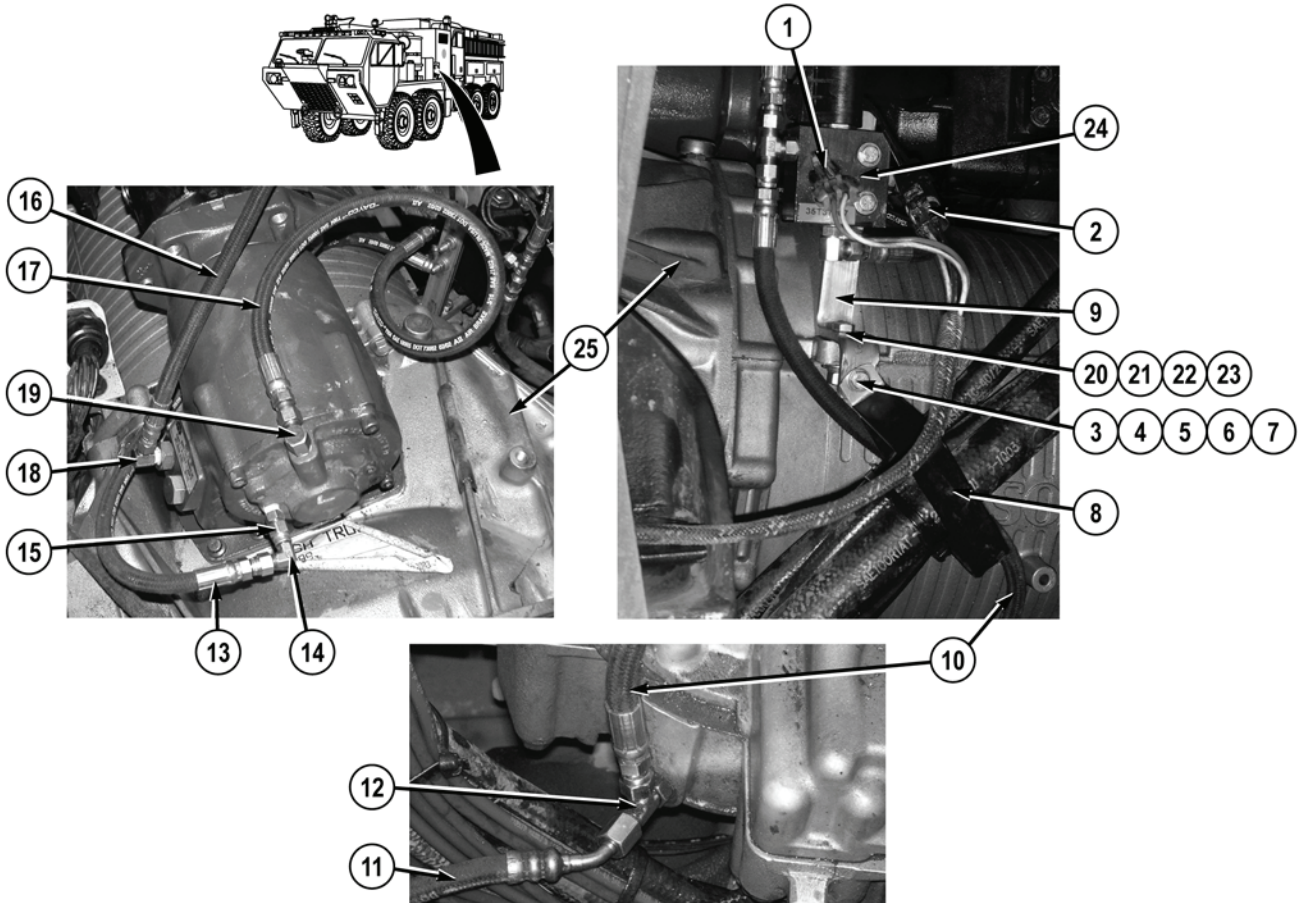
TM 9-2320-325-14&P  
TB 9-2320-279-13  
WP 0209  
WP 0490  
WP 0559

**Equipment Conditions**

Tire carrier warning light removed (WP 0351)  
Tire carrier removed (TM 9-2320-325-14&P)  
Hydraulic reservoir removed  
(TM 9-2320-325-14&P)  
Air system drained (TM 9-2320-347-10)  
Hydraulic generator oil drained (WP 0588)

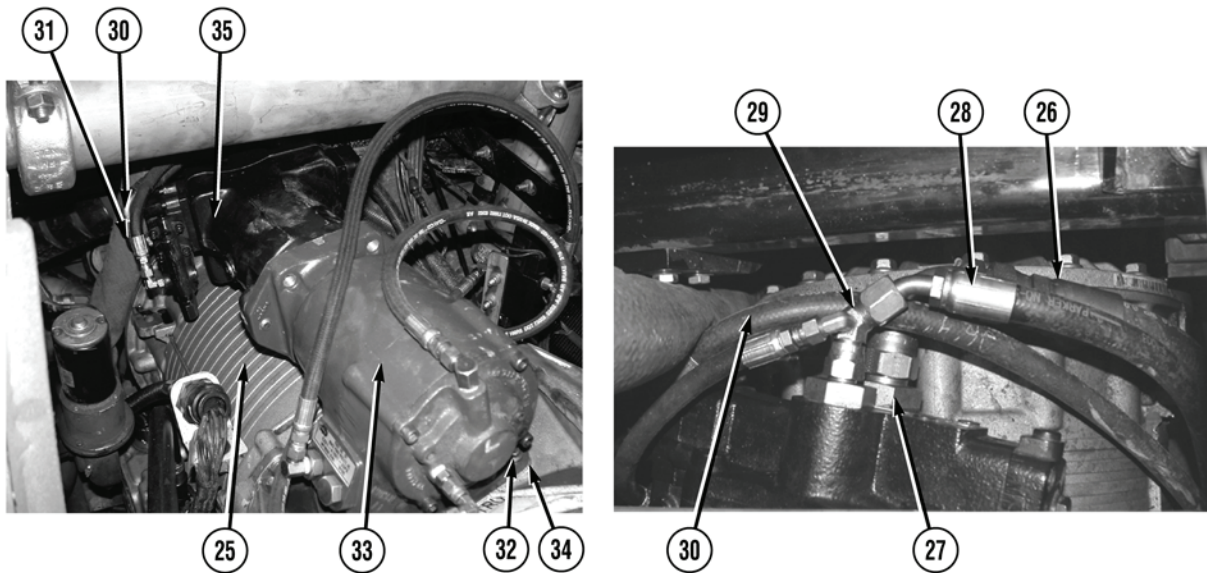
**REMOVAL**

1. Remove crew cab heater hoses from engine (WP 0209). Perform Steps (1), (2), (8), and (9).
2. Remove personnel cab air conditioner hose and connector (TB 9-2320-279-13).
3. Remove piping from pump house, roof and bumper turret systems; items 3, 4, and 5, and side discharge system; items 3 and 4 (WP 0490).
4. Remove engine (TM 9-2320-325-14&P).



**NOTE**

- Tag and mark hoses and wires prior to removal to ensure proper installation.
  - Remove cable ties as required.
  - Place a suitable container under transmission to catch excess oil.
  - Power takeoff solenoid and bracket are removed from transmission as an assembly.
5. Disconnect two connectors (1) and (2).
  6. Remove nut (3), lockwasher (4), two washers (5) and (6), screw (7), and cushion clip (8) from bracket (9). Discard lockwasher.
  7. Remove two hoses (10) and (11) from tee (12).
  8. Remove hose (13) and elbow (14) from fitting (15).
  9. Remove two hoses (16) and (17) from elbows (18) and (19).
  10. Remove nut (20), lockwasher (21), washer (22), screw (23), bracket (9), and solenoid assembly (24) from transmission (25). Discard lockwasher.



11. Remove hose (26) from fitting (27).
12. Remove hose (28) from elbow (29).
13. Remove hose (30) from elbow (31).

### NOTE

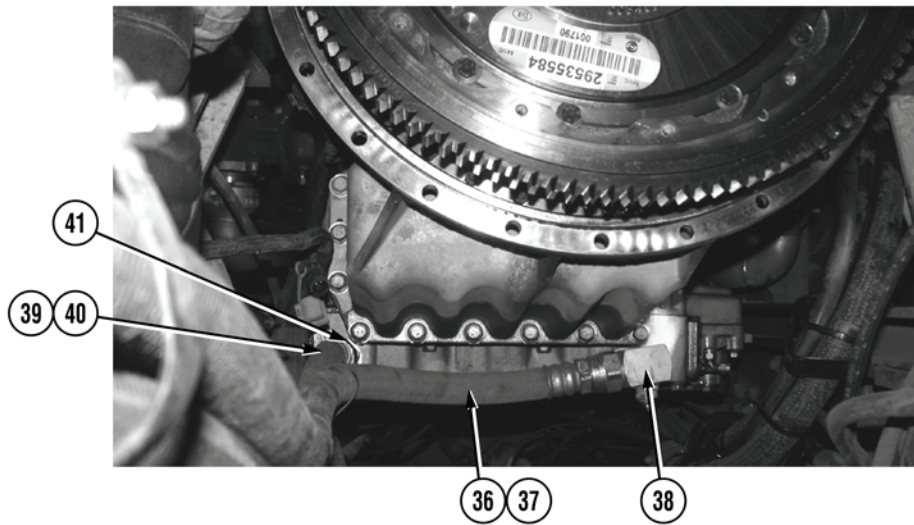
PTO and PTO pump are removed as an assembly.

14. With the aid of an assistant, support PTO (33), gasket (34), and PTO pump (35) and remove eight screws (32) from transmission (25).

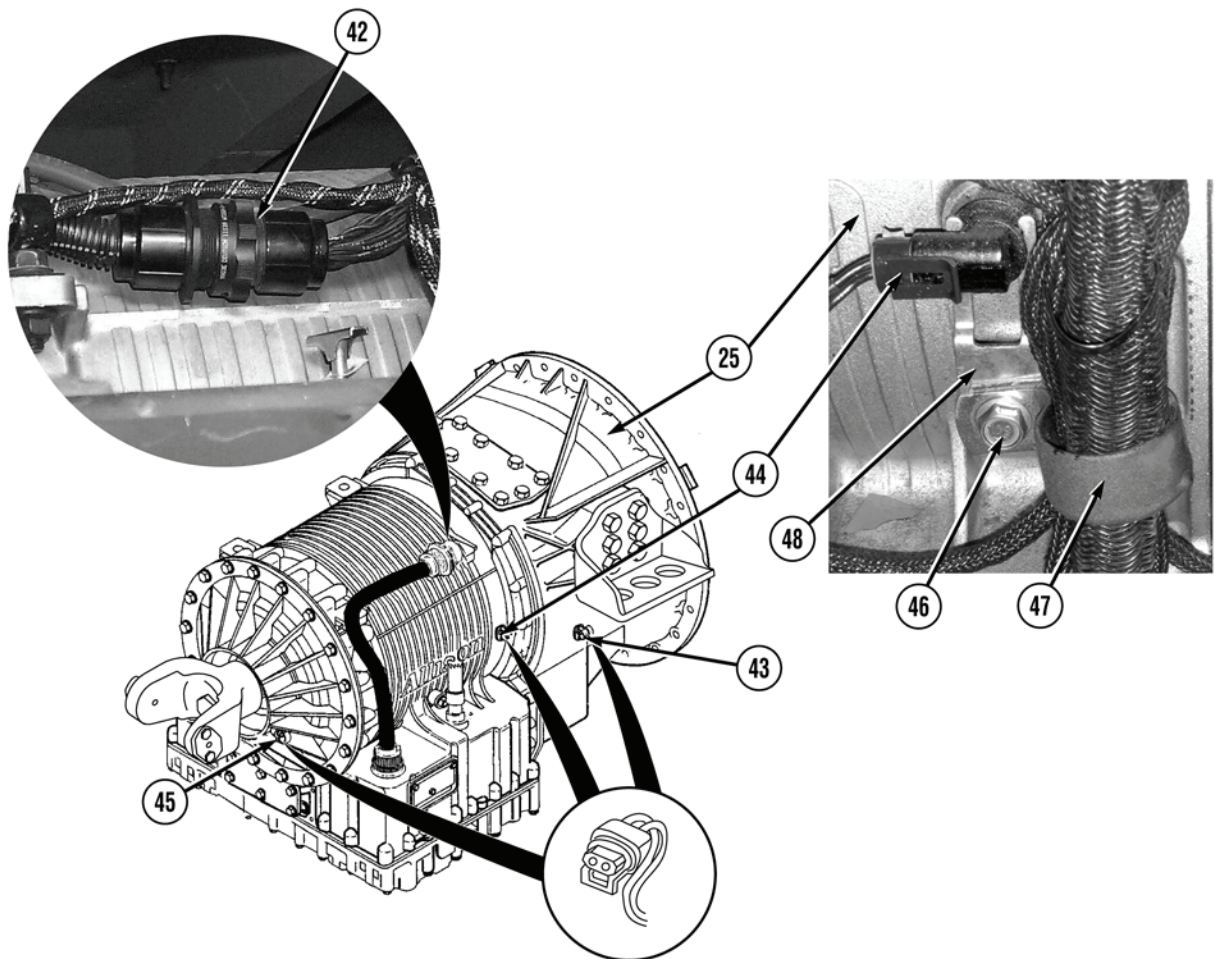
### CAUTION

**Access hole must be covered to prevent dust and dirt from entering transmission.  
Failure to comply may cause damage to equipment.**

15. With the aid of an assistant, remove PTO (33), gasket (34), and PTO pump (35) from vehicle.



16. Remove hose (36) and preformed packing (37) from elbow (38). Discard preformed packing.
17. Remove hose (39) and preformed packing (40) from fitting (41). Discard preformed packing.

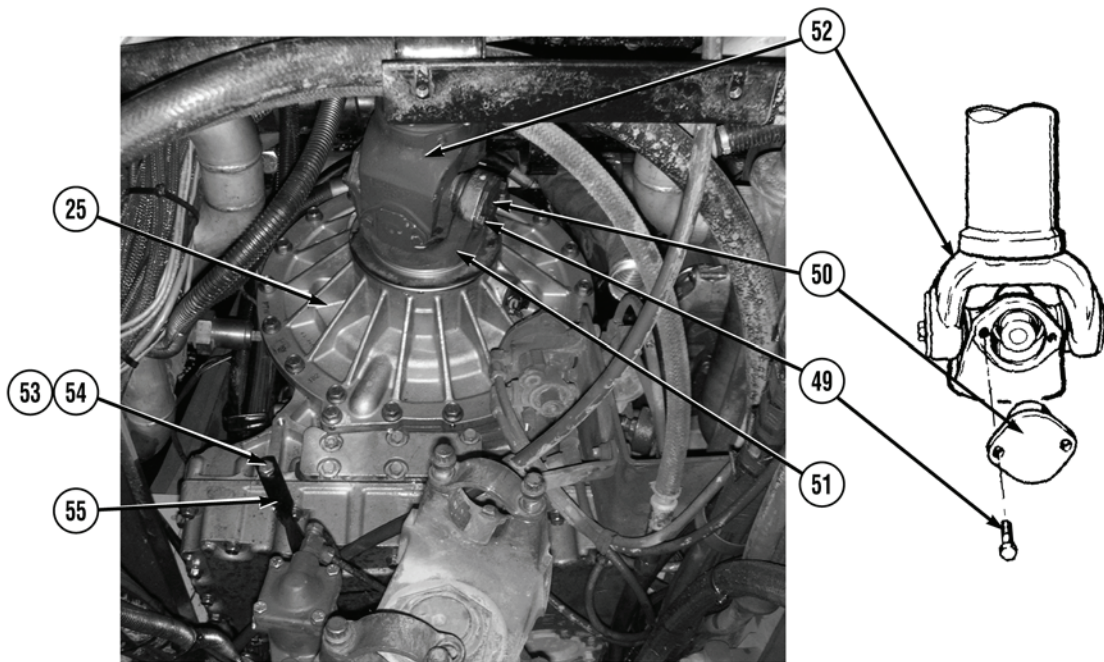


18. Disconnect connector (42).
19. Disconnect three connectors (43), (44), and (45).
20. Remove screw (46), cushion clip (47), and retainer (48) from transmission (25).

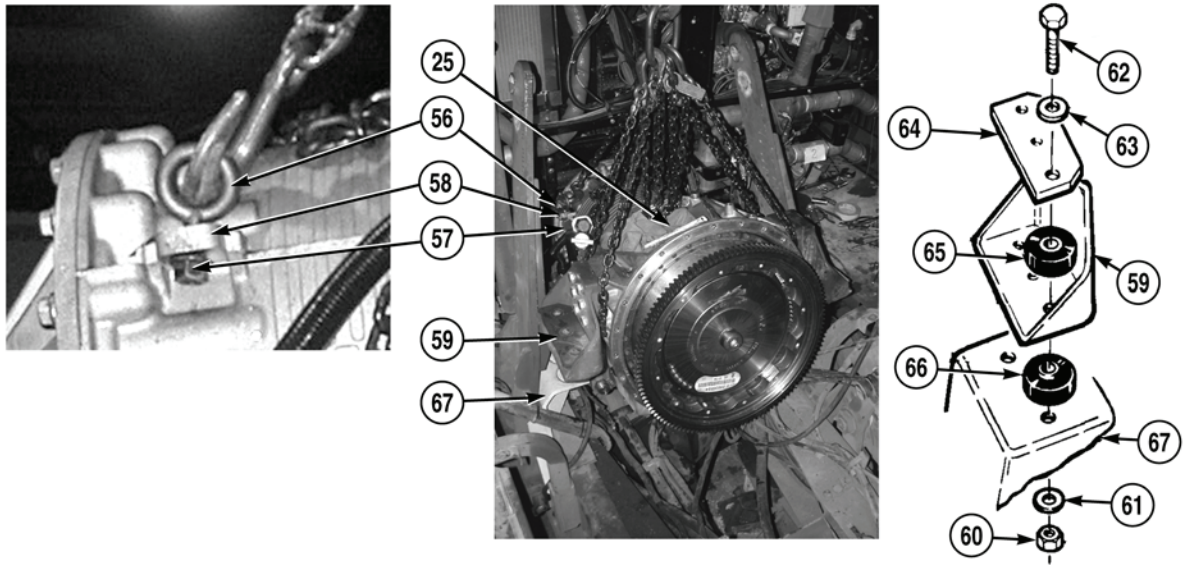
### NOTE

Retainer should remain on transmission after removal of cushion clip.

21. Install retainer (48) on transmission (25) with screw (46). Do not tighten screw.



22. Remove four screws (49) and two bearing retainer caps (50) from transmission output yoke (51).
23. Move propeller shaft (52) out of the way.
24. Remove screw (53), washer (54), and bracket (55) from transmission (25).



25. Attach two eye bolts (56) and nuts (57) on rear attachment points (58).

### **⚠ CAUTION**

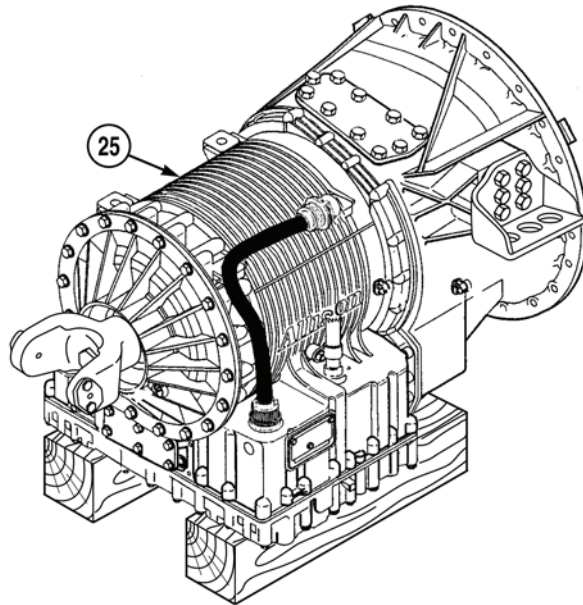
- **When attaching suitable lifting device, chain tension on front and rear of transmission must be equal. Failure to apply proper tension during transmission removal may cause transmission to shift during removal and may cause damage to pre-connect "B" valve, pre-connect "A" flow sensor, or transmission itself.**
- **Transmission is removed at an angle with front of transmission higher than back. Note angle of transmission prior to removal to ensure proper installation. Failure to comply may cause damage to equipment.**

26. Attach suitable lifting device on two rear eye bolts (56) and around transmission mounting brackets (59).
27. Remove three locknuts (60), washers (61), screws (62), washers (63), plate (64), and three mounting biscuits (65) from each of two transmission mounting brackets (59). Discard locknuts.

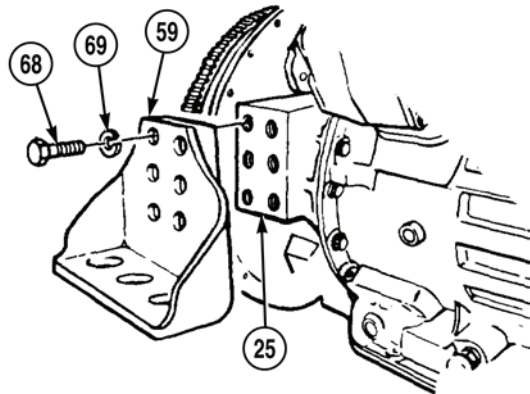
### **NOTE**

Lift transmission slightly with suitable lifting device.

28. Remove three mounting biscuits (66) from each of two transmission mounting supports (67).
29. With the aid of an assistant and a suitable lifting device, lift and guide transmission (25) away from vehicle.

