

TECHNICAL MANUAL
UNIT MAINTENANCE MANUAL
FOR
CARRIER, PERSONNEL, FULL TRACKED, ARMORED, M113A2
NSN 2350-01-068-4077

CARRIER, COMMAND POST, LIGHT TRACKED, M577A2
NSN 2350-01-068-4089

CARRIER, MORTAR, 120-MM, M121; SELF-PROPELLED, M1064
NSN 2350-01-338-3116

CARRIER, STANDARDIZED INTEGRATED COMMAND POST SYSTEM,
M1068
NSN 2350-01-354-5657

CARRIER, SMOKE GENERATOR, FULL TRACKED, M1059
NSN 2350-01-203-0188

COMBAT VEHICLE, ANTI-TANK, IMPROVED TOW VEHICLE, M901A1
NSN 2350-01-103-5641

SUPERSEDURE NOTICE — This manual supersedes TM 9-2350-261-20-2 dated 11 July 1990, including all changes.

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

HEADQUARTERS, DEPARTMENT OF THE ARMY
AUGUST 2005

INSERT LATEST UPDATED PAGES/WORK PACKAGES. DESTROY SUPERSEDED DATA.

LIST OF EFFECTIVE PAGES/WORK PACKAGES

Note: This manual supersedes TM 9-2350-261-20-2 dated 11 July 1990.

Date of issue for revision is:

Original 0 **(26 August 2005)**

TOTAL NUMBER OF PAGES FOR FRONT AND REAR MATTER IS 110 AND TOTAL NUMBER OF WORK PACKAGES IS 223 CONSISTING OF THE FOLLOWING:

Page/WP No.	*Change No.	Page/WP No.	*Change No.	Page/WP No.	*Change No.
Cover	0	Back Cover	0		
A/B blank	0				
i – viii	0				
Chapter 8 Index	0				
WP 0192 00 – 0217 00	0				
Chapter 9 Index	0				
WP 0218 00 – 0235 00	0				
Chapter 10 Index	0				
WP 0236 00 – 0237 00	0				
Chapter 11 Index	0				
WP 0238 00 – 0254 00	0				
Chapter 12 Index	0				
WP 0255 00 – 0293 00	0				
Chapter 13 Index	0				
WP 0294 00 – 0310 00	0				
Chapter 14 Index	0				
WP 0311 00 – 0315 00	0				
Chapter 15 Index	0				
WP 0316 00 – 0321 00	0				
Chapter 16 Index	0				
WP 0322 00 – 0327 00	0				
Chapter 17 Index	0				
WP 0328 00 – 0337 00	0				
Chapter 18 Index	0				
WP 0338 00 – 0341 00	0				
Chapter 19 Index	0				
WP 0342 00 – 0346 00	0				
Chapter 20 Index	0				
WP 0347 00 – 0352 00	0				
Chapter 21 Index	0				
WP 0353 00 – 0364 00	0				
Chapter 22 Index	0				
WP 0365 00 – 0386 00	0				
Chapter 23 Index	0				
WP 0387 00 – 0415 00	0				
Index 1 – Index 86	0				
DA 2028 Sample/Reverse	0				
DA 2028/Reverse (3)	0				
Authentication	0				
Metric Chart	0				

*Zero in this column indicates an original page

TECHNICAL MANUAL
UNIT MAINTENANCE MANUAL

CARRIER, PERSONNEL, FULL TRACKED, ARMORED, M113A2
NSN 2350-01-068-4077

CARRIER, COMMAND POST, LIGHT TRACKED, M577A2
NSN 2350-01-068-4089

CARRIER, MORTAR, 120-MM, M121; SELF-PROPELLED, M1064
NSN 2350-01-338-3116

CARRIER, STANDARDIZED INTEGRATED COMMAND POST SYSTEM, M1068
NSN 2350-01-354-5657

CARRIER, SMOKE GENERATOR, FULL TRACKED, M1059
NSN 2350-01-203-0188

COMBAT VEHICLE, ANTI-TANK, IMPROVED TOW VEHICLE, M901A1
NSN 2350-01-103-5641

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this publication. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Submit your DA Form 2028 (Recommended Changes to Equipment Technical Publications), through the Internet, on the Army Electronic Product Support (AEPS) website. The Internet address is <http://aeps.ria.army.mil>. If you need a password, scroll down and click on "ACCESS REQUEST FORM." The DA Form 2028 is located in the ONLINE FORMS PROCESSING section of the AEPS. 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, fax, or email your letter or DA Form 2028 direct to: Technical Publications Office, TACOM-RI, Rock Island, IL 61299-7630. The email address is TACOM-TECH-PUBS@ria.army.mil. The fax number is DSN 793-0726 or Commercial (309) 782-0726.

CURRENT AS OF 5 JANUARY 2004

SUPERSEDURE NOTICE — This manual supersedes TM 9-2350-261-20-2 dated 11 July 1990, including all changes.

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

TABLE OF CONTENTS

Volume 2

WP Sequence No.

CHAPTER 8 — UNIT MAINTENANCE INSTRUCTIONS FOR COOLING SYSTEM

COOLANT FLOW DIAGRAM.....0192 00

DRAIN COOLANT SYSTEM.....0193 00

FILL COOLING SYSTEM.....0194 00

CLEAN RADIATOR.....0195 00

REPLACE ENGINE COOLANT PUMP IDLER PULLEY AND BELTS.....0196 00

REPLACE ENGINE COOLANT PUMP.....0197 00

REPLACE DEAERATION ELBOW TO RADIATOR INLET ELBOW COOLANT
TUBE.....0198 00

REPLACE RADIATOR OUTLET ELBOW TO COOLANT PUMP ELBOW HOSE
AND TUBE.....0199 00

REPLACE THERMOSTAT, HOUSING, AND DEAERATION ELBOW.....0200 00

REPLACE THERMOSTAT HOUSING TO ENGINE COOLANT TUBE.....0201 00

REPLACE RADIATOR AND PARTS.....0202 00

REPLACE BALANCE HOSE.....0203 00

REPLACE RADIATOR ACCESS DOOR SEALS AND FASTENERS.....0204 00

REPAIR RADIATOR ACCESS DOOR.....0205 00

REPLACE AUXILIARY TANK AND PARTS.....0206 00

REPLACE AUXILIARY TANK TO COOLANT PUMP TUBE.....0207 00

REPLACE AUXILIARY TANK TO RADIATOR TUBE.....0208 00

REPLACE AUXILIARY TANK DEAERATION HOSES.....0209 00

REPLACE COMBAT FILLER COVER AND LOCK.....0210 00

REPLACE FAN DRIVE BELTS.....0211 00

REPLACE FAN DRIVE FIXED IDLER AND PULLEY.....0212 00

REPLACE FAN DRIVE ADJUSTABLE IDLER AND PULLEY.....0213 00

REPLACE FAN DRIVE PULLEY AND ACCESS COVER.....0214 00

REPLACE DRAIN CAP AND SIGHT GAUGE.....0215 00

REPLACE COOLING FAN ASSEMBLY.....0216 00

REPLACE PULLEY DRIVE SHAFT, BEARING, AND HOUSING.....0217 00

CHAPTER 9 — UNIT MAINTENANCE INSTRUCTIONS FOR ELECTRICAL SYSTEM -
POWER RECEPTACLES, GENERATOR, AND REGULATOR

REPLACE AUXILIARY POWER (SLAVE) RECEPTACLE (ALL EXCEPT M577A2
AND M1068).....0218 00

REPLACE AUXILIARY POWER (SLAVE) RECEPTACLE (M577A2 AND M1068
ONLY).....0219 00

REPLACE NATO AUXILIARY POWER (SLAVE) RECEPTACLE (M577A2 AND
M1068 ONLY).....0220 00

REPLACE MASTER SWITCH ASSEMBLY.....0221 00

TABLE OF CONTENTS (cont)

WP Sequence No.

REPLACE MASTER SWITCH PANEL ASSEMBLY (LATE SLAVE RECEPTACLE) (ALL EXCEPT M577A2 AND M1068).....	0222 00
REPLACE MASTER SWITCH PANEL ASSEMBLY (EARLY SLAVE RECEPTACLE) (ALL EXCEPT M577A2).....	0223 00
REPLACE MASTER SWITCH PANEL ASSEMBLY (EARLY SLAVE RECEPTACLE) (M577A2 AND M1068 ONLY).....	0224 00
REPLACE MASTER SWITCH TO DISTRIBUTION BOX WIRE ASSEMBLY (CIRCUIT 49 LEAD) (ALL EXCEPT M577A2 AND M1068).....	0225 00
REPLACE GENERATOR DRIVE BELTS (100 AMP GEN ONLY).....	0226 00
REPLACE GENERATOR AND ADJUSTMENT LINKAGE (100 AMP GENERATOR ONLY).....	0227 00
REPLACE GENERATOR AND ADJUSTMENT LINKAGE (200 AMP GENERATOR ONLY).....	0228 00
ADJUST VOLTAGE REGULATOR (100/200 AMP GENERATOR).....	0229 00
REPLACE REGULATOR ASSEMBLY (100/200 AMP GENERATOR).....	0230 00
REPLACE GENERATOR-REGULATOR CIRCUIT BREAKER (100 AMP GENERATOR ONLY).....	0231 00
REPLACE GENERATOR FIELD SWITCH.....	0232 00
REPLACE FUEL FILTER MOUNTING BRACKET (M577A2 AND M1068 WITH 200 AMP GENERATOR ONLY).....	0233 00
REPLACE GENERATOR DRIVE BELTS (200 AMP GENERATOR ONLY).....	0234 00
REPLACE MASTER SWITCH TO DISTRIBUTION BOX WIRE ASSEMBLY (CIRCUIT 49) (M577A2 AND M1068 ONLY).....	0235 00
 CHAPTER 10 — UNIT MAINTENANCE INSTRUCTIONS FOR STARTER SYSTEM	
REPLACE STARTER.....	0236 00
REPLACE STARTER GROUND LEADS.....	0237 00
 CHAPTER 11 — UNIT MAINTENANCE INSTRUCTIONS FOR ELECTRICAL SYSTEM - INSTRUMENT AND WARNING LIGHT PANELS	
REPLACE INSTRUMENT PANEL MOUNTS AND GROUND LEADS.....	0238 00
REPLACE CIRCUIT BREAKER.....	0239 00
REPLACE PANEL AND INDICATOR LIGHTS.....	0240 00
REPLACE INSTRUMENT PANEL ON-OFF SWITCHES.....	0241 00
REPLACE MAIN LIGHT SWITCH.....	0242 00
REPLACE ENGINE START SWITCH.....	0243 00
REPLACE INSTRUMENT PANEL GAUGES.....	0244 00
REPLACE INSTRUMENT PANEL TACHOMETER.....	0245 00
REPLACE TACHOMETER CABLE AND ADAPTER.....	0246 00
REPLACE SPEEDOMETER.....	0247 00
REPLACE SPEEDOMETER CABLE AND ADAPTER.....	0248 00
REPAIR SPEEDOMETER CABLE.....	0249 00
REPLACE FUEL SELECT SWITCH TO GAUGE LEAD (M981 AND M1064 ONLY).....	0250 00
REPLACE WARNING PANEL LIGHTS.....	0251 00

TABLE OF CONTENTS (cont)

WP Sequence No.

REPLACE HORN SWITCH.....0252 00
 REPLACE WARNING LIGHT PANEL ASSEMBLY.....0253 00
 REPLACE WARNING LIGHT PANEL.....0254 00

CHAPTER 12 — UNIT MAINTENANCE INSTRUCTIONS FOR ELECTRICAL SYSTEM
 - HORN AND LIGHTING SYSTEM

REPLACE HORN AND GROUND LEAD.....0255 00
 REPLACE SERVICE AND INFRARED HEADLIGHTS.....0256 00
 REPAIR SERVICE AND INFRARED HEADLIGHTS.....0257 00
 REPLACE BLACKOUT MARKER LIGHT.....0258 00
 REPAIR BLACKOUT MARKER LIGHT.....0259 00
 REPLACE BLACKOUT HEADLIGHT.....0260 00
 REPAIR BLACKOUT HEADLIGHT.....0261 00
 REPLACE HEADLIGHT GUARD.....0262 00
 REPLACE LEFT STOPLIGHT/TAILLIGHT.....0263 00
 REPAIR LEFT/RIGHT STOPLIGHT/TAILLIGHT.....0264 00
 REPLACE RIGHT STOPLIGHT/TAILLIGHT.....0265 00
 REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR
 SYSTEM (M577A2 AND M1068 ONLY).....0266 00
 REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR
 SYSTEM (M577A2 ONLY).....0267 00
 REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR
 SYSTEM (M901A1 ONLY).....0268 00
 REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR
 SYSTEM (M113A2, M1064, AND M1059 ONLY).....0269 00
 REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR
 SYSTEM (M113A2 AND M1064 ONLY).....0270 00
 REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR
 SYSTEM (M901A1 ONLY).....0271 00
 REPLACE STOPLIGHT/TAILLIGHT AND GUARDS (M981 AND M1064 ONLY).....0272 00
 REPLACE DOME LIGHT (ALL EXCEPT M577A2 AND M1068).....0273 00
 REPAIR DOME LIGHT (ALL EXCEPT M577A2 AND M1068).....0274 00
 REPLACE DOME LIGHT (M577A2 AND M1068 ONLY).....0275 00
 REPAIR DOME LIGHT AND MOUNT (M577A2 AND M1068 ONLY).....0276 00
 REPLACE MASTER SWITCH PANEL LEAD ASSEMBLY TO DOME LIGHTS
 (M577A2 AND M1068 ONLY).....0277 00
 REPLACE FRONT DOME LIGHT SWITCH (M577A2 AND M1068 ONLY).....0278 00
 REPLACE REAR DOME LIGHT SWITCH (M577A2 AND M1068 ONLY).....0279 00
 REPLACE DOME LIGHT CIRCUIT BREAKER (M577A2 AND M1068 ONLY).....0280 00
 REPLACE DOME BLACKOUT LIGHT BYPASS SWITCH (M577A2 AND M1068
 ONLY).....0281 00
 REPLACE ADMITTANCE BUZZER AND SWITCH (M577A2 AND M1068 ONLY).....0282 00
 REPLACE RAMP DOOR SWITCH AND MOUNT (M577A2 AND M1068 ONLY).....0283 00

TABLE OF CONTENTS (cont)

WP Sequence No.

REPLACE TENT LIGHT ASSEMBLY (M577A2 ONLY).....	0284 00
REPLACE HEADLIGHT HIGH BEAM SELECTOR SWITCH.....	0285 00
REPLACE RIGHT HEADLIGHT WIRING HARNESS.....	0286 00
REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY).....	0287 00
REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY).....	0288 00
REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY).....	0289 00
REPLACE STOPLIGHT SWITCH AND BRACKET.....	0290 00
REPLACE TUBE TYPE INFRARED POWER SUPPLY.....	0291 00
REPLACE INFRARED POWER SUPPLY SHOCK MOUNT BRACKETS.....	0292 00
REPLACE SOLID STATE INFRARED POWER SUPPLY.....	0293 00
 CHAPTER 13 — UNIT MAINTENANCE INSTRUCTIONS FOR ELECTRICAL SYSTEM - BATTERIES	
DISCONNECT/CONNECT BATTERY GROUND LEAD.....	0294 00
REPLACE BATTERY COVER AND GROUND LEAD (M113A2, M901A1, AND M1059).....	0295 00
REMOVE/INSTALL BATTERY ACCESS COVER (M577A2 ONLY).....	0296 00
REMOVE/INSTALL BATTERY ACCESS COVER (M1068 ONLY).....	0297 00
REMOVE/INSTALL BATTERY LEADS (M1068 ONLY).....	0298 00
REMOVE/INSTALL BATTERY LEADS (M577A2 ONLY).....	0299 00
REPLACE BATTERY LEADS (M1064 ONLY).....	0300 00
REPLACE CIRCUIT 6 LEAD (ALL EXCEPT M577A2 AND M1068).....	0301 00
REPLACE BATTERIES AND RETAINERS (ALL EXCEPT M1064).....	0302 00
REPLACE BATTERIES AND RETAINERS (M1064 ONLY).....	0303 00
REPAIR BATTERY BOX COVER (M113A2, M901A1, AND M1059 ONLY).....	0304 00
REPAIR BATTERY BOX.....	0305 00
REPAIR BATTERY DRAWER (M1064 ONLY).....	0306 00
REPLACE BATTERY TO RADIO HARNESS (M1059, M901A1, AND M113A2 ONLY).....	0307 00
REPLACE BATTERY DRAWER INSULATION AND HEAT EXCHANGER (M1064 ONLY).....	0308 00
REPLACE BATTERY BOX INSULATION AND HEAT EXCHANGER (M577A2 AND M1068 ONLY).....	0309 00
REPLACE BATTERY BOX INSULATION AND HEAT EXCHANGER (M113A2, M901A1, AND M1059 ONLY).....	0310 00
 CHAPTER 14 — UNIT MAINTENANCE INSTRUCTIONS FOR ELECTRICAL SYSTEM - WIRING HARNESS, RECEPTACLE, AND CABLE REPAIR	
MULTIPLE PIN AND SOCKET IDENTIFICATION.....	0311 00
REPAIR WIRING HARNESS.....	0312 00
REPAIR RECEPTACLE.....	0313 00
REPAIR CABLE ASSEMBLY.....	0314 00

TABLE OF CONTENTS (cont)

WP Sequence No.

REPAIR INTERVEHICLE POWER CABLE (M577A2 AND M1068 ONLY).....	0315 00
CHAPTER 15 — UNIT MAINTENANCE INSTRUCTIONS FOR ELECTRICAL SYSTEM - POWER PLANT WIRING HARNESS AND RELATED COMPONENTS	
REPLACE ENGINE LOW OIL PRESSURE SWITCH.....	0316 00
REPLACE ENGINE COOLANT TEMPERATURE SWITCH.....	0317 00
REPLACE DIFFERENTIAL HIGH OIL TEMPERATURE SWITCH.....	0318 00
REPLACE DIFFERENTIAL SWITCH LEAD.....	0319 00
REPLACE TRANSMISSION HIGH OIL TEMPERATURE SWITCH.....	0320 00
REPLACE POWER PLANT WIRING HARNESS.....	0321 00
CHAPTER 16 — UNIT MAINTENANCE INSTRUCTIONS FOR ELECTRICAL SYSTEM - BILGE PUMP, WIRING, AND RELATED COMPONENTS	
REPLACE FRONT BILGE PUMP AND STRAINER.....	0322 00
REPLACE FRONT BILGE PUMP PIPES.....	0323 00
REPLACE FRONT BILGE VALVE.....	0324 00
REPLACE REAR BILGE PUMP AND STRAINER.....	0325 00
REPLACE REAR BILGE PUMP PIPES.....	0326 00
REPLACE BILGE PUMP CIRCUIT BREAKERS.....	0327 00
CHAPTER 17 — UNIT MAINTENANCE INSTRUCTIONS FOR TRAILER HARNESS, RECEPTACLES, BLOWER, SWITCHES, AND VENTILATION SYSTEM	
REPLACE TRAILER HARNESS.....	0328 00
REPLACE UTILITY OUTLET RECEPTACLE (ALL EXCEPT M577A2 AND M1068).....	0329 00
REPLACE LEAD ASSEMBLY, UTILITY OUTLET (M577A2 AND M1068 ONLY).....	0330 00
REPLACE TELEPOSTS AND COVER.....	0331 00
REPLACE REAR UTILITY OUTLET RECEPTACLES (M577A2 AND M1068 ONLY).....	0332 00
REPLACE REAR UTILITY RECEPTACLE CIRCUIT BREAKERS (M577A2 AND M1068 ONLY).....	0333 00
REPLACE RADIAC WIRING HARNESS (M113A2, M577A2, AND M1068 ONLY).....	0334 00
REPLACE COMPARTMENT BLOWER (M577A2 AND M1068 ONLY).....	0335 00
REPLACE BLOWER SWITCH (M577A2 AND M1068 ONLY).....	0336 00
REPLACE FUEL QUANTITY SELECTOR SWITCH (M577A2 AND M1068 ONLY).....	0337 00
CHAPTER 18 — UNIT MAINTENANCE INSTRUCTIONS FOR TRANSMISSION AND RELATED COMPONENTS	
REPLACE TRANSMISSION TO OIL COOLER HOSE AND FITTINGS.....	0338 00
REPLACE OIL COOLER TO TRANSMISSION HOSE AND FITTINGS.....	0339 00
REPLACE TRANSMISSION VENT AND FILLER TUBE.....	0340 00
REPLACE TRANSMISSION OIL FILTER AND DRAIN.....	0341 00
CHAPTER 19 — UNIT MAINTENANCE INSTRUCTIONS FOR TRANSFER GEARCASE AND RELATED COMPONENTS	
REPLACE TRANSFER GEARCASE RESILIENT MOUNT.....	0342 00

TABLE OF CONTENTS (cont)

WP Sequence No.

REPLACE TRANSFER GEARCASE OIL LEVEL DIPSTICK, TUBE, AND GUIDE.....	0343 00
REPLACE TRANSFER GEARCASE OIL FILLER.....	0344 00
DISASSEMBLE/ASSEMBLE TRANSFER GEARCASE OIL FILLER.....	0345 00
REPLACE TRANSFER GEARCASE LIFTING EYEBOLT, COVER, AND PLUG.....	0346 00
 CHAPTER 20 — UNIT MAINTENANCE INSTRUCTIONS FOR DRIVE SHAFTS, UNIVERSAL JOINTS, AND FINAL DRIVE	
REPLACE TRANSMISSION TO DIFFERENTIAL SHAFT.....	0347 00
REPLACE LEFT FINAL DRIVE SHAFT.....	0348 00
REPLACE RIGHT FINAL DRIVE SHAFT.....	0349 00
REPLACE FINAL DRIVE.....	0350 00
REPLACE FINAL DRIVE PINION OIL SEAL.....	0351 00
REPLACE FINAL DRIVE FILLER TUBE AND DIPSTICK.....	0352 00
 CHAPTER 21 — UNIT MAINTENANCE INSTRUCTIONS FOR DIFFERENTIAL RELATED COMPONENTS	
DIFFERENTIAL OIL FLOW DIAGRAM.....	0353 00
REPLACE DIFFERENTIAL OIL PUMP.....	0354 00
REPLACE DIFFERENTIAL OIL FILTER AND FITTINGS.....	0355 00
REPLACE DIFFERENTIAL OIL FILTER ELEMENT.....	0356 00
REPLACE DIFFERENTIAL OIL LEVEL DIPSTICK AND BREATHER.....	0357 00
REPLACE DIFFERENTIAL OIL PUMP TO DIFFERENTIAL HOSE AND FITTINGS.....	0358 00
REPLACE DIFFERENTIAL GEARBOX TO DIFFERENTIAL HOSE AND FITTINGS.....	0359 00
REPLACE DIFFERENTIAL TO OIL COOLER HOSE AND FITTINGS.....	0360 00
REPLACE DIFFERENTIAL OIL FILTER TO PUMP HOSE AND FITTINGS.....	0361 00
DIFFERENTIAL BRAKES ADJUSTMENT.....	0362 00
REPLACE DIFFERENTIAL AND MOUNTS.....	0363 00
REPLACE DIFFERENTIAL GASKET.....	0364 00
 CHAPTER 22 — UNIT MAINTENANCE INSTRUCTIONS FOR TRACKS AND SUSPENSION	
REPLACE TRACK COVERS.....	0365 00
REPLACE T130 TRACK.....	0366 00
REPLACE T150 TRACK.....	0367 00
REPLACE T130 TRACK SHOE AND PAD ASSEMBLY.....	0368 00
REPLACE T150 TRACK SHOE ASSEMBLY.....	0369 00
REPLACE T150 TRACK SHOE PAD ASSEMBLY.....	0370 00
REPLACE T130 ROAD WHEEL.....	0371 00
REPLACE T150 ROAD WHEEL.....	0372 00
REPLACE ROAD WHEEL HUB.....	0373 00
REPLACE ROAD WHEEL SUPPORT ARM, BEARINGS, AND SEALS.....	0374 00
REPLACE IDLER WHEEL.....	0375 00
REPLACE IDLER WHEEL ARM BEARINGS AND SEALS.....	0376 00

TABLE OF CONTENTS (cont)

WP Sequence No.

REPLACE IDLER WHEEL ARM ASSEMBLY.....0377 00
 REPLACE TRACK TENSION ADJUSTER AND MOUNT.....0378 00
 REPLACE SHOCK ABSORBER.....0379 00
 REPLACE SHOCK ABSORBER PIN.....0380 00
 REPLACE SHOCK ABSORBER MOUNT.....0381 00
 REPLACE T130 SPROCKET WHEEL ASSEMBLY.....0382 00
 REVERSE T150 SPROCKET WHEEL AND TRACK ASSEMBLIES.....0383 00
 REPAIR T150 SPROCKET WHEEL AND TRACK ASSEMBLIES.....0384 00
 REPLACE TORSION BAR.....0385 00
 REPLACE TORSION BAR ANCHOR.....0386 00

CHAPTER 23 — UNIT MAINTENANCE INSTRUCTIONS FOR DRIVER’S CONTROLS

ADJUST STEERING LINKAGE.....0387 00
 ADJUST BRAKE LOCKING PAWL.....0388 00
 REPAIR LEFT/RIGHT STEERING LEVERS.....0389 00
 REPLACE STEERING LEVERS CROSS-SHAFTS AND BEARINGS.....0390 00
 REPLACE STEERING LEVERS CROSS-SHAFT LINKS.....0391 00
 REPLACE DIFFERENTIAL CROSS-SHAFTS AND BEARINGS.....0392 00
 REPLACE DIFFERENTIAL CROSS-SHAFT LINKS.....0393 00
 REPLACE DIFFERENTIAL STEERING BRAKE LEVERS.....0394 00
 REPLACE LOWER ACCELERATOR PEDAL.....0395 00
 REPLACE UPPER ACCELERATOR PEDAL ASSEMBLY.....0396 00
 REPLACE TRANSMISSION AND LOWER ACCELERATOR LINKAGE.....0397 00
 REPAIR TRANSMISSION AND LOWER ACCELERATOR LINKAGE.....0398 00
 REPLACE UPPER ACCELERATOR LINKAGE.....0399 00
 REPAIR UPPER ACCELERATOR LINKAGE.....0400 00
 ADJUST ACCELERATOR AND TRANSMISSION THROTTLE VALVE LINKAGE.....0401 00
 REPLACE HAND THROTTLE.....0402 00
 REPLACE FUEL CUTOFF CONTROL CABLE ASSEMBLY.....0403 00
 REPLACE TRANSMISSION RANGE SELECTOR.....0404 00
 REPAIR TRANSMISSION RANGE SELECTOR.....0405 00
 REPLACE NEUTRAL START SWITCH.....0406 00
 REPLACE RANGE SELECTOR LINKAGE.....0407 00
 REPLACE ENGINE POWER DISCONNECT.....0408 00
 BLEED PIVOT STEER SYSTEM.....0409 00
 REPLACE PIVOT STEER HANDLES AND LINKS.....0410 00
 REPLACE PIVOT STEER BELLCRANKS AND BRACKETS.....0411 00
 REPLACE PIVOT STEER MASTER CYLINDERS AND HOSES.....0412 00
 REPLACE/REPAIR PIVOT STEER BRAKES, HOSES, TUBES, AND FITTINGS.....0413 00
 REPLACE PIVOT STEER BRAKE DISK.....0414 00
 ADJUST PIVOT STEER LINKAGE.....0415 00

CHAPTER 8
UNIT MAINTENANCE INSTRUCTIONS
FOR COOLING SYSTEM

WORK PACKAGE INDEX

<u>Title</u>	<u>Sequence No.</u>
COOLANT FLOW DIAGRAM.....	.0192 00
DRAIN COOLANT SYSTEM.....	.0193 00
FILL COOLING SYSTEM.....	.0194 00
CLEAN RADIATOR.....	.0195 00
REPLACE ENGINE COOLANT PUMP IDLER PULLEY AND BELTS.....	.0196 00
REPLACE ENGINE COOLANT PUMP.....	.0197 00
REPLACE DEAERATION ELBOW TO RADIATOR INLET ELBOW COOLANT TUBE.....	.0198 00
REPLACE RADIATOR OUTLET ELBOW TO COOLANT PUMP ELBOW HOSE AND TUBE.....	.0199 00
REPLACE THERMOSTAT, HOUSING, AND DEAERATION ELBOW.....	.0200 00
REPLACE THERMOSTAT HOUSING TO ENGINE COOLANT TUBE.....	.0201 00
REPLACE RADIATOR AND PARTS.....	.0202 00
REPLACE BALANCE HOSE.....	.0203 00
REPLACE RADIATOR ACCESS DOOR SEALS AND FASTENERS.....	.0204 00
REPAIR RADIATOR ACCESS DOOR.....	.0205 00
REPLACE AUXILIARY TANK AND PARTS.....	.0206 00
REPLACE AUXILIARY TANK TO COOLANT PUMP TUBE.....	.0207 00
REPLACE AUXILIARY TANK TO RADIATOR TUBE.....	.0208 00
REPLACE AUXILIARY TANK DEAERATION HOSES.....	.0209 00
REPLACE COMBAT FILLER COVER AND LOCK.....	.0210 00
REPLACE FAN DRIVE BELTS.....	.0211 00
REPLACE FAN DRIVE FIXED IDLER AND PULLEY.....	.0212 00
REPLACE FAN DRIVE ADJUSTABLE IDLER AND PULLEY.....	.0213 00
REPLACE FAN DRIVE PULLEY AND ACCESS COVER.....	.0214 00
REPLACE DRAIN CAP AND SIGHT GAUGE.....	.0215 00
REPLACE COOLING FAN ASSEMBLY.....	.0216 00
REPLACE PULLEY DRIVE SHAFT, BEARING, AND HOUSING.....	.0217 00

COOLANT FLOW DIAGRAM

0192 00

INITIAL SETUP:

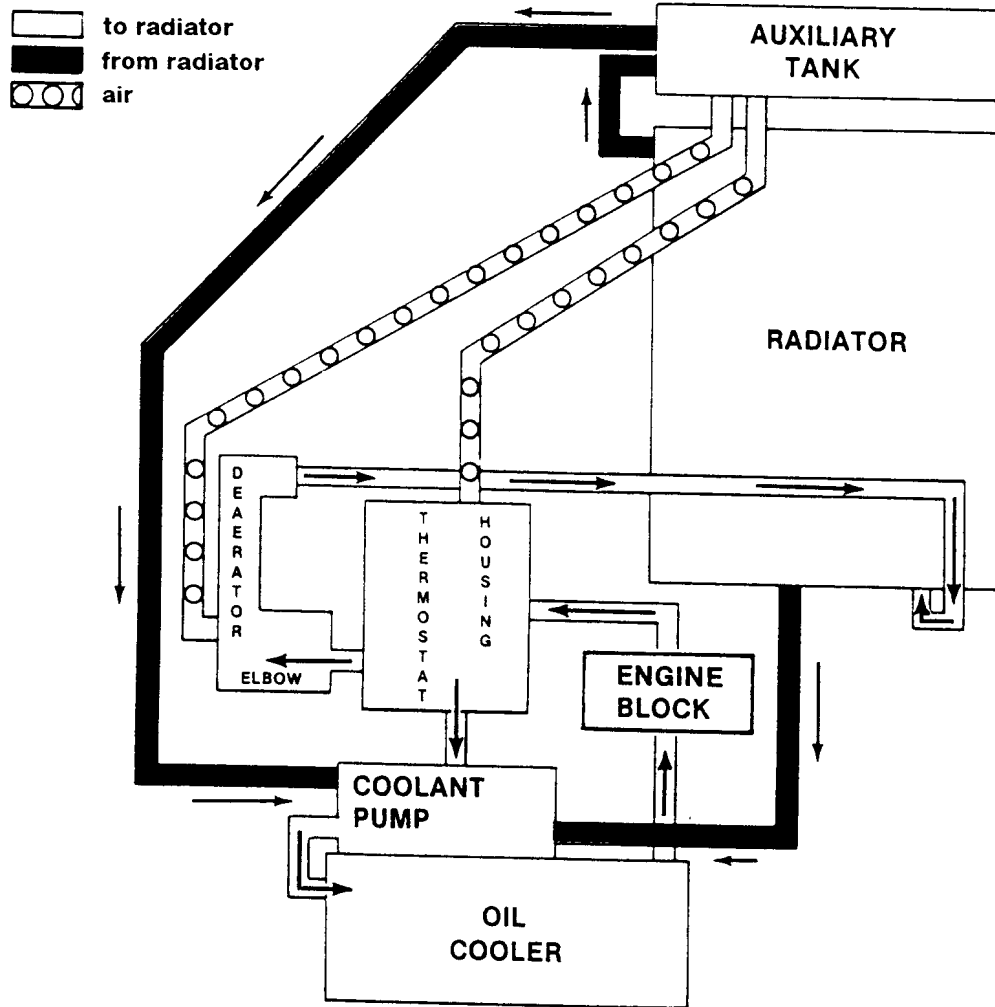
Maintenance Level

Unit

Engine coolant maintains normal operating temperatures. Coolant flow is as follows:

Coolant is drawn from the radiator by the coolant pump. It is pumped through the oil cooler, and the engine block, up to the cylinder heads, and into the thermostat housing. The coolant then passes through a deaerator elbow and back to the radiator. The deaerator elbow swirls the coolant to remove air. This air is vented back to the auxiliary tank.

The auxiliary tank provides for coolant overflow from the radiator. The tank also vents air out through its cap.



END OF TASK

DRAIN COOLANT SYSTEM

0193 00

THIS WORK PACKAGE COVERS:

Servicing (page 0193 00-1).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

Suitable Container

Personnel Required

Unit Mechanic

References

TB 750-651

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Trim vane lowered and power plant front access door open (see your -10)

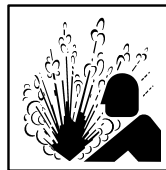
Hull bottom access cover removed (WP 0434 00)

Driver's power plant access panel removed (WP 0430 00)

Power plant rear access panel removed (WP 0431 00, WP 0432 00, or WP 0433 00)

SERVICING

WARNING



Hot radiator coolant can burn you. Remove cap only if cool to touch. Drain cocks may be hot. Turn cap slowly to release pressure. Replace cap by pressing down and turning until tight.

CAUTION

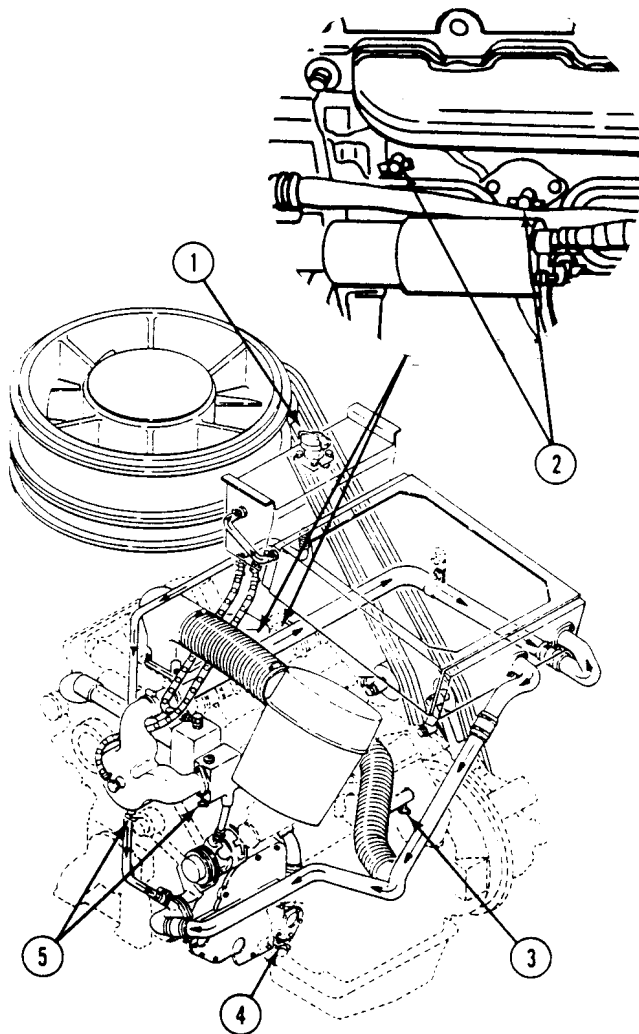
Coolant in the cooling system must flow freely. If rust, scale, or sediment prevent the free flow of coolant, flush system per TB 750-651. This is to be done only as necessary. Do not operate engine above 230°F (110°C). Serious engine damage can result.

NOTE

For partial drain, attach a length of 1/2 inch (13 mm) hose to the drain cock on thermostat housing or on deaerator elbow. Drain coolant into a clean container. Save coolant for reuse. Close drain cock.

DRAIN COOLANT SYSTEM — Continued**0193 00**

1. Remove coolant filler cap (1) slowly to relieve pressure.
2. Place clean containers under drain cocks (2), (3), (4), and (5).
3. Open oil cooler drain cock (4).
4. Open three engine block drain cocks. One drain cock (3) is on left side of block. The other two drain cocks (2) are on right side.
5. Open thermostat and deaerator elbow drain cocks (5). Allow system to drain.
6. After system is drained, close six drain cocks (2), (3), (4), and (5). Replace filler cap (1).
7. Tag master switch to warn others that engine coolant has been drained.
8. Save coolant for reuse, unless check shows coolant should be changed.



FOLLOW-THROUGH STEPS

1. Install hull bottom access cover (WP 0434 00).
2. Install driver's power plant access panel (WP 0430 00)
3. Install power plant rear access panel (WP 0431 00, WP 0432 00, or WP 0433 00).
4. Close power plant front access door (see your -10).
5. Raise trim vane (see your -10)

END OF TASK

FILL COOLING SYSTEM

0194 00

THIS WORK PACKAGE COVERS:

Servicing (page 0194 00-1).

INITIAL SETUP:

Maintenance Level

Unit

References

See your -10

Tools and Special Tools

- Antifreeze and Battery Tester (WP 0780 00, Item 77)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Driver's power plant access panel removed (WP 0430 00)
- Power plant rear access panel removed (WP 0431 00, WP 0432 00, or WP 0433 00)

Materials/Parts

- Antifreeze (WP 0782 00, Item 7)
- Container (14 gallon)

Personnel Required

Unit Mechanic

SERVICING

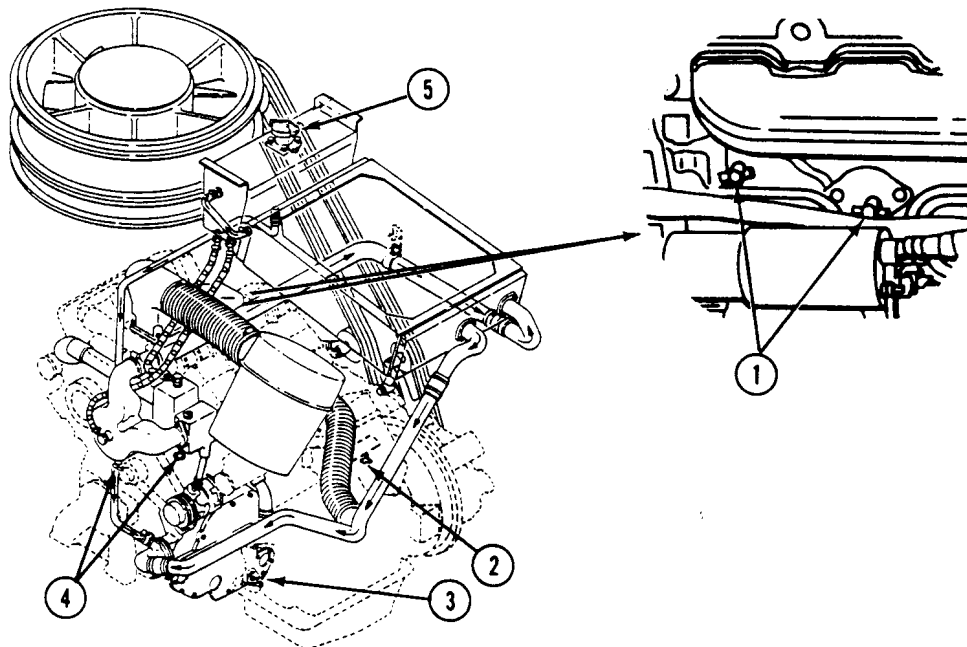
NOTE

When filling the radiator, add coolant slowly to allow trapped air to escape.

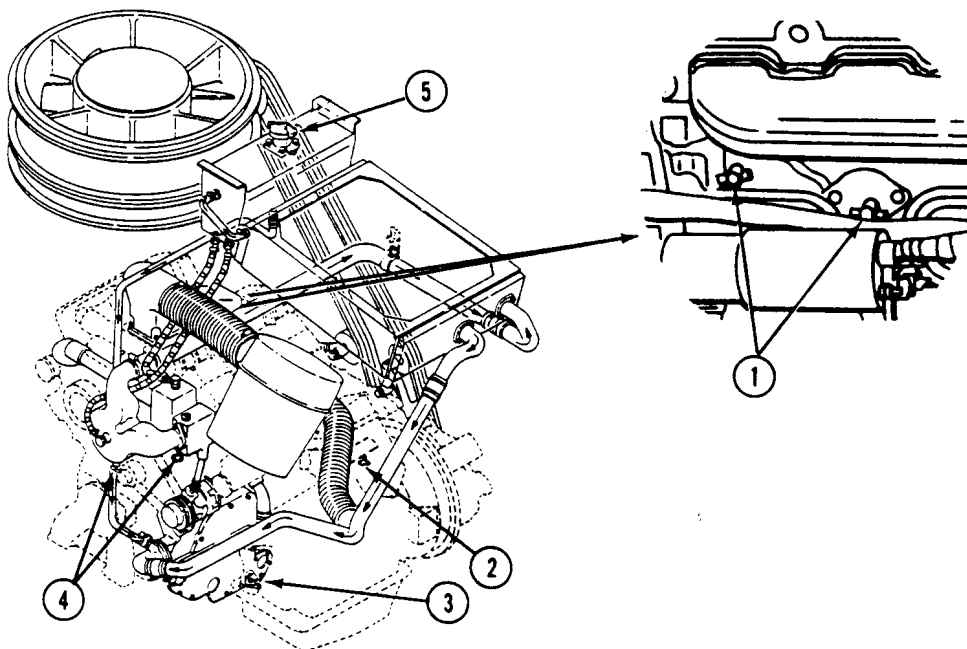
NOTE

Use antifreeze coolant in system at all times. It will reduce corrosion in engine block and cooling system parts. Ethylene glycol coolant will provide low temperature protection. Mix coolant and clean water based on protection label on container.

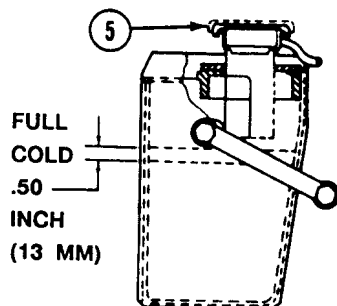
1. Make sure all six drain cocks (1), (2), (3), and (4) are closed and all tubes, hoses and connections are tight.



2. Remove coolant filler cap (5).



3. Fill system slowly with 14 gallons (53 liters) of coolant. Bring coolant level to within 1/2 inch (13 mm) of bottom of filler neck.

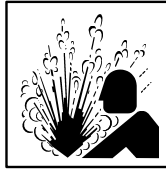


4. Install coolant filler cap.

CAUTION

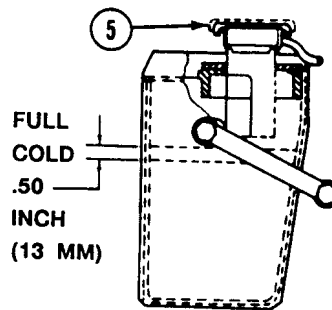
Do not operate engine if temperature exceeds 230°F (110°C). Serious engine damage will occur.

5. Start and run engine until it reaches 160°F to 200°F (71.1°C to 93.3°C) operating temperature. Check for leaks.
6. If engine coolant temperature gauge reading is above 230°F (110°C), stop engine and allow it to cool. Check the following for causes of engine overheating:
 - Make sure air cleaner element is clean and installed correctly (see your -10).
 - Check fan belts (WP 0211 00) for correct adjustment.
 - Check radiator and air intake grill air passages. Clean passages and remove debris that blocks free movement of air.
 - Check engine oil level. Check for right grade of oil (WP 0120 00).
7. Stop/shutdown engine and allow it to cool (see your -10).

WARNING

Hot radiator coolant can burn you. Remove cap only if cool to touch. Drain cocks may be hot. Turn cap slowly to release pressure. Replace cap by pressing down and turning until tight.

8. Add coolant as necessary to within 1/2 inch (13 mm) of bottom of filler neck.



9. Using antifreeze and battery tester, check coolant for level of protection required for climate.

FOLLOW-THROUGH STEPS

1. Install power plant rear access panel (WP 0431 00, WP 0432 00, or WP 0433 00).
2. Install driver's power plant access panel (WP 0430 00).
3. Close power plant front access door and raise trim vane (see your -10).

END OF TASK

CLEAN RADIATOR

0195 00

THIS WORK PACKAGE COVERS:

Cleaning (page 0195 00-1).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Radiator Cleaning Tool (WP 0780 00, Item 17)

Materials/Parts

- General purpose detergent (WP 0782 00, Item 23)
- Suitable container

Personnel Required

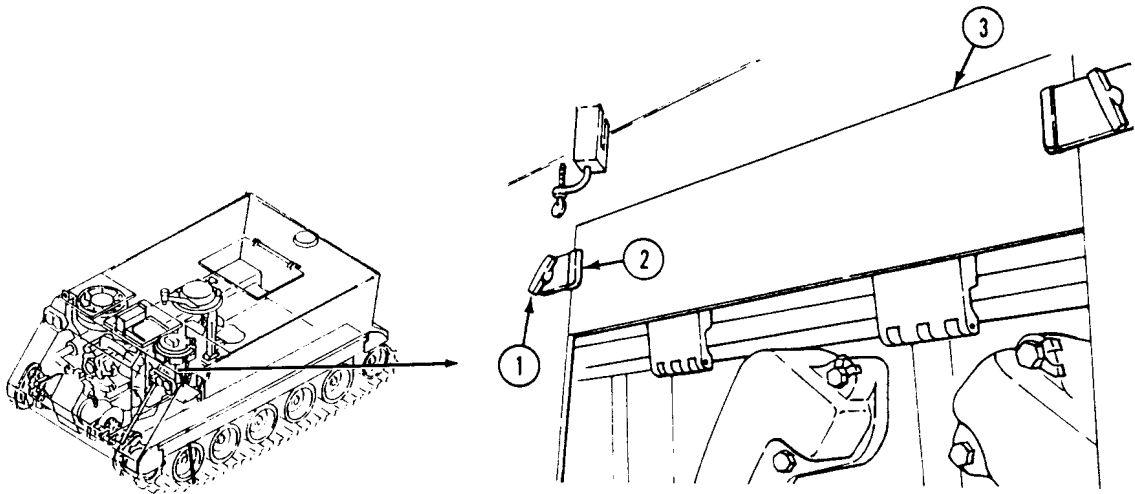
Unit Mechanic

Equipment Condition

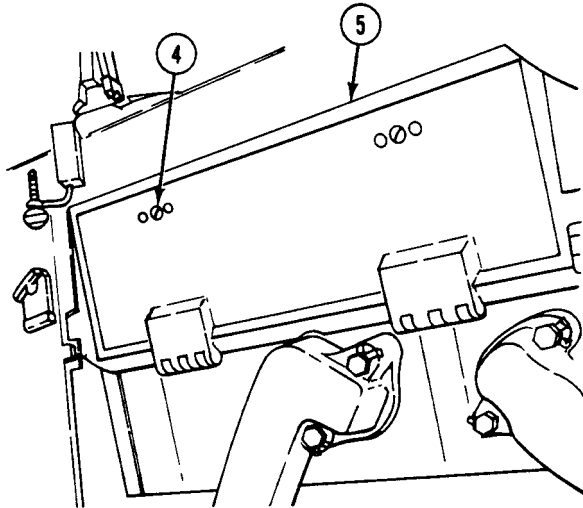
- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Driver's power plant access panel removed (WP 0430 00)
- Hull bottom access cover removed (WP 0434 00)
- Trim vane lowered (see your -10)
- Power plant front access door opened (see your -10)
- Power plant rear access panel removed (WP 0431 00, WP 0432 00, or WP 0433 00)

CLEANING

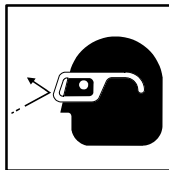
1. Loosen two thumbscrews (1) and clamps (2). Remove radiator access panel (3) from power plant compartment bulkhead.



2. Release two fasteners (4) securing radiator access door (5) to radiator opening. Open door.



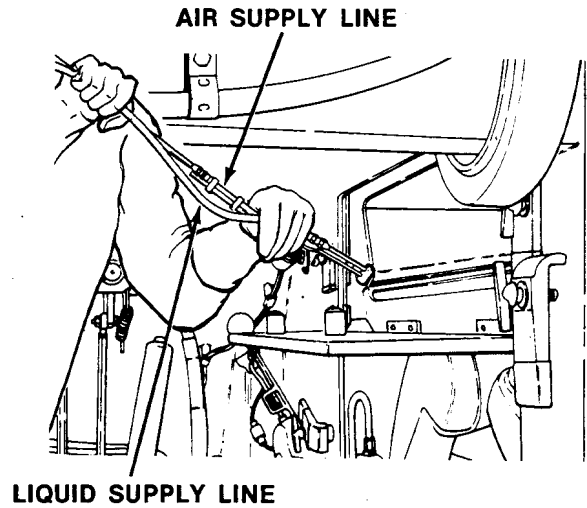
3. Cover exposed engine openings.
4. Mix one part detergent to five parts water in a clean container.
5. Submerge end of radiator cleaner siphon tube in detergent solution.

WARNING

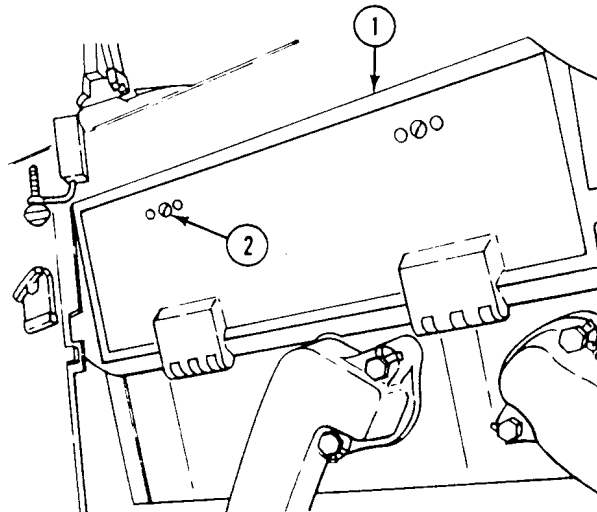
Air pressure in excess of 30 psi (207 kPa) can injure personnel. Do not direct pressurized air at yourself or others. Always wear goggles.

6. Attach radiator cleaning tool to available air supply.
7. Clean sand, oil, and debris from radiator.
8. Rinse radiator with clear water.

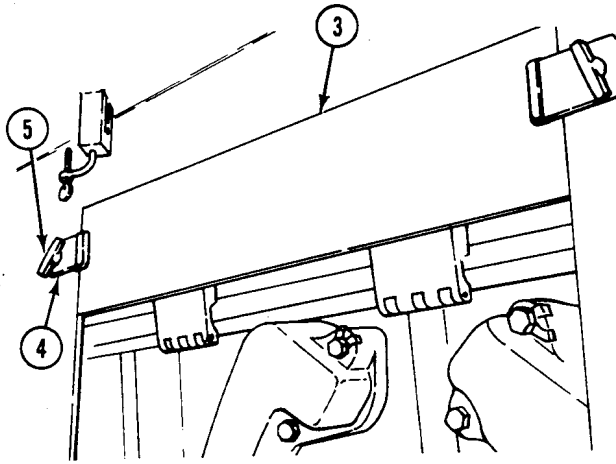
9. Remove siphon hose from detergent solution.



10. Remove excess water with available air supply.
11. Uncover exposed engine openings.
12. Secure radiator access door (1) to radiator opening with two fasteners (2).



13. Secure radiator access panel (3) to power plant compartment bulkhead with two clamps (4) and thumbscrews (5).

**FOLLOW-THROUGH STEPS**

1. Install hull bottom access cover (WP 0434 00).
2. Install driver's power plant access panel (WP 0430 00).
3. Install power plant rear access panel (WP 0431 00, WP 0432 00, or WP 0433 00).
4. Close power plant front access door (see your -10).
5. Raise trim vane (see your -10).

END OF TASK

REPLACE ENGINE COOLANT PUMP IDLER PULLEY AND BELTS

0196 00

THIS WORK PACKAGE COVERS:

Removal (page 0196 00-1).
 Installation (page 0196 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Trim vane lowered and power plant front access door open (see your -10)

Tools and Special Tools

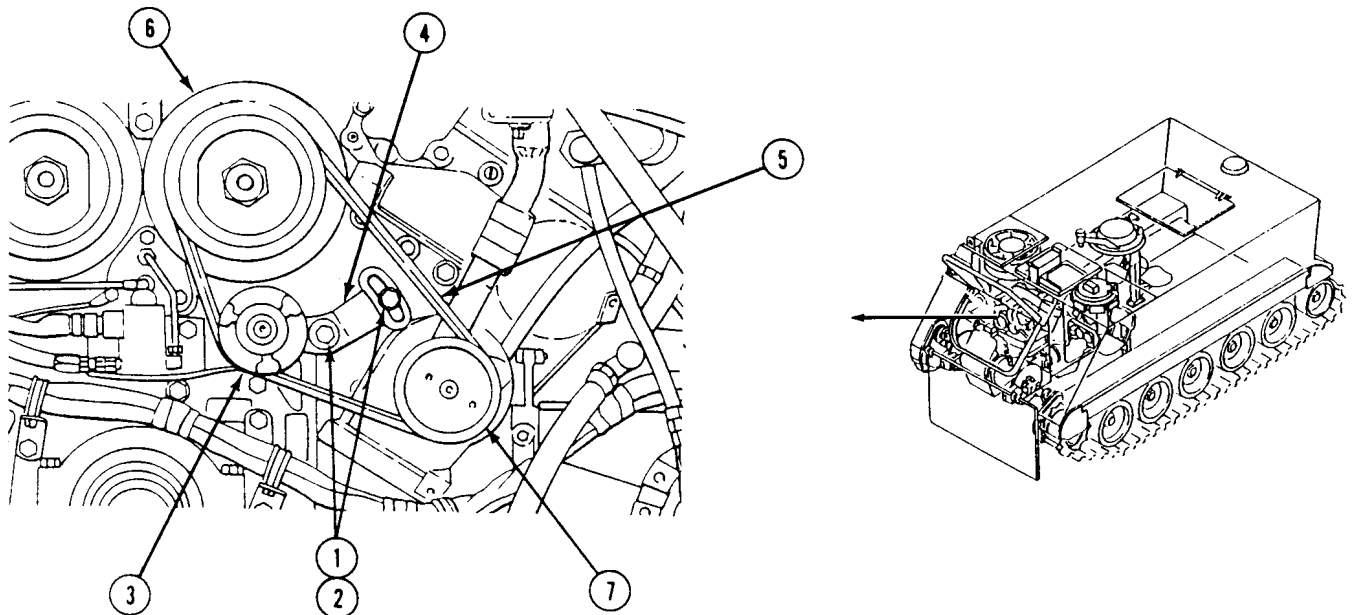
General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Socket Set (WP 0780 00, Item 96)
 Torque Wrench (WP 0780 00, Item 102)

Personnel Required

Unit Mechanic

REMOVAL

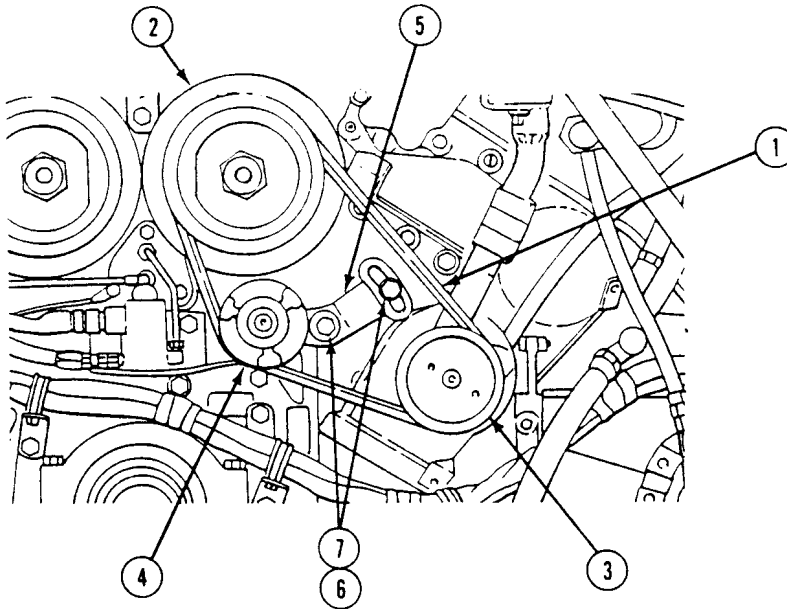
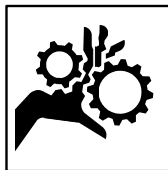
1. Remove two screws (1), washers (2), idler pulley (3), and idler adjusting bracket (4) from engine.
2. Remove two drive belts (5) from pulleys (6) and (7).



INSTALLATION**NOTE**

Drive belts must be replaced in matched sets.

1. Position drive belts (1) on pulleys (2) and (3).
2. Install idler pulley (4) and idler bracket (5) on engine with drive belts (1) positioned on idler pulley (4). Secure with two washers (6) and screws (7). Do not tighten screws.
3. To adjust drive belts (1), move idler bracket (5) to obtain a 3/8-inch (10 mm) deflection when drive belts (1) are depressed midway between pulleys (2) and (3).
4. **AFTER ADJUSTMENT OF DRIVE BELTS (1), TIGHTEN TWO SCREWS (7) TO 360-420 LB-IN (41-47 N·M) TORQUE.** Use torque wrench.

**FOLLOW-THROUGH STEPS****WARNING**

Startup of equipment or moving parts can injure you. Stay clear of moving parts when power plant is running.

1. Start engine (see your -10). Check idler pulley for proper operation.
2. Stop/shutdown engine (see your -10).
3. Close power plant front access door and raise trim vane (see your -10).

END OF TASK

REPLACE ENGINE COOLANT PUMP

0197 00

THIS WORK PACKAGE COVERS:

Removal (page 0197 00-1).
 Installation (page 0197 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

References

WP 0196 00

Materials/Parts

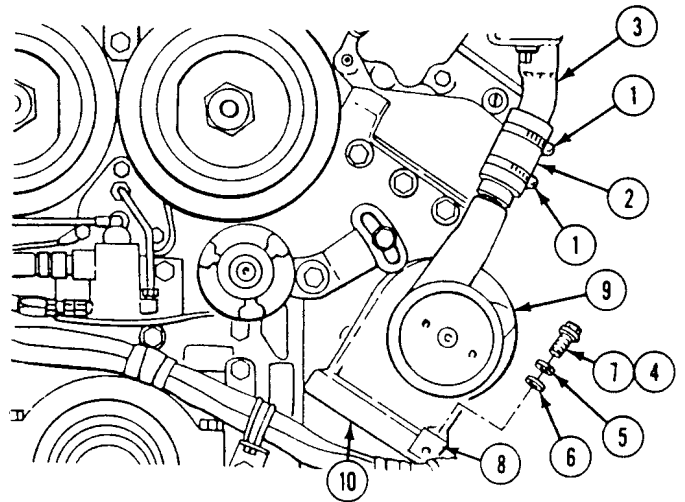
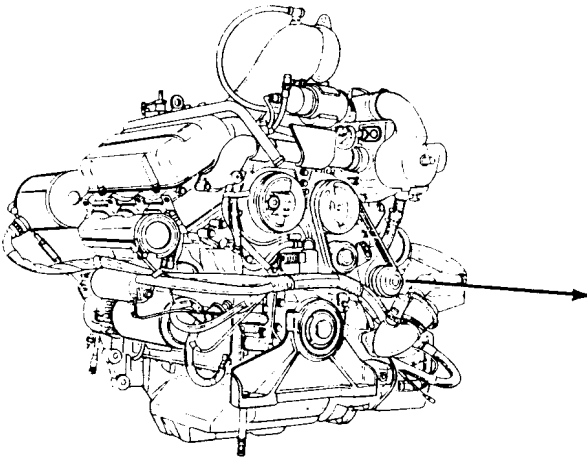
Sealing compound (WP 0782 00, Item 61)
 Gasket
 Lockwasher (4)

Equipment Condition

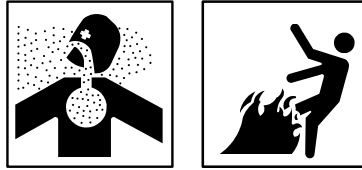
Power plant removed from carrier (WP 0131 00)

REMOVAL

1. Remove coolant pump drive belts (WP 0196 00).
2. Loosen two clamps (1) and slide bypass hose (2) upward on thermostat tube (3).
3. Remove four cap screws (4), washers (5), lockwashers (6), one socket head screw (7), wiring harness bracket (8), coolant pump (9), and gasket (10) from oil cooler housing. Discard gasket and lockwashers.



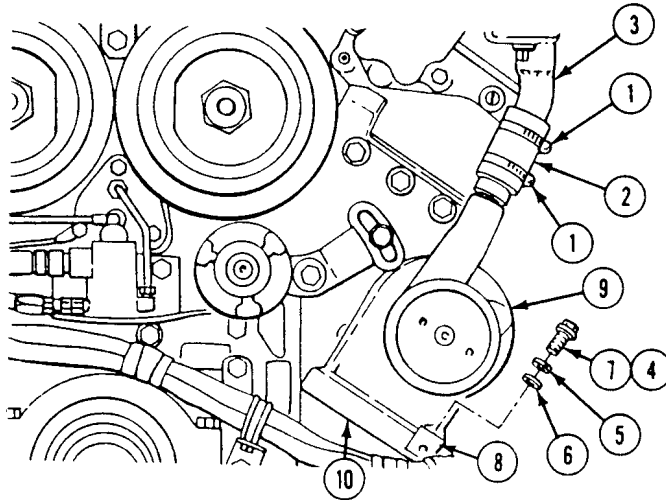
INSTALLATION

WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

1. Apply sealing compound to new gasket (10). Secure gasket, coolant pump (9), and bracket (8) to oil cooler housing with one socket head screw (7), four washers (5), new lockwashers (6), and cap screws (4).
2. Secure bypass hose (2) to thermostat tube (3) and coolant pump (9) with two clamps (1).



3. Install coolant pump drive belts (WP 0196 00).
4. Adjust coolant drive belts (WP 0196 00).

FOLLOW-THROUGH STEPS

1. Install power plant assembly in carrier (WP 0131 00). Leave power plant access door open.
2. Start engine (see your -10). Check for leaks around water pump and bypass hose.
3. Stop/shutdown engine (see your -10).
4. Close power plant front access door (see your -10).

END OF TASK

**REPLACE DEAERATION ELBOW TO RADIATOR INLET
ELBOW COOLANT TUBE**

0198 00

THIS WORK PACKAGE COVERS:

Removal (page 0198 00-1).
Installation (page 0198 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Trim vane lowered and power plant front access door open (see your -10)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Driver's power plant access panel removed (WP 0430 00)

Materials/Parts

Locknut

Power plant rear access panel removed (WP 0431 00, WP 0432 00, or WP 0433 00)

Locknut

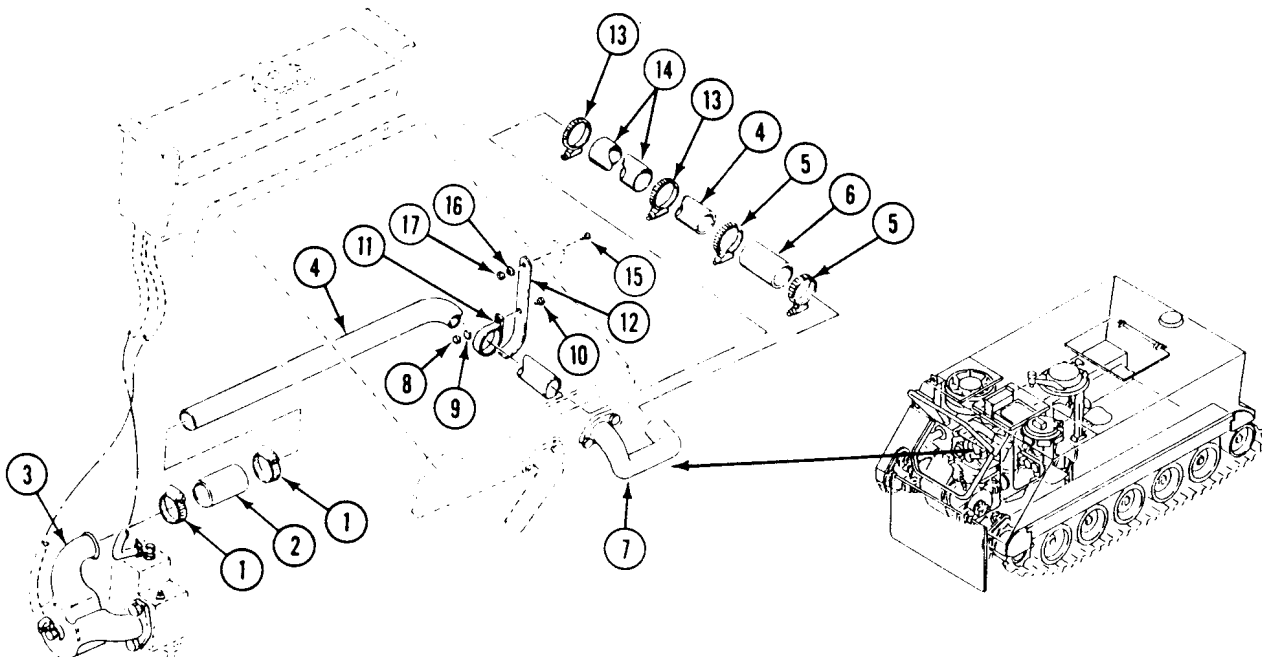
Cooling system completely drained (WP 0193 00)

Personnel Required

Unit Mechanic

REMOVAL

1. Remove two clamps (1) and hose (2) from deaeration elbow (3) and coolant tube (4).
2. Remove two clamps (5) and hose (6) from coolant tube (4) and radiator elbow (7).
3. Remove locknut (8), washer (9), screw (10), clamp (11), and coolant tube (4) from bracket (12). Discard locknut.
4. Remove coolant tube (4) through power plant rear access panel opening.
5. Remove clamp (11), two clamps (13), and insulation (14) from coolant tube (4).
6. Remove screw (15), washer (16), locknut (17), and bracket (12) from power plant compartment bulkhead. Discard locknut.

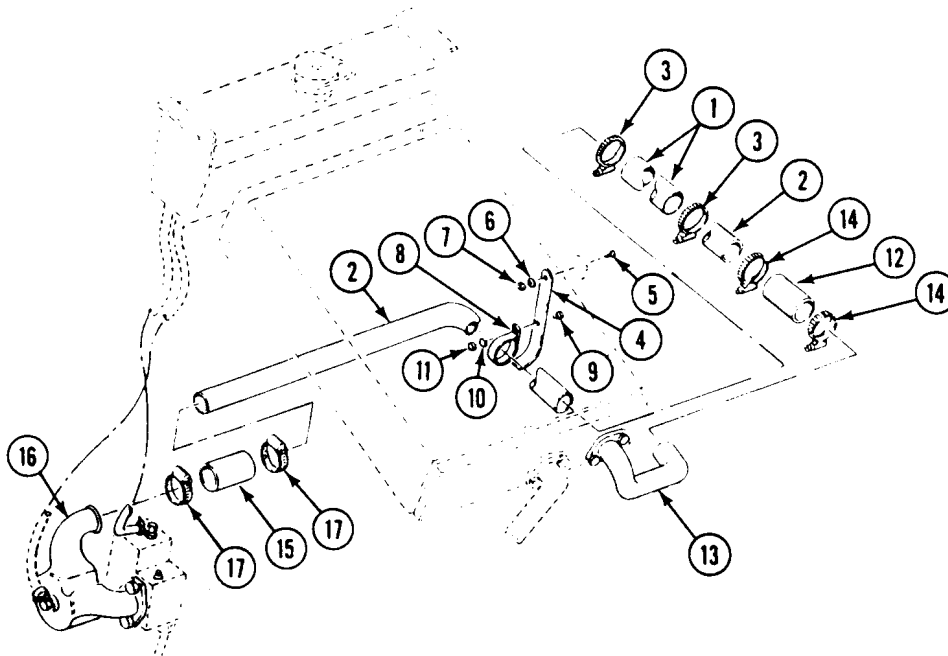


**REPLACE DEAERATION ELBOW TO RADIATOR INLET ELBOW
COOLANT TUBE — Continued**

0198 00

INSTALLATION

1. Secure insulation (1) to coolant tube (2) with two clamps (3).
2. Secure bracket (4) to bulkhead with screw (5), washer (6), and new locknut (7).
3. Place clamp (8) on coolant tube (2). Secure clamp to bracket (4) with screw (9), washer (10), and new locknut (11).
4. Secure hose (12) to radiator inlet elbow (13) and coolant tube (2) with two clamps (14).
5. Secure hose (15) to coolant tube (2) and deaeration elbow (16) with two clamps (17).

**FOLLOW-THROUGH STEPS**

1. Fill cooling system (WP 0194 00).
2. Start engine (see your -10). Check for leaks.
3. Stop/shutdown engine (see your -10).
4. Install driver's power plant access panel (WP 0430 00).
5. Install power plant rear access panel (WP 0431 00, WP 0432 00, or WP 0433 00)
6. Close power plant front access door and raise trim vane (see your -10).

END OF TASK

REPLACE RADIATOR OUTLET ELBOW TO COOLANT PUMP ELBOW HOSE AND TUBE

0199 00

THIS WORK PACKAGE COVERS:

Removal (page 0199 00-1).
Installation (page 0199 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Personnel Required

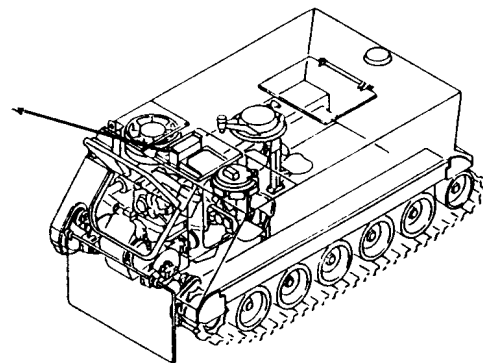
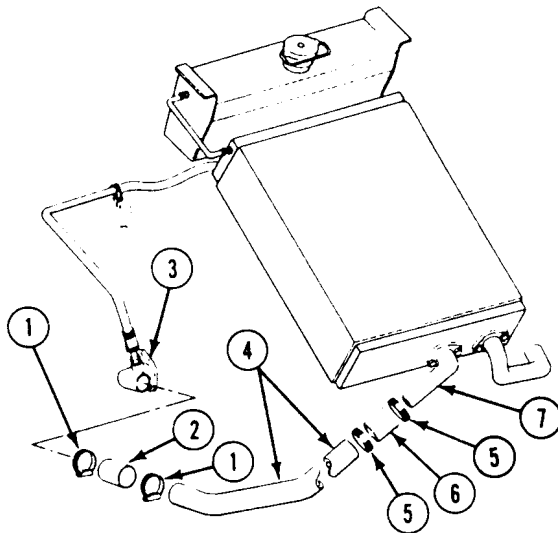
Unit Mechanic

Equipment Condition

Engine stopped/shutdown (see your -10)
Carrier blocked (see your -10)
Driver's power plant access panel removed
(WP 0430 00)
Trim vane lowered and power plant front access door
open (see your -10)
Cooling system completely drained (WP 0193 00)
Air cleaner housing and element removed
(WP 0185 00)

REMOVAL

1. Remove two clamps (1) and hose (2) from coolant pump elbow (3) and tube (4).
2. Remove two clamps (5), hose (6), and tube (4) from radiator outlet elbow (7).
3. Remove tube (4) through power plant front access door opening.

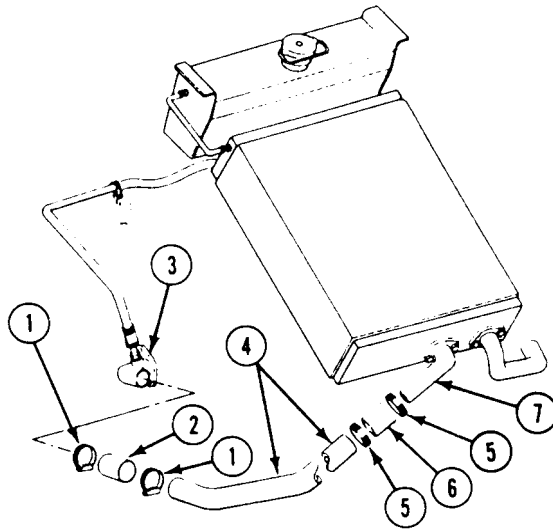


**REPLACE RADIATOR OUTLET ELBOW TO COOLANT PUMP ELBOW
HOSE AND TUBE — Continued**

0199 00

INSTALLATION

1. Install tube (4) through power plant front access door opening.
2. Secure hose (2) to coolant pump elbow (3) and tube (4) with two clamps (1).
3. Secure hose (6) to radiator outlet elbow (7) and tube (4) with two clamps (5).

**FOLLOW-THROUGH STEPS**

1. Install air cleaner element and housing (WP 0185 00).
2. Fill cooling system (WP 0194 00).
3. Start engine (see your -10). Check for leaks.
4. Stop/shutdown engine (see your -10).
5. Install driver's power plant access panel (WP 0430 00).
6. Close power plant front access door and raise trim vane (see your -10).

END OF TASK

REPLACE THERMOSTAT, HOUSING, AND DEAERATION ELBOW

0200 00

THIS WORK PACKAGE COVERS:

Removal (page 0200 00-1).
 Installation (page 0200 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Socket Wrench Set (WP 0780 00, Item 96)
 Torque Wrench (WP 0780 00, Item 102)

Equipment Condition

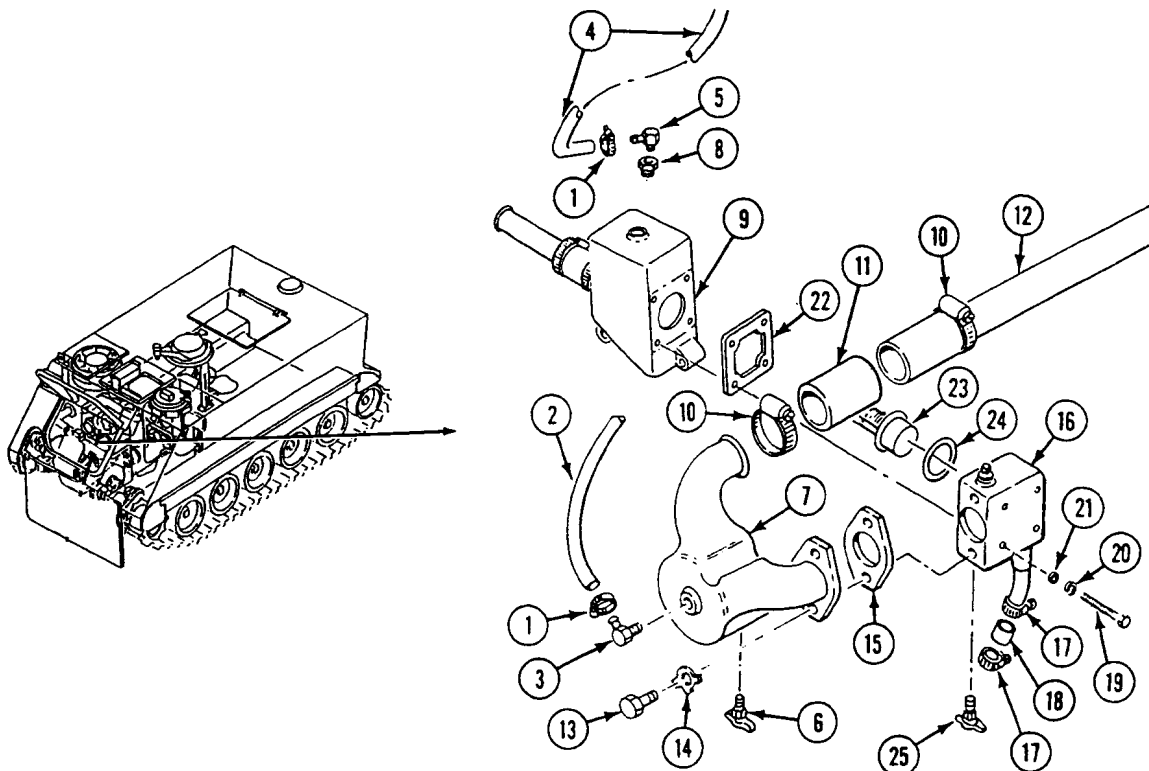
Engine stopped/shutdown (see your -10)
 Carrier blocked
 Trim vane lowered and power plant front access door open (see your -10)
 Cooling system drained (WP 0193 00)
 Remove air cleaner housing and element (WP 0185 00)

Materials/Parts

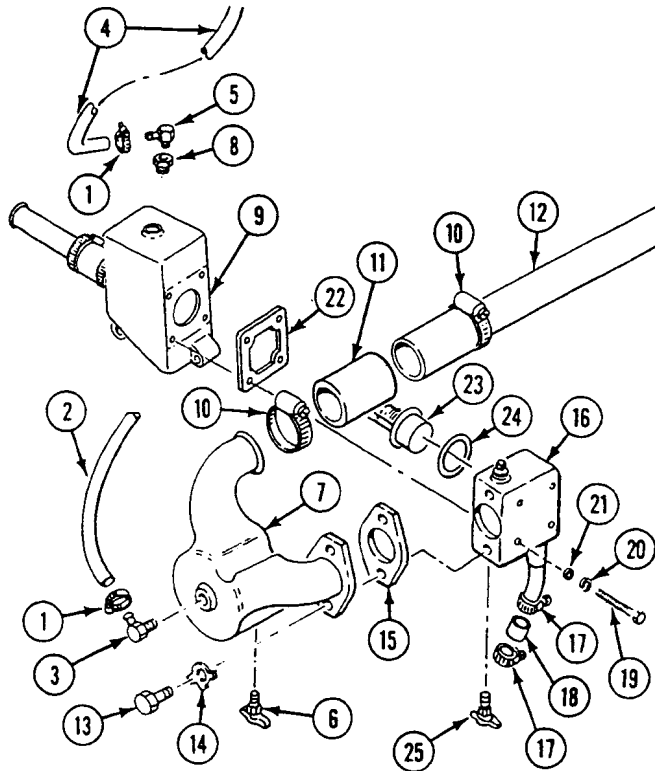
Sealing compound (WP 0782 00, Item 65)
 Sealing compound (WP 0782 00, Item 62)
 Deaeration elbow gasket
 Housing gasket
 Key washer (2)
 Lockwasher (6)
 Thermostat gasket

REMOVAL

1. Loosen two clamps (1). Disconnect hose (2) from elbow (3) and hose (4) from elbow (5).



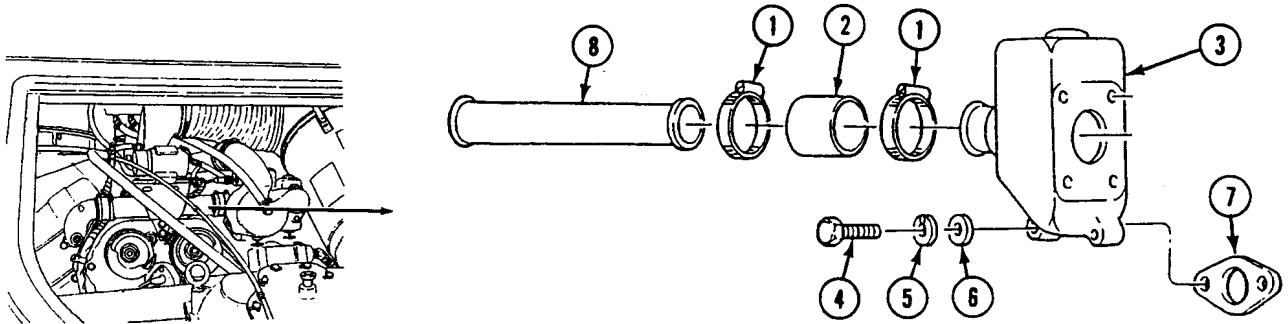
2. Remove elbow (3) and drain cock (6) from deaeration elbow (7). Remove bushing (8) from thermostat housing (9).
3. Loosen two clamps (10). Disconnect hose (11) from deaeration elbow (7) and tube (12).
4. Remove two screws (13), key washers (14), deaeration elbow (7), and gasket (15) from thermostat housing cover (16). Discard key washers and gasket.
5. Loosen two clamps (17). Disconnect hose (18) from cover (16).
6. Remove four screws (19), lockwashers (20), washers (21), cover (16), and gasket (22) from housing (9). Discard lockwashers and gasket.
7. Remove thermostat (23), seal (24), and drain cock (25) from cover (16).



REPLACE THERMOSTAT, HOUSING, AND DEAERATION ELBOW — Continued

0200 00

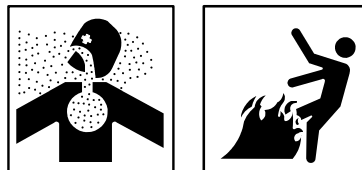
8. Loosen two clamps (1). Slide hose (2) off the housing (3).
9. Remove two screws (4), lockwashers (5), and washers (6) securing housing (3) to the engine. Remove housing (3) and gasket (7). Discard lockwashers and gasket.
10. If hose (2) is damaged, slide off tube (8). Discard hose.



INSTALLATION

1. If hose (2) was discarded, slide new hose on tube (8). Slide two clamps (1) on hose. Do not tighten.

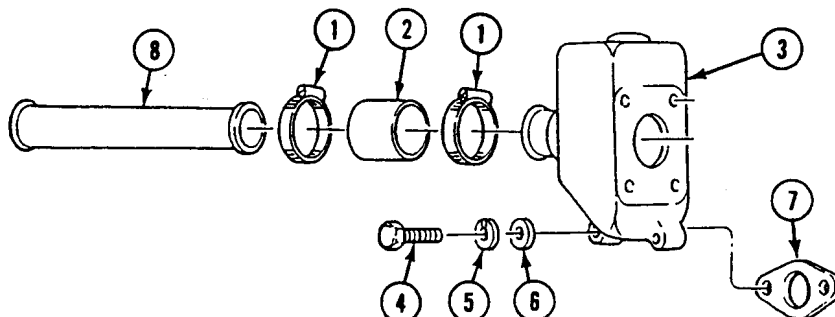
WARNING

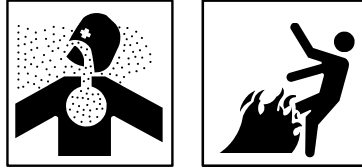


Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

2. Apply sealing compound (WP 0782 00, Item 62) to both sides of new gasket (7). Place gasket on housing (3). Secure housing (3) on engine with two screws (4), new lockwashers (5), and two washers (6).
3. Slide hose (2) onto housing (3). Position two clamps (1) on each end of hose, and tighten.

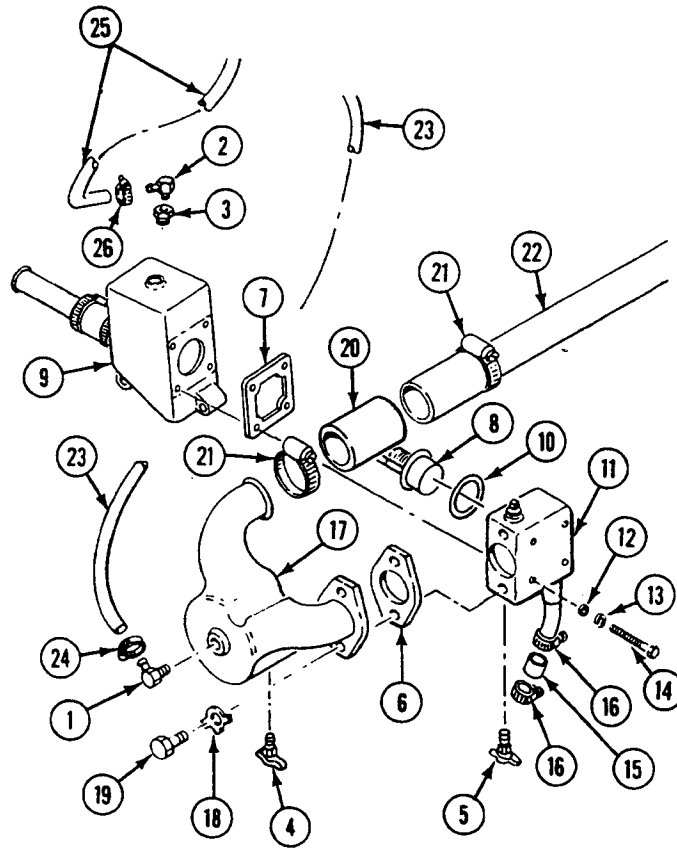


WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

4. Apply a light coat of sealing compound (WP 0782 00, Item 65) to external threads of elbows (1) and (2), bushing (3), and drain cocks (4) and (5). Apply sealing compound (WP 0782 00, Item 62) to both sides of gaskets (6) and (7).
5. Install thermostat (8) and new gasket (7) in thermostat housing (9).
6. Install seal (10) in cover (11). Secure thermostat cover (11) to housing (9) with four new washers (12), lockwashers (13), and screws (14). **TIGHTEN SCREWS TO 180-240 LB-IN (20-27 N·M) TORQUE.** Use torque wrench and socket wrench set.
7. Connect hose (15) to cover (11) with two clamps (16). Tighten clamps.
8. Secure deaeration elbow (17) and new gasket (6) to cover (11) with two new key washers (18) and screws (19).
9. Connect hose (20) to deaeration elbow (17) and tube (22) with two clamps (21). Tighten clamps.
10. Install elbow (1) in deaeration elbow (17).
11. Secure hose (23) to elbow (1) with clamp (24).
12. Install bushing (3) in housing (9).
13. Install elbow (2) in bushing (3).
14. Secure hose (25) to elbow (2) with clamp (26).
15. Install drain cock (4) in deaeration elbow (17) and drain cock (5) in housing cover (11).



FOLLOW-THROUGH STEPS

1. Install air cleaner element and housing (WP 0185 00).
2. Fill cooling system (WP 0194 00).
3. Start engine (see your -10). Check for leaks.
4. Stop/shutdown engine (see your -10).
5. Close power plant front access door and raise trim vane (see your -10).

END OF TASK

REPLACE THERMOSTAT HOUSING TO ENGINE COOLANT TUBE

0201 00

THIS WORK PACKAGE COVERS:

Removal (page 0201 00-1).
Installation (page 0201 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Torque Wrench (WP 0780 00, Item 102)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Trim vane lowered and power plant front access door open (see your -10)

Cooling system drained (WP 0193 00)

Materials/Parts

Sealing compound (WP 0782 00, Item 60)

Sealing compound (WP 0782 00, Item 62)

Gasket

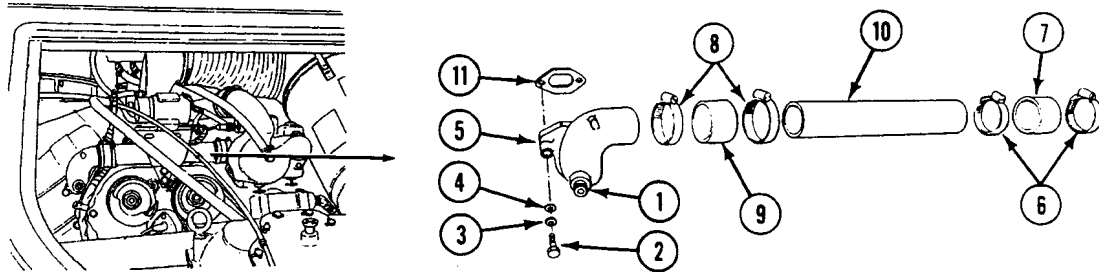
Lockwasher (2)

REMOVAL

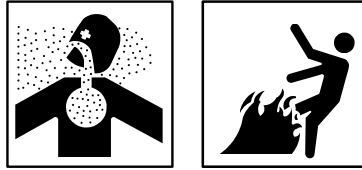
NOTE

Plug (1) should be removed only if you see leakage.

1. Remove two screws (2), lockwashers (3), and flat washers (4) securing elbow (5) to engine. Discard lockwashers.
2. Loosen two clamps (6) on hose (7). Move elbow (5), two clamps (8), hose (9), and coolant tube (10) to the left as a unit.
3. Loosen two clamps (8). Disassemble hose (9), coolant tube (10), and elbow (5).
4. Remove gasket (11) from elbow (5) or engine block. Discard gasket.



INSTALLATION

WARNING

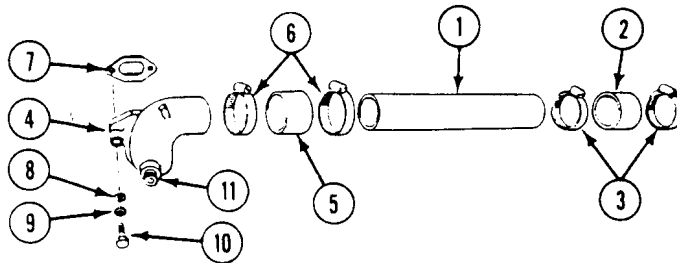
Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

NOTE

If plug (11) was removed, clean and apply a thin coat of sealing compound (WP 0782 00, Item 60) on threads before installing.

1. Connect coolant tube (1) to hose (2) with two clamps (3). Tighten two clamps (3).
2. Connect coolant tube (1) and elbow (4) with hose (5) and two clamps (6). Tighten two clamps (6).
3. Apply a thin coat of sealing compound (WP 0782 00, Item 62) to both sides of new gasket (7).
4. Install new gasket (7) between elbow (4) and engine. Secure with two flat washers (8), new lockwashers (9), and screws (10). TIGHTEN SCREWS TO 360-384 LB-IN (41-43 N·M) TORQUE. Use torque wrench.

**FOLLOW-THROUGH STEPS**

1. Fill cooling system (WP 0194 00).
2. Start engine (see your -10). Check for leaks.
3. Stop/shutdown engine (see your -10).
4. Close power plant front access door and raise trim vane (see your -10).

END OF TASK

REPLACE RADIATOR AND PARTS

0202 00

THIS WORK PACKAGE COVERS:

Removal (page 0202 00-1).
 Installation (page 0202 00-4).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic
 Helper (H)

Tools and Special Tools

Endless Sling (WP 0780 00, Item 66)
 General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Socket Wrench Set (WP 0780 00, Item 96)
 Torque Wrench (WP 0780 00, Item 102)
 Lifting Device

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Driver's power plant access panel removed
 (WP 0430 00)
 Power plant rear upper access panel removed
 (WP 0431 00, WP 0432 00, or WP 0433 00).
 Power plant grill raised (WP 0130 00)
 Balance hose removed (WP 0203 00)

Materials/Parts

Sealing compound (WP 0782 00, Item 60)
 Sealing compound (WP 0782 00, Item 66)
 Gasket (2)
 Key washer (4)
 Mount (4)
 Seal (4)

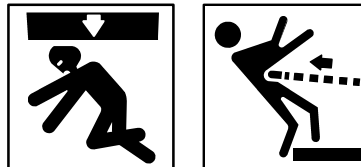
REMOVAL

WARNING



Radiator is heavy and can cause back injury if handled improperly. Be sure to use a hoist and helper to remove radiator.

WARNING



Damaged slings can fail when loaded. Breaking slings can strike and injure personnel. Suspended load can fall and crush personnel.

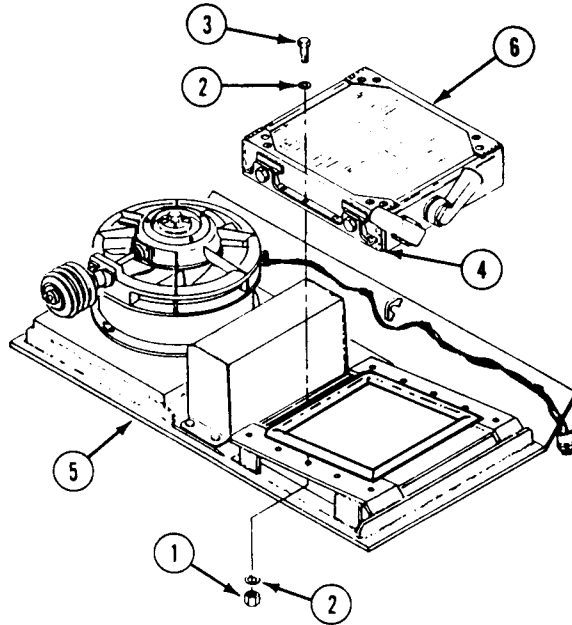
Inspect all slings before use. Do not use damaged slings. Clearly mark all damaged slings as DAMAGED - DO NOT USE.

WARNING

Hanging loads, heavy parts, and overhead equipment can fall unexpectedly and kill or injure you.

Stay clear of hanging loads, heavy parts, and overhead equipment. Use correct lifting devices. Always have helper guide heavy parts and equipment.

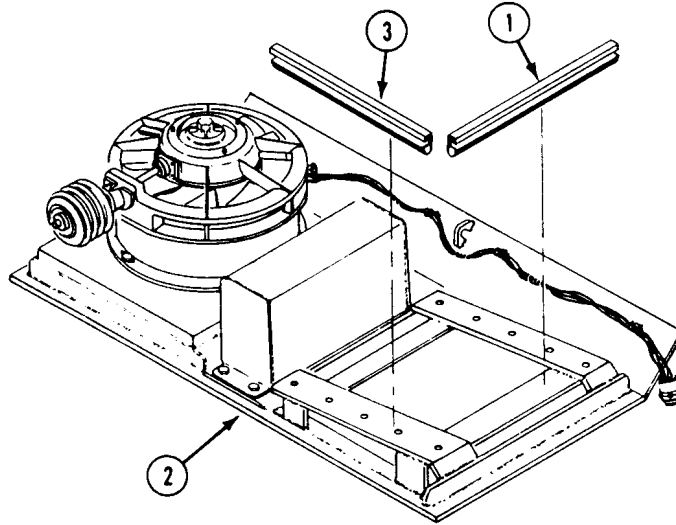
1. Attach sling to lifting device of at least 150 lb (68 kg) capacity to radiator. Remove ten nuts (1), 20 washers (2), and ten screws (3) that secure radiator supports (4) to power plant grill (5). Lift radiator supports and radiator (6) from power plant grill. Lower radiator to a work table or flat wooden plate and detach lifting device. Have helper assist.



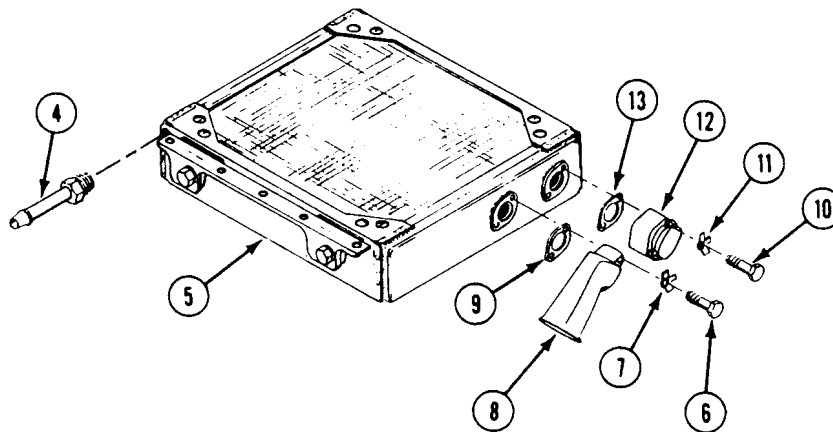
REPLACE RADIATOR AND PARTS — Continued

0202 00

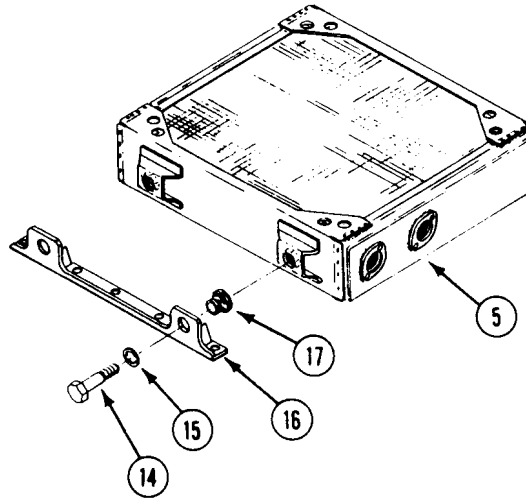
2. Remove two end seals (1) from power plant grill (2). Discard seals.
3. Remove two side seals (3) from power plant grill (2). Discard seals.



4. Remove balance hose adapter (4) from radiator (5).
5. Remove two screws (6), key washers (7), radiator outlet elbow (8), and gasket (9) from radiator (5). Discard gasket and washers.
6. Remove two screws (10), key washers (11), radiator inlet elbow (12), and gasket (13) from radiator (5). Discard gasket and washers.



7. Remove four screws (14), washers (15), radiator supports (16), and mounts (17) from radiator (5). Discard mounts.

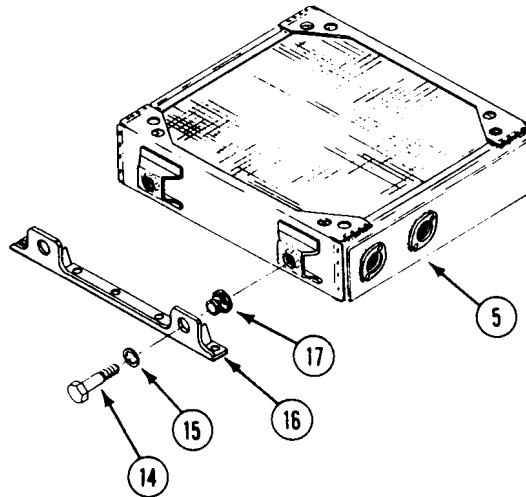


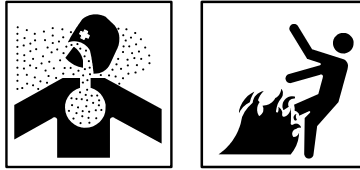
INSTALLATION

CAUTION

If installing a new radiator, make sure shipping plugs are removed.

1. Lubricate four new mounts (17) with water. Install mounts on two radiator supports (16).
2. Install two radiator supports (16) on radiator (5). Secure with four screws (14) and washers (15). **TIGHTEN SCREWS TO 360-420 LB-IN (41-48 N·M) TORQUE.** Use torque wrench and socket wrench set.

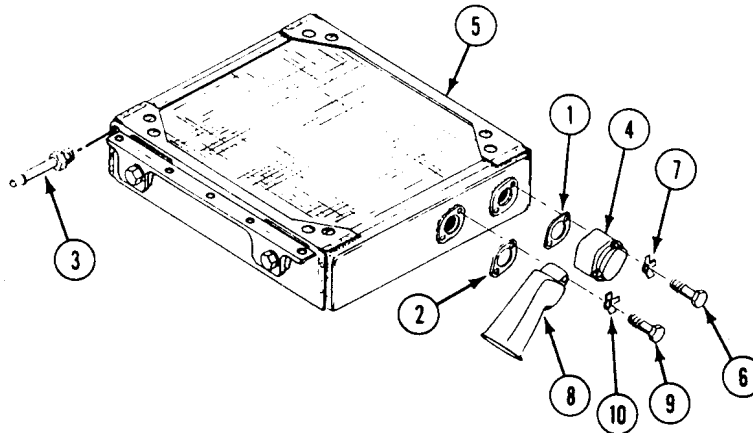


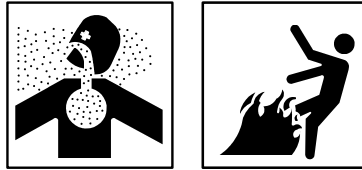
WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

3. Apply a thin coat of sealing compound to both sides of new gaskets (1) and (2) and external threads of adapter (3).
4. Install radiator inlet elbow (4) and new gasket (1) on radiator (5). Secure with two screws (6) and new key washers (7).
5. Install radiator outlet elbow (8) and new gasket (2) on radiator (5). Secure with two screws (9) and new key washers (10).
6. Install balance hose adapter (3) on radiator (5).

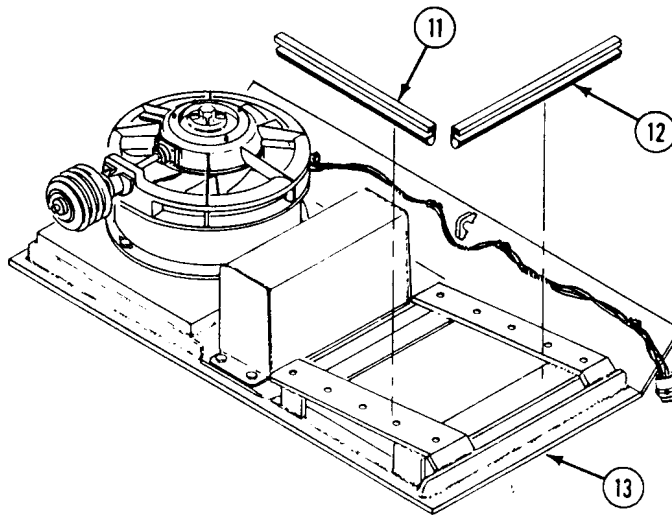


WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

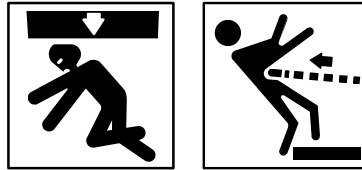
Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

7. Apply thin coat of adhesive sealant to mounting surfaces of seals (11) and (12).
8. Install two side seals (11) on power plant grill (13).
9. Install two end seals (12) on power plant grill (13).

**WARNING**

Radiator is heavy and can cause back injury if handled improperly. Be sure to use a hoist and helper to remove radiator.

WARNING



Damaged slings can fail when loaded. Breaking slings can strike and injure personnel. Suspended load can fall and crush personnel.

Inspect all slings before use. Do not use damaged slings. Clearly mark all damaged slings as DAMAGED - DO NOT USE.

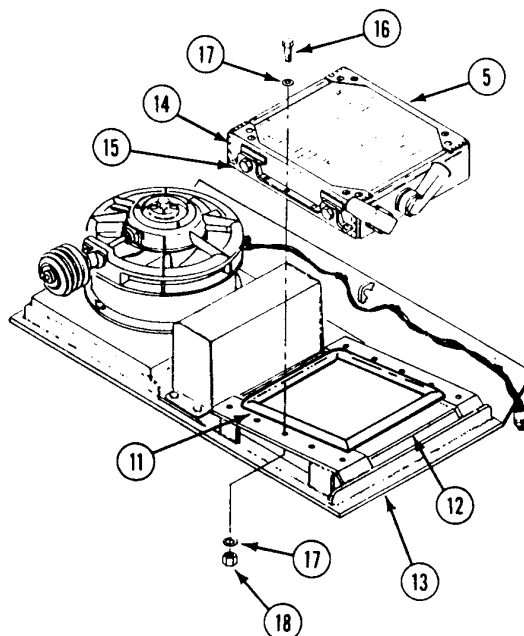
WARNING



Hanging loads, heavy parts, and overhead equipment can fall unexpectedly and kill or injure you.

Stay clear of hanging loads, heavy parts, and overhead equipment. Use correct lifting devices. Always have helper guide heavy parts and equipment.

10. Attach a lifting device of at least 150 lb (68 kg) capacity to radiator support eyes (14). Lift and place radiator on four seals (11) and (12).
11. Align mounting holes of two radiator supports (15) to power plant grill (13). Secure radiator on power plant grill with ten screws (16), 20 washers (17), and ten nuts (18).



FOLLOW-THROUGH STEPS

1. Install balance hose (WP 0203 00).
2. Lower power plant grill (WP 0130 00).
3. Install power plant rear access panel (WP 0431 00, WP 0432 00, or WP 0433 00).
4. Install driver's power plant access panel (WP 0430 00).

END OF TASK

REPLACE BALANCE HOSE

0203 00

THIS WORK PACKAGE COVERS:

Removal (page 0203 00-1).
 Installation (page 0203 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Power plant grill raised (WP 0130 00)

Tools and Special Tools

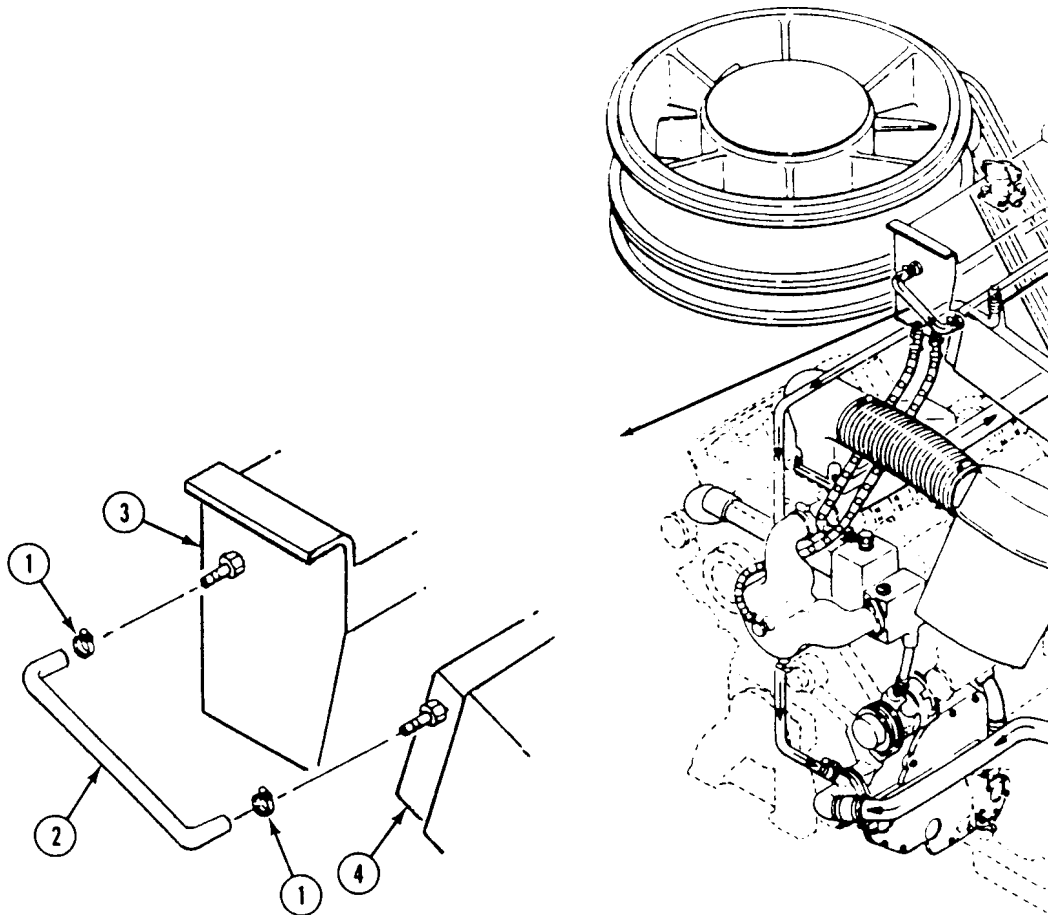
General Mechanic's Tool Kit (WP 0780 00, Item 29)

Personnel Required

Unit Mechanic

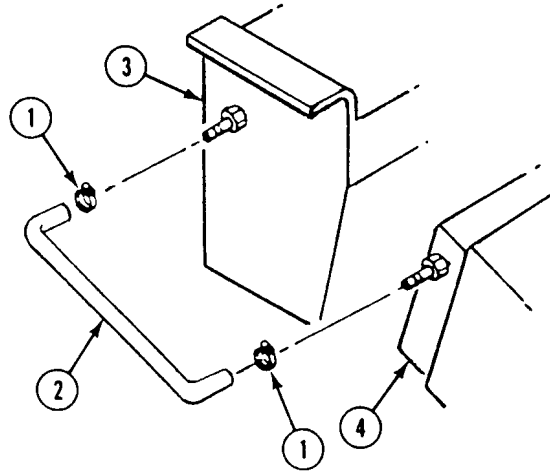
REMOVAL

1. Loosen two clamps (1) on balance hose (2). Remove hose and clamps.



INSTALLATION

1. Slide two clamps (1) on new balance hose (2).
2. Install balance hose (2) on auxiliary tank (3) and radiator (4). Tighten two clamps (1).

**FOLLOW-THROUGH STEPS**

1. Lower power plant grill (WP 0130 00).

END OF TASK

REPLACE RADIATOR ACCESS DOOR SEALS AND FASTENERS

0204 00

THIS WORK PACKAGE COVERS:

- Removal (page 0204 00-1).
- Repair (page 0204 00-2).
- Installation (page 0204 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Rivet Tool (WP 0780 00, Item 60)

Equipment Condition

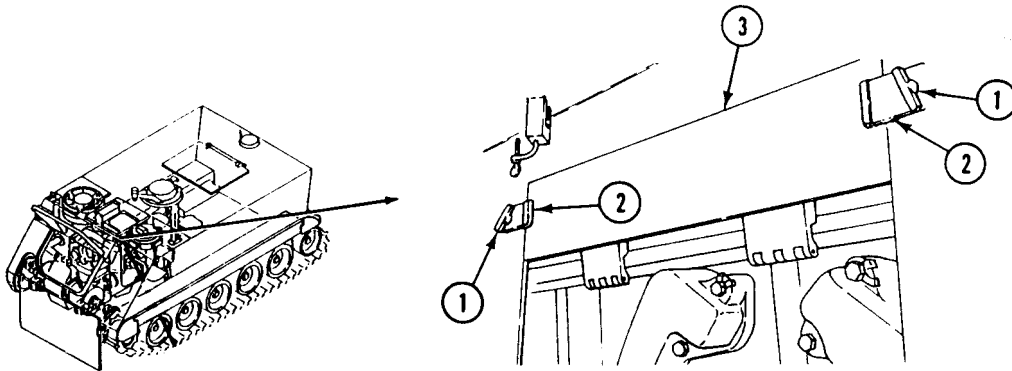
- Engine stopped/shutdown (see your -10)
- Driver's power plant access panel removed (WP 0430 00)

Materials/Parts

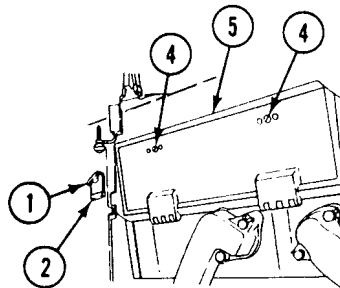
- Cleaning compound (WP 0782 00, Item 16)
- Sealing compound (WP 0782 00, Item 66)
- Rivet (4)
- Seal

REMOVAL

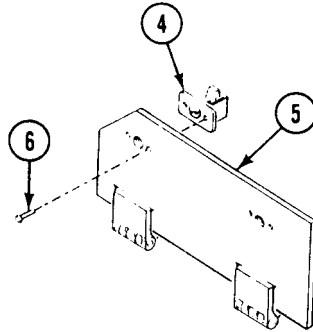
1. Loosen two thumbscrews (1) and clamps (2). Remove radiator access panel (3) from power plant compartment bulkhead.



2. Release two fasteners (4) securing radiator access door (5) to radiator opening, and open door.

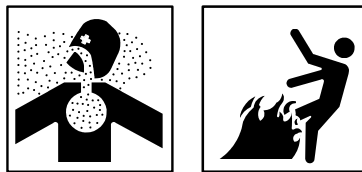


- Remove four rivets (6) and two fasteners (4) from radiator access door (5). Discard rivets.



REPAIR

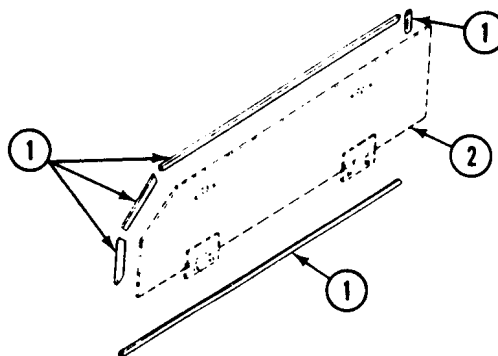
WARNING



Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

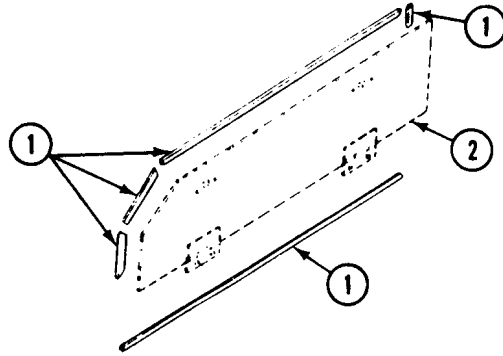
Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

- Use cleaning compound to remove five-piece seal (1) from radiator access door (2). Discard seal.
- Apply a thin coat of adhesive sealant to bottom surface of new five-piece seal (1). Apply same sealant to seal area of radiator access door (2).

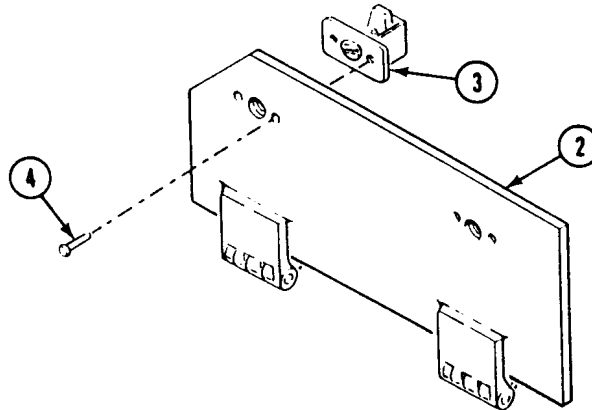


INSTALLATION

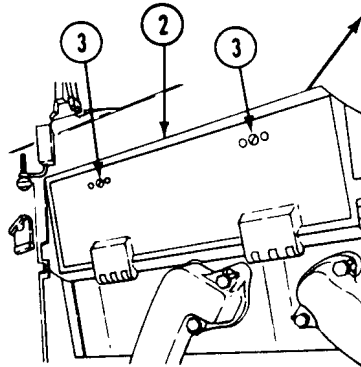
1. Install new five-piece seal (1) on radiator access door (2). Allow 20 minutes to dry.



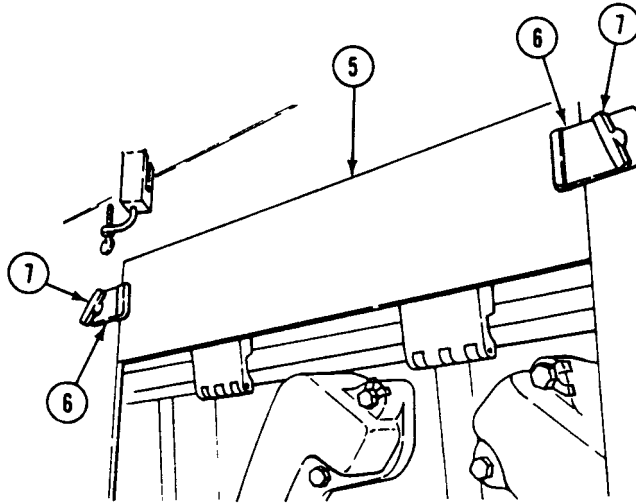
2. Secure two fasteners (3) to radiator access door (2) with four new rivets (4). Use rivet tool.



3. Close radiator access door (2). Secure door to radiator opening with two fasteners (3).



- Secure radiator access panel (5) to power plant compartment bulkhead with two clamps (6) and thumbscrews (7).

**FOLLOW-THROUGH STEPS**

- Install driver's power plant access panel (WP 0430 00).

END OF TASK

REPAIR RADIATOR ACCESS DOOR

0205 00

THIS WORK PACKAGE COVERS:

Disassembly (page 0205 00-1).
 Assembly (page 0205 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

Engine stopped/shutdown
 Carrier blocked (see your -10)
 Driver's power plant access panel removed
 (WP 0430 00)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

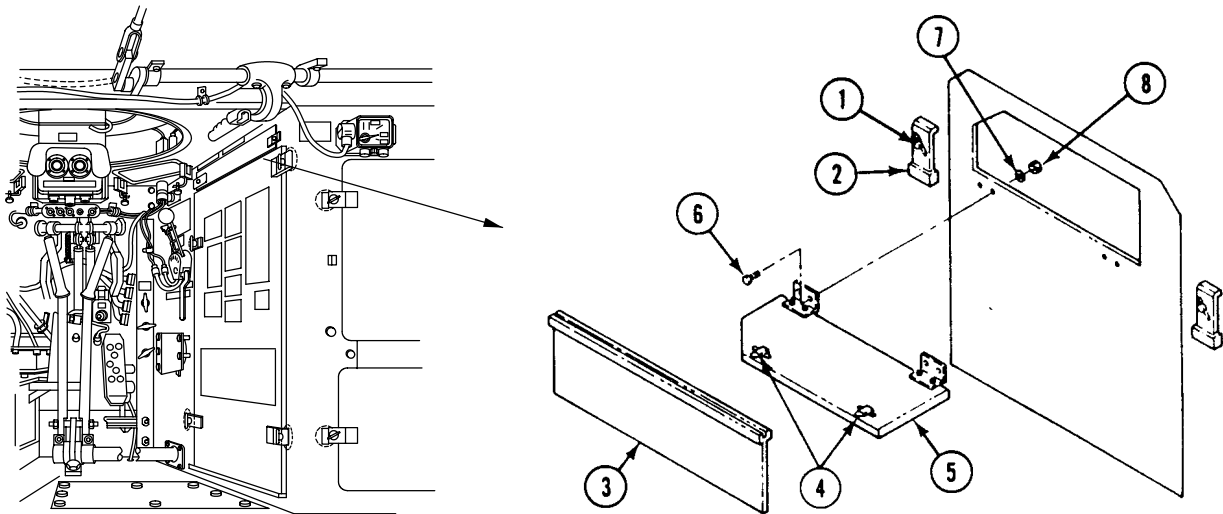
Locknut (4)

Personnel Required

Unit Mechanic

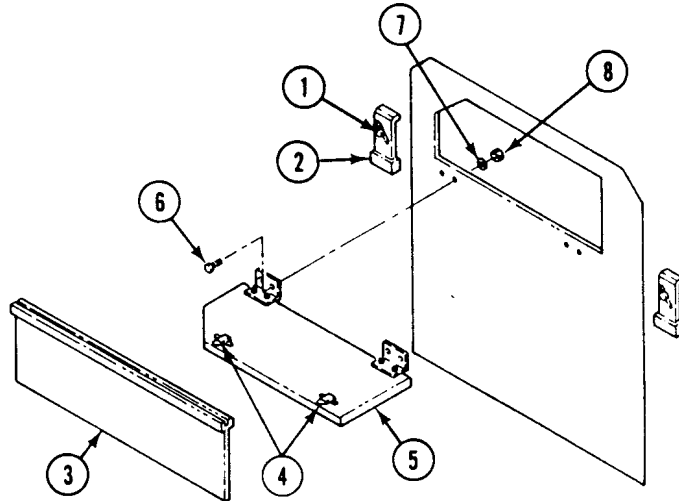
DISASSEMBLY

1. Loosen two thumbscrews (1) and clamps (2). Remove radiator access panel (3) from power plant compartment bulkhead.
2. Release two fasteners (4) on access door (5) and lower access door.
3. Remove four screws (6), flat washers (7), and locknuts (8). Remove access door (5). Discard four locknuts.



ASSEMBLY

1. Position access door (5) and install four screws (6), flat washers (7), and new locknuts (8).
2. Close radiator access door (5) and secure two fasteners (4).
3. Install radiator access panel (3) on power plant compartment bulkhead. Secure with two clamps (2) and thumbscrews (1).

**FOLLOW-THROUGH STEPS**

1. Install driver's power plant access panel (WP 0430 00).

END OF TASK

REPLACE AUXILIARY TANK AND PARTS

0206 00

THIS WORK PACKAGE COVERS:

Removal (page 0206 00-1).
 Installation (page 0206 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Socket Wrench Set (WP 0780 00, Item 96)
 Torque Wrench (WP 0780 00, Item 102)

Materials/Parts

Sealing compound (WP 0782 00, Item 60)
 Sealing compound (WP 0782 00, Item 62)
 Filler neck gasket
 Lockwasher (4)

Personnel Required

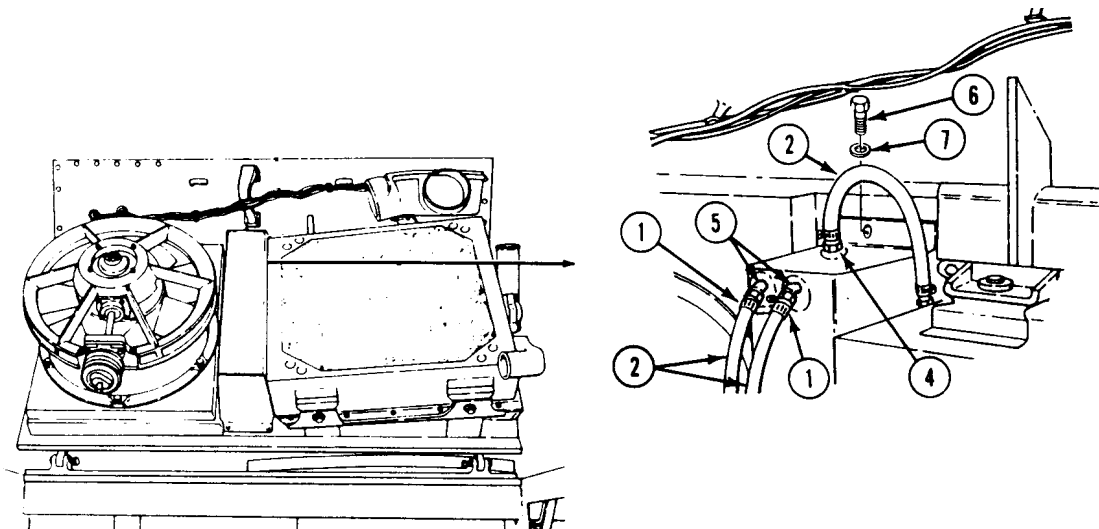
Unit Mechanic

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Power plant grill raised (WP 0130 00)

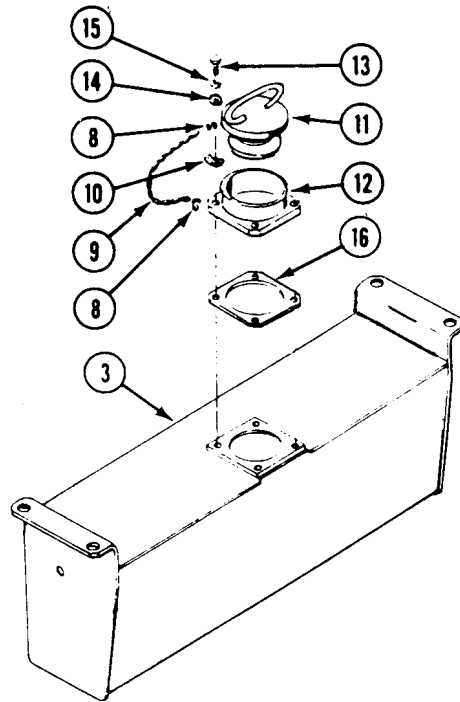
REMOVAL

1. Loosen three clamps (1). Disconnect three hoses (2) from auxiliary tank.
2. Remove adapter (4) and two elbows (5) from auxiliary tank.
3. Remove four screws (6), washers (7), and auxiliary tank from power plant grill.

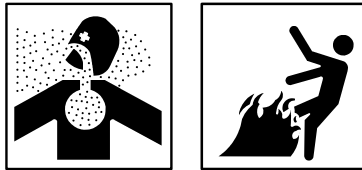


REPLACE AUXILIARY TANK AND PARTS — Continued**0206 00**

4. Remove two hooks (8) and chain (9) from bracket (10) and filler cap (11).
5. Remove filler cap (11) from filler neck (12).
6. Remove four screws (13), flat washers (14), lockwashers (15), filler neck (12), bracket (10), and gasket (16) from auxiliary tank (3). Discard gasket and lockwashers.



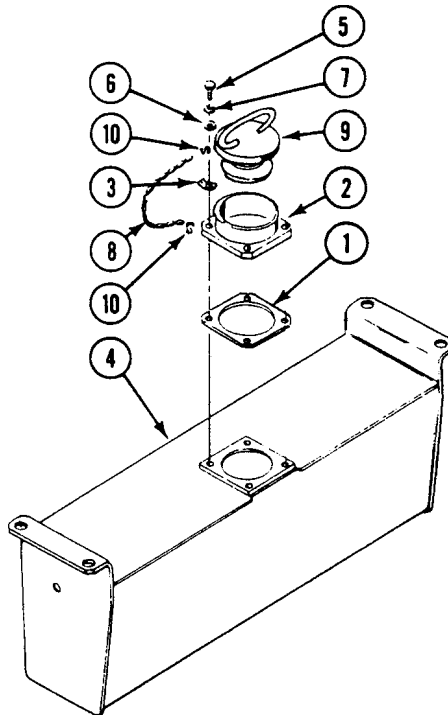
INSTALLATION

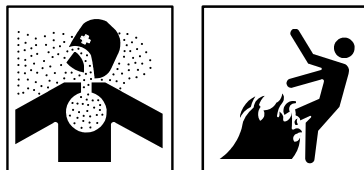
WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

1. Apply thin coat of sealing compound (WP 0782 00, Item 62) to both sides of new gasket (1).
2. Install new gasket (1), filler neck (2), and bracket (3) on auxiliary tank (4). Secure with four screws (5), flat washers (6), and new lockwashers (7).
3. Secure chain (8) to bracket (3) and filler cap (9) with two hooks (10).
4. Install filler cap (9) in filler neck (2).

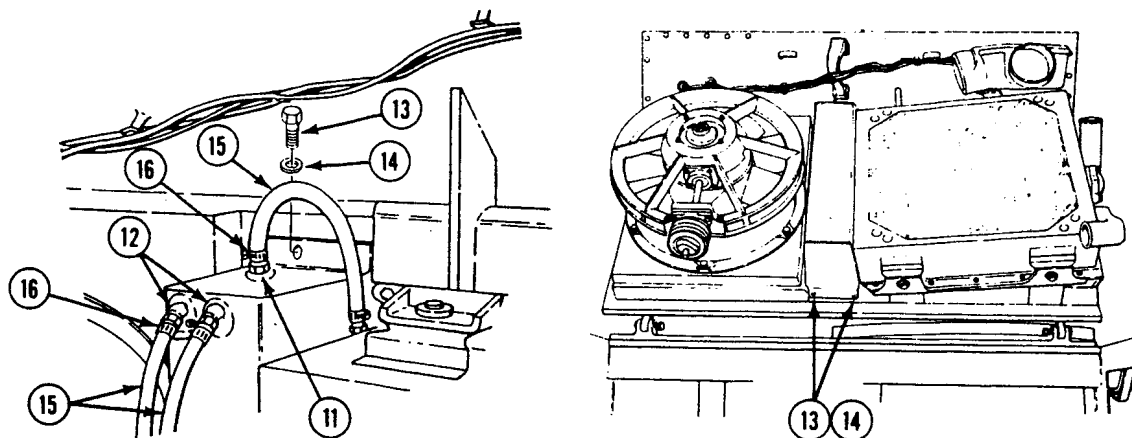


WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

5. Apply thin coat of sealing compound (WP 0782 00, Item 60) to external threads of adapter (11) and two elbows (12).
6. Install adapter (11) and two elbows (12) in auxiliary tank.
7. Secure auxiliary tank to power plant grill with four screws (13) and washers (14). TIGHTEN SCREWS TO 264-288 LB-IN (30-33 N·M) TORQUE. Use torque wrench and socket wrench set.
8. Secure three hoses (15) to auxiliary tank with three clamps (16).

**FOLLOW-THROUGH STEPS**

1. Lower power plant grill (WP 0130 00).
2. Start engine (see your -10). Check for leaks.
3. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE AUXILIARY TANK TO COOLANT PUMP TUBE

0207 00

THIS WORK PACKAGE COVERS:

Removal (page 0207 00-1).
 Installation (page 0207 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

Sealing compound (WP 0782 00, Item 60)

Personnel Required

Unit Mechanic

Equipment Condition

Engine stopped/shutdown (see your -10)

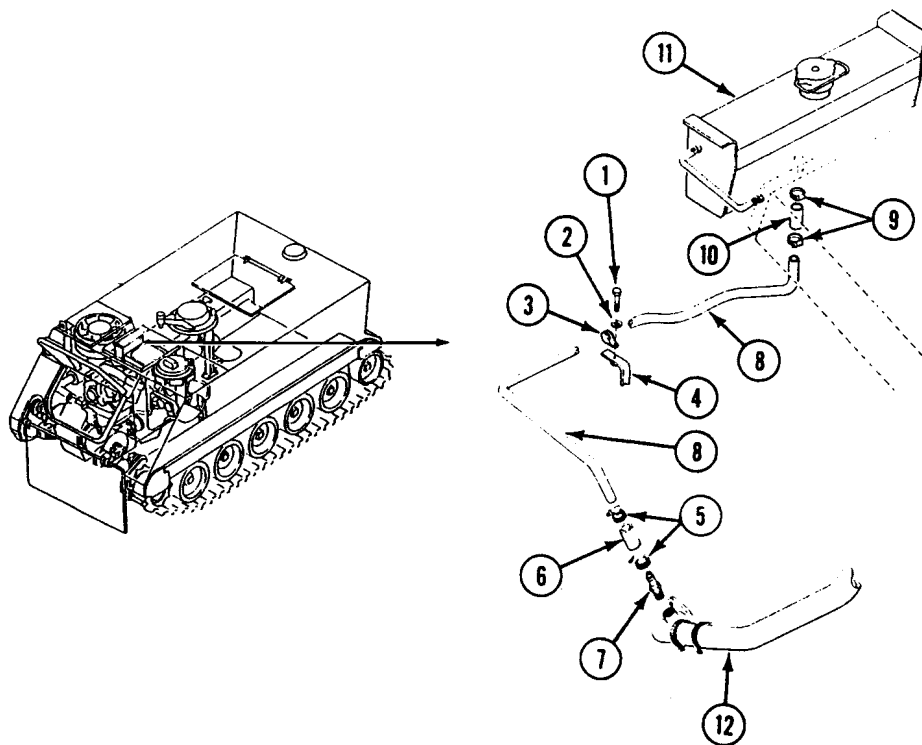
Carrier blocked (see your -10)

Trim vane lowered and power plant front access door open (see your -10)

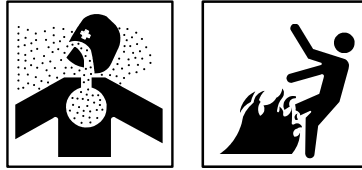
Drain cooling system (WP 0193 00)

REMOVAL

1. Remove screw (1), washer (2), and clamp (3) from bracket (4).
2. Loosen two clamps (5). Disconnect hose (6) from adapter (7) and tube (8).
3. Loosen two clamps (9). Disconnect hose (10) from tube (8) and auxiliary tank (11).
4. Remove adapter (7) from oil cooler elbow (12).
5. Remove tube (8) from carrier, and clamp (3) from tube.



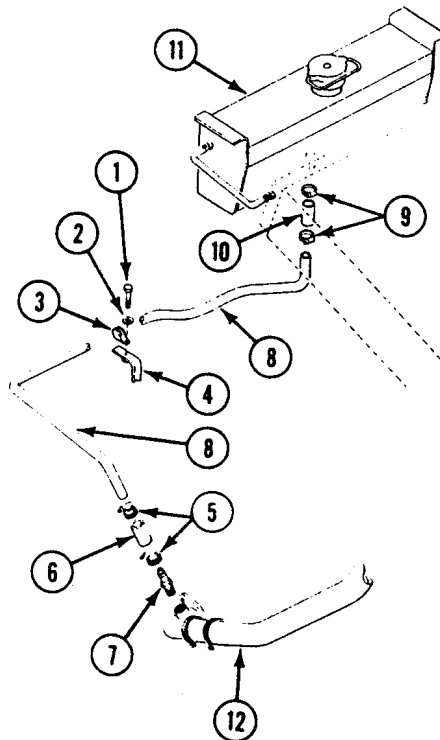
INSTALLATION

WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

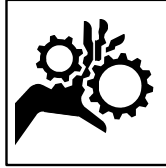
1. Apply a light, even coat of sealing compound to external threads of adapter (7).
2. Install adapter (7) in oil cooler elbow (12).
3. Install clamp (3) on tube (8).
4. Secure hose (10) to auxiliary tank (11) and to tube (8) with two clamps (9).
5. Secure hose (6) to tube (8) and adapter (7) with two clamps (5).
6. Secure clamp (3) to bracket (4) with screw (1) and washer (2).



FOLLOW-THROUGH STEPS

1. Fill cooling system (WP 0194 00).

WARNING



Wearing loose clothing around moving parts can allow personnel to get caught and cause injury or death. Tuck in loose clothing.

2. Start engine (see your -10). Check for leaks.
3. Stop/shutdown engine (see your -10).
4. Close power plant front access door and raise trim vane (see your -10).

END OF TASK

REPLACE AUXILIARY TANK TO RADIATOR TUBE

0208 00

THIS WORK PACKAGE COVERS:

Removal (page 0208 00-1).
 Installation (page 0208 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

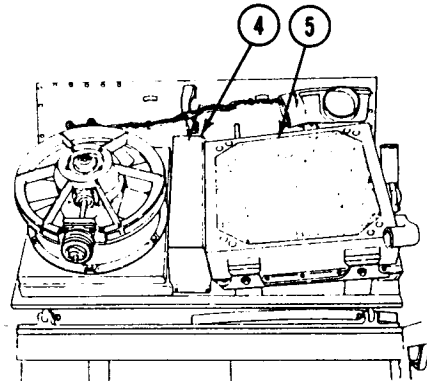
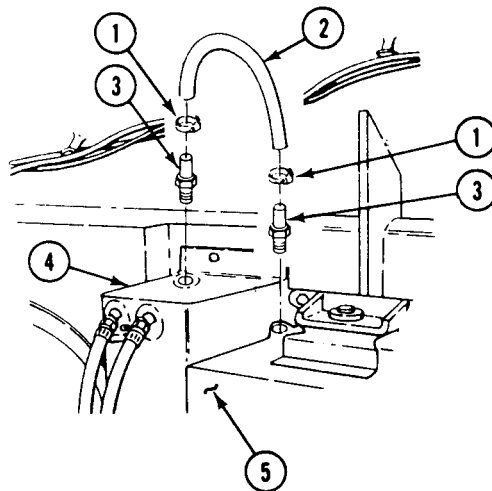
Power plant grill raised (WP 0130 00)

Materials/Parts

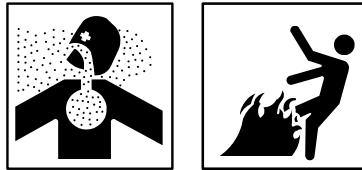
Sealing compound (WP 0782 00, Item 60)

REMOVAL

1. Remove two clamps (1) and hose (2) from two adapters (3).
2. Remove two adapters (3) from auxiliary tank (4) and radiator (5).



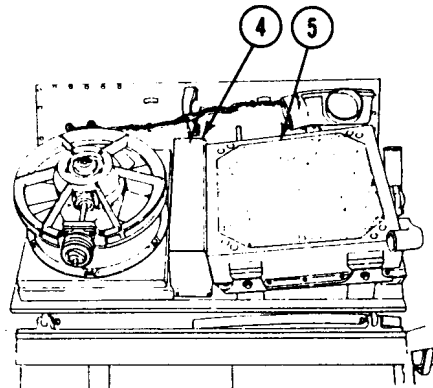
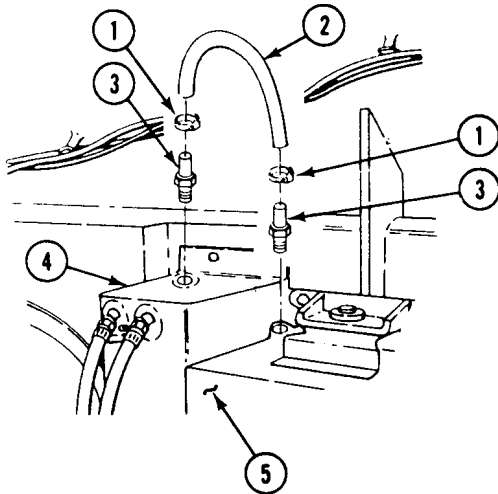
INSTALLATION

WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

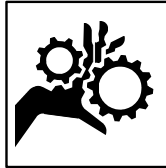
1. Apply a thin, even coat of sealing compound to external threads of two adapters (3).
2. Install two adapters (3) in auxiliary tank (4) and radiator (5).
3. Secure hose (2) to two adapters (3) with two clamps (1).



FOLLOW-THROUGH STEPS

1. Lower power plant grill (WP 0130 00).

WARNING



Wearing loose clothing around moving parts can allow personnel to get caught and cause injury or death. Tuck in loose clothing.

2. Start engine (see your -10). Check for leaks.
3. Stop/shutdown engine (see your -10).
4. Close power plant door (see your -10).

END OF TASK

REPLACE AUXILIARY TANK DEAERATION HOSES

0209 00

THIS WORK PACKAGE COVERS:

Removal (page 0209 00-1).
 Installation (page 0209 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Personnel Required

Unit Mechanic

Equipment Condition

Engine stopped/shutdown (see your -10)

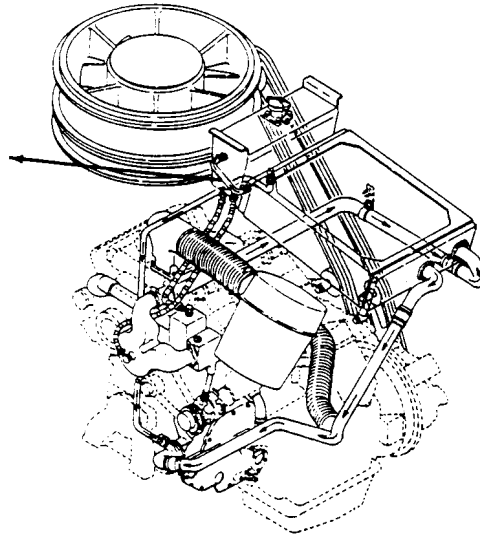
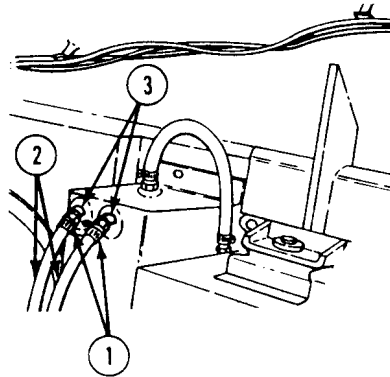
Carrier blocked (see your -10)

Trim vane lowered and power plant front access door open (see your -10)

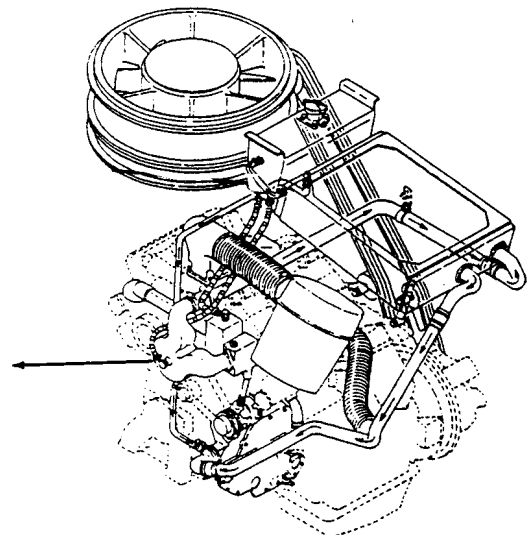
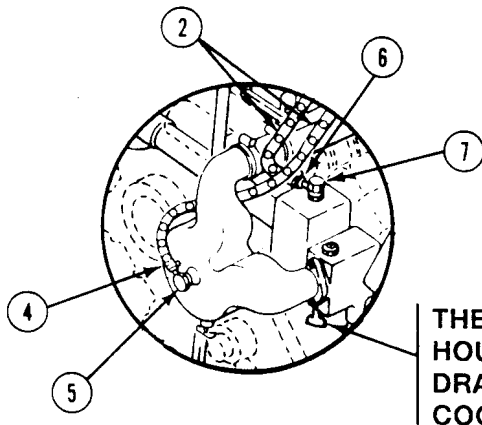
Coolant drained (WP 0193 00)

REMOVAL

1. Remove two clamps (1) and two deaeration hoses (2) from two elbows (3).



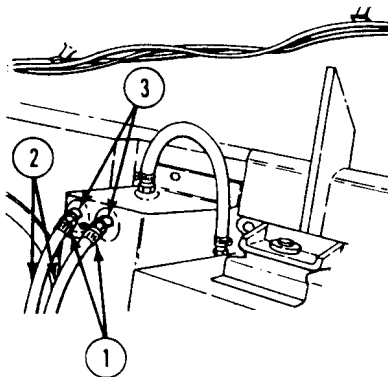
2. Remove clamp (4) from elbow (5), and clamp (6) from elbow (7).



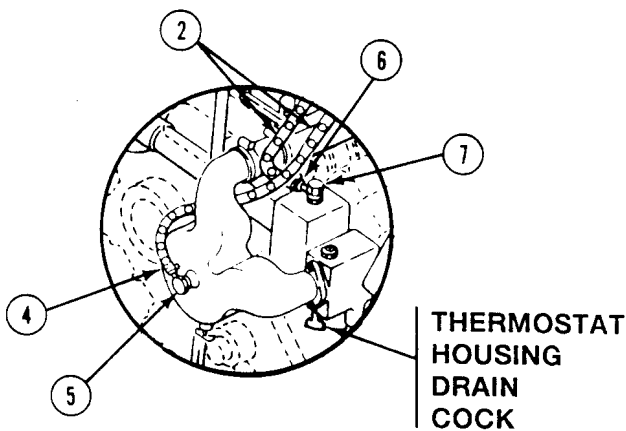
3. Remove two hoses from carrier.

INSTALLATION

1. Secure two hoses (2) to elbows (3) with clamps (1).

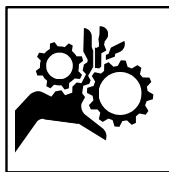


2. Secure two hoses (2) to elbows (5) and (7) with clamps (4) and (6).



FOLLOW-THROUGH STEPS

WARNING



Wearing loose clothing around moving parts can allow personnel to get caught and cause injury or death. Tuck in loose clothing.

1. Fill cooling system (WP 0194 00).
2. Start engine (see your -10). Check for leaks.
3. Stop/shutdown engine (see your -10).
4. Close power plant front access door and raise trim vane (see your -10).

END OF TASK

REPLACE COMBAT FILLER COVER AND LOCK

0210 00

THIS WORK PACKAGE COVERS:

Removal (page 0210 00-1).
 Installation (page 0210 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

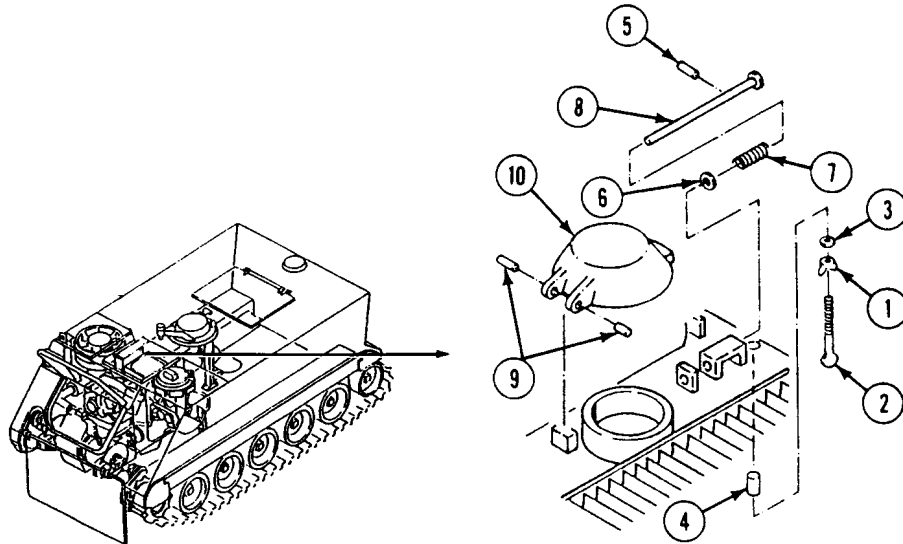
Power plant rear access panel removed (WP 0431 00,
 WP 0432 00, or WP 0433 00)

Materials/Parts

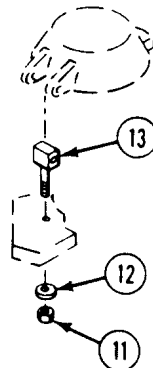
Locknut (M1068 and M577A2 only)
 Spring pin (3)

REMOVAL

1. Loosen wing nut (1). Remove thumbscrew (2), washer (3), and spacer (4) from power plant grill.
2. Remove spring pin (5), washer (6), spring (7), and pin (8) from power plant grill. Discard spring pin.
3. Remove two spring pins (9) and cover (10) from power plant grill. Discard spring pins.

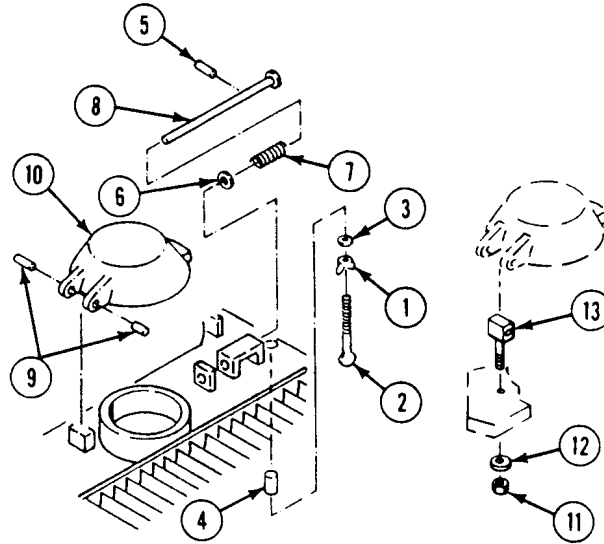


4. On M1068 and M577A2 only, remove locknut (11), washer (12), and rod end (13) from power plant grill. Discard locknut.



INSTALLATION

1. Secure cover (10) to power plant grill with two new spring pins (9).
2. Install pin (8) in power plant grill. Secure with spring (7), washer (6), and new spring pin (5).
3. Install wing nut (1), washer (3), and spacer (4) on thumbscrew (2).
4. On M1068 and M577A2 only, secure rod end (13) to power plant grill with washer (12) and new locknut (11).
5. Install thumbscrew (2) in power plant grill.

**FOLLOW-THROUGH STEPS**

1. Install power plant rear access panel (WP 0431 00, WP 0432 00, or WP 0433 00).

END OF TASK

REPLACE FAN DRIVE BELTS

0211 00

THIS WORK PACKAGE COVERS:

- Removal (page 0211 00-1).
- Installation (page 0211 00-2).
- Adjustment (page 0211 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

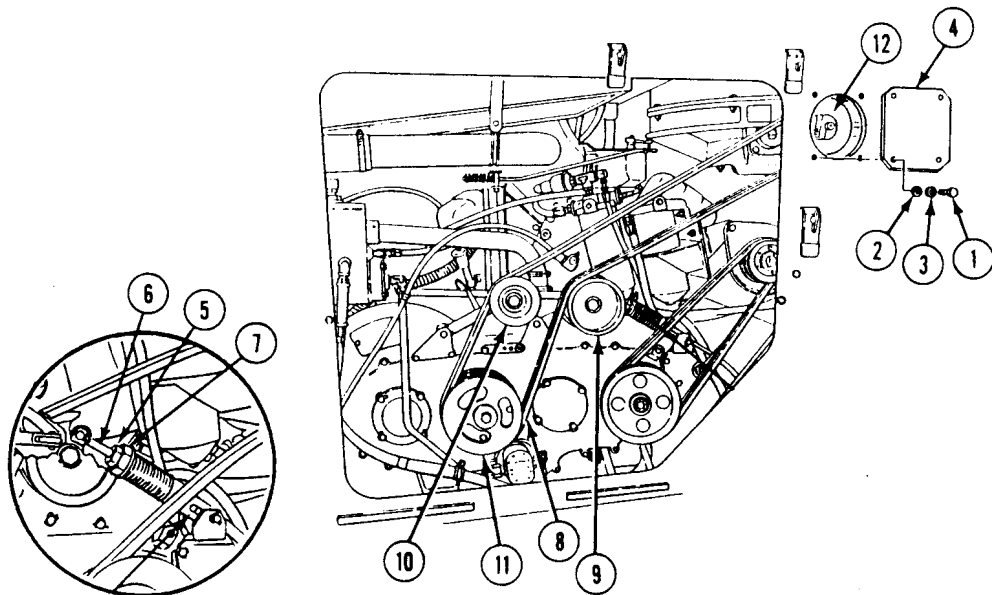
Power plant rear access panel removed (WP 0431 00, WP 0432 00, or WP 0433 00)

Materials/Parts

Lockwasher (4)

REMOVAL

1. Remove four screws (1), flat washers (2), lockwashers (3), and fan pulley access cover (4) from power plant compartment rear bulkhead. Discard lockwashers.
2. Loosen locknut (5) that secures rod end (6) to adjusting nut (7).
3. Turn adjusting nut (7) counterclockwise to loosen drive belts (8).
4. Remove drive belts (8) from idler pulleys (9) and (10) and fan pulleys (11) and (12).

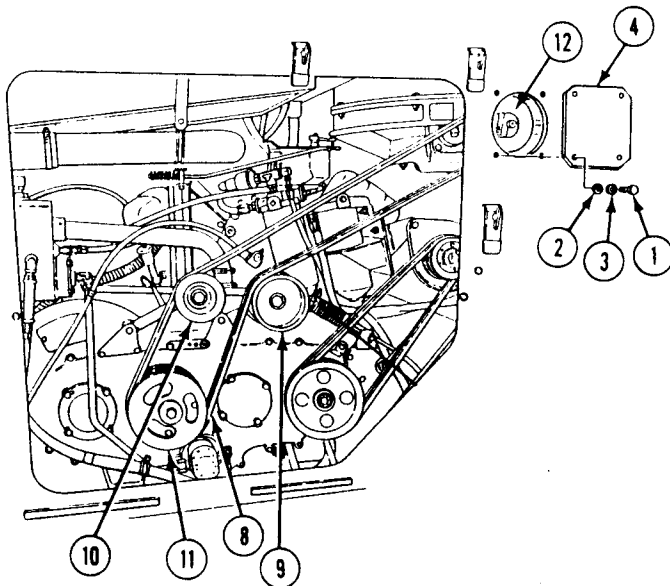


INSTALLATION

NOTE

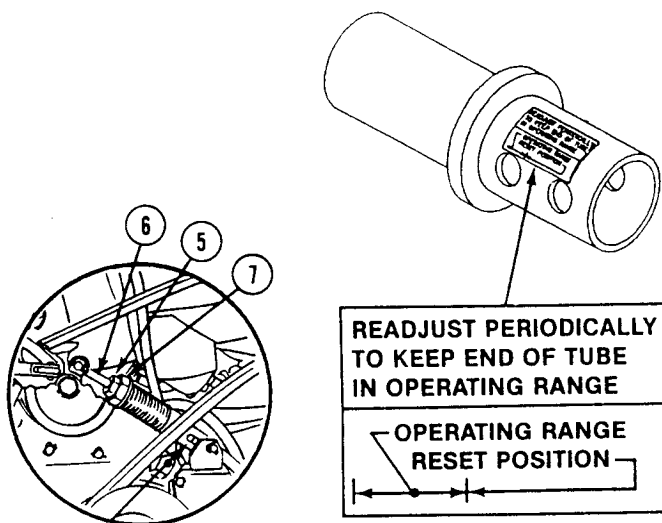
Fan drive belts are to be replaced in matched sets.

1. Install drive belts (8) on fan pulleys (11) and (12) and idler pulleys (9) and (10).
2. Install fan pulley access cover (4) on power plant compartment rear bulkhead. Secure with four screws (1), flat washers (2), and new lockwashers (3).

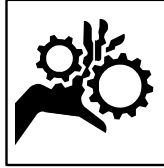


ADJUSTMENT

1. Loosen locknut (5), if necessary, and turn adjusting nut (7) left or right until lower end of rod (6) is within operating range. Tighten locknut.



FOLLOW-THROUGH STEPS

WARNING

Wearing loose clothing around moving parts can allow personnel to get caught and cause injury or death. Tuck in loose clothing.

1. Start engine (see your -10). Check for belt slippage.
2. Stop/shutdown engine (see your -10).
3. Check drive belts for proper tension (see your -10).
4. Install power plant rear access panel (WP 0431 00, WP 0432 00, or WP 0433 00).

END OF TASK

REPLACE FAN DRIVE FIXED IDLER AND PULLEY

0212 00

THIS WORK PACKAGE COVERS:

Removal (page 0212 00-1).
 Installation (page 0212 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

WP 0211 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Snap Ring Pliers (WP 0780 00, Item 45)
 Torque Wrench (WP 0780 00, Item 104)

Equipment Condition

Engine stopped/shutdown (see your -10)
 Ramp lowered (see your -10)
 Power plant rear access panel removed (WP 0431 00,
 WP 0432 00, or WP 0433 00)

Materials/Parts

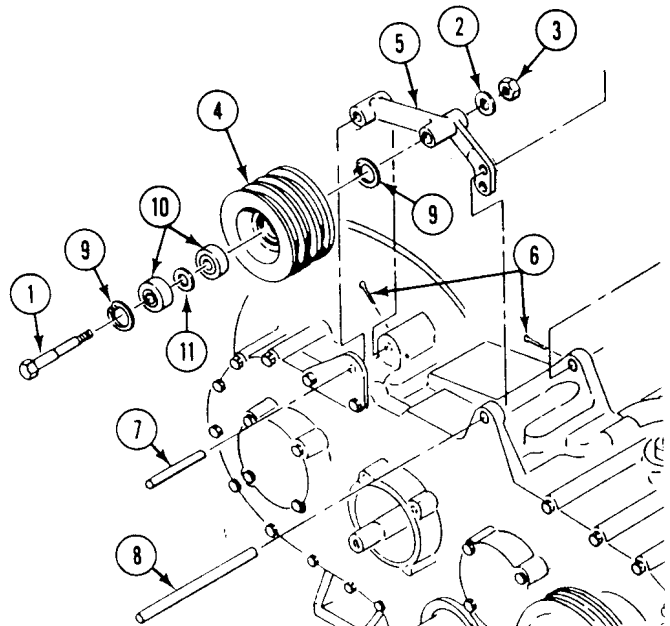
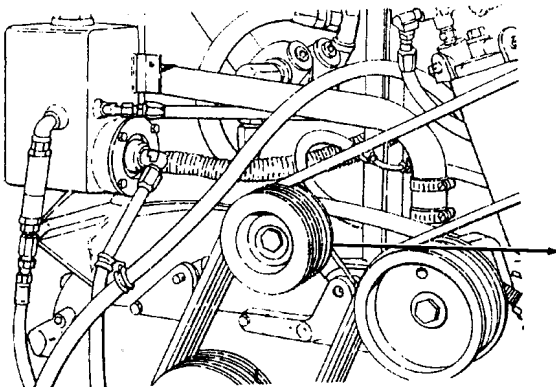
Cotter pin (2)

Personnel Required

Unit Mechanic

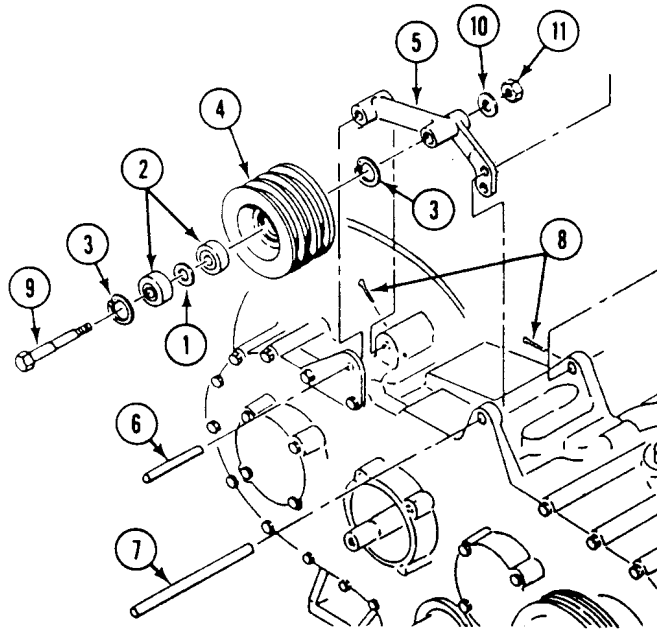
REMOVAL

1. Remove fan drive belts (WP 0211 00).
2. Remove bolt (1), washer (2), nut (3), and idler pulley (4) from idler arm (5).
3. Remove two cotter pins (6), straight pins (7) and (8), and idler arm (5) from transfer gearcase. Discard cotter pins.
4. Remove two retaining rings (9), bearings (10), and spacer (11) from idler pulley (4).

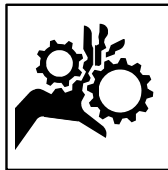


INSTALLATION

1. Install spacer (1), two bearings (2), and retaining rings (3) in pulley (4). Use snap ring pliers.
2. Secure idler arm (5) to transfer gearcase with two straight pins (6) and (7) and new cotter pins (8).
3. Secure pulley (4) to idler arm (5) with screw (9), washer (10), and nut (11). TIGHTEN NUT TO 50-55 LB-FT (68-77 N·M) TORQUE. Use torque wrench.



4. Install and adjust fan drive belts (WP 0211 00).

FOLLOW-THROUGH STEPS**WARNING**

Wearing loose clothing around moving parts can allow personnel to get caught and cause injury or death. Tuck in loose clothing.

1. Start engine (see your -10). Check fixed idler pulley and fan drive belts for proper operation.
2. Stop/shutdown engine (see your -10).
3. Install power plant rear access panel (WP 0431 00, WP 0432 00, or WP 0433 00).

END OF TASK

REPLACE FAN DRIVE ADJUSTABLE IDLER AND PULLEY

0213 00

THIS WORK PACKAGE COVERS:

Removal (page 0213 00-1).
 Installation (page 0213 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

WP 0211 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Snap Ring Pliers (WP 0780 00, Item 45)
 Torque Wrench (WP 0780 00, Item 104)

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Ramp lowered (see your -10)
 Power plant rear access panel removed (WP 0431 00,
 WP 0432 00, or WP 0433 00)

Materials/Parts

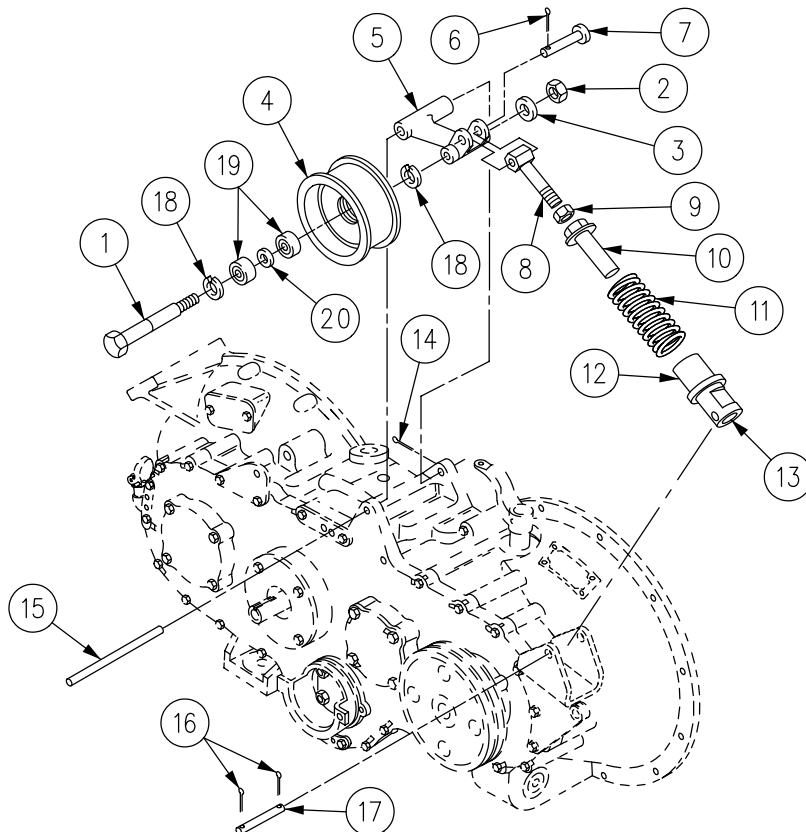
Cotter pin (4)

Personnel Required

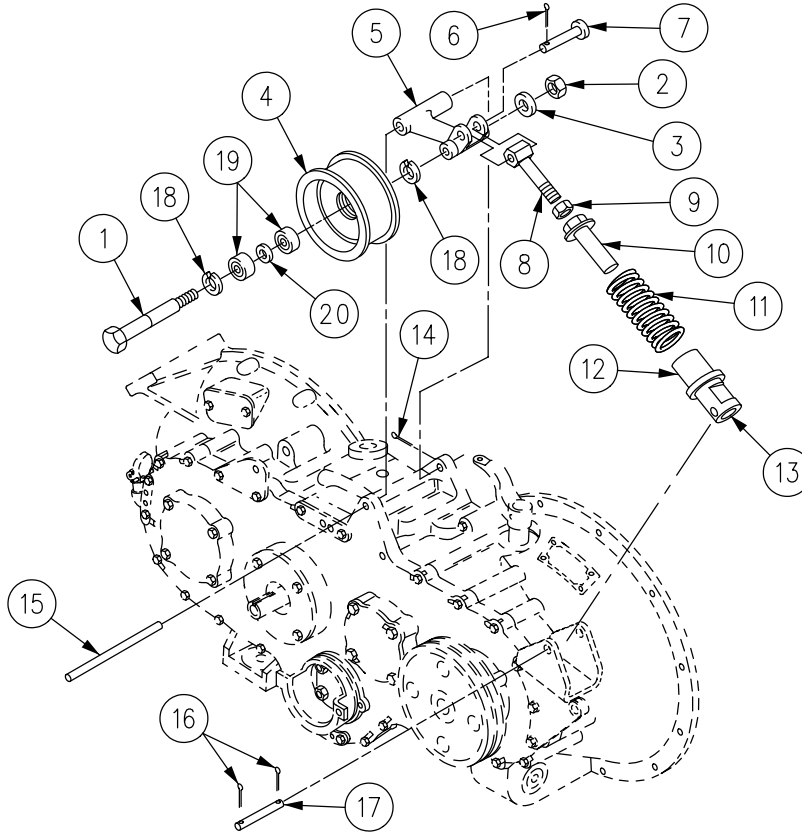
Unit Mechanic

REMOVAL

1. Remove fan drive belts (WP 0211 00).
2. Remove bolt (1), nut (2), washer (3), and fan idler pulley (4) from idler pulley arm (5).
3. Remove cotter pin (6), headed pin (7), and adjustable rod end (8) from idler pulley arm (5). Discard cotter pin.
4. Loosen nut (9). Remove rod end (8) and nut (9) from adjusting nut (10).



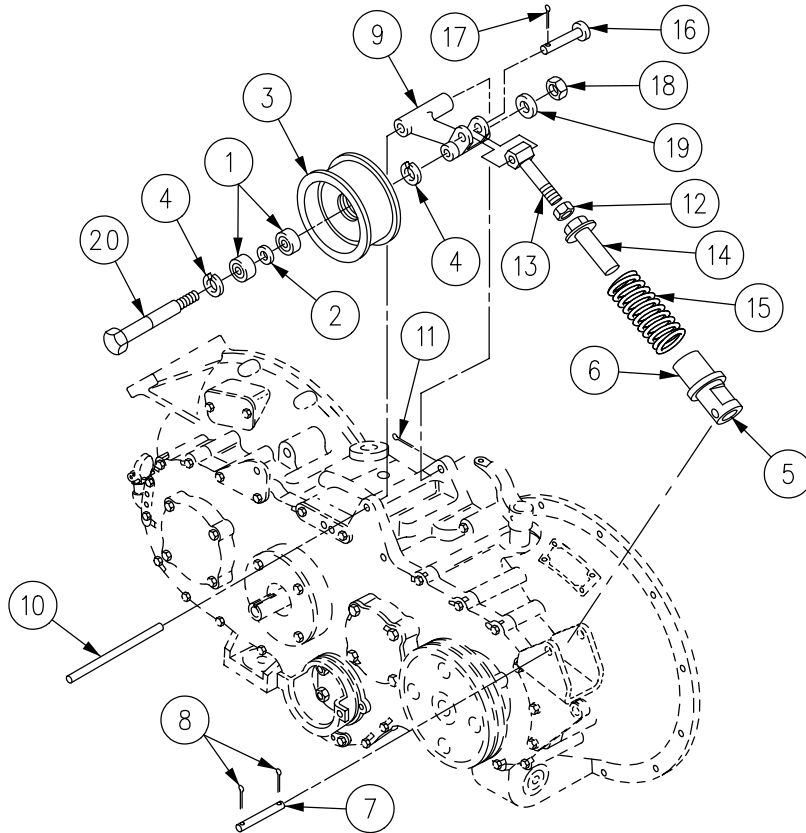
5. Remove nut (10) and spring (11) from adjusting sleeve (12).
6. Remove decal (13) from adjusting sleeve (12) only if replacement is required.
7. Remove cotter pin (14), straight pin (15), and arm (5) from transfer gearcase. Discard cotter pin.
8. Remove two cotter pins (16), straight pin (17), and sleeve (12) from transfer gearcase. Discard cotter pins.
9. Remove two retaining rings (18), bearings (19), and spacer (20) from pulley (4).



INSTALLATION

1. Install two bearings (1) and spacer (2) in pulley (3). Secure with two retaining rings (4). Use snap ring pliers.
2. Install new decal (5) (WP 0511 00) on adjusting sleeve (6) if required.
3. Secure sleeve (6) to transfer gearcase with straight pin (7) and two new cotter pins (8).
4. Secure idler pulley arm (9) to transfer gearcase with straight pin (10) and new cotter pin (11).
5. Install nut (12) on rod end (13).
6. Install adjusting nut (14) and spring (15) on sleeve (6).
7. Install rod end (13) in nut (14).
8. Secure rod end (13) to idler pulley arm (9) with pin (16) and new cotter pin (17).

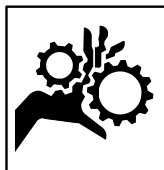
9. Secure fan idler pulley (3) to arm (9) with nut (18), washer (19), and bolt (20). TIGHTEN NUT TO 50-55 LB-FT (68-75 N·M) TORQUE. Use torque wrench.



10. Install and adjust fan drive belts (WP 0211 00).

FOLLOW-THROUGH STEPS

WARNING



Wearing loose clothing around moving parts can allow personnel to get caught and cause injury or death. Tuck in loose clothing.

1. Start engine (see your -10). Check adjustable idler and fan drive belts for proper operation.
2. Raise and lock ramp (see your -10).
3. Engine stopped/shutdown (see your -10).
4. Install power plant rear access panel (WP 0431 00, WP 0432 00, or WP 0433 00).

END OF TASK

REPLACE FAN DRIVE PULLEY AND ACCESS COVER

0214 00

THIS WORK PACKAGE COVERS:

Removal (page 0214 00-1).
 Installation (page 0214 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

WP 0211 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Torque Wrench Adapter (WP 0780 00, Item 8)
 Torque Wrench (WP 0780 00, Item 102)

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Power plant rear access panel removed (WP 0431 00,
 WP 0432 00, or WP 0433 00)

Materials/Parts

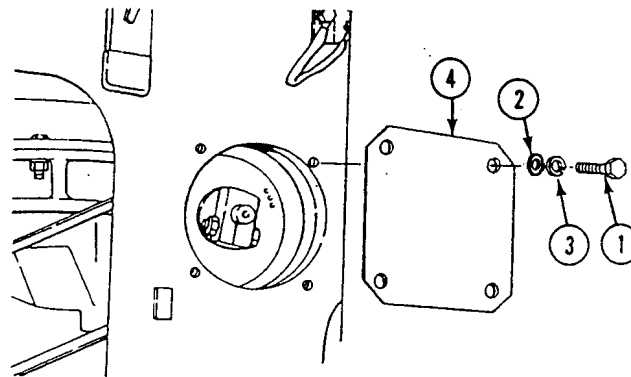
Lockwasher (4)

Personnel Required

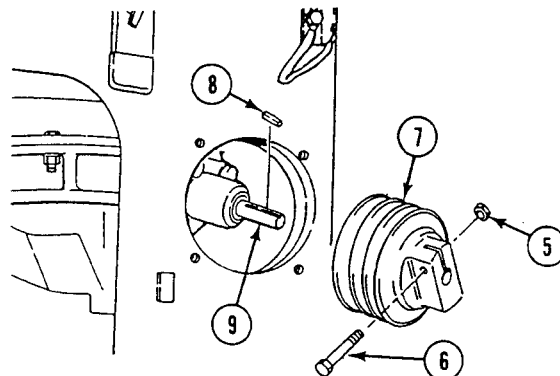
Unit Mechanic

REMOVAL

1. Remove four screws (1), flat washers (2), lockwashers (3), and fan pulley access cover (4) from power plant compartment rear bulkhead. Discard lockwashers.



2. Remove fan drive belts (WP 0211 00).
3. Remove nut (5), screw (6), pulley (7), and key (8) from shaft (9).

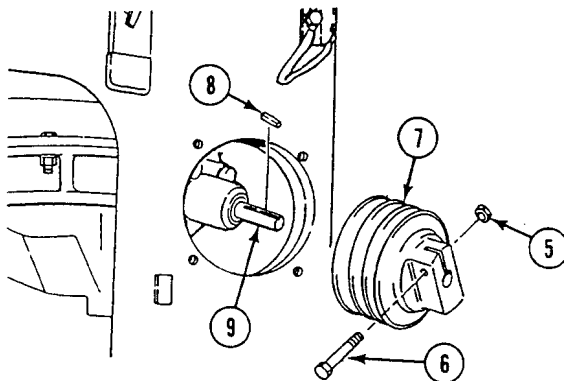


INSTALLATION

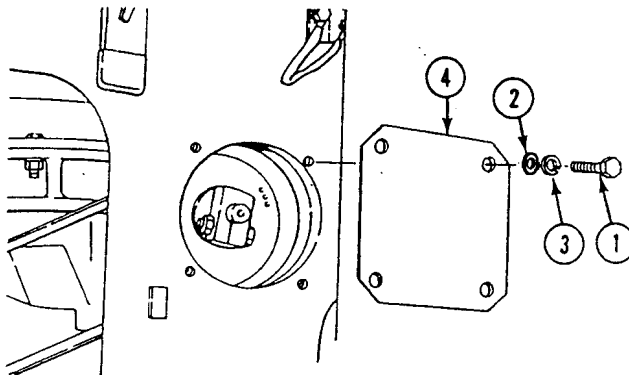
NOTE

Place pulley (7) on fan shaft (9) with the bolt and nut facing down as shown. Install key (8) making sure key is flush with ends of pulley and fan shaft. This will insure proper alignment and pulley balance.

1. Install key (8) and pulley (7) on fan shaft (9). Secure with screw (6) and nut (5) in pulley hub. Do not tighten nut (5) at this time.
2. Install and adjust fan drive belts (WP 0211 00).
3. Align groove of pulley (7) with grooves of idler pulley and fan drive pulley.
4. USING TORQUE WRENCH ADAPTER, TIGHTEN NUT (5) TO 300-360 LB-IN (34-41 N·M) TORQUE. Use torque wrench.



5. Secure cover (4) to power plant compartment rear bulkhead with four flat washers (2), new lockwashers (3), and screws (1).



FOLLOW-THROUGH STEPS

1. Install power plant rear access panel (WP 0431 00, WP 0432 00, or WP 0433 00).

END OF TASK

REPLACE DRAIN CAP AND SIGHT GAUGE

0215 00

THIS WORK PACKAGE COVERS:

Removal (page 0215 00-1).
 Installation (page 0215 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Torque Wrench (WP 0780 00, Item 106)

Equipment Condition

Engine stopped/shutdown (see your -10)
 Power plant rear access panel removed (WP 0431 00,
 WP 0432 00, or WP 0433 00)
 Carrier blocked (see your -10)

Materials/Parts

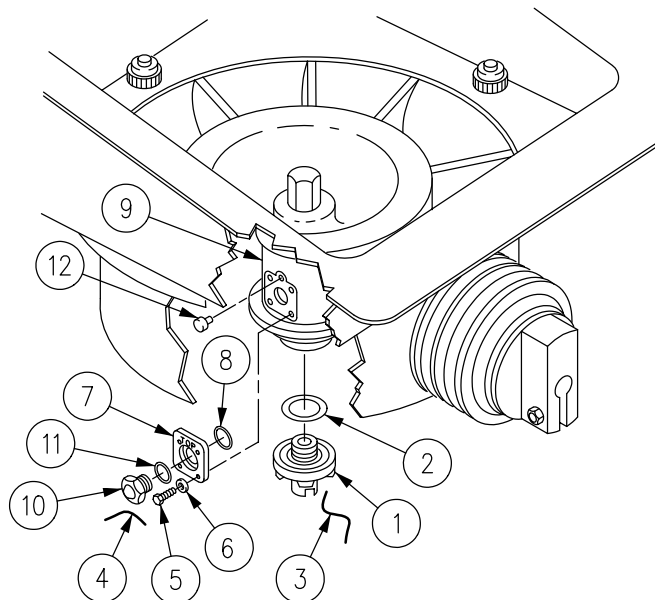
Antiseize compound (WP 0782 00, Item 8)
 Non-electrical wire (WP 0782 00, Item 40)
 Packing (3)
 Suitable container

REMOVAL

NOTE

Carrier may have a flat sight glass or a bubble sight glass. To remove flat sight glass, perform REMOVAL Steps 1 - 2. To remove bubble sight glass, perform REMOVAL Steps 1 - 3.

1. Place suitable container under drain cap (1). Remove cap, packing (2), and lockwire (3), and drain oil. Discard wire and packing.
2. Remove lockwire (4), four screws (5), washers (6), cover (7), and packing (8) from fan gearbox (9). Discard lockwire and packing.
3. Remove sight glass (10) and packing (11) from cover (7). Discard packing.
4. Remove filler plug (12) from fan gearbox (9).



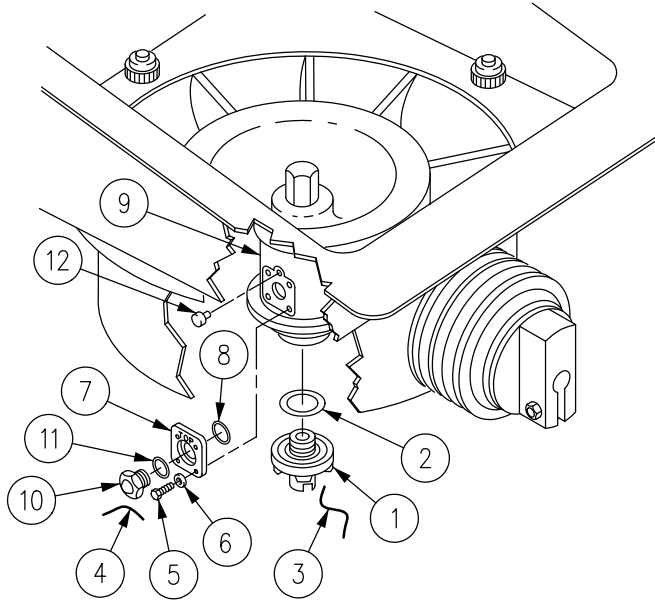
INSTALLATION

1. Install new packing (2) in fan gearbox (9).
2. Install drain cap (1) on fan gearbox (9).
3. Install new lockwire (3) through drain cap (1) and fan gearbox (9). Twist lockwire.
4. Apply antiseize compound to threads of screws (5) and plug (12).
5. Fill fan gearbox with oil.
6. Install plug (12) in fan gearbox (9).

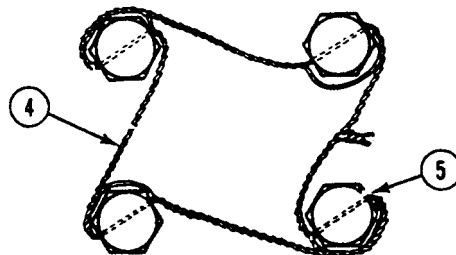
NOTE

Carrier may have a flat sight glass or a bubble sight glass. To install bubble sight glass, perform INSTALLATION Steps 7 - 9. To install flat sight glass, perform INSTALLATION Step 9.

7. Install new packing (11) on cover (7).
8. Apply a thin coat of antiseize compound to threads of sight glass (10) and install on cover (7).
9. Install new packing (8) and cover (7) on fan gearbox (9). Secure with four washers (6) and screws (5). **TIGHTEN SCREWS TO 42-48 LB-IN (4.7-5.4 N·M) TORQUE.** Use torque wrench.

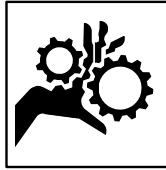


10. Secure four screws (5) with new lockwire (4). Double twist lockwire as shown below.



FOLLOW-THROUGH STEPS

WARNING



Wearing loose clothing around moving parts can allow personnel to get caught and cause injury or death. Tuck in loose clothing.

1. Start engine and check fan for proper operation (see your -10).
2. Stop/shutdown engine (see your -10).
3. Install power plant rear access panel (WP 0431 00, WP 0432 00, or WP 0433 00).

END OF TASK

REPLACE COOLING FAN ASSEMBLY

0216 00

THIS WORK PACKAGE COVERS:

Removal (page 0216 00-1).
 Installation (page 0216 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

Endless Sling (WP 0780 00, Item 66)
 General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Socket Wrench Set (WP 0780 00, Item 96)
 Torque Wrench (WP 0780 00, Item 102)
 Lifting Device

References

WP 0120 00
 WP 0214 00

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Power plant grill raised (WP 0130 00)

Materials/Parts

Decal, if needed
 Suitable container

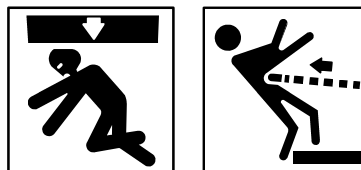
REMOVAL

WARNING



Cooling fan is heavy and can cause back injury if handled improperly. Be sure to use a hoist or helper to remove cooling fan.

WARNING



Damaged slings can fail when loaded. Breaking slings can strike and injure personnel. Suspended load can fall and crush personnel.

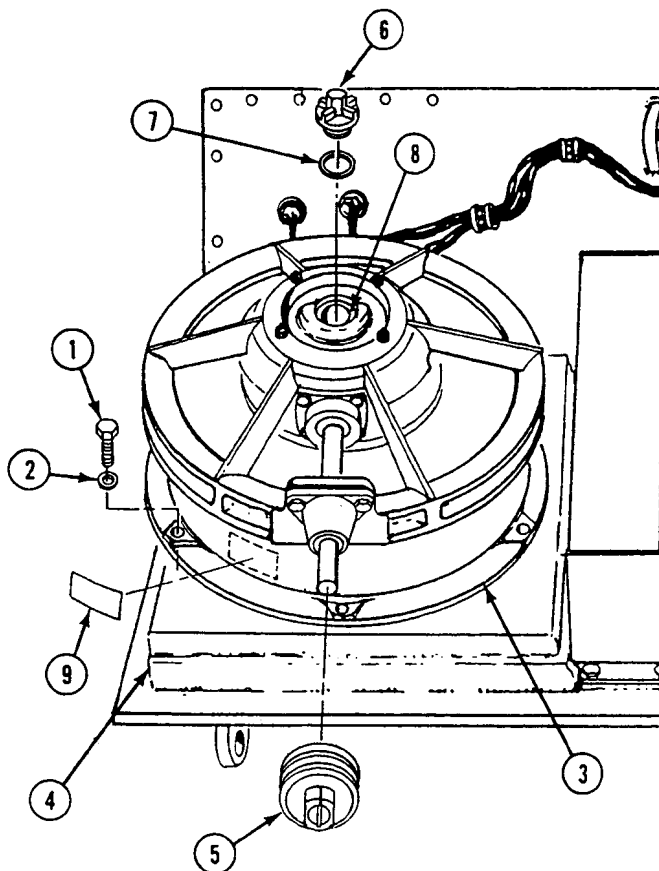
Inspect all slings before use. Do not use damaged slings. Clearly mark all damaged slings as DAMAGED - DO NOT USE.

WARNING

Hanging loads, heavy parts, and overhead equipment can fall unexpectedly and kill or injure you.

Stay clear of hanging loads, heavy parts, and overhead equipment. Use correct lifting devices. Always have helper guide heavy parts and equipment.

1. Attach sling and suitable lifting device of at least 150 lbs (45 kg) capacity to fan assembly.
2. Remove six screws (1) and washers (2) securing fan assembly (3) to power plant grill (4).
3. Lift fan assembly (3) from power plant grill (4) and place fan assembly on work bench or a flat wooden board.
4. Remove fan drive pulley (5) from fan assembly (3) (WP 0214 00).
5. Remove plug (6) and packing (7) from fan drive right angle gearbox (8). Use suitable container and drain gearbox (WP 0120 00).
6. If decal (9) is damaged or unreadable, remove it.

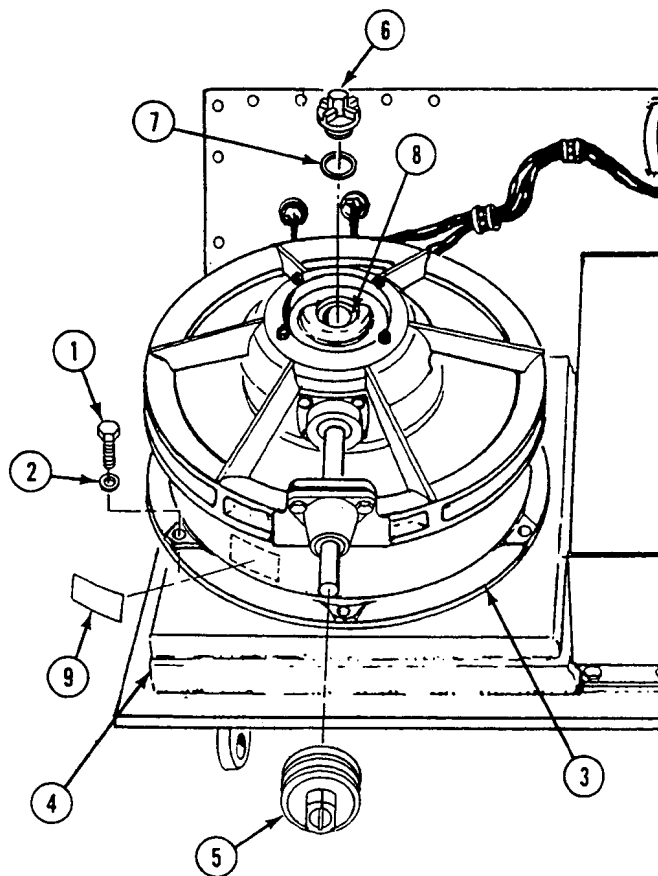


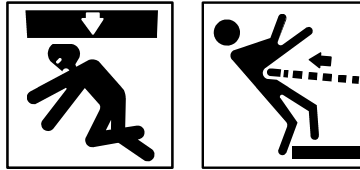
INSTALLATION

WARNING

Cooling fan is heavy and can cause back injury if handled improperly. Be sure to use a hoist or helper to install cooling fan.

1. Fill fan drive right angle gearbox (8), if required (WP 0120 00).
2. Install packing (7) and plug (6) on fan drive right angle gearbox (8).
3. Install fan drive pulley (5) on fan assembly (3) (WP 0214 00).



WARNING

Damaged slings can fail when loaded. Breaking slings can strike and injure personnel. Suspended load can fall and crush personnel.

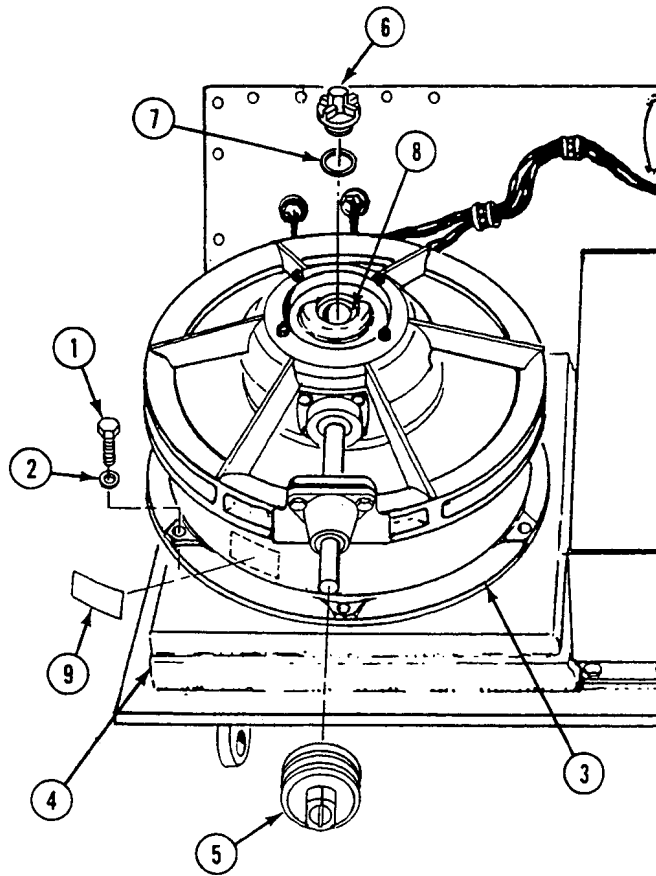
Inspect all slings before use. Do not use damaged slings. Clearly mark all damaged slings as DAMAGED - DO NOT USE.

WARNING

Hanging loads, heavy parts, and overhead equipment can fall unexpectedly and kill or injure you.

Stay clear of hanging loads, heavy parts, and overhead equipment. Use correct lifting devices. Always have helper guide heavy parts and equipment.

4. Attach sling and suitable lifting device of at least 150 lbs (45 kg) capacity to fan assembly. Lift fan assembly (3) and install on power plant grill (4).
5. Install six screws (1) and washers (2). **TIGHTEN SCREWS TO 292-336 LB-IN (33-38 N·M) TORQUE.** Use torque wrench and socket wrench set.
6. If removed, install new decal (9).



FOLLOW-THROUGH STEPS

1. Lower power plant grill (WP 0130 00).

END OF TASK

REPLACE PULLEY DRIVE SHAFT, BEARING, AND HOUSING

0217 00

THIS WORK PACKAGE COVERS:

Removal (page 0217 00-1).
 Installation (page 0217 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Snap Ring Pliers (WP 0780 00, Item 45)
 Torque Wrench (WP 0780 00, Item 102)

Equipment Condition

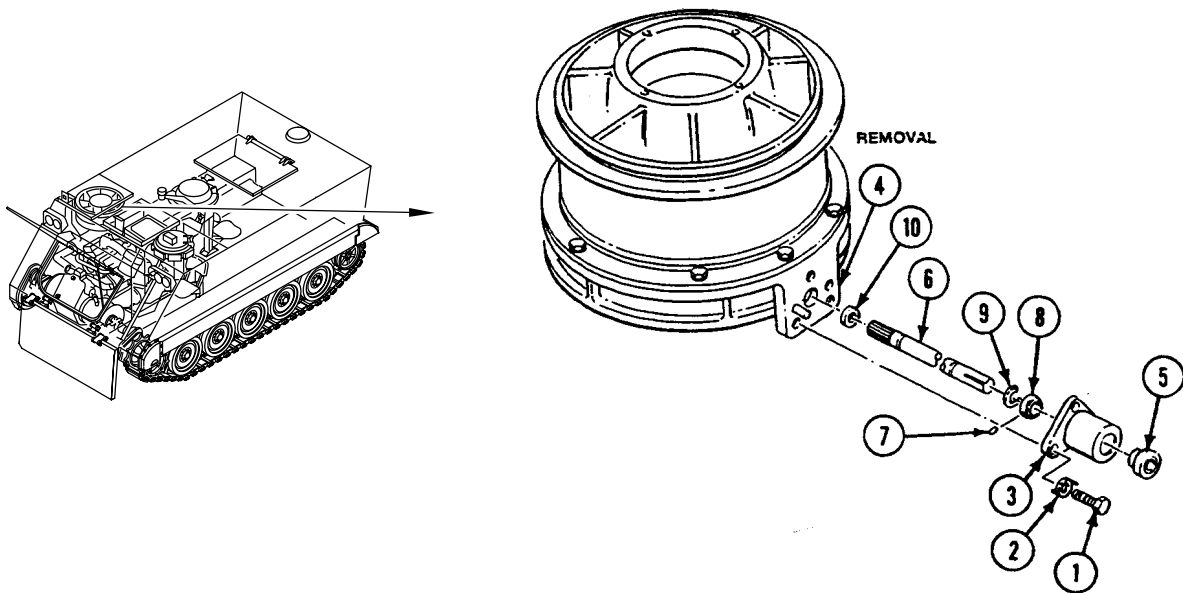
Engine stopped/shutdown (see your -10)
 Ramp lowered (see your -10)
 Power plant rear access panel removed (WP 0431 00,
 WP 0432 00, or WP 0433 00)
 Fan drive belts removed (WP 0211 00)
 Fan pulley access cover removed (WP 0214 00)
 Fan pulley removed from fan drive shaft (WP 0214 00)

Materials/Parts

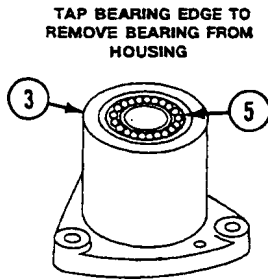
Key washer (3)
 Lockring
 Packing

REMOVAL

1. Remove three screws (1), key washers (2), and housing (3) from support (4). Discard key washers.
2. Remove bearing (5) and drive shaft (6) from housing (3).
3. Loosen setscrew (7) in collar (8) and separate collar from bearing (5).
4. Remove drive shaft (6) from housing (3), bearing (5), and collar (8).
5. Remove lockring (9) and packing (10) from drive shaft (6). Discard packing and lockring.



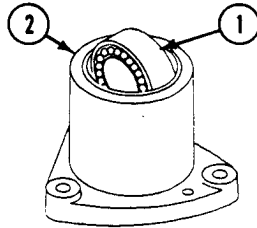
- Remove bearing (5) from housing (3) by tapping bearing on outer edge until the bearing rotates in the housing.



INSTALLATION

- Install bearing (1) in housing (2) and tap outer edge of bearing until seated in housing.

**PLACE BEARING IN HOUSING.
TAP EDGE DOWNWARD TO SEAT
BEARING IN HOUSING**

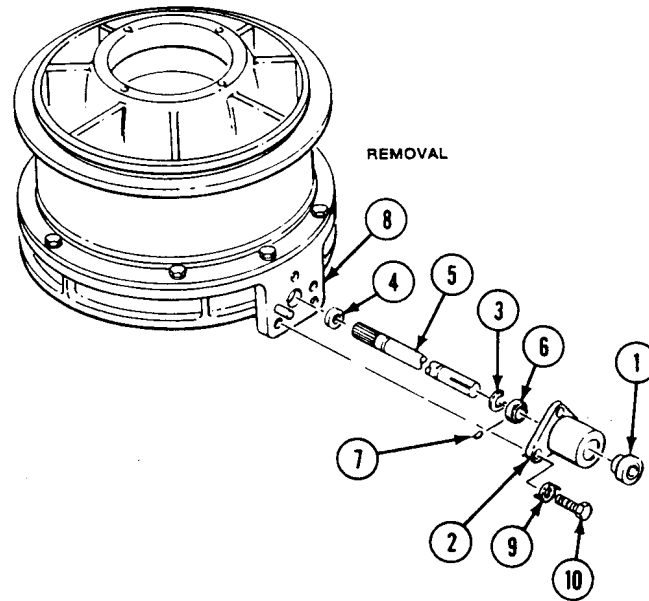


INSTALLATION

- Install new lockring (3) and new packing (4) on drive shaft (5). Use snap ring pliers.
- Slide collar (6), housing (2), and bearing (1) to lockring (3) on drive shaft (5).
- Turn collar (6) onto bearing (1) to lock bearing to drive shaft (5). Tighten setscrew (7) in collar (6).
- Align splines and install drive shaft (5) through support (8) opening into fan gearbox.

REPLACE PULLEY DRIVE SHAFT, BEARING, AND HOUSING — Continued**0217 00**

6. Secure housing (2) to support (8) with three new key washers (9) and screws (10). TIGHTEN SCREWS TO 300-360 LB-IN (34-41 N·M) TORQUE. Use torque wrench.

**FOLLOW-THROUGH STEPS**

1. Install fan pulley (WP 0214 00).
2. Install fan drive belts (WP 0211 00).
3. Install fan pulley access cover (WP 0214 00).
4. Adjust fan drive belt tension (WP 0211 00).
5. Install power plant rear access panel (WP 0431 00, WP 0432 00, or WP 0433 00).
6. Raise and lock ramp (see your -10).
7. Stop/shutdown engine (see your -10).

END OF TASK

CHAPTER 9

UNIT MAINTENANCE INSTRUCTIONS
FOR ELECTRICAL SYSTEM - POWER RECEPTACLES, GENERATOR, AND REGULATOR

WORK PACKAGE INDEX

<u>Title</u>	<u>Sequence No.</u>
REPLACE AUXILIARY POWER (SLAVE) RECEPTACLE (ALL EXCEPT M577A2 AND M1068).....	.0218 00
REPLACE AUXILIARY POWER (SLAVE) RECEPTACLE (M577A2 AND M1068 ONLY).....	.0219 00
REPLACE NATO AUXILIARY POWER (SLAVE) RECEPTACLE (M577A2 AND M1068 ONLY).....	.0220 00
REPLACE MASTER SWITCH ASSEMBLY.....	.0221 00
REPLACE MASTER SWITCH PANEL ASSEMBLY (LATE SLAVE RECEPTACLE) (ALL EXCEPT M577A2 AND M1068).....	.0222 00
REPLACE MASTER SWITCH PANEL ASSEMBLY (EARLY SLAVE RECEPTACLE) (ALL EXCEPT M577A2).....	.0223 00
REPLACE MASTER SWITCH PANEL ASSEMBLY (EARLY SLAVE RECEPTACLE) (M577A2 AND M1068 ONLY).....	.0224 00
REPLACE MASTER SWITCH TO DISTRIBUTION BOX WIRE ASSEMBLY (CIRCUIT 49 LEAD) (ALL EXCEPT M577A2 AND M1068).....	.0225 00
REPLACE GENERATOR DRIVE BELTS (100 AMP GEN ONLY).....	.0226 00
REPLACE GENERATOR AND ADJUSTMENT LINKAGE (100 AMP GENERATOR ONLY).....	.0227 00
REPLACE GENERATOR AND ADJUSTMENT LINKAGE (200 AMP GENERATOR ONLY).....	.0228 00
ADJUST VOLTAGE REGULATOR (100/200 AMP GENERATOR).....	.0229 00
REPLACE REGULATOR ASSEMBLY (100/200 AMP GENERATOR).....	.0230 00
REPLACE GENERATOR-REGULATOR CIRCUIT BREAKER (100 AMP GENERATOR ONLY).....	.0231 00
REPLACE GENERATOR FIELD SWITCH.....	.0232 00
REPLACE FUEL FILTER MOUNTING BRACKET (M577A2 AND M1068 WITH 200 AMP GENERATOR ONLY).....	.0233 00
REPLACE GENERATOR DRIVE BELTS (200 AMP GENERATOR ONLY).....	.0234 00
REPLACE MASTER SWITCH TO DISTRIBUTION BOX WIRE ASSEMBLY (CIRCUIT 49) (M577A2 AND M1068 ONLY).....	.0235 00

REPLACE AUXILIARY POWER (SLAVE) RECEPTACLE (ALL EXCEPT M577A2 AND M1068)

0218 00

THIS WORK PACKAGE COVERS:

- Removal (page 0218 00-1).
- Installation (page 0218 00-4).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

- Engine stopped (see your -10)
- Carrier blocked (see your -10)
- Battery ground lead disconnected (WP 0294 00)

Materials/Parts

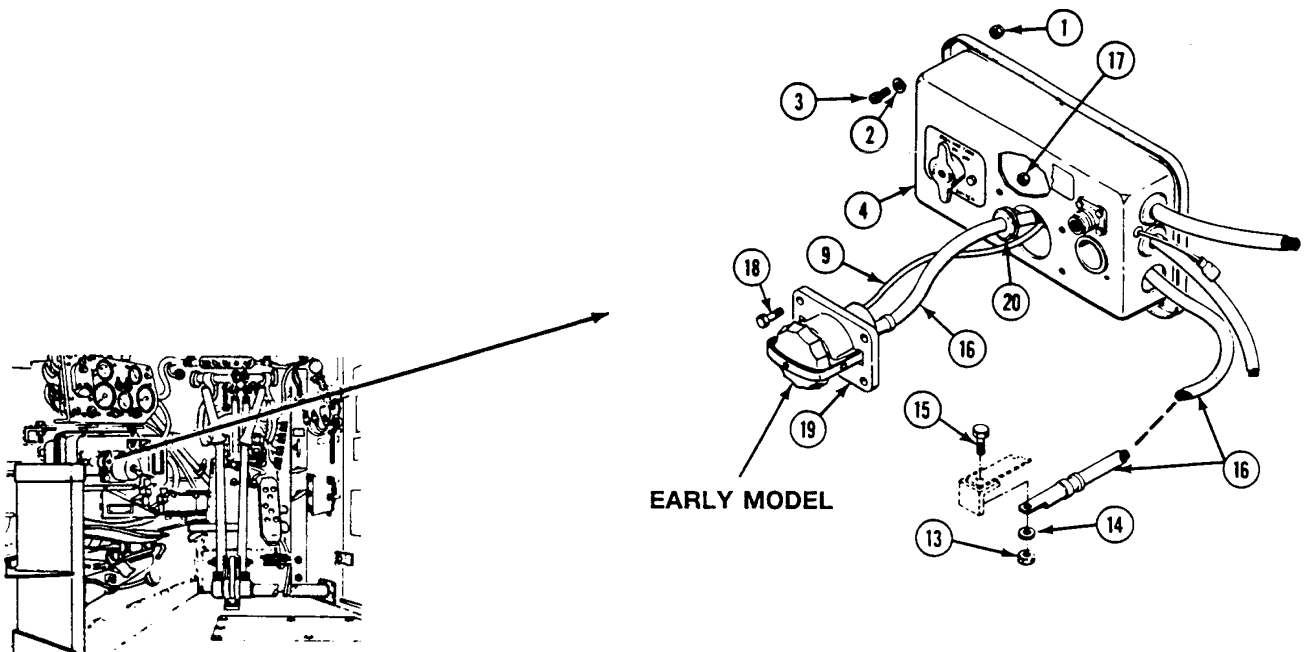
- Gasket
- Grommet
- Lockwasher (early model)
- Lockwasher (late model) (2)
- Locknut (early model) (4)
- Locknut (early model) (8)
- Locknut (late model) (4)
- Locknut (late model) (8)

REMOVAL

NOTE

Steps 1 - 5 tell you how to remove the early model slave receptacles. Steps 6 - 13 tell you how to remove the late model slave receptacles.

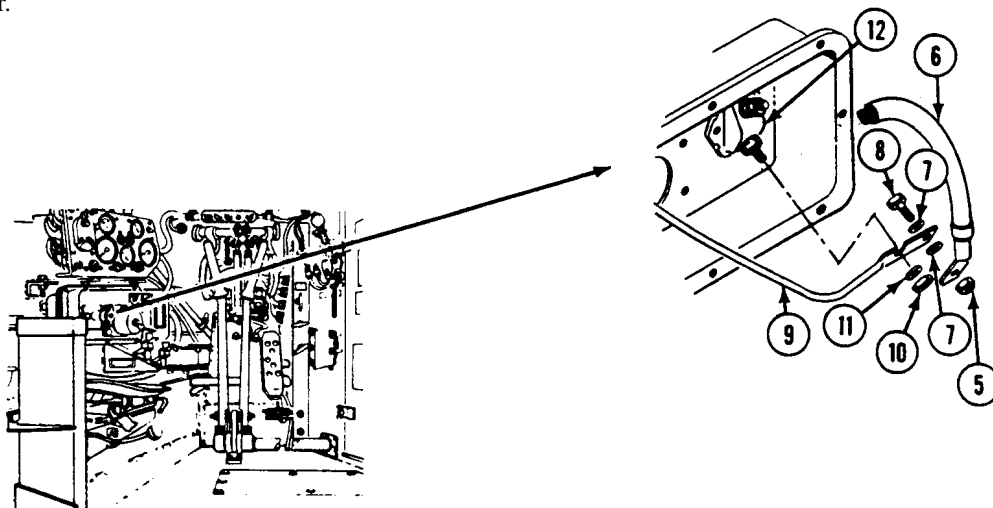
1. Remove eight locknuts (1), washers (2), and screws (3) from master switch panel (4). Pull panel away from distribution box. Discard locknuts.



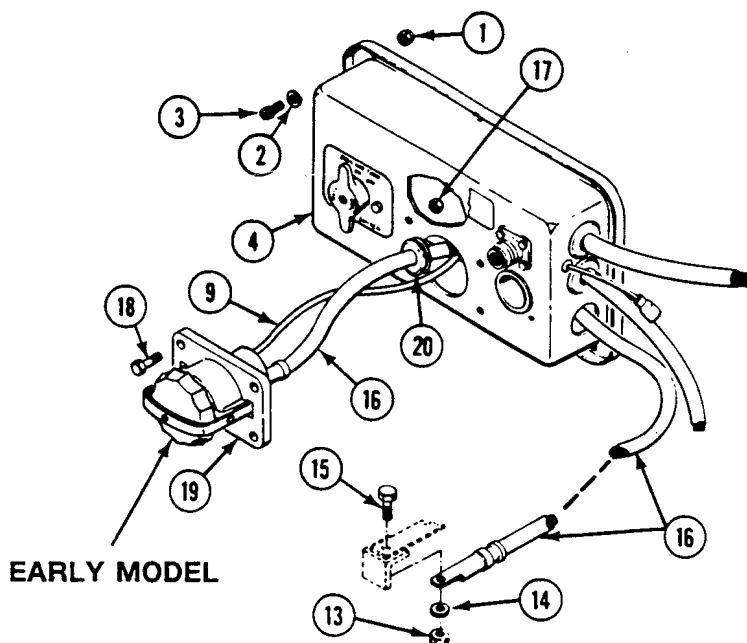
REPLACE AUXILIARY POWER (SLAVE) RECEPTACLE (ALL EXCEPT M577A2 AND M1068) — Continued

0218 00

2. Remove nut (5), circuit 49 lead (6), two washers (7), and screw (8) from terminal on circuit 50 lead (9).
3. Loosen nut (10) and lockwasher (11) on master switch (12). Remove lead (9) from master switch terminal. Discard lockwasher.



4. Remove nut (13), washer (14), screw (15), and ground lead (16) from instrument panel strut hull mount.
5. Remove four nuts (17), screws (18), receptacle (19), and grommet (20) from panel. Remove grommet from ground lead (16). Discard grommet.

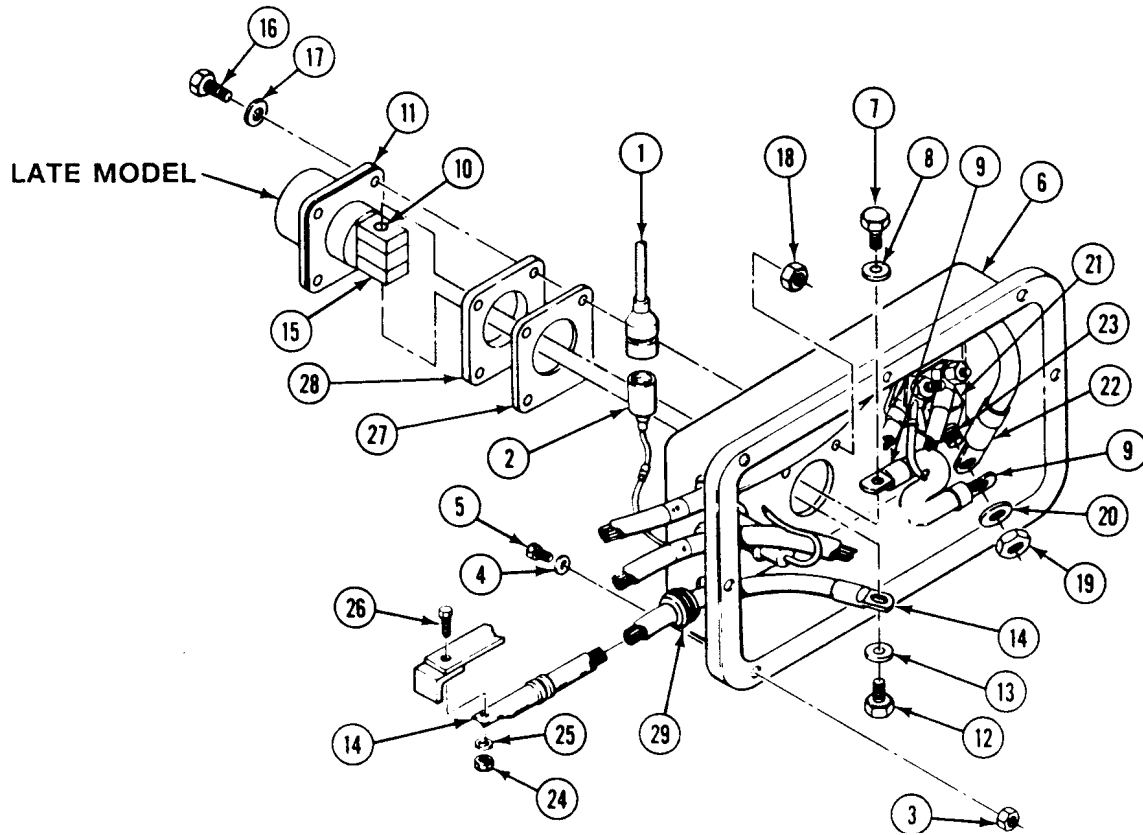


6. Disconnect circuit 37 lead (1) from connector (2).
7. Remove eight locknuts (3), washers (4), and screws (5) from master switch panel (6). Pull panel away from distribution box. Discard locknuts.
8. Remove screw (7), lockwasher (8), and circuit 50 lead (9) from positive post (10) of auxiliary power receptacle (11). Discard lockwasher.
9. Remove screw (12), lockwasher (13), and ground lead (14) from negative post (15) of receptacle (11). Discard lockwasher.