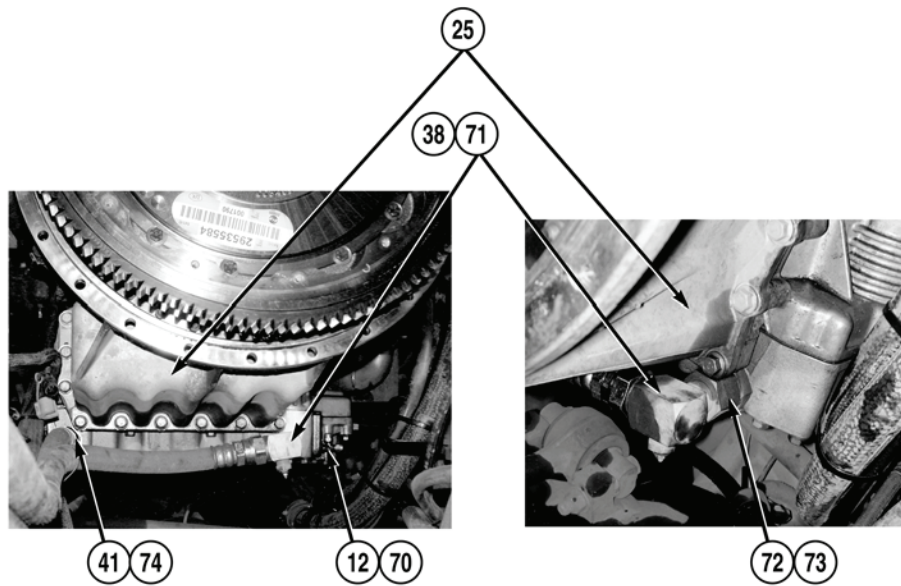


30. Set transmission (25) on two wood blocks.

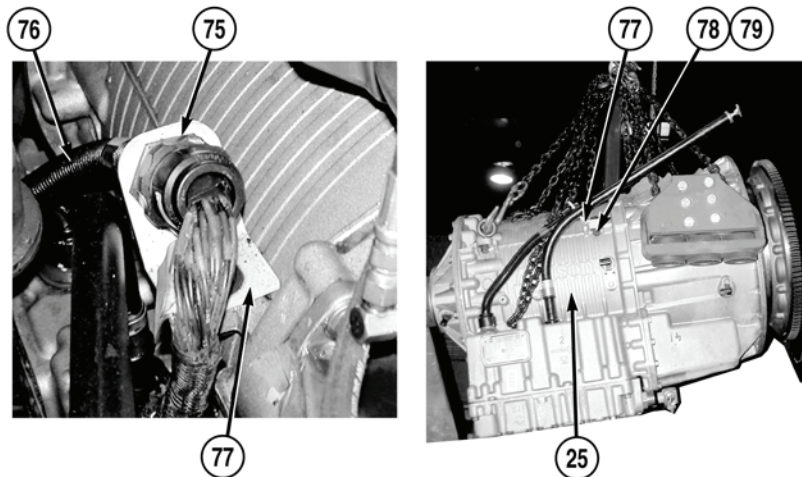


31. Remove six screws (68), lockwashers (69), and transmission mounting bracket (59) from each side of transmission (25). Discard lockwashers.

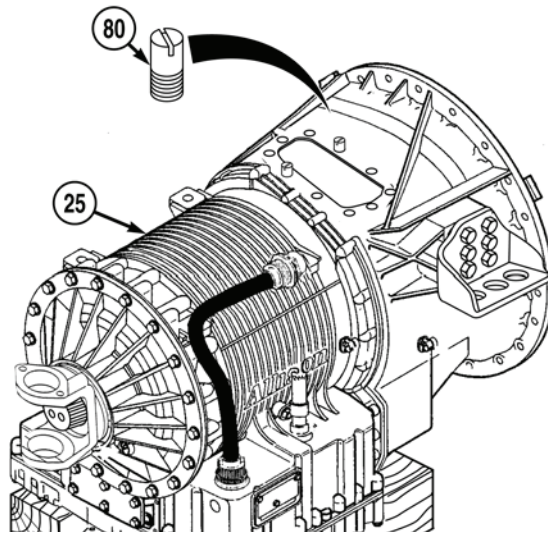




32. Remove tee (12) and preformed packing (70) from transmission (25). Discard preformed packing.
33. Remove elbow (38) and preformed packing (71) from fitting (72). Discard preformed packing.
34. Remove fitting (72) and preformed packing (73) from transmission (25). Discard preformed packing.
35. Remove fitting (41) and preformed packing (74) from transmission (25). Discard preformed packing.



36. Remove nut (75) and harness (76) from bracket (77).
37. Install nut (75) on harness (76). Do not tighten nut.
38. Remove nut (78), screw (79), and bracket (77) from transmission (25).

**NOTE**

Note position of guide pins prior to replacement to ensure proper installation.

39. Remove two guide pins (80) from transmission (25).
40. Remove transmission dipstick tube (TM 9-2320-325-14&P).

**NOTE**

- All components removed in this procedure must be installed on replacement (new) transmission.
- Refer to Shipping and Storage Containers, Engine, Transmission and Transfer Case Packing and Unpacking (TM 9-2320-325-14&P) if transmission is to be prepared for storage.

**END OF TASK****INSTALLATION**

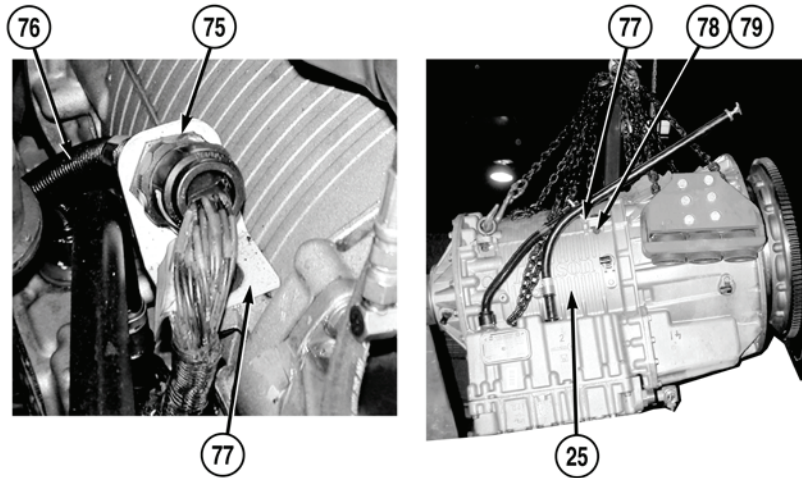
 **CAUTION**

**Access hole must be covered to prevent dust and dirt from entering transmission. Failure to comply may cause damage to equipment.**

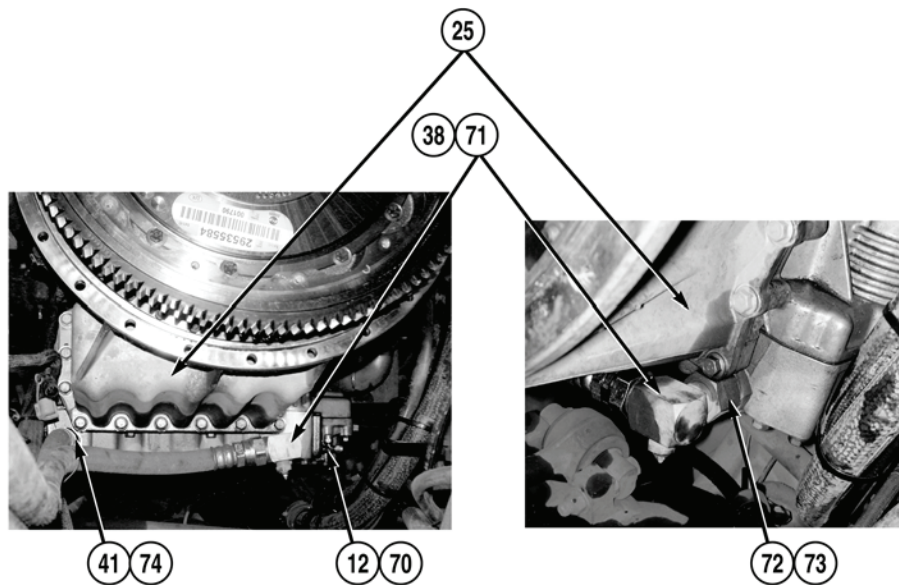
**NOTE**

- Refer to Shipping and Storage Containers, Engine, Transmission and Transfer Case Packing and Unpacking (TM 9-2320-325-14&P) if transmission must be unpacked from container.
- Install fittings, sending units, and plugs from old transmission on new transmission.
- Uncover access hole before performing Step (1).
- Install guide pins as noted prior to removal.

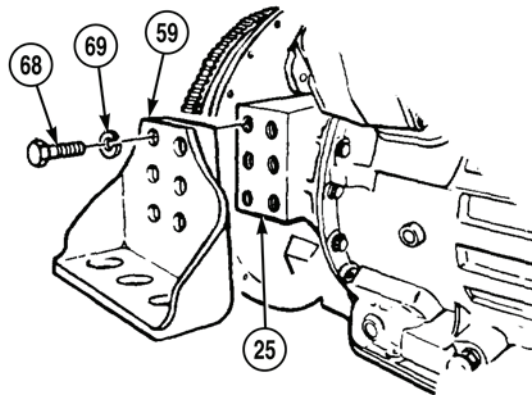
1. Install transmission dipstick tube (TM 9-2320-325-14&P).
2. Install two guide pins (80) on transmission (25).



3. Install bracket (77) on transmission (25) with screw (79) and nut (78).
4. Install harness (76) on bracket (77) with nut (75).

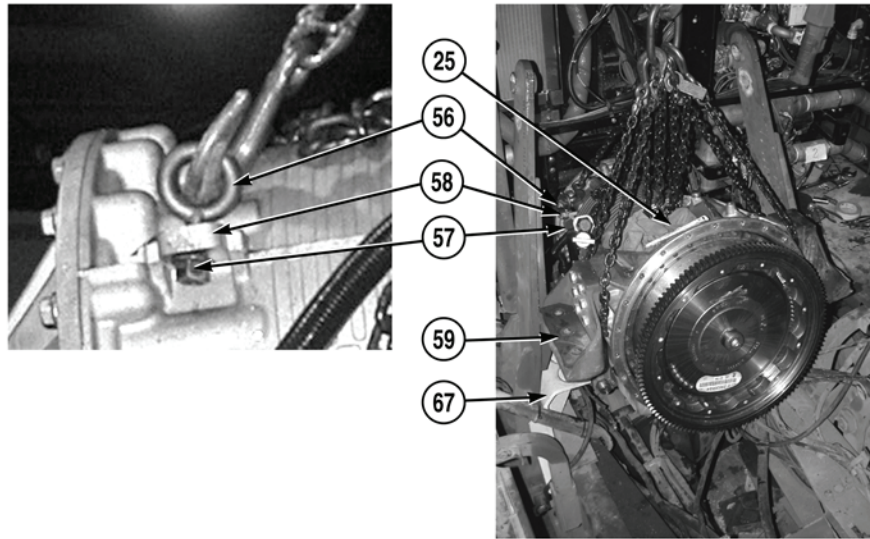


5. Install preformed packing (74) and fitting (41) on transmission (25).
6. Install preformed packing (73) and fitting (72) on transmission (25).
7. Install preformed packing (71) and elbow (38) on fitting (72).
8. Install preformed packing (70) and tee (12) on transmission (25).

**WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

9. Apply thread locking sealing compound to threads of 12 screws (68).
10. Install transmission mounting bracket (59) on each side of transmission (25) with six lockwashers (69) and screws (68). Tighten screws to 130 to 140 lb.-ft. (176 to 190 N•m).
11. Apply sealant to 12 screws (68) to mark torque point.



12. Position three mounting biscuits (66) on each of two transmission mounting supports (67).
13. Attach two eye bolts (56) and nuts (57) on rear attachment points (58).

** CAUTION**

**Chains of suitable lifting device must be attached to transmission as noted prior to removal. Transmission must be installed at same angle in which it was removed. Failure to install at proper angle may not allow lifting chains to clear wire harness supporting crossmember.**

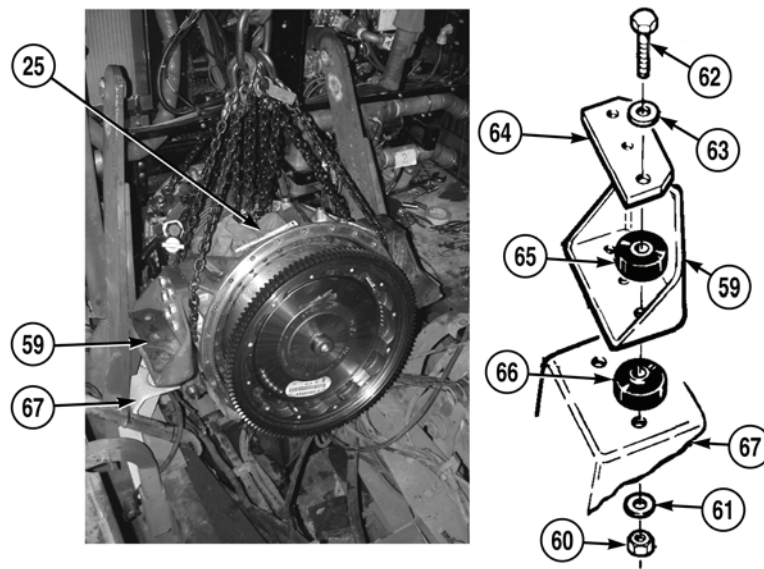
14. Attach suitable lifting device on two rear eye bolts (56) and around transmission mounting brackets (59).

**WARNING**



**Keep out from under heavy parts. Falling parts may cause serious injury or death to personnel.**

15. With the aid of an assistant and a suitable lifting device, guide transmission (25) on two transmission mounting supports (67).



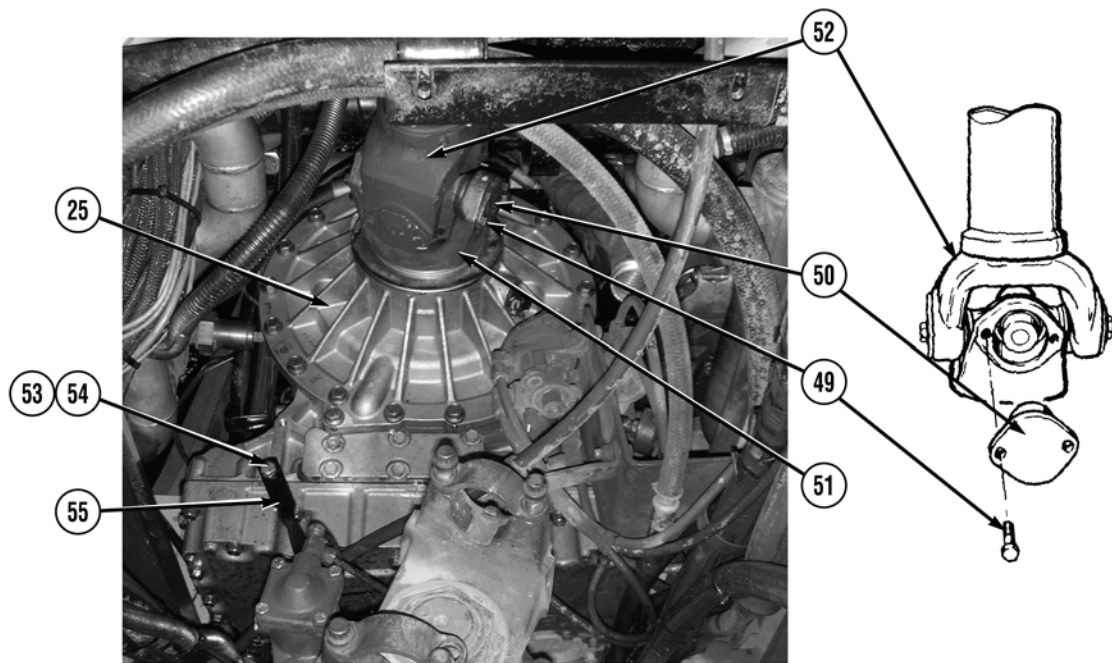
16. Lightly lubricate six screws (62).

**WARNING**

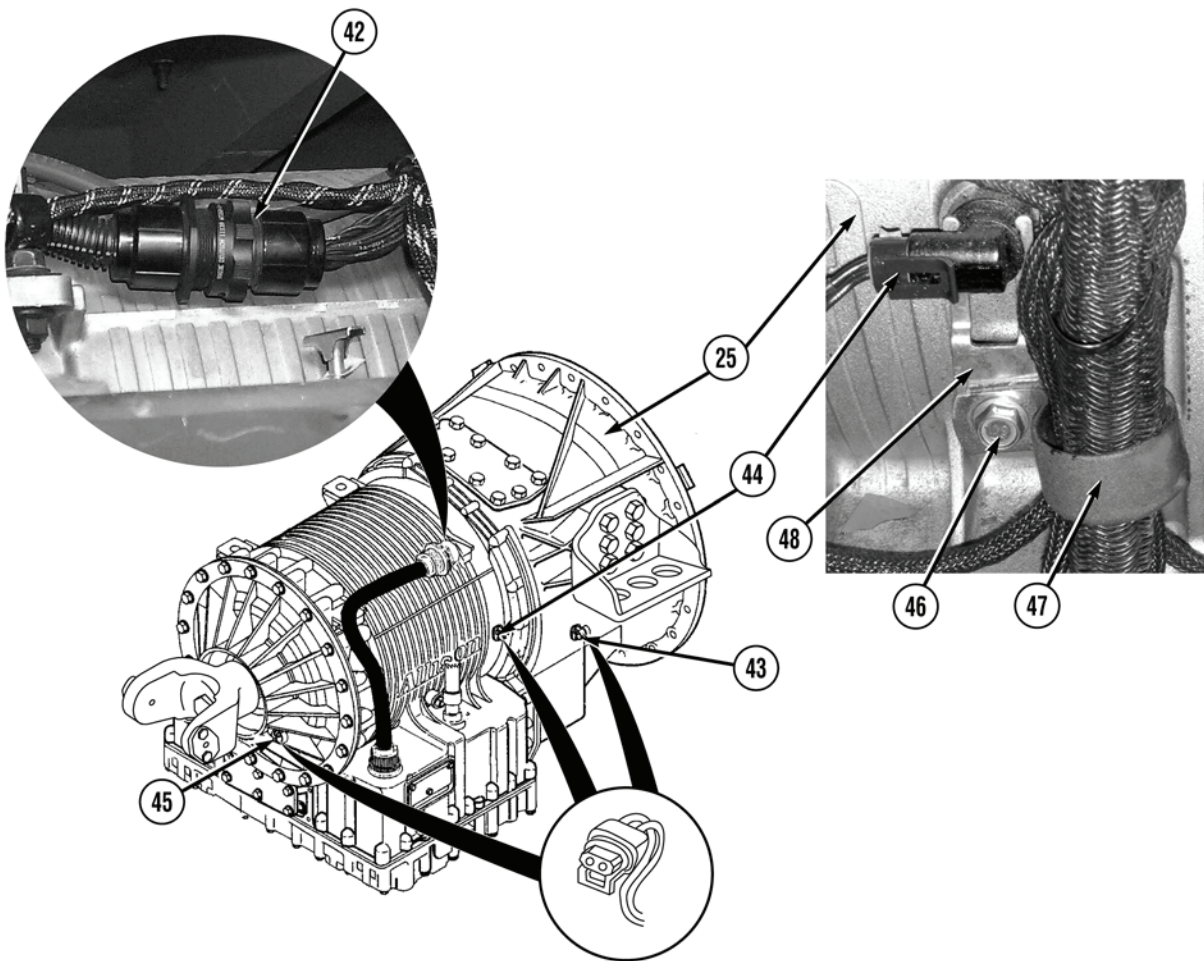


**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

17. Apply sealant to three locknuts (60) to mark torque point.
18. Install each of two transmission mounting brackets (59) on three biscuits (66) and transmission mounting support (67) with three screws (62), washers (63), plate (64), three mounting biscuits (65), washers (61), and locknuts (60). Tighten screws to 170 lb.-ft. (231 N•m).
19. Remove lifting device, two nuts (57), and eye bolts (56) from rear attachment points (58) and transmission mounting brackets (59).

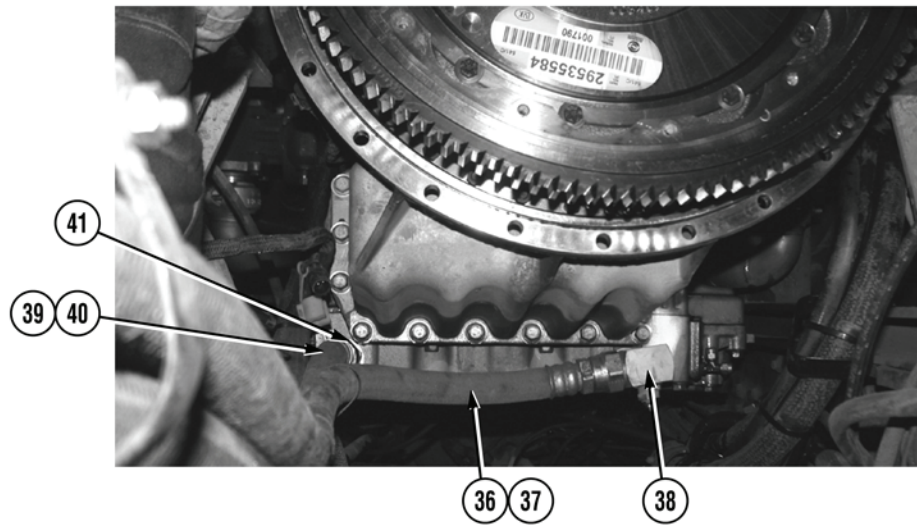


20. Install bracket (55) on transmission (25) with washer (54) and screw (53).
21. Align propeller shaft (52) on transmission output yoke (51).
22. Install propeller shaft (52) on transmission output yoke (51) with two bearing retainer caps (50) and four screws (49). Tighten screws to 42 lb.-ft. (57 N•m).
23. Apply sealant to four screws (49) to mark torque point.

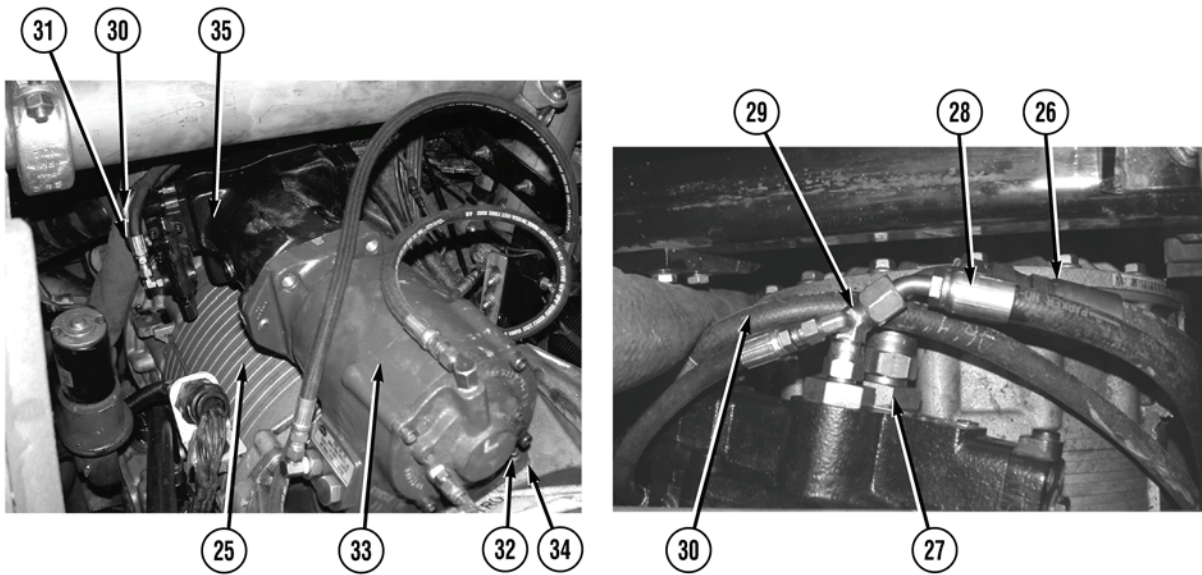


24. Remove screw (46) from retainer (48) and transmission (25).
25. Install cushion clip (47) and retainer (48) on transmission (25) with screw (46).
26. Connect three connectors (43), (44), and (45).
27. Connect connector (42).





28. Install preformed packing (40) and hose (39) on fitting (41).
29. Install preformed packing (37) and hose (36) on elbow (38).



30. Place gasket (34) on transmission (25).

### NOTE

PTO and PTO pump are installed as an assembly.

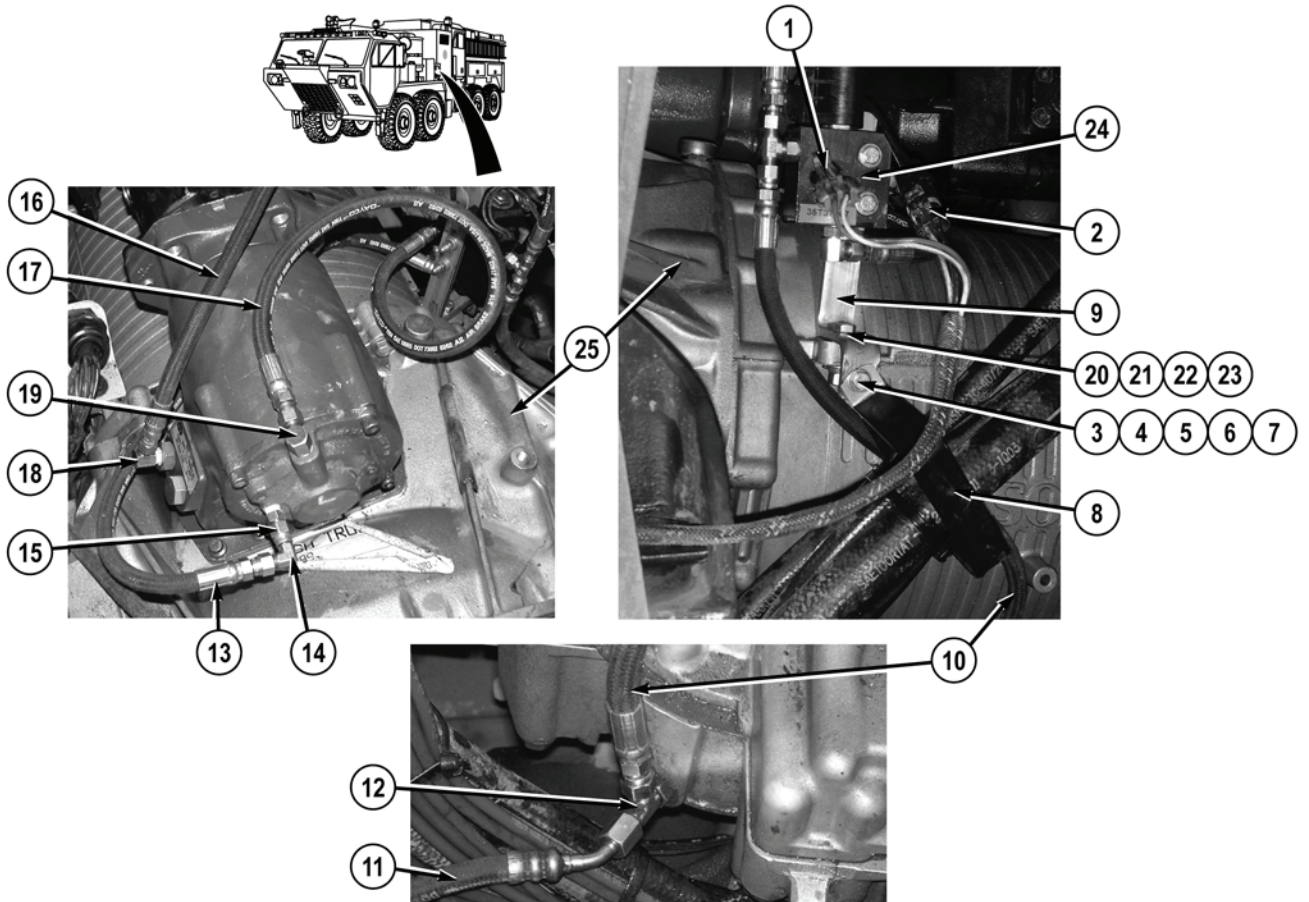
31. With the aid of an assistant, install PTO (33) and PTO pump (35) on transmission (25) with eight screws (32). Tighten screws to 42 to 50 lb.-ft. (57 to 68 N•m).

### WARNING



**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

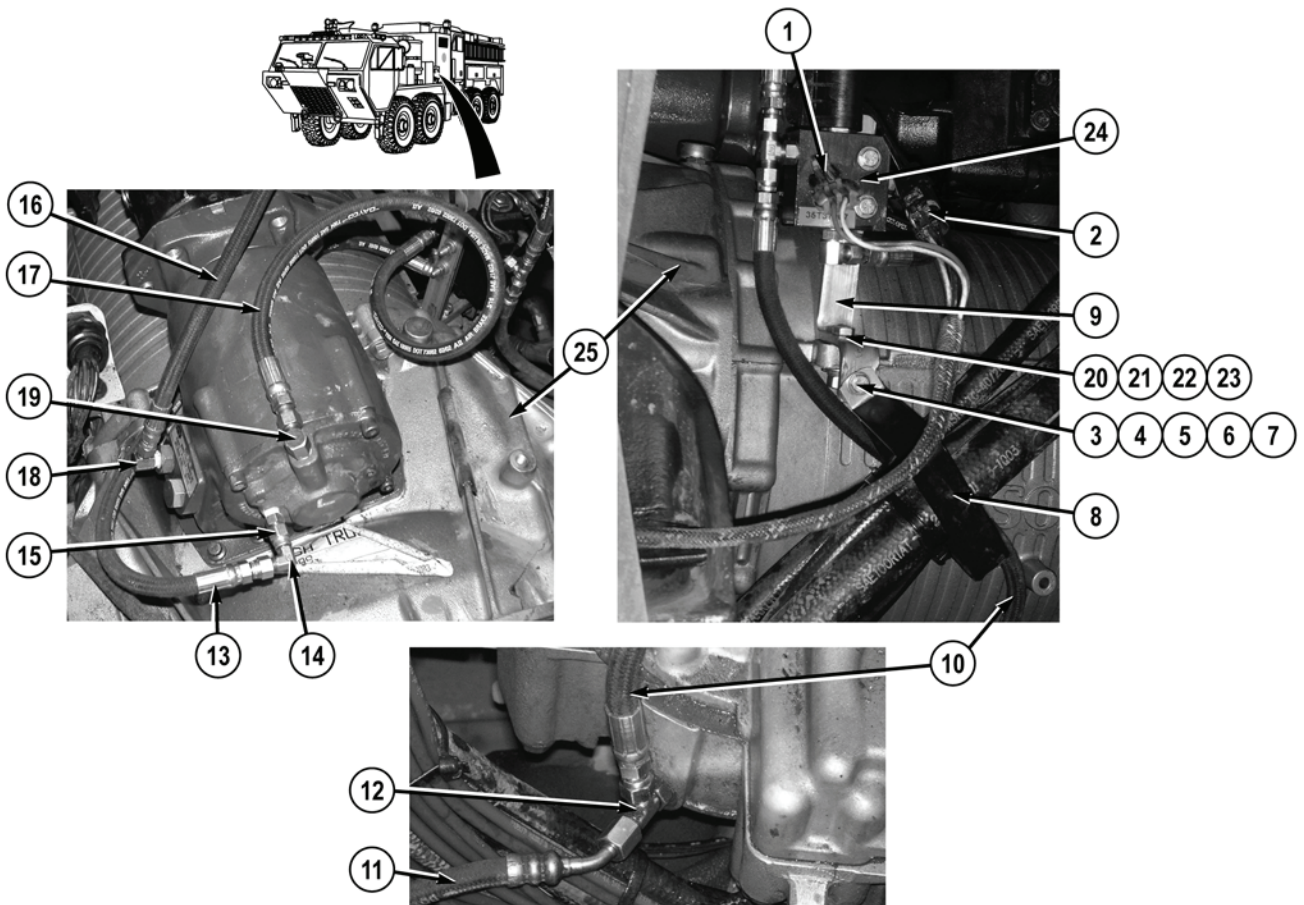
32. Apply sealant to eight screws (32) to mark torque point.
33. Install hose (30) on elbow (31).
34. Install hose (28) on elbow (29).
35. Install hose (26) on fitting (27).



**NOTE**

Power takeoff solenoid and bracket are installed on transmission as an assembly.

- 36. Install solenoid assembly (24) and bracket (9) on transmission (25) with screw (23), washer (22), lockwasher (21), and nut (20).
- 37. Install two hoses (16) and (17) on elbows (18) and (19).
- 38. Install elbow (14) and hose (13) on fitting (15).
- 39. Install two hoses (10) and (11) on tee (12).
- 40. Install cushion clip (8) on bracket (9) with screw (7), two washers (5) and (6), lockwasher (4), and nut (3).
- 41. Connect two connectors (1) and (2).
- 42. Install engine (TM 9-2320-325-14&P).
- 43. Install items 3 and 4 side discharge system, and items 3, 4, and 5 roof and bumper turret systems (WP 0490).



44. Install personnel cab air conditioner hose and connector (TB 9-2320-279-13).

45. Install crew cab heater hoses on engine (WP 0209). Perform Steps (11), (12), (22), and (23).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

1. Fill hydraulic generator (WP 0588)
2. Install hydraulic reservoir (TM 9-2320-325-14&P)
3. Install tire carrier (TM 9-2320-325-14&P)
4. Install tire carrier warning light (WP 0351)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**TRANSMISSION DIPSTICK AND TUBE REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

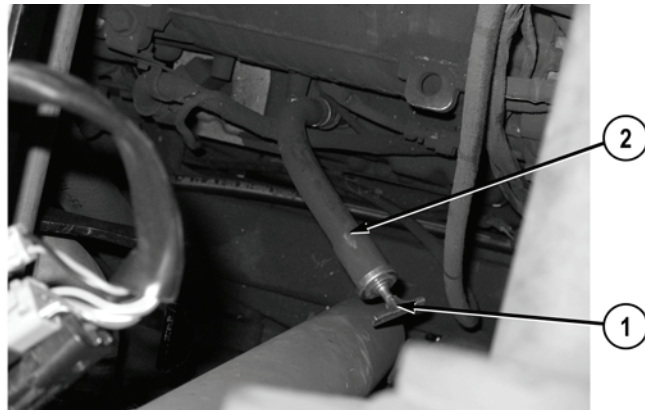
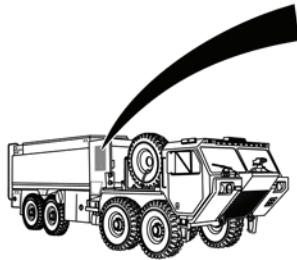
**Equipment Conditions**

Transmission drained (TM 9-2320-325-14&P)

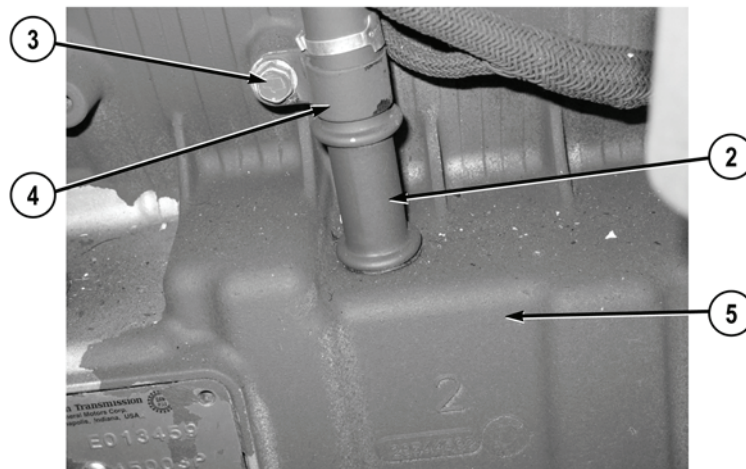
**References**

WP 0611, Fig. 1

---

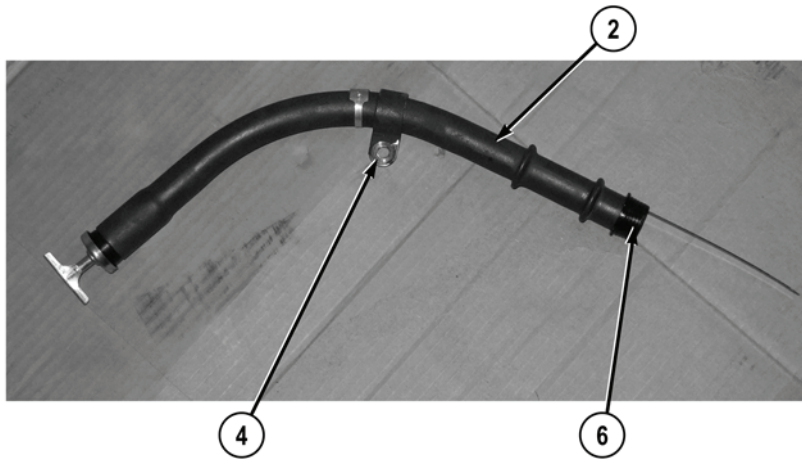
**REMOVAL**

1. Remove dipstick (1) from dipstick tube (2).

**NOTE**

Note position of dipstick tube prior to removal to ensure proper installation.

2. Remove screw (3), dipstick tube bracket (4), and dipstick tube (2) from transmission (5).



### NOTE

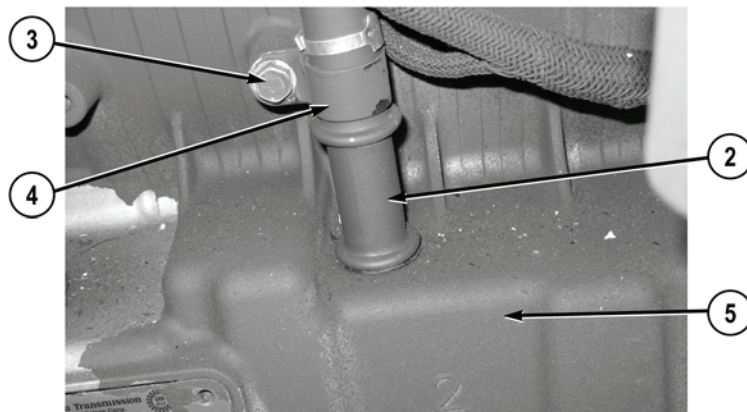
Gasket may be removed with dipstick tube or remain in transmission. Gasket shown on dipstick tube.

3. Remove gasket (6) from dipstick tube (2).
4. Remove dipstick tube bracket (4) from dipstick tube (2).

### END OF TASK

### INSTALLATION

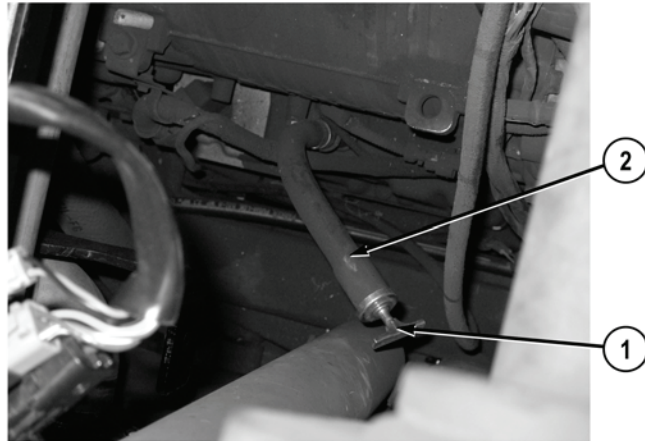
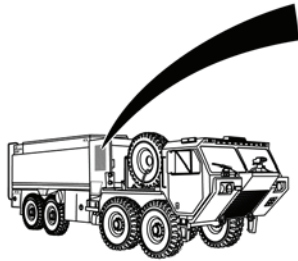
1. Install dipstick tube bracket (4) on dipstick tube (2).



2. Install gasket (6) in transmission (5).

### NOTE

- Install dipstick tube as noted during removal.
  - Make sure gasket is not pushed into transmission.
3. Install dipstick tube bracket (4) and dipstick tube (2) on transmission (5) with screw (3).



4. Install dipstick (1) in dipstick tube (2).

#### **FOLLOW-ON MAINTENANCE**

Fill transmission (TM 9-2320-325-14&P)

**END OF TASK**

**END OF WORK PACKAGE**





## FIELD LEVEL MAINTENANCE

## WHEEL CHOCKS STOWAGE COMPARTMENT REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

Lockwasher (5)  
Locknut (3)  
Locknut (4)

**Personnel Required**

MOS 63B Wheeled vehicle mechanic (2)

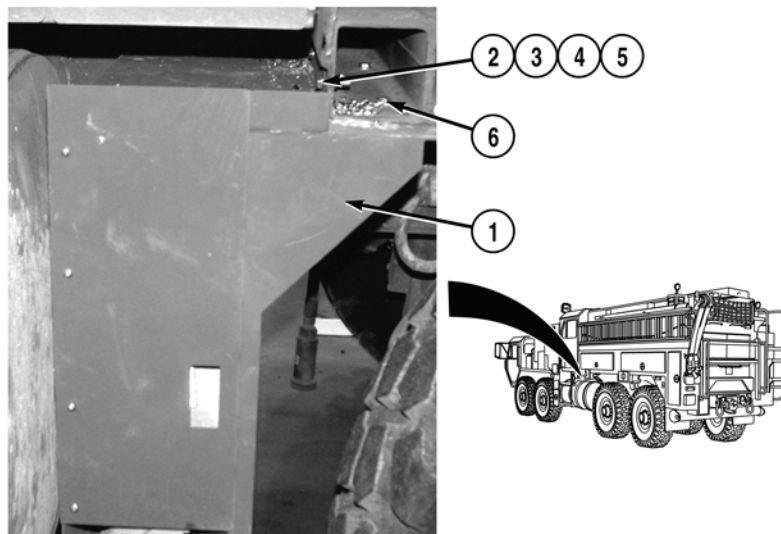
**References**

WP 0615, Fig. 147

**Equipment Conditions**

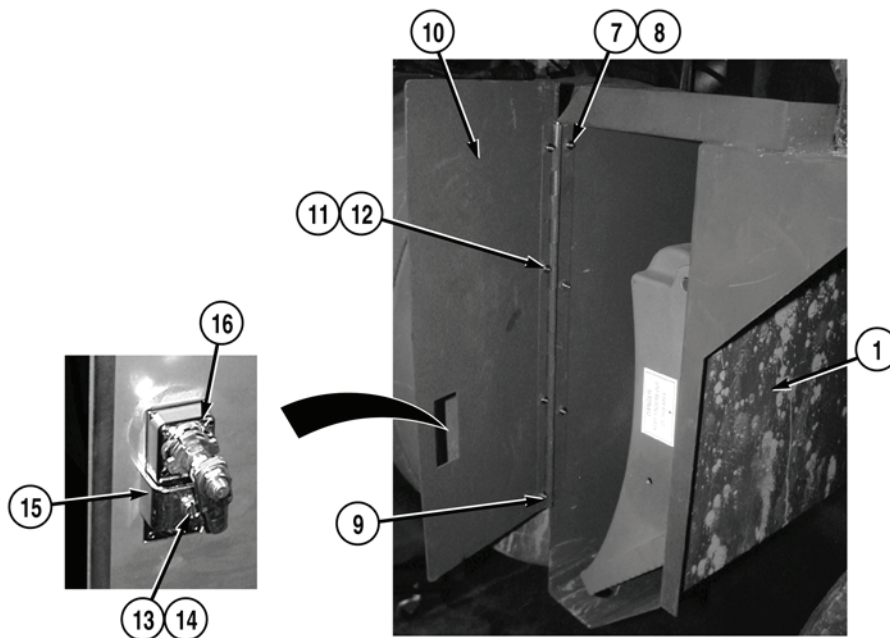
Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

## REMOVAL

**WARNING**

**Stowage compartment is heavy. Do not attempt to lift without the aid of an assistant and a suitable lifting device. Failure to comply may result in serious injury to personnel.**

1. Attach suitable lifting device to stowage compartment (1).
2. With the aid of an assistant, remove five nuts (2), ten washers (3), five lockwashers (4), screws (5), and stowage compartment (1) from frame (6). Discard lockwashers.

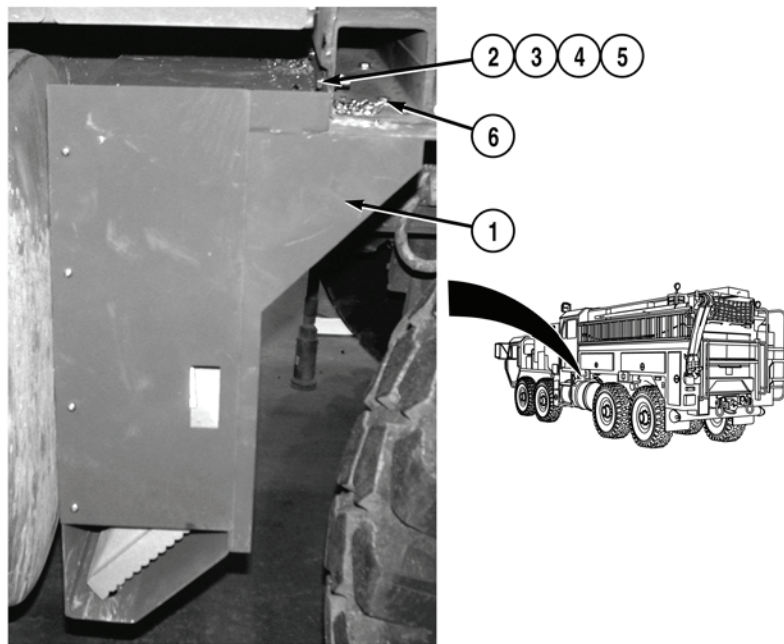


3. Remove three locknuts (7), screws (8), hinge (9), and compartment door (10) from stowage compartment (1). Discard locknuts.
4. Remove four locknuts (11), screws (12), and hinge (9) from compartment door (10).
5. Remove screw (13), washer (14), retainer (15), and twist lock (16) from compartment door (10).

#### END OF TASK

#### INSTALLATION

1. Install twist lock (16) on compartment door (10) with retainer (15), washer (14), and screw (13).
2. Install hinge (9) on compartment door (10) with four screws (12) and locknuts (11).
3. Install compartment door (10) on stowage compartment (1) with hinge (9), three screws (8), and locknuts (7).