REPLACE AUXILIARY POWER (SLAVE) RECEPTACLE (ALL EXCEPT M577A2 AND M1068) — Continued

0218 00

10. Remove four screws (16), washers (17), locknuts (18), and auxiliary power receptacle (11) from master switch panel (6). Discard locknuts.
11. Remove nut (19) and washer (20) on master switch (21). Remove circuit 50 lead (9) and circuit 49 lead (22) from master switch terminal (23).
12. Remove nut (24), washer (25), screw (26), and ground lead (14) from instrument panel strut hull mount.
13. Remove gasket (27), insulator (28), and grommet (29) from master switch panel (6). Remove grommet from ground lead (14). Discard grommet and gasket.



REPLACE AUXILIARY POWER (SLAVE) RECEPTACLE (ALL EXCEPT M577A2 AND M1068) — Continued

0218 00

INSTALLATION

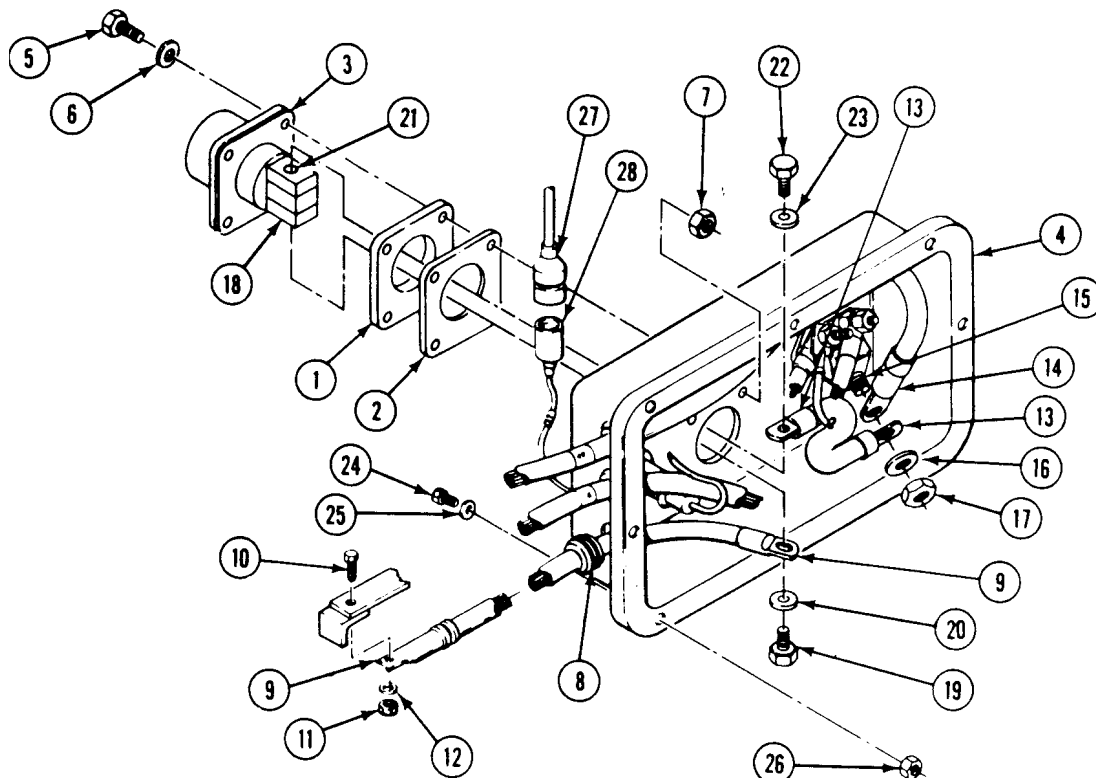
NOTE

Steps 1 - 8 tell you how to install the late model slave receptacles. Steps 9 - 14 tell you how to install the early model slave receptacles.

NOTE

Make sure protective cap retaining cord is attached to receptacle lower mount screw.

1. Install insulator (1), new gasket (2), and auxiliary power receptacle (3) in master switch panel (4). Secure with four screws (5), washers (6), and new locknuts (7).
2. Install new grommet (8) on ground lead (9). Route lead out of master switch panel (4). Install grommet in panel.
3. Place ground lead (9) on instrument panel strut hull mount. Secure with screw (10), washer (12), and nut (11).
4. Install circuit 50 lead (13) and circuit 49 lead (14) on terminal of master switch (15). Secure with washer (16) and nut (17).
5. Install ground lead (9) on negative post (18) of auxiliary power receptacle (3). Secure with screw (19) and new lockwasher (20).
6. Install circuit 50 lead (13) on positive post (21) of auxiliary power receptacle (3). Secure with screw (22) and new lockwasher (23).
7. Install master switch panel (4) on distribution box. Secure with eight screws (24), washers (25), and new locknuts (26).
8. Connect circuit 37 lead (27) to connector (28).



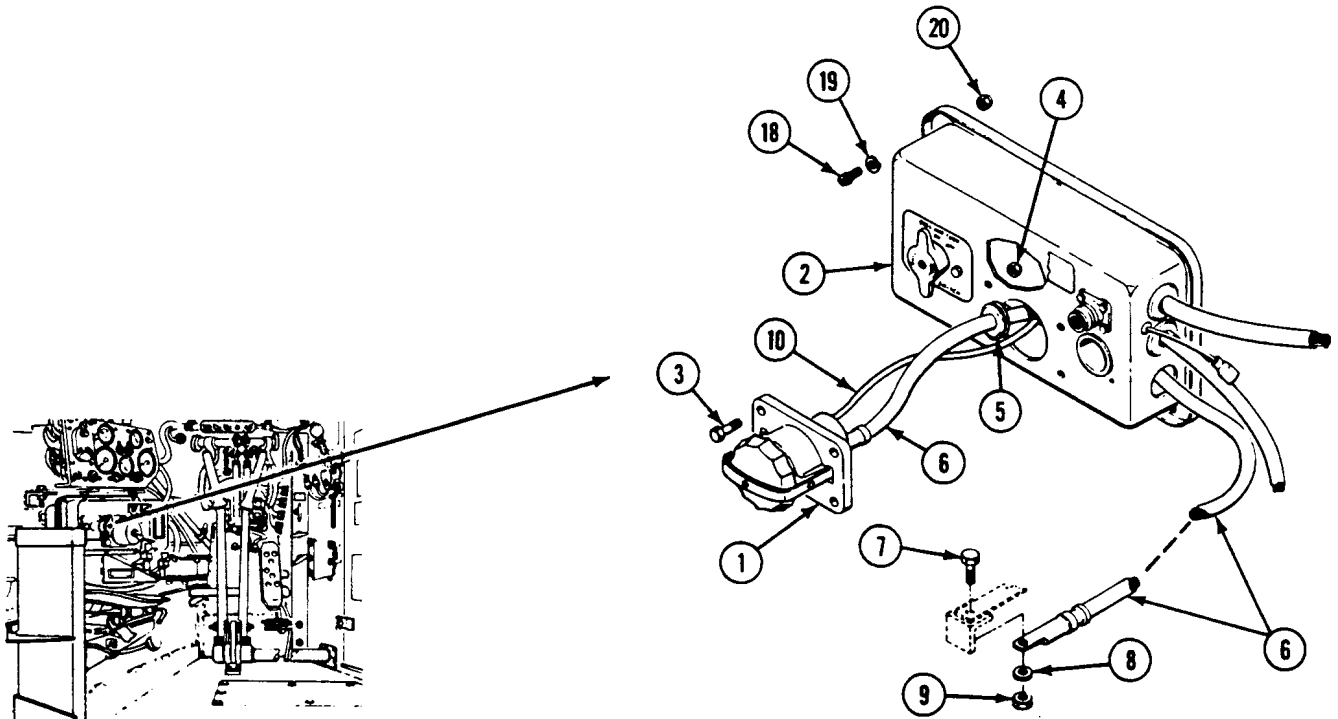
REPLACE AUXILIARY POWER (SLAVE) RECEPTACLE (ALL EXCEPT M577A2 AND M1068) — Continued

0218 00

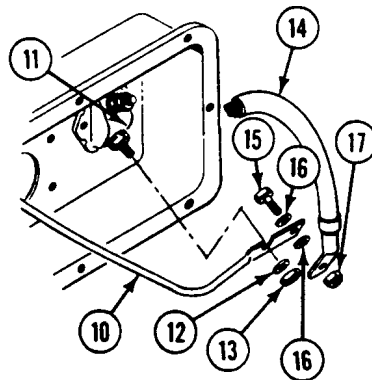
NOTE

Make sure protective cap retaining cord is attached to receptacle lower mount screw.

9. Install power receptacle (1) in master switch panel (2). Secure with four screws (3) and nuts (4).
10. Install new grommet (5) on ground lead (6). Route lead out of panel (2). Install grommet in panel.
11. Place lead (6) on instrument panel strut hull mount. Secure with screw (7), washer (8), and nut (9).



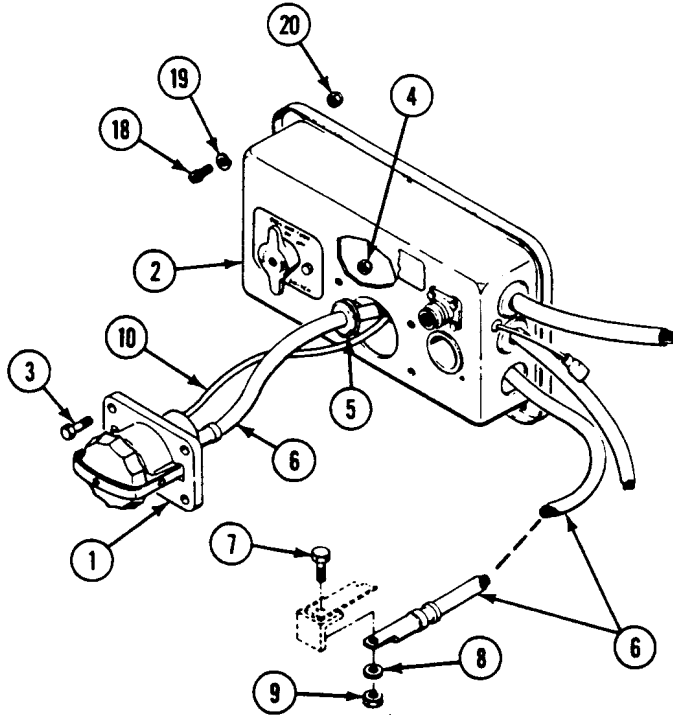
12. Install circuit 50 lead (10) on terminal of master switch (11). Secure with new lockwasher (12) and nut (13).
13. Place circuit 49 lead (14) on terminal on lead (10). Secure with screw (15), two washers (16), and nut (17).



REPLACE AUXILIARY POWER (SLAVE) RECEPTACLE (ALL EXCEPT M577A2 AND M1068) — Continued

0218 00

14. Place master switch panel (2) on distribution box. Secure with eight screws (18), washers (19), and new locknuts (20).



FOLLOW-THROUGH STEPS

1. Connect battery ground lead (WP 0294 00).

END OF TASK

**REPLACE AUXILIARY POWER (SLAVE) RECEPTACLE
(M577A2 AND M1068 ONLY)**

0219 00

THIS WORK PACKAGE COVERS:

- Removal (page 0219 00-1).
 - Installation (page 0219 00-4).
-

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Multimeter (WP 0780 00, Item 43)
- Soldering Torch Kit (WP 0780 00, Item 70)

Materials/Parts

- Solder, tin alloy (WP 0782 00, Item 71)
- Adapter gasket (late model)
- Bushing (late model)
- Gasket (late model)
- Lockwasher (early model) (7)
- Lockwasher (early model) (1)
- Lockwasher (early model) (4)
- Lockwasher (late model) (11)
- Lockwasher (late model) (1)
- Lockwasher (late model) (4)

Personnel Required

Unit Mechanic

Equipment Condition

- Engine stopped (see your -10)
 - Carrier blocked (see your -10)
 - Battery ground lead disconnected (WP 0294 00)
-

REMOVAL

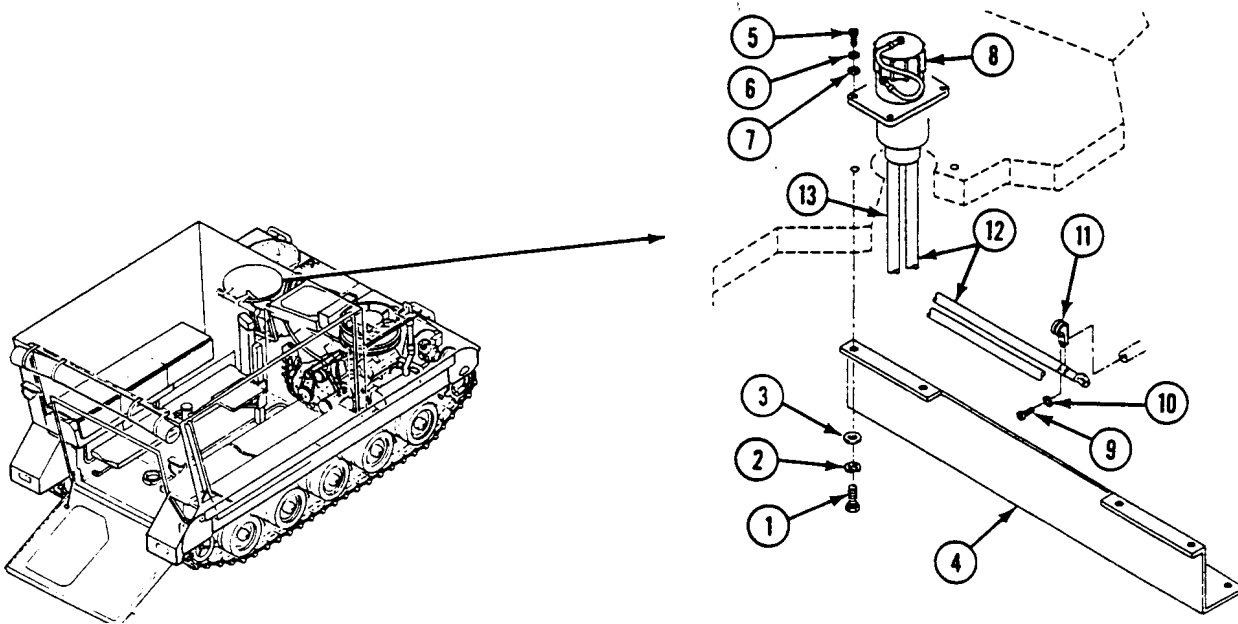
NOTE

Steps 1 - 4 tell you how to remove the early model slave receptacles. Steps 5 - 13 tell you how to remove the late model slave receptacles.

REPLACE AUXILIARY POWER (SLAVE) RECEPTACLE (M577A2 AND M1068 ONLY) — Continued

0219 00

1. Remove seven screws (1), lockwashers (2), washers (3), and guard (4) from hull interior. Discard lockwashers.
2. Remove four screws (5), lockwashers (6), and washers (7) from receptacle (8). Discard lockwashers.
3. Remove screw (9), washer (10), clamp (11), and circuit 50 lead (12) from hull weldnut.
4. Pull receptacle (8) away from hull. Unsolder circuit 6 lead (13) from receptacle. Remove receptacle. Use soldering torch.



5. Remove seven screws (1), lockwashers (2), washers (3), and guard (4) from hull interior. Discard lockwashers.
6. Remove screw (5) and lockwasher (6) from clamp (7) securing ground lead (8) to hull. Discard lockwasher.
7. Remove clip (9) from wiring cradle (10) on hull. Free up ground lead (8) from cradle and clip.
8. Remove four screws (11), lockwashers (12), and washers (13) securing receptacle (14) to adapter (15) or hull. Discard lockwashers.
9. Push down on bushing (16) inserted into adapter (15) or hull. Pull receptacle (14) up far enough to expose screws (17), and leads (8) and (18) attached.
10. Remove screw (17), lockwasher (19), and circuit 6 lead (18) from positive (+) side of post on receptacle (14). Discard lockwasher.
11. Remove receptacle (14) and bushing (16) from hull. Remove screw (17), lockwasher (19), and ground lead (8) from negative (-) side of post on receptacle (14). Discard lockwasher and bushing.

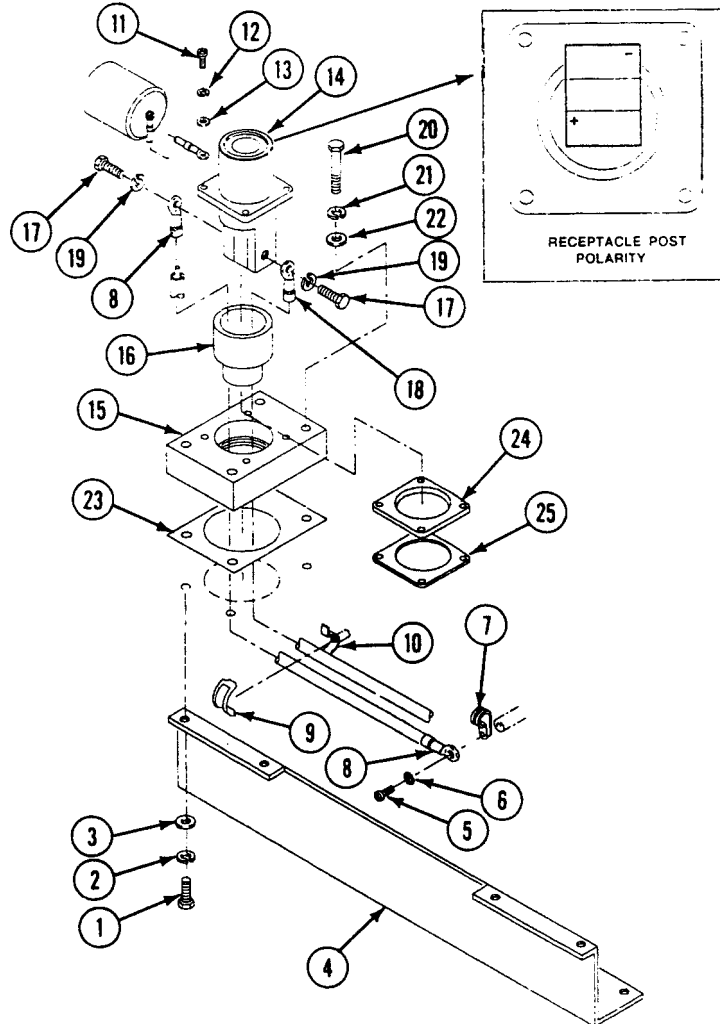
REPLACE AUXILIARY POWER (SLAVE) RECEPTACLE (M577A2 AND M1068 ONLY) — Continued

0219 00

NOTE

Perform Step 12 only if receptacle is mounted on an adapter (15).

12. If adapter (15) is used, remove four screws (20), lockwashers (21), washers (22), adapter (15) with bushing (16), and gasket (23) from hull. Discard gasket, bushing, and lockwashers.
13. Remove gasket (24) and plate insulator (25) from adapter (15). Discard gasket.



REPLACE AUXILIARY POWER (SLAVE) RECEPTACLE (M577A2 AND M1068 ONLY) — Continued

0219 00

INSTALLATION

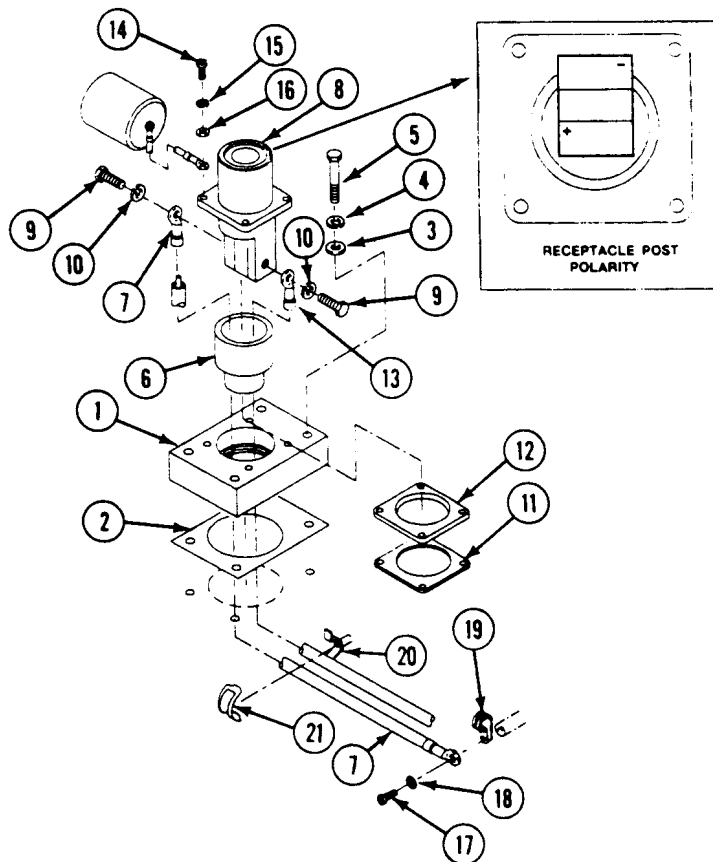
NOTE

Steps 1 - 8 tell you how to install the late model slave receptacles. Steps 9 - 11 tell you how to install the early model slave receptacles.

NOTE

Perform Step 1 only if receptacle is mounted on an adapter (1).

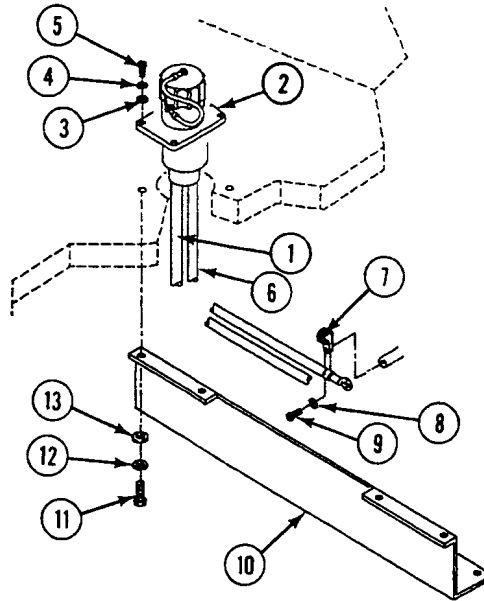
1. If adapter (1) is used, place new gasket (2) and adapter in hull. Secure with four washers (3), new lockwashers (4), and screws (5).
2. Install new bushing (6) in adapter (1) or in hull.
3. Connect ground lead (7) to negative (-) side of post on receptacle (8). Secure with screw (9) and new lockwasher (10).
4. Place plate insulator (11) and new gasket (12) on adapter (1) or hull.
5. Insert ground lead (7) into bushing (6) far enough to connect circuit 6 lead (13) to positive (+) side of post on receptacle (8). Secure with screw (9) and new lockwasher (10).
6. Secure receptacle (8) with plate insulator (11) and gasket (12) to adapter (1) or hull with four screws (14), new lockwashers (15), and washers (16).
7. Inside carrier, install ground lead (7) to hull. Secure with screw (17) and new lockwasher (18) in clamp (19).
8. Inside carrier, fit ground lead (7) into wiring cradle (20). Secure with clip (21).



REPLACE AUXILIARY POWER (SLAVE) RECEPTACLE (M577A2 AND M1068 ONLY) — Continued

0219 00

9. Place circuit 6 lead (1) in solder well of receptacle (2) and solder lead. Use soldering torch.
10. Place receptacle (2) on hull. Secure with four washers (3), new lockwashers (4), and screws (5).
11. Place circuit 50 lead (6) and clamp (7) on hull weldnut. Secure with washer (8) and screw (9).
12. Install guard (10) on hull. Secure with seven screws (11), new lockwashers (12), and washers (13).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Check receptacle for electrical continuity. Use multimeter.

END OF TASK

**REPLACE NATO AUXILIARY POWER (SLAVE) RECEPTACLE
(M577A2 AND M1068 ONLY)**

0220 00

THIS WORK PACKAGE COVERS:

- Removal (page 0220 00-2).
 - Installation (page 0220 00-3).
-

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped (see your -10)

Carrier blocked (see your -10)

Battery ground lead disconnected (WP 0294 00)

Materials/Parts

Gasket

Gasket

Lockwasher (4)

Lockwasher (4)

Lockwasher (7)

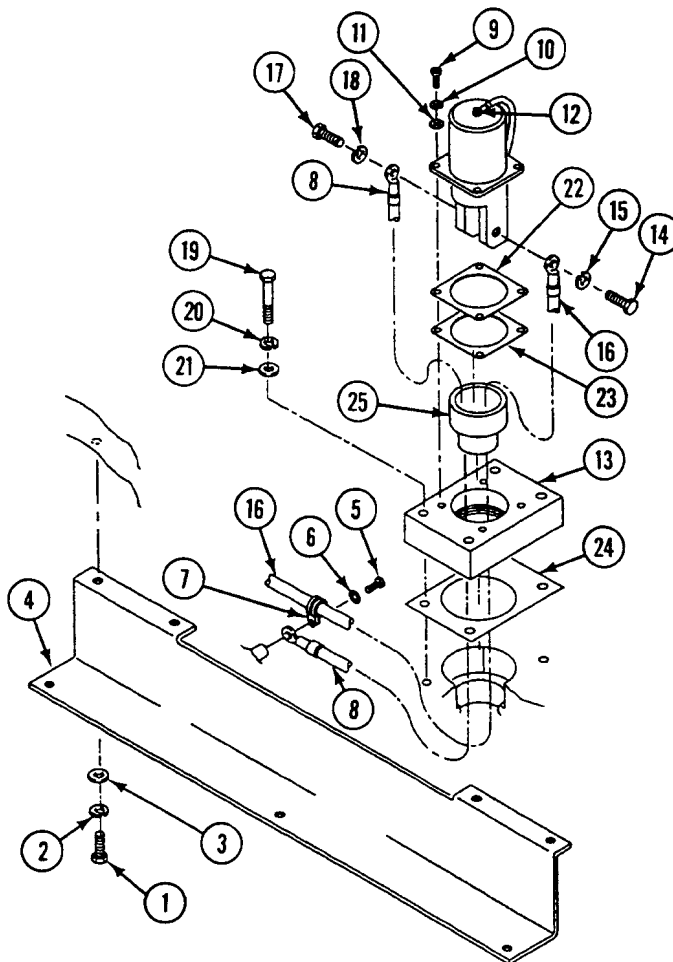
Lockwasher (2)

**REPLACE NATO AUXILIARY POWER (SLAVE) RECEPTACLE (M577A2
AND M1068 ONLY) — Continued**

0220 00

REMOVAL

1. Remove seven screws (1), lockwashers (2), washers (3), and harness protector (4) from hull. Discard lockwashers.
2. Remove screw (5), washer (6), clamp (7), and circuit 50 lead (8) from hull weldnut.
3. Remove four screws (9), lockwashers (10), and washers (11) from receptacle (12). Discard lockwashers.
4. Pull receptacle (12) and adapter (13) away from hull.
5. Remove screw (14), lockwasher (15), and circuit 6 lead (16) from positive terminal of receptacle (12). Discard lockwasher.
6. Remove screw (17), lockwasher (18), and circuit 50 lead (8) from negative terminal of receptacle (12). Discard lockwasher.
7. Remove four screws (19), lockwashers (20), and washers (21) from adapter (13). Discard lockwashers.
8. Remove receptacle (12), gasket (22), insulator (23), adapter (13), and gasket (24) from hull. Discard gaskets.
9. Remove insulator bushing (25) from hull.

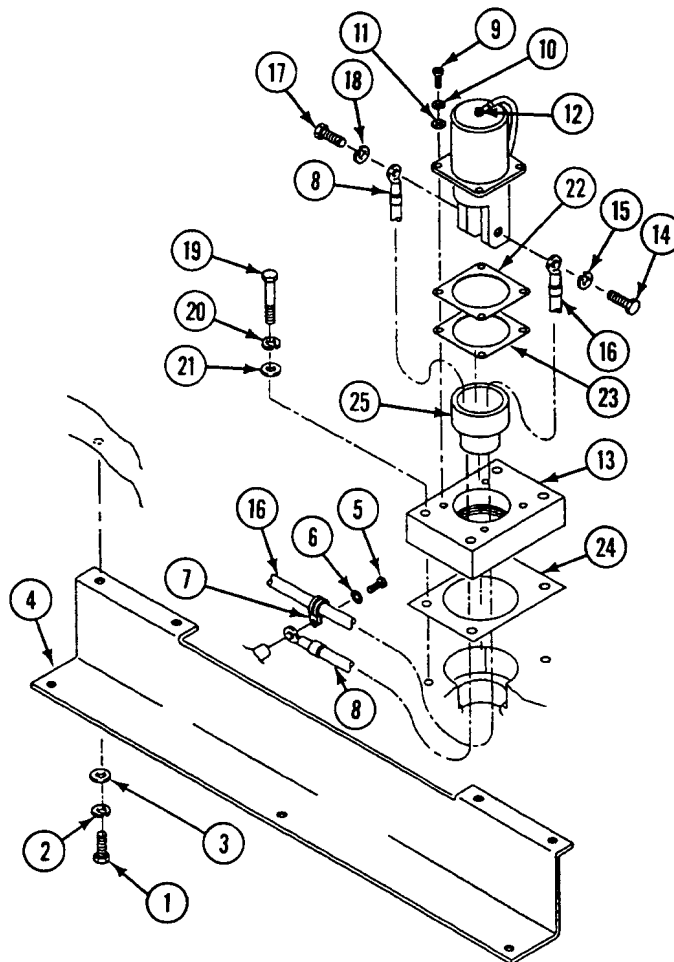


**REPLACE NATO AUXILIARY POWER (SLAVE) RECEPTACLE (M577A2
AND M1068 ONLY) — Continued**

0220 00

INSTALLATION

1. Install insulator bushing (25) in adapter (13).
2. Install receptacle (12), new gasket (22), insulator (23), adapter (13), and new gasket (24).
3. Connect circuit 6 lead (16) to positive terminal of receptacle (12) with new lockwasher (15) and screw (14).
4. Connect circuit 50 lead (8) to negative terminal of receptacle (12) with new lockwasher (18) and screw (17).
5. Position new gasket (24) and adapter (13) on hull and secure with four screws (19), new lockwashers (20), and washers (21).
6. Align receptacle (12), new gasket (22), and insulator (23) with adapter (13). Install four screws (9), new lockwashers (10), and washers (11).
7. Place circuit 50 lead (8) and clamp (7) on hull weldnut. Secure with washer (6) and screw (5).
8. Position harness protector (4) and secure with seven screws (1), new lockwashers (2), and washers (3).


FOLLOW-THROUGH STEPS

1. Connect battery ground lead (WP 0294 00).
2. Check receptacle for electrical continuity. Use multimeter.

END OF TASK

REPLACE MASTER SWITCH ASSEMBLY

0221 00

THIS WORK PACKAGE COVERS:

- Removal (page 0221 00-1).
- Installation (page 0221 00-4).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped (see your -10)

Carrier blocked (see your -10)

Battery ground lead disconnected (WP 0294 00)

Materials/Parts

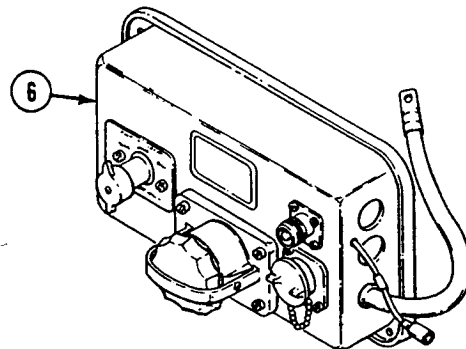
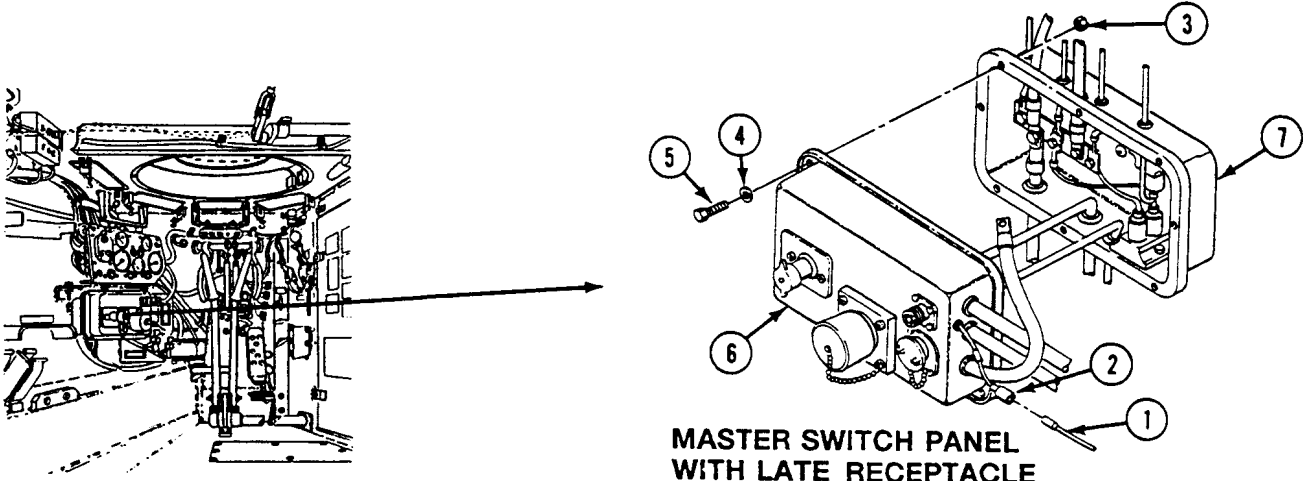
Lockwasher (3)

Locknut (2)

Locknut (8)

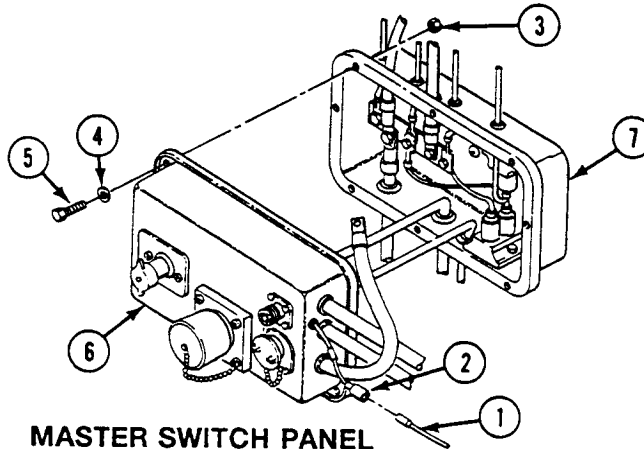
REMOVAL

1. Disconnect circuit 37 lead (1) from connector (2).



MASTER SWITCH PANEL WITH EARLY RECEPTACLE

2. Remove eight locknuts (3), washers (4), screws (5), and master switch panel (6) from distribution box (7). Discard locknuts.

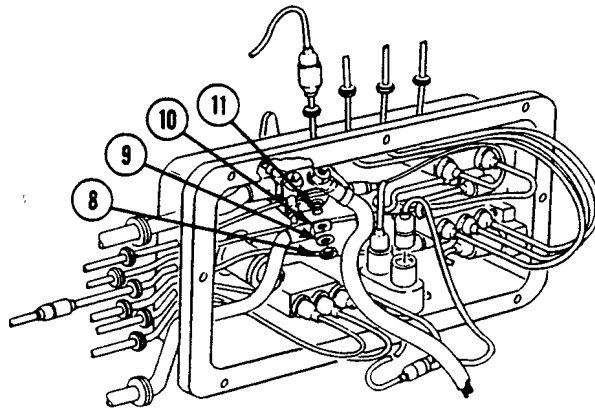


**MASTER SWITCH PANEL
WITH LATE RECEPTACLE**

NOTE

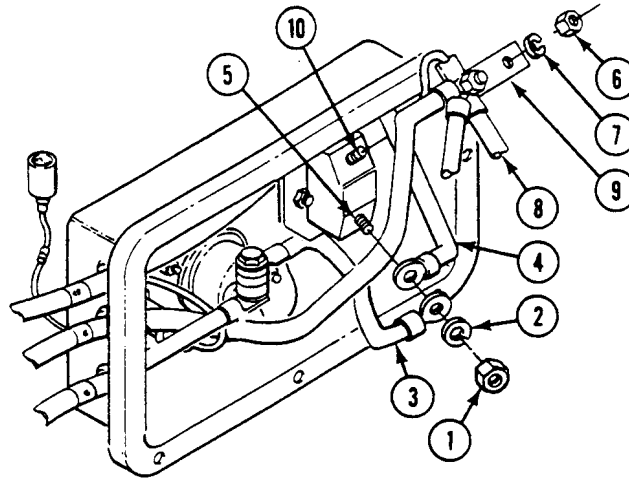
On M577A2 and M1068 carriers, do Step 3 then go to Step 5. On all other carriers, after Step 2 go to Step 4.

3. Remove nut (8), lockwasher (9), and circuit 49 lead (10) from master switch terminal (11). Discard lockwasher.



M577A2 AND M1068 MASTER SWITCH PANEL

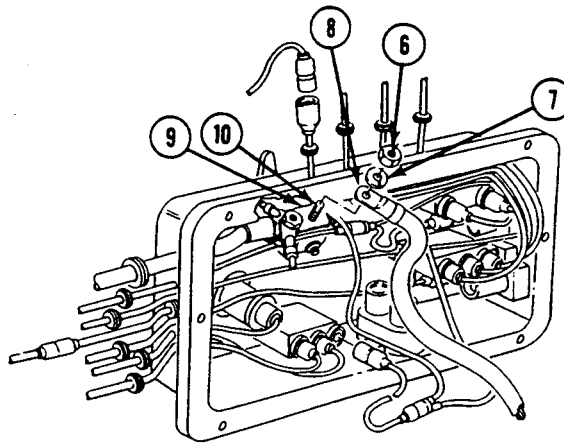
4. Remove nut (1), lockwasher (2), circuit 50 lead (3), and circuit 49 lead (4) from master switch terminal (5). Discard lockwasher.



NOTE

Carriers that have 100 amp generators do not have circuit 2A.

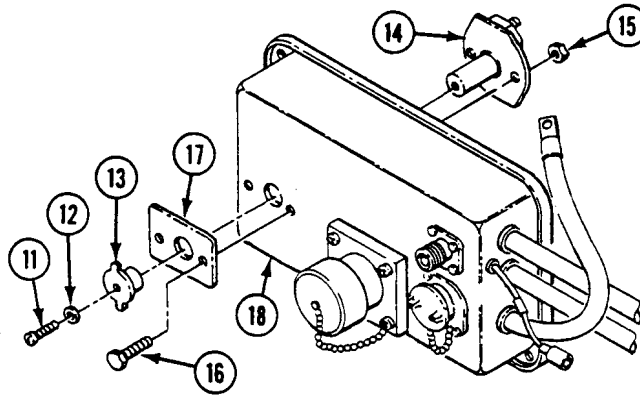
5. Remove nut (6), lockwasher (7), circuit 2A lead (8), and conductor bus (9) with attached leads from master switch terminal (10). Discard lockwasher.



M577A2 MASTER SWITCH PANEL

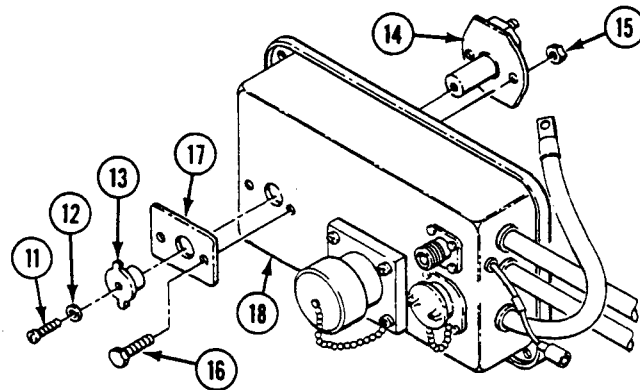
REPLACE MASTER SWITCH ASSEMBLY — Continued**0221 00**

6. Remove screw (11), washer (12), and knob (13) from master switch (14).
7. Remove two locknuts (15), screws (16), master switch (14), and nameplate (17) from master switch panel (18). Discard locknuts.

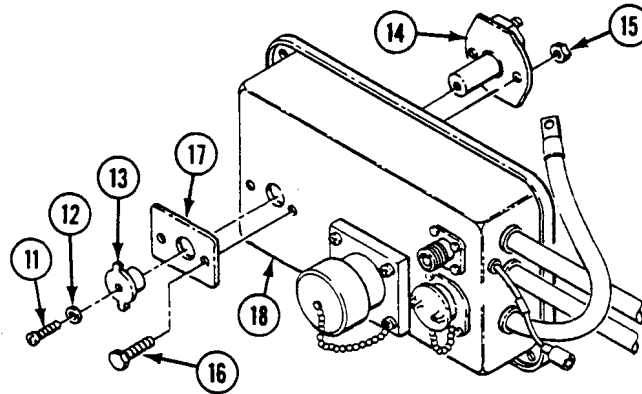
**INSTALLATION****NOTE**

Make sure nameplate is not installed upside down.

1. Align master switch (14) and nameplate (17) on master switch panel (18). Secure with two screws (16) and new locknuts (15).



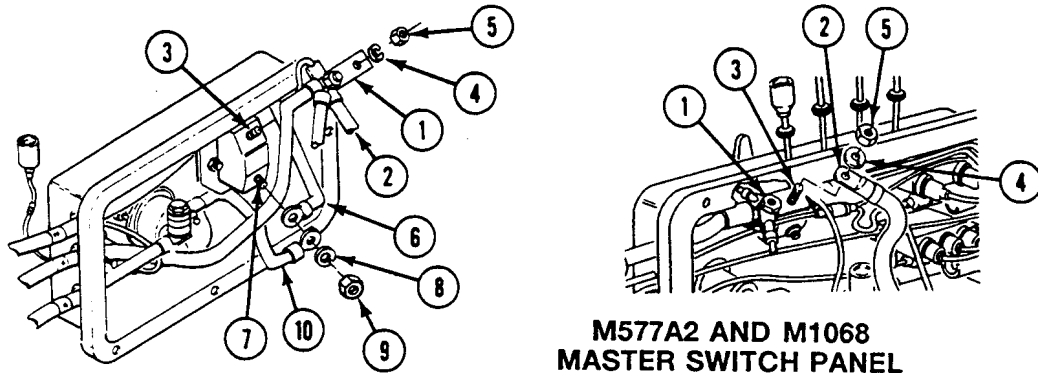
- Place knob (13) on master switch (14). Secure with washer (12) and screw (11).



NOTE

Carriers that have 100 amp generators do not have circuit 2A.

- Install conductor bus (1) with attached leads and circuit 2A lead (2) on terminal (3). Secure with new lockwasher (4) and nut (5).

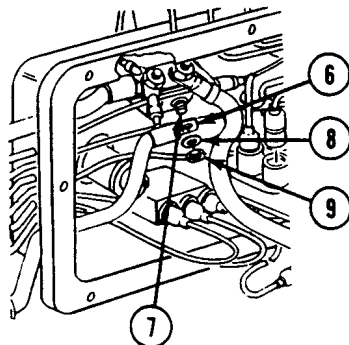


**M577A2 AND M1068
MASTER SWITCH PANEL**

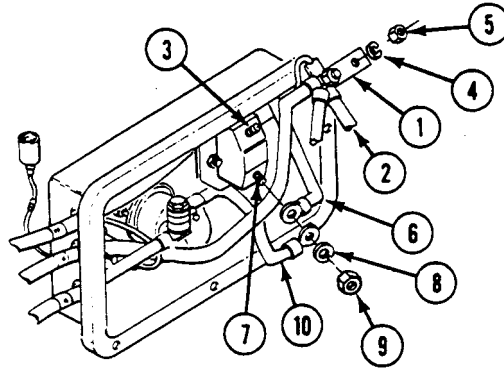
NOTE

On M577A2 and M1068 carriers, do Step 4 then go to Step 6. On all other carriers, after Step 3 go to Step 5.

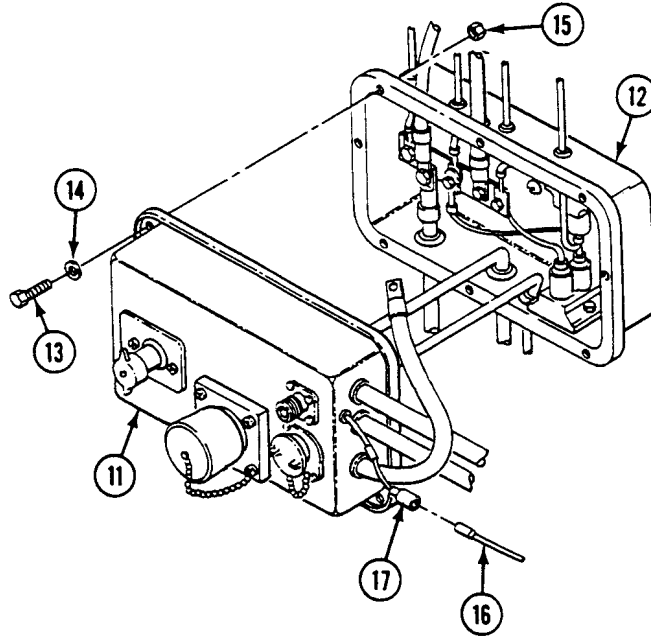
- Install circuit 49 lead (6) on master switch terminal (7). Secure with new lockwasher (8) and nut (9).



5. Install circuit 49 lead (6) and circuit 50 lead (10) on terminal (7). Secure with new lockwasher (8) and nut (9).

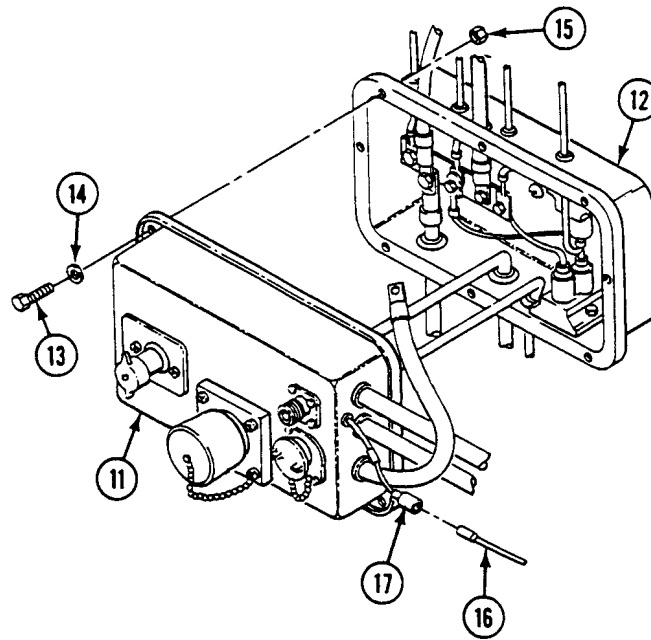


6. Install master switch panel (11) on distribution box (12). Secure with eight screws (13), washers (14), and new locknuts (15).



REPLACE MASTER SWITCH ASSEMBLY — Continued**0221 00**

7. Connect circuit 37 lead (16) to connector (17).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Master switch light should come on (see your -10).
4. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE MASTER SWITCH PANEL ASSEMBLY (LATE SLAVE RECEPTACLE) (ALL EXCEPT M577A2 AND M1068)

0222 00

THIS WORK PACKAGE COVERS:

- Removal (page 0222 00-1).
- Installation (page 0222 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped

Carrier blocked (see your -10)

Battery ground lead disconnected (WP 0294 00)

Infrared power supply cable disconnected from master switch panel (WP 0291 00)

Materials/Parts

Grommet (3)

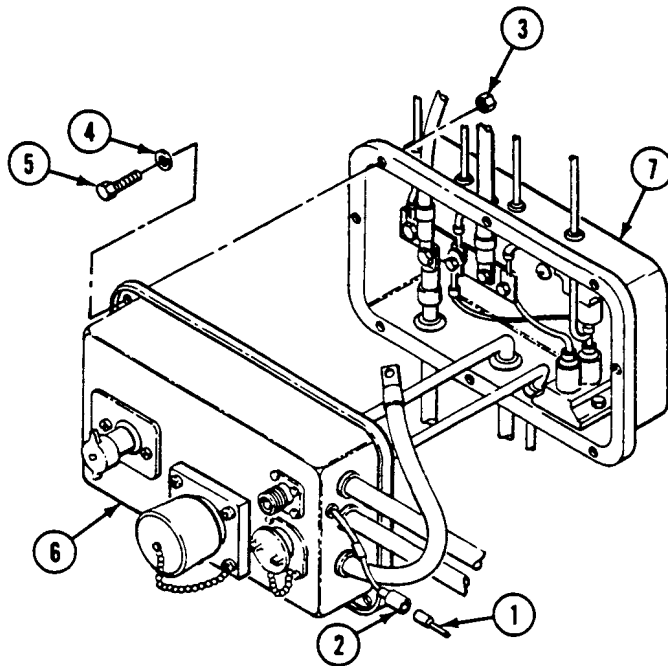
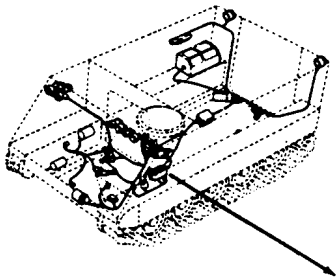
Lockwasher (3)

Locknut

Locknut (8)

REMOVAL

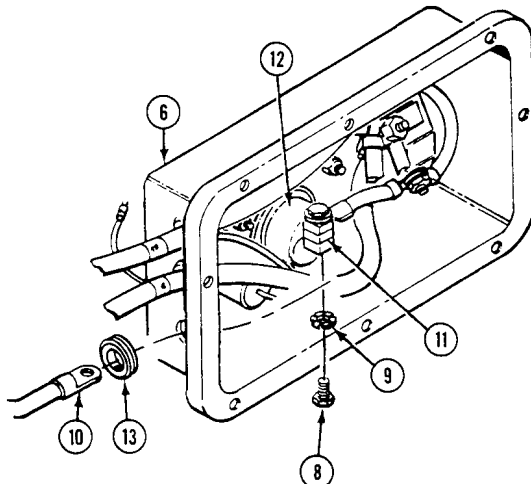
1. Disconnect circuit 37 lead (1) from connector (2).
2. Remove eight locknuts (3), washers (4), screws (5), and master switch panel (6) from distribution box (7). Discard locknuts.



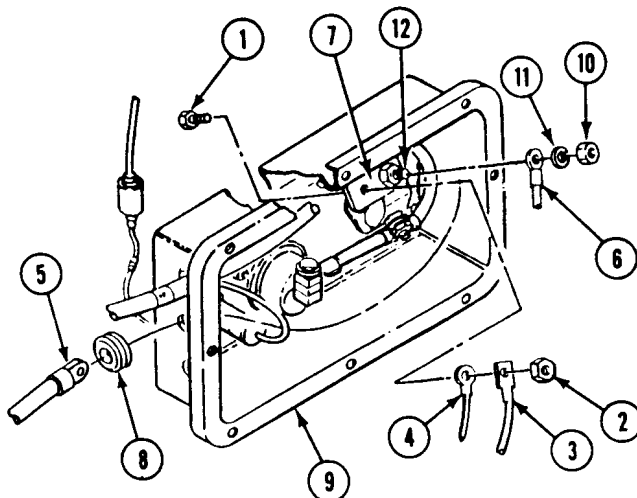
**REPLACE MASTER SWITCH PANEL ASSEMBLY (LATE SLAVE RECEPTACLE)
(ALL EXCEPT M577A2 AND M1068) — Continued**

0222 00

3. Remove screw (8), lockwasher (9), and ground lead (10) from negative post (11) of auxiliary power receptacle (12). Remove ground lead and grommet (13) from master switch panel (6). Discard lockwasher and grommet.



4. Remove screw (1), locknut (2), circuit 400 lead (3), circuit 2 lead (4), and circuit 6 lead (5) from conductor bus (7). Remove circuit 6 lead (5) and grommet (8) from master switch panel (9). Discard locknut and grommet.
5. Remove nut (10), lockwasher (11), and circuit 2A lead (6) from master switch post (12). Discard lockwasher.

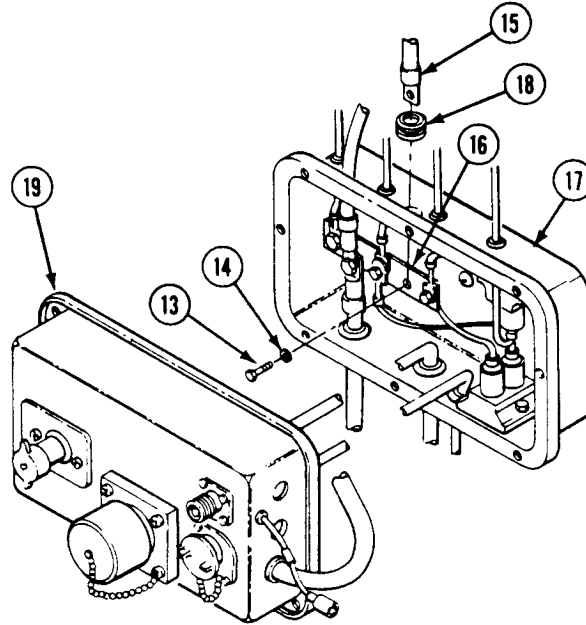


6. Remove screw (13), lockwasher (14), and circuit 49 lead (15) from bus bar (16) of distribution box (17). Remove circuit 49 lead (15) and grommet (18) from distribution box (17). Discard lockwasher and grommet.

**REPLACE MASTER SWITCH PANEL ASSEMBLY (LATE SLAVE RECEPTACLE)
(ALL EXCEPT M577A2 AND M1068) — Continued**

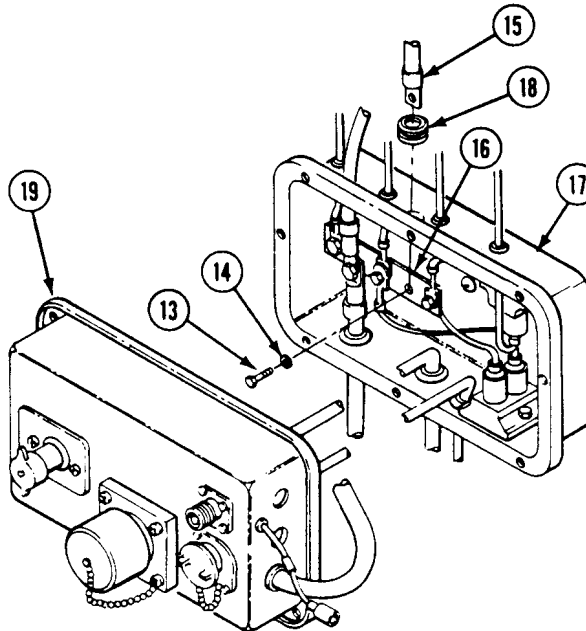
0222 00

7. Remove master switch panel (19) from carrier.



INSTALLATION

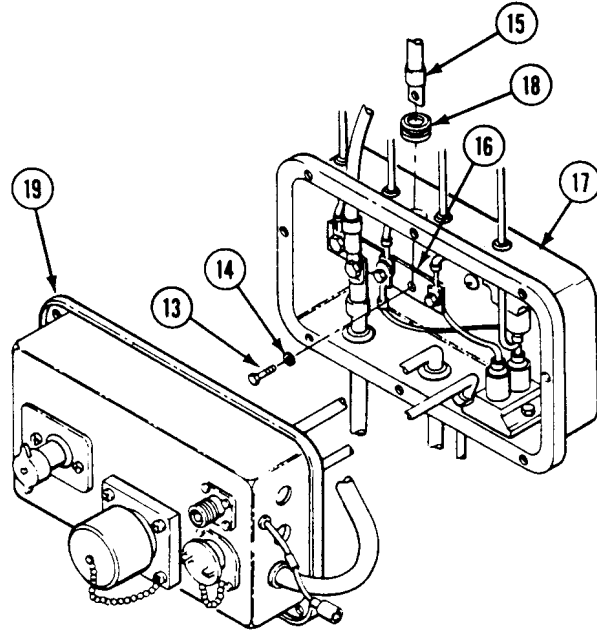
1. Install new grommet (18) on circuit 49 lead (15). Route lead into distribution box (17) and secure grommet.



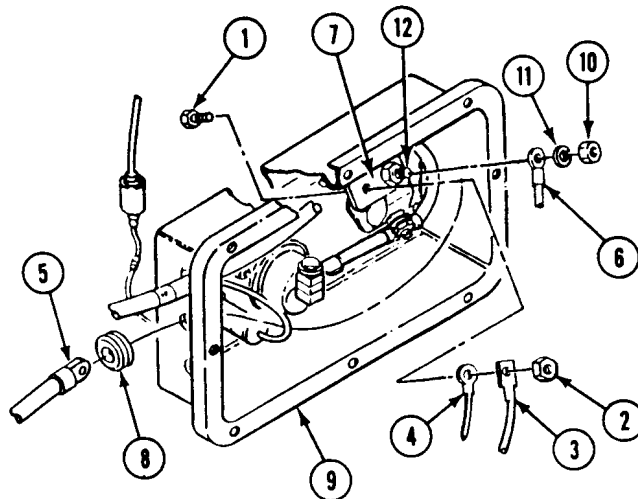
**REPLACE MASTER SWITCH PANEL ASSEMBLY (LATE SLAVE RECEPTACLE)
(ALL EXCEPT M577A2 AND M1068) — Continued**

0222 00

2. Install circuit 49 lead (15) on bus bar (16). Secure with new lockwasher (14) and screw (13).



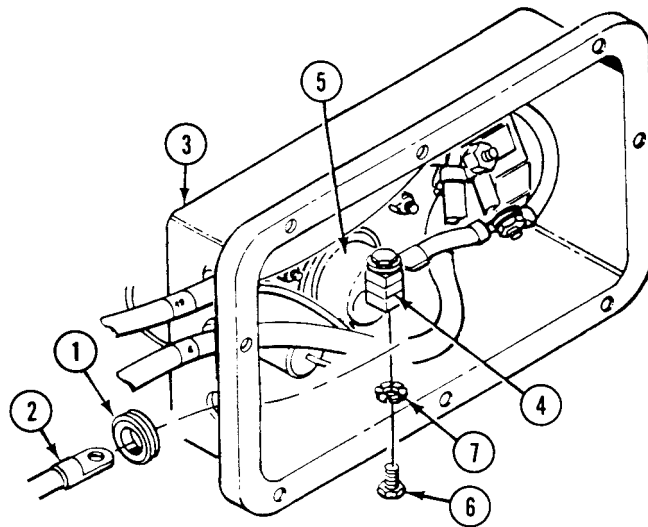
3. Install new grommet (8) on circuit 6 lead (5). Route lead into master switch panel (9) and secure grommet.
4. Install circuit 6 lead (5), circuit 2 lead (3), and circuit 400 lead (4) on conductor bus (7). Secure with screw (1) and new locknut (2).
5. Install circuit 2A lead (6) on master switch post (12). Secure with new lockwasher (11) and nut (10).



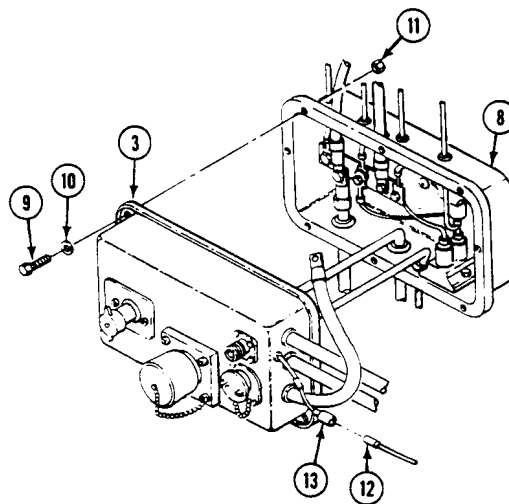
**REPLACE MASTER SWITCH PANEL ASSEMBLY (LATE SLAVE RECEPTACLE)
(ALL EXCEPT M577A2 AND M1068) — Continued**

0222 00

6. Install new grommet (1) on ground lead (2). Route ground lead into master switch panel (3) and secure grommet.
7. Install ground lead (2) on negative post (4) of auxiliary power receptacle (5). Secure with screw (6) and new lockwasher (7).



8. Install master switch panel (3) on distribution box (8). Secure with eight screws (9), washers (10), and new locknuts (11).
9. Connect circuit 37 lead (12) to connector (13).



**REPLACE MASTER SWITCH PANEL ASSEMBLY (LATE SLAVE RECEPTACLE)
(ALL EXCEPT M577A2 AND M1068) — Continued**

0222 00

FOLLOW-THROUGH STEPS

1. Connect infrared power supply cable to dummy connector (WP 0291 00).
2. Connect battery ground lead (WP 0294 00).
3. Turn MASTER SWITCH to ON. Check for proper operation (see your -10).
4. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE MASTER SWITCH PANEL ASSEMBLY (EARLY SLAVE RECEPTACLE) (ALL EXCEPT M577A2)

0223 00

THIS WORK PACKAGE COVERS:

Removal (page 0223 00-1).
 Installation (page 0223 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

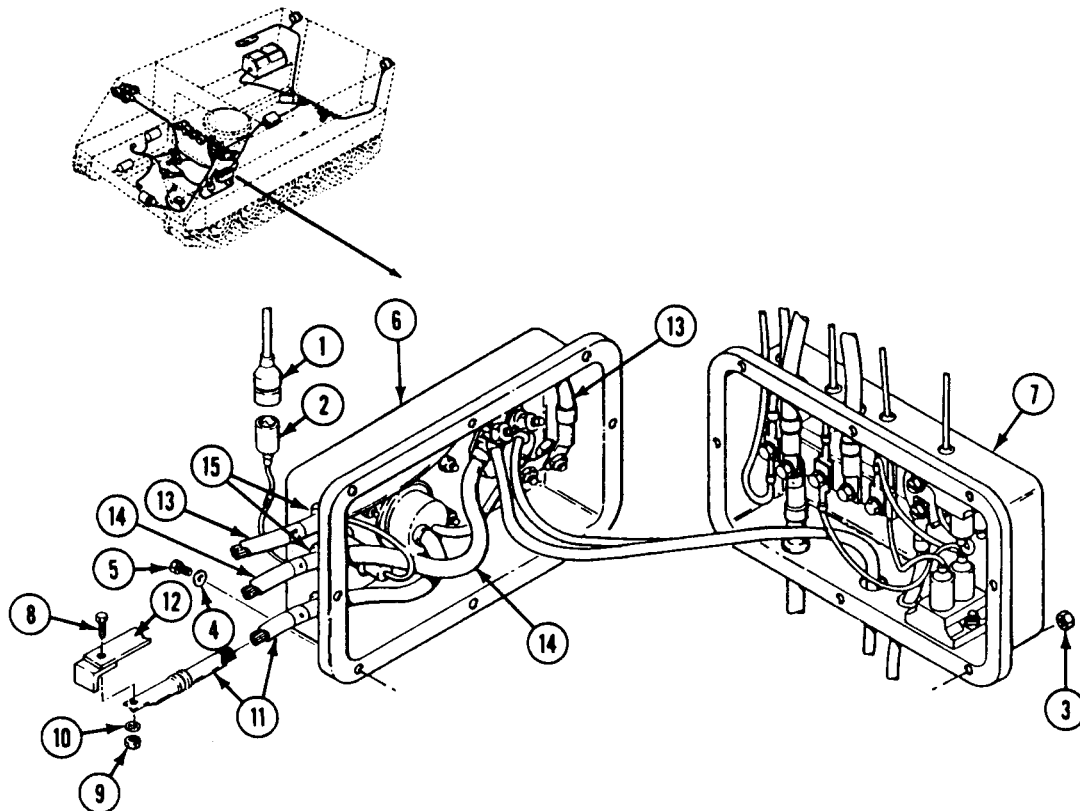
Engine stopped (see your -10)
 Carrier blocked (see your -10)
 Battery ground lead disconnected (WP 0294 00)
 Infrared power supply cable disconnected from master switch panel (WP 0291 00)

Materials/Parts

Grommet (2)
 Lockwasher (3)
 Locknut (2)
 Locknut (8)

REMOVAL

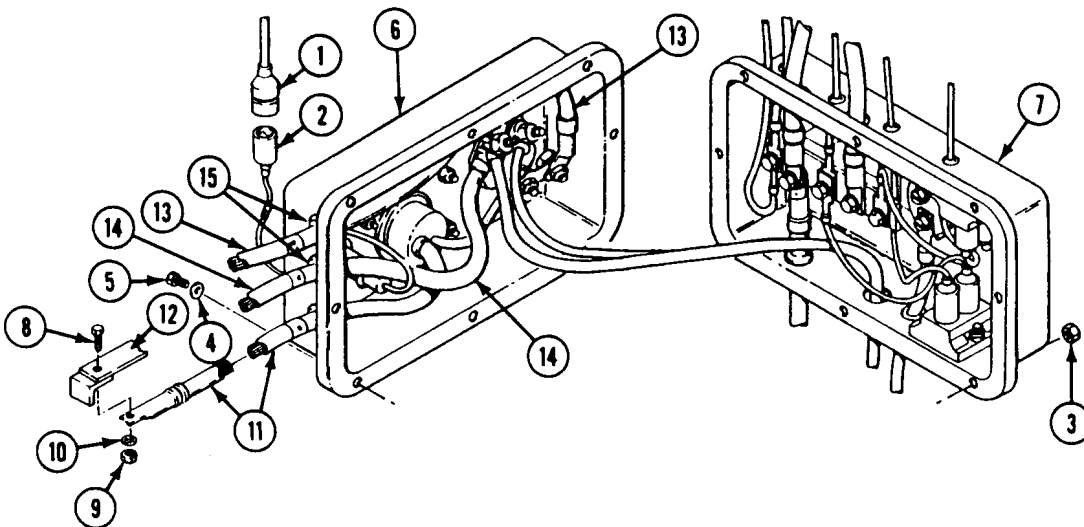
1. Disconnect circuit 37 lead (1) from connector (2).
2. Remove eight locknuts (3), washers (4), and screws (5). Separate master switch panel assembly (6) from distribution box (7). Discard locknuts.



**REPLACE MASTER SWITCH PANEL ASSEMBLY (EARLY SLAVE RECEPTACLE)
(ALL EXCEPT M577A2) — Continued**

0223 00

3. Remove screw (8), locknut (9), washer (10), and ground lead (11) from instrument panel strut (12). Discard locknut.
4. Remove circuit 49 lead (13), circuit 6 lead (14), and two grommets (15) from master switch panel assembly (6). Discard grommets.

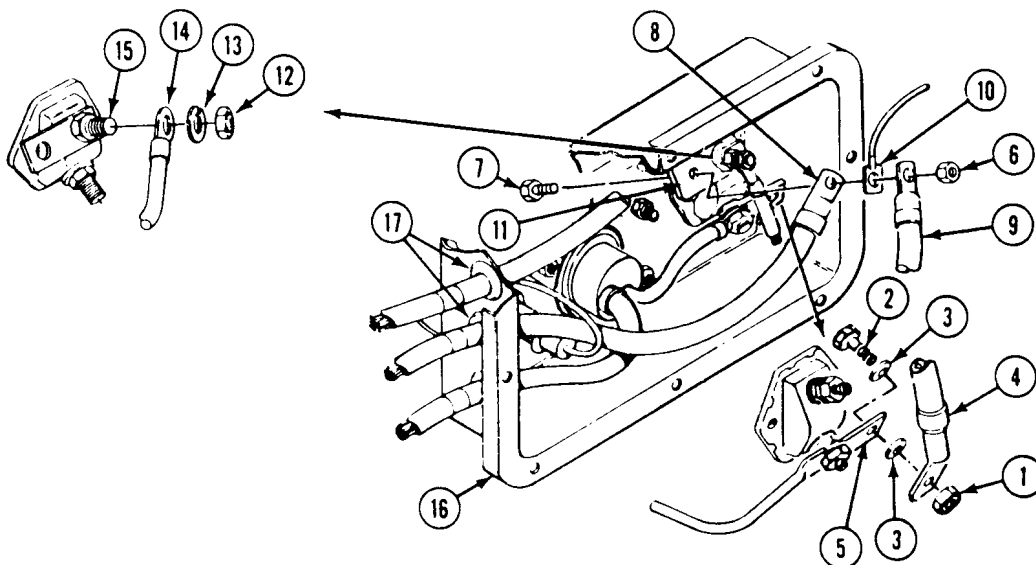


5. Remove nut (1), screw (2), two lockwashers (3), and circuit 49 lead (4) from auxiliary power receptacle lead (5). Discard lockwashers.
6. Remove locknut (6), screw (7), circuit 6 lead (8), circuit 2 lead (9), and circuit 400 lead (10) from bus bar (11). Discard locknut.

NOTE

For all carriers with 200 amp generator, do Step 7.

7. Remove nut (12), lockwasher (13), and circuit 2A lead (14) from master switch terminal (15). Discard lockwasher.
8. Remove master switch panel (16) from carrier.



**REPLACE MASTER SWITCH PANEL ASSEMBLY (EARLY SLAVE RECEPTACLE)
(ALL EXCEPT M577A2) — Continued**

0223 00

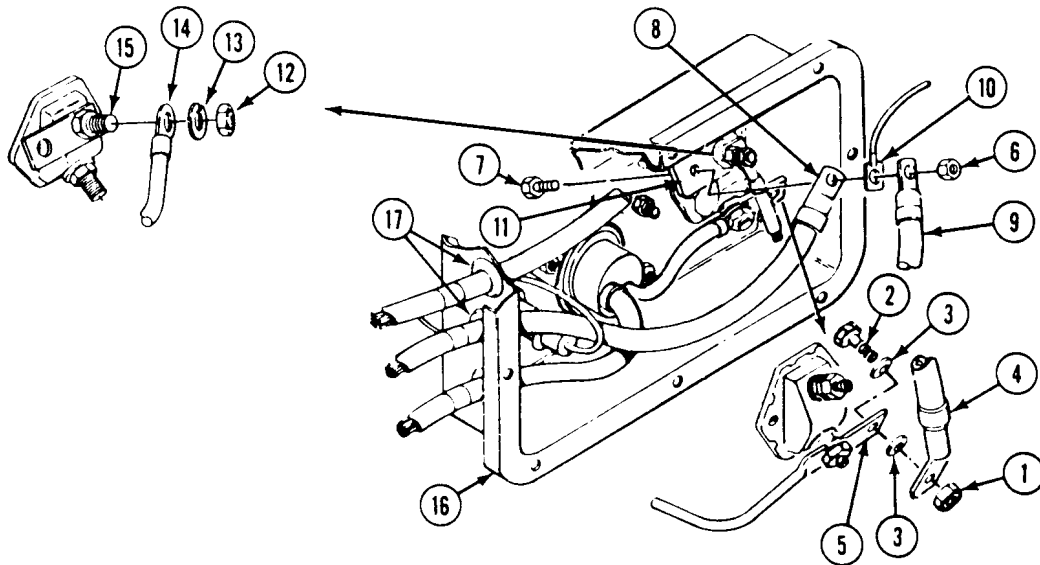
INSTALLATION

1. Install two new grommets (17) in master switch panel assembly (16).
2. Install circuit 49 lead (8) and circuit 6 lead (4) through two grommets (17) into master switch panel (16).

NOTE

For all carriers with 200 amp generator, do Step 3.

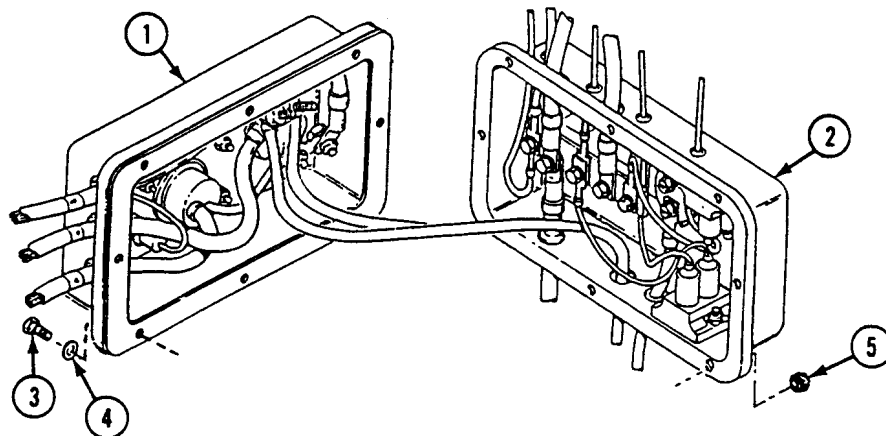
3. Install circuit 2A lead (14) on master switch terminal (15). Secure with new lockwasher (13) and nut (12).
4. Install circuit 6 lead (8), circuit 2 lead (9), and circuit 400 lead (10) on bus bar (11). Secure with screw (7) and new locknut (6).
5. Install circuit 49 lead (4) on auxiliary power receptacle lead (5). Secure with screw (2), nut (1), and two new lockwashers (3).



NOTE

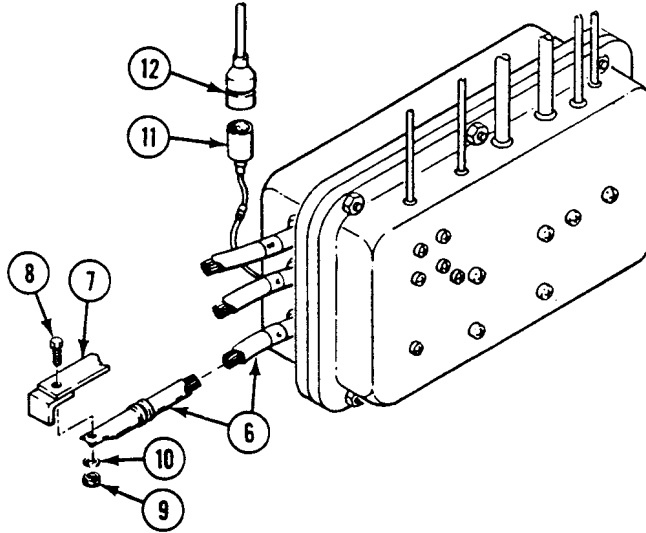
Check gasket on master switch panel flange for cracks or other damage. Replace gasket if damaged.

6. Install master switch panel (1) on distribution box (2). Secure with eight screws (3), washers (4), and new locknuts (5).



**REPLACE MASTER SWITCH PANEL ASSEMBLY (EARLY SLAVE RECEPTACLE)
(ALL EXCEPT M577A2) — Continued****0223 00**

7. Install ground lead (6) on instrument panel strut (7). Secure with screw (8), new locknut (9), and washer (10).
8. Connect circuit 37 lead (11) to connector (12).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Connect infrared power supply cable (WP 0291 00).
3. Start engine (see your -10). Check that master switch panel assembly works properly.
4. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE MASTER SWITCH PANEL ASSEMBLY (EARLY SLAVE RECEPTACLE) (M577A2 AND M1068 ONLY)

0224 00

THIS WORK PACKAGE COVERS:

Removal (page 0224 00-1).
 Installation (page 0224 00-5).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped (see your -10)

Carrier blocked (see your -10)

Battery ground lead disconnected (WP 0294 00)

Materials/Parts

Grommet (11)

Lockwasher

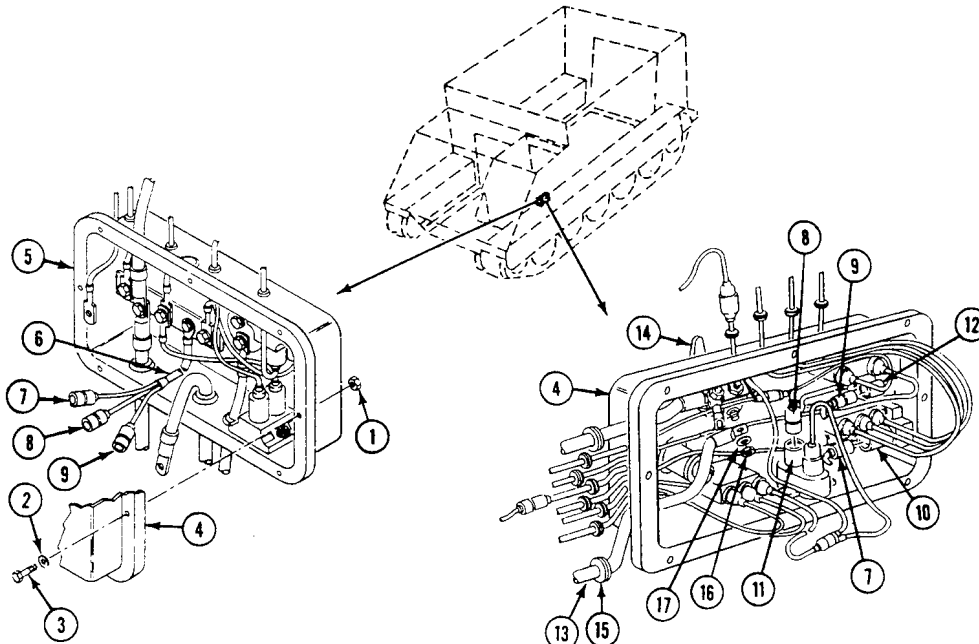
Locknut (8)

REMOVAL

NOTE

Step 6 is for 200 amp generator system only. All other steps are common.

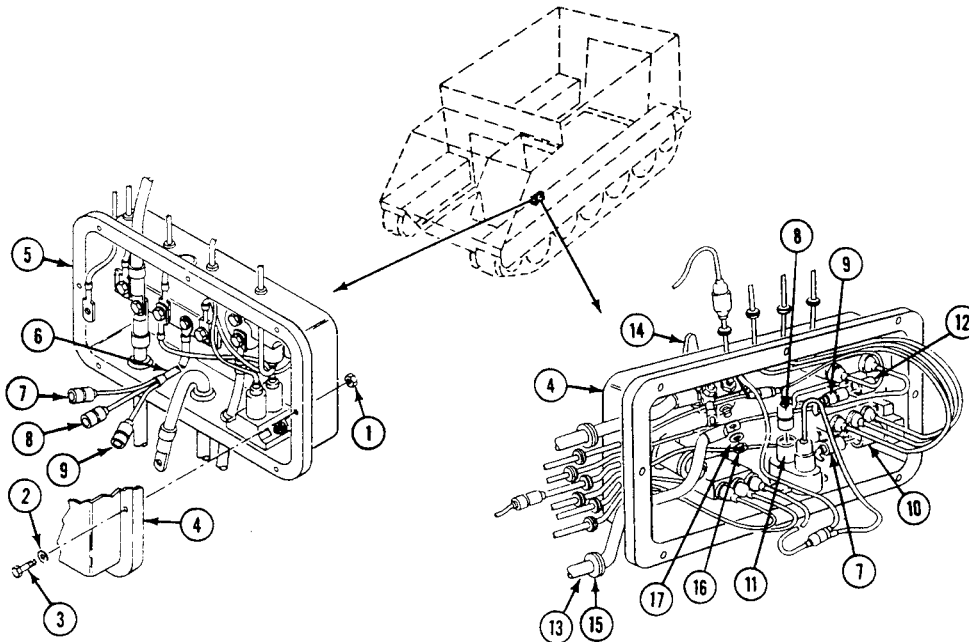
1. Remove eight locknuts (1), washers (2), and screws (3). Separate master switch panel assembly (4) from distribution box (5). Discard locknuts.
2. Disconnect wiring harness (6) leads (7), (8), and (9) from three circuit breakers (10), (11), and (12).
3. Remove nut (16), washer (17), and circuit 49 lead (13) from bottom terminal on master switch (14).



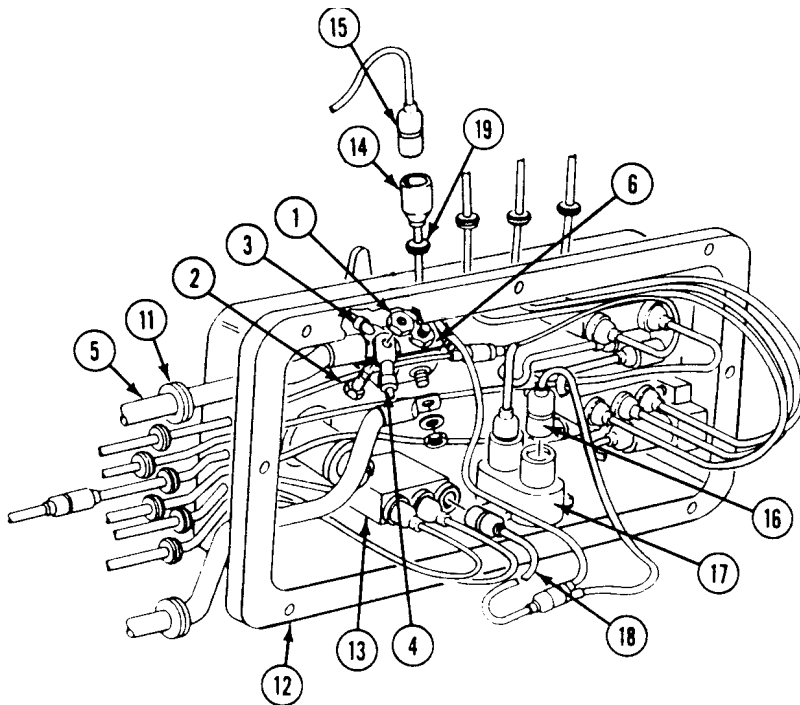
**REPLACE MASTER SWITCH PANEL ASSEMBLY (EARLY SLAVE RECEPTACLE)
(M577A2 AND M1068 ONLY) — Continued**

0224 00

4. Remove circuit 49 lead (13) and grommet (15) from master switch panel assembly (4). Discard grommet.



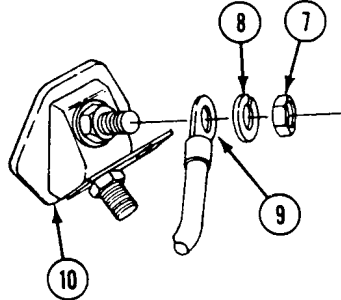
5. Remove nut (1), screw (2), circuit 400 lead (3), circuit 2 lead (4), and circuit 6 lead (5) from bus bar (6).



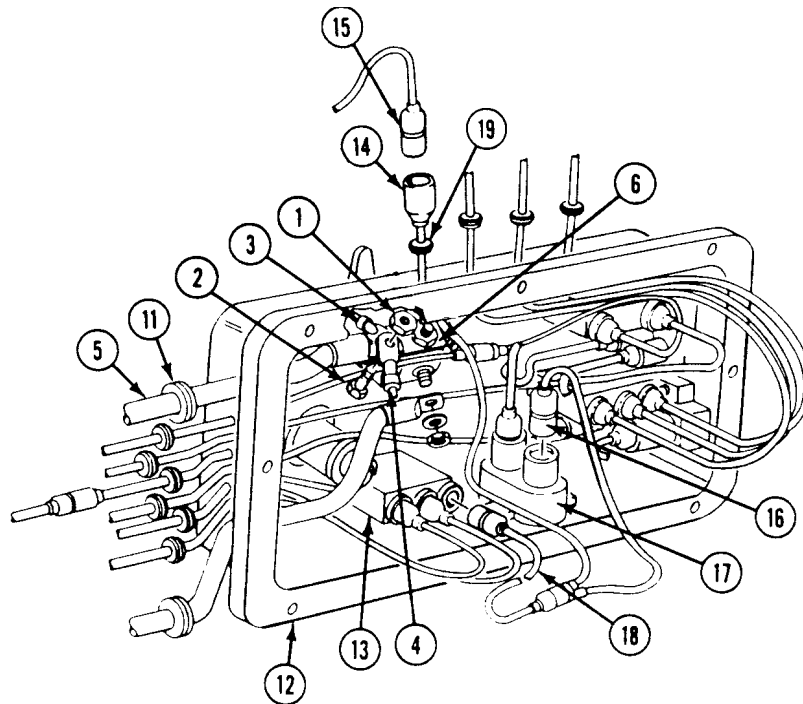
**REPLACE MASTER SWITCH PANEL ASSEMBLY (EARLY SLAVE RECEPTACLE)
(M577A2 AND M1068 ONLY) — Continued**

0224 00

6. For 200 amp generator system, remove nut (7), lockwasher (8), and circuit 2A lead (9) from top terminal on master switch (10). Discard lockwasher.



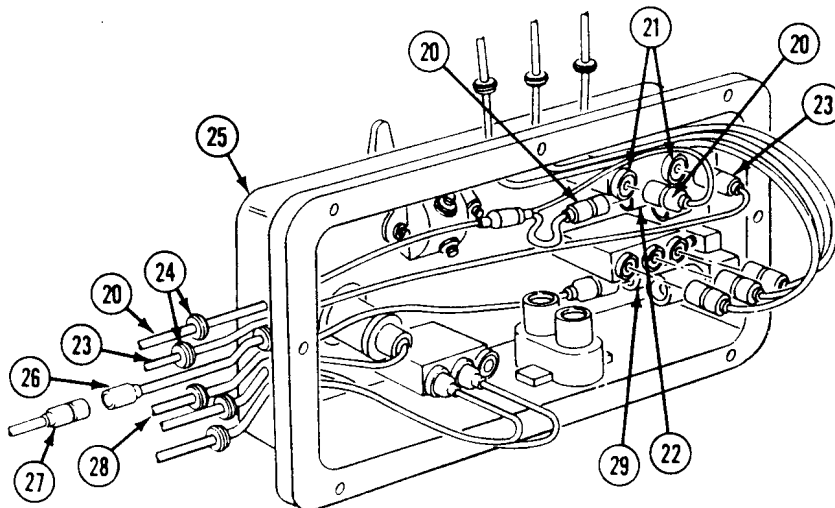
7. Remove circuit 6 lead (5) and grommet (11) from master switch panel (12). Discard grommet.
8. Disconnect wiring harness (14) from circuit 38E (15). Disconnect circuit 10 lead (16) from circuit breaker (17). Disconnect circuit 10 lead connector (18) from dome light switch (13).
9. Remove wiring harness (14) and grommet (19) from master switch panel (12). Discard grommet.



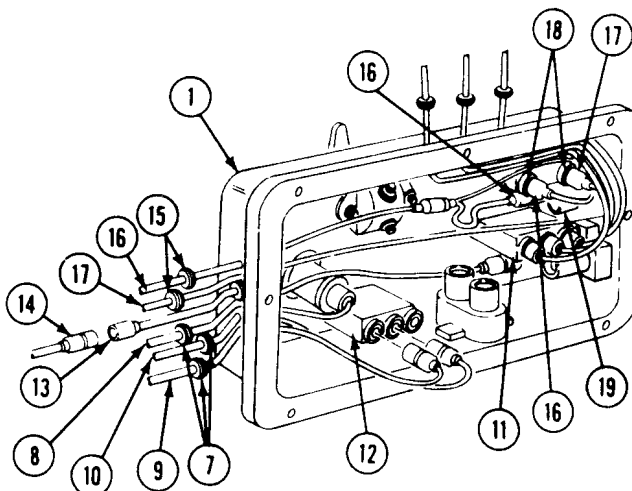
**REPLACE MASTER SWITCH PANEL ASSEMBLY (EARLY SLAVE RECEPTACLE)
(M577A2 AND M1068 ONLY) — Continued**

0224 00

10. Disconnect wiring harness (20) from blower switch (21) and circuit 37B on circuit breaker (22).
11. Disconnect circuit 59 lead (23) from blower switch (21).
12. Remove circuit 59 lead (23), wiring harness (20), and two grommets (24) from master switch panel assembly (25). Discard grommets.
13. Disconnect utility outlet lead (26) from circuit 37 lead (27).
14. Disconnect circuit 37A lead (28) from circuit 37A lead on circuit breaker (29).



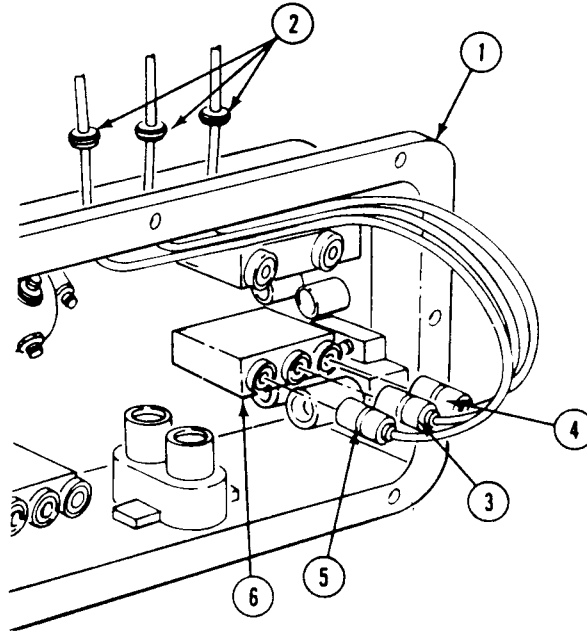
15. Disconnect circuits 38A lead (9) and 38 lead (10) from dome light switch (12).
16. Remove circuits 37A (8), 38 (10), 38A (9) leads and three grommets (7) from master switch panel (1). Discard grommets.



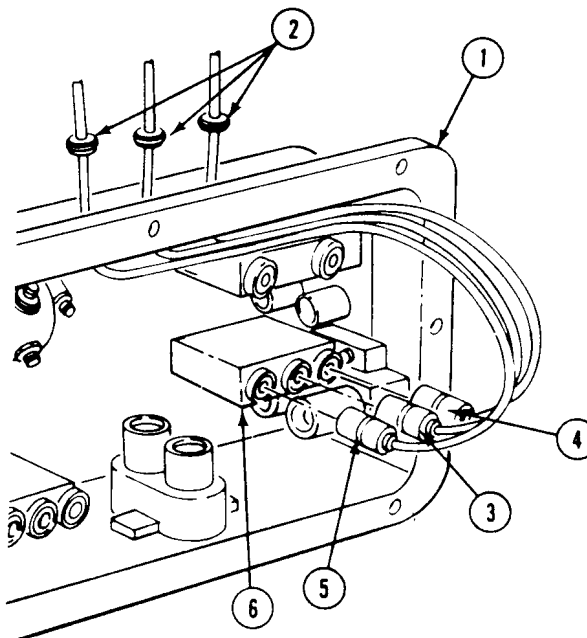
**REPLACE MASTER SWITCH PANEL ASSEMBLY (EARLY SLAVE RECEPTACLE)
(M577A2 AND M1068 ONLY) — Continued**

0224 00

17. Disconnect circuit 28 lead (3), circuit 29 lead (4), and circuit 30 lead (5) from fuel selector switch (6).
18. Remove circuit 28 lead (3), circuit 29 lead (4), and circuit 30 lead (5) and three grommets (2) from master switch panel (1). Discard grommets.
19. Remove master switch panel assembly (1) from carrier.

**INSTALLATION**

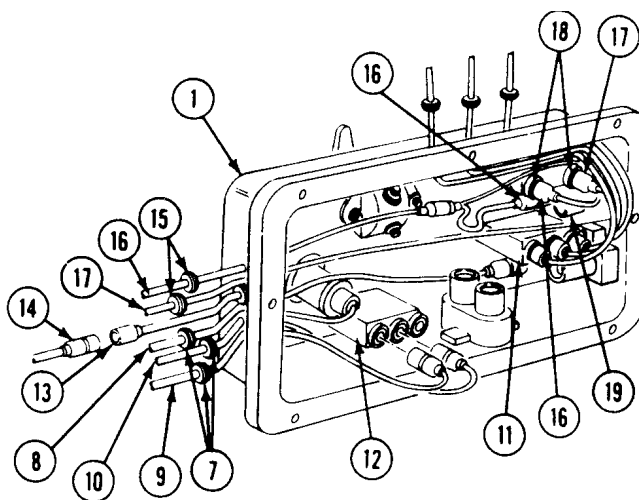
1. Install three new grommets (2) and circuit 28 lead (3), circuit 29 lead (4), and circuit 30 lead (5) in master switch panel (1).
2. Connect circuit 28 lead (3), circuit 29 lead (4), and circuit 30 lead (5) to fuel selector switch (6).



**REPLACE MASTER SWITCH PANEL ASSEMBLY (EARLY SLAVE RECEPTACLE)
(M577A2 AND M1068 ONLY) — Continued**

0224 00

3. Install three new grommets (7) and circuit 37A lead (8), circuit 38 lead (9), circuit 38A lead (10) leads in master switch panel assembly (1).
4. Connect circuit 37A lead (8) to circuit breaker (11).
5. Connect circuit 38 lead (9) and circuit 38A lead (10) to dome light switch (12).
6. Connect utility outlet lead (13) to circuit 37 lead (14).
7. Install two new grommets (15), wiring harness (16), and circuit 59 lead (17) in master switch panel (1).
8. Connect wiring harness (16) to blower switch (18) and to circuit 37B lead on circuit breaker (19).
9. Connect circuit 59 lead (17) to blower switch (18).



10. Install a new grommet (1) and wiring harness (2) in master switch panel (3).
11. Connect wiring harness (2) to circuit 38E lead (4). Connect circuit 10 lead (5) on circuit breaker (6). Connect circuit 10 lead (7) on dome light switch (8).
12. Install a new grommet (9) and circuit 6 lead (10) in master switch panel (3).

NOTE

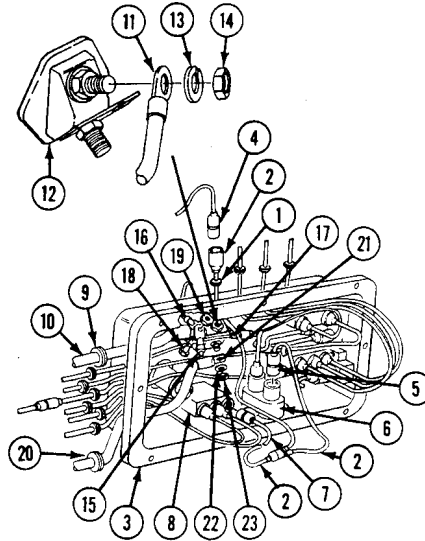
Step 6 is for 200 amp generator system only. All other steps are common.

13. For 200 amp generator system, install circuit 2A lead (11) on top terminal of master switch (12). Secure with new lockwasher (13) and nut (14).
14. Install circuit 6 lead (10), circuit 2 lead (15), and circuit 400 lead (16) on bus bar (17). Secure with screw (18) and nut (19).
15. Install new grommet (20) and circuit 49 lead (21) in master switch panel assembly (3).

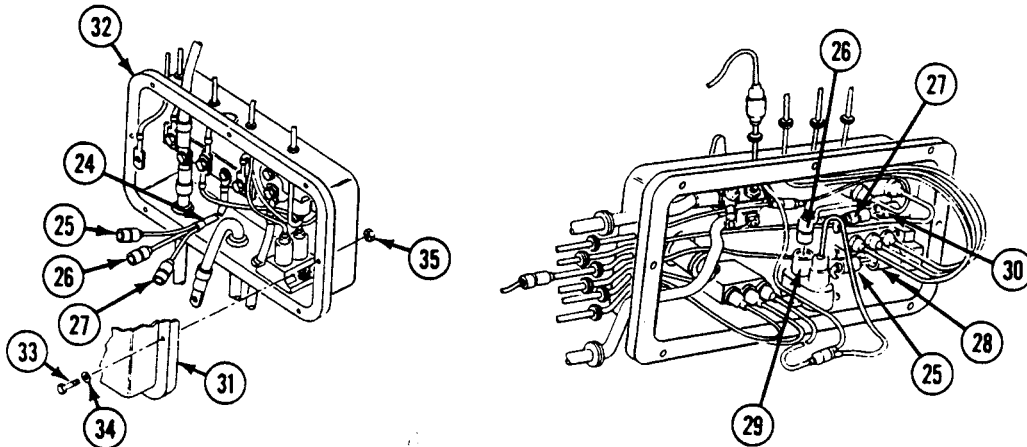
**REPLACE MASTER SWITCH PANEL ASSEMBLY (EARLY SLAVE RECEPTACLE)
(M577A2 AND M1068 ONLY) — Continued**

0224 00

16. Install circuit 49 lead (21) on bottom terminal of master switch (12). Secure with washer (22) and nut (23).



17. Connect wiring harness (24) leads (25), (26), and (27) to three circuit breakers (28), (29), and (30).

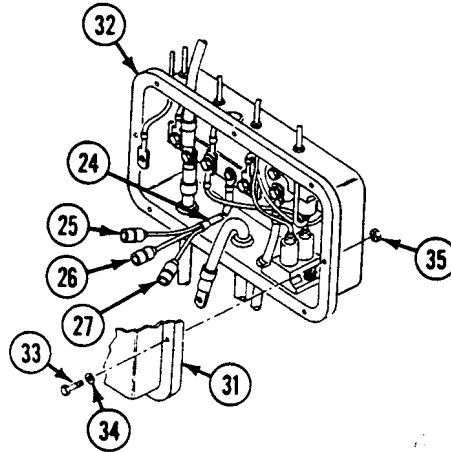


18. Replace gasket between master switch panel and distribution box, if damaged (WP 0266 00).

**REPLACE MASTER SWITCH PANEL ASSEMBLY (EARLY SLAVE RECEPTACLE)
(M577A2 AND M1068 ONLY) — Continued**

0224 00

19. Install master switch panel (31) on distribution box (32). Secure with eight screws (33), washers (34), and new locknuts (35).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Start engine (see your -10). Check that master switch panel assembly is operable.
3. Stop/shutdown engine (see your -10).

END OF TASK

**REPLACE MASTER SWITCH TO DISTRIBUTION BOX WIRE ASSEMBLY
(CIRCUIT 49 LEAD) (ALL EXCEPT M577A2 AND M1068)**

0225 00

THIS WORK PACKAGE COVERS:

- Removal (page 0225 00-1).
- Repair (page 0225 00-3).
- Installation (page 0225 00-4).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Multimeter (WP 0780 00, Item 43)

Equipment Condition

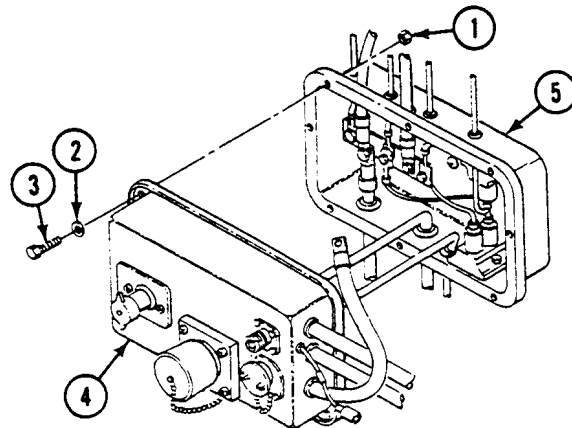
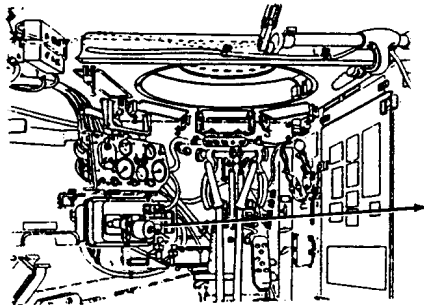
- Engine stopped (see your -10)
- Carrier blocked (see your -10)
- Battery ground lead disconnected (WP 0294 00)

Materials/Parts

- Grommet (2)
- Locknut (2)
- Locknut (8)

REMOVAL

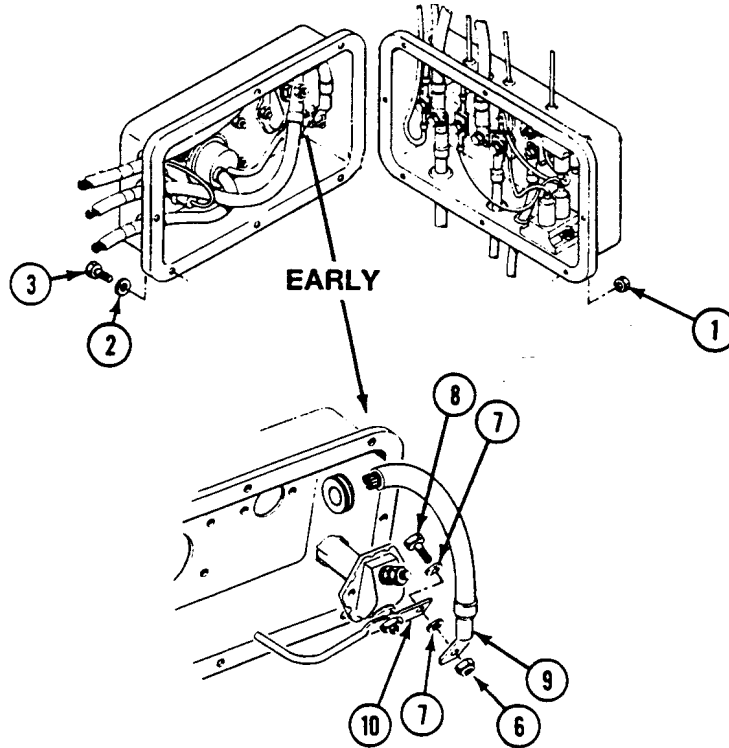
1. Remove eight locknuts (1), washers (2), screws (3), and master switch panel (4) from distribution box (5). Discard locknuts.



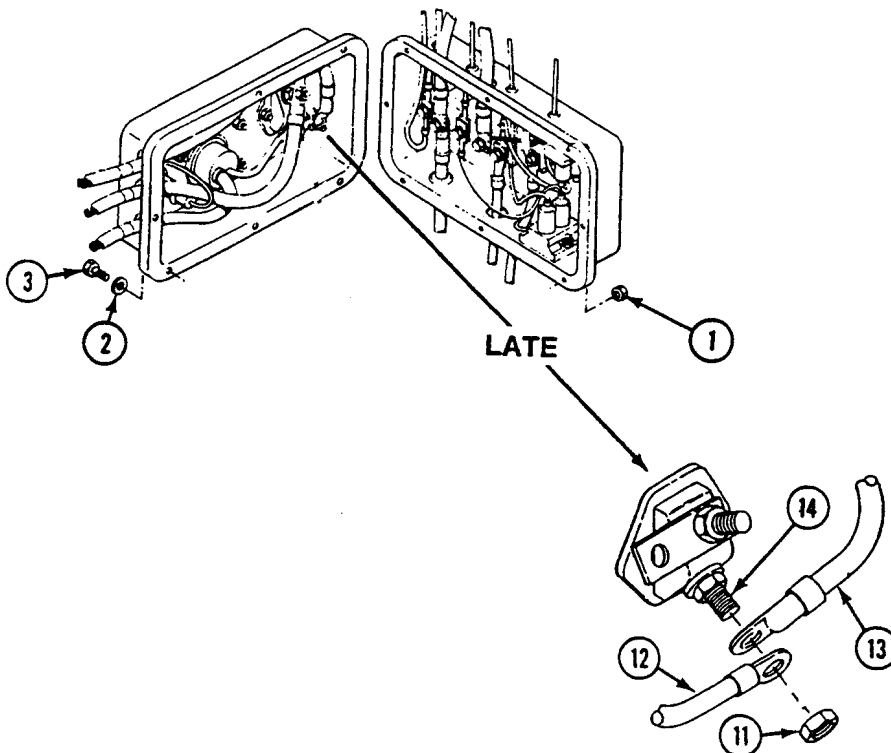
REPLACE MASTER SWITCH TO DISTRIBUTION BOX WIRE ASSEMBLY (CIRCUIT 49 LEAD) (ALL EXCEPT M577A2 AND M1068) — Continued

0225 00

2. Early slave receptacle only: remove locknut (6), two washers (7), screw (8), and circuit 49 lead (9) from circuit 50 lead terminal (10). Discard locknut.



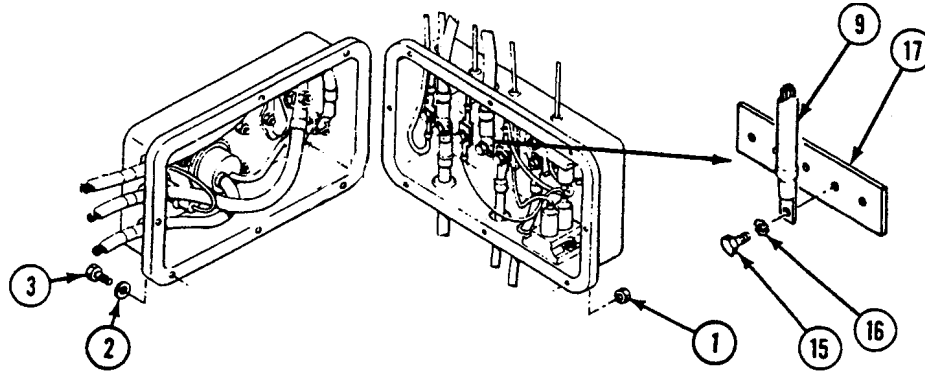
3. Late slave receptacle only: remove locknut (11), circuit 50 lead (12), and circuit 49 lead (13) from master switch terminal (14). Discard locknut.



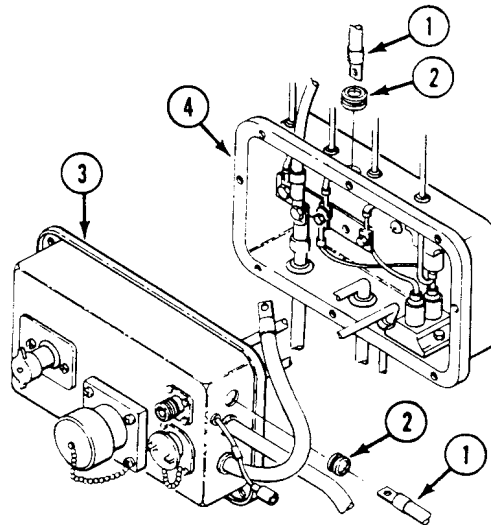
REPLACE MASTER SWITCH TO DISTRIBUTION BOX WIRE ASSEMBLY (CIRCUIT 49 LEAD) (ALL EXCEPT M577A2 AND M1068) — Continued

0225 00

4. Remove screw (15), washer (16), and circuit 49 lead (9) from distribution box bus bar (17).



5. Remove circuit 49 lead (1) with two grommets (2) from master switch panel (3) and distribution box (4). Discard grommets.



REPAIR

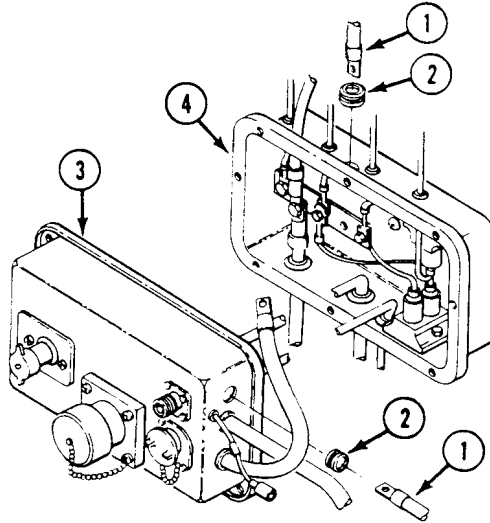
1. Check circuit 49 lead for continuity. Use multimeter. Replace bad lead.

REPLACE MASTER SWITCH TO DISTRIBUTION BOX WIRE ASSEMBLY (CIRCUIT 49 LEAD) (ALL EXCEPT M577A2 AND M1068) — Continued

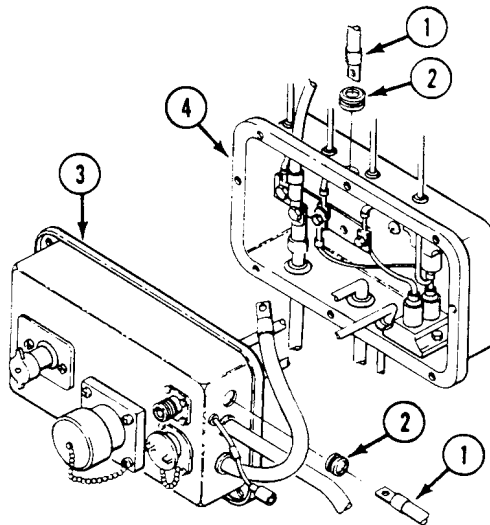
0225 00

INSTALLATION

1. Install two new grommets (2) on circuit 49 lead (1).



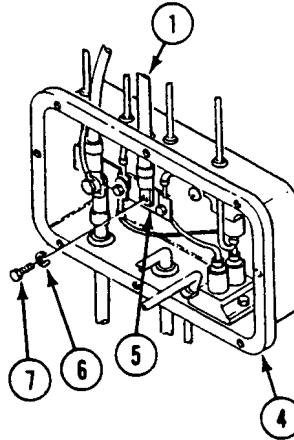
2. Route circuit 49 lead (1) through distribution box (4) and master switch panel (3). Install grommets (2) in box and panel.



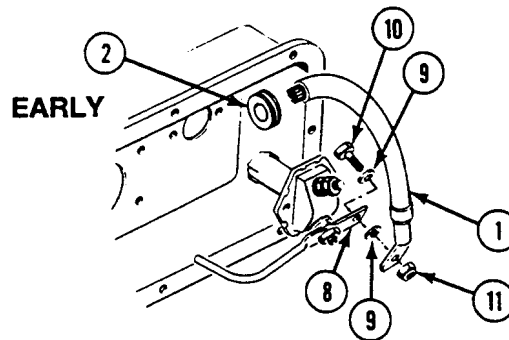
REPLACE MASTER SWITCH TO DISTRIBUTION BOX WIRE ASSEMBLY (CIRCUIT 49 LEAD) (ALL EXCEPT M577A2 AND M1068) — Continued

0225 00

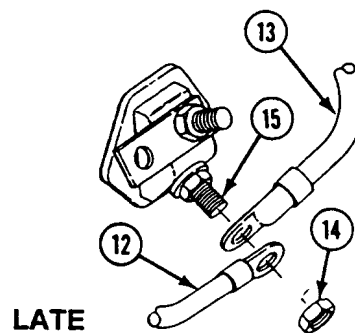
3. Install circuit 49 lead (1) on bus bar (5) of distribution box (4). Secure with new lockwasher (6) and screw (7).



4. Early slave receptacle only: install circuit 49 lead (1) on circuit 50 lead terminal lug (8). Secure with two washers (9), screw (10), and new locknut (11).

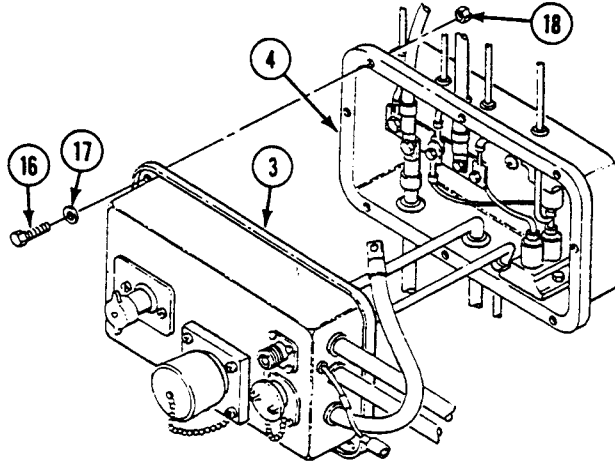


5. Late slave receptacle only: install circuit 50 lead (12), circuit 49 lead (13), and new locknut (14) on master switch terminal (15).



**REPLACE MASTER SWITCH TO DISTRIBUTION BOX WIRE ASSEMBLY (CIRCUIT
49 LEAD) (ALL EXCEPT M577A2 AND M1068) — Continued****0225 00**

6. Install master switch panel (3) on distribution box (4). Secure with eight screws (16), washers (17), and new locknuts (18).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Check that master switch on indicator light comes on (see your -10).
4. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE GENERATOR DRIVE BELTS (100 AMP GEN ONLY)

0226 00

THIS WORK PACKAGE COVERS:

- Removal (page 0226 00-1).
- Repair or Replacement (page 0226 00-2).
- Installation (page 0226 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Personnel Required

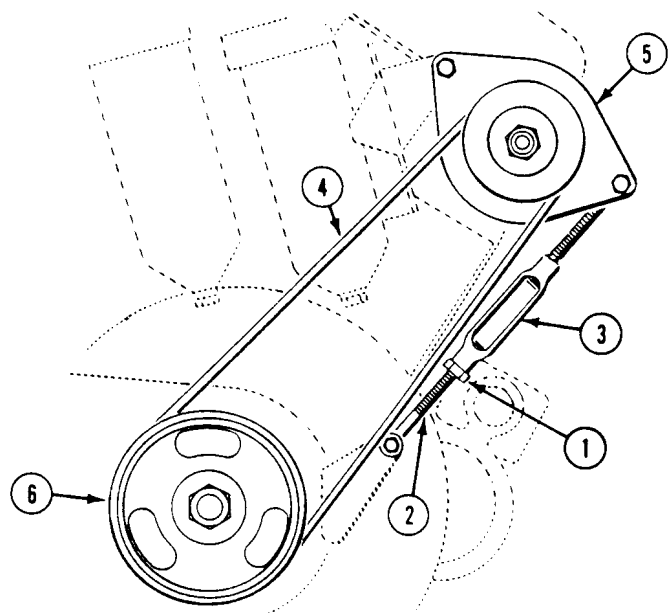
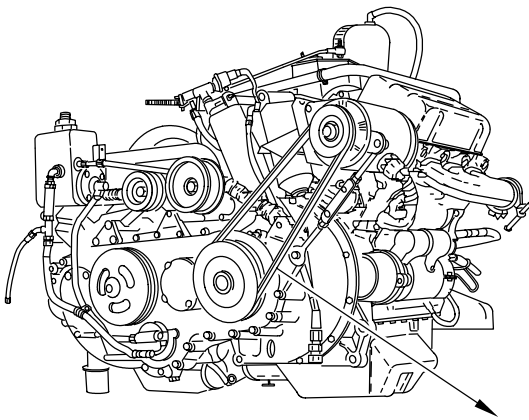
Unit Mechanic

Equipment Condition

- Engine stopped (see your -10)
- Carrier blocked (see your -10)
- Power plant rear access panels removed (WP 0431 00, WP 0432 00, and WP 0433 00)

REMOVAL

1. Loosen locknut (1) on rod end (2).
2. Turn turnbuckle (3) to loosen two drive belts (4).
3. Remove two drive belts (4) from generator pulley (5) and drive pulley (6).



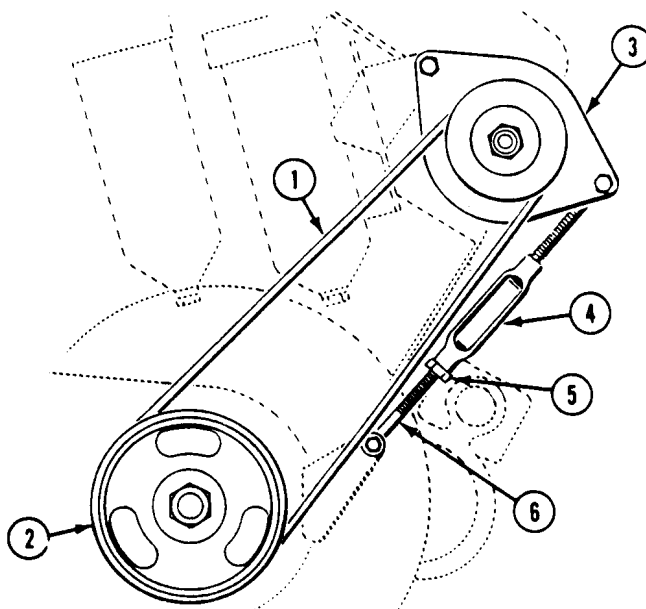
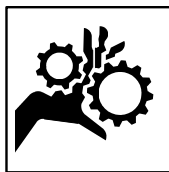
REPAIR OR REPLACEMENT

1. Inspect drive belts. If either belt is worn or damaged, discard both old belts and install new ones.

INSTALLATION**NOTE**

When replacing drive belts, replace in matched sets only.

1. Install two new drive belts (1) on drive pulley (2) and generator pulley (3).
2. Turn turnbuckle (4) and tighten belt until belt deflection at midspan is 1/2 to 5/8 inch (13 to 16 mm) when 25 lbs (11 kg) of force is applied.
3. Tighten locknut (5) on rod end (6).

**FOLLOW-THROUGH STEPS****WARNING**

Wearing loose clothing around moving parts can allow personnel to get caught and could result in injury or death. Tuck in loose clothing.

1. Start engine (see your -10).
2. Stop/shutdown engine (see your -10).
3. Install power plant rear access panels (WP 0431 00, WP 0432 00, and WP 0433 00).

END OF TASK

REPLACE GENERATOR AND ADJUSTMENT LINKAGE (100 AMP GENERATOR ONLY)

0227 00

THIS WORK PACKAGE COVERS:

- Removal (page 0227 00-1).
- Installation (page 0227 00-4).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Socket Wrench (WP 0780 00, Item 96)
- Torque Wrench (WP 0780 00, Item 101)

Equipment Condition

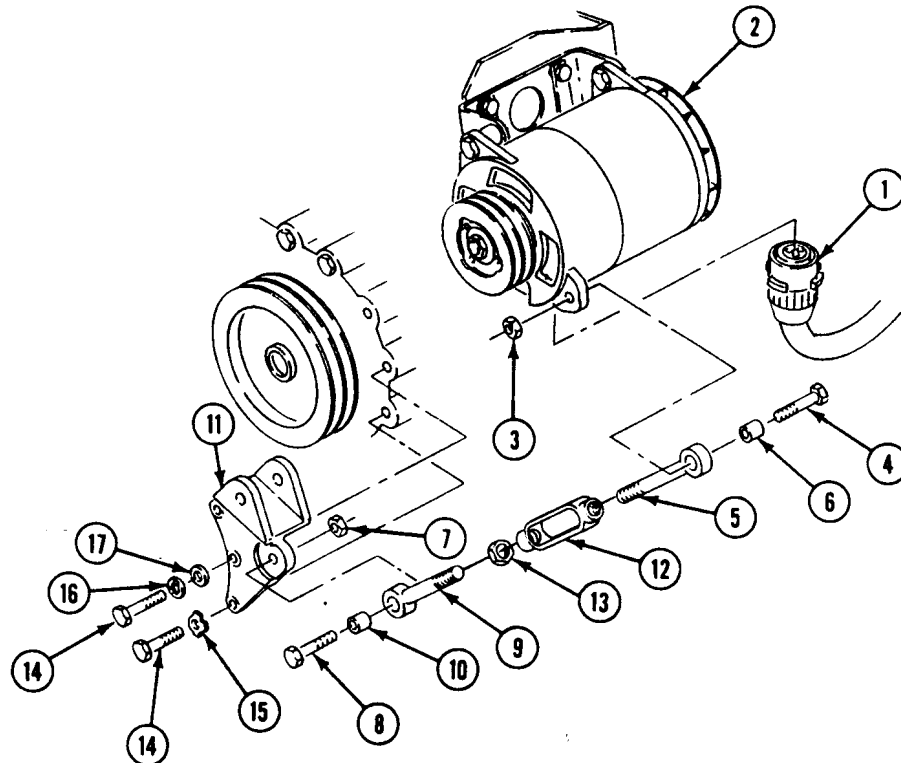
- Engine stopped (see your -10)
- Carrier blocked (see your -10)
- Battery ground lead disconnected (WP 0294 00)
- Power plant rear access panels removed (WP 0431 00)
- Generator drive belts removed (WP 0226 00)

Materials/Parts

- Antiseize compound (WP 0782 00, Item 8)
- Key washer (2)
- Lockwasher
- Locknut (6)
- Locknut (3)

REMOVAL

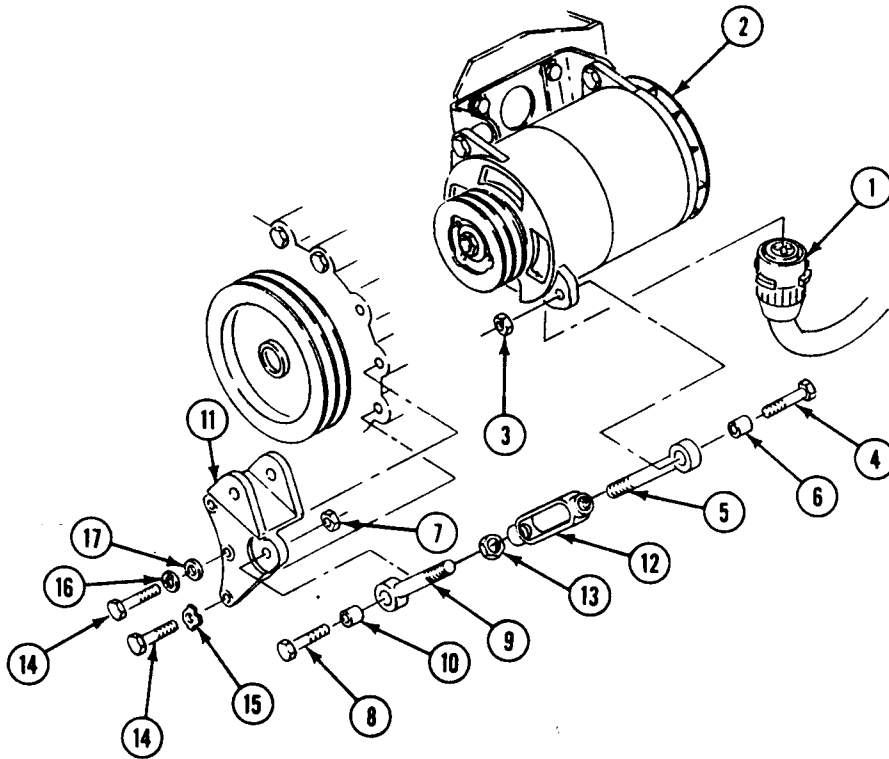
1. Disconnect cable (1) from generator (2).
2. Remove locknut (3), screw (4), rod end (5), and spacer (6) from generator (2). Discard locknut.
3. Remove locknut (7), screw (8), rod end (9), and spacer (10) from bracket (11). Discard locknut.



REPLACE GENERATOR AND ADJUSTMENT LINKAGE (100 AMP GENERATOR ONLY) — Continued

0227 00

4. Remove two rod ends (5) and (9) from turnbuckle (12). Remove jam nut (13) from rod end (9).
5. Remove three screws (14), two key washers (15), lockwasher (16), washer (17), and bracket (11) from transfer gearcase. Discard key washers and lockwasher.



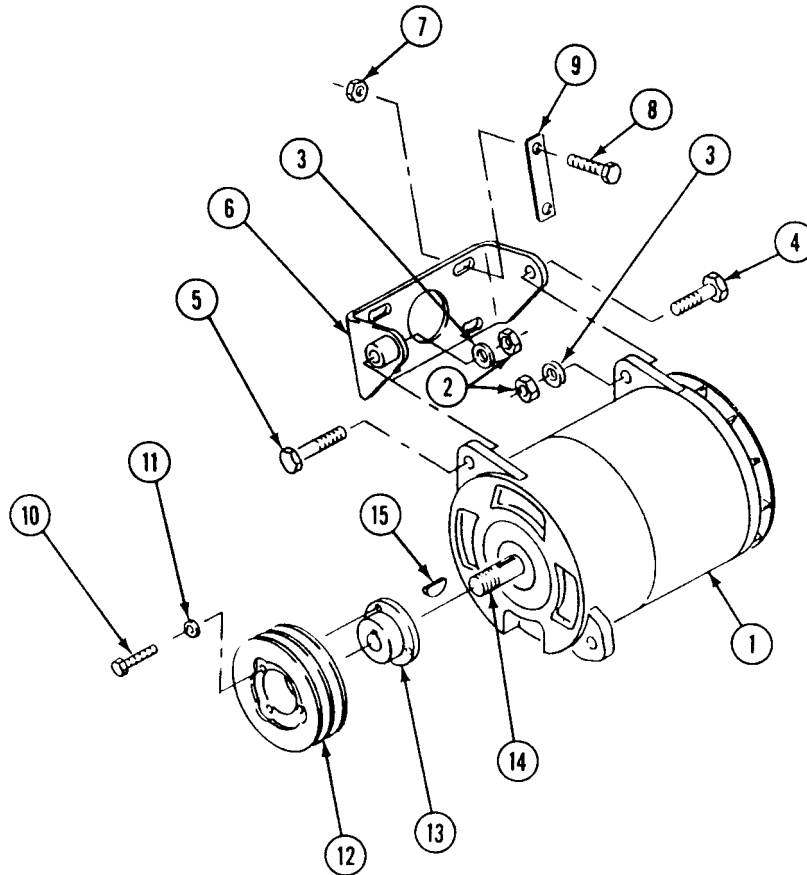
6. Support generator (1). Remove two locknuts (2), washers (3), screw (4), screw (5), and generator from mounting bracket (6).
7. Remove four locknuts (7), screws (8), two straps (9), and bracket (6) from engine. Discard locknuts.

**REPLACE GENERATOR AND ADJUSTMENT LINKAGE (100 AMP
GENERATOR ONLY) — Continued**

0227 00

NOTE**If replacing generator, do Steps 8 - 10.**

8. Remove three screws (10) and washers (11) securing pulley (12) and bushing (13) to generator shaft (14).
9. Use three screws (10) to separate pulley (12) and bushing (13). (Install three screws in three threaded holes of pulley. Tighten screws until you are able to separate pulley from bushing.)
10. Remove pulley (12) and bushing (13) from generator shaft (14). Remove key (15) from generator shaft.



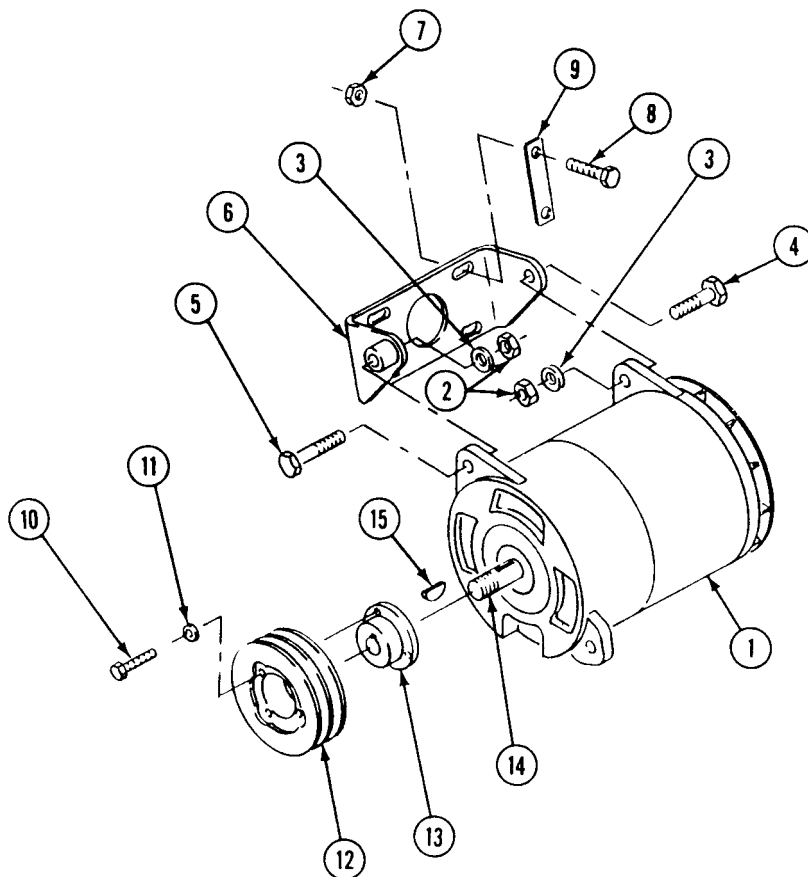
**REPLACE GENERATOR AND ADJUSTMENT LINKAGE (100 AMP
GENERATOR ONLY) — Continued**

0227 00

INSTALLATION**NOTE**

If installing new generator, begin with Step 1, but remove nut and washer from generator shaft before installing pulley. Nut and washer are not used. If not installing new generator go to Step 3.

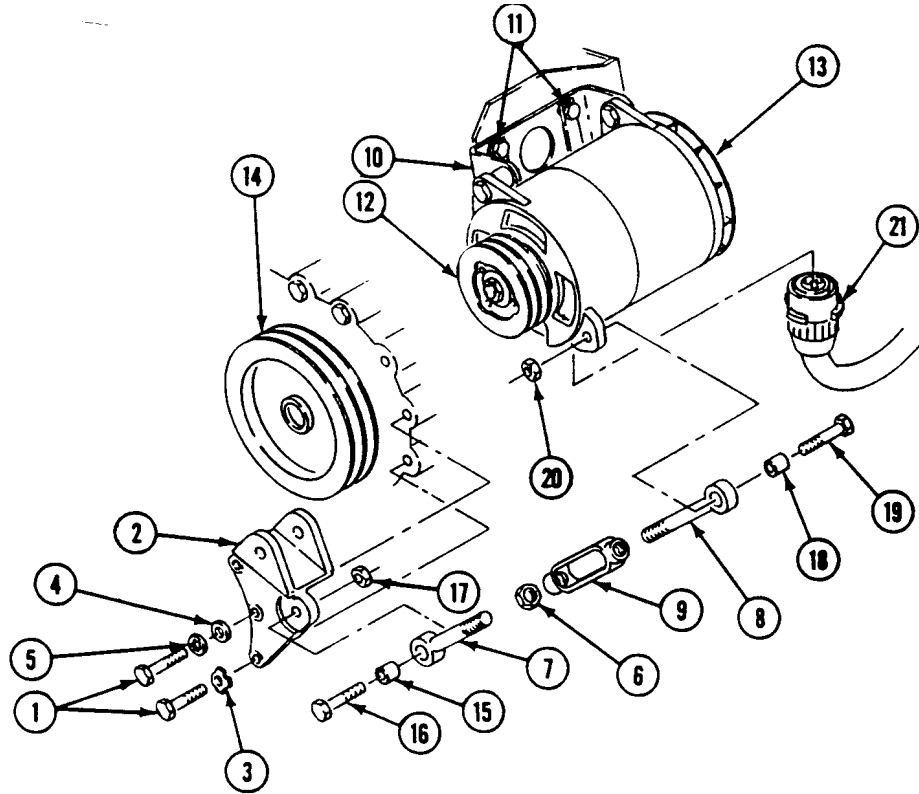
1. Install key (15) in generator shaft (14).
2. Install bushing (13) and pulley (12) on generator shaft (14) with three washers (11) and screws (10). TORQUE SCREWS TO 73-79 LB-IN (8-9 N·M).
3. Place bracket (6) on engine. Secure with two straps (9), four screws (8), and new locknuts (7). Do not tighten.
4. Install generator (1) on bracket (6). Secure with screw (5), screw (4), two washers (3), and new locknuts (2).



REPLACE GENERATOR AND ADJUSTMENT LINKAGE (100 AMP GENERATOR ONLY) — Continued

0227 00

5. Coat threads of three screws (1) with antiseize compound.
6. Install bracket (2) on transfer gearcase. Secure with two new key washers (3), washer (4), new lockwasher (5), and three screws (1). Bend tabs on key washers.
7. Thread jam nut (6) on rod end (7). Install rod ends (7) and (8) in turnbuckle (9).



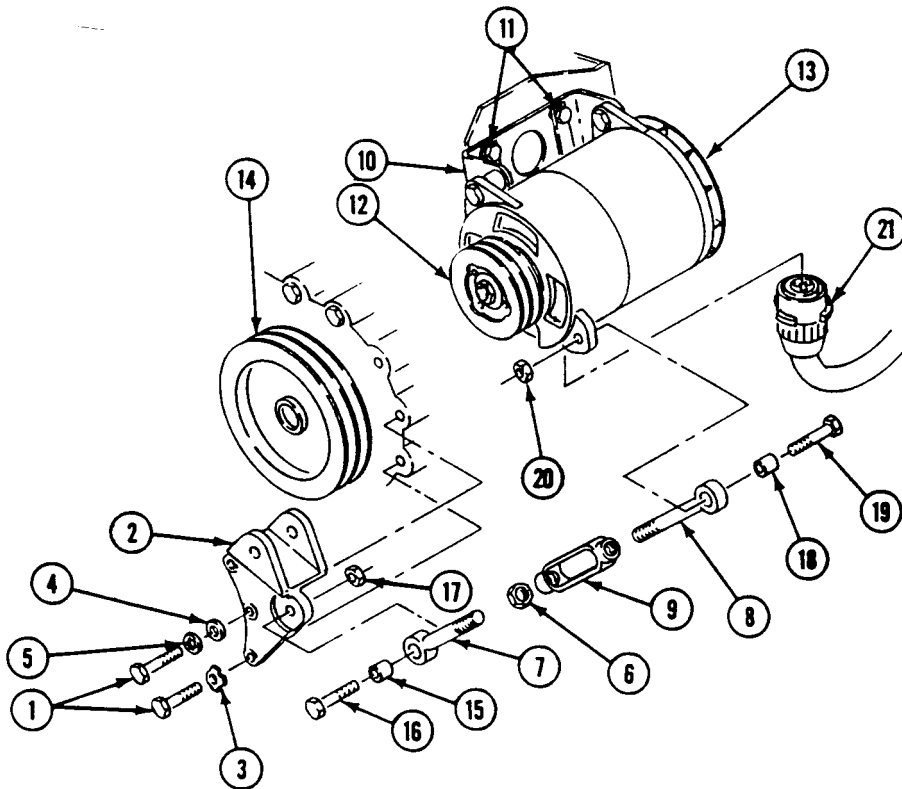
**REPLACE GENERATOR AND ADJUSTMENT LINKAGE (100 AMP
GENERATOR ONLY) — Continued**

0227 00

NOTE

Use straight edge across face of both pulleys to assist in proper alignment.

8. To obtain correct alignment, adjust the position of the generator mounting bracket (11) before you tighten the screws in the slotted holes. Align pulley (12) on generator (13) with drive pulley (14) on transfer gearcase to within 1/8 inch (3.2 mm), then tighten screws (11).
9. Place spacer (15) and rod end (7) on bracket (2). Secure with screw (16) and new locknut (17).
10. Place spacer (18) and rod end (8) on generator (13). Secure with screw (19) and new locknut (20).
11. Connect cable (21) to generator (13).


FOLLOW-THROUGH STEPS

1. Connect battery ground lead (WP 0294 00).
2. Install generator drive belts (WP 0226 00).
3. Check generator output for proper operation.
4. Stop/shutdown engine (see your -10).
5. Install power plant rear access panels and support (WP 0431 00).

END OF TASK

REPLACE GENERATOR AND ADJUSTMENT LINKAGE (200 AMP GENERATOR ONLY)

0228 00

THIS WORK PACKAGE COVERS:

- Removal (page 0228 00-1).
- Installation (page 0228 00-4).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic
Helper (H)

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Socket Wrench Set (WP 0780 00, Item 96)
- Torque Wrench (WP 0780 00, Item 102)
- Wood Block, 2 inches x 4 inches x 3 feet

Equipment Condition

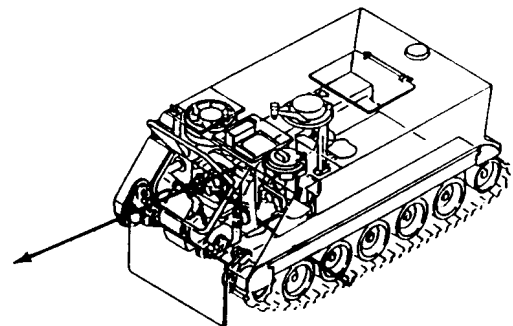
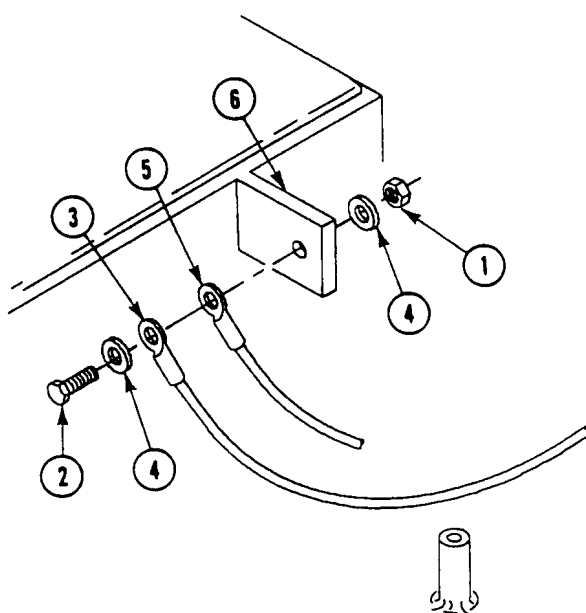
- Engine stopped (see your -10)
- Carrier blocked (see your -10)
- Battery ground lead disconnected (WP 0294 00)
- Power plant rear access panels removed (WP 0433 00)
- Generator drive belts removed (WP 0234 00)
- Fan drive belts removed (WP 0211 00)

Materials/Parts

- Antiseize compound (WP 0782 00, Item 8)
- Cotter pin (2)
- Key washer (2)
- Lockwasher (2)
- Locknut (2)
- Locknut (2)
- Locknut

REMOVAL

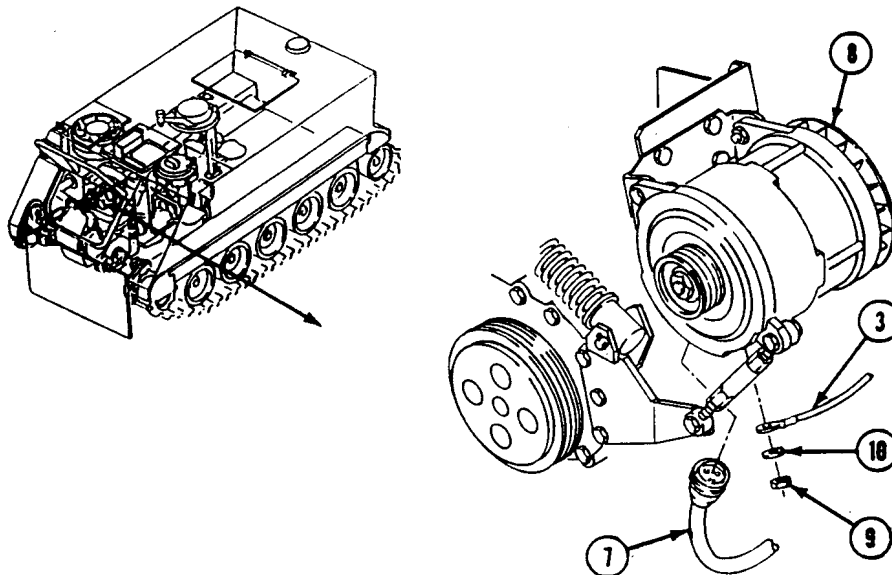
1. Remove locknut (1), screw (2), generator ground lead (3), two washers (4), and starter ground lead (5) from bracket (6). Discard locknut.



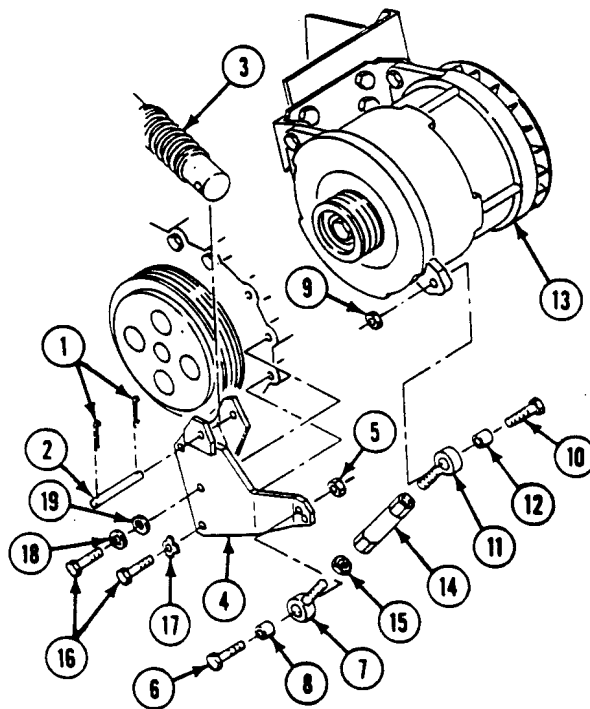
REPLACE GENERATOR AND ADJUSTMENT LINKAGE (200 AMP GENERATOR ONLY) — Continued

0228 00

- Disconnect cable (7) from generator (8). Remove nut (9), lockwasher (10), and generator ground lead (3) from generator. Discard lockwasher.



- Remove two cotter pins (1), pin (2), and fan drive tensioner (3) from bracket (4) on transfer gearcase. Discard cotter pins.
- Remove locknut (5), screw (6), rod end (7), and spacer (8) from bracket (4). Discard locknut.
- Remove locknut (9), screw (10), rod end (11), and spacer (12) from generator (13). Discard locknut.
- Remove two rod ends (7) and (11) from turnbuckle (14). Remove jam nut (15) from rod end (7).
- Remove three screws (16), two key washers (17), lockwasher (18), washer (19), and bracket (4) from transfer gearcase. Discard key washers and lockwasher.



REPLACE GENERATOR AND ADJUSTMENT LINKAGE (200 AMP GENERATOR ONLY) — Continued

0228 00

NOTE

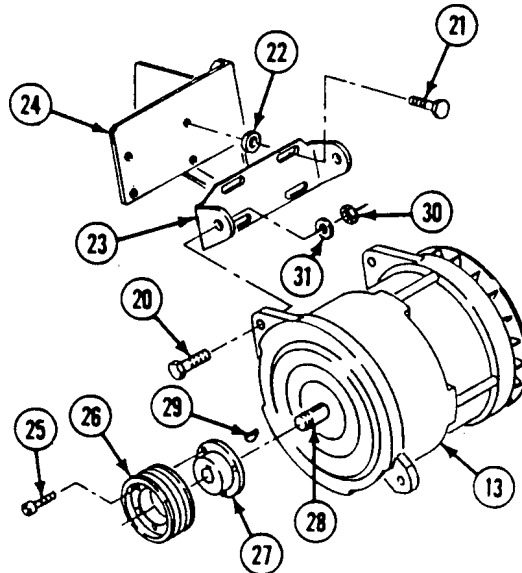
It may be necessary to loosen two screws (20) and swing generator up to remove lower screws (21) from generator mounting bracket.

8. Support generator with wood block and remove two lower screws (21) and washers (22), from generator from mounting bracket (23).
9. Remove two upper screws (21), washers (22), and generator mounting bracket (23) from fuel filter bracket (24).
10. Remove generator (13) and attached mounting bracket (23) from power plant compartment. Have helper assist.

NOTE

If replacing generator, do Steps 11 - 15.

11. Remove three screws (25) that secure pulley (26) and bushing (27) to generator shaft (28).
12. Install three screws (25) in threaded holes in pulley (26). Tighten screws until bushing (27) separates from pulley.
13. Remove pulley (26) and bushing (27) from generator shaft (28).
14. Remove key (29) from generator shaft (28).
15. Remove two locknuts (30), washers (31), and screws (20) from generator (13) and mounting bracket (23). Remove bracket from generator. Discard locknuts.



INSTALLATION

NOTE

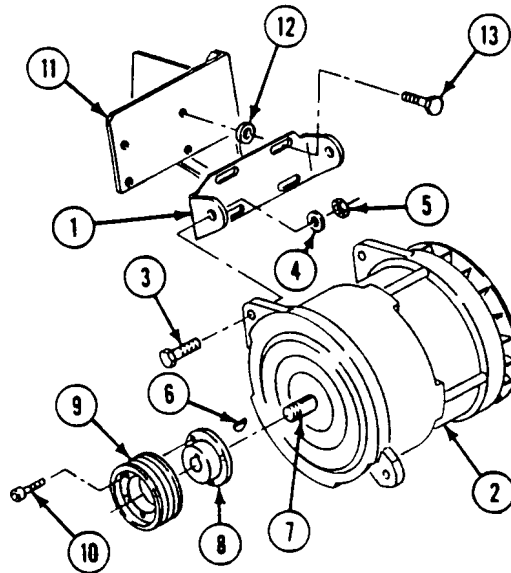
If installing new generator, begin with Step 1, but remove nut and washer from generator shaft before installing pulley. Nut and washer are not used. If not installing new generator go to Step 4.

1. Install generator mounting bracket (1) on generator (2). Secure with two screws (3), washers (4), and new locknuts (5). Do not tighten.
2. Install key (6) in generator shaft (7).

NOTE

Position pulley as close to the generator body as possible. Tighten three screws (10) alternately and progressively until they are pulled up tight.

3. Install bushing (8) and pulley (9) on generator shaft (7) with three screws (10).
4. Place generator (2) and mounting bracket (1) on right side sponson in engine compartment.
5. Support generator (2) with 2-inch x 4-inch x 3-foot wood block and align slotted holes in generator mounting bracket (1) with holes in fuel filter bracket (11). Secure with four washers (12) and screws (13). Do not tighten screws.

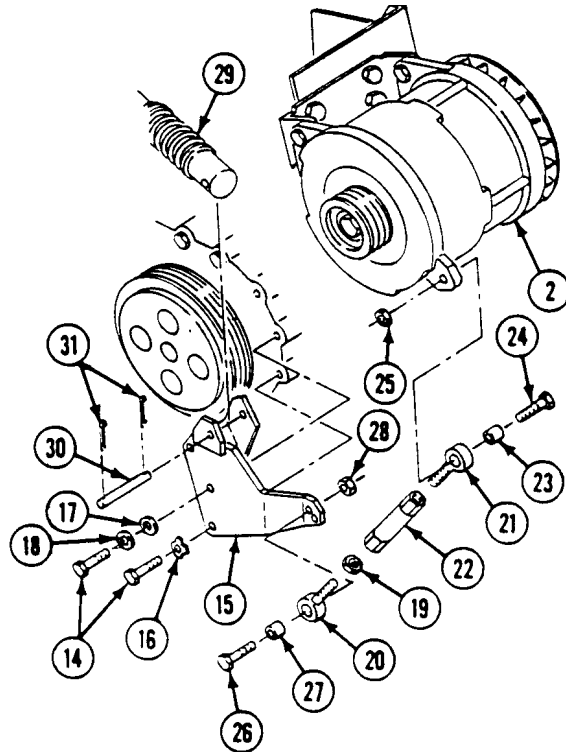


6. Coat threads of three screws (14) with antiseize compound.
7. Install bracket (15) on transfer gearcase. Secure with two new key washers (16), washer (17), new lockwasher (18), and three screws (14). TIGHTEN SCREWS TO 144-192 LB-IN (16-22 N·M) TORQUE. Use torque wrench and socket wrench set. Bend tabs on key washers.
8. Place jam nut (19) on rod end (20). Install rod ends (20) and (21) in turnbuckle (22). Do not tighten jam nut.
9. Install turnbuckle rod end (21) on generator (2). Secure with spacer (23), screw (24), and new locknut (25).
10. Secure rod end (20) to bracket (15) with screw (26), spacer (27), and new locknut (28).

REPLACE GENERATOR AND ADJUSTMENT LINKAGE (200 AMP GENERATOR ONLY) — Continued

0228 00

11. Assemble fan drive tensioner (29) and install on bracket (15). Secure with pin (30) and two new cotter pins (31).

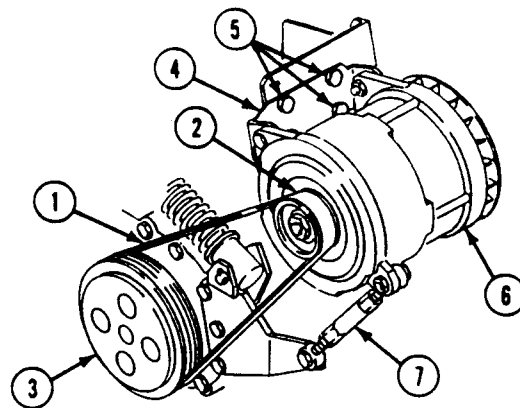


12. Place generator drive belt (1) on pulleys (2) and (3).

NOTE

Use straight edge across face of both pulleys to assist in proper alignment.

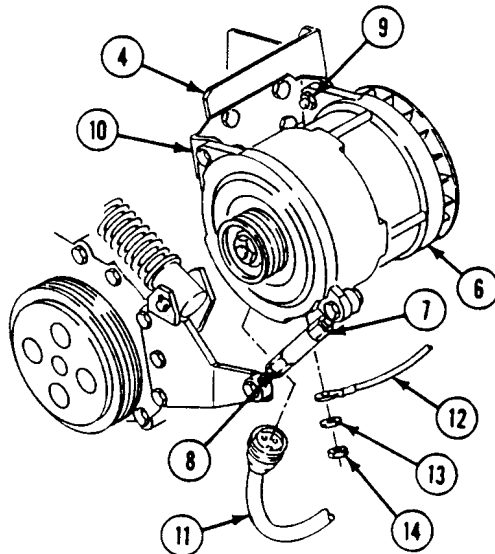
13. To obtain correct alignment, adjust the position of the generator mounting bracket (4) before you tighten the screws (5) in the slotted holes. Align pulley (2) on generator (6), with drive pulley (3) on transfer gearcase, then tighten screws (5).
14. Turn turnbuckle (7) until belt deflection at midspan is 1/2-5/8 inch (13-16 mm) when force is applied.



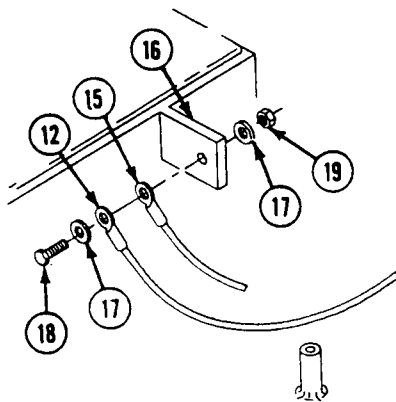
**REPLACE GENERATOR AND ADJUSTMENT LINKAGE (200 AMP
GENERATOR ONLY) — Continued**

0228 00

15. Tighten jam nut (8) on turnbuckle (7). Tighten two nuts (9) on screws (10) that secure generator (6) to generator mounting bracket (4).
16. Connect cable (11) to generator (6).
17. Install ground lead (12) on generator (6). Secure with new lockwasher (13) and nut (14).



18. Install starter ground lead (15) and generator ground lead (12) on bracket (16). Secure with two washers (17), screw (18), and new locknut (19).


FOLLOW-THROUGH STEPS

1. Connect battery ground lead (WP 0294 00).
2. Install fan drive belts (WP 0211 00).
3. Install generator drive belts (WP 0234 00).
4. While engine is running, check to be sure that generator and linkage are installed correctly.
5. Check generator output for proper operation.
6. Stop/shutdown engine (see your -10).
7. Install power plant rear access panels and support (WP 0433 00).

END OF TASK

ADJUST VOLTAGE REGULATOR (100/200 AMP GENERATOR)

0229 00

THIS WORK PACKAGE COVERS:

Adjustment (page 0229 00-1).

INITIAL SETUP:

Maintenance Level

Unit

References

TM 9-6140-200-14

Tools and Special Tools

- Digital Multimeter (WP 0780 00, Item 43)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)

Personnel Required

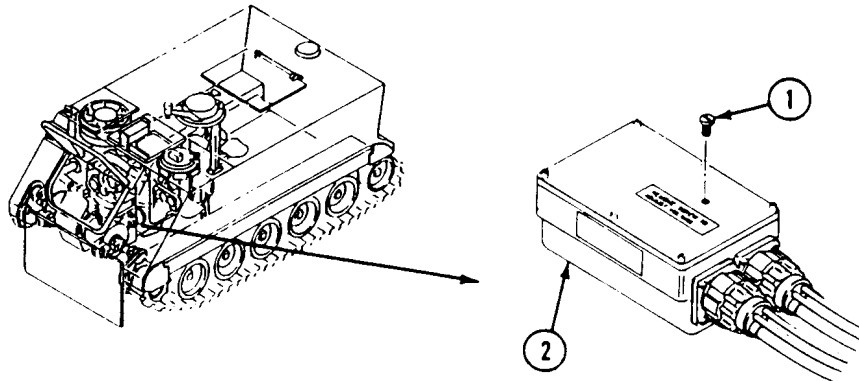
Unit Mechanic

ADJUSTMENT

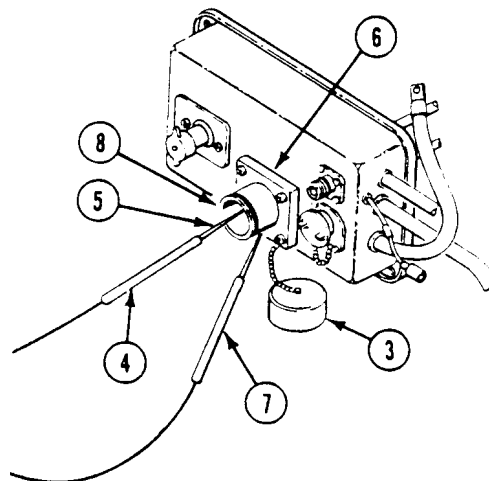
NOTE

Check batteries to make sure they are fully charged. See TM 9-6140-200-14.

1. Remove access screw (1) from regulator (2).



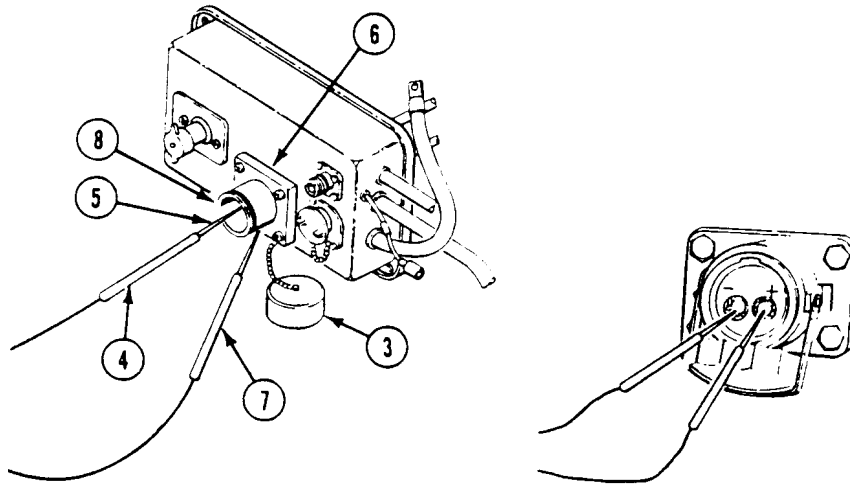
2. Start engine and allow to run for about 20 minutes with service headlights on (see your -10).
3. Turn off service headlights (see your -10).
4. Set multimeter to read voltage on the 50 V dc scale.
5. Remove receptacle cap (3).



NOTE

On carriers that have standard auxiliary power receptacles, touch red lead to positive and black lead to negative sockets in the receptacle.

- Place red lead (4) in positive socket of NATO plug (5) on auxiliary power (slave) receptacle (6). Touch negative lead (7) to outside of NATO plug (8) on receptacle.

**CAUTION**

Battery can get overcharged and explode if the charging volts exceed 29. Adjust voltage regulator to 29 volts.

NOTE

Do not force adjusting screw past stop. If regulator cannot be adjusted, replace bad regulator (WP 0230 00).

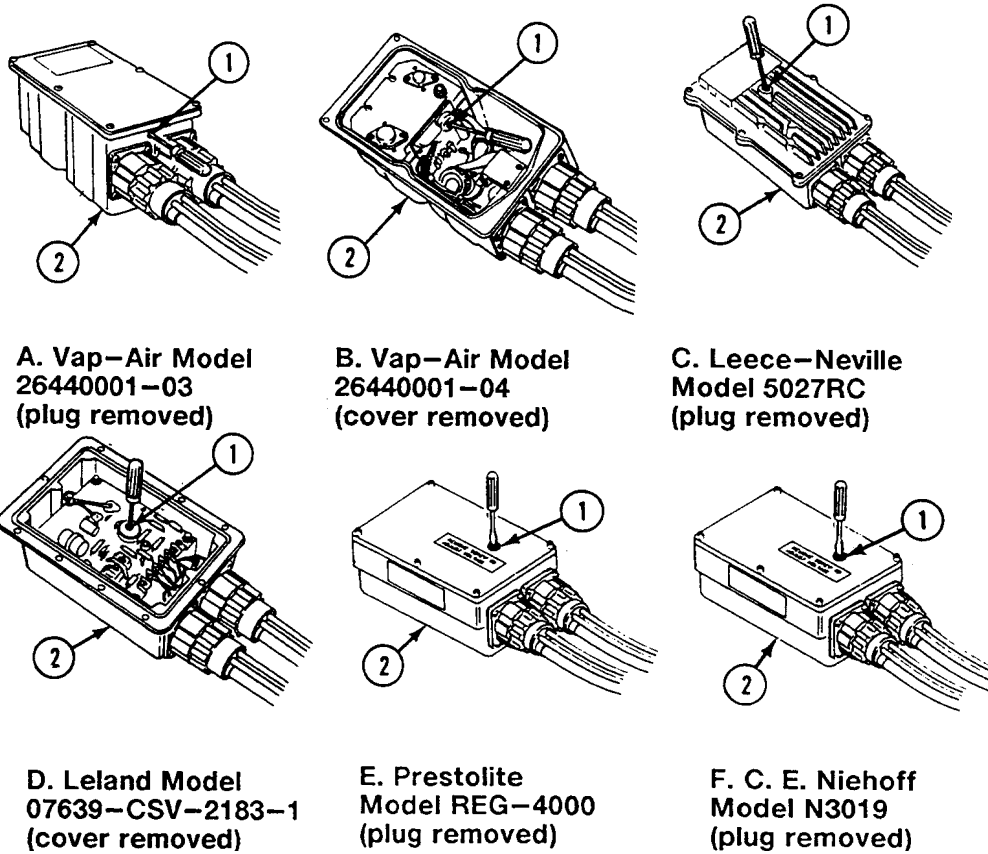
Use insulated cross-tip screw driver #1 to adjust voltage.

ADJUST VOLTAGE REGULATOR (100/200 AMP GENERATOR) — Continued

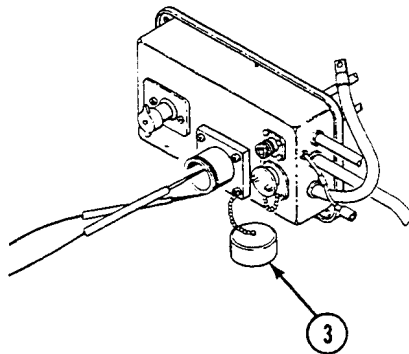
0229 00

7. With engine operating at 900 to 1100 RPM, turn adjusting screw (1) in regulator (2) until proper voltage reading is achieved.

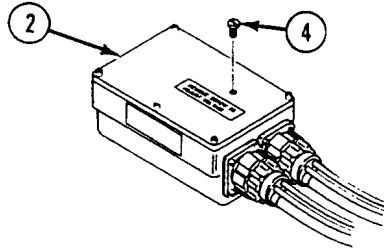
90° and above:	27 V dc
50° thru 89°:	28 V dc
49° and below:	29 V dc



8. Install receptacle cap (3).



9. Install access screw (4) on regulator (2).

**FOLLOW-THROUGH STEPS**

1. Stop engine (see your -10).

END OF TASK

REPLACE REGULATOR ASSEMBLY (100/200 AMP GENERATOR)

0230 00

THIS WORK PACKAGE COVERS:

- Removal (page 0230 00-1).
- Repair or Replacement (page 0230 00-2).
- Installation (page 0230 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

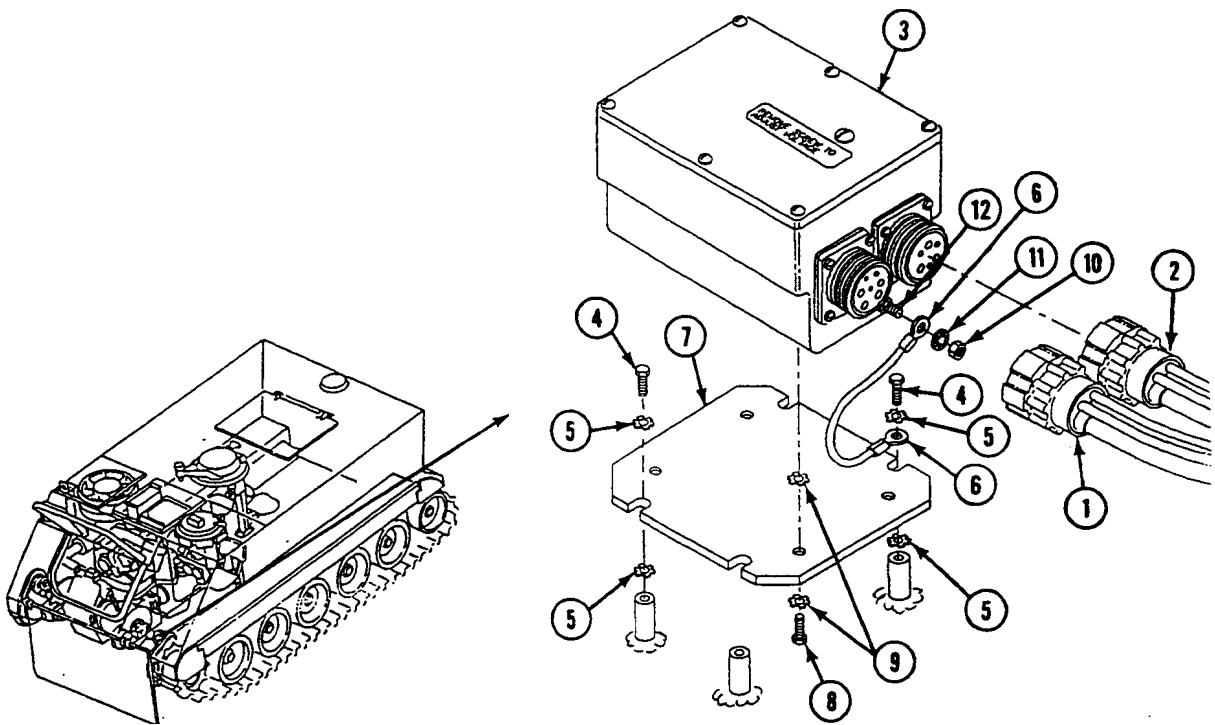
- Engine stopped (see your -10)
- Carrier blocked (see your -10)
- Battery ground lead disconnected (WP 0294 00)

Materials/Parts

- Lockwasher (8)
- Lockwasher (8)
- Lockwasher

REMOVAL

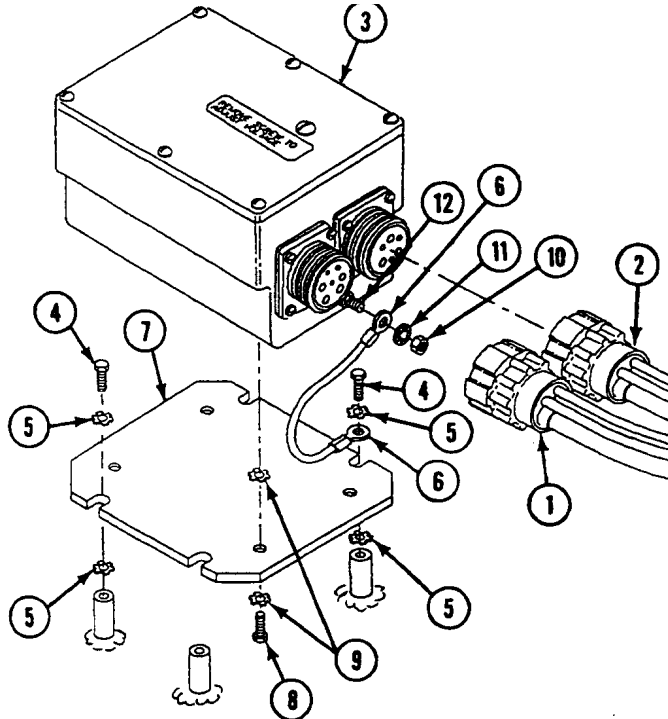
1. Disconnect two cannon plugs (1) and (2) from regulator (3).



NOTE

Ground lead is on 200 amp system only.

2. Remove four screws (4), eight lockwashers (5), ground strap (6), and mount plate (7) with attached regulator (3) from hull weldnuts. Discard lockwashers.
3. Remove four screws (8), eight lockwashers (9), and mount plate (7) from regulator (3). Discard lockwashers.
4. Remove nut (10), lockwasher (11), and other end of ground lead (6) from ground stud (12). Discard lockwasher.

**REPAIR OR REPLACEMENT**

1. Check cables. Replace worn or cracked cables and damaged connectors (WP 0312 00, WP 0313 00, or WP 0314 00).

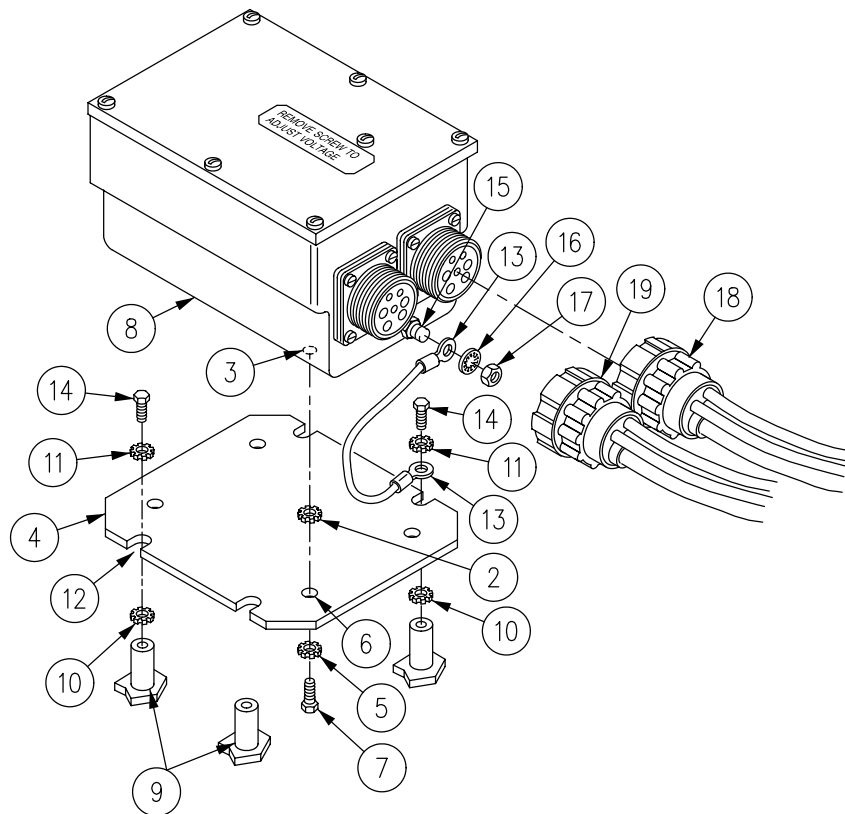
INSTALLATION

1. Place regulator (8) upside down and place four new lockwashers (2) on holes (3). Set mount plate (4) on regulator and place four more new lockwashers (5) on holes (6). Secure mount plate to regulator with four screws (7).

NOTE

Ground lead is on 200 amp system only.

2. Set regulator (8) and mount plate assembly (4) on hull weldnuts (9). Slide four new lockwashers (10) under mount plate (4) on hull weldnuts. Place four new lockwashers (11) on mount plate over holes (12). Slide end of ground lead (13) under lockwasher (11). Secure with four screws (14).
3. Place other end of ground lead (13) on ground stud (15). Secure with new lockwasher (16) and nut (17).
4. Connect two cannon plugs (18) and (19) to regulator (8).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Adjust regulator voltage (WP 0229 00).

END OF TASK

**REPLACE GENERATOR-REGULATOR CIRCUIT BREAKER
(100 AMP GENERATOR ONLY)**

0231 00

THIS WORK PACKAGE COVERS:

- Removal (page 0231 00-1).
- Repair or Replacement (page 0231 00-2).
- Installation (page 0231 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped (see your -10)

Battery ground lead disconnected (WP 0294 00)

Carrier blocked (see your -10)

Materials/Parts

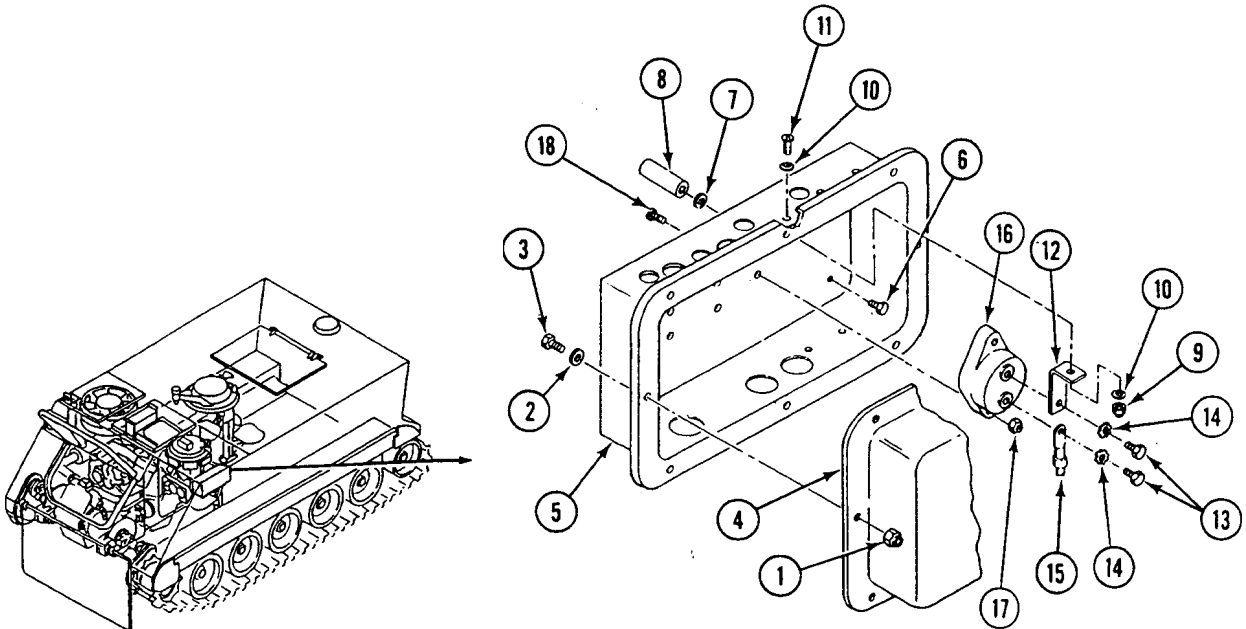
Lockwasher (5)

Locknut (8)

Locknut (3)

REMOVAL

1. Remove eight locknuts (1), washers (2), screws (3), and master switch panel (4) from distribution box (5). Discard locknuts.



**REPLACE GENERATOR-REGULATOR CIRCUIT BREAKER (100 AMP
GENERATOR ONLY) — Continued**

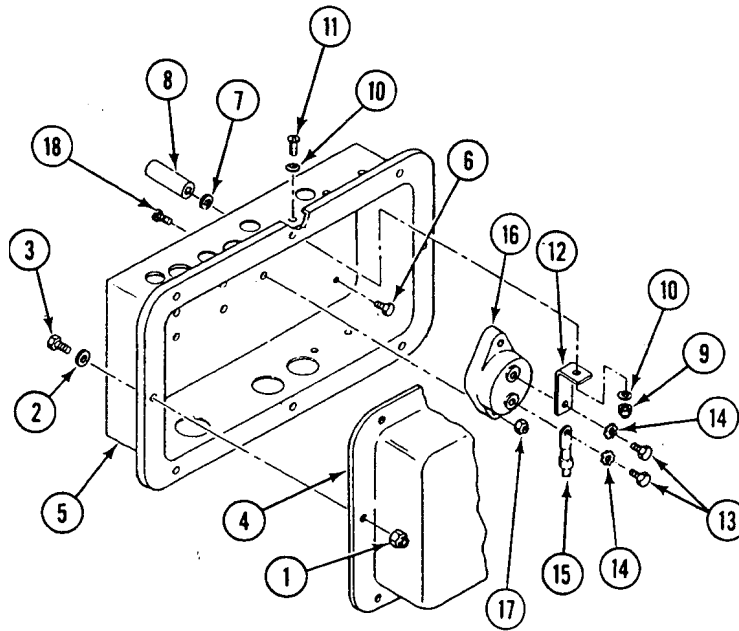
0231 00

2. Remove five screws (6), lockwashers (7), and distribution box (5) from hull mounts (8). Discard lockwashers.
3. Remove locknut (9), two washers (10), and screw (11) from terminal strip (12) and distribution box (5). Discard locknut.

NOTE

Some carriers have four lockwashers on circuit breaker.

4. Remove two screws (13), four/two lockwashers (14), terminal strip (12), and circuit 3 lead (15) from circuit breaker (16). Discard lockwashers.
5. Remove two locknuts (17), screws (18), and circuit breaker (16) from distribution box (5). Discard locknuts.



REPAIR OR REPLACEMENT

1. Check terminal strip. Replace circuit breaker that has cracked terminal strip.

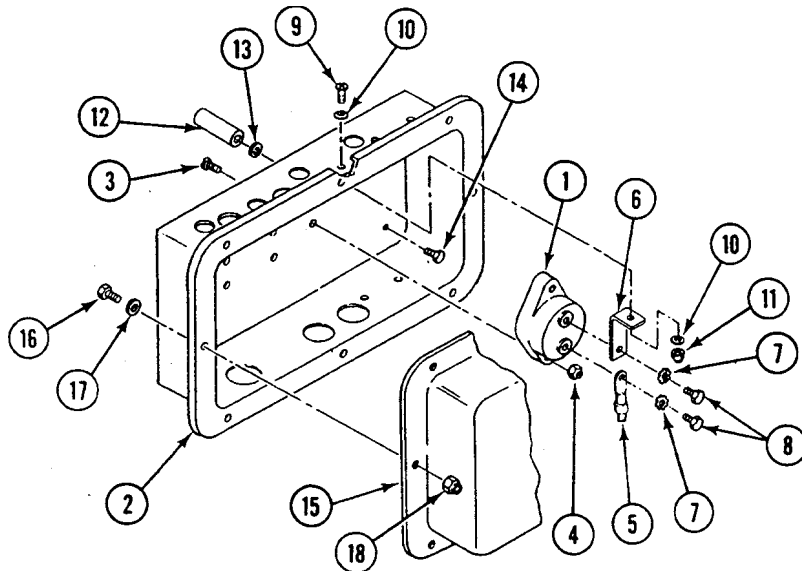
**REPLACE GENERATOR-REGULATOR CIRCUIT BREAKER (100 AMP
GENERATOR ONLY) — Continued**

0231 00

INSTALLATION**NOTE**

When installing a new generator-regulator circuit breaker, discard two of the four lockwashers supplied with circuit breaker.

1. Place circuit breaker (1) in distribution box (2). Secure with two screws (3) and new locknuts (4).
2. Place circuit 3 lead (5) and terminal strip (6) on circuit breaker (1). Secure with two new lockwashers (7) and two screws (8).
3. Align terminal strip (6) with hole in distribution box (2). Secure with screw (9), two washers (10), and new locknut (11).
4. Place distribution box (2) on hull mounts (12). Secure with five new lockwashers (13) and screws (14).
5. Place master switch panel (15) on distribution box (2). Secure with eight screws (16), washers (17), and new locknuts (18).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Start engine and check the generator-regulator circuit breaker. The BATT-GEN gauge should be in the green (see your -10).
3. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE GENERATOR FIELD SWITCH

0232 00

THIS WORK PACKAGE COVERS:

- Removal (page 0232 00-1).
- Repair or Replacement (page 0232 00-1).
- Installation (page 0232 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

- Engine stopped (see your -10)
- Carrier blocked (see your -10)
- Rear power plant access panel removed (see your -10)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

Sealing compound (WP 0782 00, Item 60)

Personnel Required

Unit Mechanic

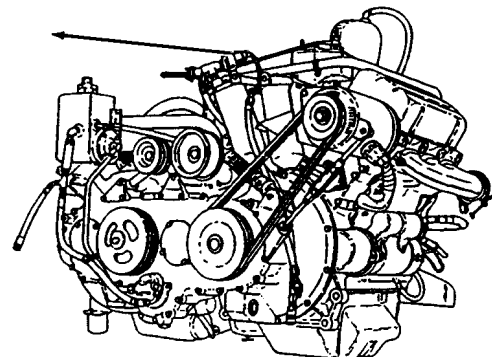
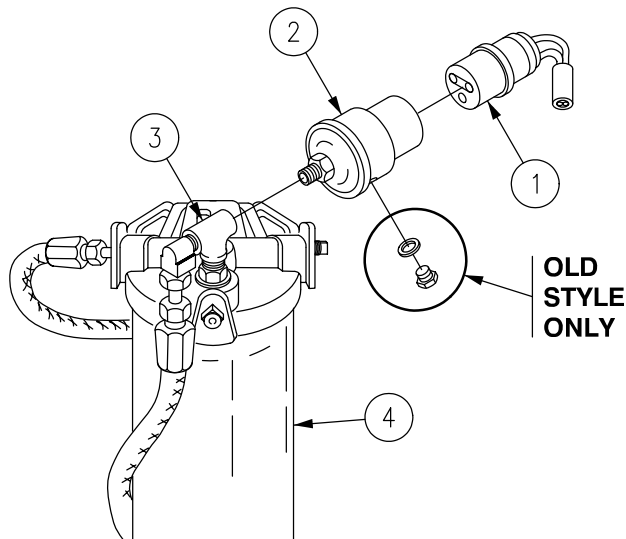
REMOVAL

1. Disconnect circuit 1A/1B lead (1) from generator field switch (2).

NOTE

Earlier switches may have a threaded pipe plug without a head or no plug at all. Discard the pipe plug with the switch. Do not reuse pipe plug because it can be installed too deeply and short out the new switch.

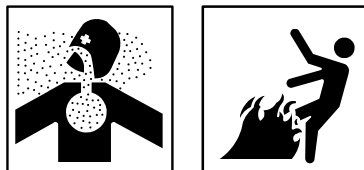
2. Remove switch (2) from tee (3) on secondary fuel filter (4).



REPAIR OR REPLACEMENT

1. Check circuit lead. Replace worn or cracked lead and damaged connector (WP 0312 00, WP 0313 00, or WP 0314 00).

INSTALLATION

WARNING

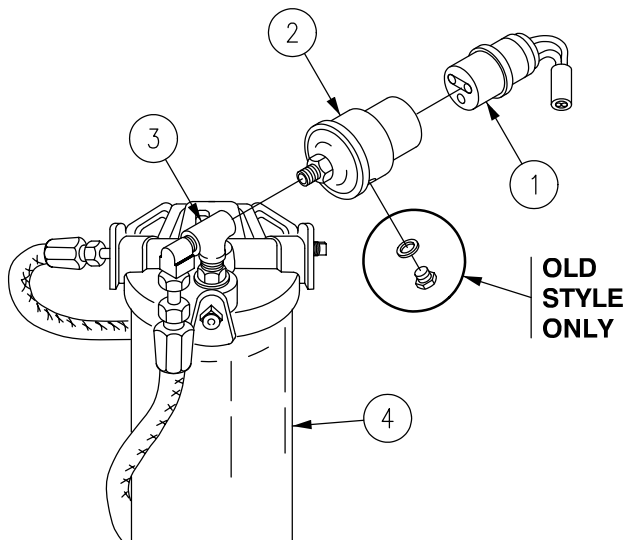
Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

NOTE

New switches do not require pipe plug and washer. Earlier switches may have a threaded hole that should be sealed with a pipe plug and washer to prevent fuel from leaking out. If there is a pipe plug without a head, it can be installed too deep causing the switch to short out. Reuse old pipe plug and washer if you get an older style switch.

1. Coat threads of switch (2) with sealing compound.
2. Install switch (2) on tee (3) on secondary fuel filter (4).
3. Connect circuit 1A/1B lead (1) to switch (2).

**FOLLOW-THROUGH STEPS**

1. Check operation of field switch.
2. Install rear power plant access panel (see your -10).

END OF TASK

REPLACE FUEL FILTER MOUNTING BRACKET (M577A2 AND M1068 WITH 200 AMP GENERATOR ONLY)

0233 00

THIS WORK PACKAGE COVERS:

- Removal (page 0233 00-1).
- Installation (page 0233 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Torque Wrench (WP 0780 00, Item 104)

Materials/Parts

- Antiseize compound (WP 0782 00, Item 8)
- Locknut
- Lockwasher (4)
- Screw (4)

Personnel Required

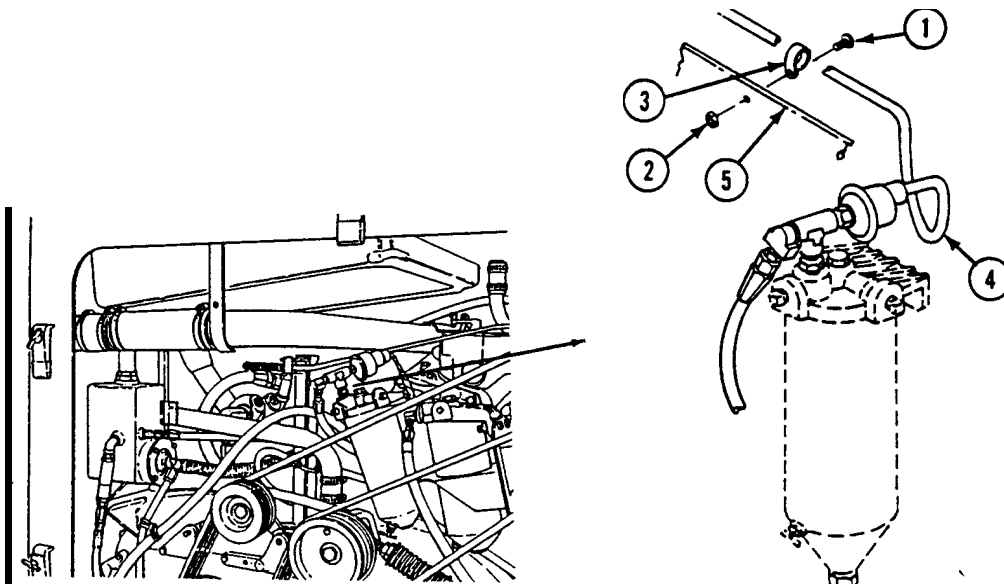
Unit Mechanic

Equipment Condition

- Carrier blocked (see your -10)
- Engine stopped (see your -10)
- Ramp lowered (see your -10)
- Battery ground lead disconnected (WP 0294 00)
- Power plant rear access panel removed (WP 0433 00)
- Fan drive belts removed (WP 0211 00)
- Primary fuel filter removed (WP 0172 00)
- Secondary fuel filter removed (WP 0173 00)
- Generator and mounting bracket removed (WP 0227 00)

REMOVAL

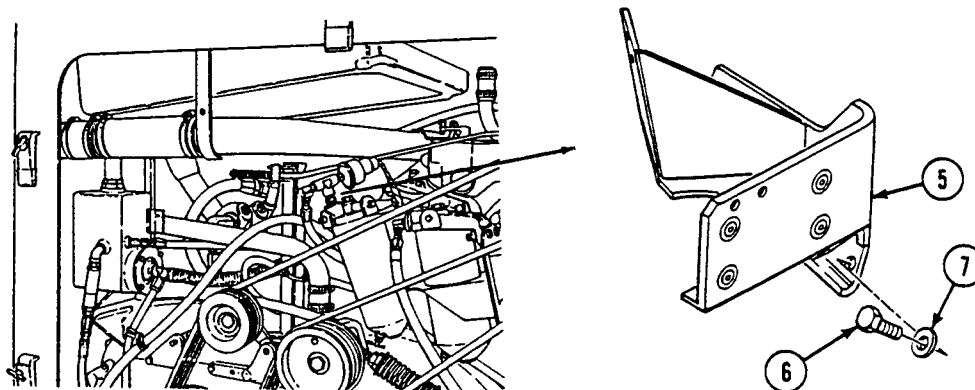
1. Remove screw (1), locknut (2), clamp (3), and field switch wire (4) from fuel filter mounting bracket (5). Discard locknut.



REPLACE FUEL FILTER MOUNTING BRACKET (M577A2 AND M1068 WITH 200 AMP GENERATOR ONLY) — Continued

0233 00

- Remove four screws (6), lockwashers (7), and bracket (5) from engine. Discard lockwashers.

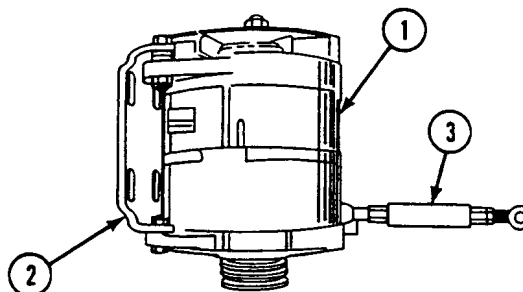


INSTALLATION

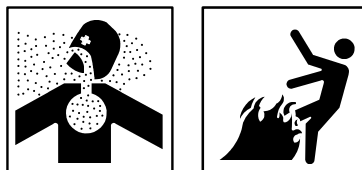
NOTE

Generator (1), with bracket (2) and turnbuckle assembly (3) attached, must be placed on right side sponson prior to installing new fuel filter mounting bracket due to space restrictions.

- Place generator (1), bracket (2), and turnbuckle assembly (3) on right side sponson inside power plant compartment.



WARNING



Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

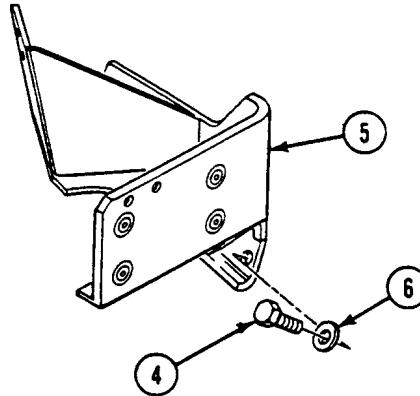
Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

- Apply thin coat of sealing compound to threads of four new screws (4).

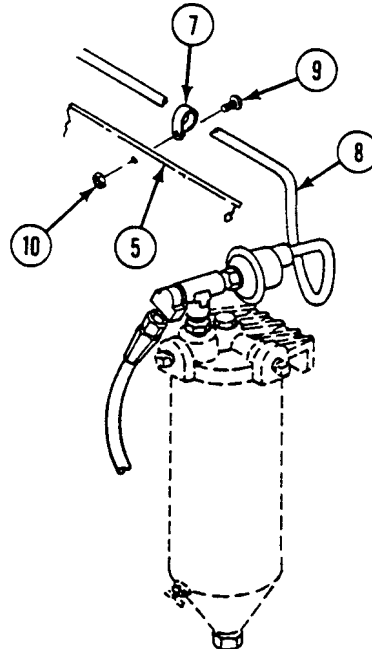
**REPLACE FUEL FILTER MOUNTING BRACKET (M577A2 AND M1068 WITH
200 AMP GENERATOR ONLY) — Continued**

0233 00

3. Install bracket (5) on engine. Secure with four new screws (4) and new lockwashers (6). TIGHTEN SCREWS TO 50-55 LB-FT (60-70 N·M) TORQUE. Use torque wrench.



4. Install clamp (7) with field switch wire (8) on bracket (5). Secure with screw (9) and new locknut (10).


FOLLOW-THROUGH STEPS

1. Install generator and mounting bracket (WP 0227 00).
2. Install secondary fuel filter (WP 0173 00).
3. Install primary fuel filter (WP 0172 00).
4. Install fan drive belts (WP 0211 00).
5. Install power plant rear access panel (WP 0433 00).
6. Connect battery ground lead (WP 0294 00).
7. Raise and lock ramp (see your -10).
8. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE GENERATOR DRIVE BELTS (200 AMP GENERATOR ONLY)

0234 00

THIS WORK PACKAGE COVERS:

Removal (page 0234 00-1).
 Installation (page 0234 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

Engine stopped (see your -10)

Carrier blocked (see your -10)

Power plant rear access panels removed (WP 0431 00,
 WP 0432 00, and WP 0433 00)

Tools and Special Tools

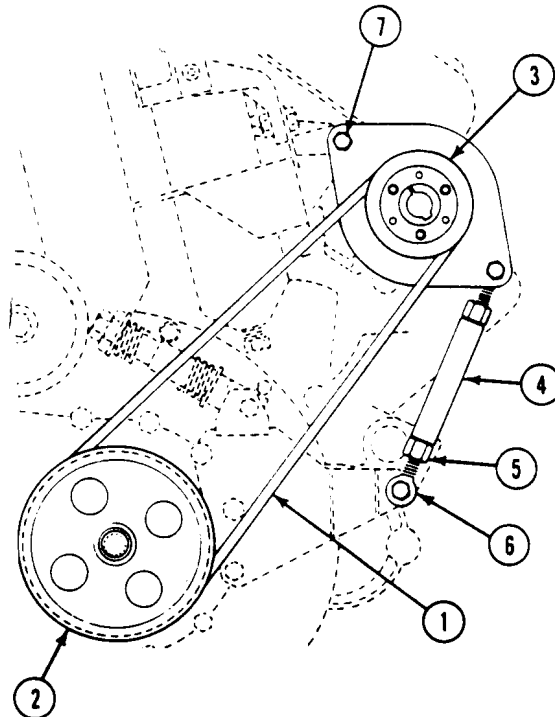
General Mechanic's Tool Kit (WP 0780 00, Item 29)

Personnel Required

Unit Mechanic

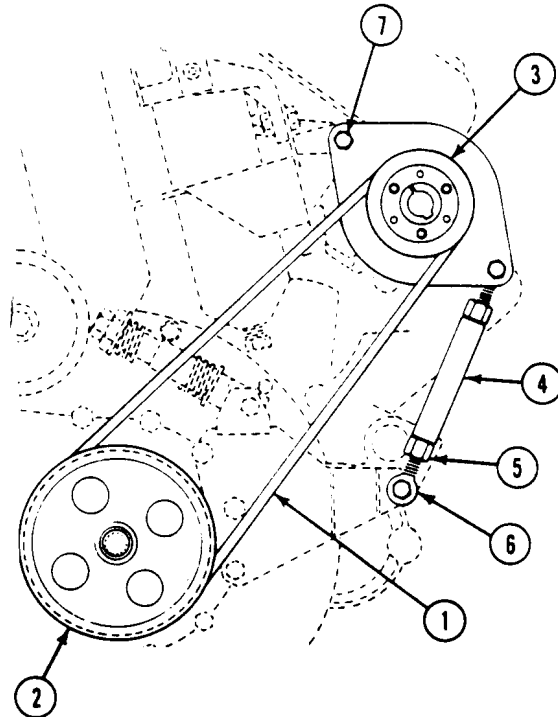
REMOVAL

1. Loosen jam nut (5) on rod end (6).
2. Loosen two screws (7) on generator mounting bracket.
3. Turn turnbuckle (4) to loosen drive belt (1).
4. Remove drive belt (1) from generator pulley assembly (3) and drive pulley (2).



INSTALLATION

1. Install new drive belt (1) on drive pulley (2) and generator pulley (3).
2. Turn turnbuckle (4) and tighten belt until belt deflection at midspan is 1/2 to 5/8 inch (13 to 16 mm) when force is applied.
3. Tighten locknut (5) on rod end (6).
4. Tighten two screws (7) on generator mounting bracket.

**FOLLOW-THROUGH STEPS****WARNING**

Wearing loose clothing around moving parts can allow personnel to get caught and could result in injury or death. Tuck in loose clothing.

1. Start engine (see your -10). Check that generator drive belts are installed properly.
2. Stop/shutdown engine (see your -10).
3. Install power plant rear access panels (WP 0431 00, WP 0432 00, and WP 0433 00).

END OF TASK

**REPLACE MASTER SWITCH TO DISTRIBUTION BOX WIRE ASSEMBLY
(CIRCUIT 49) (M577A2 AND M1068 ONLY)**

0235 00

THIS WORK PACKAGE COVERS:

- Removal (page 0235 00-1).
- Repair or Replacement (page 0235 00-2).
- Installation (page 0235 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- Digital Multimeter (WP 0780 00, Item 43)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

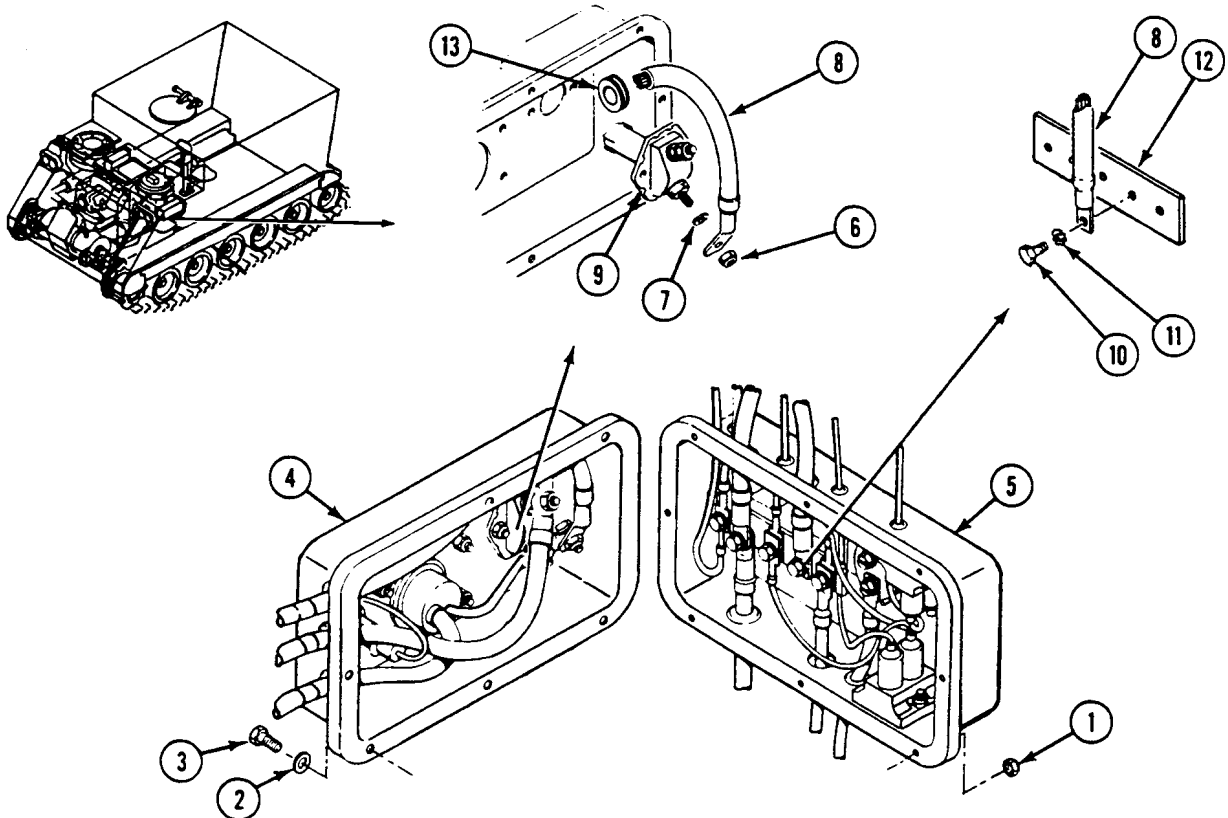
- Engine stopped (see your -10)
- Carrier blocked (see your -10)
- Battery ground lead disconnected (WP 0294 00)

Materials/Parts

- Grommet (2)
- Locknut (8)
- Locknut
- Lockwasher

REMOVAL

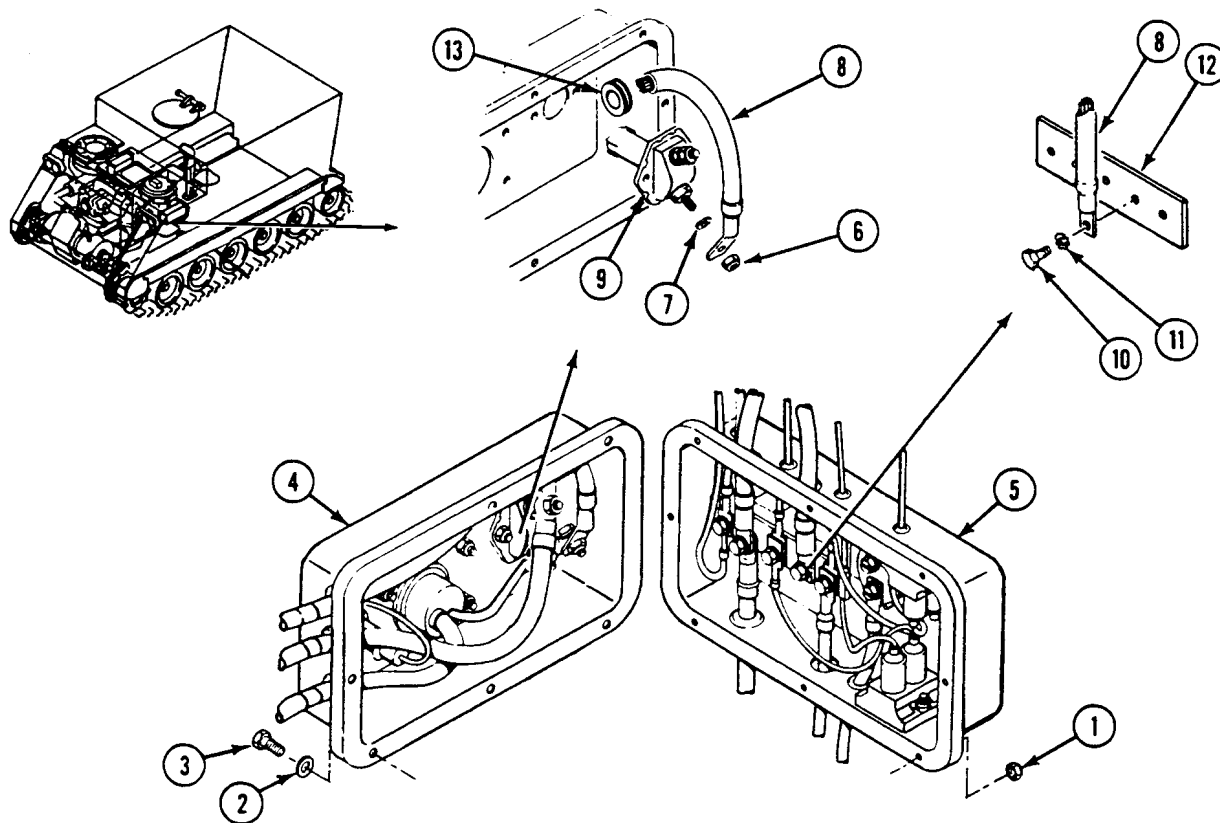
1. Remove eight locknuts (1), washers (2), screws (3), and master switch panel (4) from distribution box (5). Discard locknuts.
2. Remove locknut (6), washer (7), and circuit 49 lead (8) from master switch terminal (9). Discard locknut.



REPLACE MASTER SWITCH TO DISTRIBUTION BOX WIRE ASSEMBLY (CIRCUIT 49) (M577A2 AND M1068 ONLY) — Continued

0235 00

3. Remove screw (10), lockwasher (11), and circuit 49 lead (8) from distribution box bus bar (12). Discard lockwasher.
4. Remove circuit 49 lead (8) with two grommets (13) from master switch panel (4) and distribution box (5). Discard grommets.


REPAIR OR REPLACEMENT

1. Check circuit 49 lead for continuity. Use multimeter. Replace bad lead.

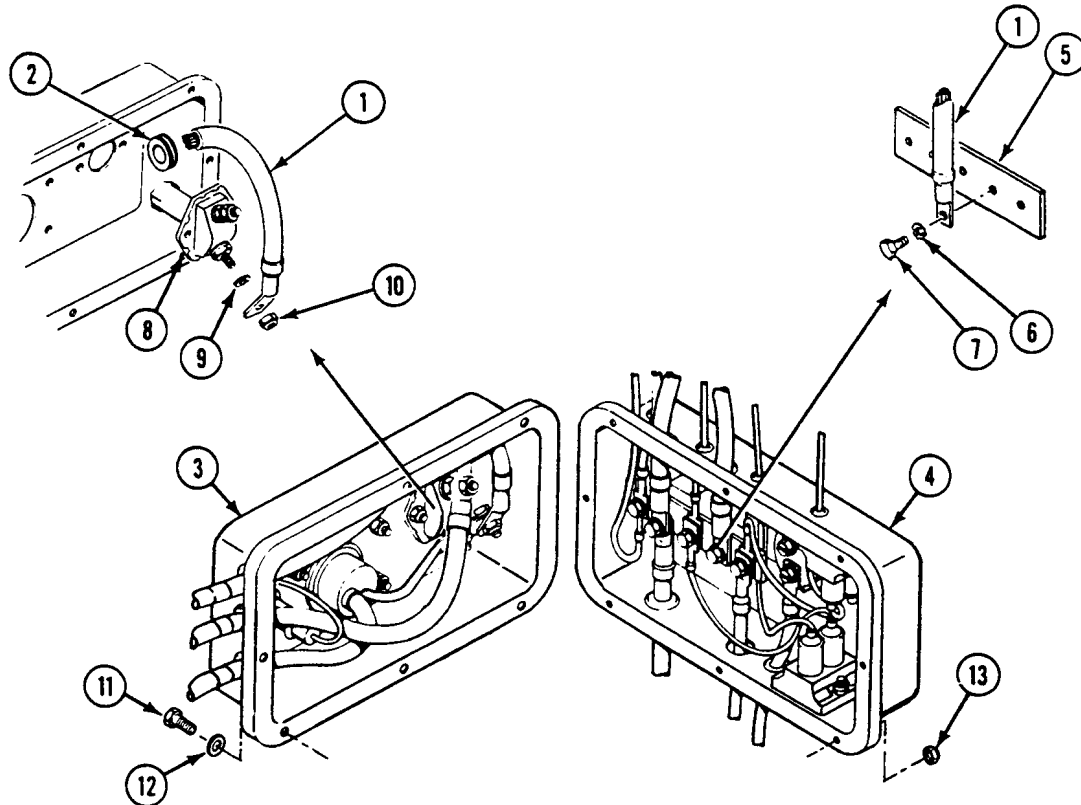
INSTALLATION

1. Install two new grommets (2) on circuit 49 lead (1).
2. Route circuit 49 lead (1) through distribution box (4) and master switch panel (3). Install new grommets (2) in box and panel.
3. Install circuit 49 lead (1) on bus bar (5) of distribution box (3). Secure with new lockwasher (6) and screw (7).
4. Install circuit 49 lead (1) on master switch terminal (8). Secure with washer (9) and new locknut (10).

REPLACE MASTER SWITCH TO DISTRIBUTION BOX WIRE ASSEMBLY (CIRCUIT 49) (M577A2 AND M1068 ONLY) — Continued

0235 00

5. Install master switch panel (3) on distribution box (4). Secure with eight screws (11), washers (12), and new locknuts (13).


FOLLOW-THROUGH STEPS

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Check that circuit 49 lead is operational. Master switch light should come on (see your -10).
4. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

CHAPTER 10

UNIT MAINTENANCE INSTRUCTIONS
FOR STARTER SYSTEM

WORK PACKAGE INDEX

<u>Title</u>	<u>Sequence No.</u>
REPLACE STARTER.....	0236 00
REPLACE STARTER GROUND LEADS.....	0237 00

REPLACE STARTER

0236 00

THIS WORK PACKAGE COVERS:

- Removal (page 0236 00-1).
- Cleaning (page 0236 00-2).
- Installation (page 0236 00-2).
- Alternate Removal (page 0236 00-4).
- Clean, Inspect, and Repair (page 0236 00-5).
- Alternate Installation (page 0236 00-5).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic
Helper (H)

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Rod Ground (2) (WP 0780 00, Item 61)
- Torque Wrench (WP 0780 00, Item 103)

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Battery ground lead disconnected (WP 0294 00)
- Power plant removed (WP 0131 00) (if rods are not available)
- Door opened and right side exhaust pipe removed (WP 0189 00) (if rods are not available)

Materials/Parts

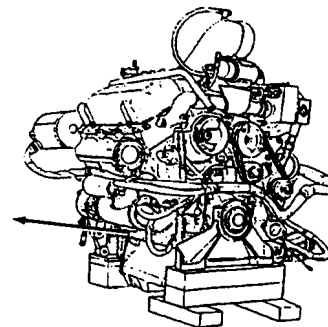
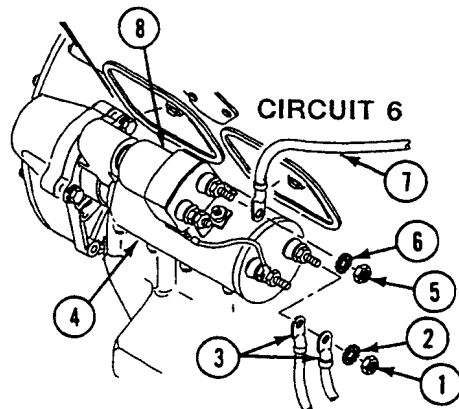
- Gasket
- Lockwasher (3)
- Lockwasher (4)

REMOVAL

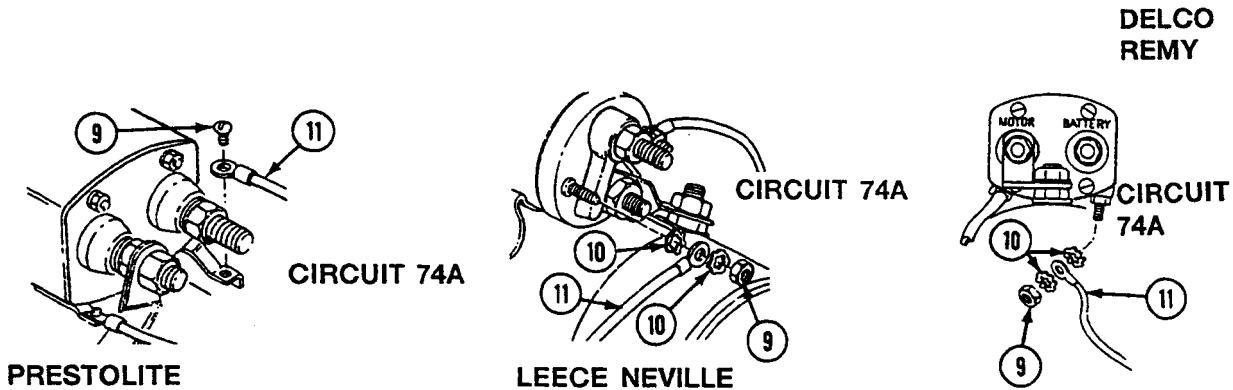
NOTE

If power plant is in carrier and steel rods are available, go to ALTERNATE REMOVAL Step 1. A helper is needed.

1. Remove nut (1), lockwasher (2), and two ground leads (3) from terminal on starter (4). Discard lockwasher.
2. Remove nut (5), lockwasher (6), and circuit 6 lead (7) from terminal on starter solenoid (8). Discard lockwasher.



- Remove nut (9) (screw on Prestolite), two lockwashers (10) (Delco and Leece Neville only), and circuit 74A lead (11) from terminal on solenoid. Discard lockwashers.

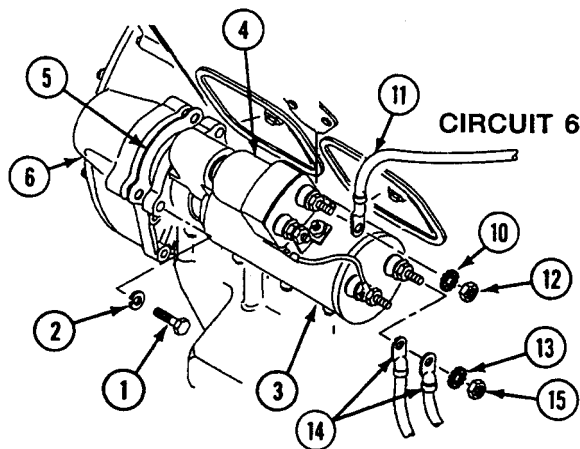


WARNING



Avoid injury. Get an assistant to help you lift the starter or use a hoist. Starter weighs about 75 pounds (34 kg).

- Remove three bolts (1), lockwashers (2), starter (3) with solenoid (4), and gasket (5) (if installed) from engine (6). Discard lockwashers.



CLEANING

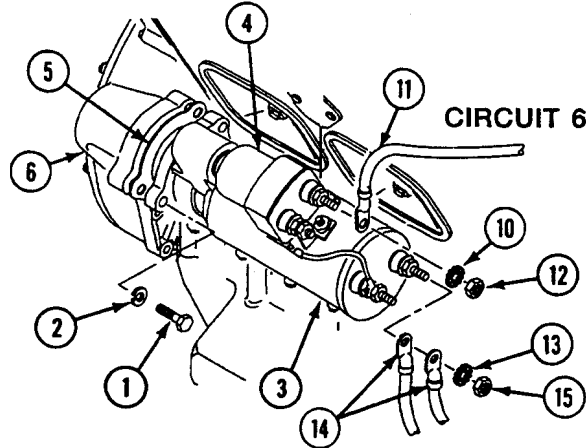
- Check starter drive teeth. Remove burrs. Replace starter that has damaged teeth or teeth worn beyond original shape.

INSTALLATION

NOTE

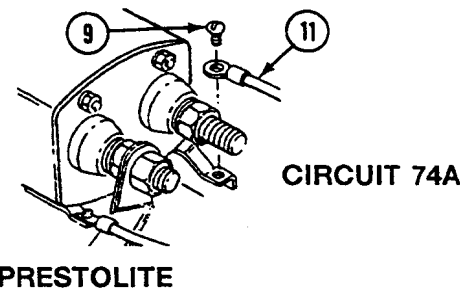
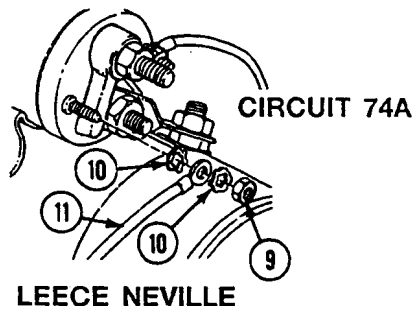
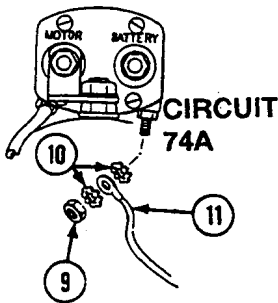
Check that starter-to-engine housing gasket is in place. Gasket is necessary to keep water out of starter.

1. Install gasket (5) on engine (6).
2. Place starter (3) with solenoid (4) on engine (6). Secure with three new lockwashers (2) and three bolts (1). **TIGHTEN SCREWS TO 137-147 LB-FT (186-199 N·M) TORQUE.** Use torque wrench.

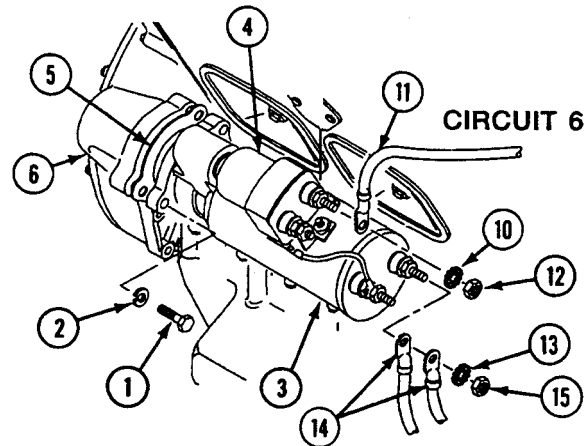


3. Install two new lockwashers (10) (Delco and Leece Neville only) and circuit 74A lead (11) on terminal of starter solenoid. Secure with nut (9) (screw on Prestolite).

**DELCO
REMY**



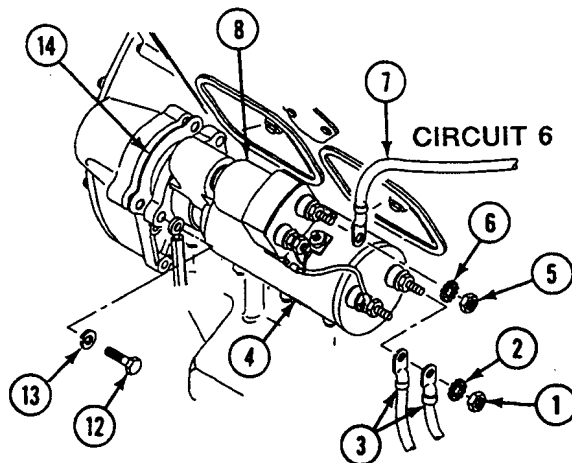
4. Install new lockwasher (10) and circuit 6 lead (11) on terminal of solenoid (4). Secure with nut (12).
5. Install new lockwasher (13) and two ground leads (14) on terminal of starter (3). Secure with nut (15).



6. Go to FOLLOW-THROUGH Steps 1 - 4.

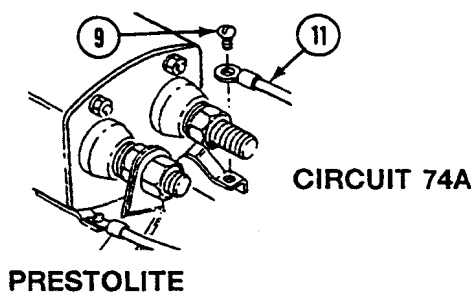
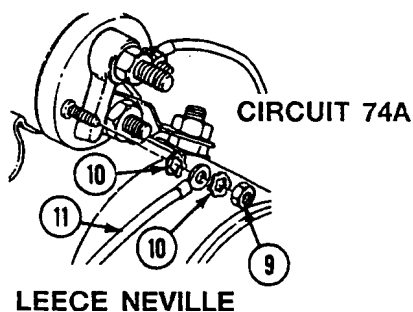
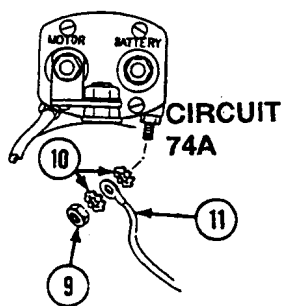
ALTERNATE REMOVAL

1. Lower trim vane (see your -10).
2. Open power plant front access door (see your -10).
3. Remove exhaust pipe (WP 0189 00).
4. Remove nut (1), lockwasher (2), and two ground leads (3) from terminal on starter (4). Discard lockwasher.
5. Remove nut (5), lockwasher (6), and circuit 6 lead (7) from terminal on starter solenoid (8). Discard lockwasher.



6. Remove nut (9) (screw on Prestolite), two lockwashers (10) (Delco and Leece Neville only), and circuit 74A lead (11) from terminal on solenoid. Discard lockwashers.

**DELCO
REMY**



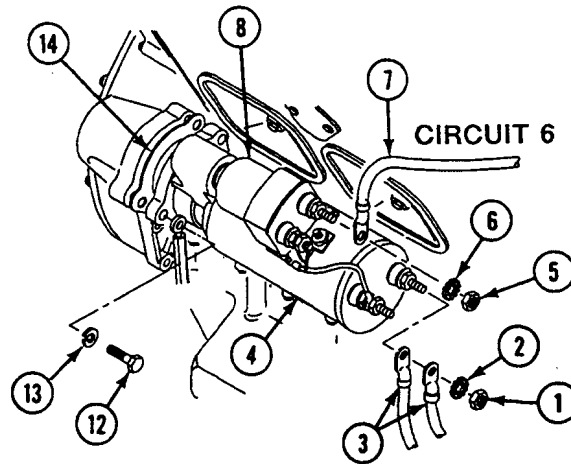
7. Remove engine low pressure oil switch (WP 0316 00).

WARNING



Avoid injury. Get an assistant to help you lift the starter or use a hoist. Starter weighs about 75 pounds (34 kg).

8. Remove two of three bolts (12) and lockwashers (13). Discard lockwashers.
9. Thread two steel rods into bolt holes.
10. Remove third bolt (12) and lockwasher (13). Discard lockwasher.
11. Slide starter (4) with solenoid (8) and gasket (14), if installed, down bars so it can be removed. Discard gasket.

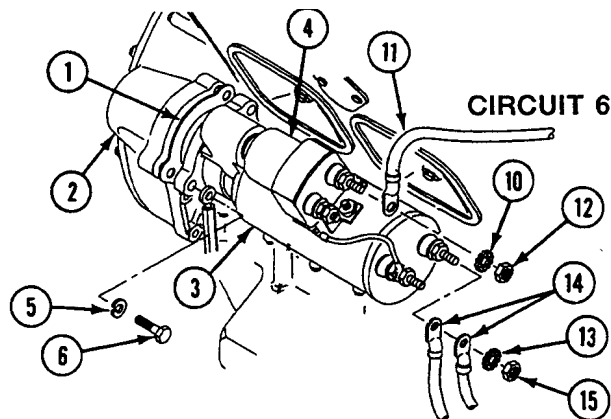


CLEAN, INSPECT, AND REPAIR

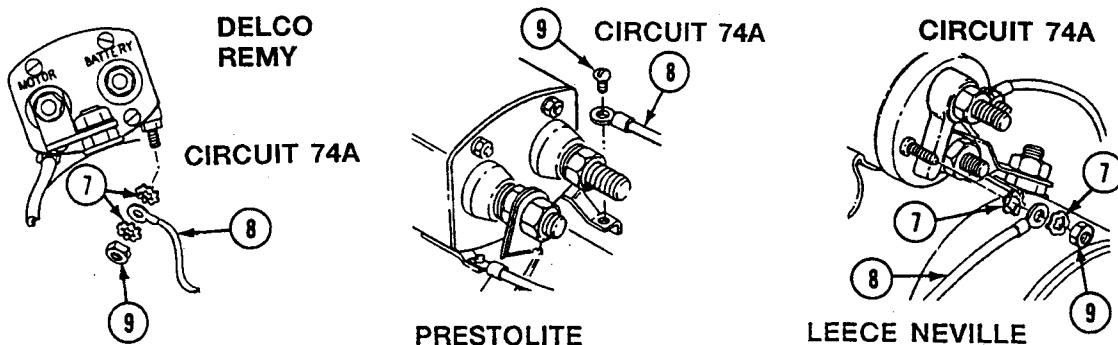
1. Check starter drive teeth. Remove burrs. Replace starter that has damaged teeth or teeth worn beyond original shape.

ALTERNATE INSTALLATION

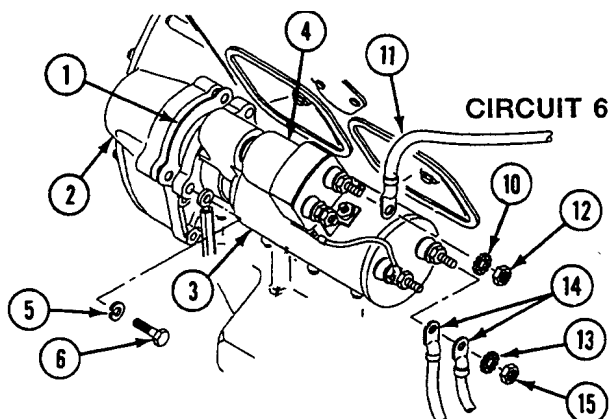
1. Install new gasket (1) on engine (2).
2. Slide starter (3) with solenoid (4) on steel rods up to the flywheel. Secure with one new lockwasher (5) and bolt (6) to hold in place.
3. Remove two steel rods from threaded holes and install remaining two new lockwashers (5) and bolts (6). **TIGHTEN ALL THREE BOLTS TO 137-147 LB-FT (186-200 N·M) TORQUE.** Use torque wrench.



- Install two new lockwashers (7) (Delco and Leece Neville only) and circuit 75A lead (8) on terminal of starter solenoid. Secure with nut (9) (screw on Prestolite).



- Install new lockwasher (10) and circuit 6 lead (11) on terminal of solenoid (4). Secure with nut (12).
- Install new lockwasher (13) and two ground leads (14) on terminal of starter (3). Secure with nut (15).



- Install exhaust pipe (WP 0189 00).
- Close power plant front access door (see your -10).
- Raise trim vane (see your -10).

FOLLOW-THROUGH STEPS

- Install power plant (WP 0131 00), if removed.
- Connect battery ground lead (WP 0294 00).
- Start engine. Check that starter is operable (see your -10).
- Stop/shutdown engine (see your -10).

END OF TASK

REPLACE STARTER GROUND LEADS

0237 00

THIS WORK PACKAGE COVERS:

- Removal (page 0237 00-1).
- Cleaning (page 0237 00-2).
- Installation (page 0237 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

Locknut

Personnel Required

Unit Mechanic

Equipment Condition

- Engine stopped (see your -10)
- Carrier blocked (see your -10)
- Trim vane lowered (see your -10)
- Power plant front access door open (see your -10)
- Battery ground lead disconnected (WP 0294 00)

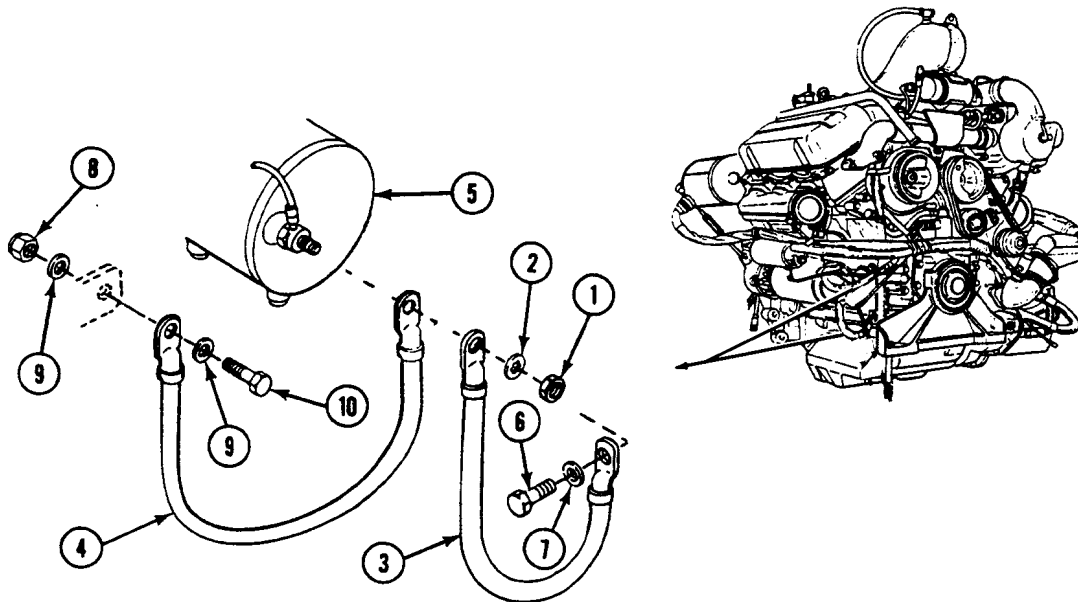
REMOVAL

1. Remove nut (1), washer (2), short ground lead (3), and long ground lead (4) from starter (5).

NOTE

Some carrier hull grounds may have star washers. Discard star washers and assemble ground leads with flat washers as instructed in the installation steps.

2. Remove screw (6), washer (7), and short lead (3) from engine block. Remove lead from carrier.
3. Remove locknut (8), long lead (4), two washers (9), and screw (10) from hull mount. Remove lead from carrier. Discard locknut.

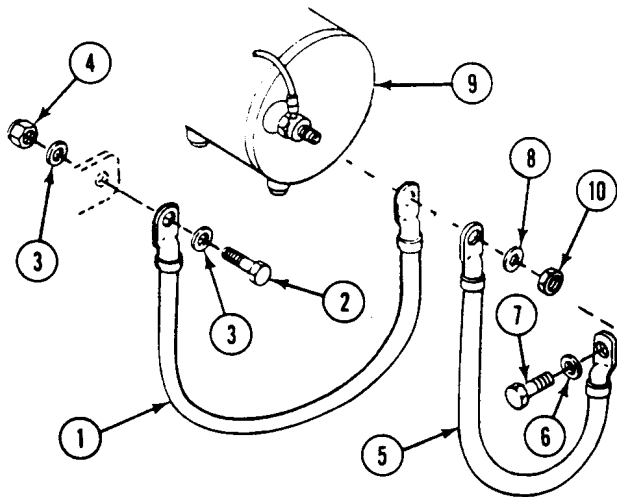


CLEANING

1. Remove paint, dirt, and corrosion from electrical contact areas on hull grounds.
2. Check leads. Replace leads that are worn or have cracked insulation.
3. Check lead connectors. Replace cracked or damaged connectors (WP 0312 00).

INSTALLATION

1. Place long ground lead (1) on hull mount. Secure with screw (2), two washers (3), and new locknut (4).
2. Place short ground lead (5) on engine block. Secure with washer (6) and screw (7).
3. Place lead (1) and lead (5) and washer (8) on starter (9). Secure with nut (10).

**FOLLOW-THROUGH STEPS**

1. Close power plant front access door (see your -10).
2. Raise trim vane (see your -10).
3. Connect battery ground lead (WP 0294 00).
4. Start engine to check that starter ground leads are operable. Stop/shutdown engine (see your -10).

END OF TASK

CHAPTER 11

UNIT MAINTENANCE INSTRUCTIONS
FOR ELECTRICAL SYSTEM - INSTRUMENT AND WARNING LIGHT PANELS

WORK PACKAGE INDEX

<u>Title</u>	<u>Sequence No.</u>
REPLACE INSTRUMENT PANEL MOUNTS AND GROUND LEADS.....	.0238 00
REPLACE CIRCUIT BREAKER.....	.0239 00
REPLACE PANEL AND INDICATOR LIGHTS.....	.0240 00
REPLACE INSTRUMENT PANEL ON-OFF SWITCHES.....	.0241 00
REPLACE MAIN LIGHT SWITCH.....	.0242 00
REPLACE ENGINE START SWITCH.....	.0243 00
REPLACE INSTRUMENT PANEL GAUGES.....	.0244 00
REPLACE INSTRUMENT PANEL TACHOMETER.....	.0245 00
REPLACE TACHOMETER CABLE AND ADAPTER.....	.0246 00
REPLACE SPEEDOMETER.....	.0247 00
REPLACE SPEEDOMETER CABLE AND ADAPTER.....	.0248 00
REPAIR SPEEDOMETER CABLE.....	.0249 00
REPLACE FUEL SELECT SWITCH TO GAUGE LEAD (M981 AND M1064 ONLY).....	.0250 00
REPLACE WARNING PANEL LIGHTS.....	.0251 00
REPLACE HORN SWITCH.....	.0252 00
REPLACE WARNING LIGHT PANEL ASSEMBLY.....	.0253 00
REPLACE WARNING LIGHT PANEL.....	.0254 00

REPLACE INSTRUMENT PANEL MOUNTS AND GROUND LEADS

0238 00

THIS WORK PACKAGE COVERS:

Removal (page 0238 00-1).
 Installation (page 0238 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Battery ground lead disconnected (WP 0294 00)

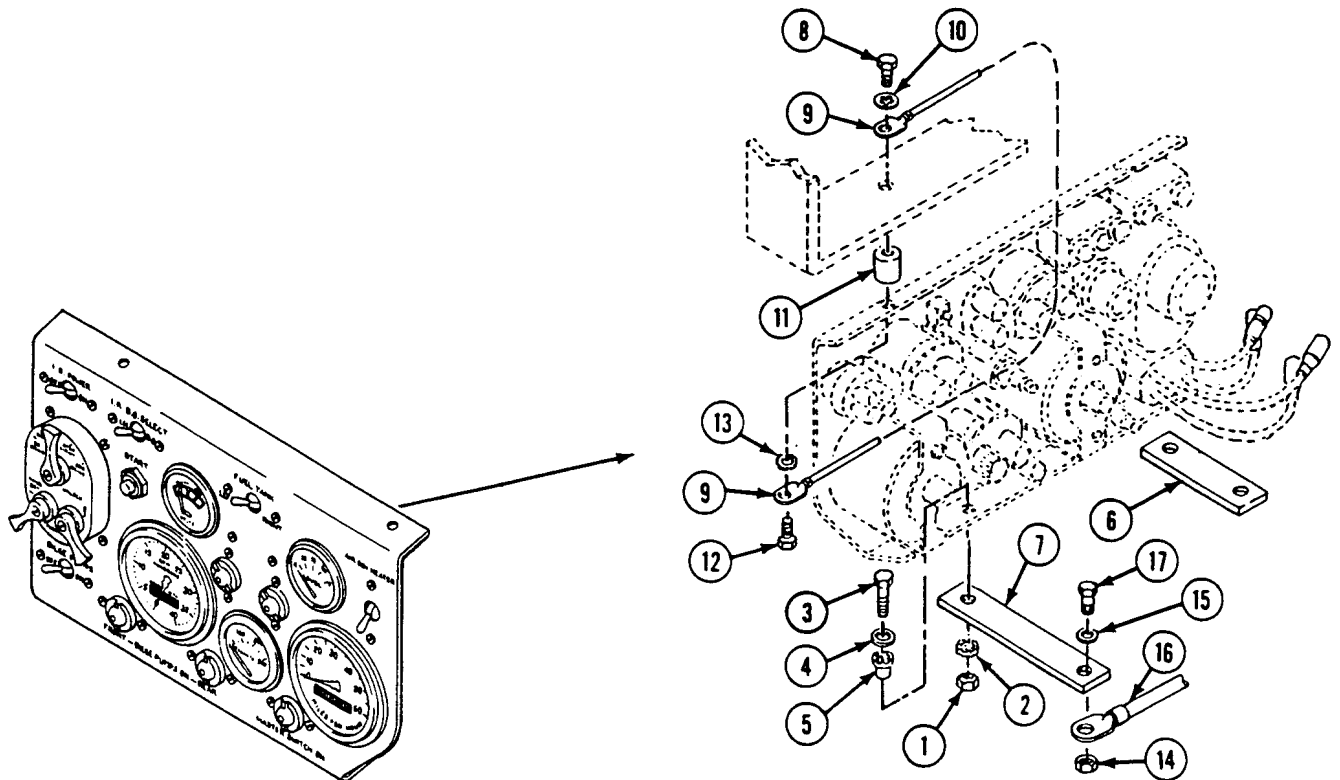
Materials/Parts

Lockwasher (4)

Locknut (4)

REMOVAL

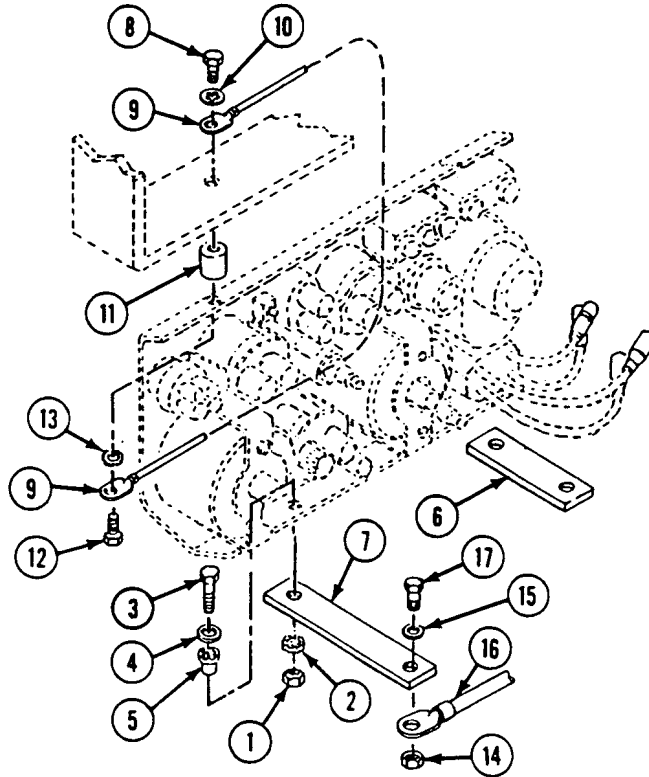
1. Remove two locknuts (1), bottom mounts (2), screws (3), flat washers (4), and top mounts (5) from two struts (6) and (7) and instrument panel. Discard locknuts.
2. Support instrument panel and remove two bolts (8), ground lead (9), and two lockwashers (10) from two resilient mounts (11) and upper support bracket. Discard lockwashers.
3. Tip instrument panel forward and remove two bolts (12), ground lead (9), two lockwashers (13), and resilient mounts (11) from instrument panel. Discard lockwashers.



NOTE

Ground lead (16) is not installed on the M577A2 or M1068 instrument panel strut.

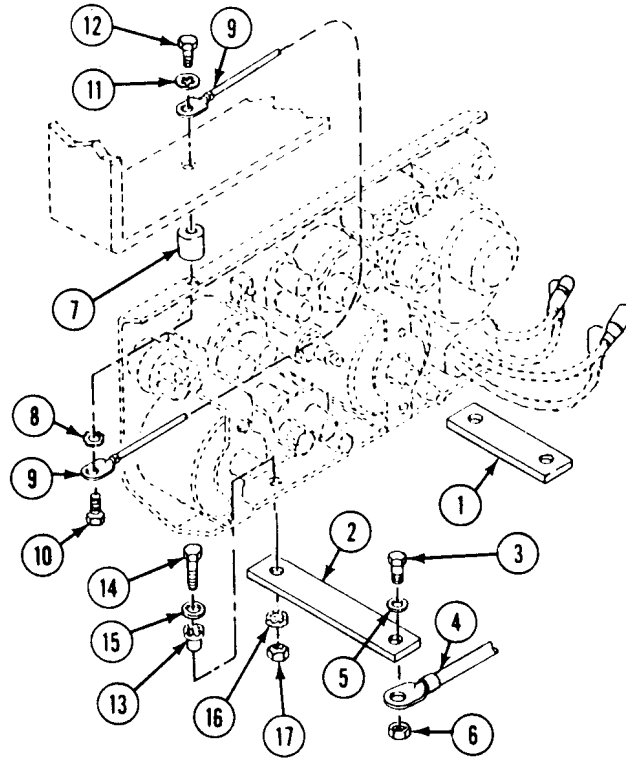
4. Remove two locknuts (14), washers (15), auxiliary power receptacle ground lead (16), two screws (17), short strut (6), and long strut (7) from hull mounts. Discard locknuts.

**INSTALLATION****NOTE**

Ground lead (4) is not installed on the M1068 or M577A2 instrument panel strut.

1. Place two struts (1) and (2) on hull mounts. Secure with two screws (3), ground lead (4), two washers (5), and new locknuts (6).
2. Place two resilient mounts (7) on instrument panel. Secure with two new lockwashers (8), ground lead (9), and two bolts (10).
3. Align mounts (7) with upper support bracket and secure with two new lockwashers (11), ground lead (9), and two bolts (12).

4. Place two top mounts (13) between struts (1) and (2) and instrument panel. Secure instrument panel to struts with two screws (14), flat washers (15), bottom mounts (16) and new locknuts (17).



FOLLOW THROUGH STEPS

1. Connect battery ground lead (WP 0294 00).

END OF TASK

REPLACE CIRCUIT BREAKER

0239 00

THIS WORK PACKAGE COVERS:

Removal (page 0239 00-1).
 Installation (page 0239 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Battery ground lead disconnected (WP 0294 00)
 Instrument panel removed (WP 0238 00)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

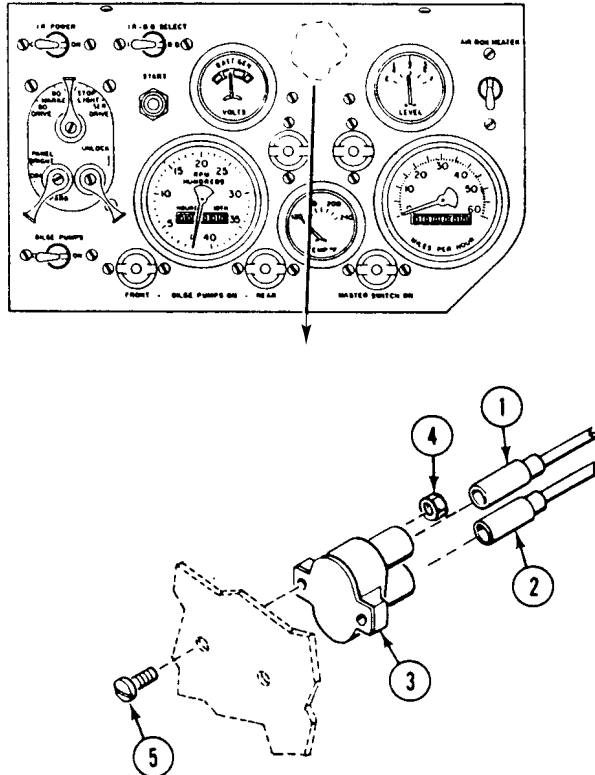
Locknut (2)

Personnel Required

Unit Mechanic

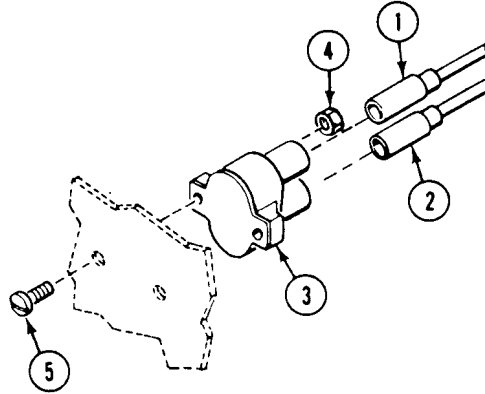
REMOVAL

1. Disconnect circuit 10 lead (1) and circuit 27 lead (2) from circuit breaker (3).
2. Remove two locknuts (4), screws (5), and circuit breaker (3) from rear of instrument panel. Discard locknuts.



INSTALLATION

1. Place circuit breaker (3) on rear of instrument panel. Secure with two screws (5) and new locknuts (4).



2. Connect circuit 27 lead (2) and circuit 10 lead (1) to circuit breaker (3).

FOLLOW-THROUGH STEPS

1. Install instrument panel (WP 0238 00).
2. Connect battery ground lead (WP 0294 00).
3. Turn MASTER SWITCH to ON, light should come on for proper installation of circuit breaker (see your -10).
4. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE PANEL AND INDICATOR LIGHTS

0240 00

THIS WORK PACKAGE COVERS:

Removal (page 0240 00-1).
 Installation (page 0240 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 MASTER SWITCH to OFF (see your -10)

Materials/Parts

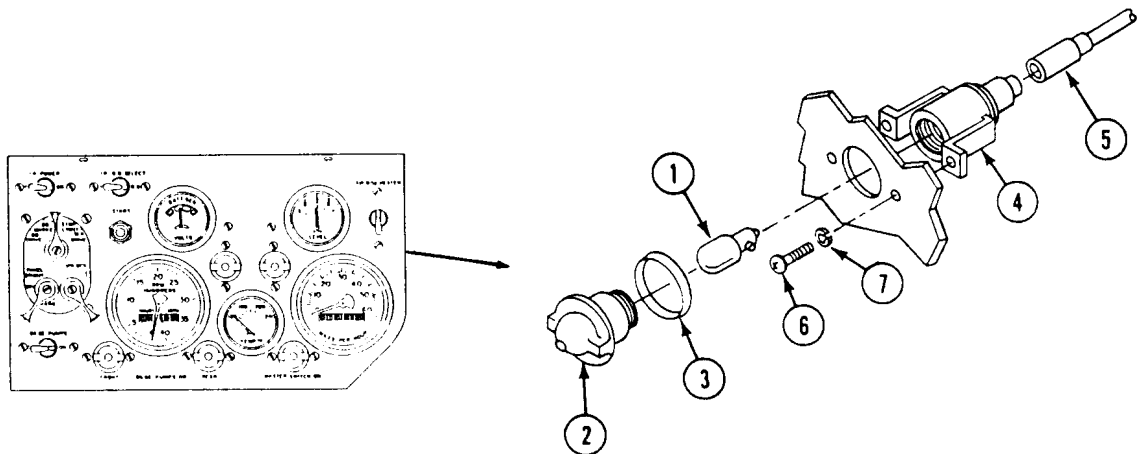
Light bulb (as needed)
 Lockwasher (2)
 Preformed packing (as needed)

REMOVAL

NOTE

There are two panel lights and three indicator lights on the instrument panel. Remove all lights the same way except for the number of leads.

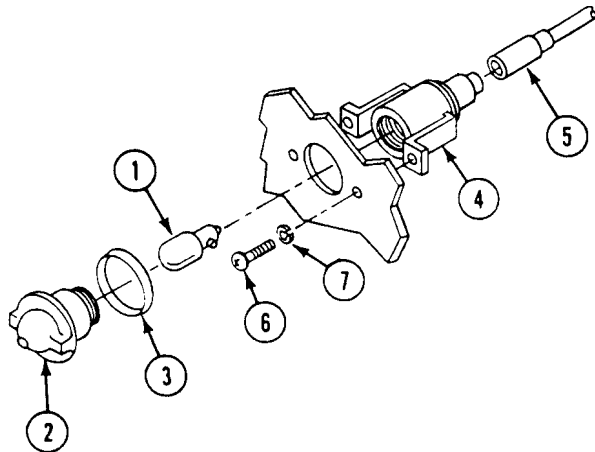
1. Remove light bulb (1).
 - a. Turn lens (2) counterclockwise. Remove lens (2) and preformed packing (3) from light assembly (4). Discard packing if damaged.
 - b. Push in and turn light bulb (1) counterclockwise, and remove bulb (1) from light assembly (4).



NOTE

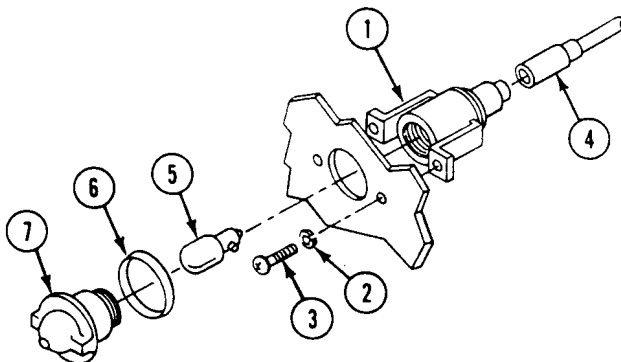
Do not disconnect more than one light at a time. Mark each lead to make sure you reconnect to correct contacts. See wiring diagrams at the end of this manual.

2. If required, remove light assembly (4).
 - a. Disconnect circuit lead (5) from light assembly (4).
 - b. Remove two screws (6), lockwashers (7), and light assembly (4) from instrument panel. Discard lockwashers.

**INSTALLATION****NOTE**

Make sure circuit leads are connected to correct lights. See wiring diagrams at the end of this manual.

1. If removed, install light assembly (1).
 - a. Place light assembly (1) on rear of instrument panel. Secure with two new lockwashers (2) and screws (3).
 - b. Connect circuit lead (4) to light assembly (1).
2. Install light bulb (5).
 - a. Install light bulb (5) in light assembly (1). Push and turn light bulb clockwise to secure.
 - b. Install new packing (6), if damaged, and lens (7) in light assembly (1). Turn lens clockwise to secure.



FOLLOW-THROUGH STEPS

1. Turn MASTER SWITCH to ON (see your -10).
2. Turn PANEL LIGHTS SWITCH to ON, or BILGE PUMPS SWITCH to ON, as needed, to check for proper installation of light assembly (see your -10).
3. Turn all panel switches OFF (see your -10).
4. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE INSTRUMENT PANEL ON-OFF SWITCHES

0241 00

THIS WORK PACKAGE COVERS:

Removal (page 0241 00-1).
 Installation (page 0241 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Battery ground lead disconnected (WP 0294 00)

Materials/Parts

Lockwasher (10)

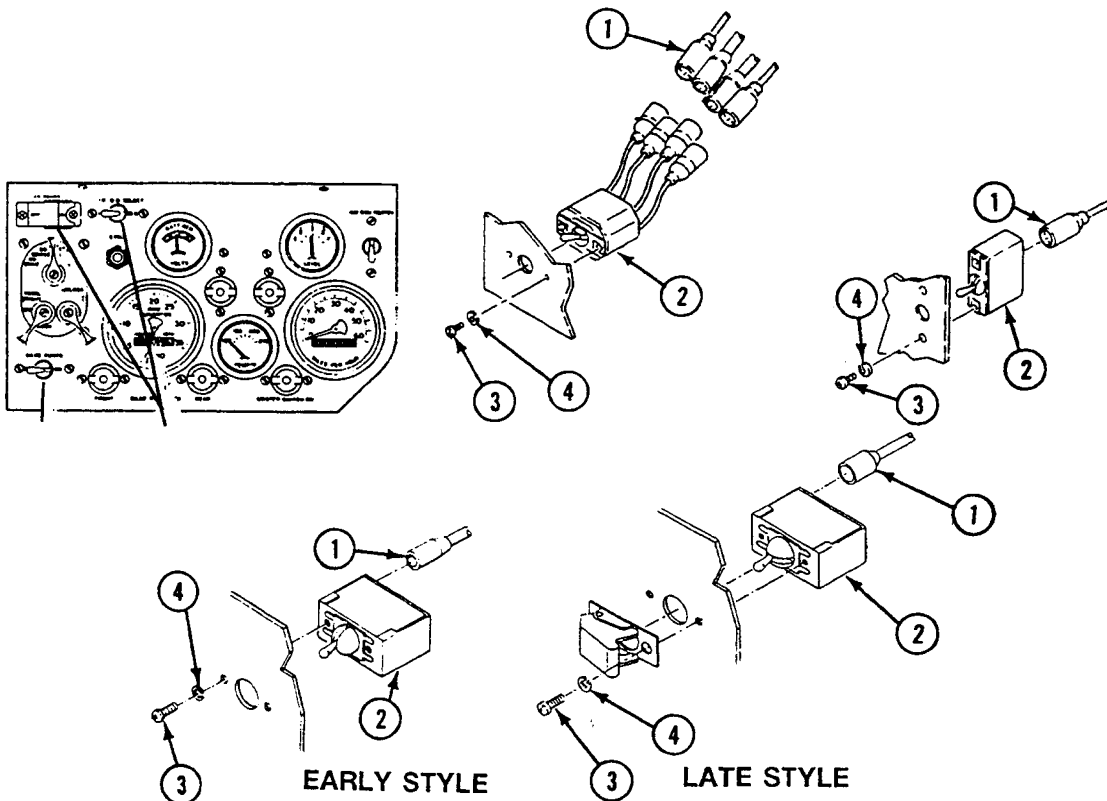
REMOVAL

NOTE

There are four toggle switches on the instrument panel of all M113A2 FOV, except the M981, which has five switches. Replace all toggle switches the same way, except for number of circuit leads.

Do not disconnect more than one switch at a time. Mark each circuit lead to make sure you reconnect to correct contacts. See applicable wiring diagram at end of this manual.

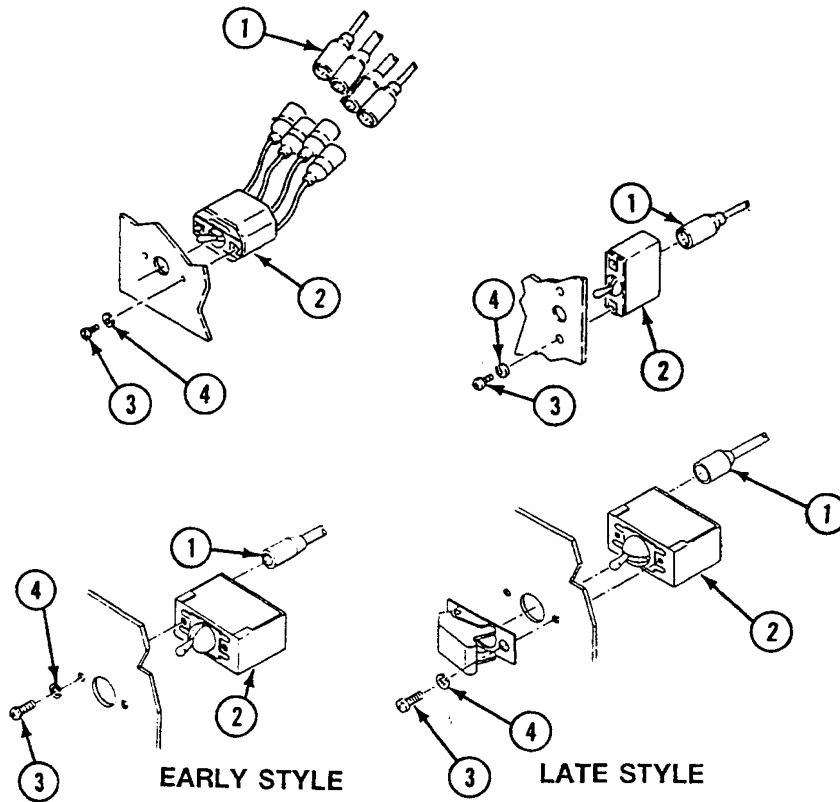
1. Disconnect circuit leads (1) from rear of switch (2).



NOTE

If switch has guard, remove with **REMOVAL Step 2**, install with **INSTALLATION Step 1**.

- Remove two screws (3), lockwashers (4), and toggle switch (2) from instrument panel. Discard lockwashers.



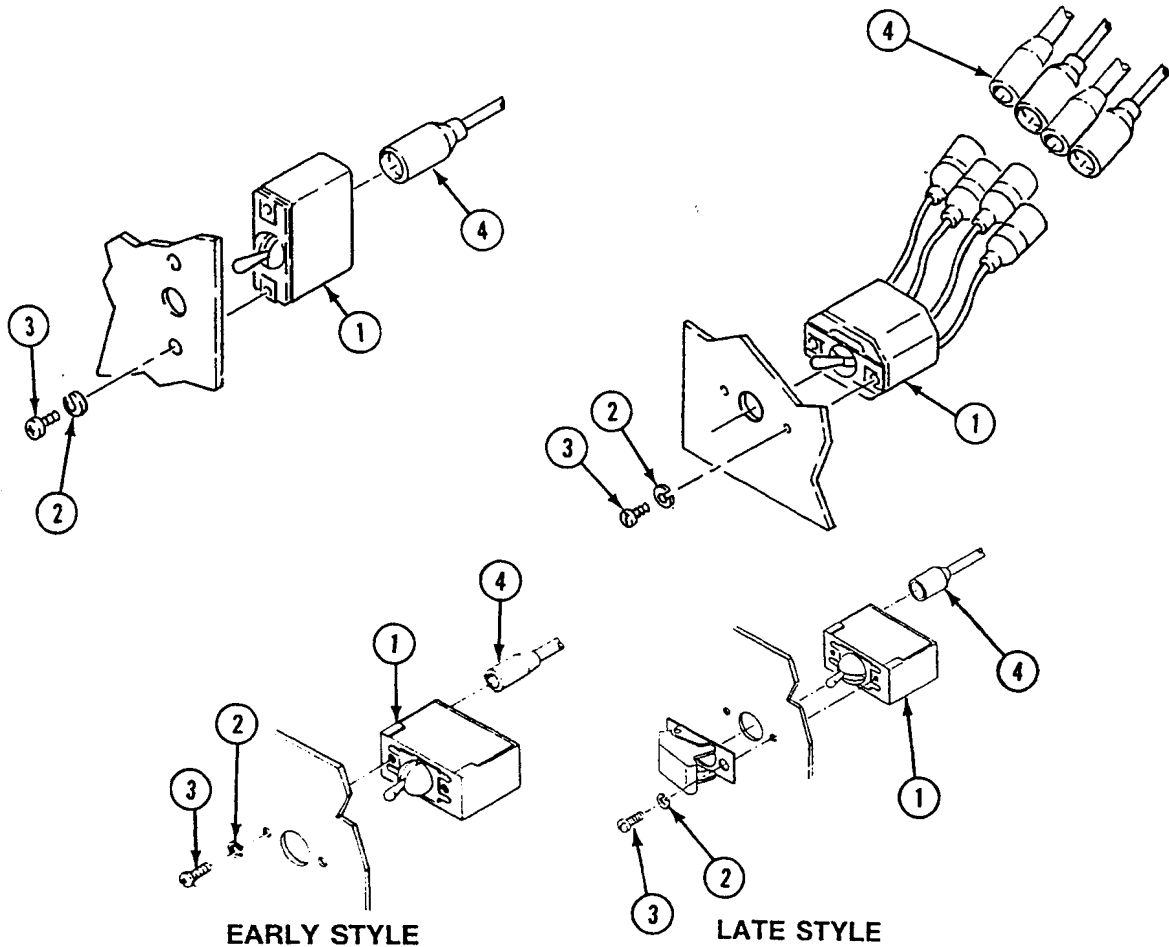
INSTALLATION

- Place toggle switch (1) on rear of instrument panel. Secure with two new lockwashers (2) and screws (3).

NOTE

Make sure circuit leads are connected to correct switches. See applicable wiring diagram at the end of this manual.

2. Connect circuit leads (4) to rear of toggle switch (1).



FOLLOW-THROUGH STEPS

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Check for proper operation of switch.
4. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE MAIN LIGHT SWITCH

0242 00

THIS WORK PACKAGE COVERS:

Removal (page 0242 00-1).
 Installation (page 0242 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Battery ground lead disconnected (WP 0294 00).
 Instrument panel removed (WP 0238 00)

Tools and Special Tools

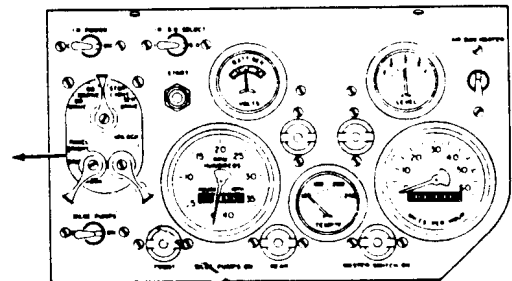
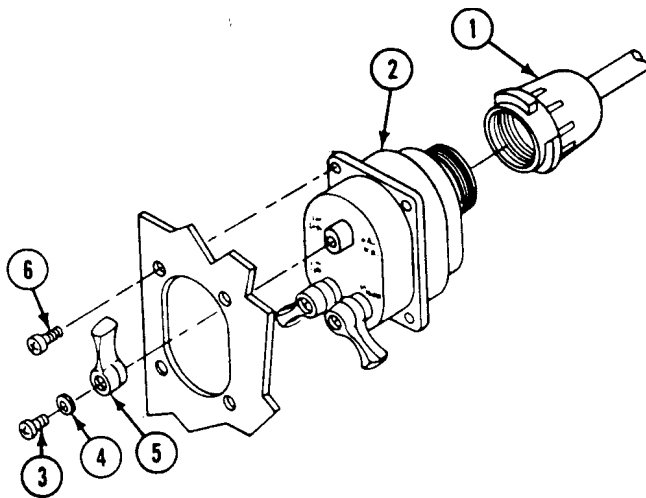
General Mechanic's Tool Kit (WP 0780 00, Item 29)

Personnel Required

Unit Mechanic

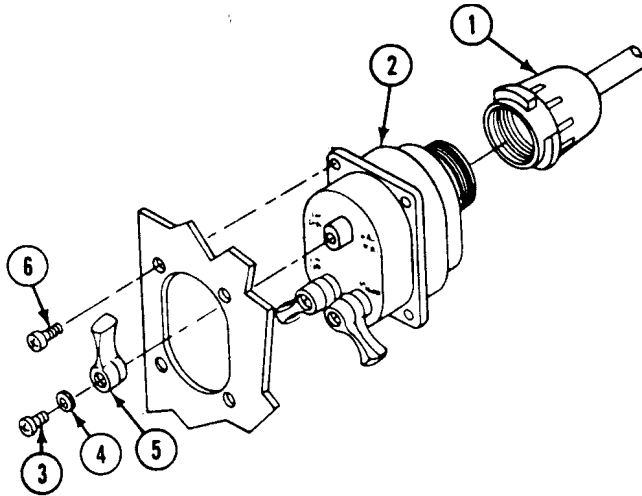
REMOVAL

1. Disconnect cable (1) from main light switch (2).
2. Remove screw (3), washer (4), and switch lever (5) from light switch (2).
3. Remove four screws (6) and light switch (2) from instrument panel.



INSTALLATION

1. Place main light switch (2) in rear of instrument panel. Secure with four screws (6).
2. Place switch lever (5) on light switch (2). Secure with washer (4) and screw (3).
3. Connect cable (1) to rear of light switch (2).

**FOLLOW-THROUGH STEPS**

1. Install instrument panel (WP 0238 00).
2. Connect battery ground lead (WP 0294 00).
3. Turn MASTER SWITCH to ON (see your -10).
4. Check for proper operation of switch.
5. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE ENGINE START SWITCH

0243 00

THIS WORK PACKAGE COVERS:

Removal (page 0243 00-1).
 Installation (page 0243 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Battery ground lead disconnected (WP 0294 00)
 Instrument panel removed (WP 0238 00)

Tools and Special Tools

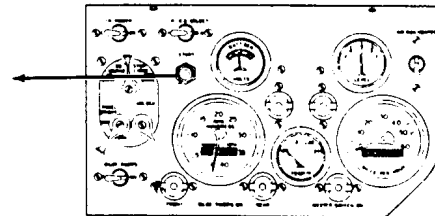
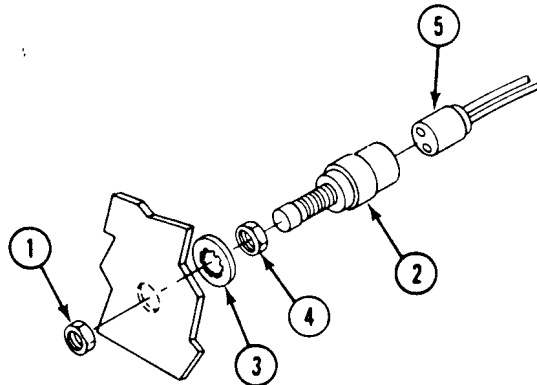
General Mechanic's Tool Kit (WP 0780 00, Item 29)

Personnel Required

Unit Mechanic

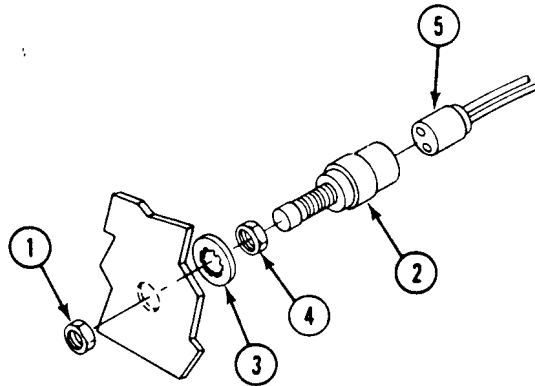
REMOVAL

1. Remove nut (1) and start switch (2) from instrument panel.
2. Remove lockwasher (3) and nut (4) from start switch (2).
3. Disconnect circuit 14/74 connector (5) from rear of start switch (2).



INSTALLATION

1. Connect circuit 14/74 connector (5) to rear of start switch (2).
2. Install nut (4) and new lockwasher (3) on start switch (2).
3. Install start switch (2) through rear of instrument panel. Secure with two nuts (1) and (4).

**FOLLOW-THROUGH STEPS**

1. Install instrument panel (WP 0238 00).
2. Connect battery ground lead (WP 0294 00).
3. Turn MASTER SWITCH to ON (see your -10).
4. Crank engine to check for proper installation of starter switch (see your -10).
5. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE INSTRUMENT PANEL GAUGES

0244 00

THIS WORK PACKAGE COVERS:

Removal (page 0244 00-1).
 Installation (page 0244 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Battery ground lead disconnected (WP 0294 00)
 Instrument panel removed (WP 0238 00)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

Lockwasher (2)

Personnel Required

Unit Mechanic

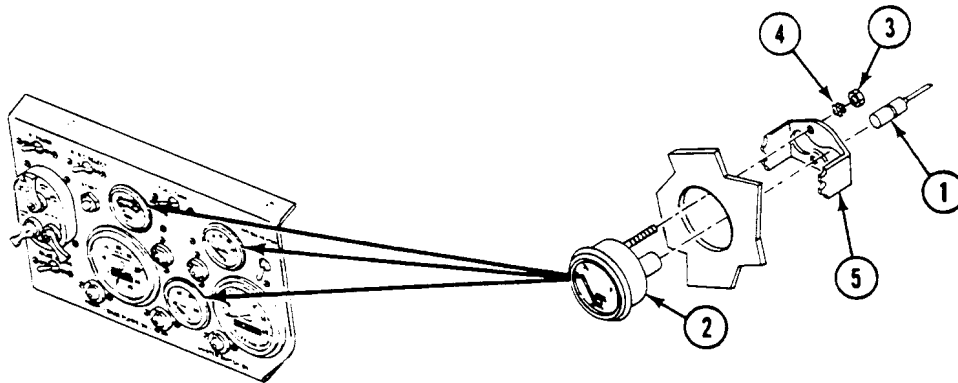
REMOVAL

NOTE

There are three gauges on the instrument panel. Except for the number of leads, remove all gauges the same way.

Do not disconnect more than one gauge at a time. Mark each lead to make sure you reconnect to correct contacts. See wiring diagrams at the end of this manual.

1. Disconnect circuit leads (1) from rear of gauge (2).
2. Remove two nuts (3), lockwashers (4), and bracket (5) from rear of gauge (2). Discard lockwashers.
3. Remove gauge (2) from front of instrument panel.



INSTALLATION

1. Install gauge (2) in front of instrument panel.

NOTE

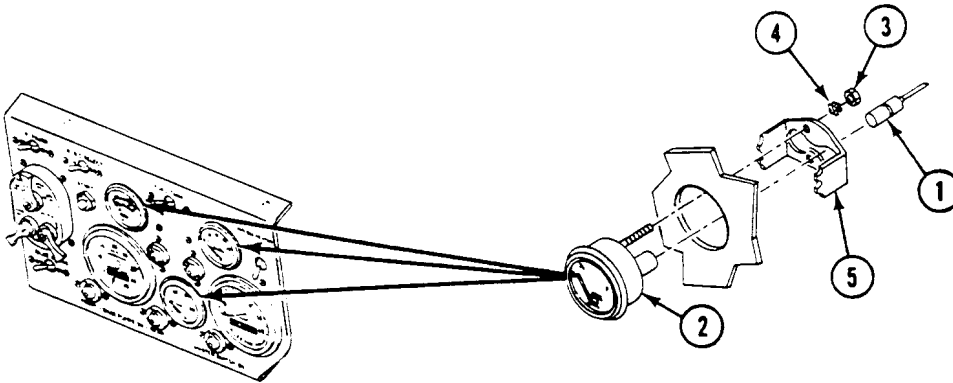
Check front of instrument panel to make sure gauge is aligned correctly before tightening nuts.

2. Install bracket (5) on rear of gauge, and secure with two new lockwashers (4) and nuts (3).

CAUTION

Make sure circuit leads are connected to correct gauges. See wiring diagrams at the end of this manual.

3. Connect circuit leads (1) to rear of gauge (2).

**FOLLOW-THROUGH STEPS**

1. Install instrument panel (WP 0238 00).
2. Connect battery ground lead (WP 0294 00).
3. Turn MASTER SWITCH to ON (see your -10).
4. Check fuel gauge and battery generator gauge for proper operation (see your -10).
5. Start engine to check operation of coolant temperature gauge (see your -10).
6. Stop/shutdown engine(see your -10).

END OF TASK

REPLACE INSTRUMENT PANEL TACHOMETER

0245 00

THIS WORK PACKAGE COVERS:

Removal (page 0245 00-1).
 Installation (page 0245 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

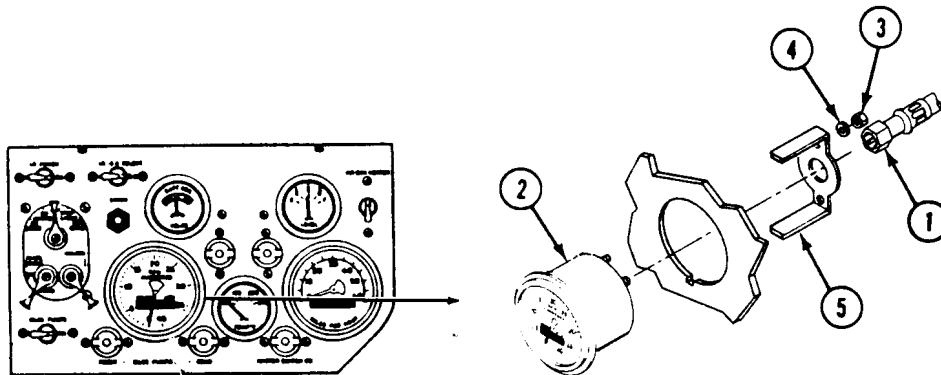
Instrument panel removed (WP 0238 00)

Materials/Parts

Lockwasher (2)

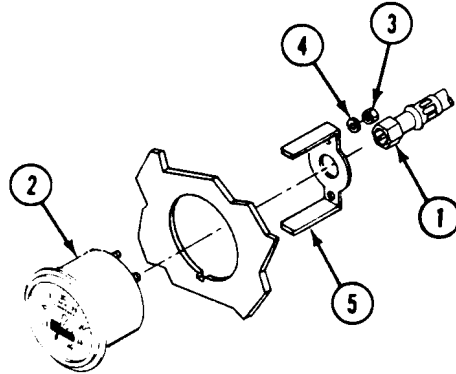
REMOVAL

1. Disconnect tachometer cable (1) from rear of tachometer (2)
2. Remove two nuts (3), lockwashers (4), and bracket (5) from rear of tachometer (2). Discard lockwashers.
3. Remove tachometer (2) from front of instrument panel.



INSTALLATION

1. Install tachometer (2) in front of instrument panel.
2. Install bracket (5) on rear of tachometer (2) and secure with two new lockwashers (4) and nuts (3).
3. Connect tachometer cable (1) to tachometer (2).

**FOLLOW-THROUGH STEPS**

1. Install instrument panel (WP 0238 00).
2. Start engine (see your -10).
3. Check tachometer (see your -10).
4. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE TACHOMETER CABLE AND ADAPTER

0246 00

THIS WORK PACKAGE COVERS:

Removal (page 0246 00-1).
 Installation (page 0246 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

WP 0120 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Trim vane lowered and power plant front access door open (see your -10)
 Driver's power plant access panel removed (WP 0430 00)
 Power plant rear access panel removed (WP 0431 00, WP 0432 00, or WP 0433 00)

Materials/Parts

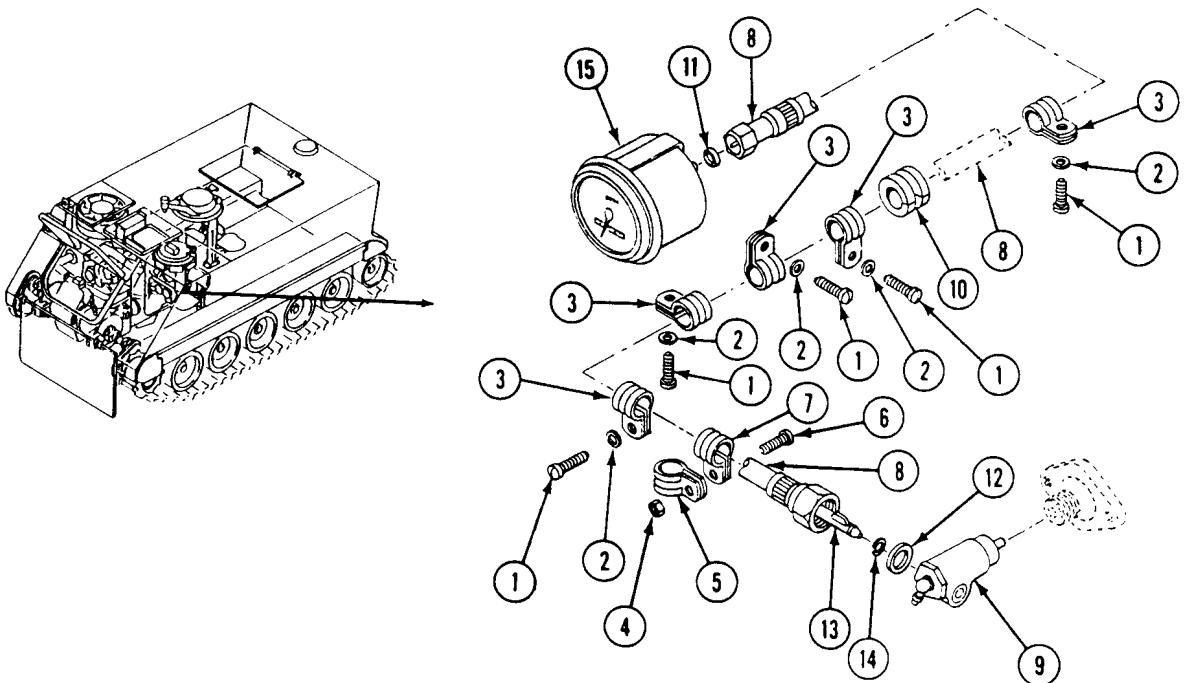
Cable to tachometer gasket
 Grommet
 Lockwasher (5)
 Locknut

Personnel Required

Unit Mechanic

REMOVAL

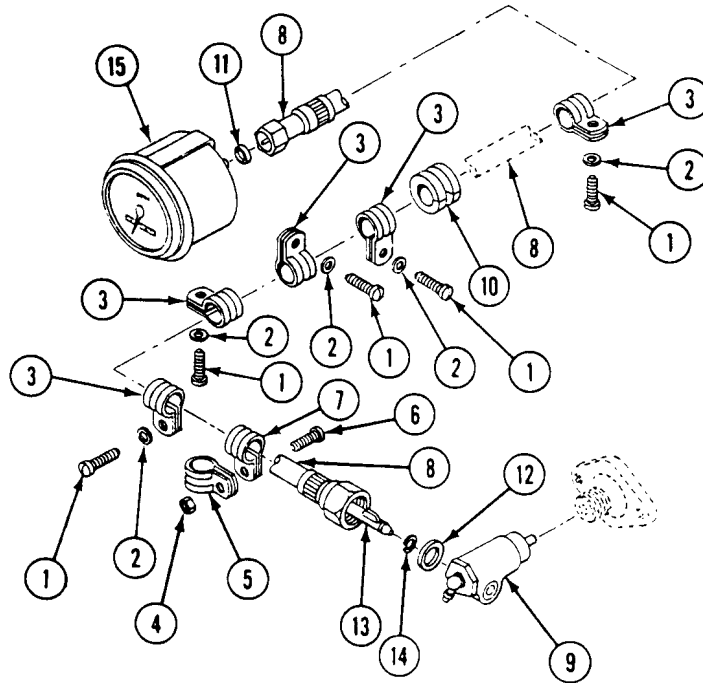
1. Remove five screws (1), lockwashers (2), and clamps (3) from driver's compartment and power plant compartment bulkhead weldnuts. Discard lockwashers.
2. Remove locknut (4), clamp (5), and screw (6) from clamp (7). Discard locknut.



REPLACE TACHOMETER CABLE AND ADAPTER — Continued

0246 00

3. Disconnect tachometer cable (8) from right angle adapter (9) and tachometer (15). Remove cable (8) with clamps and grommet (10) attached from carrier.
4. Remove grommet (10) and gasket (11) from cable (8). Discard grommet and gasket.
5. Pull flexible drive shaft (13) part way out of adapter end of cable (8). Remove slotted washer (14) and flat washer (12) from drive shaft. Remove drive shaft (13) from cable.
6. Loosen nut and remove right angle adapter (9) from engine adapter.
7. Check adapter. Replace adapter that has stripped threads.



INSTALLATION

1. Place adapter (1) on engine adapter, and secure with nut.
2. Coat flexible drive shaft (2) with grease and install in cable (3) (WP 0120 00).

NOTE

Install keyed end of drive shaft (2) in tachometer end of cable (3).

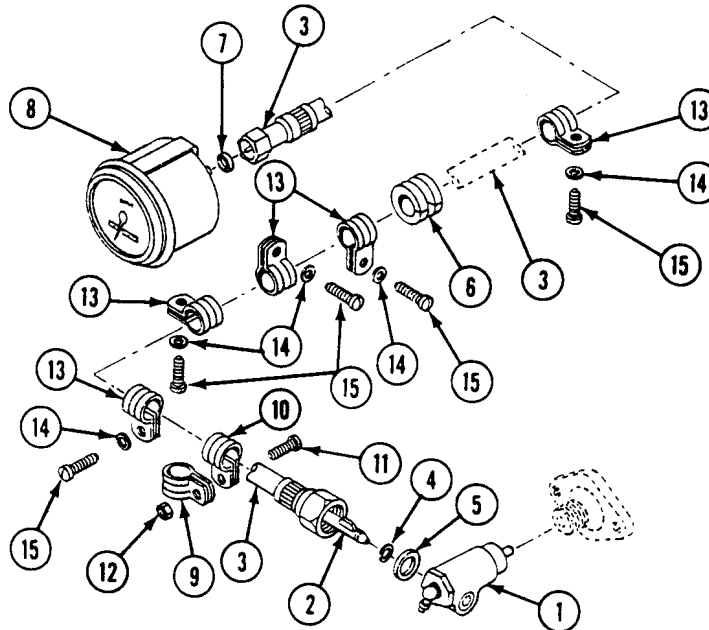
If cable (3) is being replaced, remove all clamps and install them on new cable.

3. Pull drive shaft (2) part way out of adapter end of cable (3), install slotted washer (4) and flat washer (5) on shaft.
4. Install new grommet (6) on cable (3). Route cable through power plant and driver's compartment.
5. Install new gasket (7) in cable. Install cable on tachometer (8) and right angle drive adapter (1).

NOTE

Place cable at tachometer connection as close to carrier wall as possible to obtain maximum bend. All other cables and leads should be in front of the tachometer cable.

6. Align clamp (9) with clamp (10) and secure with screw (11) and new locknut (12).
7. Align seven cable clamps (13) with power plant and driver's compartment bulkhead weldnuts. Secure with seven new lockwashers (14) and screws (15).

**FOLLOW-THROUGH STEPS**

1. Install power plant rear access panel (WP 0431 00, WP 0432 00, or WP 0433 00).
2. Install driver's power plant access panel (WP 0430 00).
3. Close power plant front access door and raise trim vane (see your -10).
4. Start engine to check for proper installation of tachometer cable and adapter (see your -10).
5. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE SPEEDOMETER

0247 00

THIS WORK PACKAGE COVERS:

Removal (page 0247 00-1).
 Installation (page 0247 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

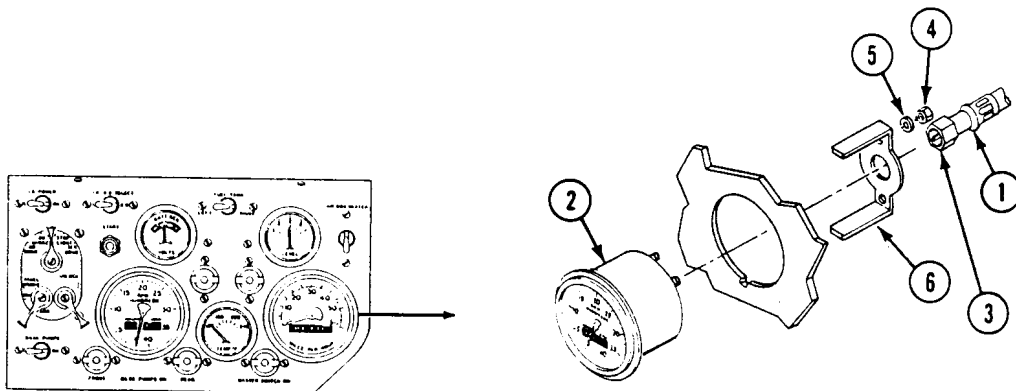
Carrier blocked (see your -10)

Materials/Parts

Lockwasher (2)

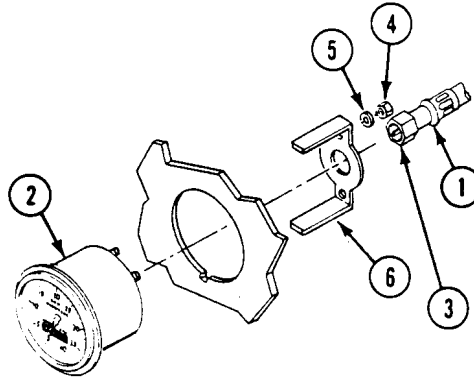
REMOVAL

1. Disconnect speedometer cable (1) from rear of speedometer (2) by loosening nut (3).
2. Remove two nuts (4), lockwashers (5), and bracket (6) from rear of speedometer (2). Discard lockwashers.
3. Remove speedometer (2) from front of instrument panel.



INSTALLATION

1. Install speedometer (2) in front of instrument panel.
2. Install bracket (6) on rear of speedometer (2) and secure with two new lockwashers (5) and nuts (4).
3. Connect speedometer cable (1) to rear of speedometer (2), and tighten nut (3).

**FOLLOW-THROUGH STEPS**

1. Road test carrier (WP 0120 00) to check for proper installation of speedometer.
2. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE SPEEDOMETER CABLE AND ADAPTER

0248 00

THIS WORK PACKAGE COVERS:

Removal (page 0248 00-1).
 Installation (page 0248 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

References

WP 0120 00

Materials/Parts

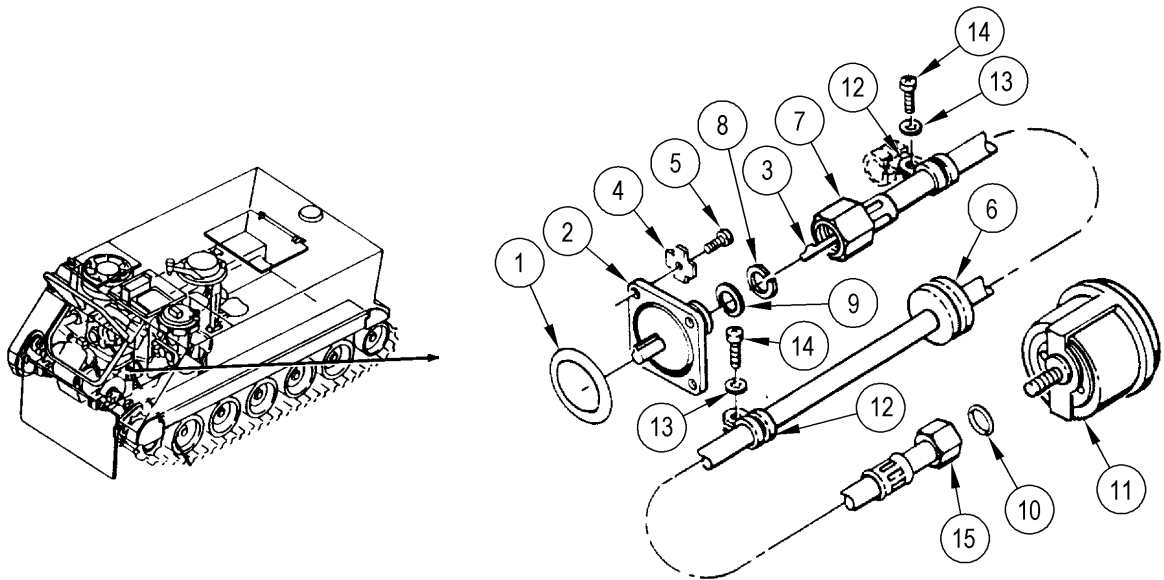
Gasket
 Grommet
 Key washer (4)
 Lockwasher (2)
 Preformed packing

Equipment Condition

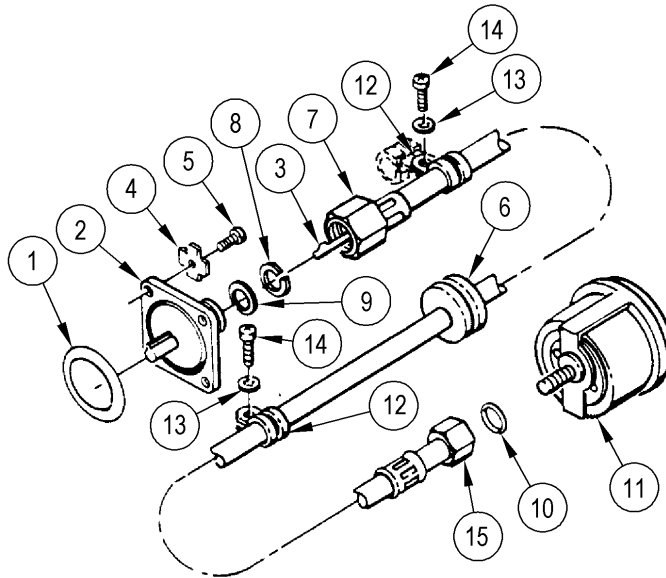
Engine stopped (see your -10)
 Carrier blocked (see your -10)
 Trim vane lowered (see your -10)
 Power plant front door open (see your -10)
 Hull front access cover removed (WP 0429 00)

REMOVAL

1. Remove two screws (14), lockwashers (13), and clamps (12) from bulkhead weldnut. Discard lockwashers.
2. Disconnect speedometer cable (7) from final drive adapter (2). Remove slotted washer (8) and flat washer (9).
3. Remove speedometer (11) from cable (15). Remove cable (15) from carrier with clamps (12) and grommet (6) attached.



4. Remove grommet (6) and gasket (10) from cable (15). Discard grommet and gasket.
5. Straighten four key washers (4). Remove four screws (5), key washers (4), and final drive adapter (2) from final drive. Discard key washers.
6. Remove preformed packing (1) from adapter (2). Discard packing.



INSTALLATION

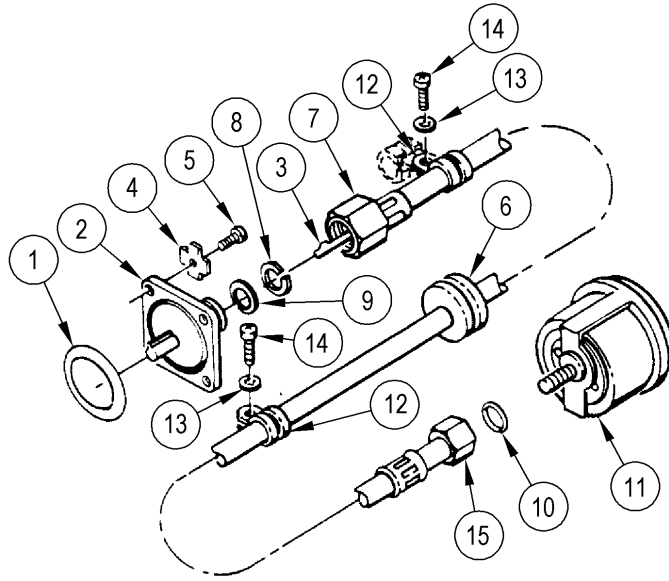
1. Place new preformed packing (1) on new final drive adapter (2).
2. Grease speedometer shaft (3) (WP 0120 00).
3. Place adapter (2) on final drive, and secure with four new key washers (4) and screws (5). Bend keys on washers.

NOTE

Remove clamps and install new cable.

4. Install new grommet (6) on new cable (7) and route cable through driver's compartment bulkhead.
5. Install grommet (6) in bulkhead.
6. Install slotted washer (8) and flat washer (9) on speedometer cable (7) and final drive adapter (2).
7. Install speedometer cable (15) with new gasket (10) on speedometer (11).

8. Align two clamps (12) with bulkhead weldnuts and secure with two new lockwashers (13) and screws (14).



FOLLOW-THROUGH STEPS

1. Install hull front access cover (WP 0429 00).
2. Close power plant front door (see your -10).
3. Raise trim vane (see your -10).

END OF TASK

REPAIR SPEEDOMETER CABLE

0249 00

THIS WORK PACKAGE COVERS:

Disassembly (page 0249 00-1).
 Assembly (page 0249 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

WP 0120 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Trim vane lowered (see your -10)
 Power plant access door open (see your -10)
 Hull front access cover removed (WP 0429 00)
 Speedometer cable assembly removed (WP 0248 00)

Materials/Parts

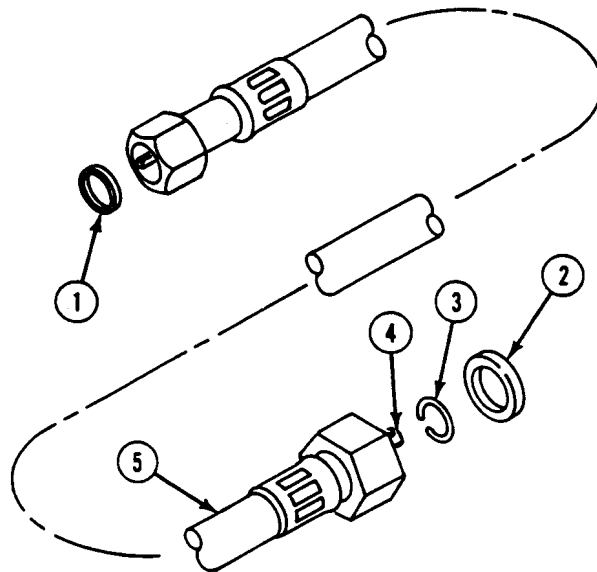
Cable core
 Gasket

Personnel Required

Unit Mechanic

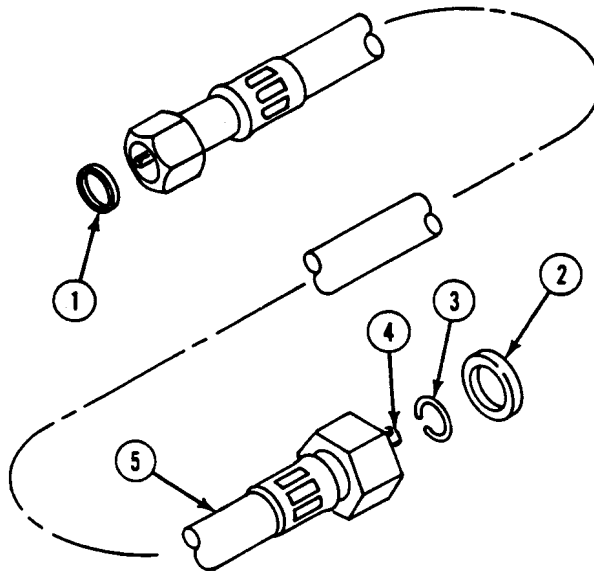
DISASSEMBLY

1. Remove gasket (1), flat washer (2), slotted washer (3), and cable core (4) from cable housing (5). Discard gasket and cable core.



REPAIR SPEEDOMETER CABLE — Continued**0249 00****ASSEMBLY**

1. Coat cable core (4) with grease (WP 0120 00).
2. Push new cable core (4) into cable housing (5).
3. Install new gasket (1) and flat washer (2) in cable housing (5).
4. Install slotted washer (3) on cable core (4) at final drive adapter end.

**FOLLOW-THROUGH STEPS**

1. Install speedometer cable assembly (WP 0248 00).
2. Install hull front access cover (WP 0429 00).
3. Close power plant access door (see your -10).
4. Raise trim vane (see your -10).

END OF TASK

REPLACE FUEL SELECT SWITCH TO GAUGE LEAD (M981 AND M1064 ONLY)

0250 00

THIS WORK PACKAGE COVERS:

- Removal (page 0250 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0250 00-1).
- Installation (page 0250 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

- Engine shutdown (see your -10)
- Carrier blocked (see your -10)
- Battery ground lead disconnected (WP 0294 00)
- Instrument panel partially removed (WP 0238 00)

Tools and Special Tools

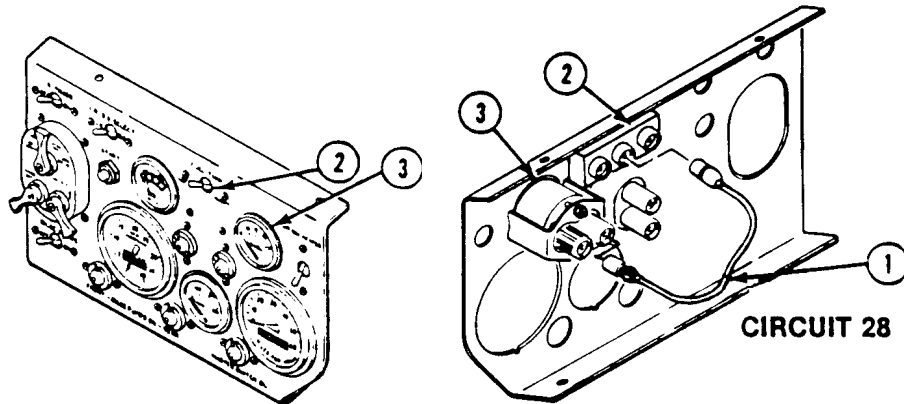
- Digital Multimeter (WP 0780 00, Item 43)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)

Personnel Required

Unit Mechanic

REMOVAL

1. Disconnect circuit 28 lead (1) from fuel select switch (2).
2. Disconnect circuit 28 lead (1) from fuel gauge (3). Remove lead.



INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

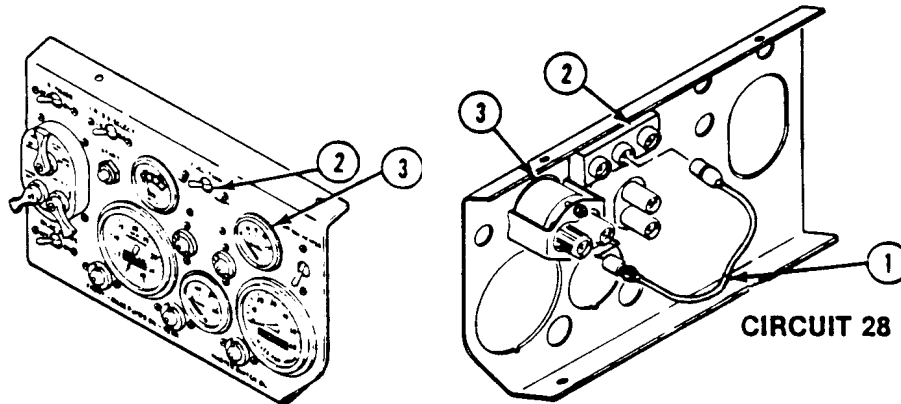
1. Check lead for continuity. Use multimeter. Replace bad lead.
2. Check lead and connectors. Look for worn or frayed lead and damaged connectors. Repair bad parts (see Chapter 14).

REPLACE FUEL SELECT SWITCH TO GAUGE LEAD (M981 AND M1064 ONLY) — Continued

0250 00

INSTALLATION

1. Connect circuit 28 lead (1) to fuel gauge (3).
2. Connect circuit 28 lead (1) to fuel select switch (2).

**FOLLOW-THROUGH STEPS**

1. Install instrument panel (WP 0238 00).
2. Connect battery ground lead (WP 0294 00).
3. Turn MASTER SWITCH or BATTERY SWITCH to ON (see your -10).
4. Look for fuel gauge movement to check for proper installation of fuel select switch to fuel gauge lead.
5. Turn MASTER SWITCH or BATTERY SWITCH to OFF (see your -10).

END OF TASK

REPLACE WARNING PANEL LIGHTS

0251 00

THIS WORK PACKAGE COVERS:

- Removal (page 0251 00-1).
- Clean, Inspect, and Repair (page 0251 00-2).
- Installation (page 0251 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)
Carrier blocked (see your -10)

Materials/Parts

Light bulbs, as needed
Lockwasher (2)

REMOVAL

NOTE

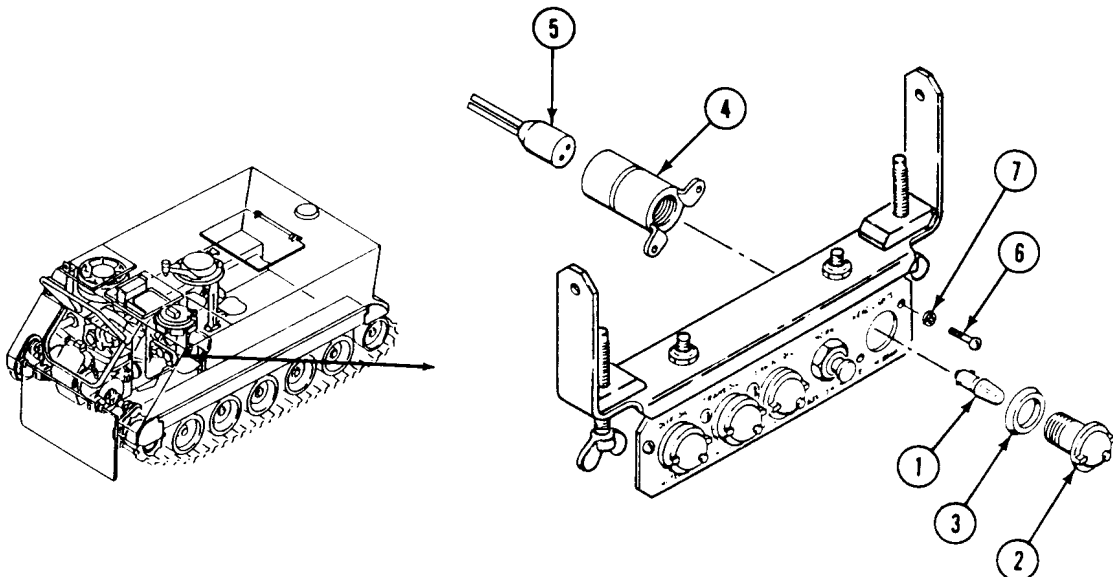
There are four lights on warning panel. Remove all lights the same way.

1. Remove light bulb (1).
 - a. Turn lens (2) counterclockwise. Remove lens and gasket (3) from light assembly (4).
 - b. Push in and turn light bulb (1) counterclockwise and remove bulb from light assembly (4).

NOTE

Do not disconnect more than one light at a time. Mark each lead to make sure you reconnect to correct contacts. See wiring diagrams at the end of this manual.

2. Remove light assembly (4).
 - a. Disconnect circuit lead (5) from light assembly (4).
 - b. Remove two screws (6), lockwashers (7), and light assembly (4) from warning lights panel. Discard lockwashers.



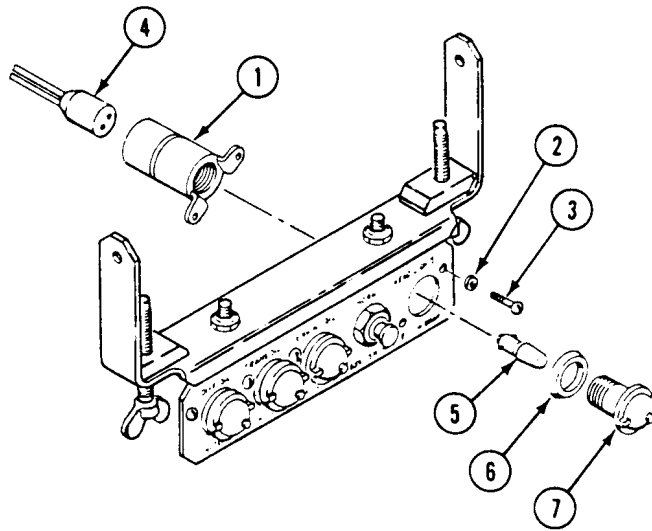
CLEAN, INSPECT, AND REPAIR

1. Check light bulb. Replace bad light bulb.
2. Check light assembly. Replace bad light assembly.

INSTALLATION**CAUTION**

Make sure circuit leads are connected to correct lights. See wiring diagrams at the end of this manual.

1. Install light assembly (1).
 - a. Place light assembly (1) on rear of warning light panel. Secure with two new lockwashers (2) and screws (3).
 - b. Connect circuit lead (4) to light assembly (1).
2. Install light bulb (5).
 - a. Install light bulb (5) in light assembly (1). Push and turn light bulb clockwise to secure.
 - b. Install gasket (6) and lens (7) in light assembly (1). Turn lens clockwise to secure.

**FOLLOW-THROUGH STEPS**

1. Turn MASTER SWITCH to ON (see your -10).
2. Check differential oil high temperature warning light. It should be OFF. It will come on when you ground circuit 328 lead.
3. Check engine low oil pressure indicator. It should be ON.
4. Check transmission high oil temperature indicator. It should be OFF. It will come on when you ground circuit lead 327.
5. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE HORN SWITCH

0252 00

THIS WORK PACKAGE COVERS:

Removal (page 0252 00-1).
 Installation (page 0252 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

Engine stopped (see your -10)
 Carrier blocked (see your -10)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Personnel Required

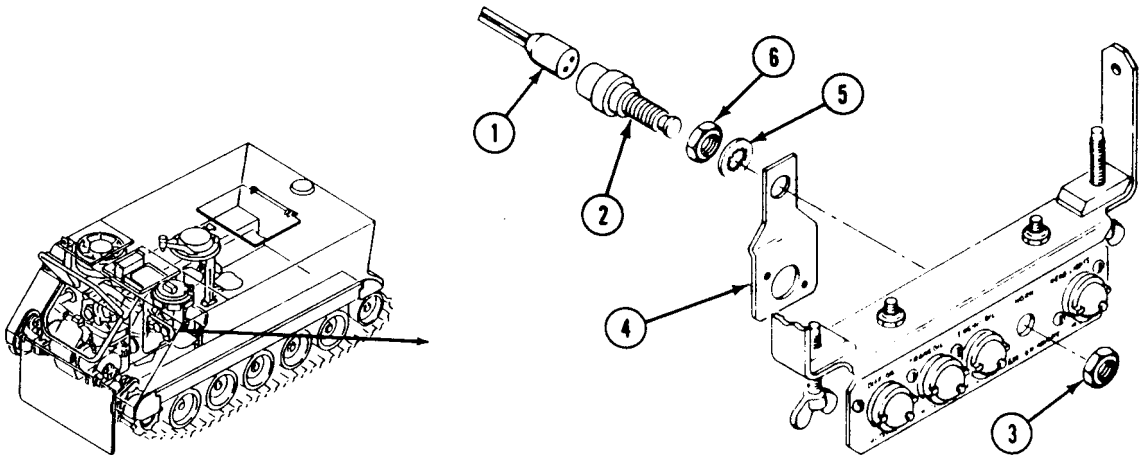
Unit Mechanic

REMOVAL

NOTE

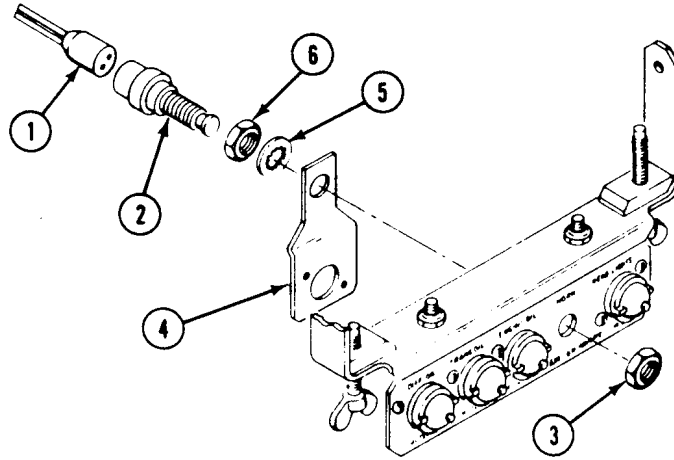
Two nuts and lockwashers come with new switch.

1. Disconnect circuit 25/25A connector (1) from rear of horn switch (2).
2. Remove nut (3) and horn switch (2) from warning light panel.
3. Remove lockwasher (5) and nut (6) from horn switch (2). Discard lockwasher.



INSTALLATION

1. Install nut (6) and new lockwasher (5) on horn switch (2).
2. Install horn switch through rear of warning light panel. Secure with nut (3).
3. Connect circuit 25/25A connector (1) to rear of horn switch (2).

**FOLLOW-THROUGH STEPS**

1. Turn MASTER SWITCH to ON (see your -10).
2. Press horn switch to check for proper installation (see your -10).
3. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE WARNING LIGHT PANEL ASSEMBLY

0253 00

THIS WORK PACKAGE COVERS:

Removal (page 0253 00-1).
 Installation (page 0253 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Horn switch removed (WP 0252 00)
 Warning panel lights removed (WP 0251 00)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

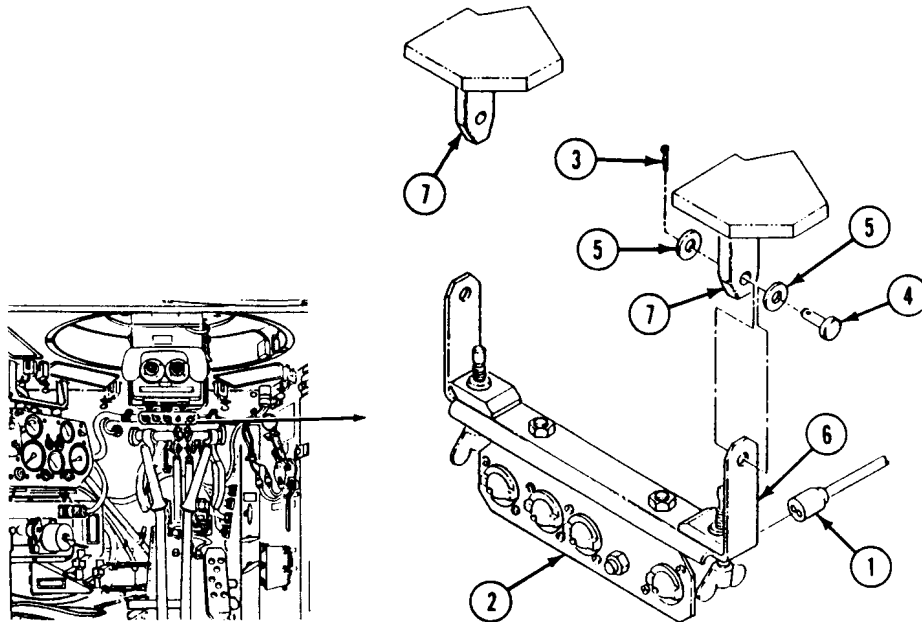
Cotter pin (2)

Personnel Required

Unit Mechanic

REMOVAL

1. Disconnect five connectors (1) from warning light panel (2).
2. Remove two cotter pins (3), straight pins (4), washers (5), and panel (2) with mount bracket (6) from hull mounts (7). Discard cotter pins.



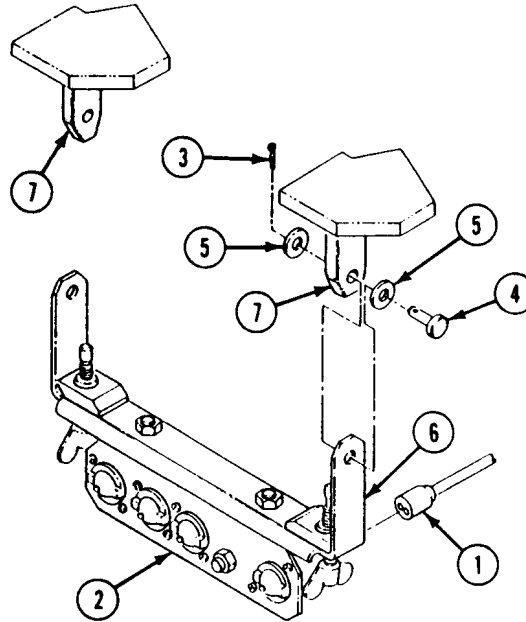
INSTALLATION

1. Position mount bracket (6) on hull mounts (7). Secure with two straight pins (4), washers (5), and new cotter pins (3).

NOTE

Be sure to connect leads to their correct lights. See wiring diagrams at the end of this manual.

2. Install five connectors (1) on rear of panel (2).



FOLLOW-THROUGH STEPS

1. Install horn switch (WP 0252 00).
2. Install warning panel lights (WP 0251 00).

END OF TASK

REPLACE WARNING LIGHT PANEL

0254 00

THIS WORK PACKAGE COVERS:

Removal (page 0254 00-1).
 Installation (page 0254 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Panel warning lights removed (WP 0251 00)
 Horn switch removed (WP 0252 00)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

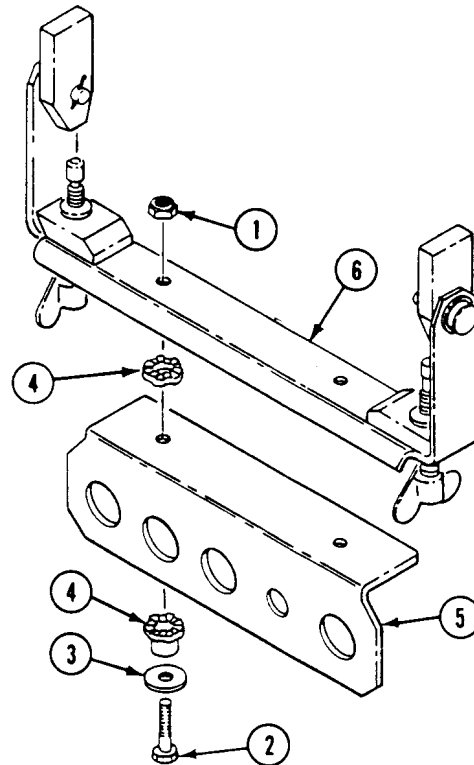
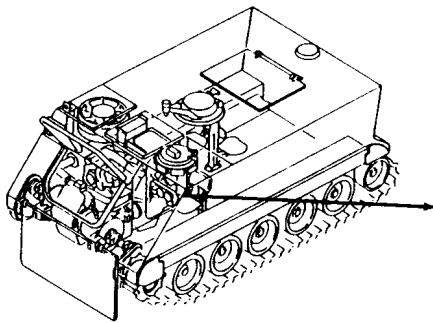
Locknut (2)

Personnel Required

Unit Mechanic

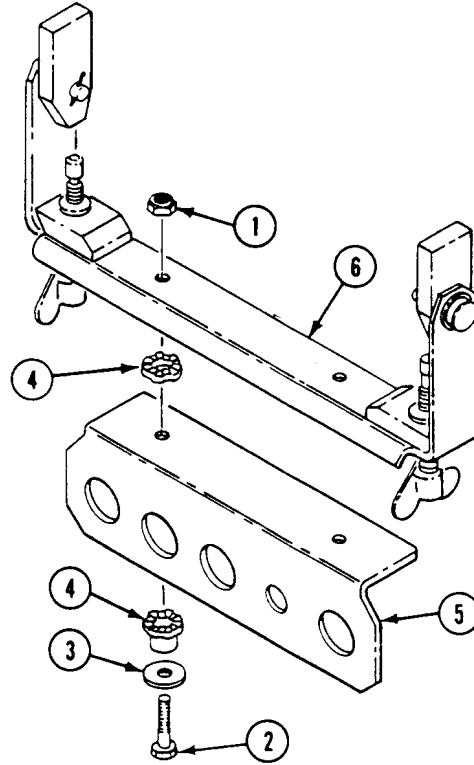
REMOVAL

1. Remove two locknuts (1), screws (2), washers (3), and four mounts (4) from panel (5) and bracket (6). Remove panel from bracket. Discard locknuts.



INSTALLATION

1. Install four mounts (4) and panel (5) on bracket (6). Secure with two washers (3), screws (2), and new locknuts (1).

**FOLLOW-THROUGH STEPS**

1. Install horn switch (WP 0252 00).
2. Install panel warning lights (WP 0251 00).

END OF TASK

CHAPTER 12

UNIT MAINTENANCE INSTRUCTIONS
FOR ELECTRICAL SYSTEM - HORN AND LIGHTING SYSTEM

WORK PACKAGE INDEX

<u>Title</u>	<u>Sequence No.</u>
REPLACE HORN AND GROUND LEAD.....	.0255 00
REPLACE SERVICE AND INFRARED HEADLIGHTS.....	.0256 00
REPAIR SERVICE AND INFRARED HEADLIGHTS.....	.0257 00
REPLACE BLACKOUT MARKER LIGHT.....	.0258 00
REPAIR BLACKOUT MARKER LIGHT.....	.0259 00
REPLACE BLACKOUT HEADLIGHT.....	.0260 00
REPAIR BLACKOUT HEADLIGHT.....	.0261 00
REPLACE HEADLIGHT GUARD.....	.0262 00
REPLACE LEFT STOPLIGHT/TAILLIGHT.....	.0263 00
REPAIR LEFT/RIGHT STOPLIGHT/TAILLIGHT.....	.0264 00
REPLACE RIGHT STOPLIGHT/TAILLIGHT.....	.0265 00
REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR SYSTEM (M577A2 AND M1068 ONLY).....	.0266 00
REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR SYSTEM (M577A2 ONLY).....	.0267 00
REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR SYSTEM (M901A1 ONLY).....	.0268 00
REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR SYSTEM (M113A2, M1064, AND M1059 ONLY).....	.0269 00
REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR SYSTEM (M113A2 AND M1064 ONLY).....	.0270 00
REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR SYSTEM (M901A1 ONLY).....	.0271 00
REPLACE STOPLIGHT/TAILLIGHT AND GUARDS (M981 AND M1064 ONLY).....	.0272 00
REPLACE DOME LIGHT (ALL EXCEPT M577A2 AND M1068).....	.0273 00
REPAIR DOME LIGHT (ALL EXCEPT M577A2 AND M1068).....	.0274 00
REPLACE DOME LIGHT (M577A2 AND M1068 ONLY).....	.0275 00
REPAIR DOME LIGHT AND MOUNT (M577A2 AND M1068 ONLY).....	.0276 00
REPLACE MASTER SWITCH PANEL LEAD ASSEMBLY TO DOME LIGHTS (M577A2 AND M1068 ONLY).....	.0277 00
REPLACE FRONT DOME LIGHT SWITCH (M577A2 AND M1068 ONLY).....	.0278 00
REPLACE REAR DOME LIGHT SWITCH (M577A2 AND M1068 ONLY).....	.0279 00
REPLACE DOME LIGHT CIRCUIT BREAKER (M577A2 AND M1068 ONLY).....	.0280 00
REPLACE DOME BLACKOUT LIGHT BYPASS SWITCH (M577A2 AND M1068 ONLY).....	.0281 00
REPLACE ADMITTANCE BUZZER AND SWITCH (M577A2 AND M1068 ONLY).....	.0282 00
REPLACE RAMP DOOR SWITCH AND MOUNT (M577A2 AND M1068 ONLY).....	.0283 00
REPLACE TENT LIGHT ASSEMBLY (M577A2 ONLY).....	.0284 00

CHAPTER 12

UNIT MAINTENANCE INSTRUCTIONS
FOR ELECTRICAL SYSTEM - HORN AND LIGHTING SYSTEM

WORK PACKAGE INDEX (Continued)

<u>Title</u>	<u>Sequence No.</u>
REPLACE HEADLIGHT HIGH BEAM SELECTOR SWITCH.....	0285 00
REPLACE RIGHT HEADLIGHT WIRING HARNESS.....	0286 00
REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY).....	0287 00
REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY).....	0288 00
REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY).....	0289 00
REPLACE STOPLIGHT SWITCH AND BRACKET.....	0290 00
REPLACE TUBE TYPE INFRARED POWER SUPPLY.....	0291 00
REPLACE INFRARED POWER SUPPLY SHOCK MOUNT BRACKETS.....	0292 00
REPLACE SOLID STATE INFRARED POWER SUPPLY.....	0293 00

REPLACE HORN AND GROUND LEAD

0255 00

THIS WORK PACKAGE COVERS:

Removal (page 0255 00-1).
 Installation (page 0255 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Materials/Parts

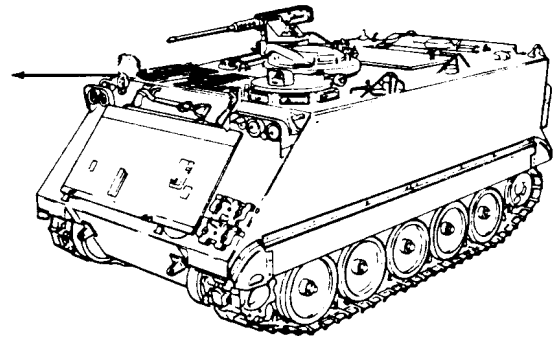
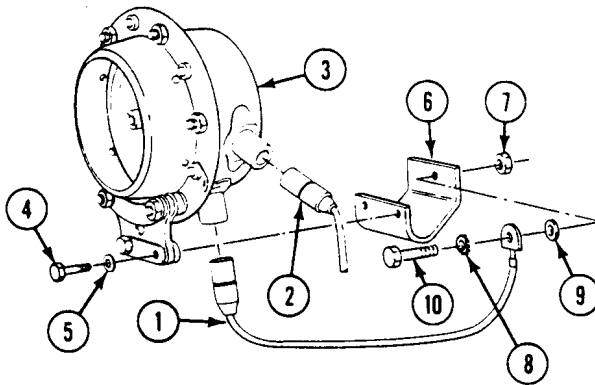
Lockwasher (2)

Lockwasher

Locknut

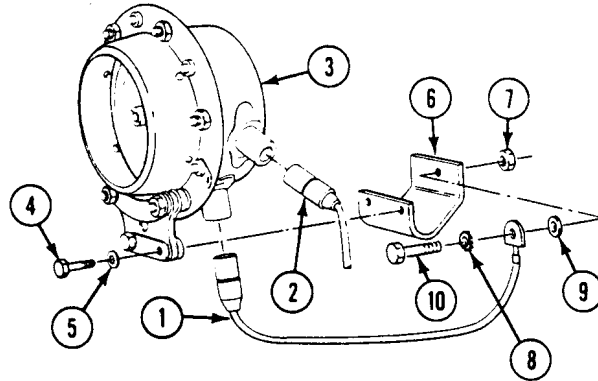
REMOVAL

1. Disconnect ground lead (1) and circuit 25 lead (2) from horn (3).
2. Remove two screws (4), lockwashers (5), and horn (3) from hull bracket (6). Discard lockwashers.
3. Remove locknut (7), lockwasher (8), ground lead (1), washer (9), and screw (10) from bracket (6). Discard lockwasher and locknut.



INSTALLATION

1. Install ground lead (1) on bracket (6). Secure with screw (10), washer (9), new lockwasher (8), and new locknut (7).
2. Install horn (3) on bracket (6). Secure with two new lockwashers (5) and screws (4).
3. Connect circuit 25 lead (2) and ground lead (1) to horn (3).

**FOLLOW-THROUGH STEPS**

1. Turn MASTER SWITCH to ON (see your -10). Press horn button to check that horn works.
2. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE SERVICE AND INFRARED HEADLIGHTS

0256 00

THIS WORK PACKAGE COVERS:

Removal (page 0256 00-1).
 Installation (page 0256 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Materials/Parts

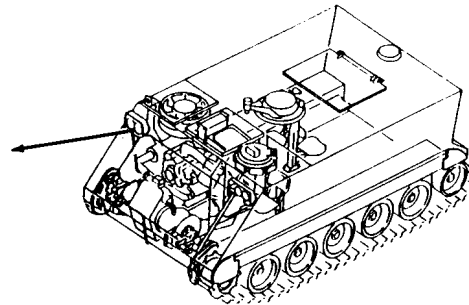
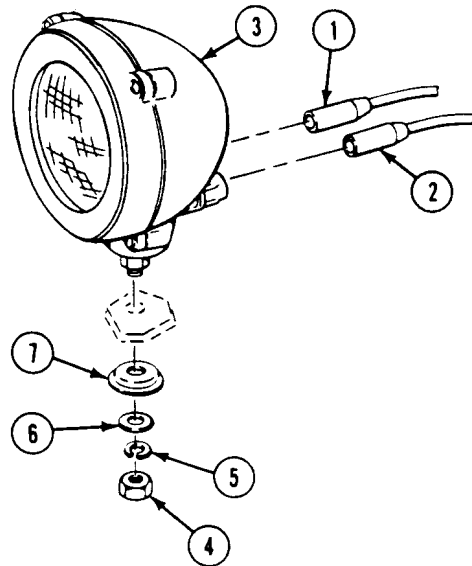
Lockwasher

REMOVAL

NOTE

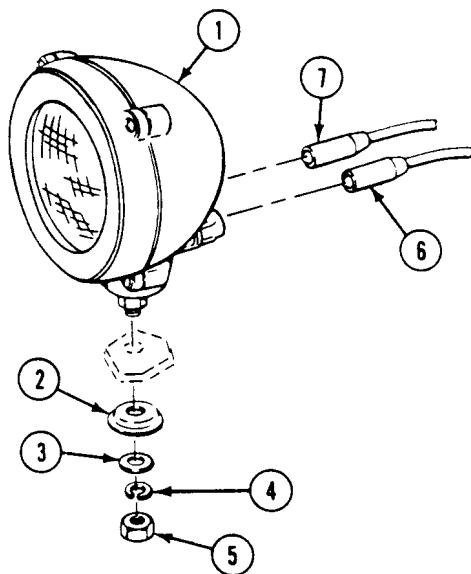
Except for circuit leads, service headlight and infrared headlight are replaced the same way.

1. Disconnect circuit 17 lead (1) and circuit 18 lead (2) from rear of service headlight (3).
2. Disconnect circuit 514 lead (1) and circuit 515 lead (2) from rear of infrared headlight (3).
3. Remove nut (4), lockwasher (5), small bevel washer (6), large bevel washer (7), and headlight (3) from hull bracket. Discard lockwasher.



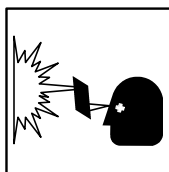
INSTALLATION

1. Place headlight (1) and large bevel washer (2) on hull bracket. Secure with small bevel washer (3), new lockwasher (4), and nut (5).
2. Connect circuit 18 lead (6) and circuit 17 lead (7) to rear of service headlight (1).
3. Connect circuit 515 lead (6) and circuit 514 lead (7) to rear of infrared headlight (1).

**FOLLOW-THROUGH STEPS**

1. Turn MASTER SWITCH to ON (see your -10).

WARNING



Looking directly at infrared headlights may burn your eyes. Do not look directly into infrared headlight.

2. Turn on service headlights to check that they work properly (see your -10).
3. Turn infrared headlights on (see your -10) and hold hand near lens. Heat means headlight is working.
4. Turn all switches OFF on instrument panel (see your -10).
5. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPAIR SERVICE AND INFRARED HEADLIGHTS

0257 00

THIS WORK PACKAGE COVERS:

- Disassembly (page 0257 00-1).
- Clean, Inspect, and Repair (page 0257 00-2).
- Assembly (page 0257 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Service and/or infrared headlight removed (WP 0256 00)

Materials/Parts

Gasket

Lockwasher

Preformed packing

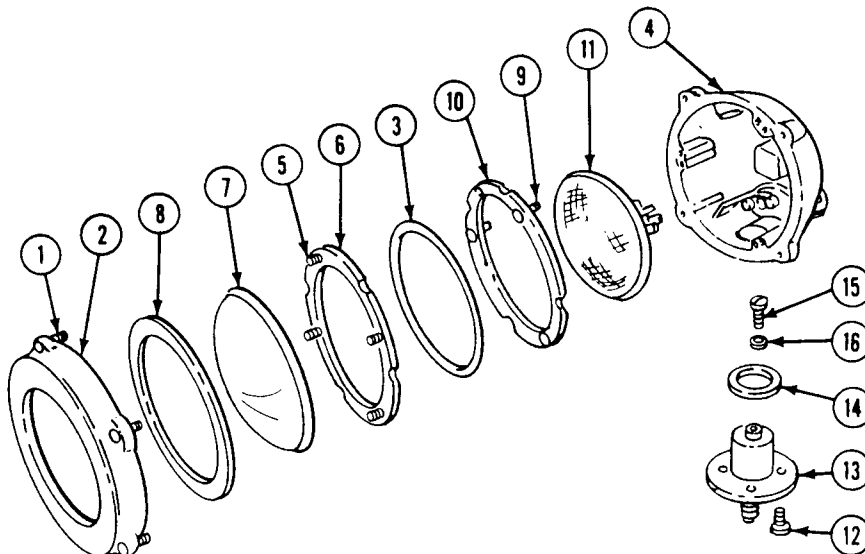
Preformed packing

DISASSEMBLY

NOTE

Repair of service headlight and infrared headlight is the same. Service headlight has clear lens and infrared headlight has dark red lens.

1. Loosen four screws (1). Remove door (2) and preformed packing (3) from headlight body (4). Discard packing.
2. Loosen four screws (5). Remove retainer plate (6), lens (7), and gasket (8) from door (2). Discard gasket.
3. Loosen three screws (9). Remove retainer plate (10) from body (4). Pull lamp unit (11) from body. Disconnect lamp unit from plug.
4. Remove four screws (12), resilient mount (13), and preformed packing (14) from body (4). Discard preformed packing.
5. Remove screw (15) and lockwasher (16) from mount (13). Discard lockwasher.



CLEAN, INSPECT, AND REPAIR

1. Check lens. Replace cracked or chipped lens.
2. Check lamp unit. See troubleshooting (WP 0031 00 or WP 0032 00). Replace bad lamp unit.
3. Check door, body, and retainer plates. Replace headlight if any part is missing or damaged (WP 0256 00).

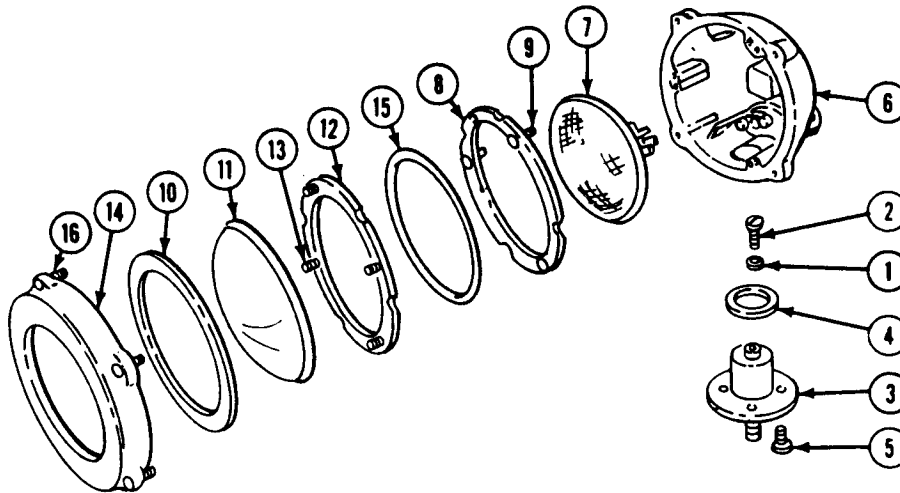
ASSEMBLY

1. Install new lockwasher (1) and screw (2) in mount (3).

CAUTION

Use care when tightening four mount screws (5). Do not overtighten. Overtightening the screws will strip the housing threads.

2. Install new preformed packing (4), mount (3), and four screws (5) in body (6).
3. Connect lamp unit (7) to plug in lamp body (6) with word FOG at the bottom.
4. Install lamp unit (7), retainer plate (8), and three screws (9) in body (6).
5. Install new gasket (10), lens (11), retainer plate (12), and four screws (13) in door (14).
6. Install new preformed packing (15), door (14), and four screws (16) on body (6).



FOLLOW-THROUGH STEPS

1. Install service and/or infrared headlight (WP 0256 00).

END OF TASK

REPLACE BLACKOUT MARKER LIGHT

0258 00

THIS WORK PACKAGE COVERS:

Removal (page 0258 00-1).
 Installation (page 0258 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

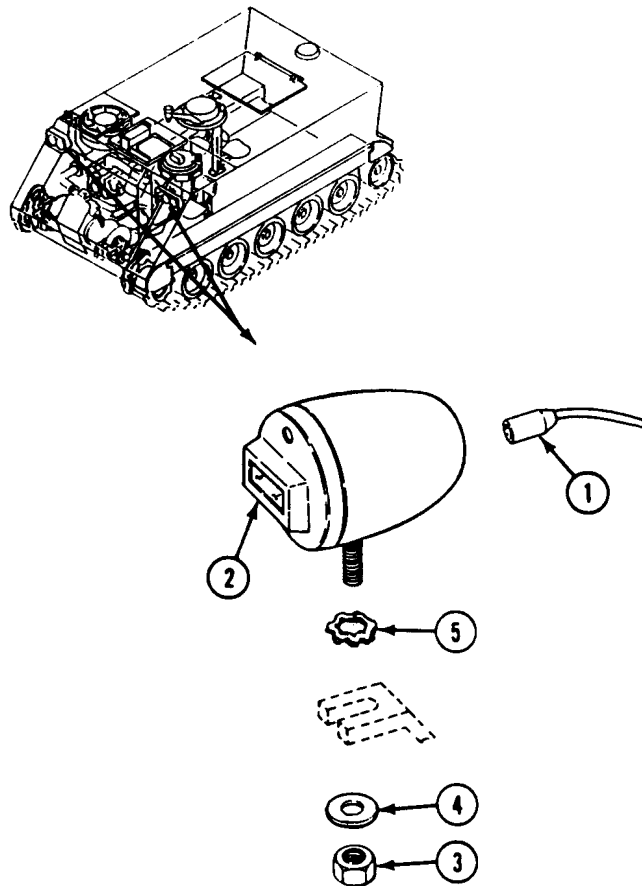
Materials/Parts

Lockwasher

Locknut

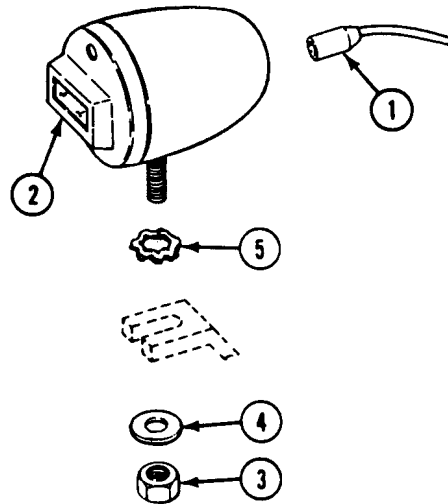
REMOVAL

1. Disconnect circuit 20 lead (1) from rear of blackout marker light (2).
2. Remove locknut (3), washer (4), lockwasher (5), and marker light (2) from hull bracket. Discard lockwasher and locknut.



INSTALLATION

1. Install blackout marker light (2), new lockwasher (5), washer (4), and new locknut (3) on hull bracket.
2. Connect circuit 20 lead (1) to rear of marker light (2).

**FOLLOW-THROUGH STEPS**

1. Turn MASTER SWITCH to ON (see your -10).
2. Turn blackout marker light switch on to check that light is operable (see your -10).
3. Turn all switches OFF (see your -10).
4. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPAIR BLACKOUT MARKER LIGHT**0259 00****THIS WORK PACKAGE COVERS:**

- Disassembly (page 0259 00-1).
- Clean, Inspect, and Repair (page 0259 00-1).
- Assembly (page 0259 00-2).

INITIAL SETUP:Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

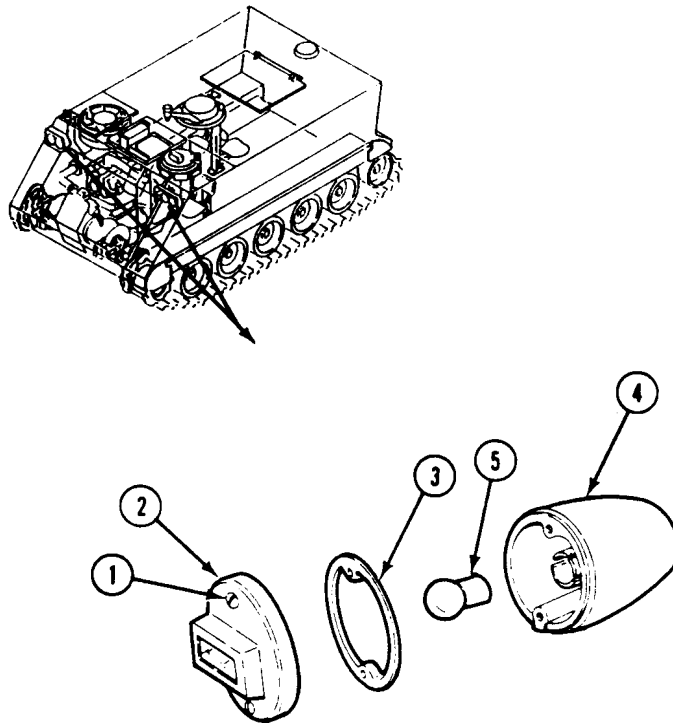
Materials/Parts

Gasket

Light bulb, as needed

DISASSEMBLY

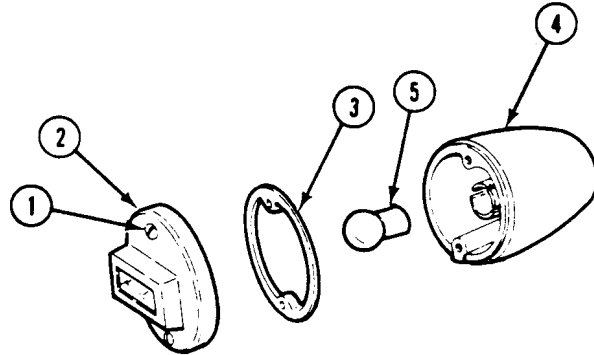
1. Loosen two screws (1). Remove door (2) and gasket (3) from light body (4). Discard gasket.
2. Push in on bulb (5) and turn counterclockwise. Remove bulb from body (4).

**CLEAN, INSPECT, AND REPAIR**

1. Check lens in door. Replace blackout marker door assembly if lens is cracked or chipped.
2. Check bulb. Use multimeter. Replace bad bulb.
3. Check body. Replace blackout marker light if any part is missing or damaged (WP 0258 00).

ASSEMBLY

1. Place bulb (5) in light body (4). Push in on bulb and turn clockwise to secure.
2. Install new gasket (3), door (2), and two screws (1) on body (4).

**FOLLOW-THROUGH STEPS**

1. Turn MASTER SWITCH to ON (see your -10).
2. Turn blackout marker light switch ON to check that light operates properly (see your -10).
3. Turn all switches OFF on instrument panel (see your -10).
4. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE BLACKOUT HEADLIGHT

0260 00

THIS WORK PACKAGE COVERS:

- Removal (page 0260 00-1).
- Clean, Inspect, and Repair (page 0260 00-1).
- Installation (page 0260 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

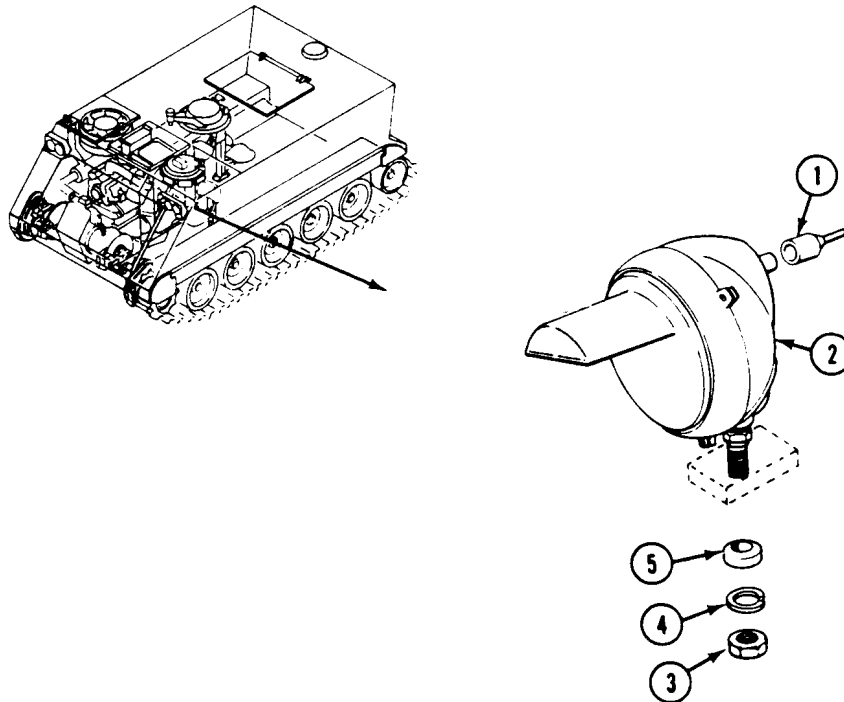
Engine stopped/shutdown (see your -10)
Carrier blocked (see your -10)

Materials/Parts

Lockwasher

REMOVAL

1. Disconnect circuit 19 lead (1) from rear of blackout headlight (2).
2. Remove nut (3), lockwasher (4), finishing washer (5), and blackout headlight (2) from hull bracket. Discard lockwasher.

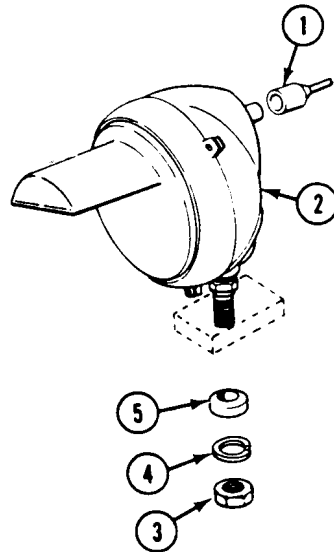


CLEAN, INSPECT, AND REPAIR

1. Check lead and connector. Replace frayed, broken, or cracked parts (WP 0312 00).

INSTALLATION

1. Install blackout headlight (2), finishing washer (5), new lockwasher (4), and nut (3) on hull bracket.
2. Connect circuit 19 lead (1) to rear of blackout headlight (2).

**FOLLOW-THROUGH STEPS**

1. Turn MASTER SWITCH to ON (see your -10).
2. Turn blackout headlight switch ON to check that headlight operates properly (see your -10).
3. Turn all switches to OFF (see your -10).

END OF TASK

REPAIR BLACKOUT HEADLIGHT

0261 00

THIS WORK PACKAGE COVERS:

- Disassembly (page 0261 00-1).
- Cleaning (page 0261 00-1).
- Assembly (page 0261 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

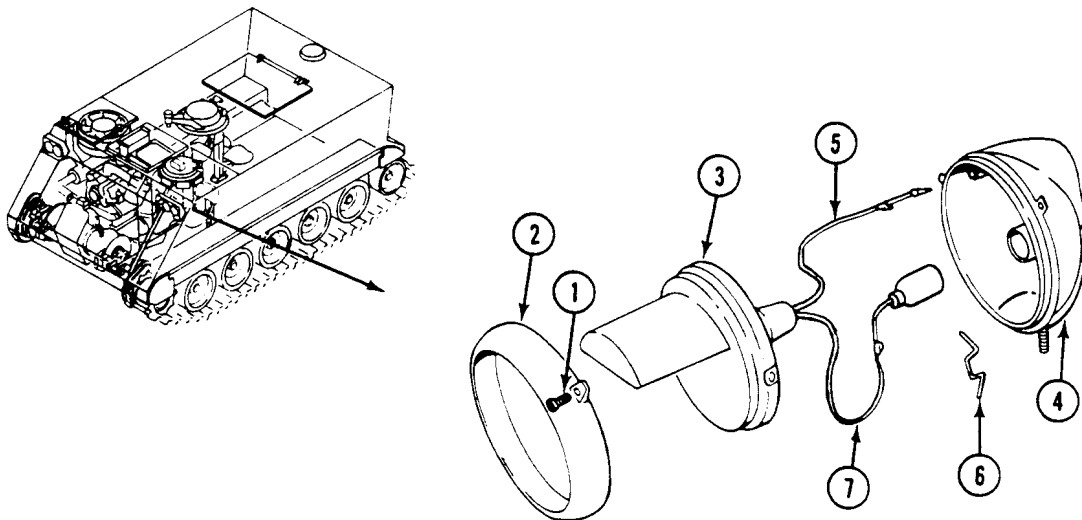
Engine stopped/shutdown (see your -10)
Carrier blocked (see your -10)

Materials/Parts

Lamp unit
Retaining clip (3)

DISASSEMBLY

1. Loosen three screws (1). Pull retainer (2) with lamp unit (3) away from light housing (4).
2. Disconnect ground lead (5) and positive lead (7) from housing (4).
3. Remove three retaining clips (6) and lamp unit (3) from retainer (2). Discard lamp unit and clips.

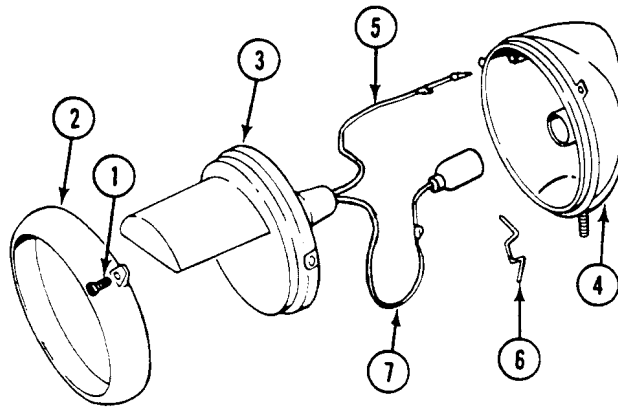


CLEANING

1. Check retainer and housing; replace blackout headlight if any part is missing or damaged (WP 0260 00).

ASSEMBLY

1. Install new lamp unit (3) in retainer (2). Secure with three new retaining clips (6).
2. Connect positive lead (7) and ground lead (5) to light housing (4).
3. Install retainer (2) with lamp unit (3) and three screws (1) on housing (4).

**FOLLOW-THROUGH STEPS**

1. Turn MASTER SWITCH to ON (see your -10).
2. Turn blackout headlight switch ON to check that headlight operates properly (see your -10).
3. Turn all switches to OFF (see your -10).

END OF TASK

REPLACE HEADLIGHT GUARD

0262 00

THIS WORK PACKAGE COVERS:

Removal (page 0262 00-1).
 Installation (page 0262 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)

Materials/Parts

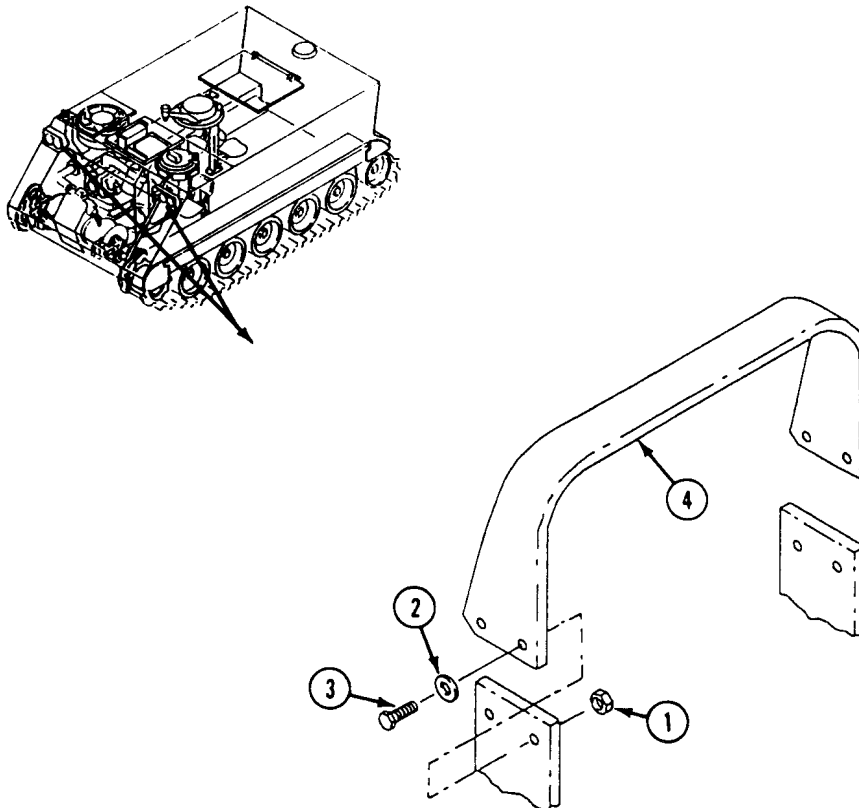
Locknut (8)

REMOVAL

NOTE

Procedures to remove and install headlight guard are the same for right and left sides of the carrier.

1. Remove four locknuts (1), washers (2), screws (3), and headlight guard (4) from hull mount. Discard locknuts.

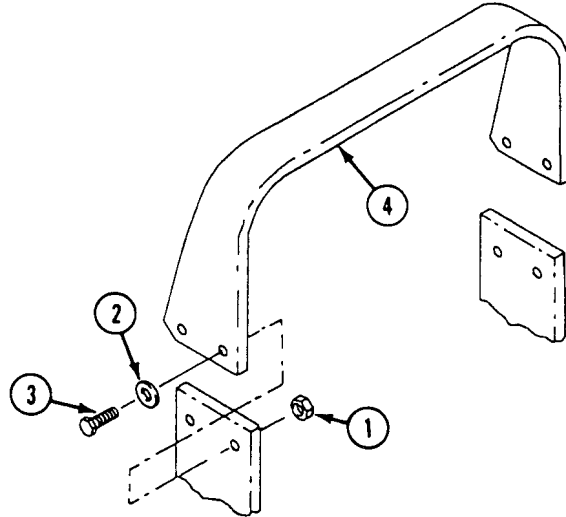


INSTALLATION

NOTE

Procedures to remove and install headlight guard are the same for right and left sides of the carrier.

1. Install headlight guard (4), four washers (2), screws (3), and new locknuts (1) on hull mount.



END OF TASK

REPLACE LEFT STOPLIGHT/TAILLIGHT

0263 00

THIS WORK PACKAGE COVERS:

Removal (page 0263 00-1).
 Installation (page 0263 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Battery ground lead disconnected (WP 0294 00)

Carrier blocked (see your -10)

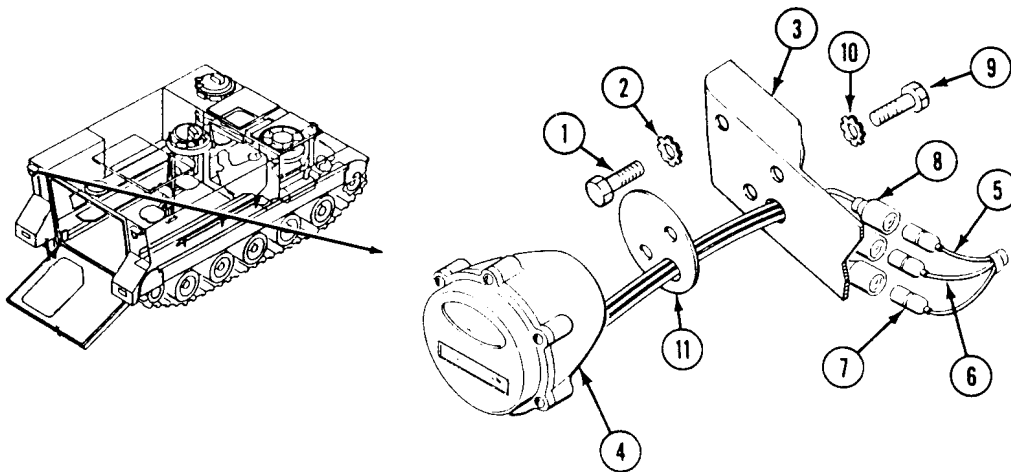
Materials/Parts

Gasket

Lockwasher (6)

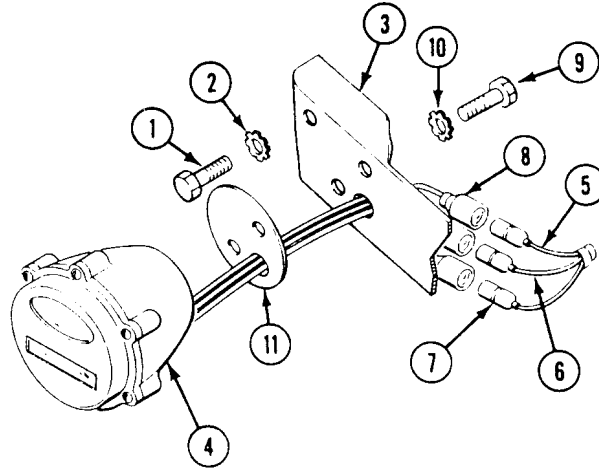
REMOVAL

1. Remove four screws (1) and lockwashers (2). Pull guard (3), with stoplight/taillight (4) attached, away from hull. Discard lockwashers.
2. Disconnect circuit 21 lead (5), circuit 22 lead (6), and circuit 24 lead (7) from taillight leads (8).
3. Remove two screws (9), lockwashers (10), taillight (4), and gasket (11) from guard (3). Discard gasket and lockwashers.



INSTALLATION

1. Place new gasket (11) and taillight (4) on guard (3). Secure with two new lockwashers (10) and screws (9).
2. Connect circuit 24 lead (7), circuit 22 lead (6), and circuit 21 lead (5) to taillight leads (8).
3. Place guard (3), with taillight (4) attached, on hull. Secure with four new lockwashers (2) and screws (1).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON. Operate main light switches to check that left stoplight/taillight is operable. Turn all switches OFF (see your -10).

END OF TASK

REPAIR LEFT/RIGHT STOPLIGHT/TAILLIGHT

0264 00

THIS WORK PACKAGE COVERS:

- Removal (page 0264 00-1).
- Clean, Inspect, and Repair (page 0264 00-1).
- Installation (page 0264 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

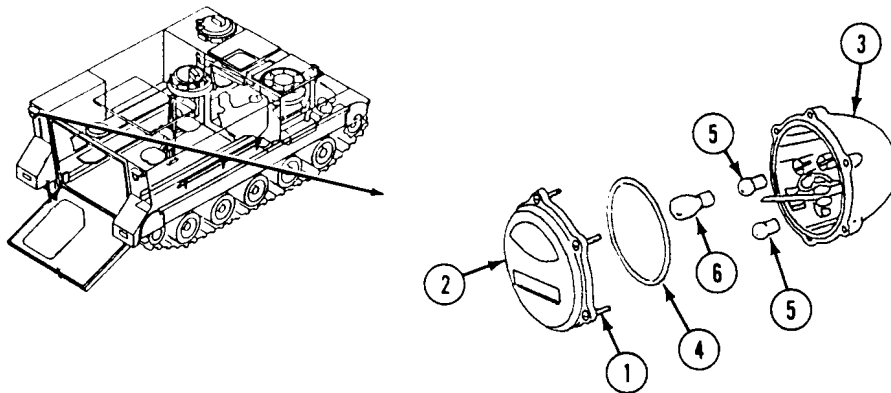
Battery ground lead disconnected (WP 0294 00)

Materials/Parts

Preformed packing

REMOVAL

1. Loosen six screws (1). Remove retainer (2) from light housing (3).
2. Remove preformed packing (4) from retainer (2). Discard packing.
3. Push in on two small bulbs (5) and one large bulb (6). Turn each bulb counterclockwise and remove from light housing (3).

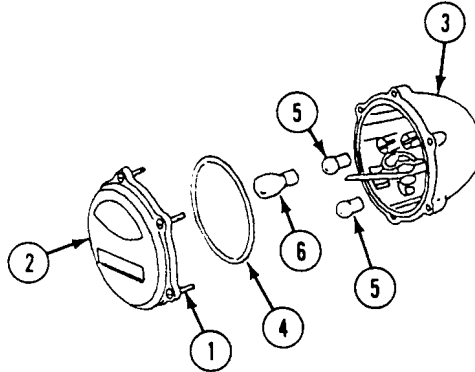


CLEAN, INSPECT, AND REPAIR

1. Check retainer and housing, replace stoplight/taillight if any part is missing or damaged (WP 0263 00 or WP 0265 00).

INSTALLATION

1. Install two small bulbs (5) and one large bulb (6) in light housing (3). Push in and turn clockwise to secure.
2. Place new preformed packing (4) on retainer (2).
3. Place retainer (2) on light housing (3). Secure with six screws (1).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON. Operate main light switches to check that left stoplight/taillight is operable. Turn all switches OFF (see your -10).

END OF TASK

REPLACE RIGHT STOPLIGHT/TAILLIGHT

0265 00

THIS WORK PACKAGE COVERS:

Removal (page 0265 00-1).
 Installation (page 0265 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

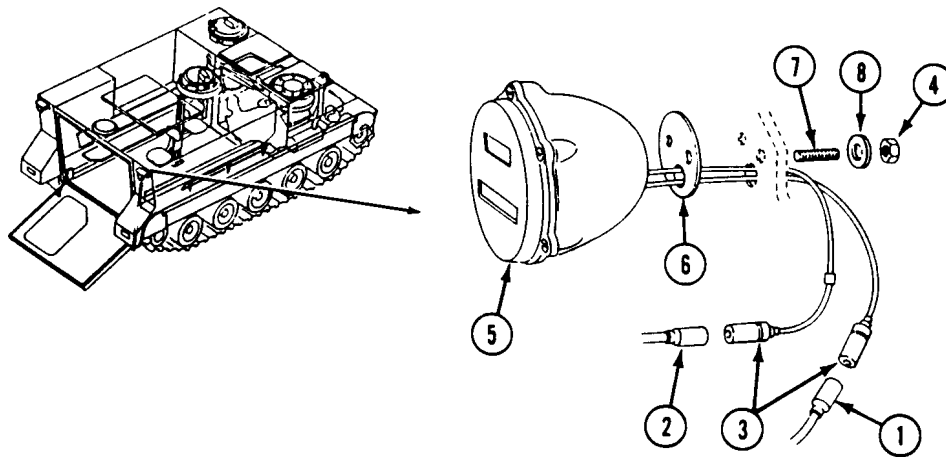
Engine stopped/shutdown (see your -10)
 Battery ground lead disconnected (WP 0294 00)
 Carrier blocked (see your -10)

Materials/Parts

Gasket
 Lockwasher (2)

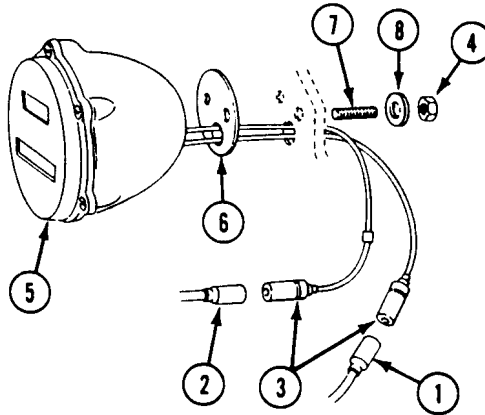
REMOVAL

1. Disconnect circuit 23 lead (1) and circuit 24 lead (2) from stoplight/taillight leads (3).
2. Remove two nuts (4), two lockwashers (8), stoplight/taillight (5), and gasket (6) from carrier hull. Discard gasket and lockwashers.
3. If needed, remove two studs (7) from rear of stoplight/taillight (5).



INSTALLATION

1. If removed, install two studs (7) in rear of stoplight/taillight (5).
2. Place new gasket (6) and stoplight/taillight (5) on carrier hull. Secure with two new lockwashers (8) and two nuts (4).
3. Connect circuit 24 lead (2) and circuit 23 lead (1) to stoplight/taillight leads (3).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON. Operate main light switches to check that left stoplight/taillight is operable. Turn all switches OFF (see your -10).

END OF TASK

REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR SYSTEM (M577A2 AND M1068 ONLY)

0266 00

THIS WORK PACKAGE COVERS:

Removal (page 0266 00-1).
 Installation (page 0266 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped (see your -10)

Carrier blocked (see your -10)

Battery ground lead disconnected (WP 0294 00)

Master switch panel assembly removed (WP 0224 00)

Materials/Parts

Sealing compound (WP 0782 00, Item 66)

Gasket

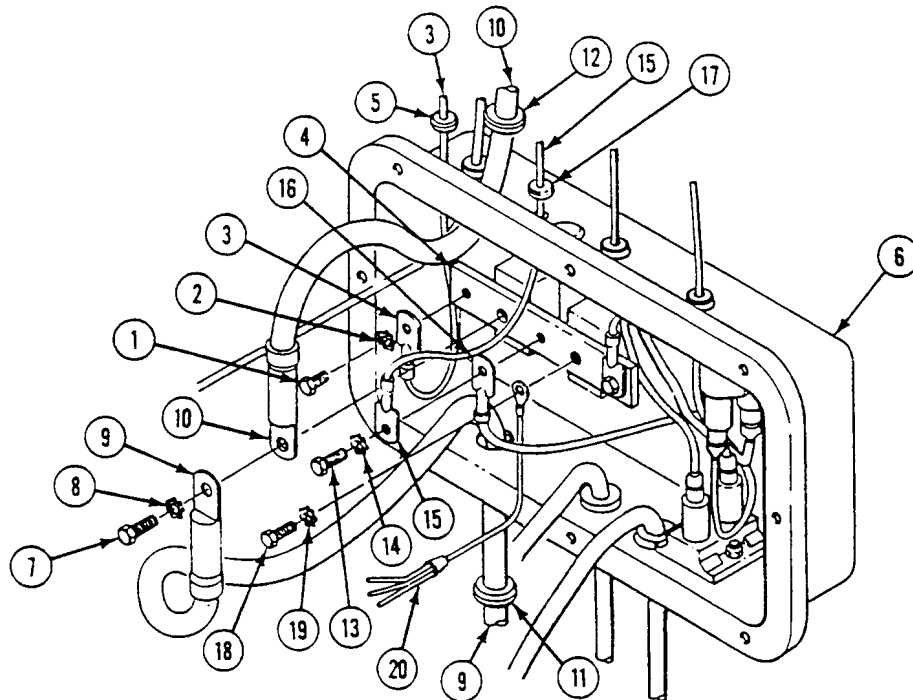
Grommet (9)

Lockwasher (5)

Lockwasher (5)

REMOVAL

1. Remove screw (1), lockwasher (2), and circuit 415 lead (3) from bus bar (4). Remove circuit 415 lead and grommet (5) from distribution box (6). Discard grommet and lockwasher.
2. Remove screw (7), lockwasher (8), circuit 6 lead (9), and circuit 49 lead (10) from bus bar (4). Remove circuit 6 lead, circuit 49 lead, and two grommets (11) and (12) from distribution box (6). Discard grommets and lockwasher.
3. Remove screw (13), lockwasher (14), circuit 10, 14, 15, and 27E lead (15), and circuit 450A lead (16) from bus bar (4). Remove circuit 10, 14, 15, and 27E lead and grommet (17) from distribution box (6). Discard grommet and lockwasher.
4. Remove screw (18), lockwasher (19), and wiring harness (20) from bus bar (4). Discard lockwasher.



**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR SYSTEM
(M577A2 AND M1068 ONLY) — Continued**

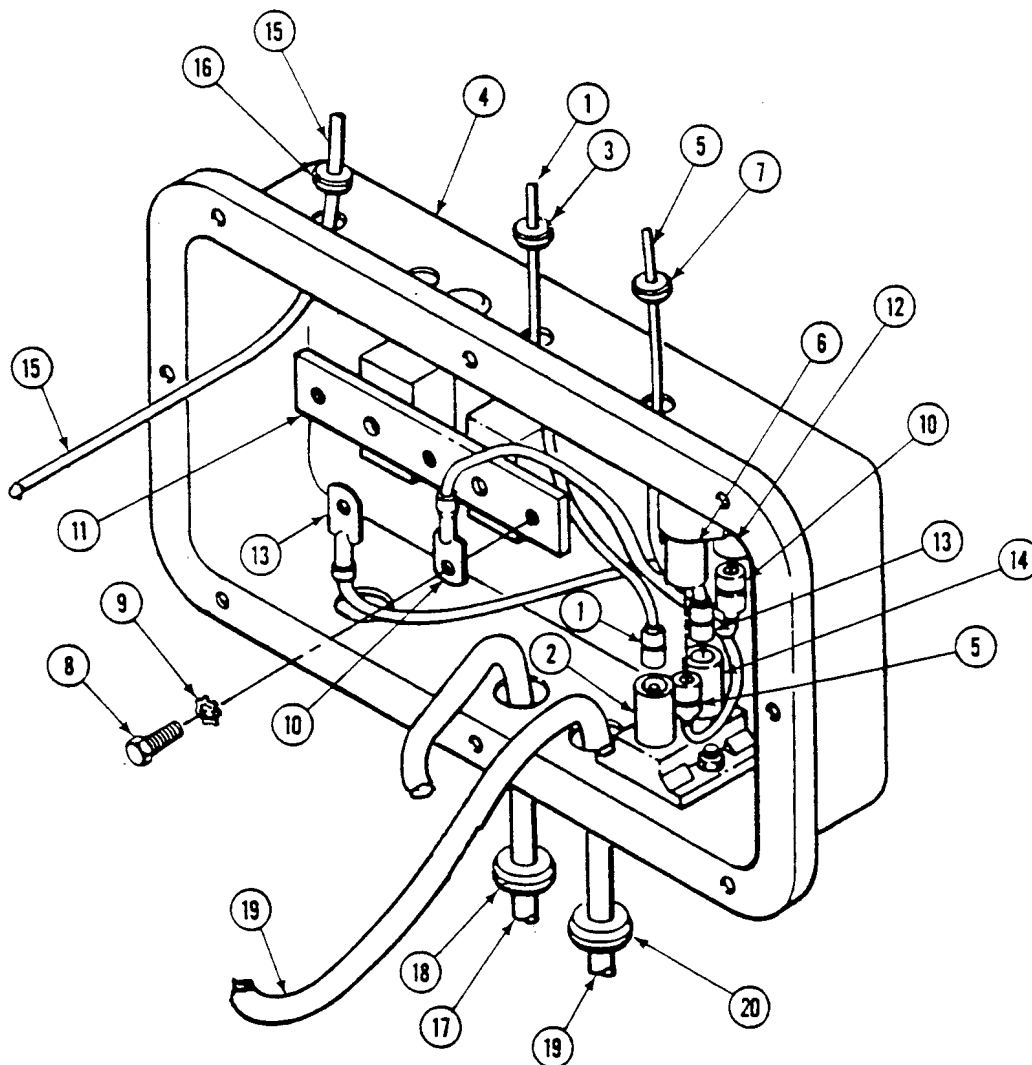
0266 00

5. Disconnect circuit 450 lead (1) from circuit breaker (2). Remove circuit 450 lead and grommet (3) from distribution box (4). Discard grommet.
6. Disconnect circuit 450B lead (5) from circuit breaker (6). Remove circuit 450B lead and grommet (7) from distribution box (4). Discard grommet.

NOTE

If bilge pump circuit breakers must be removed, see WP 0327 00 for removal. If bilge pump circuit breakers are not to be removed, go to Step 10.

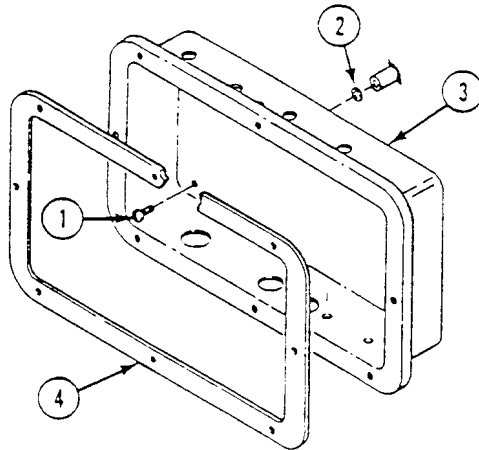
7. Remove screw (8), lockwasher (9), and circuit 450C lead (10) from bus bar (11). Discard lockwasher.
8. Disconnect circuit 450C lead (10) from circuit breaker (12). Remove circuit 450C lead from distribution box (4).
9. Disconnect circuit 450A lead (13) from circuit breaker (14). Remove circuit 450A lead from distribution box (4).
10. Remove circuit 400 lead (15) and grommet (16) from distribution box (4). Discard grommet.
11. Remove circuit 2 lead (17) and grommet (18) from distribution box (4). Discard grommet.
12. Remove circuit 2A lead (19) and grommet (20) from distribution box (4). Discard grommet.



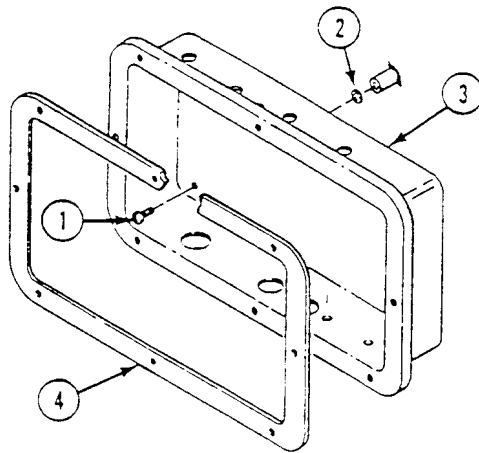
**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR SYSTEM
(M577A2 AND M1068 ONLY) — Continued**

0266 00

13. Remove five screws (1), lockwashers (2), and distribution box (3) from hull. Discard lockwashers.
14. Remove gasket (4) from distribution box (3). Discard gasket.

**INSTALLATION**

1. Install distribution box (3) on hull. Secure with five new lockwashers (2) and screws (1). Retain new gasket (4) for later installation.



**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR SYSTEM
(M577A2 AND M1068 ONLY) — Continued**

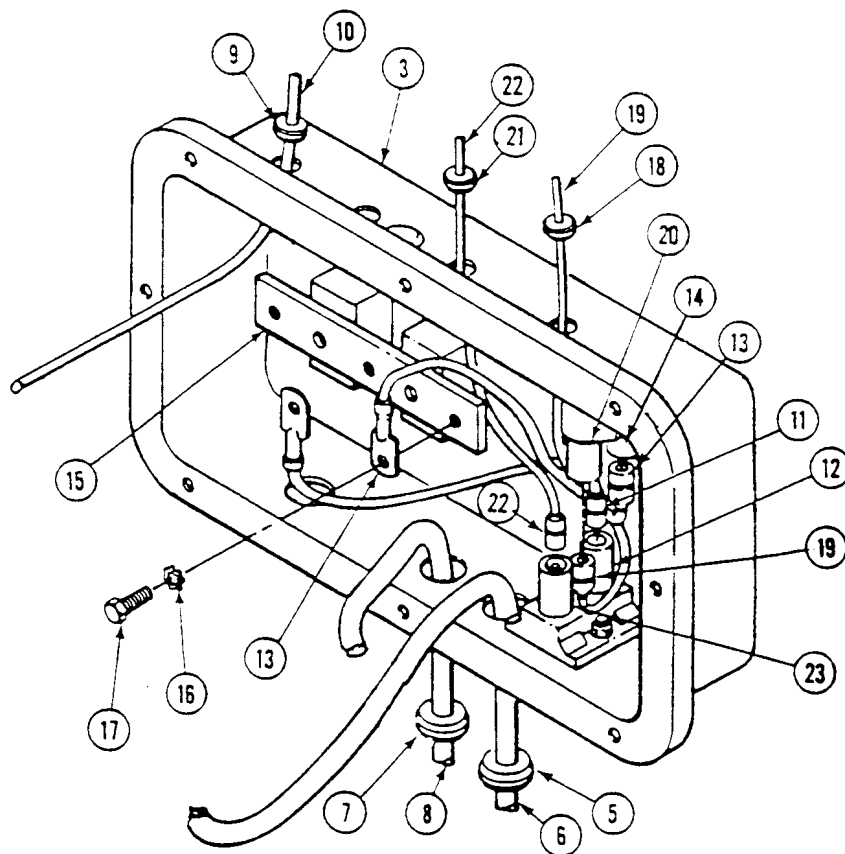
0266 00

2. Install new grommet (5) and circuit 2A lead (6) in distribution box (3).
3. Install new grommet (7) and circuit 2 lead (8) in distribution box (3).
4. Install new grommet (9) and circuit 400 lead (10) in distribution box (3).

NOTE

If bilge pump circuit breakers were removed, see WP 0327 00 for installation. If bilge pump circuit breakers were not removed, go to Step 8.

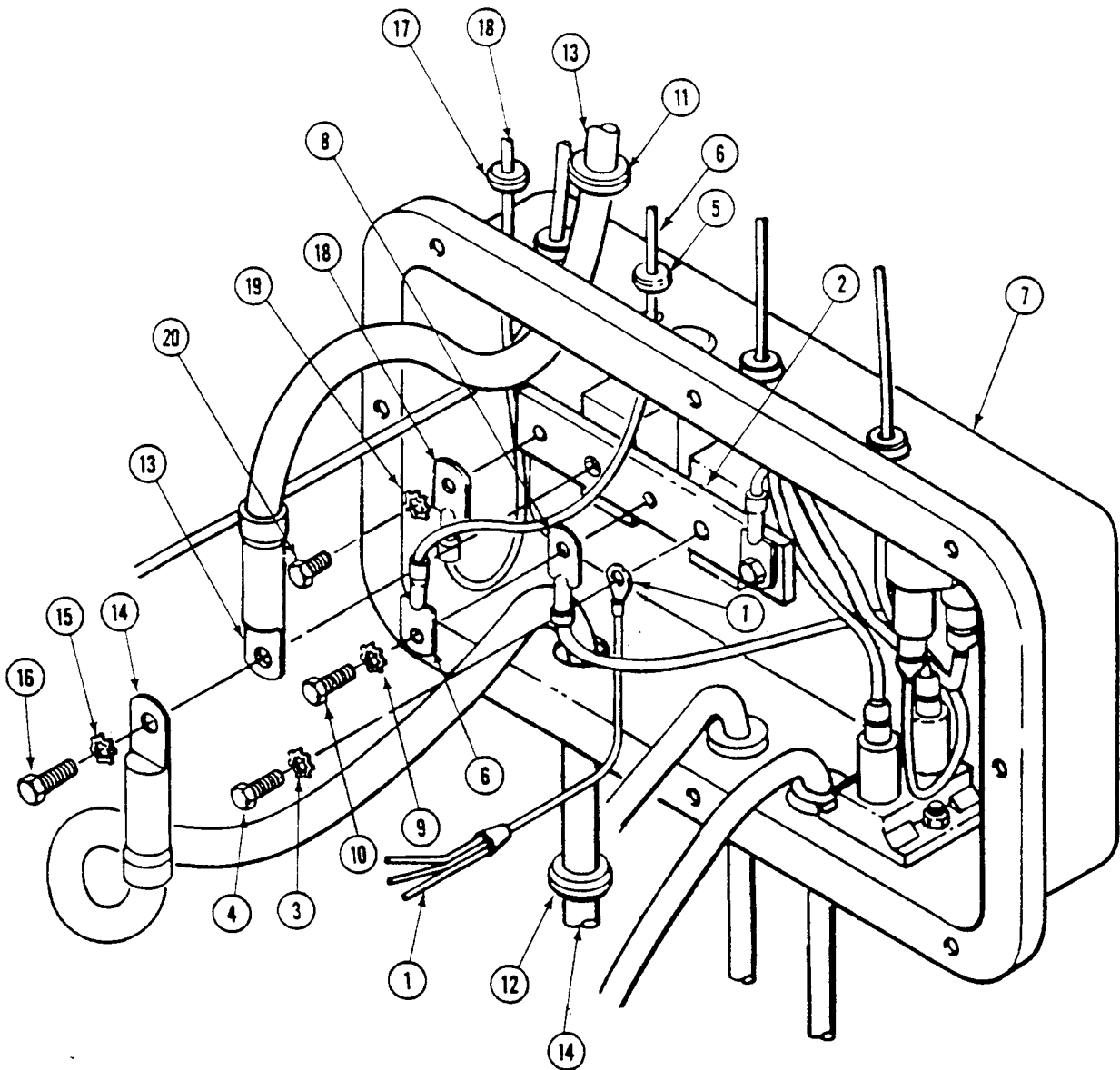
5. Connect circuit 450A lead (11) to circuit breaker (12).
6. Connect circuit 450C lead (13) to circuit breaker (14).
7. Install circuit 450C lead (13) on bus bar (15). Secure with new lockwasher (16) and screw (17).
8. Install new grommet (18) and circuit 450B lead (19) in distribution box (3). Connect circuit 450B lead to circuit breaker (20).
9. Install new grommet (21) and circuit 450 lead (22) in distribution box (3). Connect circuit 450 lead to circuit breaker (23).



**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR SYSTEM
(M577A2 AND M1068 ONLY) — Continued**

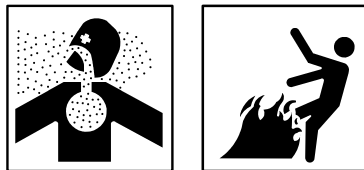
0266 00

10. Install wiring harness (1) on bus bar (2). Secure with new lockwasher (3) and screw (4).
11. Install new grommet (5) and circuit 10, 14, 15, and 27E lead (6) in distribution box (7). Install circuit 10, 14, 15, and 27E lead (6) and circuit 450A lead (8) on bus bar (2). Secure with new lockwasher (9) and screw (10).
12. Install two new grommets (11) and (12), circuit 49 lead (13), and circuit 6 lead (14) in distribution box (7). Install circuit 49 lead (13) and circuit 6 lead (14) on bus bar (2). Secure with new lockwasher (15) and screw (16).
13. Install new grommet (17) and circuit 415 lead (18) in distribution box (7). Install circuit 415 lead (18) on bus bar (2). Secure with new lockwasher (19) and screw (20).



**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR SYSTEM
(M577A2 AND M1068 ONLY) — Continued**

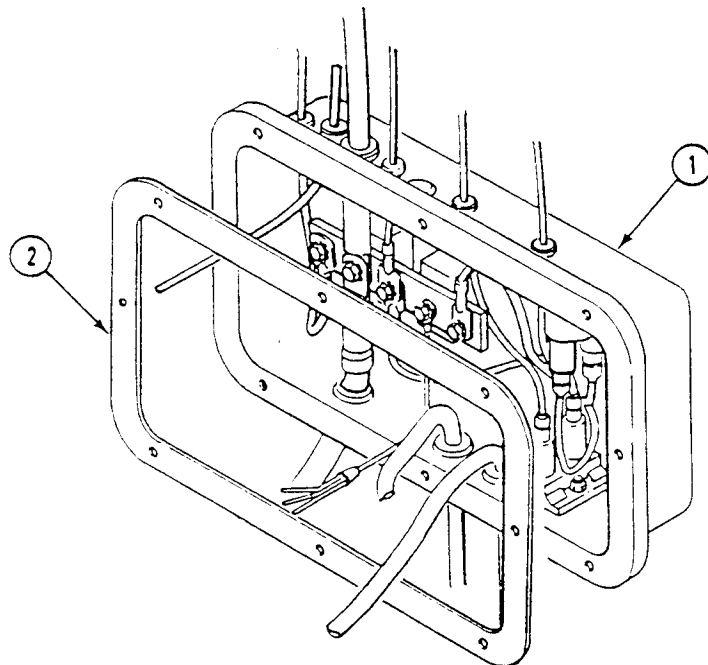
0266 00

WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

14. Apply one coat of adhesive to cleaned mounting surface of distribution box (1) and one side of new gasket (2).
15. Install new gasket (2) on coated mounting surface of distribution box (1).

**FOLLOW-THROUGH STEPS**

1. Install master switch panel (WP 0224 00).
2. Connect battery ground lead (WP 0294 00).
3. Start engine (see your -10). Check that distribution box is operable.
4. Stop engine (see your -10).

END OF TASK

**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP
GENERATOR SYSTEM (M577A2 ONLY)**

0267 00

THIS WORK PACKAGE COVERS:

Removal (page 0267 00-1).
Installation (page 0267 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped (see your -10)

Carrier blocked (see your -10)

Battery ground lead disconnected (WP 0294 00)

Master switch panel assembly removed (WP 0224 00)

Materials/Parts

Sealing compound (WP 0782 00, Item 66)

Gasket

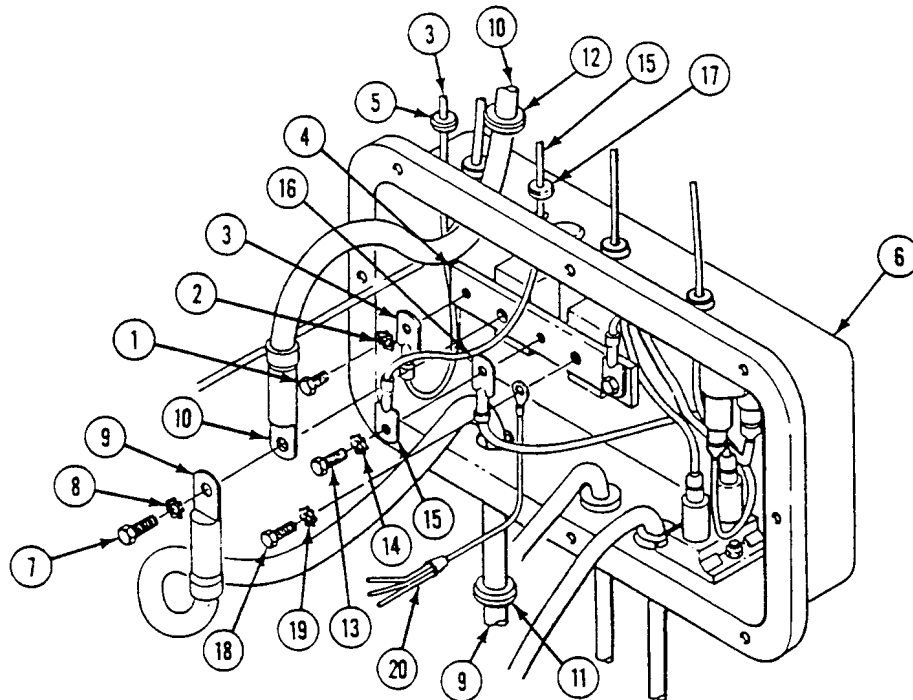
Grommet (9)

Lockwasher (5)

Lockwasher (5)

REMOVAL

1. Remove screw (1), lockwasher (2), and circuit 415 lead (3) from bus bar (4). Remove circuit 415 lead and grommet (5) from distribution box (6). Discard grommet and lockwasher.
2. Remove screw (7), lockwasher (8), circuit 6 lead (9), and circuit 49 lead (10) from bus bar (4). Remove circuit 6 lead, circuit 49 lead, and two grommets (11) and (12) from distribution box (6). Discard grommets and lockwasher.
3. Remove screw (13), lockwasher (14), circuit 10, 14, 15, and 27E lead (15), and circuit 450A lead (16) from bus bar (4). Remove circuit 10, 14, 15, and 27E lead and grommet (17) from distribution box (6). Discard grommet and lockwasher.
4. Remove screw (18), lockwasher (19), and wiring harness (20) from bus bar (4). Discard lockwasher.



**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR
SYSTEM (M577A2 ONLY) — Continued**

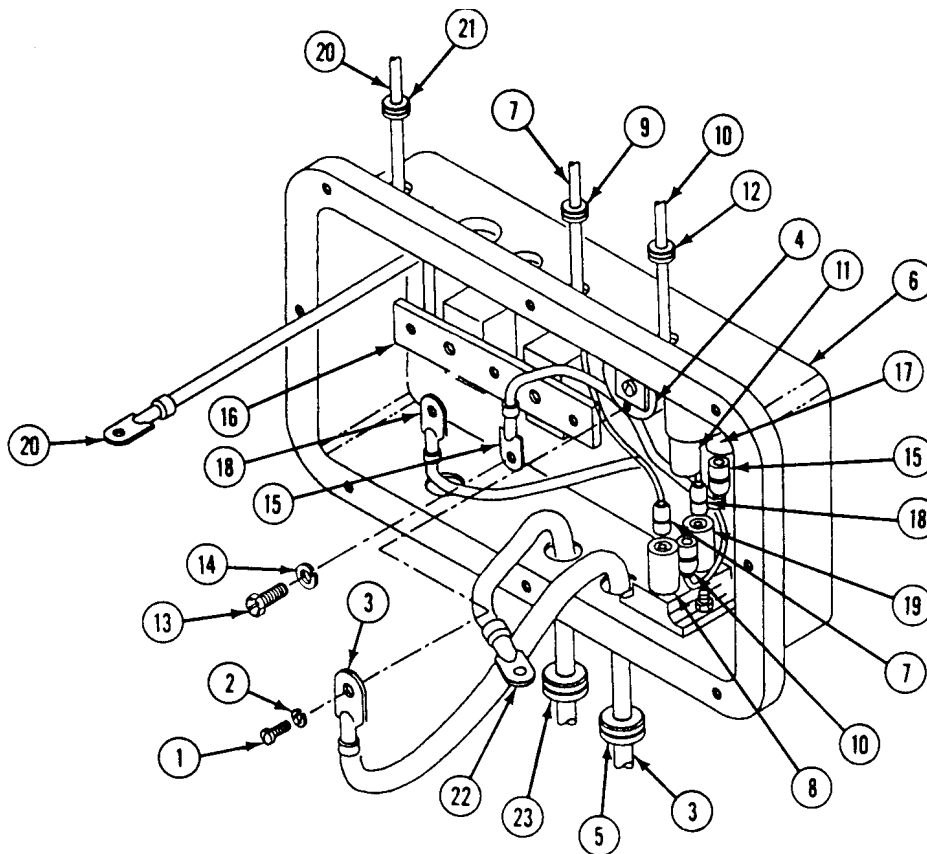
0267 00

5. Remove screw (1), lockwasher (2), and circuit 3 lead (3) from circuit breaker (4). Remove circuit 3 lead and grommet (5) from distribution box (6). Discard grommet and lockwasher.
6. Disconnect circuit 450 lead (7) from circuit breaker (8). Remove circuit 450 lead and grommet (9) from distribution box (6). Discard grommet.
7. Disconnect circuit 450B lead (10) from circuit breaker (11). Remove circuit 450B lead and grommet (12) from distribution box (6). Discard grommet.

NOTE

If bilge pump circuit breakers must be removed, see WP 0327 00 for removal. If bilge pump circuit breakers are not to be removed, go to Step 11.

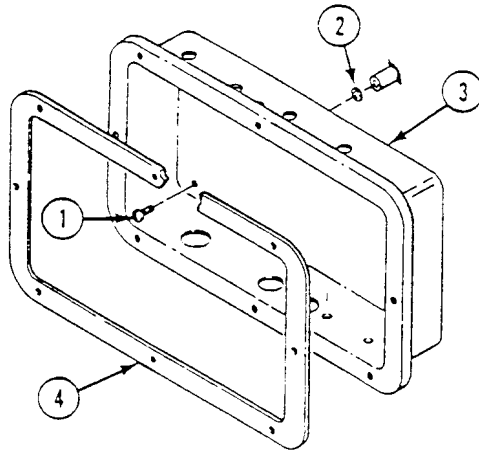
8. Remove screw (13), lockwasher (14), and circuit 450C lead (15) from bus bar (16). Discard lockwasher.
9. Disconnect circuit 450C lead (15) from circuit breaker (17).
10. Disconnect circuit 450A lead (18) from circuit breaker (19).
11. Remove circuit 400 lead (20) and grommet (21) from distribution box (6). Discard grommet.
12. Remove circuit 2 lead (22) and grommet (23) from distribution box (6). Discard grommet.



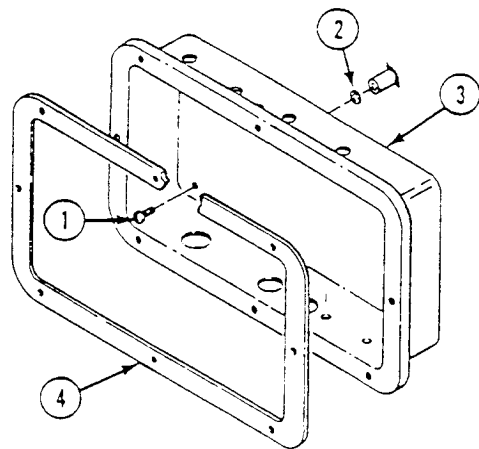
**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR
SYSTEM (M577A2 ONLY) — Continued**

0267 00

13. Remove five screws (1), lockwashers (2), and distribution box (3) from hull. Discard lockwashers.
14. Remove gasket (4) from distribution box (3). Discard gasket.

**INSTALLATION**

1. Install distribution box (3) on hull. Secure with five new lockwashers (2) and screws (1).



REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR SYSTEM (M577A2 ONLY) — Continued

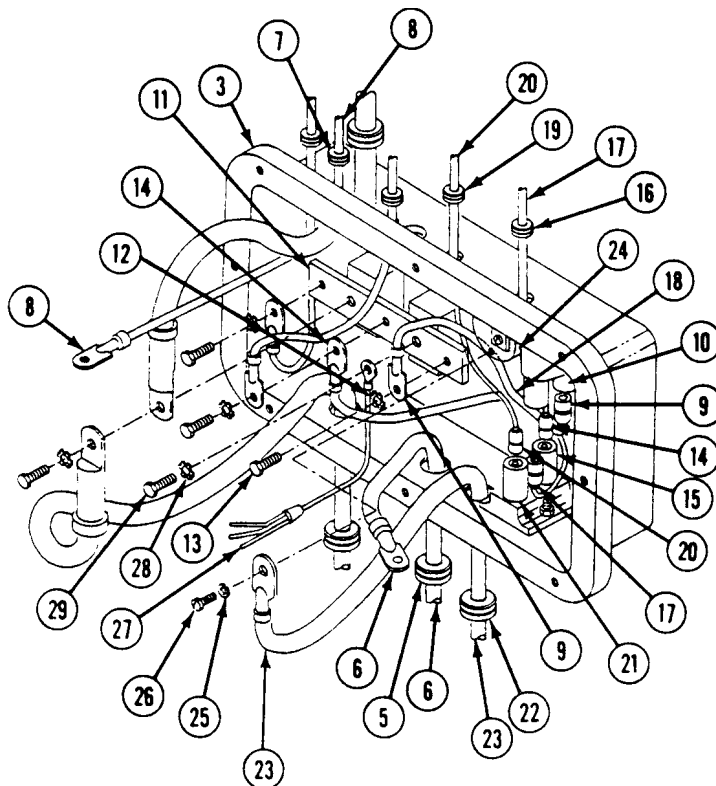
0267 00

2. Install new grommet (5) and circuit 2A lead (6) in distribution box (3).
3. Install new grommet (7) and circuit 2 lead (8) in distribution box (3).

NOTE

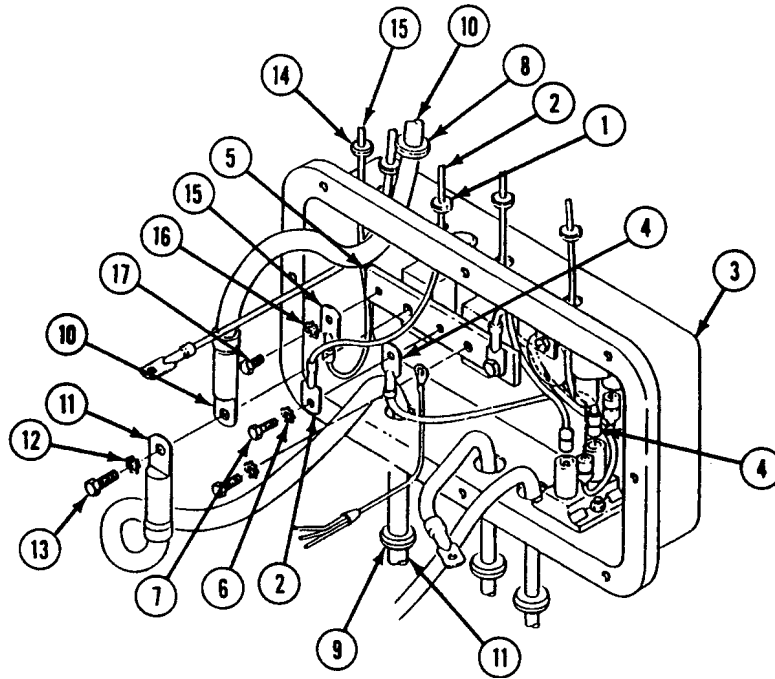
If bilge pump circuit breakers were removed, see WP 0327 00 for installation. If bilge pump circuit breakers were not removed, go to Step 7.

4. Connect circuit 450C lead (9) to circuit breaker (10).
5. Install circuit 450C lead (9) on bus bar (11). Secure with new lockwasher (12) and screw (13).
6. Connect circuit 450A lead (14) to circuit breaker (15).
7. Install new grommet (16) and circuit 450B lead (17) in distribution box (3). Connect circuit 450B lead to circuit breaker (18).
8. Install new grommet (19) and circuit 450 lead (20) in distribution box (3). Connect circuit 450 lead to circuit breaker (21).
9. Install new grommet (22) and circuit 3 lead (23) in distribution box (3). Install circuit 3 lead on circuit breaker (24). Secure with new lockwasher (25) and screw (26).
10. Install wiring harness (27) on bus bar (11). Secure with new lockwasher (28) and screw (29).



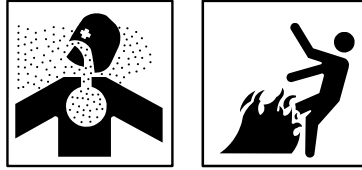
**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR
SYSTEM (M577A2 ONLY) — Continued****0267 00**

11. Install new grommet (1) and circuit 10, 14, 15, and 27E lead (2) in distribution box (3). Install circuit 10, 14, 15, and 27E lead (2) and circuit 450A lead (4) on bus bar (5). Secure with new lockwasher (6) and screw (7).
12. Install two new grommets (8) and (9), circuit 49 lead (10), and circuit 6 lead (11) in distribution box (3). Install circuit 49 lead (10) and circuit 6 lead (11) on bus bar (5). Secure with new lockwasher (12) and screw (13).
13. Install new grommet (14) and circuit 415 lead (15) in distribution box (3). Install circuit 415 lead (15) on bus bar (5). Secure with new lockwasher (16) and screw (17).



**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR
SYSTEM (M577A2 ONLY) — Continued**

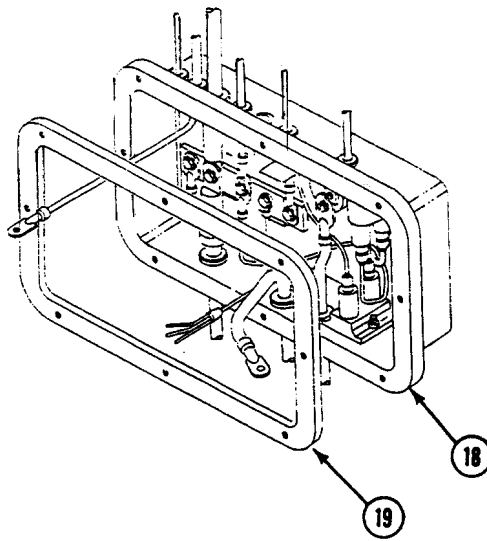
0267 00

WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

14. Apply one coat of adhesive to cleaned mounting surface of distribution box (18) and one side of new gasket (19).
15. Install new gasket (19) on coated mounting surface of distribution box (18).

**FOLLOW-THROUGH STEPS**

1. Install master switch panel (WP 0224 00).
2. Connect battery ground lead (WP 0294 00).
3. Start engine (see your -10). Check that distribution box works properly.
4. Stop engine (see your -10).

END OF TASK

**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP
GENERATOR SYSTEM (M901A1 ONLY)**

0268 00

THIS WORK PACKAGE COVERS:

Removal (page 0268 00-1).
Installation (page 0268 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine shutdown (see your -10)

Carrier blocked (see your -10)

Battery ground lead disconnected (WP 0294 00)

Master switch panel assembly removed (WP 0222 00)

Materials/Parts

Sealing compound (WP 0782 00, Item 66)

Gasket

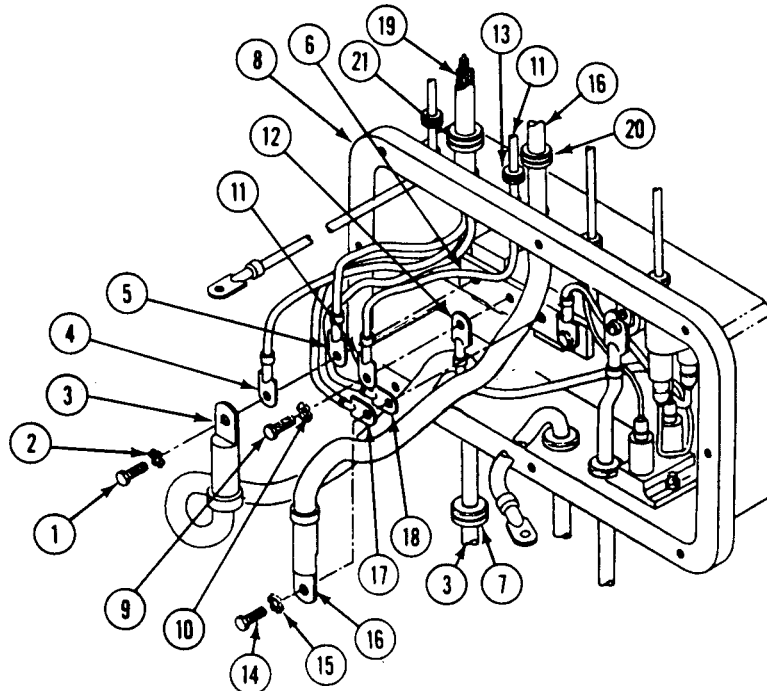
Grommet (8)

Lockwasher (5)

Lockwasher (5)

REMOVAL

1. Remove screw (1), lockwasher (2), circuit 6 lead (3), and cable assembly W8 leads (4) and (5) from bus bar (6). Remove circuit 6 lead (3) and grommet (7) from distribution box (8). Discard grommet and lockwasher.
2. Remove screw (9), lockwasher (10), circuit 10, 14, 15, and 27E lead (11), and circuit 450A lead (12) from bus bar (6). Remove circuit 10, 14, 15, and 27E lead (11) and grommet (13) from distribution box (8). Discard grommet and lockwasher.
3. Remove screw (14), lockwasher (15), circuit 49 lead (16), and cable assembly W8 leads (17) and (18) from bus bar (6). Remove circuit 49 lead (16), cable assembly W8 lead (19), and two grommets (20) and (21) from distribution box (8). Discard grommets and lockwasher.



**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR
SYSTEM (M901A1 ONLY) — Continued**

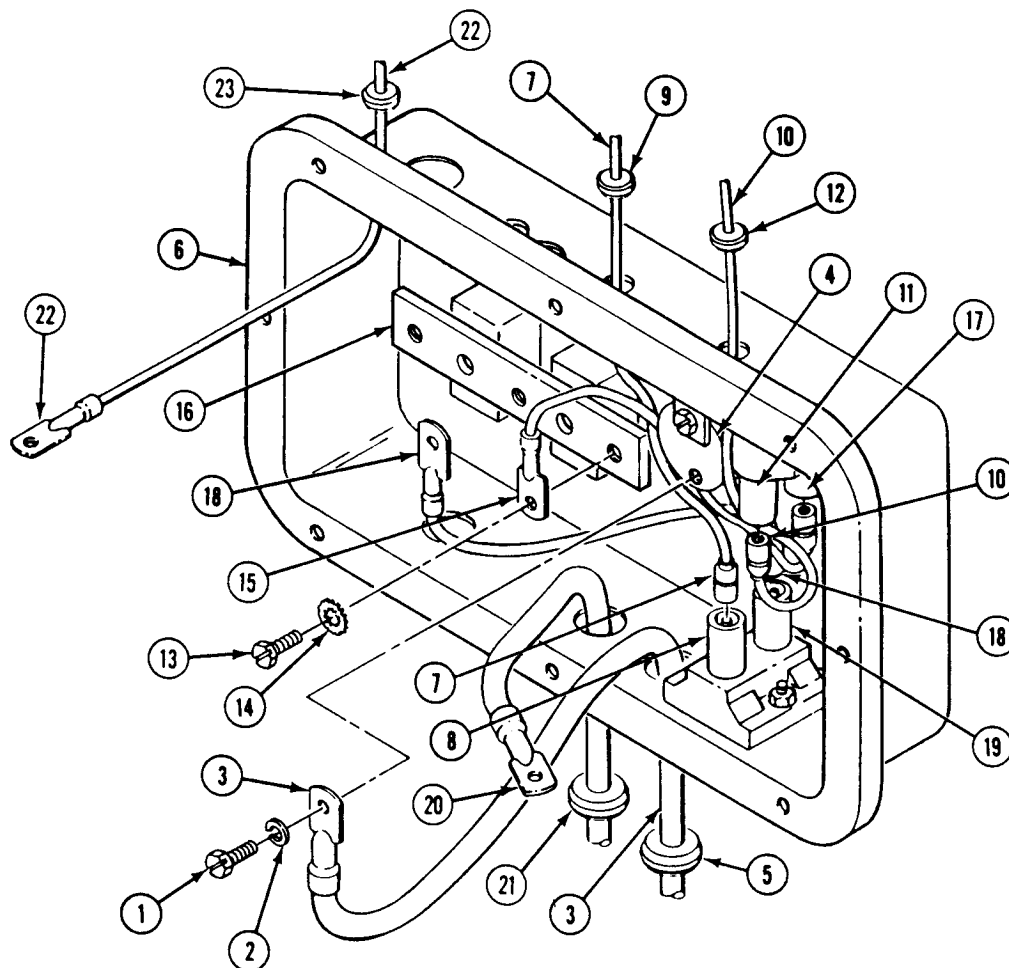
0268 00

4. Remove screw (1), lockwasher (2), and circuit 3 lead (3) from circuit breaker (4). Remove circuit 3 lead (3) and grommet (5) from distribution box (6). Discard grommet and lockwasher.
5. Remove circuit 450 lead (7) from circuit breaker (8). Remove circuit 450 lead (7) and grommet (9) from distribution box (6). Discard grommet.
6. Disconnect circuit 450B lead (10) from circuit breaker (11). Remove circuit 450B lead (10) and grommet (12) from distribution box (6). Discard grommet.

NOTE

If bilge pump circuit breakers must be removed, see WP 0327 00 for removal. If bilge pump circuit breakers are not to be removed, go to Step 10.

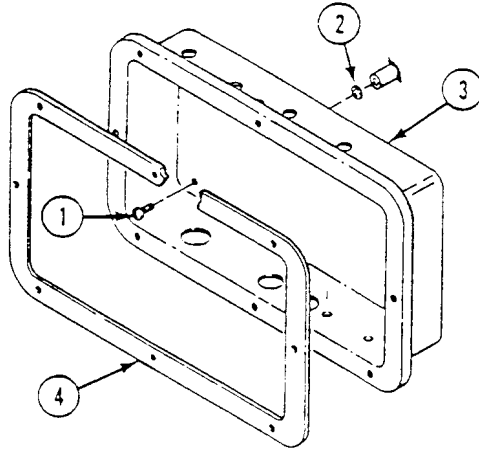
7. Remove screw (13), lockwasher (14), and circuit 450C lead (15) from bus bar (16). Discard lockwasher.
8. Disconnect circuit 450C lead (15) from circuit breaker (17). Remove circuit 450C lead (15) from distribution box (6).
9. Disconnect circuit 450A lead (18) from circuit breaker (19). Remove circuit 450A lead (18) from distribution box (6).
10. Remove circuit 2 lead (20) and grommet (21) from distribution box (6). Discard grommet.
11. Remove circuit 400 lead (22) and grommet (23) from distribution box (6). Discard grommet.



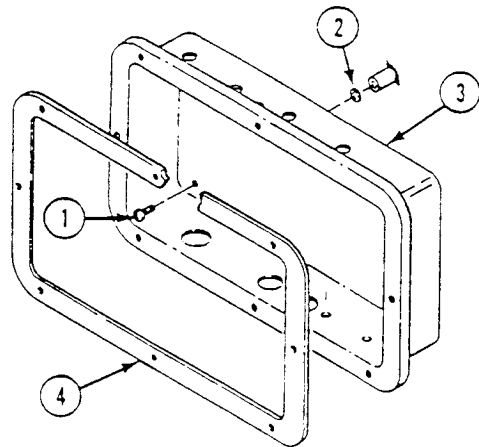
**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR
SYSTEM (M901A1 ONLY) — Continued**

0268 00

12. Remove five screws (1), lockwashers (2), and distribution box (3) from hull. Discard lockwashers.
13. Remove gasket (4) from distribution box (3). Discard gasket.

**INSTALLATION**

1. Install distribution box (3) on hull. Secure with five screws (1) and new lockwashers (2).



**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR
SYSTEM (M901A1 ONLY) — Continued**

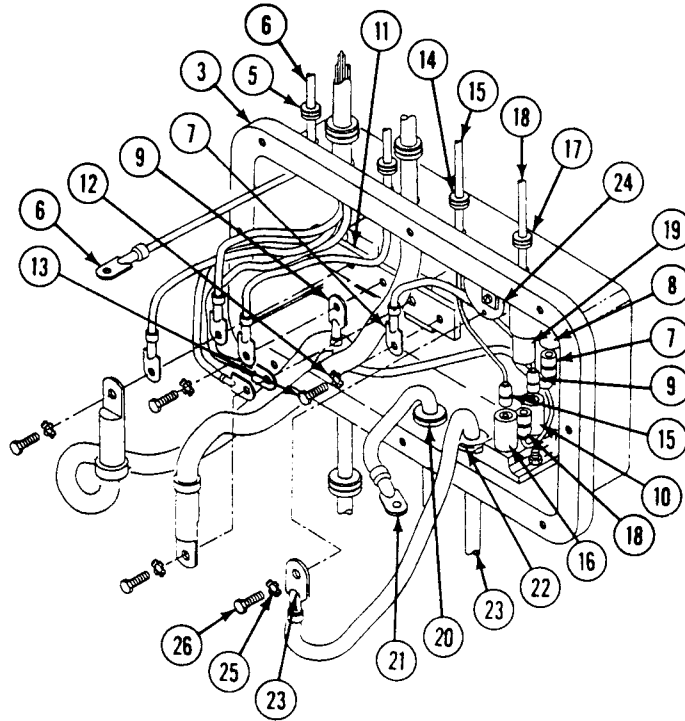
0268 00

2. Install new grommet (5) and circuit 400 lead (6) in distribution box (3).

NOTE

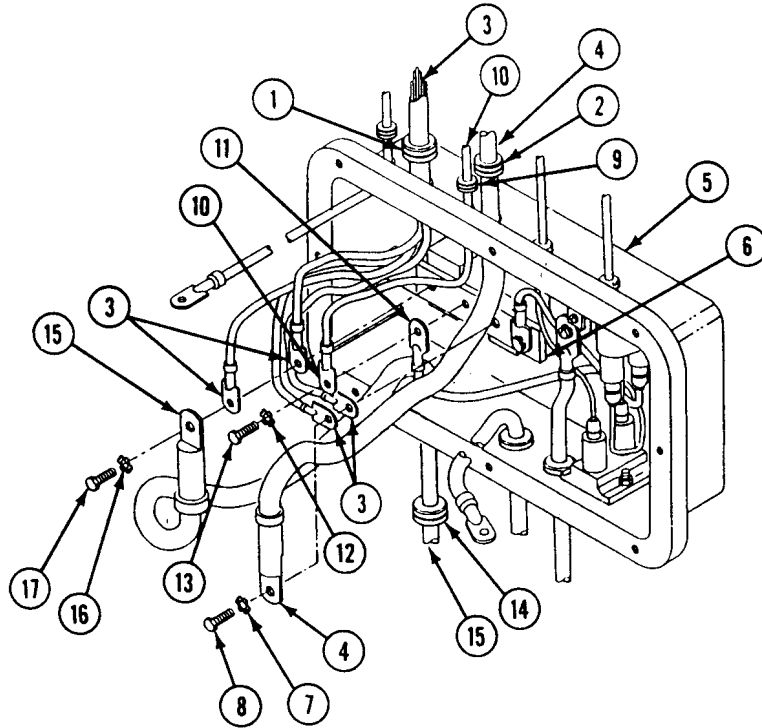
If bilge pump circuit breakers were removed, see WP 0327 00 for installation. If bilge pump circuit breakers were not removed, go to Step 6.

3. Connect circuit 450C lead (7) to circuit breaker (8).
4. Connect circuit 450A lead (9) to circuit breaker (10).
5. Install circuit 450C lead (7) on bus bar (11). Secure with new lockwasher (12) and screw (13).
6. Install grommet (14) and circuit 450 lead (15) in distribution box (3). Connect circuit 450 lead to circuit breaker (16).
7. Install new grommet (17) and circuit 450B lead (18) in distribution box (3). Connect circuit 450B lead to circuit breaker (19).
8. Install new grommet (20) and circuit 2 lead (21) in distribution box (3).
9. Install new grommet (22) and circuit 3 lead (23) in distribution box (3). Install circuit 3 lead on circuit breaker (24). Secure with new lockwasher (25) and screw (26).



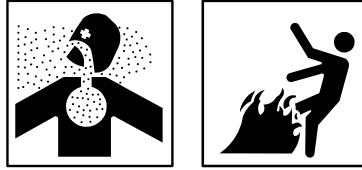
**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR
SYSTEM (M901A1 ONLY) — Continued****0268 00**

10. Install two new grommets (1) and (2), cable assembly W8 lead (3), and circuit 49 lead (4) in distribution box (5). Install circuit 49 lead and cable assembly W8 lead on bus bar (6). Secure with new lockwasher (7) and screw (8).
11. Install new grommet (9) and circuit 10, 14, 15, and 27E lead (10) in distribution box (5). Install circuit 10, 14, 15, and 27E lead and circuit 450A lead (11) on bus bar (6). Secure with new lockwasher (12) and screw (13).
12. Install new grommet (14) and circuit 6 lead (15) in distribution box (5). Install circuit 6 lead and cable assembly W8 leads (3) on bus bar (6). Secure with new lockwasher (16) and screw (17).



**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR
SYSTEM (M901A1 ONLY) — Continued**

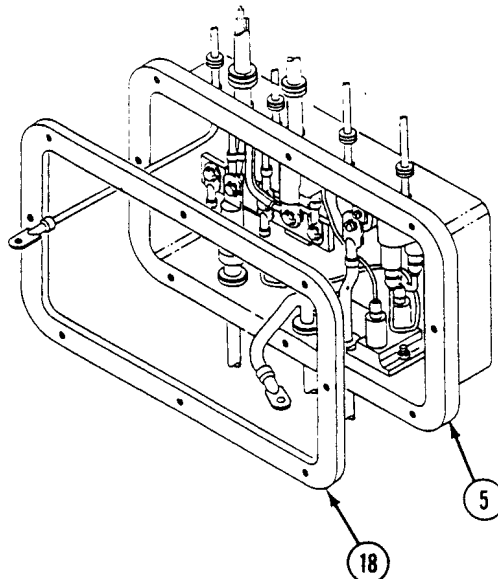
0268 00

WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

13. Apply one coat of adhesive to cleaned mounting surface of distribution box (5) and one side of new gasket (18).
14. Install new gasket (18) on coated mounting surface of distribution box (5).

**FOLLOW-THROUGH STEPS**

1. Install master switch panel (WP 0222 00).
2. Connect battery ground lead (WP 0294 00).
3. Start engine (see your -10). Check that distribution box operates properly.
4. Shutdown engine (see your -10).

END OF TASK

REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR SYSTEM (M113A2, M1064, AND M1059 ONLY)

0269 00

THIS WORK PACKAGE COVERS:

Removal (page 0269 00-1).
 Installation (page 0269 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Battery ground lead disconnected (WP 0294 00)

Master switch panel assembly removed (WP 0222 00)

Materials/Parts

Sealing compound (WP 0782 00, Item 66)

Gasket

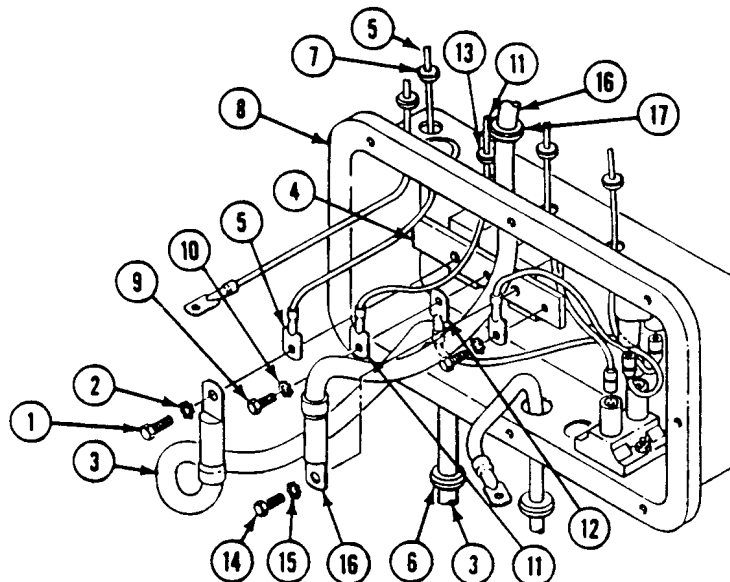
Grommet (8)

Lockwasher (6)

Lockwasher (5)

REMOVAL

1. For M113A2 and M1059 carriers, remove screw (1), lockwasher (2), circuit 6 lead (3), and circuit 6L lead (5) from bus bar (4). Remove circuit 6 lead, circuit 6L lead, and two grommets (6) and (7) from distribution box (8). Discard grommets and lockwasher.
2. For M1064 carriers, remove screw (1), lockwasher (2), and circuit 6 lead (3) from bus bar (4). Remove circuit 6 lead and grommet (6) from distribution box (8). Discard grommet and lockwasher.
3. Remove screw (9), lockwasher (10), circuit 10, 14, 15, and 27E lead (11), and circuit 450A lead (12) from bus bar (4). Remove circuit 10, 14, 15, and 27E lead and grommet (13) from distribution box (8). Discard grommet and lockwasher.
4. Remove screw (14), lockwasher (15), and circuit 49 lead (16) from bus bar (4). Remove circuit 49 lead and grommet (17) from distribution box (8). Discard grommet and lockwasher.



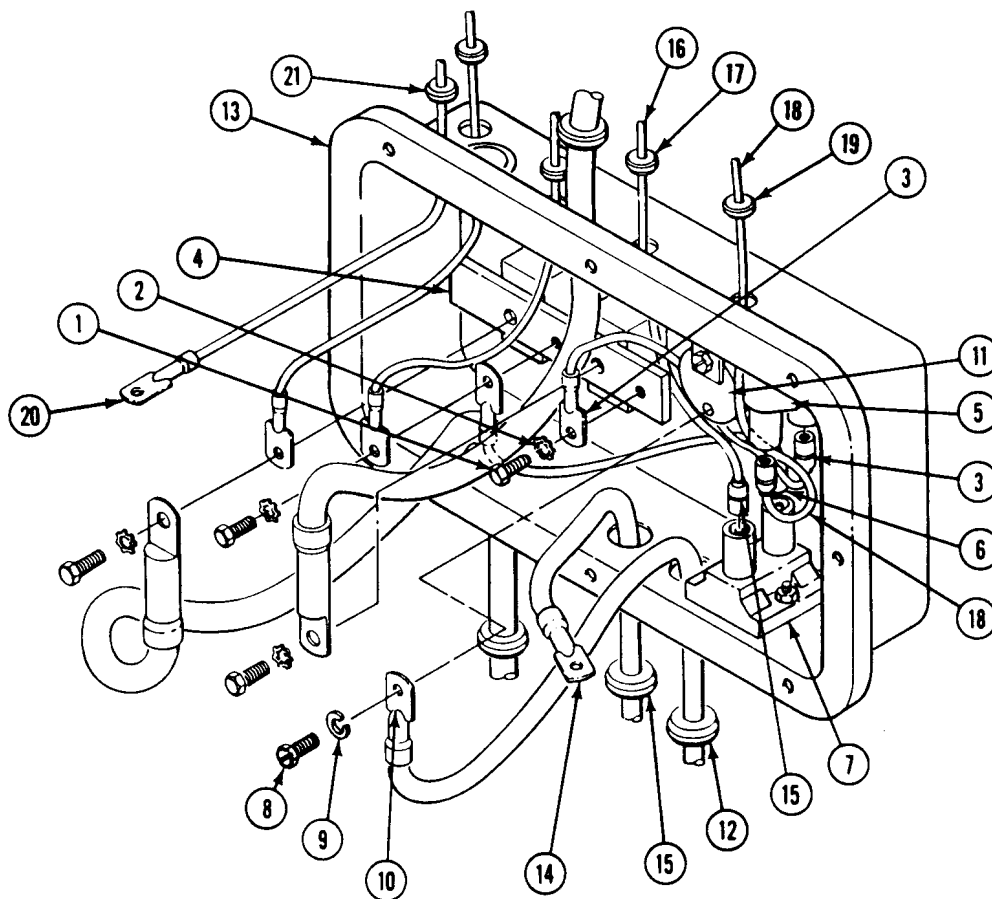
**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR SYSTEM
(M113A2, M1064, AND M1059 ONLY) — Continued**

0269 00

NOTE

If bilge pump circuit breakers must be removed, see WP 0327 00 for removal. If bilge pump circuit breakers are not to be removed, go to Step 8.

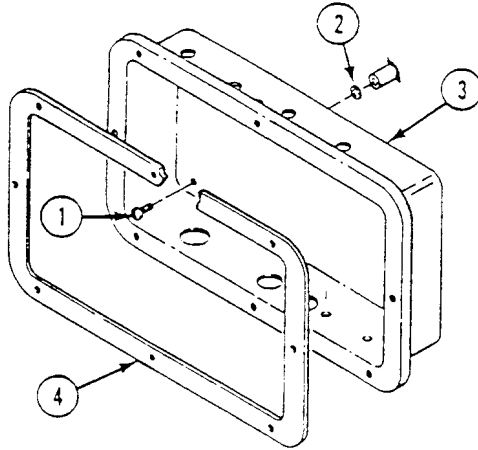
5. Remove screw (1), lockwasher (2), and circuit 450C lead (3) from bus bar (4). Discard lockwasher.
6. Disconnect circuit 450C lead (3) from circuit breaker (5).
7. Remove circuit 450A lead (6) from circuit breaker (7).
8. Remove screw (8), lockwasher (9), and circuit 3 lead (10) from circuit breaker (11). Remove circuit 3 lead and grommet (12) from distribution box (13). Discard grommet and lockwasher.
9. Remove circuit 2 lead (14) and grommet (15) from distribution box (13). Discard grommet.
10. Remove circuit 450 lead (16) from circuit breaker (7). Remove circuit 450 lead and grommet (17) from distribution box (13). Discard grommet.
11. Disconnect circuit 450B lead (18) from circuit breaker (5). Remove circuit 450B lead and grommet (19) from distribution box (13). Discard grommet.
12. Remove circuit 400 lead (20) and grommet (21) from distribution box (13). Discard grommet.



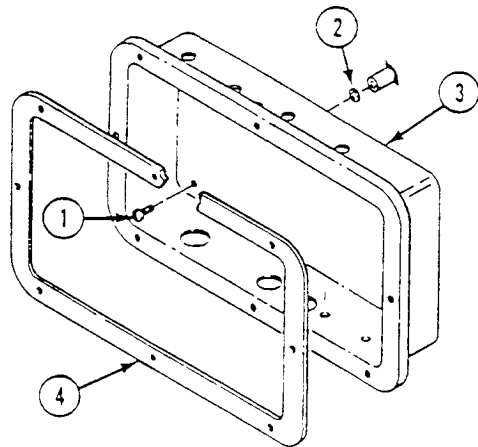
**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR SYSTEM
(M113A2, M1064, AND M1059 ONLY) — Continued**

0269 00

13. Remove five screws (1), lockwashers (2), and distribution box (3) from hull. Discard lockwashers.
14. Remove gasket (4) from distribution box (3). Discard gasket.

**INSTALLATION**

1. Install distribution box (3) on hull. Secure with five screws (1) and new lockwashers (2).



**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR SYSTEM
(M113A2, M1064, AND M1059 ONLY) — Continued**

0269 00

2. Install new grommet (5) and circuit 400 lead (6) in distribution box (3).
3. Install new grommet (7) and circuit 450B lead (8) in distribution box (3). Connect circuit 450B lead to circuit breaker (9).

NOTE

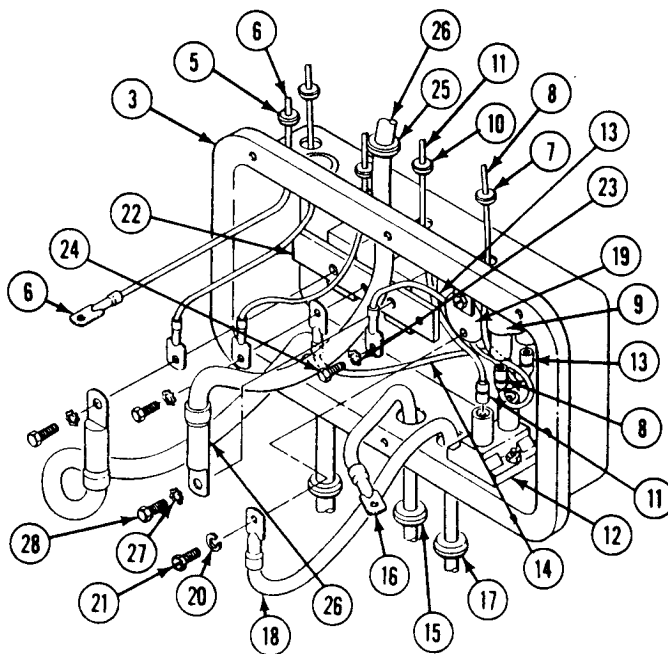
If bilge pump circuit breakers were removed, see WP 0327 00 for installation.

4. Install new grommet (10) and circuit 450 lead (11) in distribution box (3). Connect circuit 450 lead to circuit breaker (12).

NOTE

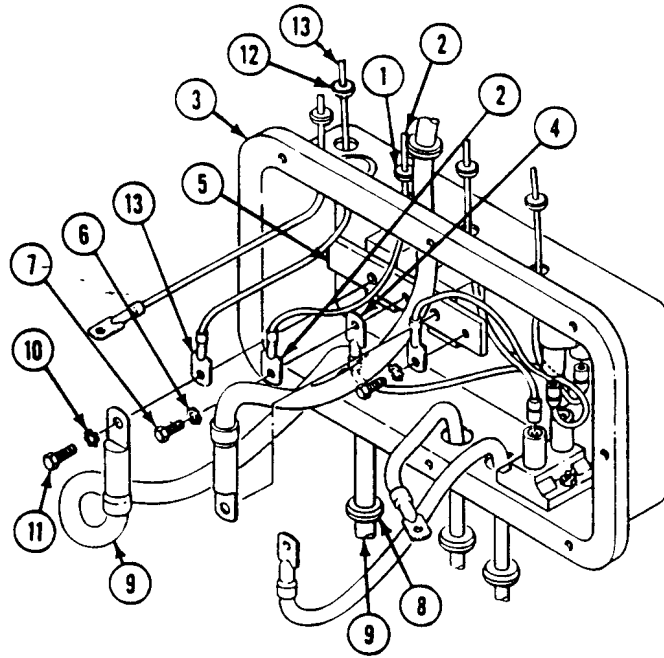
If bilge pump circuit breakers were not removed, go to Step 7.