### **WARNING**



**Stowage compartment is heavy. Do not attempt to lift without the aid of an assistant and a suitable lifting device. Failure to comply may result in serious injury to personnel.**

4. Attach suitable lifting device to stowage compartment (1).
5. With the aid of an assistant, install stowage compartment (1) on frame (6) with five screws (5), lockwashers (4), ten washers (3), and nuts (2).

**END OF TASK**

### **FOLLOW-ON MAINTENANCE**

Remove wheel chocks (TM 9-2320-347-10)

**END OF TASK**

**END OF WORK PACKAGE**



## FIELD LEVEL MAINTENANCE

## WINDSHIELD DELUGE PUMP HOUSE STRAINER SCREEN REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 172

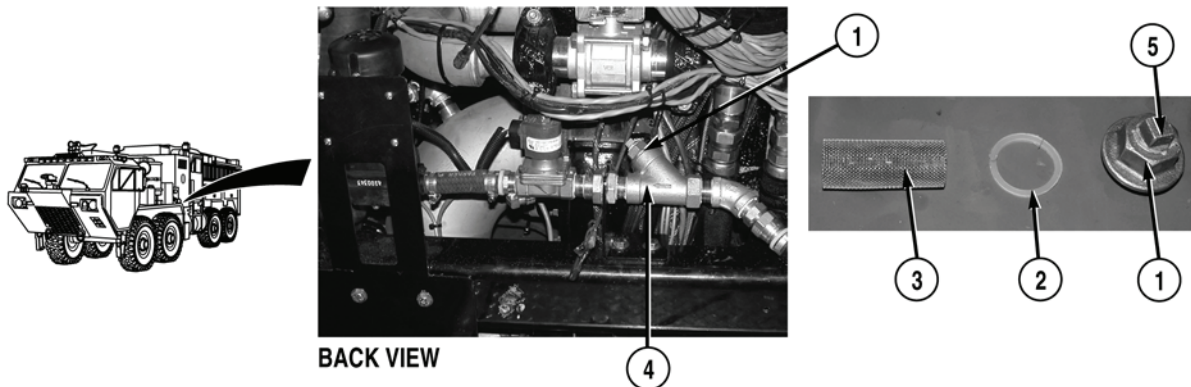
**Materials/Parts**

Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)

**Equipment Conditions**

Pump house panel A opened (WP 0539)  
Water system drained (WP 0041)

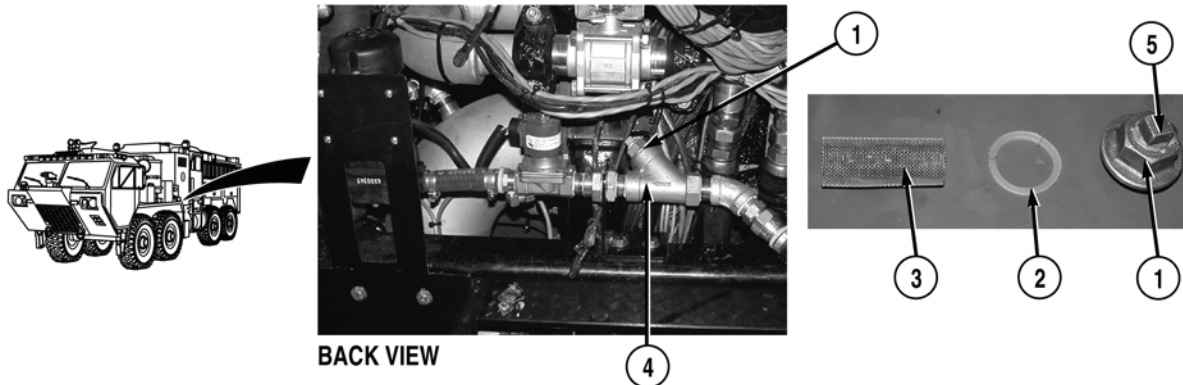
## REMOVAL



1. Remove cap (1), gasket (2), and screen (3) from strainer (4).
2. Remove plug (5) from cap (1).

## END OF TASK

## INSTALLATION

**WARNING**

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.

**CAUTION**

Use sealing compound sparingly only on pipe threads. Do not apply compound to hose connections. Damage to equipment may result.

1. Apply sealing compound to threads of plug (5).
2. Install plug (5) on cap (1).

**CAUTION**

Do not damage screen when positioning screen in cap and strainer. Failure to comply may result in damage to screen.

3. Install screen (3), gasket (2), and cap (1) on strainer (4).

**END OF TASK**

**FOLLOW-ON MAINTENANCE**

Close pump house panel A (WP 0539)

**END OF TASK**

**END OF WORK PACKAGE**

---

**FIELD LEVEL MAINTENANCE**  
**WINDSHIELD DELUGE SYSTEM REPLACEMENT**

---

**INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**Materials/Parts**

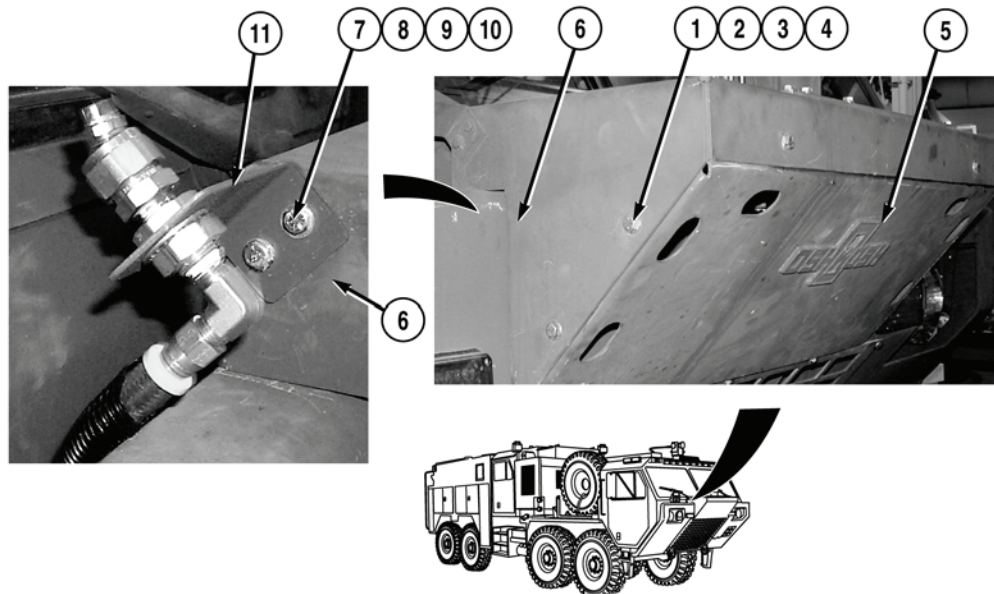
Compound, Sealing, Pipe Thread  
(WP 0625, Item 21)  
Tags, Identification (WP 0625, Item 51)  
Ties, Cable, Plastic (WP 0625, Item 58)  
Lockwasher (6)  
Lockwasher (2)  
Lockwasher (1)  
Lockwasher (1)  
Locknut (1)

**References**

WP 0615, Fig. 172

**Equipment Conditions**

Water pump engine OFF (WP 0022)  
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

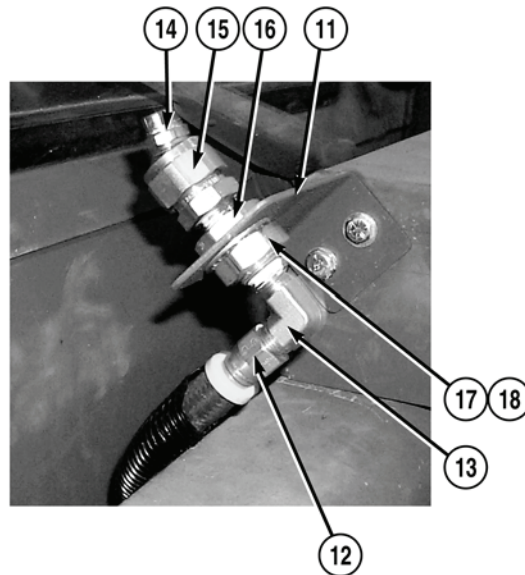
**REMOVAL**

1. Remove six nuts (1), lockwashers (2), 12 washers (3), six screws (4), and cover (5) from turret bumper mount (6). Discard lockwashers.

**NOTE**

Driver side and passenger side nozzle assemblies are removed the same way.  
Passenger side shown.

2. Remove two nuts (7), lockwashers (8), four washers (9), two screws (10), and bracket (11) from turret bumper mount (6). Discard lockwashers.

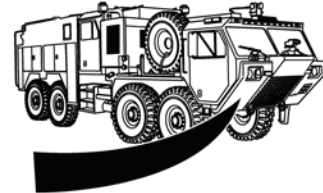
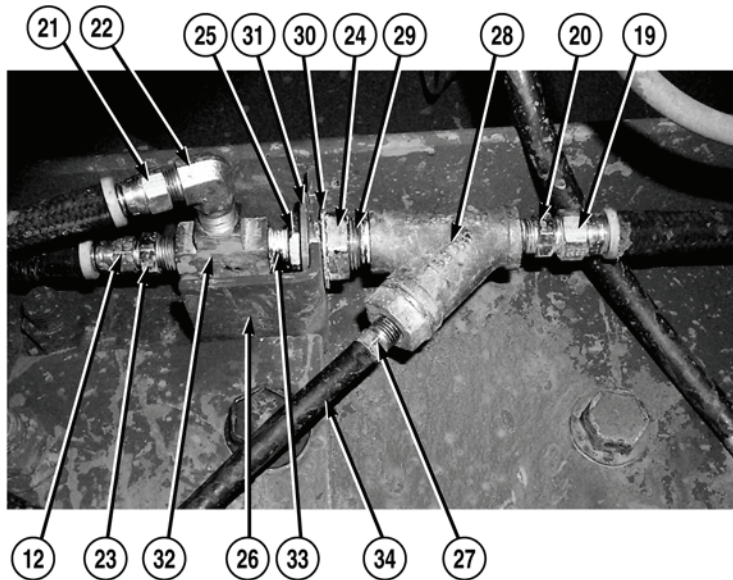


### NOTE

Tag and mark hoses and fittings prior to removal to ensure proper installation.

3. Remove hose (12) from elbow (13).
4. Remove nozzle (14) from swivel fitting (15).
5. Remove swivel fitting (15) from bulkhead fitting (16).
6. Remove elbow (13) from bulkhead fitting (16).
7. Remove jamnut (17), lockwasher (18), and bulkhead fitting (16) from bracket (11). Discard lockwasher.





### NOTE

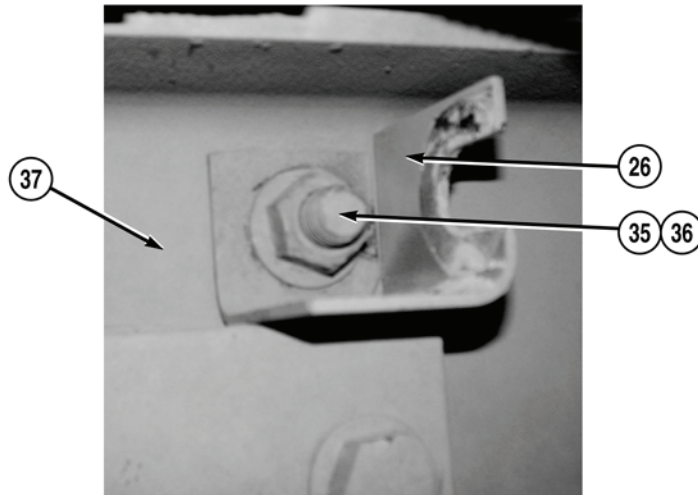
Remove cable ties as required.

8. Remove hose (19) from fitting (20).
9. Remove hose (21) from elbow (22) and vehicle.
10. Remove hose (12) from fitting (23) and vehicle.

### NOTE

Note position of bulkhead fitting prior to removal to ensure proper installation.

11. Loosen jamnut (24) and remove bulkhead fitting (25) from bracket (26).
12. Remove drain valve (27) from strainer (28).
13. Remove fitting (20) from strainer (28).
14. Remove strainer (28) from nipple (29).
15. Remove jamnut (24), lockwasher (30), and washer (31) from bulkhead fitting (25). Discard lockwasher.
16. Remove tee (32) from nipple (33).
17. Remove fitting (23) from tee (32).
18. Remove elbow (22) from tee (32).
19. Remove two nipples (29) and (33) from bulkhead fitting (25).
20. Remove hose (34) from drain valve (27).

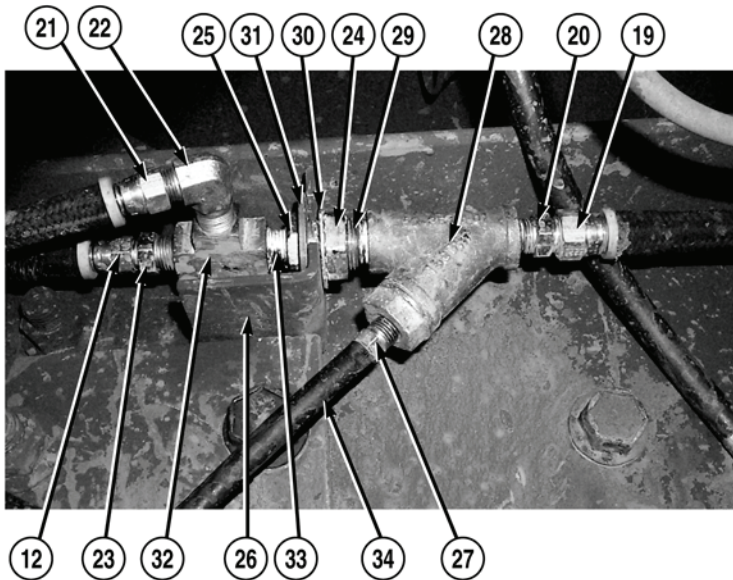


21. Remove locknut (35), screw (36), and bracket (26) from frame rail (37). Discard locknut.

**END OF TASK**

**INSTALLATION**

1. Install bracket (26) on frame rail (37) with screw (36) and locknut (35).



2. Install hose (34) on drain valve (27).

**WARNING**

**Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water.**

3. Apply sealing compound to threads of two fittings (20) and (23), elbow (22), drain valve (27), and two nipples (29) and (33).
4. Install two nipples (29) and (33) on bulkhead fitting (25).
5. Install elbow (22) on tee (32).
6. Install fitting (23) on tee (32).
7. Install tee (32) on nipple (33).
8. Install washer (31), lockwasher (30), and jamnut (24) on bulkhead fitting (25). Do not tighten jamnut (24).
9. Install strainer (28) on nipple (29).
10. Install fitting (20) on strainer (28).
11. Install drain valve (27) on strainer (28).

**NOTE**

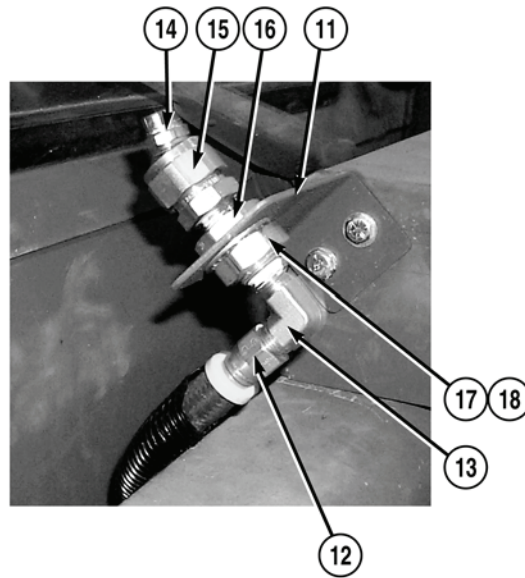
Install bulkhead fitting as noted prior to removal.

12. Install bulkhead fitting (25) on bracket (26) and tighten jamnut (24).

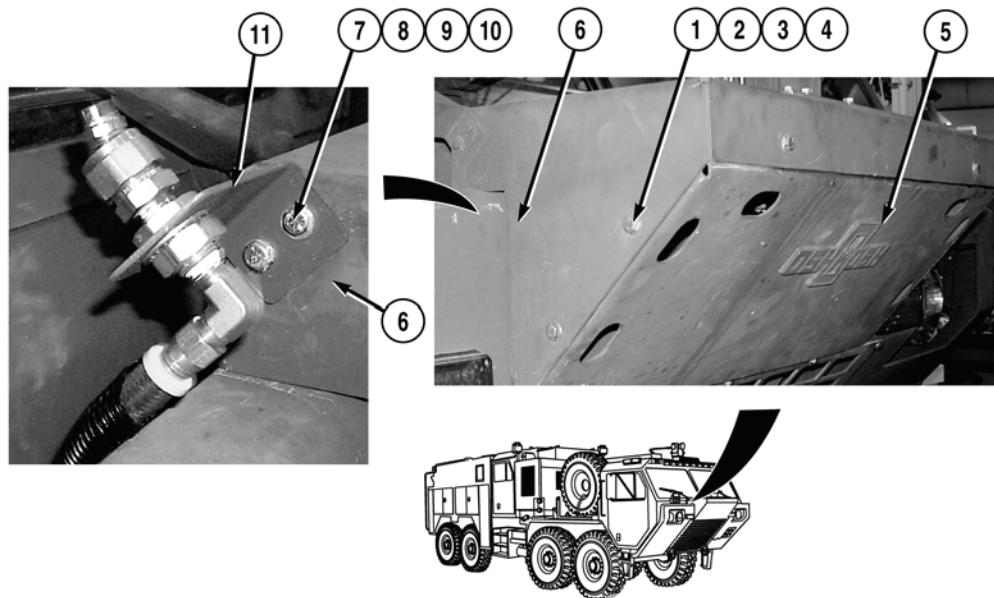
**NOTE**

Install cable ties as needed.

13. Install hose (12) on vehicle and fitting (23).
14. Install hose (21) on vehicle and elbow (22).
15. Install hose (19) on fitting (20).



16. Install bulkhead fitting (16) on bracket (11) with lockwasher (18) and jamnut (17).
17. Install elbow (13) on bulkhead fitting (16).
18. Install swivel fitting (15) on bulkhead fitting (16).
19. Install nozzle (14) on swivel fitting (15).
20. Install hose (12) on elbow (13).



21. Install bracket (11) on turret bumper mount (6) with two screws (10), four washers (9), two lockwashers (8), and nuts (7).
22. Install cover (5) on turret bumper mount (6) with six screws (4), 12 washers (3), six lockwashers (2), and nuts (1).

#### END OF TASK

#### FOLLOW-ON MAINTENANCE

Remove wheel chocks (TM 9-2320-347-10)

#### END OF TASK

#### END OF WORK PACKAGE



## FIELD LEVEL MAINTENANCE

## WIRE ROPE REPLACEMENT

## INITIAL SETUP:

**Tools and Special Tools**

Tool Kit, General Mechanic's: Automotive  
(WP 0622, Item 27)

**References**

WP 0615, Fig. 50

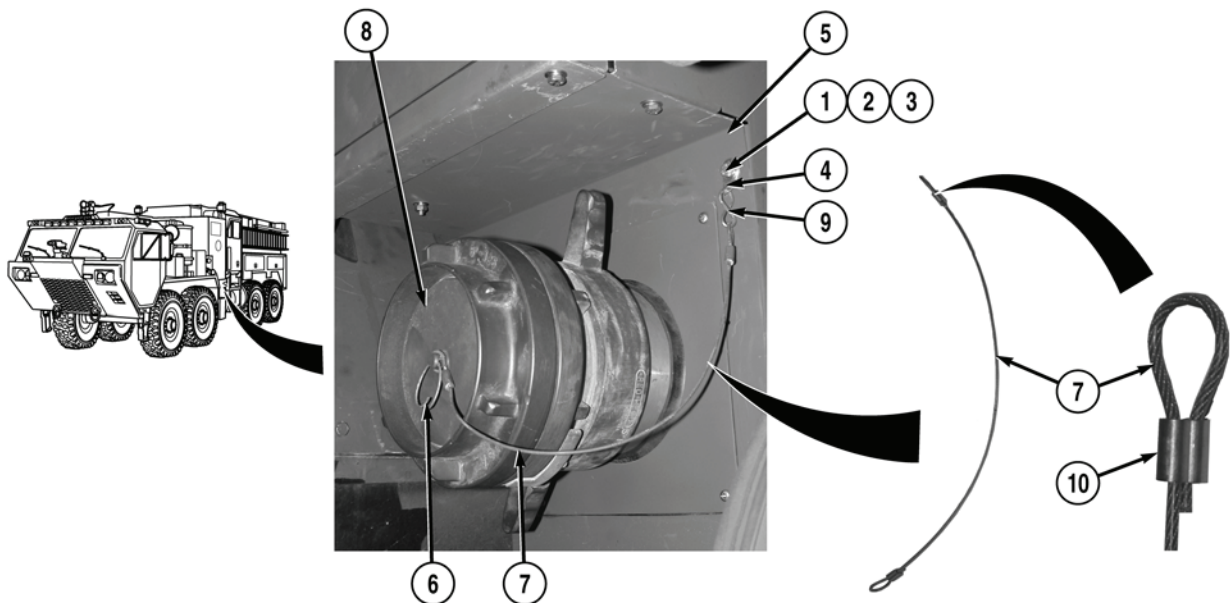
**Materials/Parts**

Lockwasher (1)  
Lockwasher (1)

**Equipment Conditions**

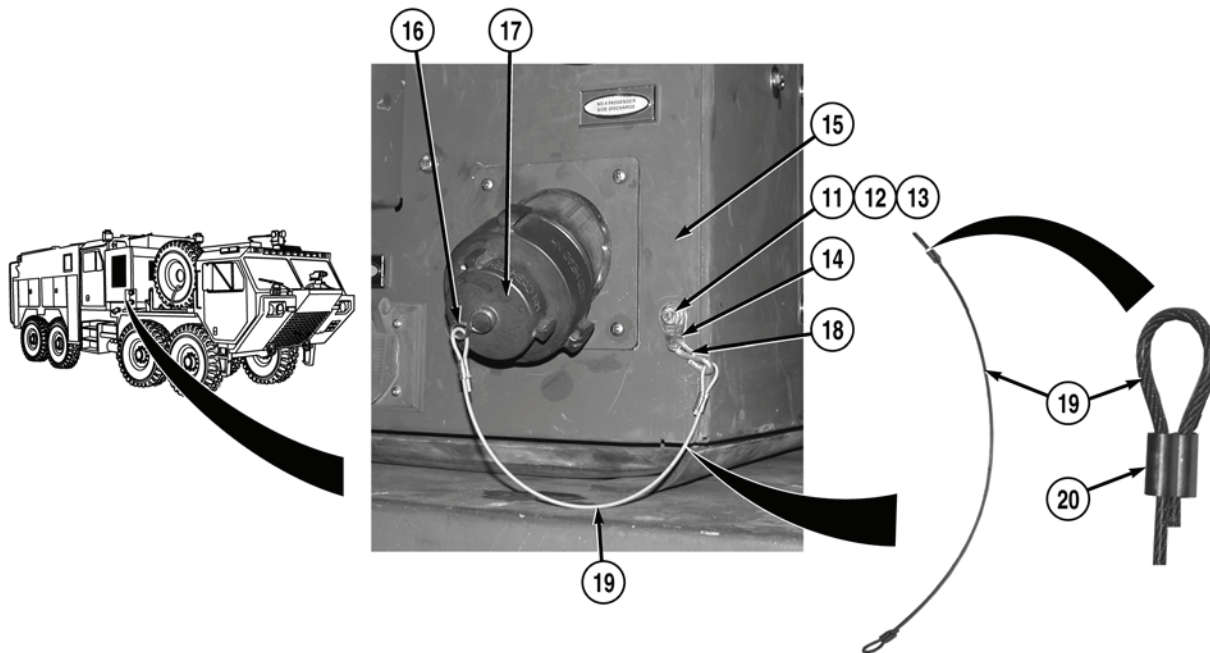
Engine OFF (TM 9-2320-347-10)  
Wheels chocked (TM 9-2320-347-10)

## REMOVAL

**NOTE**

Perform Steps (1) through (5) to remove wire rope from driver side main inlet cap.

1. Remove screw (1), lockwasher (2), washer (3), and clip (4) from pump house panel (5). Discard lockwasher.
2. Remove ring (6) and wire rope (7) from cap (8) and vehicle.
3. Remove clip (4) from S-hook (9).
4. Remove S-hook (9) from wire rope (7).
5. Remove two swaging sleeves (10) from wire rope (7).



### NOTE

Perform Steps (6) through (10) to remove wire rope from No. 1 driver side discharge cap, No. 2 driver side discharge cap, No. 3 passenger side discharge cap, No. 4 passenger side discharge, or passenger side auxiliary inlet cap.

6. Remove screw (11), lockwasher (12), washer (13), and clip (14) from pump house panel (15). Discard lockwasher.
7. Remove S-hook (16) from cap (17).
8. Remove clip (14) from S-hook (18).
9. Remove two S-hooks (16) and (18) from wire rope (19).
10. Remove two swaging sleeves (20) from wire rope (19).

### END OF TASK

### INSTALLATION

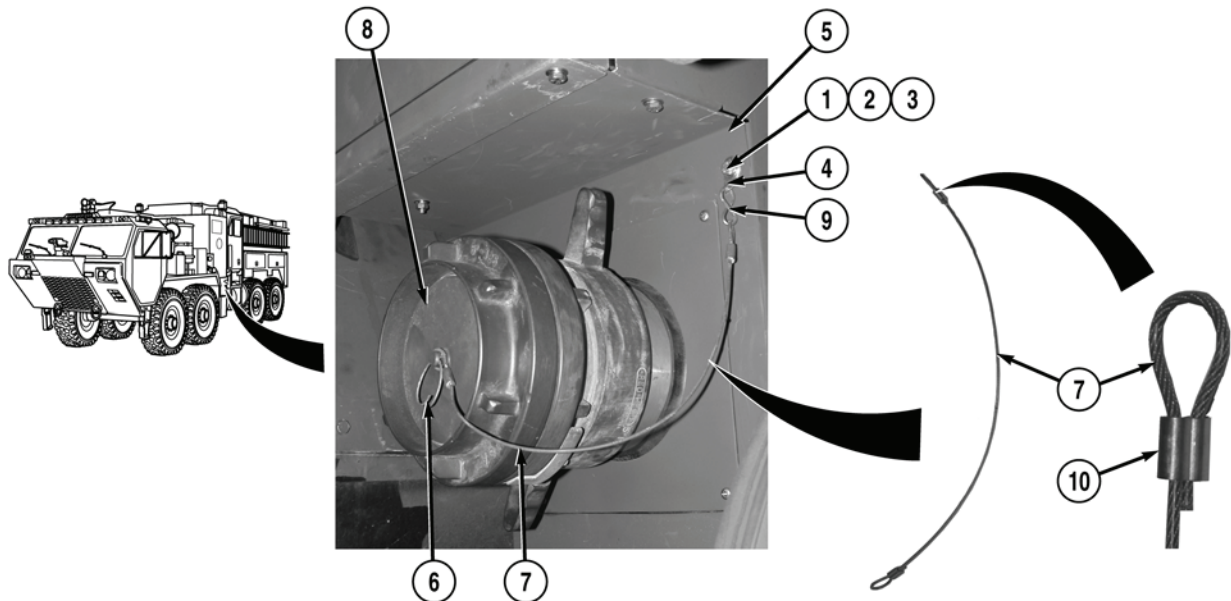
### NOTE

- Perform Steps (1) through (6) to install wire rope on No. 1 driver side discharge cap, No. 2 driver side discharge cap, No. 3 passenger side discharge cap, or passenger side auxiliary inlet cap.
- Wire rope needs to run through one side of swaging sleeve then back through other side of swaging sleeve.

1. Install two swaging sleeves (20) on wire rope (19).
2. Crimp two swaging sleeves (20).



3. Install two S-hooks (16) and (18) on wire rope (19).
4. Install clip (14) on S-hook (18).
5. Install S-hook (16) on cap (17).
6. Install clip (14) on pump house panel (15) with washer (13), lockwasher (12), and screw (11).



### NOTE

- Perform Steps (7) through (12) to install wire rope on driver side main inlet cap.
- Wire rope needs to run through one side of swaging sleeve then back through other side of swaging sleeve.

7. Install two swaging sleeves (10) on wire rope (7).
8. Crimp two swaging sleeves (10).
9. Install S-hook (9) on wire rope (7).
10. Install clip (4) on S-hook (9).
11. Install wire rope (7) on cap (8) with ring (6).
12. Install clip (4) on pump house panel (5) with washer (3), lockwasher (2), and screw (1).

### END OF TASK

### FOLLOW-ON MAINTENANCE

Remove wheel chocks (TM 9-2320-347-10)

### END OF TASK

### END OF WORK PACKAGE



## ALPHABETICAL INDEX

**Subject**

**WP Sequence No.-Page No.**

### Numerics

120 VAC Outlet(s) Does Not Operate .....	WP 0051-1
120-Volt Air Compressor	
Installation .....	WP 0358-3
Removal .....	WP 0358-1
120-Volt Air Compressor Does Not Operate Properly .....	WP 0163-1
120-Volt Circuit Breaker	
Installation .....	WP 0360-3
Removal .....	WP 0360-1
120-Volt Cord Reel Receptacles Do Not Operate .....	WP 0165-1
120-Volt Power Cord(s)	
Replacement .....	WP 0361-1
120-Volt Receptacle	
Pump Panel B Receptacle Removal .....	WP 0362-3
Pump Panel Receptacle Installation .....	WP 0362-5
Rear Body Panel Receptacles Installation .....	WP 0362-2
Rear Body Panel Receptacles Removal .....	WP 0362-1
120-Volt Receptacles Do Not Operate .....	WP 0164-1
12-Volt Flashlight Charger(s) Does Not Operate .....	WP 0162-1
12-Volt Handheld Radio Battery Charger(s) Does Not Operate (Crew Cab) .....	WP 0161-1
12-Volt Handheld Radio Battery Charger(s) Does Not Operate (Personnel Cab) .....	WP 0160-1
24-Volt Battery Charger	
Installation .....	WP 0359-3
Removal .....	WP 0359-1
24-Volt Battery Charger Does Not Operate	
Field Level .....	WP 0166-1
Operator Level .....	WP 0052-1

### A

Additional Authorization List (AAL) .....	WP 0624-1
Air Conditioner Controller Wire Harness	
Installation .....	WP 0433-7
Removal .....	WP 0433-1
Air Conditioner Electric Motor Wire Harness	
Installation .....	WP 0434-6
Removal .....	WP 0434-1
Air Conditioner Rear Wire Harness	
Installation .....	WP 0435-6
Removal .....	WP 0435-1
Air Lift Bag Storage Box	
Center Air Lift Bag Stowage Box Installation .....	WP 0497-4
Center Air Lift Bag Stowage Box Removal .....	WP 0497-4
Front Air Lift Bag Stowage Box Installation .....	WP 0497-3
Front Air Lift Bag Stowage Box Removal .....	WP 0497-2
Rear Air Lift Bag Stowage Box Installation .....	WP 0497-6
Rear Air Lift Bag Stowage Box Removal .....	WP 0497-5

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Air Lines and Fittings	
Air Hose Fittings Replacement .....	WP 0567-1
Air Hose Replacement .....	WP 0567-3
Air Reservoir	
Installation .....	WP 0218-4
Removal .....	WP 0218-1
Air Vent Guard	
Installation .....	WP 0498-2
Removal .....	WP 0498-1
Audio Alarm	
Installation .....	WP 0319-2
Removal .....	WP 0319-1
Auto Fill Control	
Installation .....	WP 0363-3
Removal .....	WP 0363-1
Auxiliary Inlet Valve (Passenger Side)	
Installation .....	WP 0294-3
Removal .....	WP 0294-1
Auxiliary Intake Relief/Dump Valve (Passenger Side)	
Installation .....	WP 0256-2
Removal .....	WP 0256-1

### B

Batteries	
Connect Batteries .....	WP 0007-1
Disconnect Batteries .....	WP 0007-1
Batteries, Terminal, and Cable	
Installation .....	WP 0368-5
Removal .....	WP 0368-1
Battery Box and Bracket	
Installation .....	WP 0364-4
Removal .....	WP 0364-1
Battery Charger(s) Receptacle	
Installation .....	WP 0365-4
Removal .....	WP 0365-1
Battery Disconnect Switch and Box	
Installation .....	WP 0366-3
Removal .....	WP 0366-1
Battery Equalizer	
Installation .....	WP 0367-2
Removal .....	WP 0367-1
Battery Equalizer Does Not Operate Properly .....	WP 0167-1
Blackout Relay	
Installation .....	WP 0369-2
Removal .....	WP 0369-1

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Body Air Condenser Wire Harness	
Installation .....	WP 0436-10
Removal .....	WP 0436-2
Bumper and Roof Turret Manifold Block	
Installation .....	WP 0568-2
Removal .....	WP 0568-1
Bumper Turret	
Assembly .....	WP 0571-5
Bumper Turret Nozzle Speed Adjustment .....	WP 0188-4
Bumper Turret Vertical Speed Adjustment .....	WP 0188-1
Disassembly .....	WP 0571-2
Installation .....	WP 0569-2
Removal .....	WP 0569-1
Bumper Turret and Bumper Turret Nozzle Speed Adjustment	
Bumper Turret Nozzle Speed Adjustment .....	WP 0188-4
Bumper turret vertical speed adjustment .....	WP 0188-1
Bumper Turret and Pump Cooler Dump-To-Ground Control Valve	
Installation .....	WP 0370-4
Removal .....	WP 0370-1
Bumper Turret Auto Drain Valve	
Installation .....	WP 0269-2
Removal .....	WP 0269-1
Bumper Turret Control	
Installation .....	WP 0570-7
Removal .....	WP 0570-1
Bumper Turret Does Not Operate Properly When Selected .....	WP 0104-1
Bumper Turret Junction Box	
Assembly .....	WP 0573-3
Disassembly .....	WP 0573-1
Installation .....	WP 0572-4
Removal .....	WP 0572-1
Bumper Turret Operation .....	WP 0035-1
Bumper Turret Valve	
Installation .....	WP 0482-4
Removal .....	WP 0482-1
Bumper Turret Wire Harness	
Installation .....	WP 0437-3
Removal .....	WP 0437-1

### C

Cab Discharge Digital Pressure Gauge Wire Harness	
Installation .....	WP 0438-2
Removal .....	WP 0438-1
Cab Foam A and Foam B Tank Level Indicator Wire Harness	
Installation .....	WP 0439-2
Removal .....	WP 0439-1

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Cab Instrument Panel Wire Harness	
Installation .....	WP 0440-7
Removal .....	WP 0440-1
Cab Power Distribution Wire Harness and Block	
Installation .....	WP 0441-6
Removal .....	WP 0441-1
Cab Pump Control Wire Harness	
Installation .....	WP 0443-8
Removal .....	WP 0443-1
Cab Roof Lightbar Cable Assembly	
Installation .....	WP 0371-4
Removal .....	WP 0371-1
Cab Roof Lightbar Cable Assembly Branch	
Installation .....	WP 0372-3
Removal .....	WP 0372-1
Cab Roof Wire Harness	
Installation .....	WP 0442-4
Removal .....	WP 0442-2
Cab Switch Backlighting Does Not Operate .....	WP 0126-1
Cab Water Tank Level Indicator Wire Harness	
Installation .....	WP 0444-2
Removal .....	WP 0444-1
Check Pump Engine Light Comes On .....	WP 0053-1
Circuit Breaker Box	
Installation .....	WP 0373-3
Removal .....	WP 0373-1
Clearance and/or Directional Light(s) Does Not Operate .....	WP 0168-1
Compartment Door(s) .....	WP 0010-1
Close .....	WP 0010-2
Open .....	WP 0010-1
Compartment Light	
Installation .....	WP 0374-2
Removal .....	WP 0374-1
Components of End Item (COEI) and Basic Issue Items (BII) .....	WP 0623-1
Control Valve	
Installation .....	WP 0375-2
Removal .....	WP 0375-1
Cord Reel	
Assembly .....	WP 0376-4
Disassembly .....	WP 0376-2
Installation .....	WP 0381-4
Removal .....	WP 0381-1
Starting Cord Reel Operation .....	WP 0037-1
Stopping Cord Reel Operation .....	WP 0037-2
Cord Reel Cable Work Light Bracket	
Installation .....	WP 0379-2
Removal .....	WP 0379-1

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Cord Reel Cable Work Light Lamp	
Installation .....	WP 0378-2
Removal .....	WP 0378-1
Cord Reel Cable, Work Light, and Receptacle Box	
Installation .....	WP 0377-3
Removal .....	WP 0377-1
Cord Reel Control Assembly	
Installation .....	WP 0380-2
Removal .....	WP 0380-1
Cord Reel Rewind Circuit Breaker	
Installation .....	WP 0382-3
Removal .....	WP 0382-1
Cord Reel Rewind Control Does Not Operate .....	WP 0169-1
Cord Reel Rewind Solenoid	
Installation .....	WP 0383-3
Removal .....	WP 0383-1
Coupling	
Installation .....	WP 0483-2
Removal .....	WP 0483-1
Cover, Door, and Electronic Mounting Base (SINCGARS)	
Installation .....	WP 0384-2
Removal .....	WP 0384-1
Crew Cab Access Panels	
Installation .....	WP 0499-2
Removal .....	WP 0499-1
Crew Cab Access Steps	
Stow .....	WP 0012-2
Unstow .....	WP 0012-1
Crew Cab Air Conditioner	
Charging .....	WP 0217-11
Evacuation/Recycling .....	WP 0217-4
Flushing .....	WP 0217-9
Purging .....	WP 0217-7
Recovery .....	WP 0217-1
Starting Crew Cab Air Conditioner .....	WP 0008-1
Stopping Crew Cab Air Conditioner .....	WP 0008-1
Crew Cab Air Conditioner Binary Switch	
Installation .....	WP 0197-2
Removal .....	WP 0197-1
Crew Cab Air Conditioner Compressor and Motor Assembly	
Installation .....	WP 0210-5
Removal .....	WP 0210-1
Crew Cab Air Conditioner Compressor Drive Belt	
Adjustment .....	WP 0189-1
Installation .....	WP 0198-2
Removal .....	WP 0198-1
Crew Cab Air Conditioner Compressor Excessively Noisy .....	WP 0071-1

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Crew Cab Air Conditioner Condenser	
Installation .....	WP 0211-4
Removal .....	WP 0211-1
Crew Cab Air Conditioner Condenser Fan Assemblies	
Installation .....	WP 0199-2
Removal .....	WP 0199-1
Crew Cab Air Conditioner Does Not Cool or Cools Inadequately .....	WP 0072-1
Crew Cab Air Conditioner Dryer	
Installation .....	WP 0212-2
Removal .....	WP 0212-1
Crew Cab Air Conditioner Evaporator Core	
Installation .....	WP 0214-3
Removal .....	WP 0214-1
Crew Cab Air Conditioner Expansion Valve	
Installation .....	WP 0213-2
Removal .....	WP 0213-1
Crew Cab Air Conditioner Hoses	
Installation .....	WP 0216-2
Removal .....	WP 0216-1
Crew Cab Air Conditioner Thermostatic Switch	
Installation .....	WP 0206-2
Removal .....	WP 0206-1
Crew Cab Air Conditioner/Heater Assembly	
Installation .....	WP 0215-6
Removal .....	WP 0215-1
Crew Cab Air Conditioner/Heater Blower Motor	
Installation .....	WP 0200-5
Removal .....	WP 0200-1
Crew Cab Air Conditioner/Heater Control Box	
Air Conditioner Control Contactor Installation .....	WP 0201-8
Air Conditioner Control Contactor Removal .....	WP 0201-8
Air Conditioner/Heater Control Box Installation .....	WP 0201-11
Air Conditioner/Heater Control Box Removal .....	WP 0201-10
Air Conditioner/Heater Relay Module Block Installation .....	WP 0201-5
Air Conditioner/Heater Relay Module Block Removal .....	WP 0201-5
Air Conditioning Relay Module Block Installation .....	WP 0201-4
Air Conditioning Relay Module Block Removal .....	WP 0201-4
Circuit Breaker Installation .....	WP 0201-9
Circuit Breaker Removal .....	WP 0201-9
Clutch Timer Installation .....	WP 0201-3
Clutch Timer Removal .....	WP 0201-3
Control Box Access .....	WP 0201-1
Control Box Closure .....	WP 0201-13
Delay Timer Installation .....	WP 0201-2
Delay Timer Removal .....	WP 0201-2
Motor Contactor Installation .....	WP 0201-7
Motor Contactor Removal .....	WP 0201-7
Motor Overload Contactor Installation .....	WP 0201-6
Motor Overload Contactor Removal .....	WP 0201-6



## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Crew Cab Air Conditioner/Heater Control Panel	
Installation .....	WP 0202-4
Removal .....	WP 0202-1
Crew Cab Air Conditioner/Heater Control Panel Set Point Programming .....	WP 0009-1
Crew Cab Air Conditioner/Heater Does Not Operate Properly .....	WP 0070-1
Crew Cab Air Conditioner/Heater Fresh Air Fan and Filter	
Installation .....	WP 0203-3
Removal .....	WP 0203-1
Crew Cab Air Conditioner/Heater Fresh Air Resistor	
Installation .....	WP 0204-2
Removal .....	WP 0204-1
Crew Cab Air Conditioner/Heater Louvers	
Installation .....	WP 0205-2
Removal .....	WP 0205-1
Crew Cab Air Conditioning Does Not Operate Properly .....	WP 0054-1
Crew Cab Assembly	
Installation .....	WP 0500-11
Removal .....	WP 0500-1
Crew Cab Bench Seat and Access Panel	
Installation .....	WP 0501-2
Removal .....	WP 0501-1
Crew Cab Dome Light Does Not Operate .....	WP 0159-1
Crew Cab Door Handle	
Inner Door Handle Installation .....	WP 0503-3
Inner Door Handle Removal .....	WP 0503-3
Outer Door Handle Installation .....	WP 0503-2
Outer Door Handle Removal .....	WP 0503-1
Crew Cab Door Latch/Linkage	
Installation .....	WP 0504-4
Removal .....	WP 0504-1
Crew Cab Door Seal	
Installation .....	WP 0505-2
Removal .....	WP 0505-1
Crew Cab Door Window/Regulator	
Installation .....	WP 0506-2
Removal .....	WP 0506-1
Crew Cab Door/Door Hinge	
Installation .....	WP 0502-3
Removal .....	WP 0502-1
Crew Cab Door/Door Hinge Adjustment	
Adjustment .....	WP 0190-1
Crew Cab Heater Control Valve	
Installation .....	WP 0207-2
Removal .....	WP 0207-1
Crew Cab Heater Core	
Installation .....	WP 0208-4
Removal .....	WP 0208-1
Crew Cab Heater Does Not Operate Properly .....	WP 0055-1

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Crew Cab Heater Hoses	
Installation .....	WP 0209-4
Removal .....	WP 0209-1
Crew Cab Inner Door Panel	
Installation .....	WP 0507-2
Removal .....	WP 0507-1
Crew Cab Insulation	
Installation .....	WP 0603-3
Removal .....	WP 0603-1
Crew Cab Intercom Wire Harness	
Installation .....	WP 0445-3
Removal .....	WP 0445-1
Crew Cab Peep Window	
Installation .....	WP 0508-2
Removal .....	WP 0508-1
Crew Cab Rifle Mount(s)	
Crew Cab Door Rifle Mount Installation .....	WP 0509-3
Crew Cab Door Rifle Mount Removal .....	WP 0509-1
Inside Crew Cab Rifle Mount Installation .....	WP 0509-5
Inside Crew Cab Rifle Mount Removal .....	WP 0509-4
Crew Cab Roof Hatch	
Close .....	WP 0018-1
Installation .....	WP 0510-4
Open .....	WP 0018-1
Removal .....	WP 0510-1
Crew Cab Roof Hatch Door Switch Guard	
Installation .....	WP 0511-1
Removal .....	WP 0511-1
Crew Cab SCBA Seat	
Installation .....	WP 0512-3
Removal .....	WP 0512-2
Crew Cab SCBA Seat Repair	
Installation .....	WP 0513-4
Removal .....	WP 0513-1
Crew Cab Vent Window	
Installation .....	WP 0516-2
Removal .....	WP 0516-1
Crew Cab Window	
Installation .....	WP 0515-2
Removal .....	WP 0515-1
Crew Cab Wire Harness	
Installation .....	WP 0446-7
Removal .....	WP 0446-1
Cross Divider	
Installation .....	WP 0517-2
Removal .....	WP 0517-1