5. Connect circuit 450C lead (13) to circuit breaker (9).
6. Connect circuit 450A lead (14) to circuit breaker (12).
7. Install new grommet (15) and circuit 2 lead (16) in distribution box (3).
8. Install new grommet (17) and circuit 3 lead (18) in distribution box (3). Install circuit 3 lead on circuit breaker (19). Secure with new lockwasher (20) and screw (21).
9. Install circuit 450C lead (13) on bus bar (22). Secure with new lockwasher (23) and screw (24).
10. Install new grommet (25) and circuit 49 lead (26) in distribution box (3). Install circuit 49 lead on bus bar (22). Secure with new lockwasher (27) and screw (28).



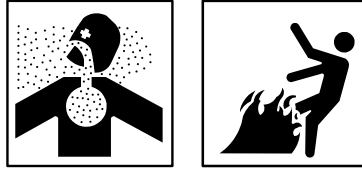
**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR SYSTEM
(M113A2, M1064, AND M1059 ONLY) — Continued****0269 00**

11. Install new grommet (1) and circuit 10, 14, 15, and 27E lead (2) in distribution box (3). Install circuit 10, 14, 15, and 27E lead and circuit 450A lead (4) on bus bar (5). Secure with new lockwasher (6) and screw (7).
12. For M1064 carriers, install new grommet (8) and circuit 6 lead (9) in distribution box (3). Install circuit 6 lead on bus bar (5). Secure with new lockwasher (10) and screw (11).
13. For M113A2 and M1059 carriers, install two new grommets (8) and (12), circuit 6 lead (9), and circuit 6L lead (13) in distribution box (3). Install circuit 6 lead and circuit 6L lead on bus bar (5). Secure with new lockwasher (10) and screw (11).



**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 100 AMP GENERATOR SYSTEM
(M113A2, M1064, AND M1059 ONLY) — Continued**

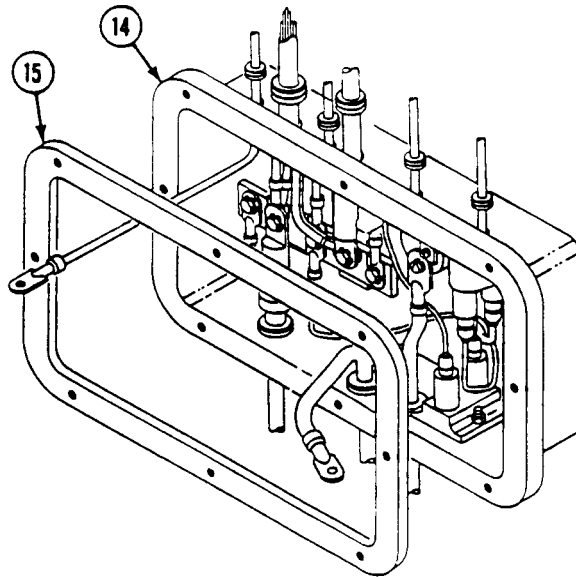
0269 00

WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

14. Apply one coat of adhesive to cleaned mounting surface of distribution box (14) and one side of new gasket (15).
15. Install new gasket (15) on coated mounting surface of distribution box (14).

**FOLLOW-THROUGH STEPS**

1. Install master switch panel assembly (WP 0222 00).
2. Connect battery ground strap (WP 0294 00).
3. Start engine (see your -10). Check that distribution box operates properly.
4. Stop engine (see your -10).

END OF TASK

REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR SYSTEM (M113A2 AND M1064 ONLY)

0270 00

THIS WORK PACKAGE COVERS:

Removal (page 0270 00-1).
 Installation (page 0270 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Battery ground lead disconnected (WP 0294 00)

Master switch panel assembly removed (WP 0222 00)

Materials/Parts

Sealing compound (WP 0782 00, Item 66)

Gasket

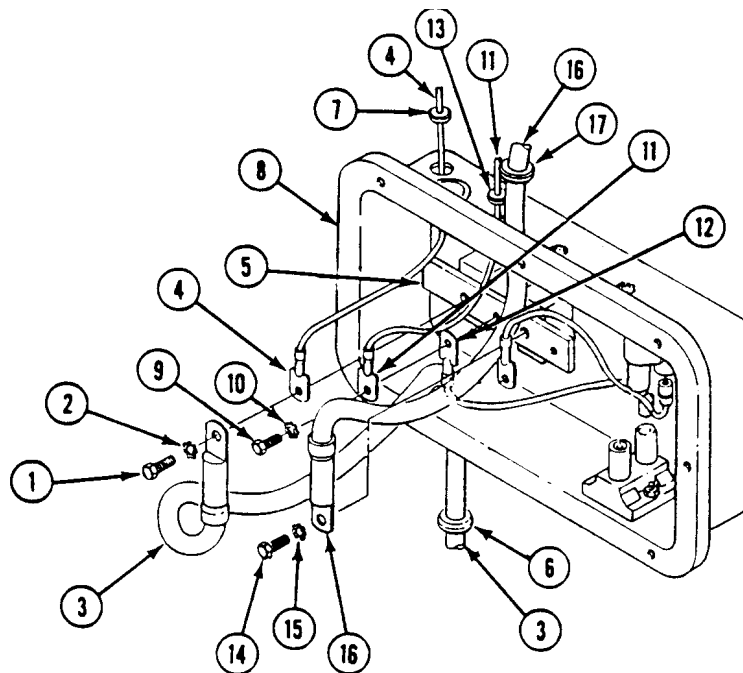
Grommet (8)

Lockwasher (6)

Lockwasher (5)

REMOVAL

1. For M113A2 carrier, remove screw (1), lockwasher (2), circuit 6 lead (3), and circuit 6L lead (4) from bus bar (5). Remove circuit 6 lead, circuit 6L lead, and two grommets (6) and (7) from distribution box (8). Discard grommets and lockwasher.
2. For M1064 carrier, remove screw (1), lockwasher (2) and circuit 6 lead (3) from bus bar (5). Remove circuit 6 lead and grommet (6) from distribution box (8). Discard grommet and lockwasher.
3. Remove screw (9), lockwasher (10), circuit 10, 14, 15, and 27E lead (11), and circuit 450A lead (12) from bus bar (5). Remove circuit 10, 14, 15, and 27E lead and grommet (13) from distribution box (8). Discard grommet and lockwasher.
4. Remove screw (14), lockwasher (15), and circuit 49 lead (16) from bus bar (5). Remove circuit 49 lead and grommet (17) from distribution box (8). Discard grommet and lockwasher.



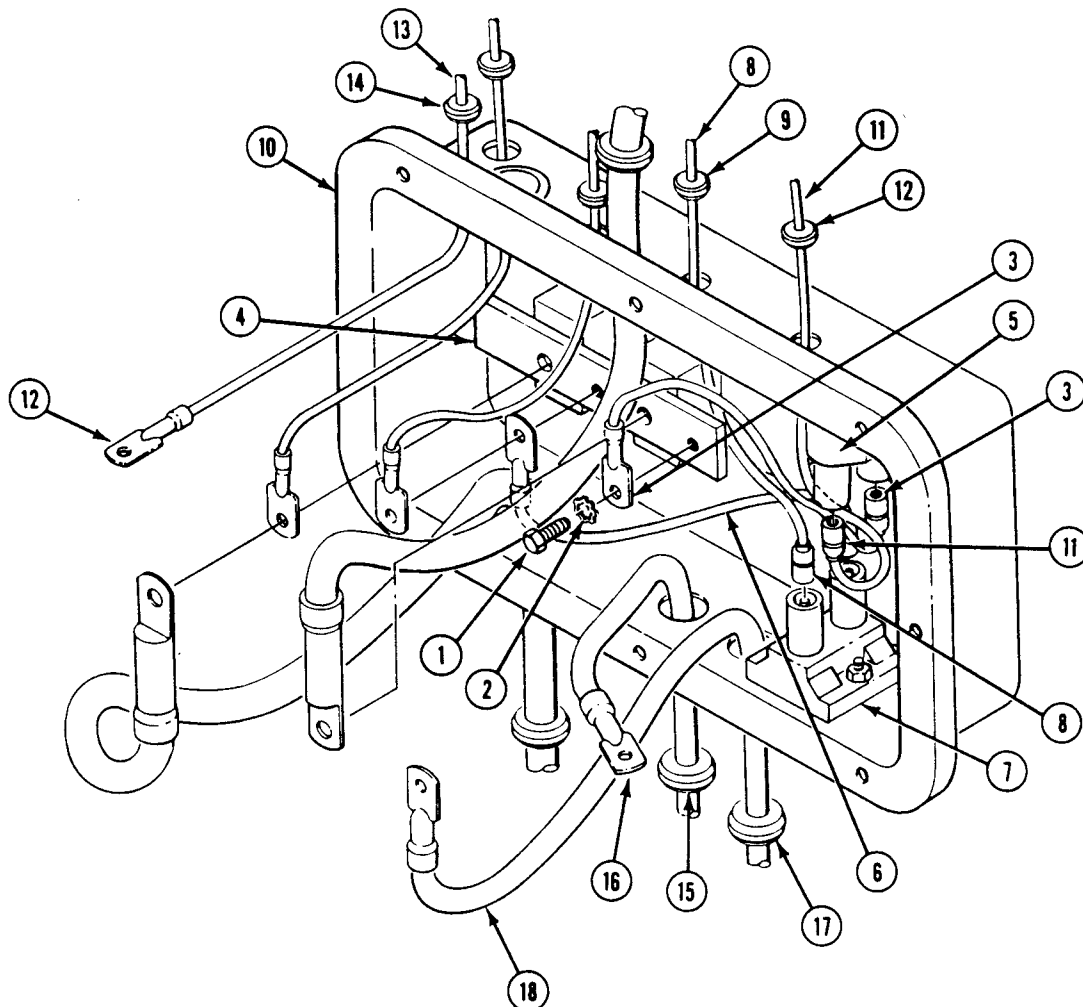
**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR SYSTEM
(M113A2 AND M1064 ONLY) — Continued**

0270 00

NOTE

If bilge pump circuit breakers must be removed, see WP 0327 00 for removal. If bilge pump circuit breakers are not to be removed, go to Step 8.

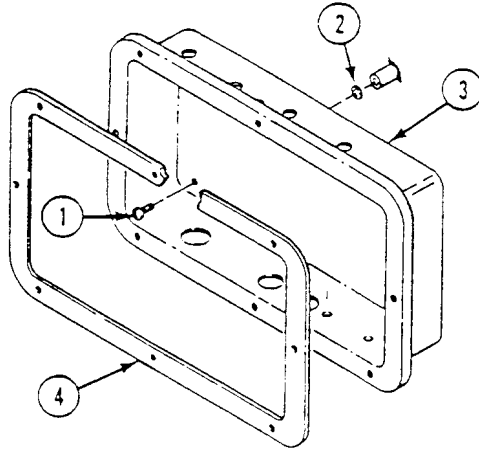
5. Remove screw (1), lockwasher (2), and circuit 450C lead (3) from bus bar (4). Discard lockwasher.
6. Disconnect circuit 450C lead (3) from circuit breaker (5).
7. Remove circuit 450A lead (6) from circuit breaker (7).
8. Remove circuit 450 lead (8) from circuit breaker (7). Remove circuit 450 lead and grommet (9) from distribution box (10). Discard grommet.
9. Disconnect circuit 450B lead (11) from circuit breaker (5). Remove circuit 450B lead and grommet (12) from distribution box (10). Discard grommet.
10. Remove circuit 400 lead (13) and grommet (14) from distribution box (10). Discard grommet.
11. Remove grommet (15) and circuit 2 lead (16) from distribution box (10). Discard grommet.
12. Remove grommet (17) and circuit 2A lead (18) from distribution box (10). Discard grommet.



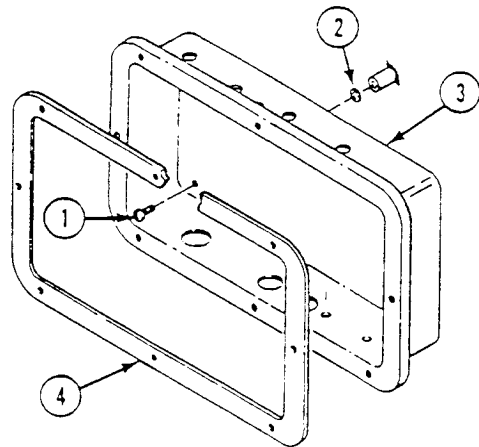
**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR SYSTEM
(M113A2 AND M1064 ONLY) — Continued**

0270 00

13. Remove five screws (1), lockwashers (2), and distribution box (3) from hull. Discard lockwashers.
14. Remove gasket (4) from distribution box (3). Discard gasket.

**INSTALLATION**

1. Install distribution box (3) on hull. Secure with five screws (1) and new lockwashers (2).



**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR SYSTEM
(M113A2 AND M1064 ONLY) — Continued**

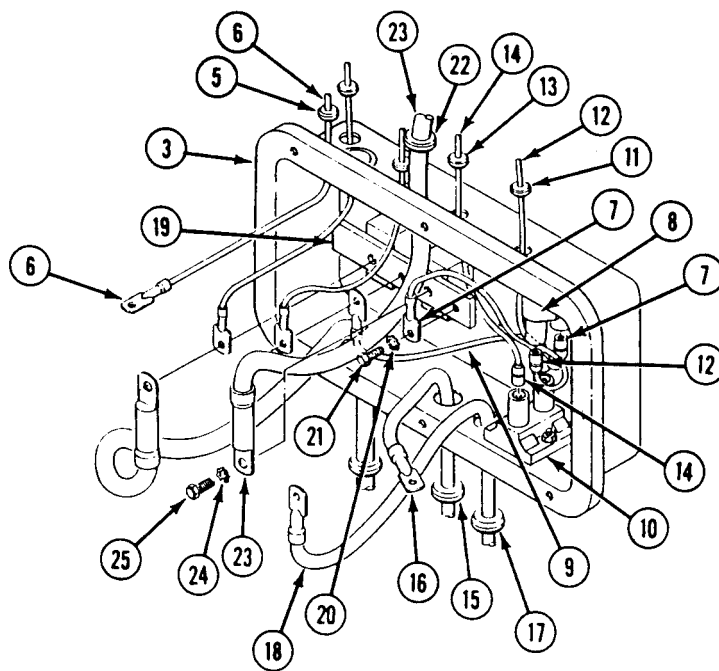
0270 00

2. Install new grommet (5) and circuit 400 lead (6) in distribution box (3).

NOTE

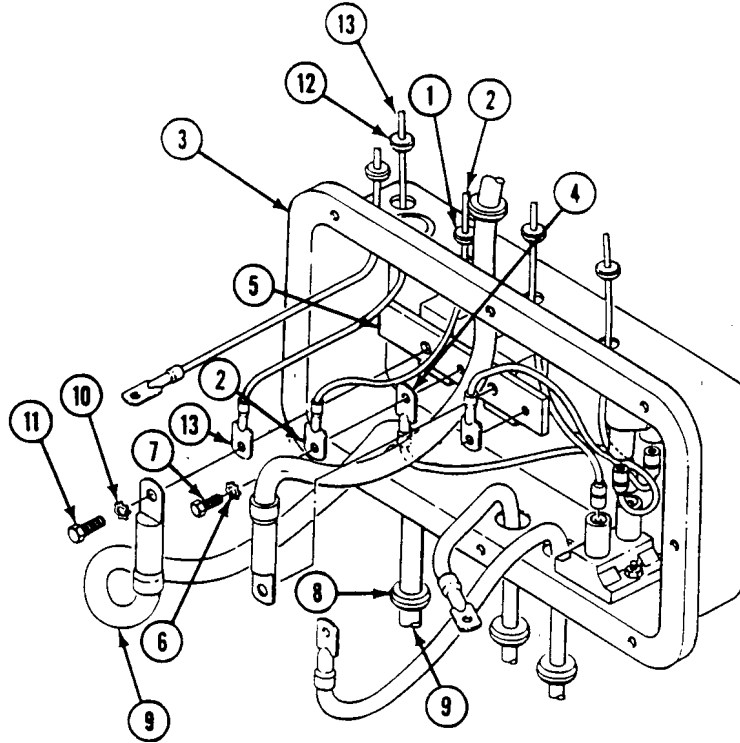
If bilge pump circuit breakers were removed, see WP 0327 00 for installation. If bilge pump circuit breakers were not removed, go to Step 5.

3. Connect circuit 450C lead (7) to circuit breaker (8).
4. Connect circuit 450A lead (9) to circuit breaker (10).
5. Install new grommet (11) and circuit 450B lead (12) in distribution box (3). Connect circuit 450B lead to circuit breaker (8).
6. Install grommet (13) and circuit 450 lead (14) in distribution box (3). Connect circuit 450 lead to circuit breaker (10).
7. Install new grommet (15) and circuit 2 lead (16) in distribution box (3).
8. Install new grommet (17) and circuit 2A lead (18) in distribution box (3).
9. Install circuit 450C lead (7) on bus bar (19). Secure with new lockwasher (20) and screw (21).
10. Install new grommet (22) and circuit 49 lead (23) in distribution box (3). Install circuit 49 lead on bus bar (19). Secure with new lockwasher (24) and screw (25).



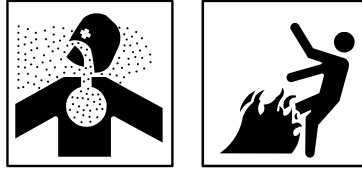
**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR SYSTEM
(M113A2 AND M1064 ONLY) — Continued****0270 00**

11. Install new grommet (1) and circuit 10, 14, 15, and 27E lead (2) in distribution box (3). Install circuit 10, 14, 15, and 27E lead and circuit 450A lead (4) on bus bar (5). Secure with new lockwasher (6) and screw (7).
12. For M1064 carrier, install new grommet (8) and circuit 6 lead (9) in distribution box (3). Install circuit 6 lead on bus bar (5). Secure with new lockwasher (10) and screw (11).
13. For M113A2 carrier, install two new grommets (8) and (12), circuit 6 lead (9), and circuit 6L lead (13) in distribution box (3). Install circuit 6 lead and circuit 6L lead on bus bar (5). Secure with new lockwasher (10) and screw (11).



**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR SYSTEM
(M113A2 AND M1064 ONLY) — Continued**

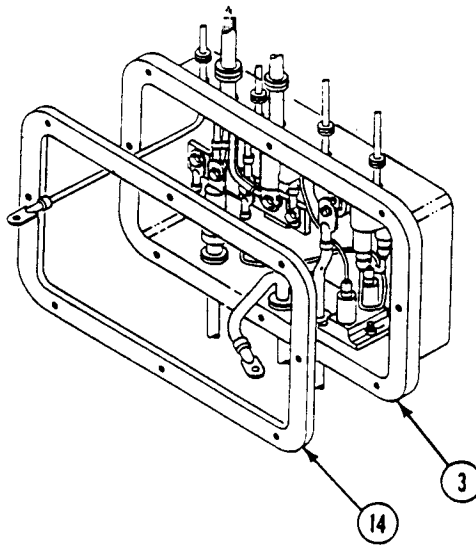
0270 00

WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

14. Apply one coat of adhesive to cleaned mounting surface of distribution box (3) and one side of new gasket (14).
15. Install new gasket (14) on coated mounting surface of distribution box (3).

**FOLLOW-THROUGH STEPS**

1. Install master switch panel assembly (WP 0222 00).
2. Connect battery ground strap (WP 0294 00).
3. Start engine (see your -10). Check that distribution box operates properly.
4. Stop engine (see your -10).

END OF TASK

**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP
GENERATOR SYSTEM (M901A1 ONLY)**

0271 00

THIS WORK PACKAGE COVERS:

Removal (page 0271 00-1).
Installation (page 0271 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped (see your -10)

Carrier blocked (see your -10)

Battery ground lead disconnected (WP 0294 00)

Master switch panel assembly removed (WP 0222 00)

Materials/Parts

Sealing compound (WP 0782 00, Item 66)

Gasket

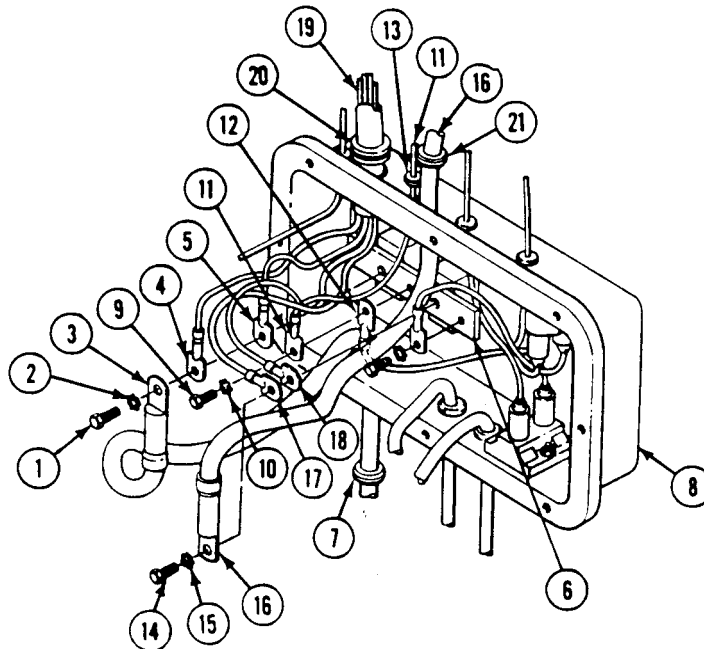
Grommet (8)

Lockwasher (4)

Lockwasher (5)

REMOVAL

1. Remove screw (1), lockwasher (2), circuit 6 lead (3), and cable assembly W8 leads (4) and (5) from bus bar (6). Remove circuit 6 lead and grommet (7) from distribution box (8). Discard grommet and lockwasher.
2. Remove screw (9), lockwasher (10), circuit 10, 14, 15, and 27E lead (11), and circuit 450A lead (12) from bus bar (6). Remove circuit 10, 14, 15, and 27E lead and grommet (13) from distribution box (8). Discard grommet and lockwasher.
3. Remove screw (14), lockwasher (15), circuit 49 lead (16), and cable assembly W8 leads (17) and (18) from bus bar (6). Remove circuit 49 lead, cable assembly W8 lead (19), and two grommets (20) and (21) from distribution box (8). Discard grommets and lockwasher.



**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR
SYSTEM (M901A1 ONLY) — Continued**

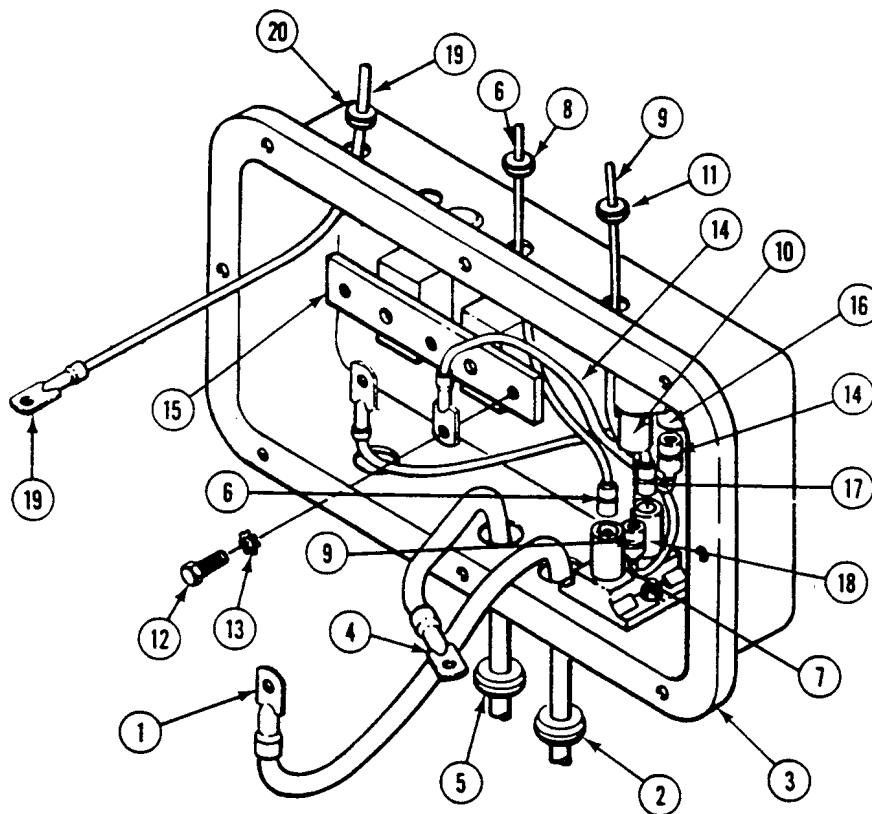
0271 00

4. Remove circuit 2A lead (1) and grommet (2) from distribution box (3). Discard grommet.
5. Remove circuit 2 lead (4) and grommet (5) from distribution box (3). Discard grommet.
6. Disconnect circuit 450 lead (6) from circuit breaker (7). Remove circuit 450 lead and grommet (8) from distribution box (3). Discard grommet.
7. Disconnect circuit 450B lead (9) from circuit breaker (10). Remove circuit 450B lead and grommet (11) from distribution box (3). Discard grommet.

NOTE

If bilge pump circuit breakers are to be removed, see WP 0327 00 for removal. If the bilge pump circuit breakers are not to be removed, go to Step 11.

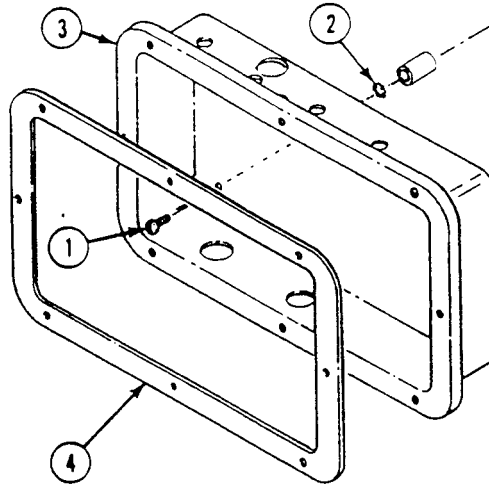
8. Remove screw (12), lockwasher (13), and circuit 450C lead (14) from bus bar (15). Discard lockwasher.
9. Disconnect circuit 450C lead (14) from circuit breaker (16). Remove circuit 450C lead from distribution box (3).
10. Disconnect circuit 450A lead (17) from circuit breaker (18). Remove circuit 450A lead from distribution box (3).
11. Remove circuit 400 lead (19) and grommet (20) from distribution box (3). Discard grommet.



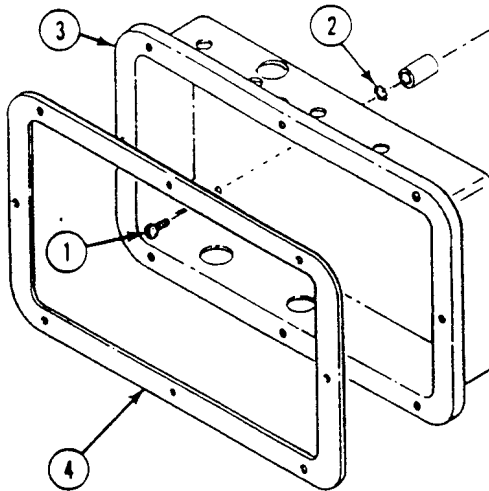
**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR
SYSTEM (M901A1 ONLY) — Continued**

0271 00

12. Remove five screws (1), lockwashers (2), and distribution box (3) from hull. Discard lockwashers.
13. Remove gasket (4) from distribution box (3). Discard gasket.

**INSTALLATION**

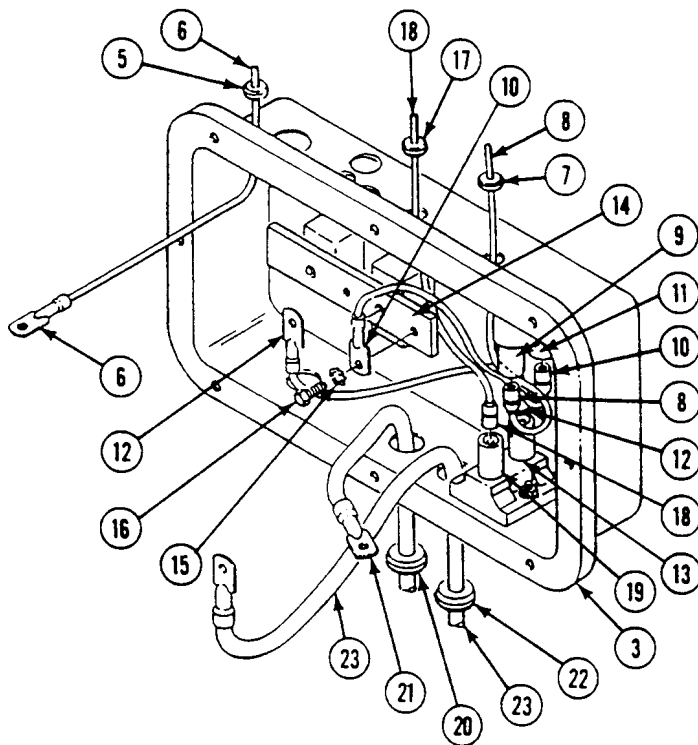
1. Install distribution box (3) on hull. Secure with five screws (1) and new lockwashers (2).



**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR
SYSTEM (M901A1 ONLY) — Continued**

0271 00

2. Install new grommet (5) and circuit 400 lead (6) in distribution box (3).
3. Install new grommet (7) and circuit 450B lead (8) in distribution box (3). Connect circuit 450B lead to circuit breaker (9).

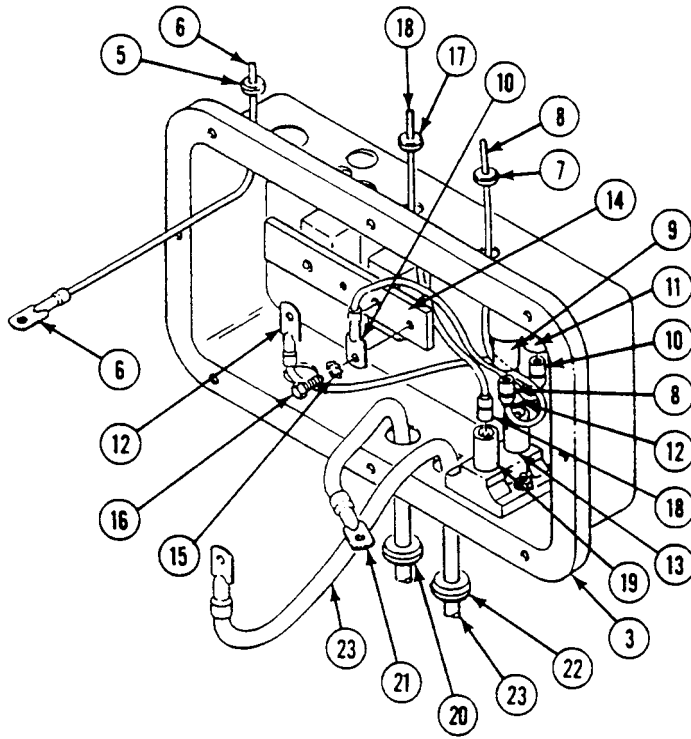

NOTE

If bilge pump circuit breakers were removed, see WP 0327 00 for installation. If the bilge pump circuit breakers were not removed, go to Step 7.

4. Connect circuit 450C lead (10) to circuit breaker (11).
5. Connect circuit 450A lead (12) to circuit breaker (13).
6. Install 450C lead (10) on bus bar (14). Secure with new lockwasher (15) and screw (16).
7. Install new grommet (17) and circuit 450 lead (18) in distribution box (3). Connect circuit 450 lead to circuit breaker (19).
8. Install new grommet (20) and circuit 2 lead (21) in distribution box (3).
9. Install new grommet (22) and circuit 2A lead (23) in distribution box (3).

REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR
SYSTEM (M901A1 ONLY) — Continued

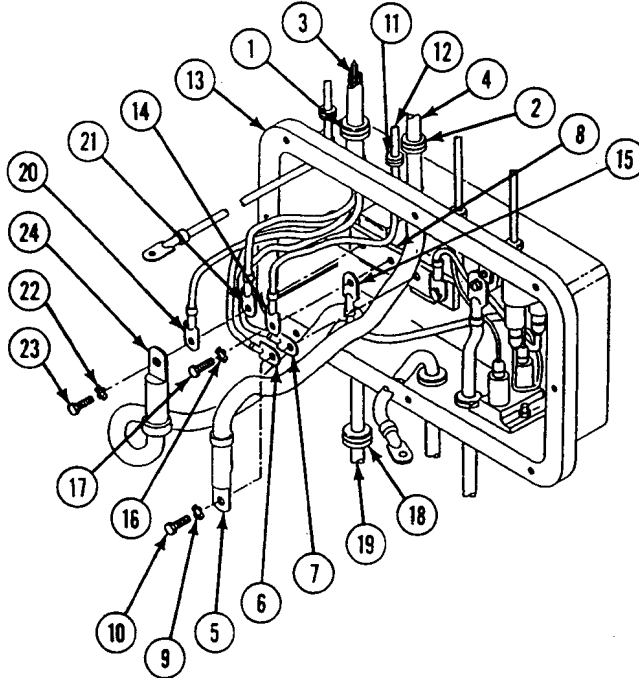
0271 00



**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR
SYSTEM (M901A1 ONLY) — Continued**

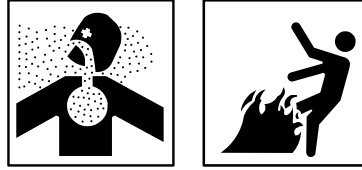
0271 00

10. Install two new grommets (1) and (2), cable assembly W8 lead (3), and circuit 49 lead (4). Install circuit 49 lead (5) and cable assembly W8 leads (6) and (7) on bus bar (8). Secure with new lockwasher (9) and screw (10).
11. Install new grommet (11) and circuit 10, 14, 15, and 27E lead (12) in distribution box (13). Install circuit 10, 14, 15, and 27E lead (14) and circuit 450A lead (15) on bus bar (8). Secure with new lockwasher (16) and screw (17).
12. Install new grommet (18) and circuit 6 lead (24) in distribution box (13). Install circuit 6 lead and cable assembly W8 leads (20) and (21) on bus bar (8). Secure with new lockwasher (22) and screw (23).



**REPLACE DISTRIBUTION BOX ASSEMBLY FOR 200 AMP GENERATOR
SYSTEM (M901A1 ONLY) — Continued**

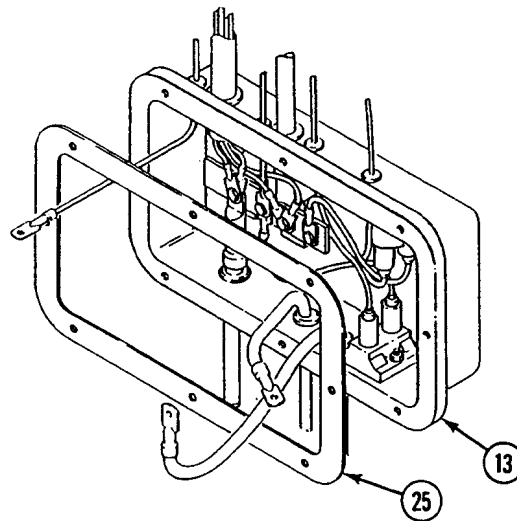
0271 00

WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

13. Apply one coat of adhesive to cleaned mounting surface of distribution box (13) and to one side of new gasket (25).
14. Install new gasket (25) on coated mounting surface of distribution box (13).

**FOLLOW-THROUGH STEPS**

1. Install master switch panel (WP 0222 00).
2. Connect battery ground lead (WP 0294 00).
3. Start engine (see your -10). Check that distribution box works properly (see your -10).
4. Shutdown engine (see your -10).

END OF TASK

REPLACE STOPLIGHT/TAILLIGHT AND GUARDS (M981 AND M1064 ONLY)

0272 00

THIS WORK PACKAGE COVERS:

Removal (page 0272 00-1).
 Installation (page 0272 00-4).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Materials/Parts

Gasket

Lockwasher (8)

Lockwasher (6)

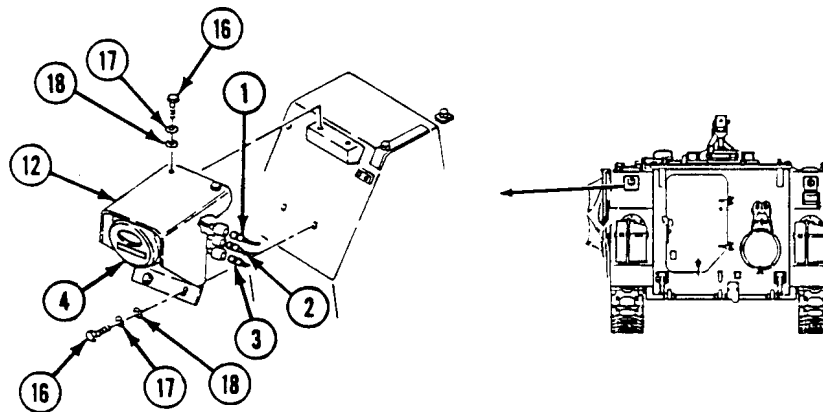
REMOVAL

NOTE

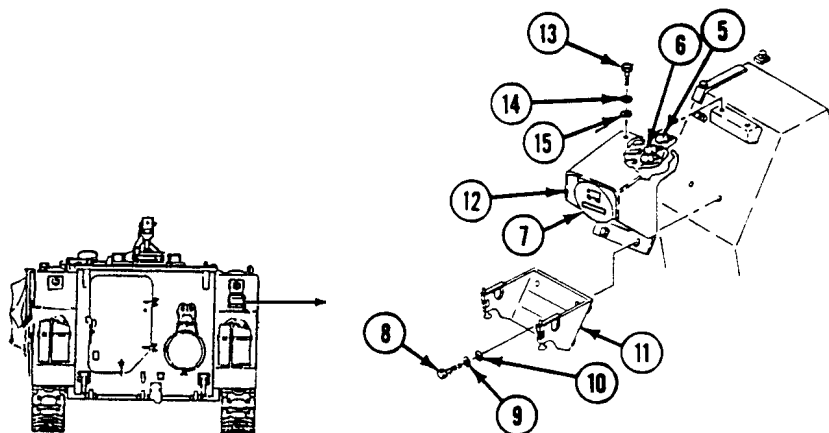
Except for number of circuit leads and cable reel holder assembly (M1064), left and right stoplight/taillights and guards are removed and installed the same way.

Leads must be tagged so you will know how to install them.

1. On left stoplight/taillight, disconnect circuit 21 lead (1), circuit 22 lead (2), and circuit 24 lead (3) from stoplight/taillight (4).

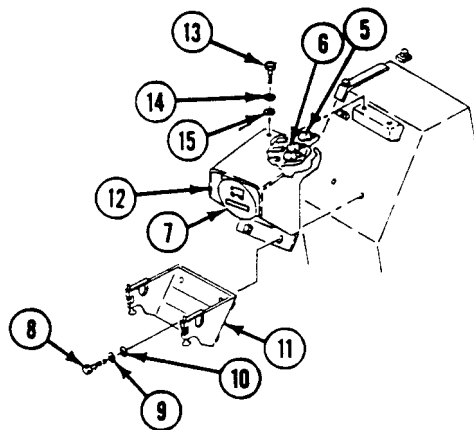


2. On right stoplight/taillight, disconnect circuit 24 lead (5) and circuit 23 lead (6) from stoplight/taillight (7).

**NOTE**

Do Step 3 for M1064 or Step 4 for M981.

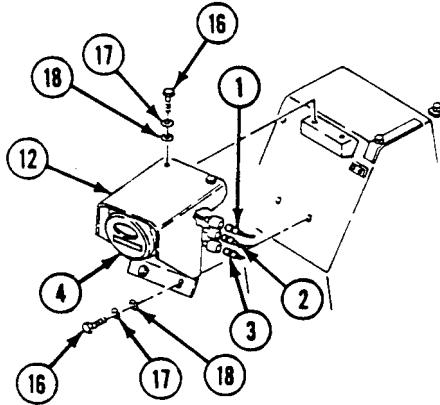
3. Remove two screws (8), lockwashers (9), washers (10), and holder assembly (11) from right external fuel tank and guard (12). Discard lockwashers.
4. Remove two screws (8), lockwashers (9), and washers (10) from right external fuel tank and guard (12). Discard lockwashers.
5. Remove two screws (13), lockwashers (14), washers (15), and guard (12) with stoplight/taillight (7) from right external fuel tank. Discard lockwashers.



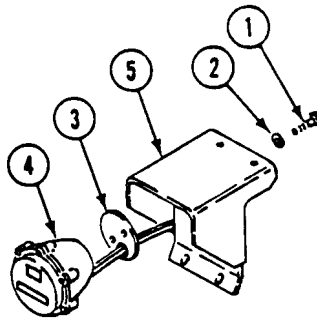
REPLACE STOPLIGHT/TAILLIGHT AND GUARDS (M981 AND M1064 ONLY) — Continued

0272 00

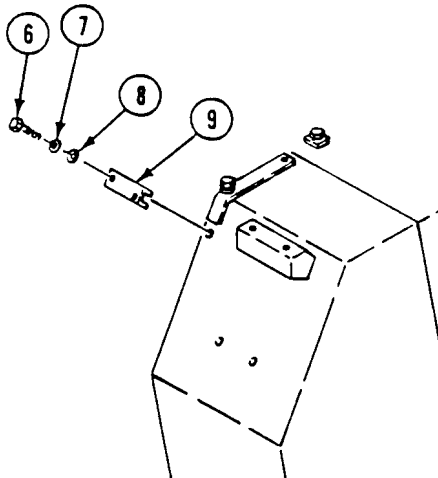
6. Remove four screws (16), lockwashers (17), washers (18), and guard (12) with stoplight/taillight (4) from left external fuel tank. Discard lockwashers.



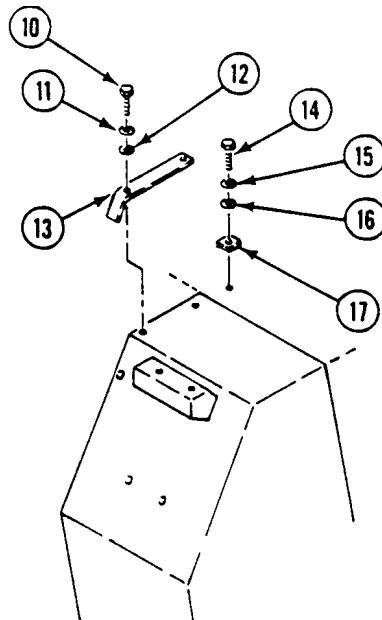
7. Remove two screws (1), lockwashers (2), gasket (3), and stoplight/taillight (4) from guard (5). Discard lockwashers and gasket.



8. If needed, remove two screws (6), lockwashers (7), washers (8), and guard (9) from fuel tank.

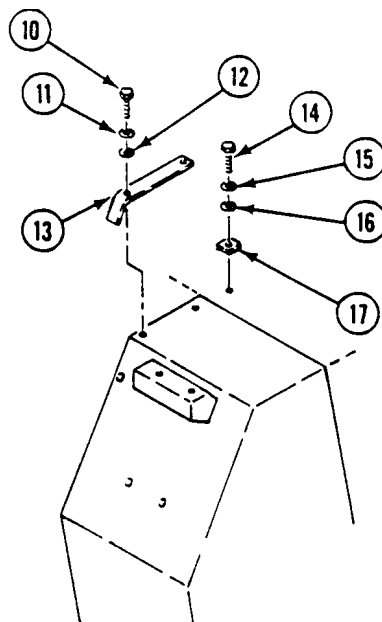


9. If needed, remove two screws (10), lockwashers (11), and washers (12), and bracket (13) from fuel tank. Discard lockwashers.
10. If needed, remove screw (14), lockwasher (15), washer (16), and guard (17) from carrier top deck. Discard lockwasher.



INSTALLATION

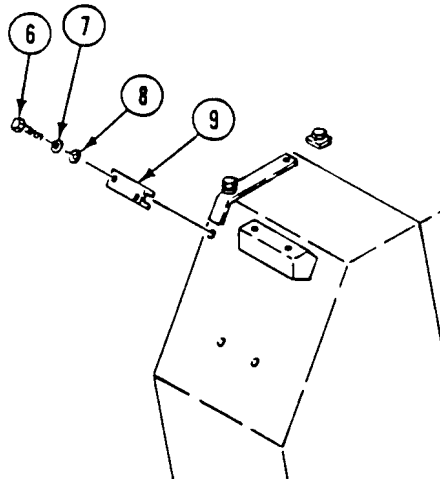
1. If removed, place guard (17) on top deck. Secure with washer (16), new lockwasher (15), and screw (14).
2. If removed, place bracket (13) on fuel tank. Secure with two washers (12), new lockwashers (11), and screws (10).



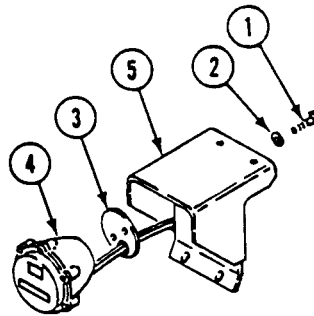
REPLACE STOPLIGHT/TAILLIGHT AND GUARDS (M981 AND M1064 ONLY) — Continued

0272 00

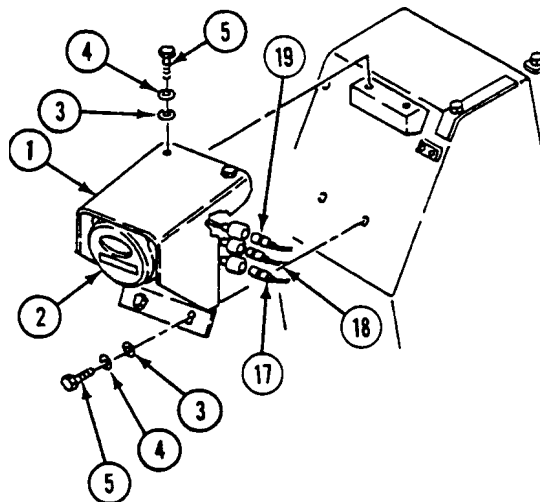
3. If removed, place guard (9) on fuel tank. Secure with two washers (8), new lockwashers (7), and screws (6).



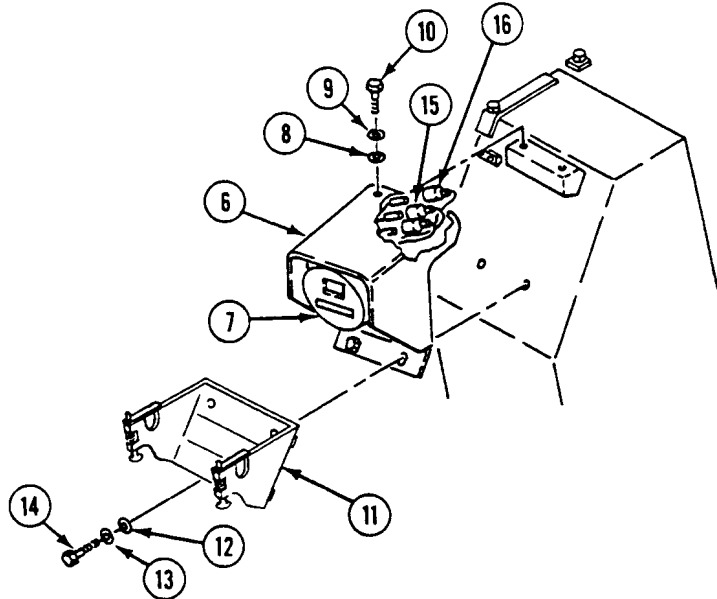
4. Place new gasket (3) and stoplight/taillight (4) on guard (5). Secure with two new lockwashers (2) and screws (1).



5. Place guard (1) with stoplight/taillight (2) on left fuel tank. Secure with four washers (3), new lockwashers (4), and screws (5).



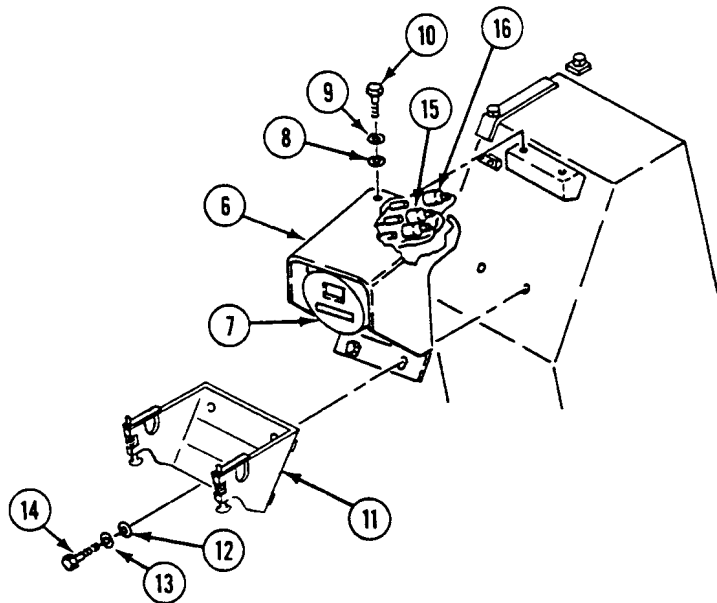
6. Place guard (6) with stoplight/taillight (7) on right fuel tank. Secure with two washers (8), new lockwashers (9), and screws (10).



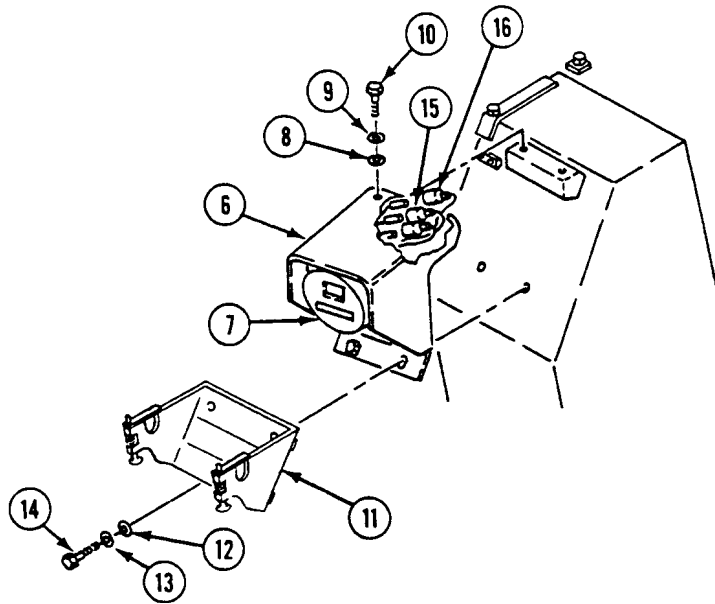
NOTE

Do Step 7 for M1064 or Step 8 for M981.

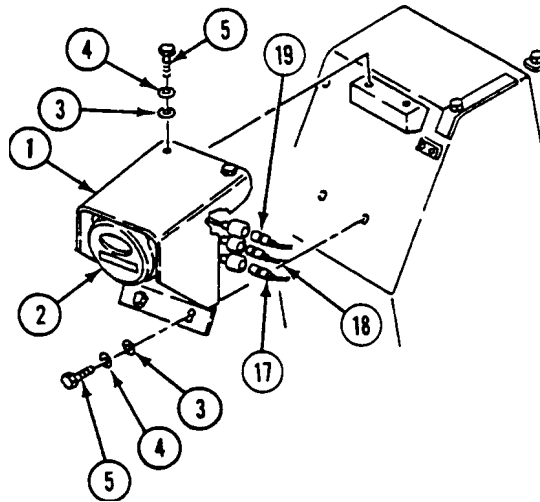
7. Place holder assembly (11) on right fuel tank. Secure holder assembly and guard (6) with two washers (12), new lockwashers (13), and screws (14).
8. Secure guard (6) with two washers (12), new lockwashers (13), and screws (14).



9. On right stoplight/taillight, connect circuit 23 lead (15) and circuit 24 lead (16) to stoplight/taillight (7).



10. On left stoplight/taillight, connect circuit 24 lead (17), circuit 22 lead (18) and circuit 21 lead (19) to stoplight/taillight (2).



FOLLOW-THROUGH STEPS

1. Turn MASTER SWITCH to ON (see your -10).
2. Operate main light switches to check that left and right stoplight/taillights are operable (see your -10).
3. Turn all switches OFF (see your -10).

END OF TASK

REPLACE DOME LIGHT (ALL EXCEPT M577A2 AND M1068)

0273 00

THIS WORK PACKAGE COVERS:

Removal (page 0273 00-1).
 Installation (page 0273 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Battery ground lead disconnected (WP 0294 00)

Materials/Parts

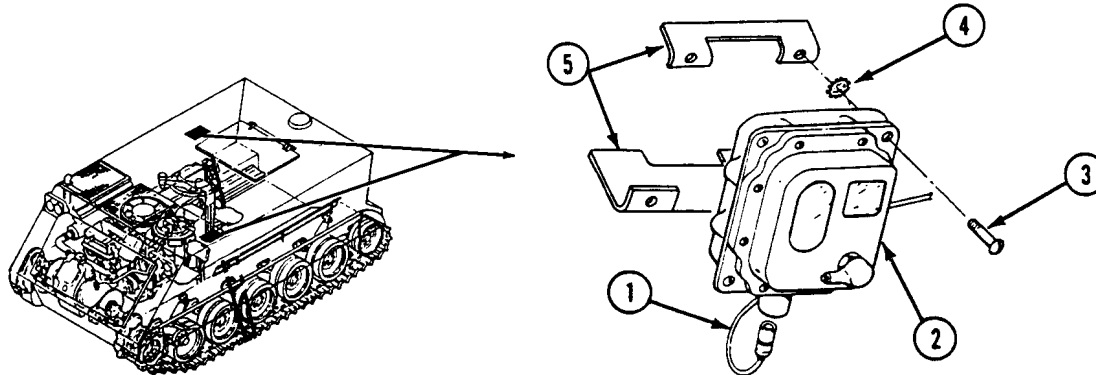
Lockwasher (4)

REMOVAL

NOTE

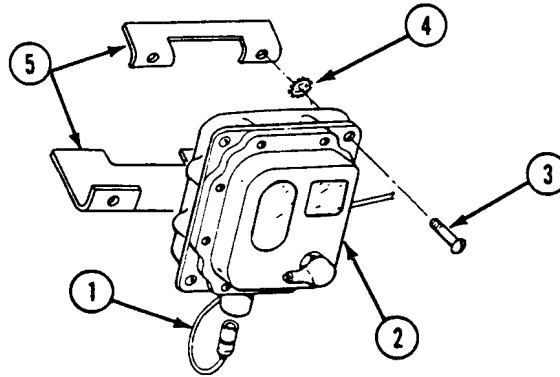
Remove and install all dome lights the same way.

1. Disconnect circuit 38 lead (1) from rear of dome light (2).
2. Remove four screws (3), lockwashers (4), and dome light (2) from two mount brackets (5). Discard lockwashers.



INSTALLATION

1. Place dome light (2) on two mount brackets (5). Slide four new lockwashers (4), one at a time, between dome light and mount bracket (5) and secure with screws (3).
2. Connect circuit 38 lead (1) to rear of dome light (2).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Check that dome light operates properly (see your -10).
4. Turn all switches OFF (see your -10).

END OF TASK

REPAIR DOME LIGHT (ALL EXCEPT M577A2 AND M1068)

0274 00

THIS WORK PACKAGE COVERS:

- Disassembly (page 0274 00-1).
 - Clean, Inspect, and Repair (page 0274 00-2).
 - Assembly (page 0274 00-3).
-

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Dome light removed (WP 0273 00)

Materials/Parts

Lockwasher

Seal

DISASSEMBLY

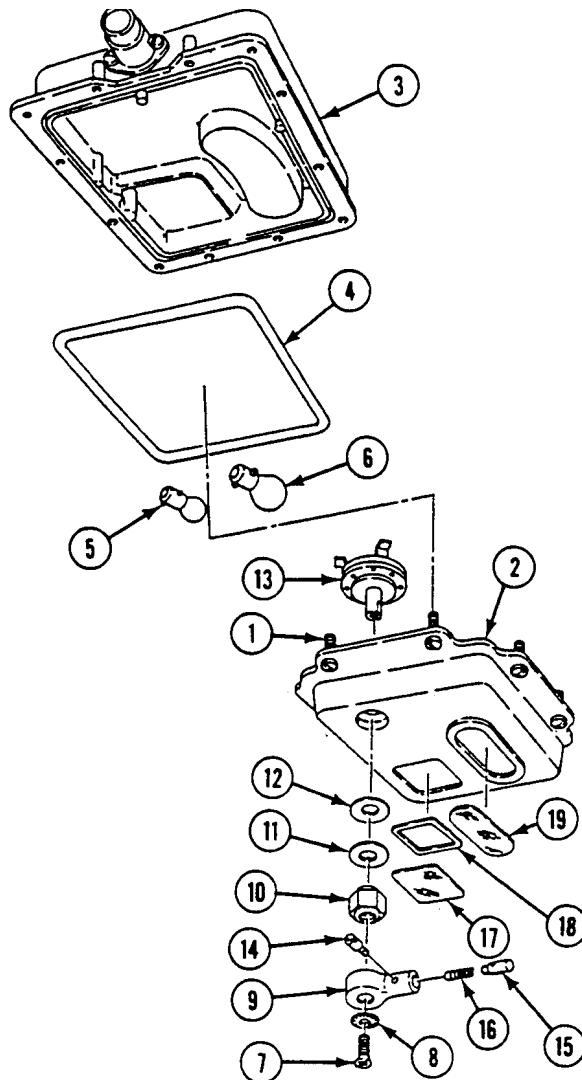
NOTE

If dome light retainer mounting screw separates from retainer, replace retaining clip.

REPAIR DOME LIGHT (ALL EXCEPT M577A2 AND M1068) — Continued

0274 00

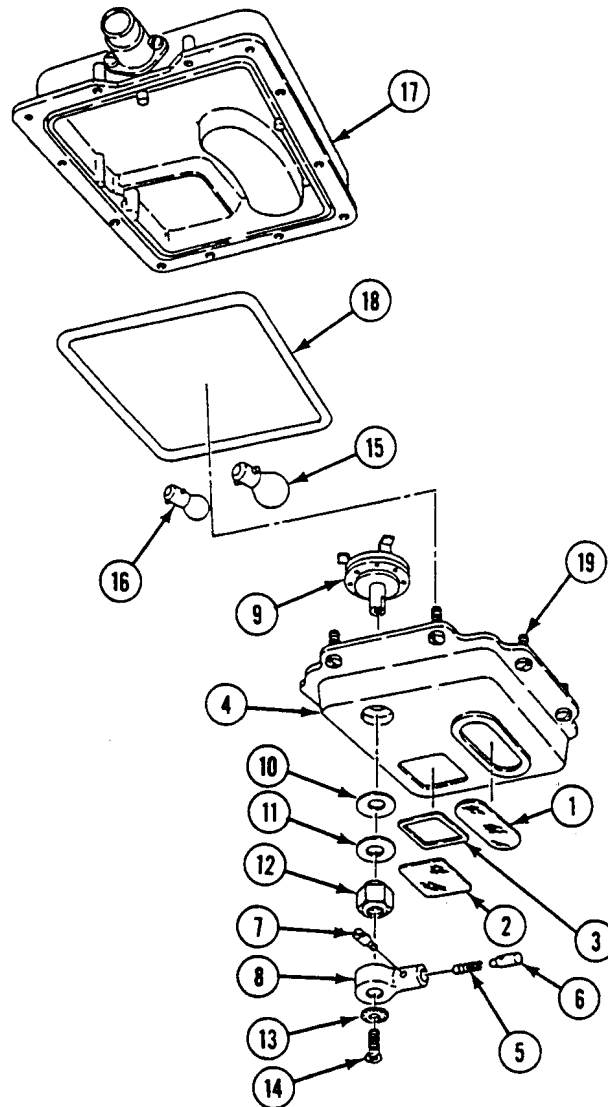
1. Remove eight screws (1) and retainer (2) from dome light body (3).
2. Remove seal (4) from retainer (2). Discard seal.
3. Push in on light bulb (5) and blackout bulb (6), and turn counterclockwise. Remove two bulbs.
4. Remove screw (7), lockwasher (8), and knob (9) from retainer (2). Discard lockwasher.
5. Remove nut (10), washer (11), gasket (12), and switch (13) from retainer (2).
6. Remove setscrew (14), plunger (15), and plunger (16) from knob (9).
7. Remove lens (17) and gasket (18) from retainer (2).
8. Remove lens (19) from retainer (2).

**CLEAN, INSPECT, AND REPAIR**

1. Check all light bulbs for damage and replace where needed.
2. Check lenses, gaskets, and all other parts for damage. Replace all damaged parts.

ASSEMBLY

1. Install lens (1) and lens (2) with gasket (3) on retainer (4).
2. Install plunger (5) with plunger (6) in knob (8) and secure with setscrew (7).
3. Install switch (9) through retainer (4). Install gasket (10) and washer (11) on switch and secure with nut (12).
4. Install knob (8), new lockwasher (13), and screw (14) on switch (9).
5. Install blackout bulb (15) and light bulb (16) in light body (17). Push in and turn bulbs clockwise to secure.
6. Install new seal (18) on retainer (4).
7. Place retainer (4) on light body (17). Secure with eight screws (19).

**FOLLOW-THROUGH STEPS**

1. Install dome light (WP 0260 00).
2. Turn MASTER SWITCH to ON (see your -10). Check dome lights for proper operation.
3. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE DOME LIGHT (M577A2 AND M1068 ONLY)

0275 00

THIS WORK PACKAGE COVERS:

Removal (page 0275 00-1).
 Installation (page 0275 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Materials/Parts

Lockwasher (4)

REMOVAL

NOTE

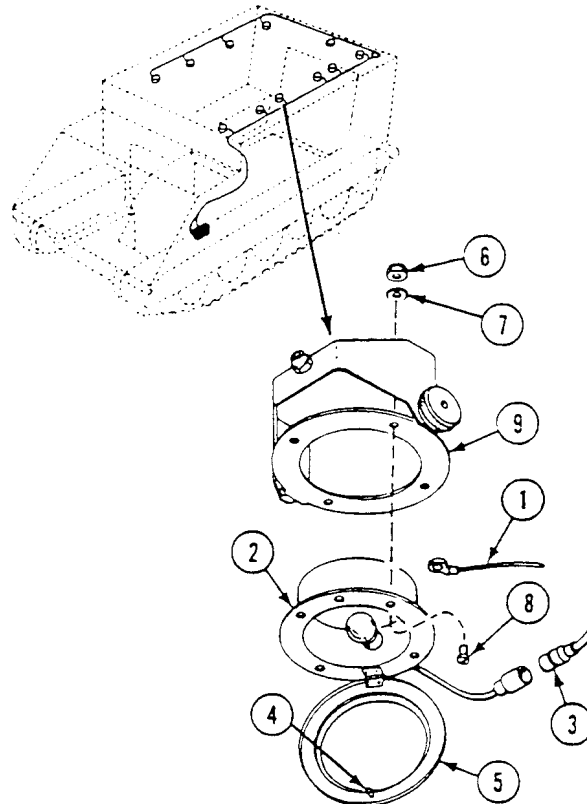
There are nine dome lights and two blackout lights in the M577A2 and M1068. Remove and install all lights the same way.

1. Disconnect ground lead (1) from dome light (2).
2. Disconnect lead (3) from dome light (2).

NOTE

Disconnect circuit 38C lead from dome lights or circuit 38B lead from blackout lights.

3. Loosen screw (4). Lower door (5) on dome light (2).
4. Remove four nuts (6), lockwashers (7), screws (8), and light (2) from mount (9). Discard lockwashers.



0275 00-1

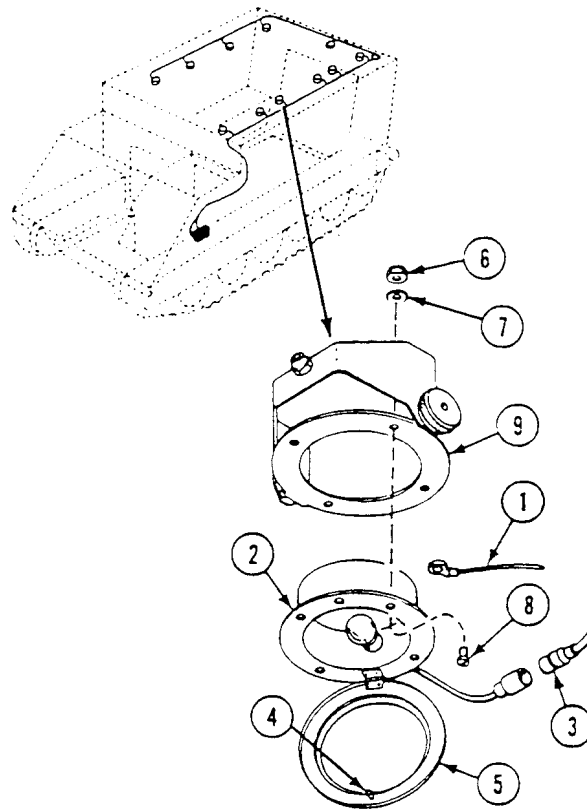
INSTALLATION

1. Place light (2) on mount (9). Secure with four screws (8), new lockwashers (7), and nuts (6).
2. Close door (5) on light (2). Secure with screw (4).
3. Connect lead (3) to light (2).

NOTE

Connect circuit 38C lead to dome lights or circuit 38B lead to blackout lights.

4. Connect ground lead (1) to dome light (2).

**FOLLOW-THROUGH STEPS**

1. Turn MASTER SWITCH to ON (see your -10).
2. Operate dome light or blackout light to check that light operates properly (see your -10).
3. Turn all switches OFF (see your -10).

END OF TASK

REPAIR DOME LIGHT AND MOUNT (M577A2 AND M1068 ONLY)

0276 00

THIS WORK PACKAGE COVERS:

- Disassembly (page 0276 00-1).
 - Clean, Inspect, and Repair (page 0276 00-2).
 - Assembly (page 0276 00-3).
-

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Dome light removed (WP 0275 00)

Materials/Parts

Sealing Compound (WP 0782 00, Item 66)

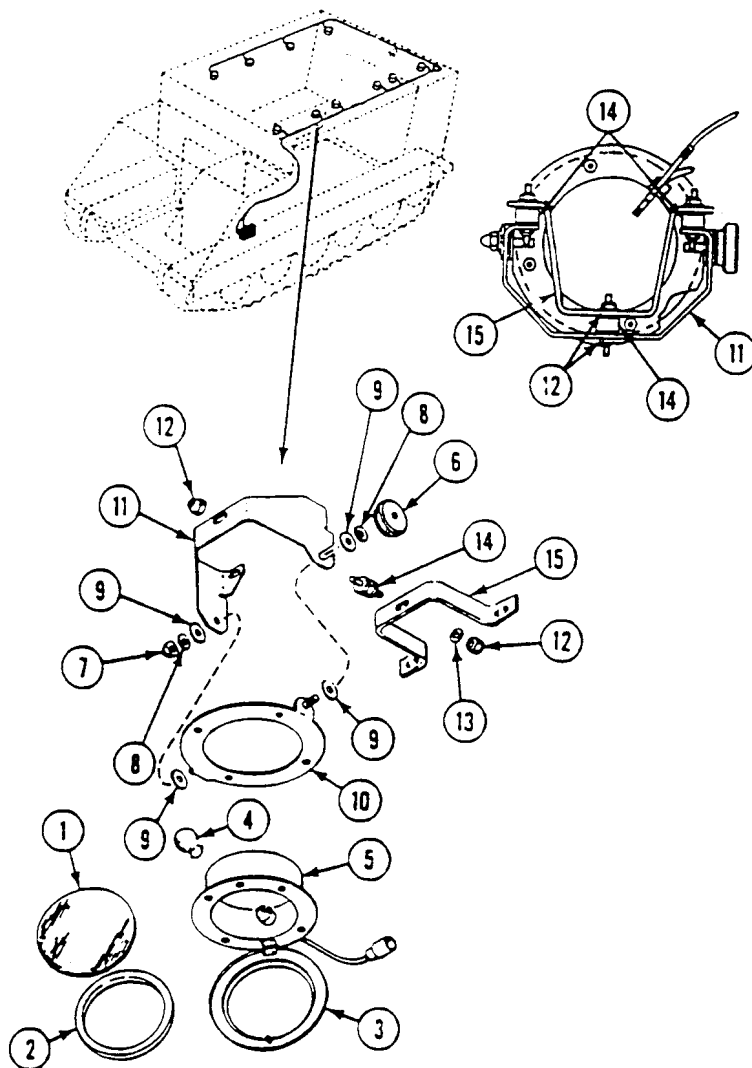
Locknut (6)

DISASSEMBLY

NOTE

Disassemble and assemble dome lights and blackout lights the same way. Lens in dome light is clear. Lens in blackout light is dark (nine dome lights, two blackout lights).

1. To disassemble dome light, do the following:
 - a. Remove lens (1) and seal (2) from light door (3).
 - b. Push in and turn lamp (4) counterclockwise. Remove lamp from light body (5).
2. To disassemble dome light mount, do the following:
 - a. Remove knob (6), nut (7), two small washers (8), two large gaskets (9), and mount plate (10) from bracket (11).
 - b. Remove two large gaskets (9) from plate (10).
 - c. Remove six locknuts (12), three washers (13), mount (14), and bracket (11) from hull mounts (15). Discard locknuts.



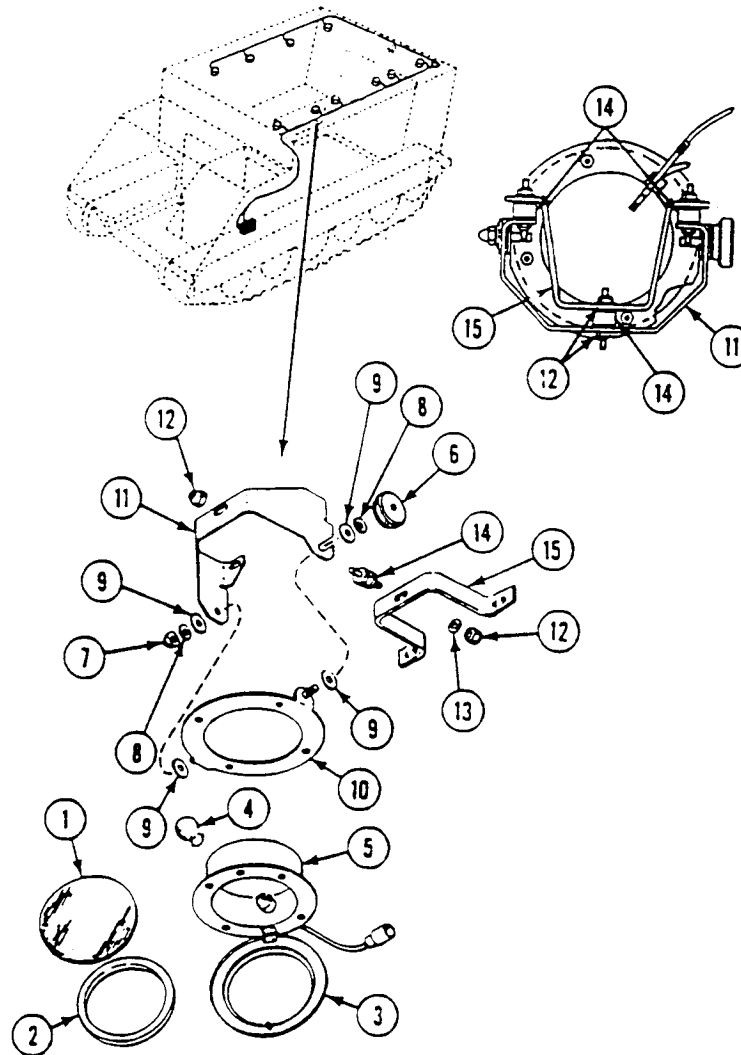
CLEAN, INSPECT, AND REPAIR

1. Check lamp. Replace burned-out or cracked lamp.
2. Check lens. Replace cracked or chipped lens.
3. Check seal and mounts. Replace cut, cracked, or hard seal and mounts.
4. Check plate and bracket. Replace any cracked or deformed parts.

5. Check threaded parts. Remove burrs. Replace parts that have stripped threads.

ASSEMBLY

1. To assemble dome light mount, do the following:
 - a. Install three mounts (14) between bracket (11) and hull mount (15). Secure with six new locknuts (12) and three washers (13).
 - b. Place two large gaskets (9) on mount plate (10). Install plate on bracket (11). Secure with two large gaskets (9), small washers (8), nut (7), and knob (6).
2. To assemble dome light, do the following:
 - a. Install lamp (4) in light body (5). Push in and turn clockwise to secure lamp.
 - b. Apply sealing compound to inside of door (3). Install seal (2) and lens (1) on door.



FOLLOW-THROUGH STEPS

1. Install dome light (WP 0275 00).

END OF TASK

REPLACE MASTER SWITCH PANEL LEAD ASSEMBLY TO DOME LIGHTS (M577A2 AND M1068 ONLY)

0277 00

THIS WORK PACKAGE COVERS:

Removal (page 0277 00-1).
 Installation (page 0277 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Battery ground lead disconnected (WP 0294 00)

Materials/Parts

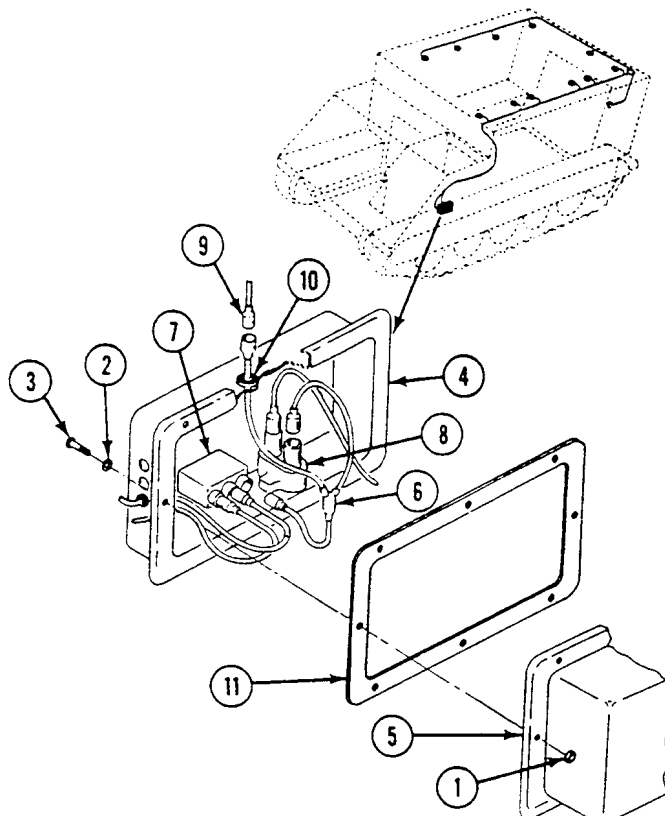
Gasket

Grommet

Locknut (8)

REMOVAL

1. Remove eight locknuts (1), washers (2), screws (3), and master switch panel (4) from distribution box (5). Discard locknuts.
2. Disconnect lead assembly (6) from front dome light switch (7), circuit breaker (8), and circuit 38E lead (9).
3. Pull lead assembly (6) with grommet (10) from master switch panel (4). Discard grommet.
4. Inspect gasket (11). Replace if damaged.

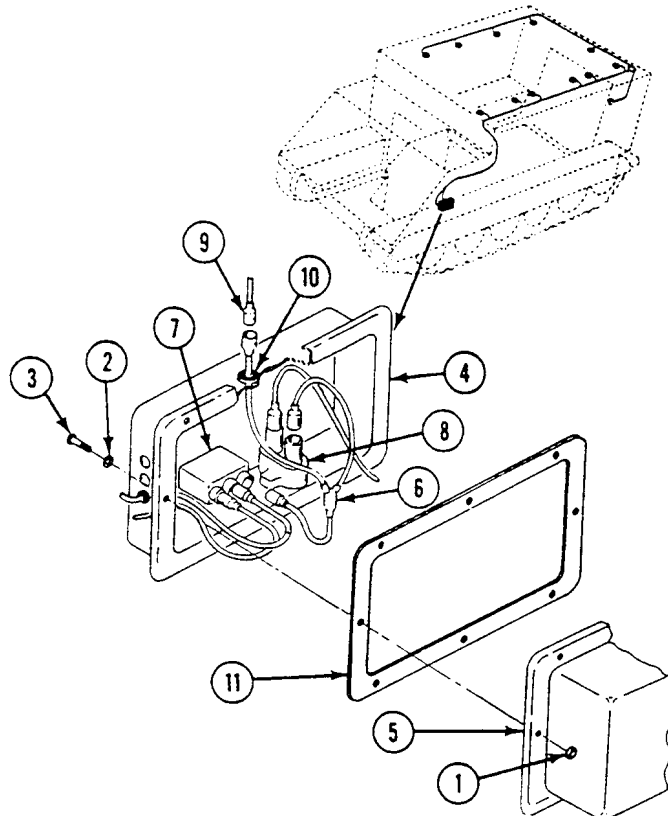


**REPLACE MASTER SWITCH PANEL LEAD ASSEMBLY TO DOME LIGHTS
(M577A2 AND M1068 ONLY) — Continued**

0277 00

INSTALLATION

1. Place new grommet (10) on branch of lead assembly (6) that connects to circuit 38E lead (9).
2. Install lead assembly (6) with grommet (10) in master switch panel (4).
3. Connect lead assembly (6) to circuit 38E lead (9), circuit breaker (8), and front dome light switch (7).
4. Place master switch panel (4) on distribution box (5). Secure with eight screws (3), washers (2), and new locknuts (1).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Operate dome lights to check that lights operate properly (see your -10).
4. Turn all switches OFF (see your -10).

END OF TASK

REPLACE FRONT DOME LIGHT SWITCH (M577A2 AND M1068 ONLY)

0278 00

THIS WORK PACKAGE COVERS:

Removal (page 0278 00-1).
 Installation (page 0278 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Battery ground lead disconnected (WP 0294 00)

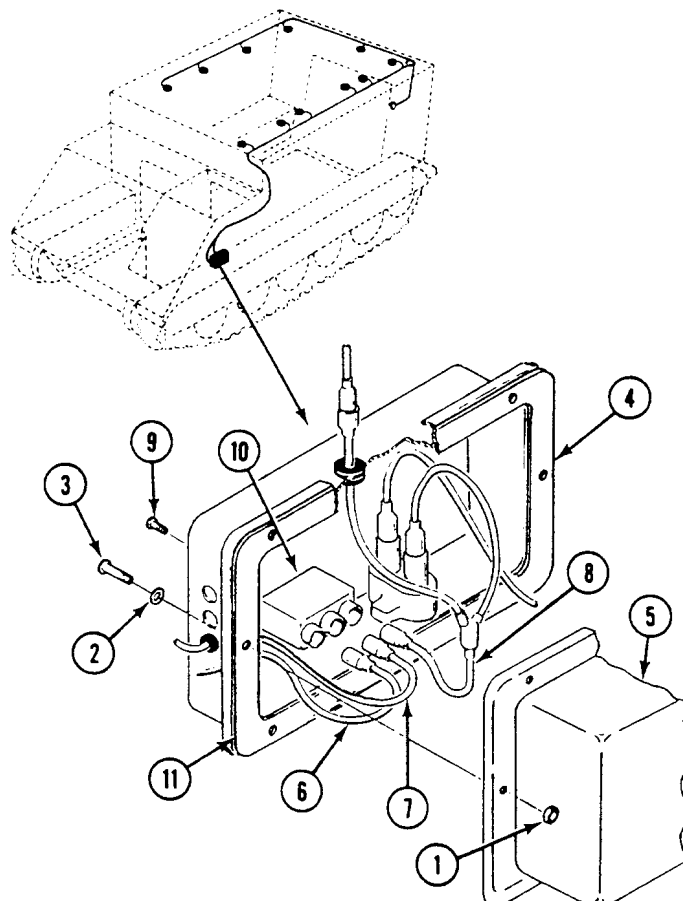
Materials/Parts

Gasket

Locknut (8)

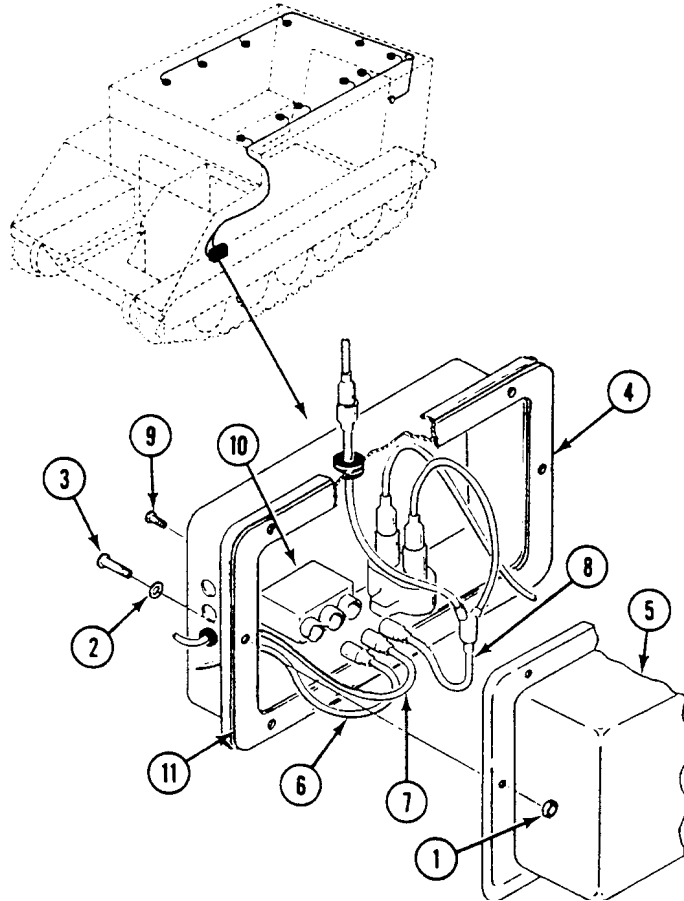
REMOVAL

1. Remove eight locknuts (1), washers (2), screws (3), and master switch panel (4) from distribution box (5). Discard locknuts.
2. Disconnect circuit 38 lead (6), circuit 38A lead (7), and circuit 10 lead (8) from rear of front dome light switch (10).
3. Remove two screws (9) and switch (10) from master switch panel (4).
4. Inspect gasket (11). Replace if damaged.



INSTALLATION

1. Place switch (10) in master switch panel (4). Secure with two screws (9).
2. Connect circuit 10 lead (8), circuit 38A lead (7), and circuit 38 lead (6) to rear of dome light switch (10).
3. Place panel (4) on distribution box (5). Secure with eight screws (3), washers (2), and new locknuts (1).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Turn on front dome light switch to check that switch is operable. Dome light should come on.
4. Turn all switches OFF (see your -10).

END OF TASK

REPLACE REAR DOME LIGHT SWITCH (M577A2 AND M1068 ONLY)

0279 00

THIS WORK PACKAGE COVERS:

Removal (page 0279 00-1).
 Installation (page 0279 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

Engine stopped/shutdown (see your -10)
 Battery ground lead disconnected (WP 0294 00)

Tools and Special Tools

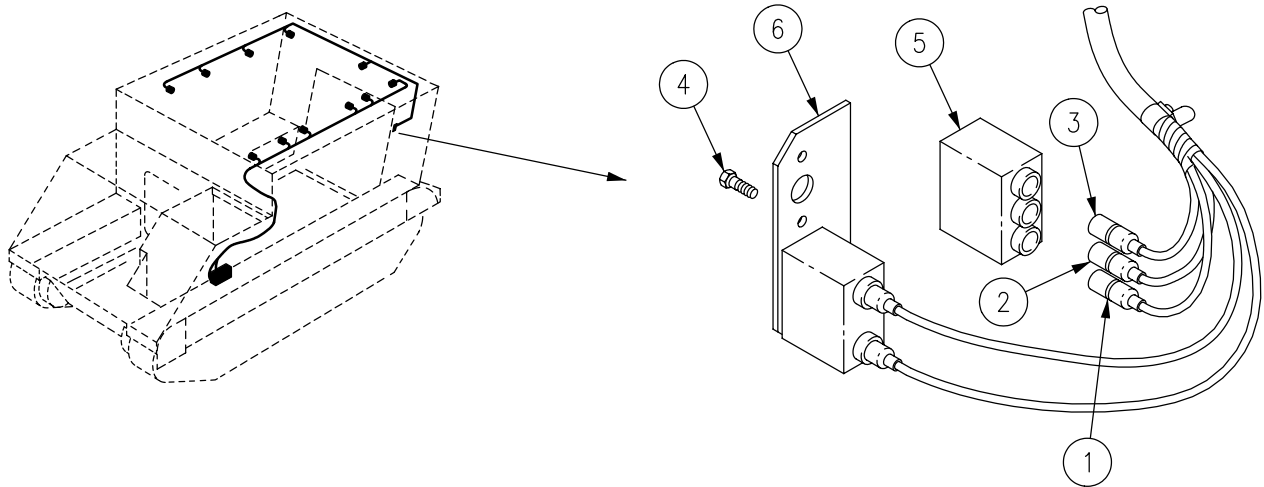
General Mechanic's Tool Kit (WP 0780 00, Item 29)

Personnel Required

Unit Mechanic

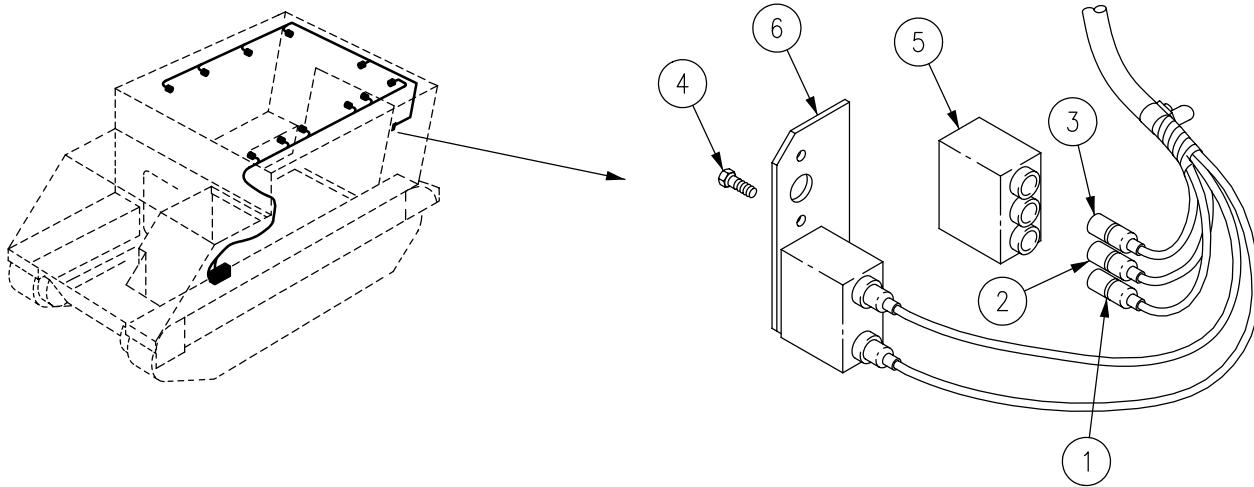
REMOVAL

1. Disconnect circuit 38 lead (1), circuit 38A lead (2), and circuit 38E lead (3) from back of rear dome light switch (5).
2. Remove two screws (4) and switch (5) from hull bracket (6).



INSTALLATION

1. Place switch (5) on hull bracket (6). Secure with two screws (4).
2. Connect circuit 38E lead (3), circuit 38A lead (2), and circuit 38 lead (1) to back of switch.

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Turn REAR DOME LIGHT SWITCH to ON (see your -10). Check that switch operates properly. Dome light should come on.
4. Turn all switches OFF (see your -10).

END OF TASK

REPLACE DOME LIGHT CIRCUIT BREAKER (M577A2 AND M1068 ONLY)

0280 00

THIS WORK PACKAGE COVERS:

Removal (page 0280 00-1).
 Installation (page 0280 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Battery ground lead disconnected (WP 0294 00)

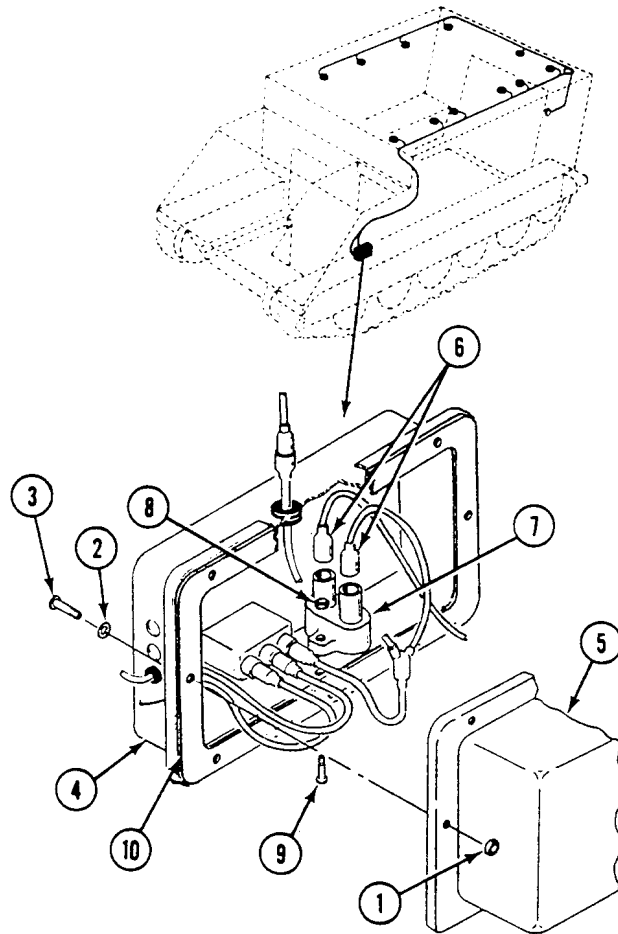
Materials/Parts

Gasket

Locknut (8)

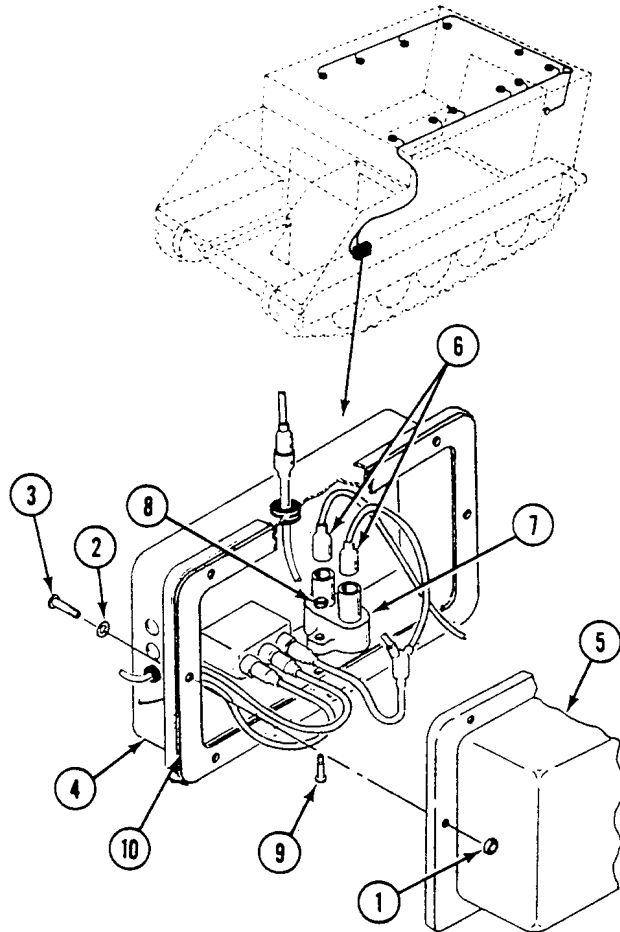
REMOVAL

1. Remove eight locknuts (1), washers (2), screws (3), and master switch panel (4) from distribution box (5). Discard locknuts.
2. Disconnect two circuit 10 leads (6) from circuit breaker (7).
3. Remove two nuts (8), screws (9), and circuit breaker (7) from master switch panel (4).
4. Inspect gasket (10). Replace if damaged.



INSTALLATION

1. Place circuit breaker (7) in master switch panel (4). Secure with two screws (9) and nuts (8).
2. Connect two circuit 10 leads (6) to circuit breaker (7).
3. Place master switch panel (4) on distribution box (5). Secure with eight screws (3), washers (2), and new locknuts (1).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Operate dome lights to check that circuit breaker is operable (see your -10).
4. Turn all switches OFF (see your -10).

END OF TASK

**REPLACE DOME BLACKOUT LIGHT BYPASS SWITCH
(M577A2 AND M1068 ONLY)**

0281 00

THIS WORK PACKAGE COVERS:

- Removal (page 0281 00-1).
- Installation (page 0281 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

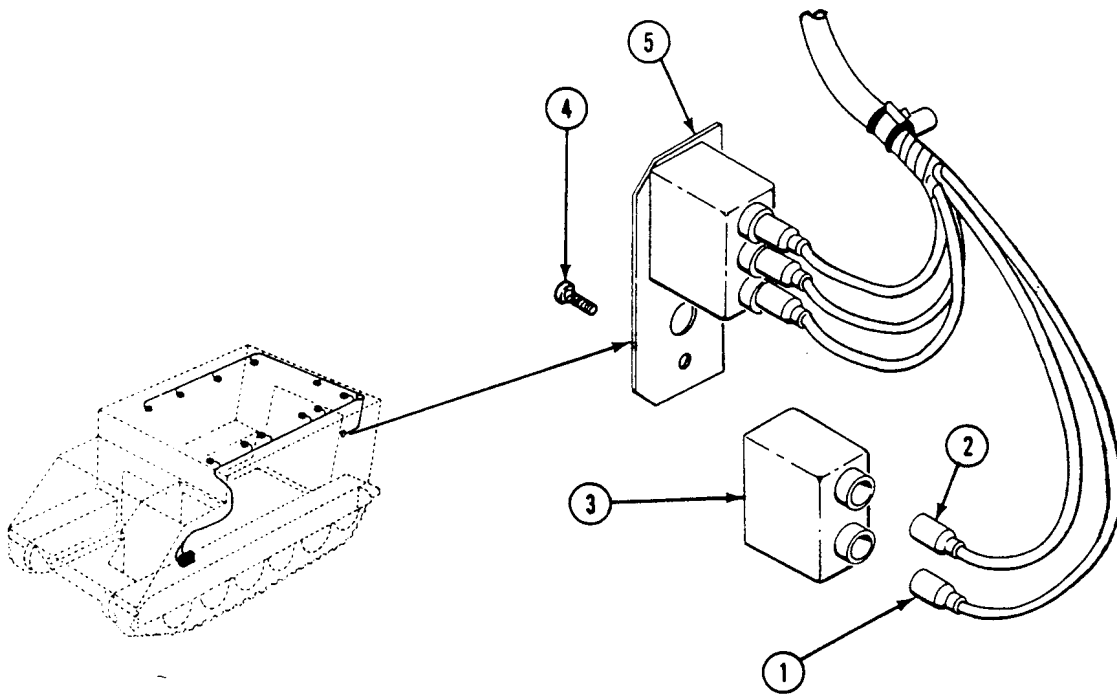
General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

REMOVAL

1. Disconnect circuit 38B lead (1) and circuit 38E lead (2) from rear of bypass switch (3).
2. Remove two screws (4) and switch (3) from hull bracket (5).

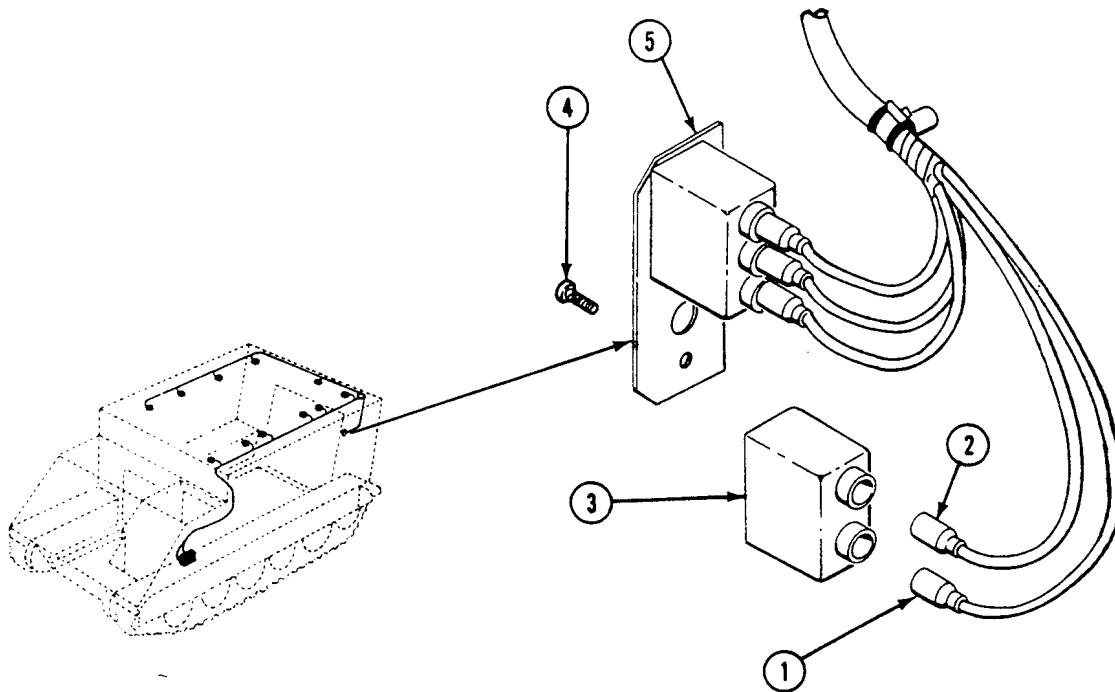


REPLACE DOME BLACKOUT LIGHT BYPASS SWITCH (M577A2 AND M1068 ONLY) — Continued

0281 00

INSTALLATION

1. Place switch (3) on hull bracket (5). Secure with two screws (4).
2. Connect circuit 38E lead (2) and circuit 38B lead (1) to rear of bypass switch (3).

**FOLLOW-THROUGH STEPS**

1. Turn MASTER SWITCH to ON (see your -10).
2. Operate dome lights and bypass switch to check that switch operates properly (see your -10).
3. Turn all switches OFF (see your -10).

END OF TASK

REPLACE ADMITTANCE BUZZER AND SWITCH (M577A2 AND M1068 ONLY)

0282 00

THIS WORK PACKAGE COVERS:

- Removal (page 0282 00-1).
- Clean, Inspect, and Repair (page 0282 00-2).
- Installation (page 0282 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Battery ground lead disconnected (WP 0294 00)

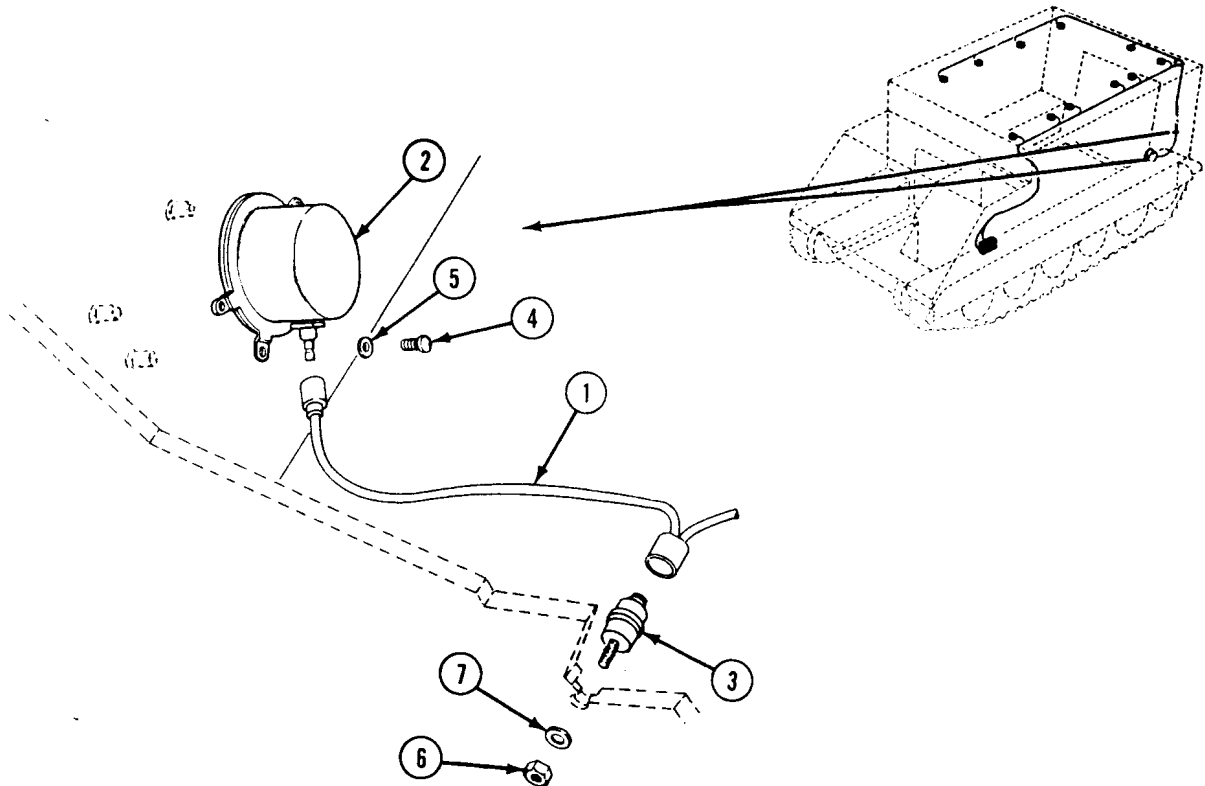
Materials/Parts

Gasket

Lockwasher (3)

REMOVAL

1. Disconnect circuit 509 lead (1) from buzzer (2) and buzzer switch (3).
2. Remove three screws (4), lockwashers (5) and buzzer (2) from weldnuts on left bulkhead. Discard lockwashers.
3. Remove nut (6), gasket (7), and buzzer switch (3) from rear bulkhead. Discard gasket.



REPLACE ADMITTANCE BUZZER AND SWITCH (M577A2 AND M1068 ONLY) — Continued

0282 00

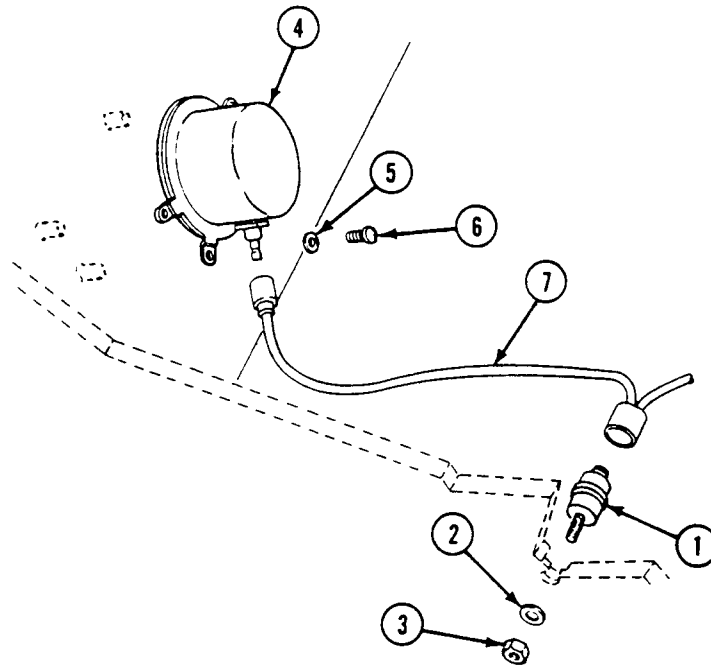
CLEAN, INSPECT, AND REPAIR

1. Check buzzer and switch. See troubleshooting (WP 0044 00). Replace bad switch.

INSTALLATION**NOTE**

Switch comes with two nuts and two washers. When installing new switch, remove and discard one lockwasher and one nut before installation.

1. Install buzzer switch (1) in rear bulkhead. Secure with new gasket (2) and nut (3).
2. Place buzzer (4) on weldnuts on left bulkhead. Secure with three screws (5) and new lockwashers (6).
3. Connect circuit 509 lead (7) to buzzer (4) and buzzer switch (1).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Operate buzzer switch to check that buzzer and switch operate properly (see your -10).
4. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE RAMP DOOR SWITCH AND MOUNT (M577A2 AND M1068 ONLY)

0283 00

THIS WORK PACKAGE COVERS:

- Removal (page 0283 00-1).
- Clean, Inspect, and Repair (page 0283 00-2)
- Installation (page 0283 00-2).
- Adjustment (page 0283 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

References

See your -10
WP 0294 00

Materials/Parts

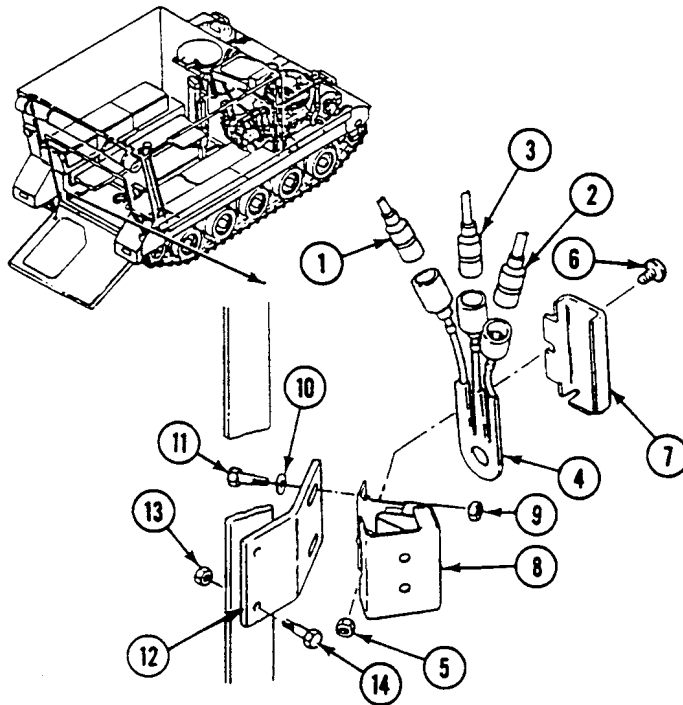
Locknut (4)
Locknut

Equipment Condition

Engine stopped/shutdown (see your -10)
Battery ground lead disconnected (WP 0294 00)
Carrier blocked (see your -10)

REMOVAL

1. Disconnect circuit 38 lead (1), circuit 38B lead (2), and circuit 38C lead (3) from switch (4).
2. Remove locknut (5), screw (6), and retainer (7) from actuator (8). Discard locknut.
3. Remove switch (4) from actuator (8).
4. Remove two locknuts (9), washers (10), screws (11), and actuator (8) from bracket (12). Discard locknuts.
5. Remove two locknuts (13), screws (14), and bracket (12) from hull. Discard locknuts.

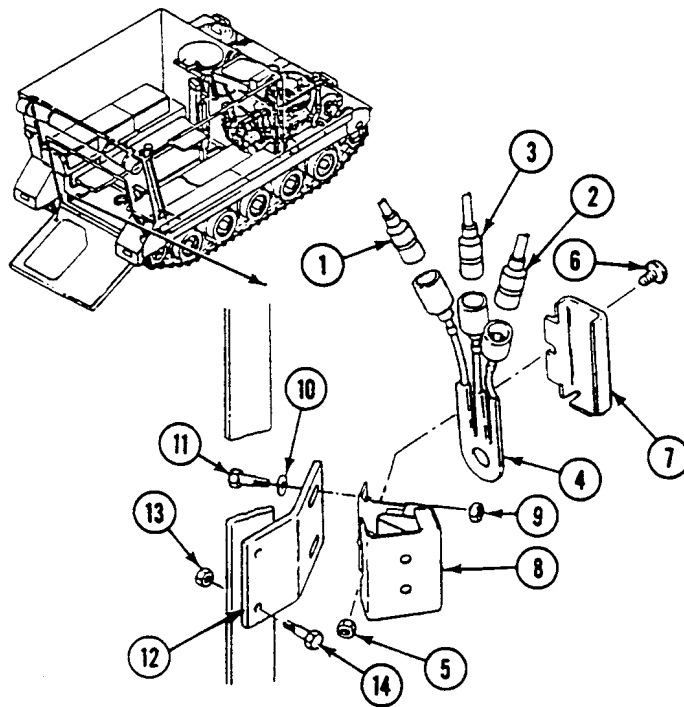


CLEAN, INSPECT, AND REPAIR

1. Check for cracks or other damage to switch. If damaged, replace switch.

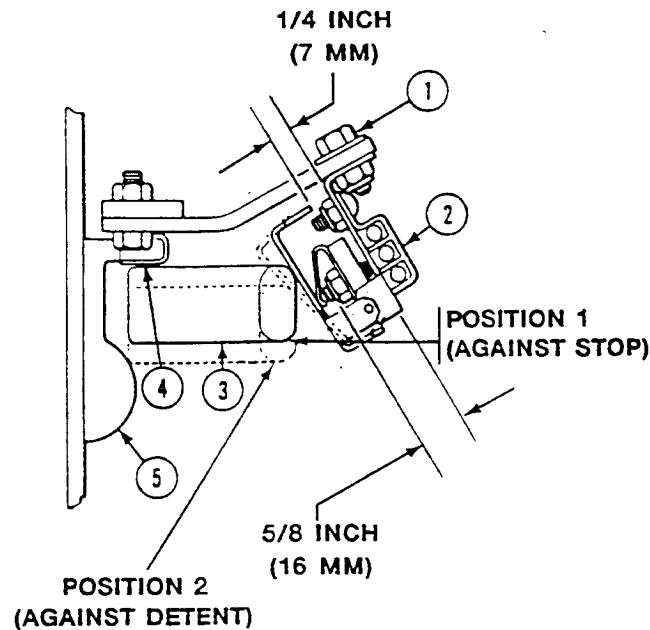
INSTALLATION

1. Place bracket (12) on hull. Secure with two screws (14) and new locknuts (13).
2. Place actuator (8) on bracket (12). Secure with two screws (11), washers (10), and new locknuts (9). Do not tighten screws.
3. Place switch (4) on actuator (8). Secure with retainer (7), screw (6), and new locknut (5).
4. Connect circuit 38C lead (3), circuit 38B lead (2), and circuit 38 lead (1) to ramp door switch (4).



ADJUSTMENT

1. Connect battery ground lead (WP 0294 00).
2. Raise and lock ramp (see your -10).
3. Loosen two screws (1) and slide switch (2) as far as possible from hull.
4. Lock ramp door handle (3) against stop (4) (see Position 1 – Against Stop).
5. Slide switch (2) against handle (3) to get approximately 1/4 inch (7 mm) clearance. Tighten screws (1).
6. Move handle (3) against detent (5) (see Position 2 – Against Detent). Clearance should be approximately 5/8 inch (16 mm). From this setting, check switch for proper function. Interior lights (white) should come on and blue light should be off. When handle (3) is in first position (see illustration) interior lights (white) should be off and blue lights should be on. Do Steps 3 - 6 and make adjustments until the switch function produces the correct result as stated herein.

**FOLLOW-THROUGH STEPS**

1. Turn MASTER SWITCH to ON (see your -10).
2. Turn on dome lights and open ramp access door. All dome lights should go off and blackout lights should come on.
3. Turn all switches OFF (see your -10).
4. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE TENT LIGHT ASSEMBLY (M577A2 ONLY)

0284 00

THIS WORK PACKAGE COVERS:

Removal (page 0284 00-1).
 Installation (page 0284 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

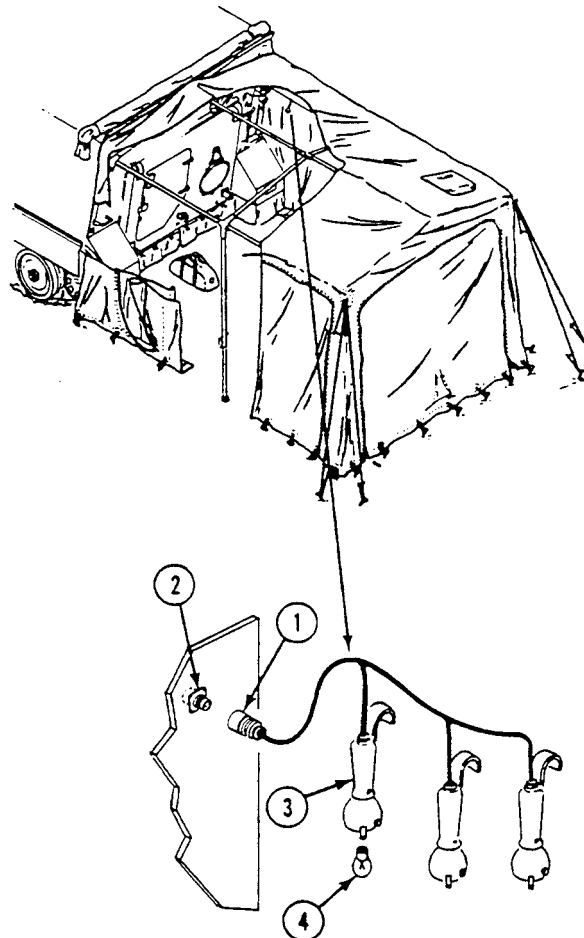
Battery ground lead disconnected (WP 0294 00)

Materials/Parts

Incandescent lamp

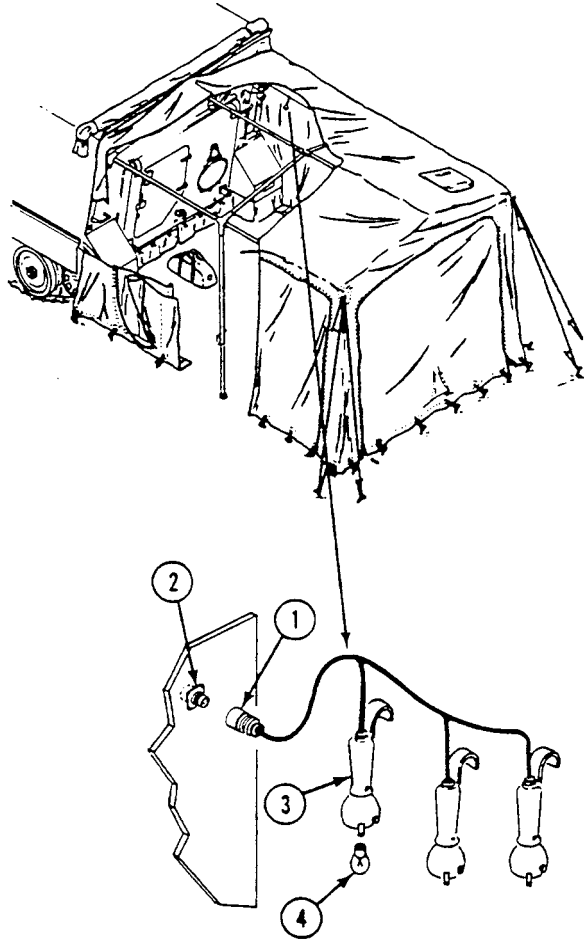
REMOVAL

1. Remove connector (1) from utility outlet receptacle (2) on rear bulkhead.
2. Remove light assembly (3) from tent supports.
3. Push in on lamp (4) and turn counterclockwise. Remove lamp from light assembly. Discard lamp.



INSTALLATION

1. Install new lamp (4) in light assembly (3). Push in and turn clockwise to secure lamp.
2. Hang light assembly (3) on tent supports.
3. Install connector (1) on utility outlet receptacle (2).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Check that tent lamps operate properly (see your -10).
4. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE HEADLIGHT HIGH BEAM SELECTOR SWITCH

0285 00

THIS WORK PACKAGE COVERS:

Removal (page 0285 00-1).
 Installation (page 0285 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

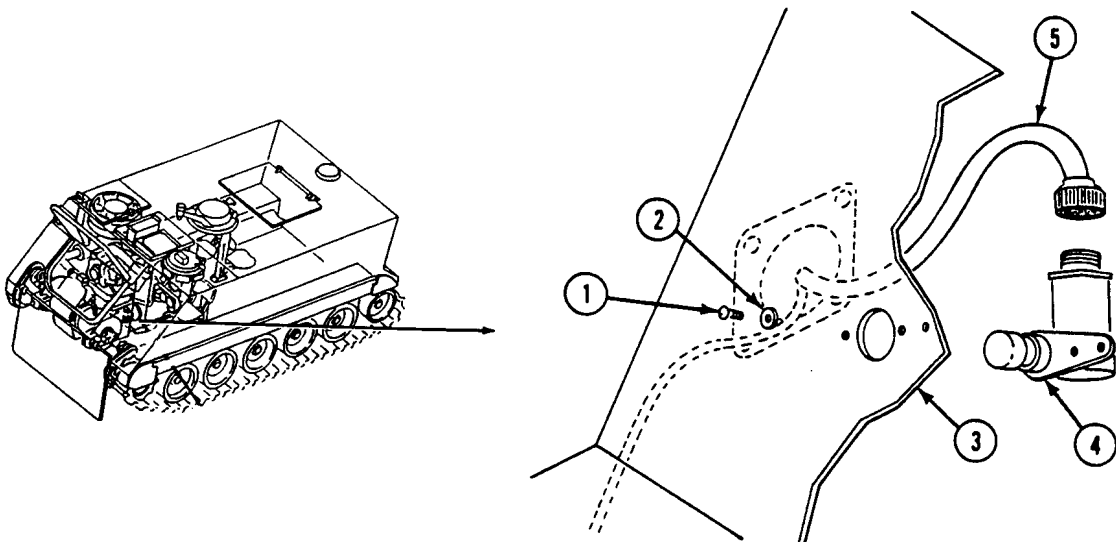
Carrier blocked (see your -10)

Materials/Parts

Lockwasher (2)

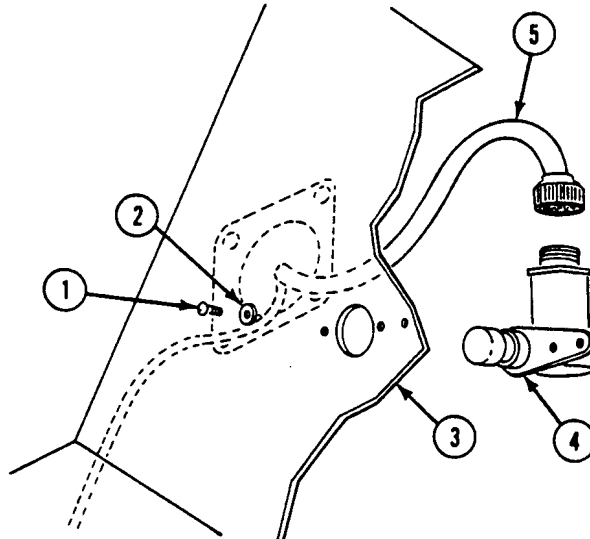
REMOVAL

1. From driver's compartment, remove two screws (1) and lockwashers (2) from bracket (3). Discard lockwashers.
2. Remove switch (4) from bracket (3).
3. Disconnect cable (5) from rear of light beam selector switch (4).



INSTALLATION

1. Connect cable (5) to rear of switch (4).
2. Install switch (4) in bracket (3).
3. Secure switch (4) to bracket (3) with two new lockwashers (2) and screws (1).

**FOLLOW-THROUGH STEPS**

1. Turn MASTER SWITCH to ON (see your -10).
2. Turn on service headlights and operate beam selector switch to check that switch operates properly (see your -10).
3. Turn all switches OFF (see your -10).
4. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE RIGHT HEADLIGHT WIRING HARNESS

0286 00

THIS WORK PACKAGE COVERS:

- Removal (page 0286 00-1).
- Inspect and Repair (page 0286 00-3).
- Installation (page 0286 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- Digital Multimeter (WP 0780 00, Item 43)
- Electrical Tool Kit (WP 0780 00, Item 80)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

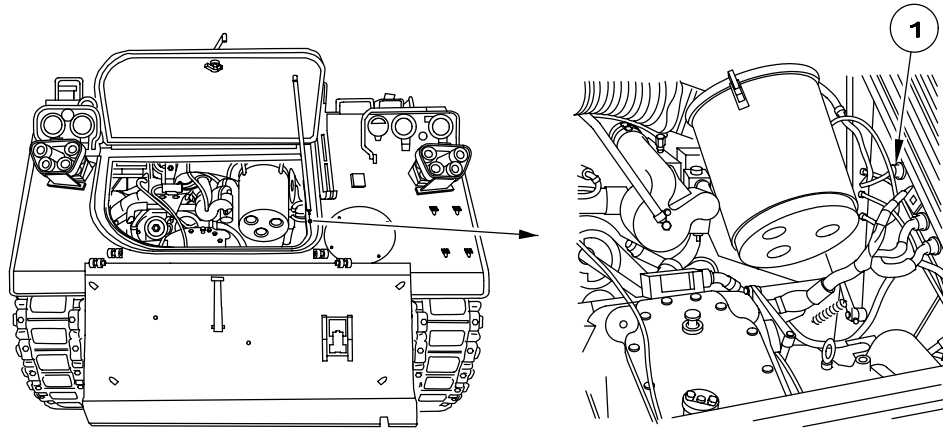
- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Trim vane lowered (see your -10)
- Power plant front access door open (see your -10)
- Power plant grill raised (WP 0130 00)
- Battery ground strap disconnected (WP 0294 00)

Materials/Parts

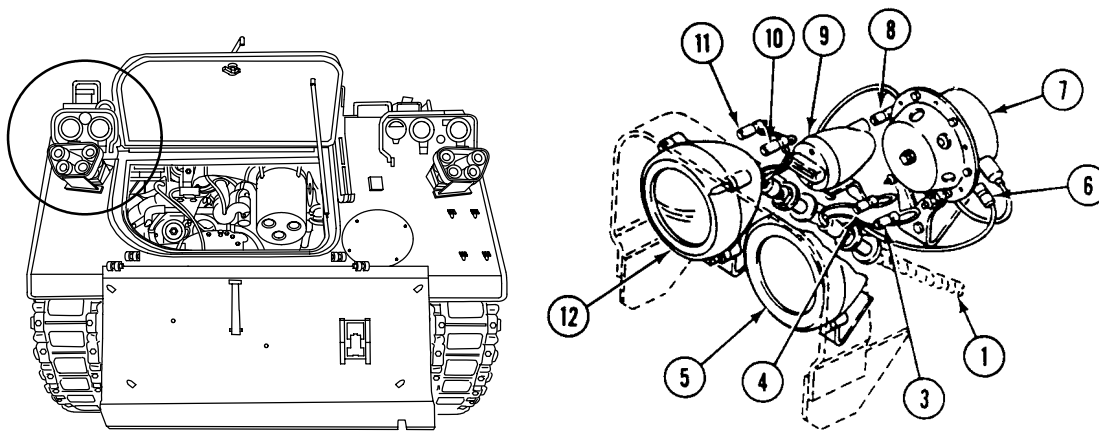
- Insulation tape (WP 0782 00, Item 35)
- Lockwasher (4)
- Terminal (6)

REMOVAL

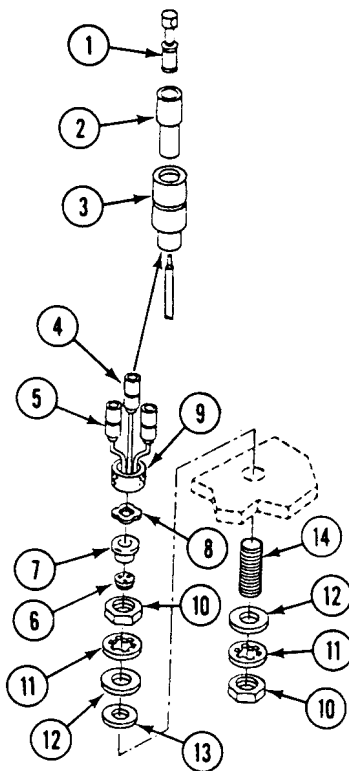
1. Disconnect right headlight wiring harness (1) from front main wiring harness at driver's compartment bulkhead.



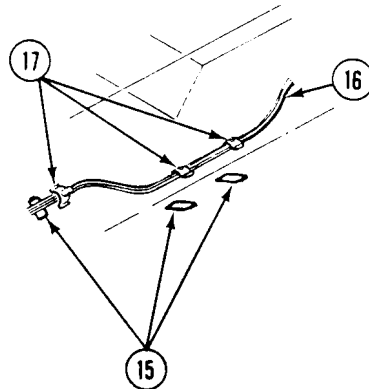
2. Disconnect circuits 514 and 515 leads (3) and (4) from right infrared headlight (5).
3. Disconnect circuit 25 lead (6) from horn (7).
4. Disconnect circuit 20 lead (8) from right blackout marker light (9).
5. Disconnect circuits 17 and 18 leads (10) and (11) from right service headlight (12).



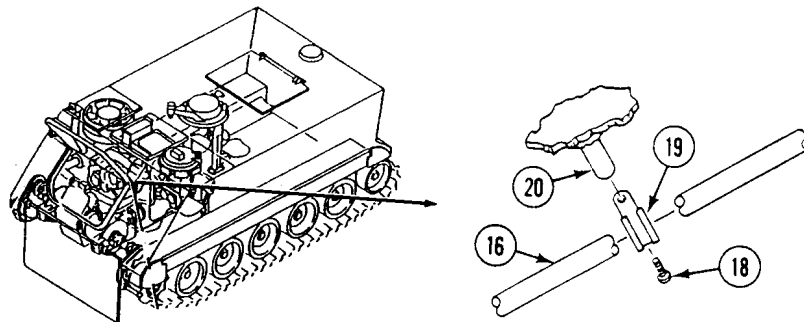
6. Remove six terminals (1), insulators (2), and connectors (3) from six leads disconnected in Steps 1 - 5. Discard terminals. Remove tape from lead 17 (4) and 18 (5).
7. Remove bushing (6), retainer (7), and spring washer (8) from coupling (9).
8. Remove four nuts (10), lockwashers (11), washers (12), and two washers (13) from hull bushing (14). Discard lockwashers.



- Remove three cradle clips (15) and harness (16) from three cradles (17).



- Remove two screws (18), two clamps (19), and harness (16) from weldnut (20).



INSPECT AND REPAIR

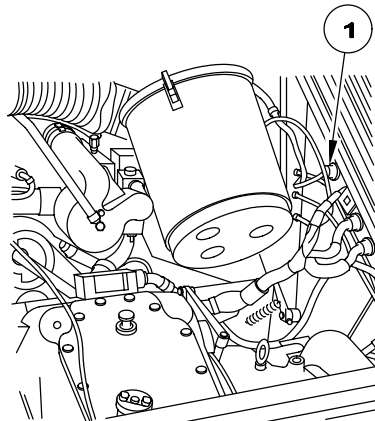
- Check leads for continuity. Replace bad leads.
- Check harness for damage. Repair damaged terminals (WP 0312 00).
- Check for damaged connectors. If connectors are damaged, turn in to direct support maintenance.

INSTALLATION

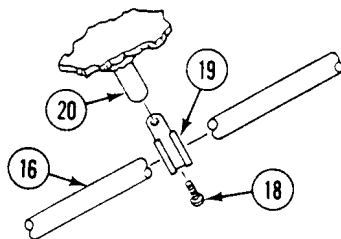
NOTE

New harness assembly comes with hull bushing assemblies installed.

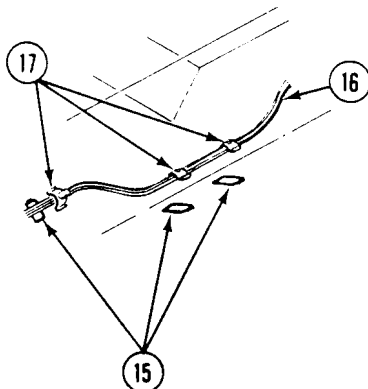
- Connect right headlight wiring harness (1) to front main wiring harness at driver's compartment bulkhead.



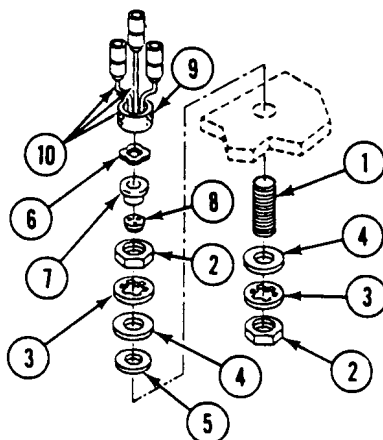
2. Install clamp (19) on harness (16). Secure clamp to hull weldnut (20) with screw (18).



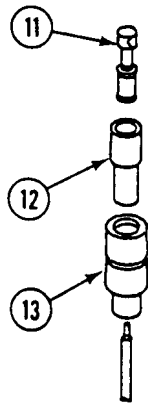
3. Install harness (16) on three cradles (17). Secure with three cradle clips (15).



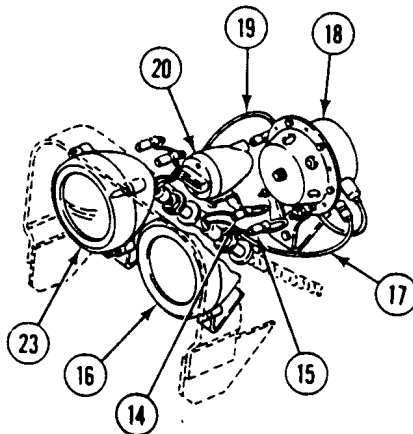
4. Thread two bushings (1) into hull. Secure with four nuts (2), new lockwashers (3), washers (4), and two washers (5). Do not tighten nuts.
5. Install spring washer (6), retainer (7), and bushing (8) into coupling (9).
6. Locate service headlight and blackout marker light bushing hole in hull. Slowly slide connector leads 17, 18, and 20 (10) through hole. Do not damage wiring leads.
7. Locate second bushing hole in hull. Slowly slide connector leads 25, 514, and 515 (10) through hole. Do not damage wiring leads.



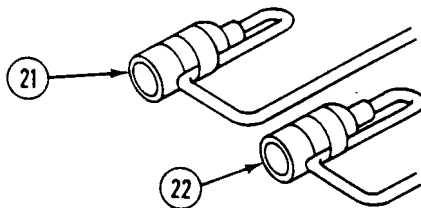
8. Crimp six new terminals (11), insulators (12), and connectors (13) on six leads.



9. Connect leads 514 (14) and 515 (15) to infrared headlights (16).
10. Connect lead 25 (17) to horn (18).
11. Connect lead 20 (19) to blackout marker light (20).



12. Bend and tape leads 17 and 18 (21) and (22) as shown. Connect leads to service headlights.



FOLLOW-THROUGH STEPS

1. Lower power plant grill (WP 0130 00).
2. Connect battery ground lead (WP 0294 00).
3. Close power plant front access door (see your -10).
4. Raise trim vane (see your -10).

END OF TASK

REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY)

0287 00

THIS WORK PACKAGE COVERS:

- Removal (page 0287 00-1).
- Inspection and Repair (page 0287 00-16)
- Installation (page 0287 00-16).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Ramp lowered (see your -10)

FAX removed (TM 11-7010-256-12&P)

Access to batteries (see your -10)

Battery ground lead disconnected (WP 0294 00)

Rear floor plate removed (WP 0436 00)

Materials/Parts

Gasket

Grommet (12)

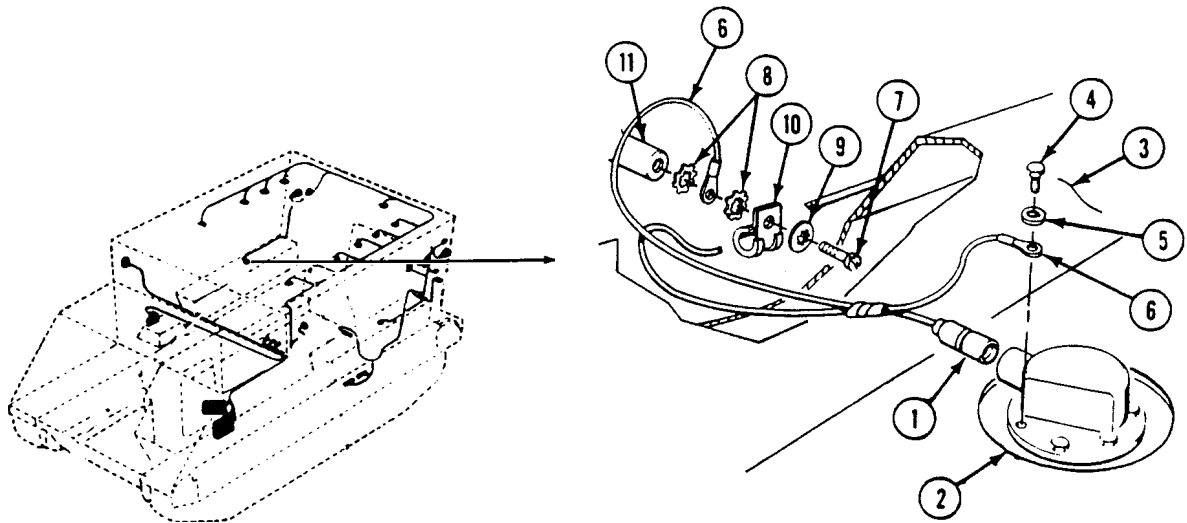
Lockwasher, as needed

Non-electrical wire, as needed (WP 0782 00, Item 40)

Locknut (8)

REMOVAL

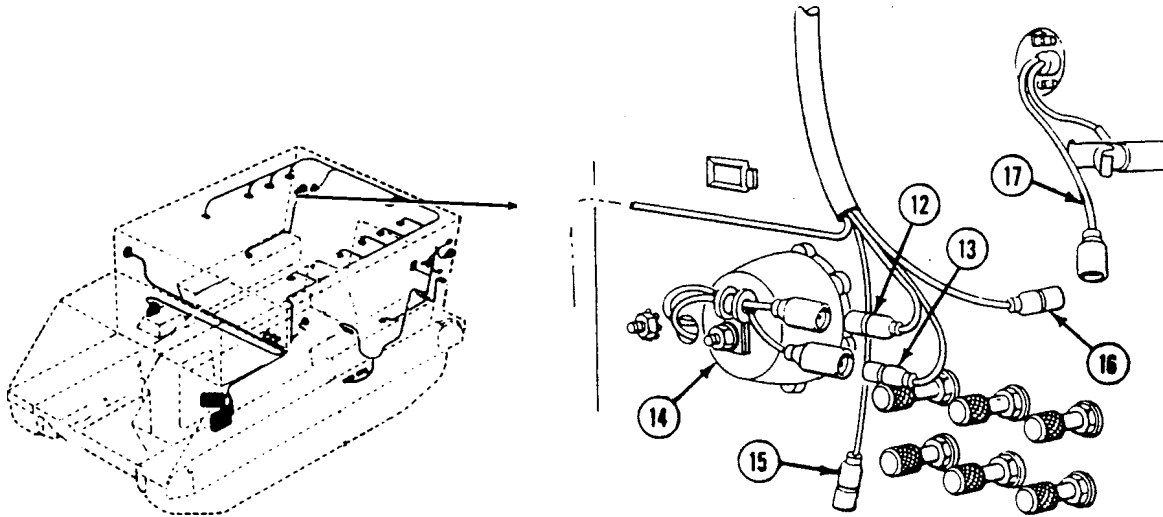
1. Disconnect circuit 29 lead (1) from right fuel quantity sending unit (2).
2. Remove lockwire (3), screw (4), lockwasher (5), and ground lead (6) from sending unit (2). Discard lockwire and lockwasher.
3. Remove three screws (7), two lockwashers (8), flat washer (9), ground lead (6), three clamps (10), and circuit 29 lead (1) from three weldnuts (11). Discard lockwashers.



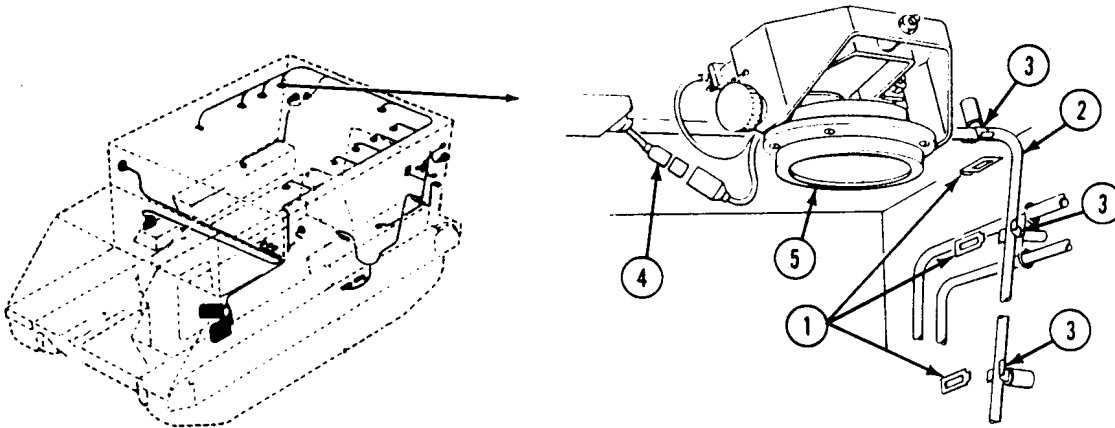
REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY) — Continued

0287 00

4. Disconnect circuit 23 lead (12) and circuit 24 lead (13) from right taillight (14).
5. If NBC unit is installed, disconnect circuit 415 lead (15) from NBC unit switch.
6. Disconnect circuit 37A lead (16) from right utility outlet lead (17).



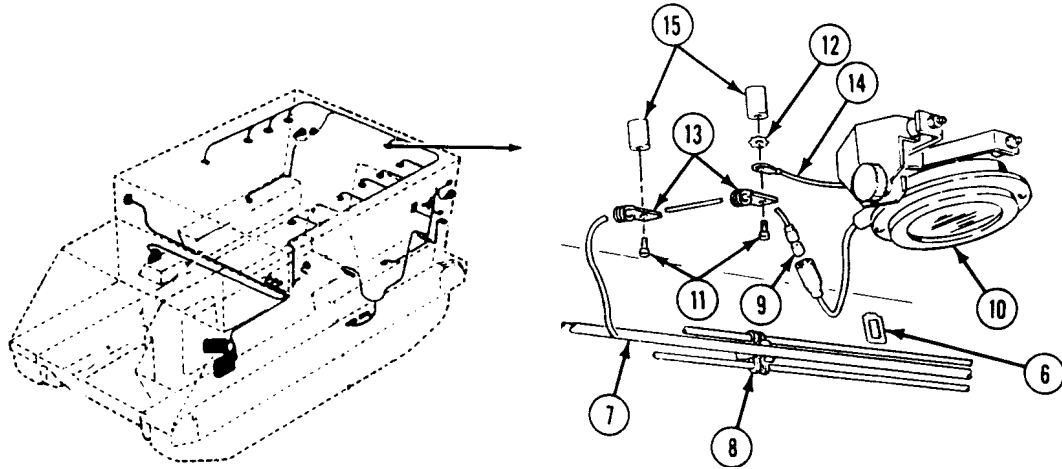
7. Remove eight cradle clips (1) and rear main wiring harness (2) from eight cradles (3).
8. Disconnect four circuit 38 leads (4) from four right side dome lights (5).



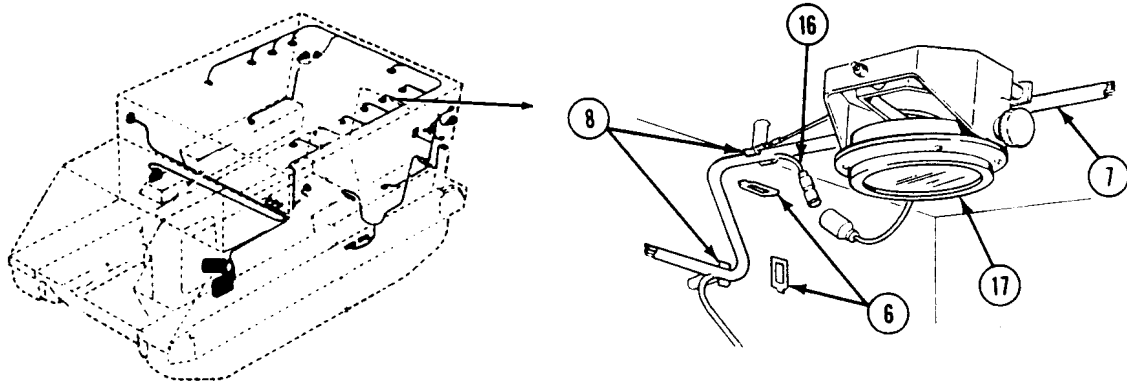
REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY) — Continued

0287 00

9. Remove 16 cradle clips (6) and rear main wiring harness (7) from 16 cradles (8).
10. Disconnect circuit 38B lead (9) from rear blackout dome light (10).
11. Remove two screws (11), one lockwasher (12), two clamps (13), circuit 38B lead (9), and ground lead (14) from two weldnuts (15). Discard lockwasher.

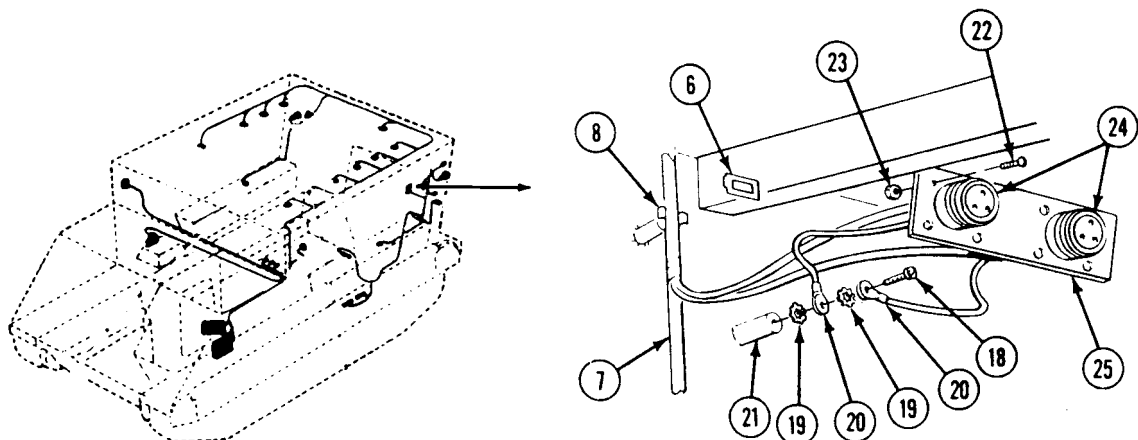


12. Disconnect four circuit 38C leads (16) from four left side dome lights (17).



13. Remove screw (18), two lockwashers (19), and ground leads (20) from weldnut (21). Discard lockwashers.

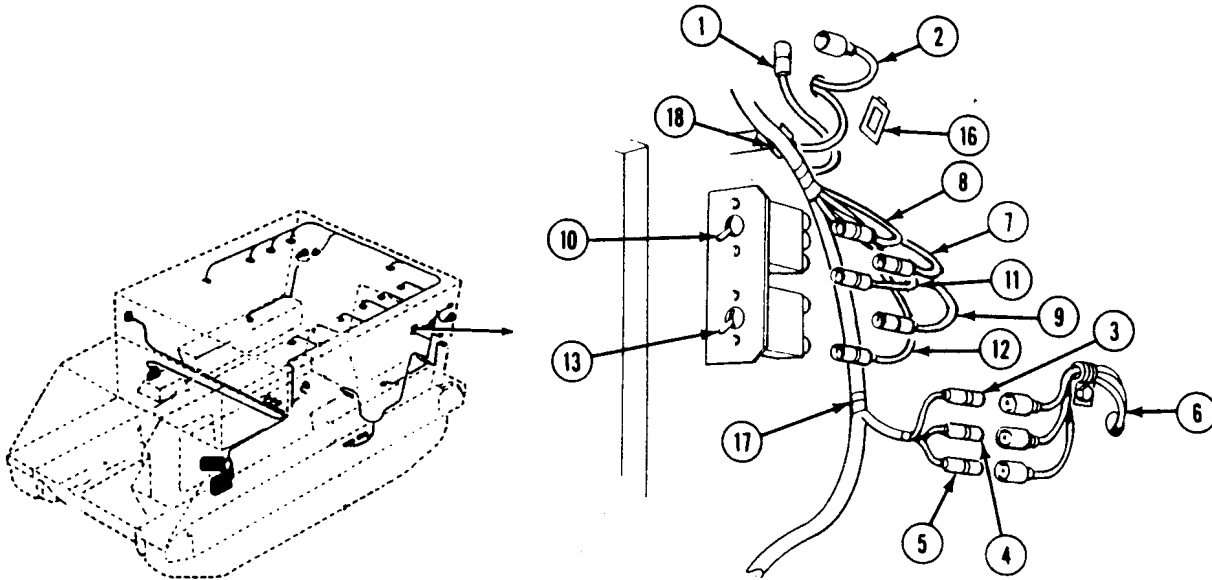
14. Remove eight screws (22), nuts (23), and two circuit 48 connectors (24) from bracket (25).



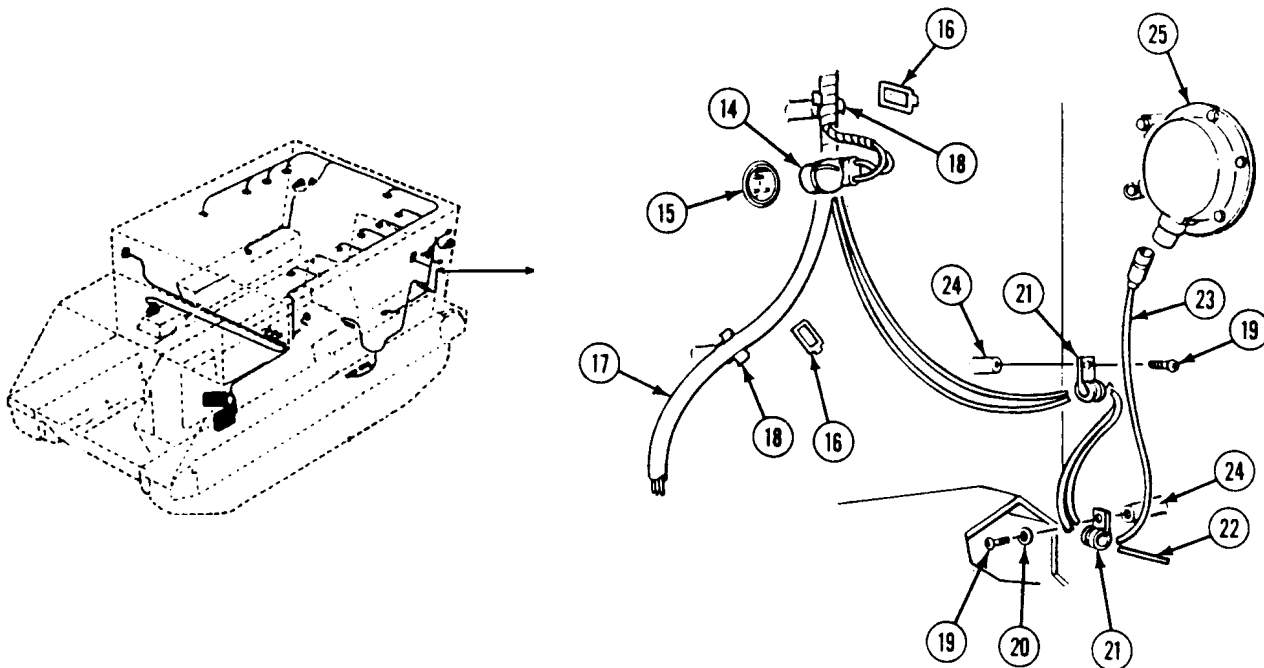
REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY) — Continued

0287 00

15. Disconnect circuit 37B lead (1) from left utility outlet lead (2).
16. Disconnect circuit 21 lead (3), circuit 22 lead (4), and circuit 24 lead (5) from left taillight leads (6).
17. Disconnect circuit 38 lead (7), circuit 38A lead (8), and circuit 38E lead (9) from dome light switch (10).
18. Disconnect circuit 38C lead (11) and circuit 38E lead (12) from blackout dome light switch (13).



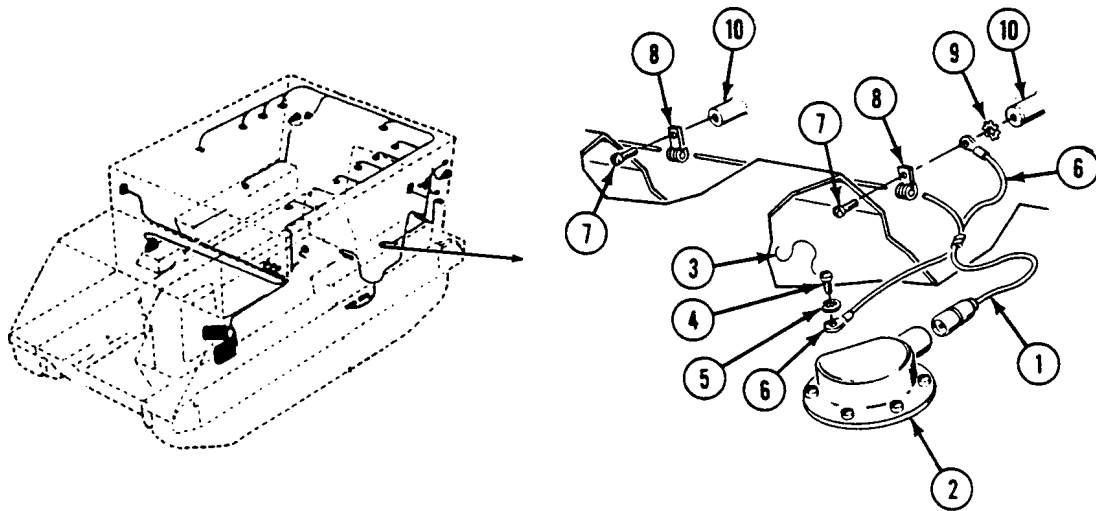
19. Disconnect circuit 509 and 509A connector (14) from buzzer switch (15).
20. Remove seven cradle clips (16) and main rear wiring harness (17) from seven cradles (18).
21. Remove two screws (19), one lockwasher (20), two clamps (21), circuit 30 lead (22) and circuit 509 lead (23) from two weldnuts (24). Discard lockwasher.
22. Disconnect circuit 509 lead (23) from buzzer (25).



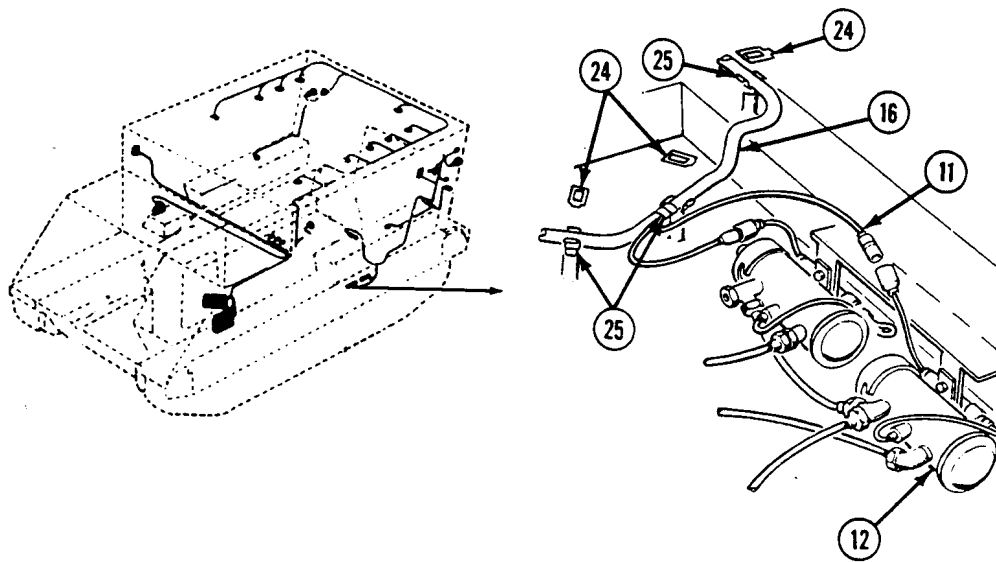
REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY) — Continued

0287 00

23. Disconnect circuit 30 lead (1) from left fuel quantity sending unit (2).
24. Remove lockwire (3), one screw (4), lockwasher (5), and ground lead (6) from sending unit (2). Discard lockwire and lockwasher.
25. Remove two screws (7), clamps (8), lockwashers (9), circuit 30 lead (1), and ground lead (6) from two weldnuts (10). Discard lockwashers.



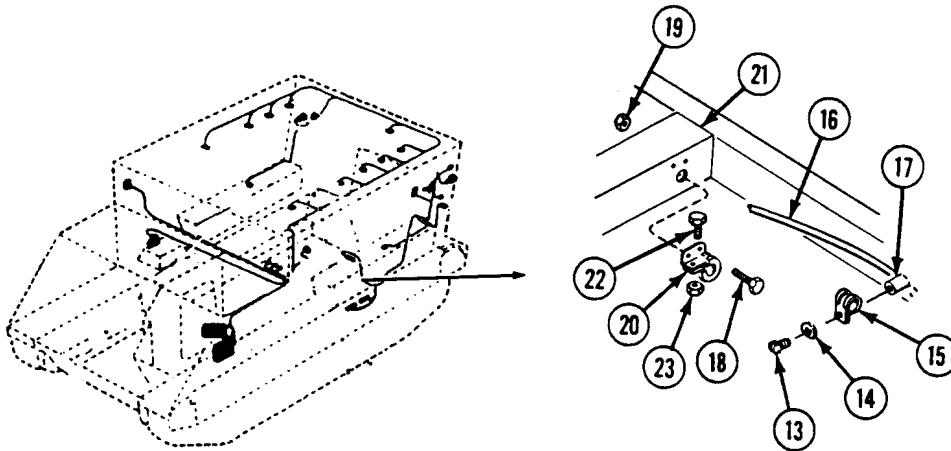
26. Disconnect circuit 402 lead (11) from personnel heater fuel pump (12).



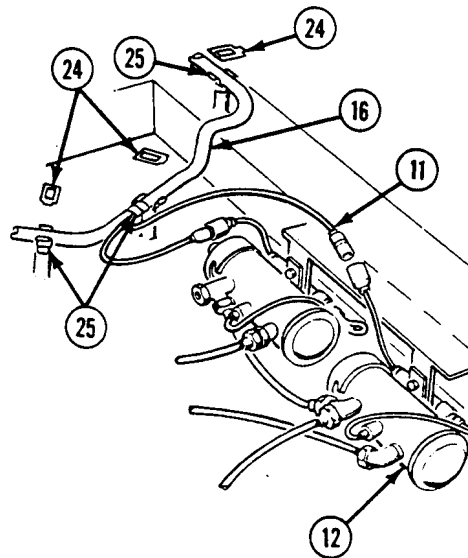
REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY) — Continued

0287 00

27. Remove screw (13), lockwasher (14), clamp (15), and rear main wiring harness (16) from weldnut (17). Discard lockwasher.
28. Remove two screws (18), nuts (19), clamp (20), and rear main wiring harness (16) from floor transverse beam (21).
29. Remove screw (22), nut (23), and clamp (20) from rear main wiring harness (16).



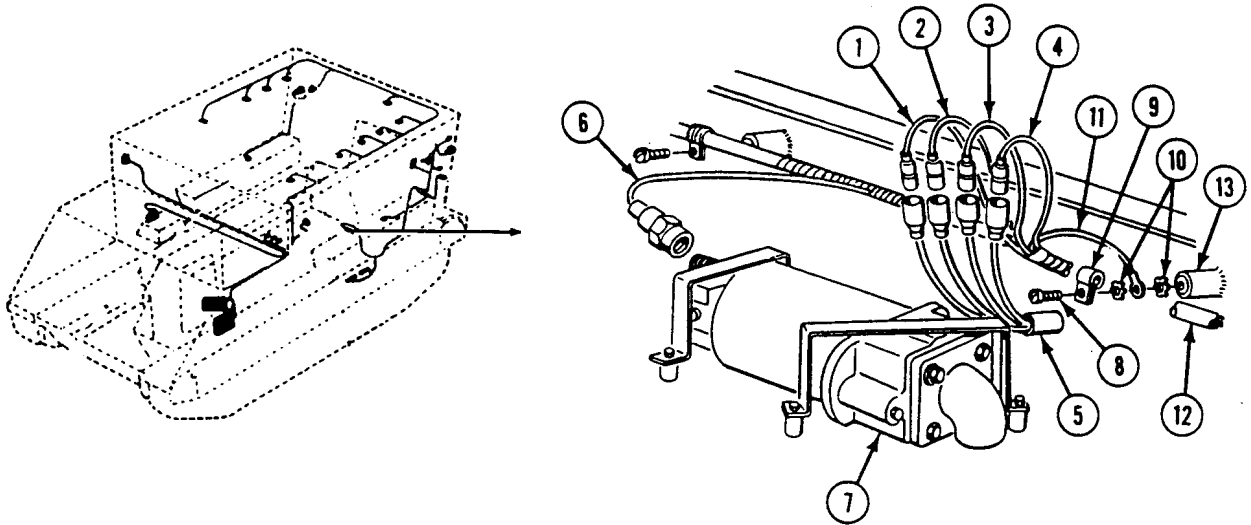
30. Remove three cradle clips (24) and rear main wiring harness (16) from cradles (25).



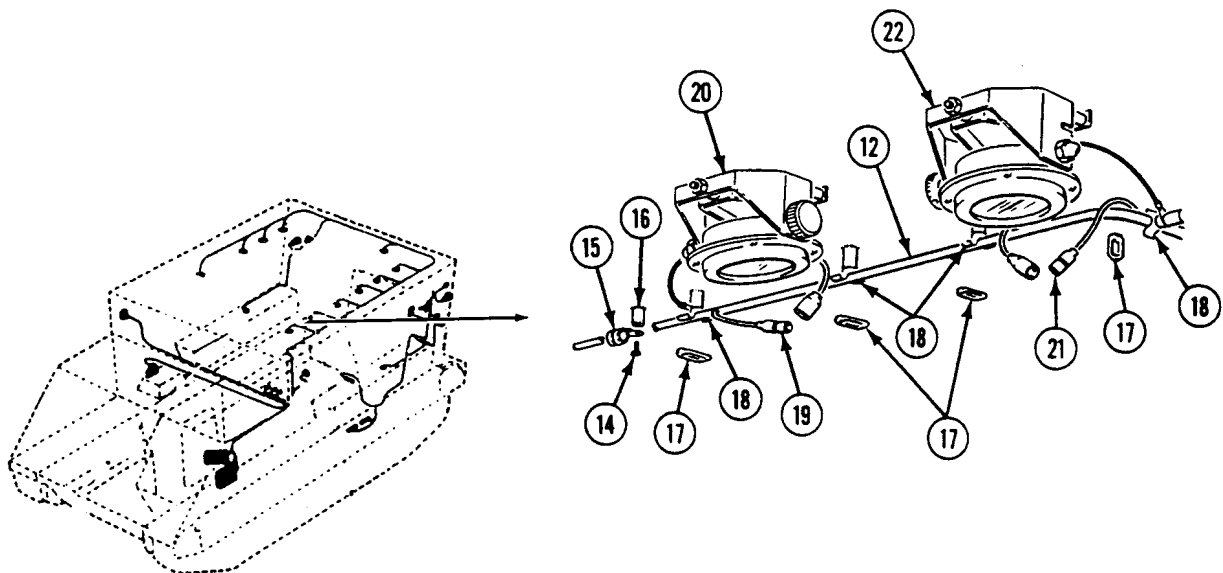
REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY) — Continued

0287 00

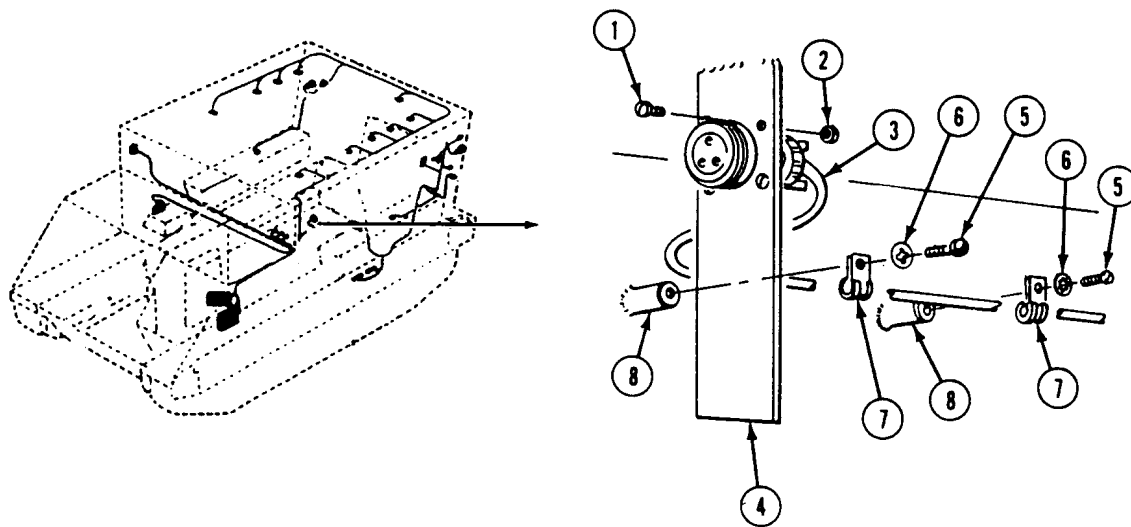
31. Disconnect circuit 21 lead (1), circuit 22 lead (2), circuit 23 lead (3), and circuit 24 lead (4) from trailer wiring harness (5).
32. Disconnect circuit 451 lead (6) from rear bilge pump (7).
33. Remove screw (8), clamp (9), two lockwashers (10), trailer wiring harness ground lead (11), and wiring harness (12) from weldnut (13). Discard lockwashers.
34. Pull circuit 21 lead (1), circuit 22 lead (2), circuit 23 lead (3), circuit 24 lead (4) and circuit 451 lead (6) through opening in transverse beam.



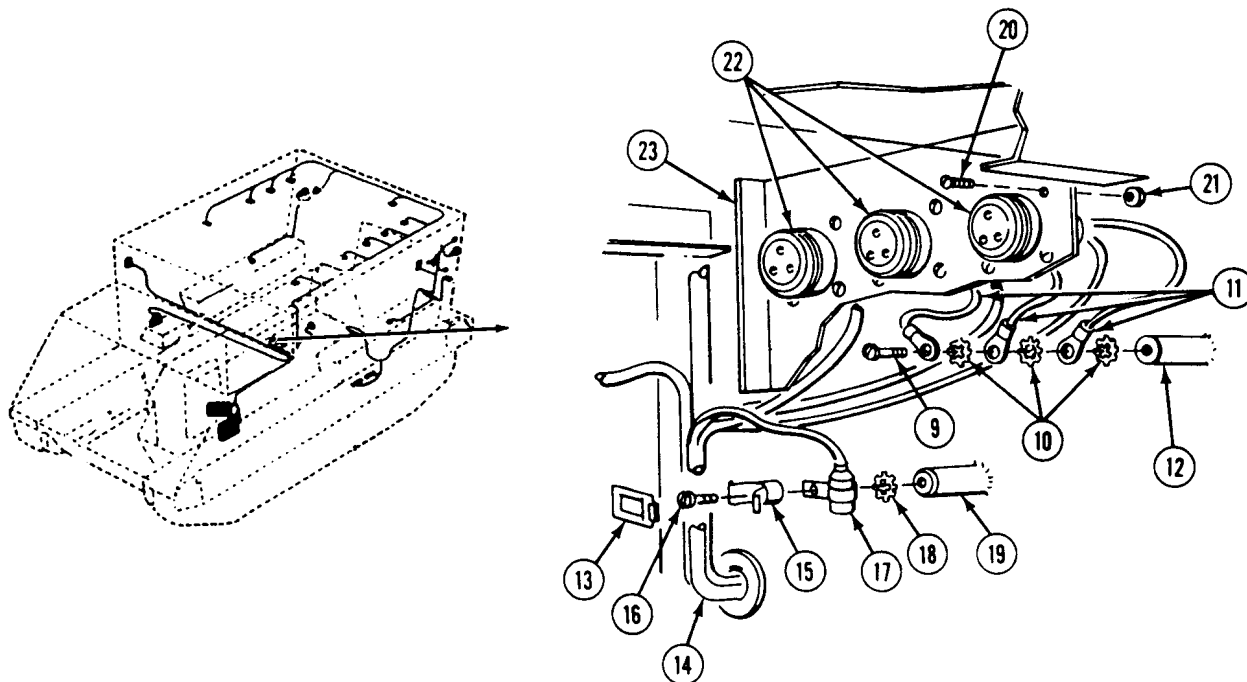
35. Remove two screws (14), clamps (15), and wiring harness (12) from two weldnuts (16).
36. Remove eight cradle clips (17) and wiring harness (12) from eight cradles (18).
37. Disconnect circuit 38C lead (19) from left dome light (20).
38. Disconnect circuit 38B lead (21) from front blackout light (22) and cables W28 and W35.



39. Remove four screws (1), nuts (2), and circuit 48A lead (3) from bracket (4).
40. Remove two screws (5), lockwashers (6), clamps (7), and circuit 48A lead (3) from two weldnuts (8). Discard lockwashers.



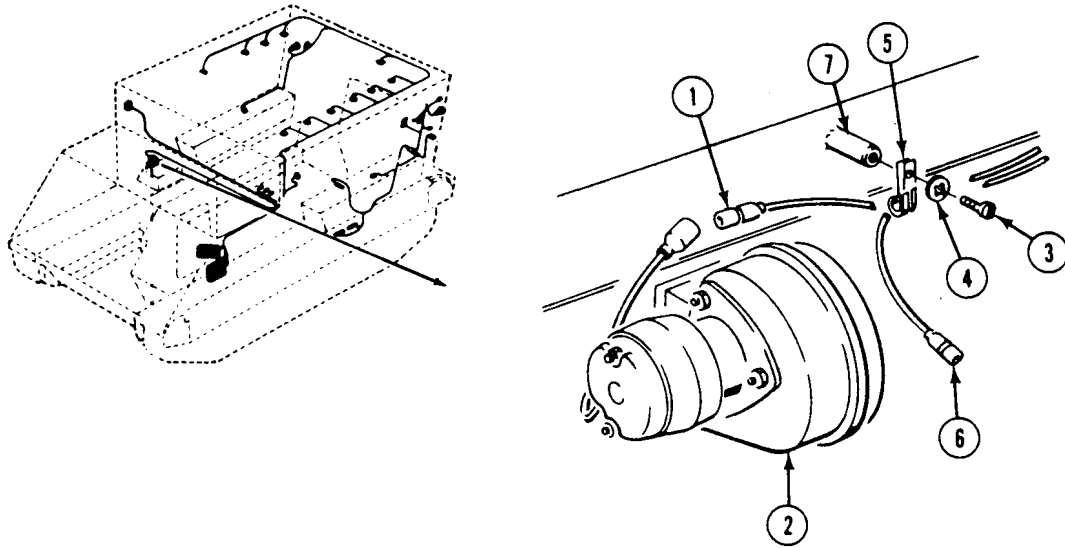
41. Remove screw (9), three lockwashers (10), and ground leads (11) from weldnut (12). Discard lockwashers.
42. Remove cradle clip (13) and rear main wiring harness (14) from cradle (15).
43. Remove screw (16), cradle (15), circuit 48C capacitor (17), and lockwasher (18) from weldnut (19). Discard lockwasher.
44. Remove 12 screws (20), nuts (21), and 3 circuit 48 leads (22) from bracket (23).



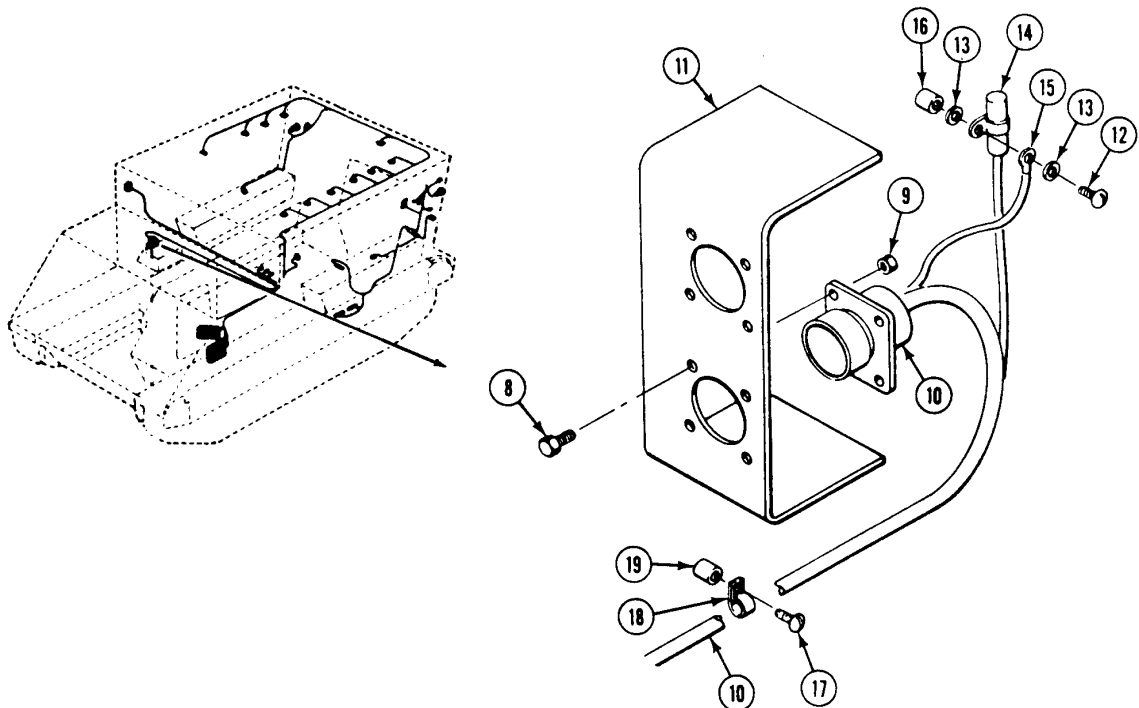
REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY) — Continued

0287 00

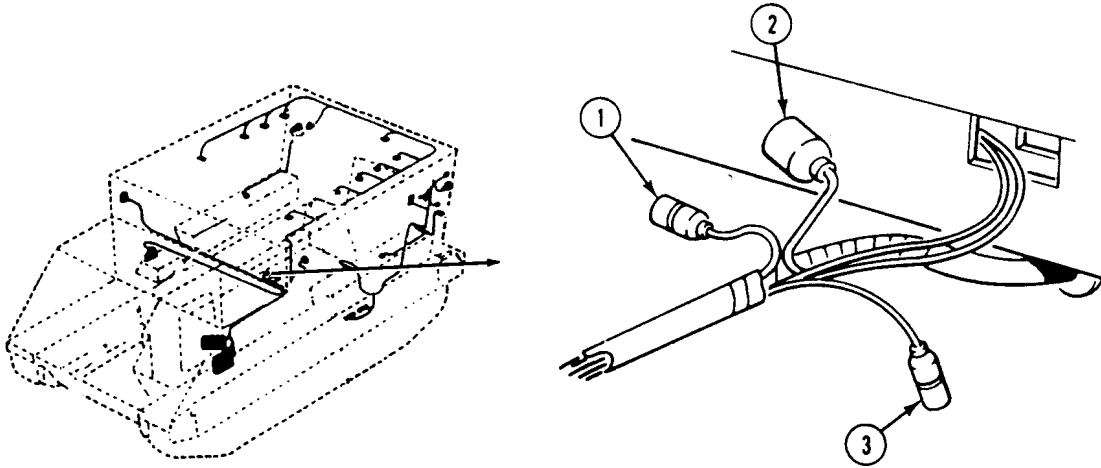
45. Disconnect circuit 59 lead (1) from blower (2).
46. Remove screw (3), lockwasher (4), clamp (5), circuit 59 lead (1), and circuit 415 lead (6) from weldnut (7). Discard lockwasher.
47. If NBC unit is installed, disconnect circuit 415 lead (6) from NBC unit.



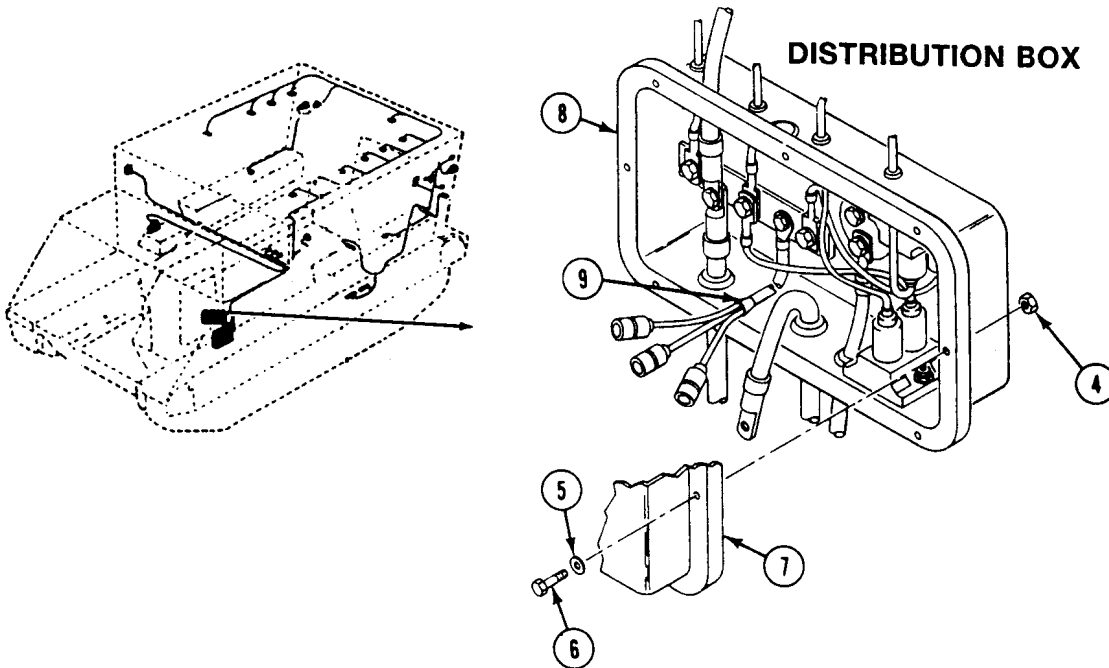
48. Remove four screws (8), nuts (9), and circuit 48 (10) from bracket (11).
49. Remove screw (12), two lockwashers (13), circuit 48 capacitor (14), and ground lead (15) from weldnut (16). Discard lockwashers.
50. Remove six screws (17), clamps (18), and circuit 48 lead (10) from six weldnuts (19).



51. Disconnect circuit 400 lead (1) from personnel heater control box.
52. Disconnect circuit 402 lead (2) from personnel heater wiring harness.
53. If NBC unit is installed, disconnect circuit 415 lead (3) from NBC unit.



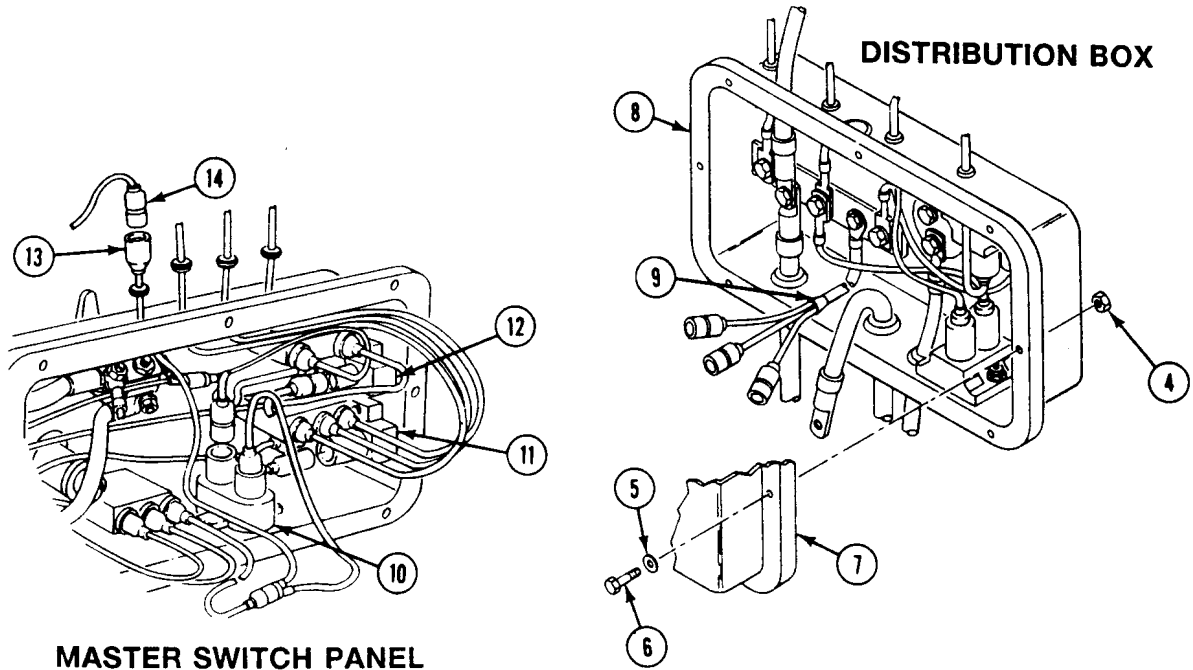
54. Remove eight locknuts (4), washers (5), and screws (6). Separate master switch panel (7) from distribution box (8). Discard locknuts.



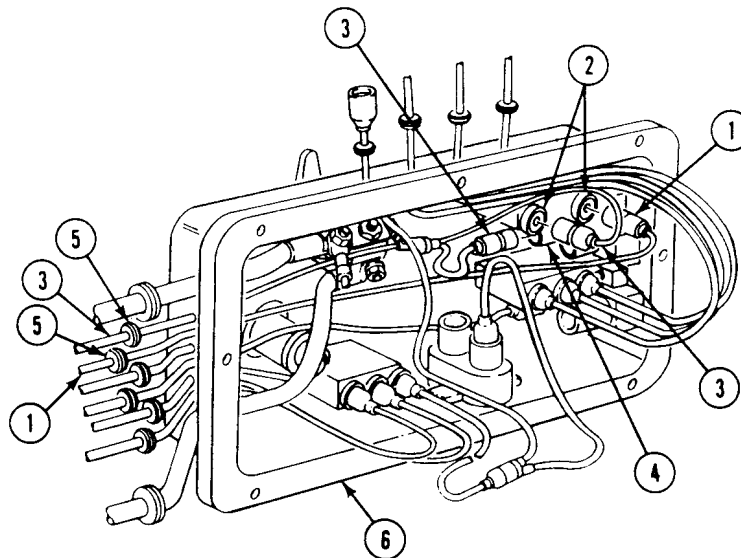
REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY) — Continued

0287 00

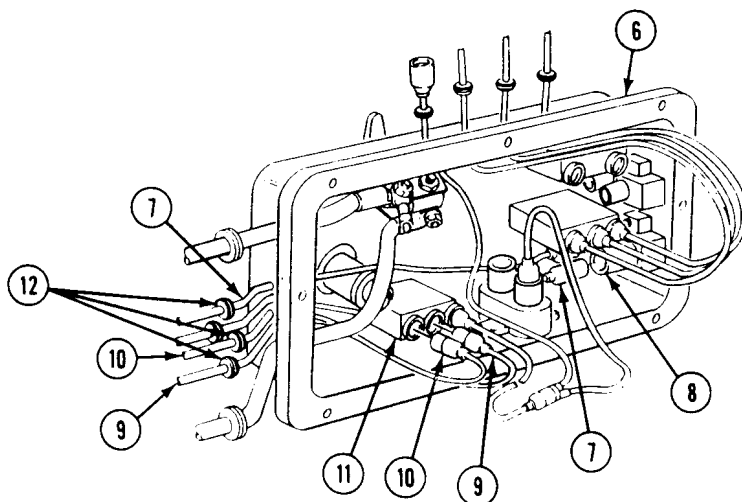
55. Disconnect wiring harness (9) from circuit 10 on three circuit breakers (10), (11), and (12) in master switch panel (7).
56. Disconnect wiring harness (13) from circuit 38E lead (14).



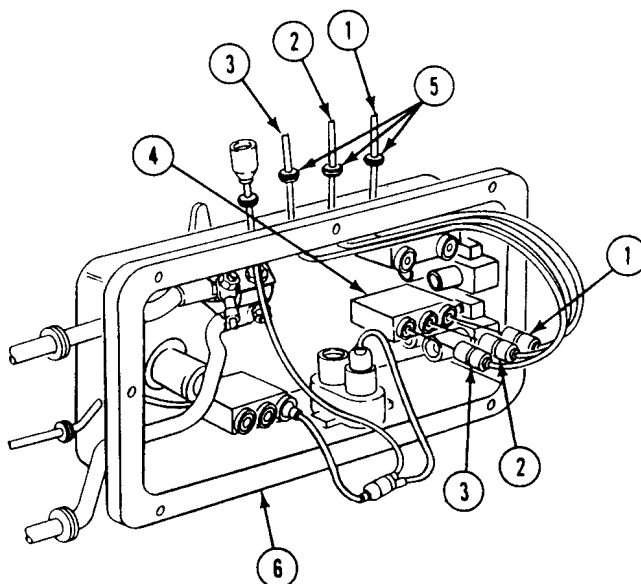
57. Disconnect circuit 59 lead (1) from blower switch (2).
58. Disconnect circuit 37B lead (3) from blower switch (2) and circuit breaker (4).
59. Remove circuit 59 lead (1) and circuit 37B lead (3) and two grommets (5) from master switch panel (6). Discard grommets.



60. Disconnect circuit 37A lead (7) from circuit breaker (8).
61. Disconnect circuit 38 lead (9) and circuit 38A lead (10) from dome light switch (11).
62. Remove circuit 37A lead (7), circuit 38 lead (9), circuit 38A lead (10), and three grommets (12) from master switch panel (6). Discard grommets.

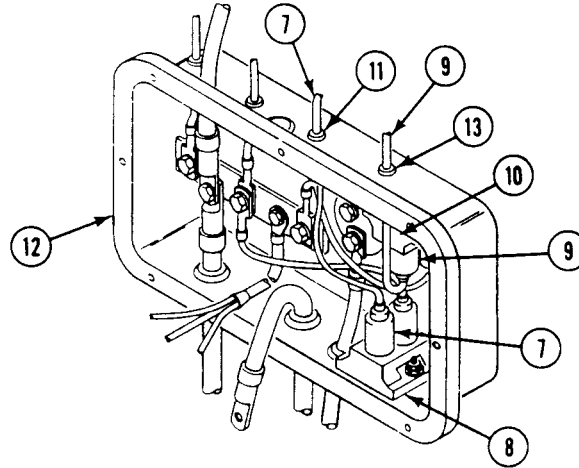


63. Disconnect circuit 28 lead (1), circuit 29 lead (2), and circuit 30 lead (3) from fuel selector switch (4).
64. Remove circuit 28 lead (1), circuit 29 lead (2), circuit 30 lead (3), and three grommets (5) from master switch panel (6). Discard grommets.



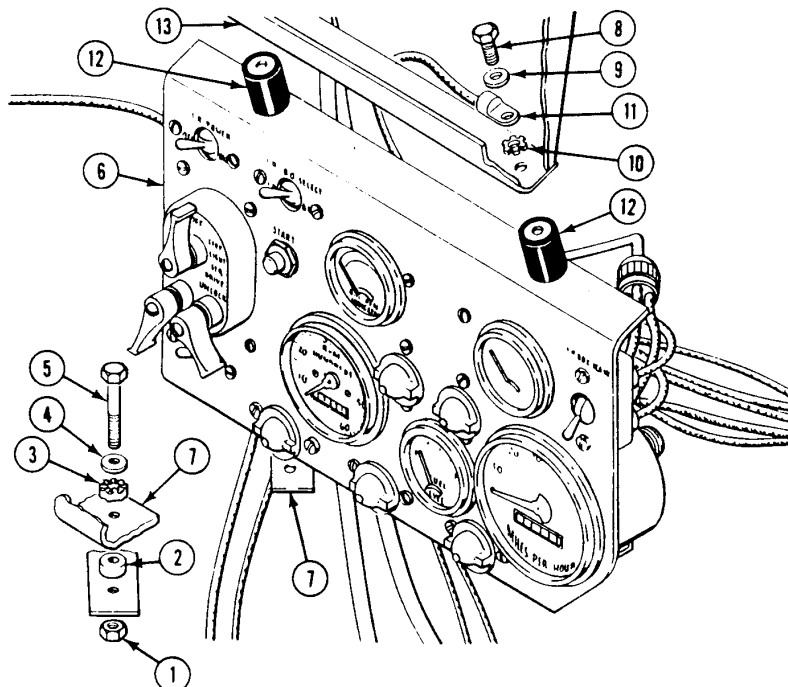
MASTER SWITCH PANEL

65. Disconnect circuit 450 lead (7) from circuit breaker (8).
66. Disconnect circuit 450B lead (9) from circuit breaker (10).
67. Remove circuit 450 lead (7) and grommet (11) from distribution box (12). Discard grommet.
68. Remove circuit 450B lead (9) and grommet (13) from distribution box (12). Discard grommet.



DISTRIBUTION BOX

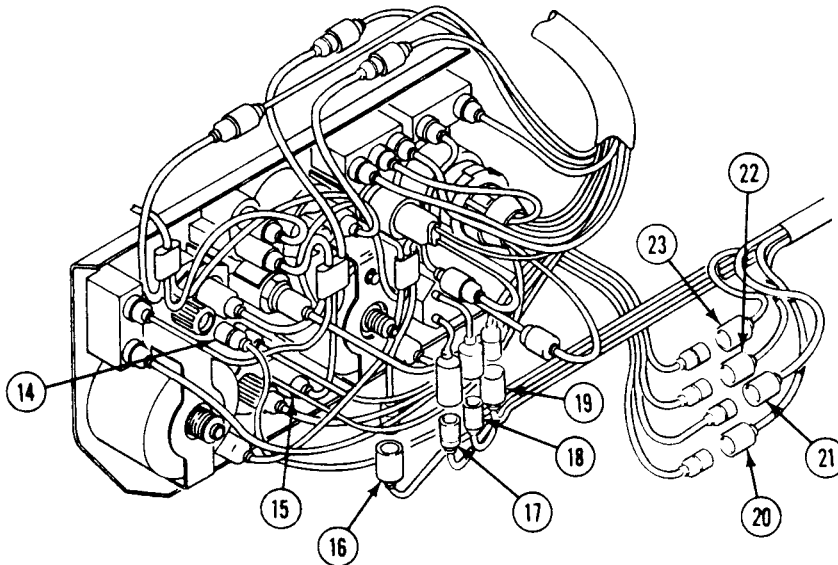
69. Remove two nuts (1), mounts (2) and (3), flat washers (4), and screws (5) that secure instrument panel (6) to two struts (7).
70. Support panel (6). Remove two screws (8), flat washers (9), one lockwasher (10), and ground lead (11) from two mounts (12) and upper support (13). Discard lockwasher.
71. Support panel (6) on two struts (7) to gain access to rear of panel.



REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY) — Continued

0287 00

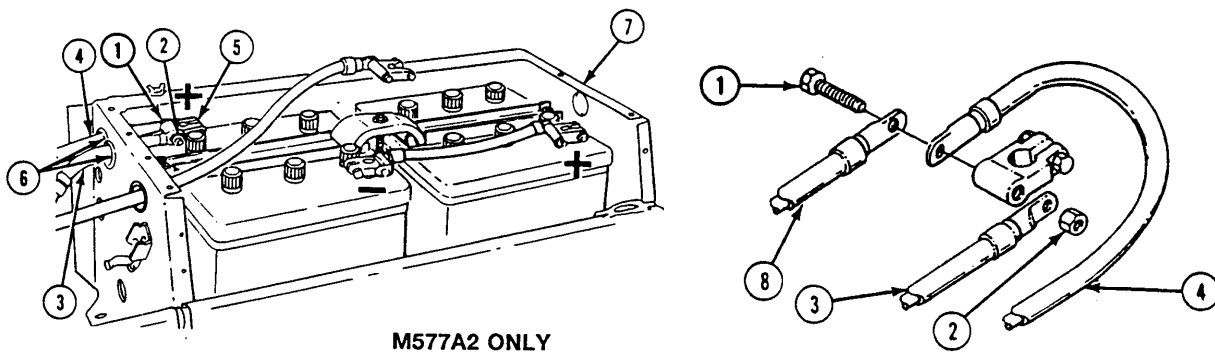
72. Disconnect circuit 28 lead (14) from fuel gauge.
73. Disconnect circuit 451B lead (15) from rear bilge pump ON indicator light.
74. Disconnect circuit 38 lead (16) from instrument panel wiring harness.
75. Disconnect circuit 450 lead (17), circuit 450B lead (18), and circuit 451A lead (19) from bilge pump switch.
76. Disconnect circuit 21 lead (20), circuit 22 lead (21), circuit 23 lead (22), and circuit 24 lead (23) from front main wiring harness.



NOTE

Do Steps 77 - 78 for M577A2 only.

77. Remove screw (1), nut (2), circuit 6 lead (3), and circuit 48B lead (4) from terminal (5).
78. Remove circuit 48B lead (4), circuit 6 lead (3), and two grommets (6) from battery box (7). Discard grommets.

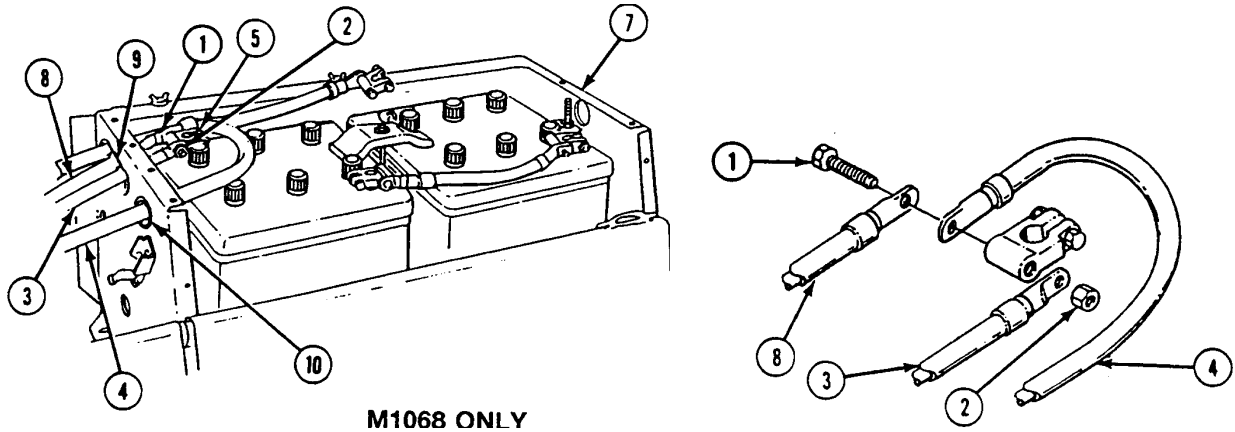


M577A2 ONLY

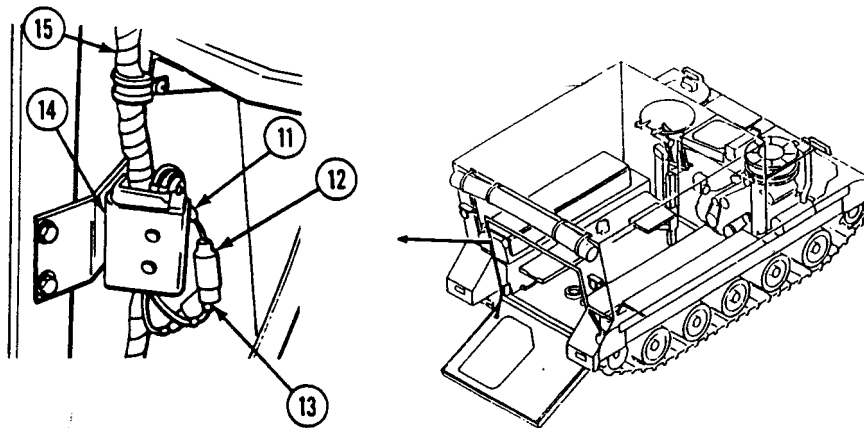
NOTE

Do Steps 79 - 80 for M1068 only.

79. Remove screw (1), nut (2), circuit 6 lead (3), circuit lead 48B (4), and circuit 31 lead (8) from terminal (5).
80. Remove circuit 6 lead (3), circuit 48B lead (4), circuit 31 lead (8), grommet (9), and grommet (10) from battery box (7). Discard grommets.



81. Disconnect circuit 38 lead (11), circuit 38B lead (12), and circuit 38C lead (13) from door switch (14).
82. Remove rear main wiring harness (15) from carrier.

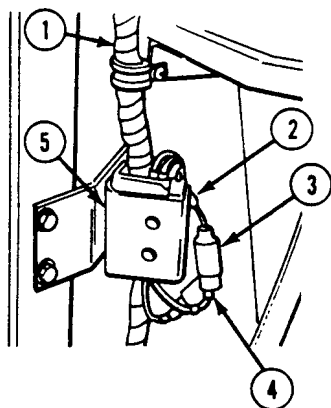


INSPECTION AND REPAIR

1. Inspect for damaged connectors and terminals. Repair as needed (WP 0312 00).

INSTALLATION

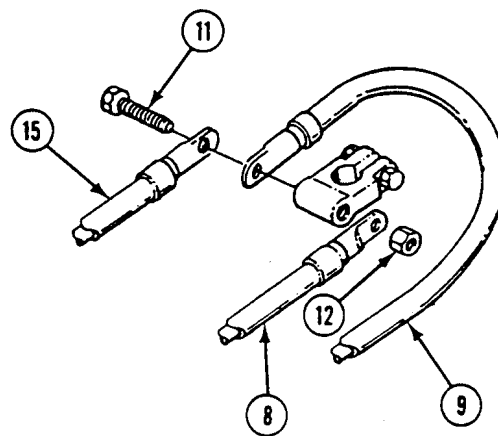
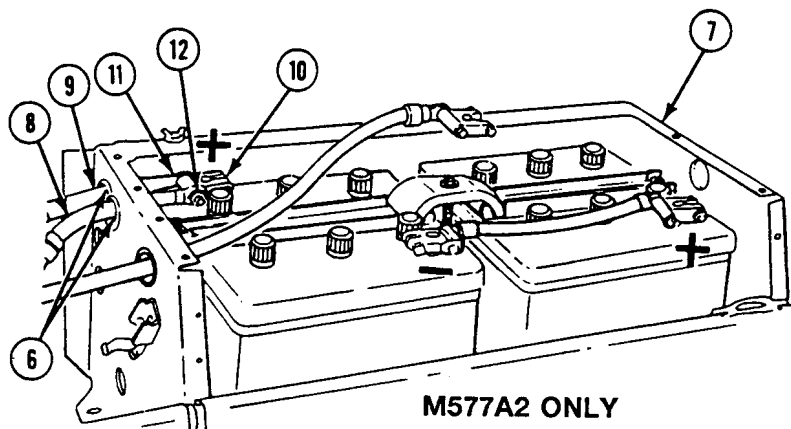
1. Install main rear wiring harness (1) in carrier.
2. Connect circuit 38 lead (2), circuit 38B lead (3), and circuit 38C lead (4) to ramp door switch (5).



NOTE

Do Steps 3 - 4 for M577A2 only.

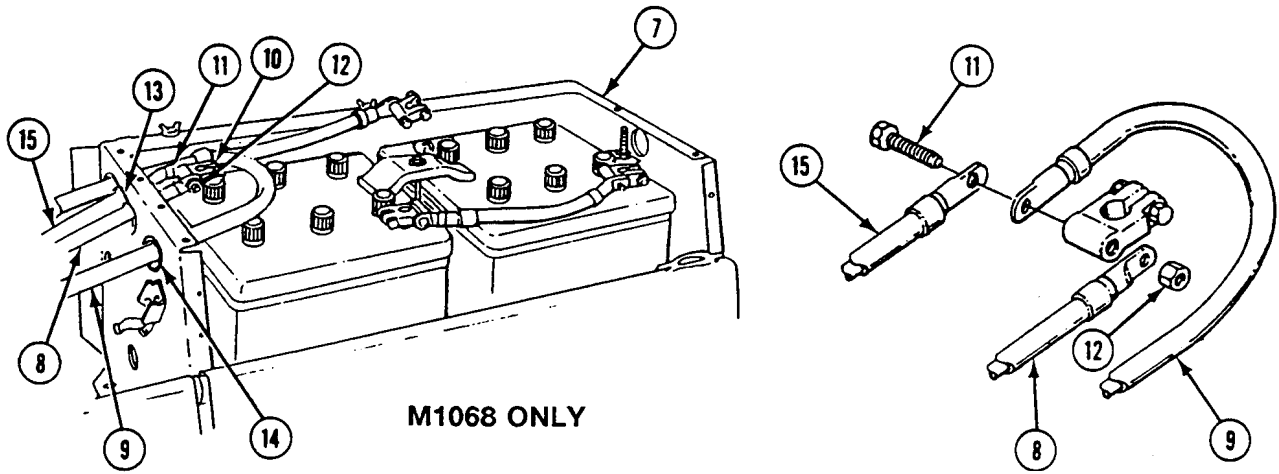
3. Install two new grommets (6) in battery box (7).
4. Install circuit 6 lead (8) and circuit 48B lead (9) through two new grommets (6). Connect leads to terminal (10) with screw (11) and nut (12).



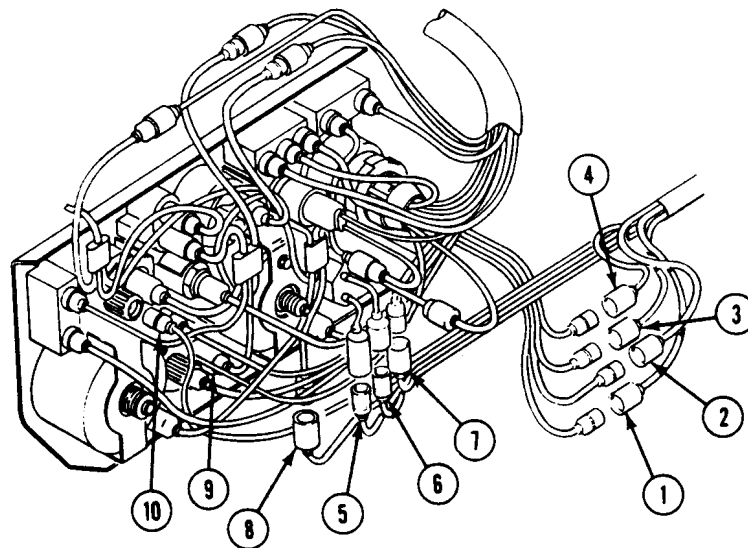
NOTE

Do Steps 5 - 8 for M1068 only.

5. Install new grommet (13) and new grommet (14) in battery box (7).
6. Install circuit 6 lead (8) and circuit 31 lead (15) through grommet (13).
7. Install circuit 48B lead (9) through grommet (14).
8. Connect circuit 6 lead (8), circuit 48B lead (9), and circuit 31 lead (15) to terminal (10) with screw (11) and nut (12).



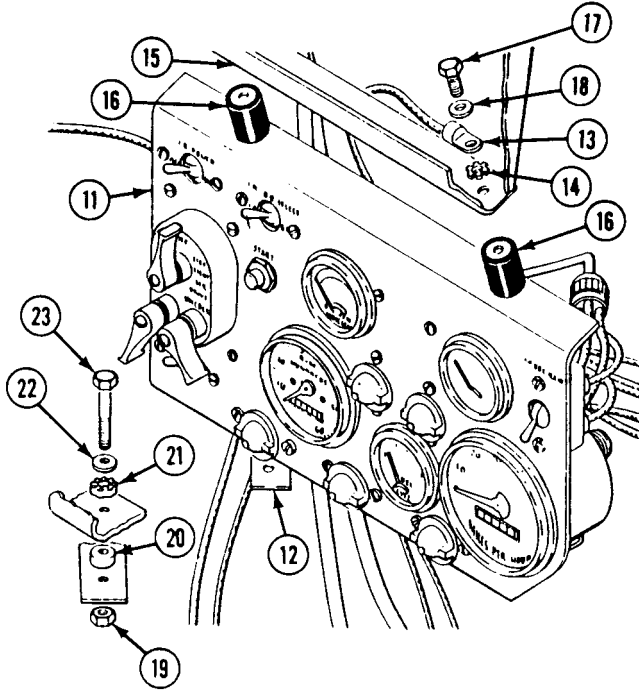
9. Connect circuit 21 lead (1), circuit 22 lead (2), circuit 23 lead (3), and circuit 24 lead (4) to front main wiring harness.
10. Connect circuit 450 lead (5), circuit 450B lead (6), and circuit 451A lead (7) to bilge pump switch.
11. Connect circuit 38 lead (8) to instrument panel wiring harness.
12. Connect circuit 451B lead (9) to rear bilge pump ON indicator light.
13. Connect circuit 28 lead (10) to fuel gauge.



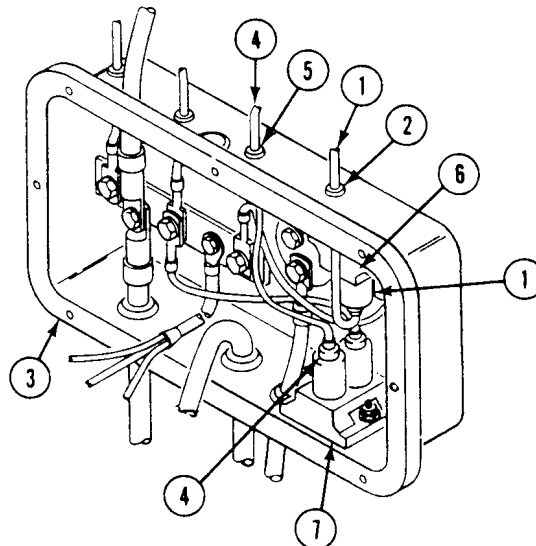
REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY) — Continued

0287 00

14. Support instrument panel (11) on two struts (12).
15. Install ground lead (13) and new lockwasher (14) on upper support (15). Install panel (11) with two mounts (16) on support. Secure with two screws (17) and flat washers (18).
16. Install panel (11) on two struts (12). Secure with two nuts (19), mounts (20) and (21), flat washers (22), and screws (23).

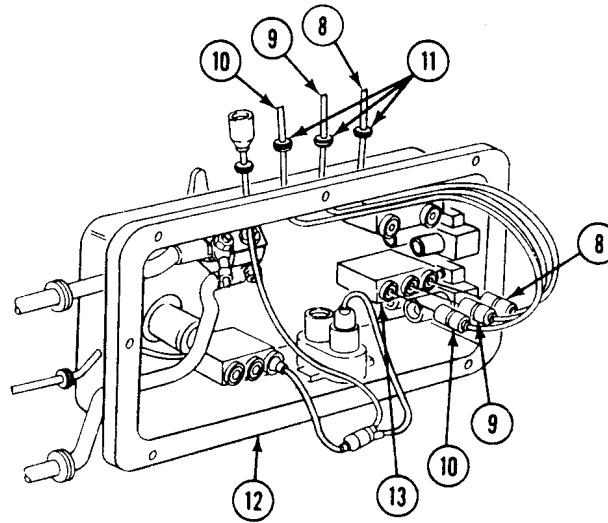


17. Install circuit 450B lead (1) and new grommet (2) in distribution box (3).
18. Install circuit 450 lead (4) and new grommet (5) in distribution box (3).
19. Connect circuit 450B lead (1) to circuit breaker (6).
20. Connect circuit 450 lead (4) to circuit breaker (7).



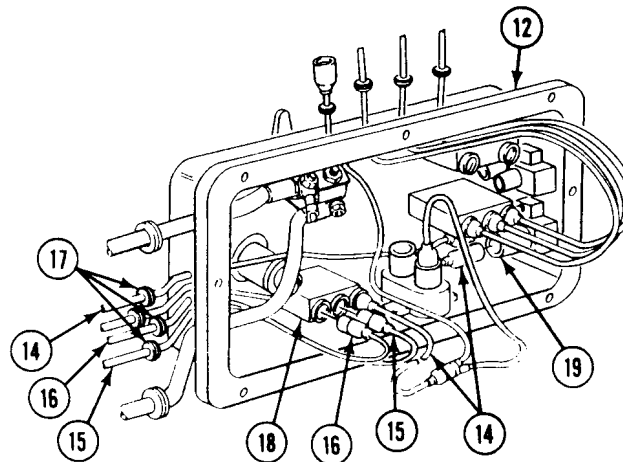
DISTRIBUTION BOX

21. Install circuit 28 lead (8), circuit 29 lead (9), circuit 30 lead (10), and three new grommets (11) in master switch panel (12).
22. Connect circuit 28 lead (8), circuit 29 lead (9), and circuit 30 lead (10) to fuel selector switch (13).



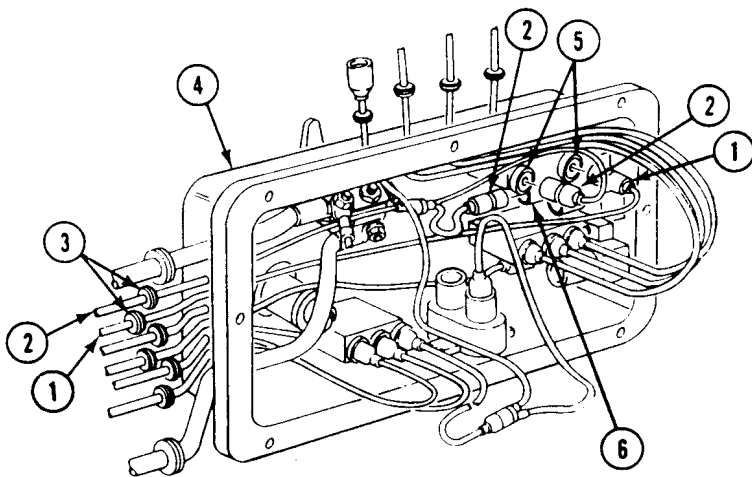
MASTER SWITCH PANEL

23. Install circuit 37A lead (14), circuit 38 lead (15), circuit 38A lead (16), and three new grommets (17) in master switch panel (12).
24. Connect circuit 38 lead (15) and circuit 38A lead (16) to dome light switch (18).
25. Connect circuit 37A lead (14) to circuit breaker (19).