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
<b>D</b>	
Decal and Data Plate	
Data Plate Installation .....	WP 0518-4
Data Plate Removal .....	WP 0518-3
Decal Plate Installation .....	WP 0518-2
Decal Plate Removal .....	WP 0518-1
Deck Lights Do Not Operate .....	WP 0157-1
Deck Lights, Crew Cab Dome Lights, Clearance Lights, and Compartment Lights Do Not Operate ...	WP 0056-1
Deck Spotlight	
Installation .....	WP 0352-4
Removal .....	WP 0352-1
Deck Spotlight Lamp	
Installation .....	WP 0353-2
Removal .....	WP 0353-1
Description and Use of Operator's Controls and Indicators	
Controls and Indicators Introduction .....	WP 0004-1
Destruction of Army Materiel To Prevent Enemy Use .....	WP 0001-2
Digital Pressure Gauge(s) Does Not Operate .....	WP 0127-1
Direct Tank Fill AUTO Indicator Does Not Illuminate (Pump Operator's Panel) .....	WP 0128-1
Direct Tank Fill OPEN Indicator Does Not Illuminate (Pump Operator's Panel) .....	WP 0129-1
Direct Tank Fill Valve Does Not Operate Properly (Auto or Manual Mode) .....	WP 0105-1
Direct Tank Fill Valve Wire Harness	
Installation .....	WP 0447-3
Removal .....	WP 0447-1
Discharges Have Abnormal Water Streams .....	WP 0069-1
DO NOT MOVE APPARATUS WHEN LIGHT IS ON Indicator Does Not Operate Properly .....	WP 0130-1
DO NOT MOVE APPARATUS WHEN LIGHT IS ON Indicator Flashes .....	WP 0057-1
Dome Light (LED & Incandescent)	
Installation .....	WP 0357-2
Removal .....	WP 0357-1
Door Switch	
Installation .....	WP 0385-2
Removal .....	WP 0385-1
Drain Valve (Multi-Port)	
Installation .....	WP 0272-4
Removal .....	WP 0272-2
Drain Valve, Driver Pre-Connect A	
Installation .....	WP 0270-3
Removal .....	WP 0270-1
Drain Valve, Driver Pre-Connect B	
Installation .....	WP 0271-3
Removal .....	WP 0271-1
Drain Valves Leaking During Pumping Operations .....	WP 0066-1
Draining Water Tank .....	WP 0029-1
Driver Main Inlet Primer Valve	
Installation .....	WP 0268-4
Removal .....	WP 0268-1

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Driver Main Inlet Valve Does Not Operate Properly .....	WP 0106-1
Driver Side and Passenger Side Crew Cab Ladder	
Driver Side Crew Cab Ladder Installation .....	WP 0514-2
Driver Side Crew Cab Ladder Removal .....	WP 0514-2
Passenger Side Crew Cab Ladder Installation .....	WP 0514-5
Passenger Side Crew Cab Ladder Removal .....	WP 0514-3
Driver Side Body Wire Harness	
Installation .....	WP 0448-12
Removal .....	WP 0448-2
Driver Side Hose Bed Cover Installation .....	WP 0524-4
Driver Side Pre-Connect A Valve Does Not Operate Properly .....	WP 0107-1
Driver Side Pre-Connect B Valve Does Not Operate Properly .....	WP 0108-1
Driver Side Stowage Compartment Light(s) Does Not Operate .....	WP 0177-1
Dual Governor Pressure Switch	
Installation .....	WP 0386-3
Removal .....	WP 0386-1

### E

Electronically-Operated Ball Valve Electric Motor and Drive Assembly	
Installation .....	WP 0388-2
Removal .....	WP 0388-1
Electronically-Operated Ball Valve Seats and Preformed Packing	
Installation .....	WP 0387-2
Removal .....	WP 0387-1
Equipment (Ladder) Rack	
Installation .....	WP 0519-5
Removal .....	WP 0519-1
Stow .....	WP 0011-2
Unstow .....	WP 0011-1
Equipment (Ladder) Rack Control Assembly	
Installation .....	WP 0389-2
Removal .....	WP 0389-1
Equipment (Ladder) Rack Control Wire Harness	
Installation .....	WP 0449-4
Removal .....	WP 0449-1
Equipment (Ladder) Rack Does Not Operate .....	WP 0131-1
Equipment Description and Data	
Equipment Characteristics, Capabilities, and Features .....	WP 0002-1
Equipment Data .....	WP 0002-8
Location and Description of Major Components .....	WP 0002-6
Evaporator Wire Harness	
Installation .....	WP 0450-4
Removal .....	WP 0450-1
Expendable Supplies and Materials List .....	WP 0625-1
Extendable Floodlight	
Installation .....	WP 0354-3
Removal .....	WP 0354-1

**ALPHABETICAL INDEX (CONTINUED)**

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Extendable Floodlight Lamp	
Installation .....	WP 0355-2
Removal .....	WP 0355-1
Extendable Floodlights Do Not Operate .....	WP 0058-1, WP 0158-1

**F**

Flow Sensor	
Installation .....	WP 0390-2
Removal .....	WP 0390-1
Flow Sensor Wire Harness	
Installation .....	WP 0451-3
Removal .....	WP 0451-2
Flush Check Valve	
Installation .....	WP 0280-2
Removal .....	WP 0280-1
Foam A Tank Level Indicator Gauge Does Not Operate Properly .....	WP 0102-1
Foam Agent	
Draining/Flushing Foam Agent Tank .....	WP 0031-3
Filling Foam Agent Tank .....	WP 0031-1
Foam B Tank Level Indicator Gauge Does Not Operate Properly .....	WP 0103-1
Foam Cover and Water Tank Vent	
Installation .....	WP 0574-2
Removal .....	WP 0574-1
FOAM FLUSH Indicator Does Not Illuminate (Pump Operator's Panel) .....	WP 0132-1
Foam Level Probe	
Calibration .....	WP 0191-1
Installation .....	WP 0281-2
Removal .....	WP 0281-1
Foam Not Delivered From All Systems (Bumper Turret, Ground Sweeps, and Manual Metering Controls) or System Does Not Shut Off .....	WP 0094-1
Foam Not Delivered From Bumper Turret .....	WP 0097-1
Foam Not Delivered From Ground Sweeps .....	WP 0099-1
Foam Not Delivered From Roof Turret .....	WP 0098-1
Foam Not Delivered When Manual Metering Control is Operated .....	WP 0100-1
Foam Not Delivered When Tank A is Selected (Bumper Turret, Ground Sweeps, and Manual Metering Controls) .....	WP 0095-1
Foam Not Delivered When Tank B is Selected (Bumper Turret, Under Truck Nozzles, and Manual Metering Controls) .....	WP 0096-1
Foam System	
Draining Foam Tanks .....	WP 0040-7
Flushing Foam Tanks .....	WP 0040-8
Foam Agent Piping Flush Procedure .....	WP 0040-1
Foam System Flushing .....	WP 0040-1
Foam System "A & B" Tank Drain	
Installation .....	WP 0273-2
Removal .....	WP 0273-1

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Foam System "A" Check Valve	
Installation .....	WP 0282-1
Removal .....	WP 0282-1
Foam System "A" Shutoff Valve	
Installation .....	WP 0284-2
Removal .....	WP 0284-1
Foam System "B" Check Valve	
Installation .....	WP 0283-1
Removal .....	WP 0283-1
Foam System "B" Shutoff Valve	
Installation .....	WP 0285-2
Removal .....	WP 0285-1
Foam System and Instrument Panel-Standby Mode	
Foam System-Standby Mode .....	WP 0032-2
Instrument Panel-Standby Mode .....	WP 0032-1
Foam System Cannot Be Flushed .....	WP 0101-1
Foam System Does Not Operate .....	WP 0060-1
Foam System Eductor	
Installation .....	WP 0286-2
Removal .....	WP 0286-1
Foam System Eductor Valve	
Installation .....	WP 0287-2
Removal .....	WP 0287-1
Foam System Flow Control Manifold	
Installation .....	WP 0288-4
Removal .....	WP 0288-1
Foam System Flush Valve	
Installation .....	WP 0289-2
Removal .....	WP 0289-1
Foam System General Information .....	WP 0030-1
FOAM SYSTEM Indicator Does Not Illuminate (Cab) .....	WP 0133-1
FOAM SYSTEM Indicator Does Not Illuminate (Pump Operator's Panel) .....	WP 0134-1
Foam System Inlet Check Valve	
Installation .....	WP 0290-2
Removal .....	WP 0290-1
Foam System Manual Metering Valve	
Installation .....	WP 0291-2
Removal .....	WP 0291-1
Foam System Multi-Metering Valve (Automatic)	
Installation .....	WP 0292-3
Removal .....	WP 0292-1
Foam System Operating Procedures (Cab Instrument Panel)	
Foam System Activation .....	WP 0034-1
Foam System Deactivation/Clean-Up .....	WP 0034-3
Stopping Foam Solution Flow .....	WP 0034-3

**ALPHABETICAL INDEX (CONTINUED)**

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Foam System Operating Procedures (Pump Operator's Panel)	
Foam System Activation .....	WP 0033-1
Foam System Deactivation/Clean-Up .....	WP 0033-4
Starting Foam Solution Flow .....	WP 0033-2
Stopping Foam Solution Flow .....	WP 0033-3
Foam Tank Fill Port Extensions and Covers	
Installation .....	WP 0293-2
Removal .....	WP 0293-1
Foam Tank Level Probe Wire Harness	
Installation .....	WP 0452-2
Removal .....	WP 0452-1
Fuel Tank Brackets	
Installation .....	WP 0564-6
Removal .....	WP 0564-1

**G**

Gasoline Can Stowage Compartment	
Installation .....	WP 0520-2
Removal .....	WP 0520-1
GEN PTO ENGAGE Indicator Does Not Illuminate (Cab) .....	WP 0139-1
General Information	
Corrosion Prevention and Control .....	WP 0001-2
Demolition By Mechanical Means .....	WP 0001-2
Demolition By Misuse .....	WP 0001-2
Destruction Of Army Material To Prevent Enemy Use .....	WP 0001-2
Destruction Of Army Materiel To Prevent Enemy Use .....	WP 0001-2
List of Abbreviations/Acronyms .....	WP 0001-4
List of Warning Icons/Descriptions .....	WP 0001-5
Maintenance Forms, Records, and Reports .....	WP 0001-2
Nomenclature Cross-Reference List .....	WP 0001-3
Quality of Material .....	WP 0001-8
Repair Parts .....	WP 0001-8
Reporting Equipment Improvement Recommendations (EIR) .....	WP 0001-2
Scope .....	WP 0001-1
Warranty Information .....	WP 0001-3
Glow Plug Circuit Breaker	
Installation .....	WP 0391-2
Removal .....	WP 0391-1
Glow Plug Control Relay	
Installation .....	WP 0392-2
Removal .....	WP 0392-1
Grab Handle	
Installation .....	WP 0521-6
Removal .....	WP 0521-1

**ALPHABETICAL INDEX (CONTINUED)**

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Ground Sweeps	
Back Ground Sweeps Installation .....	WP 0575-7
Back Ground Sweeps Removal .....	WP 0575-7
Front Ground Sweeps Installation .....	WP 0575-2
Front Ground Sweeps Removal .....	WP 0575-1
Middle Back Ground Sweeps Installation .....	WP 0575-6
Middle Back Ground Sweeps Removal .....	WP 0575-5
Middle Front Ground Sweeps Installation .....	WP 0575-4
Middle Front Ground Sweeps Removal .....	WP 0575-3
Starting Ground Sweeps .....	WP 0039-1
Stopping Ground Sweeps .....	WP 0039-1
Ground Sweeps Do Not Operate When Selected .....	WP 0120-1
GROUND SWEEPS Indicator Does Not Illuminate (Cab) .....	WP 0144-1
Ground Sweeps Valve	
Installation .....	WP 0576-2
Removal .....	WP 0576-1

**H**

Handheld Radio Battery Charger(s) Does Not Charge Batteries .....	WP 0067-1
Heat Trace Junction Box	
Installation .....	WP 0604-4
Removal .....	WP 0604-1
Heat Trace Thermostat	
Installation .....	WP 0605-4
Removal .....	WP 0605-1
Heater Access Panel	
Installation .....	WP 0522-2
Removal .....	WP 0522-1
Heater Fuel Pumps	
Installation .....	WP 0467-2
Removal .....	WP 0467-1
Heater Fuel Tank Pickups	
Installation .....	WP 0468-6
Removal .....	WP 0468-1
High Amperage Cable	
Replacement .....	WP 0393-1
High Pressure Water Source Intake Relief Valve Setting	
Adjustment .....	WP 0257-1
Hose Bed Cover(s)	
Driver Side Hose Bed Cover Installation .....	WP 0524-4
Driver Side Hose Bed Cover Removal .....	WP 0524-2
Passenger Side Hose Bed Cover Installation .....	WP 0524-10
Passenger Side Hose Bed Cover Removal .....	WP 0524-7
Hose Bed Covers	
Close .....	WP 0015-3
Open .....	WP 0015-1



## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Hose Bed Divider	
Installation .....	WP 0525-2
Removal .....	WP 0525-1
Hose Bed Grating	
Installation .....	WP 0526-2
Removal .....	WP 0526-1
Hose Restraint Net	
Installation .....	WP 0523-2
Removal .....	WP 0523-1
Hydraulic Generator	
Installation .....	WP 0592-7
Removal .....	WP 0592-1
Starting Hydraulic Generator .....	WP 0021-1
Stopping Hydraulic Generator .....	WP 0021-2
Hydraulic Generator Cables	
Installation .....	WP 0583-5
Removal .....	WP 0583-1
Hydraulic Generator Compensator	
Adjustment .....	WP 0192-1
Installation .....	WP 0584-2
Removal .....	WP 0584-1
Hydraulic Generator Digital Display Module	
Installation .....	WP 0585-4
Removal .....	WP 0585-1
Hydraulic Generator Does Not Operate Properly .....	WP 0171-1
Hydraulic Generator Hoses	
Hydraulic Coupling Installation .....	WP 0586-3
Hydraulic Coupling Removal .....	WP 0586-1
Hydraulic Lines .....	WP 0586-3
Hydraulic Generator Motor	
Installation .....	WP 0591-4
Removal .....	WP 0591-1
Hydraulic Generator Oil	
Drain .....	WP 0588-1
Fill .....	WP 0588-2
Hydraulic Generator Oil Cooler Fan	
Installation .....	WP 0587-2
Removal .....	WP 0587-1
Hydraulic Generator Oil Cooling Fan Does Not Operate Properly .....	WP 0172-1
Hydraulic Generator Oil Filter	
Installation .....	WP 0589-2
Removal .....	WP 0589-1
Hydraulic Generator Oil Filter Base	
Installation .....	WP 0590-3
Removal .....	WP 0590-1
Hydraulic Generator PTO Does Not Engage When Selected .....	WP 0121-1
Hydraulic Generator Reservoir	
Installation .....	WP 0596-3
Removal .....	WP 0596-1

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Hydraulic Generator Reservoir Boost Unit Assembly	
Installation .....	WP 0593-2
Removal .....	WP 0593-1
Hydraulic Generator Reservoir Breather	
Installation .....	WP 0594-2
Removal .....	WP 0594-1
Hydraulic Generator Reservoir Fluid Level Gauge	
Installation .....	WP 0595-2
Removal .....	WP 0595-1
Hydraulic Generator Reservoir Strainer	
Installation .....	WP 0597-2
Removal .....	WP 0597-1
Hydraulic Generator Reservoir Temperature Sensor	
Installation .....	WP 0598-2
Removal .....	WP 0598-1
Hydraulic System Bleed .....	WP 0599-1

### I

Illustrated List of Manufactured Items .....	WP 0608-1
Inlet, Discharge, and Tank Fill and Re-Circulating Control Valve Wire Harness	
Installation .....	WP 0453-3
Removal .....	WP 0453-2
Inline Fuse	
Installation .....	WP 0394-1
Removal .....	WP 0394-1
Intercom	
Installation .....	WP 0395-4
Removal .....	WP 0395-1
Intercom and Headsets Do Not Operate Properly .....	WP 0173-1
Intercom Wire Harness	
Installation .....	WP 0454-3
Removal .....	WP 0454-1

### L

Light Bezel	
Installation .....	WP 0396-1
Removal .....	WP 0396-1
Light Bezel Cover	
Installation .....	WP 0397-3
Removal .....	WP 0397-1

**ALPHABETICAL INDEX (CONTINUED)**

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Loose Equipment (Components of End Item) Mounting Bracket(s)	
Adapter Bracket Installation .....	WP 0527-27
Adapter Bracket Removal .....	WP 0527-27
Air Lifting Kit Bracket Installation .....	WP 0527-22
Air Lifting Kit Bracket Removal .....	WP 0527-21
Arson Handle Bracket Installation .....	WP 0527-24
Arson Handle Bracket Removal .....	WP 0527-24
Axe Handle Bracket Installation .....	WP 0527-11
Axe Handle Bracket Removal .....	WP 0527-11
Axe Protector Bracket Installation .....	WP 0527-12
Axe Protector Bracket Removal .....	WP 0527-12
Base Bracket Installation .....	WP 0527-14
Base Bracket Removal .....	WP 0527-13
Fan Bracket Installation .....	WP 0527-2
Fan Bracket Removal .....	WP 0527-1
Fire Extinguisher Bracket Installation .....	WP 0527-15
Fire Extinguisher Bracket Removal .....	WP 0527-15
Forestry Tool Bracket Installation .....	WP 0527-3
Forestry Tool Bracket Removal .....	WP 0527-3
Hooligan Tool Bracket Installation .....	WP 0527-9
Hooligan Tool Bracket Removal .....	WP 0527-9
Loop Bracket Installation .....	WP 0527-7
Loop Bracket Removal .....	WP 0527-7
Mattock Pick Bracket Installation .....	WP 0527-5
Mattock Pick Bracket Removal .....	WP 0527-5
Millennium Detector Bracket Installation .....	WP 0527-19
Millennium Detector Bracket Removal .....	WP 0527-19
Monitor Package Bracket Installation .....	WP 0527-17
Monitor Package Bracket Removal .....	WP 0527-17
Nozzle Bracket Installation .....	WP 0527-25
Nozzle Bracket Removal .....	WP 0527-25
Nozzle Tip Bracket Installation .....	WP 0527-18
Nozzle Tool Bracket Installation .....	WP 0527-26
Nozzle Tool Bracket Removal .....	WP 0527-26
Pike Handle Bracket Installation .....	WP 0527-23
Pike Handle Bracket Removal .....	WP 0527-23
Pike Pole Bracket Installation .....	WP 0527-20
Pike Pole Bracket Removal .....	WP 0527-20
Pry Axe Attachment Bracket Installation .....	WP 0527-8
Pry Axe Attachment Bracket Removal .....	WP 0527-8
Pry Axe W/Claw Bracket Installation .....	WP 0527-10
Pry Axe W/Claw Bracket Removal .....	WP 0527-10
Pulaski Axe Bracket Installation .....	WP 0527-4
Pulaski Axe Bracket Removal .....	WP 0527-4
Shovel Bracket Removal .....	WP 0527-6
Streamlight Bracket Installation .....	WP 0527-28
Streamlight Bracket Removal .....	WP 0527-28
Y Bracket Installation .....	WP 0527-16
Y Bracket Removal .....	WP 0527-16

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Lower Rear Marker Light and Bracket	
Installation .....	WP 0342-3
Removal .....	WP 0342-1

### M

Main Inlet Valve (Driver Side)	
Installation .....	WP 0484-3
Removal .....	WP 0484-1
Main Intake Relief/Dump Valve (Driver Side)	
Installation .....	WP 0258-2
Removal .....	WP 0258-1
Main Wire Harness	
Installation .....	WP 0455-19
Removal .....	WP 0455-1
Maintenance Allocation Chart (MAC) .....	WP 0622-1
Maintenance Allocation Chart (MAC) Introduction .....	WP 0621-1
Maintenance General Introduction .....	WP 0187-1
Marker Light (Amber LED)	
Installation .....	WP 0343-2
Removal .....	WP 0343-1

### N

No. 1 Discharge Drain Valve (Driver Side)	
Installation .....	WP 0274-3
Removal .....	WP 0274-1
No. 1 Discharge Valve (Driver Side)	
Installation .....	WP 0485-4
Removal .....	WP 0485-2
No. 1 Discharge Valve (Driver Side) Does Not Operate Properly .....	WP 0109-1
No. 2 Discharge Drain Valve (Driver Side)	
Installation .....	WP 0275-3
Removal .....	WP 0275-1
No. 2 Discharge Valve (Driver Side)	
Installation .....	WP 0486-3
Removal .....	WP 0486-1
No. 2 Discharge Valve (Driver Side) Does Not Operate Properly .....	WP 0110-1
No. 3 Discharge Drain Valve (Passenger Side)	
Installation .....	WP 0276-3
Removal .....	WP 0276-1
No. 3 Discharge Valve (Passenger Side)	
Installation .....	WP 0487-3
Removal .....	WP 0487-1
No. 3 Discharge Valve (Passenger Side) Does Not Operate Properly .....	WP 0111-1
No. 4 Discharge Drain Valve (Passenger Side)	
Installation .....	WP 0277-3
Removal .....	WP 0277-1

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
No. 4 Discharge Valve (Passenger Side)	
Installation .....	WP 0488-3
Removal .....	WP 0488-1
No. 4 Discharge Valve (Passenger Side) Does Not Operate Properly .....	WP 0112-1

### O

On-Board Tool Mounting Bracket(s)	
Crew Cab On-Board Tool Mounting Bracket Installation .....	WP 0528-2
Crew Cab On-Board Tool Mounting Bracket Removal .....	WP 0528-1
Rear On-Board Tool Mounting Bracket Installation .....	WP 0528-3
Rear On-Board Tool Mounting Bracket Removal .....	WP 0528-3
On-Truck Load Plan	
General .....	WP 0047-1
On-Truck Load Plan .....	WP 0047-2
Scope .....	WP 0047-1
Operation in Cold Environment, -25 to 32°F (-32 to 0°C) .....	WP 0045-1
Overhead Beacon Light	
Installation .....	WP 0356-2
Removal .....	WP 0356-1

### P

Passenger Seat	
Installation .....	WP 0530-3
Removal .....	WP 0530-1
Passenger Seat Mount	
Installation .....	WP 0529-2
Removal .....	WP 0529-1
Passenger Side and Rear Stowage Compartment Light(s) Do Not Operate .....	WP 0174-1
Passenger Side Auxiliary Inlet and Driver Side Main Inlet Bleeder Valve	
Installation .....	WP 0278-3
Removal .....	WP 0278-1
Passenger Side Auxiliary Inlet Valve Does Not Operate Properly .....	WP 0113-1
Passenger Side Body Wire Harness	
Installation .....	WP 0456-13
Removal .....	WP 0456-2
Personnel Cab Clearance Light and Bracket	
Installation .....	WP 0344-3
Removal .....	WP 0344-1
Personnel Cab Do Not Move Apparatus Indicator	
Installation .....	WP 0305-2
Removal .....	WP 0305-1
Personnel Cab Foam Tank Selector Indicator	
Installation .....	WP 0306-2
Removal .....	WP 0306-1