MASTER SWITCH PANEL

26. Install circuit 59 lead (1) and circuit 37B lead (2) and two grommets (3) in master switch panel (4).
27. Connect circuit 37B lead (2) to blower switch (5) and circuit breaker (6).
28. Connect circuit 59 lead (1) to blower switch (5).



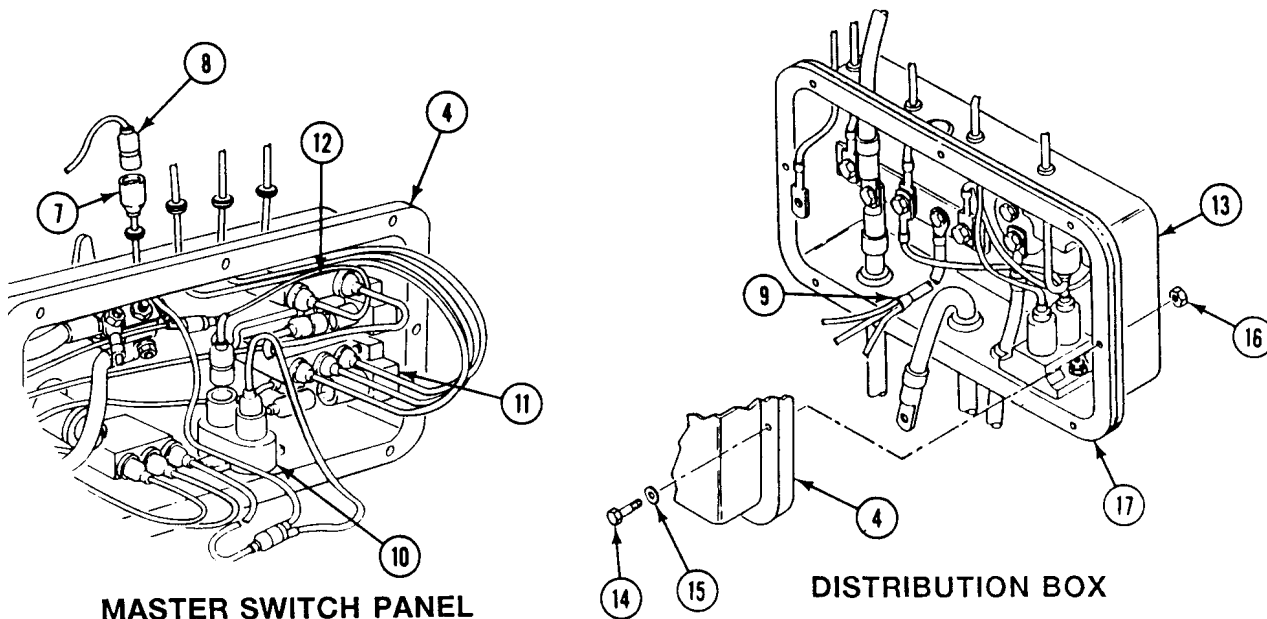
MASTER SWITCH PANEL

29. Connect wiring harness (7) to circuit 38E lead (8).
30. Connect wiring harness (9) to circuit 10 on three circuit breakers (10), (11), and (12) in master switch panel (4).

NOTE

Inspect gasket (17). Replace if damaged.

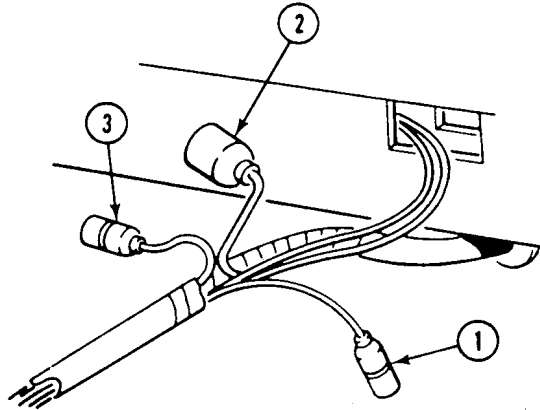
31. Install master switch panel (4) and gasket (17) on distribution box (13). Secure with eight screws (14), washers (15), and new locknuts (16).



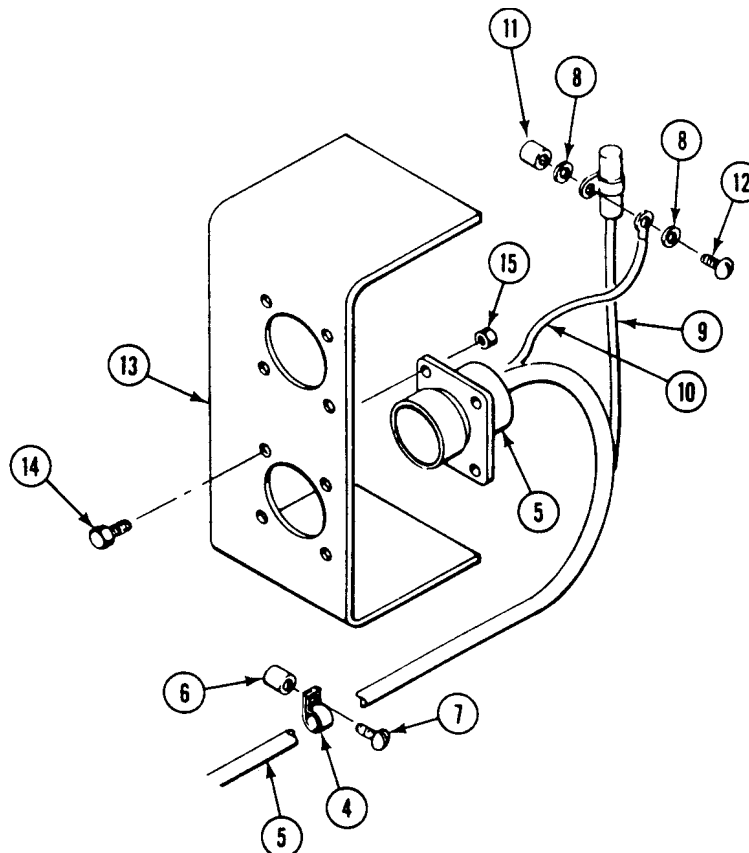
MASTER SWITCH PANEL

DISTRIBUTION BOX

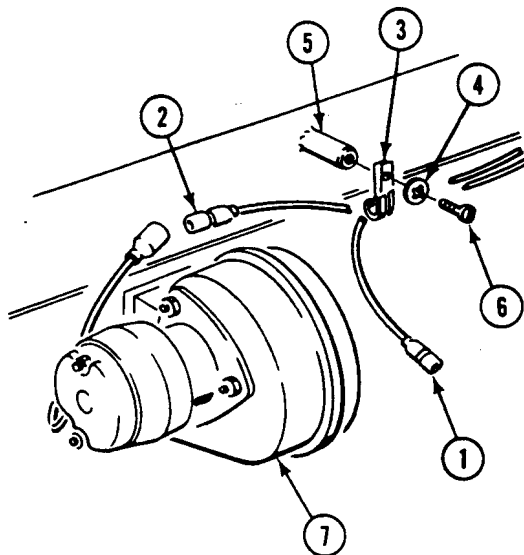
32. If NBC unit is installed, connect circuit 415 lead (1) to NBC unit.
33. Connect circuit 402 lead (2) to personnel heater wiring harness.
34. Connect circuit 400 lead (3) to personnel heater control box.



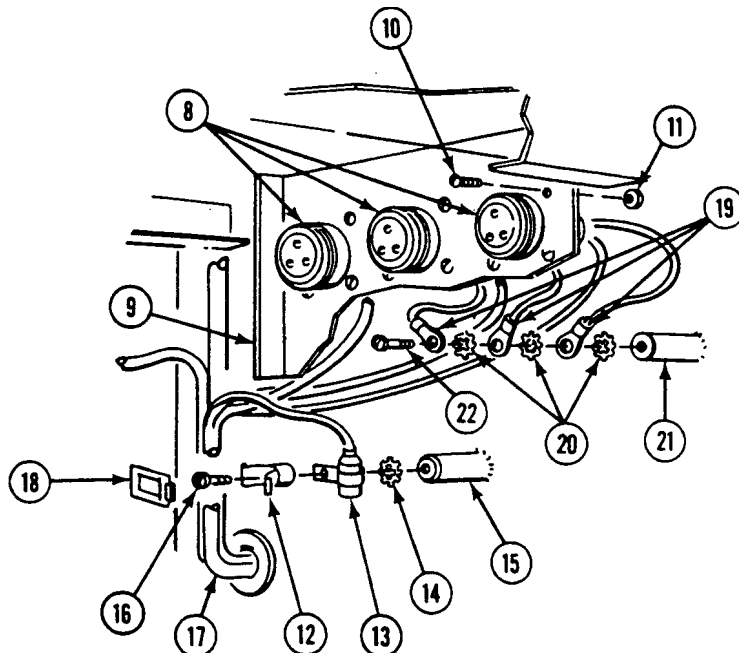
35. Install six clamps (4) on circuit 48 lead (5) on six weldnuts (6). Secure clamps with six screws (7).
36. Install two new lockwashers (8), circuit 48 capacitor (9), and ground lead (10) on weldnut (11). Secure with screw (12).
37. Install circuit 48 lead (5) on bracket (13). Secure with four screws (14) and nuts (15).



38. Install circuit 415 lead (1), circuit 59 lead (2), clamp (3), and new lockwasher (4) on weldnut (5). Secure with screw (6).
39. If NBC unit is installed, connect circuit 415 lead (1) to NBC unit.
40. Connect circuit 59 lead (2) to blower (7).



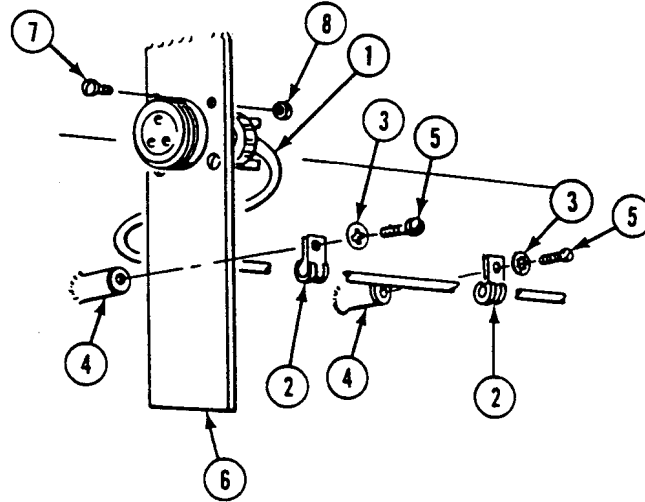
41. Install three circuit 48 leads (8) on bracket (9). Secure with 12 screws (10) and nuts (11).
42. Install cradle (12), circuit 48C capacitor (13), and new lockwasher (14) on weldnut (15). Secure with screw (16).
43. Install rear main wiring harness (17) on cradle (12). Secure with cradle clip (18).
44. Install three ground leads (19) and new lockwashers (20) on weldnut (21). Secure with screw (22).



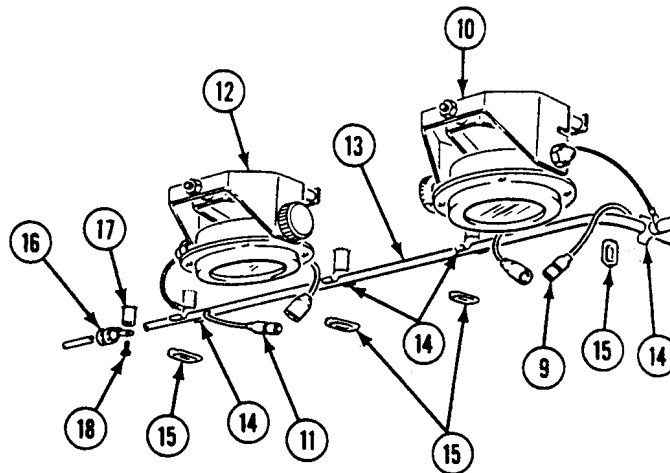
REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY) — Continued

0287 00

45. Install circuit 48A lead (1) in two clamps (2). Secure clamps with two screws (5) and new lockwashers (3) on two weldnuts (4).
46. Install circuit 48A lead (1) on bracket (6). Secure with four screws (7) and nuts (8).



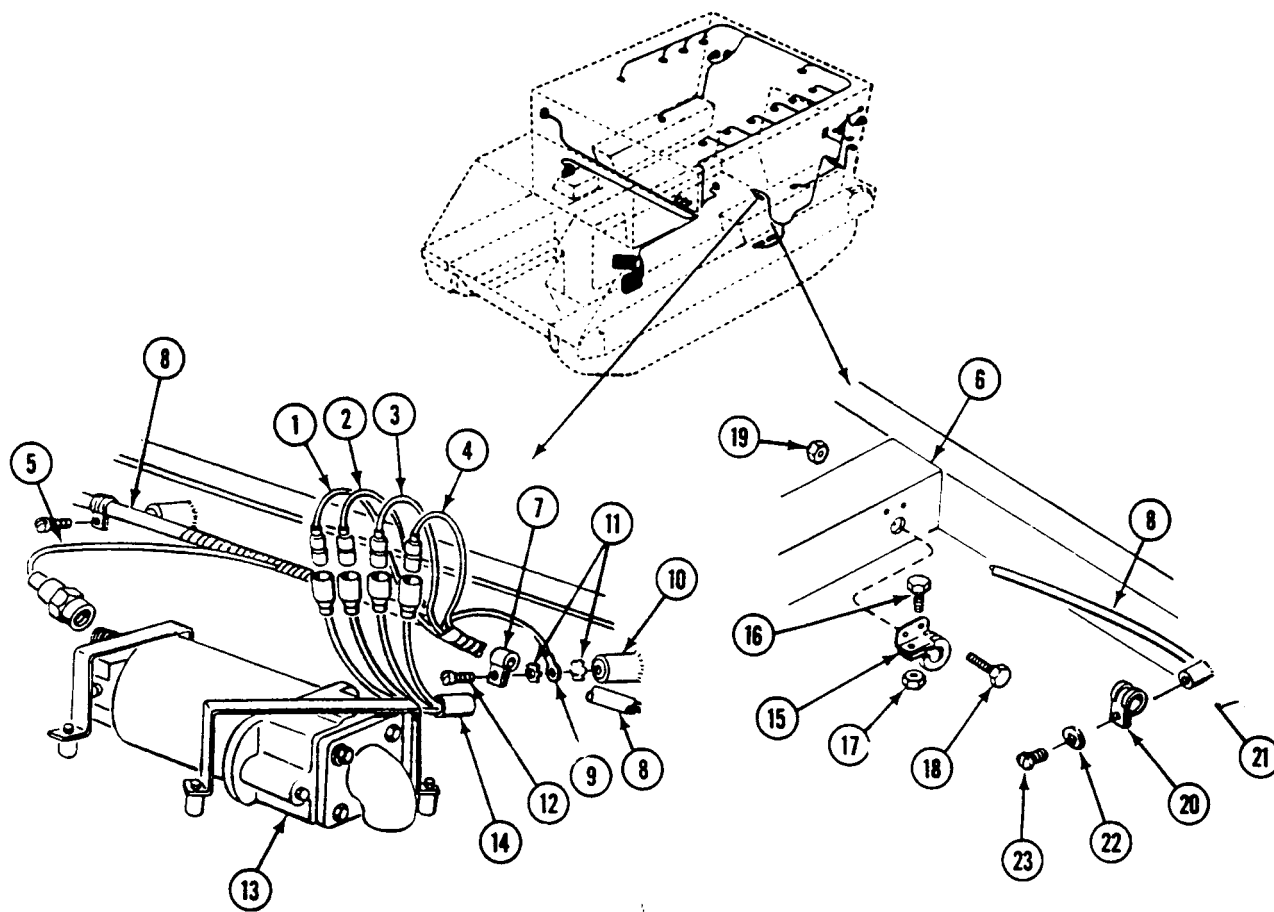
47. Connect circuit 38B lead (9) to front blackout light (10) and cables W28 and W25.
48. Connect circuit 38C lead (11) to left dome light (12).
49. Install wiring harness (13) on eight cradles (14). Secure with eight cradle clips (15).
50. Install two clamps (16) and wiring harness (13) on two weldnuts (17). Secure with two screws (18).



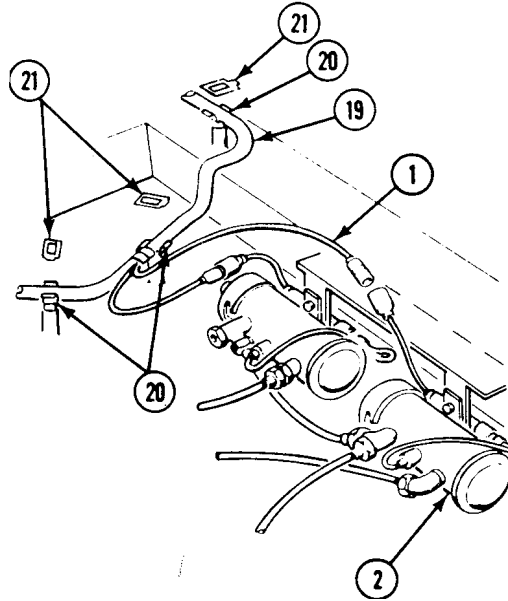
REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY) — Continued

0287 00

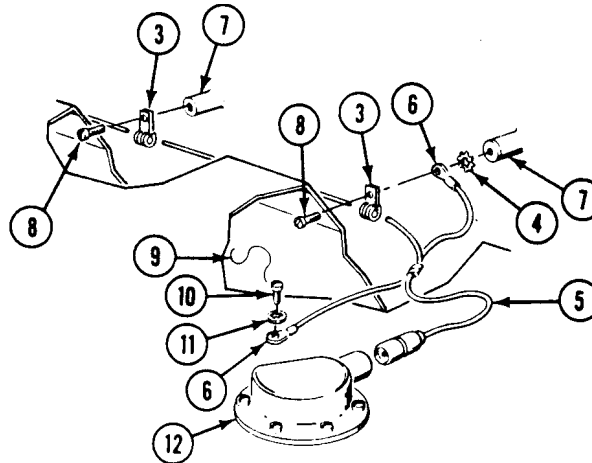
51. Pull circuit 21 lead (1), circuit 22 lead (2), circuit 23 lead (3), circuit 24 lead (4), and circuit 451 lead (5) through opening in floor transverse beam (6).
52. Install clamp (7), two new lockwashers (11), trailer wiring harness ground lead (9), and rear main wiring harness (8) on weldnut (10). Secure with screw (12).
53. Connect circuit 451 lead (5) to rear bilge pump (13).
54. Connect circuit 21 lead (1), circuit 22 lead (2), circuit 23 lead (3), and circuit 24 lead (4) to trailer wiring harness (14).
55. Install clamp (15) on wiring harness (8). Secure clamp with screw (16) and nut (17).
56. Install clamp (15) and wiring harness (8) on transverse beam (6). Secure with two screws (18) and nuts (19).
57. Install clamp (20) on rear main wiring harness (8). Secure clamp on weldnut (21) with new lockwasher (22) and screw (23).



58. Connect circuit 402 lead (1) to personnel heater fuel pump (2).



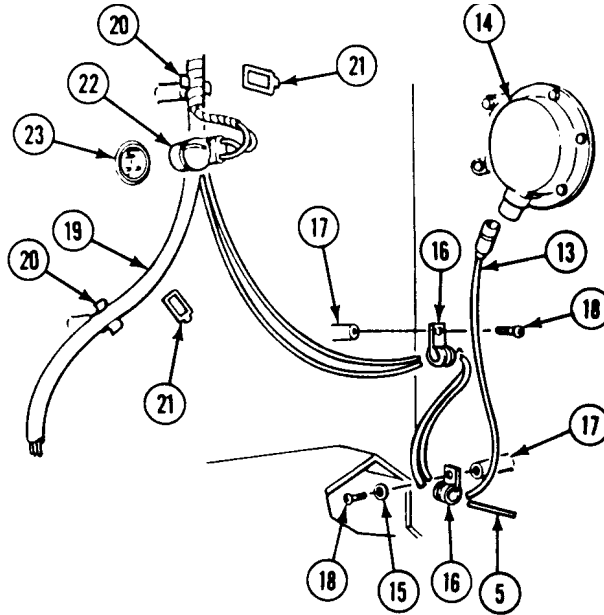
59. Install two clamps (3), one new lockwasher (4), circuit 30 lead (5), and ground lead (6) on two weldnuts (7). Secure with two screws (8).
60. Install new lockwire (9), one screw (10), new lockwasher (11), and ground lead (6) on left fuel quantity sending unit (12).
61. Connect circuit 30 lead (5) on sending unit (12).



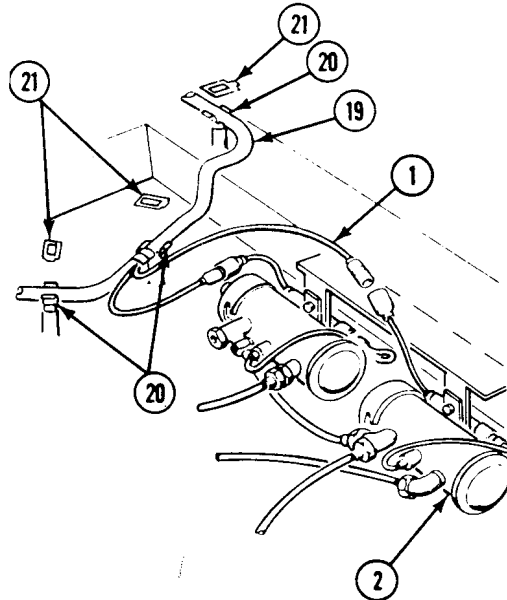
REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY) — Continued

0287 00

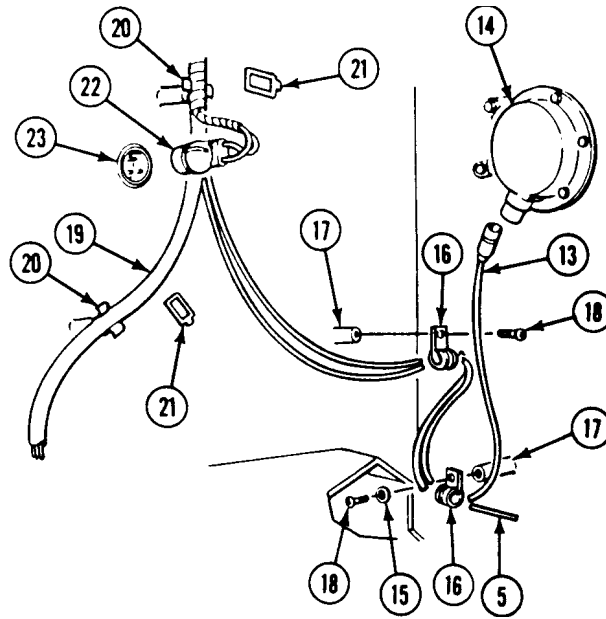
62. Connect circuit 509 lead (13) to buzzer (14).
63. Install one new lockwasher (15), two clamps (16), and circuits 30 and 509 leads (5) and (13) on two weldnuts (17). Secure with two screws (18).



64. Install wiring harness (19) on seven cradles (20). Secure with seven cradle clips (21).



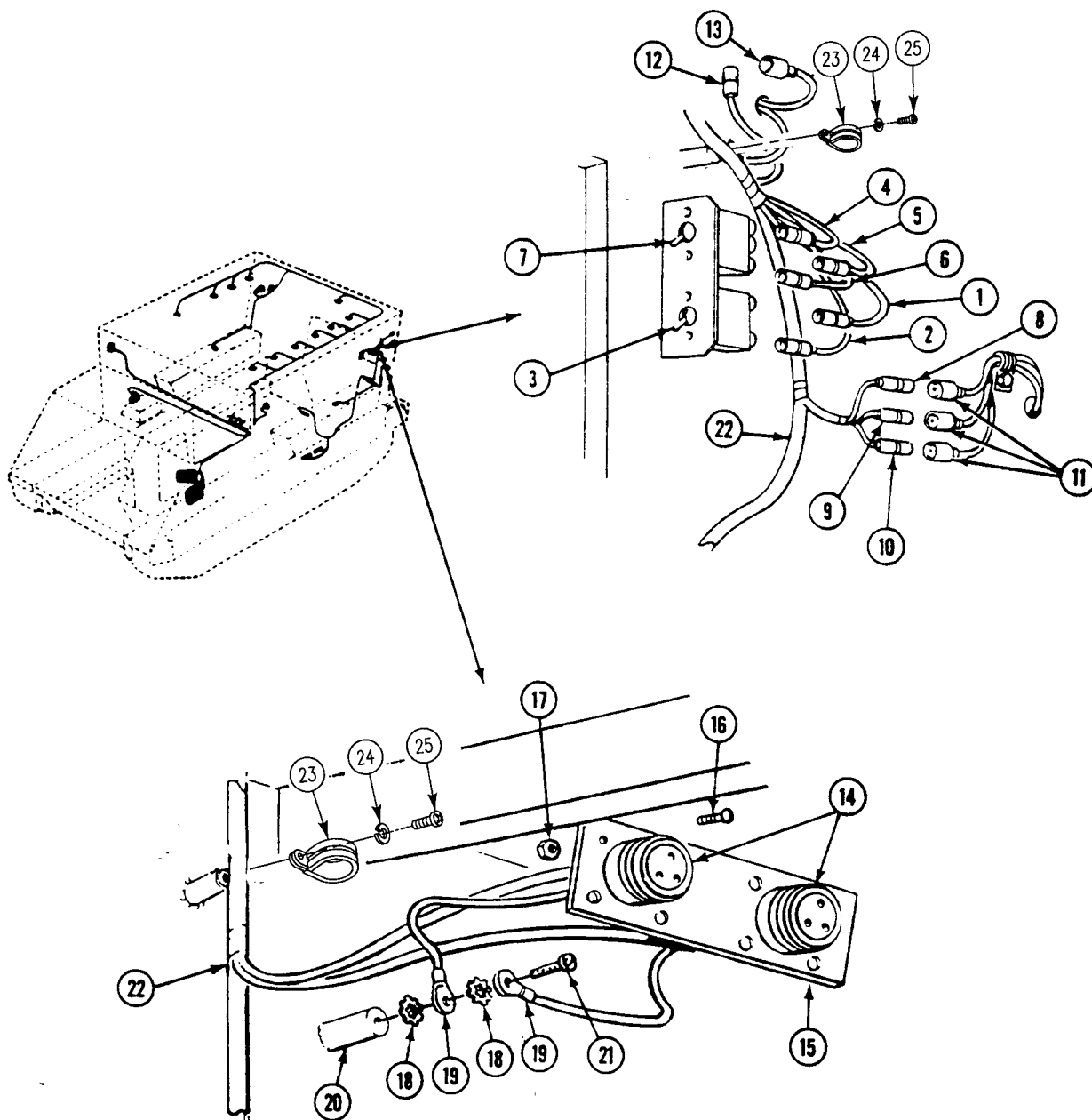
65. Connect circuit 509 and 509A connector (22) to buzzer switch (23).



REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY) — Continued

0287 00

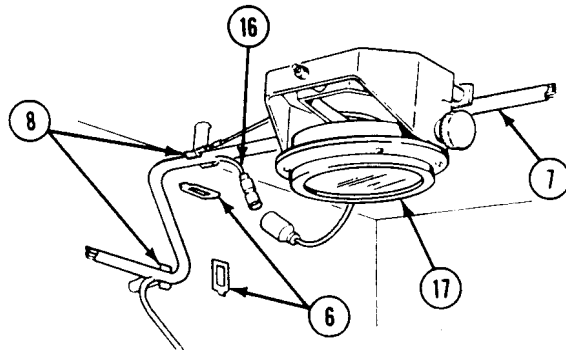
66. Connect circuit 38C lead (1) and circuit 38E lead (2) to blackout dome light switch (3).
67. Connect circuit 38 lead (4), circuit 38A lead (5), and circuit 38E lead (6) to dome light switch (7).
68. Connect circuit 21 lead (8), circuit 22 lead (9), and circuit 24 lead (10) to left taillight leads (11).
69. Connect circuit 37B lead (12) to left utility outlet lead (13).
70. Install two circuit 48 connectors (14) on bracket (15). Secure with eight screws (16) and nuts (17).
71. Install two new lockwashers (18) and ground leads (19) on weldnut (20). Secure with screw (21).
72. Install rear main wiring harness (22) on seven weldnuts. Secure with seven clamps (23) with new lockwashers (24) and screws (25).



REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY) — Continued

0287 00

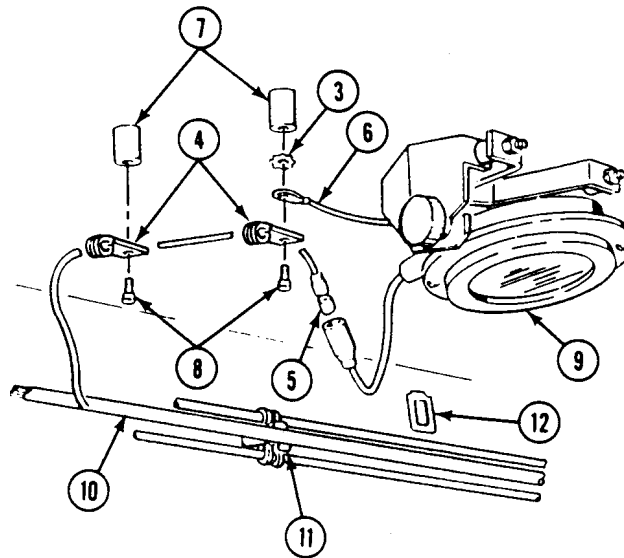
73. Connect four circuit 38C leads (16) to four left side dome lights (17).



74. Install one new lockwasher (3), two clamps (4), circuit 38B lead (5), and ground lead (6) on two weldnuts (7). Secure with two screws (8).

75. Connect circuit 38B lead (5) to rear blackout dome light (9).

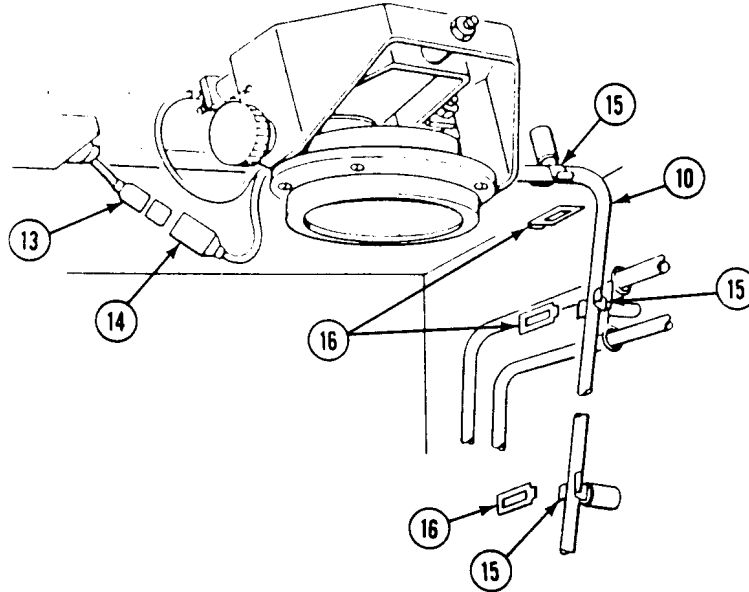
76. Install rear main wiring harness (10) on 16 cradles (11). Secure with 16 cradle clips (12).



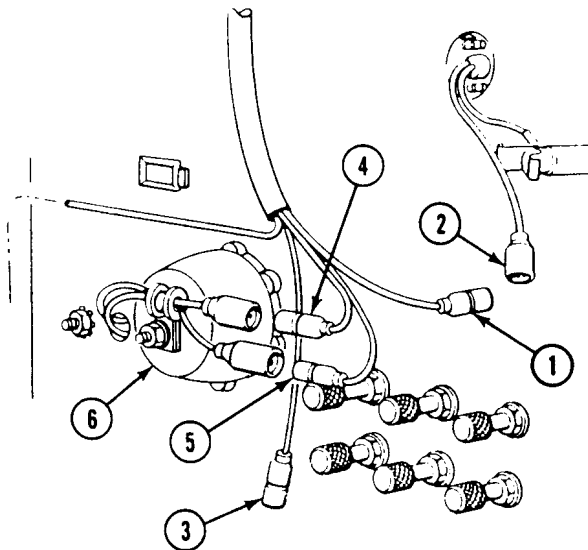
REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY) — Continued

0287 00

- 77. Connect four circuit 38C leads (13) to four right side dome lights (14).
- 78. Install wiring harness (10) on eight cradles (15). Secure with eight cradle clips (16).

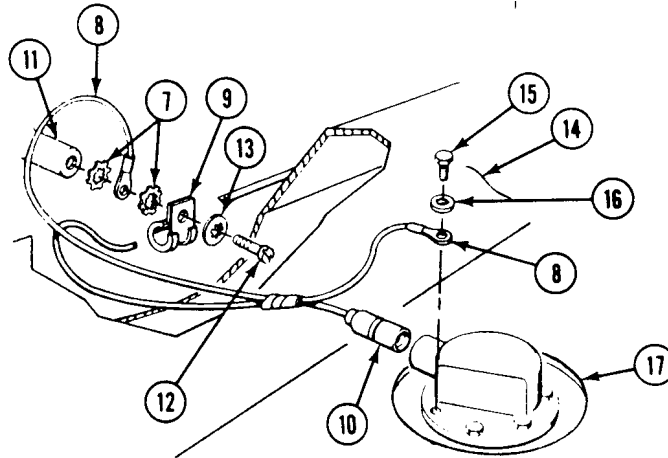


- 79. Connect circuit 37A lead (1) to right utility outlet lead (2).
- 80. If NBC unit is installed, connect circuit 415 lead (3) to NBC unit switch.
- 81. Connect circuit 23 lead (4) and circuit 24 lead (5) to right taillight (6).



REPLACE REAR MAIN WIRING HARNESS (M577A2 AND M1068 ONLY) — Continued**0287 00**

82. Install two new lockwashers (7), ground lead (8), three clamps (9), and circuit 29 lead (10) on three weldnuts (11). Secure with three screws (12) and flat washers (13).
83. Install new lockwire (14), one screw (15), new lockwasher (16), and ground lead (8) on right fuel quantity sending unit (17).
84. Connect circuit 29 lead (10) on right fuel quantity sending unit (17).

**FOLLOW-THROUGH STEPS**

1. Install rear floor plate (WP 0436 00).
2. Connect battery ground lead (WP 0294 00).
3. Install FAX. See TM 11-7010-256-12&P.
4. Install battery access cover (see your -10).
5. Turn MASTER SWITCH to ON (see your -10). Check that electrical system works properly.
6. Start engine (see your -10).
7. Raise and lock ramp (see your -10).
8. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY)

0288 00

THIS WORK PACKAGE COVERS:

- Removal (page 0288 00-1).
 - Inspect and Repair (page 0288 00-13).
 - Installation (page 0288 00-13).
-

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Multimeter (WP 0780 00, Item 43)

Equipment Condition

- Engine stopped (see your -10)
- Carrier blocked (see your -10)
- Battery ground lead disconnected (WP 0294 00)
- Ramp lowered (see your -10)
- Rear floor plate removed (WP 0437 00)

Materials/Parts

- Fibrous twine (WP 0782 00, Item 72)
 - Insulation tape (WP 0782 00, Item 35)
 - Grommet (4)
 - Locknut (21)
 - Lockwasher (37)
-

REMOVAL

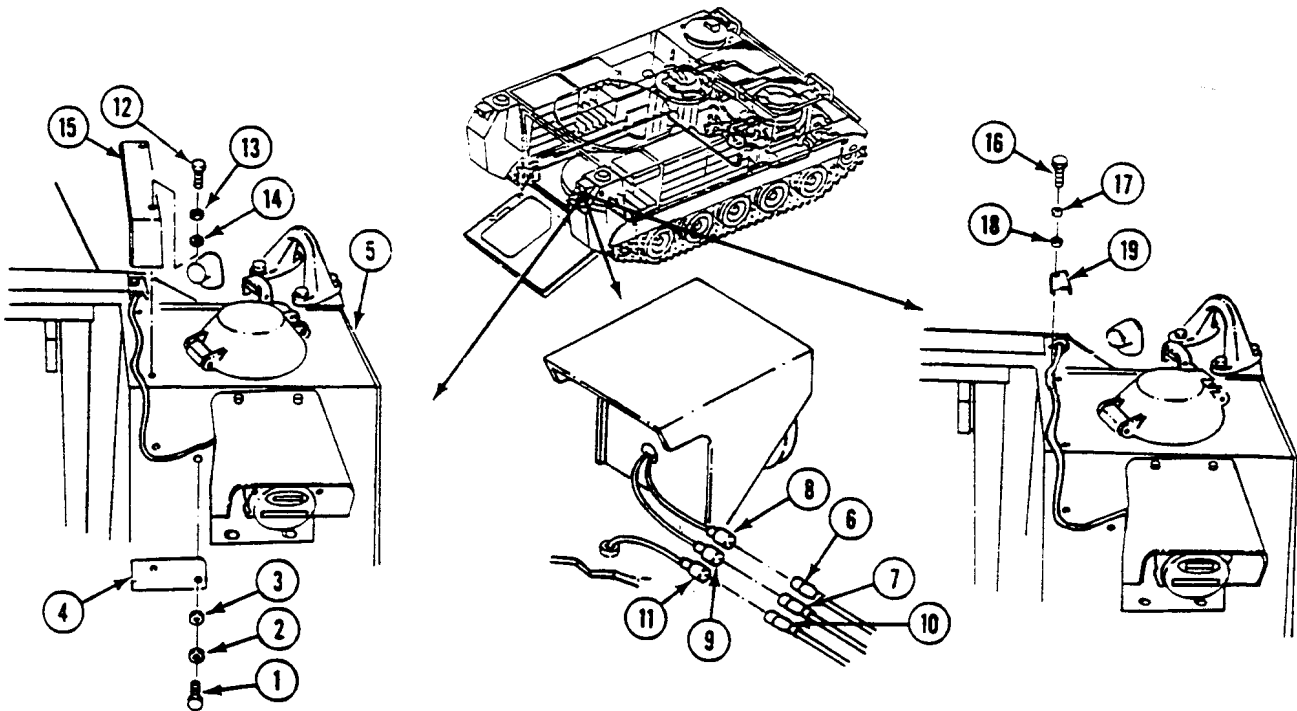
NOTE

Tag leads before removal.

REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY) — Continued

0288 00

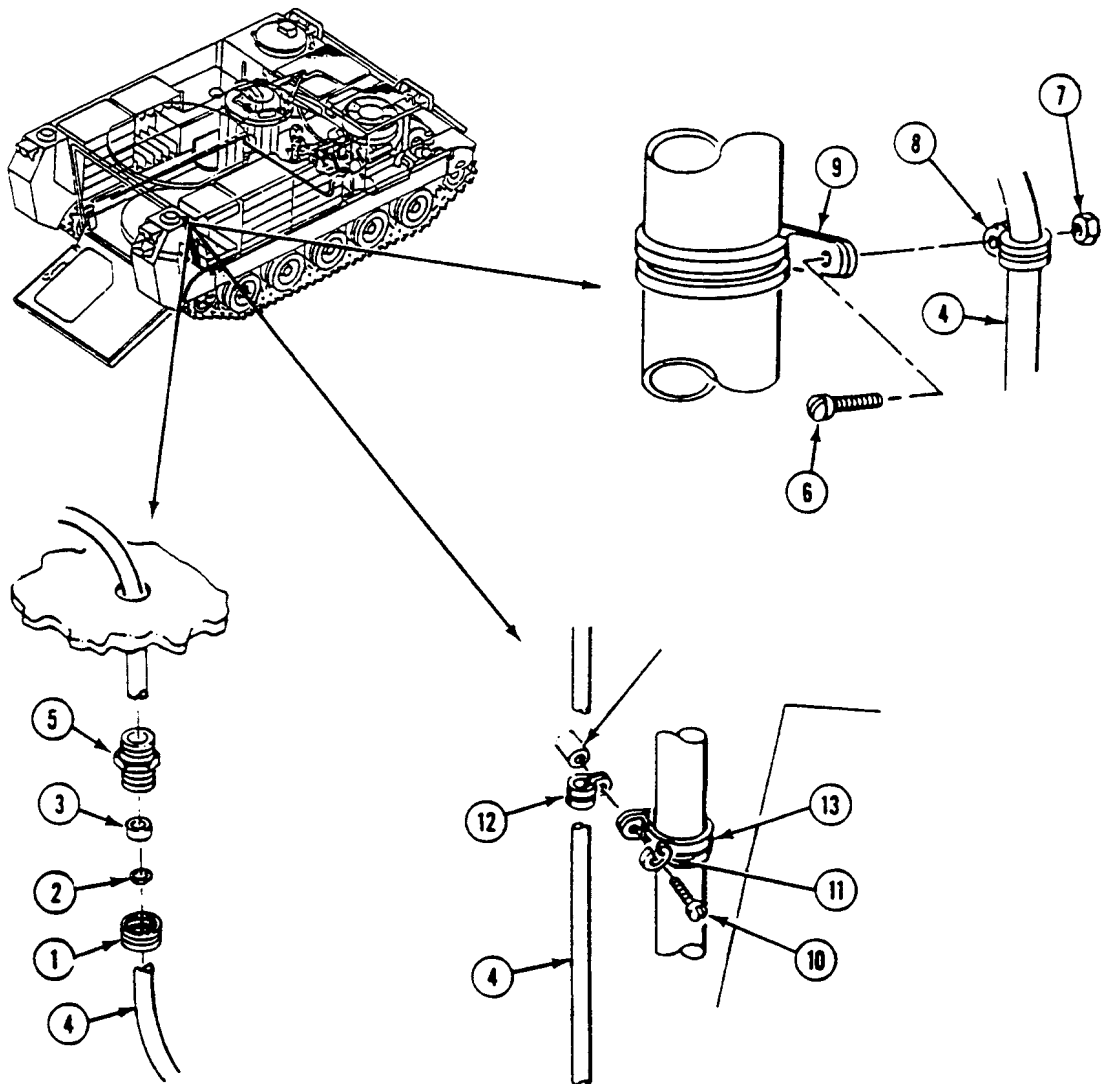
1. Remove two screws (1), lockwashers (2), washers (3), and harness guard (4) from top of right fuel tank (5). Discard lockwashers.
2. Disconnect circuit 23 and 24 leads (6) and (7) from right taillight leads (8) and (9).
3. Disconnect circuit 31 lead (10) from fuel transmitter lead (11) on right fuel tank (5).
4. Remove two screws (12), lockwashers (13), washers (14), and harness bracket (15) from top of right fuel tank (5). Discard lockwashers.
5. Remove screw (16), lockwasher (17), washer (18), and harness guard (19) from top of rear hull. Discard lockwasher.



REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY) — Continued

0288 00

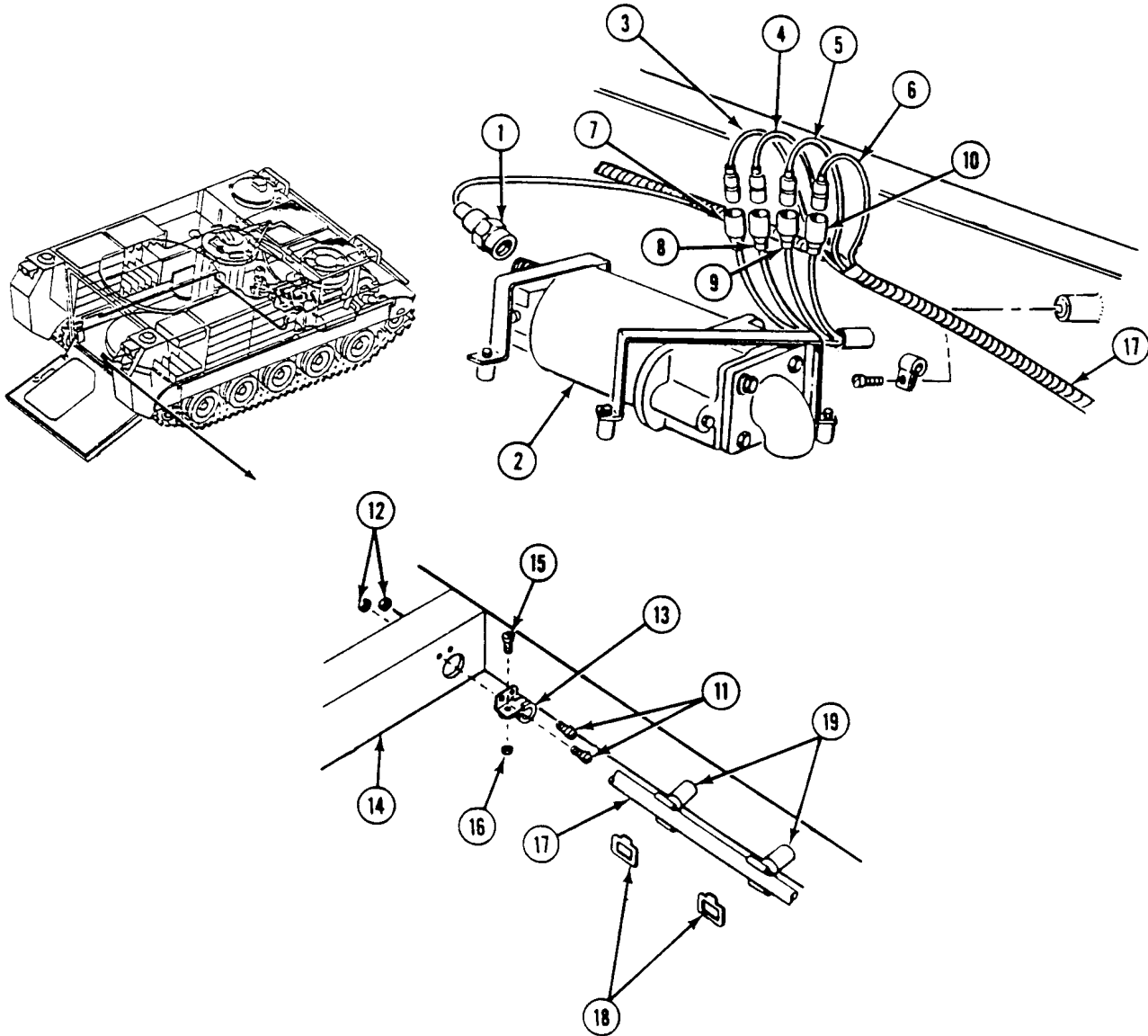
6. Remove nut (1), washer (2), and rubber bushing (3) around harness (4) from connector (5).
7. Remove connector (5) from hull.
8. Pull harness (4) through hole in hull top. Leave connector (5), rubber bushing (3), washer (2), and nut (1) on harness.
9. Remove screw (6), locknut (7), clamp (8), and harness (4) from upper bilge tube clamp (9). Discard locknut.
10. Remove two screws (10), lockwashers (11), clamps (12), and harness (4) from two lower bilge tube clamps (13). Discard lockwashers.



NOTE

Tag leads before removal.

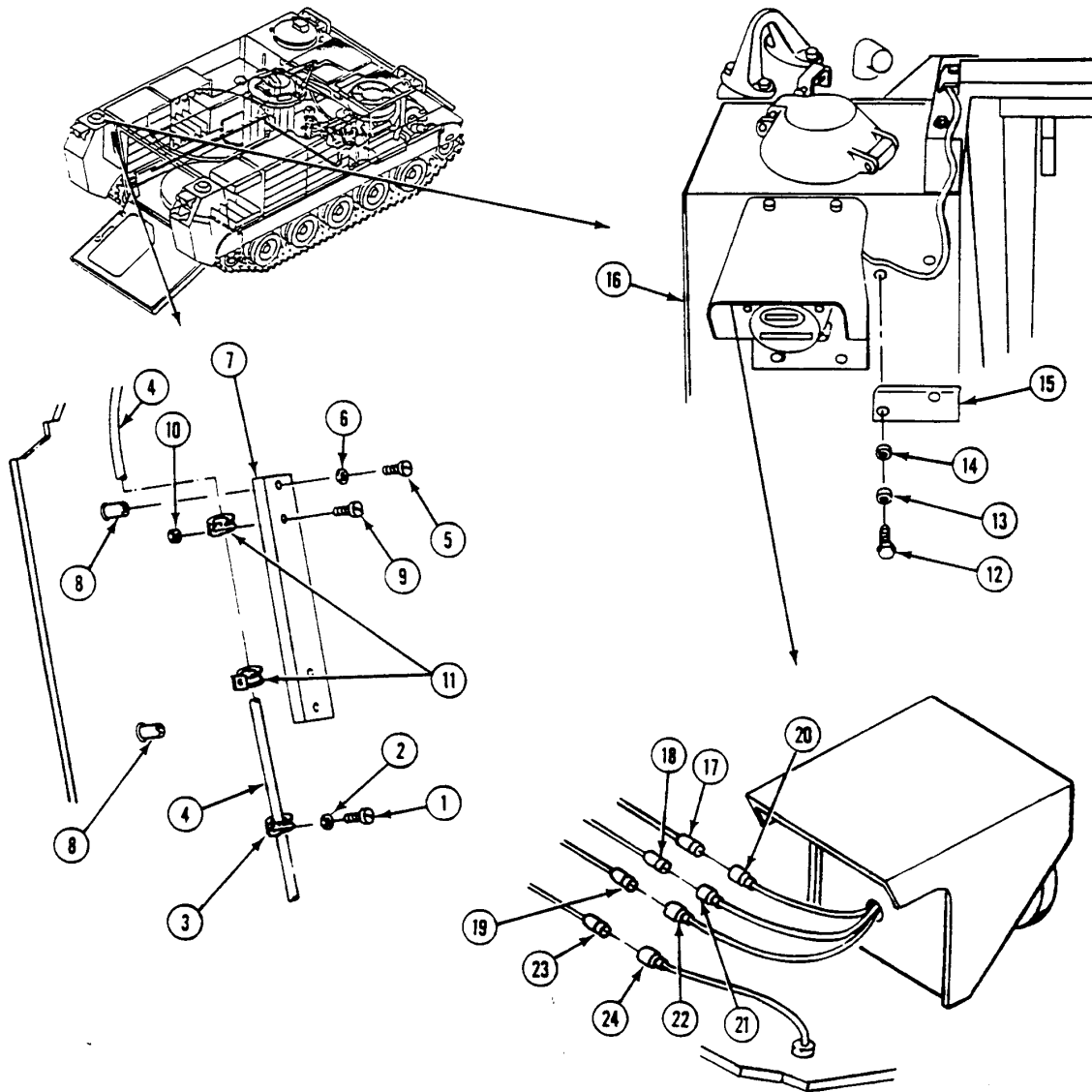
11. Disconnect circuit 451 lead (1) from rear bilge pump (2).
12. Disconnect circuit 21 (3), 22 (4), 23 (5), and 24 (6) leads from trailer wiring harness leads (7), (8), (9), and (10).
13. Remove two screws (11), locknuts (12), and clamp (13) from floor beam (14). Discard locknuts.
14. Remove screw (15), locknut (16), and clamp (13) from harness (17). Discard locknut.
15. Remove three clips (18) and harness (17) from three cradles (19).



REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY) — Continued

0288 00

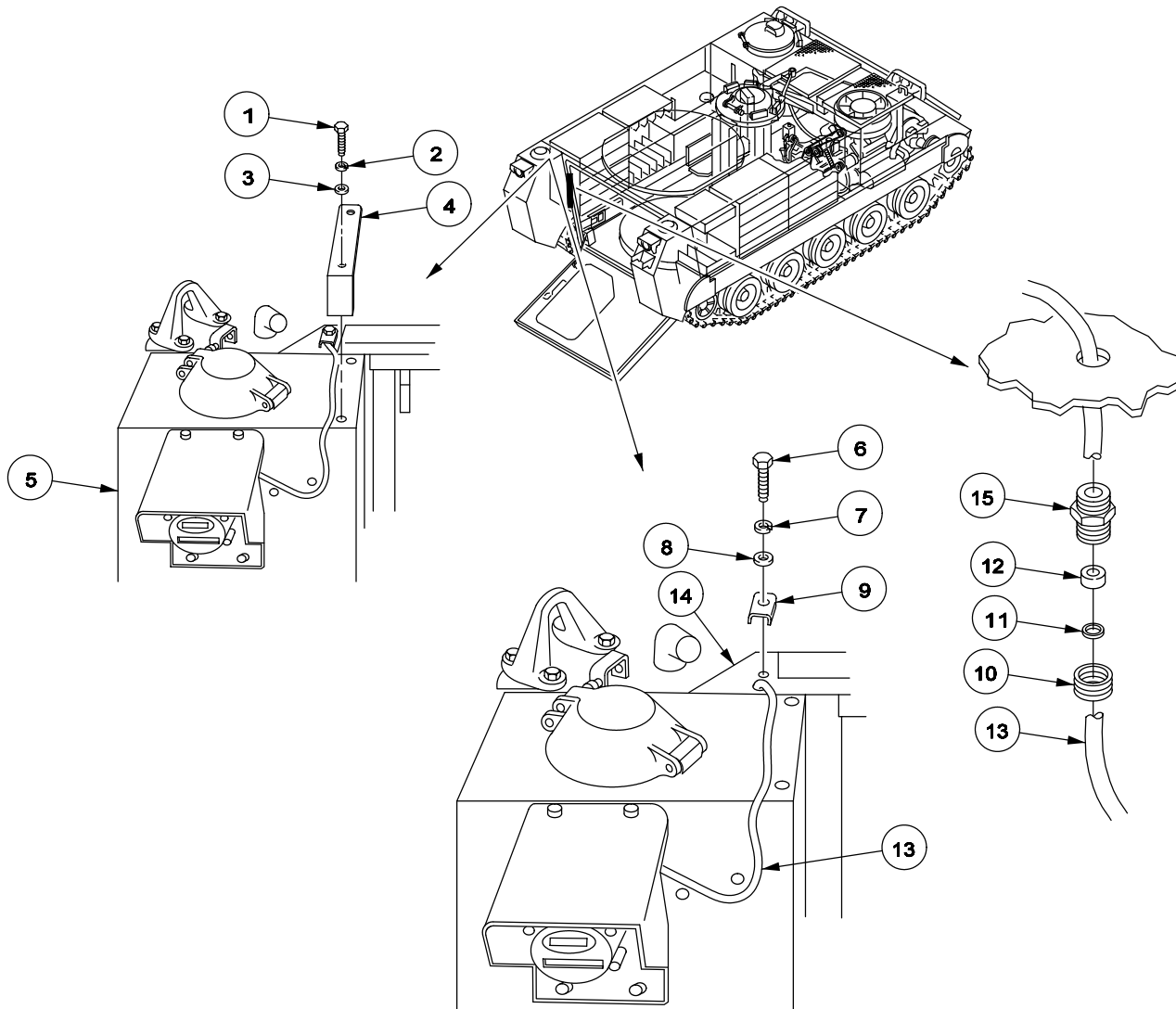
16. Remove screw (1), lockwasher (2), clamp (3), and harness (4) from rear hull plate. Discard lockwasher.
17. Remove two screws (5), lockwashers (6), and guard (7) from two weldnuts (8) on rear hull plate. Discard lockwashers.
18. Remove two screws (9), locknuts (10), clamps (11), and harness (4) from guard (7). Discard locknuts.
19. Remove two screws (12), lockwashers (13), washers (14), and harness guard (15) from top of left fuel tank (16). Discard lockwashers.
20. Disconnect circuit 21 lead (17), 22 lead (18), and 24 lead (19) from left taillight leads (20), (21), and (22).
21. Disconnect circuit 30 lead (23) from fuel transmitter lead (24) on left fuel tank (16).



REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY) — Continued

0288 00

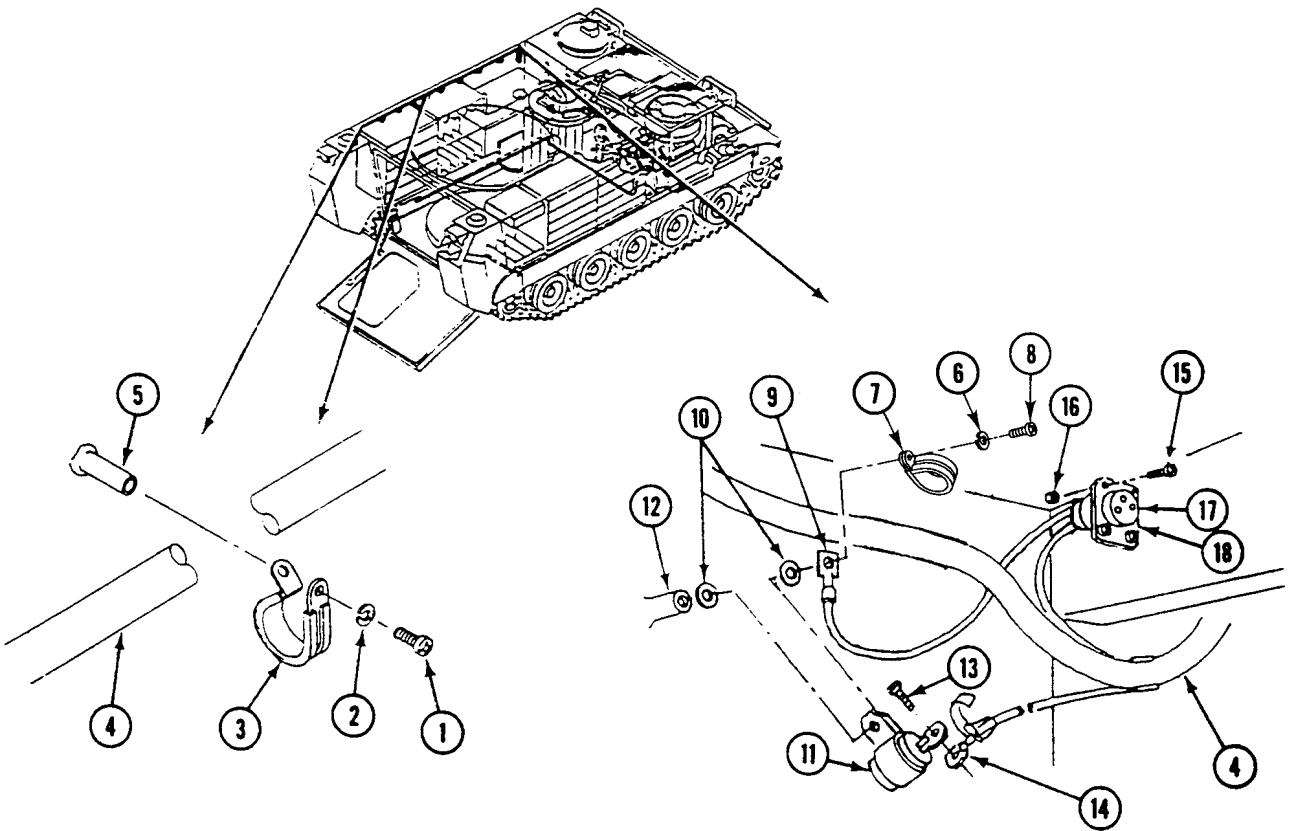
22. Remove two screws (1), lockwashers (2), washers (3), and harness bracket (4) from top of left fuel tank (5). Discard lockwashers.
23. Remove screw (6), lockwasher (7), washer (8), and harness guard (9) from top of rear hull. Discard lockwasher.
24. Pull harness (13) through hole in rear plate (14).
25. Remove nut (10), washer (11), and rubber bushing (12) around harness (13) from connector (15).
26. Remove connector (15) from hull.
27. Pull harness (13) through hole in hull top. Leave connector (15), rubber bushing (12), washer (11), and nut (10) on harness (13).



REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY) — Continued

0288 00

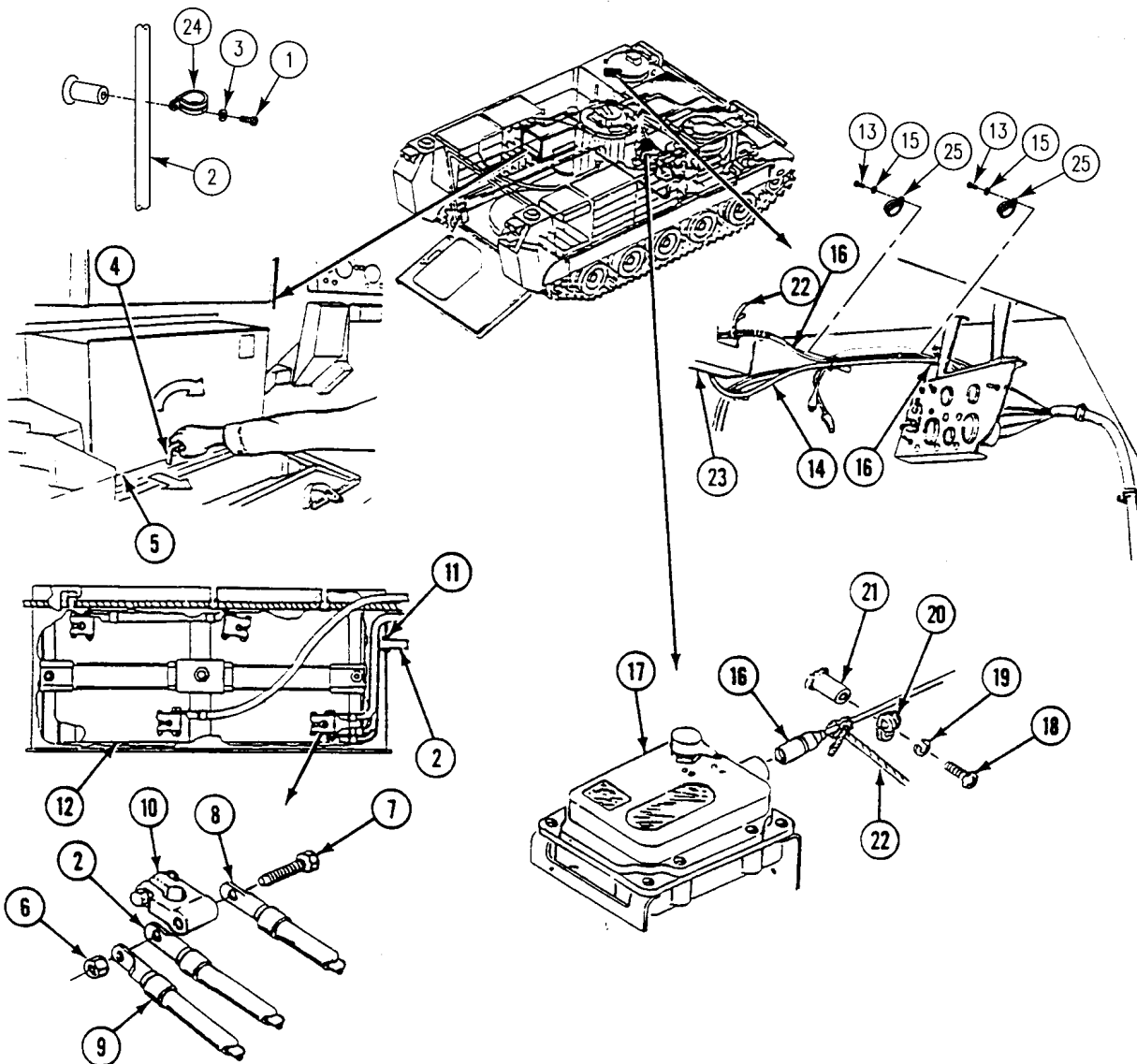
28. Open top ammo rack (see your -10).
29. Remove 11 screws (1), lockwashers (2), clamps (3), and harness (4) from weldnuts (5) on left hull plate. Discard lockwashers.
30. Remove screw (8), lockwasher (6), clamp (7), harness (4), ground lead (9), two lockwashers (10), and capacitor (11) from weldnut (12). Discard lockwashers.
31. Remove tape, screw (13), and circuit 48 lead (14) from capacitor (11).
32. Remove four screws (15), locknuts (16), and circuit 48 radio receptacle (17) from bracket (18). Discard locknuts.



REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY) — Continued

0288 00

33. Remove two screws (1), lockwashers (3), clamps (24), and circuit 48 lead (2) from weldnuts. Discard lockwashers.
34. Lower left crew seat backrest. Turn handle (4) clockwise and pull battery drawer (5) out.
35. Remove nut (6), screw (7), circuit 6 lead (8), circuit 6P lead (9), and circuit 48 lead (2) from battery terminal (10).
36. Remove circuit 48 lead (2) from grommet (11) in battery box (12). Remove and discard grommet.
37. Remove two screws (13), lockwashers (15), four clamps (25), and circuit 48 lead (16) from weldnuts. Discard lockwashers.

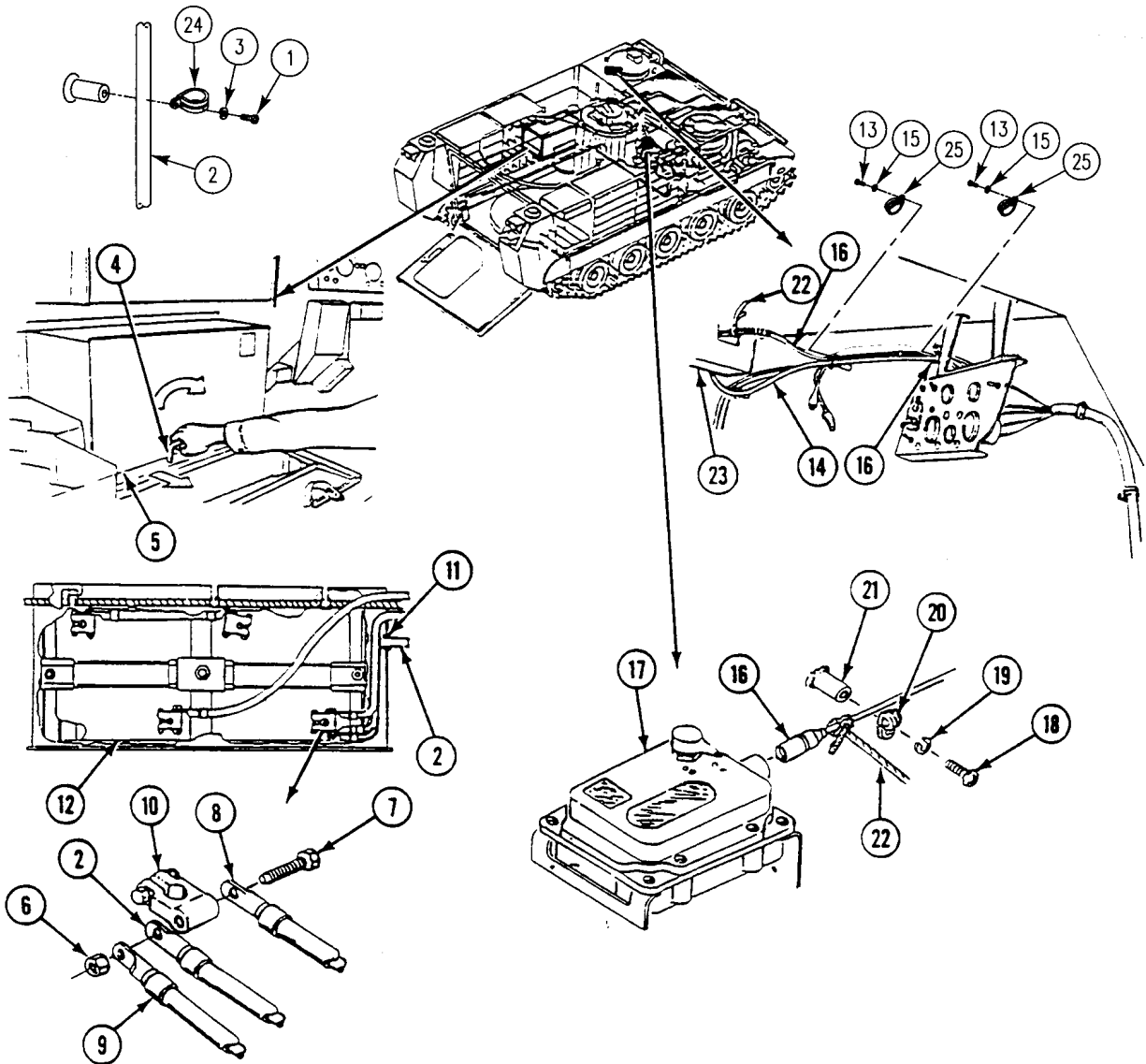


38. Disconnect circuit 38 lead (16) from dome light (17).

NOTE

If needed, remove personnel heater for access.

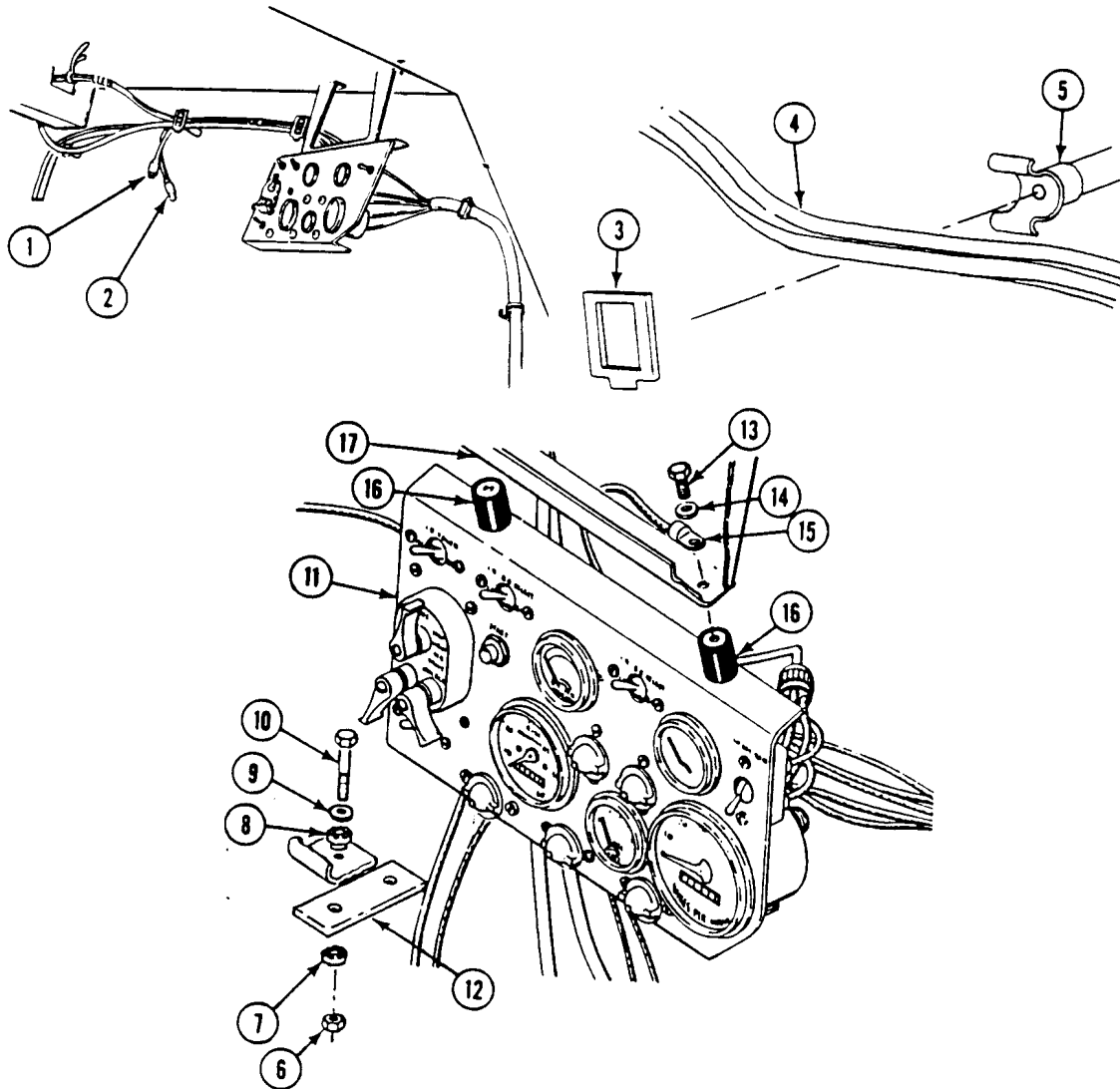
39. Remove three screws (18), lockwashers (19), clamps (20), and circuit 38 lead (16) from three weldnuts (21). Discard lockwashers.
40. Attach twine (22) to circuit 38 lead (16). Pull lead through transverse beam (23) into driver's compartment. Remove twine from lead and leave it in transverse beam.



REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY) — Continued

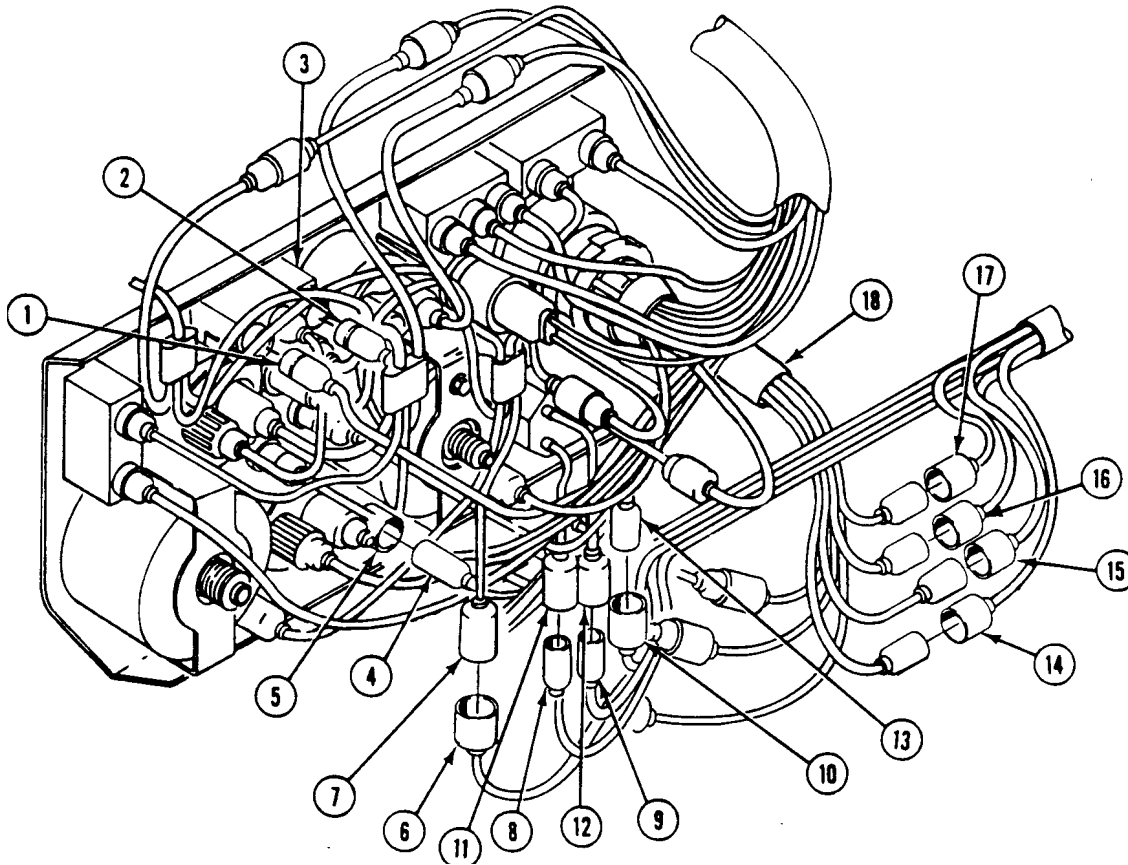
0288 00

41. If personnel heater is installed, disconnect circuit 400 lead (1) from heater control box lead.
42. If engine coolant heater is installed, disconnect circuit 400A lead (2) from engine coolant heater control box lead.
43. Remove clip (3) and harness (4) from cradle (5).
44. Remove two locknuts (6), mounts (7) and (8), washers (9), and screws (10) that secure instrument panel (11) to two struts (12). Discard locknuts.
45. Support panel (11). Remove two screws (13), one internal tooth lockwasher (14), and ground lead (15) from two panel mounts (16) and bracket (17). Discard lockwasher.
46. Lower panel (11) and support on two struts (12) to gain access to rear of instrument panel.



NOTE**Tag leads before removal.**

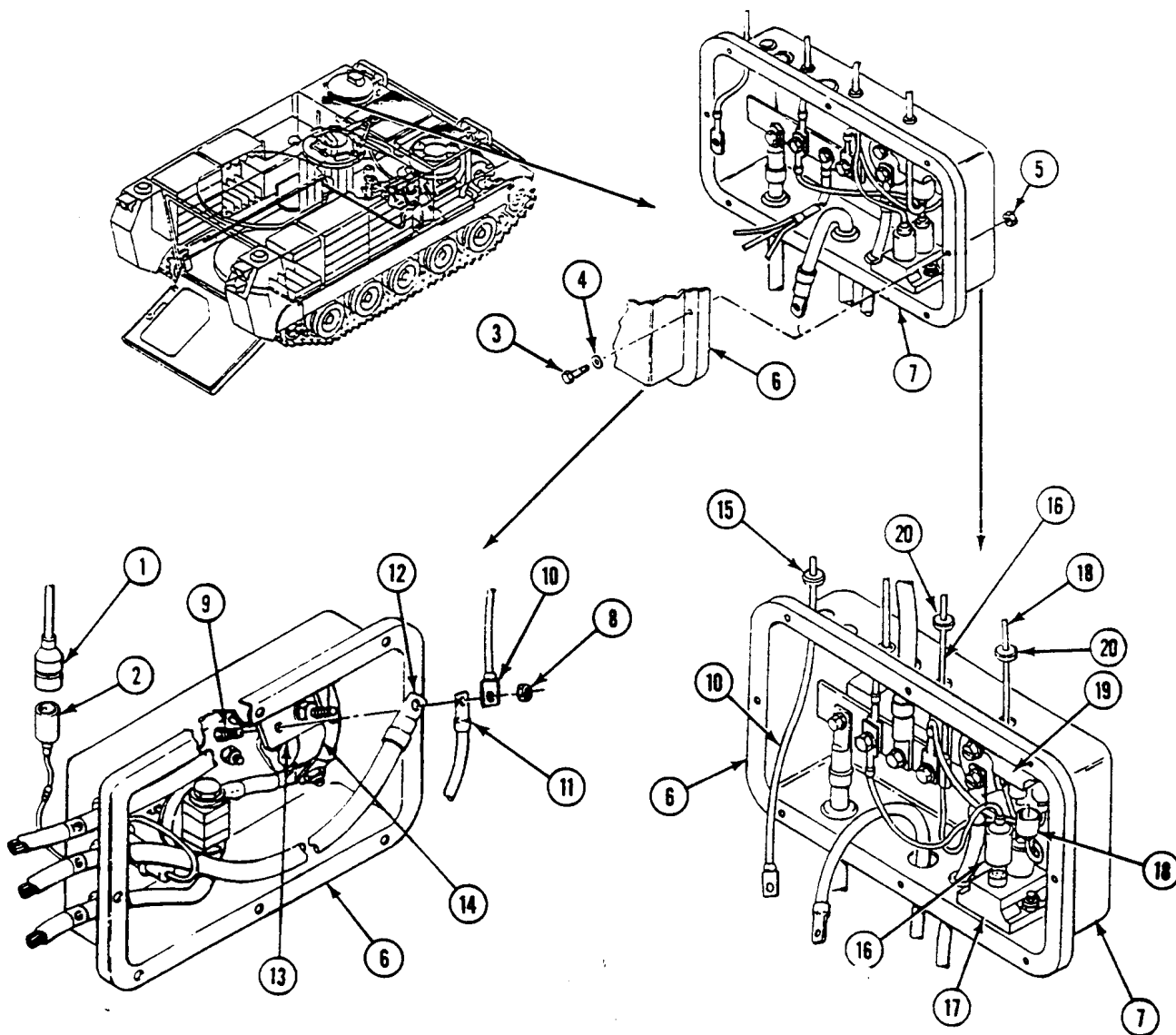
47. Disconnect circuit 30 (1) and 31 (2) leads from fuel gauge switch (3).
48. Disconnect circuit 451B lead (4) from REAR BILGE PUMP ON indicator light (5).
49. Disconnect circuit 38 lead (6) from instrument panel wiring harness (7).
50. Disconnect circuit 450 (8), 450B (9), and 451A (10) leads from bilge pumps switch leads (11), (12), and (13).
51. Disconnect circuit 21 (14), 22 (15), 23 (16), and 24 (17) leads from front main wiring harness (18).



NOTE

The 200 amp and 100 amp distribution boxes are similar. Removal of most lead wires are the same. 200 amp is shown. Do Step 52 for 200 amp only.

52. Disconnect circuit 37 lead (1) from master switch panel lead (2).
53. Remove eight screws (3), washers (4), and locknuts (5) from master switch panel (6). Separate panel from distribution box (7). Discard locknuts.
54. Remove locknut (8), screw (9), circuit 400 (10), circuit 2 (11), and circuit 6 (12) leads from bus bar (13) on master switch (14). Discard locknut.
55. Remove circuit 400 lead (10) and grommet (15) from distribution box (7). Discard grommet.
56. Disconnect circuit 450 lead (16) from lower circuit breaker (17).
57. Disconnect circuit 450B lead (18) from upper circuit breaker (19).
58. Remove circuit 450 (16) and 450B (18) leads and two grommets (20) from distribution box (7). Discard grommets.



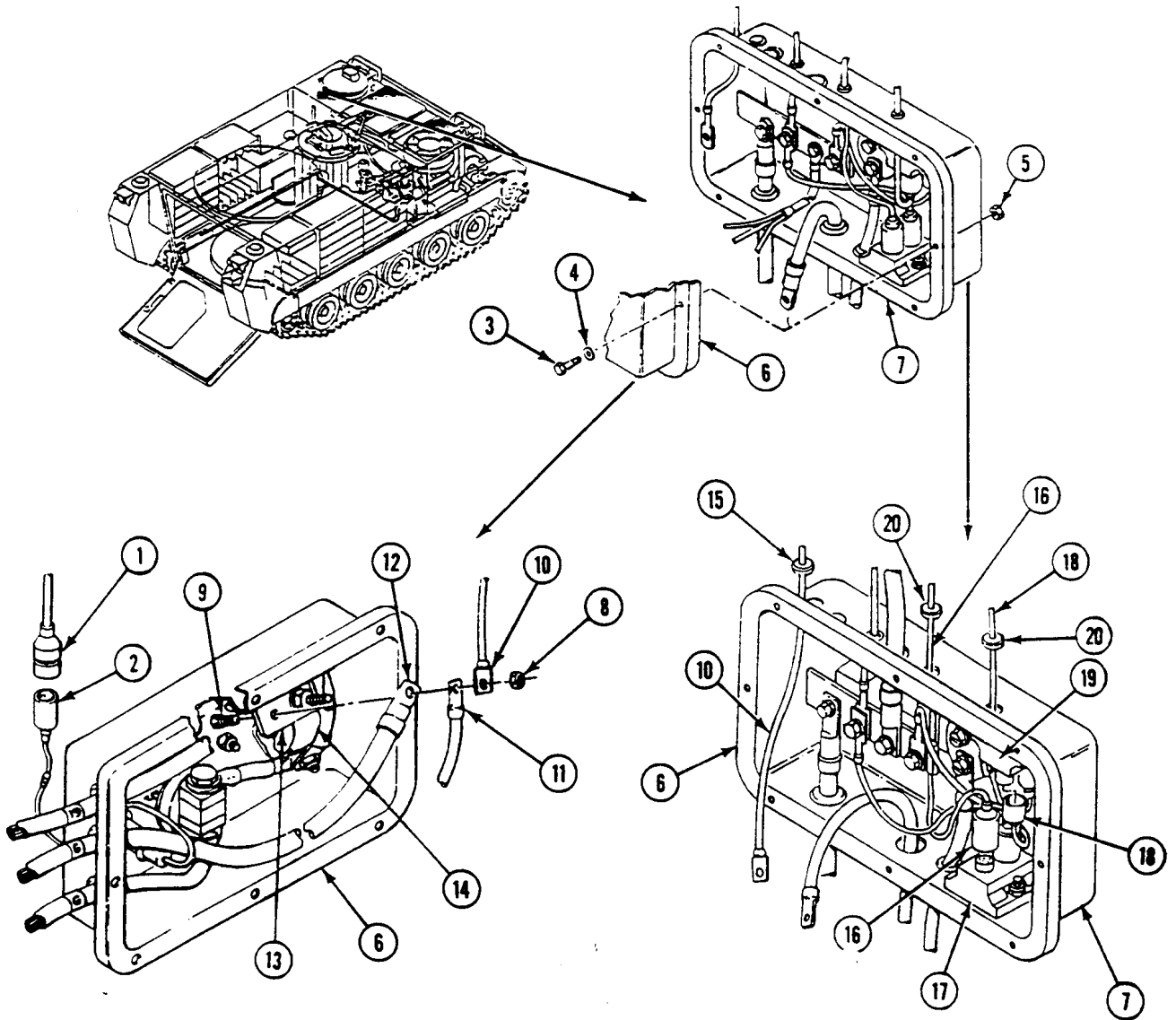
59. Remove harness from carrier.

INSPECT AND REPAIR

1. Inspect for damaged connectors and terminals. Repair as needed (WP 0312 00).

INSTALLATION

1. Install harness in carrier.
2. Install circuit 450 (16) and 450B (18) leads and two new grommets (20) in distribution box (7).
3. Connect circuit 450B lead (18) to upper circuit breaker (19).



REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY) — Continued

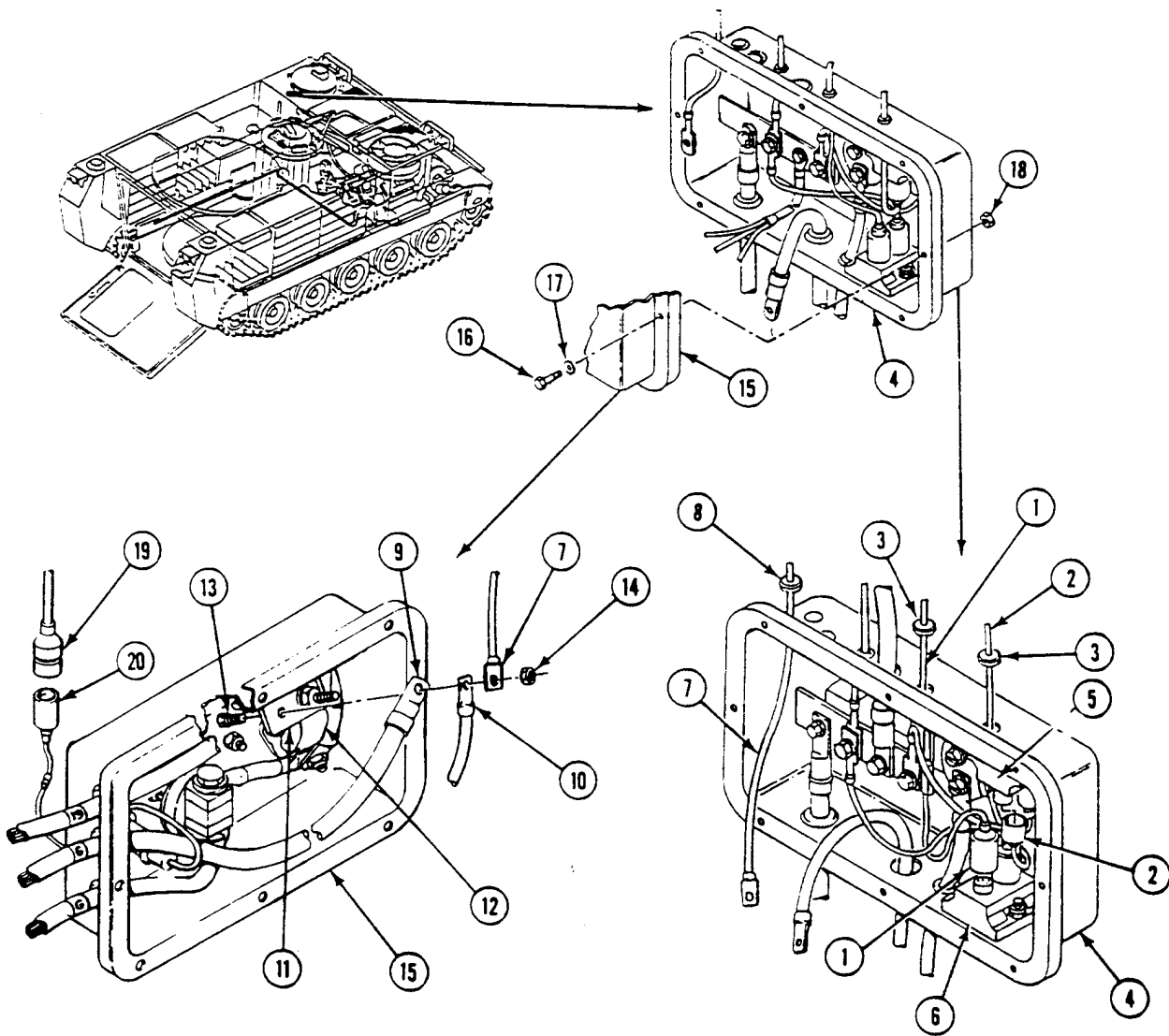
0288 00

4. Connect circuit 450 lead (1) to lower circuit breaker (6).
5. Install circuit 400 lead (7) and new grommet (8) in distribution box (4).
6. Install circuit 6 (9), circuit 2 (10), and circuit 400 (7) leads on bus bar (11) on master switch (12). Secure with screw (13) and new locknut (14).

NOTE

Inspect gasket on distribution box. Replace if damaged.

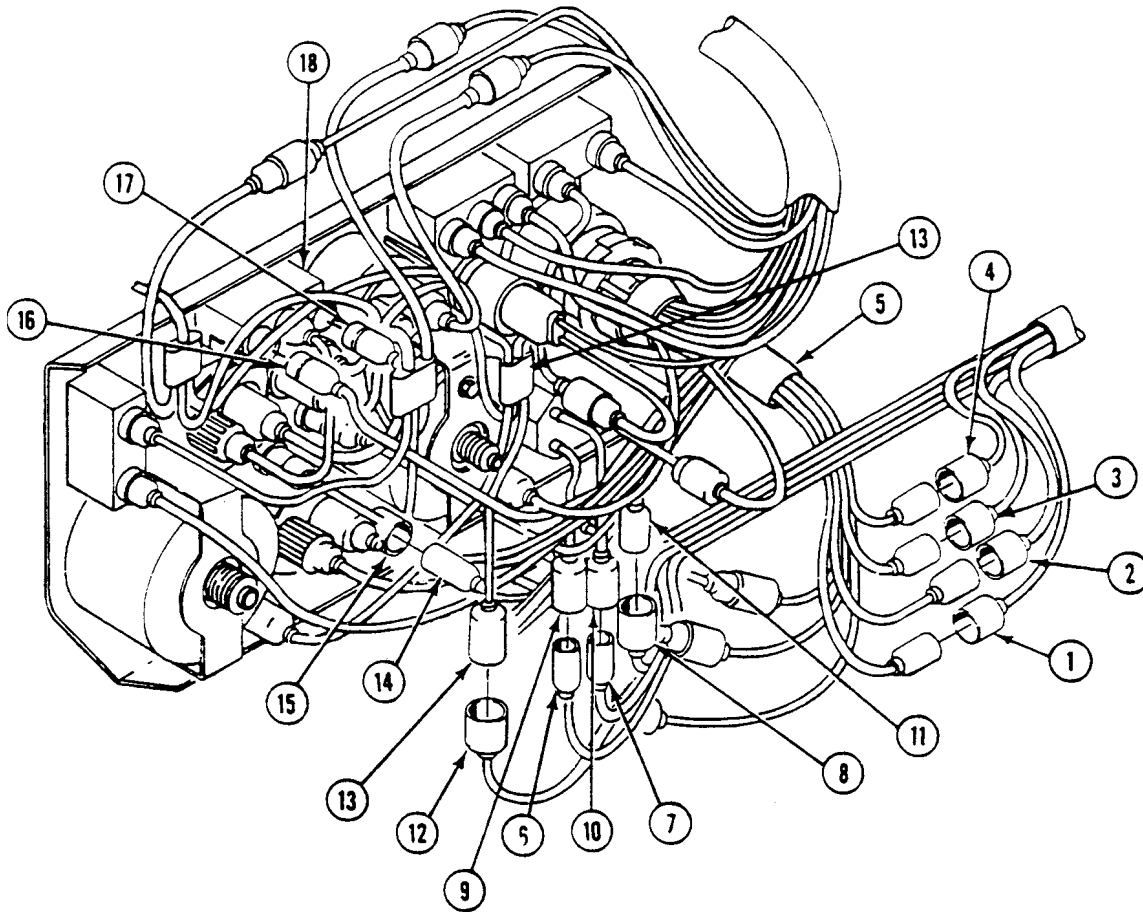
7. Install master switch panel (15) on distribution box (4). Secure with eight screws (16), washers (17), and new locknuts (18).
8. Connect circuit 37 lead (19) to master switch panel lead (20).



REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY) — Continued

0288 00

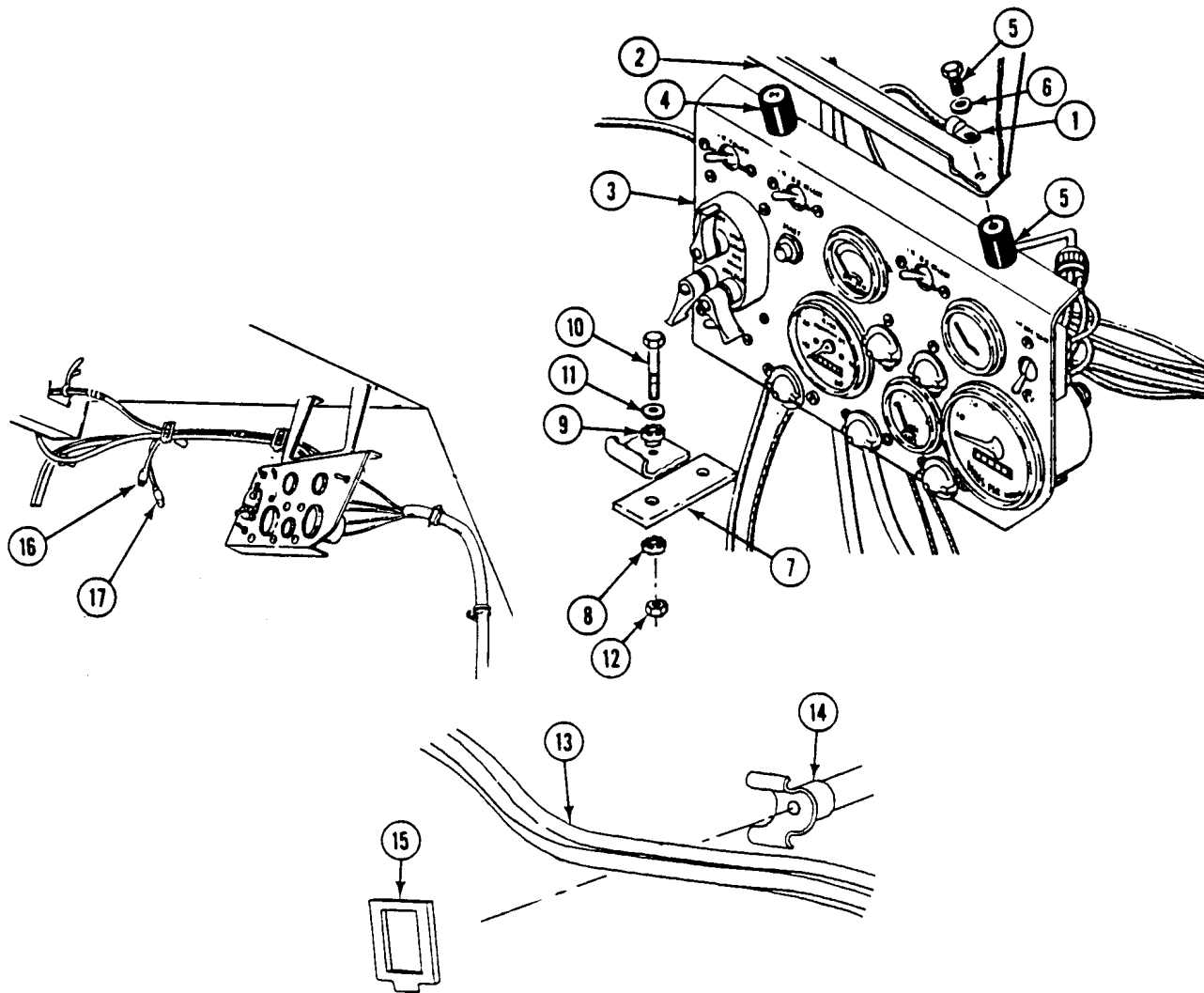
9. Connect circuit 21 (1), 22 (2), 23 (3), and 24 (4) leads to front main wiring harness (5).
10. Connect circuit 450 (6), 450B (7), and 451A (8) leads to bilge pumps switch leads (9), (10), and (11).
11. Connect circuit 38 lead (12) to instrument panel wiring harness (13).
12. Connect circuit 451B lead (14) to REAR BILGE PUMP ON indicator light (15).
13. Connect circuit 30 (16) and 31 (17) leads to fuel gauge switch (18).



REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY) — Continued

0288 00

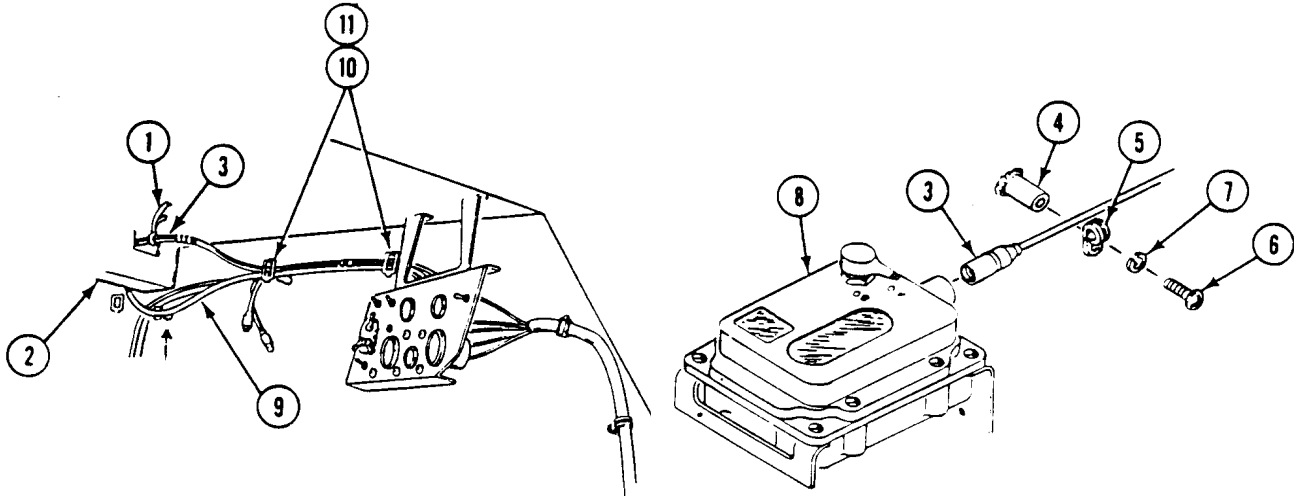
14. Position ground lead (1) at forward hole of bracket (2). Secure instrument panel (3) to bracket (2) with two panel mounts (4), screws (5), and new internal tooth lockwasher (6).
15. Secure panel (3) to two struts (7) with two mounts (8) and (9), screws (10), washers (11), and new locknuts (12).
16. Secure harness (13) to cradle (14) with clip (15).
17. If engine coolant heater is installed, connect circuit 400A lead (16) to engine coolant heater control box lead.
18. If personnel heater is installed, connect circuit 400 lead (17) to heater control box lead.



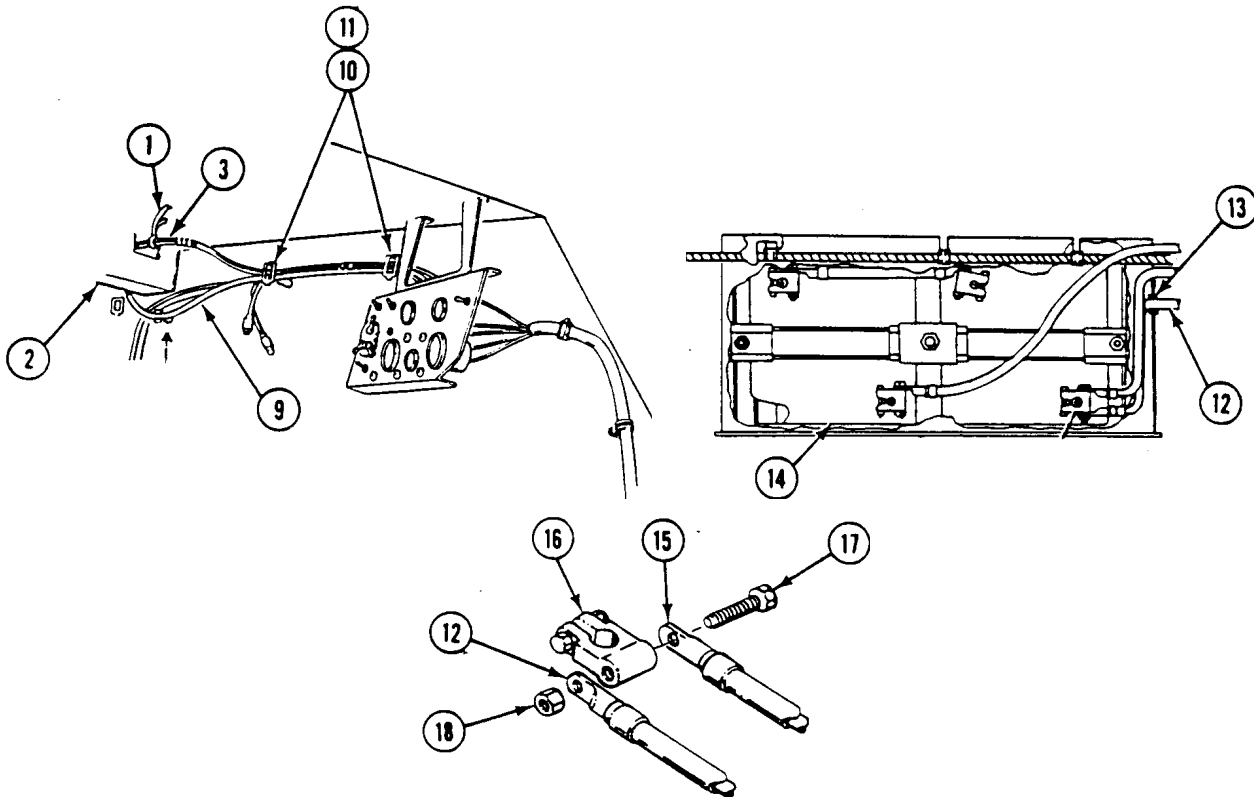
REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY) — Continued

0288 00

19. Attach twine (1) that was left in transverse beam (2) to circuit 38 lead (3). Pull lead through transverse beam into personnel compartment. Remove twine from lead.
20. Secure circuit 38 lead (3) to three weldnuts (4) on transverse beam with three clamps (5), screws (6), and new lockwashers (7).
21. Connect circuit 38 lead (3) to dome light (8).



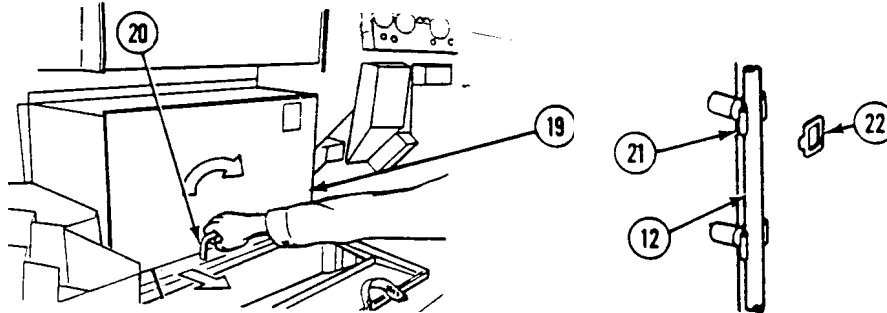
22. Install harness (9) in two cradles (10) and secure with clips (11).
23. Install circuit 48 lead (12) and new grommet (13) in battery box (14).
24. Install circuit 6 lead (15) and circuit 48 lead (12) on battery terminal (16). Secure with screw (17) and nut (18).



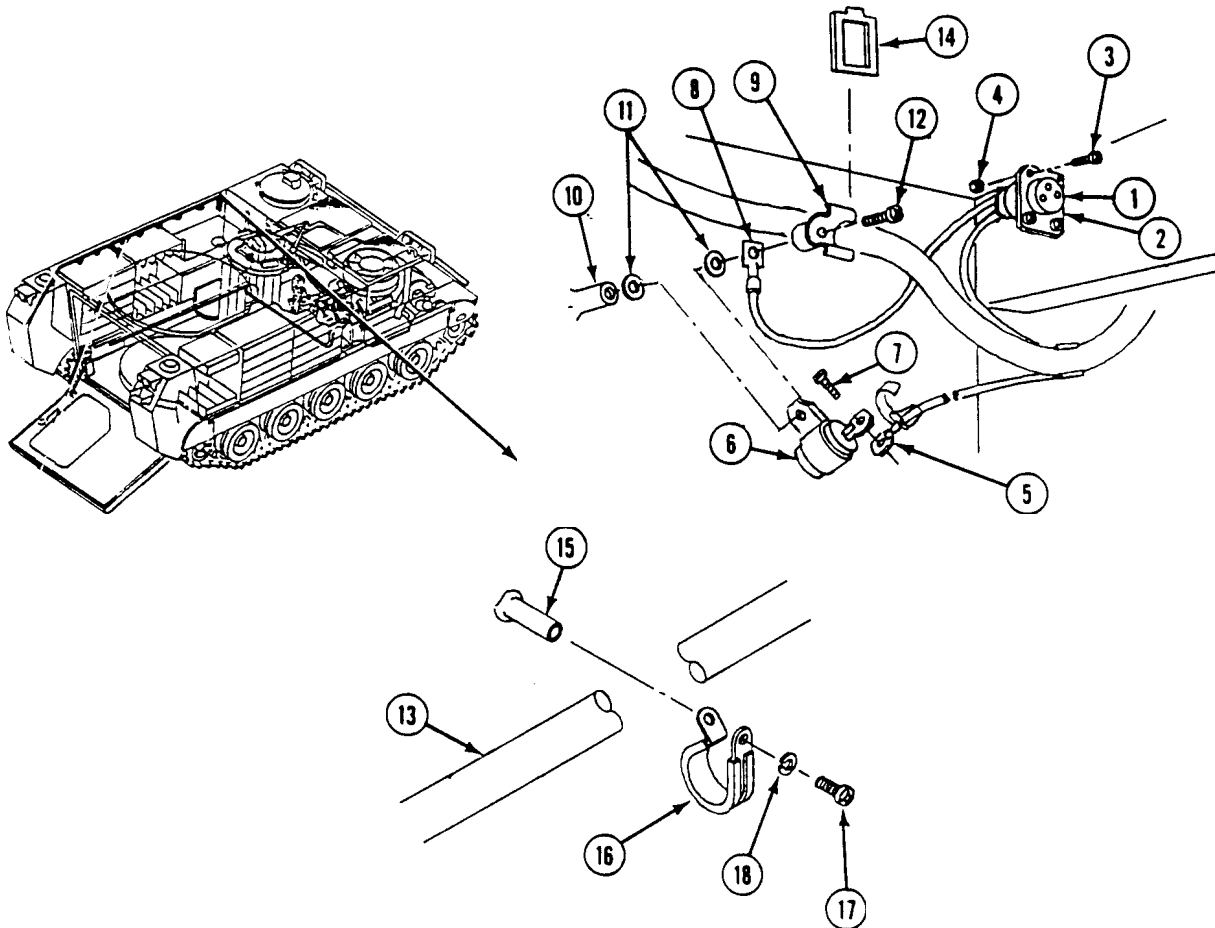
REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY) — Continued

0288 00

25. Push battery drawer (19) in and turn handle (20) counterclockwise to lock drawer. Raise left crew seat backrest.
26. Install circuit 48 lead (12) in cradle (21) and secure with clip (22).



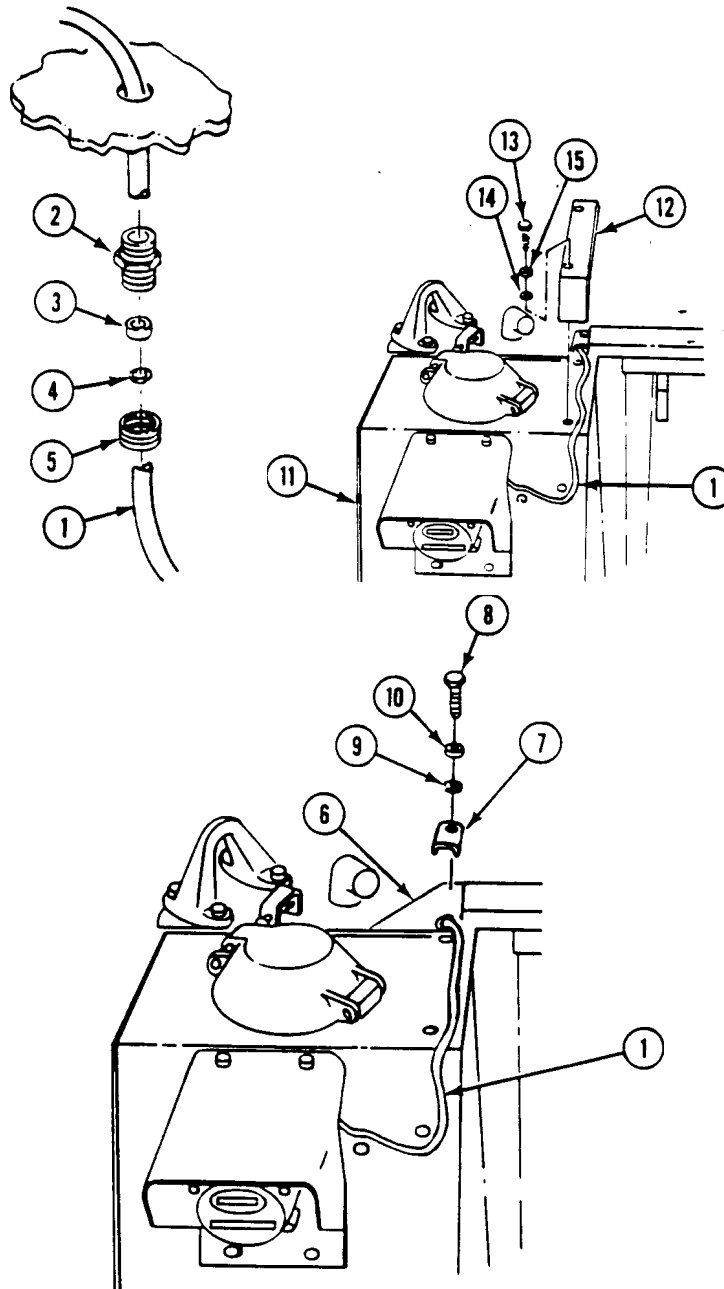
27. Install circuit 48 radio receptacle (1) on bracket (2). Secure with four screws (3) and new locknuts (4).
28. Connect circuit 48 lead (5) to capacitor (6). Secure with screw (7) and tape.
29. Install capacitor (6), ground lead (8), and cradle (9) on weldnut (10) with two new lockwashers (11) and screw (12).
30. Install harness (13) in cradle (9) and secure with clip (14).
31. Secure harness (13) to weldnuts (15) on left hull plate with 11 clamps (16), screws (17), and new lockwashers (18).



REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY) — Continued

0288 00

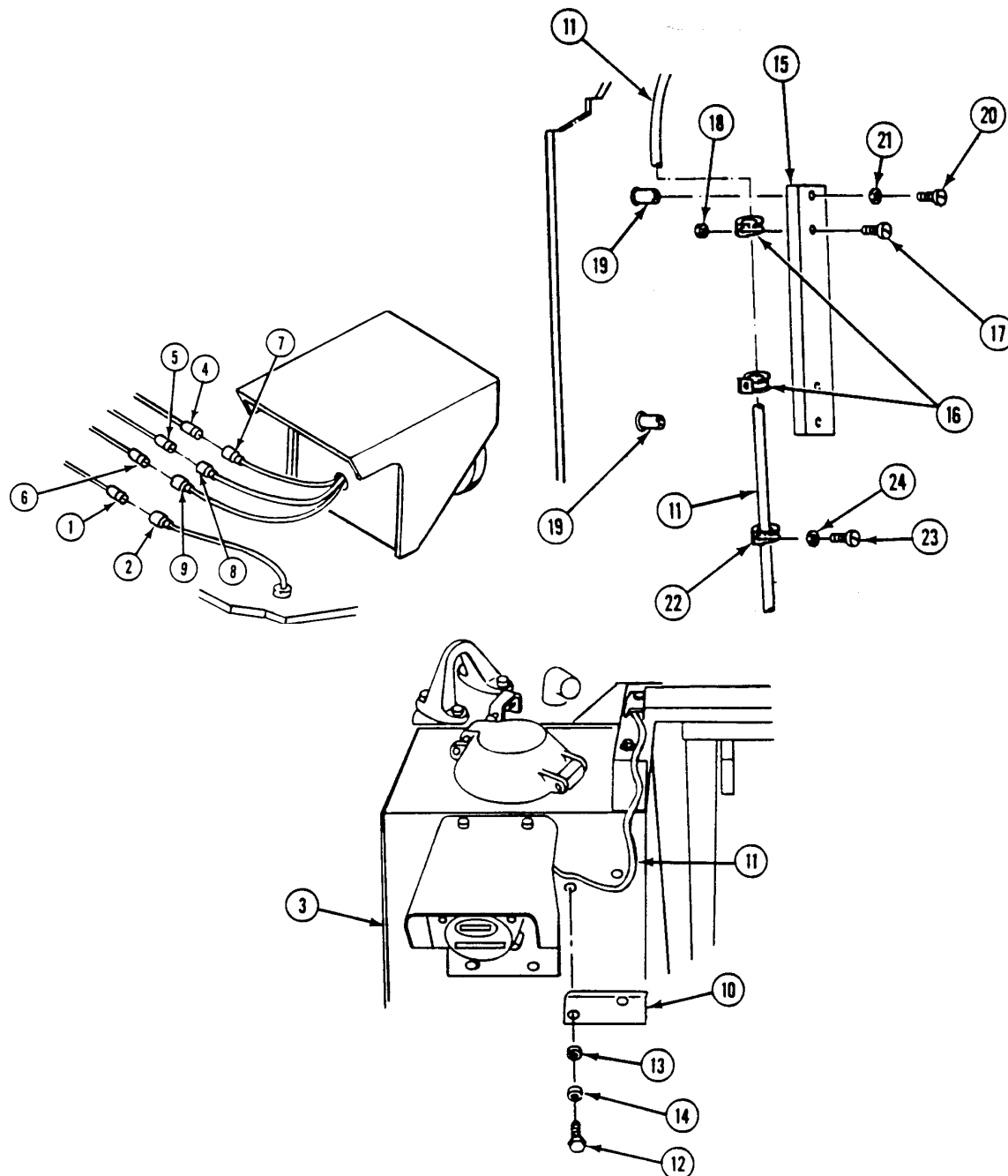
32. Close top ammo rack (see your -10).
33. Insert harness left side branch (1) through hole in hull top.
34. Install connector (2) in hull.
35. Secure harness (1) in connector (2) with rubber bushing (3), washer (4), and nut (5).
36. Insert harness (1) through hole in rear plate (6).
37. Install harness guard (7) on top of rear hull. Secure with screw (8), washer (9), and new lockwasher (10).
38. Route harness (1) along top of left fuel tank (11) and install harness bracket (12) over harness (1). Secure with two screws (13), washers (14), and new lockwashers (15).



REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY) — Continued

0288 00

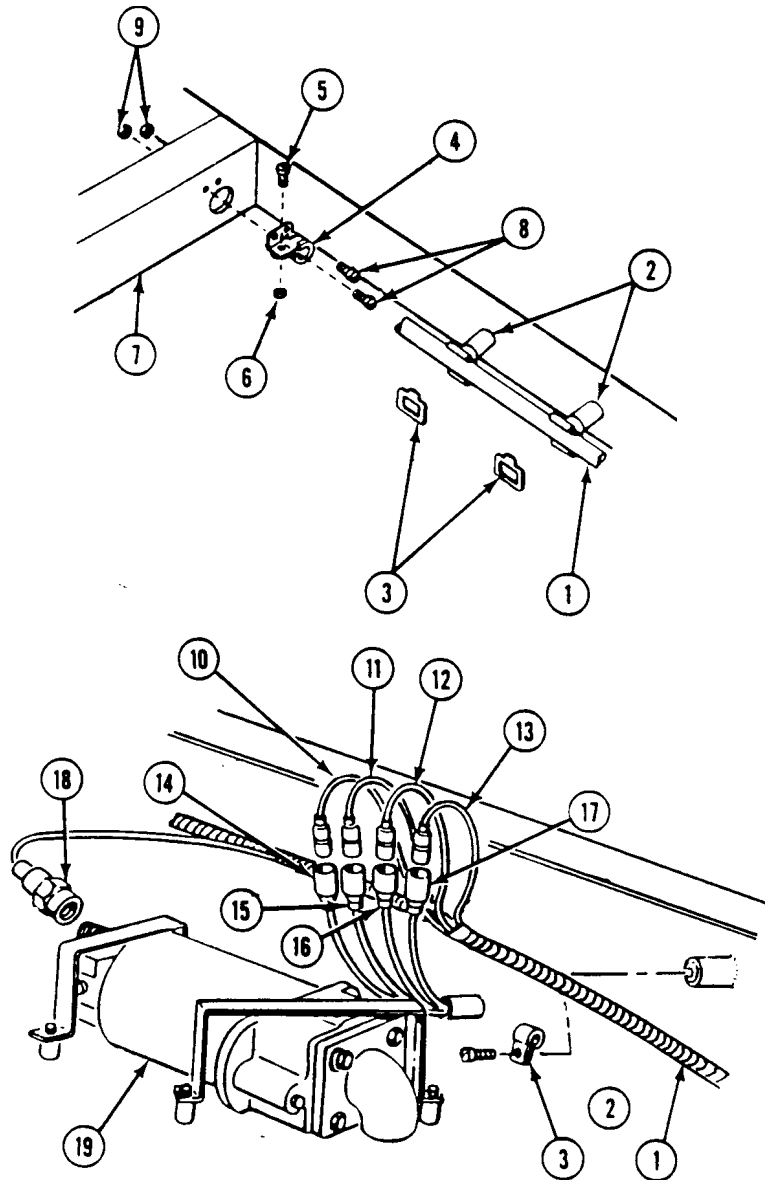
39. Connect circuit 30 lead (1) to fuel transmitter lead (2) on left fuel tank (3).
40. Connect circuit 21 (4), 22 (5), and 24 (6) leads to left taillight leads (7), (8), and (9).
41. Install harness guard (10) over harness (11) on left fuel tank (3). Secure with two screws (12), washers (13), and new lockwashers (14).
42. Secure harness (11) to guard (15) with two clamps (16), screws (17), and new locknuts (18).
43. Install guard (15) on two weldnuts (19) on rear hull plate. Secure with two screws (20) and new lockwashers (21).
44. Secure harness (11) on rear hull plate with clamp (22), screw (23), and new lockwasher (24).



REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY) — Continued

0288 00

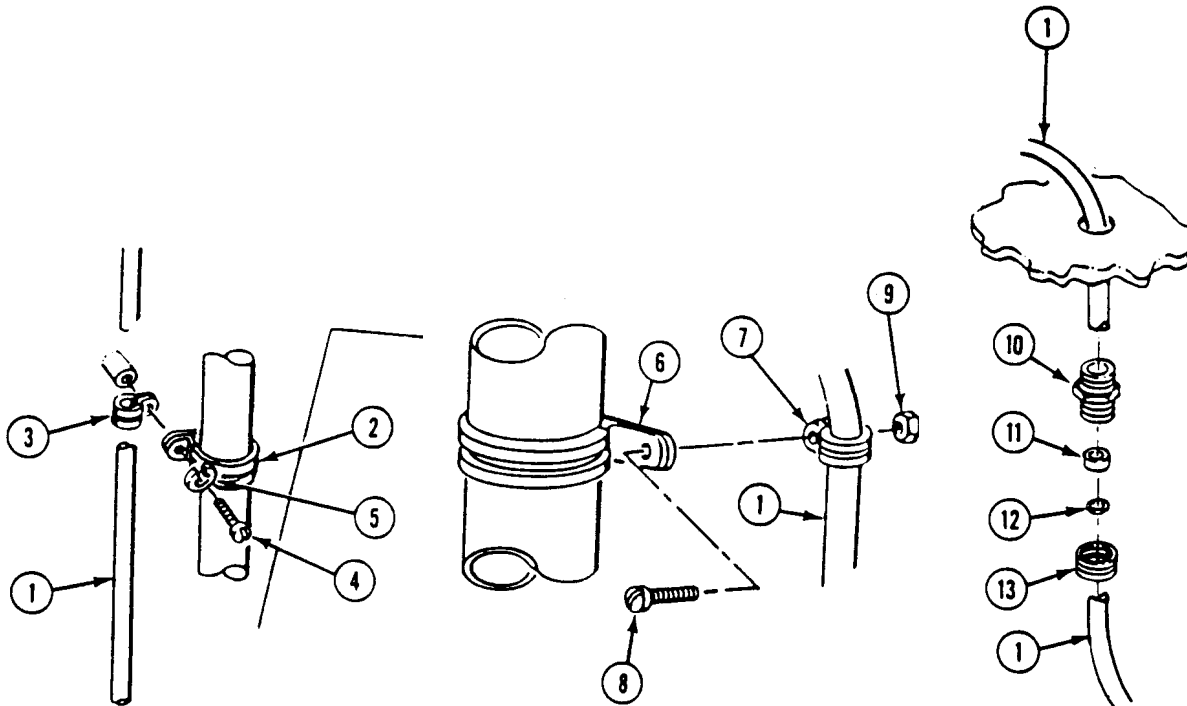
45. Install harness (1) in three cradles (2) and secure with three clips (3).
46. Install clamp (4) on harness (1) with screw (5) and new locknut (6).
47. Secure clamp (4) to floor beam (7) with two screws (8) and new locknuts (9).
48. Connect circuit 21 (10), 22 (11), 23 (12), and 24 (13) leads to four trailer wiring harness leads (14), (15), (16), and (17).
49. Connect circuit 451 lead (18) to rear bilge pump (19).



REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY) — Continued

0288 00

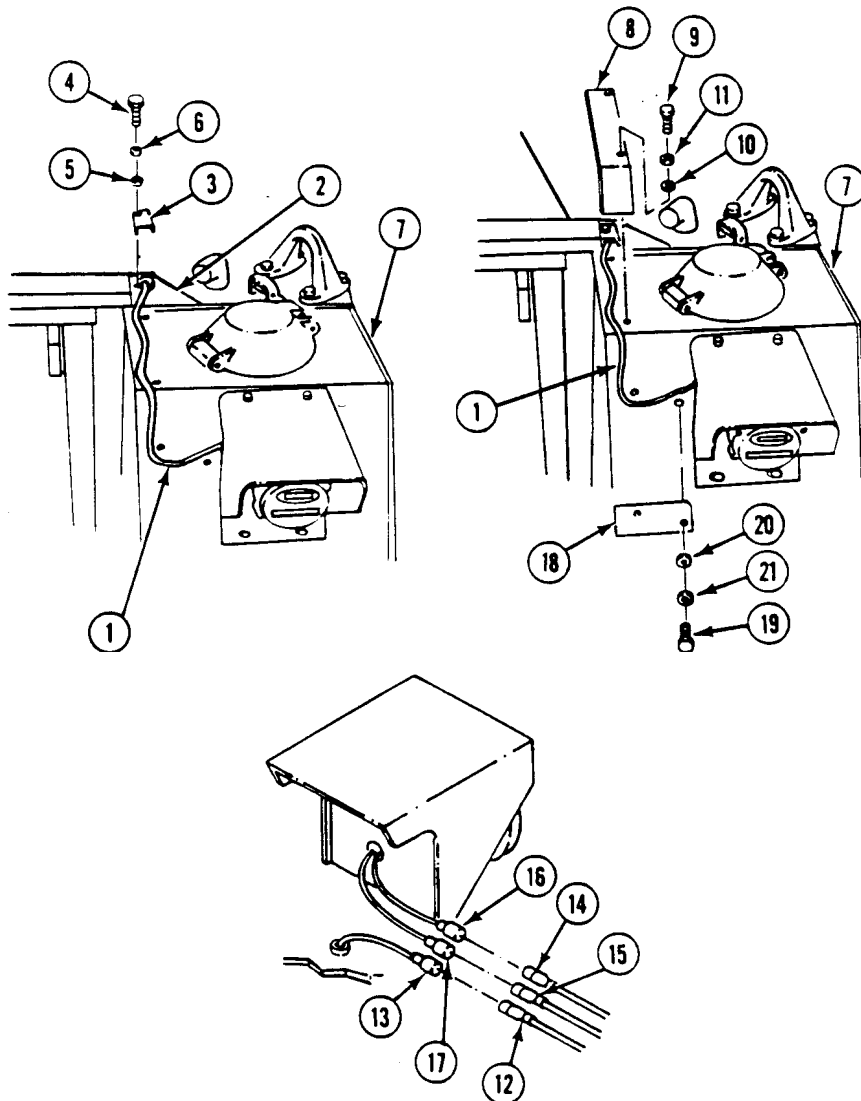
50. Secure harness (1) to two lower bilge tube clamps (2) with two clamps (3), screws (4), and new lockwashers (5).
51. Secure harness (1) to upper bilge tube clamp (6) with clamp (7), screw (8), and new locknut (9).
52. Insert harness right side branch (1) through hole in hull top.
53. Install connector (10) in hull.
54. Secure harness (1) in connector (10) with rubber bushing (11), washer (12), and nut (13).



REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY) — Continued

0288 00

55. Insert harness (1) through hole in rear plate (2).
56. Install harness guard (3) on top of rear hull. Secure with screw (4), washer (5), and new lockwasher (6).
57. Route harness (1) along top of right fuel tank (7) and install harness bracket (8) over harness. Secure with two screws (9), washers (10), and new lockwashers (11).
58. Connect circuit 31 lead (12) to fuel transmitter lead (13) on right fuel tank (7).
59. Connect circuit 23 (14) and 24 (15) leads to right taillight leads (16) and (17).
60. Install harness guard (18) over harness (1) on right fuel tank (7). Secure with two screws (19), washers (20), and new lockwashers (21).



REPLACE REAR MAIN WIRING HARNESS (M1064 ONLY) — Continued

FOLLOW-THROUGH STEPS

1. Install rear floor plate (WP 0437 00).
2. Connect battery ground lead (WP 0294 00).
3. Turn MASTER SWITCH to ON and start engine (see your -10).
4. Check that electrical system works properly (see your -10).
5. Raise and lock ramp (see your -10).
6. Stop engine (see your -10).

END OF TASK

**REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1,
AND M1059 ONLY)**

0289 00

THIS WORK PACKAGE COVERS:

Removal (page 0289 00-1).
Installation (page 0289 00-10).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Battery ground lead disconnected (WP 0294 00)

Ramp lowered (see your -10)

Rear floor plate removed (WP 0436 00)

Smoke generator fog oil tank module removed (M1059
Only) (WP 0695 00)

Materials/Parts

Gasket

Grommet (3)

Locknut (8)

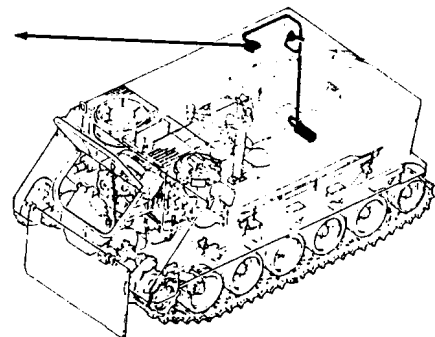
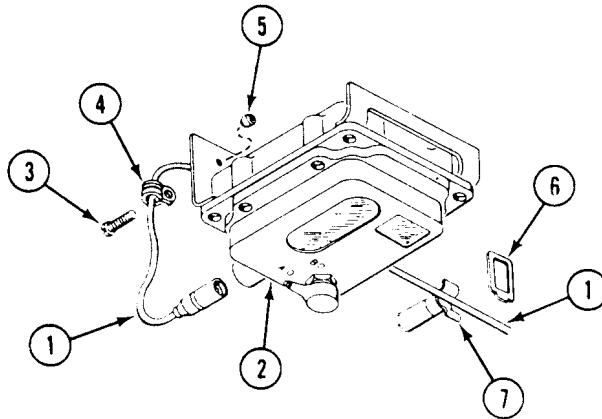
Lockwasher (AR)

Terminal (3)

Tie strap (AR)

REMOVAL

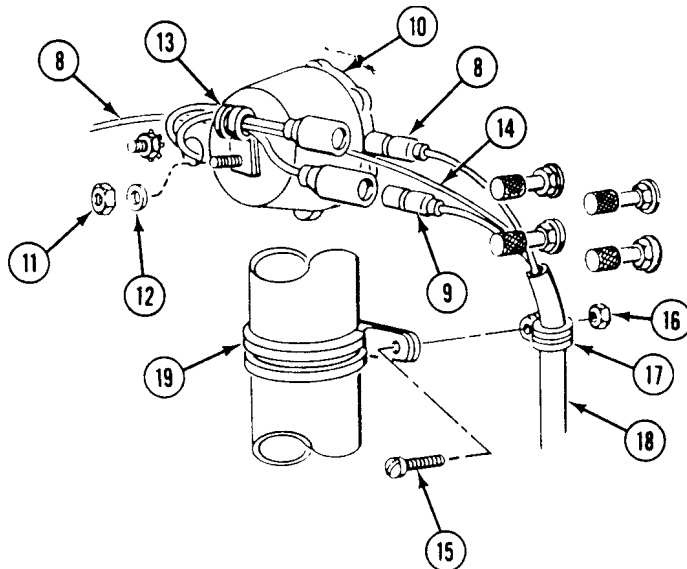
1. Disconnect circuit 38 lead (1) from rear dome light (2).
2. Remove screw (3), clamp (4), nut (5), and circuit 38 lead (1) from rear dome light (2).
3. Remove three cradle clips (6) and circuit 38 lead (1) from three cradles (7).



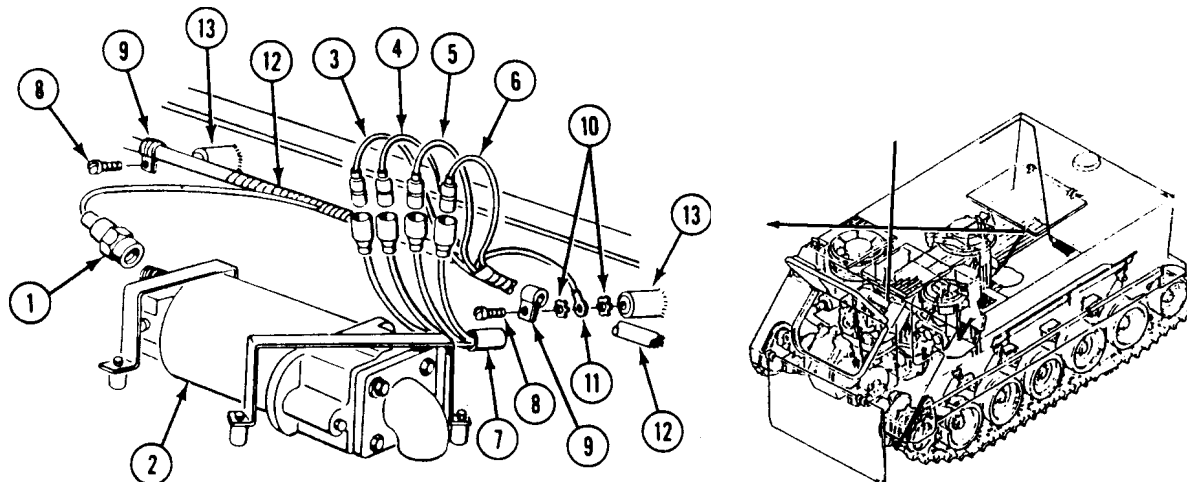
REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY) — Continued

0289 00

4. Disconnect circuit 23 lead (8) and circuit 24 lead (9) from right taillight (10).
5. Remove nut (11), washer (12), clamp (13), and circuit 38 lead (14), circuit 23 lead (8), and circuit 24 lead (9) from right taillight (10).
6. Remove screw (15), nut (16), clamp (17), and rear main wiring harness (18) from bilge tube clamp (19).



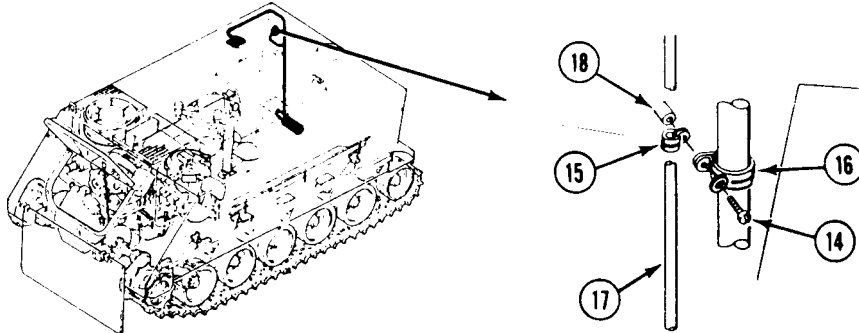
7. Disconnect circuit 451 lead (1) from rear bilge pump (2).
8. Disconnect circuit 21 lead (3), circuit 22 lead (4), circuit 23 lead (5), and circuit 24 lead (6) from trailer wiring harness (7).
9. Remove two screws (8), clamps (9), washers (10), circuit 90 lead (11), and wiring harness (12) from two weldnuts (13).



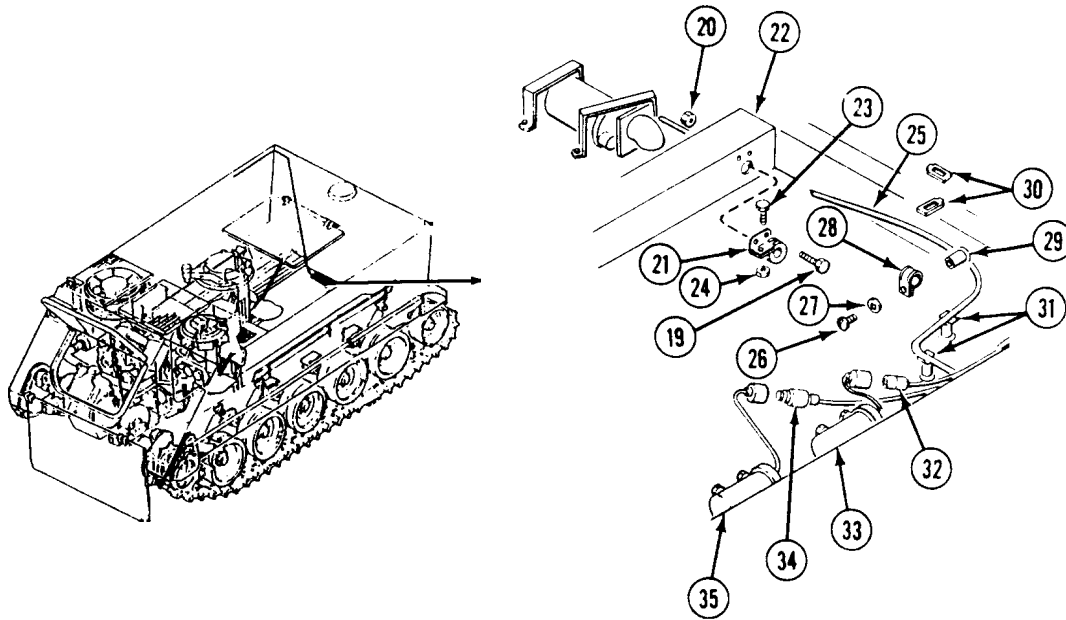
REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY) — Continued

0289 00

10. Remove screw (14), clamp (15), bilge tube clamp (16), and wiring harness (17) from weldnut (18).



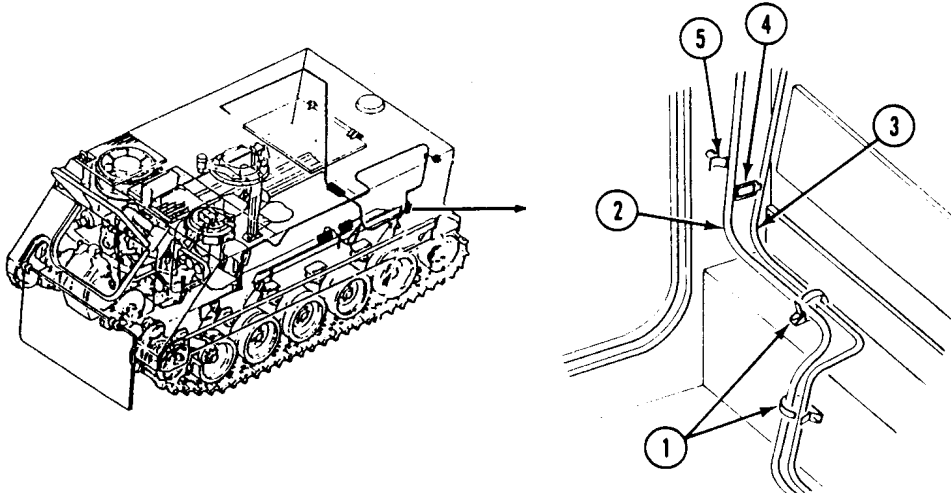
11. Remove two screws (19), nuts (20), and clamp (21) from floor transverse beam (22).
12. Remove screw (23), nut (24), and clamp (21) from circuit 451 lead (25).
13. Remove screw (26), lockwasher (27), clamp (28), and circuit 451 lead (25) from weldnut (29). Discard lockwasher.
14. Remove two cradle clips (30) and circuit 451 lead (25) from two cradles (31).
15. If personnel heater is installed, disconnect circuit 402 lead (32) from personnel heater fuel pump (33).
16. If engine coolant heater is installed, disconnect circuit 402A lead (34) from engine coolant heater fuel pump (35).



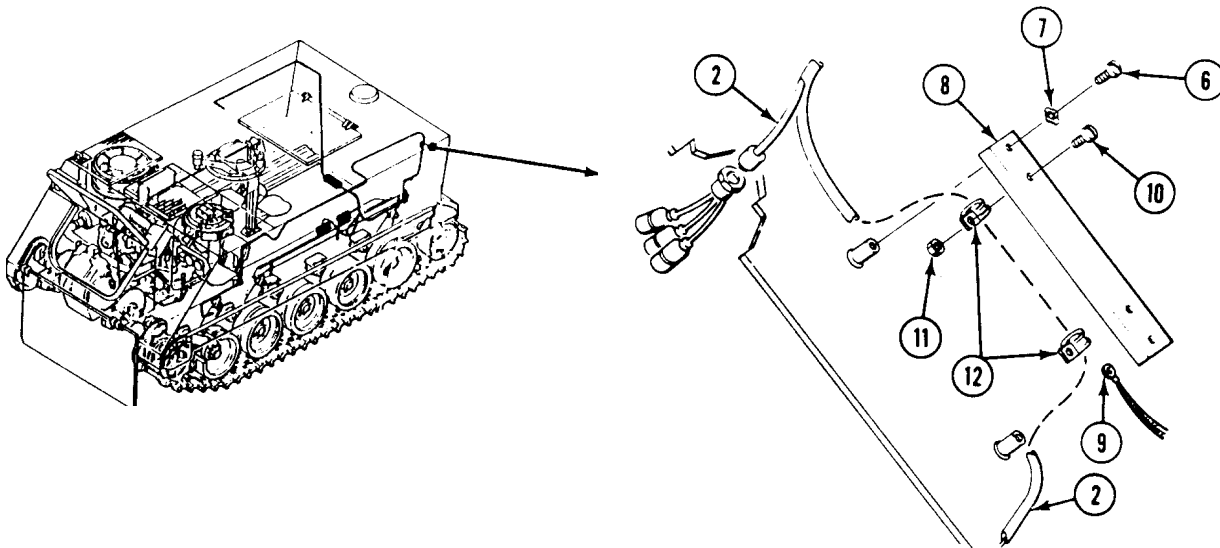
REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY) — Continued

0289 00

17. Remove two tie straps (1) and rear main wiring harness (2) from fuel tube (3). Discard tie straps.
18. Remove cradle clip (4) and harness (2) from cradle (5).



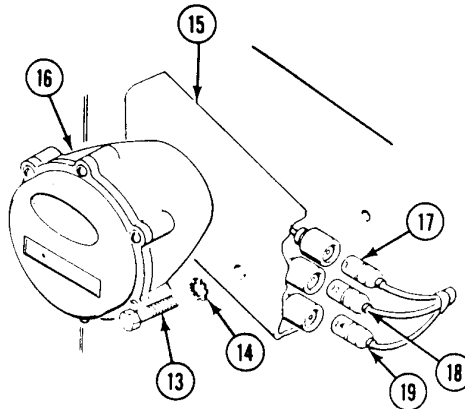
19. Remove two screws (6), lockwashers (7), guard (8), and ground strap (9) from hull. Discard lockwashers.
20. Remove two screws (10), nuts (11), clamps (12), and wiring harness (2) from guard (8).



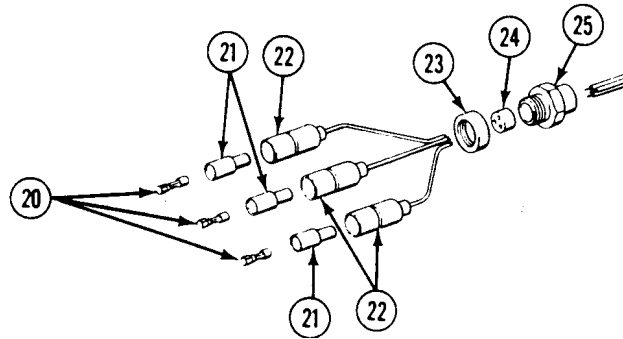
REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY) — Continued

0289 00

21. Remove four screws (13), lockwashers (14), guard (15), and left taillight (16) from hull. Discard lockwashers.
22. Disconnect circuit 21 lead (17), circuit 22 lead (18), and circuit 24 lead (19) from left taillight (16).



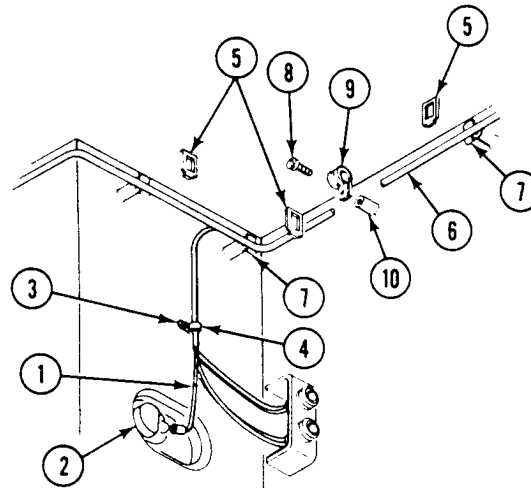
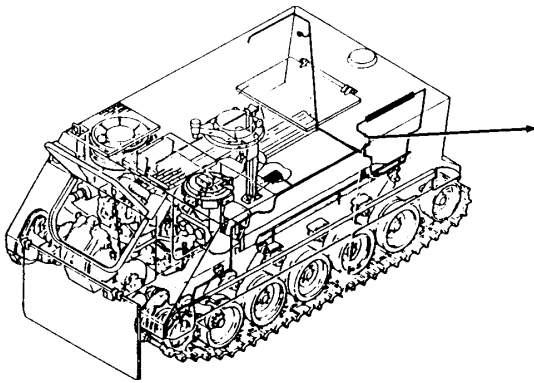
23. Remove three terminals (20), insulators (21), and connectors (22) from three leads (17), (18), and (19). Discard terminals.
24. Remove nut (23) and bushing (24) from connector (25).
25. Pull leads through connector (25).



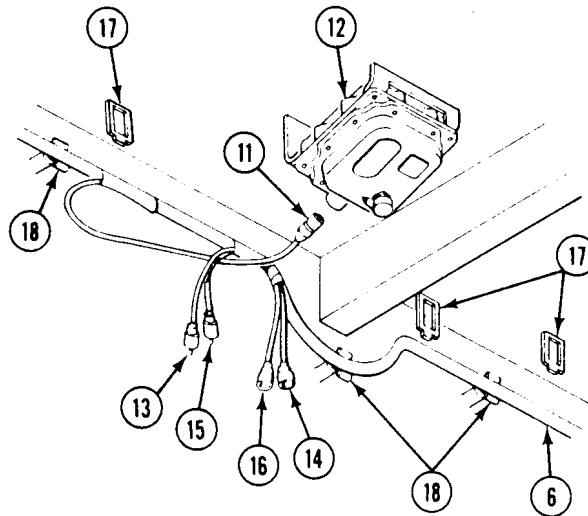
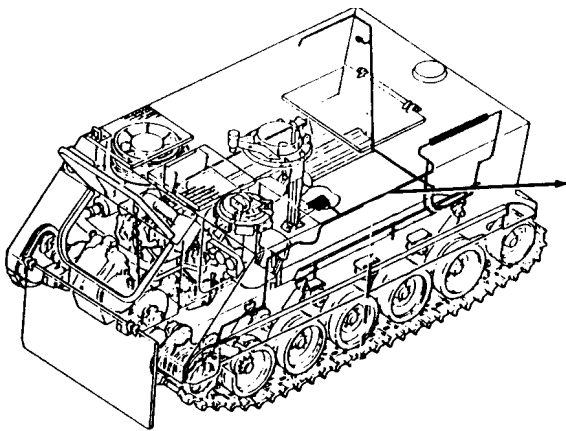
REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY) — Continued

0289 00

26. Disconnect circuit 28 lead (1) from fuel quantity sending unit (2).
27. Remove screw (3) and circuit 28 lead (1) from clamp (4).
28. Remove two cradle clips (5) and rear main wiring harness (6) from two cradles (7).
29. Remove screw (8), clamp (9), and wiring harness (6) from weldnut (10).



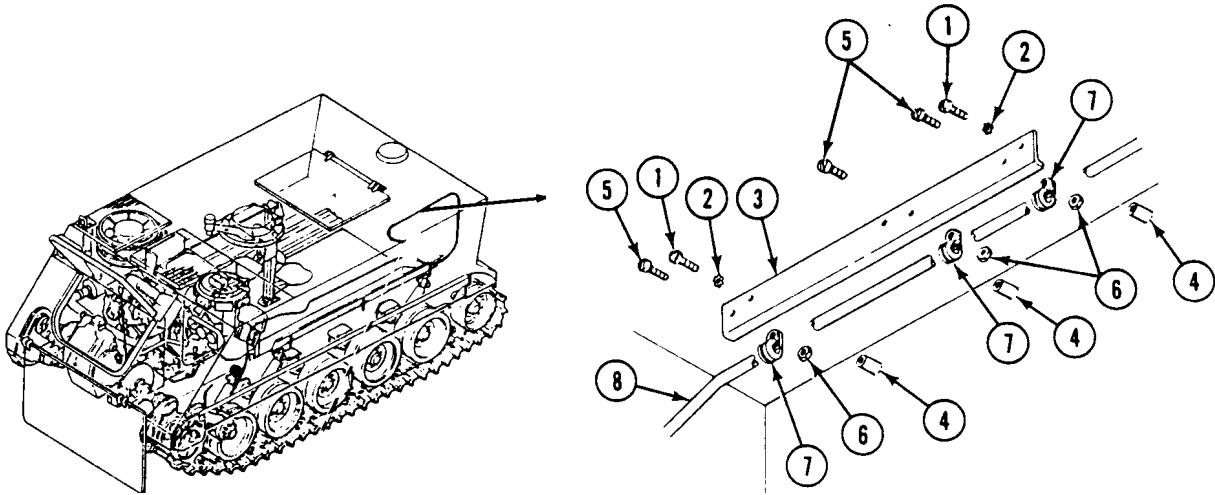
30. Disconnect circuit 38 lead (11) from front dome light (12).
31. If personnel heater is installed, disconnect circuit 402 lead (13) from personnel heater wiring harness and circuit 400 lead (14) from personnel heater control box.
32. If engine coolant heater is installed, disconnect circuit 402A lead (15) from engine coolant heater wiring harness and circuit 400A lead (16) from engine coolant heater control box.
33. Remove seven cradle clips (17) and wiring harness (6) from seven cradles (18).



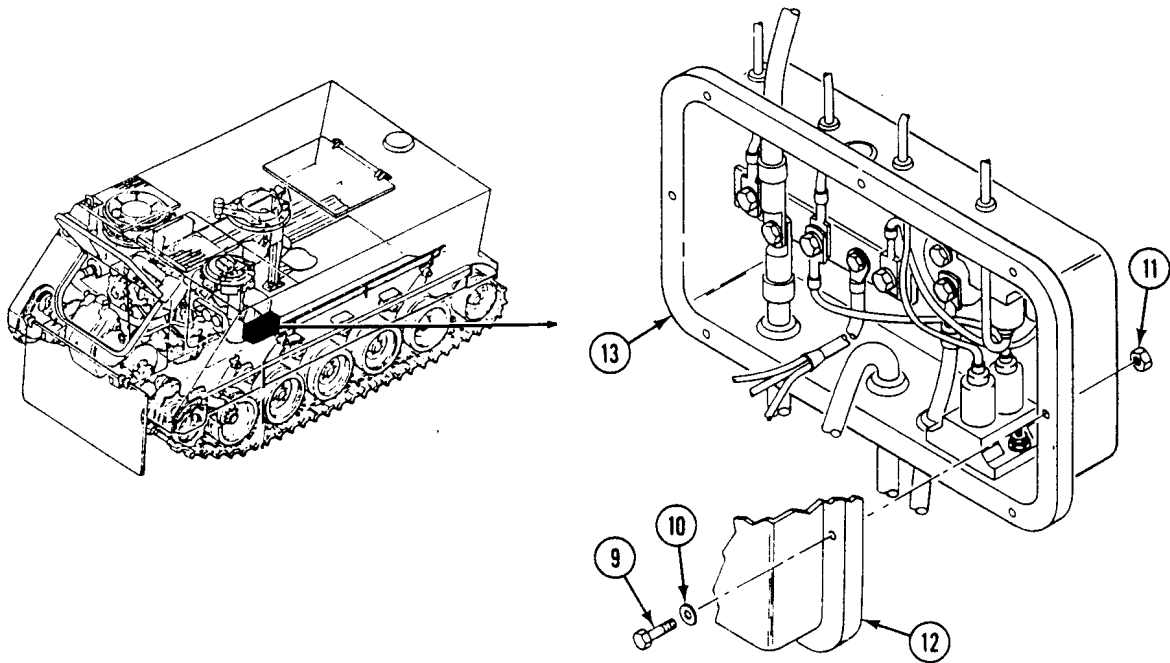
REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY) — Continued

0289 00

34. Remove two screws (1), lockwashers (2), and guard (3) from two weldnuts (4). Discard lockwashers.
35. Remove three screws (5), nuts (6), clamps (7), and wiring harness (8) from guard (3).



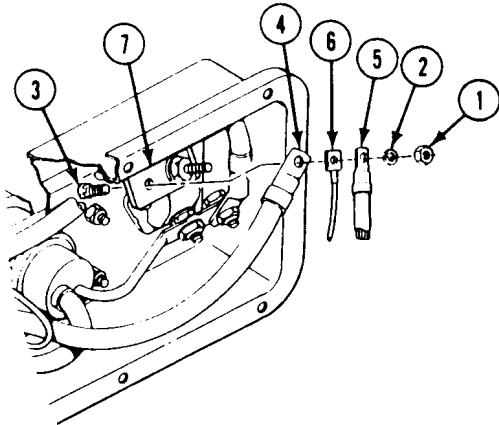
36. Remove eight screws (9), washers (10), and locknuts (11). Separate master switch panel (12) from distribution box (13). Discard locknuts.



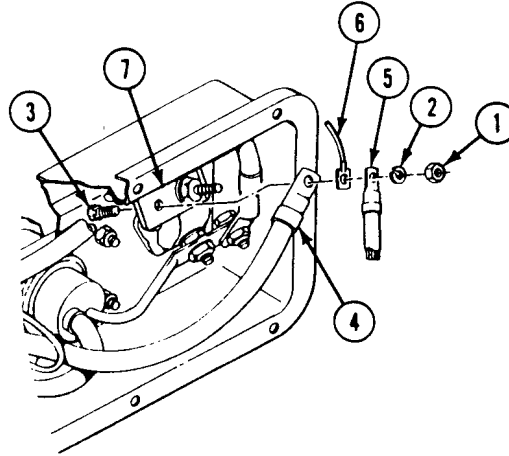
REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY) — Continued

0289 00

37. Remove nut (1), lockwasher (2), screw (3), circuit 6 lead (4), circuit 2 lead (5), circuit 400 lead (6) from bus bar (7). Discard lockwasher.

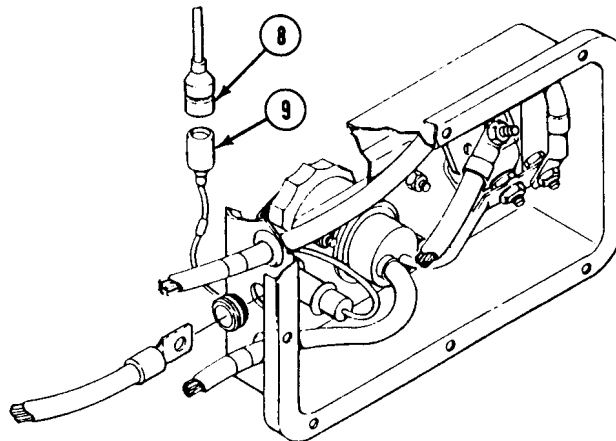


M1059 ONLY



M901A1, M113A2

38. Disconnect circuit 38 lead (8) from circuit 37 lead (9).

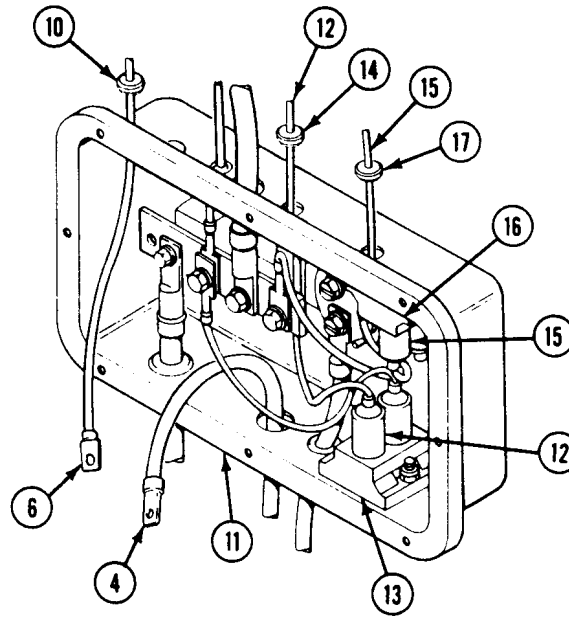


MASTER SWITCH PANEL

REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY) — Continued

0289 00

39. Remove circuit 400 lead (6) and grommet (10) from distribution box (11). Discard grommet.
40. Disconnect circuit 450 lead (12) from circuit breaker (13).
41. Remove circuit 450 lead (12) and grommet (14) from distribution box (11). Discard grommet.
42. Disconnect circuit 450B lead (15) from circuit breaker (16).
43. Remove circuit 450B lead (15) and grommet (17) from distribution box (11). Discard grommet.

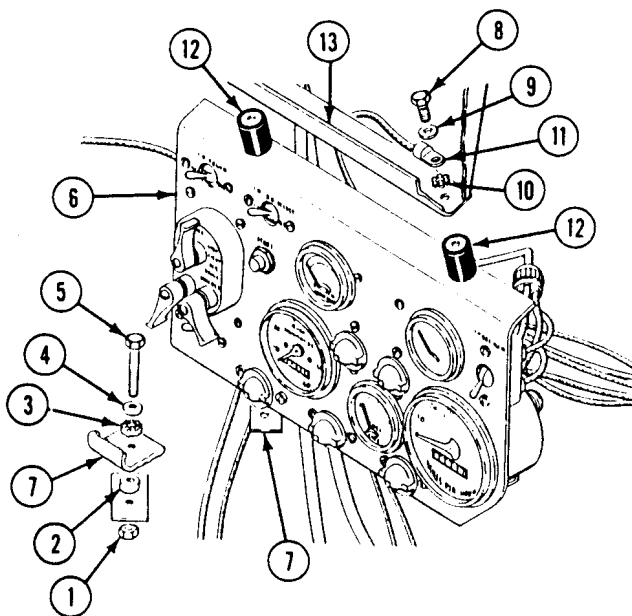


DISTRIBUTION BOX

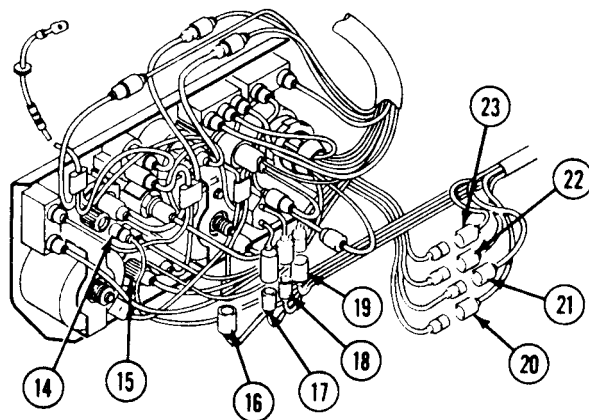
REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY) — Continued

0289 00

44. Remove two nuts (1), mounts (2) and (3), flat washers (4), and screws (5) that secure instrument panel (6) to two struts (7).
45. Support panel (6). Remove two screws (8), flat washers (9), one lockwasher (10), and ground lead (11) from two mounts (12) and upper support (13). Discard lockwasher.
46. Support panel (6) on two struts (7) to gain access to rear of panel.



47. Disconnect circuit 28 lead (14) from fuel gauge.
48. Disconnect circuit 451B lead (15) from rear BILGE PUMP ON indicator light.
49. Disconnect circuit 38 lead (16) from instrument panel wiring harness.
50. Disconnect circuit 450 lead (17), 450B lead (18), and 451A lead (19) from BILGE PUMP SWITCH.
51. Disconnect circuit 21 lead (20), circuit 22 lead (21), circuit 23 lead (22), and circuit 24 lead (23) from front main wiring harness.



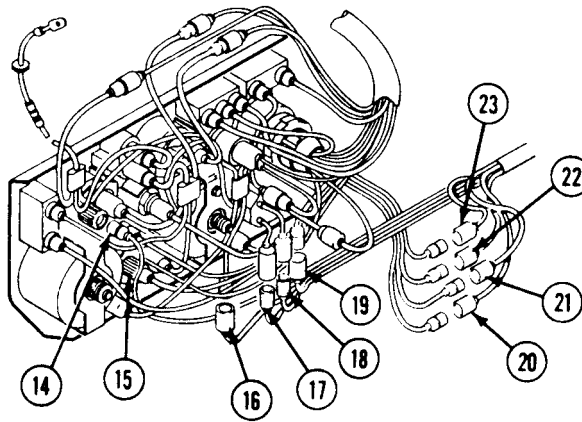
52. Remove rear main wiring harness from carrier (all carriers with inside fuel tanks).

REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY) — Continued

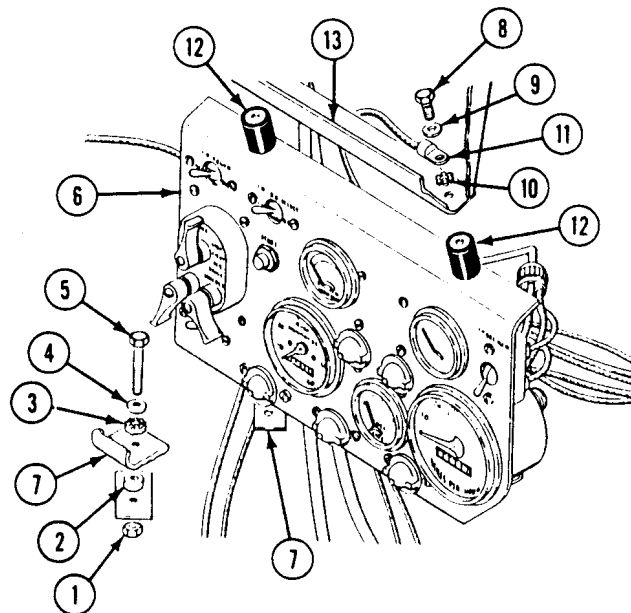
0289 00

INSTALLATION

1. Install rear main wiring harness in carrier.
2. Connect circuit 24 lead (23), circuit 23 lead (22), circuit 22 lead (21), and circuit 21 lead (20) to front main wiring harness.
3. Connect circuit 451A lead (19), 450B lead (18), and 450 lead (17) to BILGE PUMP SWITCH.
4. Connect circuit 38 lead (16) to instrument panel wiring harness.
5. Connect circuit 451B lead (15) to rear BILGE PUMP ON indicator light.
6. Connect circuit 28 lead (14) to fuel gauge.



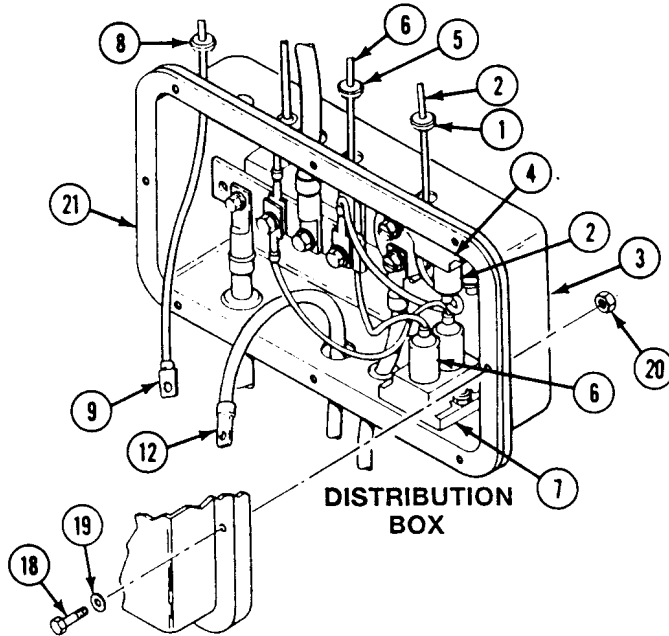
7. Support instrument panel (6) on two struts (7).
8. Install ground lead (11) and new lockwasher (10) on upper support (13). Install panel (6) with two mounts (12) on support (13). Secure with two screws (8) and flat washers (9).
9. Install panel (6) on two struts (7). Secure with two nuts (1), mounts (2) and (3), flat washers (4), and screws (5).



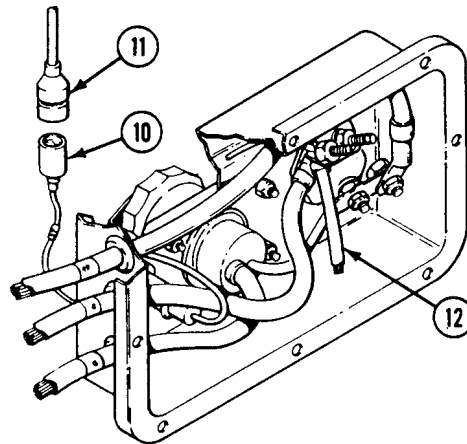
REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY) — Continued

0289 00

10. Install new grommet (1) and circuit 450B lead (2) in distribution box (3).
11. Connect circuit 450B lead (2) to circuit breaker (4).
12. Install new grommet (5) and circuit 450 lead (6) in distribution box (3).
13. Connect circuit 450 lead (6) to circuit breaker (7).
14. Install new grommet (8) and circuit 400 lead (9) in distribution box (3).



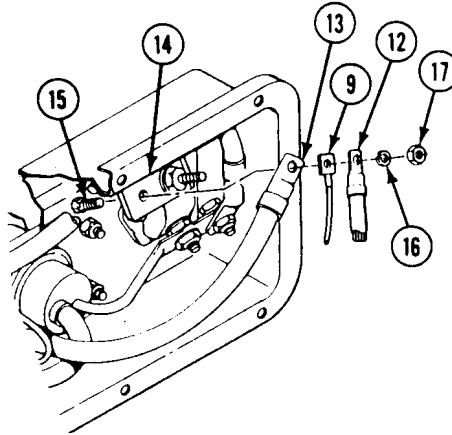
15. Connect circuit 37 lead (10) to circuit 38 lead (11).



REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY) — Continued

0289 00

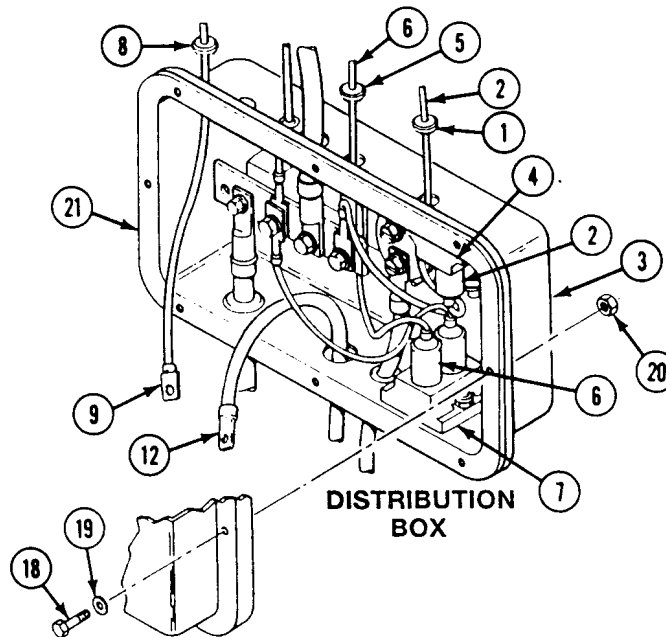
16. Install circuit 400 lead (9), circuit 2 lead (12), and circuit 6 lead (13) on bus bar (14). Secure with screw (15), new lockwasher (16), and nut (17).



NOTE

Inspect gasket (21). Replace if damaged.

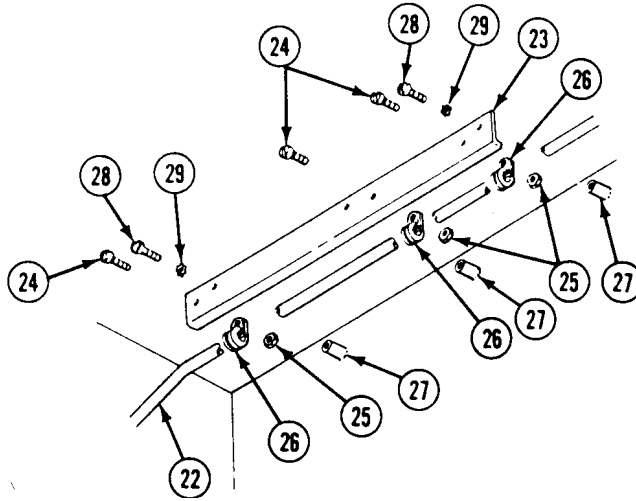
17. Install distribution box (3) on master switch panel. Secure with eight screws (18), washers (19), and new locknuts (20).



**REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND
M1059 ONLY) — Continued**

0289 00

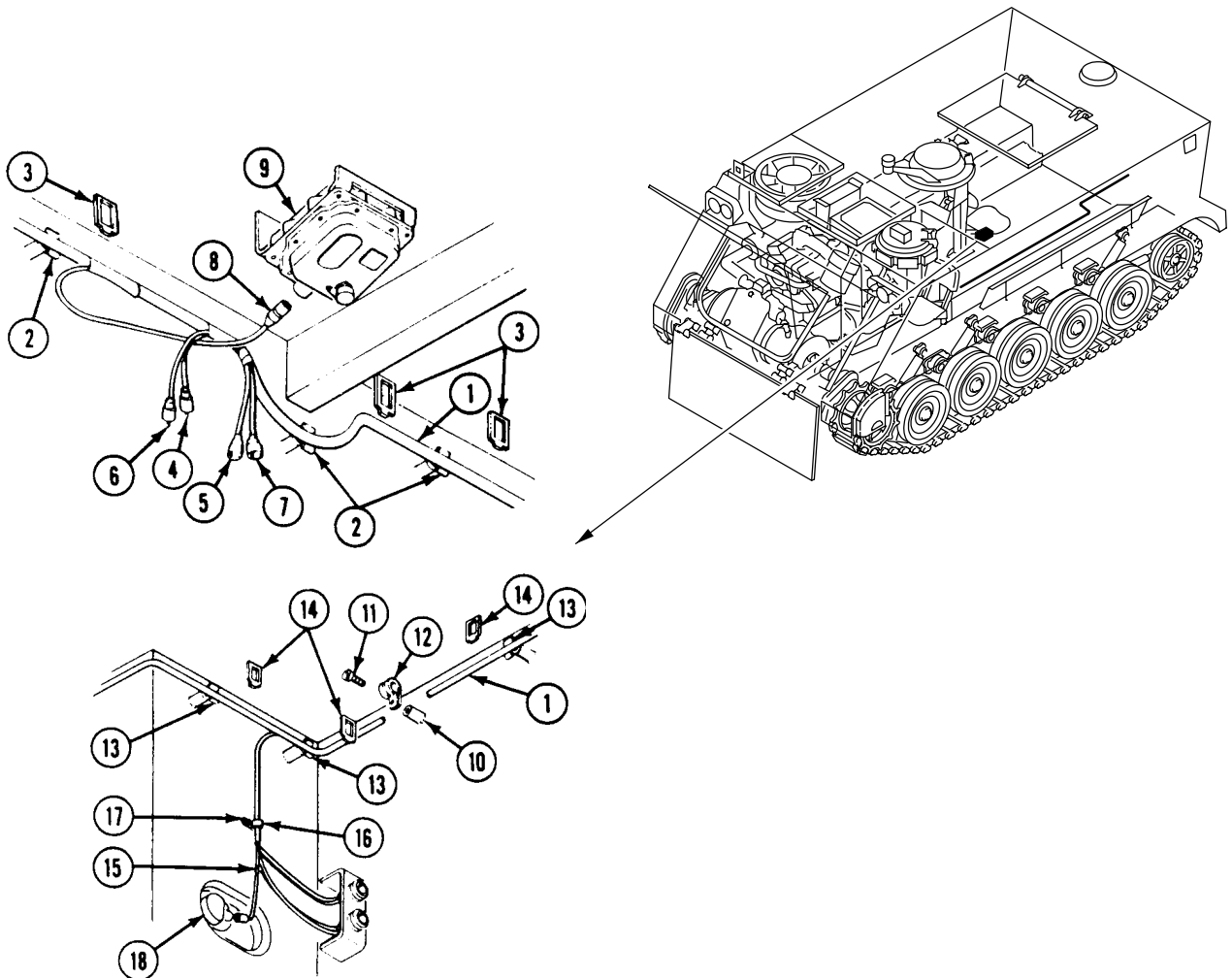
18. Install rear main wiring harness (22) on guard (23). Secure with three screws (24), nuts (25), and clamps (26).
19. Install guard (23) on two weldnuts (27). Secure with two screws (28) and new lockwashers (29).



REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY) — Continued

0289 00

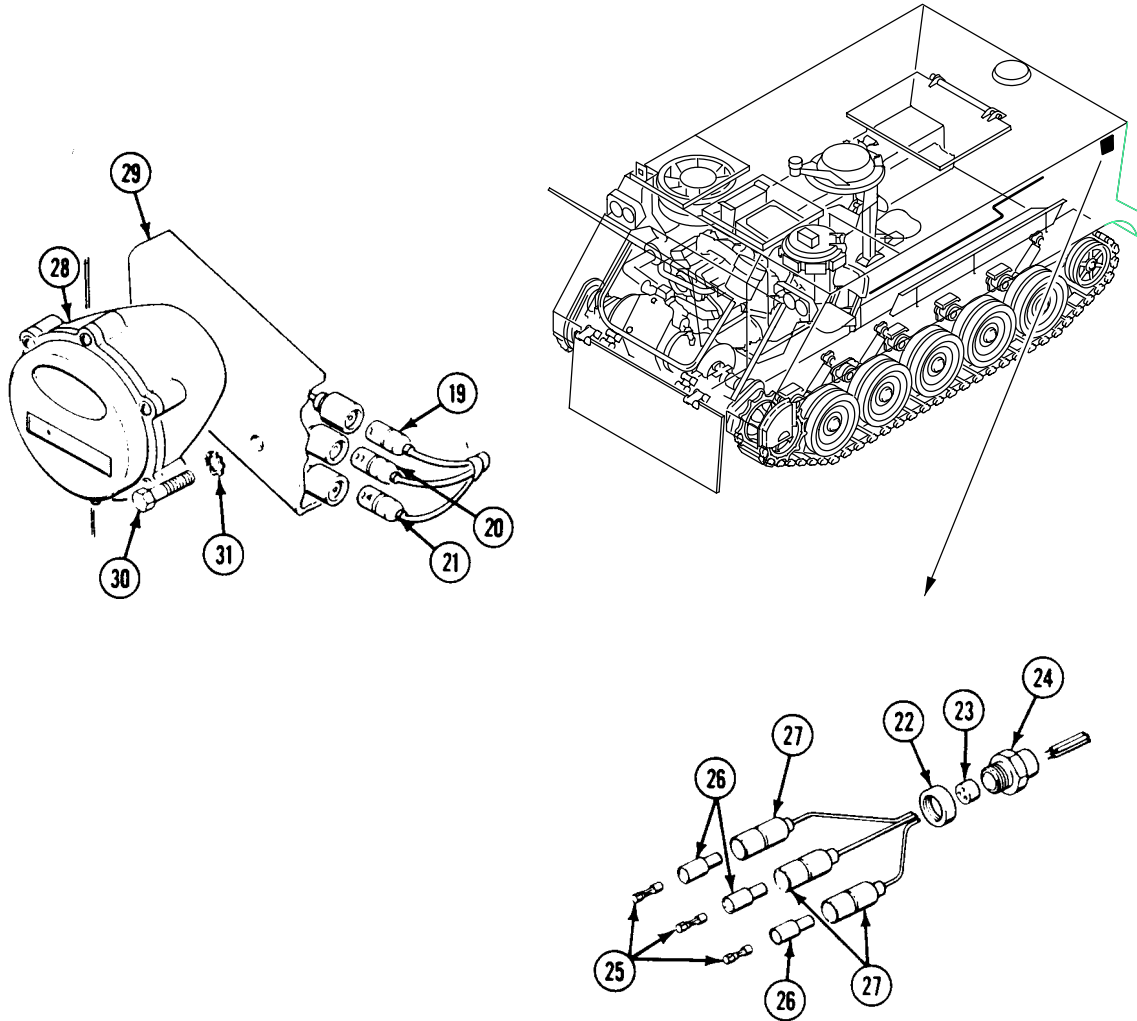
20. Install rear main wiring harness (1) on seven cradles (2). Secure with seven cradle clips (3).
21. If engine coolant heater is installed, connect circuit 402A lead (4) to engine coolant heater wiring harness and circuit 400A lead (5) to engine coolant heater control box.
22. If personnel heater is installed, connect circuit 402 lead (6) to personnel heater wiring harness and circuit 400 lead (7) to personnel heater control box.
23. Connect circuit 38 lead (8) to front dome light (9).
24. Install wiring harness (1) on weldnut (10). Secure with screw (11) and clamp (12).
25. Install wiring harness (1) on two cradles (13). Secure with two cradle clips (14).
26. Install circuit 28 lead (15) in clamp (16). Secure with screw (17).
27. Connect circuit 28 lead (15) to fuel quantity sending unit (18).



REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY) — Continued

0289 00

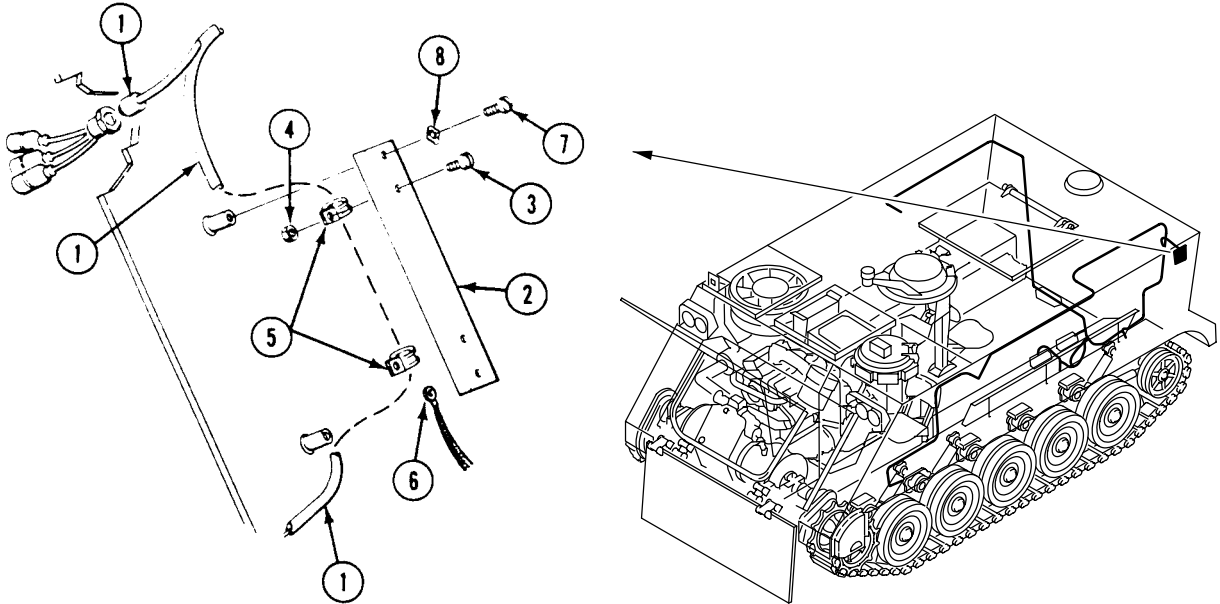
28. Install lead (19), lead (20), and lead (21) through nut (22), bushing (23), and connector (24). Tighten nut on connector.
29. Install three new terminals (25), insulators (26), and connectors (27) on the ends of three leads installed in Step 28.
30. Connect circuit 24 lead (21), circuit 22 lead (20), and circuit 21 lead (19) to left taillight (28).
31. Install left taillight (28) and guard (29) on hull. Secure with four screws (30) and new lockwashers (31).



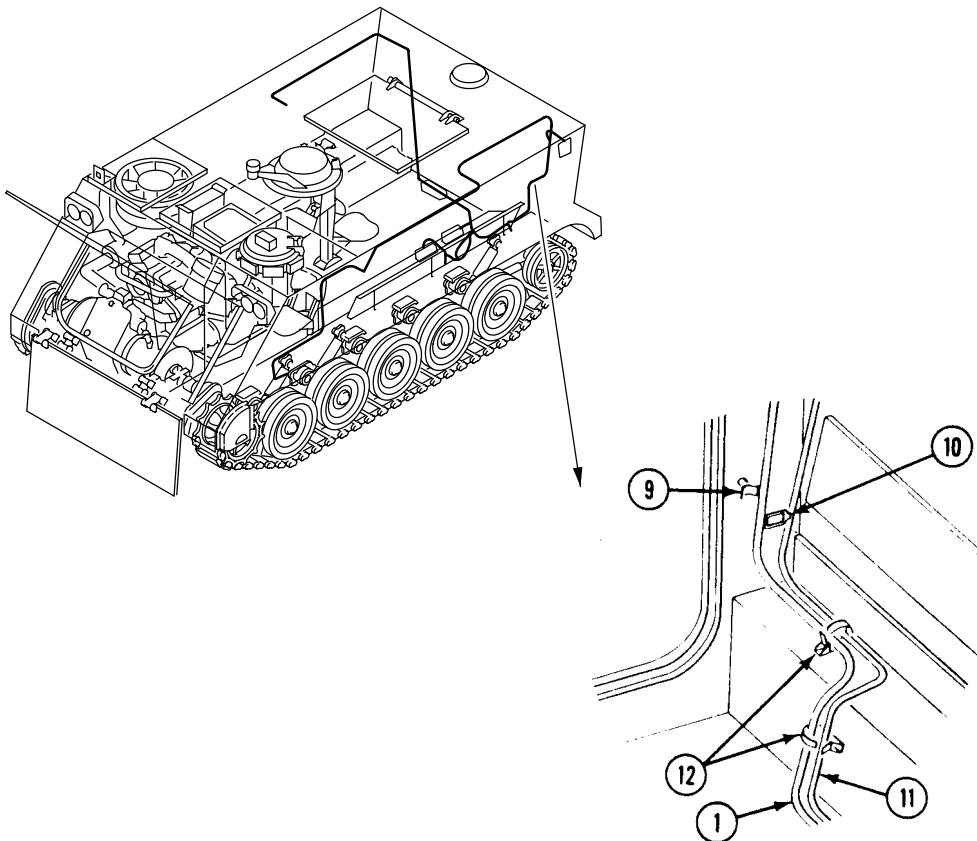
REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY) — Continued

0289 00

32. Install rear main wiring harness (1) on guard (2). Secure with two screws (3), nuts (4), and clamps (5).
33. Install guard (2) and ground strap (6) on hull. Secure with two screws (7) and new lockwashers (8).



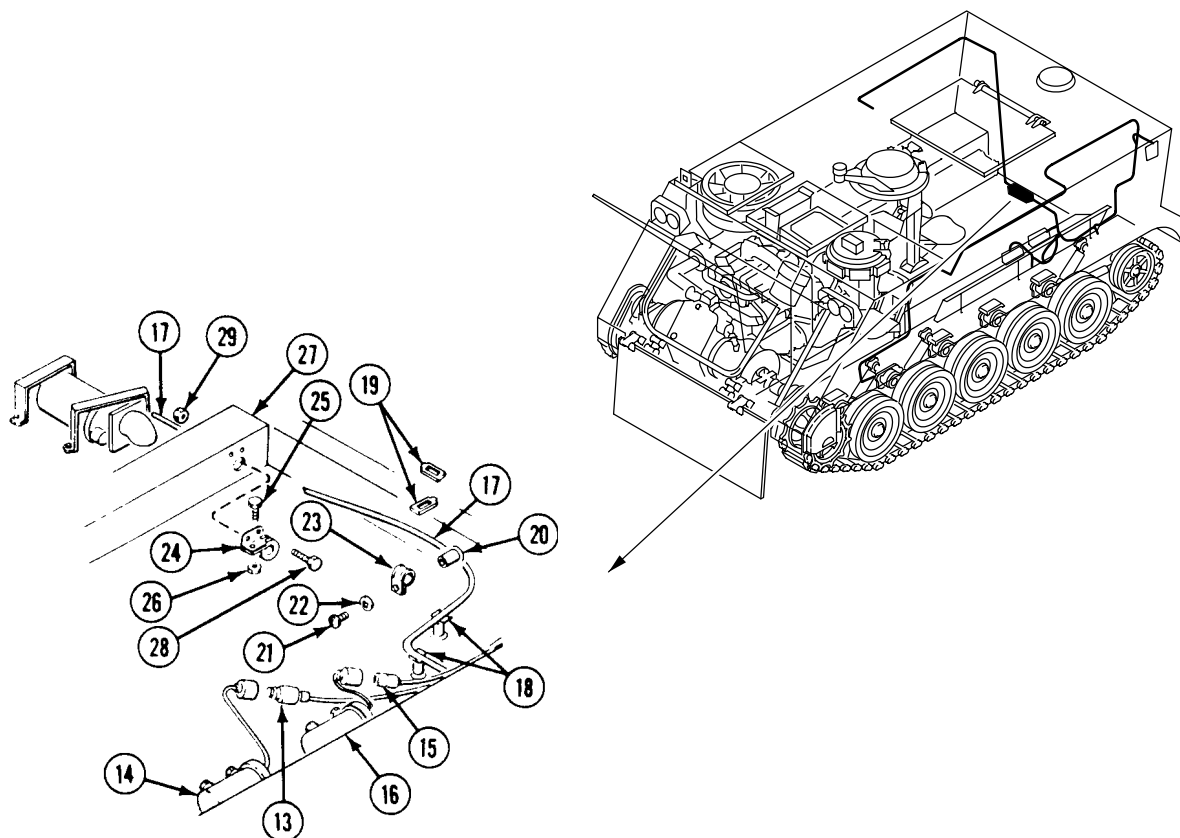
34. Install wiring harness (1) on cradle (9). Secure with cradle clip (10).
35. Install wiring harness (1) on fuel tube (11). Secure with two new tie straps (12).



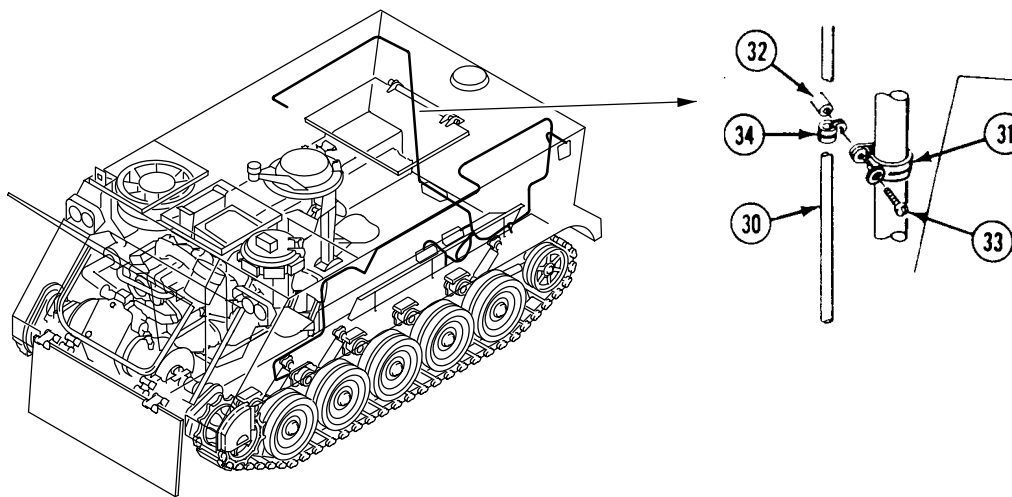
REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY) — Continued

0289 00

36. If engine coolant heater is installed, connect circuit 402A lead (13) to engine coolant heater fuel pump (14).
37. If personnel heater is installed, connect circuit 402 lead (15) to personnel heater fuel pump (16).
38. Install circuit 451 lead (17) on two cradles (18). Secure with two cradle clips (19).
39. Install circuit 451 lead (17) on weldnut (20). Secure with screw (21), new lockwasher (22), and clamp (23).
40. Install clamp (24) on circuit 451 lead (17). Secure with screw (25) and nut (26).
41. Install clamp (24) on floor transverse beam (27). Secure with two screws (28) and nuts (29).



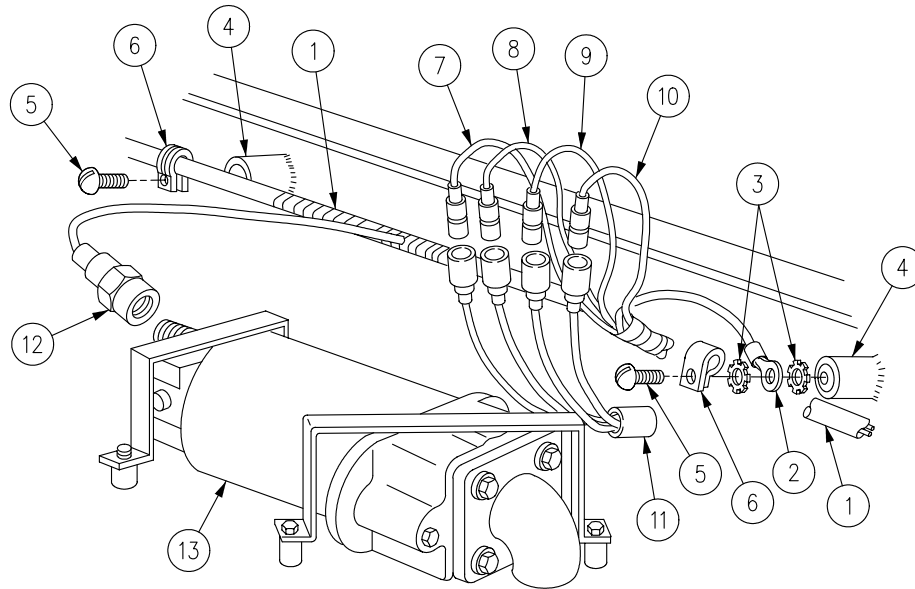
42. Install wiring harness (30) and bilge tube clamp (31) on weldnut (32). Secure with screw (33) and clamp (34).



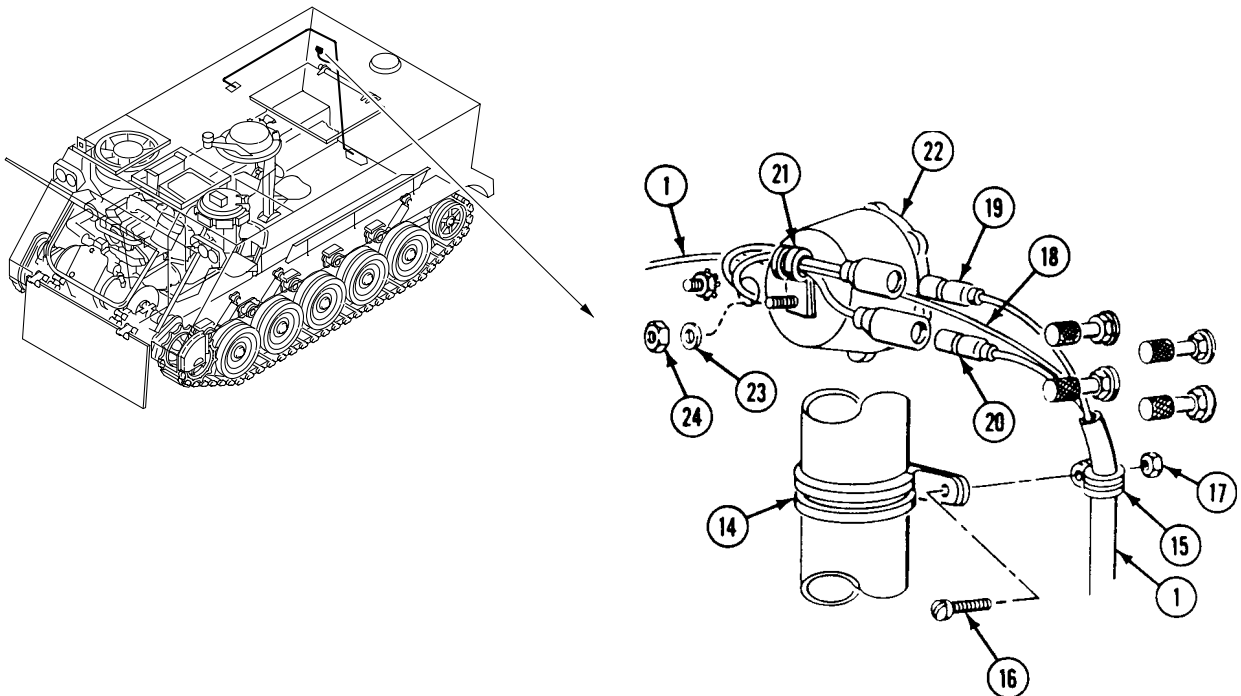
REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND M1059 ONLY) — Continued

0289 00

43. Install rear main wiring harness (1), circuit 90 lead (2), and two washers (3) on two weldnuts (4). Secure with two screws (5) and clamps (6).
44. Connect circuit 21 lead (7), circuit 22 lead (8), circuit 23 lead (9), and circuit 24 lead (10) to trailer wiring harness (11).
45. Connect circuit 451 lead (12) to rear bilge pump (13).



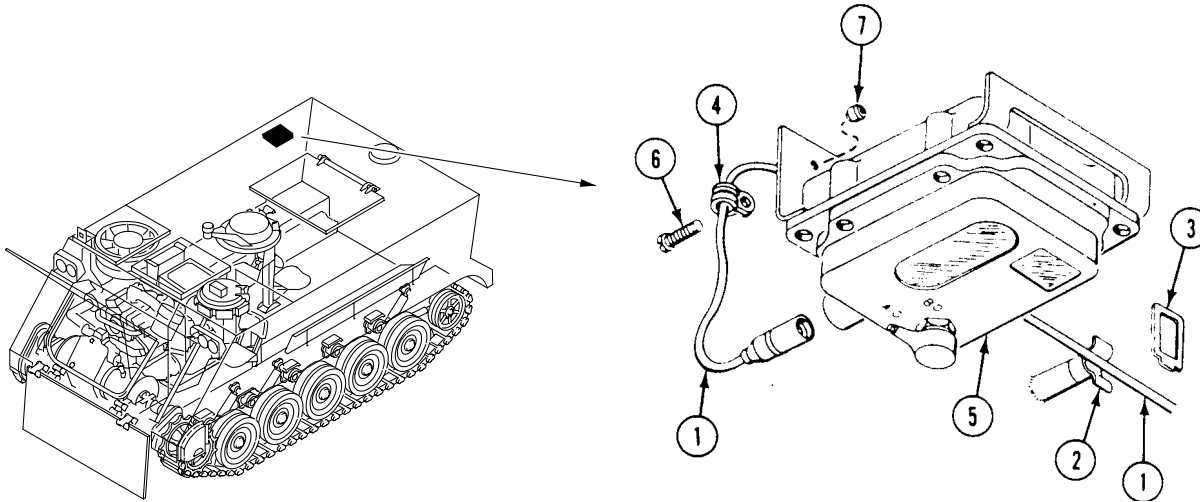
46. Install wiring harness (1) on bilge tube clamp (14). Secure with clamp (15), screw (16), and nut (17).
47. Route circuit 38 lead (18), circuit 23 lead (19), and circuit 24 lead (20) through clamp (21). Secure clamp to taillight (22) with washer (23) and nut (24).
48. Connect circuit 23 lead (19) and circuit 24 lead (20) to right taillight (22) female connectors.



**REPLACE REAR MAIN WIRING HARNESS (M113A2, M901A1, AND
M1059 ONLY) — Continued**

0289 00

49. Install circuit 38 lead (1) on three cradles (2). Secure with three cradle clips (3).
50. Install clamp (4) on rear dome light (5). Secure with screw (6) and nut (7).
51. Connect circuit 38 lead (1) to dome light (5).


FOLLOW-THROUGH STEPS

1. Install rear floor plate (WP 0436 00).
2. Connect battery ground lead (WP 0294 00).
3. Install smoke generator fog oil tank module (M1059 Only) (WP 0695 00).
4. Turn MASTER POWER SWITCH to ON (see your -10). Check that electrical system works properly.
5. Raise and lock ramp (see your -10).
6. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE STOPLIGHT SWITCH AND BRACKET

0290 00

THIS WORK PACKAGE COVERS:

- Removal (page 0290 00-1).
- Installation (page 0290 00-2).
- Adjustment (page 0290 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

See your -10
WP 0294 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)
Battery ground lead disconnected (WP 0294 00)
Trim vane lowered and power plant front access door open (see your -10)

Materials/Parts

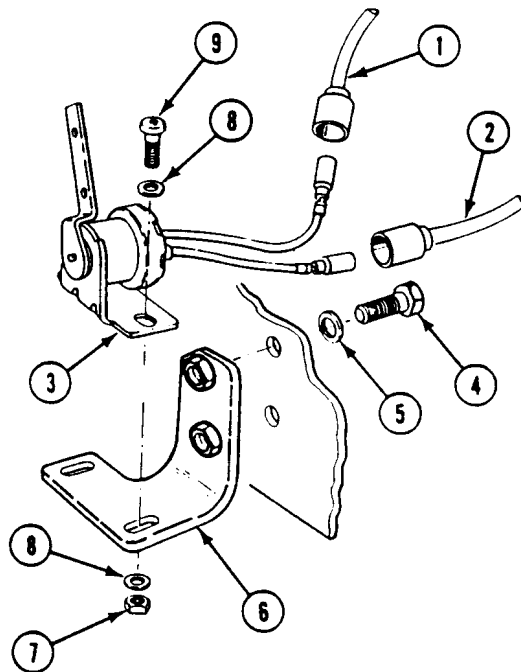
Locknut (2)

Personnel Required

Unit Mechanic

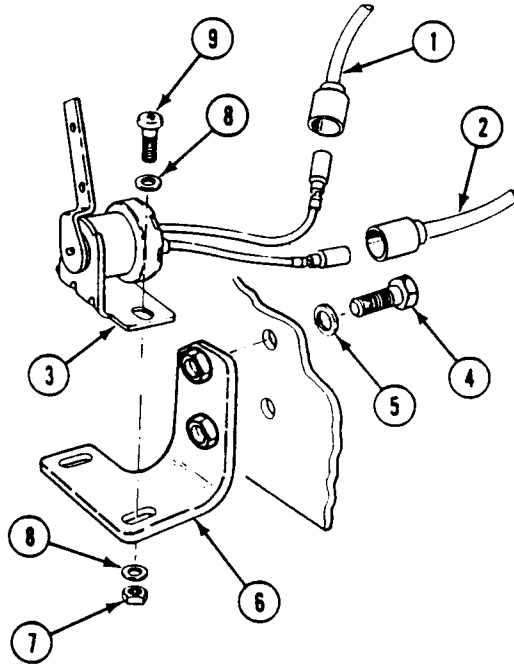
REMOVAL

1. Disconnect circuit 75A lead (1) and circuit 75B lead (2) from switch (3).
2. From driver's compartment, remove two screws (4) and washers (5) from driver's bulkhead and bracket (6).
3. From power plant compartment, remove bracket (6) with switch (3) attached.
4. Remove two locknuts (7), four washers (8), two screws (9), and switch (3) from bracket (6). Discard locknuts.



INSTALLATION

1. Place switch (3) on bracket (6). Secure with two screws (9), four washers (8), and two new locknuts (7).
2. Align bracket (6), with switch (3) attached, to driver's compartment bulkhead. Secure with two washers (5) and screws (4).
3. Connect circuit 75B lead (2) and circuit 75A lead (1) to switch (3).

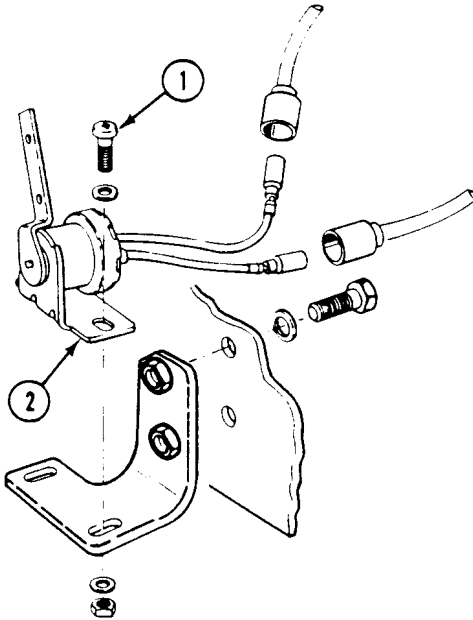
**ADJUSTMENT****NOTE**

If movement of switch is not enough to adjust switch, bend tab on steering levers to get correct adjustment.

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).

REPLACE STOPLIGHT SWITCH AND BRACKET — Continued**0290 00**

3. Loosen two screws (1) on switch (2).
4. Pull both steering levers back to first notch and lock levers (see your -10).
5. Place switch (2) against steering levers so that stoplight switch comes on.
6. Release steering levers (see your -10). Stoplights should go out.
7. Tighten two screws (1) on switch (2).

**FOLLOW-THROUGH STEPS**

1. Turn all switches OFF (see your -10).
2. Close power plant front access door and raise trim vane (see your -10).

END OF TASK

REPLACE TUBE TYPE INFRARED POWER SUPPLY

0291 00

THIS WORK PACKAGE COVERS:

- Removal (page 0291 00-1).
 - Test and Inspection (page 0291 00-2).
 - Installation (page 0291 00-3).
-

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Materials/Parts

Lockwasher (4)

Battery ground lead disconnected (WP 0294 00)

REMOVAL

WARNING



High voltage in the M19 periscope can cause serious injury or death. Voltage could exceed 16,000 volts. To avoid accidents, observe the following:

Always connect power cable to periscope before turning MASTER SWITCH and infrared (I.R.) POWER switch to ON.

Before disconnecting power cable from M19 periscope, always wait at least two minutes after turning infrared (I.R.) POWER switch and MASTER SWITCH OFF.

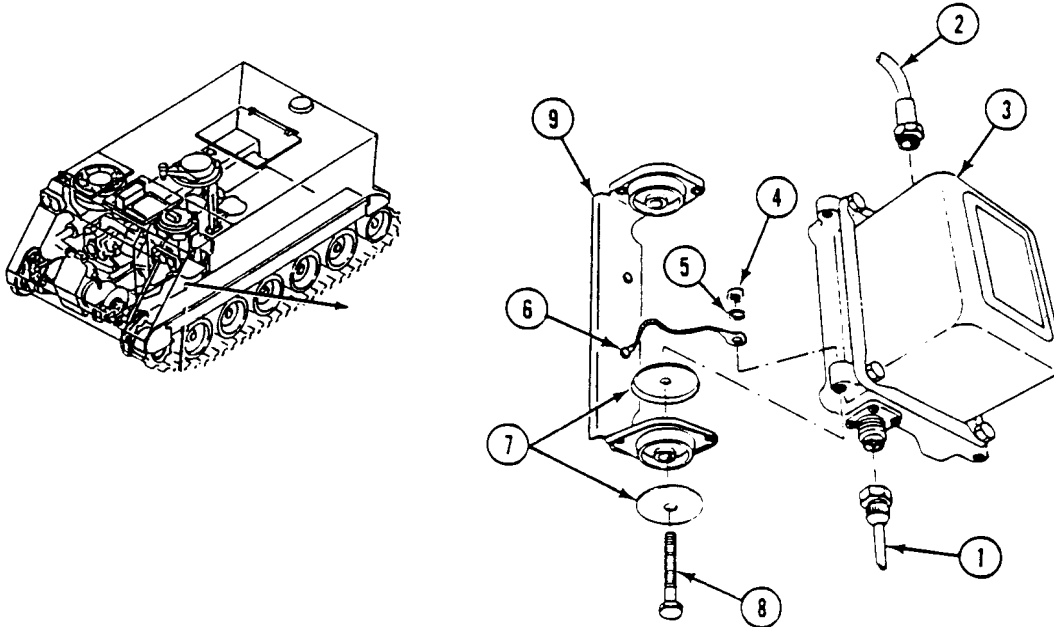
Do not disconnect power cable until image disappears from periscope screen.

Never touch end of power cable, or allow it to contact metal surfaces.

REPLACE TUBE TYPE INFRARED POWER SUPPLY — Continued

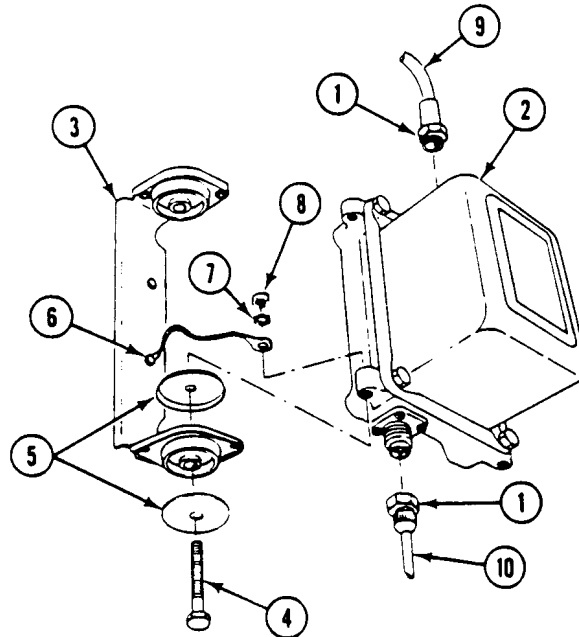
0291 00

1. Disconnect circuit 516A lead (1) and circuit 517 lead (2) from power supply (3).
2. Remove four nuts (4), four lockwashers (5), ground lead (6), eight washers (7), four screws (8), and power supply (3) from two mounts (9). Discard lockwashers.



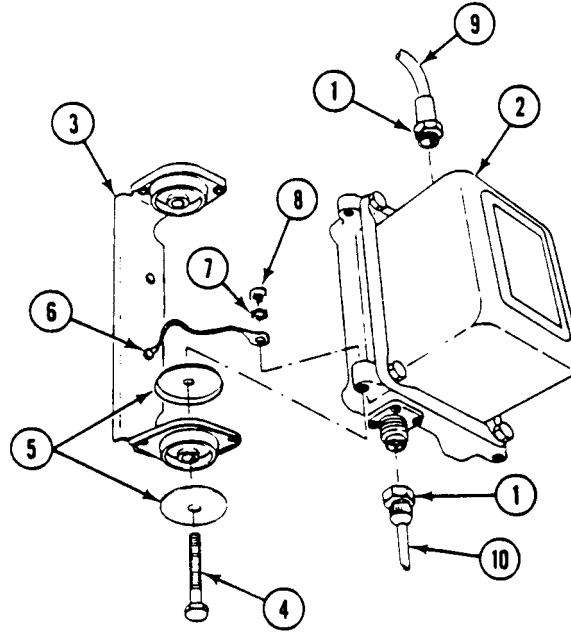
TEST AND INSPECTION

1. Check circuit lead connectors (1). Replace connectors that have bent or missing contact pins (WP 0313 00).



INSTALLATION

1. Install power supply (2) on two mounts (3). Secure with four screws (4), eight washers (5), ground lead (6), four new lockwashers (7), and nuts (8).
2. Connect circuit 517 lead (9) and circuit 516A lead (10) to power supply (2).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Install and operate M19 periscope to check that infrared power supply is operable (see your -10).
4. Turn all infrared periscope switches off (see your -10).
5. Turn MASTER SWITCH to OFF (see your -10).
6. Stow periscope (see your -10).

END OF TASK

REPLACE INFRARED POWER SUPPLY SHOCK MOUNT BRACKETS

0292 00

THIS WORK PACKAGE COVERS:

- Removal (page 0292 00-1).
- Test and Inspection (page 0292 00-1).
- Installation (page 0292 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

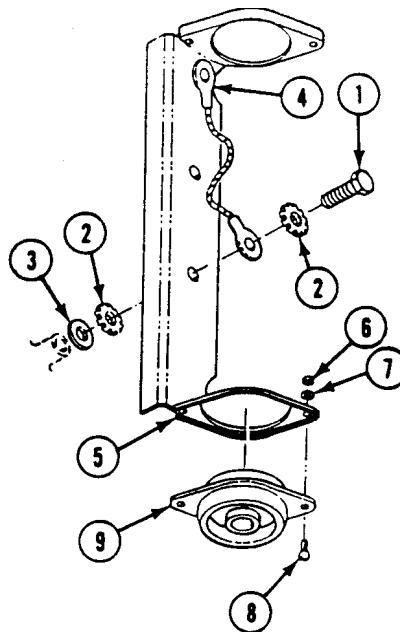
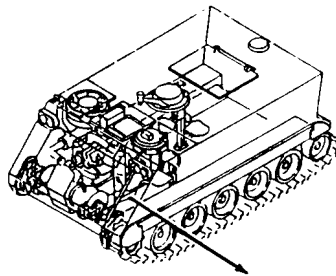
Infrared power supply removed (WP 0291 00)

Materials/Parts

Lockwasher (8)

REMOVAL

1. Remove four screws (1), eight lockwashers (2), four flat washers (3), ground strap (4), and two brackets (5) from hull. Discard lockwashers.
2. Remove eight nuts (6), washers (7), screws (8), and four mounts (9) from two brackets (5).

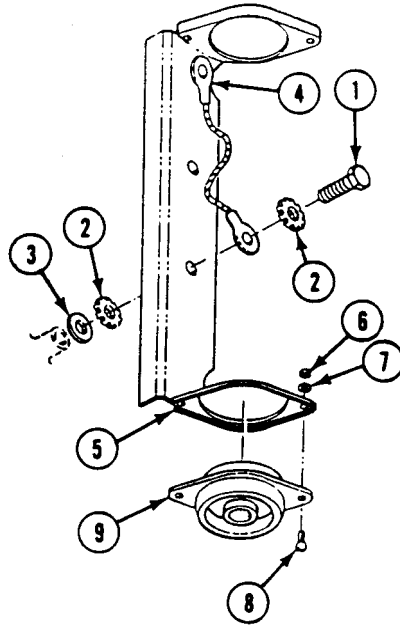


TEST AND INSPECTION

1. Check ground lead. Replace frayed, broken, or cracked parts (WP 0312 00).

INSTALLATION

1. Install four mounts (9) in two brackets (5). Secure with eight screws (8), washers (7), and nuts (6).
2. Install two brackets (5) on hull. Secure with eight new lockwashers (2), four flat washers (3), ground strap (4), and four screws (1).

**FOLLOW-THROUGH STEPS**

1. Install infrared power supply (WP 0291 00).

END OF TASK

REPLACE SOLID STATE INFRARED POWER SUPPLY

0293 00

THIS WORK PACKAGE COVERS:

- Removal (page 0293 00-1).
 - Test and Inspection (page 0293 00-2).
 - Installation (page 0293 00-3).
-

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Materials/Parts

Lockwasher (8)

Battery ground lead disconnected (WP 0294 00)

REMOVAL

WARNING



High voltage in the M19 periscope can cause serious injury or death. Voltage could exceed 16,000 volts. To avoid accidents, observe the following:

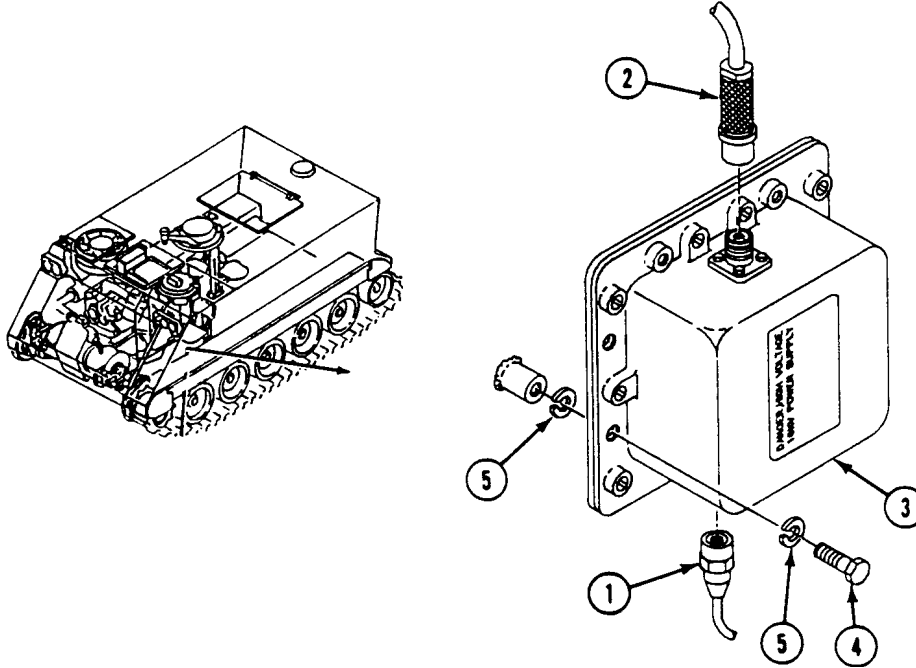
Always connect power cable to periscope before turning MASTER SWITCH and infrared (I.R.) POWER switch to ON.

Before disconnecting power cable from M19 periscope, always wait at least two minutes after turning infrared (I.R.) POWER switch and MASTER SWITCH OFF.

Do not disconnect power cable until image disappears from periscope screen.

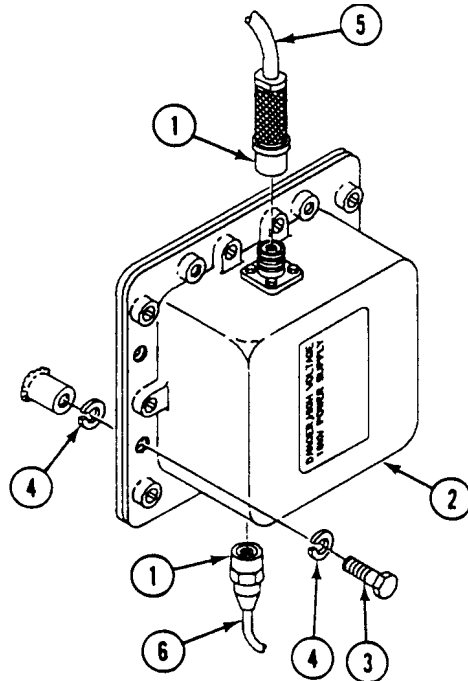
Never touch end of power cable, or allow it to contact metal surfaces.

1. Disconnect circuit 516A lead (1) and circuit 517 lead (2) from power supply (3).
2. Remove four screws (4), eight lockwashers (5), and power supply (3) from four weldnuts. Discard lockwashers.



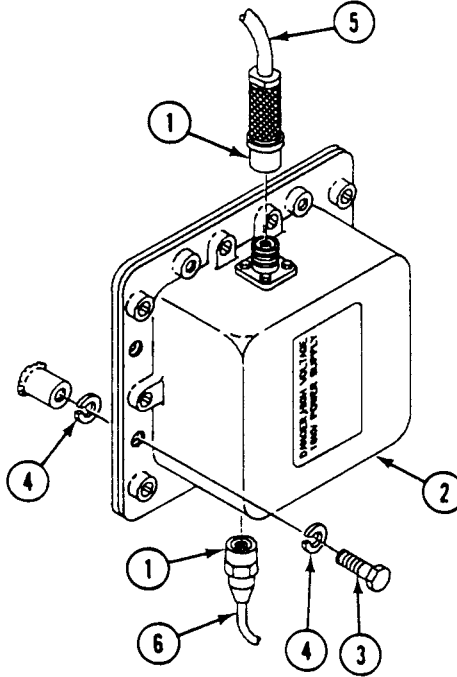
TEST AND INSPECTION

1. Check connectors (1). Replace connectors that have bent or missing contact pins (WP 0313 00).



INSTALLATION

1. Place power supply (2) on four weldnuts. Secure with four screws (3) and eight lockwashers (4) on weldnuts.
2. Connect circuit 517 lead (5) and circuit 516A lead (6) to power supply (2).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Install and operate M19 periscope to check that infrared power supply is operable (see your -10).
4. Turn all infrared periscope switches off (see your -10).
5. Turn MASTER SWITCH to OFF (see your -10).
6. Stow periscope (see your -10).

END OF TASK

CHAPTER 13

UNIT MAINTENANCE INSTRUCTIONS
FOR ELECTRICAL SYSTEM - BATTERIES

WORK PACKAGE INDEX

<u>Title</u>	<u>Sequence No.</u>
DISCONNECT/CONNECT BATTERY GROUND LEAD.....	.0294 00
REPLACE BATTERY COVER AND GROUND LEAD (M113A2, M901A1, AND M1059).....	.0295 00
REMOVE/INSTALL BATTERY ACCESS COVER (M577A2 ONLY).....	.0296 00
REMOVE/INSTALL BATTERY ACCESS COVER (M1068 ONLY).....	.0297 00
REMOVE/INSTALL BATTERY LEADS (M1068 ONLY).....	.0298 00
REMOVE/INSTALL BATTERY LEADS (M577A2 ONLY).....	.0299 00
REPLACE BATTERY LEADS (M1064 ONLY).....	.0300 00
REPLACE CIRCUIT 6 LEAD (ALL EXCEPT M577A2 AND M1068).....	.0301 00
REPLACE BATTERIES AND RETAINERS (ALL EXCEPT M1064).....	.0302 00
REPLACE BATTERIES AND RETAINERS (M1064 ONLY).....	.0303 00
REPAIR BATTERY BOX COVER (M113A2, M901A1, AND M1059 ONLY).....	.0304 00
REPAIR BATTERY BOX.....	.0305 00
REPAIR BATTERY DRAWER (M1064 ONLY).....	.0306 00
REPLACE BATTERY TO RADIO HARNESS (M1059, M901A1, AND M113A2 ONLY).....	.0307 00
REPLACE BATTERY DRAWER INSULATION AND HEAT EXCHANGER (M1064 ONLY).....	.0308 00
REPLACE BATTERY BOX INSULATION AND HEAT EXCHANGER (M577A2 AND M1068 ONLY).....	.0309 00
REPLACE BATTERY BOX INSULATION AND HEAT EXCHANGER (M113A2, M901A1, AND M1059 ONLY).....	.0310 00

DISCONNECT/CONNECT BATTERY GROUND LEAD

0294 00

THIS WORK PACKAGE COVERS:

- Disconnect (page 0294 00-1).
 - Connect (page 0294 00-2).
-

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Ramp lowered (see your -10)
- All radios and heaters OFF (see your -10)
- Battery access (see your -10)
- Battery access cover removed (M1068 Only)
(WP 0297 00)

Tools and Special Tools

- Battery Terminal Puller (WP 0780 00, Item 47)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

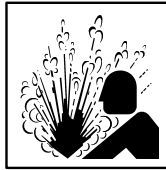
- Grease (WP 0782 00, Item 24)

Personnel Required

Unit Mechanic

DISCONNECT

WARNING



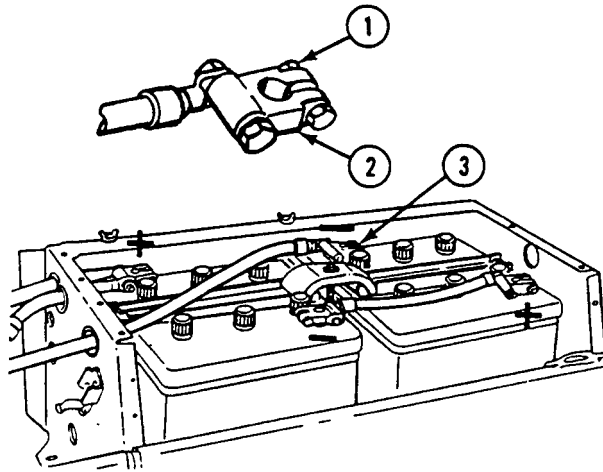
Gas from batteries can explode. Ventilate compartment before you disconnect or connect battery cables. Battery acid can burn or blind you. Do not get acid on your skin or eyes. ALWAYS disconnect ground lead (circuit 7) first and connect it last.

WARNING



Battery posts and cables touched by metal objects can short circuit and burn you. Do not wear jewelry, necklaces, or watches when working on the electrical system. Keep tools away from posts, wires, and terminals.

1. Loosen nut (1) and remove circuit 7 ground lead and terminal lug (2) from battery post (3). Use battery terminal puller.

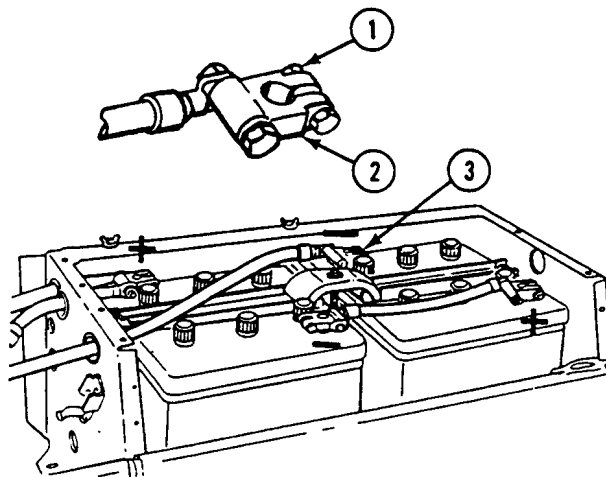


CONNECT

CAUTION

Battery cells can be damaged if the batteries are connected incorrectly. Be sure batteries are connected correctly.

1. Position circuit 7 ground lead and terminal lug (2) on battery post (3) and tighten nut (1).
2. Coat top of battery post (3) and terminal lug (2) with grease.



FOLLOW-THROUGH STEPS

1. Secure battery (see your -10).
2. Start engine (see your -10).
3. Raise and lock ramp (see your -10).
4. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE BATTERY COVER AND GROUND LEAD (M113A2, M901A1, AND M1059)

0295 00

THIS WORK PACKAGE COVERS:

- Removal (page 0295 00-1).
- Clean, Inspect, and Repair (page 0295 00-3).
- Installation (page 0295 00-4).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- Battery Terminal Cleaner (WP 0780 00, Item 12)
- Battery Terminal Puller (WP 0780 00, Item 47)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

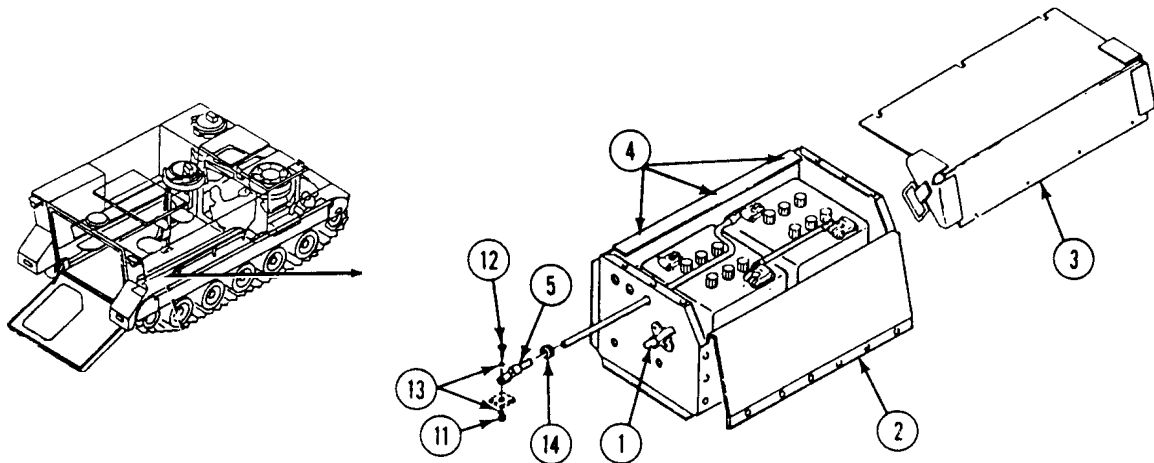
- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Ramp lowered (see your -10)

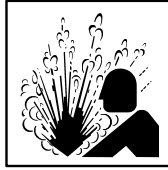
Materials/Parts

- Grease (WP 0782 00, Item 9)
- Sodium bicarbonate (WP 0782 00, Item 70)
- Grommet

REMOVAL

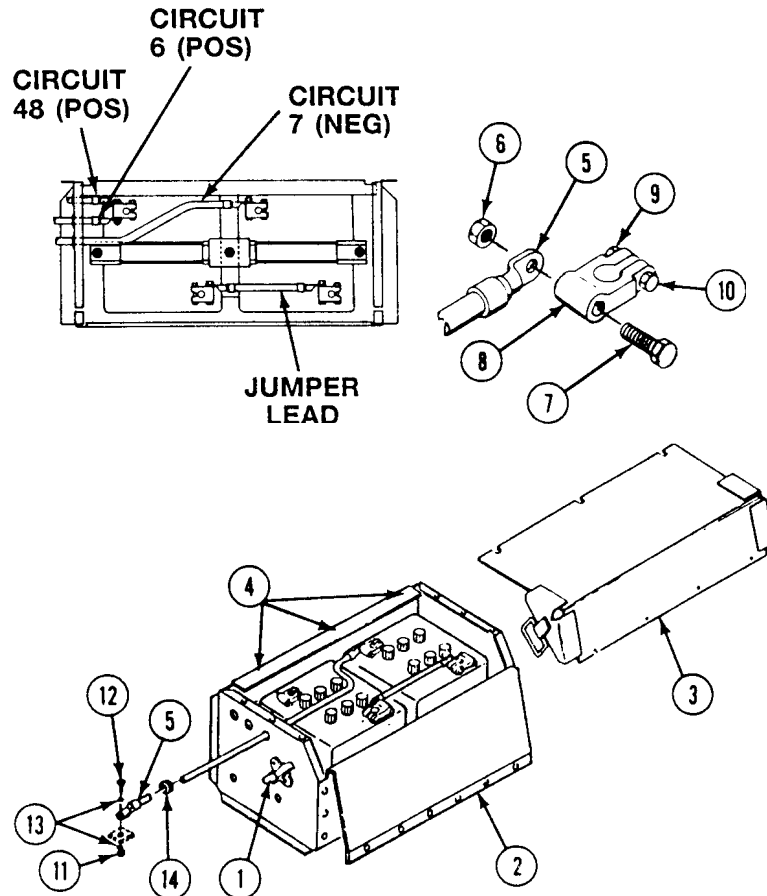
1. Release two latches (1) on side of battery box (2). Lift and slide cover (3) from three grommets (4) on rear of battery box. Remove cover.



WARNING

Gas from batteries can explode. Ventilate compartment before you disconnect or connect battery cables. Battery acid can burn or blind you. Do not get acid on your skin or eyes. ALWAYS disconnect ground lead (circuit 7) first and connect it last.

2. Remove circuit 7 lead (5) as follows:
 - a. Remove nut (6) and circuit 7 lead (5) from screw (7) on terminal lug (8).
 - b. Loosen nut (9) from screw (10) and remove terminal lug (8) from battery post. Use battery terminal puller.
 - c. Remove nut (11), screw (12), two washers (13), and lead (5) from hull mount. Remove lead and grommet (14) from battery box (2). Discard grommet.



**REPLACE BATTERY COVER AND GROUND LEAD (M113A2, M901A1,
AND M1059) — Continued**

0295 00

3. Remove two nuts (1) and jumper lead (2) from two screws (3) on two terminal lugs (4).

WARNING

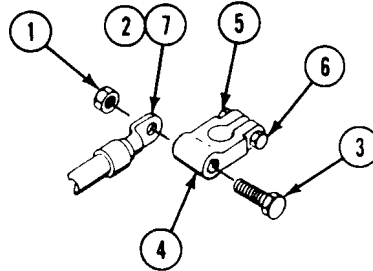


Battery posts and cables touched by metal objects can short circuit and burn you. Do not wear jewelry, necklaces, or watches when working on the electrical system. Keep tools away from posts, wires, and terminals.

CAUTION

Do not start carriers while batteries are disconnected. Starting engine with outside power while batteries are disconnected will damage electrical components in the regulator.

4. Loosen two nuts (5) on two screws (6) and remove terminal lugs (4) from battery posts. Use battery terminal puller.


CLEAN, INSPECT, AND REPAIR

1. Clean battery terminal adapters, battery posts, grounding bracket on hull, and lead connectors with brush dipped in mixture of sodium bicarbonate and water. After foaming stops, flush parts with clean water. Dry with clean cloth.
2. Clean terminals, lugs, and posts with terminal cleaner.
3. Check leads. Replace worn leads and damaged connectors (WP 0312 00).

INSTALLATION

CAUTION

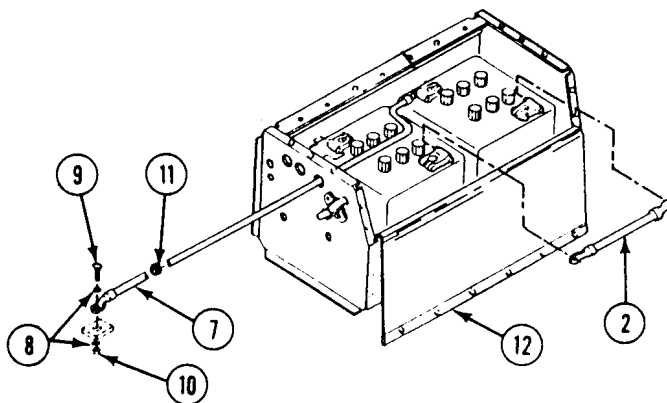
Battery cells can be damaged if the batteries are hooked up incorrectly. Make sure batteries are hooked up correctly.

1. Place two terminal lugs (4) on battery posts. Secure with two screws (6) and nuts (5).
2. Place jumper lead (2) on two screws (3) of two terminal lugs (4). Secure with two nuts (1).

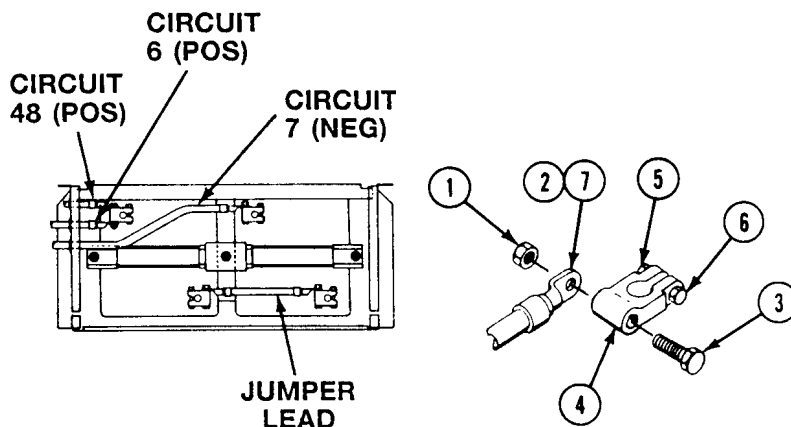
NOTE

Install circuits 6 and 48 positive leads before installing circuit 7 ground lead.

3. Install circuit 7 lead (7) as follows:
 - a. Place lead (7) on hull mount. Secure with two washers (8), screw (9), and nut (10).
 - b. Install new grommet (11) in battery box (12). Route circuit lead 7 (7) through grommet into battery box.



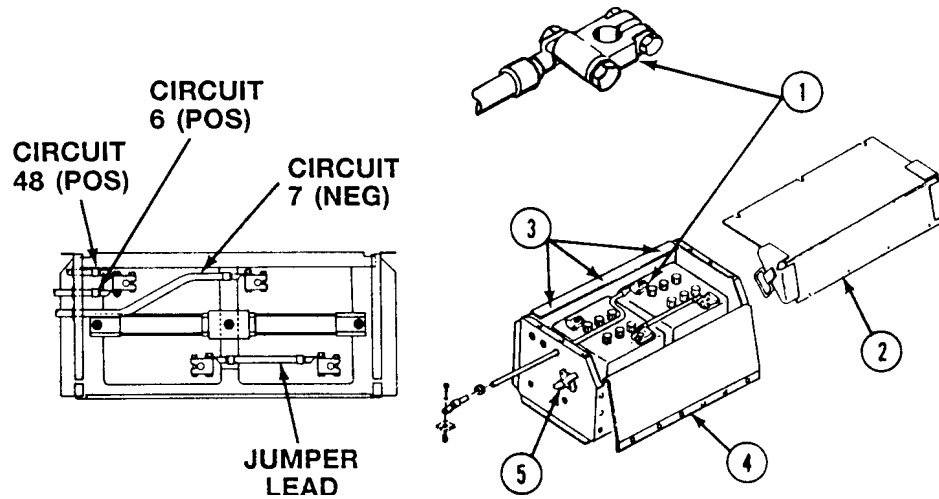
- c. Place circuit 7 lead (7) on screw (3) in terminal lug (4) of battery closest to the ramp door. Secure with nut (1).



**REPLACE BATTERY COVER AND GROUND LEAD (M113A2, M901A1,
AND M1059) — Continued**

0295 00

4. Coat tops of four battery terminal lugs (1) with grease.
5. Slide battery cover (2) onto three grommets (3) on battery box (4). Secure cover to battery box with two latches (5) on side of box.



FOLLOW-THROUGH STEPS

1. Turn MASTER SWITCH to ON. Check BATT-GEN gauge on instrument panel. Gauge should read in BATT green or yellow zone (see your -10).
2. Start engine. Raise and lock ramp (see your -10).
3. Stop/shutdown engine (see your -10).

END OF TASK

REMOVE/INSTALL BATTERY ACCESS COVER (M577A2 ONLY)

0296 00

THIS WORK PACKAGE COVERS:

Removal (page 0296 00-1).
 Installation (page 0296 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

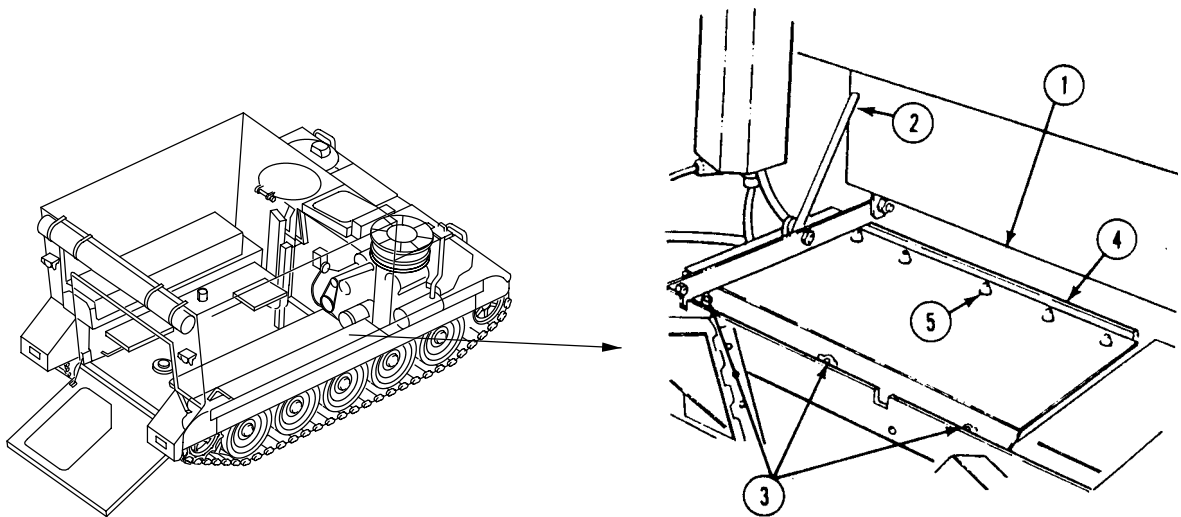
Engine stopped/shutdown (see your -10)

Materials/Parts

Nonmetallic bumper (5)

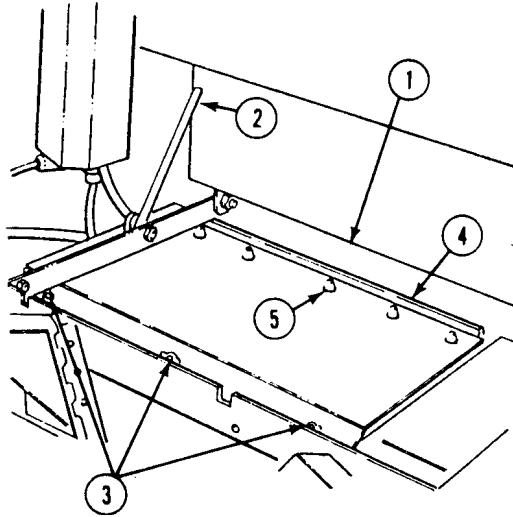
REMOVAL

1. Raise right forward table (1). Secure with support rod (2) and remove three wing nuts (3).
2. Lift and slide cover (4) from battery box.
3. Remove five nonmetallic bumpers (5) from cover. Discard bumpers.



INSTALLATION

1. Install five new nonmetallic bumpers (5) in battery box cover (4).
2. Slide cover (4) onto battery box. Secure with three wing nuts (3).
3. Lower support rod (2) and right forward table (1).

**END OF TASK**

REMOVE/INSTALL BATTERY ACCESS COVER (M1068 ONLY)

0297 00

THIS WORK PACKAGE COVERS:

Removal (page 0297 00-1).
 Installation (page 0297 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)

Tools and Special Tools

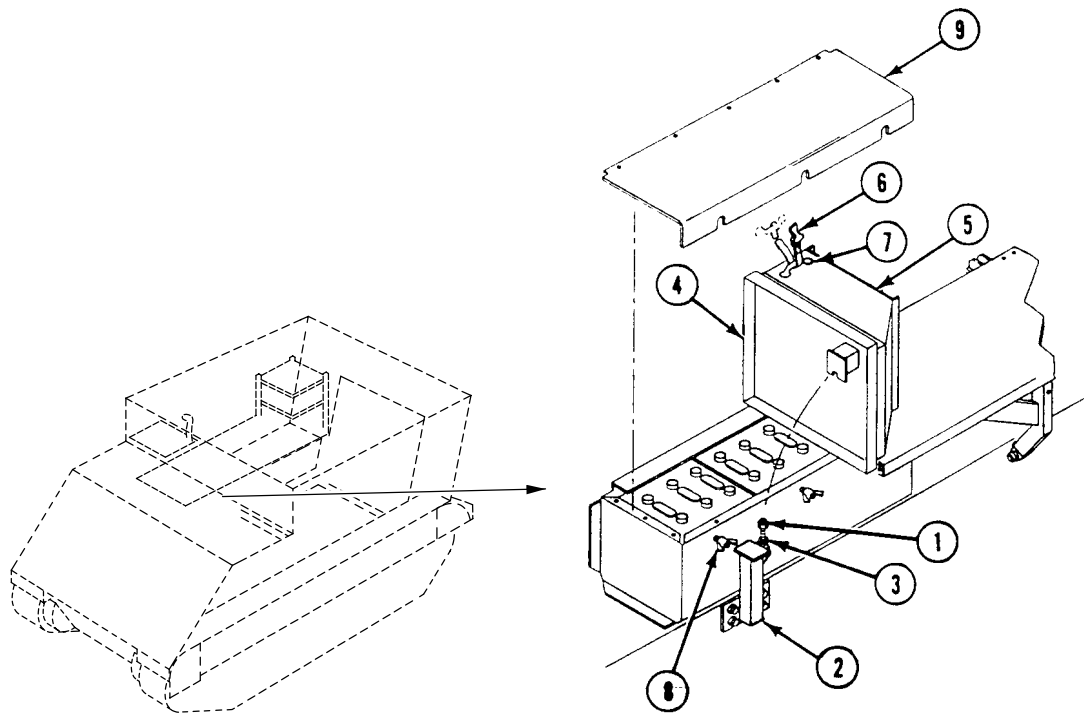
General Mechanic's Tool Kit (WP 0780 00, Item 29)

Personnel Required

Unit Mechanic

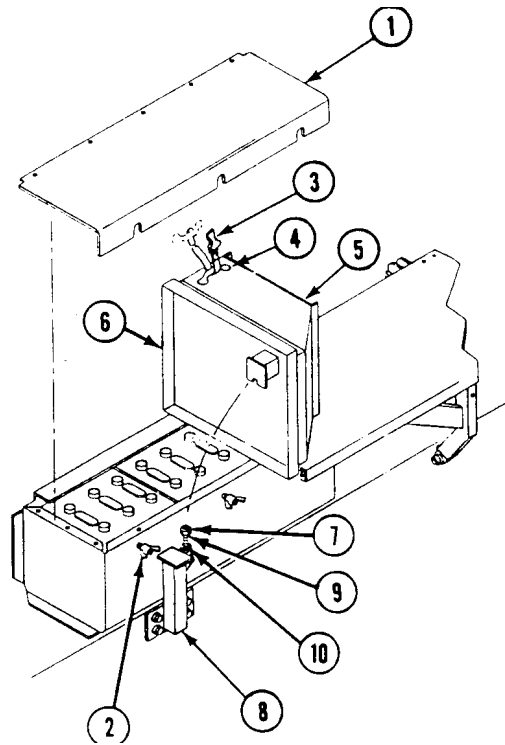
REMOVAL

1. Loosen nut (1) on FAX hinged base extension support (2). Pivot bolt (3) to free extension base.
2. Raise FAX hinged base extension (4) and secure to FAX mount assembly (5) with web strap (6) in slot (7).
3. Loosen three wing nuts (8) and remove battery box cover (9).



INSTALLATION

1. Install battery box cover (1) and tighten three wing nuts (2).
2. Remove web strap (3) from slot (4) on FAX mount assembly (5) and lower FAX hinged base extension (6).
3. Tighten nut (7) on FAX hinge base extension support (8). Secure with bolt (9), lockwashers (10), and nut (7). Tighten securely.

**END OF TASK**

REMOVE/INSTALL BATTERY LEADS (M1068 ONLY)

0298 00

THIS WORK PACKAGE COVERS:

- Removal (page 0298 00-1).
 - Clean, Inspect, and Repair (page 0298 00-3).
 - Installation (page 0298 00-4).
-

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- Battery Terminal Cleaner (WP 0780 00, Item 12)
- Battery Terminal Puller (WP 0780 00, Item 47)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

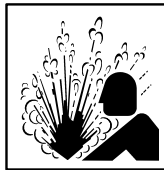
- Engine stopped (see your -10)
- Carrier blocked (see your -10)
- Ramp lowered (see your -10)
- Battery access cover removed (WP 0297 00)
- Battery ground lead disconnected (WP 0294 00)

Materials/Parts

- Grease (WP 0782 00, Item 24)
 - Sodium bicarbonate (WP 0782 00, Item 70)
 - Grommet (2)
-

REMOVAL

WARNING



Gas from batteries can explode. Ventilate compartment before you disconnect or connect battery cables. Battery acid can burn or blind you. Do not get acid on your skin or eyes. ALWAYS disconnect ground lead (circuit 7) first and connect it last.

WARNING



Electrical current can burn you. Disconnect battery ground lead before you start task.

CAUTION

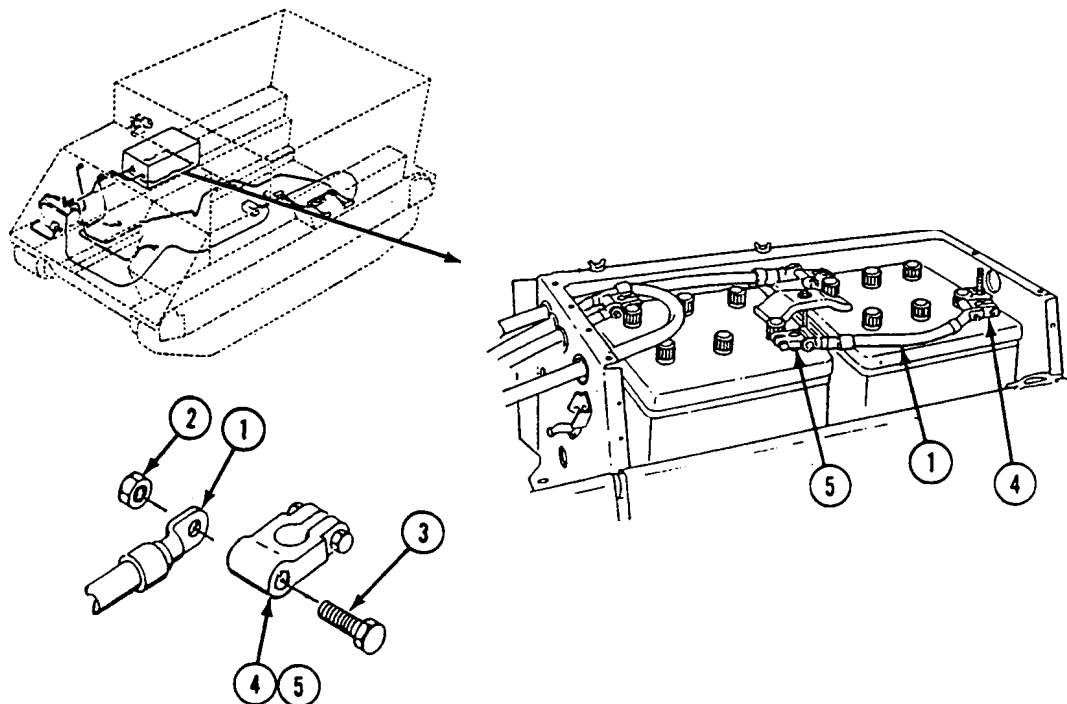
Do not start carriers without batteries installed. Starting engine with outside power will cause damage to electrical components in the regulator.

REMOVE/INSTALL BATTERY LEADS (M1068 ONLY) — Continued

0298 00

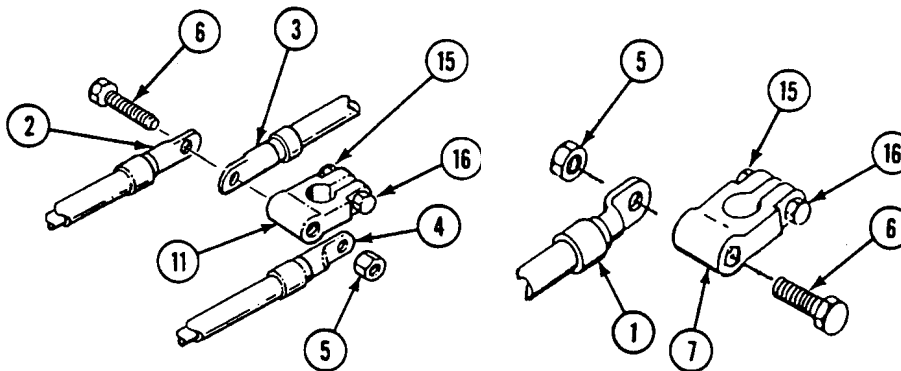
1. Remove jumper lead (1) as follows:

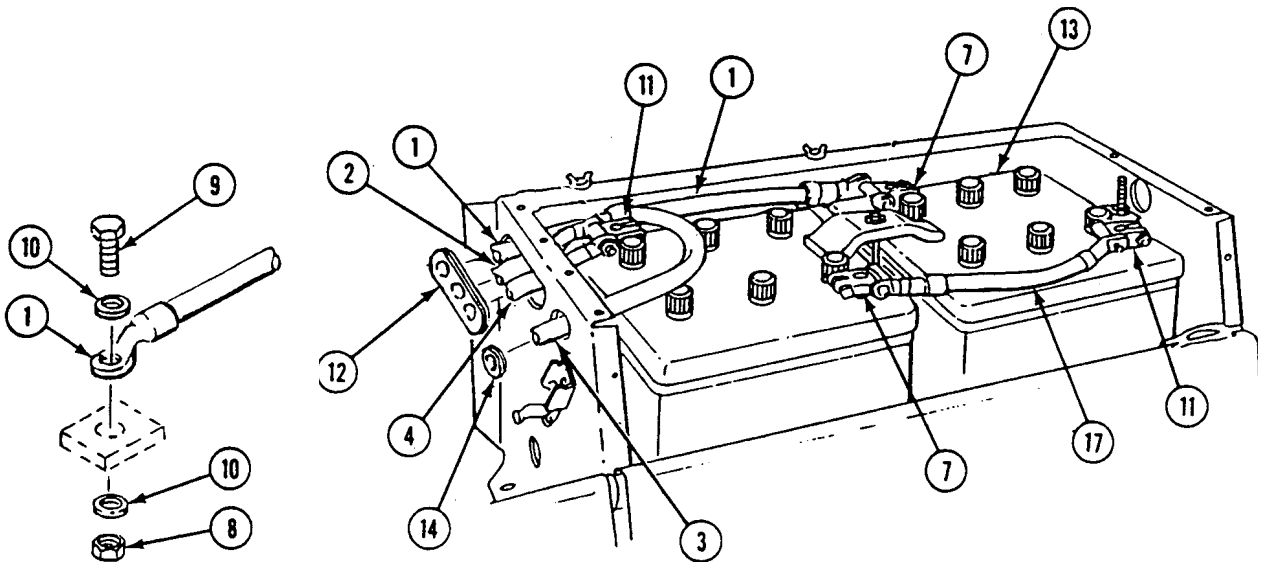
- a. Remove nut (2), jumper lead (1), and screw (3) from battery positive terminal (4).
- b. Remove nut (2), jumper lead (1), and screw (3) from battery negative terminal (5).



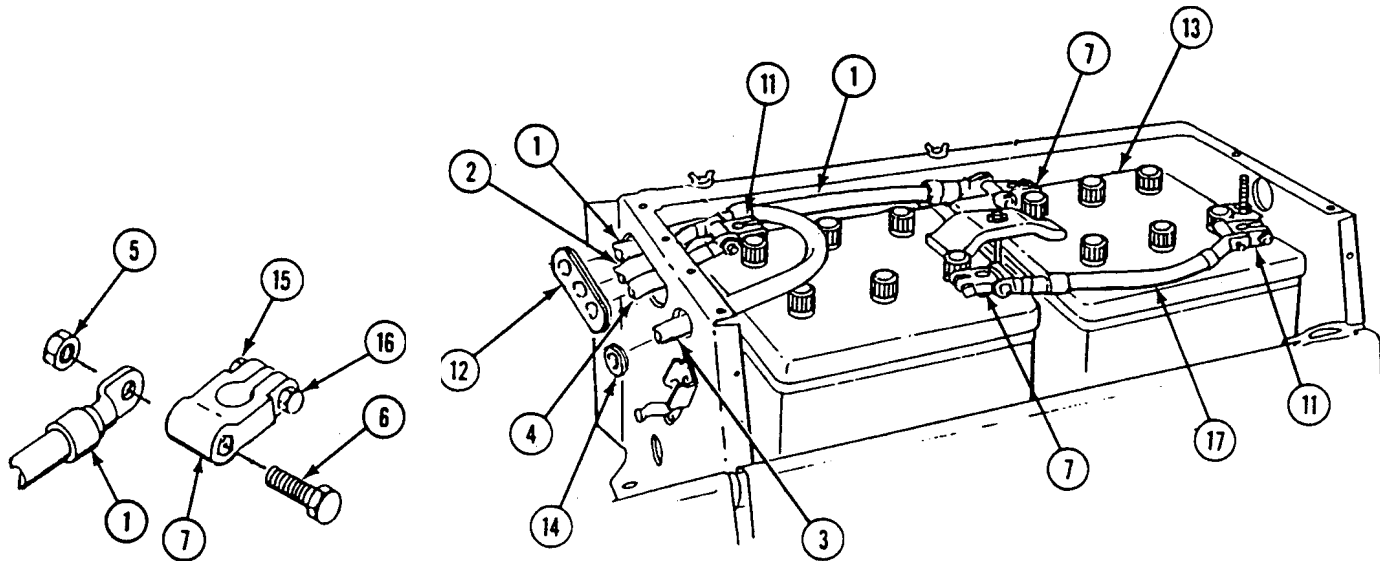
2. Remove circuit lead (1), circuit lead (2), circuit lead (3), and circuit lead (4) as follows:

- a. Remove nut (5), circuit lead 7 (1), and screw (6) from battery negative terminal (7).
- b. Remove nut (8), screw (9), two washers (10), and circuit lead 7 (1) from hull mount.
- c. Remove nut (5), screw (6), circuit 31 lead (2), circuit 48B lead (3), and circuit 6 lead (4) from battery positive terminal (11).
- d. Remove circuit 7 lead (1), circuit 31 lead (2), circuit 6 lead (4), and three-hole grommet (12) from battery box (13). Discard grommet.
- e. Remove circuit 48B lead (3) and grommet (14) from battery box (13). Discard grommet.





3. Remove four nuts (15), screws (16), and four battery terminals (7) and (11) from battery box (13). Use battery terminal puller.



CLEAN, INSPECT, AND REPAIR

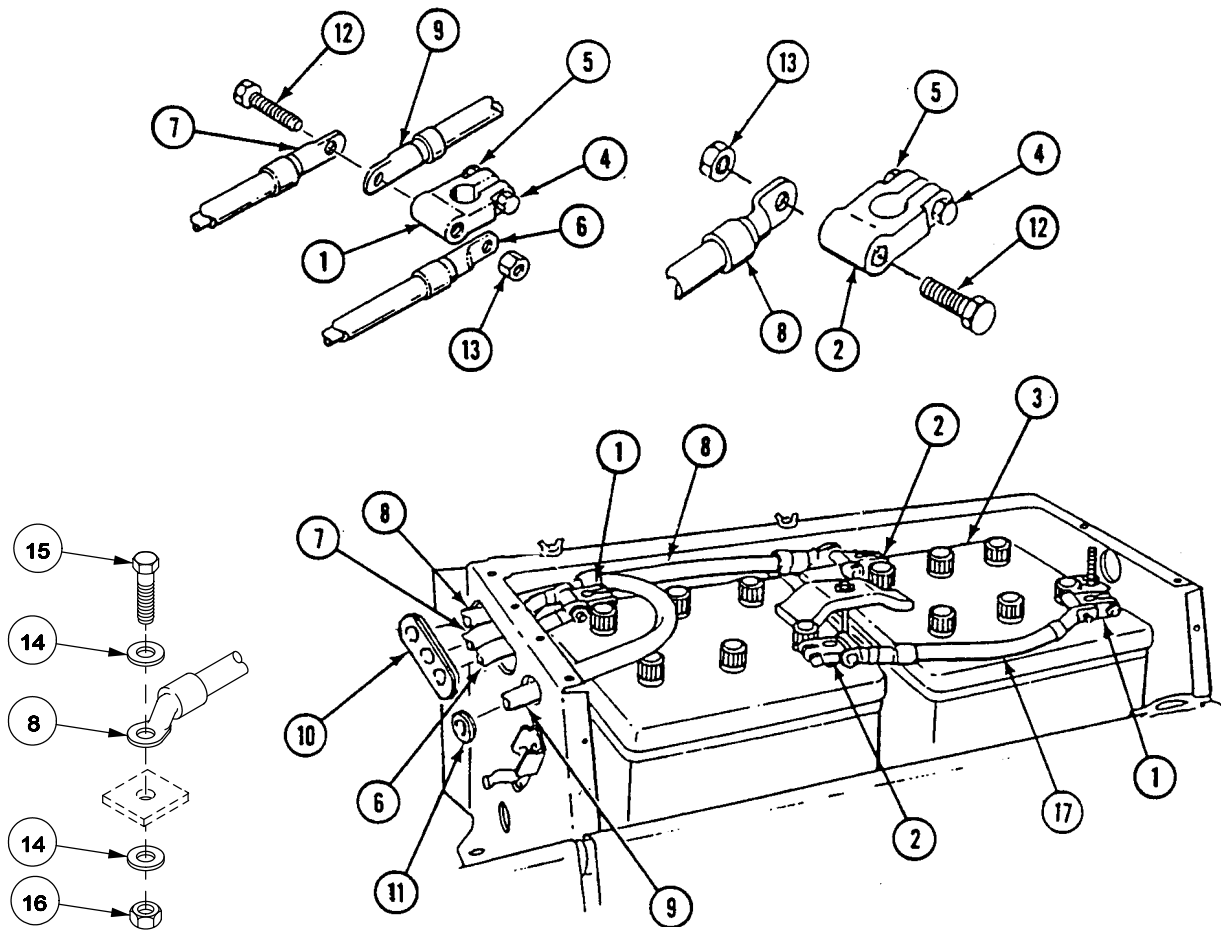
1. Clean battery terminals, battery posts, grounding brackets on hull, and lead connectors with brush dipped in mixture of sodium bicarbonate and water. After foaming stops, flush parts with clean water. Dry with clean cloth.
2. Clean battery terminals and posts with battery terminal cleaner.
3. Check battery cover. Remove dents. Repair cracks. Replace cover damaged beyond repair.
4. Check leads. Replace worn leads and damaged connectors (WP 0312 00).

INSTALLATION

CAUTION

Battery cells can be damaged if battery is hooked up incorrectly. Make sure battery is hooked up correctly.

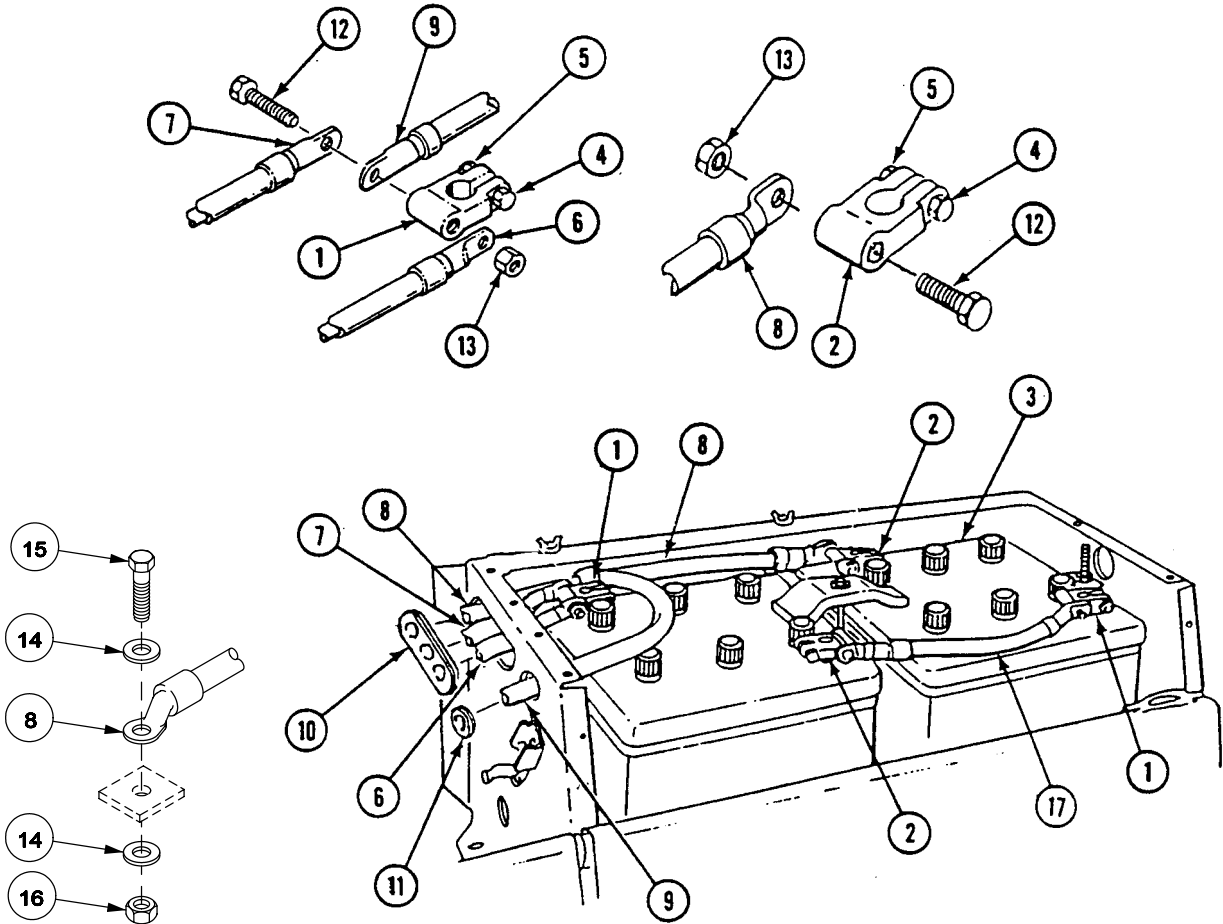
1. Install four battery terminals (1) and (2) in battery box (3). Secure with four screws (4) and nuts (5).
2. Install circuit lead (6), circuit lead (7), circuit lead (8), and circuit lead (9) as follows:
 - a. Install two new grommets (10) and (11) in battery box (3).
 - b. Route circuit 6 lead (6), circuit 31 lead (7), and circuit 7 lead (8) through three-hole grommet (10) into battery box (3).
 - c. Route circuit 48B lead (9) through grommet (11) into battery box (3).
 - d. Install circuit 48B lead (9), circuit 31 lead (7), and circuit 6 lead (6) on battery positive terminal (1). Secure with screw (12) and nut (13).
 - e. Install circuit 7 lead (8) on battery negative terminal (2). Secure with screw (12) and nut (13).
 - f. Install circuit 7 lead (8) on hull mount. Secure with two washers (14), screw (15), and nut (16).



REMOVE/INSTALL BATTERY LEADS (M1068 ONLY) — Continued

0298 00

3. Install jumper lead (17) as follows:
 - a. Install jumper lead (17) on battery negative terminal (2). Secure with screw (12) and nut (13).
 - b. Install jumper lead (17) on battery positive terminal (1). Secure with screw (12) and nut (13).
4. Coat tops of four battery terminals (1) and (2) with grease.



FOLLOW-THROUGH STEPS

1. Install battery access cover (WP 0297 00).
2. Connect battery ground lead (WP 0294 00).
3. Turn MASTER SWITCH to ON. Check BATT-GEN gauge on instrument panel. Gauge should read in BATT green or yellow zone (see your -10).
4. Start engine (see your -10).
5. Raise and lock ramp (see your -10).
6. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REMOVE/INSTALL BATTERY LEADS (M577A2 ONLY)

0299 00

THIS WORK PACKAGE COVERS:

- Removal (page 0299 00-1).
 - Clean, Inspect, and Repair (page 0299 00-2).
 - Installation (page 0299 00-3).
-

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- Battery Terminal Cleaner (WP 0780 00, Item 12)
- Battery Terminal Puller (WP 0780 00, Item 47)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

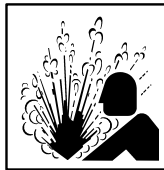
- Engine stopped (see your -10)
- Carrier blocked (see your -10)
- Ramp lowered (see your -10)
- Battery access cover removed (WP 0297 00)

Materials/Parts

- Grease (WP 0782 00, Item 24)
 - Sodium bicarbonate (WP 0782 00, Item 70)
 - Grommet (3)
-

REMOVAL

WARNING



Gas from batteries can explode. Ventilate compartment before you disconnect or connect battery cables. Battery acid can burn or blind you. Do not get acid on your skin or eyes. ALWAYS disconnect ground lead (circuit 7) first and connect it last.

WARNING



Electrical current can burn you. Disconnect battery ground lead before you start task.

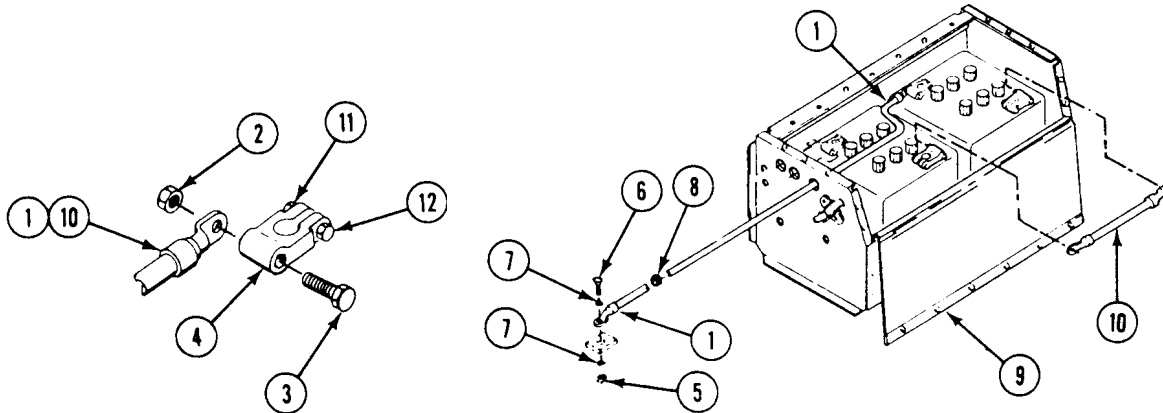
CAUTION

Do not start carriers without batteries installed. Starting engine with outside power will cause damage to electrical components in the regulator.

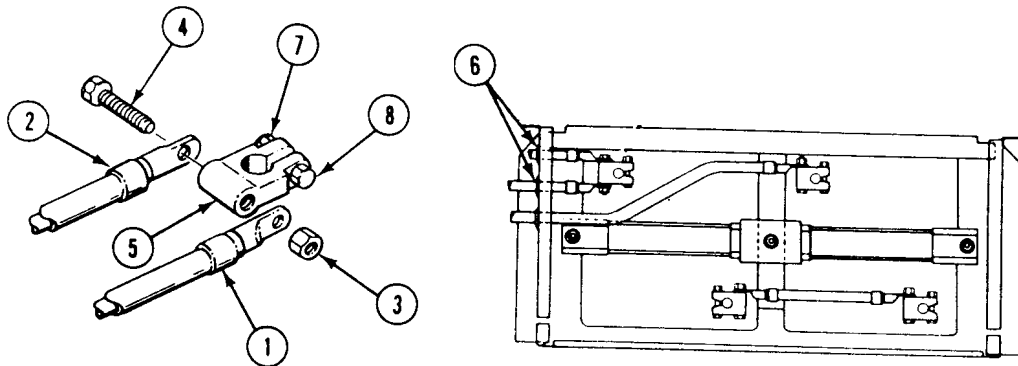
REMOVE/INSTALL BATTERY LEADS (M577A2 ONLY) — Continued

0299 00

1. Remove circuit 7 lead (1) as follows:
 - a. Remove nut (2) and circuit 7 lead (1) from screw (3) on battery terminal lug (4).
 - b. Remove nut (5), screw (6), two washers (7), and lead (1) from hull mount. Remove lead and grommet (8) from battery box (9). Discard grommet.
2. Remove two nuts (2) and jumper lead (10) from two screws (3) on two terminal lugs (4).
3. Loosen nut (11) from screw (12) and remove terminal lug (4) from battery post. Use battery terminal puller.



4. Remove circuit 6 lead (1) and circuit 48B lead (2) as follows:
 - a. Remove nut (3), circuit 6 lead (1), screw (4), and circuit 48B lead (2) from battery terminal lug (5).
 - b. Remove circuit lead 6 (1) and circuit lead 48B (2) and two grommets (6) from battery box. Discard grommets.
 - c. Loosen nut (7) on screw (8) and remove terminal lug (5). Use battery terminal puller.



CLEAN, INSPECT, AND REPAIR

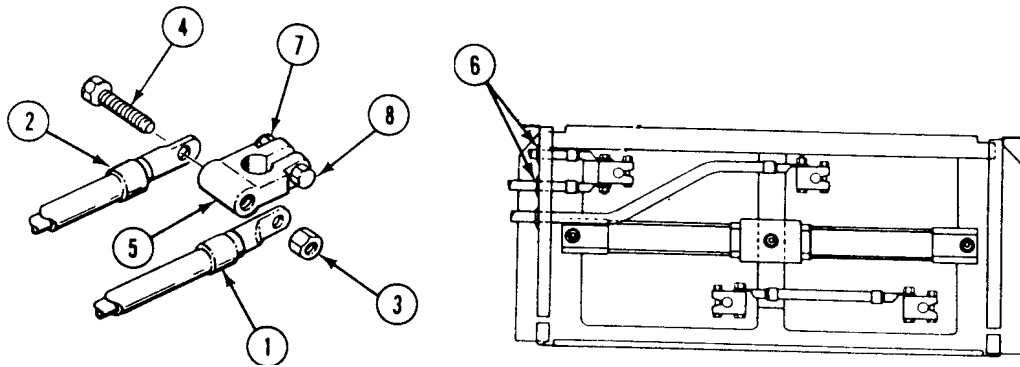
1. Clean battery terminal lugs, battery posts, grounding bracket on hull, and lead connectors with brush dipped in mixture of sodium bicarbonate and water. After foaming stops, flush parts with clean water. Dry with clean cloth.
2. Clean battery terminals and posts with battery terminal cleaner.
3. Check battery cover. Remove dents. Repair cracks. Replace cover damaged beyond repair.
4. Check leads. Replace worn leads and damaged connectors (WP 0312 00).

INSTALLATION

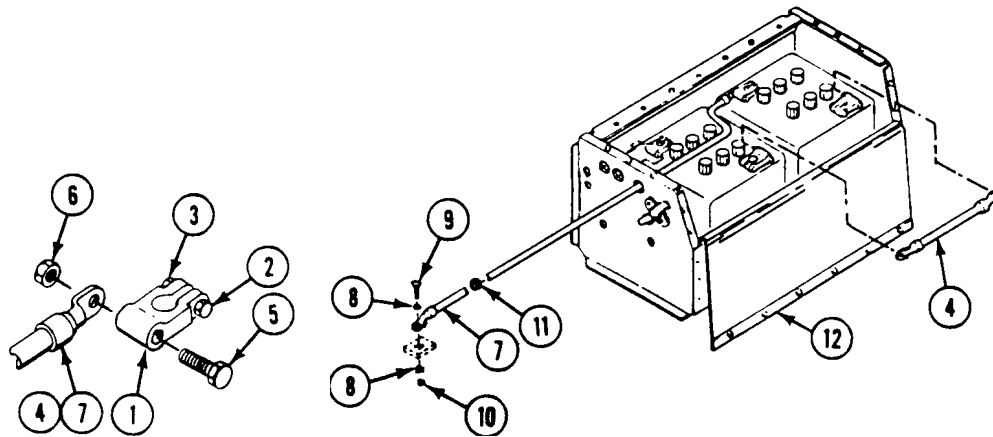
CAUTION

Battery cells can be damaged if the battery is hooked up incorrectly. Make sure battery is hooked up correctly.

1. Install circuit 6 lead (1) and circuit 48B lead (2) as follows:
 - a. Install terminal lug (5) on positive (+) battery post. Secure with screw (8) and nut (7).
 - b. Install two new grommets (6) in battery box. Route circuit 6 lead (1) and 48B (2) through grommets into battery box.
 - c. Install screw (4), circuit 48B lead (2), and circuit 6 lead (1) on terminal lug (5) and secure with nut (3).



2. Place terminal lug (1) on battery post. Secure with screw (2) and nut (3).
3. Place jumper lead (4) on two screws (5) of two terminal lugs (1). Secure with two nuts (6).
4. Install circuit 7 lead (7) as follows:
 - a. Place lead (7) on hull mount. Secure with two washers (8), screw (9), and nut (10).
 - b. Install new grommet (11) in battery box (12). Route lead (7) through grommet into battery box.
 - c. Place lead (7) on screw (5) of terminal adapter (1) and secure with nut (6).



5. Coat tops of four battery terminal lugs with grease.

FOLLOW-THROUGH STEPS

1. Install battery access cover (WP 0297 00).
2. Turn MASTER SWITCH to ON. Check BATT-GEN gauge on instrument panel. Gauge should read in BATT green or yellow zone (see your -10).
3. Start engine (see your -10).
4. Raise and lock ramp (see your -10).
5. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE BATTERY LEADS (M1064 ONLY)

0300 00

THIS WORK PACKAGE COVERS:

- Removal (page 0300 00-1).
- Clean, Inspect, and Repair (page 0300 00-3).
- Installation (page 0300 00-4).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- Battery Terminal Cleaner (WP 0780 00, Item 12)
- Battery Terminal Puller (WP 0780 00, Item 47)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

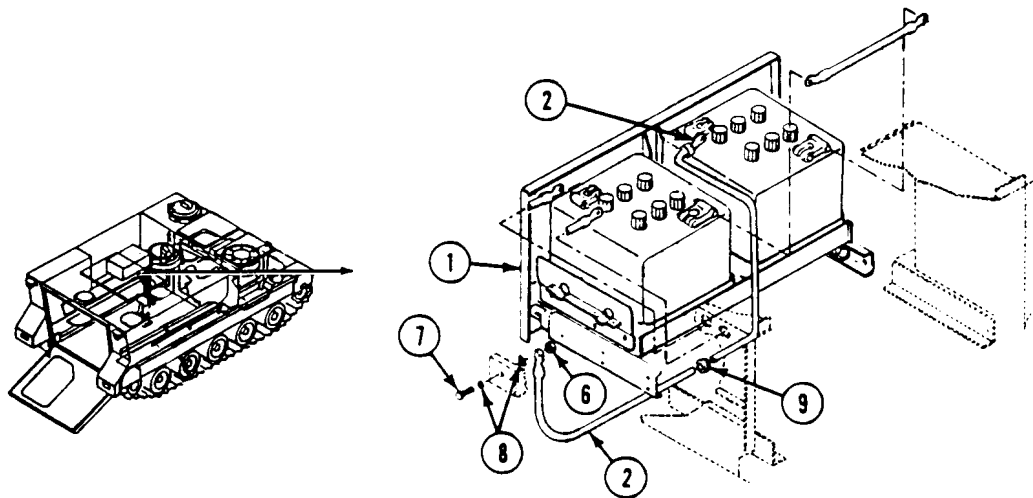
- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Ramp lowered (see your -10)

Materials/Parts

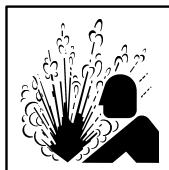
- Grease (WP 0782 00, Item 24)
- Sodium bicarbonate (WP 0782 00, Item 70)
- Grommet (2)

REMOVAL

1. Turn handle and pull battery drawer (1) out.



WARNING

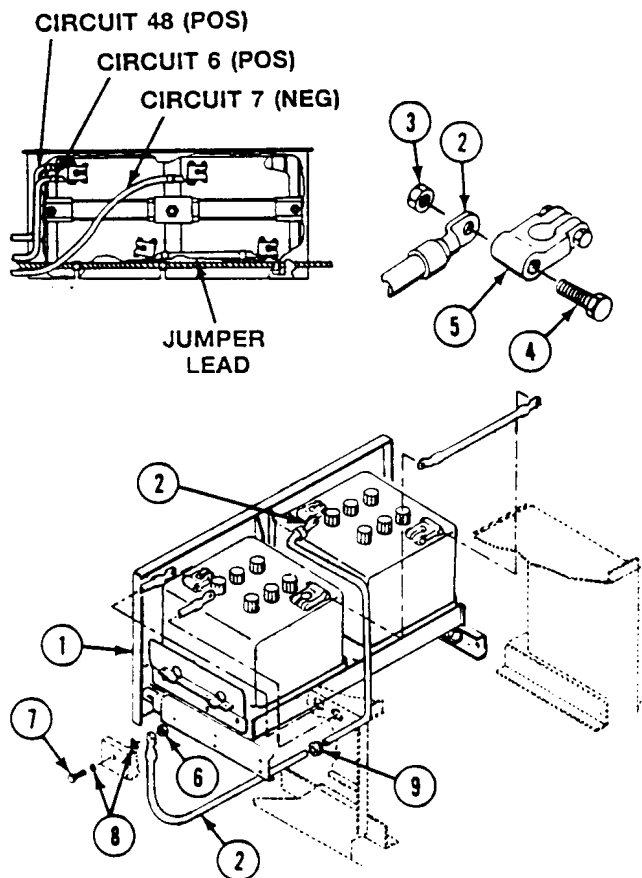


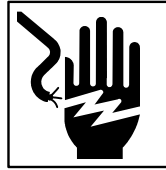
Gas from batteries can explode. Ventilate compartment before you disconnect or connect battery cables. Battery acid can burn or blind you. Do not get acid on your skin or eyes. ALWAYS disconnect ground lead (circuit 7) first and connect it last.

NOTE

Use battery terminal puller to remove terminal lugs and leads from battery post.

2. Remove circuit 7 lead (2) as follows:
 - a. Remove nut (3) and circuit 7 lead (2) from screw (4) on terminal lugs (5).
 - b. Remove nut (6), screw (7), two washers (8), and lead (2) from hull mount. Remove lead and grommet (9) from battery compartment. Discard grommet.



WARNING

Battery posts and cables touched by metal objects can short circuit and burn you. Do not wear jewelry, necklaces, or watches when working on the electrical system. Keep tools away from posts, wires, and terminals.

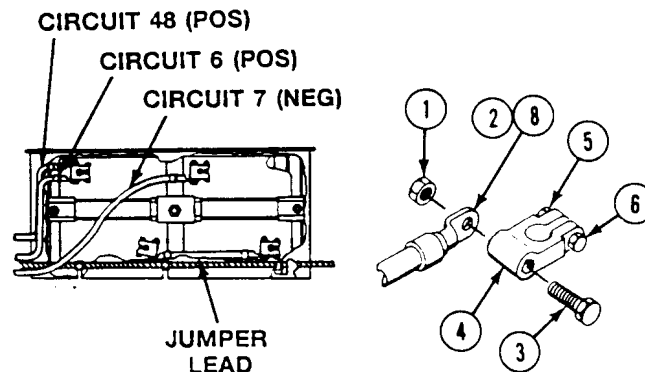
CAUTION

Do not start carriers while batteries are disconnected. Starting engine with outside power while batteries are disconnected will damage electrical components in the regulator.

NOTE

Circuit 6 and 48 positive leads are removed from terminal lugs the same way as the circuit 7 lead.

3. Remove two nuts (1) and jumper lead (2) from two screws (3) on two terminal lugs (4).
4. Loosen nut (5) on screw (6) and remove terminal lugs (4) from battery post.

**CLEAN, INSPECT, AND REPAIR**

1. Clean battery terminal lugs, battery posts, grounding bracket on hull, and lead connectors with brush dipped in mixture of sodium bicarbonate and water. After foaming stops, flush parts with clean water. Dry with clean cloth.
2. Clean terminals and posts with terminal cleaner.
3. Check leads. Replace worn leads and damaged connectors (WP 0312 00).

INSTALLATION

1. Place terminal lugs (4) on battery (7). Secure with screw (6) and nut (5).
2. Place jumper lead (2) on two screws (3) of terminal lugs (4). Secure with two nuts (1).

NOTE

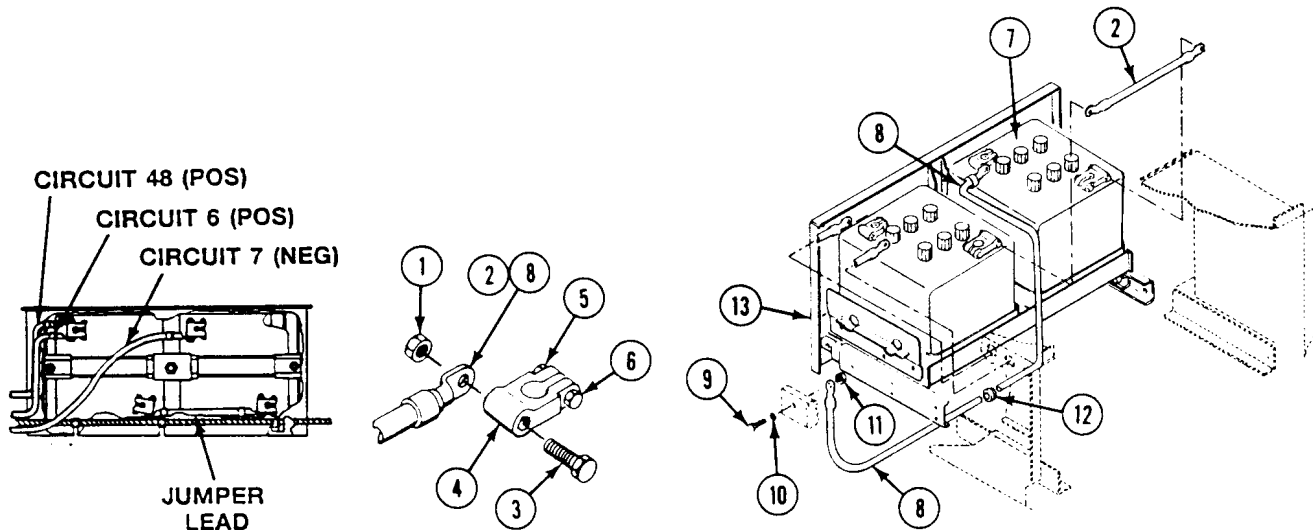
Install circuit 6 and 48 positive leads before installing circuit 7 ground lead. Instructions for installation are the same.

3. Install circuit 7 lead (8) as follows:
 - a. Place lead (8) on hull mount. Secure with screw (9), two washers (10), and nut (11).
 - b. Install new grommet (12) in battery compartment. Route lead (8) through grommet into battery compartment.
 - c. Place lead (8) on screw (3) on terminal lug (4) and secure with nut (1).
4. Coat tops of four battery terminal lugs with grease.

CAUTION

Battery cells can be damaged if the batteries are hooked up incorrectly. Make sure batteries are hooked up correctly.

5. Push in drawer (13) and turn handle to secure.

**FOLLOW-THROUGH STEPS**

1. Turn MASTER SWITCH to ON. Check BATT- GEN gauge on instrument panel. Gauge should read in green or yellow zone (see your -10).
2. Start engine (see your -10).
3. Raise and lock ramp (see your -10).
4. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE CIRCUIT 6 LEAD (ALL EXCEPT M577A2 AND M1068)

0301 00

THIS WORK PACKAGE COVERS:

- Removal (page 0301 00-1).
- Clean, Inspect, and Repair (page 0301 00-2).
- Installation (page 0301 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- Battery Terminal Cleaner (WP 0780 00, Item 12)
- Battery Terminal Puller (WP 0780 00, Item 47)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Multimeter (WP 0780 00, Item 43)

Equipment Condition

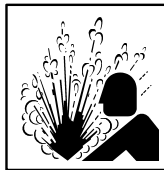
- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Ramp lowered (see your -10)
- Battery ground lead disconnected (WP 0294 00)
- Battery box cover removed (WP 0295 00)

Materials/Parts

Grommet (2)

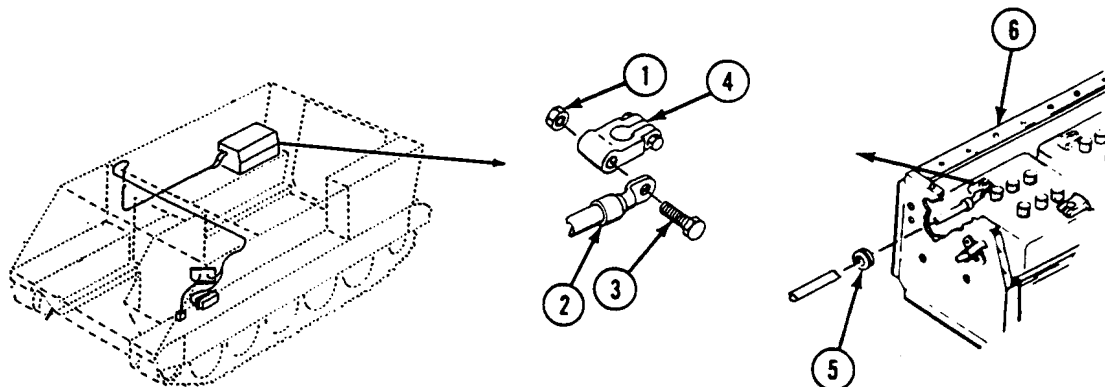
REMOVAL

WARNING



Gas from batteries can explode. Ventilate compartment before you disconnect or connect battery cables. Battery acid can burn or blind you. Do not get acid on your skin or eyes. ALWAYS disconnect ground lead (circuit 7) first and connect it last.

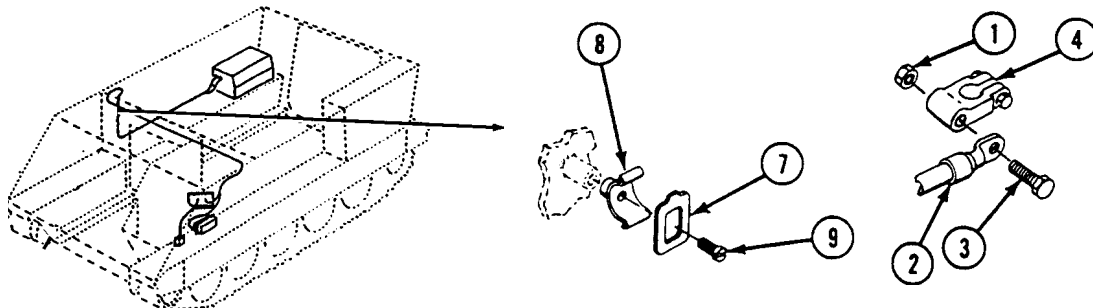
1. Remove nut (1), circuit 6 lead (2), and screw (3) from terminal lug (4).
2. Remove lead (2) and grommet (5) from battery box (6). Discard grommet.



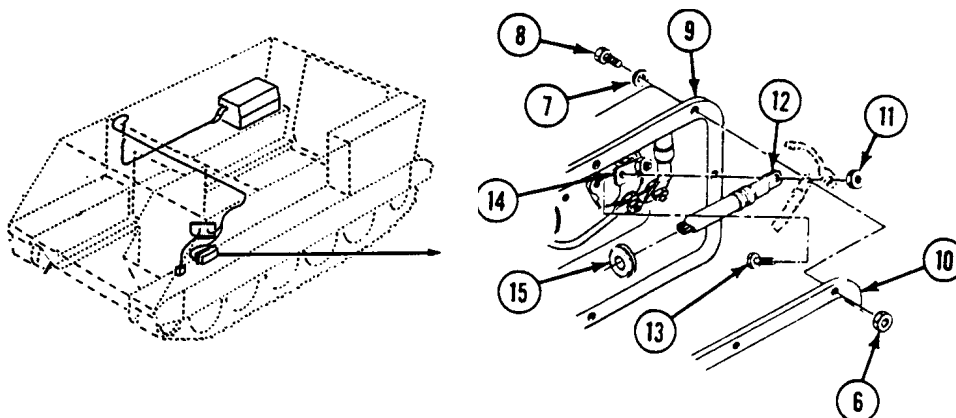
REPLACE CIRCUIT 6 LEAD (ALL EXCEPT M577A2 AND M1068) — Continued

0301 00

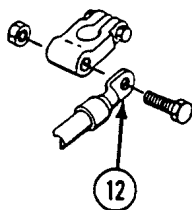
3. On M113A2 and M901A1 carriers, remove five clips (7) from cradles (8). Remove lead (2) from cradles.
4. Remove five screws (9) and cradles (8) from hull weldnuts.



5. Remove eight nuts (6), washers (7), screws (8), and master switch panel (9) from distribution box (10).
6. Remove nut (11), lead (12), and screw (13) from master switch bus bar (14). Remove lead and grommet (15) from panel (9). Discard grommet.



7. Pull lead (12) from hull support channel. Remove lead from carrier.



CLEAN, INSPECT, AND REPAIR

WARNING



Battery posts and cables touched by metal objects can short circuit, and burn you. Do not wear jewelry, necklaces, or watches when working on the electrical system. Keep tools away from posts, wires, and terminals.

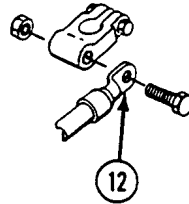
CAUTION

Do not start carriers while batteries are disconnected. Starting engine with outside power will damage electrical components in the regulator.

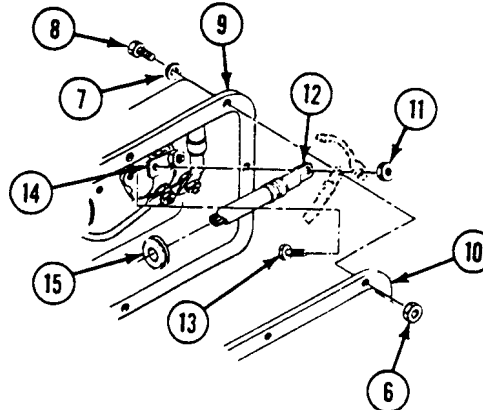
1. Clean lead terminals and mating surfaces with terminal cleaner.
2. Check leads. Replace worn leads and damaged connectors (WP 0312 00).

INSTALLATION

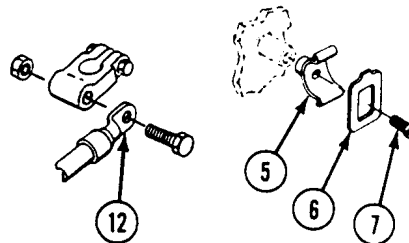
1. Route circuit 6 lead (12) through hull support channel.



2. Install new grommet (15) on lead (12). Install lead and grommet in master switch panel (9).
3. Place lead (12) on master switch bus bar (14). Secure with screw (13) and nut (11).
4. Place panel (9) on distribution box (10). Secure with eight washers (7), screws (8), and nuts (6).

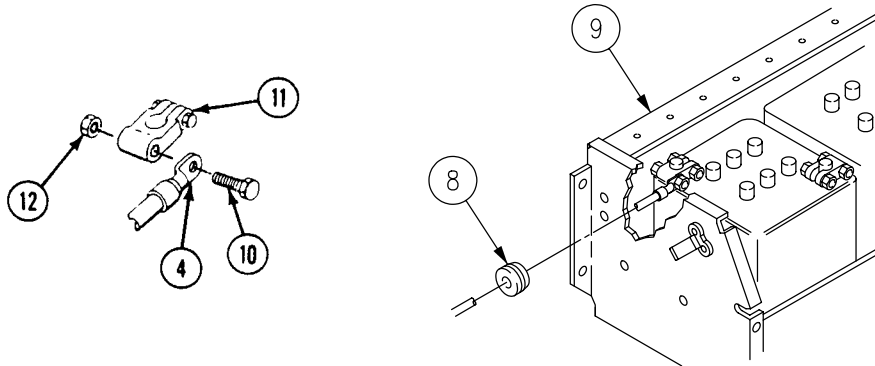


5. On M113A2 and M901A1 carriers, install five cradles (5) on hull weldnuts. Secure with five screws (7). Place lead (12) in five cradles and secure with clips (6).



REPLACE CIRCUIT 6 LEAD (ALL EXCEPT M577A2 AND M1068) — Continued**0301 00**

6. Install new grommet (8) on lead (4). Install lead and grommet in battery box (9).
7. Install screw (10) and lead (4) on battery terminal lug (11). Secure with nut (12).

**FOLLOW-THROUGH STEPS**

1. Install battery box cover (WP 0295 00).
2. Connect battery ground strap (WP 0294 00).
3. Turn MASTER SWITCH to ON (see your -10). Check that circuit 6 lead is installed correctly. Master switch light should come on.
4. Raise and lock ramp (see your -10).
5. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE BATTERIES AND RETAINERS (ALL EXCEPT M1064)

0302 00

THIS WORK PACKAGE COVERS:

- Removal (page 0302 00-1).
- Clean and Inspect (page 0302 00-3).
- Installation (page 0302 00-3).

INITIAL SETUP:

Maintenance Level

Unit

References

TM 9-6140-200-14

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Ramp lowered (see your -10)
- Battery ground lead disconnected (WP 0294 00)
- Battery terminal lugs removed (WP 0300 00)

Materials/Parts

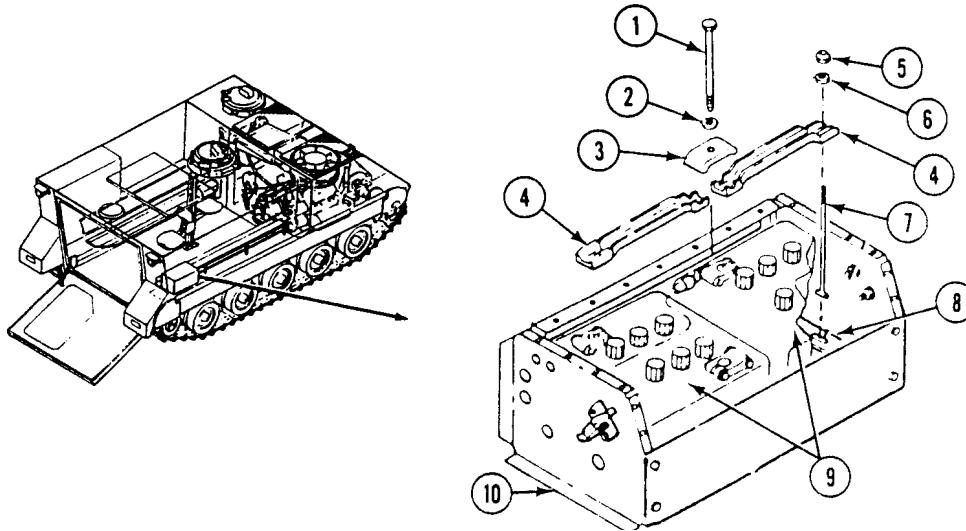
- Epoxy coating kit (WP 0782 00, Item 21)
- Sodium bicarbonate (WP 0782 00, Item 70)

Personnel Required

- Unit Mechanic
- Helper (H)

REMOVAL

1. Remove bolt (1), washer (2), and clamp (3) from two retainers (4).
2. Remove two nuts (5), washers (6), and retainers (4) from two bolts (7).
3. Turn bolts (7) to align with slot in frame (8). Remove bolts from frame.



WARNING

Electrolyte and battery corrosion can cause injury to you. Wear safety goggles and gloves. If electrolyte or battery corrosion contacts the eyes, skin, or clothing, flush immediately with large amounts of cold water. In case of eye or skin contact, see a doctor immediately.

WARNING

Battery is heavy and can cause back injury if handled improperly. Be sure to have helper assist you to remove and replace battery. Battery weighs about 75 lb (34 kg).

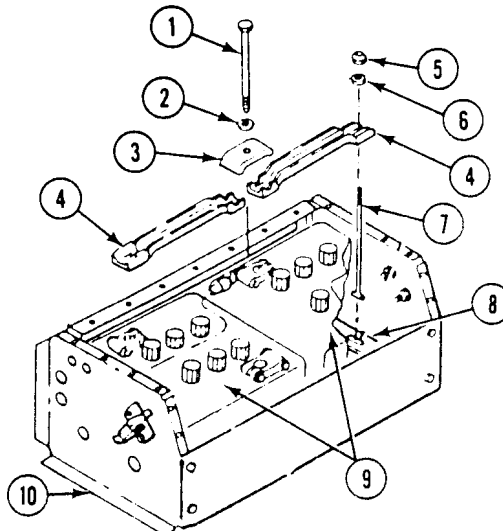
CAUTION

Be careful. Do not hit side of carrier. You could crack the case. Set battery down gently on a board.

NOTE

On newer models, there are screws and washers securing the front plate to the battery box.

4. Remove batteries (9) from battery box (10). Lift battery by carrying handles built into each battery.



CLEAN AND INSPECT

WARNING

Battery posts and cables touched by metal objects can short circuit and burn you. Do not wear jewelry, necklaces, or watches when working on the electrical system. Keep tools away from posts, wires, and terminals.

1. Clean battery with nonmetallic brush dipped in mixture of sodium bicarbonate and water. After foaming stops, flush battery with clean water. Dry with clean cloth.
2. Clean retainers and parts by soaking in mixture of sodium bicarbonate and water. Dry parts and apply coating.
3. See TM 9-6140-200-14 to service batteries.

INSTALLATION

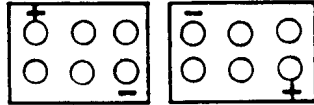
WARNING

Battery is heavy and can cause back injury if handled improperly. Be sure to have helper assist you to remove and replace battery. Battery weighs about 75 lb (34 kg).

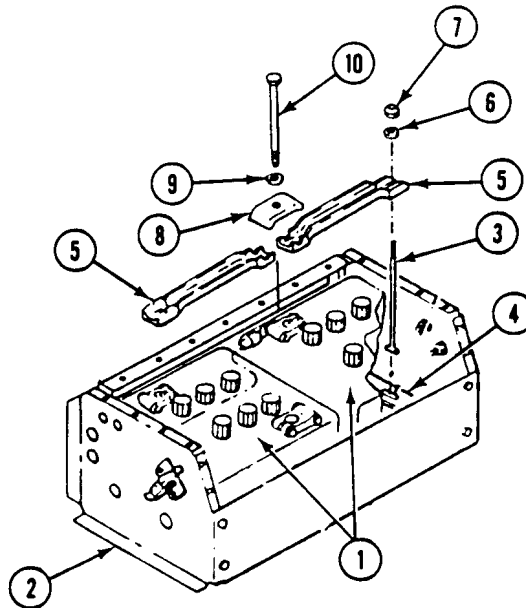
CAUTION

Place batteries with positive (+) and negative (-) terminals as shown in diagram below. Damage to components will occur if batteries are hooked up wrong.

1. Place batteries (1) in battery box (2).



2. Install two bolts (3) in slots of battery frame (4). Turn bolts to secure.
3. Install two retainers (5) on two bolts (3). Secure with two washers (6) and nuts (7).
4. Place clamp (8) on two retainers (5). Secure with washer (9) and bolt (10).

**FOLLOW-THROUGH STEPS**

1. Install battery terminal lugs (WP 0300 00).
2. Connect battery ground lead (WP 0294 00).
3. Turn MASTER SWITCH to ON to check that batteries are installed correctly. Master switch on light should come on (see your -10).
4. Raise and lock ramp (see your -10).
5. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE BATTERIES AND RETAINERS (M1064 ONLY)

0303 00

THIS WORK PACKAGE COVERS:

- Removal (page 0303 00-1).
- Clean and Inspect (page 0303 00-3).
- Installation (page 0303 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic
Helper (H)

Tools and Special Tools

- Battery Terminal Cleaner (WP 0780 00, Item 12)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)

References

TM 9-6140-200-14

Materials/Parts

- Epoxy coating kit (WP 0782 00, Item 21)
- Sodium bicarbonate (WP 0782 00, Item 70)
- Wiping rag (WP 0782 00, Item 76)

Equipment Condition

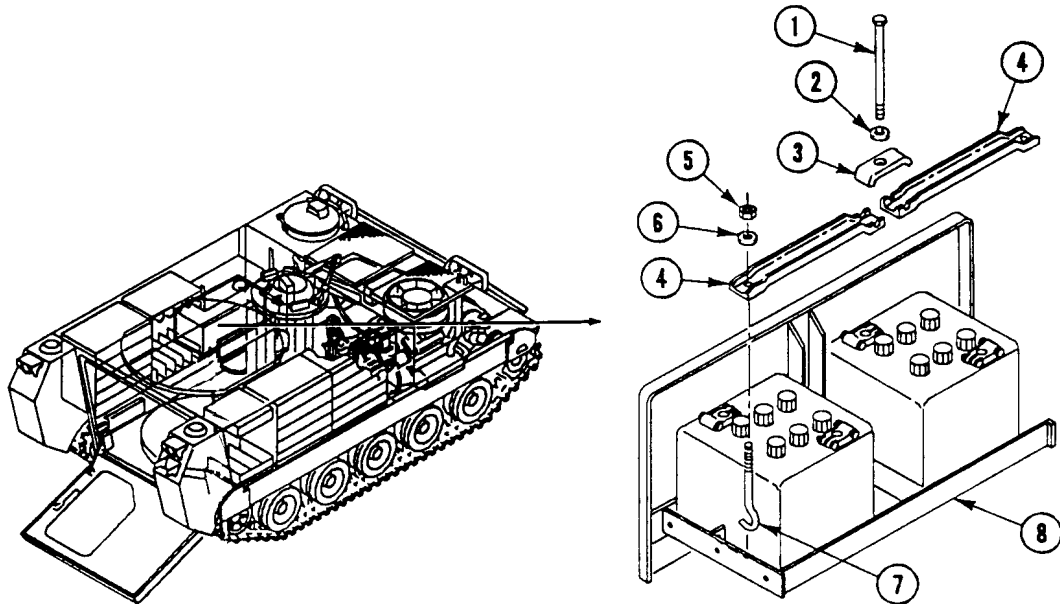
Engine stopped (see your -10)
Battery leads disconnected (WP 0294 00) and terminal lugs removed (WP 0300 00)

REMOVAL

CAUTION

Do not start carriers while batteries are disconnected. Starting engine with outside power while batteries are disconnected will damage electrical components in the regulator.

1. Remove bolt (1), washer (2), and clamp (3) from two retainers (4).
2. Remove two nuts (5), washers (6), and retainers (4) from two hooks (7). Remove hooks from frame (8).



WARNING

Electrolyte and battery corrosion can cause injury to you. Wear safety goggles and gloves. If electrolyte or battery corrosion contacts the eyes, skin, or clothing, flush with large amounts of cold water and see a doctor immediately.

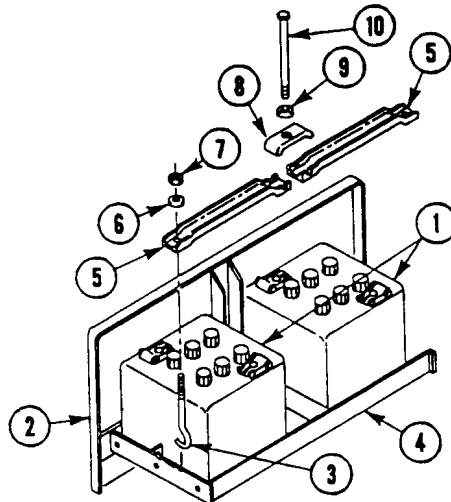
WARNING

Battery is heavy and can cause back injury if handled improperly. Be sure to have helper assist to remove battery. Battery weighs about 75 lb (34 kg).

CAUTION

Be careful. Do not hit side of carrier. You could crack the case. Set battery down gently on a board.

- Remove batteries (1) from battery box (2). Lift battery by carrying handles built into each battery.



CLEAN AND INSPECT**WARNING**

Battery posts and cables touched by metal objects can short circuit and burn you. Do not wear jewelry, necklaces, or watches when working on the electrical system. Keep tools away from posts, wires, and terminals.

1. Clean battery with nonmetallic brush dipped in mixture of sodium bicarbonate and water. After foaming stops, flush battery with clean water. Dry with clean cloth.
2. Clean retainers and parts by soaking in mixture of sodium bicarbonate and water. Dry parts and apply epoxy coating.
3. See TM 9-6140-200-14 to service batteries.

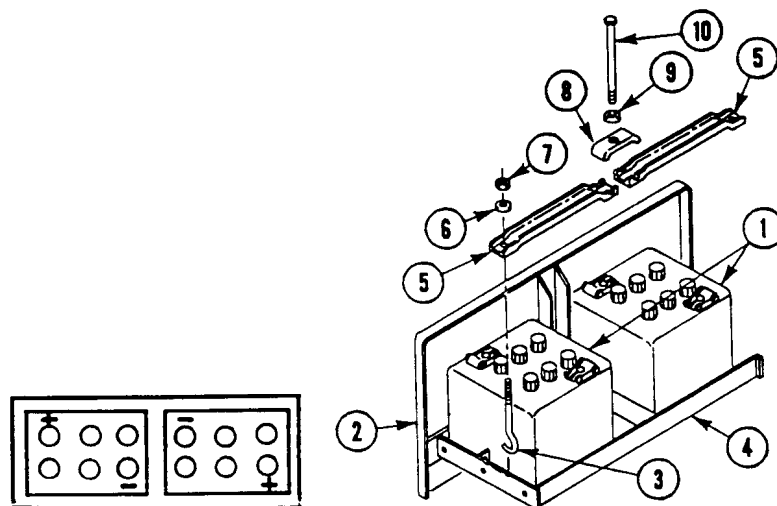
INSTALLATION**WARNING**

Battery is heavy and can cause back injury if handled improperly. Be sure to have helper assist to install battery. Battery weighs about 75 lb (34 kg).

CAUTION

Place batteries with positive (+) and negative (-) terminals as shown in diagram. Damage to components will occur if batteries are hooked up wrong.

1. Place batteries (1) in battery box (2).
2. Place hooks (3) in battery frame (4).
3. Place two retainers (5) on two hooks (3). Secure with two washers (6) and nuts (7).
4. Place clamp (8) on two retainers (5). Secure with washer (9) and bolt (10).

**FOLLOW-THROUGH STEPS**

1. Install terminal lugs (WP 0300 00) and connect battery leads (WP 0294 00).
2. Turn MASTER SWITCH to ON to check that battery is installed correctly. Master switch on light should come on (see your -10).
3. Start engine (see your -10).
4. Raise and lock ramp (see your -10).
5. Stop engine (see your -10).

END OF TASK

REPAIR BATTERY BOX COVER (M113A2, M901A1, AND M1059 ONLY)

0304 00

THIS WORK PACKAGE COVERS:

- Disassembly (page 0304 00-1).
- Clean and Inspect (page 0304 00-1).
- Assembly (page 0304 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Ramp lowered (see your -10)

Battery box cover removed (WP 0295 00)

Materials/Parts

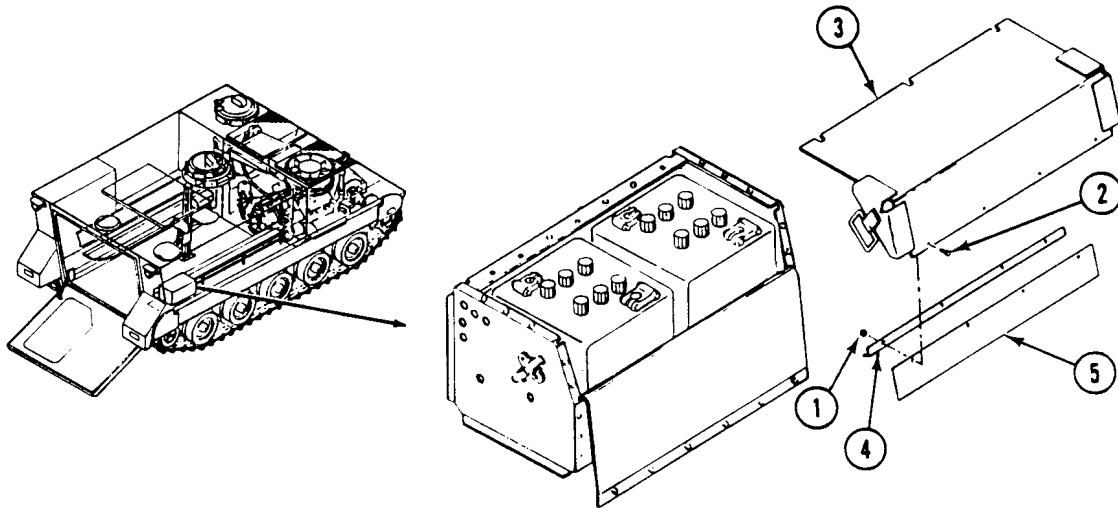
Epoxy coating kit (WP 0782 00, Item 21)

Sodium bicarbonate (WP 0782 00, Item 70)

Locknut (4)

DISASSEMBLY

1. Remove four locknuts (1) and screws (2) from battery box cover (3). Discard locknuts.
2. Remove support (4) and seal (5) from cover (3).

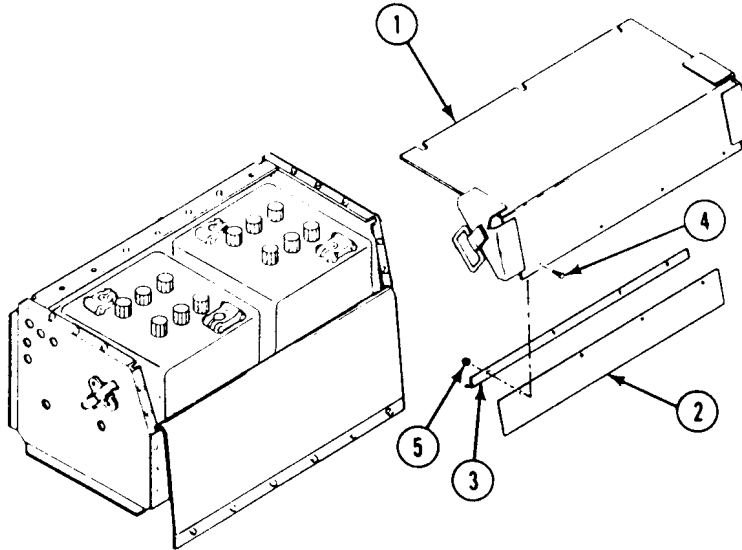


CLEAN AND INSPECT

1. Clean battery box by soaking in mixture of sodium bicarbonate and water. After foaming stops, flush with clean water and dry with clean cloth.
2. Inspect cover for dents and cracks. If damaged beyond repair, install new cover.
3. Inspect seal for cuts, tears, and loss of resilience. If seal is unserviceable, install new seal.

ASSEMBLY

1. Apply epoxy coating to battery box cover (1).
2. Place seal (2) and support (3) on cover (1).
3. Secure with four screws (4) and new locknuts (5).

**FOLLOW-THROUGH STEPS**

1. Install battery box cover (WP 0295 00).
2. Start engine (see your -10).
3. Raise and lock ramp (see your -10).
4. Stop/shutdown engine (see your -10).

END OF TASK

REPAIR BATTERY BOX

0305 00**THIS WORK PACKAGE COVERS:**

Disassembly (page 0305 00-1).
 Clean and Inspect (page 0305 00-2).
 Assembly (page 0305 00-3).

INITIAL SETUP:Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Socket Wrench Set (WP 0780 00, Item 96)
 Torque Wrench (WP 0780 00, Item 101)

Equipment Condition

Engine stopped/shutdown (see your -10)
 Battery box cover and leads removed (WP 0295 00)
 Batteries and retainers removed (WP 0302 00)
 Ramp lowered (see your -10)

Materials/Parts

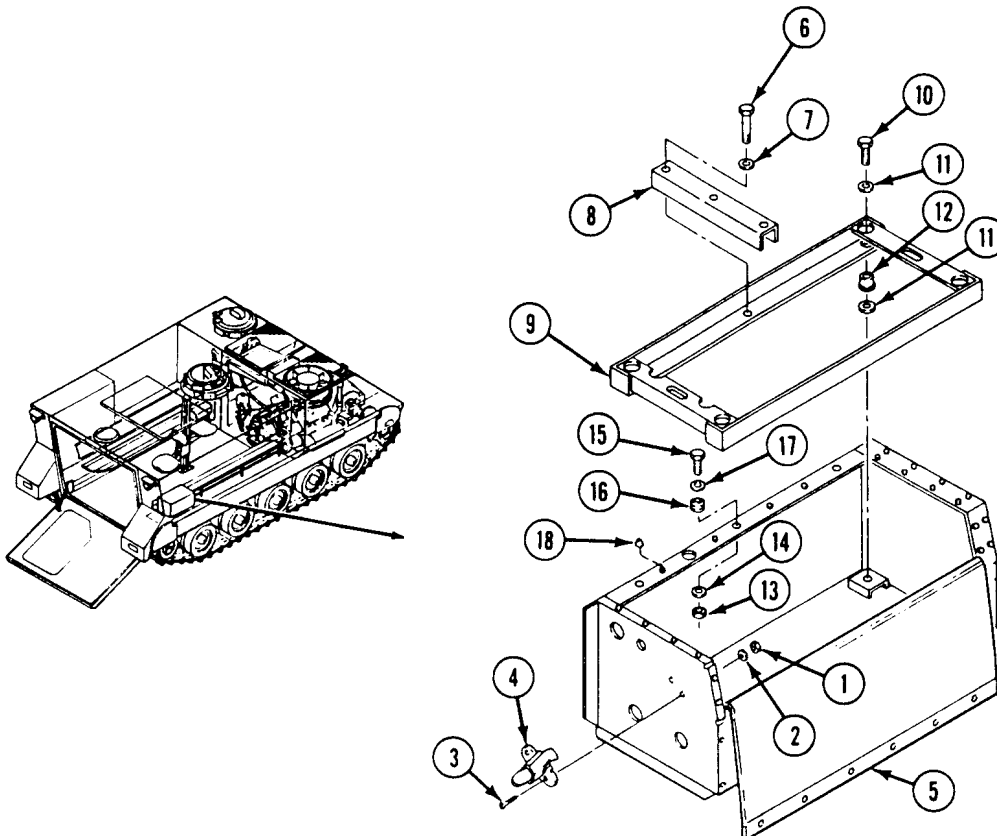
Epoxy coating kit (WP 0782 00, Item 21)
 Sodium bicarbonate (WP 0782 00, Item 70)
 Locknut (3)
 Locknut (4)

DISASSEMBLY**NOTE**

Repair of the M577A2 battery box is limited to replacement of the channel divider and battery box cover rubber bumpers. The steps below are for all other carriers.

REPAIR BATTERY BOX — Continued**0305 00**

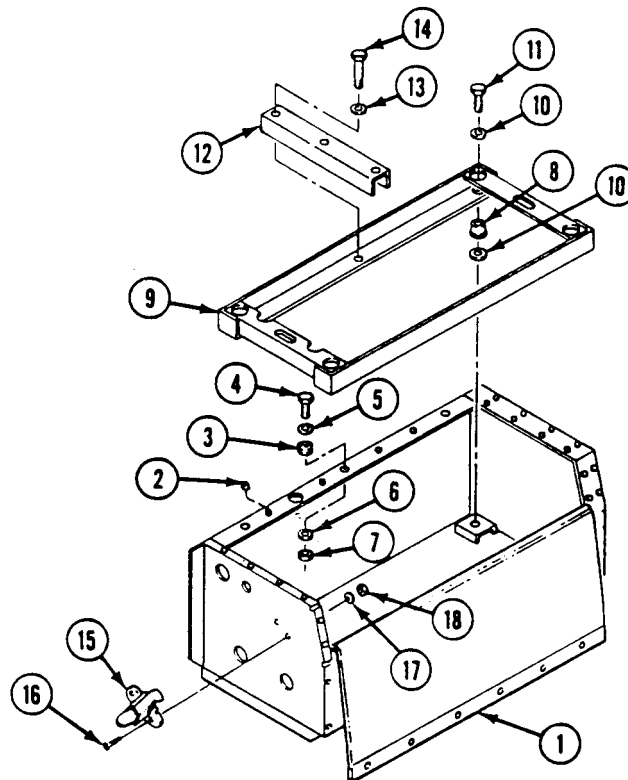
1. Remove four locknuts (1), washers (2), screws (3), and two latches (4) from side of battery box (5). Discard locknuts.
2. Remove two screws (6), washers (7), and channel divider (8) from battery frame (9).
3. Remove four screws (10), eight washers (11), and battery frame (9) from battery box (5). Remove four resilient mounts (12) from frame.
4. Remove three locknuts (13), washers (14), screws (15), grommets (16), and washers (17) from battery box (5). Discard locknuts.
5. If necessary, remove rubber bumpers (18) from battery box (5).

**CLEAN AND INSPECT**

1. Inspect resilient mounts, bumpers, and grommets for cuts, cracks, tears, and loss of resilience. If parts are hard, brittle, cut, cracked, or torn, install new parts.
2. Clean battery box with brush dipped in mixture of sodium bicarbonate and water. After foaming stops, flush with clean water and dry with clean cloth.
3. Inspect battery box for dents and cracks. If damaged beyond repair, notify direct support maintenance.
4. Inspect frame and divider channel for dents and cracks. If damaged beyond repair, install new part.

ASSEMBLY

1. Apply epoxy coating to battery box (1).
2. If removed, install battery box cover rubber bumpers (2) on battery box (1).
3. Install three grommets (3) on battery box (1). Secure with three screws (4), washers (5), washers (6), and new locknuts (7).
4. Install four resilient mounts (8) in frame (9). Place frame in battery box (1) and secure with eight washers (10) and four screws (11). TIGHTEN SCREWS TO 120–192 LB-IN (14-22 N·M) TORQUE. Use torque wrench and socket.
5. Place channel divider (12) in battery frame (9). Secure with two washers (13) and screws (14). TIGHTEN SCREWS TO 84–120 LB-IN (11–14 N·M) TORQUE. Use torque wrench and socket.
6. Place two latches (15) on side of battery box (1). Secure with four screws (16), washers (17), and new locknuts (18).

**FOLLOW-THROUGH STEPS**

1. Install batteries and retainers (WP 0302 00).
2. Install battery leads and box cover (WP 0295 00).
3. Start engine (see your -10).
4. Raise and lock ramp (see your -10).
5. Stop/shutdown engine (see your -10).

END OF TASK

REPAIR BATTERY DRAWER (M1064 ONLY)

0306 00

THIS WORK PACKAGE COVERS:

- Disassembly (page 0306 00-1).
- Clean and Inspect (page 0306 00-3).
- Assembly (page 0306 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

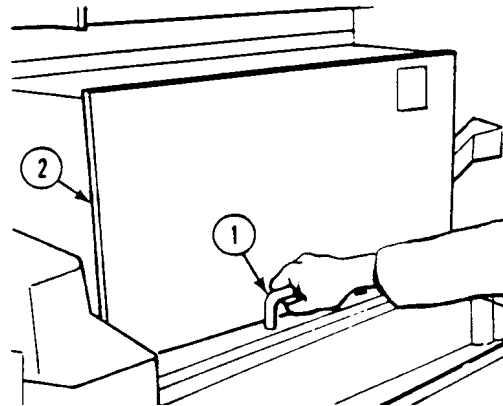
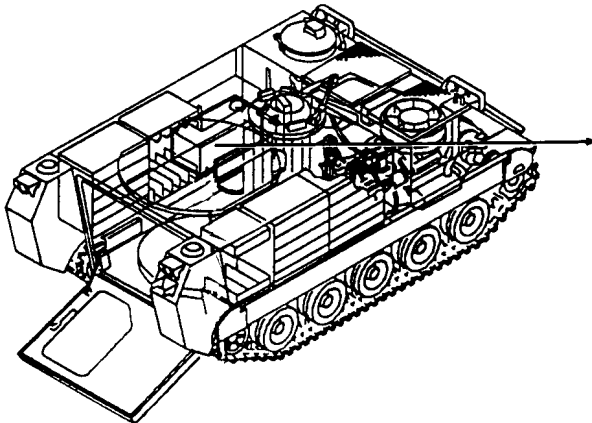
- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Battery leads removed (WP 0300 00)
- Batteries and retainers removed (WP 0303 00)

Materials/Parts

- Epoxy coating kit (WP 0782 00, Item 21)
- Grease (WP 0782 00, Item 24)
- Sodium bicarbonate (WP 0782 00, Item 70)
- Locknut (18)
- Locknut (8)
- Locknut (4)
- Locknut (2)
- Locknut

DISASSEMBLY

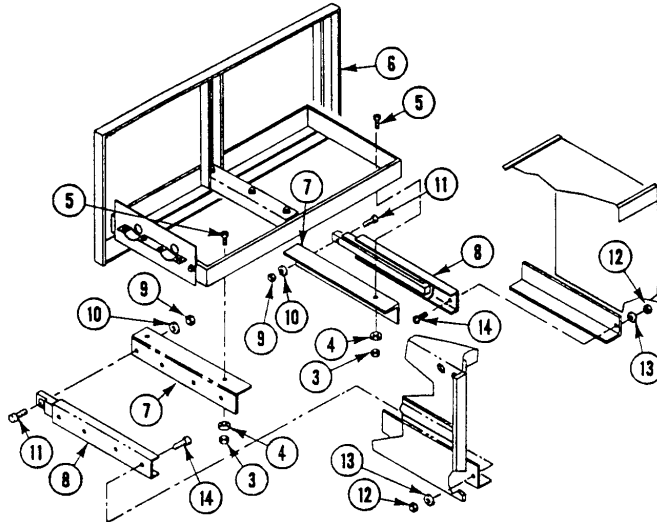
1. Lower the left crew seat backrest, turn handle (1) and pull drawer (2) out.



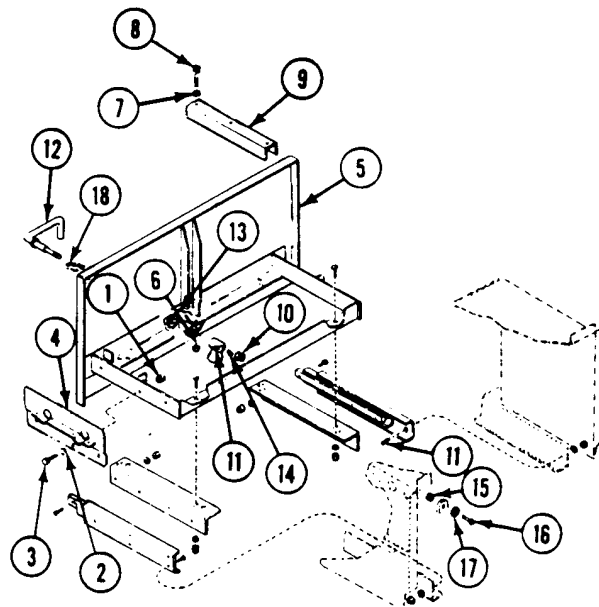
REPAIR BATTERY DRAWER (M1064 ONLY) — Continued

0306 00

2. Remove eight locknuts (3), washers (4), screws (5), and battery drawer (6) from two angles (7). Discard locknuts.
3. Extend two slide assemblies (8) to stops. Remove eight locknuts (9), washers (10), screws (11), and two angles (7) from slide assemblies. Discard locknuts.
4. Extend two slide assemblies (8) to stops. Remove 10 locknuts (12), washers (13), screws (14), and slide assemblies from hull mounts. Discard locknuts.



5. Remove three locknuts (1), washers (2), screws (3), and plate (4) from side of battery drawer (5). Discard locknuts.
6. Remove two locknuts (6), washers (7), screws (8), and channel divider (9) from battery drawer (5). Discard locknuts.
7. Remove locknut (10), cam (11), handle (12), and washer (13) from battery drawer (5). Remove key (14) from handle. Discard locknut.
8. If needed, remove locknut (15), screw (16), and wear plate (17) from hull mount.
9. If needed, remove two rubber bumpers (18) from front of battery drawer (5).

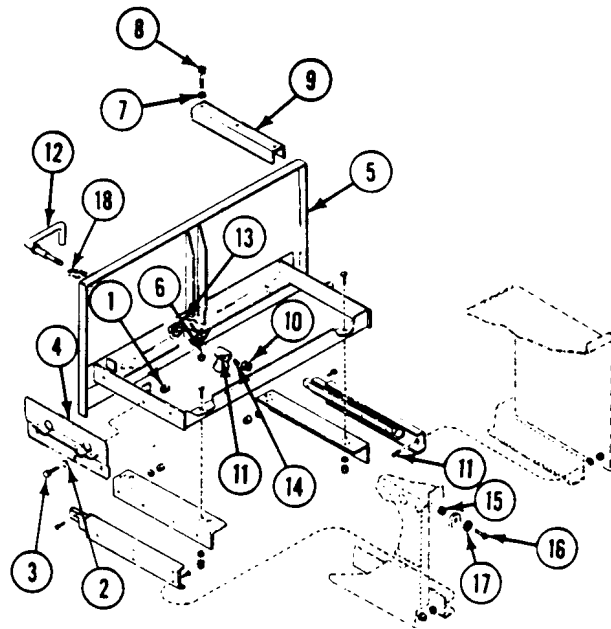


CLEAN AND INSPECT

1. Inspect slide assemblies. If the slide binds or has damaged stops, install a new slide.
2. Clean drawer and parts by soaking in a solution of sodium bicarbonate and water. After foaming stops, flush with clean water and dry with clean cloth.
3. Inspect battery drawer for dents and cracks. If damaged beyond repair, install new drawer.

ASSEMBLY

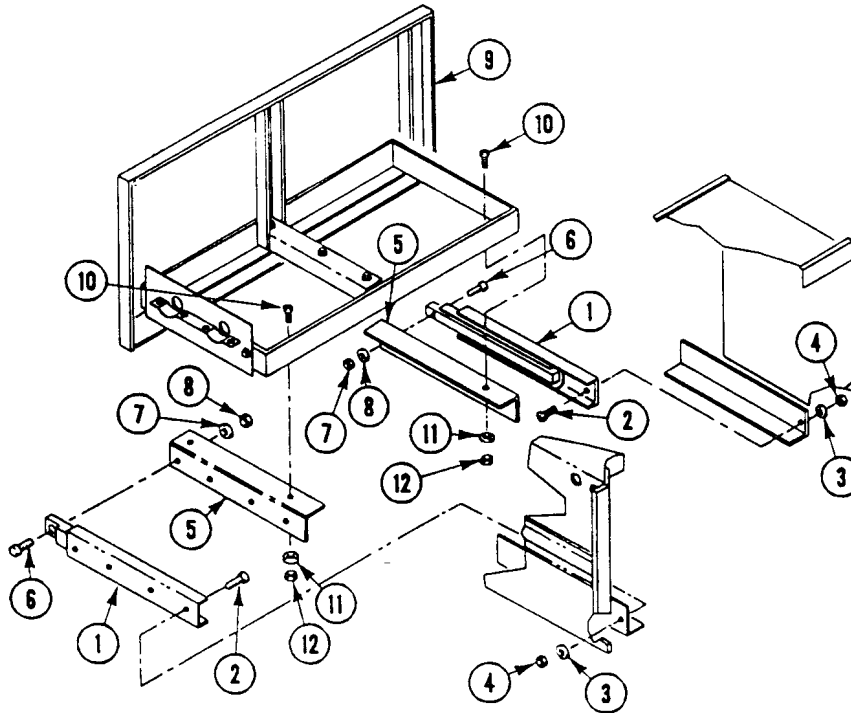
1. Apply epoxy coating to inside surface of battery drawer (5).
2. If removed, install rubber bumpers (18) in battery drawer (5).
3. If removed, place wear plate (17) on hull mount. Secure with screw (16) and new locknut (15).
4. Install washer (13) and handle (12) in battery drawer (5). Insert key (14) in handle and install cam (11). Secure with new locknut (10).
5. Place channel divider (9) in battery drawer (5). Secure with two screws (8), washers (7), and new locknuts (6).
6. Place plate (4) on side of drawer (5). Secure with three screws (3), washers (2), and new locknuts (1).



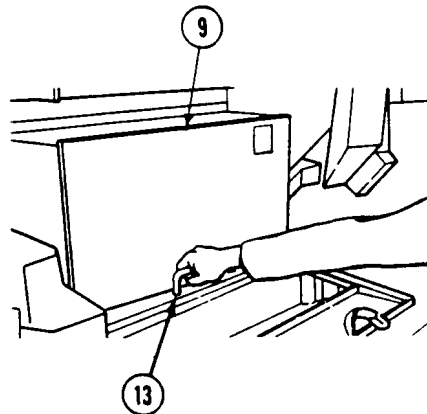
REPAIR BATTERY DRAWER (M1064 ONLY) — Continued

0306 00

7. Coat all bearing surfaces of two slide assemblies (1) with grease.
8. Place two slide assemblies (1) on hull mounts. Extend slide stops. Secure with 10 screws (2), washers (3), and new locknuts (4).
9. Extend two slide assemblies (1) to stops. Align two angles (5) with holes in slides. Secure with eight screws (6), washers (7), and new locknuts (8).
10. Align battery drawer (9) with holes in two angles (5). Secure with eight screws (10), washers (11), and new locknuts (12).



11. Close drawer (9), turn handle (13) on drawer (9) to secure, and raise left crew seat backrest.



FOLLOW-THROUGH STEPS

1. Install batteries and retainers (WP 0303 00).
2. Install battery leads (WP 0300 00).
3. Raise and lock ramp (see your -10).
4. Stop engine (see your -10).

END OF TASK

**REPLACE BATTERY TO RADIO HARNESS (M1059, M901A1,
AND M113A2 ONLY)**

0307 00

THIS WORK PACKAGE COVERS:

Removal (page 0307 00-1).
Installation (page 0307 00-4).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped (see your -10)

Carrier blocked (see your -10)

Battery ground lead disconnected (WP 0294 00)

Personnel heater removed (WP 0619 00)

Materials/Parts

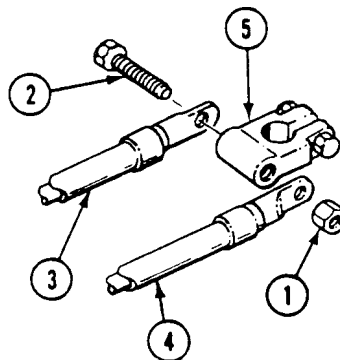
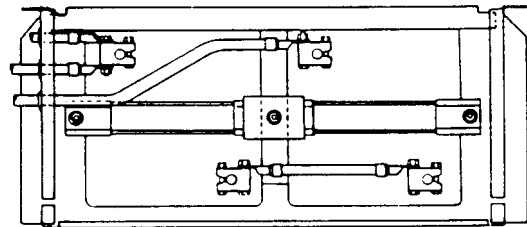
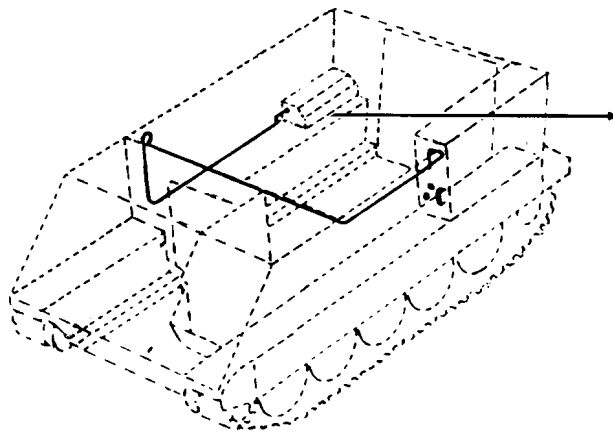
Locknut (8)

Lockwasher (2)

Rope, 12 ft. (4 m)

REMOVAL

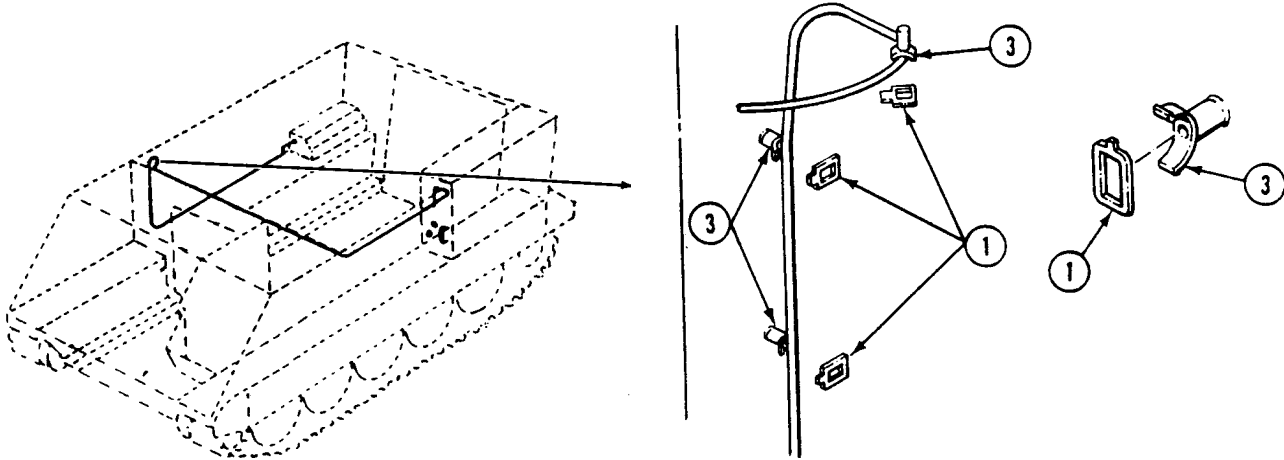
1. Remove nut (1), screw (2), circuit 48 harness (3), and circuit 6 lead (4) from battery terminal (5).



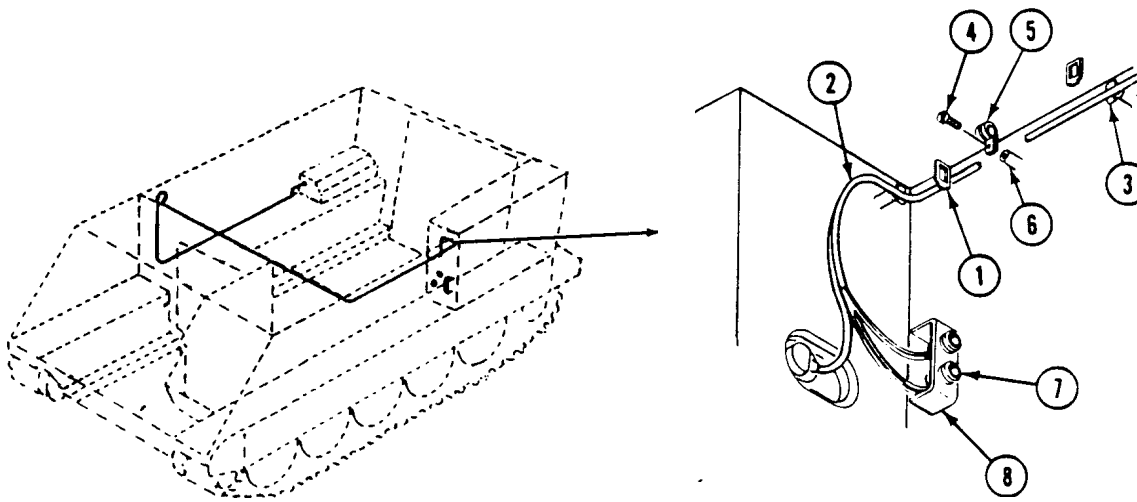
REPLACE BATTERY TO RADIO HARNESS (M1059, M901A1, AND M113A2 ONLY) — Continued

0307 00

2. Remove ten clips (1) that secure circuit 48 harness to ten cradles (3).



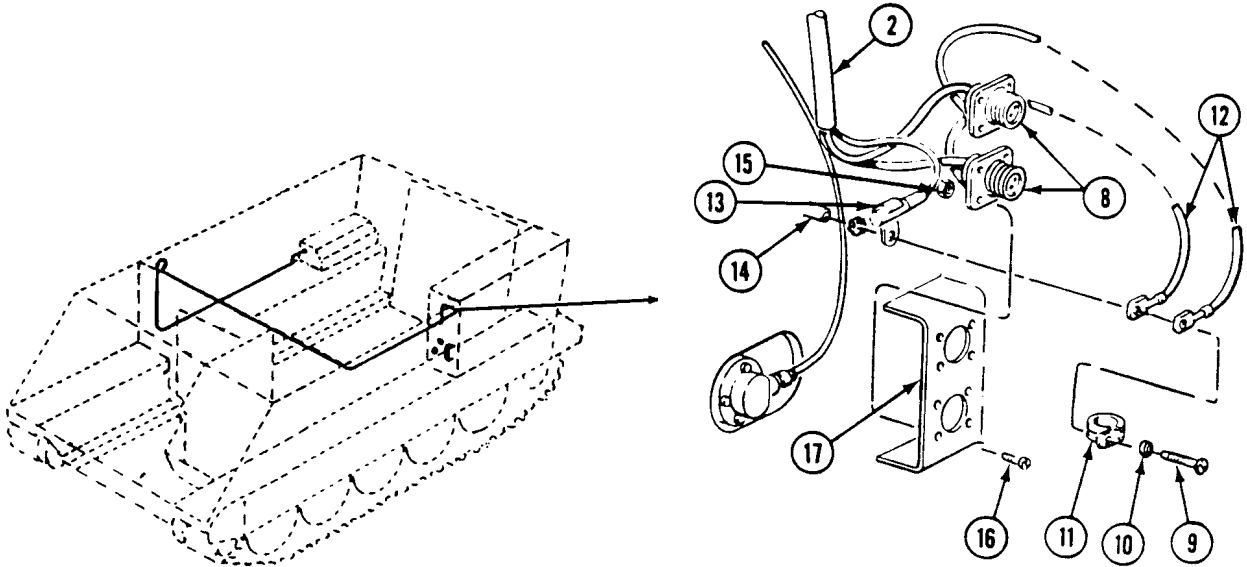
3. Remove screw (4), clamp (5), and harness (2) from weldnut (6).
4. Remove cap assembly (7) from receptacle (8).



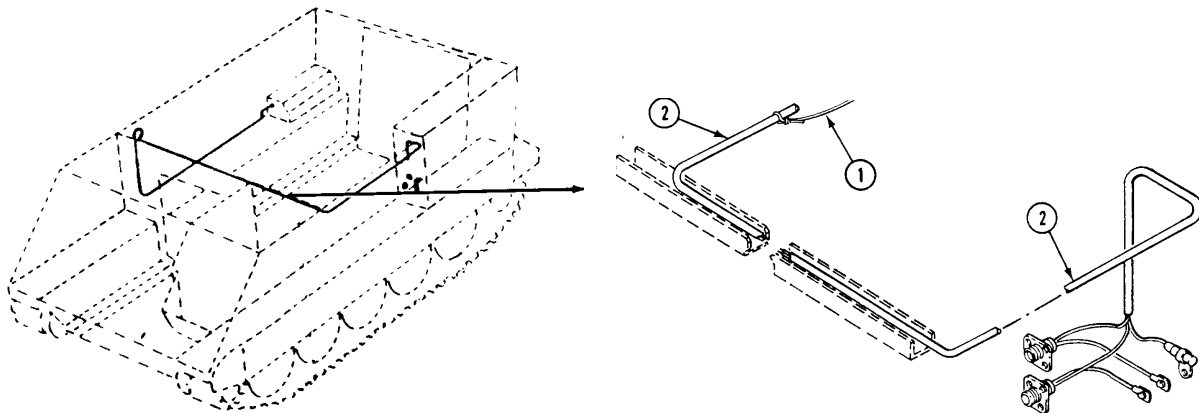
REPLACE BATTERY TO RADIO HARNESS (M1059, M901A1, AND M113A2 ONLY) — Continued

0307 00

5. Remove screw (9), two lockwashers (10), clamp (11), two ground leads (12), and capacitor (13) from weldnut (14). Discard lockwashers.
6. Remove eight locknuts (15), screws (16), and two receptacles (8) from bracket (17). Discard locknuts.



7. Attach a 12 foot (4 m) rope (1) to the battery end of circuit 48 lead (2). Pull harness through the transverse beam from the receptacle end.
8. Do not pull rope out of transverse beam. Leave some rope hanging out of beam at right side of carrier. Untie rope from harness (2).

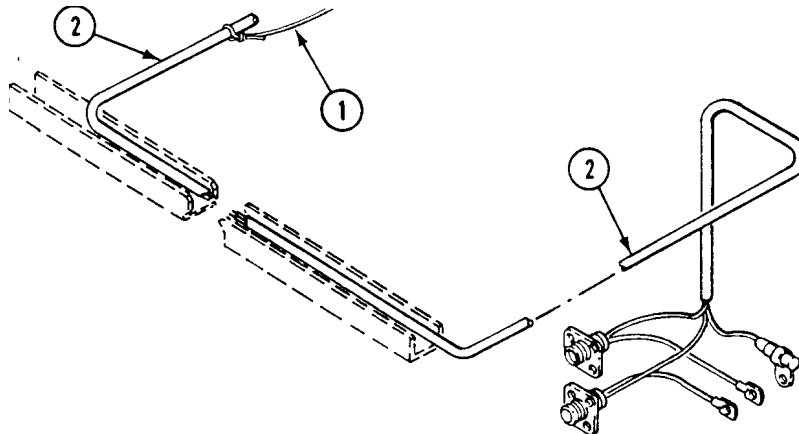


REPLACE BATTERY TO RADIO HARNESS (M1059, M901A1, AND M113A2 ONLY) — Continued

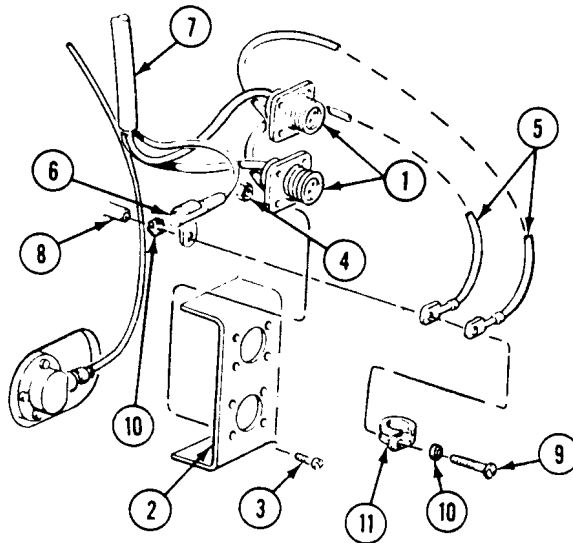
0307 00

INSTALLATION

1. Tie rope (1), retained in transverse beam, to circuit 48 harness (2) at battery end.
2. Pull rope (1) and harness (2) through the transverse beam until harness can be grasped at the right side of carrier.
3. Pull harness (2) to the battery box on right side of carrier.



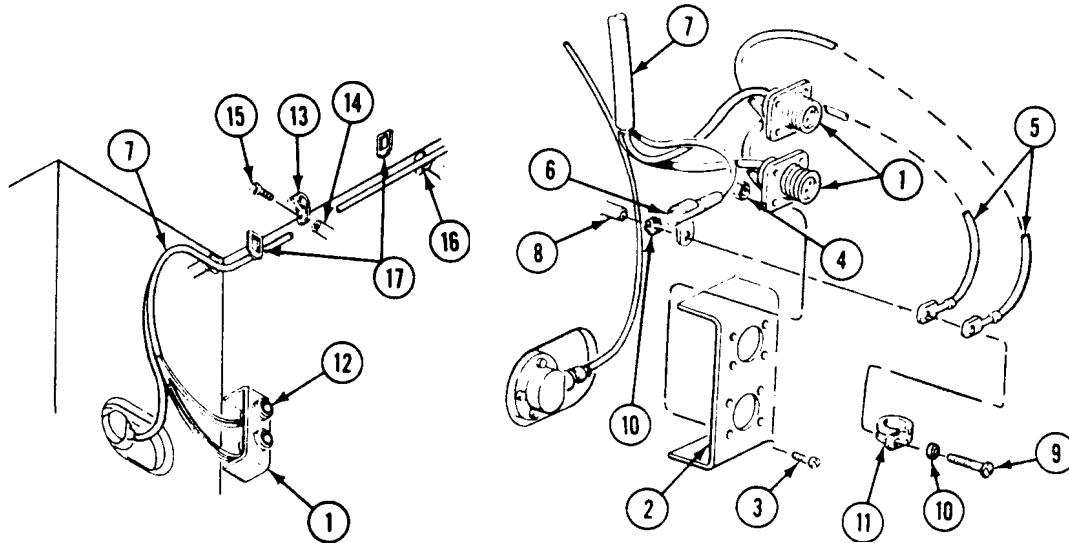
4. Install two receptacles (1) on bracket (2). Secure with eight screws (3) and new locknuts (4).
5. Install two ground leads (5), one capacitor (6), and circuit 48 harness (7) on weldnut (8). Secure with screw (9), two new lockwashers (10), and one clamp (11).



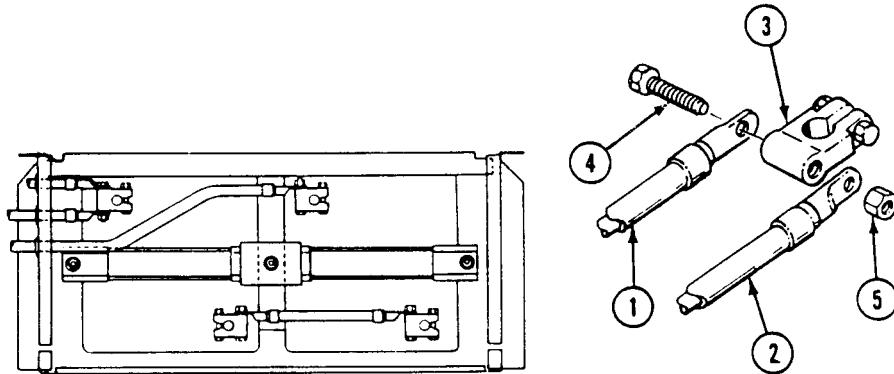
REPLACE BATTERY TO RADIO HARNESS (M1059, M901A1, AND M113A2 ONLY) — Continued

0307 00

6. Install cap assembly (12) on receptacle (1).
7. Secure clamp (13) and harness (7) to weldnut (14) with screw (15).
8. Secure circuit 48 harness (7) to 10 cradles (16) with 10 clips (17).



9. Install harness (1) and circuit 6 harness (2) on battery terminal (3). Secure with screw (4) and nut (5).



FOLLOW-THROUGH STEPS

1. Connect battery ground lead (WP 0294 00).
2. Install personnel heater (WP 0619 00).

END OF TASK

REPLACE BATTERY DRAWER INSULATION AND HEAT EXCHANGER (M1064 ONLY)

0308 00

THIS WORK PACKAGE COVERS:

- Removal (page 0308 00-1).
- Clean, Inspect, and Repair (page 0308 00-3).
- Installation (page 0308 00-4).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

- Sealing compound (WP 0782 00, Item 66)
- Sodium bicarbonate (WP 0782 00, Item 70)

Personnel Required

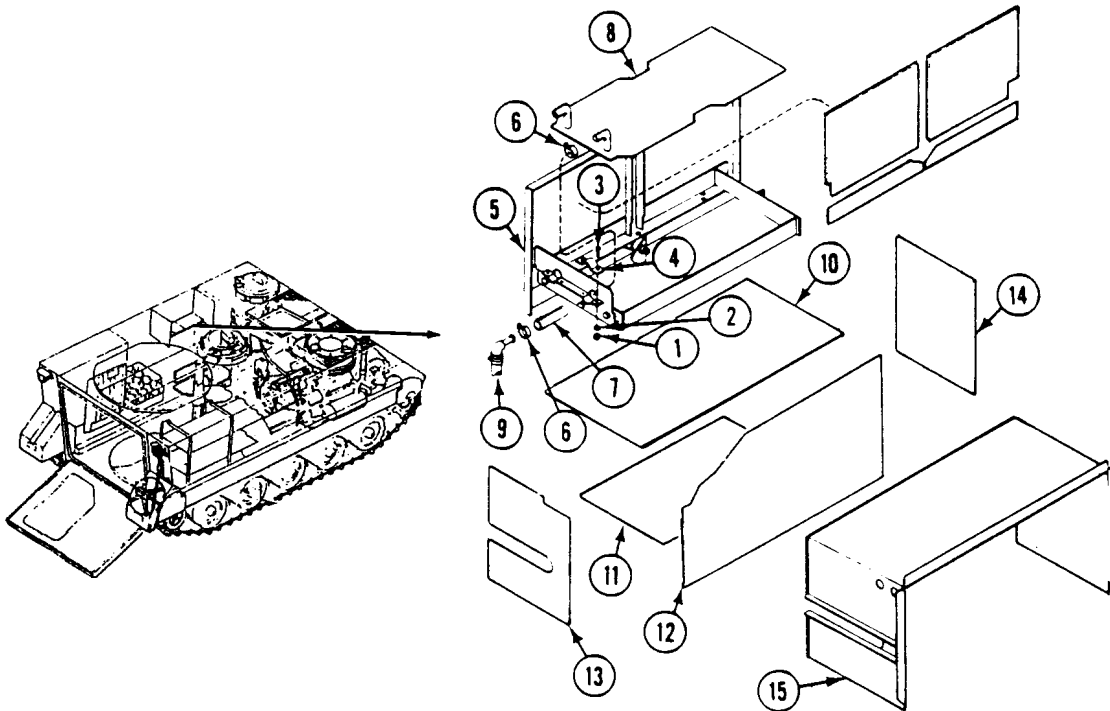
Unit Mechanic

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Ramp lowered (see your -10)
- Batteries removed (WP 0303 00)
- Carrier cooling system drained (WP 0193 00)
- Coolant heater system drained (WP 0639 00)

REMOVAL

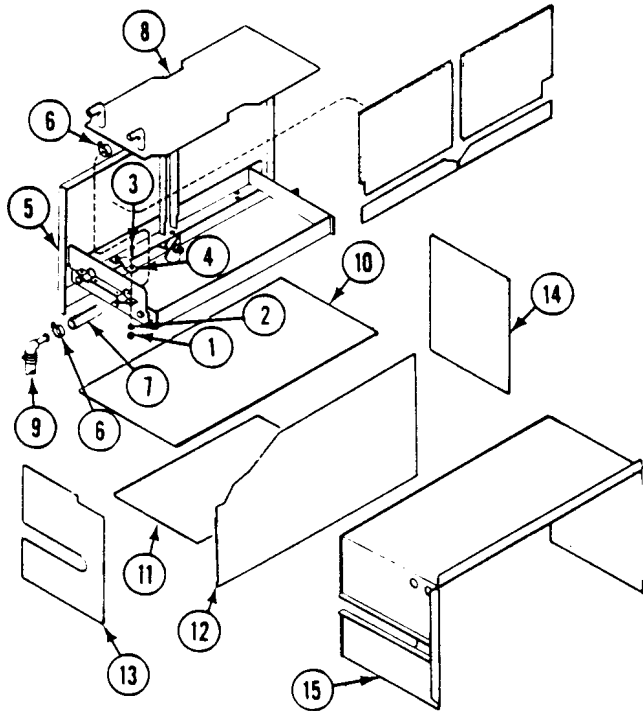
1. Remove four nuts (1), washers (2), screws (3), and two brackets (4) from battery drawer (5).
2. Loosen four clamps (6). Remove two hoses (7) from heat exchanger (8) and two elbows (9). Remove clamps from hoses.



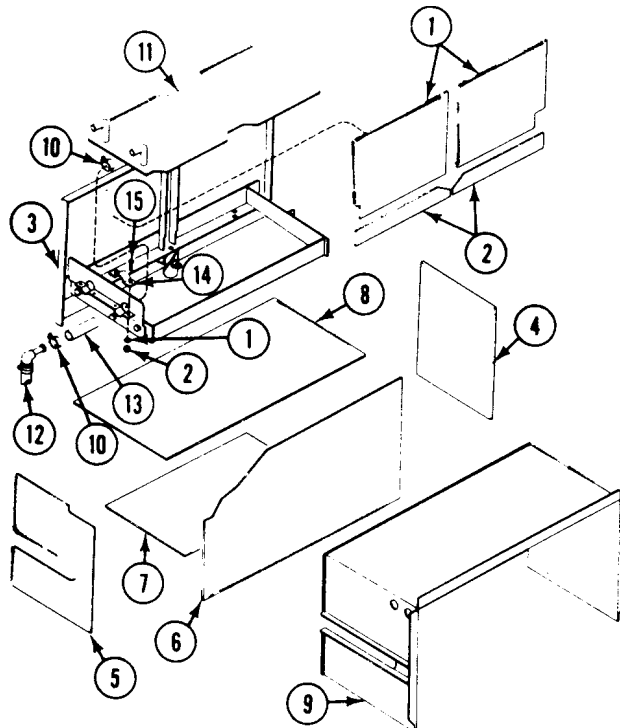
**REPLACE BATTERY DRAWER INSULATION AND HEAT EXCHANGER
(M1064 ONLY) — Continued**

0308 00

3. Remove battery drawer (WP 0306 00).
4. Remove heat exchanger (8) from battery drawer (5).
5. If damaged, remove top insulation sheet (10), bottom insulation sheet (11), rear insulation sheet (12), right insulation sheet (13), and left insulation sheet (14) from battery drawer shield (15).



6. If damaged, remove two installation sheets (1) and two insulation strips (2) from battery drawer (3).



**REPLACE BATTERY DRAWER INSULATION AND HEAT EXCHANGER
(M1064 ONLY) — Continued**

0308 00

CLEAN, INSPECT, AND REPAIR

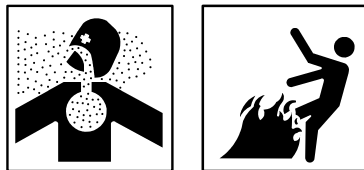
1. Clean heat exchanger plate with brush dipped in mixture of sodium bicarbonate and water. After foaming stops, flush with clean water and dry.
2. Check heat exchanger. Replace bent or cracked heat exchanger.
3. Check insulation. Replace loose, missing, or damaged strip or sheets.

**REPLACE BATTERY DRAWER INSULATION AND HEAT EXCHANGER
(M1064 ONLY) — Continued**

0308 00

INSTALLATION

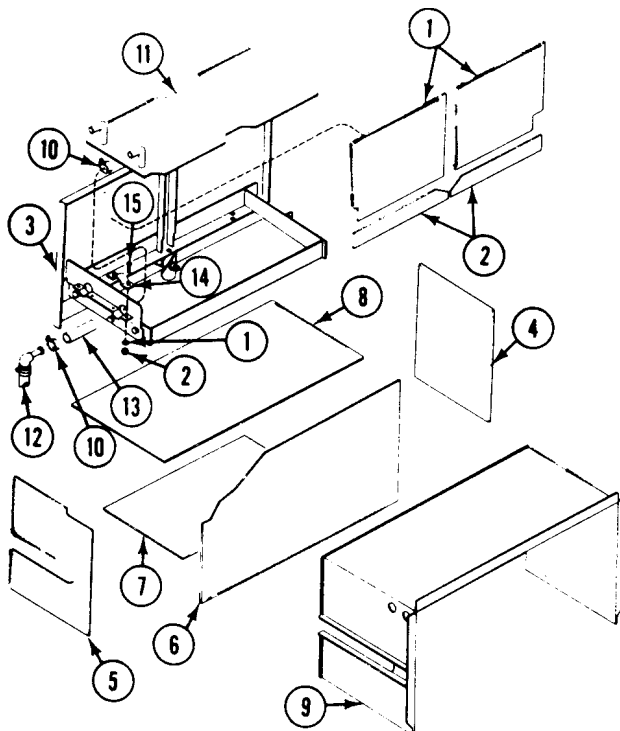
WARNING



Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

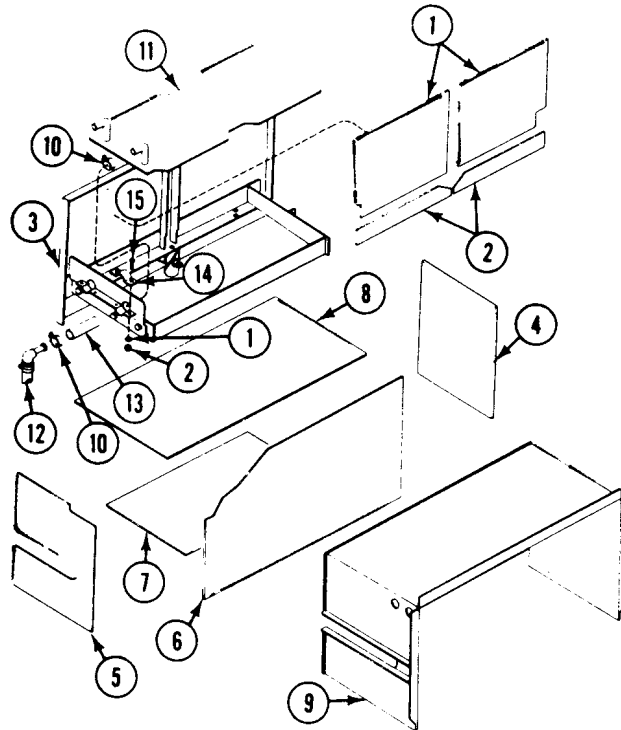
1. Apply adhesive on insulation sheets. Wait 10-20 seconds until adhesive becomes tacky.
2. If removed, install two insulation strips (2) and two insulation sheets (1) on battery drawer (3).
3. If removed, install left insulation sheet (4), right insulation sheet (5), rear insulation sheet (6), bottom insulation sheet (7), and top insulation sheet (8) in battery drawer shield (9).
4. Place two clamps (10) on heat exchanger (11). Install heat exchanger in battery drawer (3).



**REPLACE BATTERY DRAWER INSULATION AND HEAT EXCHANGER
(M1064 ONLY) — Continued**

0308 00

5. Install battery drawer (WP 0306 00).
6. Place two clamps (10) on two elbows (12). Install two hoses (13) on two elbows (12) and heat exchanger (11). Secure with four clamps.
7. Place two brackets (14) on battery drawer (3). Secure with four screws (15), washers (1), and nuts (2).

**FOLLOW-THROUGH STEPS**

1. Install batteries (WP 0303 00).
2. Fill carrier cooling system (WP 0194 00).
3. Fill coolant heater system (WP 0639 00).
4. Start coolant heater (see your -10). Check heat exchanger for leaks. Turn heater off.
5. Raise and lock ramp (see your -10).
6. Stop/shutdown engine (see your -10).

END OF TASK

**REPLACE BATTERY BOX INSULATION AND HEAT EXCHANGER
(M577A2 AND M1068 ONLY)**

0309 00

THIS WORK PACKAGE COVERS:

- Removal (page 0309 00-1).
- Clean, Inspect, and Repair (page 0309 00-3).
- Installation (page 0309 00-4).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

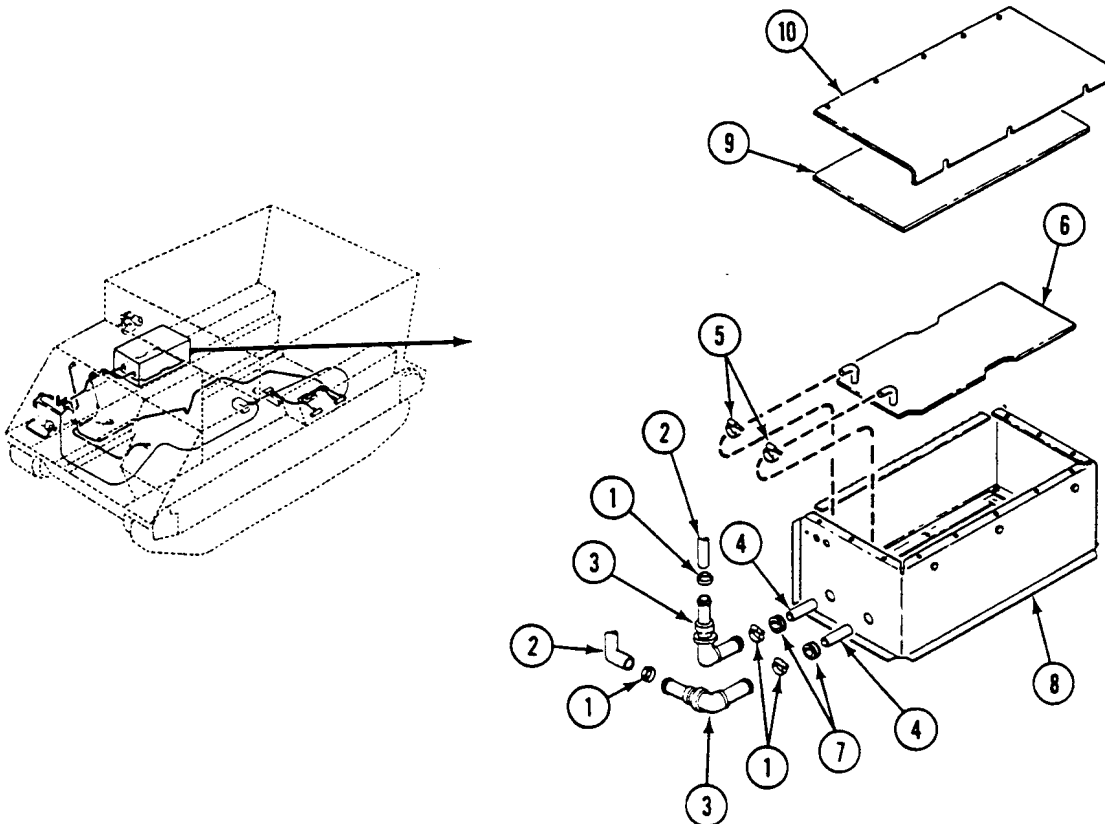
- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Ramp lowered (see your -10)
- Carrier cooling system drained (WP 0193 00)
- Coolant heater system drained (WP 0639 00)
- Batteries removed (WP 0303 00)

Materials/Parts

- Sealing compound (WP 0782 00, Item 66)
- Sodium bicarbonate (WP 0782 00, Item 70)
- Grommet (2)

REMOVAL

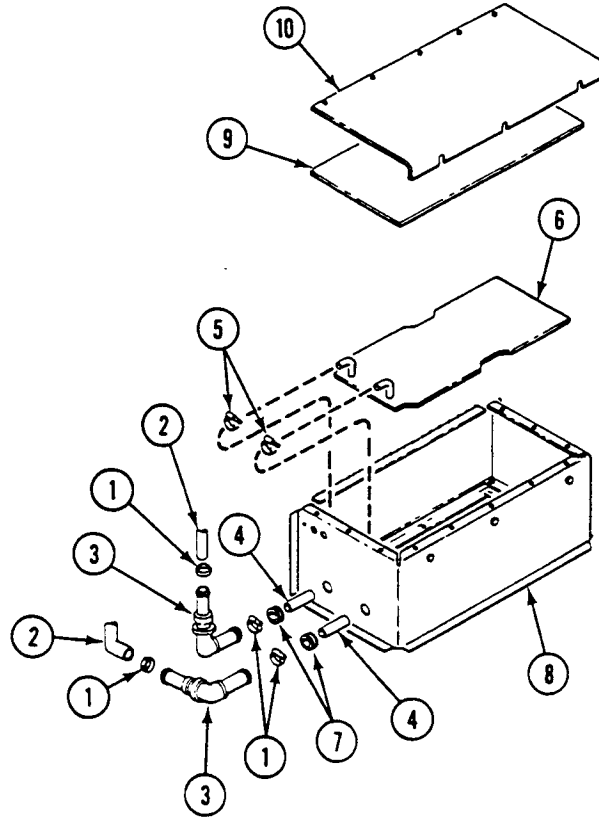
1. Loosen four clamps (1). Remove two hoses (2) from two elbows (3). Remove two elbows from two short hoses (4). Remove clamps.
2. Loosen two clamps (5) on heat exchanger (6). Remove hoses (4) from heat exchanger.



REPLACE BATTERY BOX INSULATION AND HEAT EXCHANGER (M577A2 AND M1068 ONLY) — Continued

0309 00

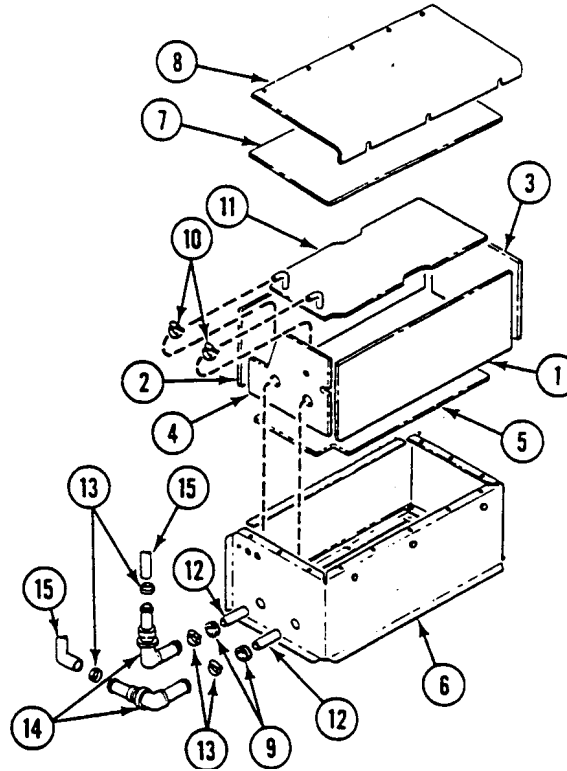
3. Remove heat exchanger (6) and two grommets (7) from battery box (8). Discard grommets.
4. If damaged, remove insulation sheet (9) from battery box cover (10).



REPLACE BATTERY BOX INSULATION AND HEAT EXCHANGER (M577A2 AND M1068 ONLY) — Continued

0309 00

5. If damaged, remove front insulation sheet (1), rear insulation sheet (2), right insulation sheet (3), left insulation sheet (4), and bottom insulation sheet (5) from battery box (6).


CLEAN, INSPECT, AND REPAIR

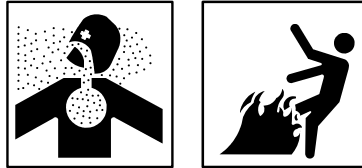
1. Clean heat exchanger plate with brush dipped in mixture of sodium bicarbonate and water. After foaming stops, flush with clean water and dry.
2. Check heat exchanger. Replace bent or cracked heat exchanger.
3. Check insulation. Replace loose, missing, or damaged strip or sheets.

**REPLACE BATTERY BOX INSULATION AND HEAT EXCHANGER (M577A2
AND M1068 ONLY) — Continued**

0309 00

INSTALLATION

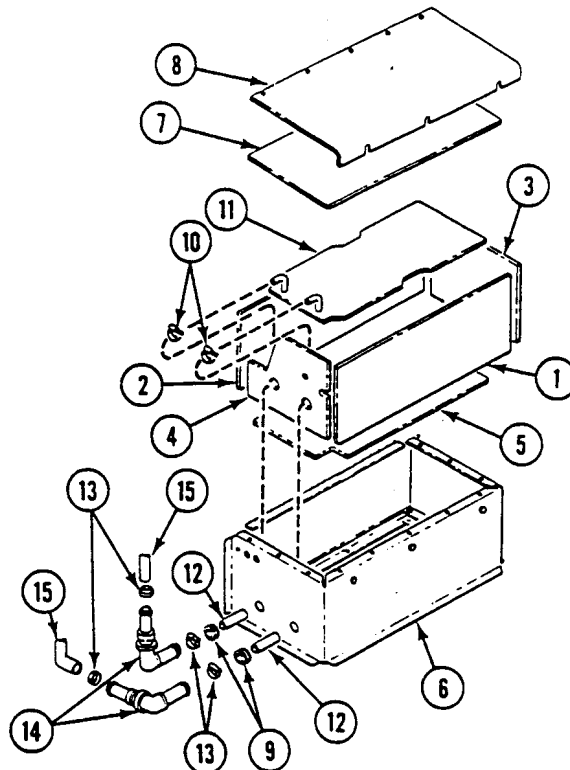
WARNING



Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

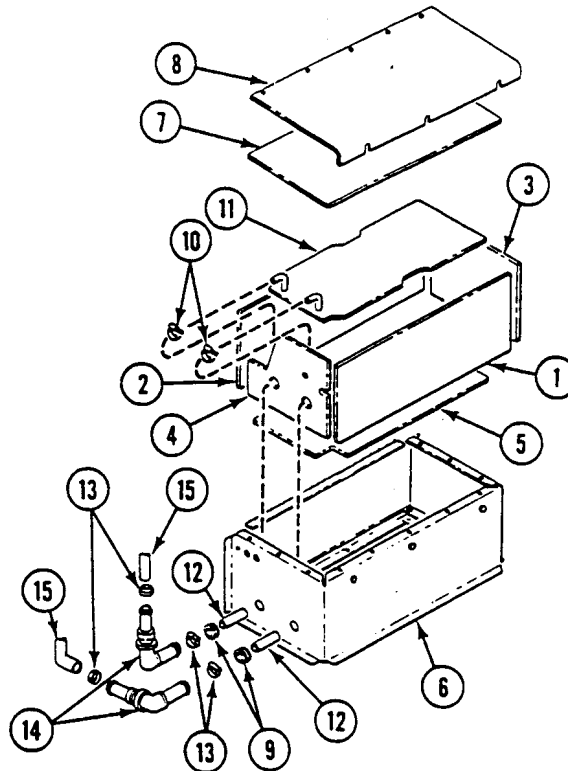
1. Apply adhesive to insulation sheets. Wait 10 to 20 seconds until adhesive becomes tacky.
2. If removed, install bottom insulation sheet (5), left insulation sheet (4), right insulation sheet (3), rear insulation sheet (2), and front insulation sheet (1) in battery box (6).
3. If removed, install insulation sheet (7) on battery box cover (8).



**REPLACE BATTERY BOX INSULATION AND HEAT EXCHANGER (M577A2
AND M1068 ONLY) — Continued**

0309 00

4. Place two clamps (10) on heat exchanger (11). Install heat exchanger in battery box (6).
5. Install two short hoses (12) on heat exchanger (11). Secure with two clamps (10).
6. Place four clamps (13) on two elbows (14). Install elbows in hoses (12). Install hoses (15) on elbows. Secure all those hoses with clamps (13).

**FOLLOW-THROUGH STEPS**

1. Install batteries (WP 0302 00).
2. Fill carrier cooling system (WP 0194 00).
3. Fill coolant heater system (WP 0639 00).
4. Start coolant heater (see your -10). Check for leaks.
5. Raise and lock ramp (see your -10).
6. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

**REPLACE BATTERY BOX INSULATION AND HEAT EXCHANGER
(M113A2, M901A1, AND M1059 ONLY)**

0310 00

THIS WORK PACKAGE COVERS:

- Removal (page 0310 00-1).
- Clean, Inspect, and Repair (page 0310 00-2).
- Installation (page 0310 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Ramp lowered (see your -10)
- Batteries removed (WP 0303 00)
- Carrier cooling system drained (WP 0193 00)
- Coolant heater system drained (WP 0639 00)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

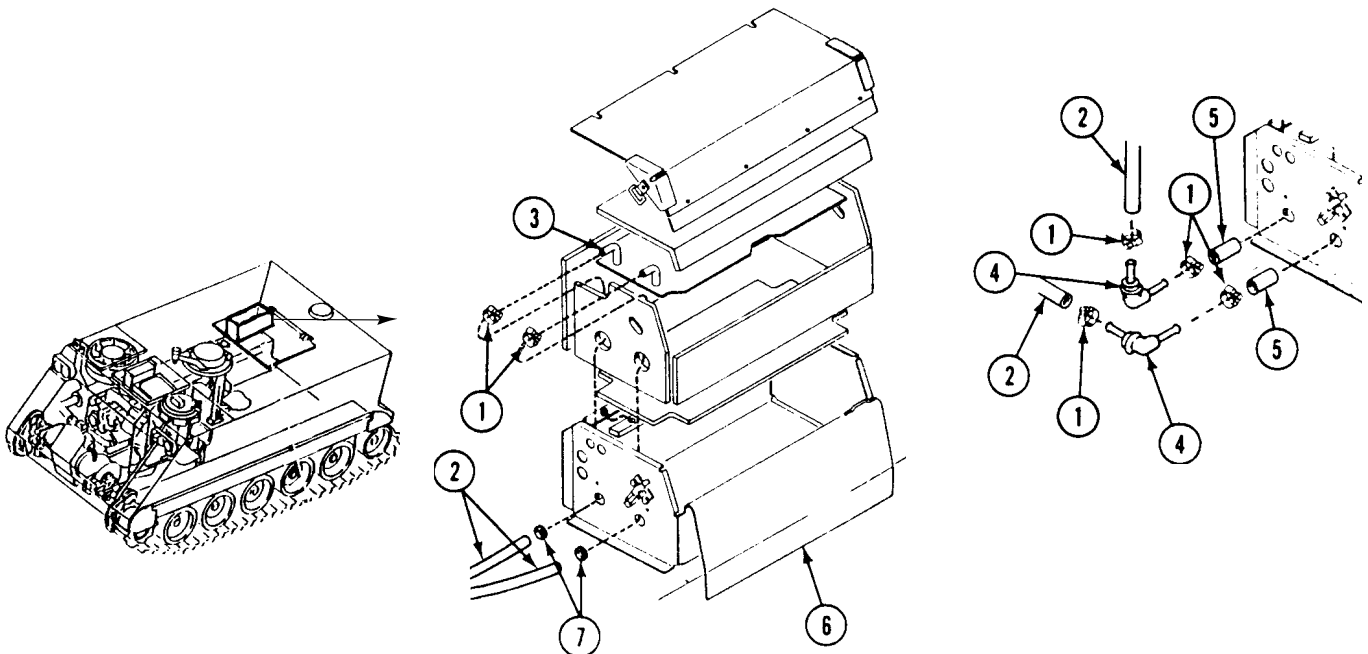
- Sealing compound (WP 0782 00, Item 66)
- Sodium bicarbonate (WP 0782 00, Item 70)
- Grommet (2)

Personnel Required

Unit Mechanic

REMOVAL

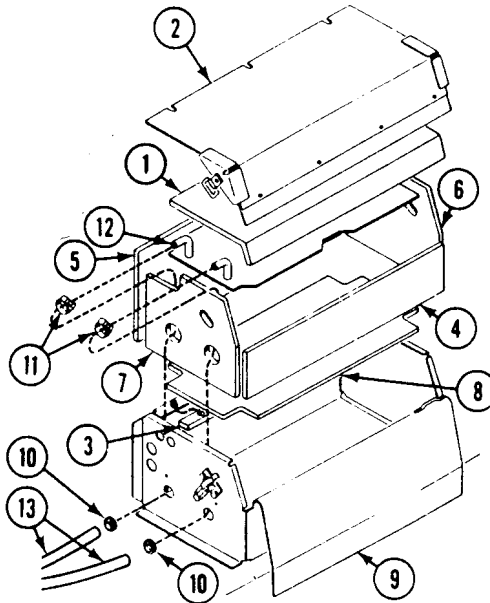
1. Loosen two clamps (1) on two hoses (2). Remove hoses from heat exchanger (3). Remove clamps from hoses.
2. Remove heat exchanger (3) from battery box (6). Remove clamps from heat exchanger.
3. Remove two grommets (7) from battery box (6). Discard grommets.



REPLACE BATTERY BOX INSULATION AND HEAT EXCHANGER (M113A2, M901A1, AND M1059 ONLY) — Continued

0310 00

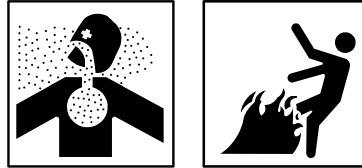
4. If damaged, remove two insulation sheets (1) from battery box cover (2).
5. If damaged, remove insulation strip (3), front insulation sheet (4), rear insulation sheet (5), right insulation sheet (6), left insulation sheet (7), and bottom insulation sheet (8) from battery box (9).



CLEAN, INSPECT, AND REPAIR

1. Clean heat exchanger plate with brush dipped in mixture of sodium bicarbonate and water. After foaming stops, flush with clean water and dry.
2. Check heat exchanger. Replace bent or cracked heat exchanger.
3. Check insulation. Replace loose, missing, or damaged strip or sheets.

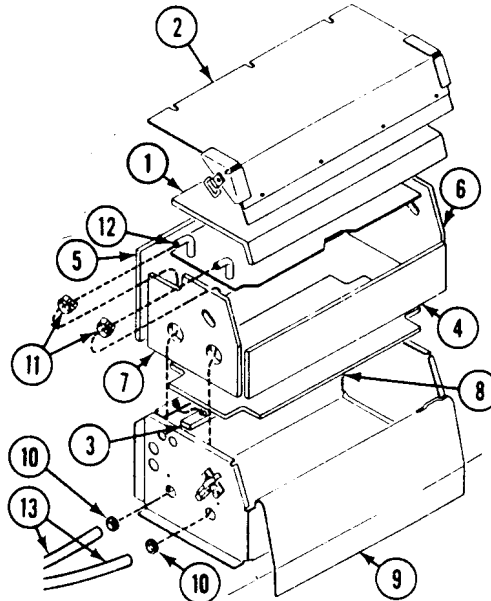
INSTALLATION

WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

1. Apply sealing compound on insulation sheets. Wait 10 to 20 seconds until sealing compound becomes tacky.
2. If removed, install bottom insulation sheet (8), left insulation sheet (7), right insulation sheet (6), rear insulation sheet (5), front insulation sheet (4), and insulation strip (3) in battery box (9).
3. If removed, install insulation sheet (1) on battery box cover (2).
4. Install two new grommets (10) in battery box (9).
5. Install two clamps (11) on heat exchanger (12). Install heat exchanger in battery box (9).
6. Install two hoses (13) on heat exchanger (12). Secure with two clamps (11).



**REPLACE BATTERY BOX INSULATION AND HEAT EXCHANGER (M113A2,
M901A1, AND M1059 ONLY) — Continued**

0310 00

FOLLOW-THROUGH STEPS

1. Fill carrier cooling system (WP 0194 00).
2. Fill coolant heater system (WP 0639 00).
3. Start coolant heater (see your -10). Check heat exchanger for leaks. Turn heater off.
4. Raise and lock ramp (see your -10).
5. Stop/shutdown engine (see your -10).

END OF TASK

CHAPTER 14

UNIT MAINTENANCE INSTRUCTIONS
FOR ELECTRICAL SYSTEM - WIRING HARNESS, RECEPTACLE, AND CABLE REPAIR

WORK PACKAGE INDEX

<u>Title</u>	<u>Sequence No.</u>
MULTIPLE PIN AND SOCKET IDENTIFICATION.....	0311 00
REPAIR WIRING HARNESS.....	0312 00
REPAIR RECEPTACLE.....	0313 00
REPAIR CABLE ASSEMBLY.....	0314 00
REPAIR INTERVEHICLE POWER CABLE (M577A2 AND M1068 ONLY).....	0315 00

MULTIPLE PIN AND SOCKET IDENTIFICATION

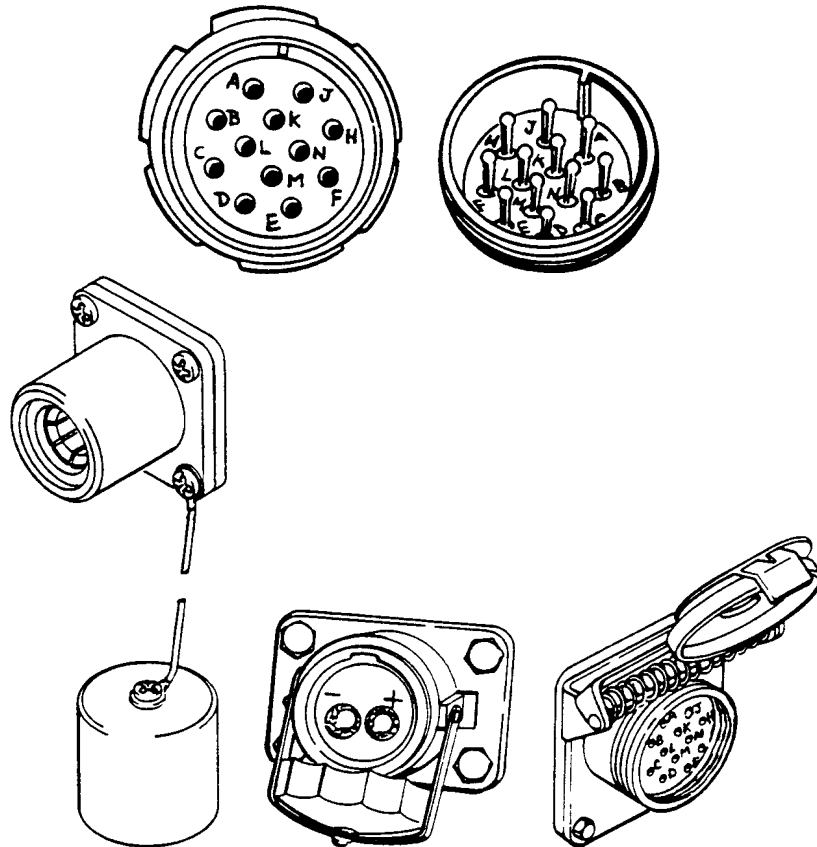
0311 00**THIS WORK PACKAGE COVERS:**

Inspection-Acceptance and Rejection Criteria (page 0311 00-1).

INITIAL SETUP:Maintenance LevelUnit

INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

1. It is important to identify the correct pins and sockets for repair when troubleshooting electrical connectors and receptacles.
2. Letters or other markings are stamped next to each pin and corresponding socket to ensure proper identification.
3. Following are examples of typical connectors found in carriers.

**END OF TASK**

REPAIR WIRING HARNESS

0312 00

THIS WORK PACKAGE COVERS:

- Disassembly (page 0312 00-1).
- Assembly (page 0312 00-4).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

- Digital Multimeter (WP 0780 00, Item 43)
- Electrical Tool Kit (WP 0780 00, Item 80)
- General Mechanic’s Tool Kit (WP 0780 00, Item 29)
- Hacksaw Blade (WP 0780 00, Item 13)
- Hacksaw Frame (WP 0780 00, Item 26)
- Heater Gun (WP 0780 00, Item 34)
- Soldering Gun (WP 0780 00, Item 33)

Materials/Parts

- Insulation sleeving (WP 0782 00, Item 30)
- Insulation sleeving (WP 0782 00, Item 31)
- Insulation sleeving (WP 0782 00, Item 32)
- Insulation sleeving (WP 0782 00, Item 33)
- Insulation sleeving (WP 0782 00, Item 34)
- Solder (WP 0782 00, Item 71)

Personnel Required

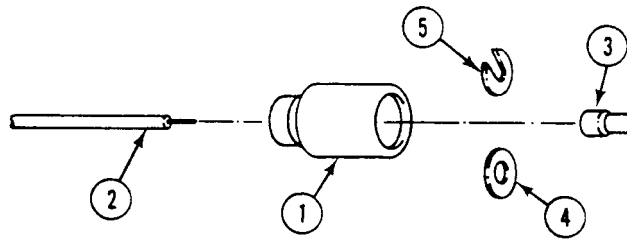
Unit Mechanic

Equipment Condition

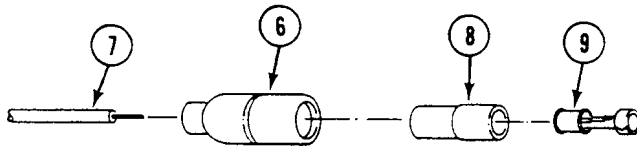
- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Battery ground lead disconnected (WP 0294 00)

DISASSEMBLY

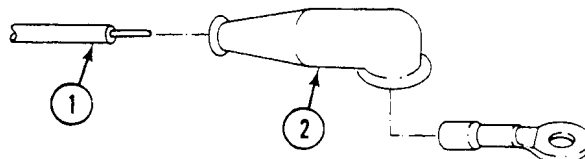
1. Remove male connector from harness lead.
 - a. Slide shell (1) back on lead (2).
 - b. Clip contact pin (3) from lead (2). Discard pin.
 - c. Remove washer (4) or slotted washer (5) and shell (1) from lead (2).



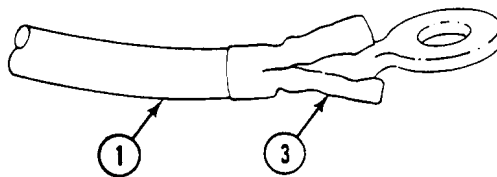
2. Remove female connector from harness lead.
 - a. Slide shell (6) back on lead (7).
 - b. Slide sleeve (8) back from contact socket (9).
 - c. Clip socket (9) from lead (7). Discard socket.
 - d. Remove sleeve (8) and shell (6) from lead (7).



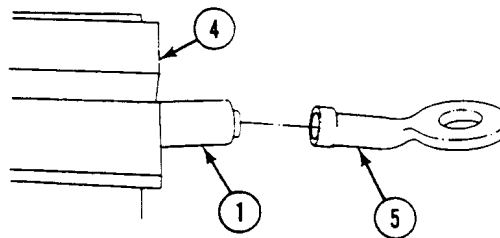
3. Remove terminal connector from harness lead.
 - a. If lead (1) has nipple (2), slide nipple back on lead.



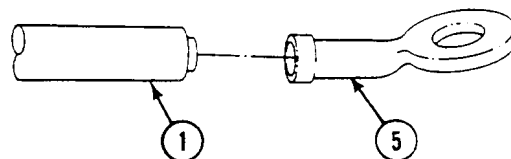
- b. If lead (1) has insulated sleeving (3), cut and discard sleeving from lead.



- c. If lead (1) is of large diameter, place in vise (4). Cut lead with hacksaw as close as possible to terminal (5). Discard terminal.



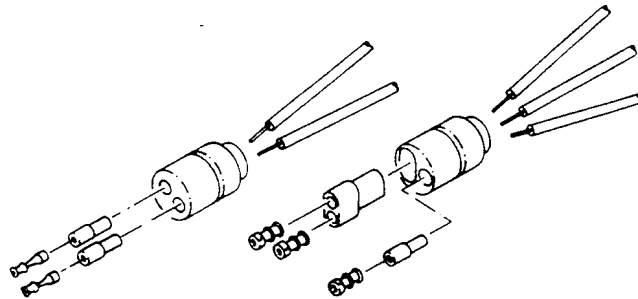
- d. If lead (1) is of small diameter, cut lead as close as possible to terminal (5). Discard terminal.



NOTE

Unit Maintenance can only repair multi-pin plugs with up to three sockets. For plugs with more than three sockets, notify your supervisor.

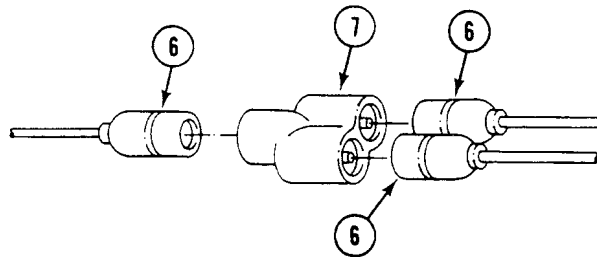
4. Remove multiple connectors the same way as single connectors. Be sure to tag leads to ensure correct installation. See DISASSEMBLY Steps 1 - 2.



NOTE

For wiring harness repair, it may be necessary to remove Y-type adapters and dummy plugs.

5. Remove Y-type adapter or dummy plug from harness lead.
 - a. Pull harness leads (6) from Y-type adapter (7). Remove adapter.



- b. Pull dummy plug (8) from male or female connector (9).



ASSEMBLY

NOTE

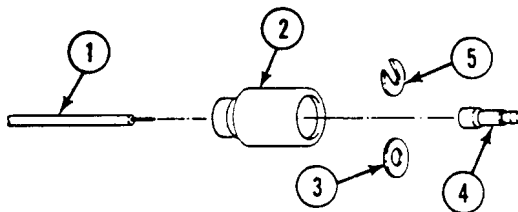
If replacing lead, cut new wire from bulk supply. Measure original length, gauge, and type of wire.

1. Install male connector on harness lead.
 - a. Strip insulation from lead (1) to uncover just enough wire to fill contact pin well.
 - b. Slide shell (2) and washer (3), if removed, over lead (1).

CAUTION

Crimping lower part of pin may damage pin and it will not hold lead. Crimp only middle part of contact pin with correct size die.

- c. Insert lead (1) into new pin (4) and crimp.
- d. If removed, place slotted washer (5) on lead (1) under pin (4) and pull shell (2) over washer (3) or (5) and pin.

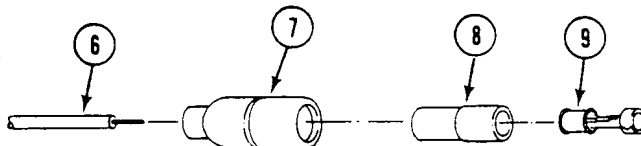


2. Install female connector on harness lead.
 - a. Strip insulation from lead (6) to uncover just enough wire to fill contact socket well.
 - b. Slide shell (7) and sleeve (8) over lead (6).

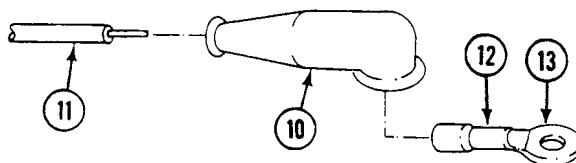
CAUTION

Crimping lower part of pin may damage pin and it will not hold lead. Crimp only middle part of contact pin with correct size die.

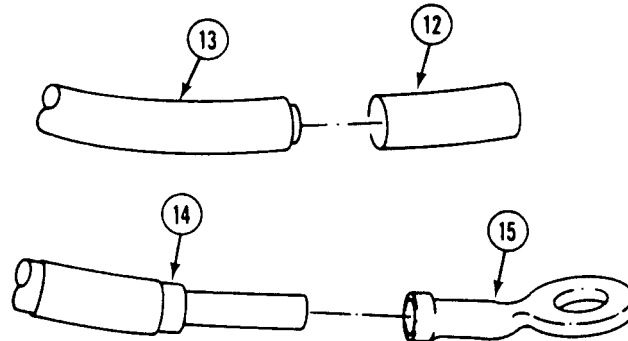
- c. Insert lead (6) in new socket (9) and crimp or solder.
- d. Slide sleeve (8) and shell (7) over socket (9).



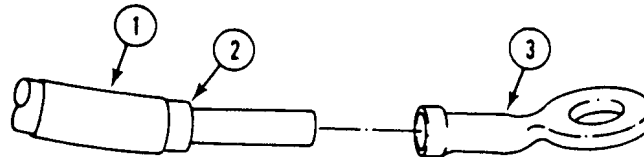
3. Install terminal connector on harness lead.
 - a. If nipple (10) was removed from lead (11), strip insulation from lead to uncover just enough wire to fill barrel (12) of terminal (13). Slide nipple over lead.



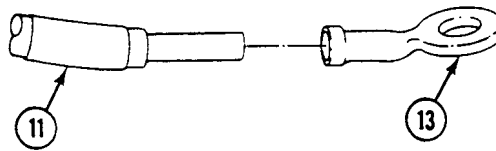
- b. If insulated sleeving (12) was removed from lead (13), slide new insulated sleeving on lead. Strip insulation from lead to same length as crimp (14) on terminal (15).



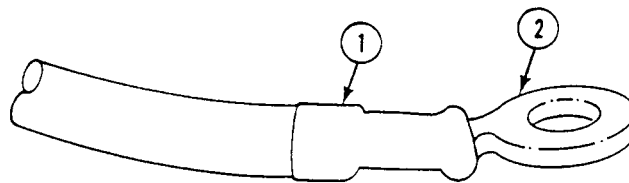
- c. If large diameter lead (1), fill crimp (2) on terminal (3) with solder. Use soldering gun. Insert lead into melted solder in crimp. Allow to cool.



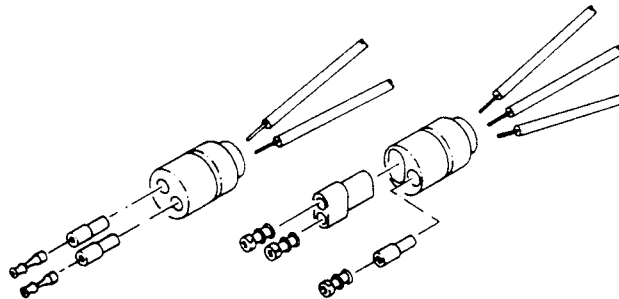
- d. If lead (11) is small diameter, position terminal (13) on lead. Crimp terminal on lead.



- e. Heat shrink insulated sleeving (1) on terminal (2) and leads.



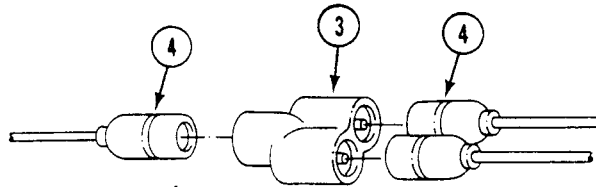
4. Install multiple connectors the same way as single connectors. See ASSEMBLY Steps 1 - 2.



REPAIR WIRING HARNESS — Continued**0312 00**

5. If removed, install Y-type adapters and dummy plugs.

a. Install Y-type adapter (3) on harness leads (4).



b. Install dummy plugs (5) in male or female connector (6).

**FOLLOW-THROUGH STEPS**

1. Use multimeter to perform continuity check before connecting batteries.
2. Connect battery ground lead (WP 0294 00).

END OF TASK

REPAIR RECEPTACLE

0313 00

THIS WORK PACKAGE COVERS:

- Disassembly (page 0313 00-1).
- Clean, Inspect, and Repair (page 0313 00-2).
- Assembly (page 0313 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

- Digital Multimeter (WP 0780 00, Item 43)
- Electrical Tool Kit (WP 0780 00, Item 80)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Soldering Gun (WP 0780 00, Item 33)

Materials/Parts

- Insulation sleeving (WP 0782 00, Item 30)
- Insulation sleeving (WP 0782 00, Item 31)
- Insulation sleeving (WP 0782 00, Item 32)
- Insulation sleeving (WP 0782 00, Item 33)
- Insulation sleeving (WP 0782 00, Item 34)
- Solder (WP 0782 00, Item 71)

Personnel Required

Unit Mechanic

Equipment Condition

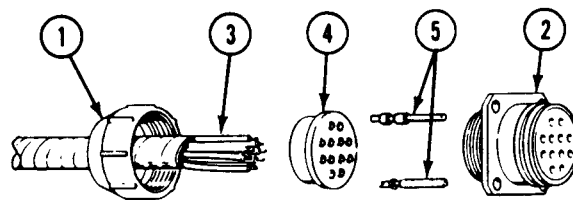
- Engine stopped/shutdown (see your -10)
- Battery ground lead disconnected (WP 0294 00)
- Carrier blocked (see your -10)

DISASSEMBLY

NOTE

Use same procedure for repairing single or multiple lead, and male or female receptacle.

1. Loosen nut (1) from receptacle (2). Slide nut back on leads (3).
2. Remove grommet (4) with contacts (5) from rear of receptacle.
3. Push leads (3) into grommet (4) until contacts (5) are fully exposed on other side of grommet. Remove grommet and nut (1) from leads.



4. Clip or desolder leads from contacts. Use soldering gun. Discard contacts.

CLEAN, INSPECT, AND REPAIR

1. Check wire leads. Look for damaged insulation or broken wires. If wire leads have been taped together, remove tape. Scrape wire lead covering with your thumbnail to see if covering peels off. Replace bad leads.
2. Check contact pins, contact sockets, and terminals. Replace burned, bent, or broken parts.
3. Check shells, sleeves, and nipples. Replace cut, torn, or damaged parts.

ASSEMBLY**NOTE**

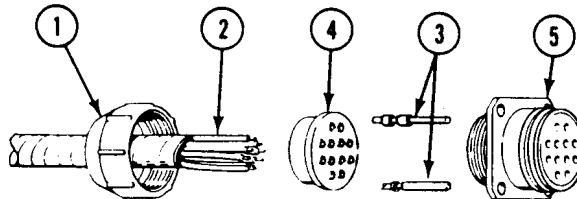
If replacing lead, cut new wire from bulk supply. Measure original length, gauge, and type of wire.

1. Slide nut (1) over leads (2).
2. Strip insulation from leads (2) to expose just enough wire to fill holes in contacts (3).
3. Push leads (2) through grommet (4) and insert in new contacts (3). Solder leads (2) in contacts (3). Use soldering gun.

NOTE

Make sure leads pass through proper lettered holes in grommet.

4. Align and install grommet (4) in receptacle (5). Secure with nut (1).

**FOLLOW-THROUGH STEPS**

1. Use multimeter to perform continuity check before connecting batteries.
2. Connect battery ground lead (WP 0294 00).
3. Turn MASTER SWITCH to ON to check for proper receptacle repair.
4. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPAIR CABLE ASSEMBLY

0314 00

THIS WORK PACKAGE COVERS:

- Disassembly (page 0314 00-1).
- Clean, Inspect, and Repair (page 0314 00-2).
- Assembly (page 0314 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

- Digital Multimeter (WP 0780 00, Item 43)
- Electrical Tool Kit (WP 0780 00, Item 80)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Soldering Gun (WP 0780 00, Item 33)

Materials/Parts

- Insulation sleeving (WP 0782 00, Item 30)
- Insulation sleeving (WP 0782 00, Item 31)
- Insulation sleeving (WP 0782 00, Item 32)
- Insulation sleeving (WP 0782 00, Item 33)
- Insulation sleeving (WP 0782 00, Item 34)
- Solder (WP 0782 00, Item 71)

Personnel Required

Unit Mechanic

Equipment Condition

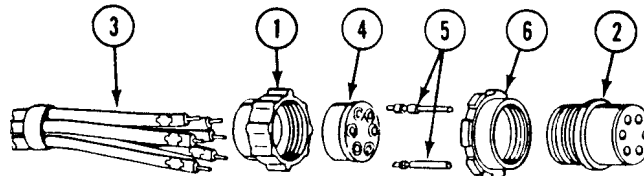
- Engine stopped/shutdown (see your -10)
- Battery ground lead disconnected (WP 0294 00)
- Carrier blocked (see your -10)

DISASSEMBLY

NOTE

Use same procedure for repairing single or multiple lead, and male or female receptacle.

1. Loosen retaining nut (1) from plug (2). Slide nut back on cable (3).
2. Remove grommet (4) with contacts (5) from rear of plug (2).
3. Remove plug (2) and coupling nut (6) from cable (3).
4. Push leads of cable (3) into grommet (4) until contacts (5) are fully exposed on other side of grommet. Clip or desolder leads from contacts. Use soldering gun. Discard contacts.
5. Remove grommet (4) and retaining nut (1) from cable (3).



CLEAN, INSPECT, AND REPAIR

1. Check wire leads. Look for damaged insulation or broken wires. If wire leads have been taped together, remove tape. Scrape wire lead covering with your thumbnail to see if covering peels off. Replace bad leads.
2. Check contact pins, contact sockets, and terminals. Replace burned, bent, or broken parts.
3. Check shells, sleeves, and nipples. Replace cut, torn, or damaged parts.

ASSEMBLY**NOTE**

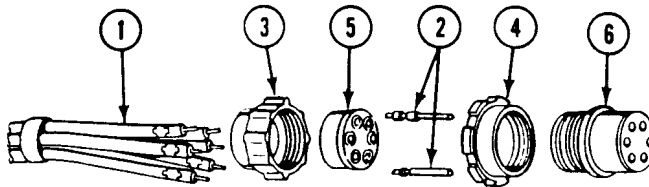
If replacing lead, cut new wire from bulk supply. Measure original length, gauge, and type of wire.

1. Strip insulation from leads of cable (1) to expose just enough wire to fill holes in contacts (2).
2. Slide retaining nut (3) and coupling nut (4) on cable (1).
3. Push leads of cable (1) through grommet (5) and insert in new contacts (2).

NOTE

Make sure leads pass through proper lettered holes in grommet.

4. Solder leads of cable (1) in contacts (2) and press contacts into grommet (5). Use soldering gun.
5. Align and install grommet (5) in plug (6). Secure with retaining nut (3).

**FOLLOW-THROUGH STEPS**

1. Use multimeter to perform continuity check before connecting batteries.
2. Connect battery ground lead (WP 0294 00).
3. Turn MASTER SWITCH to ON to check for proper cable repair.
4. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPAIR INTERVEHICLE POWER CABLE (M577A2 AND M1068 ONLY)

0315 00

THIS WORK PACKAGE COVERS:

Disassembly (page 0315 00-1).
 Assembly (page 0315 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Solder Torch Kit (WP 0780 00, Item 70)

Equipment Condition

Power cable removed from carrier (see your -10)

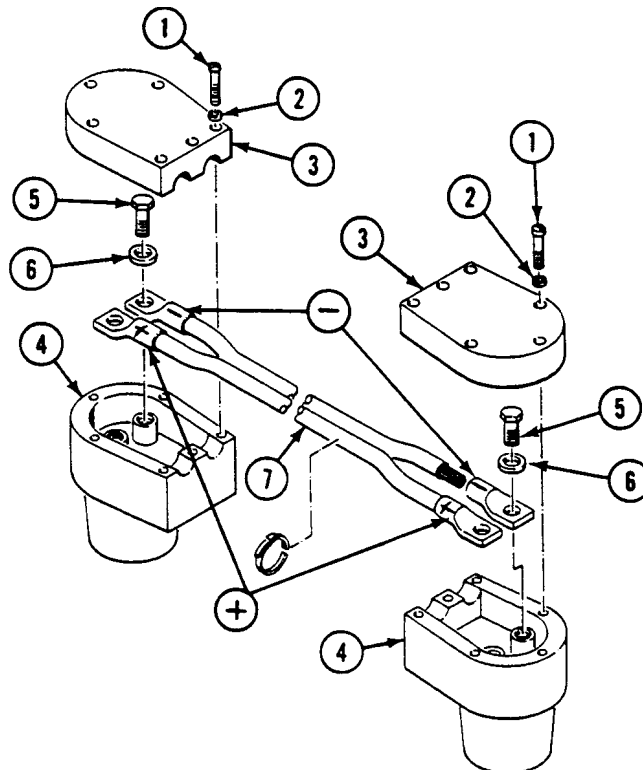
DISASSEMBLY

1. Remove 12 screws (1), washers (2), and cover (3) from connector (4).

NOTE

Note cable polarity position before removing from connector.

2. Remove four screws (5), washers (6), and two cables (7) from two connectors (4).
3. Remove four terminals, two (-) and two (+), from cables (7). Use soldering torch.



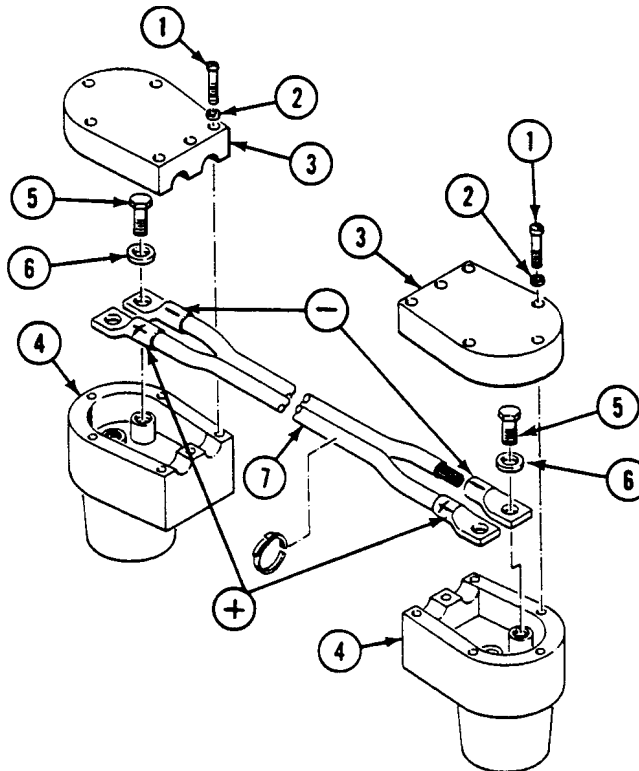
ASSEMBLY

1. Install four terminals, two (-) and two (+), on cables (7). Use soldering torch.

CAUTION

Do not switch cable polarity when securing cables to connectors.

2. Secure two cables (7) to two connectors (4) with four screws (5) and washers (6).
3. Secure two covers (3) to two connectors (4) with 12 screws (1) and washers (2).

**END OF TASK**

CHAPTER 15

UNIT MAINTENANCE INSTRUCTIONS
FOR ELECTRICAL SYSTEM - POWER PLANT WIRING HARNESS
AND RELATED COMPONENTS

WORK PACKAGE INDEX

<u>Title</u>	<u>Sequence No.</u>
REPLACE ENGINE LOW OIL PRESSURE SWITCH.....	0316 00
REPLACE ENGINE COOLANT TEMPERATURE SWITCH.....	0317 00
REPLACE DIFFERENTIAL HIGH OIL TEMPERATURE SWITCH.....	0318 00
REPLACE DIFFERENTIAL SWITCH LEAD.....	0319 00
REPLACE TRANSMISSION HIGH OIL TEMPERATURE SWITCH.....	0320 00
REPLACE POWER PLANT WIRING HARNESS.....	0321 00

REPLACE ENGINE LOW OIL PRESSURE SWITCH

0316 00

THIS WORK PACKAGE COVERS:

Removal (page 0316 00-1).
 Installation (page 0316 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

Sealing compound (WP 0782 00, Item 60)

Personnel Required

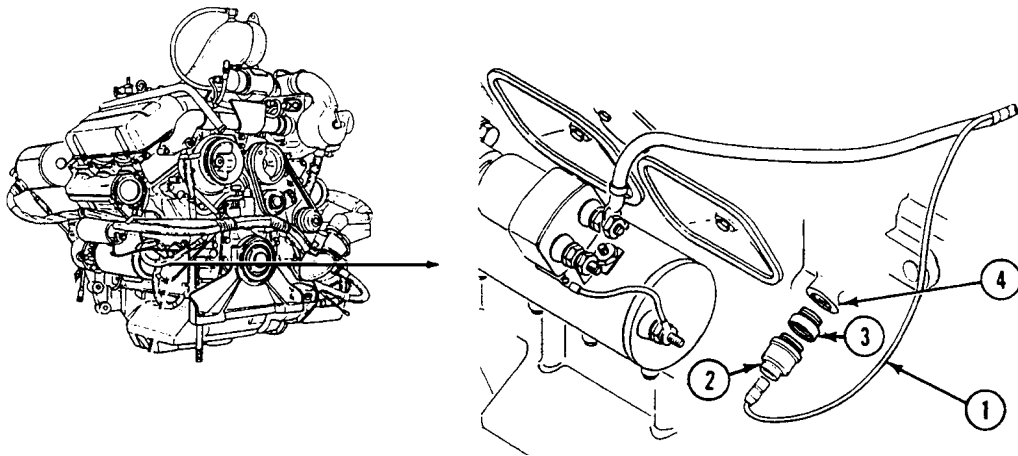
Unit Mechanic

Equipment Condition

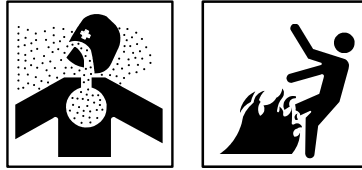
Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Battery ground lead disconnected (WP 0294 00)
 Trim vane lowered and power plant front access door open (see your -10)

REMOVAL

1. Disconnect circuit 34 lead (1) from engine oil pressure switch (2).
2. Remove switch (2) from bushing (3).
3. If needed, remove bushing (3) from engine block (4).



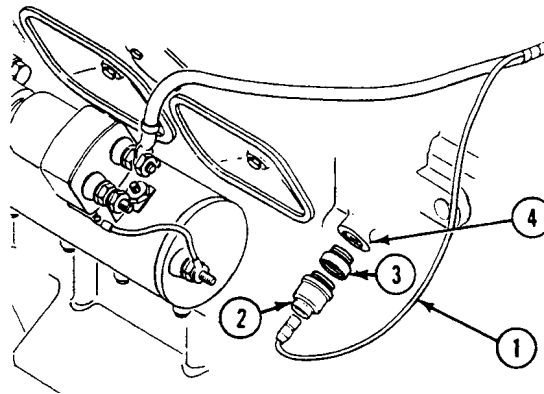
INSTALLATION

WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

1. If removed, coat threads of bushing (3) with sealing compound.
2. Install bushing (3) in engine block (4).
3. Install switch (2) in bushing (3).
4. Connect circuit 34 lead (1) to switch (2).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON and observe low oil pressure warning light. Light should go on (see your -10).
3. Start engine and check for oil leaks at engine low oil pressure switch. Low oil pressure warning light should go out after engine is started. Stop engine (see your -10).
4. Turn MASTER SWITCH to OFF (see your -10).
5. Close power plant front access door, and raise trim vane (see your -10).

END OF TASK

REPLACE ENGINE COOLANT TEMPERATURE SWITCH

0317 00

THIS WORK PACKAGE COVERS:

Removal (page 0317 00-1).
 Installation (page 0317 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

Sealing compound (WP 0782 00, Item 60)

Personnel Required

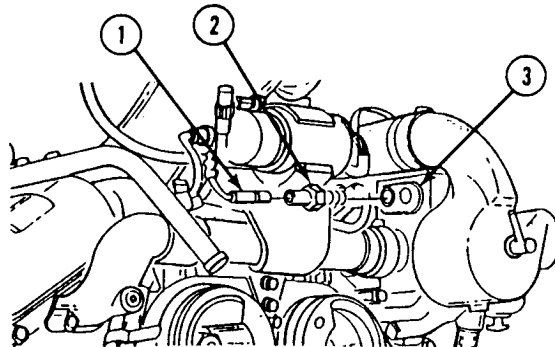
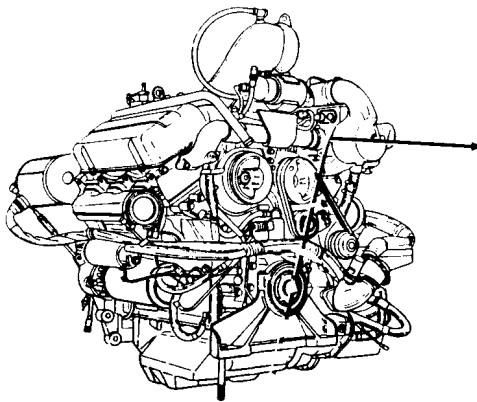
Unit Mechanic

Equipment Condition

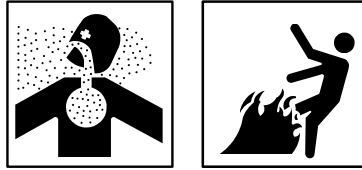
Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Trim vane lowered and power plant front access door open (see your -10)
 Coolant level drained to below thermostat housing (WP 0193 00)

REMOVAL

1. Disconnect circuit 33 lead (1) from engine coolant temperature switch (2).
2. Remove switch (2) from thermostat housing (3).



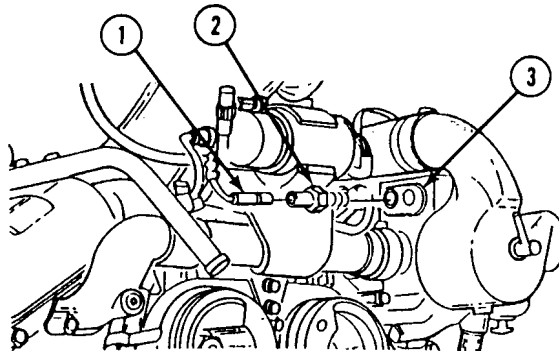
INSTALLATION

WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

1. Coat threads of switch (2) with sealing compound.
2. Install switch (2) in thermostat housing (3).
3. Connect circuit 33 lead (1) to switch (2).

**FOLLOW-THROUGH STEPS**

1. Refill cooling system (WP 0194 00).
2. Start engine (see your -10). Check for coolant leaks at engine coolant temperature switch (WP 0050 00).
3. Stop/shutdown engine (see your -10).
4. Close power plant front access door and raise trim vane (see your -10).

END OF TASK

REPLACE DIFFERENTIAL HIGH OIL TEMPERATURE SWITCH

0318 00

THIS WORK PACKAGE COVERS:

Removal (page 0318 00-1).
 Installation (page 0318 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

Sealing compound (WP 0782 00, Item 60)

Personnel Required

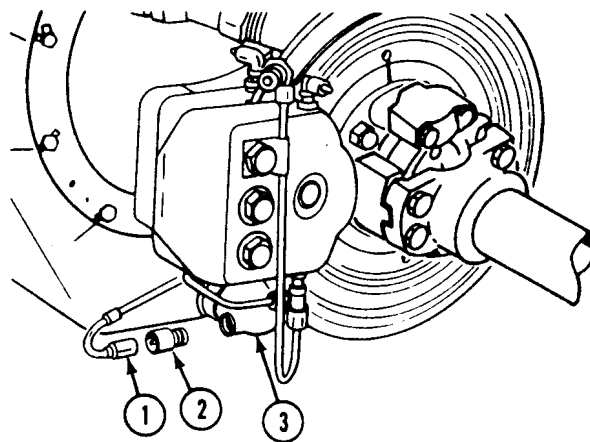
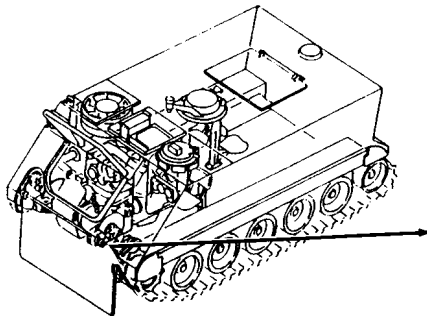
Unit Mechanic

Equipment Condition

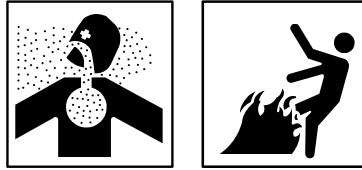
Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Differential drained (WP 0120 00)
 Trim vane lowered and power plant front access door open (see your -10)

REMOVAL

1. Disconnect circuit 328 lead (1) from differential high oil temperature switch (2).
2. Remove switch (2) from tee (3).



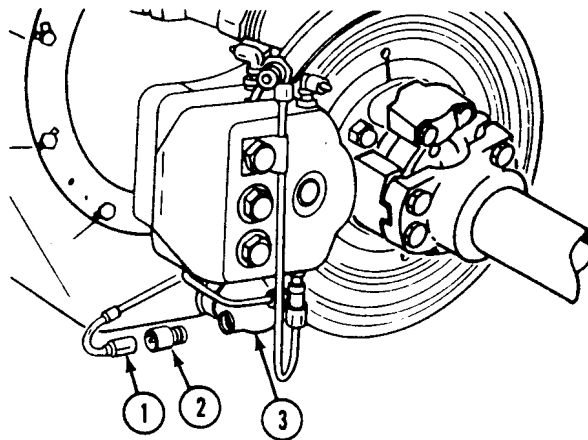
INSTALLATION

WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

1. Coat threads of switch (2) with sealing compound.
2. Install switch (2) in tee (3). Tighten switch.
3. Connect circuit 328 lead (1) to switch (2).

**FOLLOW-THROUGH STEPS**

1. Refill differential (WP 0120 00).
2. Start engine (see your -10). Check for oil leaks at differential high oil temperature switch.
3. Stop/shutdown engine (see your -10).
4. Close power plant front access door and raise trim vane (see your -10).

END OF TASK

REPLACE DIFFERENTIAL SWITCH LEAD

0319 00

THIS WORK PACKAGE COVERS:

Removal (page 0319 00-1).
 Installation (page 0319 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

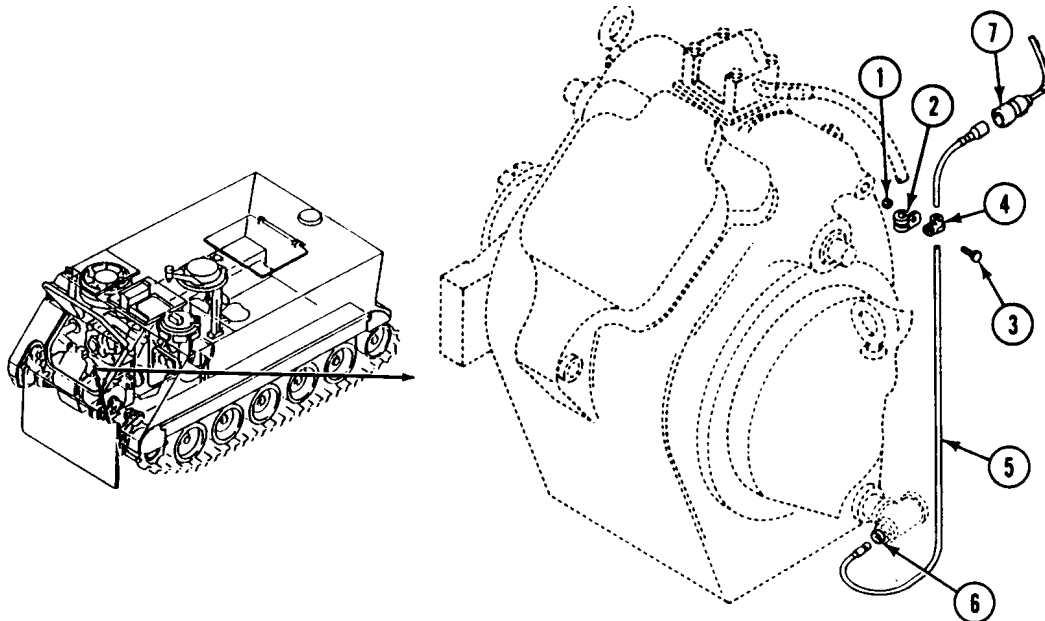
Trim vane lowered and power plant front access door open (see your -10)

Materials/Parts

Self-locking nut

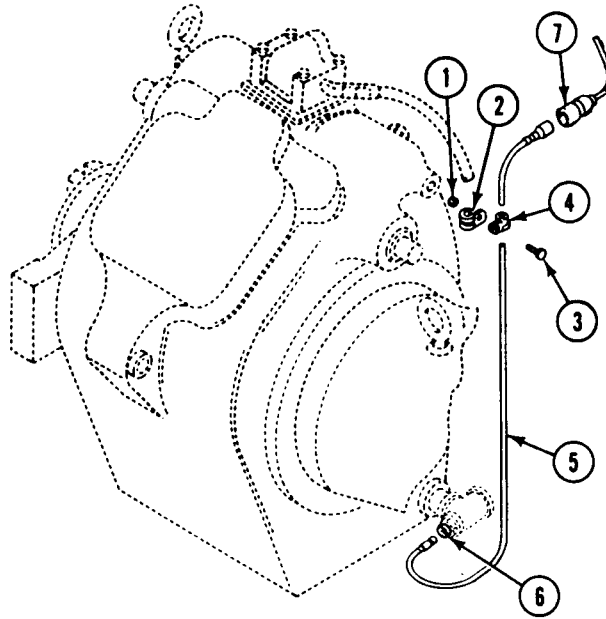
REMOVAL

1. Remove locknut (1), clamp (2), and screw (3) from clamp (4). Discard locknut.
2. Disconnect circuit 328 lead (5) from differential high oil temperature switch (6) and power plant wiring harness (7). Remove lead.
3. If replacing lead (5), remove clamp (2) from lead.