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Personnel Cab Foam Tank Selector Indicator Lamp	
Installation .....	WP 0307-2
Removal .....	WP 0307-1
Personnel Cab Foam Tank Selector Switch	
Installation .....	WP 0308-2
Removal .....	WP 0308-1
Personnel Cab Front Lightbar	
Assembly .....	WP 0347-2
Disassembly .....	WP 0347-2
Installation .....	WP 0345-3
Removal .....	WP 0345-1
Personnel Cab Governor Control Panel	
Installation .....	WP 0309-2
Removal .....	WP 0309-1
Personnel Cab High Idle Switch and Indicator	
Installation .....	WP 0310-2
Removal .....	WP 0310-1
Personnel Cab Instrument Panel	
Panel A installation .....	WP 0311-5
Panel A Removal .....	WP 0311-2
Panel B Installation .....	WP 0311-9
Panel B Removal .....	WP 0311-8
Panel C Installation .....	WP 0311-10
Panel C Removal .....	WP 0311-10
Panel D installation .....	WP 0311-11
Panel D Removal .....	WP 0311-11
Panel E Installation .....	WP 0311-12
Panel E Removal .....	WP 0311-12
Personnel Cab Instrument Panel Assembly	
Installation .....	WP 0312-5
Removal .....	WP 0312-1
Personnel Cab Panel Indicator	
Installation .....	WP 0313-2
Removal .....	WP 0313-1
Personnel Cab Panel Indicator Lamp(s)	
Installation .....	WP 0314-2
Removal .....	WP 0314-1
Personnel Cab Power Distribution Block	
Installation .....	WP 0400-4
Removal .....	WP 0400-1
Personnel Cab Power Distribution Box Circuit Breaker	
Installation .....	WP 0398-2
Removal .....	WP 0398-1
Personnel Cab Power Distribution Box Diode Block	
Installation .....	WP 0399-2
Removal .....	WP 0399-1
Personnel Cab Power Distribution Box Fuse	
Installation .....	WP 0401-2
Removal .....	WP 0401-1

**ALPHABETICAL INDEX (CONTINUED)**

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Personnel Cab Power Distribution Box Relays	
Installation .....	WP 0402-2
Removal .....	WP 0402-1
Personnel Cab Roof Lightbar Flasher Unit	
Installation .....	WP 0403-3
Removal .....	WP 0403-1
Personnel Cab SCBA Seat Repair	
Installation .....	WP 0532-4
Removal .....	WP 0532-1
Personnel Cab Side Lightbar	
Assembly .....	WP 0347-1
Disassembly .....	WP 0347-1
Installation .....	WP 0346-2
Removal .....	WP 0346-1
Personnel Cab Step	
Installation .....	WP 0533-4
Removal .....	WP 0533-1
Personnel Cab Step Clearance Light	
Installation .....	WP 0404-3
Removal .....	WP 0404-1
Personnel Cab Toggle Switch	
Installation .....	WP 0315-2
Removal .....	WP 0315-1
Personnel Cab Warning Light and Do Not Move Apparatus Flasher Units	
Installation .....	WP 0348-2
Removal .....	WP 0348-1
Personnel Cab Water and/or Foam Level Gauge(s)	
Installation .....	WP 0316-2
Removal .....	WP 0316-1
Piping Assembly (Pipe Thread Sealing Compound)	
Assembly .....	WP 0489-1
Piping Heat Trace	
Installation .....	WP 0606-7
Removal .....	WP 0606-1
Piping Heat Trace Does Not Operate Properly .....	WP 0181-1
Plumbing Insulation	
Installation .....	WP 0607-2
Removal .....	WP 0607-1
Plumbing, Hoses, and Piping	
Foam and Water Tank Fill Systems .....	WP 0490-4
Ground Sweeps and Thermal Relief Systems .....	WP 0490-14
Pre-Connect System .....	WP 0490-10
Priming System .....	WP 0490-18
Roof and Bumper Turret Systems .....	WP 0490-12
Side Discharge System .....	WP 0490-8
Water Intake System .....	WP 0490-1
Windshield Deluge System .....	WP 0490-16

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Pneumatic Spring	
Installation .....	WP 0534-2
Removal .....	WP 0534-1
Portable Handheld Flashlight and Charger	
Installation .....	WP 0405-2
Removal .....	WP 0405-1
Portable Handheld Radio and Charger	
Installation .....	WP 0406-3
Removal .....	WP 0406-1
Post Operation Procedures .....	WP 0041-1
Power Cable Assembly (SINCGARS)	
Installation .....	WP 0409-2
Removal .....	WP 0409-1
Power Distribution Box (Pump House)	
Installation .....	WP 0407-2
Removal .....	WP 0407-1
Power Distribution Box Control Panel (Pump House)	
Installation .....	WP 0408-2
Removal .....	WP 0408-1
Power Steering Pump Modification	
Installation .....	WP 0535-6
Modification of New Steering Pump .....	WP 0535-2
Removal .....	WP 0535-1
Power Take Off (PTO)	
Installation .....	WP 0600-2
Removal .....	WP 0600-1
Power Take Off (PTO) Pump	
Installation .....	WP 0601-4
Removal .....	WP 0601-1
Power Take Off (PTO) Solenoid and Pressure Switch	
Installation .....	WP 0602-2
Removal .....	WP 0602-1
Pre-Connect Nozzle Storage Cups	
Installation .....	WP 0536-2
Removal .....	WP 0536-1
Pre-Connect Roller Assembly	
Installation .....	WP 0537-3
Removal .....	WP 0537-1
Pre-Connects	
Driver Side Pre-Connect A Installation .....	WP 0577-2
Driver Side Pre-Connect A Removal .....	WP 0577-1
Driver Side Pre-Connect B Installation .....	WP 0577-5
Driver Side Pre-Connect B Removal .....	WP 0577-4
Preparation for Operation-Operational Modes .....	WP 0006-1
Preparation for Storage or Shipment	
Preparation for Shipment .....	WP 0043-13
Preparation for Storage (Long Term - 6 Months or Longer) .....	WP 0043-1
Prepare to Operate Vehicle .....	WP 0005-1



## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Pressure Governor Adjustment	
Pressure Governor Gain Adjustment .....	WP 0193-2
Pressure Governor PReset PSI Adjustment .....	WP 0193-4
Pressure Governor Ramp Adjustment .....	WP 0193-2
Pressure Governor Sensitivity Adjustment .....	WP 0193-3
Pressure Governor Operation .....	WP 0024-1
Pressure Reducing Valve Driver Pre-Connect "A"	
Installation .....	WP 0491-3
Removal .....	WP 0491-1
Pressure Reducing Valve Driver Pre-Connect "B"	
Installation .....	WP 0492-2
Removal .....	WP 0492-1
Pressure Regulator	
Installation .....	WP 0410-2
Removal .....	WP 0410-1
Pressure Transducer	
Installation .....	WP 0411-2
Removal .....	WP 0411-1
Pressure Transducer Wire Harness	
Installation .....	WP 0460-3
Removal .....	WP 0460-2
Preventive Maintenance Checks and Services (PMCS) Introduction .....	WP 0185-1
Preventive Maintenance Checks and Services (PMCS), Including Lubrication Instructions .....	WP 0186-1
Primer Pump	
Assembly .....	WP 0263-4
Cleaning/Inspection .....	WP 0263-3
Disassembly .....	WP 0263-1
Installation .....	WP 0262-3
Removal .....	WP 0262-1
Primer Pump Motor Control Solenoid	
Installation .....	WP 0260-2
Removal .....	WP 0260-1
Primer Pump Valve Motor Inline Fuse	
Installation .....	WP 0261-2
Removal .....	WP 0261-1
Primer Tank	
Installation .....	WP 0264-2
Removal .....	WP 0264-1
Primer Valve Cable	
Installation .....	WP 0265-2
Removal .....	WP 0265-1
Primer Valve Control Solenoid(s)	
Driver Side Inlet Prime Valve Solenoid Installation .....	WP 0266-4
Driver Side Inlet Prime Valve Solenoid Removal .....	WP 0266-3
Pump Primer Solenoid Installation .....	WP 0266-2
Pump Primer Solenoid Removal .....	WP 0266-1
Priming Water Pump .....	WP 0023-1
Pump and Plumbing Blow-Out Procedures .....	WP 0044-1
Pump and Roll Procedures .....	WP 0028-1

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Pump Cooler (Dump-To-Ground) Valve	
Installation .....	WP 0578-2
Removal .....	WP 0578-1
PUMP COOLER Indicator Does Not Illuminate (Pump Operator's Panel) .....	WP 0136-1
Pump Cooler Open Indicator Does Not Illuminate (Cab) .....	WP 0135-1
Pump Cooler Valve Does Not Operate Properly .....	WP 0114-1
Pump Digital Pressure Gauge(s) (Discharge and Intake)	
Installation .....	WP 0317-2
Removal .....	WP 0317-1
Pump Does Not Prime .....	WP 0064-1
Pump Engine Cranks But Fails to Start .....	WP 0061-1
Pump Engine Governor Control Does Not Operate .....	WP 0062-1
PUMP ENGINE RUNNING Indicator Not Illuminated When Water Pump Engine is Running .....	WP 0137-1
Pump Engine Runs Rough or Shuts Down While Running .....	WP 0063-1
PUMP HOT Alarm/Indicator Does Not Operate When Tested or Pump Overheat Condition (Pump Operator's Panel) .....	WP 0138-1
Pump House Access Doors	
Installation .....	WP 0538-3
Removal .....	WP 0538-1
Pump House Cooling Fan	
Installation .....	WP 0416-2
Removal .....	WP 0416-1
Pump House Cooling Fan Temperature Switch	
Installation .....	WP 0414-2
Removal .....	WP 0414-1
Pump House Distribution Box Circuit Breaker	
Installation .....	WP 0412-2
Removal .....	WP 0412-1
Pump House Distribution Box Relay	
Installation .....	WP 0413-2
Removal .....	WP 0413-1
Pump House Fan Does Not Operate Properly .....	WP 0175-1
Pump House Heater	
Installation .....	WP 0469-3
Removal .....	WP 0469-1
Pump House Heater Diagnostic Module	
Installation .....	WP 0415-3
Removal .....	WP 0415-1
Pump House Heater Does Not Operate Properly .....	WP 0182-1
Pump House or Pump Operator's Panel Work Light(s) Does Not Operate .....	WP 0176-1
Pump House Panel A	
Close .....	WP 0539-2
Open .....	WP 0539-1

**ALPHABETICAL INDEX (CONTINUED)**

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Pump House Panels	
General .....	WP 0540-1
Pump Panel A Installation .....	WP 0540-4
Pump Panel A Removal .....	WP 0540-2
Pump Panel B Installation .....	WP 0540-7
Pump Panel B Removal .....	WP 0540-6
Pump Panel C Installation .....	WP 0540-8
Pump Panel C Removal .....	WP 0540-8
Pump Panel D Installation .....	WP 0540-9
Pump Panel D Removal .....	WP 0540-9
Pump Panel E Installation .....	WP 0540-11
Pump Panel E Removal .....	WP 0540-11
Pump Panel F Installation .....	WP 0540-12
Pump Panel F Removal .....	WP 0540-12
Pump Panel G Installation .....	WP 0540-13
Pump Panel G Removal .....	WP 0540-13
Pump Panel H Installation .....	WP 0540-14
Pump Panel H Removal .....	WP 0540-14
Pump Panel I Installation .....	WP 0540-16
Pump Panel I Removal .....	WP 0540-15
Pump Panel J Installation .....	WP 0540-17
Pump Panel J Removal .....	WP 0540-16
Pump Panel K Installation .....	WP 0540-18
Pump Panel K Removal .....	WP 0540-17
Pump Panel L Installation .....	WP 0540-19
Pump Panel L Removal .....	WP 0540-18
Pump Panel M Installation .....	WP 0540-21
Pump Panel M Removal .....	WP 0540-20
Pump Panel N Installation .....	WP 0540-22
Pump Panel N Removal .....	WP 0540-22
Pump Panel O Installation .....	WP 0540-23
Pump Panel O Removal .....	WP 0540-23
Pump Panel P Installation .....	WP 0540-24
Pump Panel P Removal .....	WP 0540-24
Pump Panel Q Installation .....	WP 0540-25
Pump Panel Q Removal .....	WP 0540-25
Pump Panel R Installation .....	WP 0540-26
Pump Panel R Removal .....	WP 0540-26
Pump Panel S Installation .....	WP 0540-27
Pump Panel S Removal .....	WP 0540-27
Pump Panel T Installation .....	WP 0540-28
Pump Panel T Removal .....	WP 0540-28
Pump Panel U Installation .....	WP 0540-29
Pump Panel U Removal .....	WP 0540-29
Pump House Power Distribution Wire Harness and Block	
Installation .....	WP 0457-4
Removal .....	WP 0457-1

**ALPHABETICAL INDEX (CONTINUED)**

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Pump House Wire Harness	
Installation .....	WP 0458-11
Removal .....	WP 0458-1
Pump Loses Prime .....	WP 0065-1
Pump Operator's Panel	
Close .....	WP 0019-3
Installation .....	WP 0334-3
Open .....	WP 0019-1
Removal .....	WP 0334-2
Pump Operator's Panel Air Flow Restrictor Indicator	
Installation .....	WP 0318-2
Removal .....	WP 0318-1
Pump Operator's Panel Cover	
Installation .....	WP 0320-3
Removal .....	WP 0320-1
Pump Operator's Panel Electric Valve Control	
Installation .....	WP 0418-2
Removal .....	WP 0418-1
Pump Operator's Panel Electric Valve Control/Meter	
Installation .....	WP 0417-2
Removal .....	WP 0417-1
Pump Operator's Panel Engine Diagnostics Plug	
Installation .....	WP 0321-2
Removal .....	WP 0321-1
Pump Operator's Panel Foam Level Gauge	
Installation .....	WP 0322-2
Removal .....	WP 0322-1
Pump Operator's Panel Fuel Gauge	
Installation .....	WP 0323-2
Removal .....	WP 0323-1
Pump Operator's Panel Hourmeter	
Installation .....	WP 0324-2
Removal .....	WP 0324-1
Pump Operator's Panel Housing Open/Close	
Close .....	WP 0325-2
Open .....	WP 0325-1
Pump Operator's Panel Indicator Lamp	
Installation .....	WP 0327-1
Removal .....	WP 0327-1
Pump Operator's Panel Indicator Light	
Installation .....	WP 0326-2
Removal .....	WP 0326-1
Pump Operator's Panel Light Switch	
Installation .....	WP 0328-2
Removal .....	WP 0328-1
Pump Operator's Panel Manual Primer Handle	
Installation .....	WP 0329-2
Removal .....	WP 0329-1

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Pump Operator's Panel Momentary Toggle Switch	
Installation .....	WP 0330-2
Removal .....	WP 0330-1
Pump Operator's Panel Overheat Test Button	
Installation .....	WP 0331-2
Removal .....	WP 0331-1
Pump Operator's Panel Pressure Governor Control Panel	
Installation .....	WP 0332-2
Removal .....	WP 0332-1
Pump Operator's Panel Primer Switch	
Installation .....	WP 0333-2
Removal .....	WP 0333-1
Pump Operator's Panel Side Lamp and Bracket	
Installation .....	WP 0335-2
Removal .....	WP 0335-1
Pump Operator's Panel Test Gauge Panel	
Installation .....	WP 0336-5
Removal .....	WP 0336-1
Pump Operator's Panel Three-Position Toggle Switch	
Installation .....	WP 0337-2
Removal .....	WP 0337-1
Pump Operator's Panel Two-Position Toggle Switch	
Installation .....	WP 0338-2
Removal .....	WP 0338-1
Pump Operator's Panel Water Level Gauge	
Installation .....	WP 0339-2
Removal .....	WP 0339-1
Pump Operator's Panel Wire Harness	
Installation .....	WP 0459-21
Removal .....	WP 0459-1
Pump Operator's Platform	
Installation .....	WP 0541-4
Removal .....	WP 0541-1
Stow .....	WP 0016-2
Unstow .....	WP 0016-1
Pump Primer Motor Diode Pack	
Installation .....	WP 0419-1
Removal .....	WP 0419-1
Pump Primer Valve	
Installation .....	WP 0267-4
Removal .....	WP 0267-1
Pump Priming System Does Not Operate Properly .....	WP 0115-1
Pumping from Draft (Main Inlet) .....	WP 0025-1
Pumping from Hydrant or In Relay (Positive Water Sources) .....	WP 0027-1
Pumping From Onboard Water Tank .....	WP 0026-1

**ALPHABETICAL INDEX (CONTINUED)**

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
<b>R</b>	
Rear Access Ladder	
Installation .....	WP 0542-3
Removal .....	WP 0542-1
Rear Body Wire Harness	
Installation .....	WP 0461-5
Removal .....	WP 0461-1
Rear Compartment Heater	
Installation .....	WP 0471-4
Removal .....	WP 0471-1
Rear Compartment Heater Diagnostic Module	
Installation .....	WP 0470-3
Removal .....	WP 0470-1
Rear Compartment Heater Does Not Operate Properly .....	WP 0183-1
Rear Compartment Mounting Brackets	
Installation .....	WP 0543-7
Removal .....	WP 0543-1
Rear Compartment Utility Tilt Tray	
Installation .....	WP 0544-5
Removal .....	WP 0544-1
Rear Hard Lift	
Installation .....	WP 0545-4
Removal .....	WP 0545-1
Rear Heater Thermostat	
Installation .....	WP 0472-3
Removal .....	WP 0472-1
Rear Marker/Clearance LED	
Installation .....	WP 0349-2
Removal .....	WP 0349-1
Rear Splash Guard	
Installation .....	WP 0546-2
Removal .....	WP 0546-1
Rear Step Buzzer Button and Cable	
Installation .....	WP 0420-2
Removal .....	WP 0420-1
Rear Step Buzzer Button Compartment	
Installation .....	WP 0421-2
Removal .....	WP 0421-1
Rear Step Buzzer Does Not Operate Properly .....	WP 0178-1
Rear Work Platform	
Assembly .....	WP 0547-7
Disassembly .....	WP 0547-4
Installation .....	WP 0547-11
Removal .....	WP 0547-2
Stow .....	WP 0014-2
Unstow .....	WP 0014-1
References .....	WP 0620-1

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Remote Intercom	
Installation .....	WP 0422-2
Removal .....	WP 0422-1
Repair Parts and Special Tools List (RPSTL) Introduction	
Explanation of Columns in the Repair Parts List and Special Tools List Work Packages .....	WP 0610-2
Explanation of Cross-Reference Indexes Work Packages Format and Columns .....	WP 0610-6
General .....	WP 0610-1
How to Locate Repair Parts .....	WP 0610-7
Scope .....	WP 0610-1
Special Information .....	WP 0610-6
Repair Parts and Special Tools List (RPSTL) NSN Index .....	WP 0618-1
Repair Parts and Special Tools List (RPSTL) Part Number Index .....	WP 0619-1
Right Rear Access Ladder	
Stow .....	WP 0013-2
Unstow .....	WP 0013-1
Roof Mounted Clearance Lights	
Installation .....	WP 0350-4
Removal .....	WP 0350-1
Roof Turret and Controls Repair	
Handle and Roof Turret Assembly .....	WP 0581-16
Handle and Roof Turret Cleaning /Inspection .....	WP 0581-15
Handle and Roof Turret Disassembly .....	WP 0581-6
Nozzle Body Assembly .....	WP 0581-4
Nozzle Body Cleaning and Inspection .....	WP 0581-3
Nozzle Body Disassembly .....	WP 0581-1
Nozzle Pattern Handle and Cable Assembly .....	WP 0581-31
Nozzle Pattern Handle and Cable Cleaning and Inspection .....	WP 0581-30
Nozzle Pattern Handle and Cable Disassembly .....	WP 0581-27
Roof Turret Control Valve	
Installation .....	WP 0424-4
Removal .....	WP 0424-1
Roof Turret Does Not Operate When Selected .....	WP 0116-1
Roof Turret Indicator Does Not Operate .....	WP 0140-1
Roof Turret Mounting Plate	
Installation .....	WP 0565-2
Removal .....	WP 0565-1
Roof Turret Operation .....	WP 0036-1
Roof Turret Plumbing Cover	
Installation .....	WP 0548-2
Removal .....	WP 0548-1
Roof Turret Valve	
Installation .....	WP 0580-2
Removal .....	WP 0580-1
Roof Turret, Automatic Drain Valve, and Controls	
Installation .....	WP 0579-7
Removal .....	WP 0579-1
Roof, Bumper, and Pump Cooler Dump-To-Ground Junction Box	
Installation .....	WP 0423-3
Removal .....	WP 0423-1

**ALPHABETICAL INDEX (CONTINUED)**

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
<b>S</b>	
SCBA Seat Belt	
Installation .....	WP 0549-3
Removal .....	WP 0549-1
Shoreline Inlet Receptacle	
Installation .....	WP 0425-2
Removal .....	WP 0425-1
Shoreline Inlet Receptacle Does Not Operate Properly .....	WP 0180-1
Shutoff Control Valve Diode Pack	
Installation .....	WP 0426-2
Removal .....	WP 0426-1
Shutoff Control Valve Manifold	
Installation .....	WP 0427-4
Removal .....	WP 0427-1
SINGGARS and Two-Way Radio Intercom Cable	
SINGGARS Interface Wire Harness Installation .....	WP 0462-2
SINGGARS Interface Wire Harness Removal .....	WP 0462-1
Two-Way Radio Interface Wire Harness Installation .....	WP 0462-4
Two-Way Radio Interface Wire Harness Removal .....	WP 0462-3
SINGGARS Do Not Operate Properly .....	WP 0179-1
SINGGARS Radio Cover	
Close .....	WP 0017-1
Open .....	WP 0017-1
Siren Control	
Installation .....	WP 0341-2
Removal .....	WP 0341-1
Siren Does Not Operate Properly .....	WP 0150-1
Skid Plate Grille	
Installation .....	WP 0550-2
Removal .....	WP 0550-1
Small Compartment Doors	
Pump House Panel Doors Installation .....	WP 0551-2
Pump House Panel Doors Removal .....	WP 0551-1
SCBA Tank Access Door/Rear Step Buzzer Access Door Installation .....	WP 0551-5
SCBA Tank Access Door/Rear Step Buzzer Access Door Removal .....	WP 0551-4
Speaker	
Installation .....	WP 0428-2
Removal .....	WP 0428-1
Spreader Bar Bracket	
Installation .....	WP 0552-3
Removal .....	WP 0552-1
Stowage and Data Plate Guide	
General .....	WP 0046-1
Scope .....	WP 0046-1
Stowage Box	
Installation .....	WP 0553-2
Removal .....	WP 0553-1



**ALPHABETICAL INDEX (CONTINUED)**

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Stowage Compartment Door	
Horizontal Hinged Door Installation .....	WP 0555-8
Horizontal Hinged Door Removal .....	WP 0555-7
Vertical Hinged Door Installation .....	WP 0555-4
Vertical Hinged Door Removal .....	WP 0555-1
Stowage Compartment Door Latch	
Installation .....	WP 0554-2
Removal .....	WP 0554-1
Streamlight Battery Charger(s) Does Not Charge Batteries .....	WP 0059-1

**T**

TANK DRAIN Indicator Does Not Illuminate (Pump Operator's Panel) .....	WP 0141-1
Tank Fill & Re-Circulating Valve Does Not Operate Properly .....	WP 0118-1
TANK TO PUMP Indicator Does Not Illuminate (Cab) .....	WP 0142-1
TANK TO PUMP Indicator Does Not Illuminate (Pump Operator's Panel) .....	WP 0143-1
Tank-To-Pump Check Valve (Driver Side)	
Installation .....	WP 0295-2
Removal .....	WP 0295-1
Tank-To-Pump Check Valve (Passenger Side)	
Installation .....	WP 0296-2
Removal .....	WP 0296-1
Tank-To-Pump Intake Valve (Driver Side)	
Installation .....	WP 0493-2
Removal .....	WP 0493-1
Tank-To-Pump Intake Valve (Passenger Side)	
Installation .....	WP 0494-2
Removal .....	WP 0494-1
Tank-To-Pump Valve(s) Does Not Operate Properly .....	WP 0119-1
Terminal Block (Pass-Through)	
Installation .....	WP 0429-2
Removal .....	WP 0429-1
Theory of Operation	
120/240 VAC Hydraulic Generator System .....	WP 0003-3
Crew Cab .....	WP 0003-2
Foam System .....	WP 0003-2
Pressure Governor .....	WP 0003-3
System Introduction .....	WP 0003-1
Water Pump Engine .....	WP 0003-1
Water Pumping System .....	WP 0003-1
Windshield Deluge System .....	WP 0003-1
Winterization Package .....	WP 0003-3
Thermal Relief Valve	
Installation .....	WP 0259-2
Removal .....	WP 0259-1
Threaded Screw Insert	
Installation .....	WP 0556-2
Removal .....	WP 0556-1

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Top Stowage Compartment Door	
Installation .....	WP 0557-2
Removal .....	WP 0557-1
Torque Limits	
How to Use Torque Tables .....	WP 0609-1
Scope .....	WP 0609-1
Torque Limits .....	WP 0609-1
Transmission	
Installation .....	WP 0558-10
Removal .....	WP 0558-1
Transmission Dipstick and Tube	
Installation .....	WP 0559-2
Removal .....	WP 0559-1
Troubleshooting Fault Index	
Field Level .....	WP 0050-1
Operator Level .....	WP 0049-1
Troubleshooting Instructions Introduction .....	WP 0048-1
Turret Bumper Mount	
Installation .....	WP 0566-2
Removal .....	WP 0566-1
Two-Way Radio	
Installation .....	WP 0430-3
Removal .....	WP 0430-1
Two-Way Radio Does Not Operate Properly .....	WP 0170-1

### U

Utility Outlet	
Crew Cab Utility Outlet Installation .....	WP 0431-2
Crew Cab Utility Outlet Removal .....	WP 0431-2
Personnel Cab Utility Outlet Removal .....	WP 0431-1

### V

Valve Control Wire Harness	
Installation .....	WP 0463-5
Removal .....	WP 0463-1
Valve Driver Pre-Connect "A"	
Installation .....	WP 0495-3
Removal .....	WP 0495-1
Valve Driver Pre-Connect "B"	
Installation .....	WP 0496-2
Removal .....	WP 0496-1

**ALPHABETICAL INDEX (CONTINUED)**

**Subject** **WP Sequence No.-Page No.**

**W**

Warning Lights	
Installation .....	WP 0351-2
Removal .....	WP 0351-1
Warning Lights (All) Do Not Operate .....	WP 0151-1
Warning Lights (Cab Roof Lightbar) Do Not Operate .....	WP 0154-1
Warning Lights (Front and Rear) Do Not Operate .....	WP 0152-1
Warning Lights (Overhead Beacon) Do Not Operate .....	WP 0153-1
Warning Lights (Side) Do Not Operate .....	WP 0155-1
Warning Lights (Upper Rear) Do Not Operate .....	WP 0156-1
Warning Lights Do Not Operate .....	WP 0068-1
Water Level Probe	
Installation .....	WP 0297-2
Removal .....	WP 0297-1
Water Pump	
Installation .....	WP 0255-18
Removal .....	WP 0255-2
Water Pump and Water Tank	
Water Pump Flush .....	WP 0042-1
Water Tank Flush .....	WP 0042-6
Water Pump Engine	
Engine Installation .....	WP 0219-26
Engine Removal .....	WP 0219-16
Frame Rail Extension Installation .....	WP 0219-11
Frame Rail Extension Removal .....	WP 0219-37
Installation .....	WP 0219-40
Removal .....	WP 0219-2
Water Pump Engine (Cab Instrument Panel and Pump Operator's Panel)	
Starting Water Pump Engine (Engage Pump) .....	WP 0022-1
Stopping Water Pump Engine (Disengage Pump) .....	WP 0022-4
Water Pump Engine Air Cleaner Assembly	
Installation .....	WP 0220-3
Removal .....	WP 0220-1
Water Pump Engine Air Filter Ductwork	
Installation .....	WP 0221-5
Removal .....	WP 0221-1
Water Pump Engine Air Intake Pre-Filter	
Installation .....	WP 0222-1
Removal .....	WP 0222-1
Water Pump Engine Alternator	
Installation .....	WP 0223-2
Removal .....	WP 0223-1
Water Pump Engine Alternator Belt	
Installation/Adjustment .....	WP 0224-2
Removal .....	WP 0224-1

**ALPHABETICAL INDEX (CONTINUED)**

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Water Pump Engine Battery Cables	
Installation .....	WP 0225-3
Removal .....	WP 0225-1
Water Pump Engine Compression Test	
Test .....	WP 0194-1
Water Pump Engine Coolant Hoses and Tubes	
Installation .....	WP 0476-3
Removal .....	WP 0476-1
Water Pump Engine Coolant Level Sensor	
Installation .....	WP 0474-2
Removal .....	WP 0474-1
Water Pump Engine Coolant Level Sight Glass	
Installation .....	WP 0475-2
Removal .....	WP 0475-1
Water Pump Engine Coolant Pump	
Cleaning/Inspection .....	WP 0477-2
Installation .....	WP 0477-3
Removal .....	WP 0477-1
Water Pump Engine Coolant Temperature Sensor	
Installation .....	WP 0480-2
Removal .....	WP 0480-1
Water Pump Engine Coolant/Fuel Pump Belts	
Installation/Adjustment .....	WP 0473-2
Removal .....	WP 0473-1
Water Pump Engine Coolant/Fuel Pump Belts Adjustment	
Adjustment .....	WP 0195-1
Water Pump Engine Cooling System Pressure Test	
Test .....	WP 0478-1
Water Pump Engine Cooling System Service	
Drain Cooling System .....	WP 0479-1
Fill Cooling System .....	WP 0479-2
Water Pump Engine Cranks But Will Not Start or Hard to Start From Personnel Cab and Pump Operator's Panel .....	WP 0073-1
Water Pump Engine Electronic Control Unit (ECU)	
Installation .....	WP 0226-2
Removal .....	WP 0226-1
Water Pump Engine Exhaust Manifold	
Installation .....	WP 0227-2
Removal .....	WP 0227-1
Water Pump Engine Exhaust Pipes	
Installation .....	WP 0228-2
Removal .....	WP 0228-1
Water Pump Engine Expansion Plug	
Installation .....	WP 0229-2
Removal .....	WP 0229-1
Water Pump Engine Fails To Crank From Personnel Cab .....	WP 0075-1
Water Pump Engine Fails To Crank From Personnel Cab and Pump Operator's Panel .....	WP 0074-1
Water Pump Engine Fails To Crank From Pump Operator's Panel .....	WP 0076-1

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Water Pump Engine Fan Belts	
Installation/Adjustment .....	WP 0230-3
Removal .....	WP 0230-1
Water Pump Engine Fuel Filter	
Installation .....	WP 0231-3
Removal .....	WP 0231-1
Water Pump Engine Fuel Filter Head	
Installation .....	WP 0232-2
Removal .....	WP 0232-1
Water Pump Engine Fuel Injector(s)	
Installation .....	WP 0233-4
Removal .....	WP 0233-1
Water Pump Engine Fuel Line Check Valve(s)	
Installation .....	WP 0235-3
Removal .....	WP 0235-1
Water Pump Engine Fuel Lines	
Installation .....	WP 0234-5
Removal .....	WP 0234-1
Water Pump Engine Fuel Pump	
Installation .....	WP 0236-3
Removal .....	WP 0236-2
Water Pump Engine Fuel System Bleed	
Fuel System Bleed .....	WP 0237-1
Water Pump Engine Fuel/Water Separator	
Installation .....	WP 0238-5
Removal .....	WP 0238-2
Water Pump Engine Gauge Panel	
Installation .....	WP 0340-2
Removal .....	WP 0340-1
Water Pump Engine Gauge Panel Does Not Operate Properly .....	WP 0149-1
Water Pump Engine Glow Plug	
Installation .....	WP 0239-2
Removal .....	WP 0239-1
Water Pump Engine Heat Exchanger	
Installation .....	WP 0240-2
Removal .....	WP 0240-1
Water Pump Engine Hourmeter Does Not Operate .....	WP 0084-1
Water Pump Engine is Hard To Start When Cold, Below 32°F (0°C) .....	WP 0085-1
Water Pump Engine is Producing Blue Exhaust Smoke, Water Temp Reads Over 180°F (82°C) .....	WP 0086-1
Water Pump Engine is Producing Excessive Black or Gray Exhaust Smoke, Water Temp Reads Over 180°F (82°C) .....	WP 0087-1
Water Pump Engine is Producing White Exhaust Smoke, Water Temp Reads Over 180°F (82°C) ....	WP 0088-1
Water Pump Engine Misfires, Runs Rough, or Lacks Power .....	WP 0089-1
Water Pump Engine Muffler	
Installation .....	WP 0241-3
Removal .....	WP 0241-2
Water Pump Engine Noise Panels	
Installation .....	WP 0242-2
Removal .....	WP 0242-1

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Water Pump Engine Oil Consumption is High or Leaks Oil .....	WP 0091-1
Water Pump Engine Oil Drain/Fill	
Drain Oil .....	WP 0243-1
Oil Fill .....	WP 0243-2
Water Pump Engine Oil Filter	
Installation .....	WP 0244-2
Removal .....	WP 0244-1
Water Pump Engine Oil Pressure is Low or Water Pump Engine Starts and Stops .....	WP 0092-1
Water Pump Engine Oil Pressure Sending Unit	
Installation .....	WP 0245-2
Removal .....	WP 0245-1
Water Pump Engine Oil Pressure Switch	
Installation .....	WP 0246-2
Removal .....	WP 0246-1
Water Pump Engine Overheats .....	WP 0093-1
Water Pump Engine Pressure Governor Control Panel Changes Engine Speed, But Oscillates While In PSI Mode .....	WP 0081-1
Water Pump Engine Pressure Governor Control Panel Changes Engine Speed, But Oscillates While In RPM Mode .....	WP 0080-1
Water Pump Engine Pressure Governor Control Panel Does Not Change Engine Speed .....	WP 0077-1
Water Pump Engine Pressure Governor Control Panel Does Not Change Pump Pressure .....	WP 0078-1
Water Pump Engine Pressure Governor Control Panel Does Not Operate Properly .....	WP 0146-1
Water Pump Engine Pressure Governor Control Panel is Not Disabled, When Other Governor Control Panel is Activated .....	WP 0145-1
Water Pump Engine Pressure Governor Control Panel Message Center Displays Sensor or Cavitate	WP 0079-1
Water Pump Engine Pressure Governor Control Panel Message Display is Garbled or Dim .....	WP 0148-1
Water Pump Engine Pressure Governor Control Panel PSI PRESET Control Does Not Operate .....	WP 0083-1
Water Pump Engine Pressure Governor Control Panel Throttle Ready and/or Pump Engage LEDs Do Not Illuminate .....	WP 0147-1
Water Pump Engine Pressure Governor Controls Do Not Maintain System Pressure When Discharge Valve is Being Opened or Closed .....	WP 0082-1
Water Pump Engine Radiator	
Installation .....	WP 0481-3
Removal .....	WP 0481-1
Water Pump Engine Remote Oil Filter Head and Hose	
Installation .....	WP 0247-3
Removal .....	WP 0247-1
Water Pump Engine Starter Motor	
Installation .....	WP 0248-4
Removal .....	WP 0248-1
Water Pump Engine Thermostat	
Installation .....	WP 0249-3
Removal .....	WP 0249-2
Water Pump Engine Turbocharger	
Installation .....	WP 0250-3
Removal .....	WP 0250-1
Water Pump Engine Valve Cover and Gasket	
Installation .....	WP 0251-4
Removal .....	WP 0251-1

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Water Pump Engine Valve Lash Adjustment and Injection Nozzle Pressure Check	
Injection Nozzle Closure Tightness Check .....	WP 0196-6
Injection Nozzle Pressure Check .....	WP 0196-5
Valve Clearance Adjustment .....	WP 0196-2
Water Pump Engine Wire Harness	
Water Pump Engine Wire Harness Installation .....	WP 0464-7
Water Pump Engine Wire Harness Removal .....	WP 0464-1
Water Pump Gear Case Oil	
Change Oil .....	WP 0252-1
Check Oil Level .....	WP 0253-1
Water Pump Gear Case Oil Fill Hose	
Installation .....	WP 0254-2
Removal .....	WP 0254-1
Water Pump Noisy .....	WP 0090-1
Water Pump Output Pressure is Low .....	WP 0124-1
Water Tank	
Installation .....	WP 0298-6
Removal .....	WP 0298-2
Water Tank Drain Valve	
Installation .....	WP 0279-2
Removal .....	WP 0279-1
Water Tank Drain Valve Does Not Operate When Selected .....	WP 0122-1
Water Tank Fill	
Direct Tank Fill .....	WP 0020-6
Filling From Draft .....	WP 0020-11
Main Inlet .....	WP 0020-1
Overhead Fill .....	WP 0020-10
Water Tank Fill Valve	
Installation .....	WP 0299-2
Removal .....	WP 0299-1
Water Tank Heater	
Installation .....	WP 0300-2
Removal .....	WP 0300-1
Water Tank Heater Control Box	
Breakers and Mounting Strip Installation .....	WP 0301-4
Breakers and Mounting Strip Removal .....	WP 0301-4
Contactors and Mounting Strip Installation .....	WP 0301-7
Contactors and Mounting Strip Removal .....	WP 0301-6
Control Box Installation .....	WP 0301-14
Control Box Removal .....	WP 0301-11
Main Shutoff Control Installation .....	WP 0301-3
Main Shutoff Control Removal .....	WP 0301-3
Opening Water Tank Heater Control Box .....	WP 0301-1
Relays Installation .....	WP 0301-10
Relays Removal .....	WP 0301-10
Terminal Strip Components and Mounting Strip Installation .....	WP 0301-9
Terminal Strip Components and Mounting Strip Removal .....	WP 0301-8
Timer Installation .....	WP 0301-5
Timer Removal .....	WP 0301-5

## ALPHABETICAL INDEX (CONTINUED)

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Water Tank Heater Does Not Operate Properly .....	WP 0184-1
Water Tank Level Indicator Gauge Does Not Operate Properly .....	WP 0123-1
Water Tank Level Probe Wire Harness	
Installation .....	WP 0466-2
Removal .....	WP 0466-1
Water Tank Low Level Switch	
Installation .....	WP 0302-2
Removal .....	WP 0302-1
Water Tank Side Fill Valve	
Installation .....	WP 0303-4
Removal .....	WP 0303-1
Water Tank Vent/Fill	
Installation .....	WP 0304-4
Removal .....	WP 0304-1
Water Valve Wire Harness	
Installation .....	WP 0465-5
Removal .....	WP 0465-1
Wheel Chocks Stowage Compartment	
Installation .....	WP 0560-2
Removal .....	WP 0560-1
Windshield Deluge	
Starting Windshield Deluge System .....	WP 0038-1
Stopping Windshield Deluge System .....	WP 0038-1
Windshield Deluge Motor	
Installation .....	WP 0432-2
Removal .....	WP 0432-1
Windshield Deluge Pump House Strainer Screen	
Installation .....	WP 0561-2
Removal .....	WP 0561-1
Windshield Deluge Shutoff Valve and Strainer Assembly	
Installation .....	WP 0582-4
Removal .....	WP 0582-1
Windshield Deluge System	
Installation .....	WP 0562-4
Removal .....	WP 0562-1
Windshield Deluge System Does Not Operate Properly .....	WP 0125-1
Wire Rope	
Installation .....	WP 0563-2
Removal .....	WP 0563



<b>RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS</b>  For use of this form, see AR 25-30; the proponent agency is OAASA	Use Part II ( <i>reverse</i> ) for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).	DATE
---	--	------

<b>TO:</b> ( <i>Forward to proponent of publication or form</i> ) ( <i>Include ZIP Code</i> )	<b>FROM:</b> ( <i>Activity and location</i> ) ( <i>Include ZIP Code</i> )
---	---

**PART I - ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS**

PUBLICATION/FORM NUMBER	DATE	TITLE
-------------------------	------	-------

ITEM	PAGE	PARA- GRAPH	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON
------	------	----------------	------	---------------	-------	--------------------------------

--	--	--	--	--	--	--

*\* Reference to line numbers within the paragraph or subparagraph.*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
----------------------------	---	-----------

<b>TO:</b> <i>(Forward direct to addressee listed in publication)</i>	<b>FROM:</b> <i>(Activity and location) (Include ZIP Code)</i>	<b>DATE</b>
---	--	-------------

**PART II - REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS**

PUBLICATION NUMBER			DATE		TITLE			
PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION

**PART III - REMARKS** *(Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
----------------------------	--	-----------

<b>RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS</b>						Use Part II ( <i>reverse</i> ) for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).	DATE
For use of this form, see AR 25-30; the proponent agency is OAASA							
TO: ( <i>Forward to proponent of publication or form</i> ) ( <i>Include ZIP Code</i> )				FROM: ( <i>Activity and location</i> ) ( <i>Include ZIP Code</i> )			
<b>PART I - ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS</b>							
PUBLICATION/FORM NUMBER					DATE	TITLE	
ITEM	PAGE	PARA- GRAPH	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON	
* Reference to line numbers within the paragraph or subparagraph.							
TYPED NAME, GRADE OR TITLE				TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION		SIGNATURE	

<b>TO:</b> <i>(Forward direct to addressee listed in publication)</i>	<b>FROM:</b> <i>(Activity and location) (Include ZIP Code)</i>	<b>DATE</b>
---	--	-------------

**PART II - REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS**

PUBLICATION NUMBER			DATE		TITLE			
PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION

**PART III - REMARKS** *(Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
----------------------------	--	-----------

By order of the Secretary of the Army:

GEORGE W. CASEY, JR.  
*General, United States Army*  
*Chief of Staff*

Official:

A handwritten signature in black ink that reads "Joyce E. Morrow". The signature is written in a cursive style with a large, stylized initial "J".

JOYCE E. MORROW  
*Administrative Assistant to the*  
*Secretary of the Army*  
0827704

Distribution: To be distributed in accordance with the initial distribution number (IDN) 381211, requirements for TM 5-4210-249-13&P-3.



THE METRIC SYSTEM AND EQUIVALENTS

LINEAR MEASURE

1 Centimeter=10 Millimeters=0.01 Meters=0.3937 Inches  
 1 Meter=100 Centimeters=1000 Millimeters=39.37 Inches  
 1 Kilometer=1000 Meters=0.621 Miles

SQUARE MEASURE

1 Sq Centimeter=100 Sq Millimeters=0.155 Sq Inches  
 1 Sq Meter=10,000 Sq Centimeters=10.76 Sq Feet  
 1 Sq Kilometer=1,000,000 Sq Meters=0.386 Sq Miles

WEIGHTS

1 Gram=0.001 Kilograms=1000 Milligrams=0.035 Ounces  
 1 Kilogram=1000 Grams=2.2 Lb  
 1 Metric Ton=1000 Kilograms=1 Megagram=1.1 Short Tons

CUBIC MEASURE

1 Cu Centimeter=1000 Cu Millimeters=0.06 Cu Inches  
 1 Cu Meter=1,000,000 Cu Centimeters=35.31 Cu Feet

LIQUID MEASURE

1 Milliliter=0.001 Liters=0.0338 Fluid Ounces  
 1 Liter=1000 Milliliters=33.82 Fluid Ounces

TEMPERATURE

$5/9 (^{\circ}\text{F} - 32) = ^{\circ}\text{C}$   
 212° Fahrenheit is equivalent to 100° Celsius  
 90° Fahrenheit is equivalent to 32.2° Celsius  
 32° Fahrenheit is equivalent to 0° Celsius  
 $9/5 \text{ C}^{\circ} + 32 = \text{F}^{\circ}$

APPROXIMATE CONVERSION FACTORS

<u>TO CHANGE</u>	<u>TO</u>	<u>MULTIPLY BY</u>
Inches.....	Centimeters.....	2.540
Feet .....	Meters .....	0.305
Yards .....	Meters .....	0.914
Miles.....	Kilometers.....	1.609
Square Inches.....	Square Centimeters.....	6.451
Square Feet.....	Square Meters.....	0.093
Square Yards.....	Square Meters.....	0.836
Square Miles.....	Square Kilometers.....	2.590
Acres.....	Square Hectometers.....	0.405
Cubic Feet.....	Cubic Meters.....	0.028
Cubic Yards.....	Cubic Meters.....	0.765
Fluid Ounces.....	Milliliters.....	29.573
Pints.....	Liters.....	0.473
Quarts.....	Liters.....	0.946
Gallons.....	Liters.....	3.785
Ounces.....	Grams.....	28.349
Pounds.....	Kilograms.....	0.454
Short Tons.....	Metric Tons.....	0.907
Pound-Feet.....	Newton-Meters.....	1.356
Pounds/Sq Inch.....	Kilopascals.....	6.895
Miles per Gallon.....	Kilometers per Liter.....	0.425
Miles per Hour.....	Kilometers per Hour.....	1.609

<u>TO CHANGE</u>	<u>TO</u>	<u>MULTIPLY BY</u>
Centimeters.....	Inches.....	0.394
Meters .....	Feet .....	3.280
Meters .....	Yards .....	1.094
Kilometers.....	Miles.....	0.621
Sq Centimeters.....	Square Inches.....	0.155
Square Meters.....	Square Feet.....	10.764
Square Meters.....	Square Yards.....	1.196
Square Kilometers.....	Square Miles.....	0.386
Sq Hectometers.....	Acres.....	2.471
Cubic Meters.....	Cubic Feet.....	35.315
Cubic Meters.....	Cubic Yards.....	1.308
Milliliters.....	Fluid Ounces.....	0.034
Liters.....	Pints.....	2.113
Liters.....	Quarts.....	1.057
Liters.....	Gallons.....	0.264
Grams.....	Ounces.....	0.035
Kilograms.....	Pounds.....	2.205
Metric Tons.....	Short Tons.....	1.102
Newton-Meters.....	Pound-Feet.....	0.738
Kilopascals.....	Pounds per Sq Inch.....	0.145
Km per Liter.....	Miles per Gallon.....	2.354
Km per Hour.....	Miles per Hour.....	0.621