INSTALLATION

1. If removed, install clamp (2) on lead (5).
2. Route lead (5) along differential and connect lead to power plant wiring harness (7) and switch (6).
3. Place clamp (2) on clamp (4). Secure with screw (3) and new locknut (1).

**FOLLOW-THROUGH STEPS**

1. Close power plant front access door and raise trim vane (see your -10).

END OF TASK

REPLACE TRANSMISSION HIGH OIL TEMPERATURE SWITCH

0320 00

THIS WORK PACKAGE COVERS:

- Removal (page 0320 00-1).
 - Clean, Inspect, and Repair (page 0320 00-1).
 - Installation (page 0320 00-2).
-

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Socket Wrench Set (WP 0780 00, Item 96)
- Torque Wrench (WP 0780 00, Item 102)

Equipment Condition

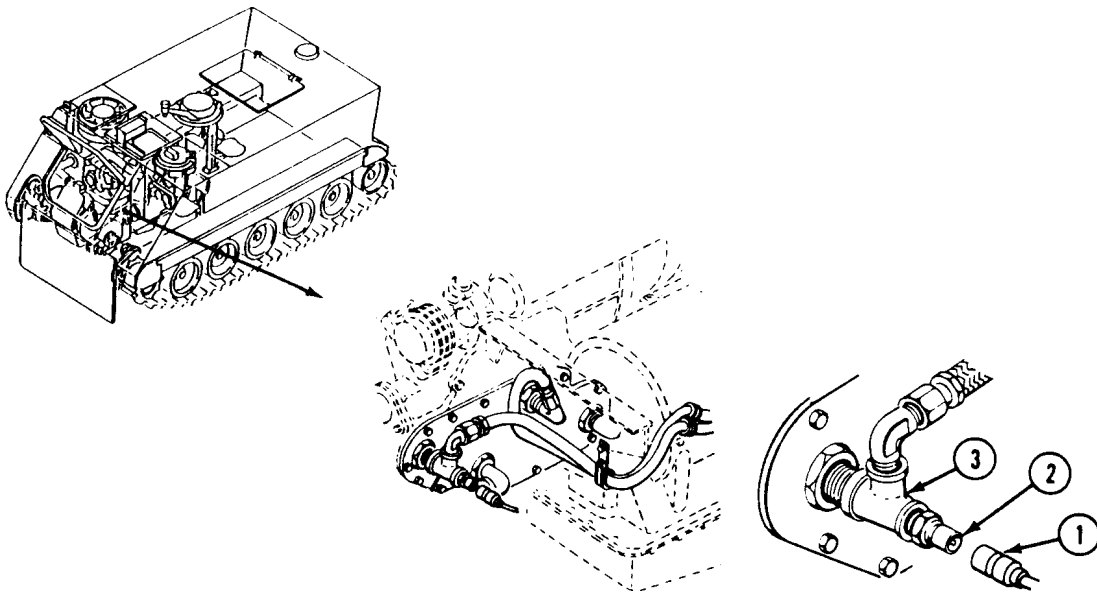
- Engine stopped/shutdown (see your -10)
- Trim vane lowered and power plant front access door open (see your -10)

Materials/Parts

- Sealing compound (WP 0782 00, Item 60)
-

REMOVAL

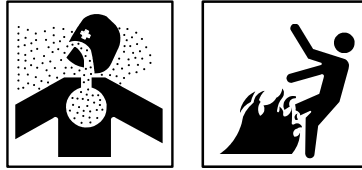
1. Disconnect circuit 327 lead (1) from transmission high oil temperature switch (2).
2. Remove switch (2) from tee (3).



CLEAN, INSPECT, AND REPAIR

1. Check threads on switch. Remove burrs. Replace switch that has stripped threads.

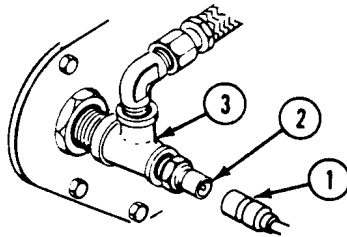
INSTALLATION

WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

1. Coat threads of switch (2) with sealing compound.
2. Install switch (2) in tee (3). TIGHTEN SWITCH TO 240–264 LB-IN (27–34 N·M) TORQUE. Use torque wrench.
3. Connect circuit 327 lead (1) to switch (2).



FOLLOW-THROUGH STEPS

WARNING

Loose clothing is dangerous around moving belts and pulleys. You could get badly hurt if your clothes get caught in moving parts.

1. Start engine to check for oil leaks at transmission high oil temperature switch. Stop/shutdown engine (see your -10).
2. Close power plant front access door and raise trim vane (see your -10).

END OF TASK

REPLACE POWER PLANT WIRING HARNESS

0321 00

THIS WORK PACKAGE COVERS:

Removal (page 0321 00-1).
 Installation (page 0321 00-5).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

Lockwasher (4)

Personnel Required

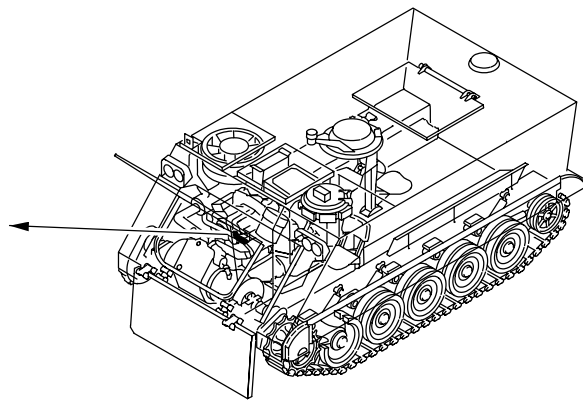
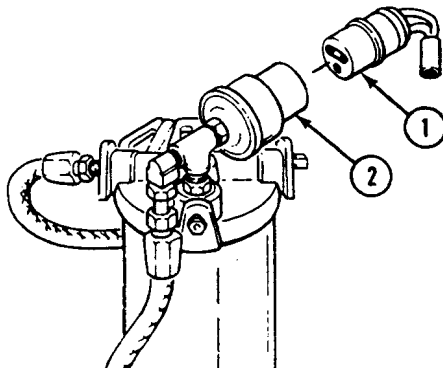
Unit Mechanic

Equipment Condition

Ramp lowered (see your -10)
 Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Battery ground lead disconnected (WP 0294 00)
 Power plant rear access panel removed (WP 0431 00,
 WP 0432 00, or WP 0433 00)
 Power plant bottom access cover removed (WP 0434 00)
 Trim vane lowered and power plant front access door
 open (see your -10)

REMOVAL

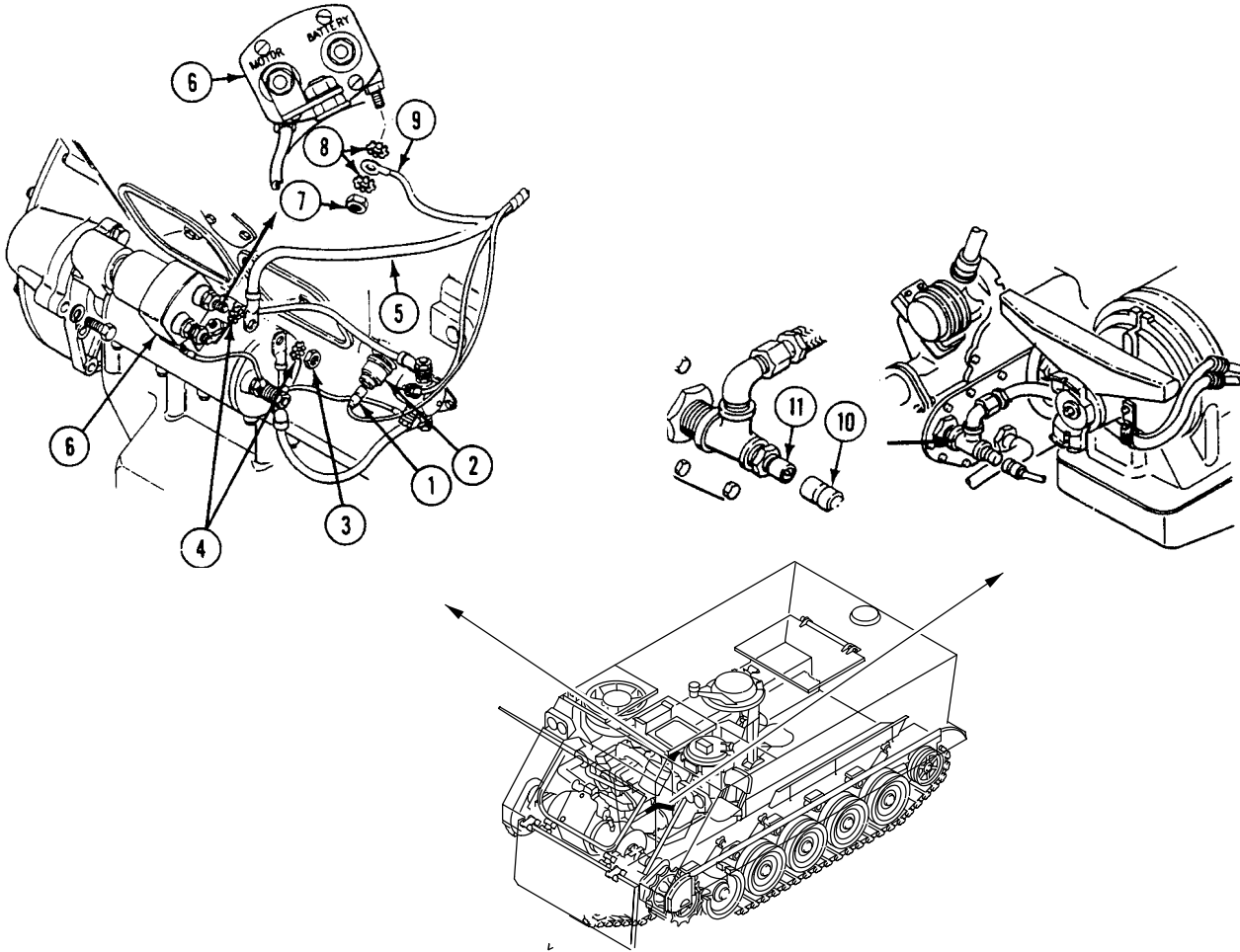
1. Disconnect circuit 1B lead (1) from generator field switch (2) on secondary fuel filter.



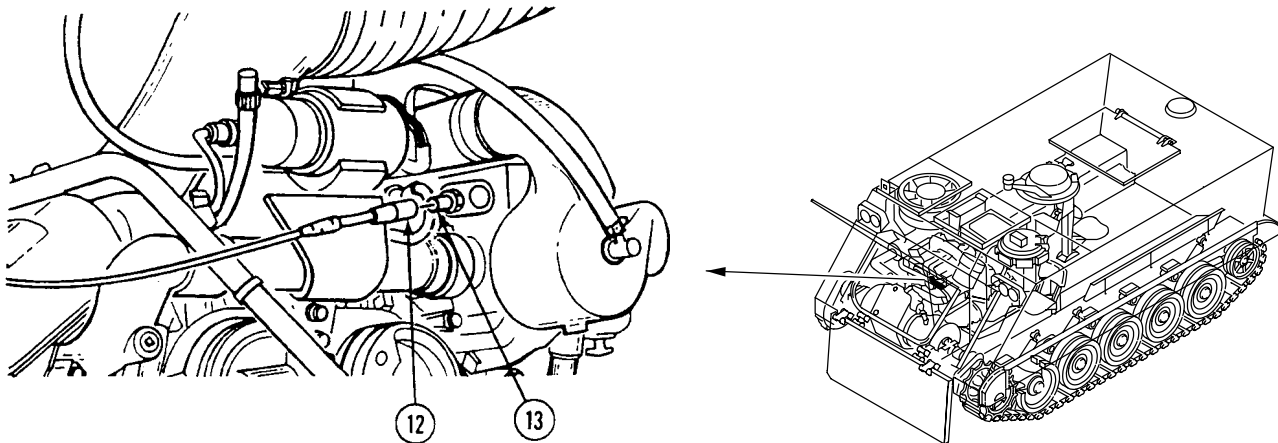
REPLACE POWER PLANT WIRING HARNESS — Continued

0321 00

2. Disconnect circuit 34 lead (1) from engine low oil pressure switch (2).
3. Remove nut (3), two lockwashers (4), and circuit 6 lead (5) from starter solenoid (6). Discard lockwashers.
4. Remove nut (7), two lockwashers (8), and circuit 74A lead (9) from solenoid (6). Discard lockwashers.
5. Disconnect circuit 327 lead (10) from transmission high oil temperature switch (11).

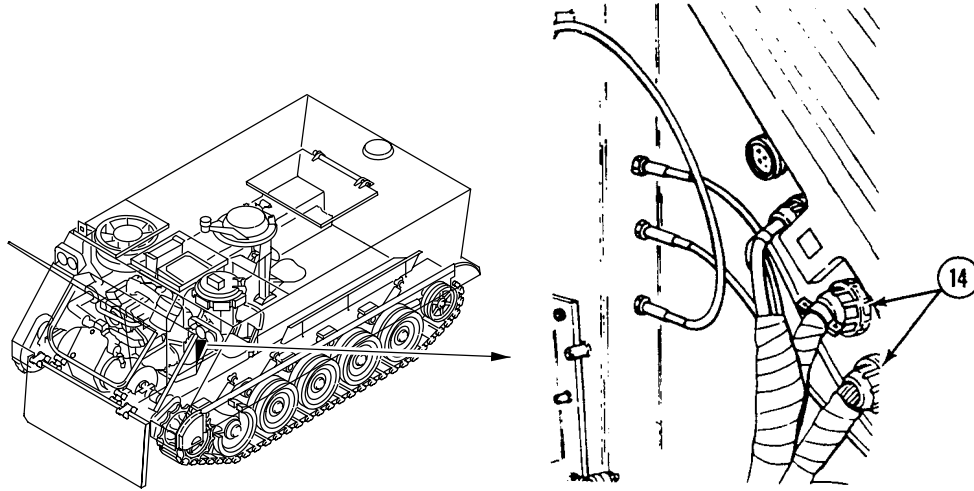


6. Disconnect circuit 33 lead (12) from engine coolant temperature switch (13).

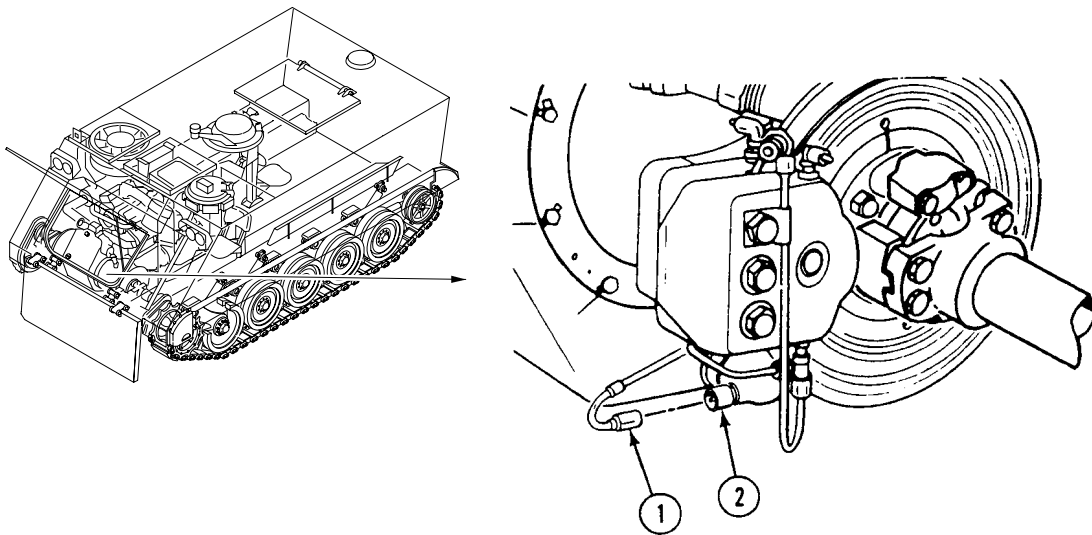


REPLACE POWER PLANT WIRING HARNESS — Continued

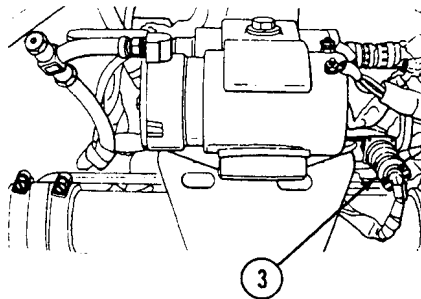
7. Disconnect three power plant wiring harness connectors (14) from main wiring harness at driver's compartment bulkhead.



8. Disconnect circuit 328 lead (1) from differential high oil temperature switch (2).



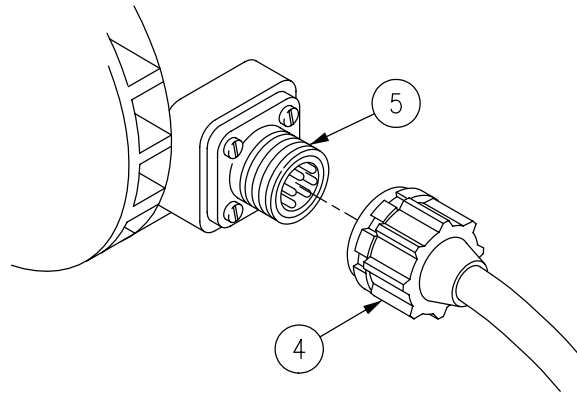
9. Disconnect circuit 406-406A lead (3) from air box heater wiring harness.



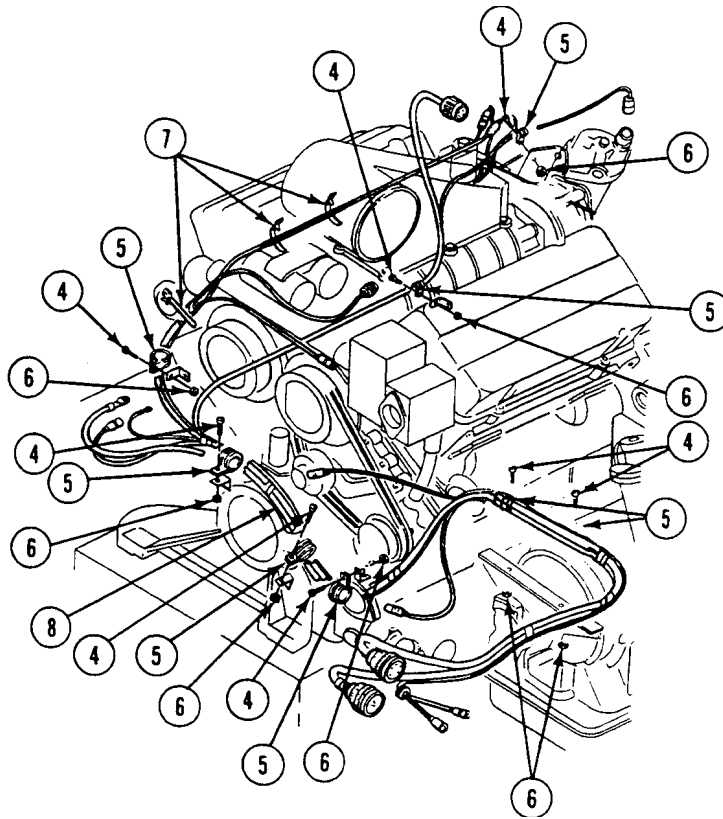
REPLACE POWER PLANT WIRING HARNESS — Continued

0321 00

10. Disconnect connector (4) from generator (5).

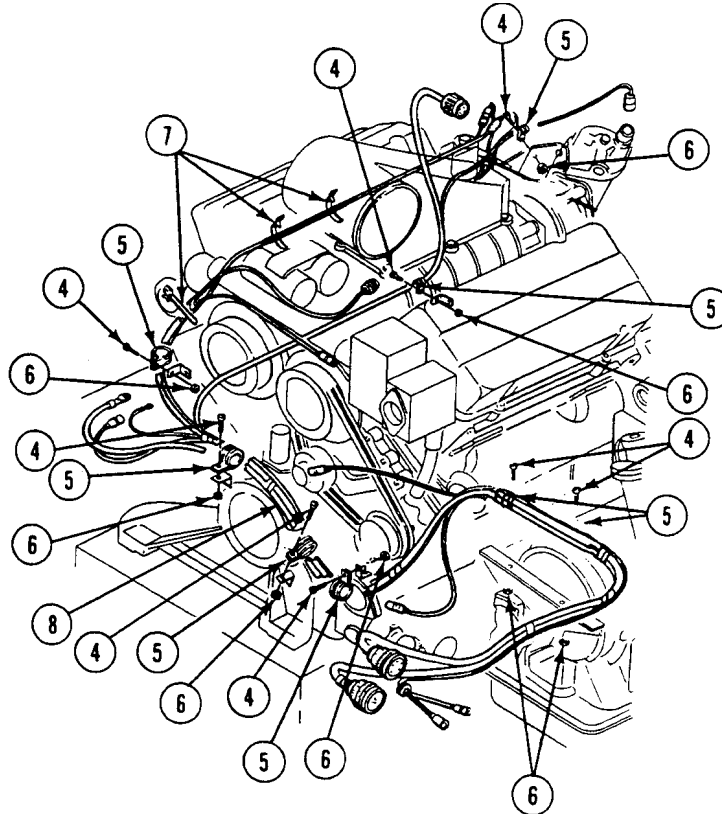


11. Remove 11 screws (4), eight clamps (5), eight nuts (6), three straps (7), and power plant wiring harness (8) from power plant.

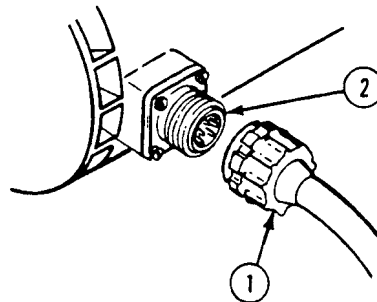


INSTALLATION

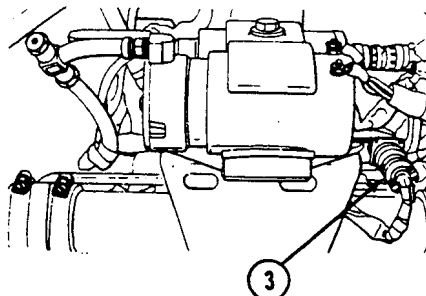
1. Install power plant wiring harness (8) on power plant. Secure with three straps (7), eight nuts (6), eight clamps (5), and 11 screws (4).



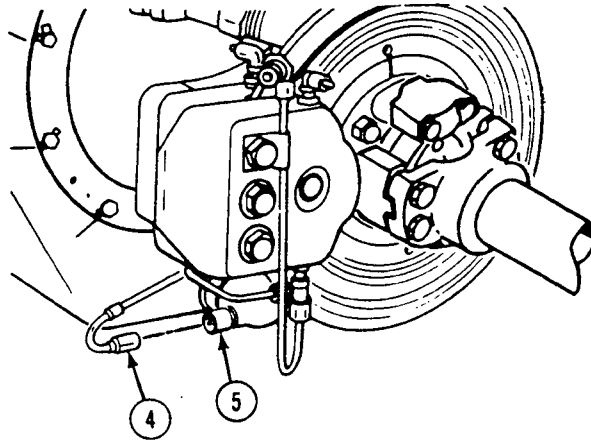
2. Connect circuit 1, 2, 3, and 3A lead (1) to generator (2).



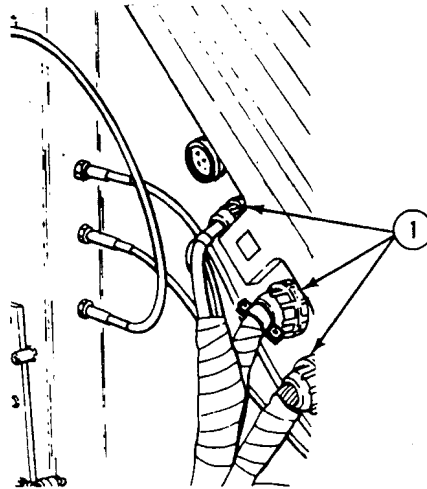
3. Connect circuit 406-406A lead (3) to air box heater wiring harness.



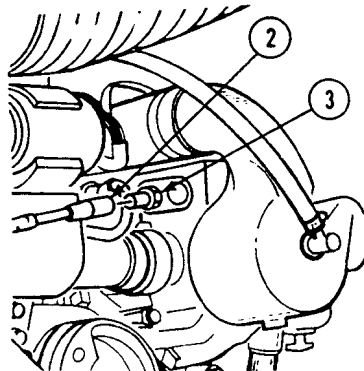
4. Connect circuit 328 lead (4) to differential high oil temperature switch (5).



5. Connect three power plant wiring harness connectors (1) to main wiring harness at driver's compartment bulkhead.



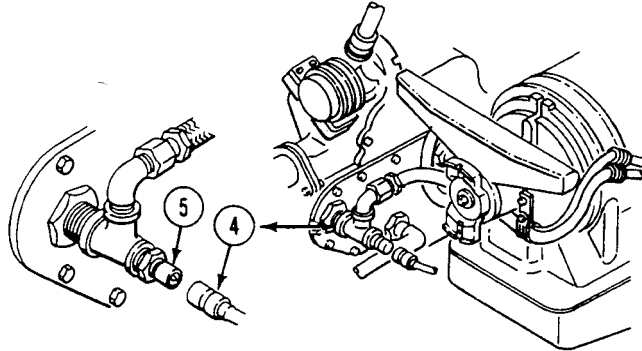
6. Connect circuit 33 lead (2) to engine coolant temperature switch (3).



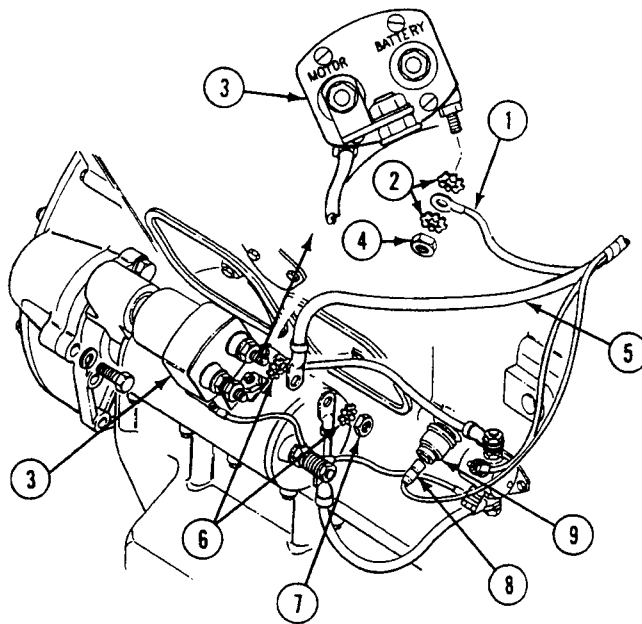
REPLACE POWER PLANT WIRING HARNESS — Continued

0321 00

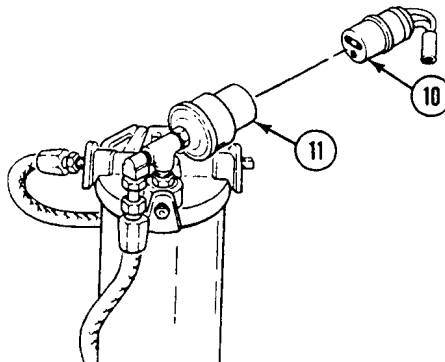
7. Connect circuit 327 lead (4) to transmission high oil temperature switch (5).



8. Install circuit 74A lead (1) and two new lockwashers (2) on starter solenoid (3). Secure with nut (4).
9. Install circuit 6 lead (5) and two new lockwashers (6) on solenoid (3). Secure with nut (7).
10. Connect circuit 34 lead (8) to engine low oil pressure switch (9).



11. Connect circuit 1B lead (10) to generator field switch (11) on secondary fuel filter.



FOLLOW-THROUGH STEPS

1. Connect battery ground lead (WP 0294 00).
2. Install power plant rear access panel (WP 0431 00, WP 0432 00, or WP 0433 00).
3. Start engine (see your -10). Check that power plant wiring harness operates properly.
4. Raise and lock ramp (see your -10).
5. Stop/shutdown engine (see your -10).
6. Close power plant front access door and raise trim vane (see your -10).
7. Install power plant bottom access cover (WP 0434 00).

END OF TASK

CHAPTER 16

UNIT MAINTENANCE INSTRUCTIONS
FOR ELECTRICAL SYSTEM - BILGE PUMP, WIRING, AND RELATED COMPONENTS

WORK PACKAGE INDEX

<u>Title</u>	<u>Sequence No.</u>
REPLACE FRONT BILGE PUMP AND STRAINER.....	0322 00
REPLACE FRONT BILGE PUMP PIPES.....	0323 00
REPLACE FRONT BILGE VALVE.....	0324 00
REPLACE REAR BILGE PUMP AND STRAINER.....	0325 00
REPLACE REAR BILGE PUMP PIPES.....	0326 00
REPLACE BILGE PUMP CIRCUIT BREAKERS.....	0327 00

REPLACE FRONT BILGE PUMP AND STRAINER

0322 00

THIS WORK PACKAGE COVERS:

Removal (page 0322 00-1).
 Installation (page 0322 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

Adjustable Wrench (WP 0780 00, Item 87)
 General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Pipe Wrench (WP 0780 00, Item 93)

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Trim vane lowered (see your -10)
 Hull front access cover removed (WP 0429 00)
 Battery ground lead disconnected (WP 0294 00)

Materials/Parts

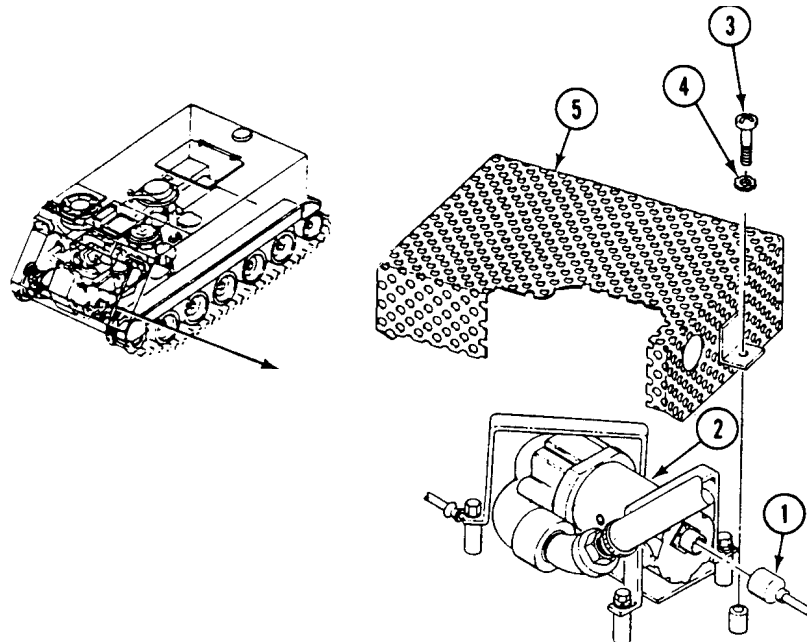
Adhesive (WP 0782 00, Item 66)
 Sealing compound (WP 0782 00, Item 60)
 Cushion (3)
 Key washer (3)
 Lockwasher (5)
 Lockwasher (2)

REMOVAL

NOTE

If only strainer is to be replaced, do REMOVAL Steps 1 - 2 and INSTALLATION Steps 9 - 10.

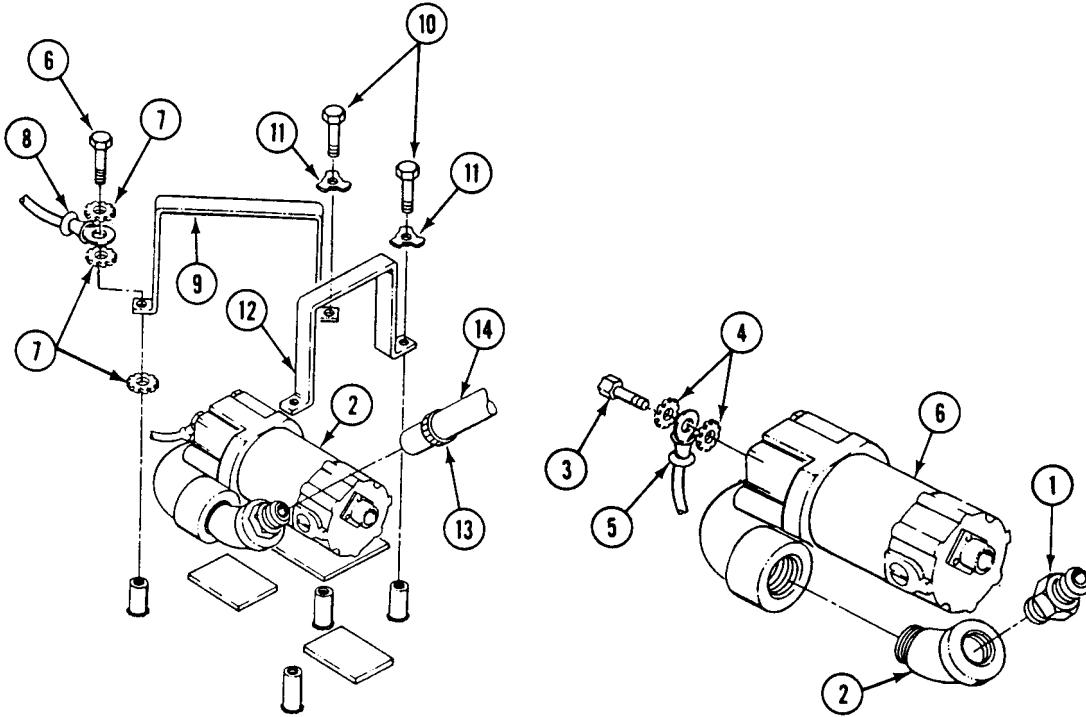
1. Disconnect lead (1) from bilge pump (2).
2. Remove two screws (3), lockwashers (4), and strainer (5) from hull weldnuts. Discard lockwashers.



REPLACE FRONT BILGE PUMP AND STRAINER — Continued

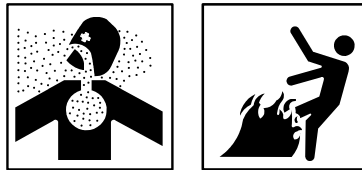
0322 00

3. Remove screw (6), three lockwashers (7), and ground lead (8) from strap (9). Discard lockwashers.
4. Remove three screws (10), key washers (11), and two straps (9) and (12). Discard key washers.
5. Loosen clamp (13). Remove hose (14) from pump (2).
6. Remove adapter (1), elbow (2), screw (3), two lockwashers (4), and ground lead (5) from pump (6). Use adjustable wrench and pipe wrench. Discard lockwashers. Reinstall screw in pump.



INSTALLATION

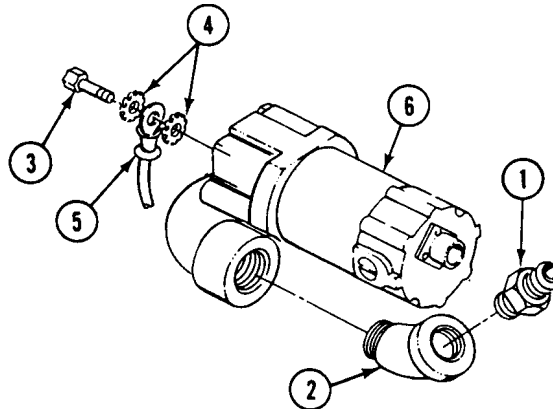
WARNING



Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

1. Remove screw (3) and washer from new pump (6). Discard washer.
2. Install ground lead (5) on pump (6). Secure with two new lockwashers (4) and screw (3).
3. Apply sealing compound to external threads of elbow (2) and adapter (1).
4. Install elbow (2) and adapter (1) on pump (6). Use pipe wrench and adjustable wrench.

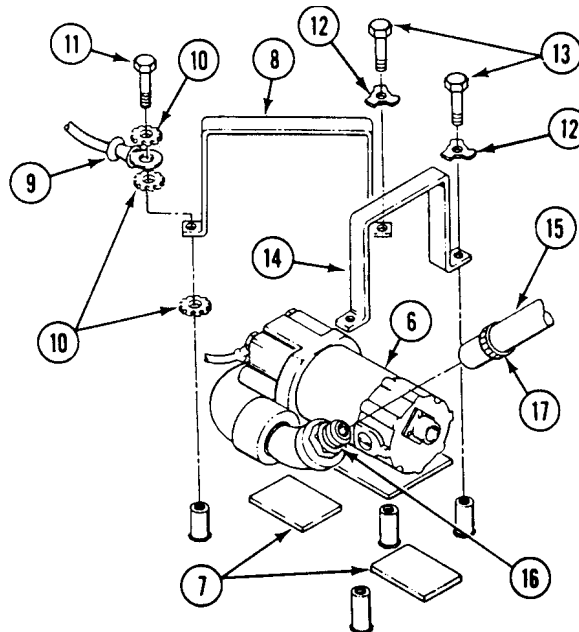


5. Cement new cushion (7) on bottom of pump (6) with adhesive.
6. Install pump (6) in carrier.

NOTE

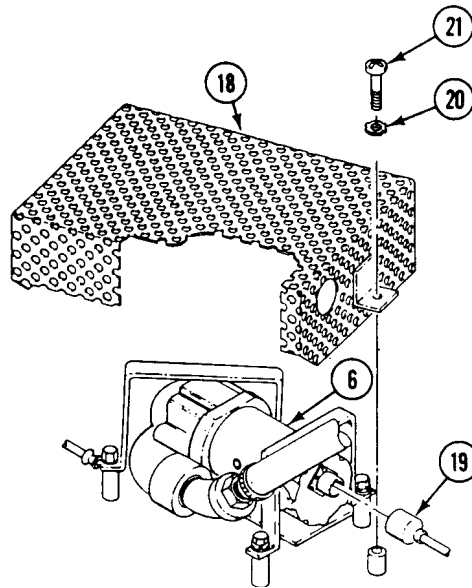
Do not tighten strap screws until all four are installed.

7. Install strap (8) and ground lead (9) on hull weldnuts. Secure with three new lockwashers (10), screw (11), new key washer (12), and screw (13). Bend tabs on key washer.
8. Install strap (14) on hull weldnuts. Secure with two screws (13) and new key washers (12). Bend tabs on key washers.
9. Slide hose (15) on adapter (16). Secure with clamp (17).



REPLACE FRONT BILGE PUMP AND STRAINER — Continued**0322 00**

10. Install strainer (18) on hull weldnuts.
11. Connect lead (19) to bilge pump (6).
12. Secure strainer (18) to hull weldnuts with two lockwashers (20) and screws (21).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Install hull front access cover (WP 0429 00).
3. Raise trim vane (see your -10).

END OF TASK

REPLACE FRONT BILGE PUMP PIPES

0323 00

THIS WORK PACKAGE COVERS:

Removal (page 0323 00-1).
 Installation (page 0323 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Torque Wrench (WP 0780 00, Item 106)
 Socket Wrench (WP 0780 00, Item 95)

Equipment Condition

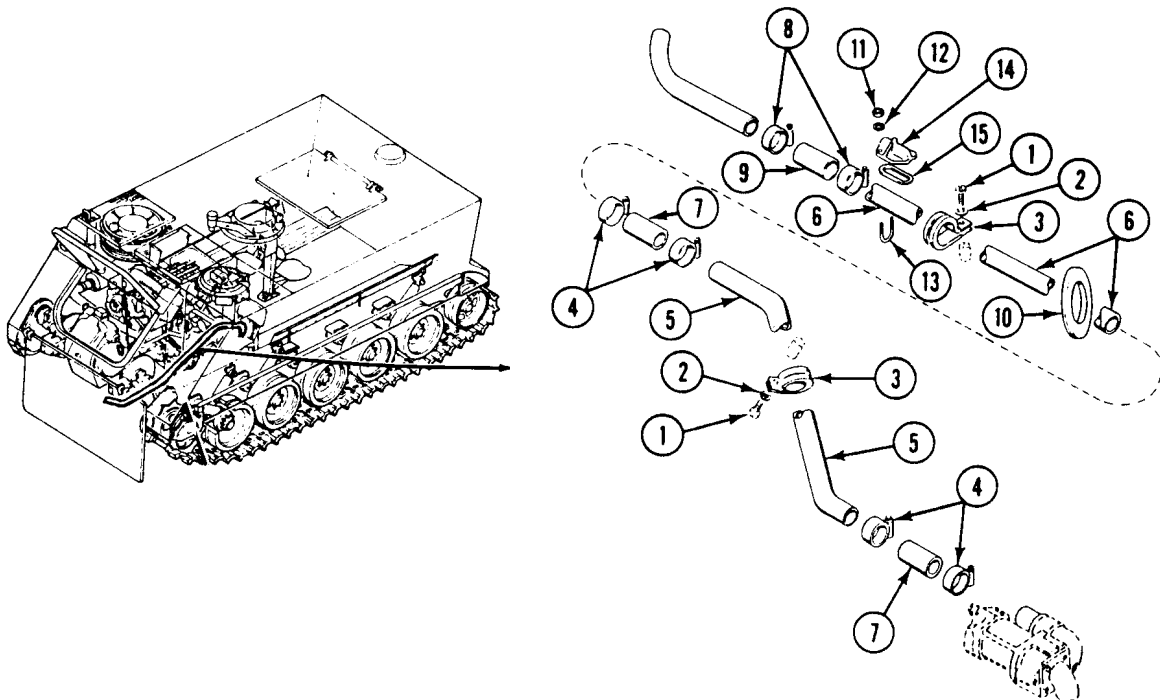
Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Trim vane lowered (see your -10)
 Power plant front access door open (see your -10)
 Hull front access cover removed (WP 0429 00)
 Front bilge pump strainer removed (WP 0322 00, Steps 1 - 2)

Materials/Parts

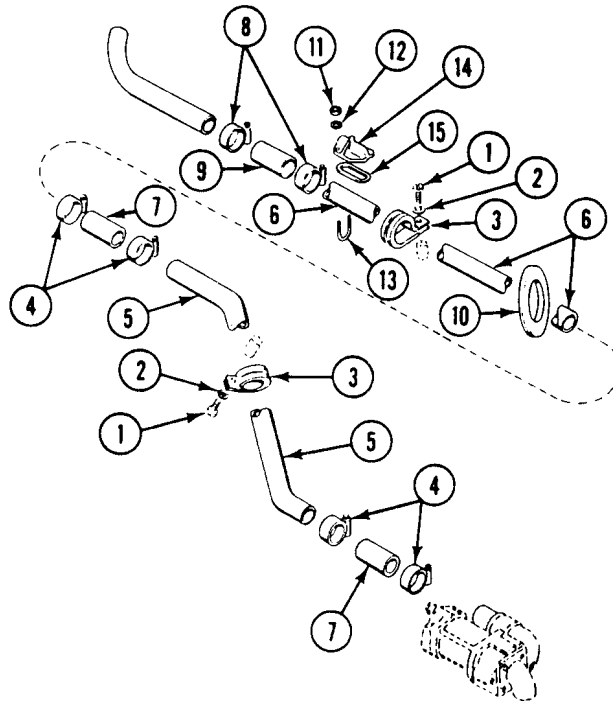
Gasket
 Grommet
 Locknut (4)

REMOVAL

1. Remove two screws (1), washers (2), and clamps (3) from two bulkhead weldnuts.
2. Loosen four clamps (4). Remove lower pipe (5) from upper pipe (6) and bilge pump. Remove clamp (3), clamps (4), and two hoses (7) from pipe (5).
3. Loosen two clamps (8). Slide pipe (6) from discharge outlet and remove pipe from driver's compartment. Remove clamp (3), clamps (8), and hose (9) from pipe.

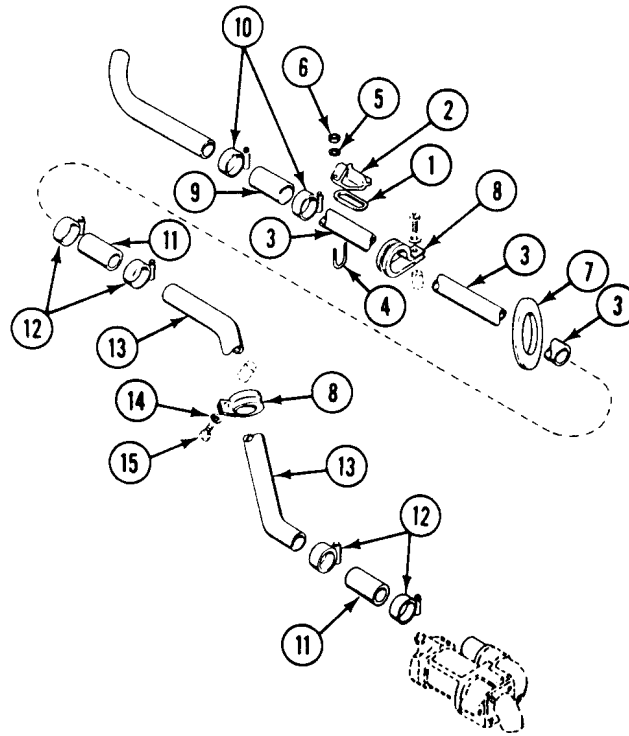


4. Remove grommet (10) from driver's compartment bulkhead. Discard grommet.
5. Remove four locknuts (11), washers (12), two U-bolts (13), sight glass (14), and gasket (15) from pipe (6). Discard gasket and locknuts.



INSTALLATION

1. Remove backing from new gasket (1). Install gasket, sticky side down, and sight glass (2) on upper pipe (3). Secure with two U-bolts (4), four washers (5), and new locknuts (6). **TIGHTEN NUTS TO 12 LB-IN (1 N·M) TORQUE.** Use torque wrench and socket wrench set.
2. Install new grommet (7) in driver's compartment bulkhead.
3. Install clamp (8), hose (9), and two clamps (10) on upper pipe (3).
4. Slide pipe (3) through grommet (7) and install upper end on discharge outlet. Secure with two clamps (10).
5. Install clamp (8), two hoses (11), and four clamps (12) on lower pipe (13). Secure hoses to pipe with two clamps.
6. Slide pipe (13) on upper pipe (3) and bilge pump. Secure with four clamps (12).
7. Align two clamps (8) with two bulkhead weldnuts. Secure with two washers (14) and screws (15).



FOLLOW-THROUGH STEPS

1. Install front bilge pump strainer (WP 0322 00, Steps 9 - 12).
2. Turn MASTER SWITCH to ON (see your -10). Operate bilge pump and check for leaks. Turn all switches OFF (see your -10).
3. Install hull front access cover (WP 0429 00).
4. Close power plant front access door (see your -10).
5. Raise trim vane (see your -10).

END OF TASK

REPLACE FRONT BILGE VALVE

0324 00

THIS WORK PACKAGE COVERS:

- Removal (page 0324 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0324 00-1).
- Installation (page 0324 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Ramp lowered (see your -10)
- Driver's rear floor plate removed (WP 0439 00)
- Personnel heater floor duct removed (WP 0617 00)
- Left front floor plate removed (WP 0437 00, WP 0438 00, and WP 0441 00)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Personnel Required

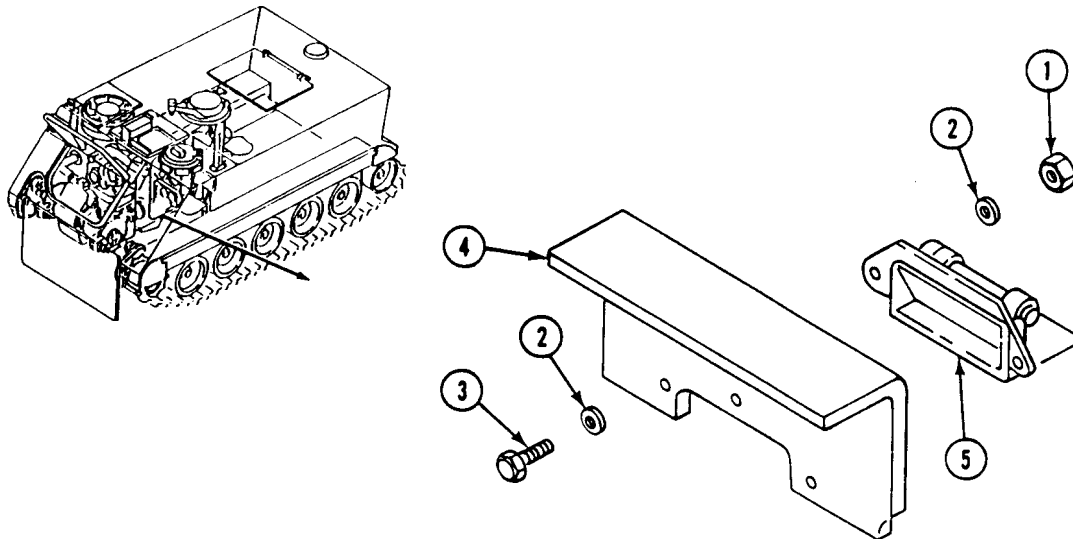
Unit Mechanic

Materials/Parts

Locknut (3)

REMOVAL

1. Remove three locknuts (1), six washers (2), and three screws (3) from hull cross beam (4). Discard locknuts.
2. Remove valve (5) from beam. Inspect valve.

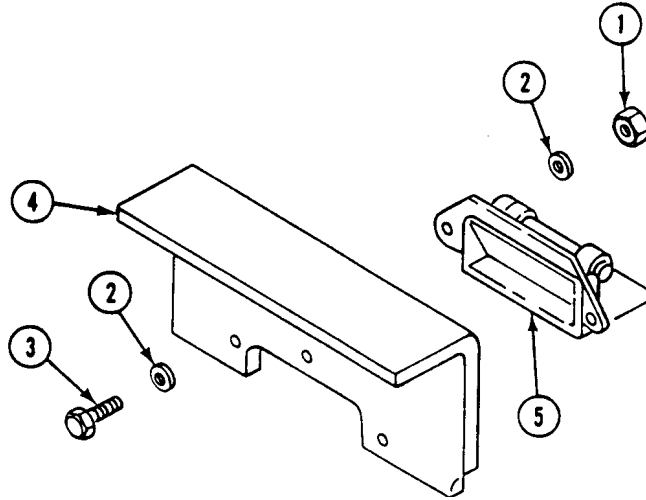


INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

1. Check valve, housing, and fittings for cracks, leaks, and wear. Replace if needed.

INSTALLATION

1. Install valve (5) on hull cross beam (4).
2. Secure with three screws (3), six washers (2), and three new locknuts (1).

**FOLLOW-THROUGH STEPS**

1. Check for freedom of movement of valve after installation.
2. Install left front floor plate (WP 0437 00, WP 0438 00, and WP 0441 00).
3. Install personnel heater floor duct (WP 0617 00).
4. Install driver's rear floor plate (WP 0439 00).
5. Raise and lock ramp (see your -10).
6. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE REAR BILGE PUMP AND STRAINER

0325 00

THIS WORK PACKAGE COVERS:

- Removal (page 0325 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0325 00-3).
- Installation (page 0325 00-4).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- Adjustable Wrench (WP 0780 00, Item 87)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

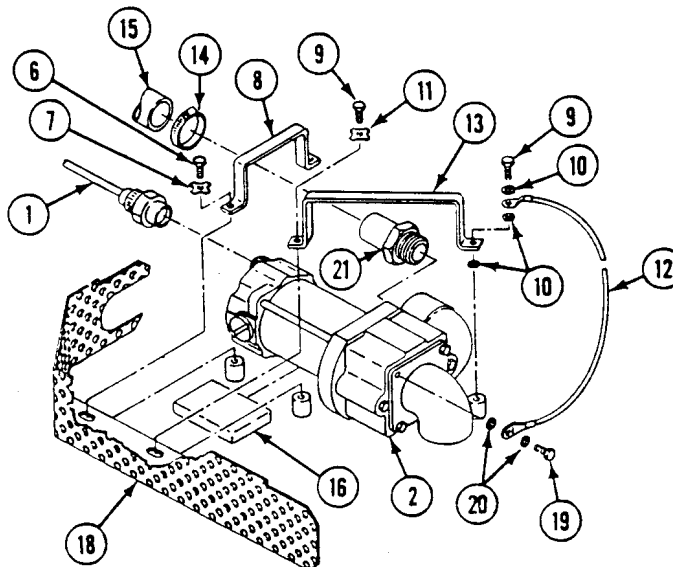
- Engine stopped/shutdown (see your -10)
- Ramp lowered (see your -10)
- Battery ground lead disconnected (WP 0294 00)
- Rear floor plate removed (WP 0436 00, WP 0437 00, WP 0438 00, WP 0440 00, or WP 0441 00)
- Smoke generator fog oil tank module removed (M1059 Only) (WP 0695 00)

Materials/Parts

- Cleaning compound (WP 0782 00, Item 16)
- Sealing compound (Adhesive) (WP 0782 00, Item 66)
- Key washer (3)
- Locknut
- Lockwasher (5)

REMOVAL

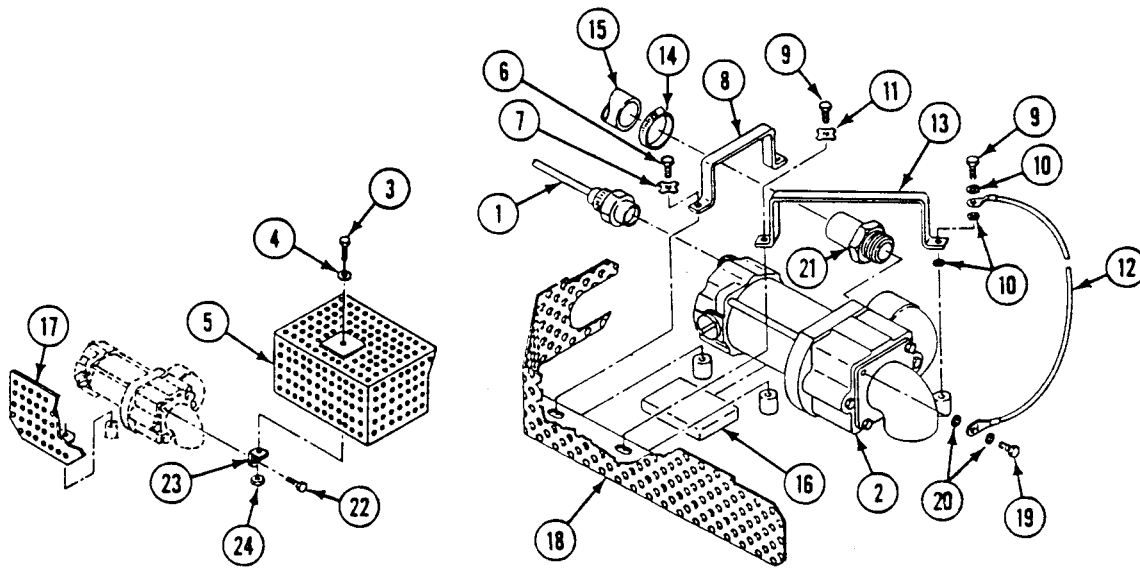
1. Disconnect circuit 451 lead (1) from rear bilge pump (2).



REPLACE REAR BILGE PUMP AND STRAINER — Continued

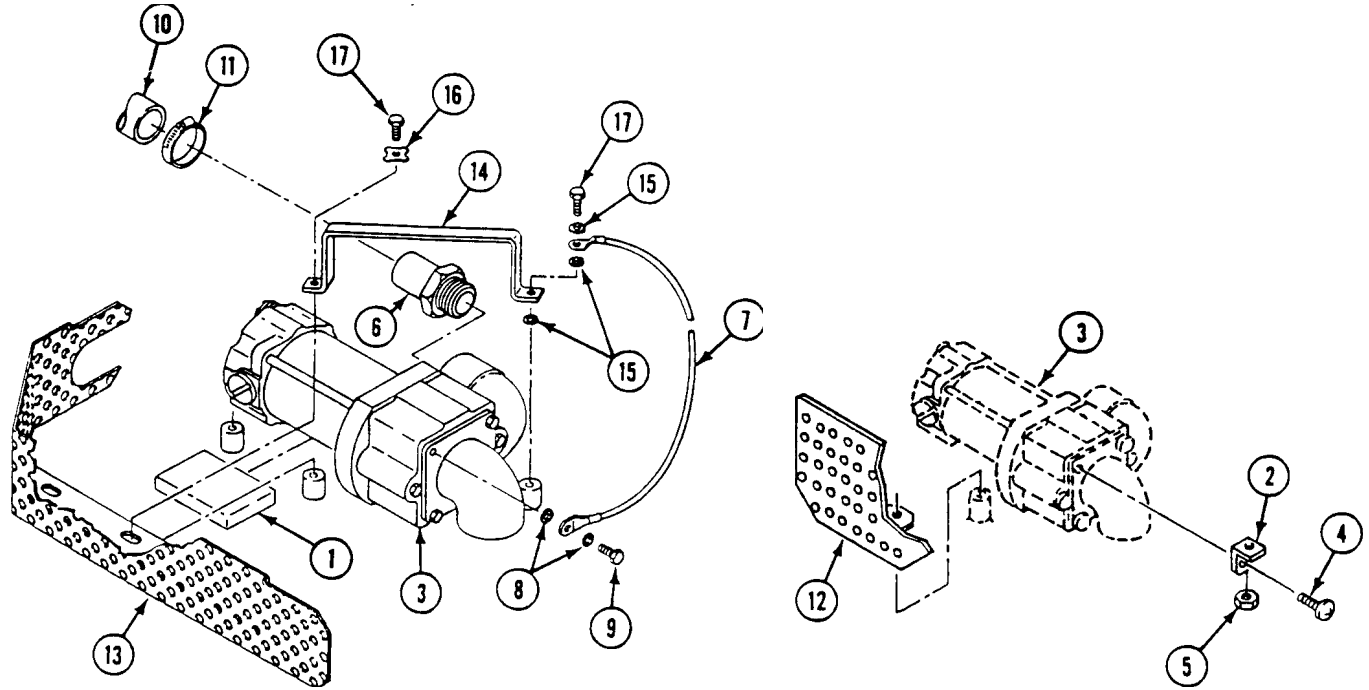
0325 00

2. On M1064 only, remove screw (3), washer (4), and strainer (5) from pump (2).
3. Remove two screws (6), key washers (7), and bracket (8) from hull weldnuts. Discard key washers.
4. Remove two screws (9), three lockwashers (10), key washer (11), ground lead (12), and bracket (13) from hull weldnuts. Discard lockwashers and key washer.
5. Loosen clamp (14). Remove pump (2) from hose (15) and cushion (16).
6. Remove strainer (17) (M1064) or strainer (18) (all other carriers) from hull weldnuts.
7. Remove screw (19), two lockwashers (20), ground lead (12), and adapter (21) from pump (2). Use adjustable wrench. Discard lockwashers.
8. M1064 only, remove screw (22), locknut (24), and bracket (23) from pump (2). Discard locknut.



INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

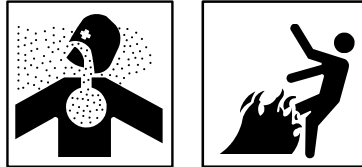
1. Clean pump and strainers with cleaning compound.
2. Check cushion (1). Replace cushion that shows loss of resiliency.
3. Check bracket (2) for damage. Replace as needed.



INSTALLATION

1. M1064 only, place bracket (2) on new pump (3). Secure with screw (4) and new locknut(5).
2. Install adapter (6) in pump (3). Use adjustable wrench. Place ground lead (7) on pump. Secure with two new lockwashers (8) and screw (9).

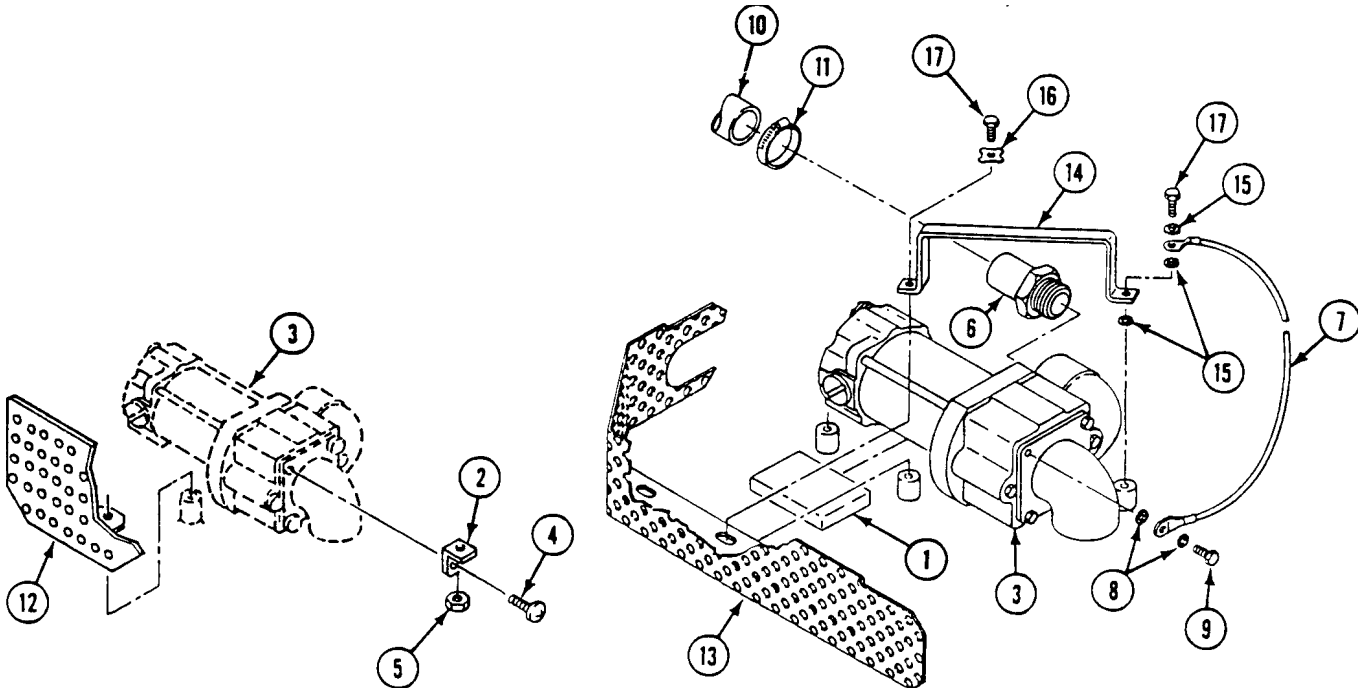
WARNING



Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

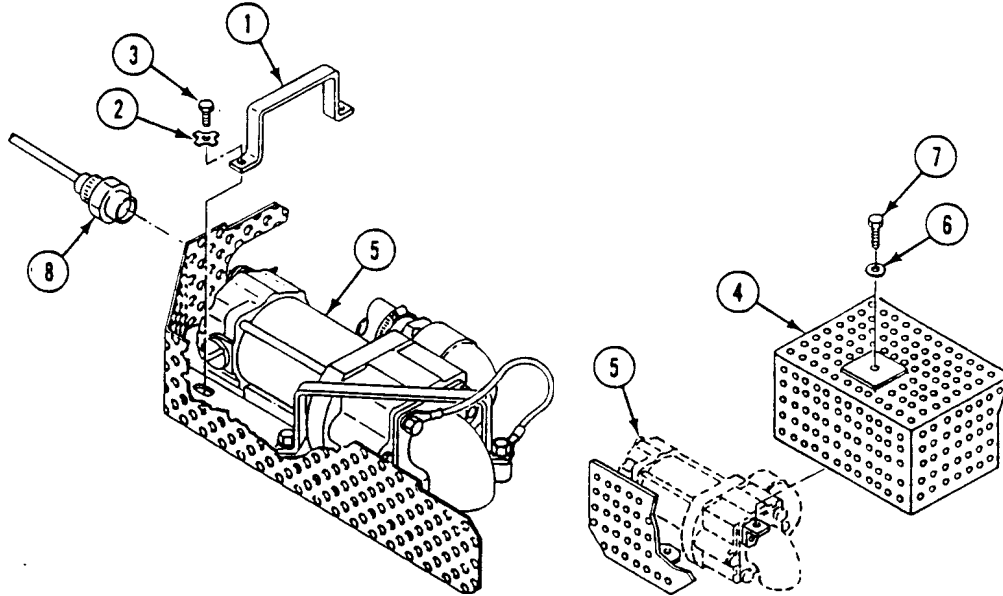
Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

3. Secure cushion (1) to pump (3) with adhesive.
4. Install pump (3) in carrier. Slide hose (10) on adapter (6) and secure with clamp (11).
5. Place strainer (12) (M1064 only) or strainer (13) (all other carriers) on hull weldnuts.
6. Install bracket (14) on weldnuts.
7. Secure with three new lockwashers (15), ground lead (7), new key washer (16), and two screws (17).



REPLACE REAR BILGE PUMP AND STRAINER — Continued**0325 00**

8. Install bracket (1) on weldnuts. Secure with two new key washers (2) and screws (3).
9. On M1064, place strainer (4) on pump (5). Secure with washer (6) and screw (7).
10. Connect circuit 451 lead (8) to bilge pump (5).

**FOLLOW-THROUGH STEPS**

1. Install smoke generator fog oil tank module (M1059 Only) (WP 0695 00).
2. Connect battery ground lead (WP 0294 00).
3. Turn MASTER SWITCH to ON (see your -10).
4. Turn BILGE PUMP switch ON (see your -10) and check pump.
5. Turn BILGE PUMP switch OFF (see your -10).
6. Raise and lock ramp (see your -10).
7. Stop/shutdown engine (see your -10).
8. Install rear floor plates (WP 0436 00, WP 0437 00, WP 0438 00, WP 0440 00, or WP 0441 00).

END OF TASK

REPLACE REAR BILGE PUMP PIPES

0326 00

THIS WORK PACKAGE COVERS:

Removal (page 0326 00-1).
 Installation (page 0326 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

Engine stopped/shutdown (see your -10)
 Ramp lowered (see your -10)
 Rear floor plate removed (WP 0436 00)
 Remove smoke generator fog oil tank module (M1059 Only) (WP 0695 00)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

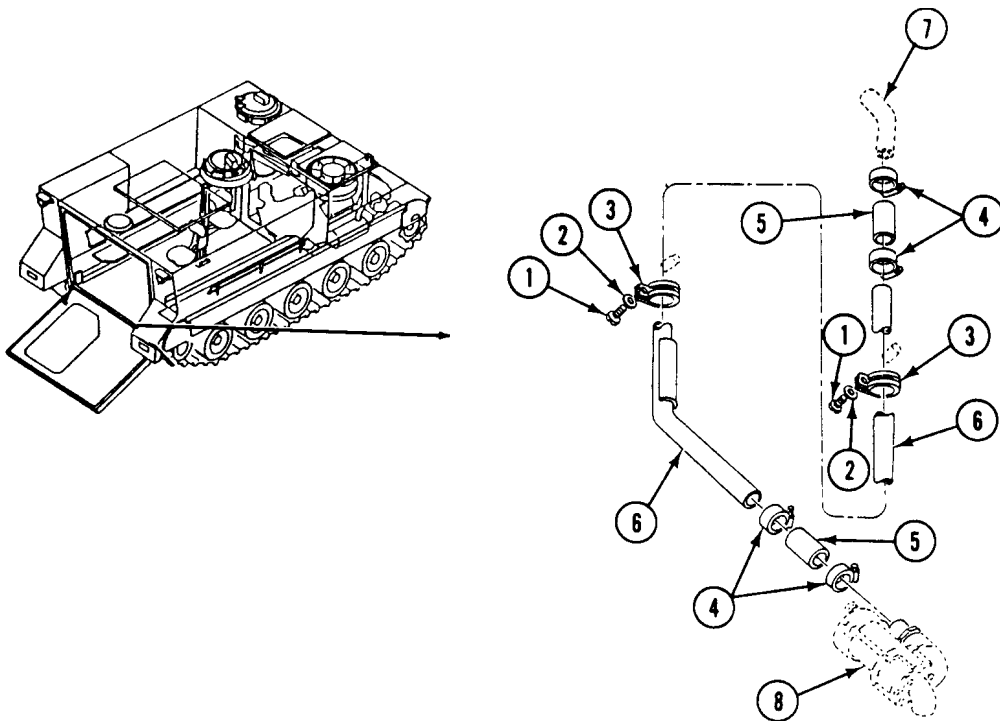
Lockwasher (2)

Personnel Required

Unit Mechanic

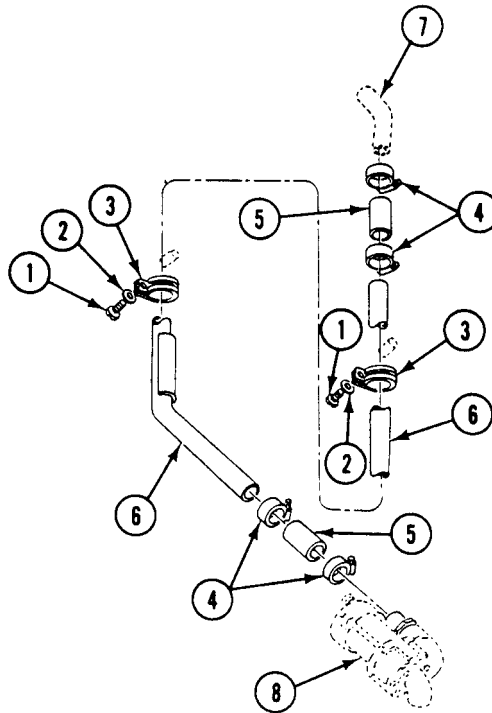
REMOVAL

1. Remove two screws (1), lockwashers (2), and clamps (3) from two bulkhead weldnuts. Discard lockwashers.
2. Loosen four clamps (4) and slide two hoses (5) back on pipe (6). Remove pipe from carrier.
3. Remove four clamps (4), two hoses (5), and two clamps (3) from pipe (6).



INSTALLATION

1. Install two clamps (3), hoses (5), and four clamps (4) on pipe (6).
2. Install pipe (6) in carrier and slide hoses (5) onto discharge tube (7) and bilge pump (8). Secure with four clamps (4).
3. Align two clamps (3) with bulkhead weldnuts. Secure with two new lockwashers (2) and screws (1).

**FOLLOW-THROUGH STEPS**

1. Install smoke generator fog oil tank module (M1059 Only) (WP 0695 00).
2. Turn MASTER SWITCH to ON (see your-10).
3. Turn rear BILGE PUMP SWITCH ON (see your-10). Check pipe for leaks.
4. Turn BILGE PUMP SWITCH OFF (see your-10).
5. Turn MASTER SWITCH to OFF (see your-10).
6. Install rear floor plate (WP 0436 00).

END OF TASK

REPLACE BILGE PUMP CIRCUIT BREAKERS

0327 00

THIS WORK PACKAGE COVERS:

Removal (page 0327 00-1).
 Installation (page 0327 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Battery ground lead disconnected (WP 0294 00)

Materials/Parts

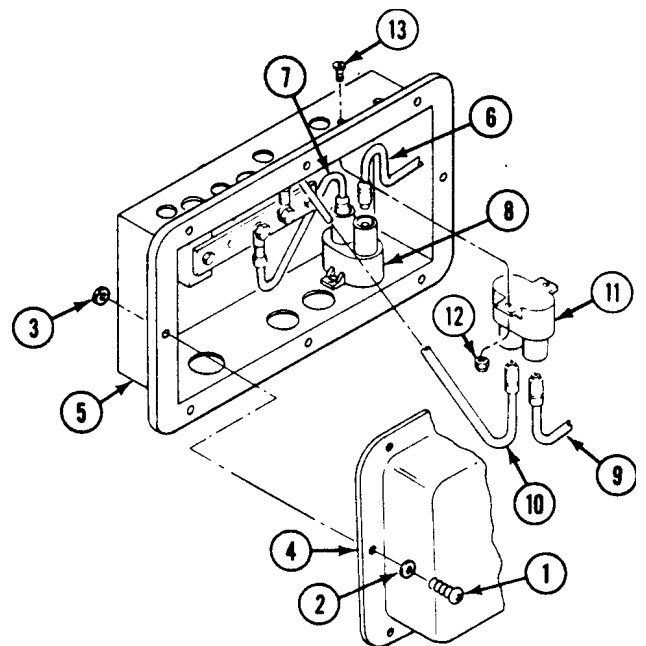
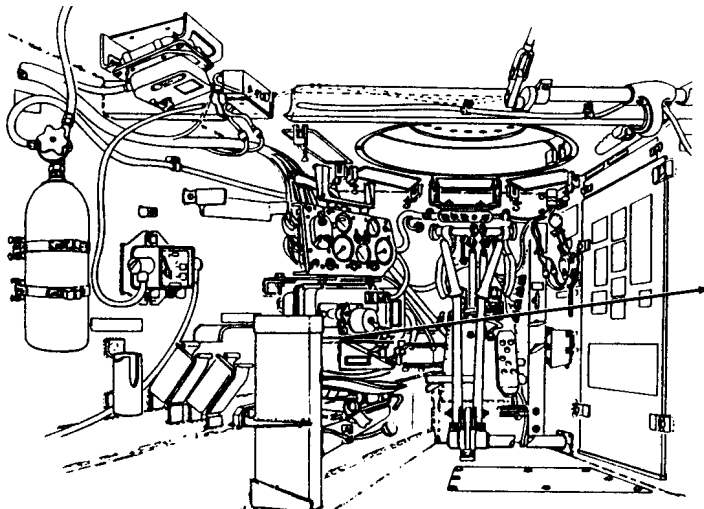
Gasket

Locknut (8)

Locknut (4)

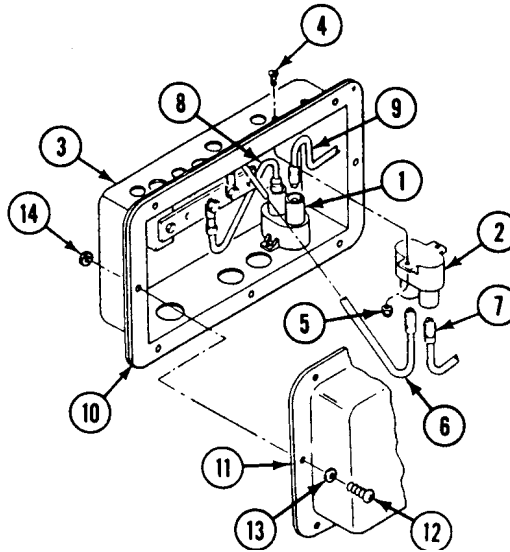
REMOVAL

1. Remove eight screws (1), washers (2), and locknuts (3) from master switch panel (4) and distribution box (5). Remove master switch panel from distribution box. Discard locknuts.
2. Disconnect circuit 450 lead (6) and circuit 450A lead (7) from front bilge pump circuit breaker (8).
3. Disconnect circuit 450B lead (9) and circuit 450C lead (10) from rear bilge pump circuit breaker (11).
4. Remove four locknuts (12), screws (13), and two circuit breakers (8) and (11) from distribution box (5). Discard locknuts.



INSTALLATION

1. Install two circuit breakers (1) and (2) in distribution box (3). Secure with four screws (4) and new locknuts (5).
2. Connect circuit 450C lead (6) and circuit 450B lead (7) to top bilge pump circuit breaker (2).
3. Connect circuit 450A lead (8) and circuit 450 lead (9) to bottom bilge pump circuit breaker (1).
4. Inspect gasket (10). Replace if damaged.
5. Place master switch panel (11) on distribution box (3). Secure with eight screws (12), washers (13), and new locknuts (14).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Turn on bilge pump switches (see your -10).
4. Turn all switches OFF (see your -10).

END OF TASK

CHAPTER 17

UNIT MAINTENANCE INSTRUCTIONS
FOR TRAILER HARNESS, RECEPTACLES, BLOWER, SWITCHES,
AND VENTILATION SYSTEM

WORK PACKAGE INDEX

<u>Title</u>	<u>Sequence No.</u>
REPLACE TRAILER HARNESS.....	0328 00
REPLACE UTILITY OUTLET RECEPTACLE (ALL EXCEPT M577A2 AND M1068).....	0329 00
REPLACE LEAD ASSEMBLY, UTILITY OUTLET (M577A2 AND M1068 ONLY).....	0330 00
REPLACE TELEPOSTS AND COVER.....	0331 00
REPLACE REAR UTILITY OUTLET RECEPTACLES (M577A2 AND M1068 ONLY).....	0332 00
REPLACE REAR UTILITY RECEPTACLE CIRCUIT BREAKERS (M577A2 AND M1068 ONLY).....	0333 00
REPLACE RADIAC WIRING HARNESS (M113A2, M577A2, AND M1068 ONLY).....	0334 00
REPLACE COMPARTMENT BLOWER (M577A2 AND M1068 ONLY).....	0335 00
REPLACE BLOWER SWITCH (M577A2 AND M1068 ONLY).....	0336 00
REPLACE FUEL QUANTITY SELECTOR SWITCH (M577A2 AND M1068 ONLY).....	0337 00

REPLACE TRAILER HARNESS

0328 00

THIS WORK PACKAGE COVERS:

- Removal (page 0328 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0328 00-2).
- Installation (page 0328 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- Digital Multimeter (WP 0780 00, Item 43)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

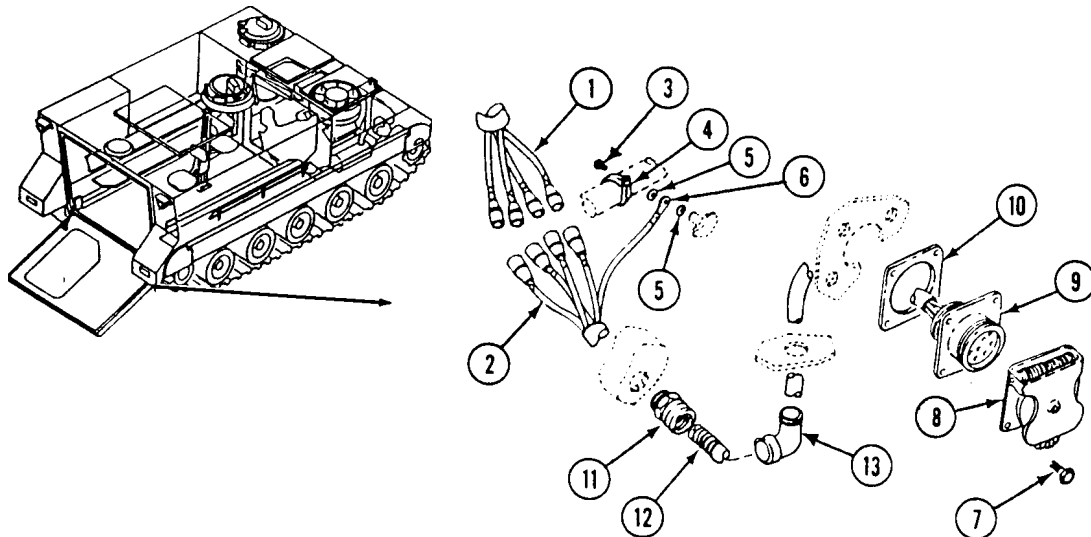
- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Ramp raised (see your -10)
- Rear floor plates removed (WP 0436 00)
- Battery ground lead disconnected (WP 0294 00)

Materials/Parts

- Gasket
- Lockwasher (2)

REMOVAL

1. Disconnect rear wiring harness circuit 21, 22, 23, and 24 leads (1) from trailer wiring harness circuit 21, 22, 23, and 24 leads (2).
2. Remove shell connectors from leads (2) (WP 0314 00).
3. Remove screw (3), clamp (4), two lockwashers (5), and circuit 90 lead (6) from hull weldnut. Discard lockwashers.
4. Remove four screws (7) and receptacle cover (8) from ramp. Carefully remove receptacle (9) with attached leads (2) and gasket (10) from ramp. Discard gasket.
5. If needed, remove connector (11) from rear bulkhead.
6. If needed, remove spring (12) and elbow (13) from ramp.

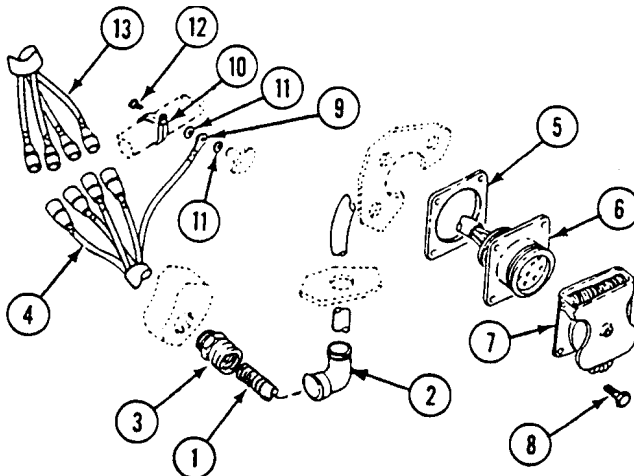


INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

1. Check receptacle. Repair or replace cracked or broken receptacle (WP 0313 00).

INSTALLATION

1. If removed, install spring (1) and elbow (2) in ramp.
2. If removed, install connector (3) in rear bulkhead.
3. Route leads (4) through new gasket (5), and out through elbow (2).
4. Install gasket (5), receptacle (6), and cover (7) on ramp. Secure with four screws (8).
5. Route leads (4) through spring (1) and connector (3).
6. Install circuit 90 lead (9) between clamp (10) and weldnut on hull. Secure with two new lockwashers (11) and screw (12).
7. Install shell connectors on leads (4) (WP 0314 00).
8. Connect leads (4) to leads (13).

**FOLLOW-THROUGH STEPS**

1. Install rear floor plates (WP 0436 00).
2. Connect battery ground lead (WP 0294 00).

END OF TASK

REPLACE UTILITY OUTLET RECEPTACLE (ALL EXCEPT M577A2 AND M1068)

0329 00

THIS WORK PACKAGE COVERS:

- Removal (page 0329 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0329 00-2).
- Installation (page 0329 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- Digital Multimeter (WP 0780 00, Item 42)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

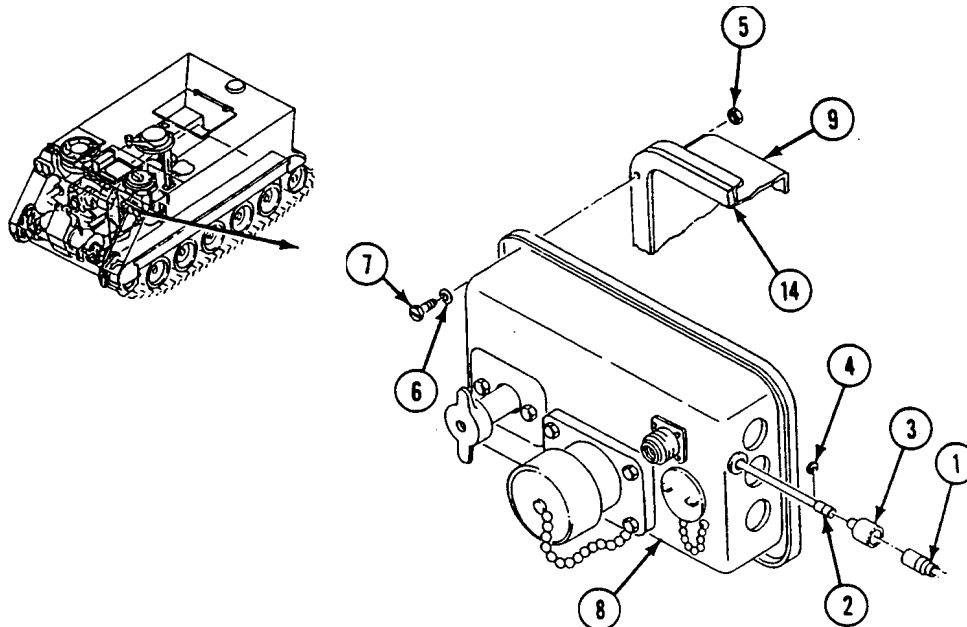
- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Battery ground lead disconnected (WP 0294 00)
- Warning light panel assembly removed (WP 0253 00)

Materials/Parts

- Locknut (8)
- Lockwasher (2)

REMOVAL

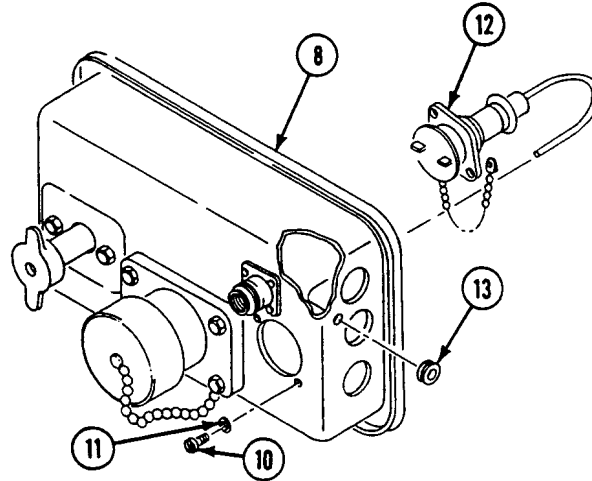
1. Disconnect circuit 37 lead (1) from utility outlet receptacle lead (2).
2. Slide shell connector (3) down lead (2). Remove slotted washer (4) from lead. Remove shell connector from lead.
3. Remove eight locknuts (5), washers (6), screws (7), and master switch panel (8) from distribution box (9). Discard locknuts.



REPLACE UTILITY OUTLET RECEPTACLE (ALL EXCEPT M577A2 AND M1068) — Continued

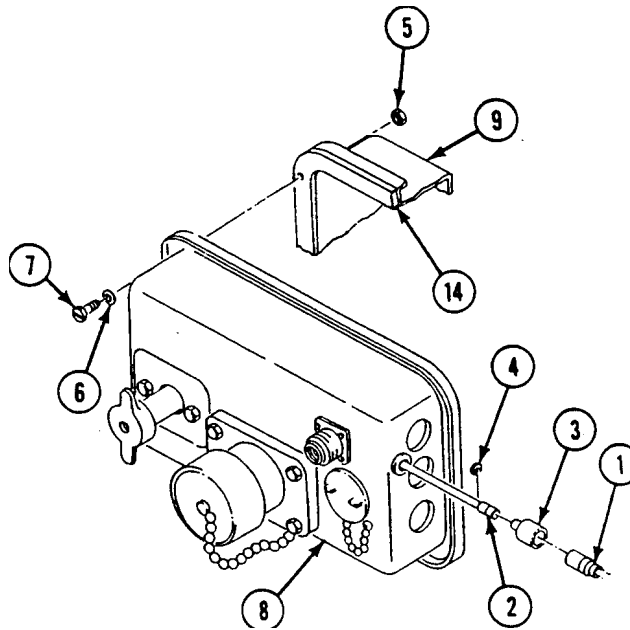
0329 00

4. Remove two screws (10), lockwashers (11), and receptacle (12) from master switch panel (8). Discard lockwashers.
5. If needed, remove grommet (13) from master switch panel (8).



INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

1. Check connectors. Replace cracked or broken connector (WP 0312 00).
2. Inspect gasket (14). Replace if damaged.



**REPLACE UTILITY OUTLET RECEPTACLE (ALL EXCEPT M577A2
AND M1068) — Continued**

0329 00

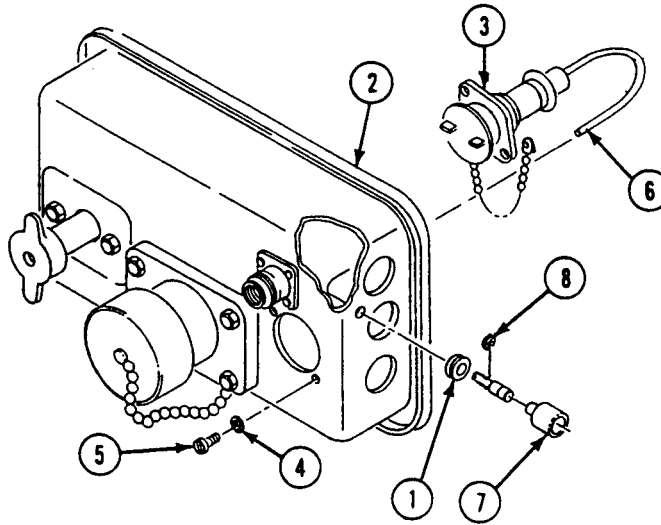
INSTALLATION

1. If removed, install new grommet (1) from master switch panel (2).

NOTE

Make sure receptacle cover retaining chain is installed on lower screw.

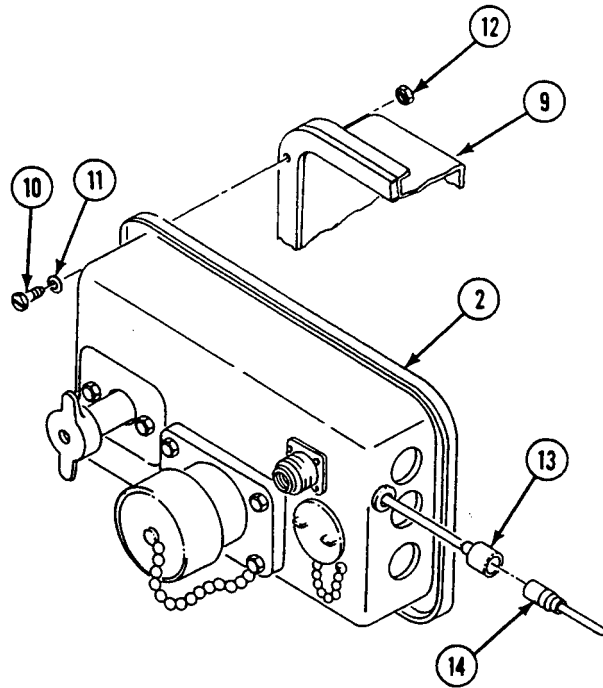
2. Place utility outlet receptacle (3) on rear of master switch panel (2). Secure with two new lockwashers (4) and screws (5).
3. Route utility outlet receptacle lead (6) through grommet (1). Install shell connector (7) and slotted washer (8).



**REPLACE UTILITY OUTLET RECEPTACLE (ALL EXCEPT M577A2
AND M1068) — Continued**

0329 00

4. Install master switch panel (2) on distribution box (9). Secure with eight screws (10), washers (11), and new locknuts (12).
5. Connect circuit 37 lead (13) to utility receptacle lead (14).

**FOLLOW-THROUGH STEPS**

1. Install warning light panel assembly (WP 0253 00).
2. Connect battery ground lead (WP 0294 00).
3. Turn MASTER SWITCH to ON (see your -10) to check that receptacle is installed properly. Use multimeter.
4. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE LEAD ASSEMBLY, UTILITY OUTLET (M577A2 AND M1068 ONLY)

0330 00

THIS WORK PACKAGE COVERS:

- Removal (page 0330 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0330 00-2).
- Installation (page 0330 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

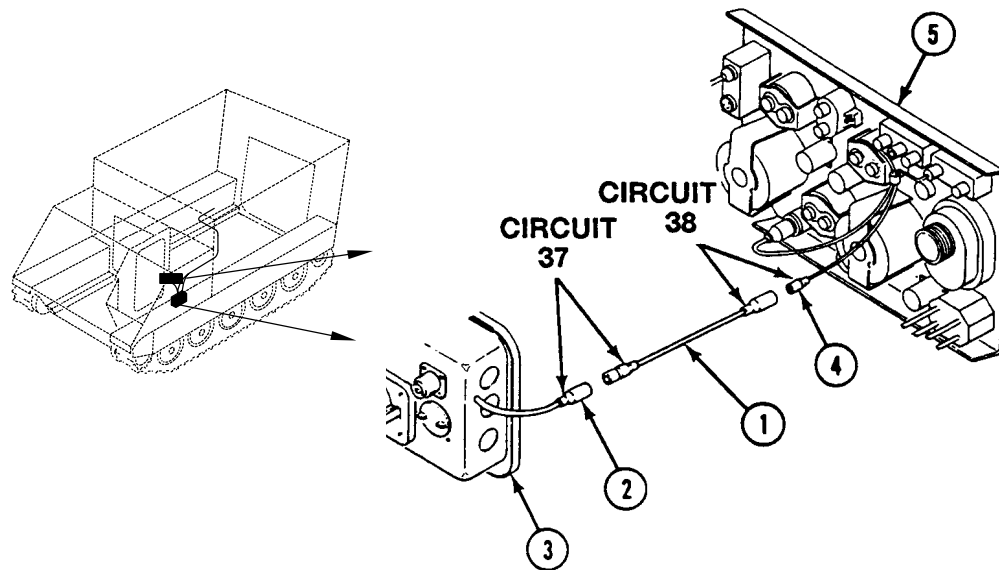
- Digital Multimeter (WP 0780 00, Item 43)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Battery ground leads disconnected (WP 0294 00)

REMOVAL

1. Disconnect lead assembly (1) from circuit 37 lead (2) at master switch panel (3).
2. Disconnect lead assembly (1) from circuit 38 lead (4) at instrument panel (5). Remove lead assembly.



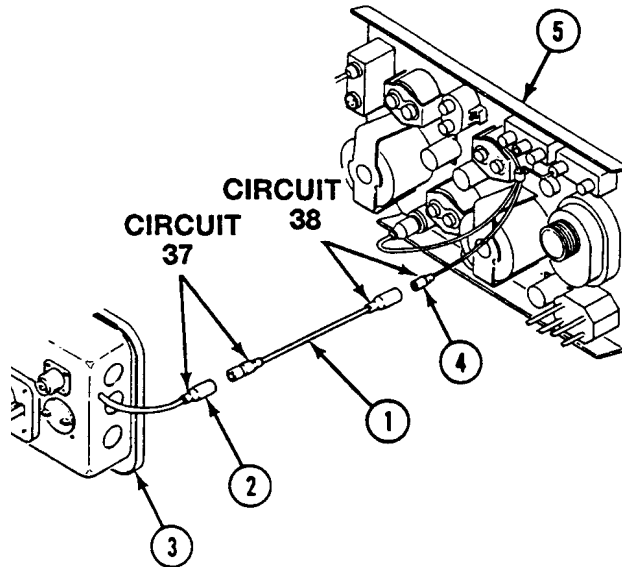
INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

1. Check lead continuity. Use digital multimeter. Replace bad lead.
2. Check connectors. Replace cracked or broken connectors (WP 0312 00).

INSTALLATION**NOTE**

Lead assembly (1) is banded as circuit 37 at master switch panel and circuit 38 at instrument panel. Make sure it is installed properly.

1. Connect lead assembly (1) to circuit 38 lead (4) at instrument panel (5).
2. Connect lead assembly (1) to circuit 37 lead (2) at master switch panel (3).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground leads (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

REPLACE TELEPOSTS AND COVER

0331 00

THIS WORK PACKAGE COVERS:

Removal (page 0331 00-1).
 Installation (page 0331 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped (see your -10)

Carrier blocked (see your -10)

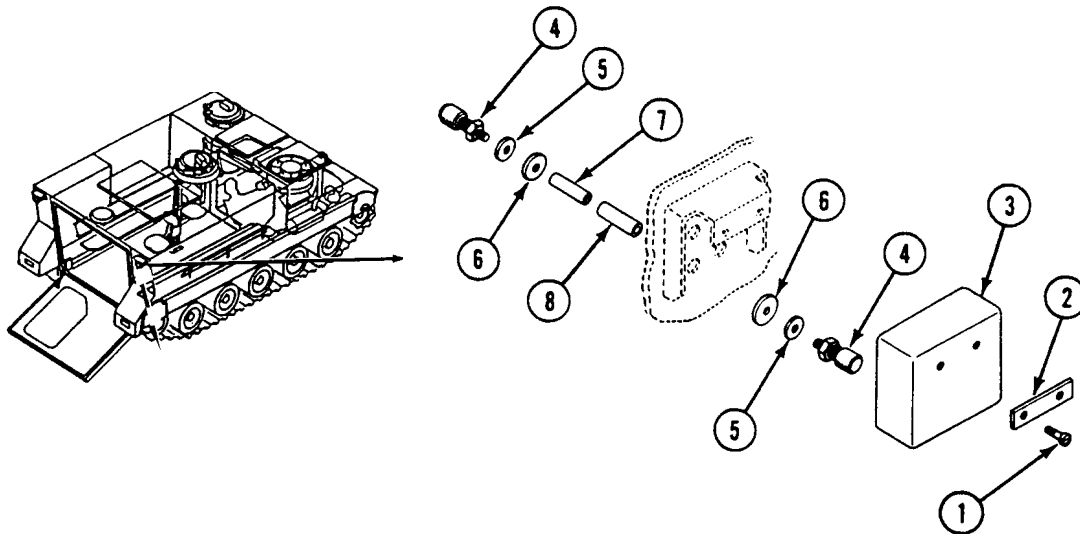
Ramp lowered (see your -10)

Materials/Parts

Gasket (8)

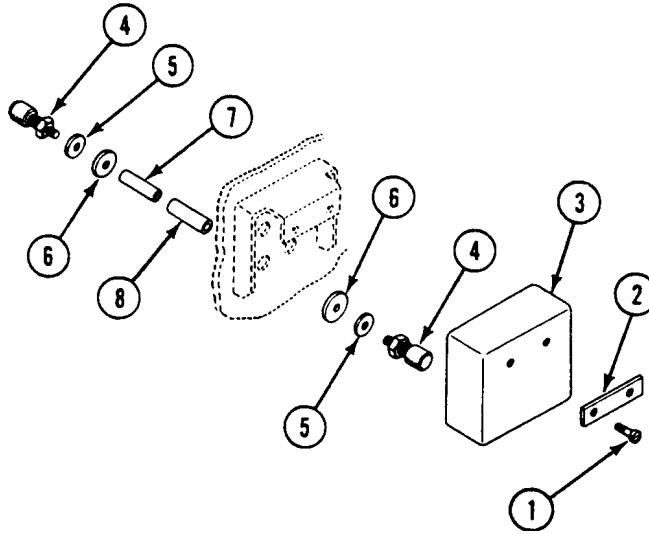
REMOVAL

1. Remove two screws (1), retainer strip (2), and rubber shield (3) from hull mount.
2. Remove eight teleposts (4), washers (5), and gaskets (6) from four posts (7). Discard gaskets.
3. Remove four posts (7) and insulators (8) from hull.



INSTALLATION

1. Install four insulators (8) and posts (7) in hull.
2. Install eight new gaskets (6), washers (5), and teleposts (4) on each end of four posts (7).
3. Install rubber shield (3) on hull mount. Secure with retainer strip (2) and two screws (1).

**FOLLOW-THROUGH STEPS**

1. Start engine. Raise and lock ramp (see your -10).
2. Stop engine (see your -10).

END OF TASK

REPLACE REAR UTILITY OUTLET RECEPTACLES (M577A2 AND M1068 ONLY)

0332 00

THIS WORK PACKAGE COVERS:

- Removal (page 0332 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0332 00-2).
- Installation (page 0332 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Ramp lowered (see your -10)

Carrier blocked (see your -10)

Battery ground lead disconnected (WP 0294 00)

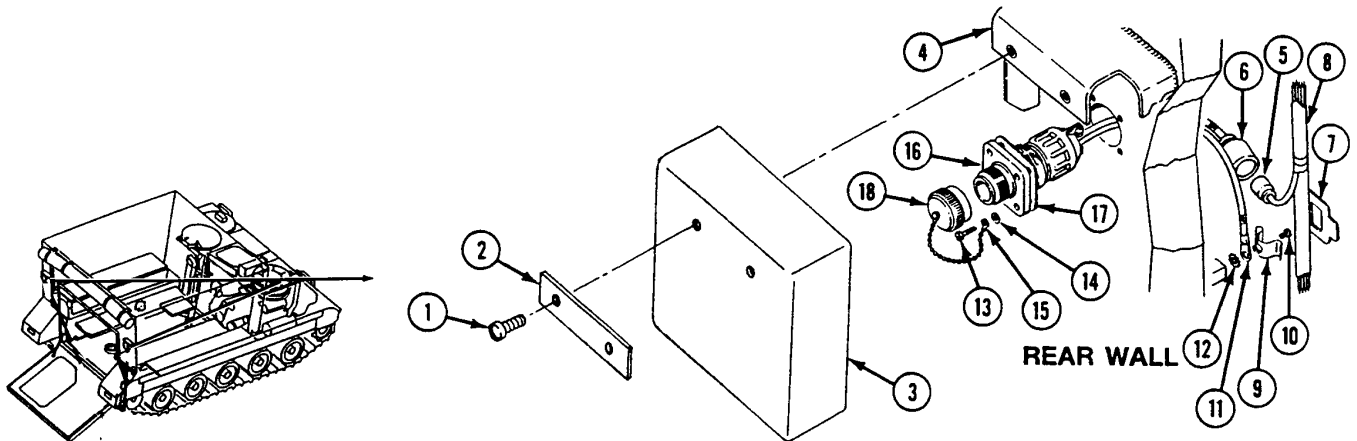
Materials/Parts

Lockwasher (5)

Receptacle gasket

REMOVAL

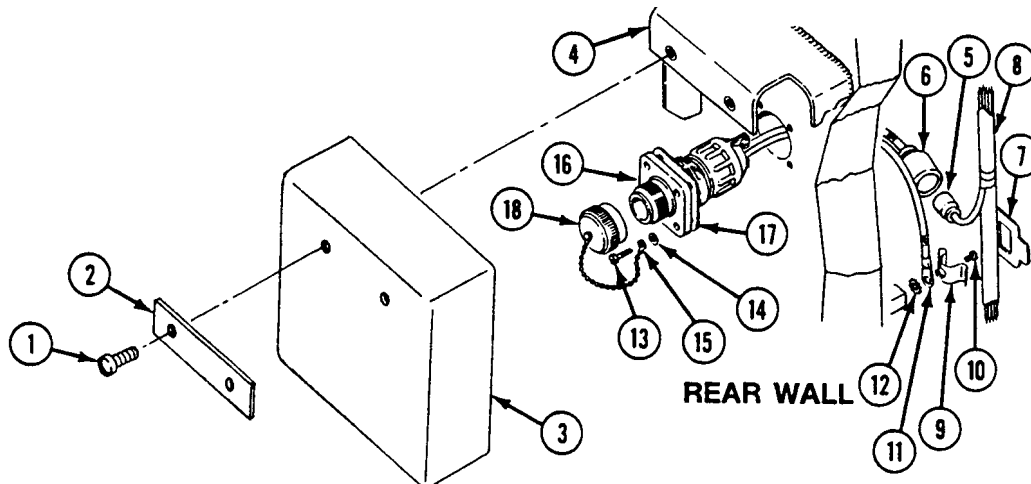
1. Remove two screws (1), retainer strip (2), and rubber shield (3) from hull mount (4).
2. Disconnect circuit 37A lead (5) (right receptacle) or circuit 37B lead (5) (left receptacle) from receptacle lead (6).



REPLACE REAR UTILITY OUTLET RECEPTACLES (M577A2 AND M1068 ONLY) — Continued

0332 00

3. Remove clip (7) and rear main wiring harness (8) from cradle (9).
4. Remove screw (10), cradle (9), ground lead (11), and lockwasher (12) from hull weldnut. Discard lockwasher.
5. Remove four screws (13), lockwashers (14), chain (15), receptacle (16), and gasket (17) from rear bulkhead. Discard gasket and lockwashers.
6. Remove cap (18) from receptacle (16).


INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

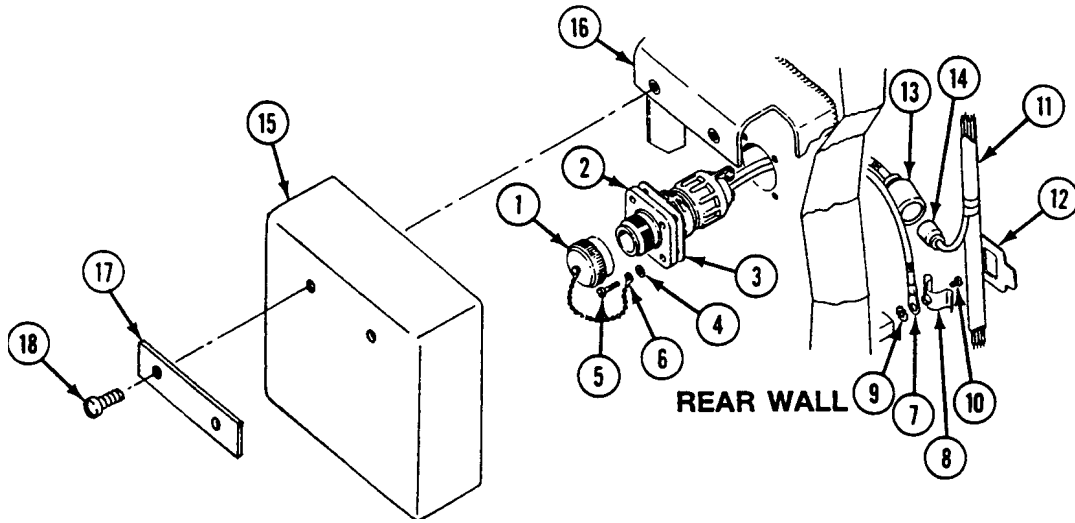
1. Check leads. Replace frayed, cracked, or broken leads (WP 0312 00).
2. Check connectors. Replace cracked or broken connectors (WP 0312 00).

INSTALLATION

1. Install cap (1) on receptacle (2).
2. Place new gasket (3) and receptacle (2) on rear bulkhead. Secure with four new lockwashers (4) and screws (5) with chain (6) under head of one screw.
3. Install ground lead (7) and cradle (8) on hull weldnut. Secure with new lockwasher (9) and screw (10).
4. Place rear main wiring harness (11) in cradle (8). Secure with clip (12).
5. Connect receptacle lead (13) to circuit 37A lead (14) (right receptacle) or circuit 37B lead (14) (left receptacle).
6. Install rubber shield (15) on hull mount (16). Secure with retainer strip (17) and two screws (18).

REPLACE REAR UTILITY OUTLET RECEPTACLES (M577A2 AND M1068 ONLY) — Continued

0332 00



FOLLOW-THROUGH STEPS

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Start engine. Raise and lock ramp (see your -10).
4. Stop engine (see your -10).

END OF TASK

**REPLACE REAR UTILITY RECEPTACLE CIRCUIT BREAKERS
(M577A2 AND M1068 ONLY)**

0333 00

THIS WORK PACKAGE COVERS:

- Removal (page 0333 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0333 00-2).
- Installation (page 0333 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped (see your -10)

Carrier blocked (see your -10)

Battery ground lead disconnected (WP 0294 00)

Materials/Parts

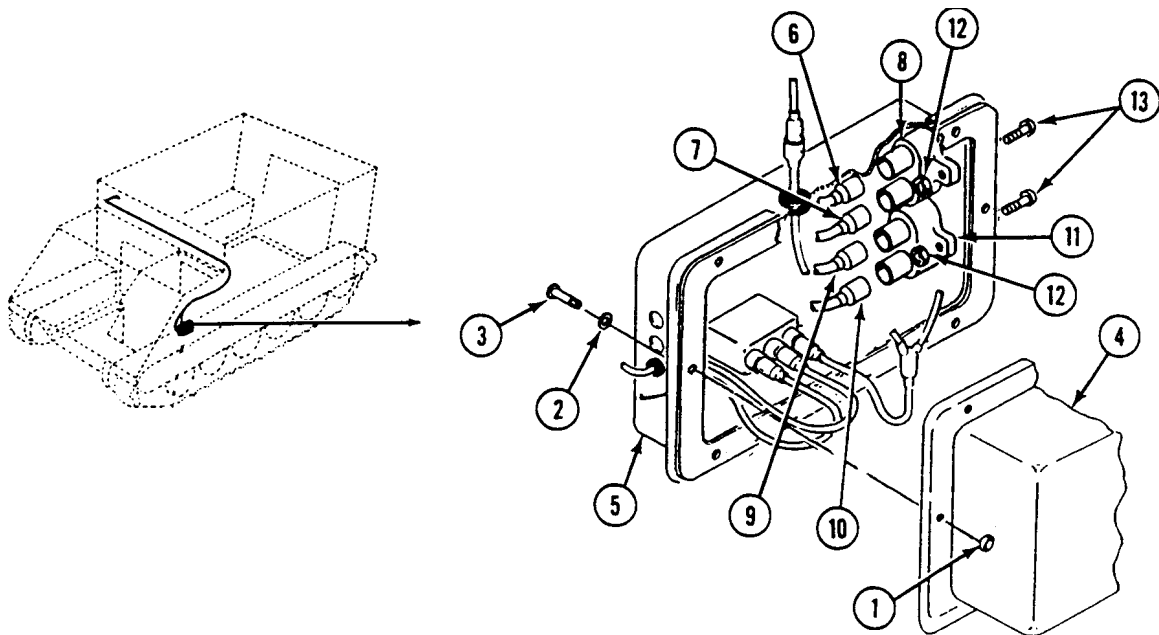
Locknut (8)

REMOVAL

NOTE

If you want to remove only the left circuit breaker, skip Step 3. If you want to remove only the right circuit breaker, skip Step 2.

1. Remove eight locknuts (1), washers (2), screws (3), and panel (4) from distribution box (5). Discard locknuts.
2. Disconnect circuit 10 lead (6) and circuit 37A lead (7) from left circuit breaker (8).
3. Disconnect circuit 37B lead (9) and circuit 10 lead (10) from right circuit breaker (11).
4. Remove four nuts (12), screws (13), and circuit breakers (8) and (11) from distribution box (5).



REPLACE REAR UTILITY RECEPTACLE CIRCUIT BREAKERS (M577A2 AND M1068 ONLY) — Continued

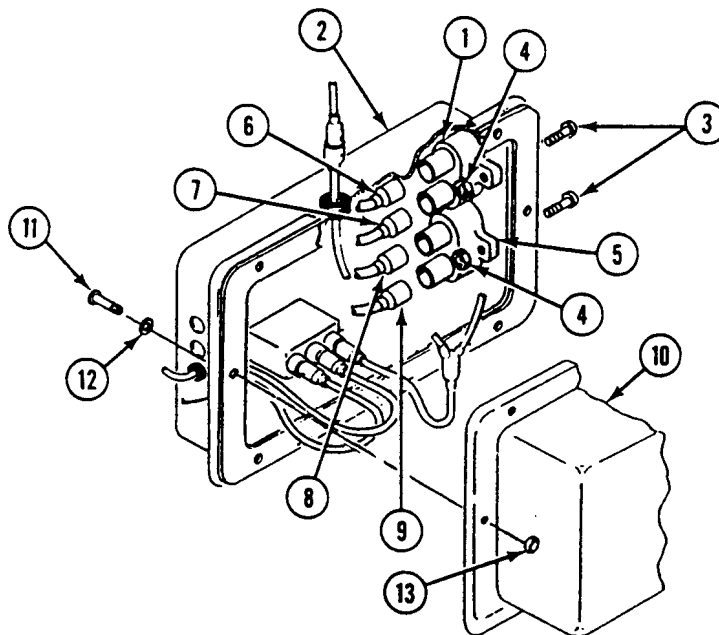
0333 00

INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

1. Clean leads. Replace frayed, cracked, or broken leads (WP 0312 00).
2. Clean connectors. Replace cracked or broken connectors (WP 0312 00).
3. Inspect gasket on flange of distribution box. Replace if damaged.

INSTALLATION

1. Place circuit breaker (1) in distribution box (2). Secure with two screws (3) and nuts (4).
2. Place circuit breaker (5) in distribution box (2). Secure with two screws (3) and nuts (4).
3. Connect circuit 10 lead (6) and circuit 37A lead (7) to circuit breaker (1).
4. Connect circuit 37B lead (8) and circuit 10 lead (9) to circuit breaker (5).
5. Place panel (10) on distribution box (2). Secure with eight screws (11), washers (12), and new locknuts (13).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Check for power at utility outlet receptacles (WP 0044 00).
4. Turn MASTER SWITCH to OFF (see your -10).

END OF TASK

**REPLACE RADIAC WIRING HARNESS (M113A2, M577A2,
AND M1068 ONLY)**

0334 00

THIS WORK PACKAGE COVERS:

Removal (page 0334 00-1).
Installation (page 0334 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

WP 0312 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)
Battery ground lead disconnected (WP 0294 00).

Materials/Parts

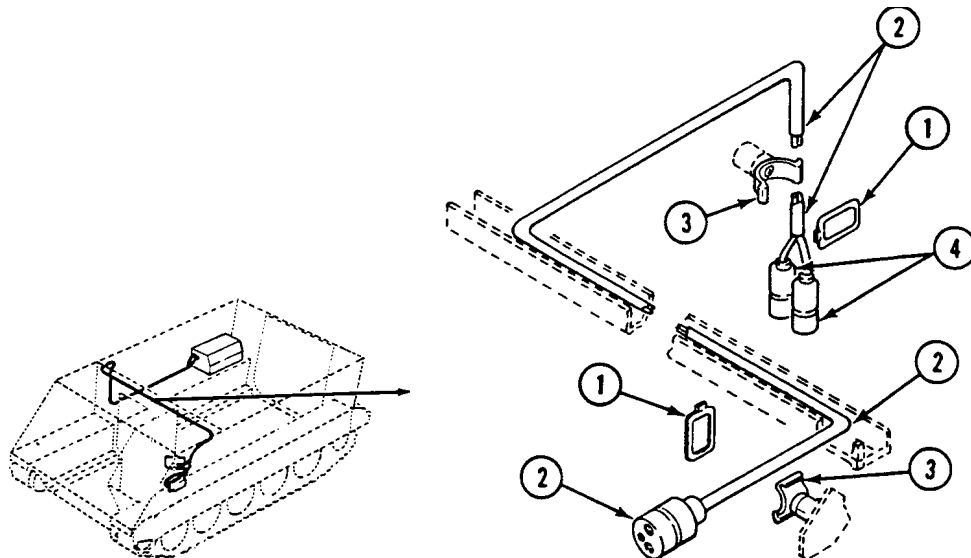
Rope, 12 ft. (4 m)

Personnel Required

Unit Mechanic

REMOVAL

1. Remove four clips (1) and RADIAC harness (2) from four cradles (3).
2. Remove electrical connector(s) (4) from end of harness (2) (WP 0312 00).
3. Tie 12 ft. (4 m) rope to harness (2).
4. Pull harness (2) and rope through channel. Untie rope from harness (2), leaving rope in channel.

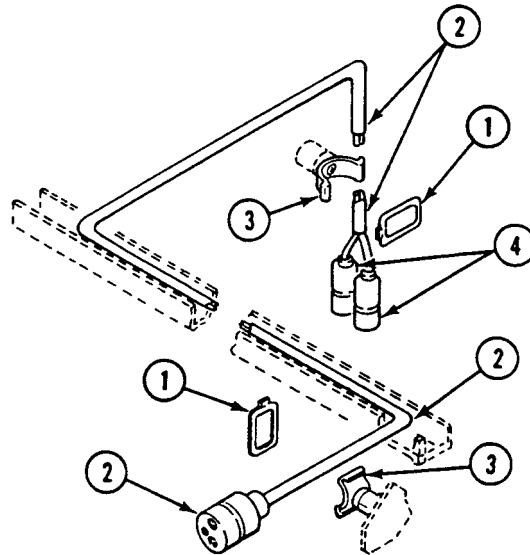


REPLACE RADIAC WIRING HARNESS (M113A2, M577A2, AND M1068 ONLY) — Continued

0334 00

INSTALLATION

1. Tie rope to end of wiring harness (2).
2. Pull rope and harness (2) through channel. Remove rope.
3. Install connectors (4) on harness (2) (WP 0312 00).
4. Install harness (2) on four cradles (3) and secure with four clips (1).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).

END OF TASK

REPLACE COMPARTMENT BLOWER (M577A2 AND M1068 ONLY)

0335 00

THIS WORK PACKAGE COVERS:

- Removal (page 0335 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0335 00-2).
- Installation (page 0335 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped (see your -10)

Battery ground lead disconnected (WP 0294 00)

Power plant rear access panel removed (WP 0433 00)

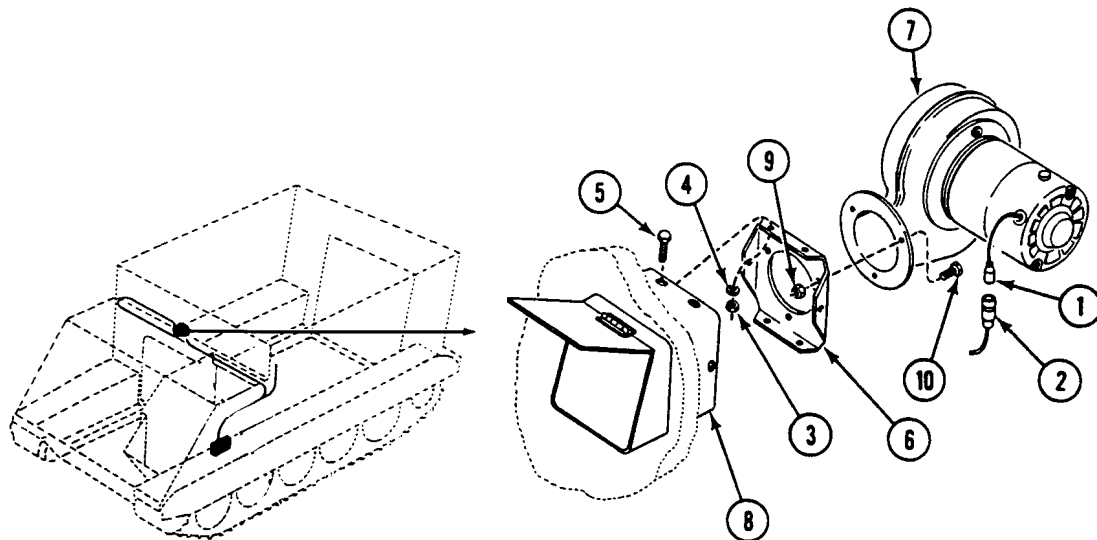
Materials/Parts

Locknut (6)

Locknut (3)

REMOVAL

1. Disconnect blower lead (1) from circuit 59 lead (2).
2. Remove six locknuts (3), washers (4), screws (5), and adapter (6) with blower (7) attached, from flapper valve (8). Discard locknuts.
3. Remove three locknuts (9), screws (10), and adapter (6) from blower (7). Discard locknuts.

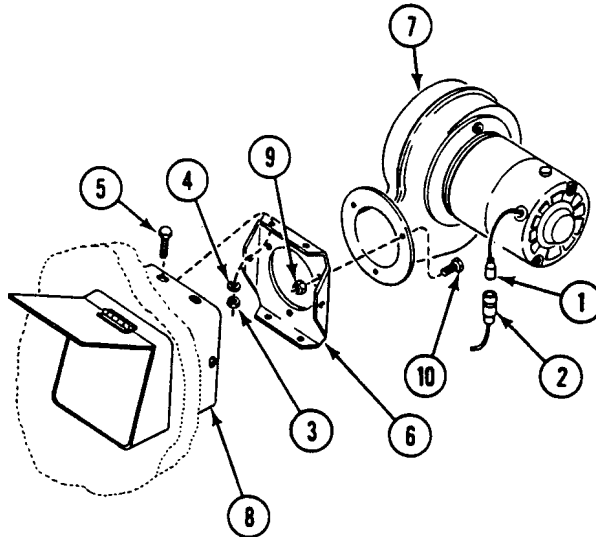


INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

1. Check adapter (6). Replace cracked adapter.

INSTALLATION

1. Place adapter (6) on blower (7). Secure with three screws (10) and new locknuts (9).
2. Place adapter (6), with blower (7) attached, on flapper valve (8). Secure with six screws (5), washers (4), and new locknuts (3).
3. Connect circuit 59 lead (2) to blower lead (1).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Check that blower operates properly (see your -10).
4. Turn all switches OFF (see your -10).
5. Install power plant rear access panel (WP 0433 00).

END OF TASK

REPLACE BLOWER SWITCH (M577A2 AND M1068 ONLY)

0336 00

THIS WORK PACKAGE COVERS:

Removal (page 0336 00-1).
 Installation (page 0336 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped (see your -10)

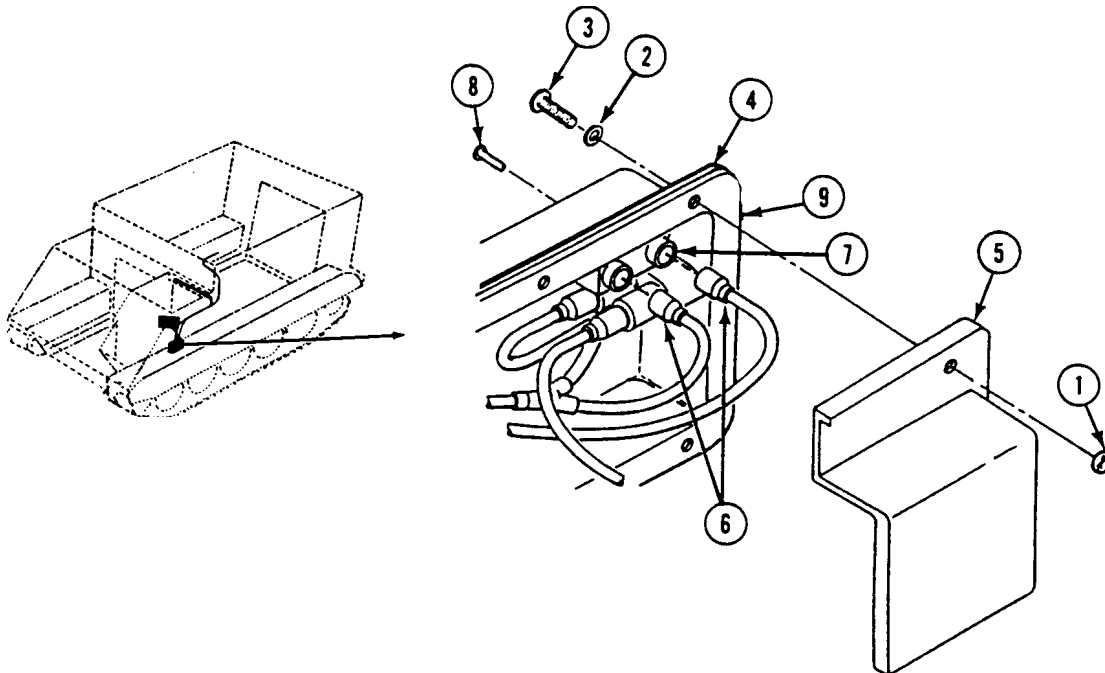
Battery ground lead disconnected (WP 0294 00)

Materials/Parts

Locknut (8)

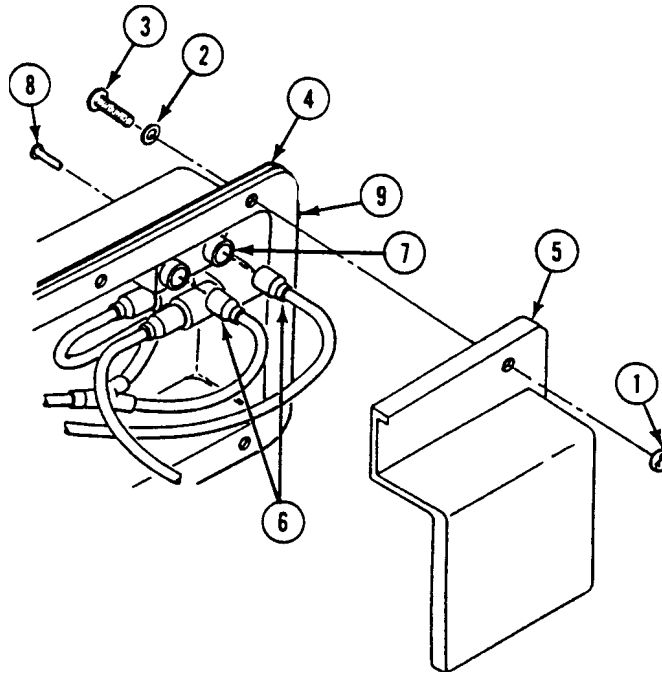
REMOVAL

1. Remove eight locknuts (1), washers (2), screws (3), and master switch panel (4) from distribution box (5). Discard locknuts.
2. Disconnect two circuit 59 leads (6) from rear of blower switch (7).
3. Remove two screws (8) and switch (7) from panel (4).
4. Inspect gasket (9). Replace if damaged.



INSTALLATION

1. Place switch (7) on rear of master switch panel (4). Secure with two screws (8).
2. Connect two circuit 59 leads (6) to rear of switch (7).
3. Place panel (4) on distribution box (5). Secure with eight screws (3), washers (2), and new locknuts (1).

**FOLLOW-THROUGH STEPS**

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Check that blower operates properly (see your -10).
4. Turn all switches OFF (see your -10).

END OF TASK

REPLACE FUEL QUANTITY SELECTOR SWITCH (M577A2 AND M1068 ONLY)

0337 00

THIS WORK PACKAGE COVERS:

Removal (page 0337 00-1).
 Installation (page 0337 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped (see your -10)

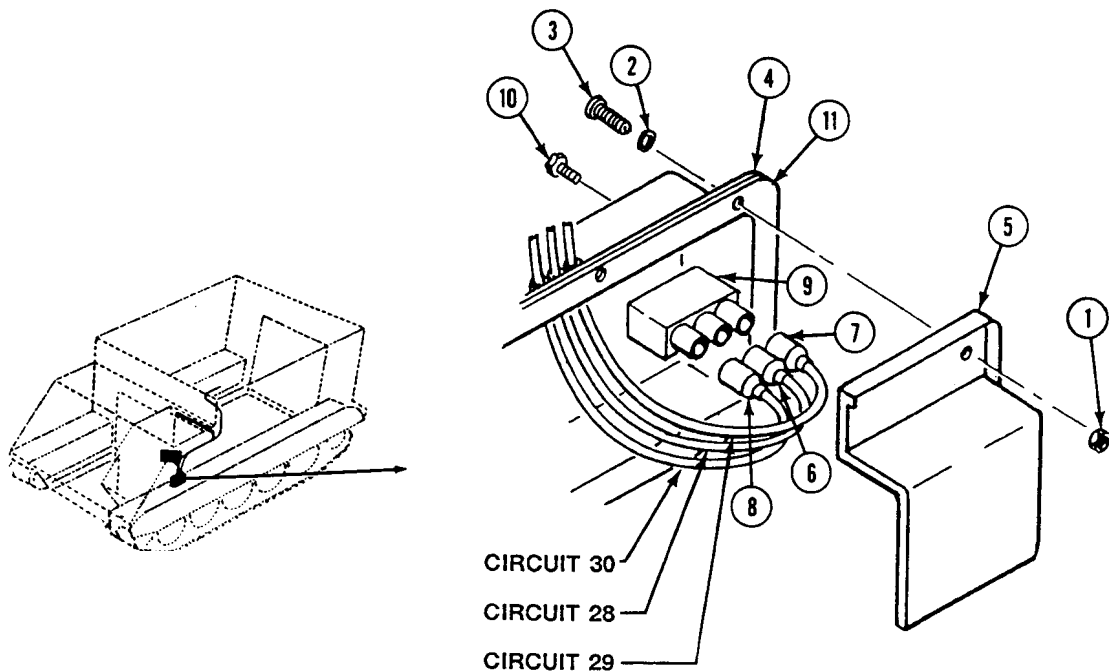
Battery ground lead disconnected (WP 0294 00)

Materials/Parts

Locknut (8)

REMOVAL

1. Remove eight locknuts (1), washers (2), screws (3), and master switch panel (4) from distribution box (5). Discard locknuts.
2. Disconnect circuit 28 (6), circuit 29 (7), and circuit 30 (8) leads from rear of fuel quantity selector switch (9).
3. Remove two screws (10) and switch (9) from panel (4).
4. Inspect gasket (11). Replace if damaged.

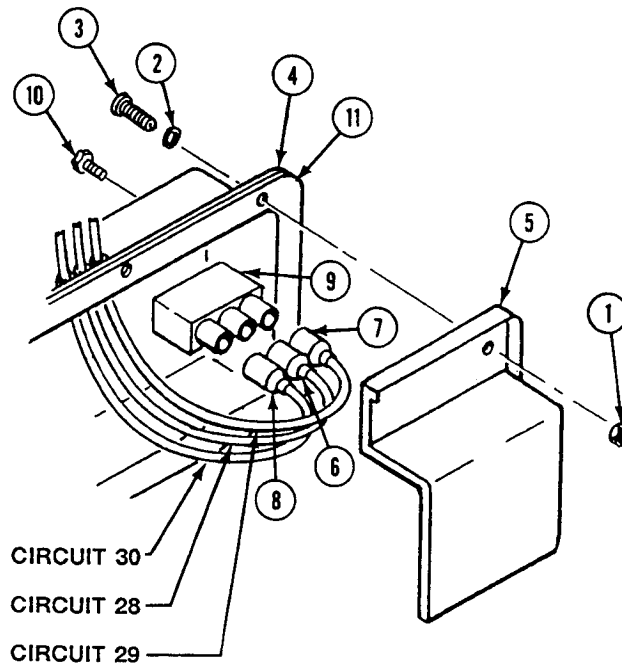


REPLACE FUEL QUANTITY SELECTOR SWITCH (M577A2 AND M1068 ONLY) — Continued

0337 00

INSTALLATION

1. Place switch (9) on rear of master switch panel (4). Secure with two screws (10).
2. Connect circuit 30 (8), circuit 29 (7), and circuit 28 (6) leads to rear of switch (9).
3. Place panel (4) on distribution box (5). Secure with eight screws (3), washers (2), and new locknuts (1).


FOLLOW-THROUGH STEPS

1. Connect battery ground lead (WP 0294 00).
2. Turn MASTER SWITCH to ON (see your -10).
3. Check for fuel quantity readings on both tanks (see your -10).
4. Turn all switches OFF (see your -10).

END OF TASK

CHAPTER 18

UNIT MAINTENANCE INSTRUCTIONS
FOR TRANSMISSION AND RELATED COMPONENTS

WORK PACKAGE INDEX

<u>Title</u>	<u>Sequence No.</u>
REPLACE TRANSMISSION TO OIL COOLER HOSE AND FITTINGS.....	0338 00
REPLACE OIL COOLER TO TRANSMISSION HOSE AND FITTINGS.....	0339 00
REPLACE TRANSMISSION VENT AND FILLER TUBE.....	0340 00
REPLACE TRANSMISSION OIL FILTER AND DRAIN.....	0341 00

REPLACE TRANSMISSION TO OIL COOLER HOSE AND FITTINGS

0338 00

THIS WORK PACKAGE COVERS:

- Removal (page 0338 00-1).
- Clean, Inspect, and Repair (page 0338 00-2).
- Installation (page 0338 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Adjustable Wrench (WP 0780 00, Item 86)
- Pipe Wrench (WP 0780 00, Item 93)

References

- See your -10
- WP 0120 00

Materials/Parts

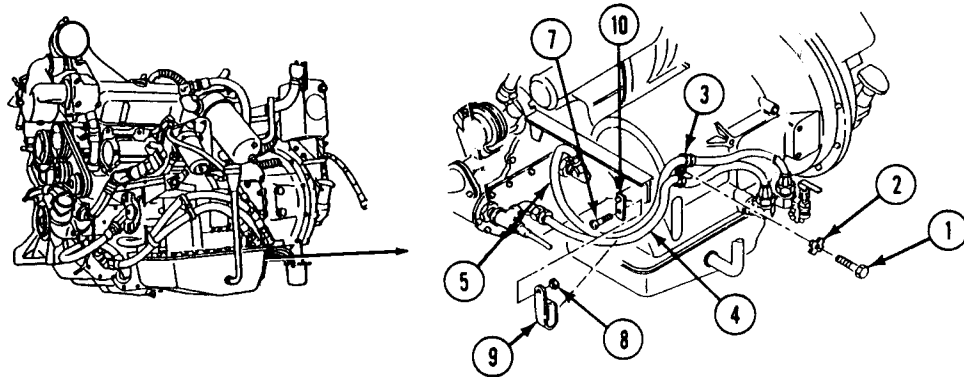
- Cleaning compound (WP 0782 00, Item 16)
- Sealing compound (WP 0782 00, Item 65)
- Key washer
- Locknut
- Preformed packing
- Suitable container

Equipment Condition

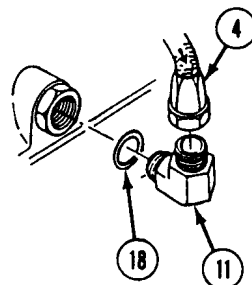
Power plant removed (WP 0131 00)

REMOVAL

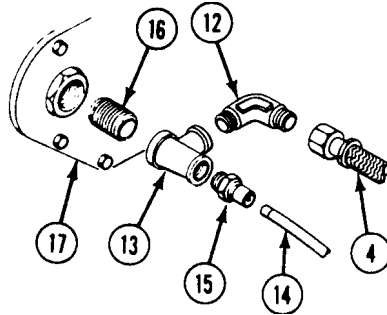
1. Remove screw (1), key washer (2), two clamps (3), hose (4), and hose (5) from transmission. Discard key washer.
2. Remove screw (7), locknut (8), clamp (9), hose (4), and hose (5) from bracket (10). Discard locknut.



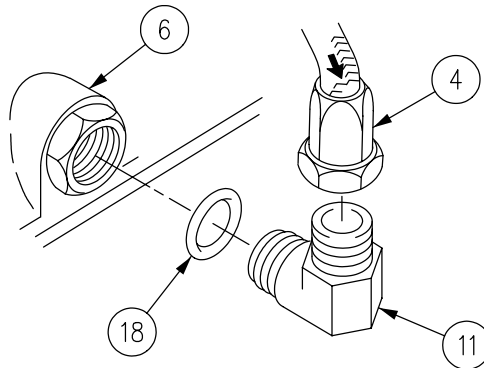
3. Disconnect hose (4) from elbow (11). Place hose through hull access opening. Drain oil from cooler and hose into container.



4. Disconnect hose (4) from elbow (12).
5. Remove elbow (12) from tee (13).
6. Disconnect circuit 327 lead (14) from transmission high oil temperature switch (15).
7. Remove switch (15) from tee (13).
8. Remove tee (13) from bushing (16).
9. Remove bushing (16) from oil cooler (17). Use pipe wrench.



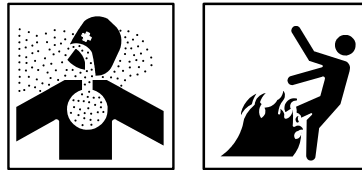
10. Loosen jamnut and remove elbow (11) from transmission (6).
11. Remove preformed packing (18) from elbow (11). Discard packing.



CLEAN, INSPECT, AND REPAIR

1. Clean hose and fittings with cleaning compound.
2. Check hose. Replace broken, twisted, or worn hose.
3. Check fittings. Replace fittings that are cracked or have stripped threads.

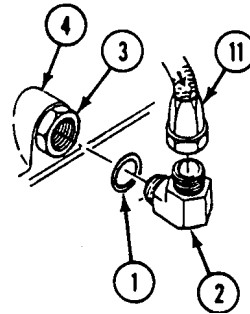
INSTALLATION

WARNING

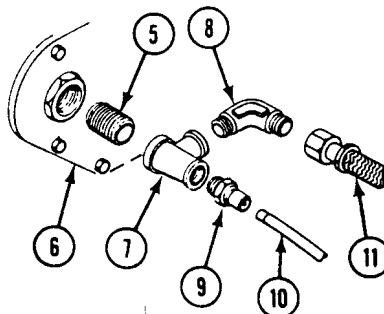
Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

1. Apply a thin, even coat of sealing compound to external threads of fittings before installation.
2. Install new preformed packing (1) on elbow (2). Tighten jamnut (3). Use adjustable wrench.
3. Install elbow (2) in transmission (4).

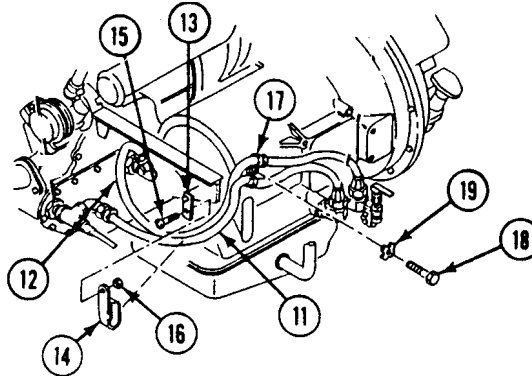


4. Install bushing (5) in oil cooler (6). Use pipe wrench.
5. Install tee (7) on bushing (5).
6. Install elbow (8) on tee (7).
7. Install transmission high oil temperature switch (9) in tee (7).
8. Connect circuit 327 lead (10) to switch (9).
9. Connect hose (11) to elbow (2) and elbow (8).



REPLACE TRANSMISSION TO OIL COOLER HOSE AND FITTINGS — Continued**0338 00**

10. Install hose (11) and hose (12) on bracket (13). Secure with clamp (14), screw (15), and new locknut (16).
11. Install hose (11) and hose (12) on transmission (4). Secure with two clamps (17), screw (18), and new key washer (19).



12. Check transmission oil level (WP 0120 00).

WARNING

Carbon monoxide is poisonous and can kill you. Do not idle engine with bottom access cover and power plant access panels off unless there is ADEQUATE VENTILATION.

13. Start engine (see your -10). Check for leaks.

FOLLOW-THROUGH STEPS

1. Power plant installed (WP 0131 00).
2. Fill transmission with oil (WP 0120 00).
3. Start engine and check for leaks (see your -10).
4. Stop engine (see your -10).

END OF TASK

REPLACE OIL COOLER TO TRANSMISSION HOSE AND FITTINGS

0339 00

THIS WORK PACKAGE COVERS:

- Removal (page 0339 00-1).
- Clean, Inspect, and Repair (page 0339 00-2).
- Installation (page 0339 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- Adjustable Wrench (WP 0780 00, Item 86)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)

References

- See your -10
- WP 0120 00

Materials/Parts

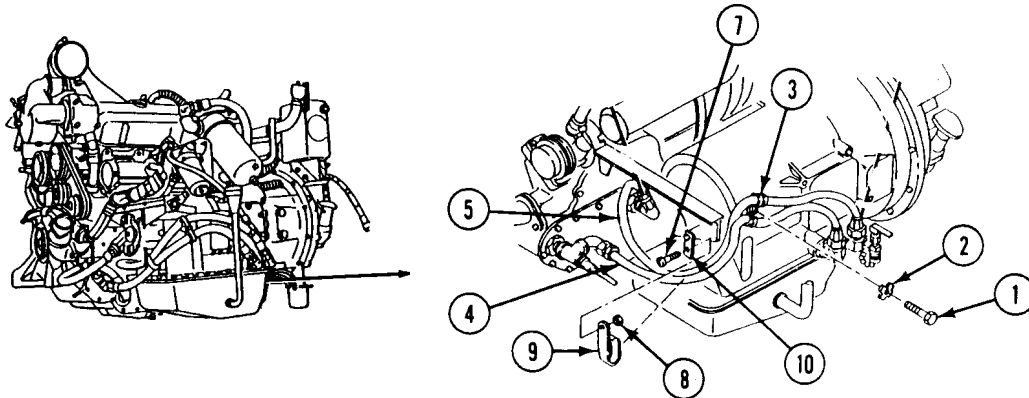
- Cleaning compound (WP 0782 00, Item 16)
- Sealing compound (WP 0782 00, Item 65)
- Wiping rag (WP 0782 00, Item 76)
- Key washer
- Locknut
- Preformed packing
- Suitable container

Equipment Condition

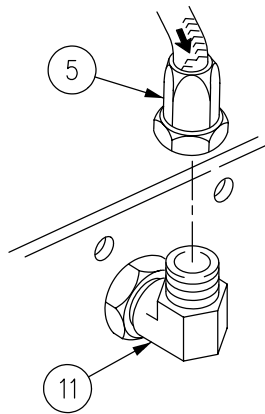
Power plant removed (WP 0131 00)

REMOVAL

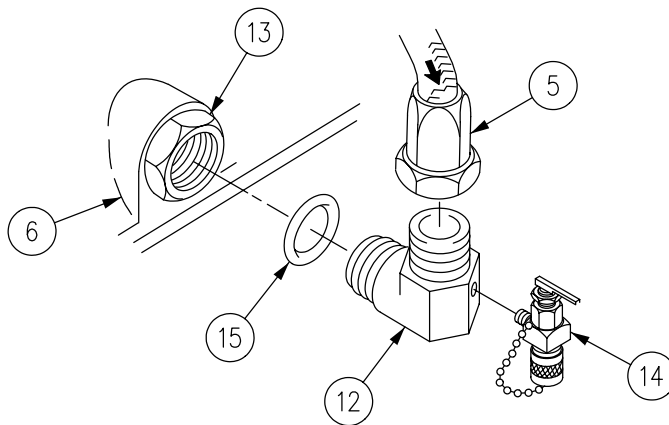
1. Remove screw (1), key washer (2), two clamps (3), hose (4), and hose (5) from transmission. Discard key washer.
2. Remove screw (7), locknut (8), clamp (9), hose (4), and hose (5) from bracket (10). Discard locknut.



3. Disconnect hose (5) from elbow (11). Place hose through hull access opening. Drain oil from cooler into a container.



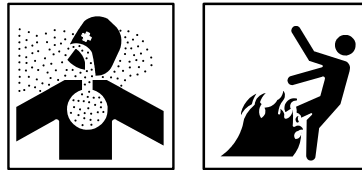
4. Disconnect hose (5) from elbow (12).
5. Loosen jamnut (13) and remove elbow (12) from transmission (6). Use adjustable wrench.
6. Remove valve (14) from elbow (12).
7. Remove preformed packing (15) from elbow (12). Discard packing.



CLEAN, INSPECT, AND REPAIR

1. Clean hose and fitting with cleaning compound.
2. Check hose. Replace broken, twisted, or worn hose.
3. Check fitting. Replace fitting that is cracked or has stripped threads.

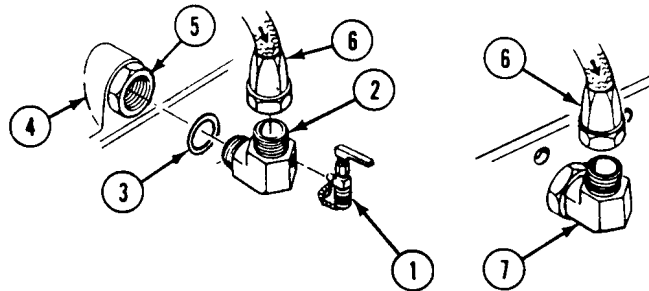
INSTALLATION

WARNING

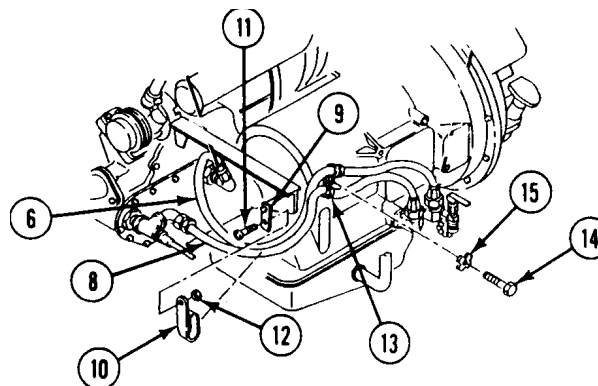
Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

1. Apply a thin, even coat of sealing compound to cleansed external threads of fittings before installation.
2. Install valve (1) in elbow (2).
3. Install new preformed packing (3) on elbow (2).
4. Install elbow (2) in transmission (4). Tighten jamnut (5) on elbow (2). Use adjustable wrench.
5. Connect hose (6) to two elbows (2) and (7).



6. Install hose (6) and hose (8) on bracket (9). Secure with clamp (10), screw (11), and new locknut (12).
7. Install hose (6) and hose (8) on transmission. Secure with two clamps (13), screw (14), and new key washer (15).



8. Check transmission oil level (WP 0120 00).

WARNING



Carbon monoxide is poisonous and can kill you. Do not idle engine with bottom access cover and power plant access panels off unless there is ADEQUATE VENTILATION.

9. Start engine (see your -10). Check for leaks.

FOLLOW-THROUGH STEPS

1. Power plant installed (WP 0131 00).

END OF TASK

REPLACE TRANSMISSION VENT AND FILLER TUBE

0340 00

THIS WORK PACKAGE COVERS:

- Removal (page 0340 00-1).
- Clean, Inspect, and Repair (page 0340 00-2).
- Installation (page 0340 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

See your -10
WP 0120 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Driver's power plant access panel removed (WP 0430 00)
- Trim vane lowered (see your -10)
- Power plant front access door open (see your -10)
- Air cleaner element and container removed (WP 0185 00)
- Carrier blocked (see your -10)
- Hull bottom access cover removed (WP 0434 00)

Materials/Parts

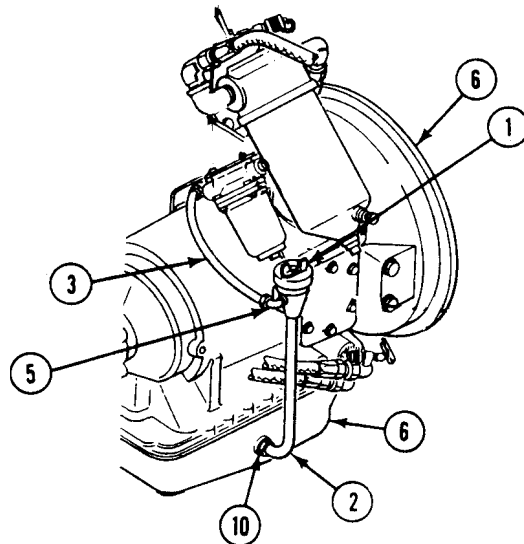
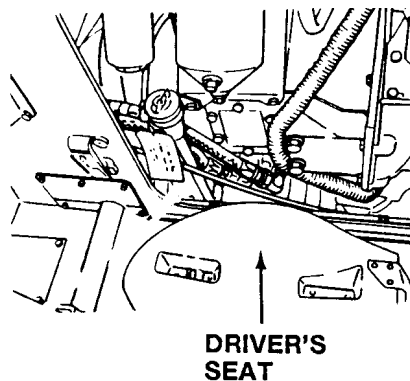
- Antiseize compound (WP 0782 00, Item 8)
- Cleaning compound (WP 0782 00, Item 16)
- Sealing compound (WP 0782 00, Item 65)
- Tab washer

Personnel Required

Unit Mechanic

REMOVAL

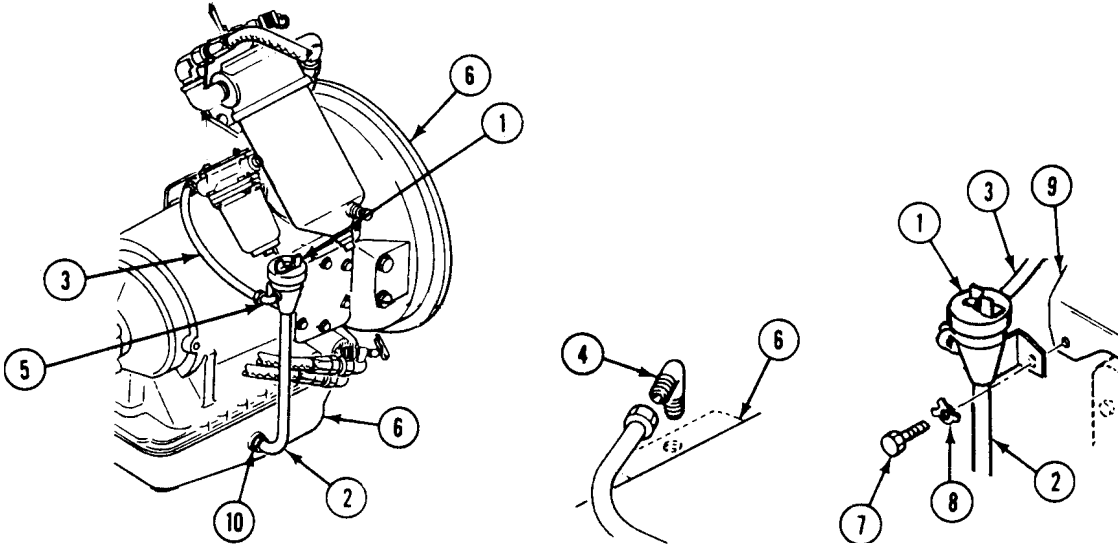
1. Drain transmission (WP 0120 00).
2. Remove dipstick (1) from filler tube (2).



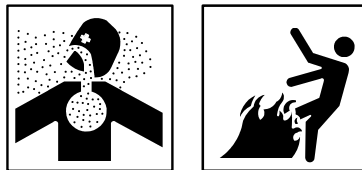
REPLACE TRANSMISSION VENT AND FILLER TUBE — Continued

0340 00

3. Disconnect and remove vent tube (3) from elbow (4) and elbow (5).
4. Remove elbow (4) from transmission (6).
5. Remove elbow (5) from filler tube (2).
6. Remove screw (7), tab washer (8), and filler tube (2) from engine oil filter bracket (9). Discard tab washer.
7. Loosen filler tube nut (10). Remove filler tube (2) from transmission (6).

**CLEAN, INSPECT, AND REPAIR**

1. Clean parts with cleaning compound.
2. Check vent tube, filler tube, and dipstick. Replace cracked or bent tubes or dipstick.
3. Check fittings. Replace fittings that are cracked or have stripped threads.

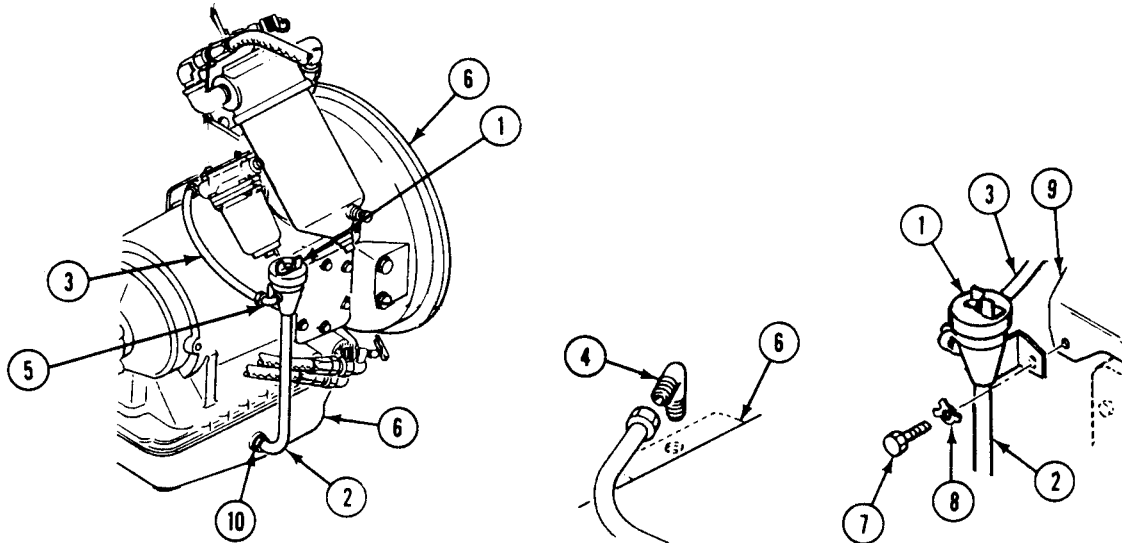
INSTALLATION**WARNING**

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

1. Apply a light coat of sealing compound to cleaned threads of fittings before installation.
2. Install filler tube (2) in transmission (6). Tighten filler tube nut (10) finger tight.
3. Place filler tube (2) against engine oil filter bracket (9).
4. Apply antiseize compound to threads of screw (7). Secure filler tube (2) to bracket (9) with screw (7) and new tab washer (8).

5. Tighten tube filler nut (10).
6. Install elbow (4) in transmission (6).
7. Install elbow (5) in filler tube (2).
8. Connect vent tube (3) in filler tube (2).
9. Install dipstick (1) in filler tube (2).



10. Fill transmission with oil (WP 0120 00).
11. Start engine (see your -10). Check for leaks.

FOLLOW-THROUGH STEPS

1. Stop/shutdown engine (see your -10).
2. Install driver's power plant access panel (WP 0430 00).
3. Install air cleaner element and container (WP 0185 00).
4. Close power plant front access door (see your -10).
5. Raise trim vane (see your -10).
6. Install hull bottom access cover (WP 0434 00).

END OF TASK

REPLACE TRANSMISSION OIL FILTER AND DRAIN

0341 00

THIS WORK PACKAGE COVERS:

- Removal (page 0341 00-1).
- Clean, Inspect, and Repair (page 0341 00-2).
- Installation (page 0341 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

WP 0120 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Driver's power plant access panel removed (WP 0430 00)
- Hull bottom access cover removed (WP 0434 00)
- Differential oil pump hose disconnected (WP 0354 00)

Materials/Parts

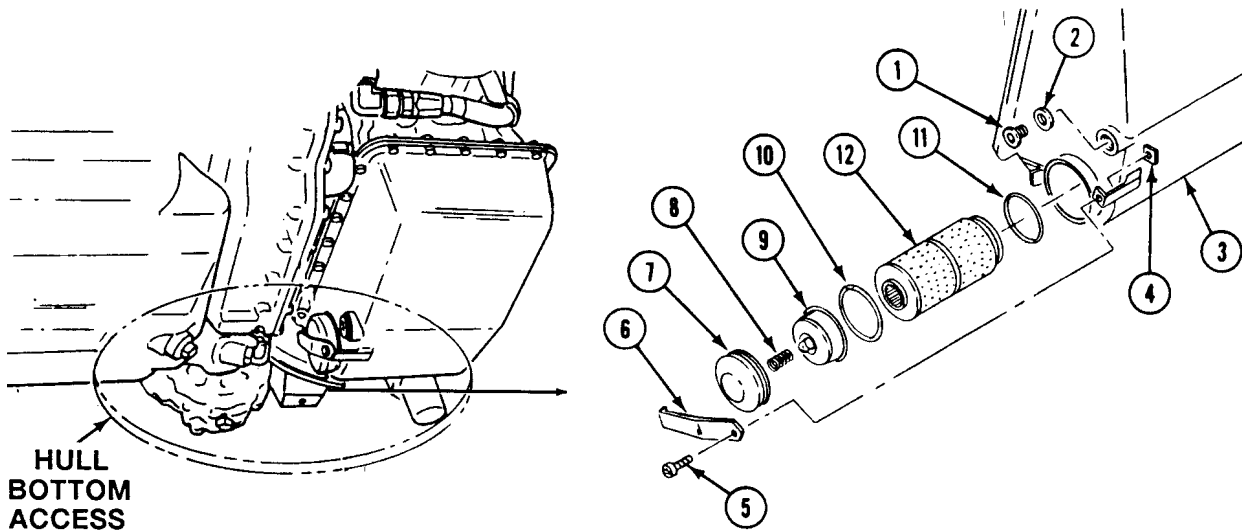
- Cleaning compound (WP 0782 00, Item 16)
- Gasket
- Oil filter parts kit
- Suitable container

Personnel Required

Unit Mechanic

REMOVAL

1. Drain transmission (WP 0120 00).
2. Remove drain plug (1) and gasket (2) from transmission (3). Discard gasket.
3. Remove nut (4), screw (5), strap (6), and cover (7) from transmission (3).
4. Remove spring (8), retainer (9), preformed packing (10), preformed packing (11), and element (12) from transmission (3). Discard packings and element.

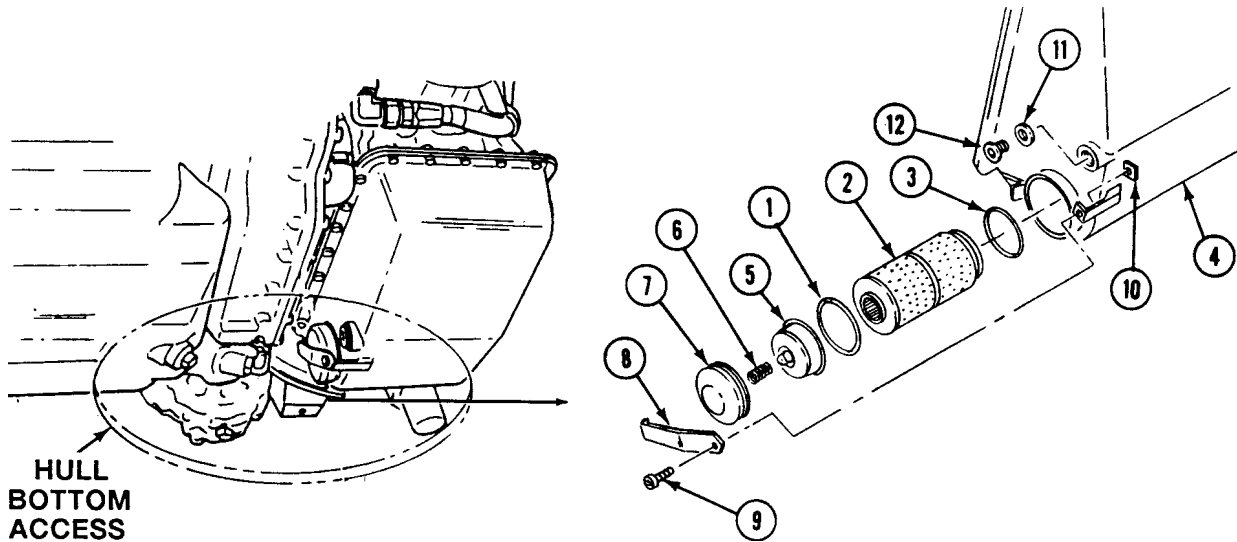


CLEAN, INSPECT, AND REPAIR

1. Clean transmission oil filter element cavity with cleaning compound.
2. Check cover and strap. Replace or repair cover or strap that is cracked or bent.
3. Check plug and screw. Replace plug or screw that has stripped threads.

INSTALLATION

1. Install new preformed packing (1), new element (2), and new preformed packing (3) in transmission (4).
2. Install retainer (5), spring (6), cover (7), and strap (8) on transmission (4). Secure with screw (9) and nut (10).
3. Install new gasket (11) and drain plug (12) in transmission (4).



4. Fill transmission with oil (WP 0120 00)

FOLLOW-THROUGH STEPS

WARNING



Carbon monoxide is poisonous and can kill you. Do not idle engine with bottom access cover and power plant access panels off unless there is ADEQUATE VENTILATION.

1. Connect differential oil pump hose (WP 0354 00).
2. Start engine (see your -10). Check for leaks.
3. Stop/shutdown engine (see your -10).
4. Install hull bottom access cover (WP 0434 00).
5. Install driver's power plant access panel (WP 0430 00).

END OF TASK

CHAPTER 19

UNIT MAINTENANCE INSTRUCTIONS
FOR TRANSFER GEARCASE AND RELATED COMPONENTS

WORK PACKAGE INDEX

<u>Title</u>	<u>Sequence No.</u>
REPLACE TRANSFER GEARCASE RESILIENT MOUNT.....	0342 00
REPLACE TRANSFER GEARCASE OIL LEVEL DIPSTICK, TUBE, AND GUIDE.....	0343 00
REPLACE TRANSFER GEARCASE OIL FILLER.....	0344 00
DISASSEMBLE/ASSEMBLE TRANSFER GEARCASE OIL FILLER.....	0345 00
REPLACE TRANSFER GEARCASE LIFTING EYEBOLT, COVER, AND PLUG.....	0346 00

REPLACE TRANSFER GEARCASE RESILIENT MOUNT

0342 00

THIS WORK PACKAGE COVERS:

- Removal (page 0342 00-1).
- Clean, Inspect, and Repair (page 0342 00-2).
- Installation (page 0342 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Remover and Replacer (WP 0780 00, Item 56)

Equipment Condition

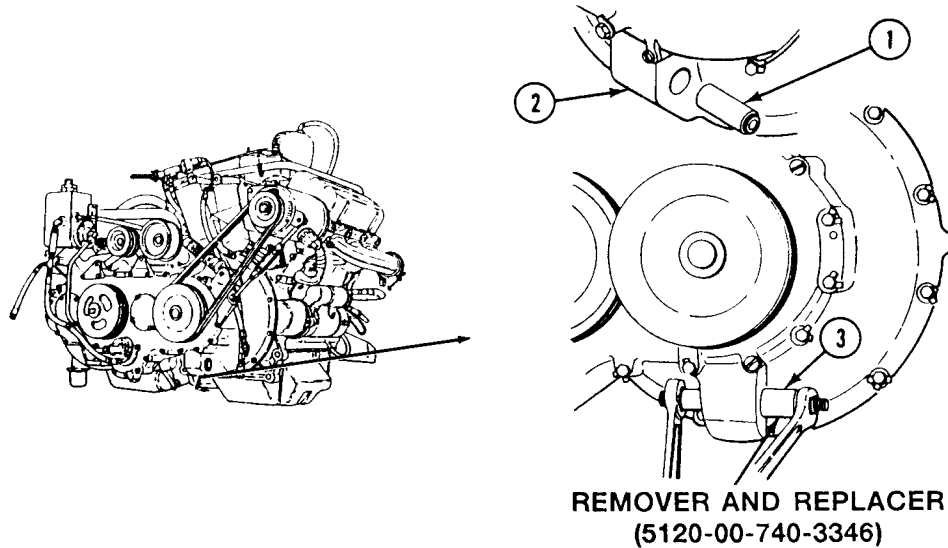
Power plant removed (WP 0131 00)

Materials/Parts

- Cleaning compound (WP 0782 00, Item 16)

REMOVAL

1. Remove mount (1) from transfer gearcase (2) using remover and replacer tool (3).

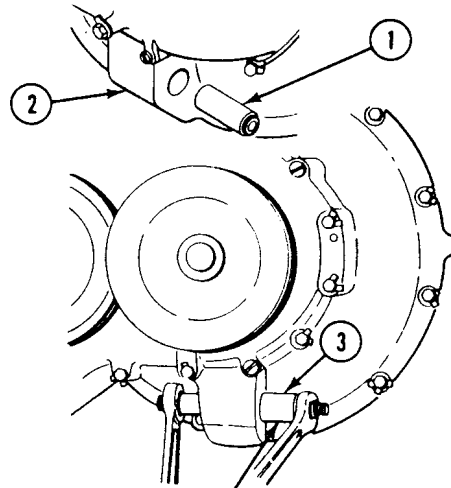


CLEAN, INSPECT, AND REPAIR

1. Clean mount with cleaning compound.
2. Check mounts. Replace mount that is cracked, bent, or worn.

INSTALLATION

1. Use remover and replacer tool to install mount (1) in transfer gearcase (2).



**REMOVER AND REPLACER
(5120-00-740-3346)**

FOLLOW-THROUGH STEPS

1. Install power plant in carrier (WP 0131 00).

END OF TASK

**REPLACE TRANSFER GEARCASE OIL LEVEL DIPSTICK,
TUBE, AND GUIDE**

0343 00

THIS WORK PACKAGE COVERS:

- Removal (page 0343 00-1).
- Clean, Inspect, and Repair (page 0343 00-2).
- Installation (page 0343 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Power plant rear access panels removed (WP 0431 00, WP 0432 00, or WP 0433 00)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

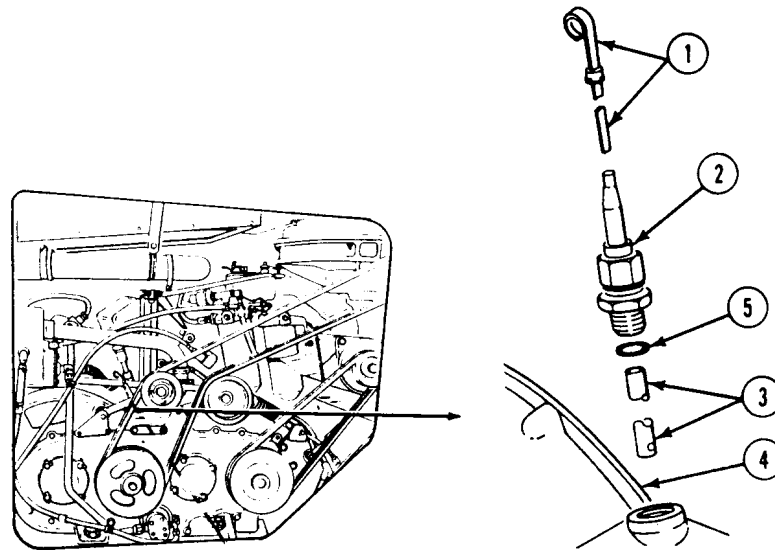
Preformed packing

Personnel Required

Unit Mechanic

REMOVAL

1. Remove dipstick (1) from dipstick tube (2).
2. Remove dipstick tube (2) and guide (3) from transfer gearcase (4).
3. Remove preformed packing (5) from dipstick tube (2). Discard packing.



REPLACE TRANSFER GEARCASE OIL LEVEL DIPSTICK, TUBE, AND GUIDE — Continued

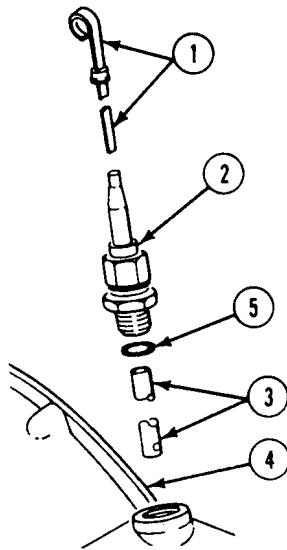
0343 00

CLEAN, INSPECT, AND REPAIR

1. Check dipstick. Replace dipstick that is bent or worn.
2. Check dipstick tube. Replace tube that is cracked or has stripped threads.
3. Check dipstick guide. Replace guide that is cracked or worn.

INSTALLATION

1. Position new preformed packing (5) on dipstick tube (2).
2. Install dipstick tube (2) and guide (3) in transfer gearcase (4).
3. Install dipstick (1) in dipstick tube (2).

**FOLLOW-THROUGH STEPS**

1. Install power plant rear access panels (WP 0431 00, WP 0432 00, or WP 0433 00).

END OF TASK

REPLACE TRANSFER GEARCASE OIL FILLER

0344 00

THIS WORK PACKAGE COVERS:

- Removal (page 0344 00-1).
- Clean, Inspect, and Repair (page 0344 00-2).
- Installation (page 0344 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Driver's power plant access panel removed (WP 0430 00)

Power plant rear access panel removed (WP 0431 00, WP 0432 00, or WP 0433 00)

Materials/Parts

Cleaning compound (WP 0782 00, Item 16)

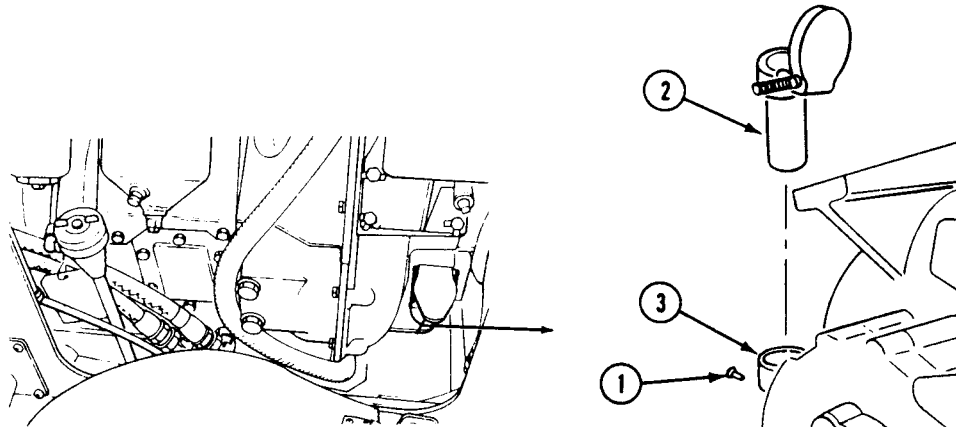
Sealing compound (WP 0782 00, Item 64)

Oil filler rivet

Carrier blocked (see your -10)

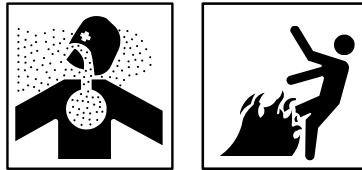
REMOVAL

1. Remove rivet (1) and oil filler (2) from transfer gearcase (3). Discard rivet.



CLEAN, INSPECT, AND REPAIR

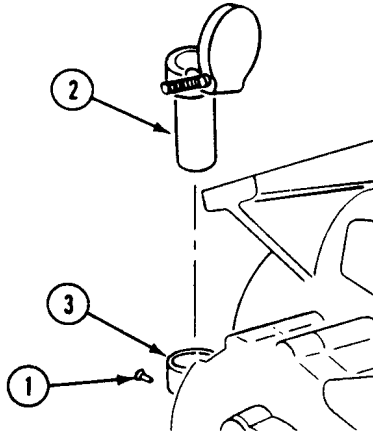
1. Clean oil filler with cleaning compound.
2. Check oil filler. Repair damaged oil filler (WP 0345 00).

INSTALLATION**WARNING**

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

1. Apply a thin, even coat of sealing compound to cleaned base of oil filler (2).
2. Install oil filler (2) in transfer gearcase (3) and secure with new rivet (1).

**FOLLOW-THROUGH STEPS**

1. Install power plant rear access panels (WP 0431 00, WP 0432 00, or WP 0433 00).
2. Install driver's power plant access panel (WP 0430 00).

END OF TASK

DISASSEMBLE/ASSEMBLE TRANSFER GEARCASE OIL FILLER

0345 00

THIS WORK PACKAGE COVERS:

- Disassembly (page 0345 00-1).
- Clean, Inspect, and Repair (page 0345 00-2).
- Assembly (page 0345 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

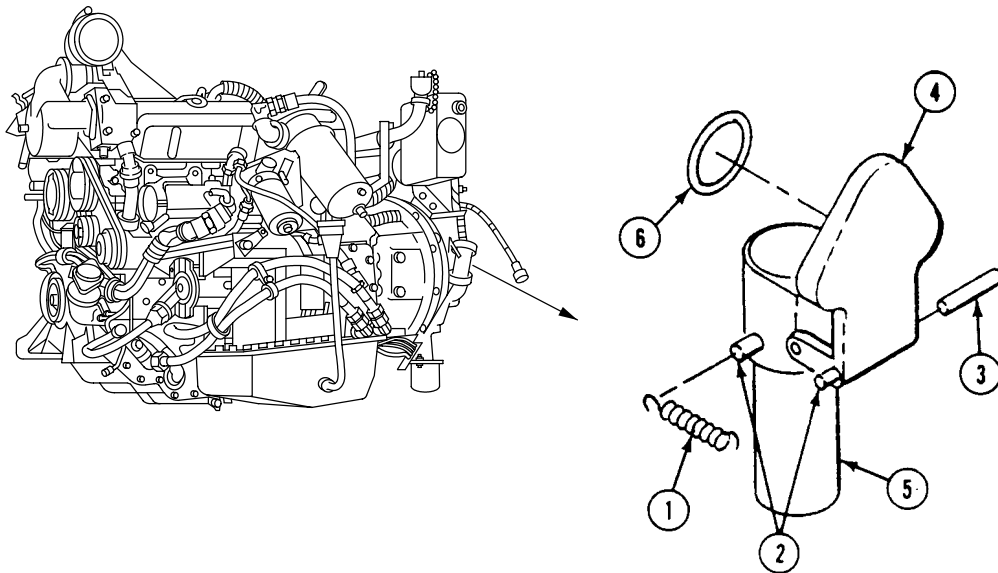
Filler assembly removed from carrier (WP 0344 00)

Materials/Parts

Preformed packing

DISASSEMBLY

1. Remove spring (1) from two posts (2).
2. Remove pin (3) from cap (4).
3. Remove cap (4) from body (5).
4. Remove preformed packing (6) from cap (4). Discard packing.

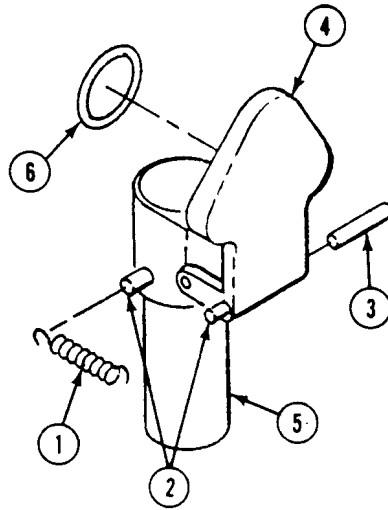


CLEAN, INSPECT, AND REPAIR

1. Check fittings and mounting for cracks and wear. Replace as needed.

ASSEMBLY

1. Install new preformed packing (6) in cap (4).
2. Install cap (4) on body (5).
3. Install pin (3) on cap (4).
4. Install spring (1) on two posts (2).

**FOLLOW-THROUGH STEPS**

1. Install filler assembly in transfer gearcase (WP 0344 00).

END OF TASK

REPLACE TRANSFER GEARCASE LIFTING EYEBOLT, COVER, AND PLUG

0346 00

THIS WORK PACKAGE COVERS:

- Removal (page 0346 00-1).
- Inspect and Replace (page 0346 00-2).
- Installation (page 0346 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

Preformed packing

Personnel Required

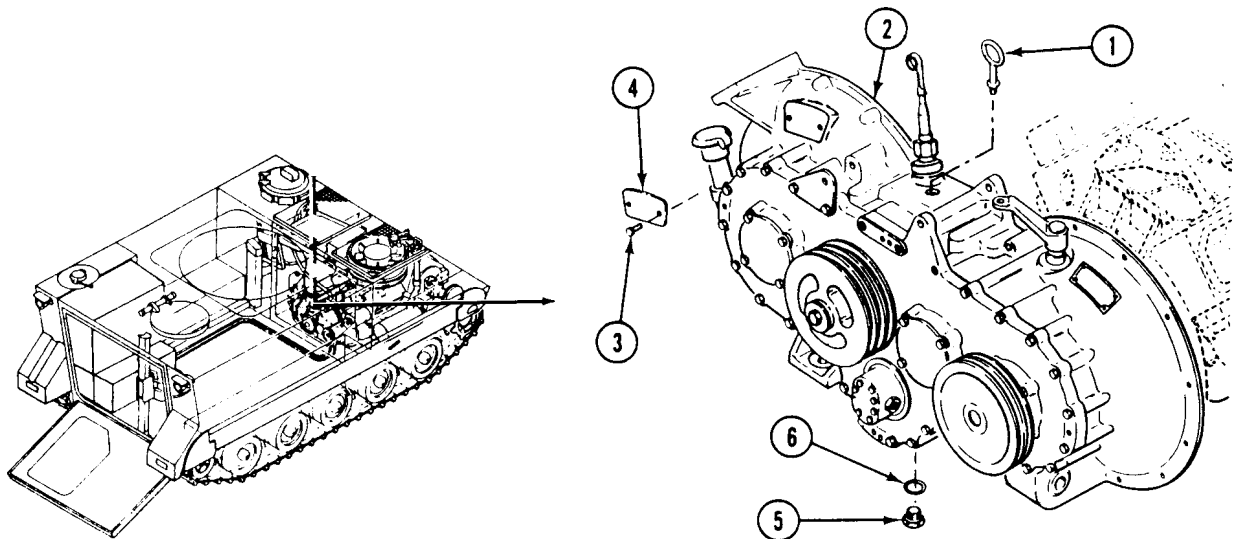
Unit Mechanic

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Ramp lowered (see your -10)
- Power plant rear access panels removed (WP 0431 00, WP 0432 00, or WP 0433 00)
- Carrier blocked (see your -10)
- Power plant bottom access panel removed (WP 0434 00)
- Suitable container placed under hull opening to catch oil
- Transfer gearcase drained into container (WP 0120 00)

REMOVAL

1. Remove eyebolt (1) from transfer gearcase (2).
2. Remove two screws (3) and cover (4) from gearcase (2).
3. Remove plug (5) and preformed packing (6) from bottom of gearcase (2). Discard packing.

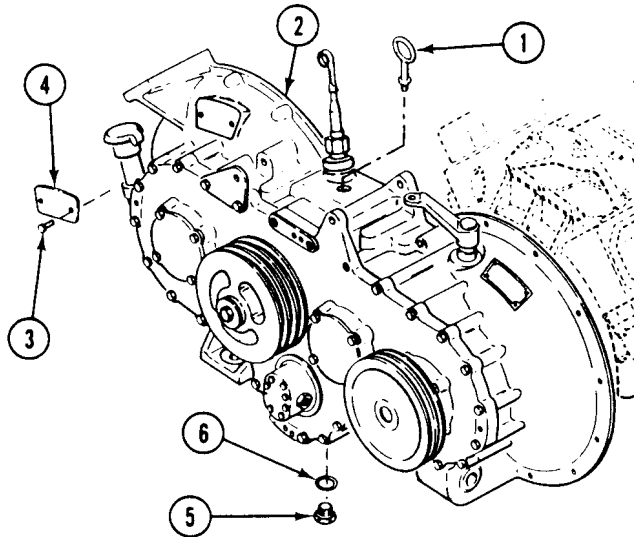


INSPECT AND REPLACE

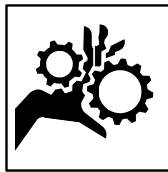
1. Check fittings and housing for cracks and damage. Replace as needed.

INSTALLATION

1. Install new preformed packing (6) and plug (5) in gearcase (2).
2. Install cover (4) and two screws (3) in gearcase (2).
3. Install eyebolt (1) in gearcase (2).

**FOLLOW-THROUGH STEPS**

1. Make sure transfer gearcase drain plug is secure. Remove container from under hull opening.

WARNING

Loose clothing is dangerous around moving belts and pulleys. You could get badly hurt if your clothes get caught in moving parts.

2. Install power plant bottom access cover (WP 0434 00).
3. Fill transfer gearcase with oil (WP 0120 00).
4. Start engine (see your -10). Check for leaks.
5. Stop/shutdown engine (see your -10).
6. Install power plant rear access panels (WP 0431 00, WP 0432 00, or WP 0433 00).
7. Raise and lock ramp (see your -10).

END OF TASK

CHAPTER 20

UNIT MAINTENANCE INSTRUCTIONS
FOR DRIVE SHAFTS, UNIVERSAL JOINTS, AND FINAL DRIVE

WORK PACKAGE INDEX

<u>Title</u>	<u>Sequence No.</u>
REPLACE TRANSMISSION TO DIFFERENTIAL SHAFT.....	0347 00
REPLACE LEFT FINAL DRIVE SHAFT.....	0348 00
REPLACE RIGHT FINAL DRIVE SHAFT.....	0349 00
REPLACE FINAL DRIVE.....	0350 00
REPLACE FINAL DRIVE PINION OIL SEAL.....	0351 00
REPLACE FINAL DRIVE FILLER TUBE AND DIPSTICK.....	0352 00

REPLACE TRANSMISSION TO DIFFERENTIAL SHAFT

0347 00

THIS WORK PACKAGE COVERS:

- Removal (page 0347 00-1).
- Clean, Inspect, and Repair (page 0347 00-2).
- Installation (page 0347 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Torque Wrench Adapter, 7C U-Joint (WP 0780 00, Item 6)
- Torque Wrench Adapter, 6C U-Joint (WP 0780 00, Item 7)
- Torque Wrench (WP 0780 00, Item 103)

References

See your -10

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Trim vane lowered (see your -10)
- Power plant front access door open (see your -10)

Materials/Parts

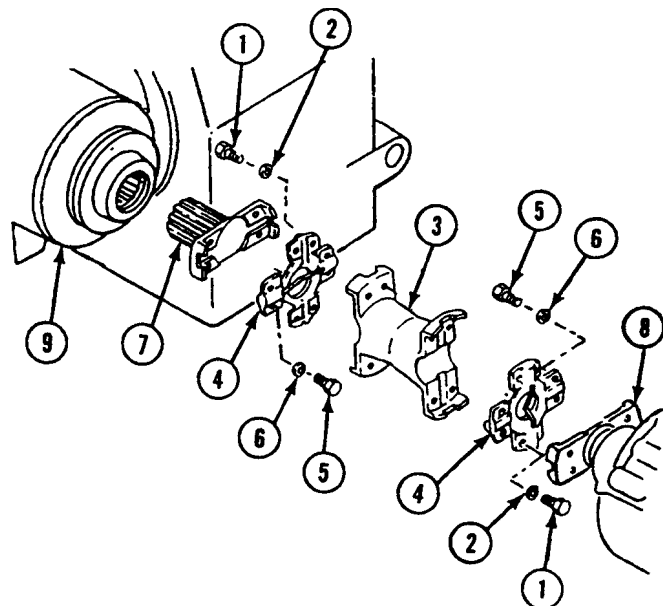
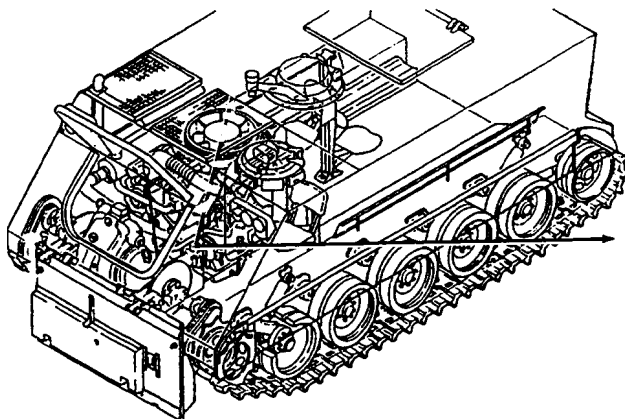
- Cleaning compound (WP 0782 00, Item 16)
- Screw (16)

REMOVAL

NOTE

Place gear range selector in neutral position. Set or release differential steering brakes as required to rotate or lock shaft during removal or installation (see your -10).

1. Remove eight screws (1), flat washers (2), and shaft (3) from two universal joints (4). Discard screws.
2. Remove eight screws (5), flat washers (6), and two universal joints (4) from differential yoke (7) and transmission yoke (8). Discard screws.
3. Remove yoke (7) from differential (9).



CLEAN, INSPECT, AND REPAIR

1. Clean shaft, universal joints, yoke, screw mounting holes, and attaching hardware with cleaning compound.

CAUTION

Early failure due to wear will occur if you wash lubricant out of universal joint bearings.

2. Inspect shaft and universal joints for wear, deep scratches, grooves, and cracks. Remove minor scratches and grooves. Replace part if damage cannot be repaired.
3. Inspect yoke for chipped, worn, and burred splines. Remove minor scratches and burrs. Replace yoke if damage cannot be repaired.
4. Clean mounting surfaces of shaft to ensure correct torque.

INSTALLATION**CAUTION**

Transmission or differential damage could result if universal joint and shaft are not aligned properly.

1. Install yoke (1) in differential (2).

NOTE

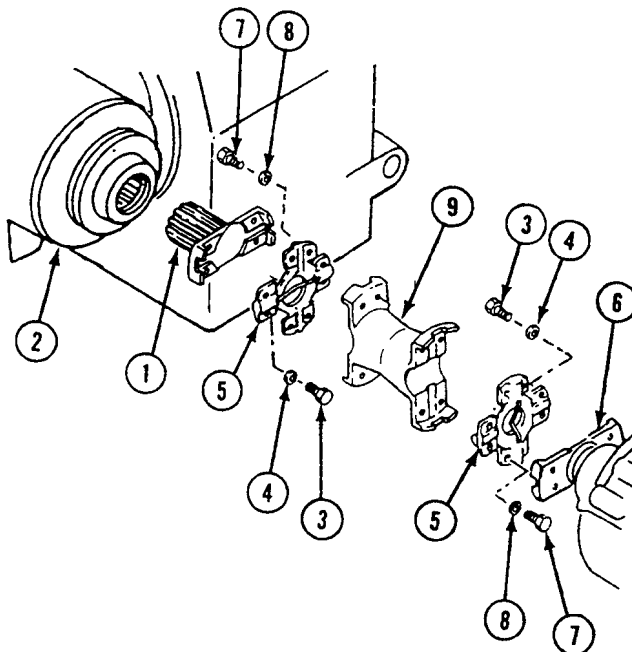
New style universal joints do not have lubrication fittings.

2. Install eight new screws (3) with washers (4) to secure universal joints (5) on transmission yoke (6) and differential yoke (1).

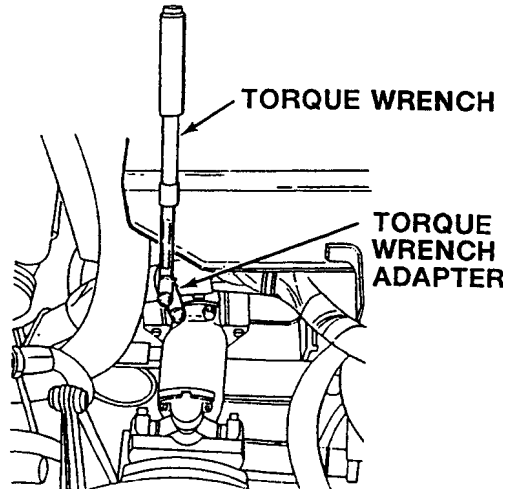
NOTE

Screws and washers must be clean, dry, and free of lubricants and paint.

3. Install eight new screws (7) with washers (8) to secure shaft (9) to two universal joints (5).



4. TIGHTEN SCREWS TO 86 TO 94 LB-FT (117-128 N·M) TORQUE. Use torque wrench and adapter. Loosen and retighten to correct torque. See WP 0120 00 for torque wrench reading with adapter.

**FOLLOW-THROUGH STEPS**

1. Close power plant front access door (see your -10).
2. Raise trim vane (see your -10).
3. Road test carrier (WP 0120 00) to check transmission-to-differential shaft.
4. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE LEFT FINAL DRIVE SHAFT

0348 00

THIS WORK PACKAGE COVERS:

Removal (page 0348 00-1).
 Installation (page 0348 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic
 Helper (H)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Torque Wrench (WP 0780 00, Item 103)
 Torque Wrench Adapter (WP 0780 00, Item 8)
 Vise (WP 0780 00, Item 83)

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Trim vane lowered (see your -10)
 Power plant front access door open (see your -10)
 Hull front access cover removed (WP 0429 00)

Materials/Parts

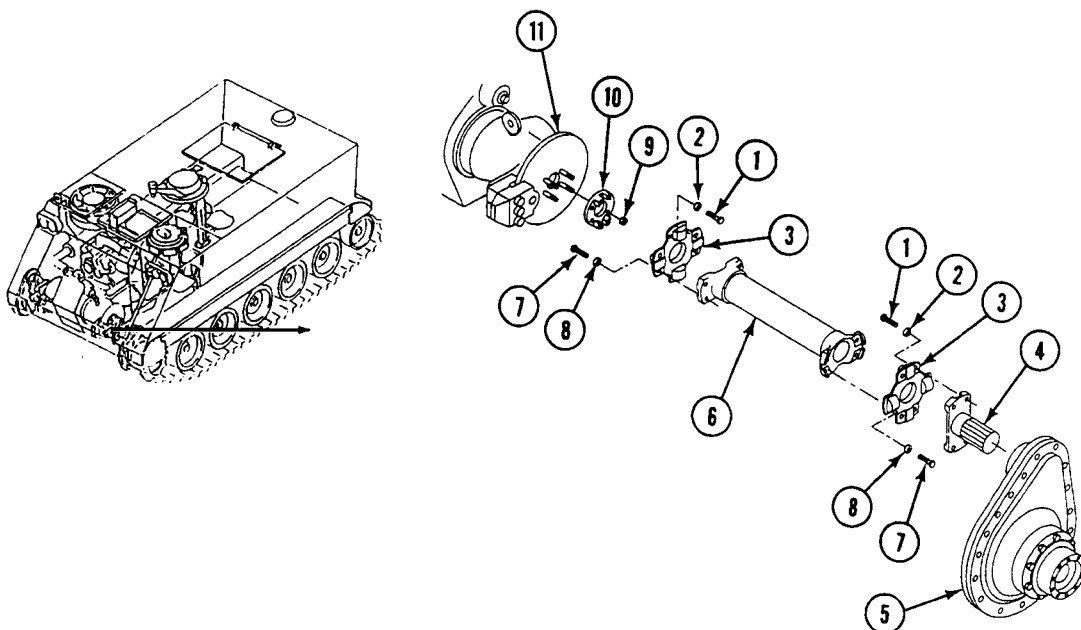
Locknut (4)
 Screw (16)

REMOVAL

NOTE

Loosen accessible screws only enough to relieve torque. Move carrier to gain access to remaining screws.

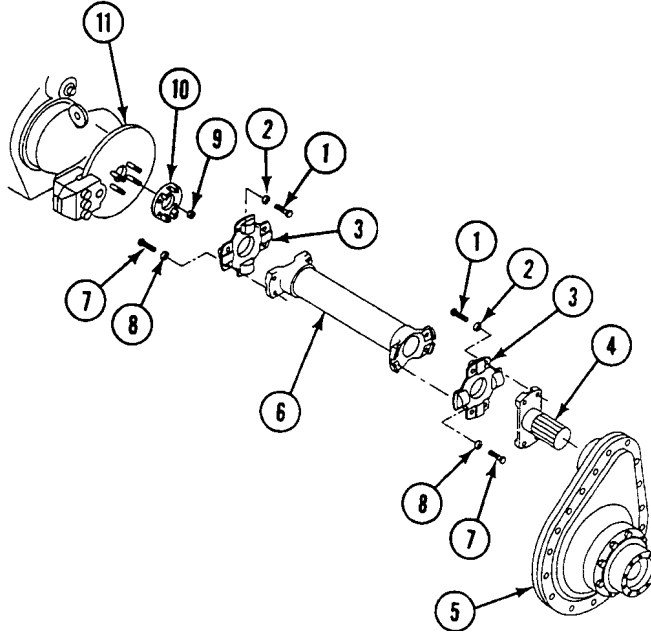
1. Remove eight screws (1) and washers (2) from universal joints (3). Pry universal joints loose and slide yoke (4) into final drive (5). Discard screws.
2. Remove propeller shaft (6) with universal joints (3) from carrier.
3. Position propeller shaft (6) in vise. Remove eight screws (7) and washers (8) from universal joints (3) and shaft. Discard screws.



REPLACE LEFT FINAL DRIVE SHAFT — Continued

0348 00

4. Remove yoke (4) from final drive (5).
5. Remove four locknuts (9) and adapter (10) from differential (11). Discard locknuts.

**INSTALLATION**

1. Secure adapter (1) to differential (2) with four new locknuts (3). TIGHTEN NUTS TO 75–80 LB-FT (102-108 N·M) TORQUE. Use torque wrench.
2. Install yoke (4) in final drive (5).

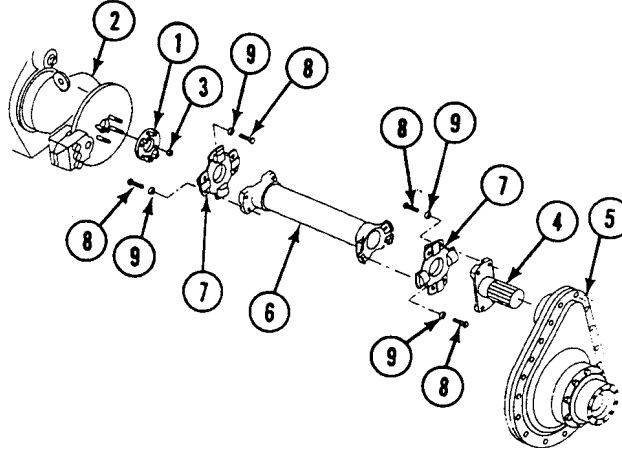
NOTE

**When using torque wrench with torque wrench adapter, torque value must be corrected.
Procedure for converting torque value is in WP 0120 00.**

3. Position propeller shaft (6) in vise and install universal joints (7) with eight new screws (8) and washers (9). TIGHTEN SCREWS TO 35–40 LB-FT (47–54 N·M) TORQUE. Use torque wrench and torque wrench adapter. LOOSEN SCREWS, THEN TIGHTEN AGAIN TO 35–40 LB-FT (47–54 N·M) TORQUE.

REPLACE LEFT FINAL DRIVE SHAFT — Continued**0348 00**

4. Position propeller shaft (6) with universal joints (7) and secure to differential (2) and final drive (5) with eight new screws (8) and washers (9). **TIGHTEN SCREWS TO 35–40 LB-FT (47–54 N·M) TORQUE.** Use torque wrench and adapter. **LOOSEN SCREWS, THEN TIGHTEN AGAIN TO 35–40 LB-FT (47–54 N·M) TORQUE.**

**FOLLOW-THROUGH STEPS**

1. Install hull front access cover (WP 0429 00).
2. Close power plant front access door (see your -10).
3. Raise trim vane (see your -10).

END OF TASK

REPLACE RIGHT FINAL DRIVE SHAFT

0349 00

THIS WORK PACKAGE COVERS:

Removal (page 0349 00-1).
 Installation (page 0349 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Torque Wrench Adapter (WP 0780 00, Item 8)
 Torque Wrench (WP 0780 00, Item 103)
 Vise (WP 0780 00, Item 83)

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Trim vane lowered (see your -10)
 Power plant front access door open (see your -10)

Materials/Parts

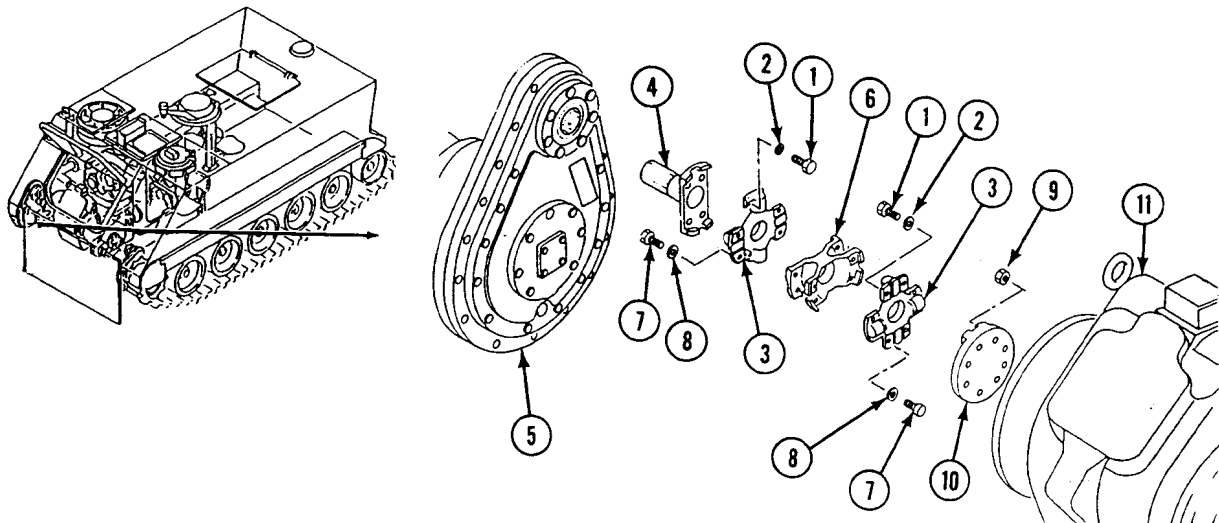
Locknut (4)
 Screw (16)

REMOVAL

NOTE

Place gear range selector in neutral position. Set or release differential steering brakes as required to rotate or lock drive shaft during removal and installation.

1. Remove eight screws (1) and washers (2) from universal joints (3). Pry universal joints loose and slide yoke (4) into final drive (5). Discard screws.
2. Remove propeller shaft (6) with universal joints (3) from carrier.
3. Position propeller shaft (6) in vise. Remove eight screws (7) and washers (8) from universal joints and shaft. Discard screws.
4. Remove yoke (4) from final drive (5).
5. Remove four locknuts (9) and adapter (10) from differential (11). Discard locknuts.



INSTALLATION

1. Install yoke (4) in final drive (5).
2. Secure adapter (10) to differential (11) with four new locknuts (9). TIGHTEN NUTS TO 75-80 LB-FT (102-108 N·M) TORQUE. Use torque wrench.

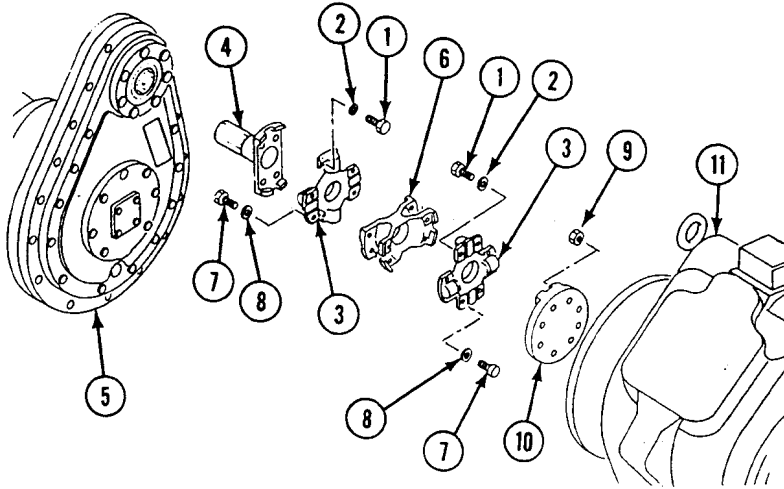
CAUTION

Final drive or differential damage could result if universal joints and shaft are not aligned right. Align and tighten all screws to correct torque.

NOTE

Screws and washers must be clean, dry, and free of lubricants and paint. Washers must be 5/32-inch (4 mm) hardened flat steel only.

3. Position propeller shaft (6) in vise and install universal joints (3) with eight new screws (7) and washers (8). TIGHTEN SCREWS TO 35-40 LB-FT (47-54 N·M) TORQUE. Use torque wrench and adapter. LOOSEN SCREWS AND TIGHTEN AGAIN TO 35-40 LB-FT (47-54 N·M) TORQUE.
4. Position propeller shaft (6) with universal joints (3) and secure to differential adapter (10) and final drive yoke (4) with eight new screws (1) and washers (2). TIGHTEN SCREWS TO 35-40 LB-FT (47-54 N·M) TORQUE. Use torque wrench and adapter. LOOSEN SCREWS AND TIGHTEN AGAIN TO 35-40 LB-FT (47-54 N·M) TORQUE.

**FOLLOW-THROUGH STEPS**

1. Close power plant front access door (see your -10).
2. Raise trim vane (see your -10).
3. Road test carrier (WP 0120 00) to check right final drive shaft.
4. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE FINAL DRIVE

0350 00

THIS WORK PACKAGE COVERS:

- Removal (page 0350 00-1).
 - Clean, Inspect, and Repair (page 0350 00-3).
 - Installation (page 0350 00-3).
-

INITIAL SETUP:

Maintenance Level

Unit

References

WP 0120 00

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Lifting Bar (WP 0780 00, Item 11)
- Torque Wrench (WP 0780 00, Item 102)
- Lifting Device

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Power plant front access door opened (see your -10)
- Right or left drive shaft removed (WP 0348 00 or WP 0349 00)
- Track cover removed (WP 0365 00)
- Track removed from drive sprocket (WP 0366 00)
- Trim vane lowered (see your -10)
- Track drive sprocket removed from final drive (WP 0382 00)

Materials/Parts

- Antiseize compound (WP 0782 00, Item 8)
- Cleaning compound (WP 0782 00, Item 16)

Personnel Required

Unit Mechanic

REMOVAL

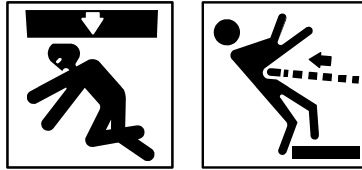
1. If left final drive is to be removed, remove hull front access cover (WP 0429 00). Remove left final drive speedometer cable and adapter (WP 0248 00).
2. Drain final drive (WP 0120 00).

WARNING



The final drive is heavy and can cause back injury if handled improperly. Be sure to use a hoist or a helper to remove final drive.

WARNING



Damaged slings can fail when loaded. Breaking slings can strike and injure personnel. Suspended load can fall and crush personnel.

Inspect all slings before use. Do not use damaged slings. Clearly mark all damaged slings as **DAMAGED - DO NOT USE**.

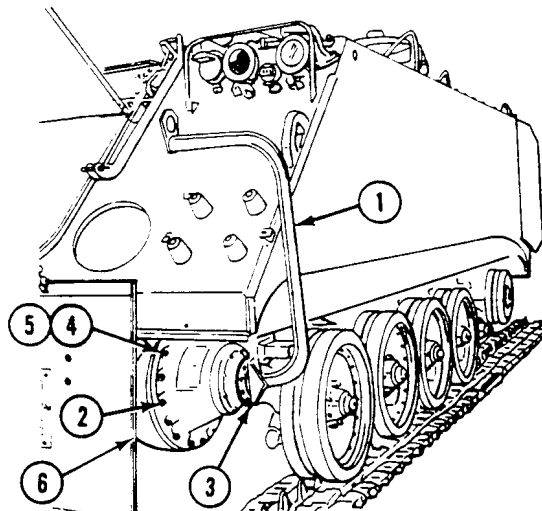
WARNING



Hanging loads, heavy parts, and overhead equipment can fall unexpectedly and kill or injure you.

Stay clear of hanging loads, heavy parts, and overhead equipment. Use correct lifting devices. Always have helper guide heavy parts and equipment.

3. Secure lifting bar (1) to final drive (2) with two sprocket mounting screws (3).
4. Attach suitable lifting device of at least 165 lb (75 kg) capacity to lifting bar (1).
5. Remove 17 screws (4), washers (5), and final drive (2) from hull (6).



CLEAN, INSPECT, AND REPAIR

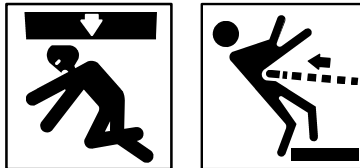
1. Replace final drive that shows cracks or leaks other than differential oil seal leak. Leaking pinion oil seal can be replaced (WP 0351 00).
2. Check mounting surfaces and internal spline for breaks, nicks, deep scratches, and burrs. Repair minor damage. Replace final drive if damage cannot be repaired.

INSTALLATION

1. Check final drive drain plug for tightness.
2. If left final drive is to be replaced, remove speedometer shaft adapter from old final drive and install it in new final drive (WP 0347 00).
3. Fill final drive with oil (WP 0120 00).

WARNING

The final drive is heavy and can cause back injury if handled improperly. Be sure to use a hoist or a helper to remove final drive.

WARNING

Damaged slings can fail when loaded. Breaking slings can strike and injure personnel. Suspended load can fall and crush personnel.

Inspect all slings before use. Do not use damaged slings. Clearly mark all damaged slings as DAMAGED - DO NOT USE.

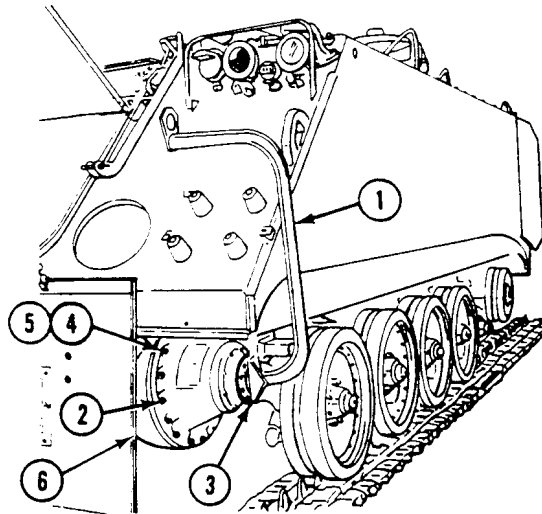
WARNING

Hanging loads, heavy parts, and overhead equipment can fall unexpectedly and kill or injure you.

Stay clear of hanging loads, heavy parts, and overhead equipment. Use correct lifting devices. Always have helper guide heavy parts and equipment.

REPLACE FINAL DRIVE — Continued**0350 00**

4. Secure lifting bar (1) to final drive (2) with two sprocket mounting screws (3).
5. Attach lifting device of at least 165 lb (75 kg) capacity to lifting bar (1) and position final drive (2) on hull (6).
6. Apply antiseize compound to threads of 17 screws (5).
7. Secure final drive (2) to hull (6) with 17 screws (5) and washers (4). **TIGHTEN SCREWS TO 75-85 LB-FT (102-115 N·M) TORQUE.** Use torque wrench.
8. Remove two screws (3) and lifting bar (1) from final drive (2).

**FOLLOW-THROUGH STEPS**

1. Install right or left drive shaft (WP 0348 00 or WP 0349 00).
2. Install drive sprocket on final drive (WP 0382 00).
3. Install track on drive sprocket (WP 0366 00).
4. Install track cover (WP 0365 00).
5. Install speedometer cable on adapter (left final drive only) (WP 0248 00).
6. Install hull front access cover (left final drive only) (WP 0429 00).
7. Close power plant front access door (see your -10).
8. Raise trim vane (see your -10).
9. Road test carrier (WP 0120 00) to check final drive.
10. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE FINAL DRIVE PINION OIL SEAL

0351 00

THIS WORK PACKAGE COVERS:

- Removal (page 0351 00-1).
- Inspect and Repair (page 0351 00-2).
- Installation (page 0351 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Socket Wrench Set (WP 0780 00, Item 96)
- Torque Wrench (WP 0780 00, Item 102)

Equipment Condition

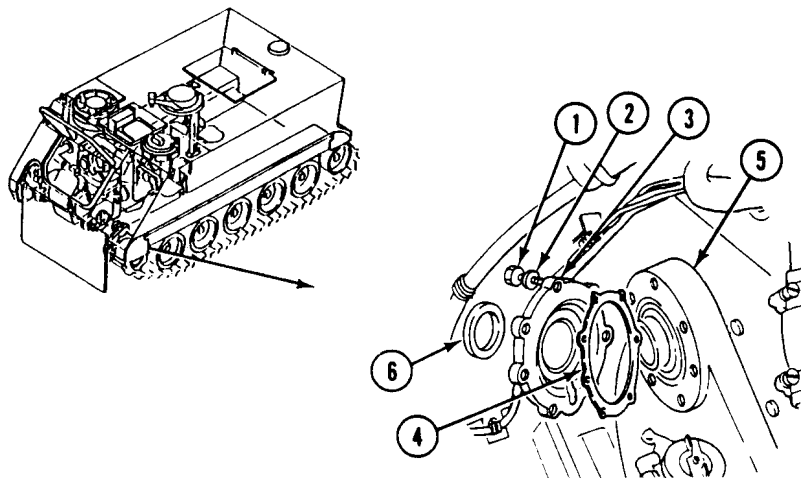
- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Trim vane lowered (see your -10)
- Power plant front access door opened (see your -10)
- Right drive shaft removed (WP 0349 00)
- Left drive shaft removed (WP 0348 00)
- Hull front access cover removed (left final drive only) (WP 0429 00)

Materials/Parts

- Antiseize compound (WP 0782 00, Item 8)
- Sealing compound (WP 0782 00, Item 60)
- Gasket
- Lock bolt (4)
- Lock bolt (3)
- Seal

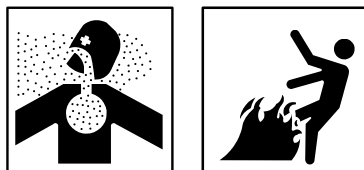
REMOVAL

1. Remove seven lock bolts (1), washers (2), cover (3), and gasket (4) from final drive (5). Discard gasket and lock bolts.
2. Remove seal (6) from cover (3). Discard seal.



INSPECT AND REPAIR

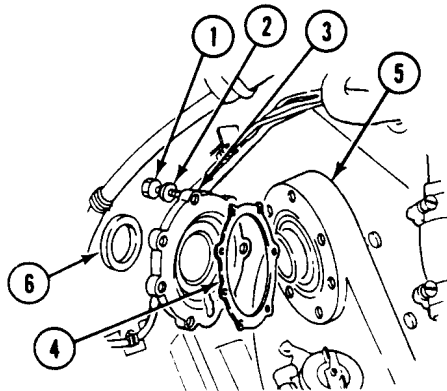
1. Check fittings and housing for cracks, leaks, damage, or wear. Replace as needed.

INSTALLATION**WARNING**

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

1. Apply sealing compound to new seal (6). Install in cover (3) flush with surface of cover.
2. Apply a light coat of antiseize compound to threads of seven new lock bolts (1).
3. Install new gasket (4) and cover (3) on final drive (5). Secure with seven new lock bolts (1) and washers (2). **TIGHTEN LOCK BOLTS TO 252-300 LB-IN (28-34 N·M) TORQUE.** Use torque wrench.

**FOLLOW-THROUGH STEPS**

1. Install left drive shaft (WP 0348 00).
2. Install right drive shaft (WP 0349 00).
3. Install hull front access cover (left final drive only) (WP 0429 00).
4. Close power plant front access door (see your -10).
5. Raise trim vane (see your -10).
6. Remove blocks used to keep carrier from moving (see your -10).
7. Road test carrier (WP 0120 00) to check final drive. Check for leaks around seal.
8. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE FINAL DRIVE FILLER TUBE AND DIPSTICK**0352 00****THIS WORK PACKAGE COVERS:**

Removal (page 0352 00-1).
 Inspect and Repair (page 0352 00-2).
 Installation (page 0352 00-2).

INITIAL SETUP:Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Trim vane lowered (see your -10)

Power plant front access door open (see your -10)

Final drive removed (WP 0350 00)

Materials/Parts

Antiseize compound (WP 0782 00, Item 8)

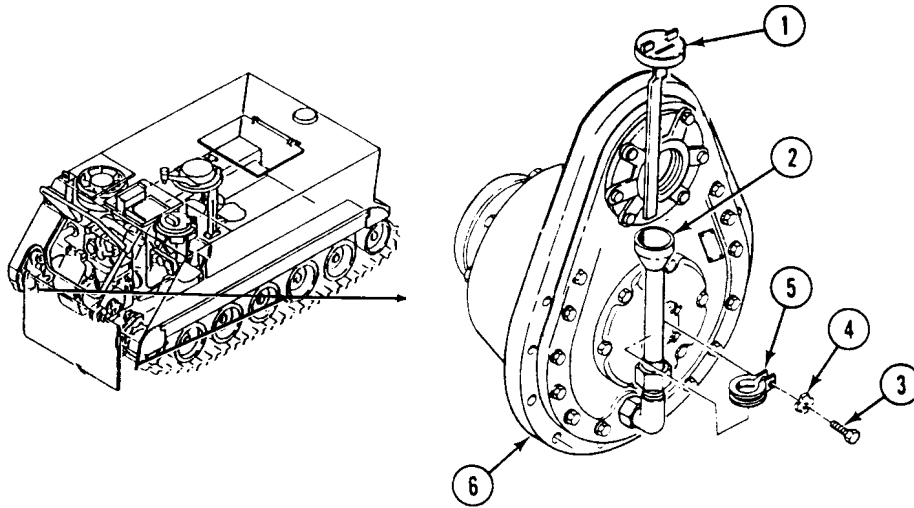
Sealing compound (WP 0782 00, Item 60)

Key washer

Preformed packing

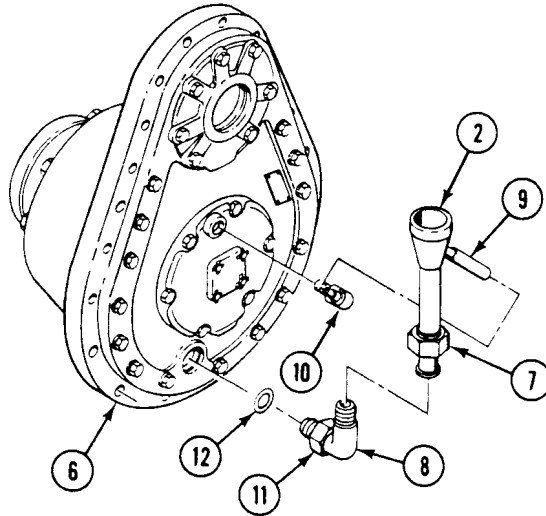
REMOVAL

1. Turn dipstick (1) counterclockwise and remove from oil filler tube (2).
2. Remove screw (3), key washer (4), and clamp (5) from final drive (6). Discard key washer.

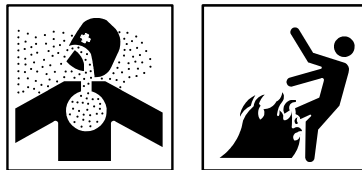


REPLACE FINAL DRIVE FILLER TUBE AND DIPSTICK — Continued**0352 00**

3. Remove nut (7) from elbow (8).
4. Remove vent tube (9) from elbow (10).
5. Remove filler tube (2) and vent tube (9) from final drive (6).
6. Remove elbow (10) from final drive (6).
7. Loosen nut (11). Remove elbow (8) and preformed packing (12) from final drive (6). Discard packing.

**INSPECT AND REPAIR**

1. Check parts and housing for cracks, damage, and wear. Replace as needed.

INSTALLATION**WARNING**

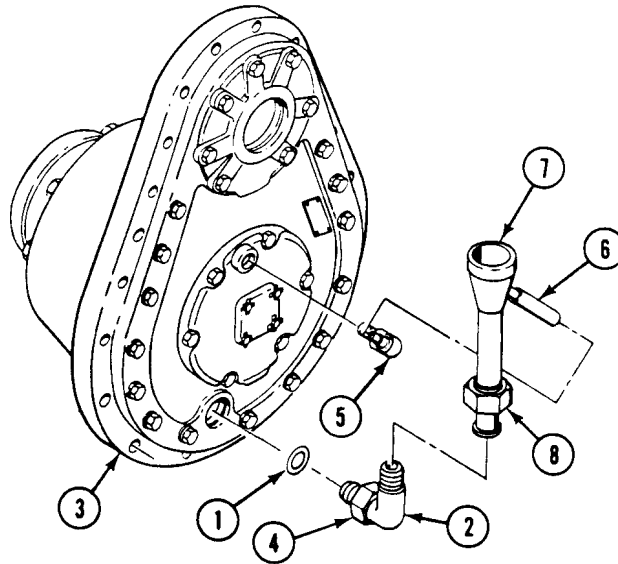
Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

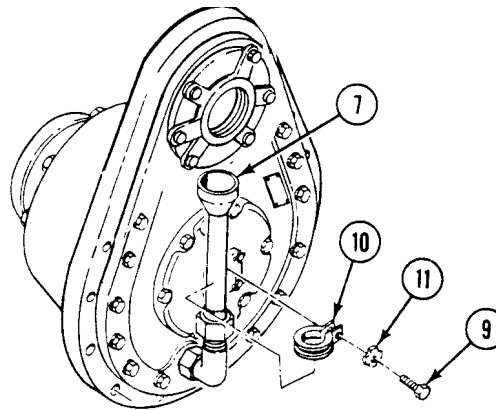
REPLACE FINAL DRIVE FILLER TUBE AND DIPSTICK — Continued

0352 00

1. Install new preformed packing (1) and elbow (2) in final drive (3). Secure with nut (4).
2. Apply a light coat of sealing compound to threads of elbow (5).
3. Install elbow (5) in final drive (3).
4. Install vent tube (6) on elbow (5).
5. Connect filler tube (7) to vent tube (6) and elbow (2). Do not tighten nut (8).

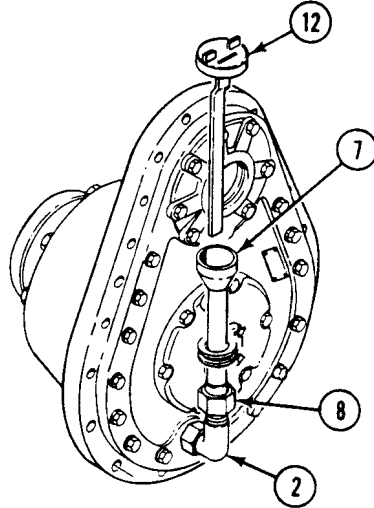


6. Apply a light coat of antiseize compound to threads of screw (9).
7. Secure filler tube (7) to final drive with clamp (10), new key washer (11), and screw (9).



REPLACE FINAL DRIVE FILLER TUBE AND DIPSTICK — Continued**0352 00**

8. Tighten nut (8) to secure filler tube (7) to elbow (2).
9. Install dipstick (12) in filler tube (7) and turn clockwise to lock.

**FOLLOW-THROUGH STEPS**

1. Install final drive (WP 0350 00).
2. Close power plant front access door (see your -10).
3. Raise trim vane (see your -10).

END OF TASK

CHAPTER 21

UNIT MAINTENANCE INSTRUCTIONS
FOR DIFFERENTIAL RELATED COMPONENTS

WORK PACKAGE INDEX

<u>Title</u>	<u>Sequence No.</u>
DIFFERENTIAL OIL FLOW DIAGRAM.....	0353 00
REPLACE DIFFERENTIAL OIL PUMP.....	0354 00
REPLACE DIFFERENTIAL OIL FILTER AND FITTINGS.....	0355 00
REPLACE DIFFERENTIAL OIL FILTER ELEMENT.....	0356 00
REPLACE DIFFERENTIAL OIL LEVEL DIPSTICK AND BREATHER.....	0357 00
REPLACE DIFFERENTIAL OIL PUMP TO DIFFERENTIAL HOSE AND FITTINGS.....	0358 00
REPLACE DIFFERENTIAL GEARBOX TO DIFFERENTIAL HOSE AND FITTINGS.....	0359 00
REPLACE DIFFERENTIAL TO OIL COOLER HOSE AND FITTINGS.....	0360 00
REPLACE DIFFERENTIAL OIL FILTER TO PUMP HOSE AND FITTINGS.....	0361 00
DIFFERENTIAL BRAKES ADJUSTMENT.....	0362 00
REPLACE DIFFERENTIAL AND MOUNTS.....	0363 00
REPLACE DIFFERENTIAL GASKET.....	0364 00

DIFFERENTIAL OIL FLOW DIAGRAM

0353 00

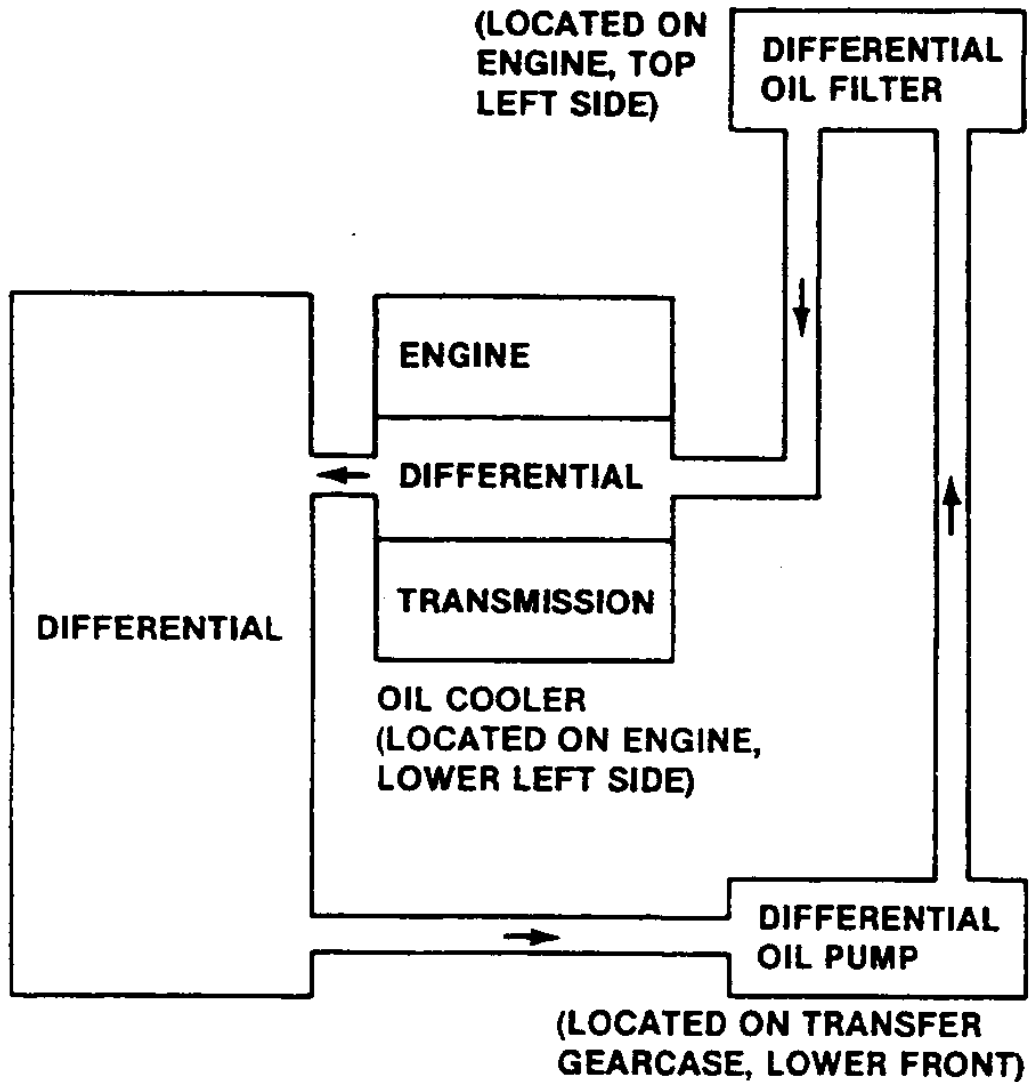
THIS WORK PACKAGE COVERS:

INITIAL SETUP:

Maintenance Level

Unit

Differential oil is picked up from bottom of the differential by the differential oil pump. The pump forces the oil through the differential oil filter to the differential oil cooler and back to the differential.



END OF TASK

REPLACE DIFFERENTIAL OIL PUMP

0354 00

THIS WORK PACKAGE COVERS:

- Removal (page 0354 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0354 00-3).
- Installation (page 0354 00-4).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic
Helper (H)

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Torque Wrench (WP 0780 00, Item 103)

References

WP 0120 00

Materials/Parts

- Antiseize compound (WP 0782 00, Item 8)
- Oil (WP 0782 00, Item 19)
- Cotter pin
- Gasket
- Key washer (2)
- Packings (3)
- Suitable container

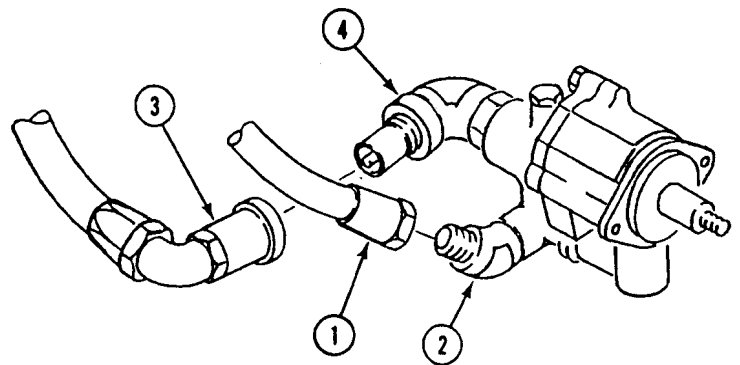
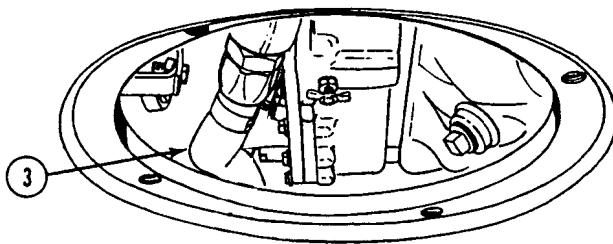
Equipment Condition

- Engine stopped/shutdown (see your -10)
- Ramp lowered (see your -10)
- Carrier blocked (see your -10)
- Power plan bottom access cover removed (WP 0434 00)
- Ramp hydraulic pump removed (WP 0588 00)
- Power plant rear access panel removed (WP 0431 00).

REMOVAL

1. Position container under transfer gearcase and drain oil (WP 0120 00).
2. Disconnect oil inlet hose (1) from elbow (2).
3. Disconnect oil inlet hose (3) from quick disconnect coupling half (4).

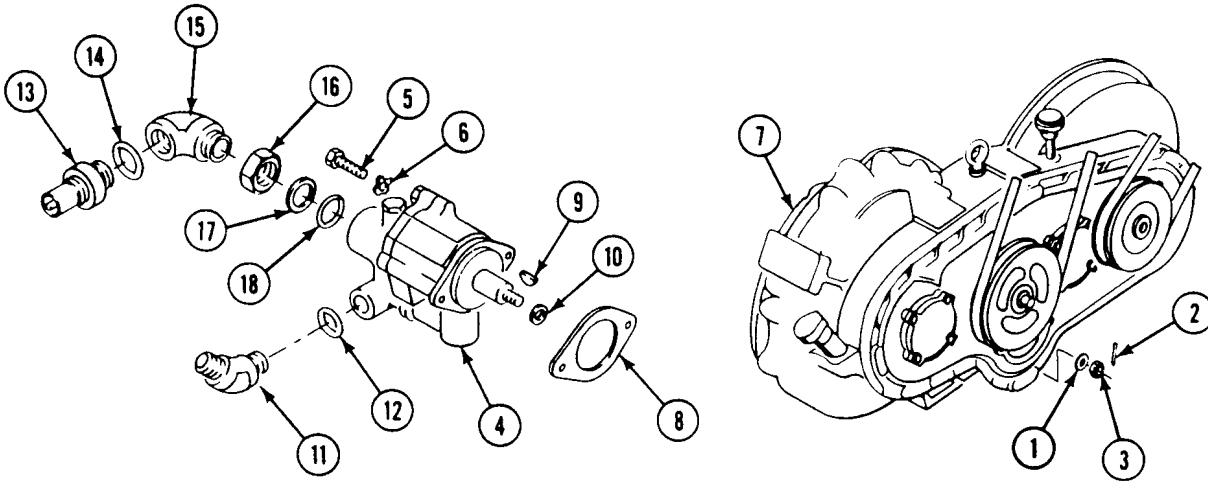
BOTTOM ACCESS OPENING



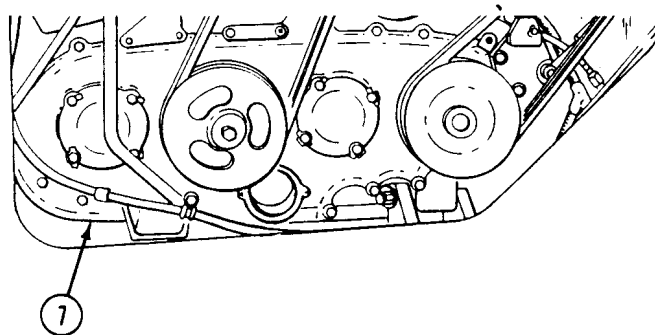
NOTE

Two washers (1) are the maximum used. If two washers are removed, two will be installed.

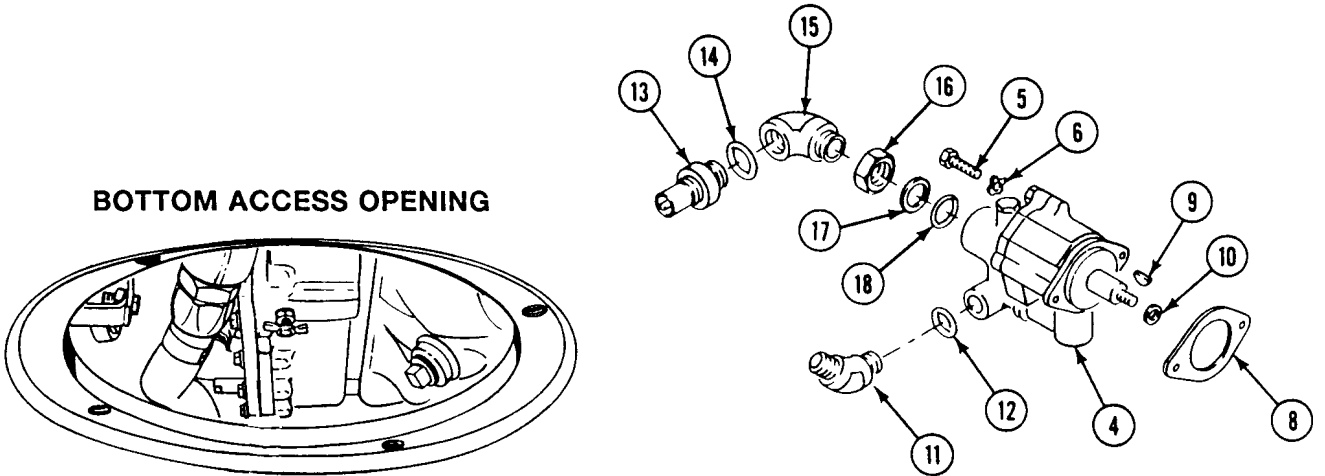
4. Remove cotter pin (2), nut (3), and washer(s) (1) from differential oil pump (4). Discard cotter pin.
5. Remove two screws (5), key washers (6), and oil pump (4) from transfer gearcase (7). Discard key washers.



REAR COMPARTMENT ACCESS OPENING



6. Remove gasket (8) from oil pump (4). Discard gasket.
7. Remove key (9) and retainer (10) from oil pump (4).
8. Remove elbow (11) and packing (12) from oil pump (4). Discard packing.
9. Remove quick disconnect coupling half (13) and packing (14) from elbow (15). Discard packing.
10. Remove elbow (15), nut (16), retainer (17), and packing (18) from oil pump (4). Discard packing.



INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

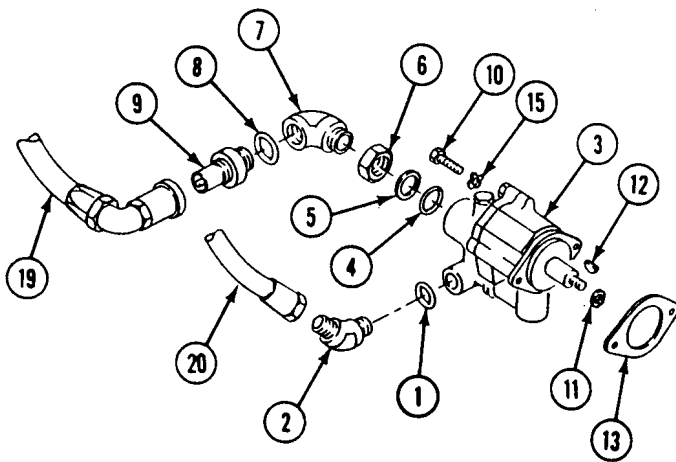
1. Check fittings, hardware, hoses and housing for leaks, cracks, damage and wear. Replace if needed.

INSTALLATION

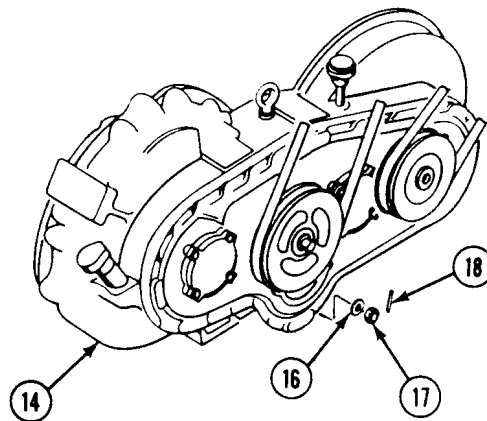
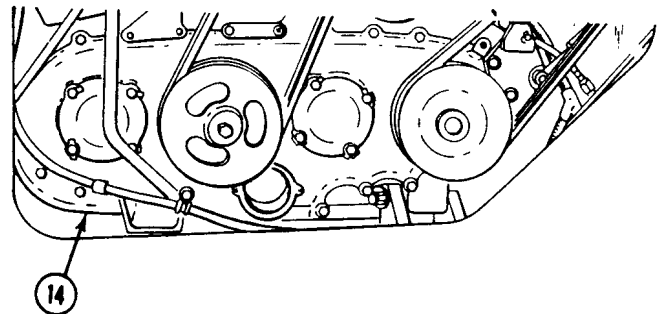
NOTE

If a new oil pump is being installed, use fittings from old pump.

1. Install new packing (1) and elbow (2) in pump (3).
2. Install new packing (4), retainer (5), nut (6), and elbow (7) in pump (3). Tighten nut (6).
3. Install new packing (8) and quick disconnect coupling half (9) in elbow.
4. Apply a thin, even coat of antiseize compound to cleaned external threads of two screws (10) before installation.
5. Fill pump (3) with oil.
6. Install retainer (11) and key (12) on pump (3).
7. Install new gasket (13) on pump (3).
8. Align key (12) in keyway of secondary drive gear. Secure pump (3) to transfer gearcase (14) with two new key washers (15) and screws (10).



REAR COMPARTMENT ACCESS OPENING

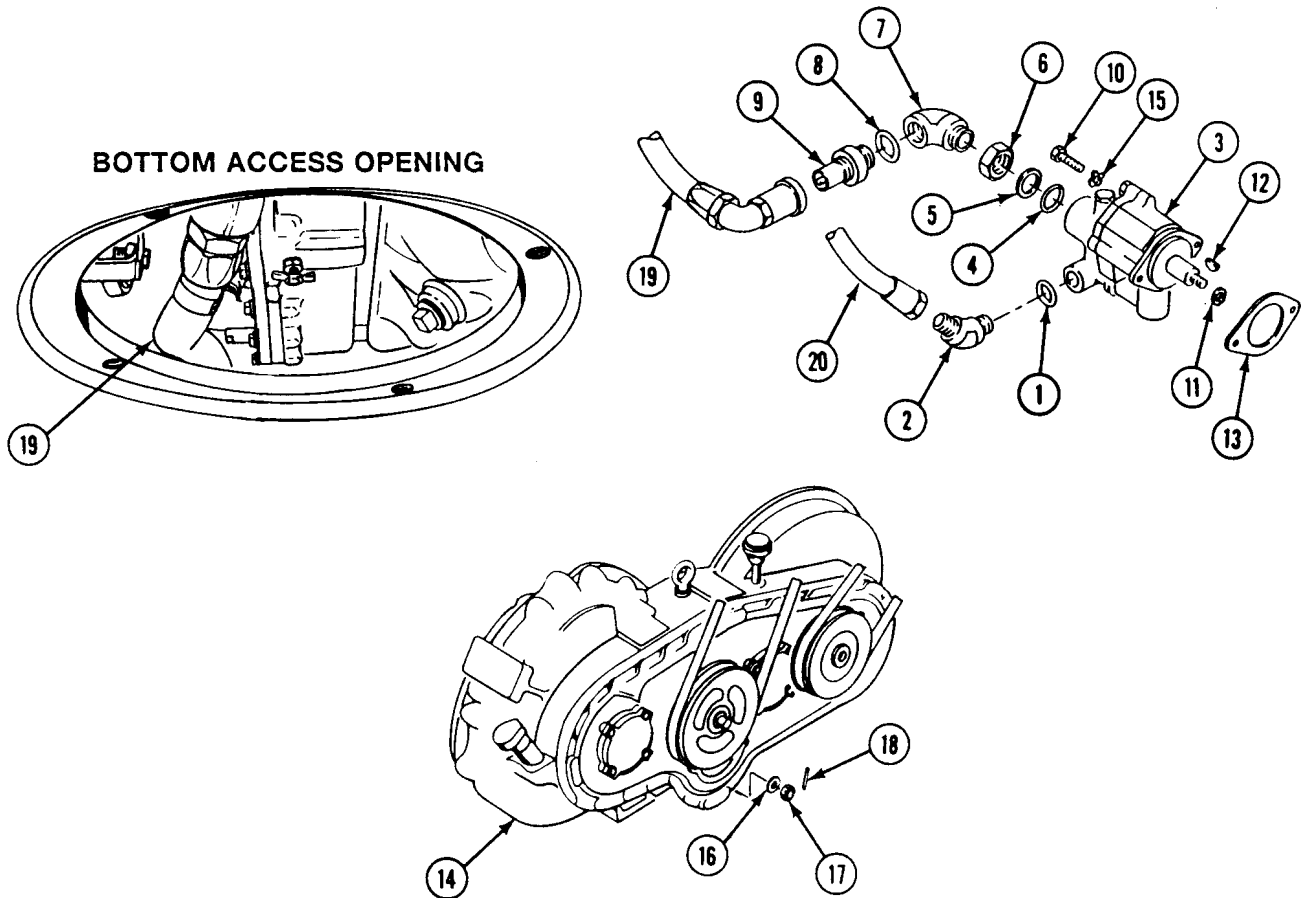


9. TIGHTEN TWO SCREWS (10) TO 35–40 LB-FT (47-54 N·M). Use torque wrench.
10. Secure pump (3) to secondary drive gear with washer (16), nut (17), and new cotter pin (18).

NOTE

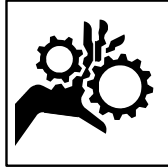
Two washers (16) are the maximum used. If two washers were removed, two will be installed.

11. Install washer(s) (16), to secure pump to drive gear.
12. Connect oil inlet hose (19) to quick disconnect coupling (9).
13. Connect oil outlet hose (20) to elbow (2).



FOLLOW-THROUGH STEPS

1. Install ramp hydraulic pump (WP 0588 00).

WARNING

Loose clothing is dangerous around moving belts and pulleys. You could get badly hurt if your clothes get caught in moving parts.

2. Fill transfer gearcase (WP 0120 00).
3. Start engine and raise ramp. Check that pump operates properly. Check for oil leaks (see your -10).
4. Stop/shutdown engine (see your -10).
5. Install power plant rear access panel (WP 0431 00).
6. Install power plant bottom access cover (WP 0434 00).

END OF TASK

REPLACE DIFFERENTIAL OIL FILTER AND FITTINGS

0355 00

THIS WORK PACKAGE COVERS:

- Removal (page 0355 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0355 00-2).
- Installation (page 0355 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

See your -10
WP 0120 00

Tools and Special Tools

- Adjustable Wrench WP 0780 00, Item 87
- General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

- Engine stopped (see your -10)
- Carrier blocked (see your -10)
- Driver's power plant access panel removed (WP 0430 00)

Materials/Parts

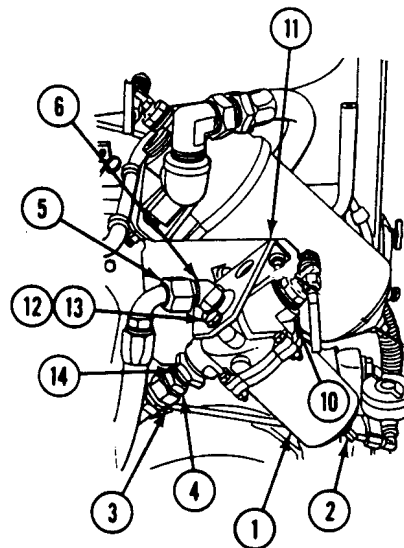
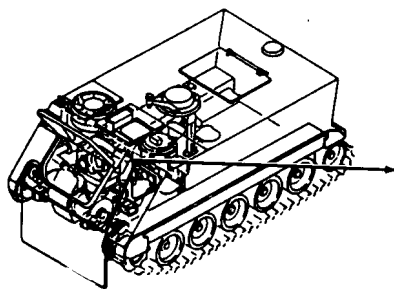
- Sealing compound (WP 0782 00, Item 65)
- Locknut (2)
- Lockwasher (2)
- Suitable container

Personnel Required

Unit Mechanic

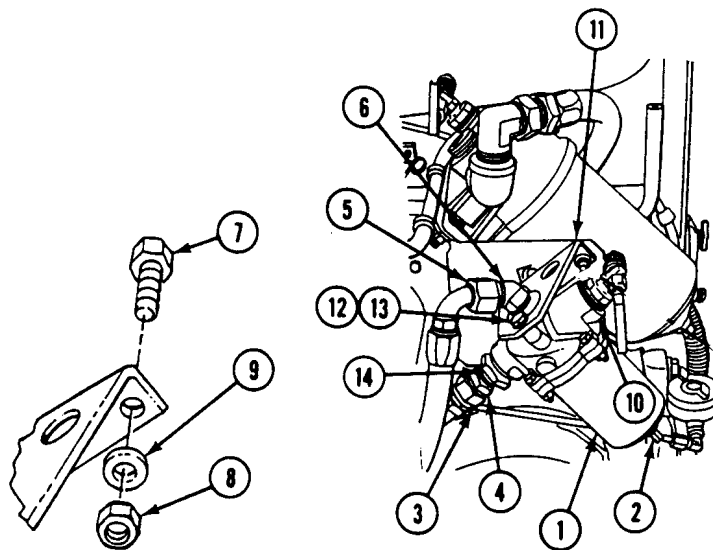
REMOVAL

1. Place container under differential oil filter (1). Remove drain plug (2) to drain oil.
2. Disconnect inlet oil hose (3) from adapter (4).
3. Disconnect outlet hose (5) from elbow (6). Use adjustable wrench.

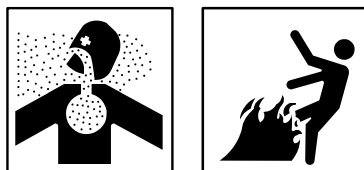


REPLACE DIFFERENTIAL OIL FILTER AND FITTINGS — Continued**0355 00**

4. Remove two screws (7), locknuts (8), and washers (9). Remove filter (1) with oil filter head (10) and bracket (11) from engine. Discard locknuts.
5. Remove two screws (12), lockwashers (13), and bracket (11) from filter head (10). Discard lockwashers.
6. Remove adapter (4) from bushing(14).
7. Remove bushing (14) from oil filter head (10).
8. Remove elbow (6) from head (10).

**INSPECTION-ACCEPTANCE AND REJECTION CRITERIA**

1. Check fittings, hardware and hoses for cracks, damage and wear. Replace if needed.

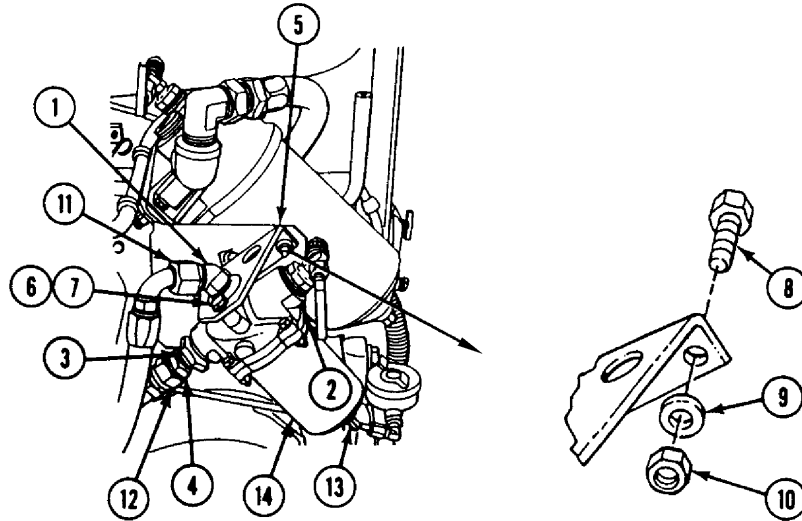
INSTALLATION**WARNING**

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

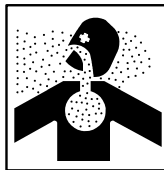
1. Apply a thin, even coat of sealing compound to cleaned external threads of all fittings before installation.
2. Install elbow (1) in oil filter head (2).
3. Install bushing (3) in head (2).
4. Install adapter (4) in bushing(3).
5. Install bracket (5) on head (2). Secure with two screws (6) and new lockwashers (7).
6. Install filter head (2) with bracket (5) on engine. Secure with two screws (8), washers (9), and new locknuts .

7. Connect outlet hose (11) to elbow (1). Use adjustable wrench.
8. Connect inlet hose (12) to adapter (4).
9. Install drain plug (13) in oil filter (14).



10. Check differential oil level (WP 0120 00). Add oil as needed.

WARNING



Carbon monoxide is poisonous and can kill you. DO NOT idle engine with power plant panel off unless there is VERY GOOD AIR FLOW.

11. Start engine (see your -10). Check for leaks.

FOLLOW-THROUGH STEPS

1. Engine stopped/shutdown (see your -10).
2. Install driver's power plant access panel (WP 0430 00).

END OF TASK

REPLACE DIFFERENTIAL OIL FILTER ELEMENT

0356 00

THIS WORK PACKAGE COVERS:

Removal (page 0356 00-1).
 Installation (page 0356 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

See your -10
 WP 0120 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped (see your -10)
 Carrier blocked (see your -10)
 Driver's power plant access panel removed
 (WP 0430 00)

Materials/Parts

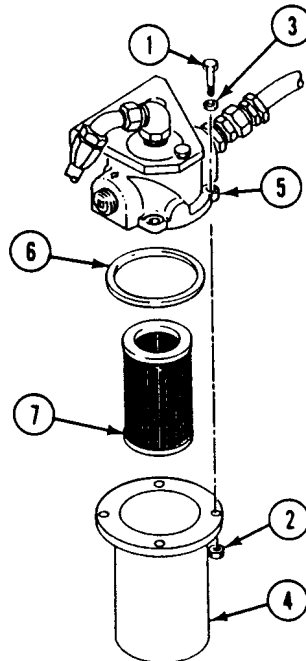
Locknut (4)
 Preformed packing

Personnel Required

Unit Mechanic

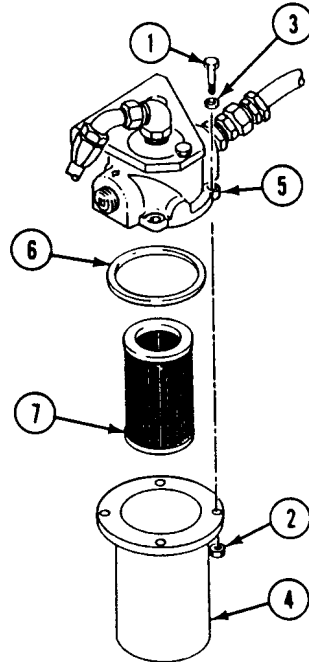
REMOVAL

1. Remove four screws (1), locknuts (2), washers (3), and container (4) from filter head (5). Discard locknuts.
2. Remove preformed packing (6) from filter head (5). Discard packing.
3. Remove filter element (7) from container (4).



INSTALLATION

1. Install new filter element (7) in container (4).
2. Install new packing (6) in filter head (5).
3. Install container (4) on filter head (5). Secure with four screws (1), washers (3), and new locknuts (2).

**WARNING**

Carbon monoxide is poisonous and can kill you. Do not idle engine with power plant panel off unless there is VERY GOOD AIR FLOW.

4. Start engine (see your -10). Check for oil leaks.
5. Check differential oil level (WP 0120 00). Add oil if needed.

FOLLOW-THROUGH STEPS

1. Install driver's power plant access panel (WP 0430 00).
2. Engine stopped (see your -10).

END OF TASK

REPLACE DIFFERENTIAL OIL LEVEL DIPSTICK AND BREATHER

0357 00

THIS WORK PACKAGE COVERS:

- Removal (page 0357 00-1).
 - Inspection-Acceptance and Rejection Criteria (page 0357 00-2).
 - Installation (page 0357 00-2).
-

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Trim vane lowered (see your -10)
- Power plant front access door open (see your -10)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

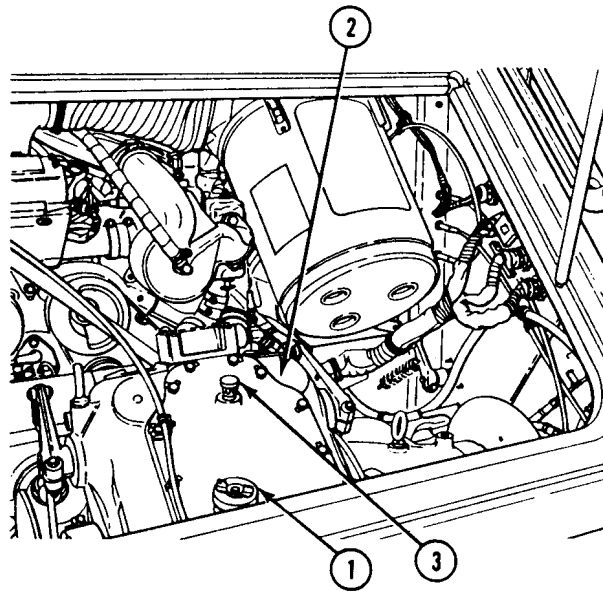
Antiseize compound (WP 0782 00, Item 8)

Personnel Required

Unit Mechanic

REMOVAL

1. Remove dipstick (1) from differential (2).
2. Remove breather (3) from differential (2).

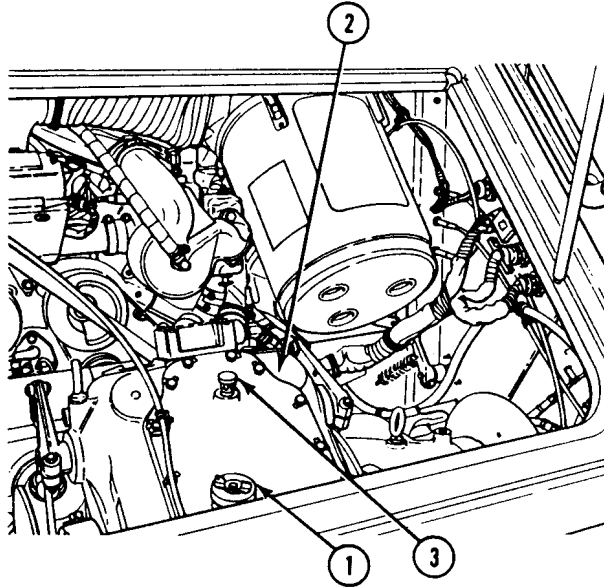


INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

1. Check parts and housing for cracks, wear, and damage. Replace if needed.

INSTALLATION

1. Apply a thin, even coat of antiseize compound to cleaned external threads of breather before installation.
2. Install breather (3) and dipstick (1) in differential (2).

**FOLLOW-THROUGH STEPS**

1. Close power plant front access door (see your -10).
2. Raise trim vane (see your -10).

END OF TASK

REPLACE DIFFERENTIAL OIL PUMP TO DIFFERENTIAL HOSE AND FITTINGS

0358 00

THIS WORK PACKAGE COVERS:

- Removal (page 0358 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0358 00-2).
- Installation (page 0358 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Pipe Wrench (WP 0780 00, Item 93)

Materials/Parts

- Sealing compound (WP 0782 00, Item 65)
- Locknut
- Preformed packing (2)
- Suitable Container

Personnel Required

Unit Mechanic

References

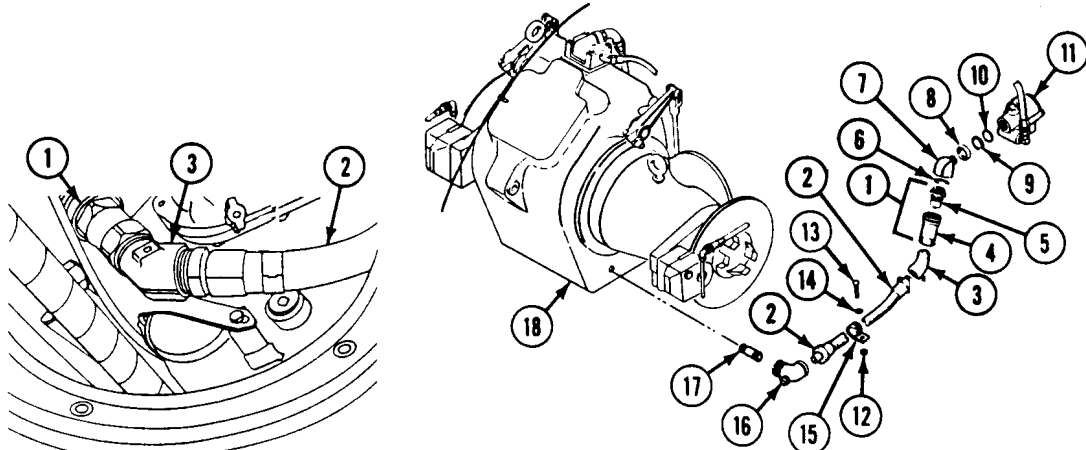
- See your -10
- WP 0120 00
- WP 0318 00

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Trim vane lowered (see your -10)
- Power plant front access door open (see your -10)
- Hull bottom access cover removed (WP 0434 00)

REMOVAL

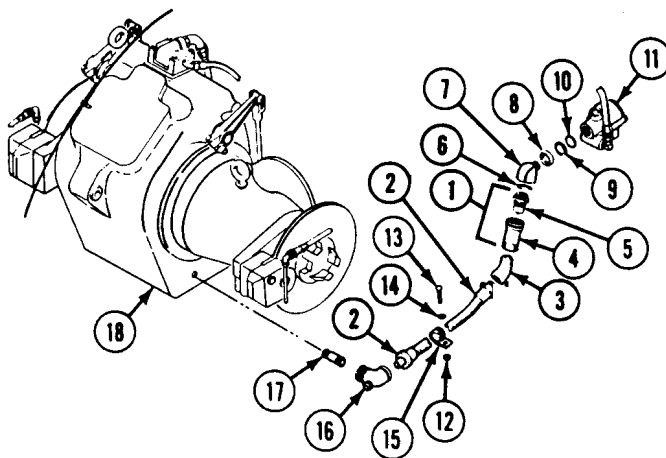
1. Drain differential oil into suitable container (WP 0120 00).
2. Remove differential high oil temperature switch (WP 0318 00).
3. Disconnect differential oil hose quick disconnect coupling (1).
4. Disconnect differential oil hose (2) from elbow (3).
5. Remove elbow (3) from quick disconnect coupling half (4).
6. Remove quick disconnect coupling half (5) and preformed packing (6) from elbow (7). Discard packing.
7. Remove elbow (7), nut (8), retainer (9), and preformed packing (10) from differential oil pump (11). Discard packing.
8. Remove locknut (12), screw (13), washer (14), clamp (15), and differential oil hose (2) from hull crossbeam. Discard locknut.



REPLACE DIFFERENTIAL OIL PUMP TO DIFFERENTIAL HOSE AND FITTINGS — Continued

0358 00

9. Disconnect hose (2) from tee (16).
10. Remove tee (16) from bushing (17).
11. Remove bushing (17) from differential (18).

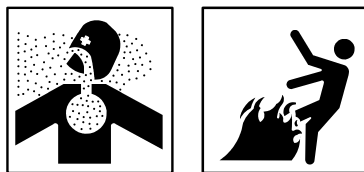


INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

1. Check fittings, hardware, hoses and pump housing for leaks, cracks, damage and wear. Replace as needed.

INSTALLATION

WARNING



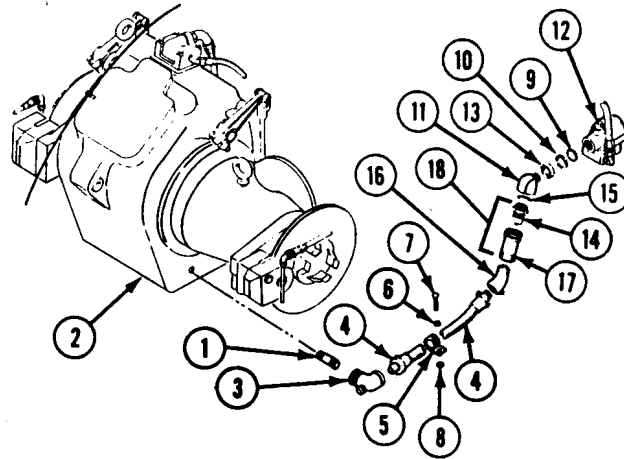
Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

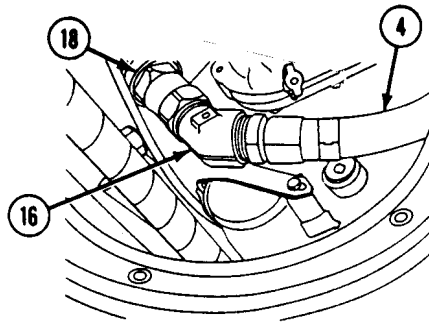
1. Apply a thin, even coat of sealing compound to cleaned threads of fittings before installation.
2. Install bushing (1) in differential (2).
3. Install tee (3) on bushing (1).
4. Connect differential oil hose (4) to tee (3).
5. Secure hose (4) to hull crossbeam with clamp (5), washer (6), screw (7), and new locknut (8).
6. Install new preformed packing (9), retainer (10), and elbow (11), in differential oil pump (12). Secure with nut (13).
7. Install quick disconnect half (14) and new packing (15) in elbow (11).
8. Install elbow (16) in quick disconnect half (17).

REPLACE DIFFERENTIAL OIL PUMP TO DIFFERENTIAL HOSE AND FITTINGS — Continued

0358 00

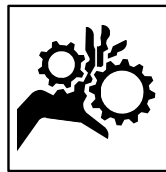


9. Connect hose (4) to elbow (16).
10. Connect oil hose quick disconnect coupling (18).



11. Install differential high oil temperature switch (WP 0318 00).
12. Fill differential with oil (WP 0120 00).

WARNING



Loose clothing is dangerous around moving belts and pulleys. You could get badly hurt if your clothes get caught in moving parts.

13. Start engine (see your -10). Check for oil leaks.

FOLLOW-THROUGH STEPS

1. Engine stopped/shutdown (see your -10).
2. Install hull bottom access cover (WP 0434 00).
3. Close power plant front access door (see your -10).
4. Raise trim vane (see your -10).

END OF TASK

REPLACE DIFFERENTIAL GEARBOX TO DIFFERENTIAL HOSE AND FITTINGS

0359 00

THIS WORK PACKAGE COVERS:

- Removal (page 0359 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0359 00-2).
- Installation (page 0359 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

See your -10
WP 0120 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
Torque Wrench (WP 0780 00, Item 102)

Equipment Condition

Engine stopped (see your -10)
Carrier blocked (see your -10)
Trim vane lowered (see your -10)
Power plant front access door open (see your -10)

Materials/Parts

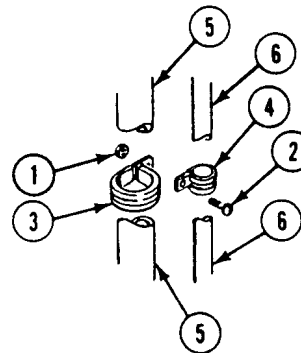
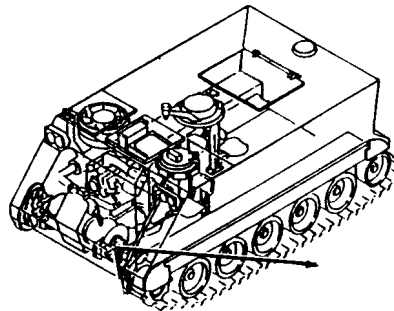
Antiseize compound (WP 0782 00, Item 8)
Sealing compound (WP 0782 00, Item 65)
Locknut

Personnel Required

Unit Mechanic

REMOVAL

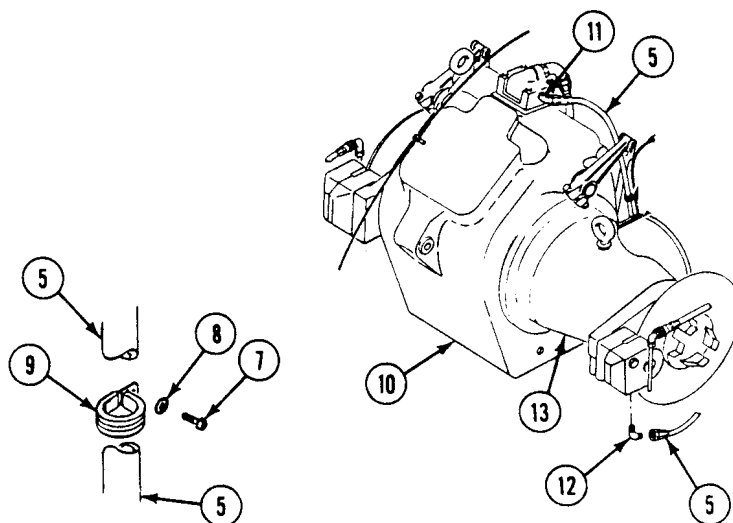
1. Remove locknut (1), screw (2), and two clamps (3) and (4). Separate differential oil hose (5) from circuit 328 lead (6). Discard locknut.



REPLACE DIFFERENTIAL GEARBOX TO DIFFERENTIAL HOSE AND FITTINGS — Continued

0359 00

2. Remove screw (7), washer (8), clamp (9), and oil hose (5) from differential (10).
3. Disconnect oil hose (5) from two elbows (11) and (12).
4. Remove elbow (11) from differential (10).
5. Remove elbow (12) from differential gearbox (13).

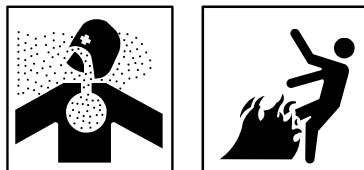


INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

1. Check fittings, hardware, hoses and differential housing for leaks, cracks, wear and damage. Replace as needed.

INSTALLATION

WARNING



Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

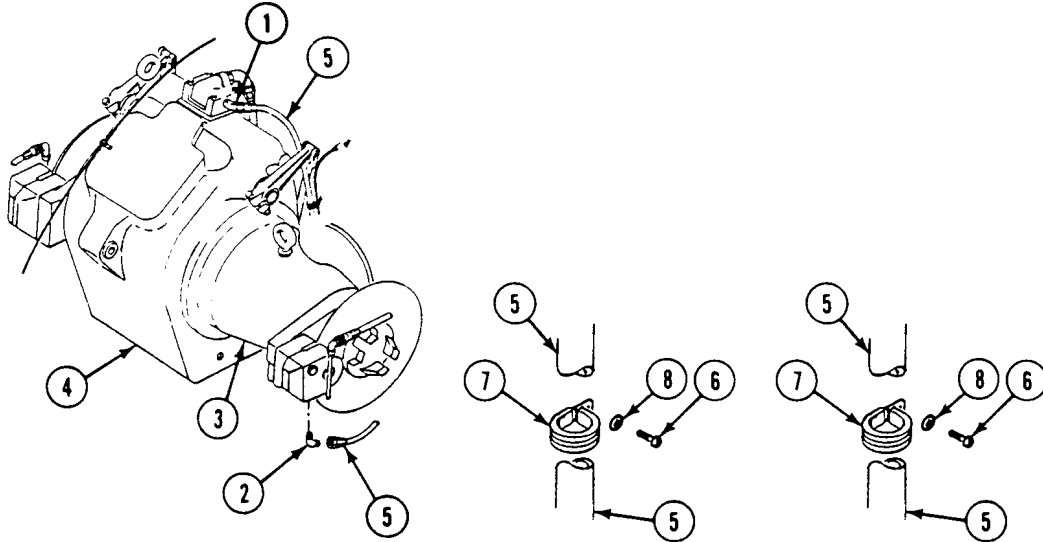
Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

1. Apply a thin, even coat of sealing compound to cleaned external threads of elbows (1) and (2).
2. Install elbow (2) in differential gearbox (3).
3. Install elbow (1) in differential (4).
4. Connect differential oil hose (5) to elbows (1) and (2).
5. Apply antiseize compound to external threads of screw (6).

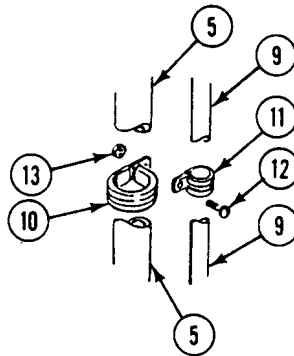
REPLACE DIFFERENTIAL GEARBOX TO DIFFERENTIAL HOSE AND FITTINGS — Continued

0359 00

6. Install oil hose (5) on differential (3) with clamp (7) and washer (8). Secure with screw (6). **TIGHTEN SCREW (6) TO 252-300 LB-IN (28-34 N·M) TORQUE.** Use torque wrench.

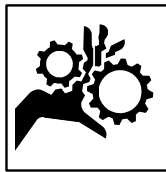


7. Install circuit 328 lead (9) and oil hose (5) together with two clamps (10) and (11), and secure with screw (12) and new locknut (13).



8. Check differential oil level (WP 0120 00). Add oil if needed.

WARNING



Loose clothing is dangerous around moving belts and pulleys. You could get badly hurt if your clothes get caught in moving parts.

9. Start engine (see your -10). Check for leaks.

**REPLACE DIFFERENTIAL GEARBOX TO DIFFERENTIAL HOSE AND
FITTINGS — Continued**

0359 00

FOLLOW-THROUGH STEPS

1. Engine stopped (see your -10).
2. Close power plant front access door (see your -10).
3. Raise trim vane (see your -10).

END OF TASK

REPLACE DIFFERENTIAL TO OIL COOLER HOSE AND FITTINGS

0360 00

THIS WORK PACKAGE COVERS:

- Removal (page 0360 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0360 00-2).
- Installation (page 0360 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

See your -10
WP 0120 00

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Adjustable Wrench (WP 0780 00, Item 87)

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Hull bottom access cover removed (WP 0434 00)
- Trim vane lowered and power plant front access door open (see your -10)
- Driver's power plant access panel removed (WP 0430 00)

Materials/Parts

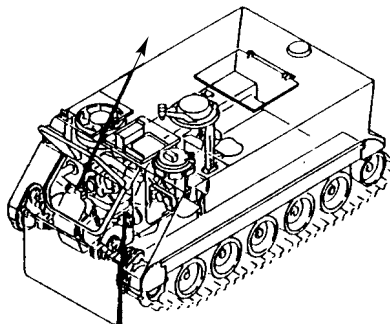
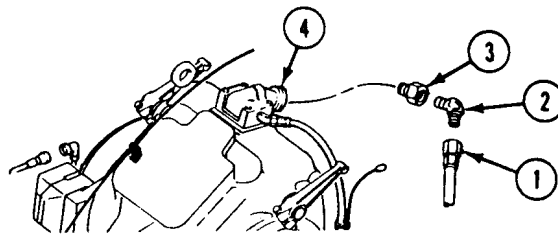
- Primer N (WP 0782 00, Item 58)
- Sealing compound (WP 0782 00, Item 60)
- Suitable container

Personnel Required

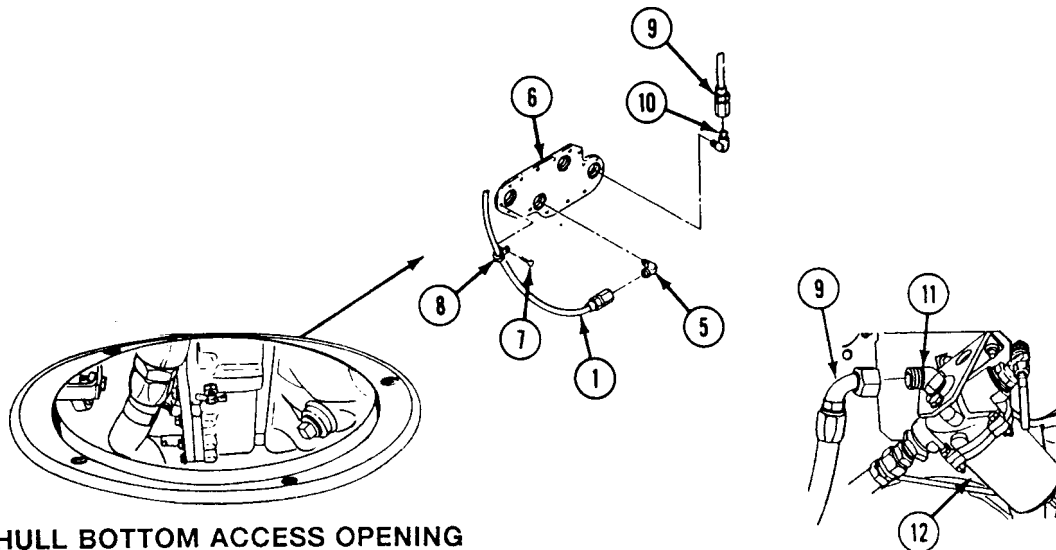
Unit Mechanic

REMOVAL

1. Drain oil from differential (WP 0120 00). Use suitable container.
2. Disconnect oil hose (1) from elbow (2) at differential.
3. Remove elbow (2) and adapter (3) from elbow (4).
4. If needed, remove elbow (4) from differential.



5. Disconnect oil hose (1) from elbow (5) at oil cooler (6).
6. Remove elbow (5) from oil cooler (6).
7. Remove screw (7) and clamp (8) from oil cooler (6).
8. Remove hose (1) from carrier.
9. Disconnect oil filter hose (9) from elbow (10).
10. Remove elbow (10) from oil cooler (6).
11. Disconnect filter hose (9) from elbow (11) on filter (12). Use adjustable wrench.



HULL BOTTOM ACCESS OPENING

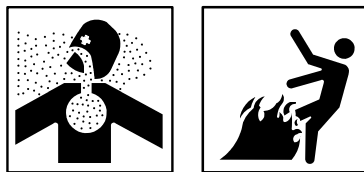
INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

1. Clean hoses, fittings, hardware, and differential housing for leaks, cracks, and wear. Replace as needed.

INSTALLATION

1. Install oil filter hose (1) in carrier.
2. Connect filter hose (1) to elbow (2) on filter (3). Use adjustable wrench.

WARNING



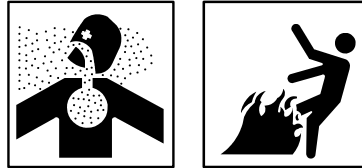
Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

3. Apply a thin coat of primer N and sealing compound only to threads of elbow (4) that are being installed into cooler (5).
4. Install elbow (4) in oil cooler (5).
5. Connect filter hose (1) to elbow (4).

6. Install hose (6) in carrier.
7. Install clamp (7) on hose (6). Secure clamp (7) to oil cooler (5) with screw (8).

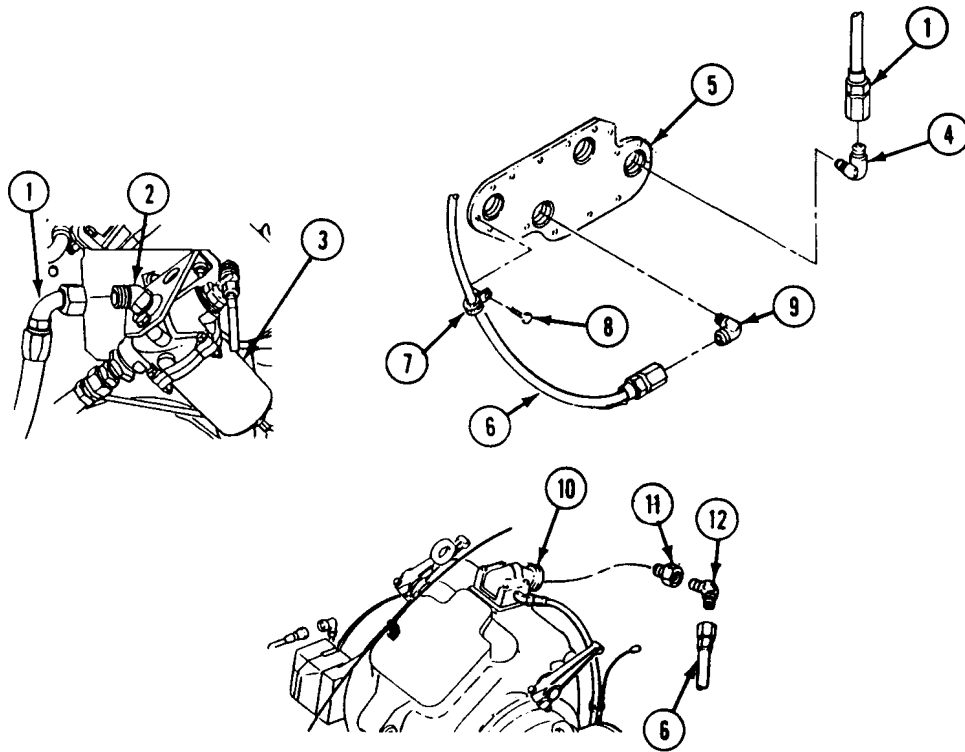
WARNING

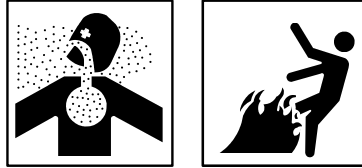


Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

8. Apply a thin coat of primer N and sealing compound only to threads of elbow (9) that are being installed into cooler (5).
9. Install elbow (9) at oil cooler(5).
10. Connect oil hose (6) to elbow (9) at oil cooler (5).
11. If removed, install elbow (10) in differential.

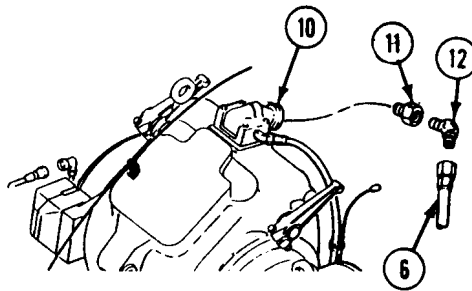


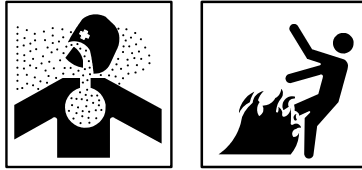
WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

12. Apply a thin coat of primer N and sealing compound to external threads of adapter (11).
13. Install adapter (11) in elbow (10).

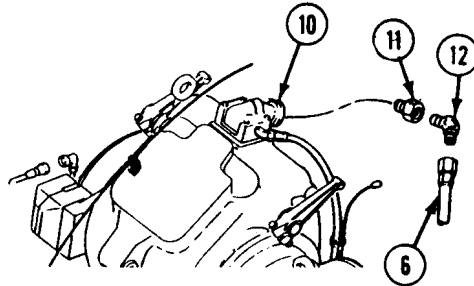


WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

14. Apply a thin coat of primer N and sealing compound only to threads of elbow (12) that are being installed into adapter (11).
15. Install elbow (12) in adapter (11).
16. Connect oil hose (6) to elbow (12) at differential.



17. Fill differential (WP 0120 00).
18. Start engine (see your -10). Check for oil leaks.

FOLLOW-THROUGH STEPS

1. Stop/shutdown engine (see your -10).
2. Install driver's power plant access panel (WP 0430 00).
3. Install hull bottom access cover (WP 0434 00).
4. Close power plant front access door and raise trim vane (see your -10).

END OF TASK

REPLACE DIFFERENTIAL OIL FILTER TO PUMP HOSE AND FITTINGS

0361 00

THIS WORK PACKAGE COVERS:

- Removal (page 0361 00-1).
 - Inspection-Acceptance and Rejection Criteria (page 0361 00-2).
 - Installation (page 0361 00-2).
-

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

Sealing compound (WP 0782 00, Item 65)

Preformed packing

Personnel Required

Unit Mechanic

References

See your -10

WP 0120 00

Equipment Condition

Engine stopped/shutdown (see your -10)

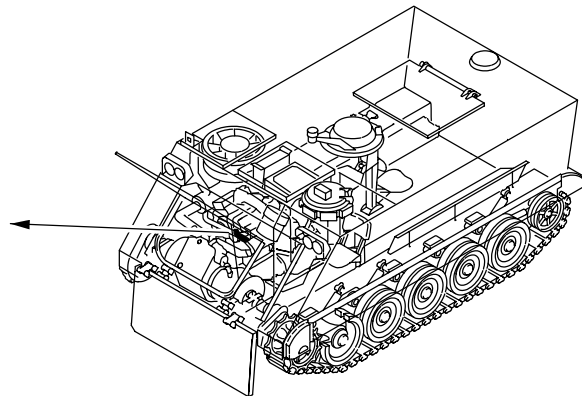
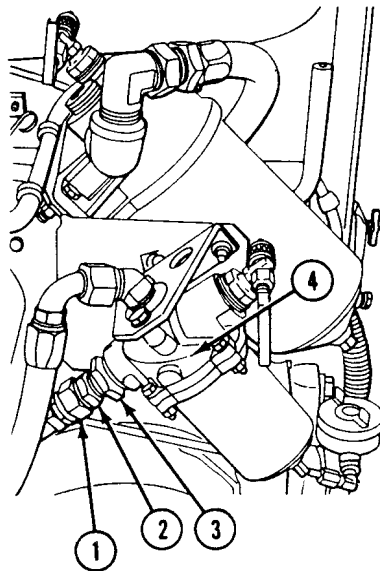
Carrier blocked (see your -10)

Driver's power plant access panel removed
(WP 0430 00)

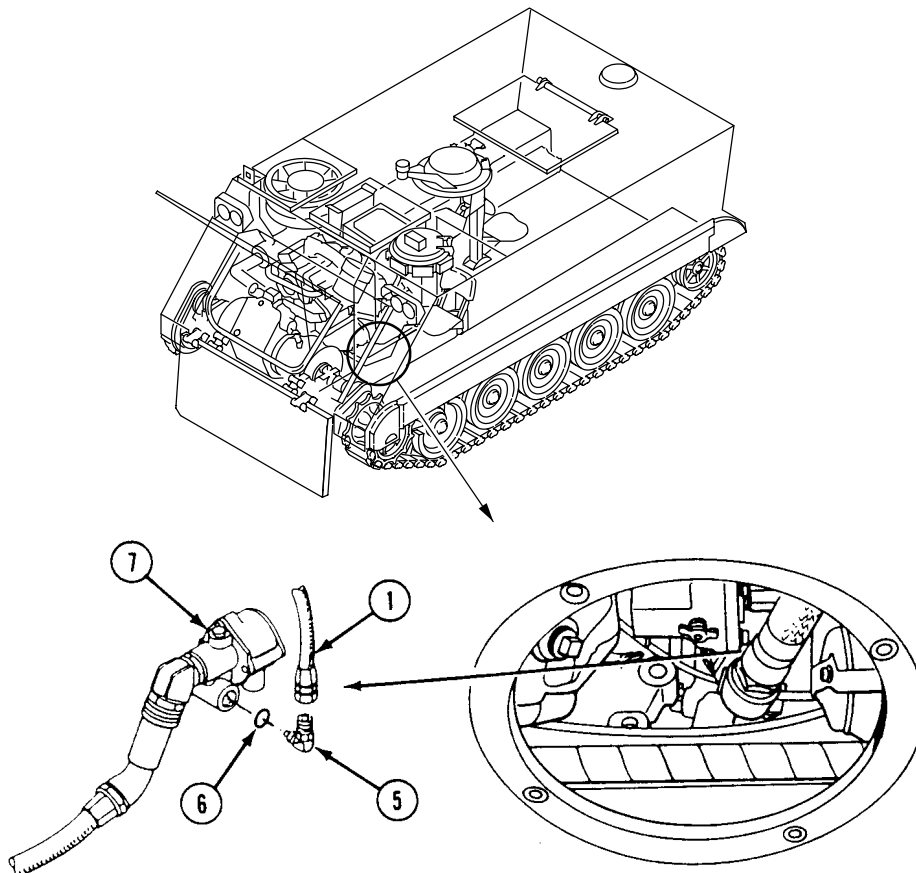
Hull bottom access cover removed (WP 0434 00)

REMOVAL

1. Disconnect differential oil filter hose (1) from adapter (2).
2. Remove adapter (2) from bushing (3).
3. Remove bushing (3) from differential oil filter (4).



4. Disconnect differential oil filter hose (1) from elbow (5).
5. Remove elbow (5) and preformed packing (6) from differential oil pump (7). Discard packing.

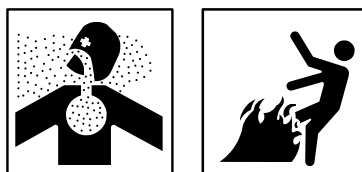


INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

1. Check fittings, hardware, housing and hoses for leaks, cracks, damage and wear. Replace as needed.

INSTALLATION

WARNING

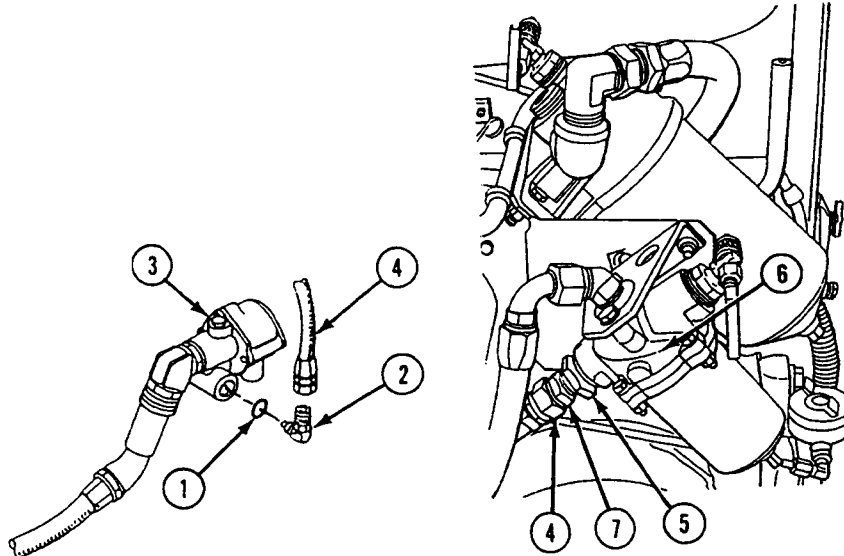


Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

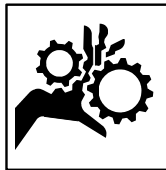
1. Apply a thin, even coat of sealing compound to cleaned external threads of fittings before installation.
2. Install new preformed packing (1) and elbow (2) in differential oil pump (3).

3. Connect differential oil filter hose (4) to elbow(2).
4. Install bushing (5) in differential oil filter (6).
5. Install adapter (7) in bushing (5).
6. Connect filter hose (4) to adapter (7).



7. Check differential oil level (WP 0120 00)

WARNING



Wearing loose clothing around moving parts can allow personnel to get caught and cause injury or death. Tuck in loose clothing.

8. Start engine (see your -10). Check for leaks.

FOLLOW-THROUGH STEPS

1. Engine stopped/shutdown (see your -10).
2. Install driver's power plant access panel (WP 0430 00).
3. Install hull bottom access cover (WP 0434 00).

END OF TASK

DIFFERENTIAL BRAKES ADJUSTMENT

0362 00

THIS WORK PACKAGE COVERS:

Adjustment (page 0362 00-1).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
Weighing Scale (WP 0780 00, Item 63)

Materials/Parts

Antiseize compound (WP 0782 00, Item 8)

Personnel Required

Unit Mechanic

References

WP 0387 00
WP 0388 00

Equipment Condition

Engine stopped/shutdown (see your -10)
Carrier blocked (see your -10)
Trim vane lowered and power plant front access door open (see your -10)

ADJUSTMENT

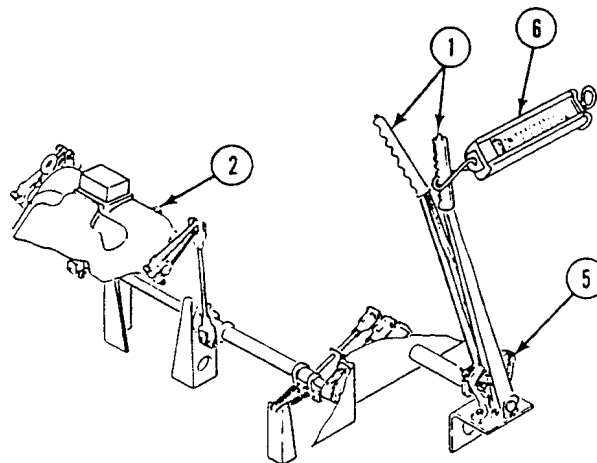
NOTE

Do not try to adjust steering linkage to compensate for brake lining wear. Uneven steering lever pull will result.

Adjust differential brakes only when differential is cool. You cannot get a good adjustment if differential is hot.

Check steering lever pawl adjustment () and steering brake linkage adjustment () before making differential brake adjustment.

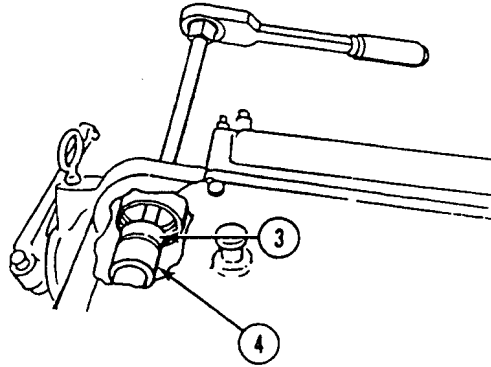
1. Place two differential steering levers (1) in full forward released position.
2. Remove two access plugs (2) from differential housing.



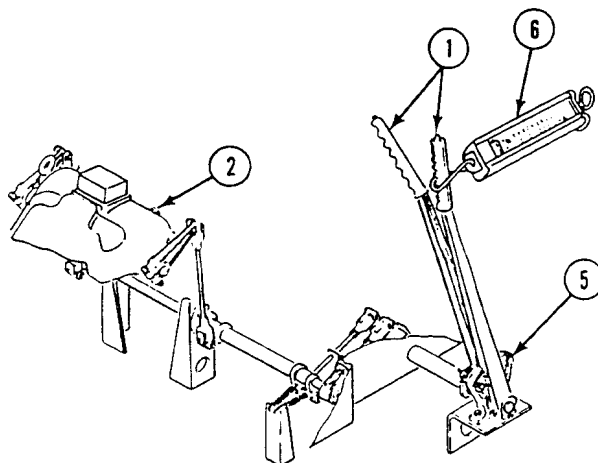
CAUTION

Make sure socket is taped to extension to prevent socket from falling into the differential.

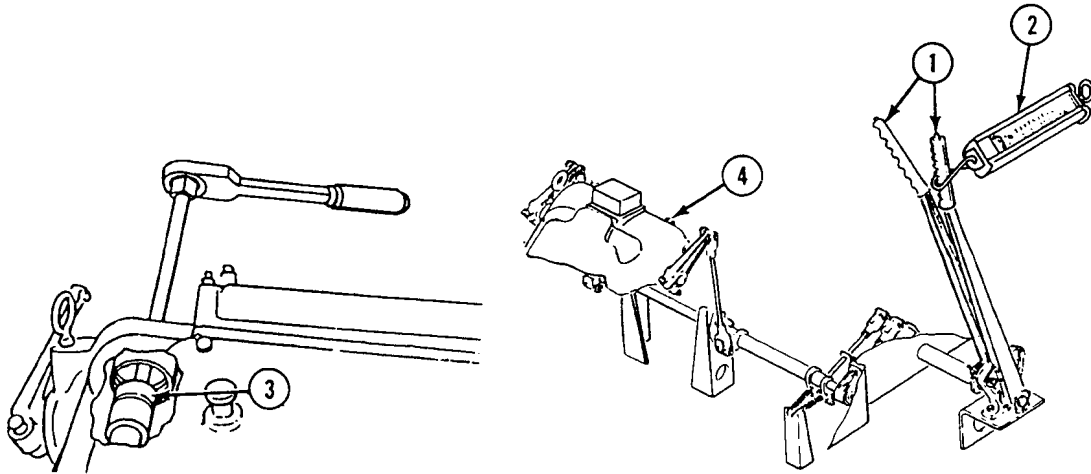
3. Insert socket (3) through differential access holes. Turn each differential brake band adjusting nut (4) one detent at a time. Turn left to tighten band or right to loosen.



4. Place steering levers (1) in second notch from front of quadrants (5).
5. Using a strap or rope, attach dial scale (6) to center of steering lever hand grip.
6. Pull back on both steering levers (1) very hard to ensure brake adjusting nut is on the bottom of cam.
7. Pull dial scale rearward.
8. A pull of 10-30 pounds (4.5-14 kg) on dial scale (6) should cause steering lever handle button to pop up. Steering lever (1) will then move forward to release position.
9. Repeat adjustment procedure until you get correct release pressure.
10. If adjustment cannot be obtained, notify direct support maintenance.
11. If you cannot get correct release pressure, notify direct support maintenance.



12. Remove socket (3) through differential access hole.
13. Apply a thin, even coat of antiseize compound to threads of two access plugs (4).
14. Install two access plugs (4) in differential housing.

**FOLLOW-THROUGH STEPS**

1. Close power plant front access door and raise trim vane (see your -10).
2. Operate carrier (see your -10). Check that steering brakes are operable.

END OF TASK

REPLACE DIFFERENTIAL AND MOUNTS

0363 00

THIS WORK PACKAGE COVERS:

- Removal (page 0363 00-1).
- Installation (page 0363 00-4).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Power plant access door open (see your -10)
- Carrier blocked (see your -10)
- Battery ground leads disconnected (WP 0294 00)
- Air cleaner housing removed (WP 0185 00)
- Radiator outlet coolant tube removed (WP 0199 00)
- Exhaust pipe removed (WP 0189 00)
- Deaeration elbow removed (WP 0200 00)
- Transmission to differential shaft removed (WP 0347 00)
- Left final drive shaft removed (WP 0348 00)
- Right drive shaft removed (WP 0349 00)
- Differential oil pump hose disconnected at differential (WP 0358 00)
- Differential oil cooler hose disconnected at differential (WP 0360 00)
- Differential brake linkage removed (WP 0393 00)
- Differential steering brake levers removed (WP 0394 00)
- Fuel shutoff cable disconnected from engine (WP 0403 00)

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Remover and Replacer (WP 0780 00, Item 56)
- Sling (WP 0780 00, Item 68)
- Lifting Device

Materials/Parts

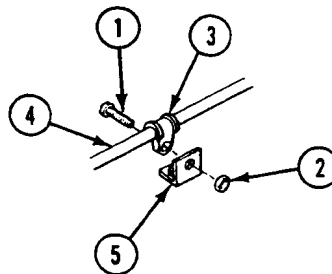
Locknut

Personnel Required

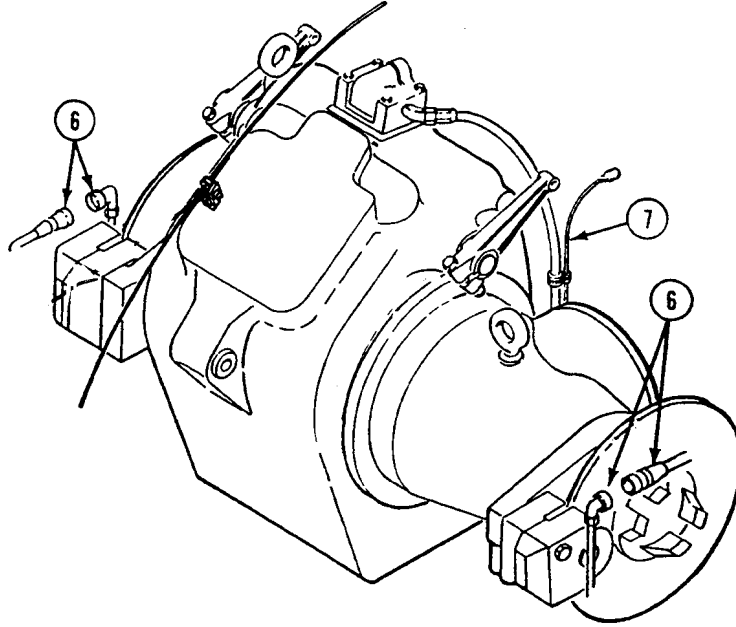
- Unit Mechanic
- Helper (H)

REMOVAL

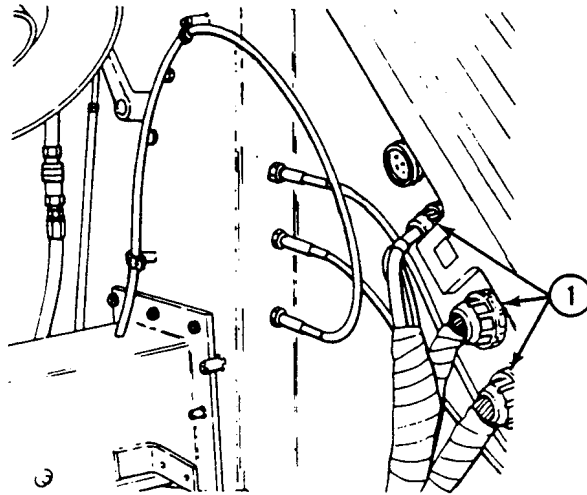
1. Remove screw (1), locknut (2), clamp (3), and fuel shutoff cable (4) from bracket (5). Discard locknut.



2. Disconnect two pivot steer hydraulic hoses at two quick disconnect couplings (6).
3. Disconnect differential high oil temperature switch lead (7) from main wiring harness.



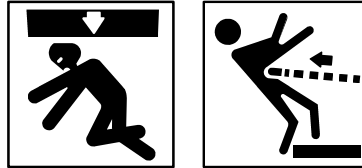
4. Disconnect three power plant wiring harness connectors (1) from driver's compartment bulkhead.



WARNING



The differential is heavy. Have helper help you and use a lifting device.

WARNING

Damaged slings can fail when loaded. Breaking slings can strike and injure personnel.
Suspended load can fall and crush personnel.

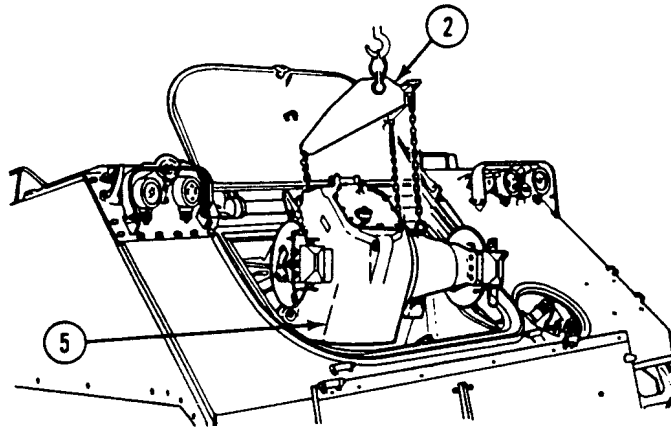
Inspect all slings before use. Do not use damaged slings. Clearly mark all damaged slings as **DAMAGED - DO NOT USE**.

WARNING

Hanging loads, heavy parts, and overhead equipment can fall unexpectedly and kill or injure you.

Stay clear of hanging loads, heavy parts, and overhead equipment. Use correct lifting devices.
Always have helper guide heavy parts and equipment.

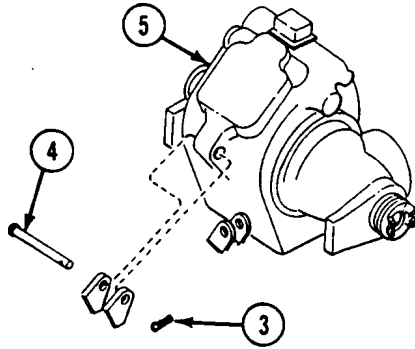
5. Attach a suitable lifting device of at least 500 lb (227 kg) capacity and lifting sling (2) to two differential lifting eyes.



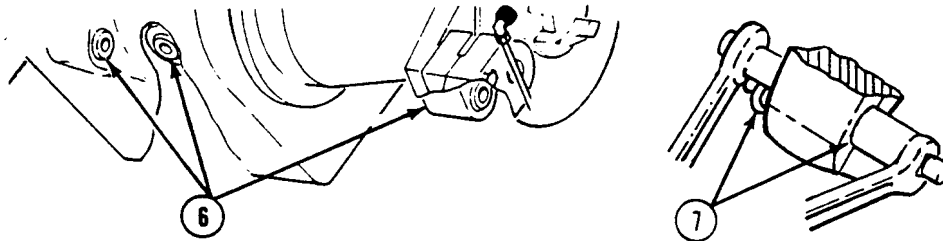
REPLACE DIFFERENTIAL AND MOUNTS — Continued

0363 00

6. Remove three retaining clips (3) and three pins (4) from differential hull mounts.
7. Remove differential (5) from carrier.

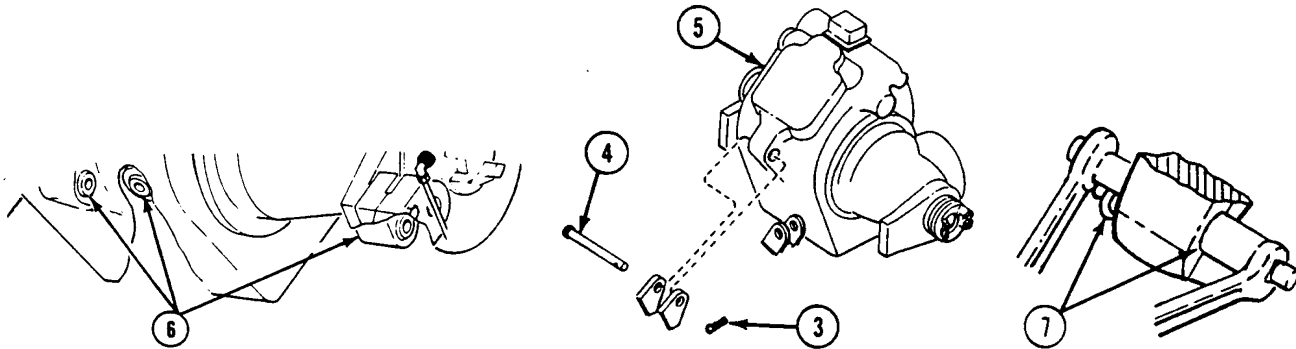


8. Remove three mounts (6) from differential, using remover and replacer (7).



INSTALLATION

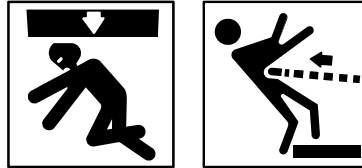
1. Install three mounts (6) in differential (5). Use remover and replacer (7).



WARNING



The differential is heavy. Have helper help you and use a lifting device.

WARNING

Damaged slings can fail when loaded. Breaking slings can strike and injure personnel. Suspended load can fall and crush personnel.

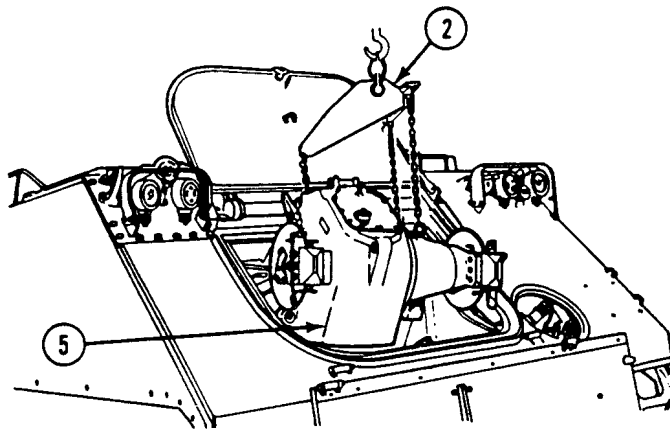
Inspect all slings before use. Do not use damaged slings. Clearly mark all damaged slings as DAMAGED - DO NOT USE.

WARNING

Hanging loads, heavy parts, and overhead equipment can fall unexpectedly and kill or injure you.

Stay clear of hanging loads, heavy parts, and overhead equipment. Use correct lifting devices. Always have helper guide heavy parts and equipment.

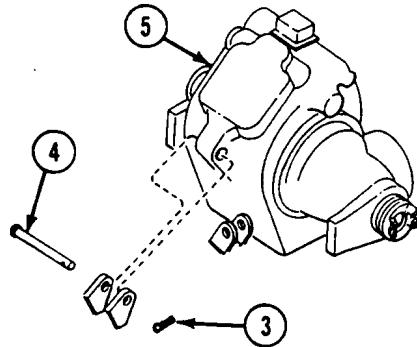
2. Attach a suitable lifting device of at least 500 lb (227 kg) capacity and lifting sling (2) to two differential lifting eyes.
3. Lower differential (5) into carrier.



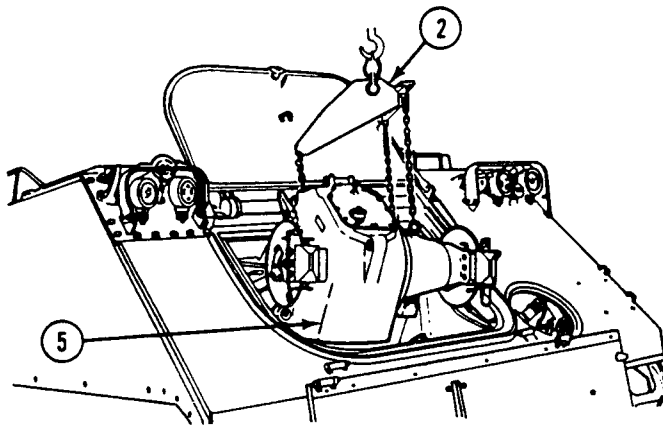
REPLACE DIFFERENTIAL AND MOUNTS — Continued

0363 00

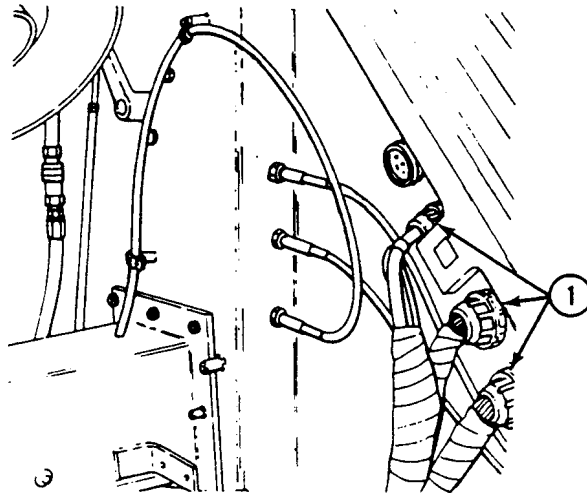
4. Install three pins (4) through differential and hull mounts. Secure with three retaining clips (3).



5. Remove lifting sling (2) from differential (5).

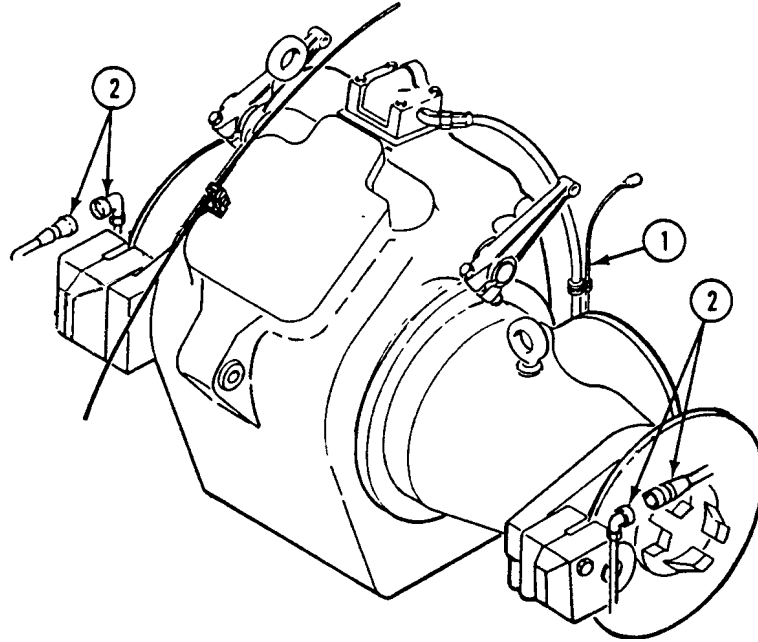


6. Connect three power plant wiring harness connectors (1) at driver's compartment bulkhead.

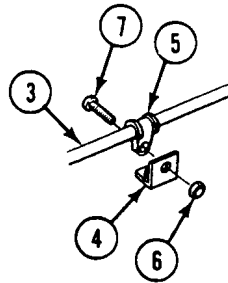


REPLACE DIFFERENTIAL AND MOUNTS — Continued**0363 00**

7. Connect differential high oil temperature switch lead (1) to main wiring harness.
8. Connect two pivot steer hydraulic hoses to two quick disconnect couplings (2).



9. Install fuel shutoff cable (3) on bracket (4). Secure with clamp (5), new locknut (6), and screw (7).

**FOLLOW-THROUGH STEPS**

1. Install differential steering brake levers (WP 0394 00).
2. Connect differential oil cooler hose (WP 0360 00).
3. Connect differential oil pump hose (WP 0358 00).
4. Fill differential with oil (WP 0120 00).
5. Install right final drive shaft (WP 0349 00).
6. Install left final drive shaft (WP 0348 00).
7. Install differential brake linkage (WP 0393 00).
8. Install transmission to differential shaft (WP 0347 00).
9. Install deaeration elbow (WP 0200 00).
10. Install exhaust pipe (WP 0189 00).
11. Install radiator outlet coolant tube (WP 0199 00).
12. Fill cooling system (WP 0194 00).

REPLACE DIFFERENTIAL AND MOUNTS — Continued

0363 00

13. Install air cleaner housing (WP 0185 00).
14. Connect fuel shutoff cable to engine and adjust cable (WP 0403 00).
15. Close power plant front access door (see your -10).
16. Raise trim vane (see your -10).
17. Connect battery ground cable (WP 0294 00).
18. Operate carrier (see your -10). Check that differential is operable.
19. Engine stopped/shutdown (see your -10).

END OF TASK

REPLACE DIFFERENTIAL GASKET

0364 00

THIS WORK PACKAGE COVERS:

Removal (page 0364 00-1).
 Installation (page 0364 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Socket (WP 0780 00, Item 96)
 Torque Wrench (WP 0780 00, Item 102)

Equipment Condition

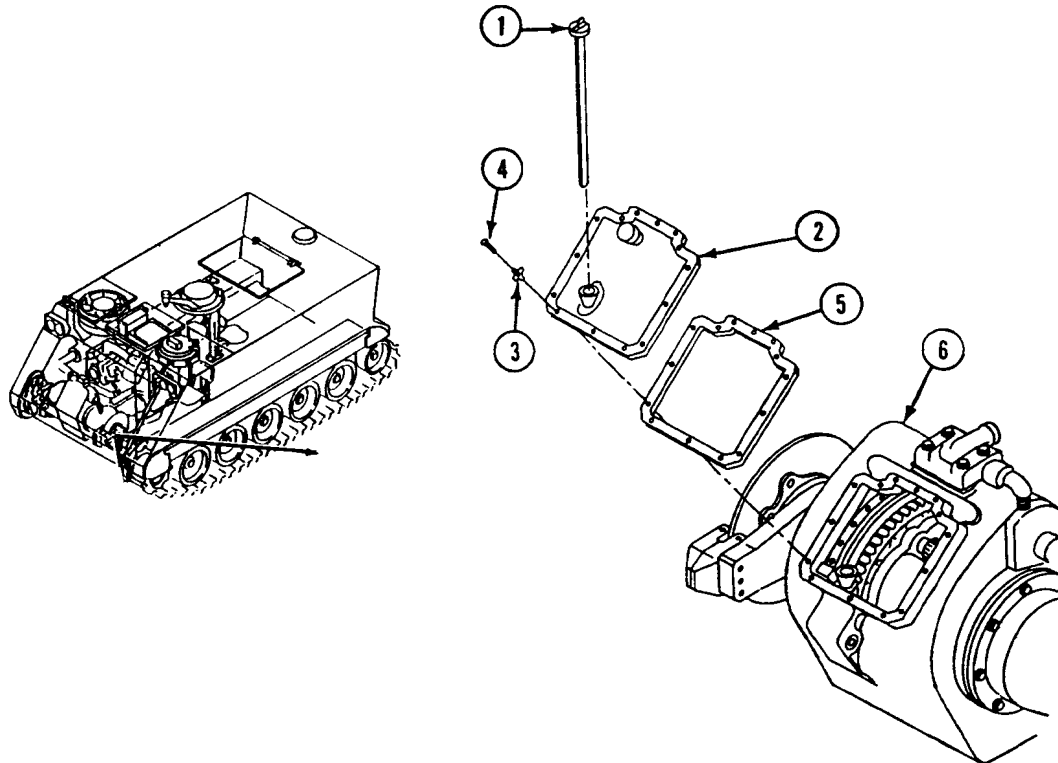
Engine stopped (see your -10)
 Carrier blocked (see your -10)
 Front power plant engine access door open
 (see your -10)

Materials/Parts

Antiseize compound (WP 0782 00, Item 8)
 Cleaning compound (WP 0782 00, Item 16)
 Wiping rag (WP 0782 00, Item 76)
 Gasket
 Key washer (14)

REMOVAL

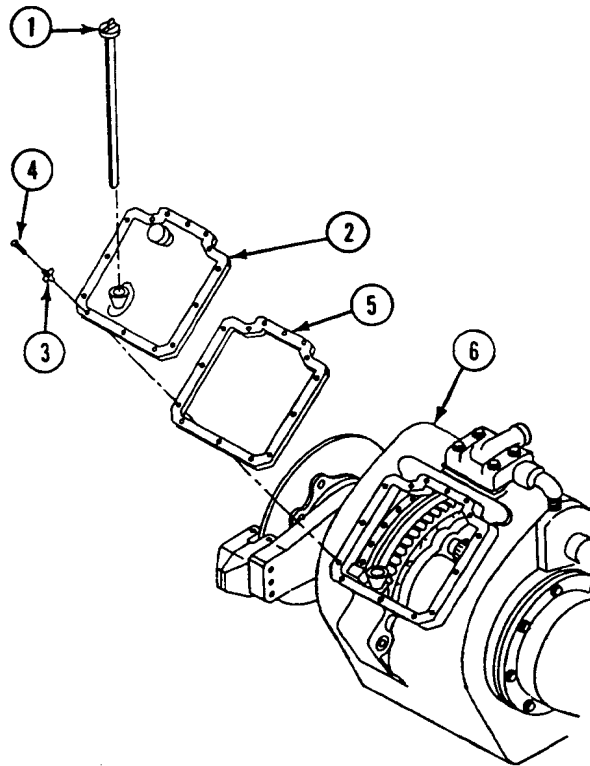
1. Remove dipstick (1) from differential cover (2).



NOTE

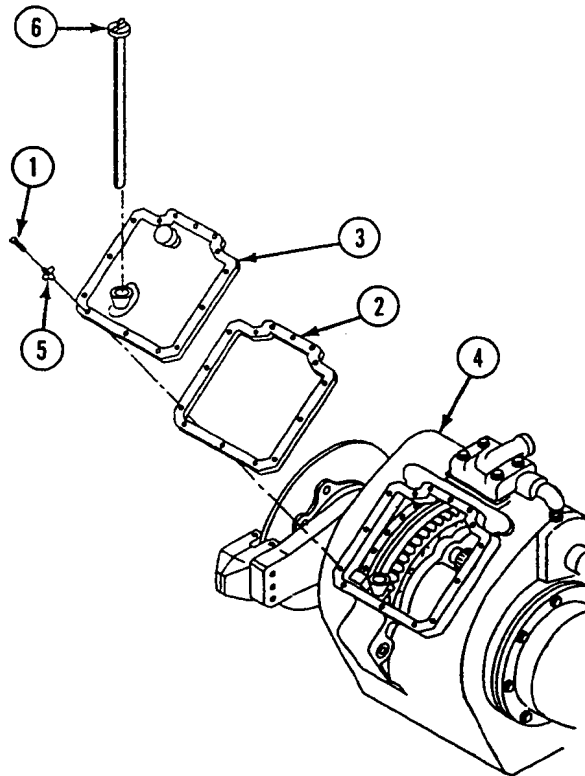
Damage to differential may occur if dirt or debris falls into it while cover is off. Before differential cover is removed, all dirt and debris must be removed from around it and power plant door.

2. Remove all dirt and debris from around and above differential cover (2).
3. Straighten tabs on 14 key washers (3).
4. Remove 14 screws (4), key washers (3), differential cover (2), and gasket (5) from differential gearbox (6). Discard gasket and key washers.



INSTALLATION

1. Clean threads of 14 screws (1) with cleaning compound.
2. Apply light coat of antiseize compound to threads of 14 screws (1).
3. Place new gasket (2) and new differential cover (3) on differential gearbox (4).
4. Secure differential cover (3) in place with 14 new key washers (5) and screws (1). TIGHTEN SCREWS TO 252-300 LB-IN (29-34 N·M) TORQUE. Use torque wrench. Bend tabs on key washers.
5. Install dipstick (6) through differential cover (3).

**FOLLOW-THROUGH STEPS**

1. Check oil level in differential gearbox (WP 0120 00).
2. Close front power plant engine access door (see your -10).

END OF TASK

CHAPTER 22
UNIT MAINTENANCE INSTRUCTIONS
FOR TRACKS AND SUSPENSION

WORK PACKAGE INDEX

<u>Title</u>	<u>Sequence No.</u>
REPLACE TRACK COVERS.....	.0365 00
REPLACE T130 TRACK.....	.0366 00
REPLACE T150 TRACK.....	.0367 00
REPLACE T130 TRACK SHOE AND PAD ASSEMBLY.....	.0368 00
REPLACE T150 TRACK SHOE ASSEMBLY.....	.0369 00
REPLACE T150 TRACK SHOE PAD ASSEMBLY.....	.0370 00
REPLACE T130 ROAD WHEEL.....	.0371 00
REPLACE T150 ROAD WHEEL0372 00
REPLACE ROAD WHEEL HUB.....	.0373 00
REPLACE ROAD WHEEL SUPPORT ARM, BEARINGS, AND SEALS.....	.0374 00
REPLACE IDLER WHEEL.....	.0375 00
REPLACE IDLER WHEEL ARM BEARINGS AND SEALS.....	.0376 00
REPLACE IDLER WHEEL ARM ASSEMBLY.....	.0377 00
REPLACE TRACK TENSION ADJUSTER AND MOUNT.....	.0378 00
REPLACE SHOCK ABSORBER.....	.0379 00
REPLACE SHOCK ABSORBER PIN.....	.0380 00
REPLACE SHOCK ABSORBER MOUNT.....	.0381 00
REPLACE T130 SPROCKET WHEEL ASSEMBLY.....	.0382 00
REVERSE T150 SPROCKET WHEEL AND TRACK ASSEMBLIES.....	.0383 00
REPAIR T150 SPROCKET WHEEL AND TRACK ASSEMBLIES.....	.0384 00
REPLACE TORSION BAR.....	.0385 00
REPLACE TORSION BAR ANCHOR.....	.0386 00

REPLACE TRACK COVERS

0365 00

THIS WORK PACKAGE COVERS:

Removal (page 0365 00-1).
 Installation (page 0365 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)

Tools and Special Tools

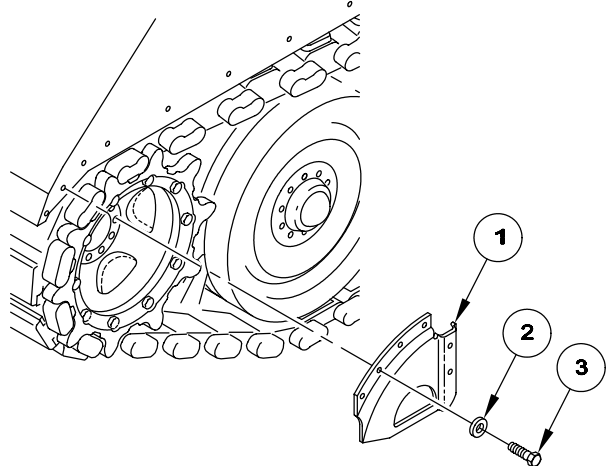
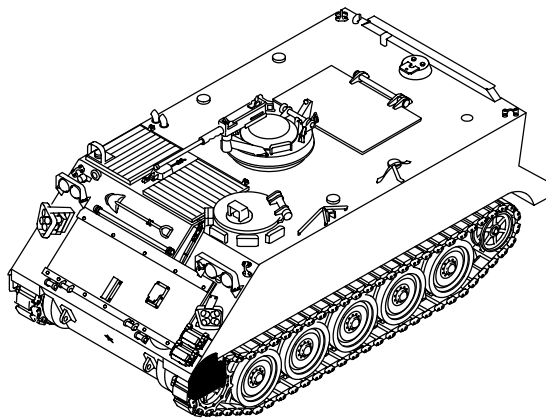
General Mechanic's Tool Kit (WP 0780 00, Item 29)

Personnel Required

Unit Mechanic

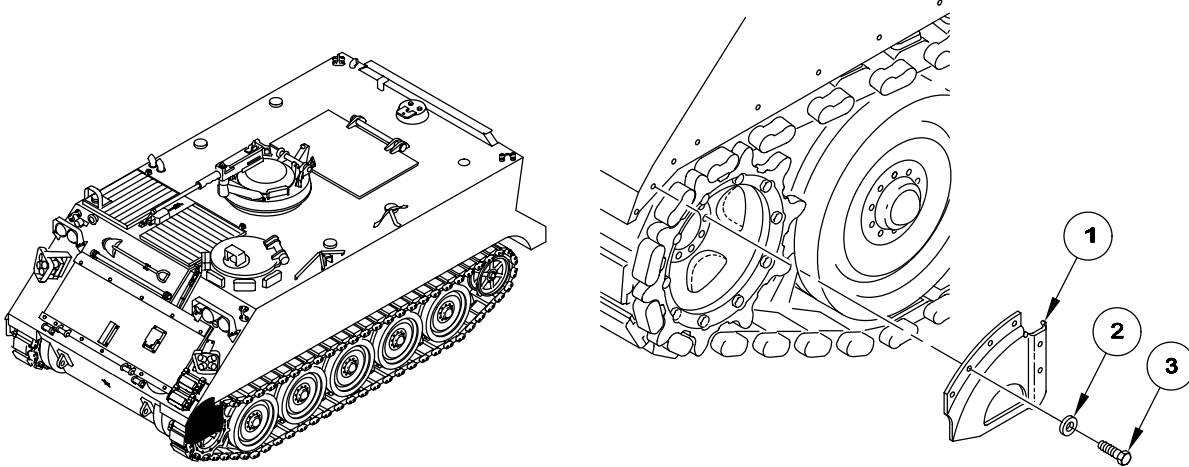
REMOVAL

1. Remove four screws (3) and washers (2) from front cover (1), and remove cover.



INSTALLATION

1. Place front cover (1) on hull. Secure with four washers (2) and screws (3).

**END OF TASK**

REPLACE T130 TRACK

0366 00

THIS WORK PACKAGE COVERS:

- Removal (page 0366 00-1).
 - Clean, Inspect, and Repair (page 0366 00-2).
 - Installation (page 0366 00-3).
-

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Helper (H)

Tools and Special Tools

- Drive Pin Punch (WP 0780 00, Item 51)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Torque Wrench (WP 0780 00, Item 104)
- Track and Sprocket Gauge (WP 0780 00, Item 28)
- Track Fixture (2) (WP 0780 00, Item 25)

References

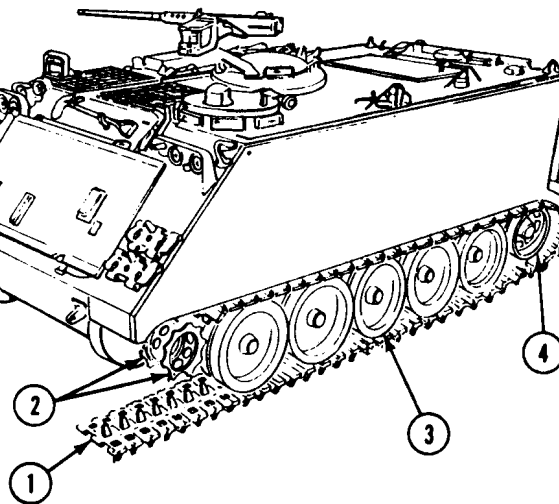
See your -10

Equipment Condition

- Engine stopped/shutdown (see your -10)
 - Carrier blocked (see your -10)
 - Track cover removed (WP 0365 00)
-

REMOVAL

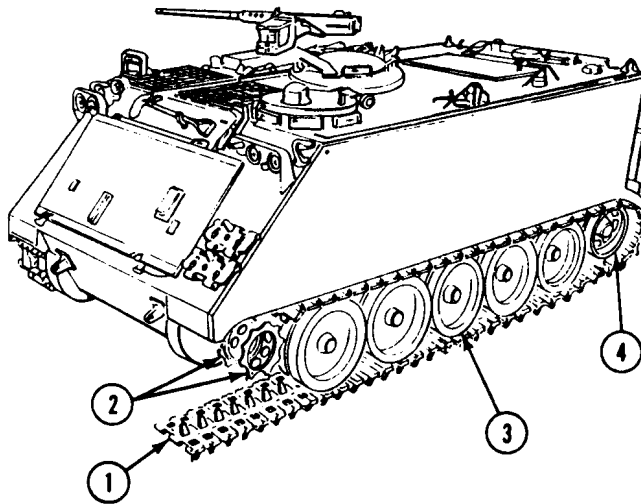
1. Relieve tension and break track (see your -10).
2. Remove blocks used to keep carrier from moving (see your -10).
3. Start engine (see your -10). Place range selector in R position. Slowly back carrier (see your -10).
4. (H): Guide track (1) over drive sprockets (2), road wheels (3), and idler wheel (4).



WARNING

Failure to lock steering levers and block the road wheels can allow the carrier to move and could result in injury or death. Always lock steering levers and block road wheels before working on the carrier.

5. After carrier clears track (1), lock steering lever (see your -10). Place range selector in N position. Stop engine (see your -10).



6. Block carrier (see your -10).

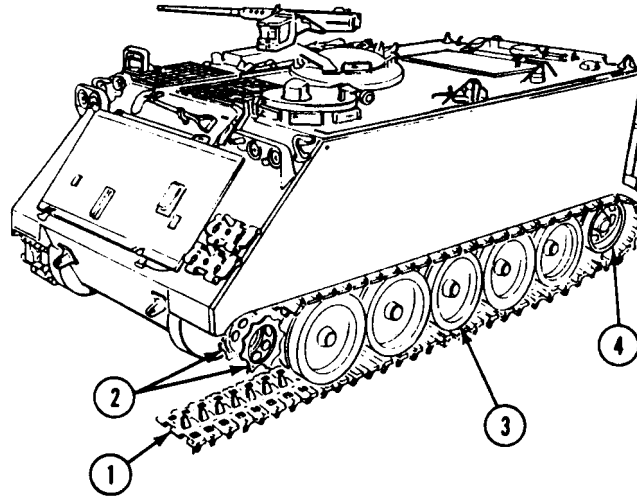
CLEAN, INSPECT, AND REPAIR**NOTE**

Make sure track pads point toward carrier.

1. Check for damage, wear, and cracks. Replace as needed.

INSTALLATION

1. (H): Lay track (1) out flat in front of carrier so that track guides are aligned between first pair of road wheels (3).
2. Remove blocks used to keep carrier from moving (see your -10).
3. Start engine (see your -10). Place range selector in 1 DRIVE. Slowly drive carrier forward (see your -10).
4. (H): Pull track (1) up and over idler wheel (4), road wheels (3), and drive sprocket (2).



5. Stop carrier when hub of first road wheel is directly over third track shoe from the end of the track.
6. Place range selector in N. Stop engine (see your -10).

WARNING

Failure to lock steering levers and block the road wheels can allow the carrier to move and could result in injury or death. Always lock steering levers and block road wheels before working on the carrier.

7. Block carrier (see your -10).
8. Join track (see your -10). TORQUE TRACK PIN NUT TO 115-135 LB-FT (156-183 N·M). Use torque wrench.
9. Adjust tension (see your -10).

FOLLOW-THROUGH STEPS

1. Install track cover (WP 0365 00).
2. Road test carrier to check that track is installed properly (WP 0120 00).
3. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE T150 TRACK

0367 00

THIS WORK PACKAGE COVERS:

Removal (page 0367 00-1).
 Installation (page 0367 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

See your -10

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Socket Wrench (WP 0780 00, Item 97)
 Tool, Track Pin Alignment (WP 0780 00, Item 82)
 Torque Wrench (WP 0780 00, Item 105)

Equipment Condition

Engine stopped (see your -10)
 Carrier blocked (see your -10)
 Track covers removed (WP 0365 00)

Personnel Required

Unit Mechanic
 Helper (H)

REMOVAL

NOTE

The procedure for replacing left and right track assemblies is the same.

1. Break track (see your -10).
2. Unblock carrier (see your -10).
3. Drive carrier off one side of track (see your -10).

WARNING



Failure to lock steering levers and block the road wheels can allow the carrier to move and could result in injury or death. Always lock steering levers and block road wheels before working on the carrier.

4. Block carrier (see your -10).

INSTALLATION

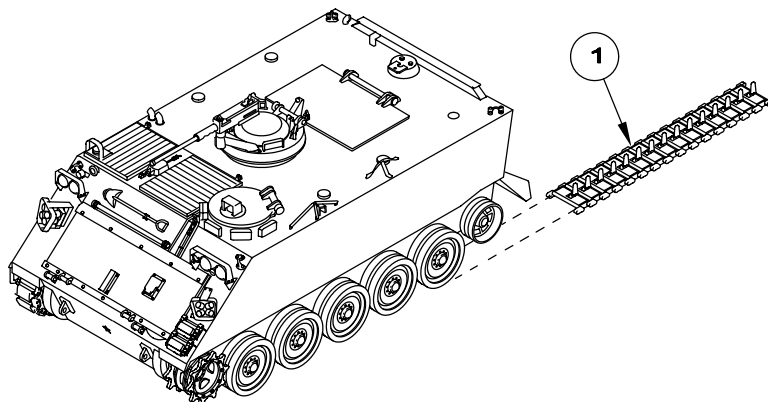
NOTE

Track assembly can be installed from the front of the carrier or from the rear. There is an advantage installing it from the rear of the carrier; when the end of the track assembly gets to the final drive sprockets, the drive sprockets will assist in pushing the track toward the idler wheel with some guiding by a helper over the road wheels. Moving the carrier forward over the track means the helper will have to use more force to move the track, as the idler wheel will not provide any moving force like the final drive sprockets will.

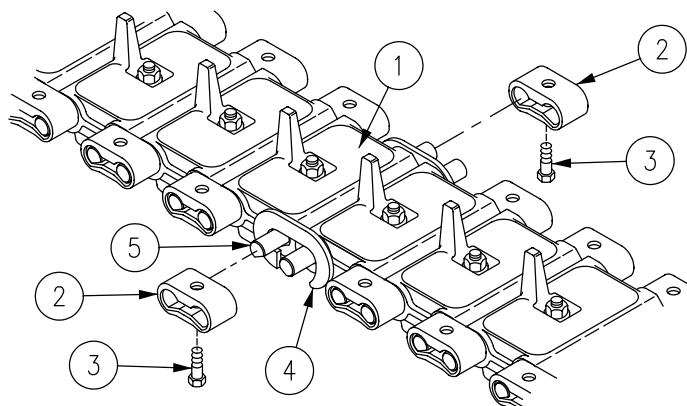
NOTE

A complete track assembly consists of 63 track shoes on the left side and 64 track shoes on the right side. A flat, level surface about 50 feet (15.24 m) long is needed to assemble track sections.

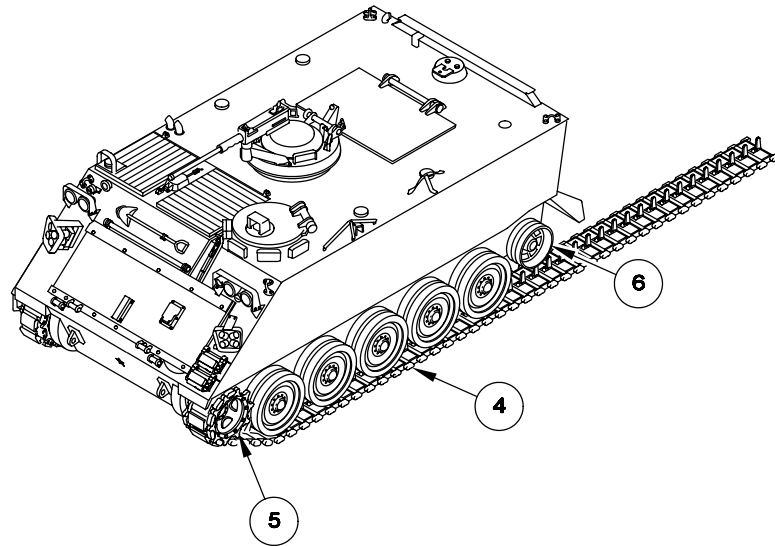
1. Position track shoe assemblies (1) in a line in back of the carrier. Align track guides of track shoe assemblies between first pair of road wheels.



2. Remove non-mating end connectors (2) from each track shoe assembly (1).
3. Position track shoe assemblies (1) so that connecting track shoes are approximately 2 inches (50.8 mm) off the ground.
4. Connect track shoe assemblies (1).
 - a. Install two track pin alignment tools (4) over track shoe pins (5).
 - b. Install two end connectors (2) on track shoe pins (5). Remove track pin alignment tool (4) before driving end connectors flush with pin ends.
 - c. Drive end connectors (2) flush with pin ends and install bolts (3) on each end connector.



5. Repeat step 4 until a complete track has been connected in a line.
6. Unblock carrier (see your -10).
7. (H): Drive carrier backward until track (4) positions on sprockets (5).
8. (H): Drive carrier backward until track (4) is over idler wheels (6).



WARNING



Failure to lock steering levers and block the road wheels can allow the carrier to move and could result in injury or death. Always lock steering levers and block road wheels before working on the carrier.

9. Join track (see your -10).
10. TIGHTEN ALL END CONNECTOR BOLTS (3) TO 400–430 LB-FT (543–583 N·M) TORQUE. Use torque wrench.
11. Adjust track tension (see your -10).

FOLLOW-THROUGH STEPS

1. Install track cover (WP 0365 00)
2. Unblock carrier (see your -10).
3. Road test carrier to check that track is installed correctly (see your -10).

END OF TASK

REPLACE T130 TRACK SHOE AND PAD ASSEMBLY

0368 00

THIS WORK PACKAGE COVERS:

- Replacement (page 0368 00-1).
 - Removal (page 0368 00-2).
 - Installation (page 0368 00-2).
-

INITIAL SETUP:

Maintenance Level

Unit

References

See your -10

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Torque Wrench (WP 0780 00, Item 103)

Equipment Condition

- Carrier on level ground
- Carrier positioned with track pad accessible
- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)

Personnel Required

Unit Mechanic

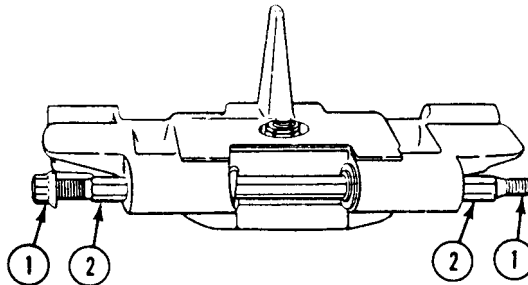
REPLACEMENT

1. See your -10 for instructions on replacing the track shoe.

NOTE

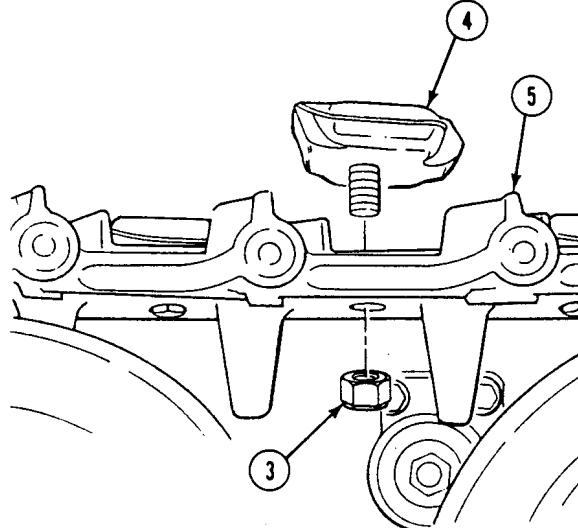
Track shoe pin should not be extending outside of shoe.

2. Tighten either locknut (1) on track shoe pin (2) until approximately 1-2 threads extend through locknut. **TIGHTEN OPPOSITE LOCKNUT (1) TO 115-135 LB-FT (155-183 N·M).** Use torque wrench.



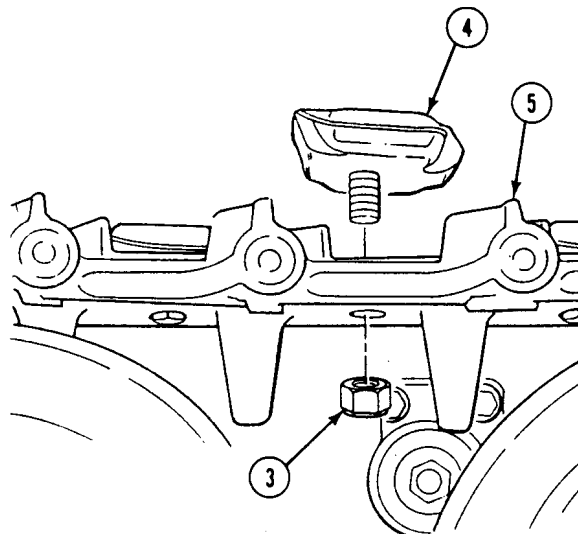
REMOVAL

1. Remove locknut (3) and pad (4) from track shoe (5). Discard locknut.

**INSTALLATION****NOTE**

Your carrier might have either T130 or T130E1 track, or a mixture of both. A T130E1 track pad is about 4-3/4 inches (12 cm) long. A T130 track pad is about 5-3/4 inches (14.6 cm) long.

1. Install track shoe pad (4) in track shoe (5). Secure with new locknut (3). **TIGHTEN LOCKNUT TO 135-155 LB-FT (183-210 N·M) TORQUE.** Use torque wrench.

**END OF TASK**

REPLACE T150 TRACK SHOE ASSEMBLY

0369 00

THIS WORK PACKAGE COVERS:

Removal (page 0369 00-1).
 Installation (page 0369 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

See your -10

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Socket Wrench (WP 0780 00, Item 97)
 Tool, Track Pin Alignment (WP 0780 00, Item 82)
 Torque Wrench (WP 0780 00, Item 105)

Equipment Condition

Drive carrier (see your -10). Move carrier to reach damaged track shoe. Have helper guide you.
 Stop carrier (see your -10)
 Block carrier (see your -10)
 Break track (see your -10)

Personnel Required

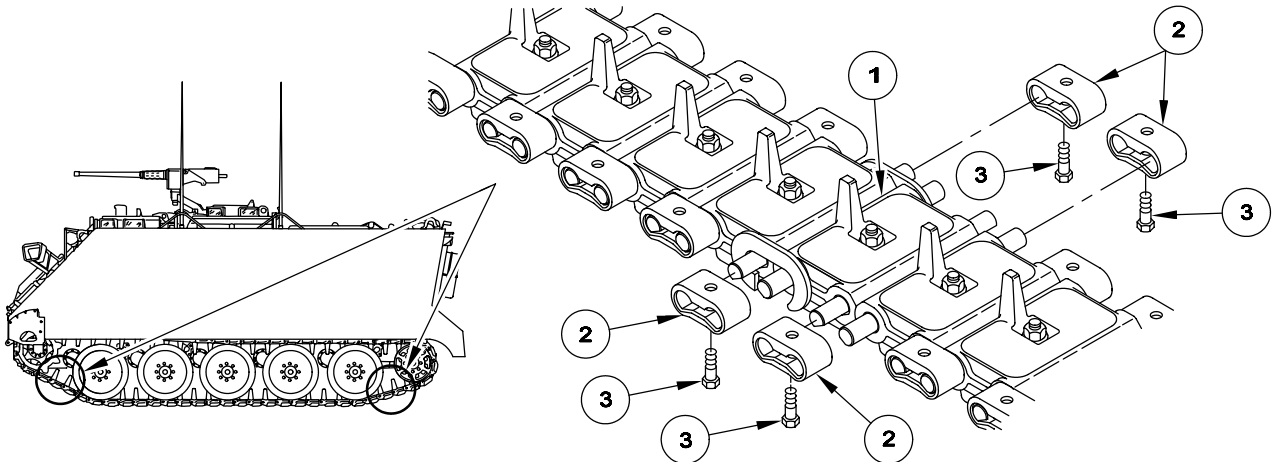
Unit Mechanic
 Helper (H)

REMOVAL

NOTE

Track shoes should be removed between drive sprocket and first road wheel or idler wheel and the fifth road wheel.

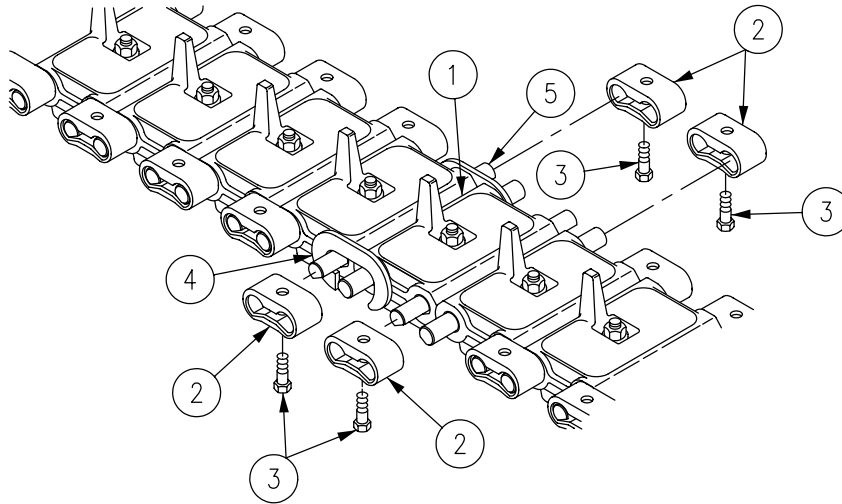
1. Remove four bolts (3), end connectors (2), and track shoe (1) from track.
2. Remove end connectors (2)



INSTALLATION**NOTE**

Position track shoes at a slight angle to mount end connectors on both pins.

1. Install track shoe (1) on track. Have helper assist.
 - a. Install two track pin alignment tools (4) over track shoe pins (5).
 - b. Install four end connectors (2) on track shoe pins (5). Remove track pin alignment tool (4) before driving end connectors flush with pin ends.
 - c. Drive end connectors (2) flush with pin ends and install bolts (3) on each end connector.
2. Join track (see your -10).
3. **TIGHTEN FOUR BOLTS (3) TO 400–430 LB-FT (543–583 N·M) TORQUE.** Use torque wrench.

**FOLLOW-THROUGH STEPS**

1. Adjust track tension (see your -10).
2. Unblock carrier (see your -10).
3. Road test carrier to check that track is installed correctly (see your -10).

END OF TASK

REPLACE T150 TRACK SHOE PAD ASSEMBLY

0370 00

THIS WORK PACKAGE COVERS:

Removal (page 0370 00-1).
 Installation (page 0370 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Helper (H)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Torque Wrench (WP 0780 00, Item 103)

References

See your -10

Materials/Parts

Locknut

Equipment Condition

Engine stopped (see your -10)

REMOVAL

NOTE

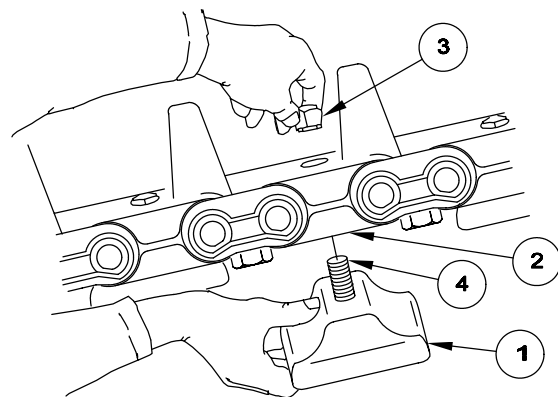
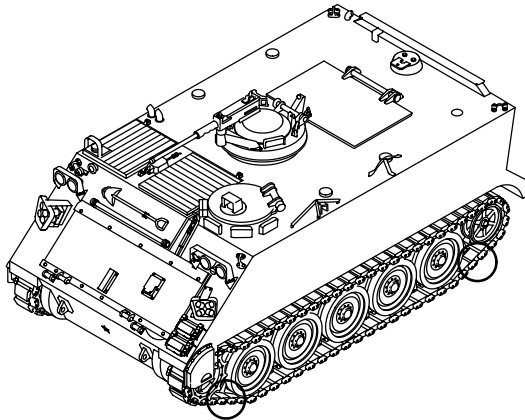
Left/right track shoe pads are removed and installed the same way.

1. Start engine (see your -10).
2. Drive carrier (see your -10). Move carrier to reach damaged track shoe pad. Have a helper guide you.
3. Stop engine (see your -10).
4. Block carrier (see your -10).

NOTE

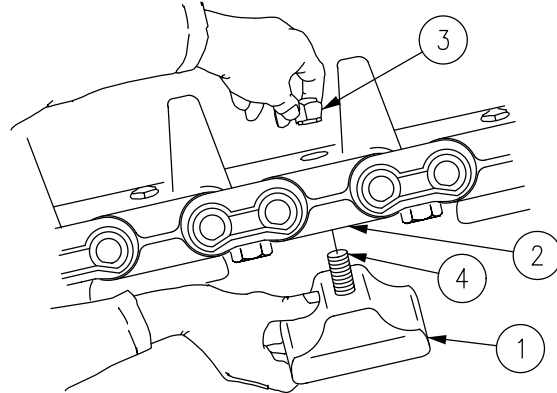
Track shoe pads should be removed between drive sprocket and first road wheel or idler wheel and fifth road wheel.

5. Remove locknut (3) from stud (4). Discard locknut.
6. Tap on stud (4) and remove track shoe pad (1) from track shoe (2).



INSTALLATION

1. Install stud (4) of track shoe pad (1) through track shoe (2) from under track and install new locknut (3) on stud.



2. TIGHTEN LOCKNUT (3) TO 120–150 LB-FT (162–293 N·M) TORQUE. Use torque wrench.

FOLLOW-THROUGH STEPS

1. Unblock carrier (see your -10).
2. Road test carrier to check that track shoe pad is installed correctly (see your -10).

END OF TASK

REPLACE T130 ROAD WHEEL

0371 00

THIS WORK PACKAGE COVERS:

Removal (page 0371 00-1).
 Installation (page 0371 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic
 Helper (H)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Road Wheel Lifter (WP 0780 00, Item 38)
 Torque Wrench (WP 0780 00, Item 103)

References

See your -10

Materials/Parts

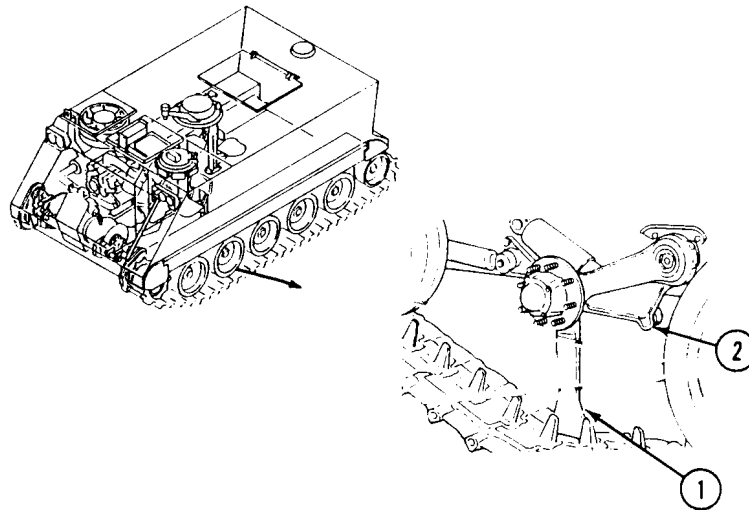
Locknut, per wheel (8)

Equipment Condition

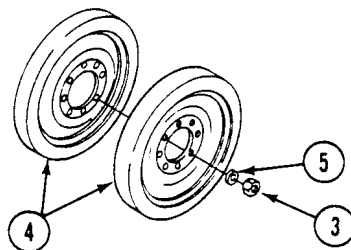
Carrier on level surface
 Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Release track tension (see your -10)

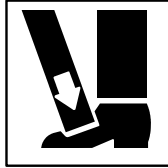
REMOVAL

1. (H): Place lifter (1) under road wheel arm (2). Keep lower tips of lifter in track link just rearward of wheel being removed.



2. Loosen eight locknuts (3) on road wheel (4). Do not remove locknuts.
3. Remove blocks used to keep carrier from moving (see your -10).



WARNING

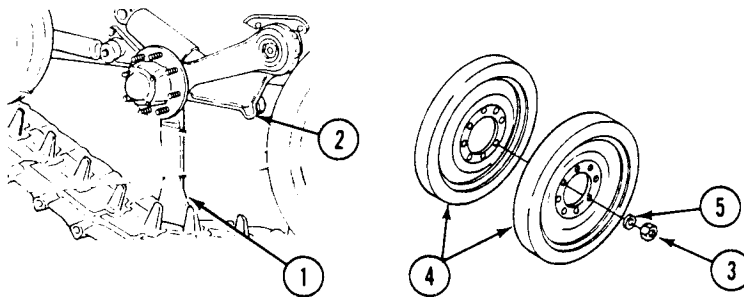
If road wheel lifter slips while lowering road arm, it could injure you. Stand clear before you lower road arm.

4. Start engine (see your -10). Place gear selector in R position. Slowly back carrier until lifter (1) is vertical and road wheel (4) clears ground.

WARNING

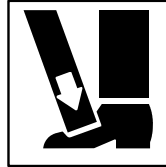
Failure to lock steering levers and block the road wheels can allow the carrier to move and could result in injury or death. Always lock steering levers and block road wheels before working on the carrier.

5. Stop engine and lock steering levers (see your -10).
6. Block carrier (see your -10).
7. Remove eight locknuts (3) and washers (5) from road wheel (4). Discard locknuts.
8. Lift track with bar until track clears road wheel (4). Remove two road wheels.



INSTALLATION

1. Lift track assembly with bar. Place two road wheels (1) on road wheel arm (2). Secure loosely with eight washers (3) and new locknuts (4).
2. Remove blocks used to keep carrier from moving (see your -10).

WARNING

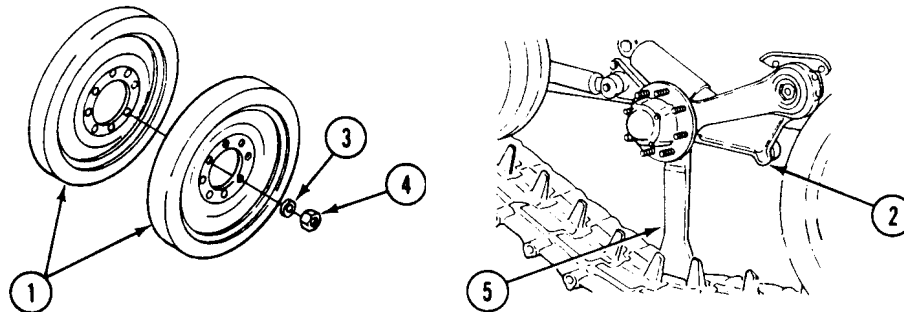
You can be hurt if road wheel lifter slips while road arm is being lowered. Stand clear.

3. Start engine (see your -10). Place range selector in RANGE 1. Slowly drive carrier forward off lifter (5). Remove lifter.

WARNING

Failure to lock steering levers and block the road wheels can allow the carrier to move and could result in injury or death. Always lock steering levers and block road wheels before working on the carrier.

4. Block carrier (see your -10).
5. TIGHTEN EIGHT LOCKNUTS (4) TO 150-170 LB-FT (203-230 N·M) TORQUE. Use torque wrench.

**FOLLOW-THROUGH STEPS**

1. Adjust track tension (see your -10).
2. Road test carrier to check that road wheel is installed properly (WP 0120 00).

END OF TASK

REPLACE T150 ROAD WHEEL

0372 00

THIS WORK PACKAGE COVERS:

- Inspection (page 0372 00-1)
- Removal (page 0372 00-1).
- Installation (page 0372 00-4).

INITIAL SETUP:

Maintenance Level

Unit

References

- See your -10
- TM 9-2530-200-24

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Road Wheel Lifter Assembly (WP 0780 00, Item 39)
- Torque Wrench (WP 0780 00, Item 103)

Equipment Condition

- Carrier on firm level surface
- Engine stopped (see your -10)
- Carrier blocked (see your -10)
- Break track (only if doing roadwheel number 1 or 5) (see your -10).

Materials/Parts

- Locknut, per wheel (8)

Personnel Required

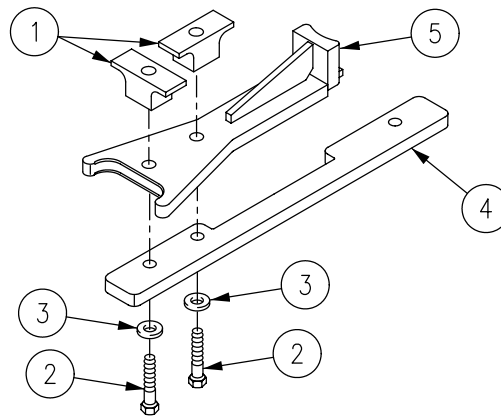
- Unit Mechanic
- Helper (H) (2)

INSPECTION

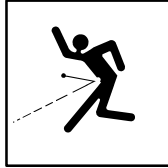
1. Check road wheels. See TM 9-2530-200-24. Replace wheel if rubber has separated from it. Replace wheel if damage causes noise or vibration when carrier is moving.

REMOVAL

1. Remove two T-nuts (1), screws (2), flat washers (3), retainer (4), and lifter (5) from road wheel lifter assembly.

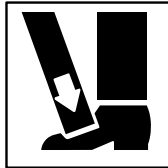


- Loosen eight locknuts (7) on road wheel (9). Do not remove nuts.

WARNING

Position retainer stops inside of end connectors to prevent the lifter from slipping off and causing injury and/or death to personnel.

- Install retainer (4), two flat washers (3), screws (2) and T-nuts (1) on inside of track assembly.
- Place lifter (5) under road wheel arm (6). Keep lower tips of lifter in track link just rearward of wheel being removed.
- Unblock carrier (see your -10)).

WARNING

If road wheel lifter slips while lowering road arm, it could injure you. Stand clear before you lower road arm.

- Start engine (see your -10). Place gear selector in R. Slowly back carrier until lifter (5) is vertical and road wheel (9) clears ground.

WARNING

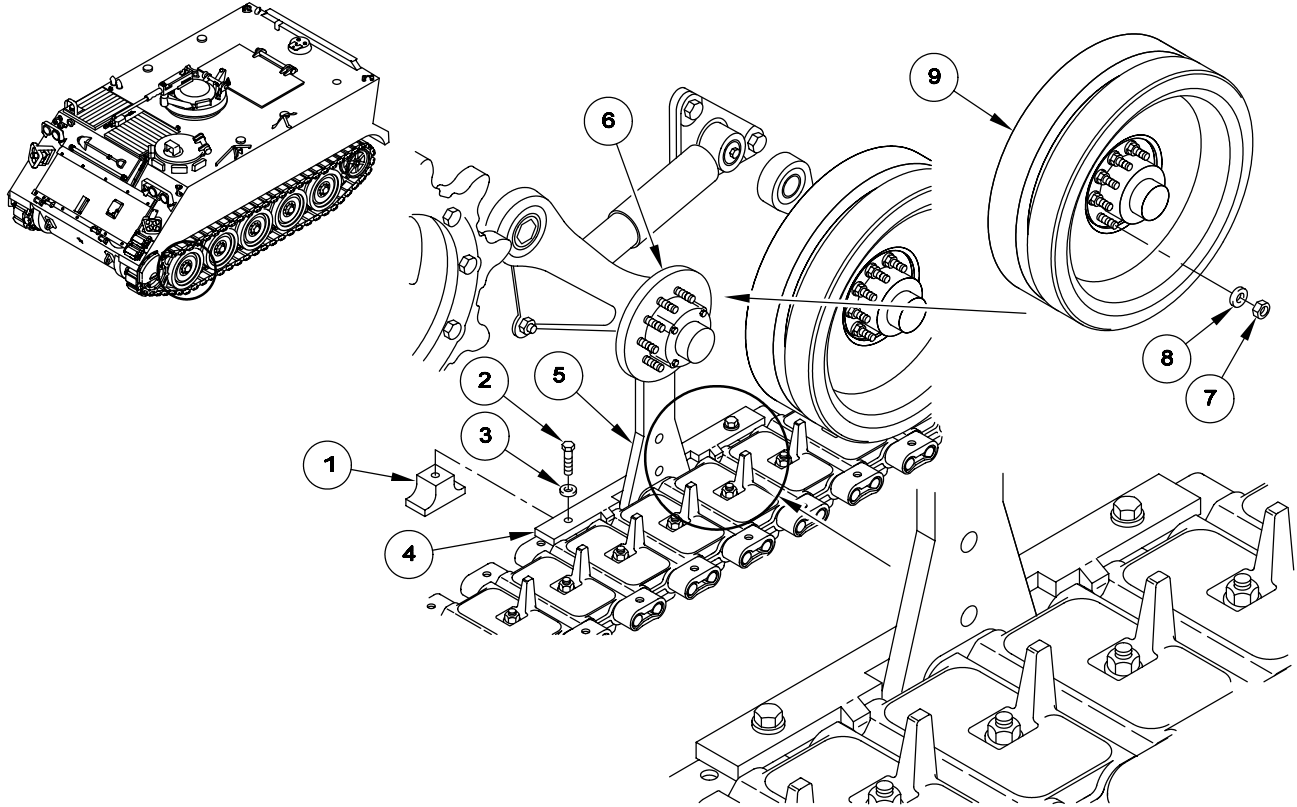
Failure to lock steering levers and block the road wheels can allow the carrier to move and could result in injury or death. Always lock steering levers and block road wheels before working on the carrier.

- Block carrier (see your -10).

REPLACE T150 ROAD WHEEL — Continued

0372 00

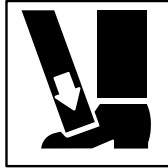
8. Remove eight locknuts (7) and washers (8) from road wheel (9). Discard locknuts.
9. Lift track with bar until track clears road wheel (9). Remove two road wheels.



INSTALLATION

1. Lift track assembly with bar. Place two road wheels (1) on road wheel arm (2). Secure loosely with eight washers (3) and new locknuts (4).
2. Unblock carrier (see your -10).

WARNING



If road wheel lifter slips while lowering road arm, it could injure you. Stand clear before you lower road arm.

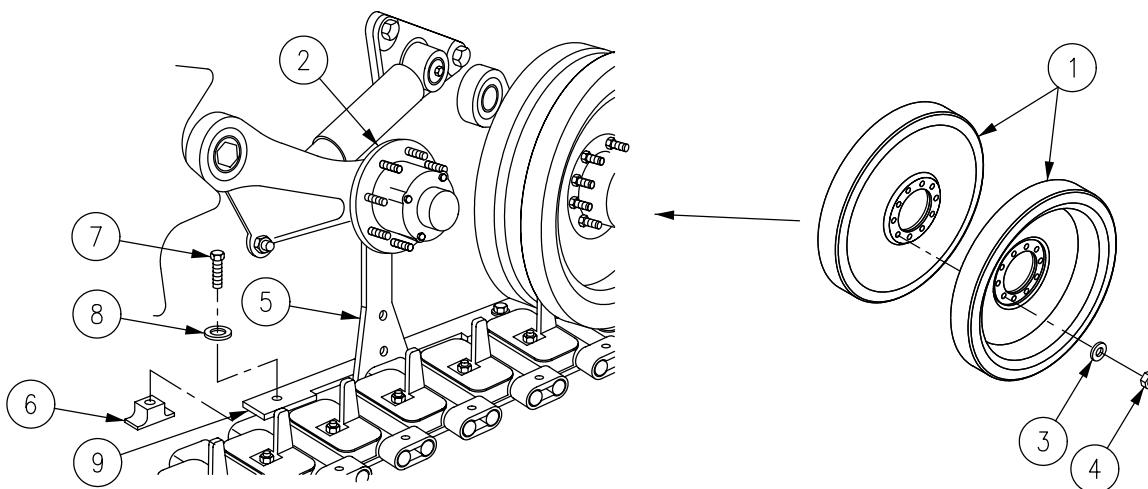
3. Start engine (see your -10). Place range selector in RANGE 1. Slowly drive carrier forward off lifter (5). Remove lifter.

WARNING

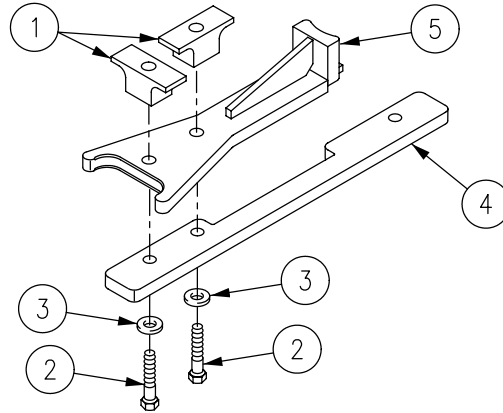


Failure to lock steering levers and block the road wheels can allow the carrier to move and could result in injury or death. Always lock steering levers and block road wheels before working on the carrier.

4. Remove two T-nuts (6), screws (7), flat washers (8), and retainer (9) from lifter (5) and remove road wheel lifter assembly from track.
5. Block carrier (see your -10).
6. TIGHTEN EIGHT NUTS (4) TO 150-170 LB-FT (203-230 N·M) TORQUE. Use torque wrench.



7. Assemble road wheel lifter assembly by installing retainer (4), two flat washers (3), screws (2), and T-nuts (1) on road wheel lifter (5).



FOLLOW-THROUGH STEPS

1. Join track if roadwheel number 1 or 5 was replaced (see your -10).
2. Adjust track tension (see your -10).
3. Unblock carrier (see your -10).
4. Road test carrier to check that road wheel is installed correctly (see your -10).

END OF TASK

REPLACE ROAD WHEEL HUB

0373 00

THIS WORK PACKAGE COVERS:

- Removal (page 0373 00-1).
- Clean, Inspect, and Replace (page 0373 00-2).
- Installation (page 0373 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Replacer (WP 0780 00, Item 57)
- Ring Spacer (WP 0780 00, Item 71)
- Torque Wrench (WP 0780 00, Item 103)

Materials/Parts

- Grease (WP 0782 00, Item 24)
- Sealing compound (WP 0782 00, Item 61)
- Cotter pin
- Hub cap gasket
- Hub-to-arm seal
- Inner bearing (as needed)
- Inner bearing cup (as needed)

Materials/Parts

- Outer bearing (as needed)
- Outer bearing cup (as needed)
- Ribbed shoulder bolt (as needed)

Personnel Required

Unit Mechanic

References

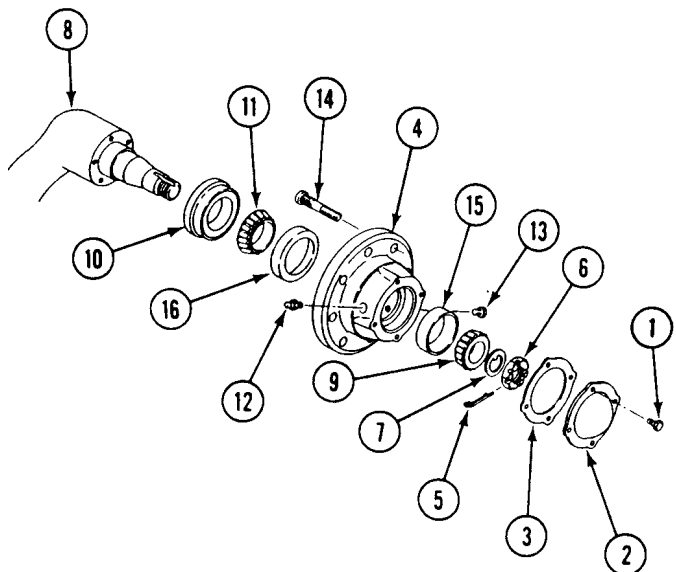
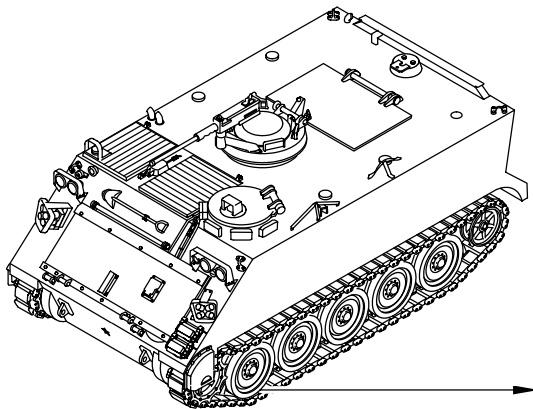
- TM 9-214
- WP 0120 00

Equipment Condition

- Carrier on level surface
- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Road wheel removed (WP 0371 00) (T130) or (WP 0372 00) (T150)

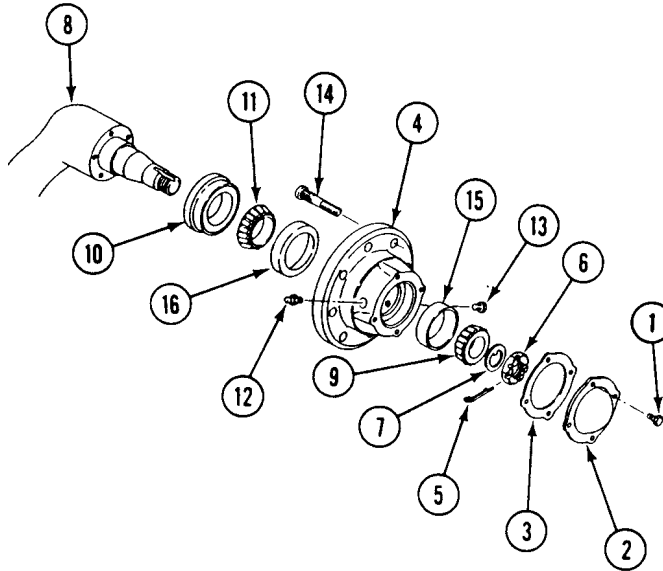
REMOVAL

1. Remove four screws (1), hub cap (2), and gasket (3) from road wheel hub (4). Discard gasket.
2. Remove cotter pin (5), nut (6), and washer (7) from road wheel support arm (8). Discard cotter pin.
3. Remove outer bearing (9) and hub (4) from road wheel support arm (8). Remove seal (10) and inner bearing (11) from hub (4). Discard seal.



REPLACE ROAD WHEEL HUB — Continued**0373 00**

4. Remove grease fitting (12) and relief valve (13) from hub (4).
5. If damaged, remove bolt(s) (14) from hub (4). Discard bolt(s).
6. If damaged, remove bearing cups (15) and (16) from hub (4). Discard cups.

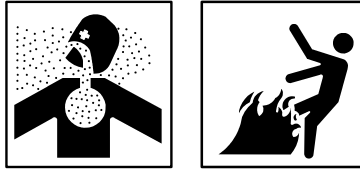
**CLEAN, INSPECT, AND REPLACE**

1. Check fittings and relief valve for wear and damage. Replace if needed.
2. Inspect bearings. See TM 9-214. Replace if needed.

INSTALLATION**CAUTION**

Bearings must be replaced as assemblies. Do not mix cups and bearings.

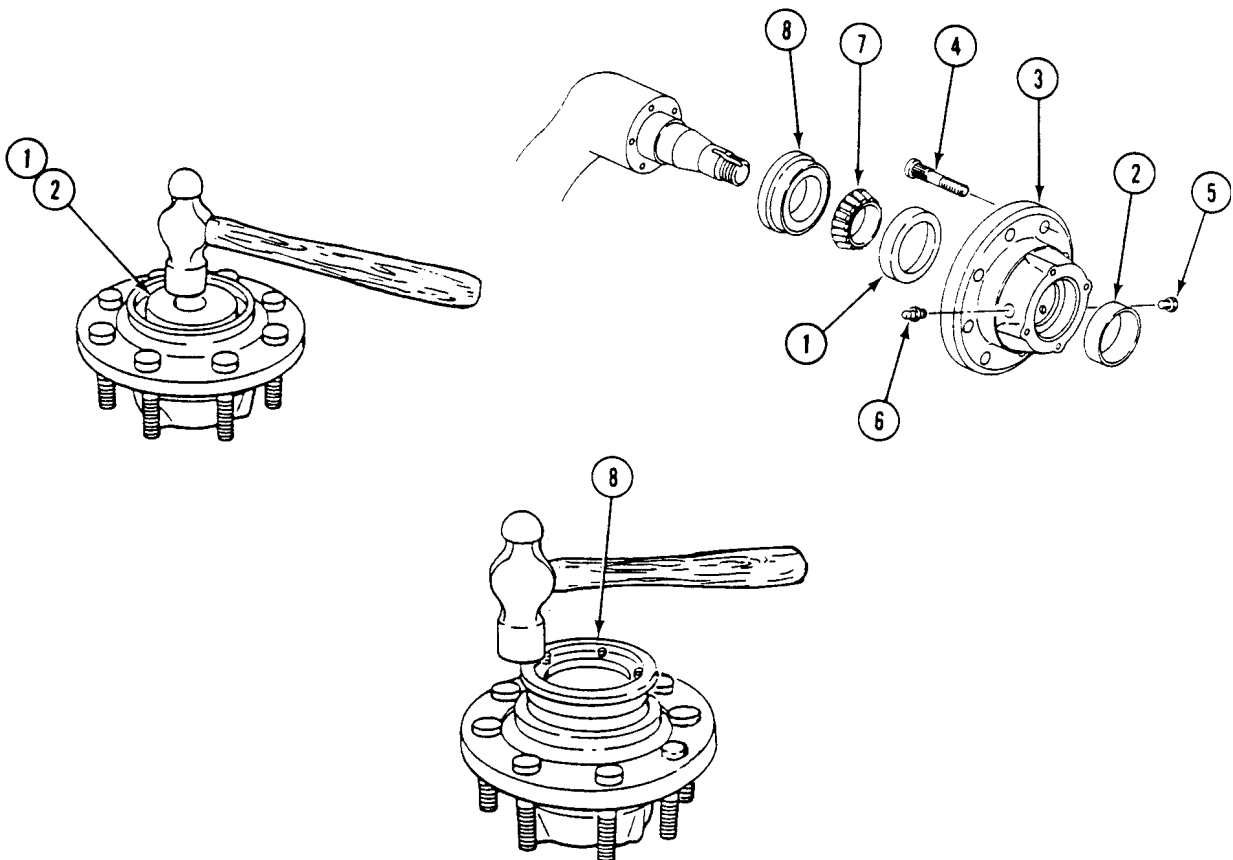
1. If removed, install new bearing cups (1) and (2) in hub (3). Use replacer.
2. If removed, install new bolts (4) in road wheel hub (3).

WARNING

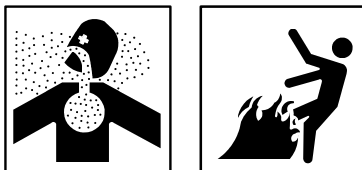
Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

3. Apply a light coat of sealing compound to threads of relief valve (5) and lubrication fitting (6). Install valve and fitting in hub (3).
4. Pack inner bearing (7) with grease. Install bearing in rear of hub (3).



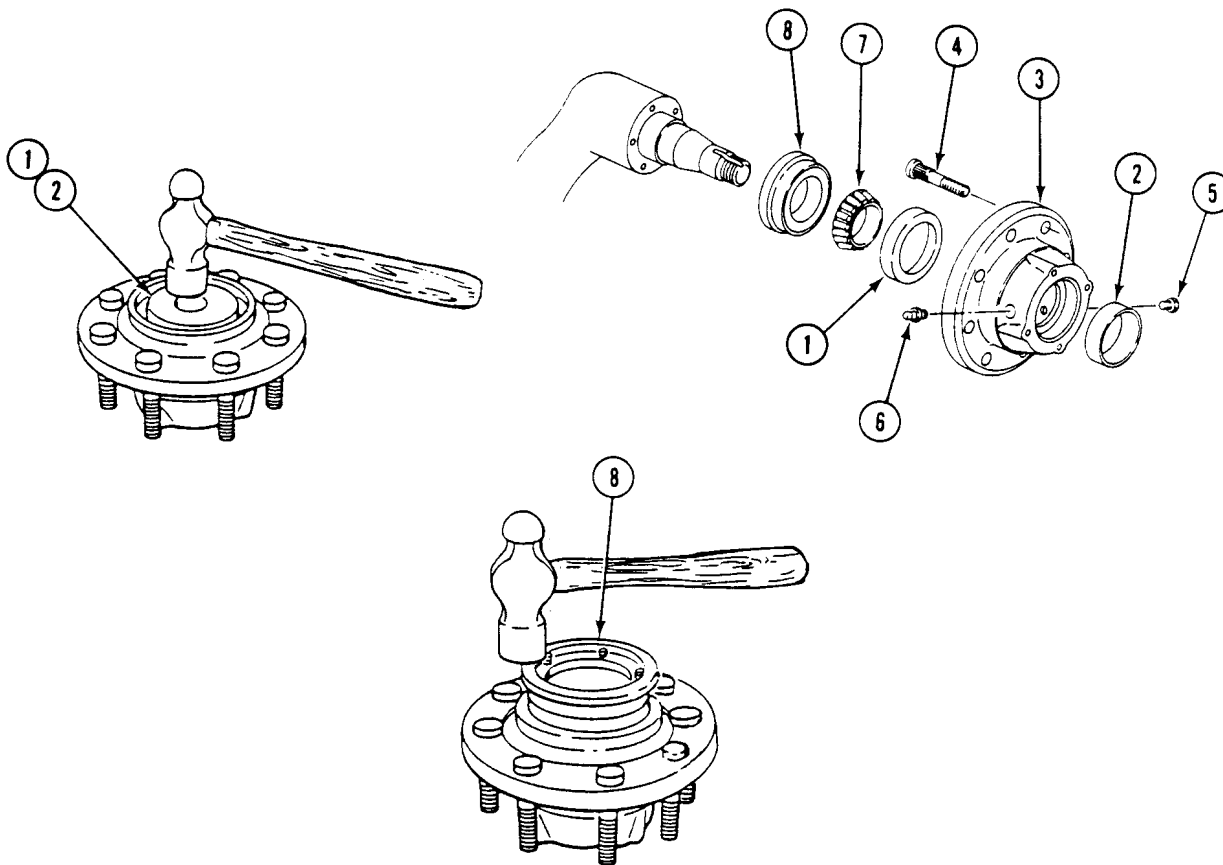
WARNING



Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

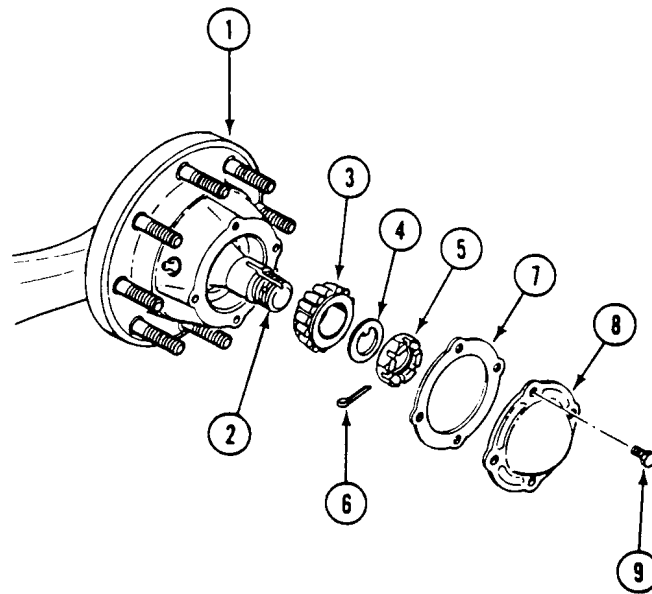
Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

5. Apply a light coat of sealing compound to external surface of new seal (8).
6. Install new seal (8) in hub (3) using spacer.



REPLACE ROAD WHEEL HUB — Continued**0373 00**

7. Place hub (1) on road wheel support arm (2). Completely pack cavity in hub with grease.
8. Pack outer bearing (3) with grease. Install in hub (1).
9. Install washer (4) and nut (5) on support arm (2). Tighten nut to adjust bearing as follows:
 - a. TIGHTEN NUT (5) TO 140-150 LB-FT (190-203 N·M) TORQUE. Use torque wrench.
 - b. Back off nut (5) until there is no torque.
 - c. TIGHTEN NUT (5) TO 70-75 LB-FT (95-102 N·M) TORQUE. Use torque wrench.
 - d. Back off nut to align nearest cotter pin hole in nut with cotter pin hole in support arm (2).
10. Install new cotter pin (6) in support arm (2).
11. Install new gasket (7), hub cap (8), and four screws (9) in hub (1).
12. Fill hub (1) with grease (WP 0120 00).

**FOLLOW-THROUGH STEPS**

1. Install road wheel (WP 0371 00) (T130) or (WP 0372 00) (T150).
2. Road test carrier to check that hub is installed properly (WP 0120 00).
3. Check track tension (see your -10).

END OF TASK

REPLACE ROAD WHEEL SUPPORT ARM, BEARINGS, AND SEALS

0374 00

THIS WORK PACKAGE COVERS:

- Removal (page 0374 00-1).
- Clean, Inspect, and Replace (page 0374 00-3).
- Installation (page 0374 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Replacer (WP 0780 00, Item 57)
- Socket Wrench Set (WP 0780 00, Item 96)
- Torque Wrench (WP 0780 00, Item 102)
- Torque Wrench (WP 0780 00, Item 103)

References

TM 9-214

Equipment Condition

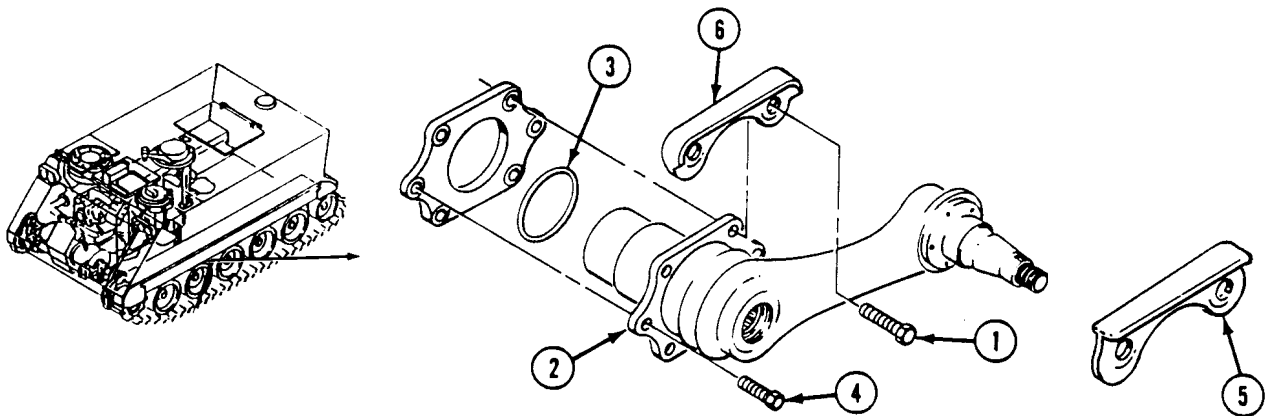
- Carrier on level surface
- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Road wheel removed (WP 0371 00) (T130) or (WP 0372 00) (T150)
- Road wheel hub removed (WP 0371 00)
- Shock absorber removed from first, second, or fifth road wheel (WP 0379 00)
- Torsion bar removed (WP 0385 00)

Materials/Parts

- Grease (WP 0782 00, Item 24)
- Sealing compound (WP 0782 00, Item 61)
- Bearing (2)
- Inner seal
- Key washer (3)
- Outer seal
- Packing
- Retainer gasket

REMOVAL

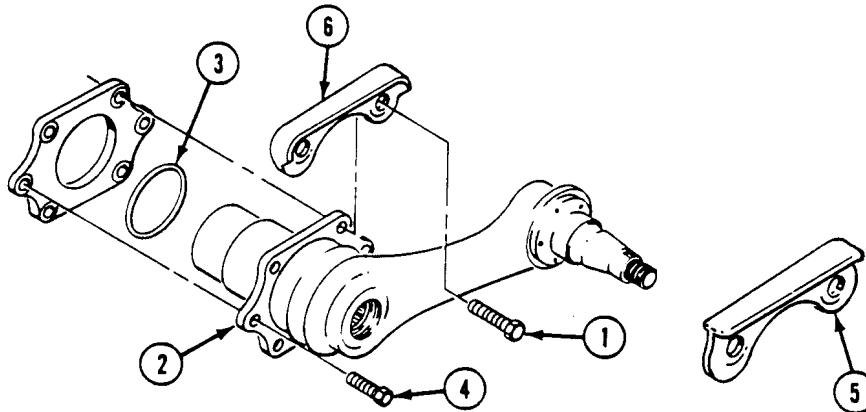
1. Remove six screws (1), road wheel arm assembly (2) (number one and two positions) and packing (3).
2. Remove two screws (1), four screws (4), road wheel support arm assembly (2), packing (3), and guard (5) from hull (number three position).



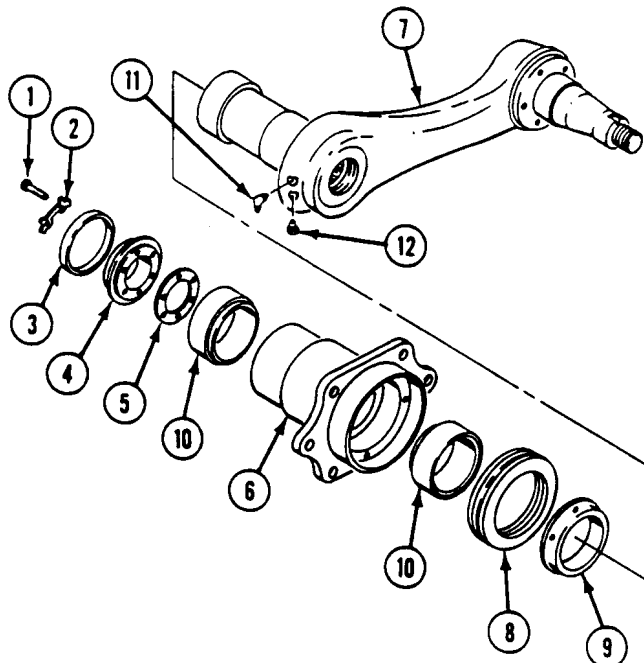
NOTE

Guard (5) used as support arm position three, is different from guard (6), used at support arm positions four and five. Do not interchange guards.

3. Remove two screws (1), four screws (4), road wheel support arm assembly (2), packing (3), and guard (6) from hull (number four and five positions). Discard packing.
4. Remove six screws (1) (number one position), five screws (number two, three, four, and five positions), road wheel support arm assembly (2), and packing (3) from hull.



5. Remove six screws (1), three washers (2), seal (3), retainer (4), and gasket (5) from housing (6). Discard washers, seal and gasket.
6. Remove support arm (7), seal (8), and spacer (9) from housing (6). Discard seal.
7. If needed, remove two bearings (10) from housing (6).
8. Remove lubrication fitting (11) and relief valve (12) from support arm (7).

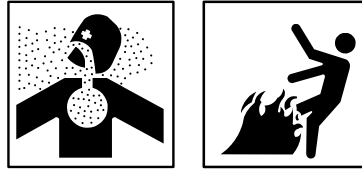


CLEAN, INSPECT, AND REPLACE

1. Check fittings and relief valve for wear and damage. Replace if needed.
2. Inspect bearings. See TM 9-214. Replace if needed.

INSTALLATION

1. If removed, install two bearings (10) in housing (6). Use replacer.

WARNING

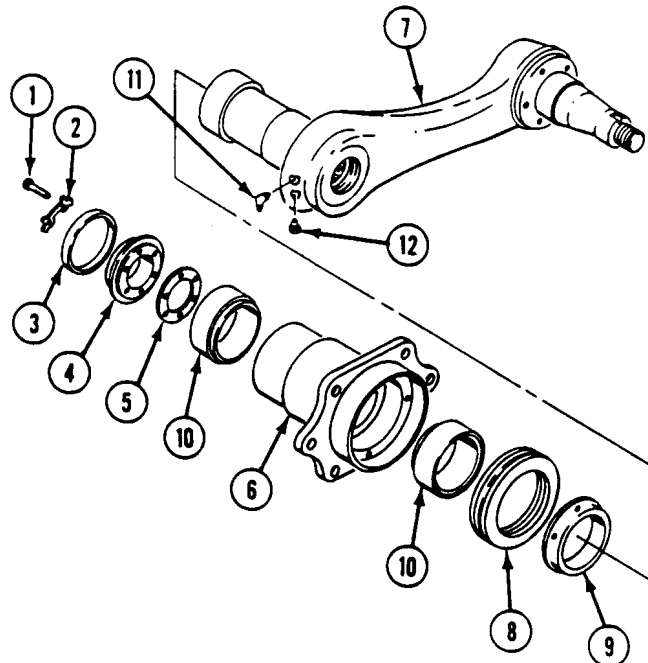
Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

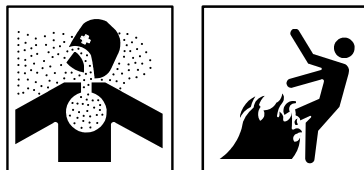
Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

NOTE

Make sure shoulders on bearings point toward center of housing.

2. Coat threads of relief valve (12) and lubrication fitting (11) with sealing compound. Install valve and fitting in support arm (7).
3. Put light coat of grease on bearing surface of support arm (7) and cork-rubber face of new seal (8). Place spacer (9) and seal (8), with pins facing housing (6), on shaft of support arm.
4. Install support arm (7) in housing (6). Align pins on seal (8) with holes in housing.

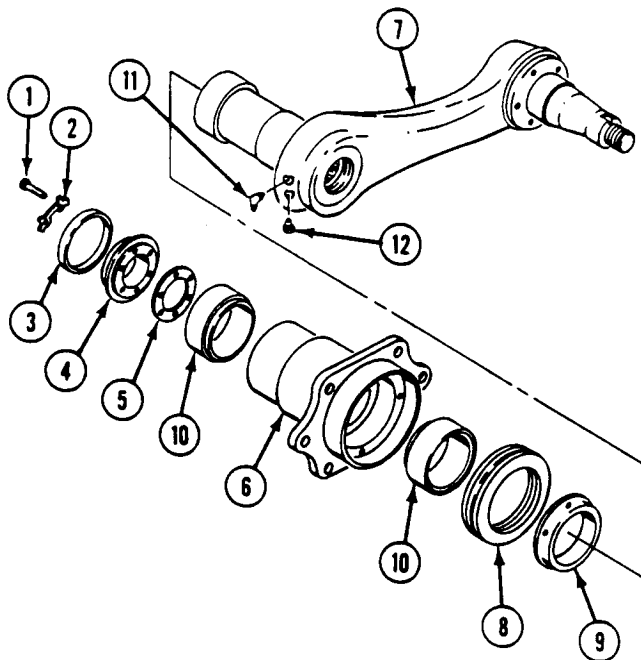


WARNING

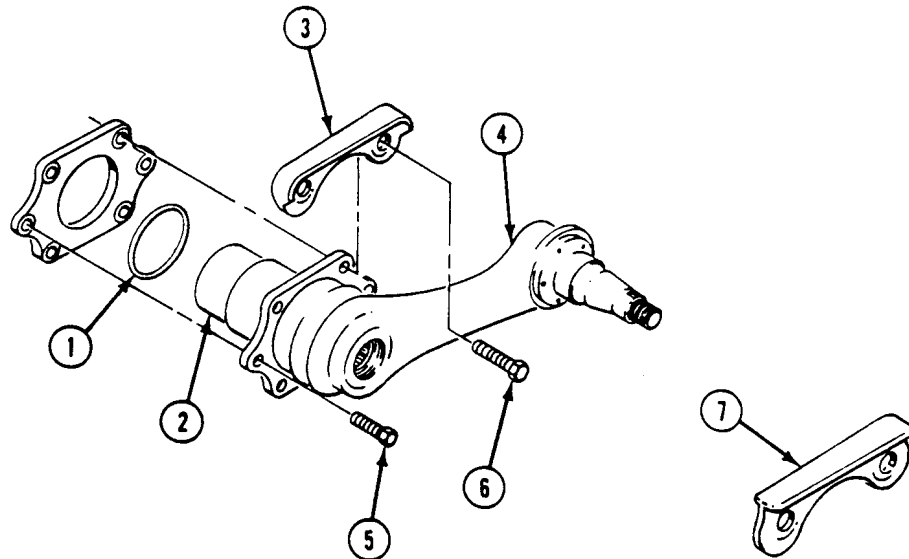
Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

5. Put light coat of sealing compound on outer surface of new seal (3).
6. Install new gasket (5), retainer (4), and seal (3) in rear of housing (6). Use replacer. Secure with three new washers (2) and six screws (1). Do not tighten screws at this time.
7. Fill support arm housing (6) with grease until grease appears around retainer (4).
8. TIGHTEN SIX SCREWS (1) TO 168–228 LB-IN (19-26 N·M) TORQUE. Use torque wrench (WP 0780 00, Item 102). Bend tabs on new washers (2).



9. Install new packing (1) on assembly (2).
10. Secure guard (3), packing (1), and assembled road wheel support arm assembly (4) to hull (number four and five positions) with four screws (5) and two screws (6). TIGHTEN SIX SCREWS TO 130-140 LB-FT (176-190 N·M) TORQUE. Use torque wrench (WP 0780 00, Item 103).
11. Secure guard (7), packing (1) and assembled road wheel support arm assembly (4) to hull (number three position) with four screws (5) and two screws (6). TIGHTEN SIX SCREWS TO 130-140 LB-FT (176-190 N·M) TORQUE. Use torque wrench (WP 0780 00, Item 103).
12. Secure assembled road wheel support arm (4) to hull (number one position) with six screws (6). TIGHTEN SIX SCREWS TO 130-140 LB-FT (176-190 N·M) TORQUE. Use torque wrench (WP 0780 00, Item 103).
13. Secure assembled road wheel support arm (4) to hull (number two, three, four, and five positions) with five screws (5). Use six screws (number one position). TIGHTEN SIX SCREWS TO 130-140 LB-FT (176-190 N·M) TORQUE. Use torque wrench (WP 0780 00, Item 103).



FOLLOW-THROUGH STEPS

1. Install torsion bar (WP 0385 00).
2. If removed, install shock absorber (WP 0379 00).
3. Install road wheel hub (WP 0371 00).
4. Install road wheel (WP 0371 00) (T130) or (WP 0372 00) (T150).
5. Lube road wheel supports (WP 0120 00).
6. Road test carrier to check that arm is installed properly (WP 0120 00).

END OF TASK

REPLACE IDLER WHEEL

0375 00

THIS WORK PACKAGE COVERS:

Removal (page 0375 00-1).
 Installation (page 0375 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

See your -10

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Torque wrench (WP 0780 00, Item 103)

Equipment Condition

Carrier on level surface
 Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)

Materials/Parts

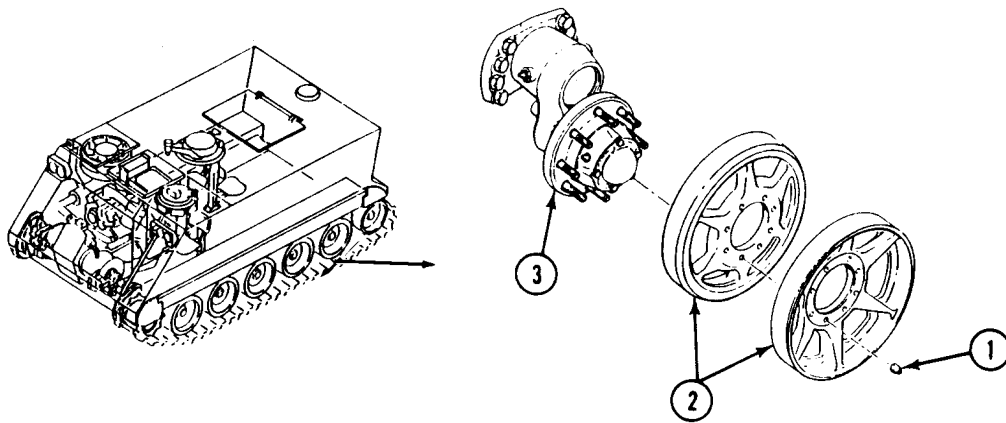
Locknut (8)

Personnel Required

Unit Mechanic

REMOVAL

1. Loosen idler wheel locknuts (1).
2. Disconnect track (see your -10).
3. Remove track from idler wheels (2).
4. Remove eight locknuts (1) and two idler wheels (2) from idler wheel hub (3). Discard locknuts.



INSTALLATION**NOTE**

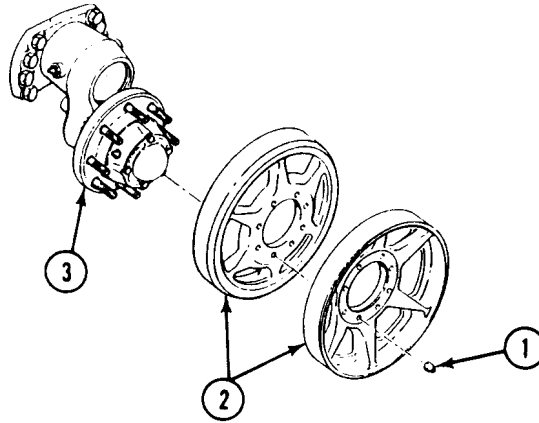
Inboard and outboard idler wheels are different. Do not mix them up. Inboard wheel (marked 11669373) is 3-1/4 inches (83 mm) wide. Outboard wheel (marked 10907799) is 3-1/8 inches (79 mm) wide.

1. Place two idler wheels (2) on idler wheel hub (3).

NOTE

Install inboard and outboard idler wheel in the right order. Make sure spokes do not line up.

2. Secure two wheels (2) to hub (3) with eight new locknuts (1). **TIGHTEN LOCKNUTS TO 150-170 LB-FT (203-230 N·M) TORQUE.** Use torque wrench.



3. Install track over idler wheels.
4. Connect track and adjust tension (see your -10).

FOLLOW-THROUGH STEPS

1. Road test carrier to check that idler wheel is installed properly (WP 0120 00).
2. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE IDLER WHEEL ARM BEARINGS AND SEALS

0376 00

THIS WORK PACKAGE COVERS:

- Removal (page 0376 00-1).
- Clean, Inspect, and Replace (page 0376 00-2).
- Installation (page 0376 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Replacer (WP 0780 00, Item 57)
- Spacer Ring (WP 0780 00, Item 71)
- Torque Wrench (WP 0780 00, Item 103)

References

- TM 9-214
- WP 0120 00

Equipment Condition

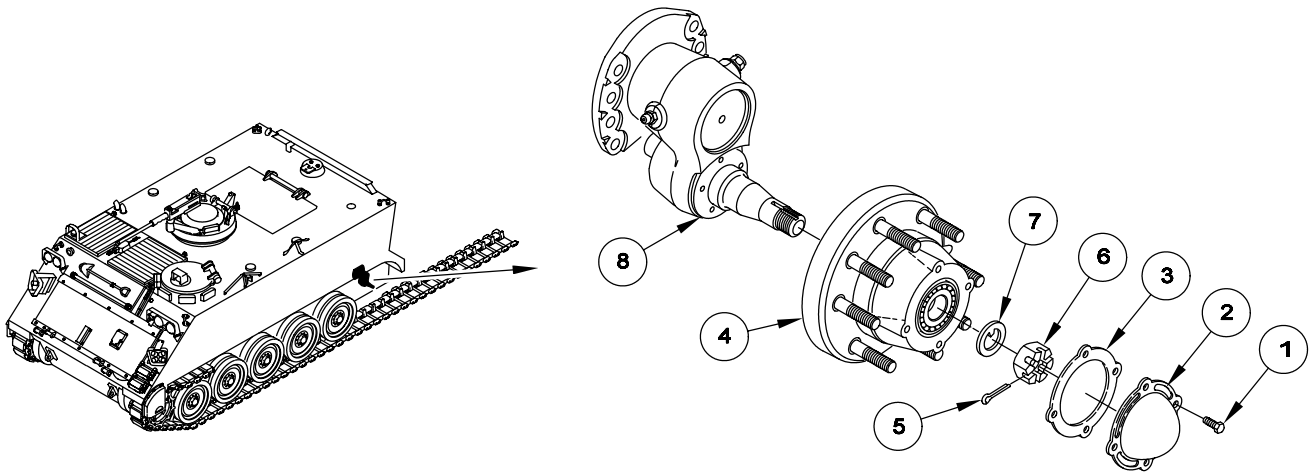
- Carrier on level surface
- Engine stopped (see your -10)
- Carrier blocked (see your -10)
- Track disconnected (see your -10)
- Idler wheel removed (WP 0375 00)

Materials/Parts

- Sealing compound (WP 0782 00, Item 60)
- Bolt, as needed
- Cotter pin
- Gasket
- Key washer
- Seal

REMOVAL

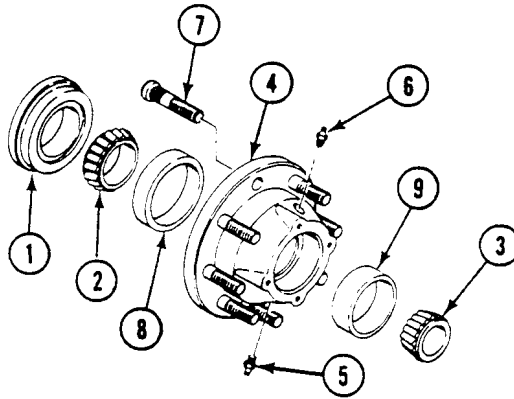
1. Remove four screws (1), hub cap (2), and gasket (3) from idler wheel hub (4). Discard gasket.
2. Remove cotter pin (5), nut (6), key washer (7), and hub (4) from idler wheel arm (8). Discard cotter pin and key washer.



REPLACE IDLER WHEEL ARM BEARINGS AND SEALS — Continued

0376 00

3. Remove seal (1), inner bearing (2), and outer bearing (3) from hub (4). Discard seal.
4. Remove grease fitting (5) and relief valve (6) from hub (4).
5. If damaged, remove bolt(s) (7) from hub (4). Discard damaged bolt(s).
6. If damaged, remove bearing cups (8) and (9) from hub (4).



CLEAN, INSPECT, AND REPLACE

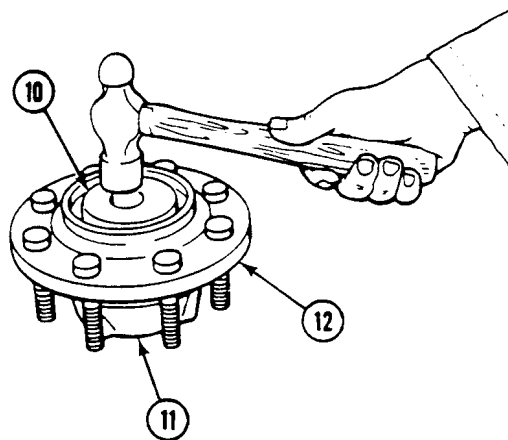
NOTE

Bearings and cups are replaced as a set.

1. Clean and check bearings. See TM 9-214. Replace bad bearings and cups.

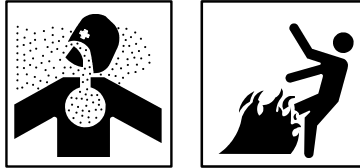
INSTALLATION

1. If removed, install bearing cups (10) and (11) in hub (12). Use replacer.



2. If removed, install new bolt(s) (13) in hub (12).

WARNING

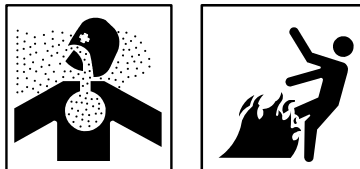


Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

3. Apply light coat of sealing compound to threads of relief valve (14) and grease fitting (15). Install valve and fitting in hub (12).
4. Pack inner bearing (16) with grease. Install bearing in rear of hub (12).

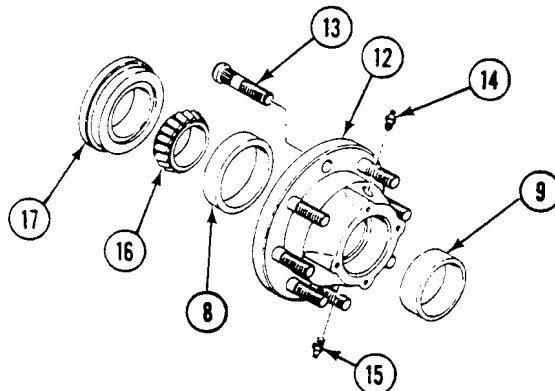
WARNING



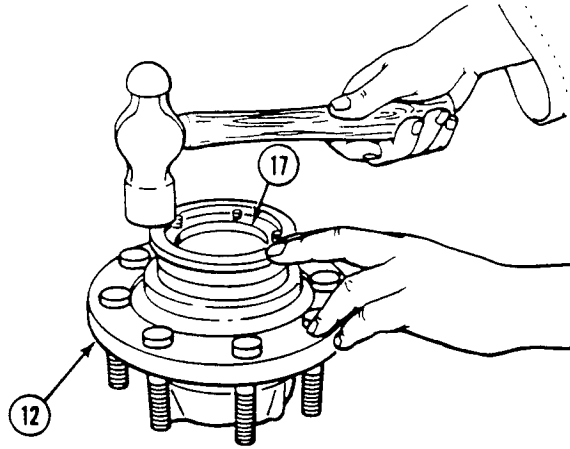
Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

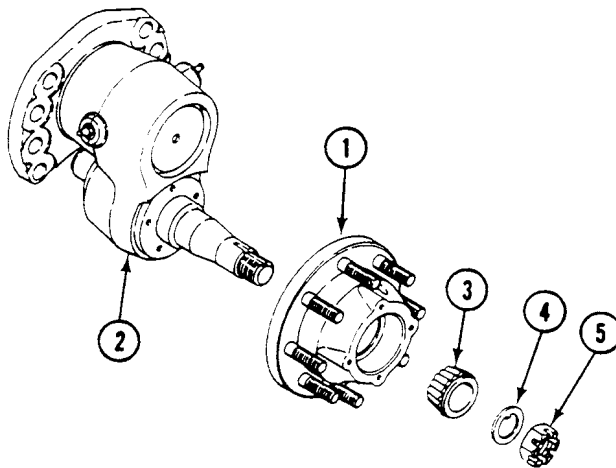
5. Apply light coat of sealing compound to outer surface of new seal (17).



6. Install seal (17) in hub (12). Use spacer ring.

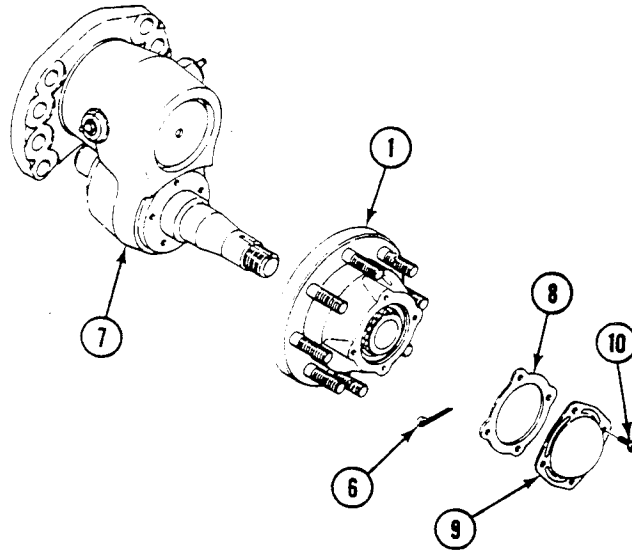


7. Place hub (1) on idler wheel arm (2). Completely pack cavity in hub with grease.
8. Pack outer bearing (3) with grease. Install bearing in hub (1).
9. Install new key washer (4) and nut (5) on arm (2). Tighten nut to adjust bearings as follows:
- TIGHTEN NUT (5) TO 140-150 LB-FT (190-203 N·M) TORQUE. Use torque wrench.
 - Back off nut (5) until there is no torque.
 - TIGHTEN NUT (5) TO 70-75 LB-FT (95-102 N·M) TORQUE. Use torque wrench.
 - Back off nut (5) to align nearest cotter pin hole in nut with cotter pin hole in arm (2).



REPLACE IDLER WHEEL ARM BEARINGS AND SEALS — Continued**0376 00**

10. Install new cotter pin (6) in arm (7).
11. Install new gasket (8), hub cap (9), and four screws (10) in hub (1).
12. Fill hub (1) with grease (WP 0120 00).

**FOLLOW-THROUGH STEPS**

1. Install idler wheel (WP 0375 00).
2. Connect track and adjust tension (see your -10).
3. Road test carrier to check that idler wheel hub is installed right (WP 0120 00).

END OF TASK

REPLACE IDLER WHEEL ARM ASSEMBLY

0377 00**THIS WORK PACKAGE COVERS:**

- Removal (page 0377 00-2).
 - Clean, Inspect, and Replace (page 0377 00-2).
 - Installation (page 0377 00-3).
-

INITIAL SETUP:Maintenance Level

Unit

References

WP 0120 00

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Torque Wrench (WP 0780 00, Item 103)

Equipment Condition

- Carrier on level surface
- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Track disconnected (see your -10)
- Idler wheel removed (WP 0375 00)
- Road wheel hub removed (WP 0373 00)
- Track tension adjuster disconnected from idler wheel arm (WP 0378 00)

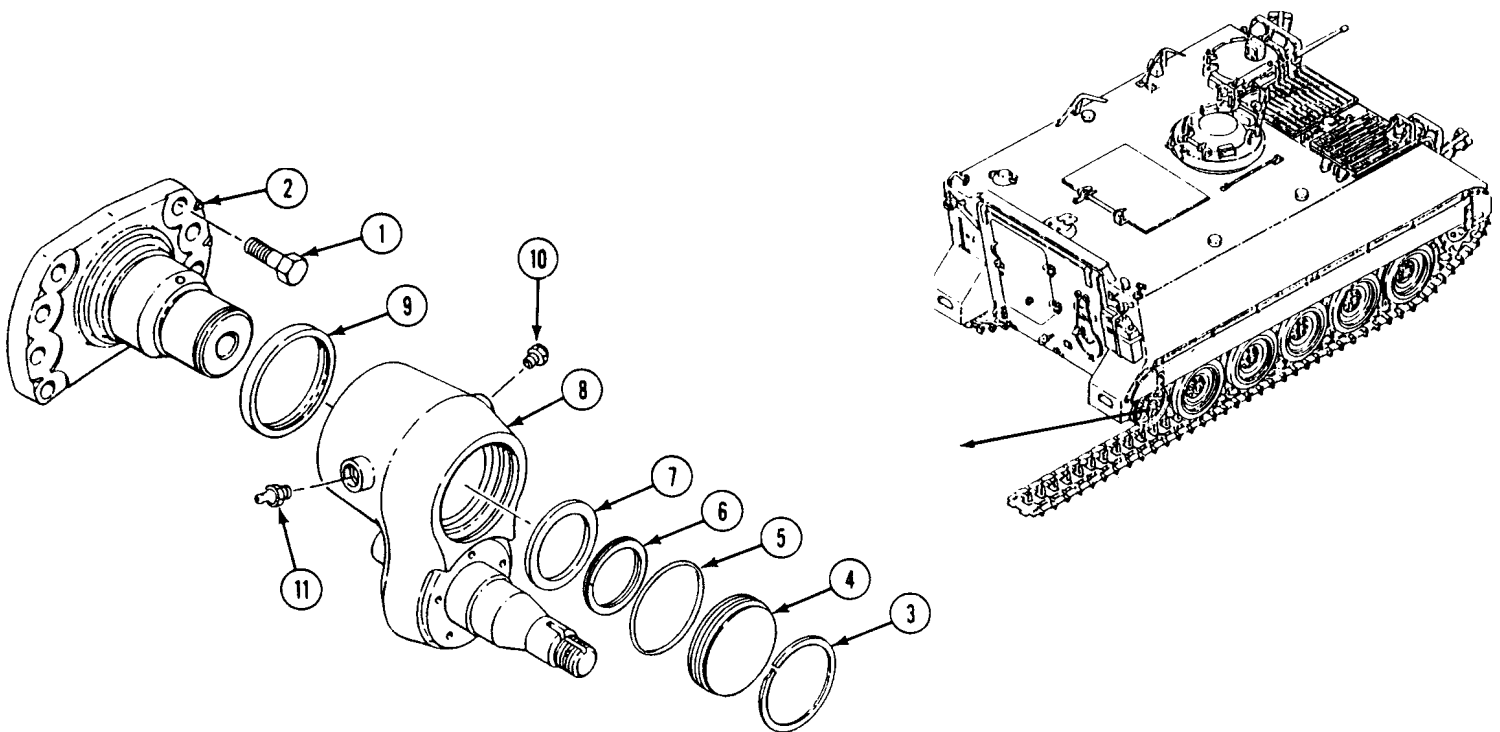
Materials/Parts

- Grease (WP 0782 00, Item 24)
- Sealing compound (WP 0782 00, Item 69)
- Preformed packing
- Seal

Personnel RequiredUnit Mechanic

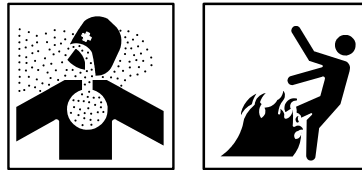
REPLACE IDLER WHEEL ARM ASSEMBLY — Continued**0377 00****REMOVAL**

1. Remove eight screws (1) and idler wheel assembly (2) from hull.
2. Remove retaining ring (3) and access cover (4) from idler wheel assembly (2).
3. Remove preformed packing (5), retaining ring (6), and spacer (7) from idler wheel assembly (2). Discard preformed packing.
4. Remove idler arm (8) and seal (9) from idler wheel assembly (2). Discard seal.
5. Remove safety relief valve (10) and fitting (11) from idler arm (8).

**CLEAN, INSPECT, AND REPLACE**

1. Check fittings and safety relief valve for wear and damage. Replace if needed.
2. Clean and check retaining rings and spacer for damage. Replace if needed.

INSTALLATION

WARNING

Adhesive, primer, sealant compounds, and isopropyl alcohol are toxic and flammable. These compounds are toxic to eyes, skin, and respiratory tract. Continued exposure can make you dizzy and irritate your eyes and throat.

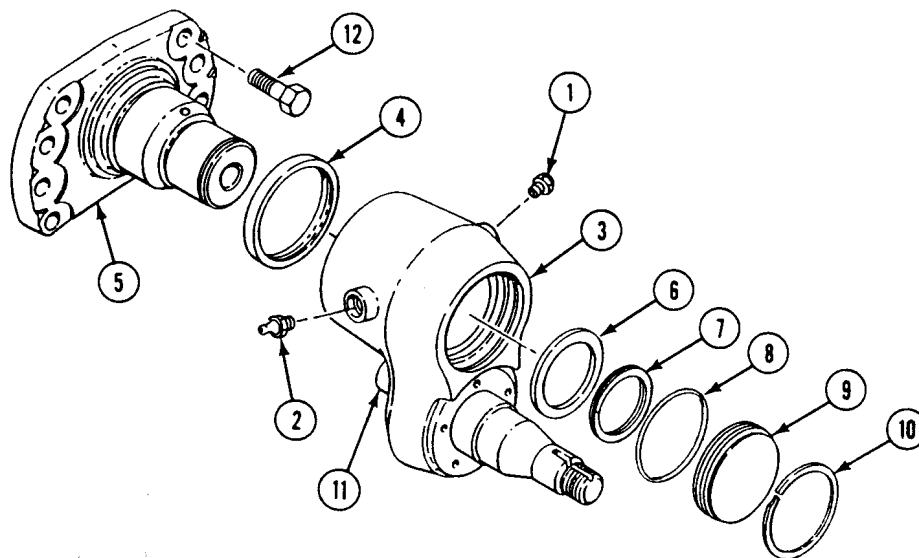
Always use in well ventilated areas, away from heat, sparks, and flames. Do not breathe fumes. Do not allow into contact with skin and eyes. Use goggles or face shield and protective gloves.

1. Apply light coat of sealing compound on threads of safety relief valve (1) and fitting (2).

NOTE

Install grease fitting on the forward side of idler arm (WP 0120 00).

2. Install safety relief valve (1) and fitting (2) in idler arm (3).
3. Install new seal (4) and idler arm (3) on idler wheel assembly (5).
4. Install spacer (6), retaining ring (7), and new preformed packing (8) in idler arm (3).
5. Install access cover (9) and retaining ring (10) in idler arm (3).
6. Place track tension adjuster on shaft (11) at rear of idler arm (3). Align idler wheel assembly (5) with holes on hull. Secure with eight screws (12). TIGHTEN SCREWS TO 315-325 LB-FT (427-441 N·M) TORQUE. Use torque wrench.
7. Fill idler arm (3) with grease (WP 0120 00).



FOLLOW-THROUGH STEPS

1. Connect track tension adjuster to idler arm (WP 0378 00).
2. Install road wheel hub (WP 0373 00).
3. Install idler wheel (WP 0375 00).
4. Connect track and adjust tension (see your -10).
5. Road test carrier to check that idler wheel arm is installed right (WP 0120 00).
6. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE TRACK TENSION ADJUSTER AND MOUNT

0378 00

THIS WORK PACKAGE COVERS:

- Removal (page 0378 00-1).
- Clean, Inspect, and Replace (page 0378 00-2).
- Installation (page 0378 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

- Carrier on level surface
- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Track disconnected (see your -10)

Tools and Special Tools

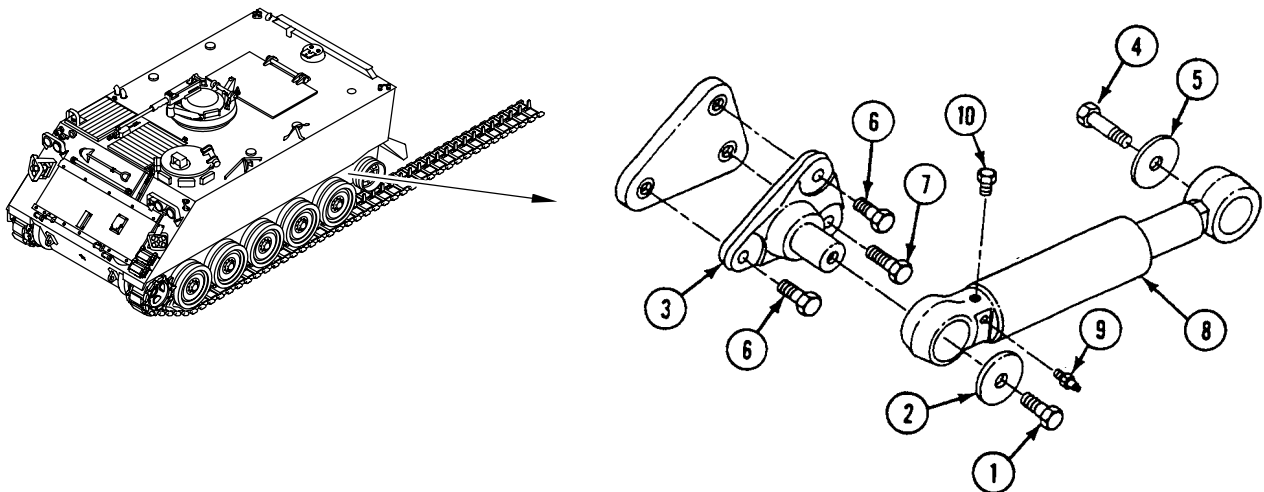
- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Torque wrench adapter (WP 0780 00, Item 7)
- Torque wrench (WP 0780 00, Item 103)

Personnel Required

Unit Mechanic

REMOVAL

1. Remove screw (1) and washer (2) from mount (3).
2. Remove screw (4) and washer (5) from shaft on idler arm.
3. Remove two screws (6) from mount (3). Loosen screw (7). Rotate mount and remove screw.
4. Pull track adjuster (8) down. Remove mount (3) from adjuster.
5. Remove adjuster (8) from shaft on idler arm.
6. Remove grease fitting (9) and relief valve (10) from adjuster (8).



CLEAN, INSPECT, AND REPLACE

1. Checking fittings and relief valve for wear and damage. Replace if needed.

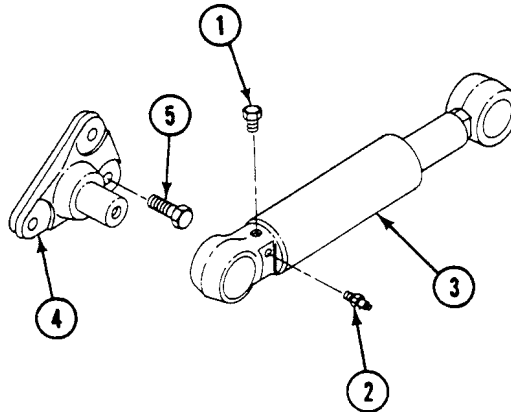
INSTALLATION

1. Install relief valve (1) and grease fitting (2) in track tension adjuster (3).

NOTE

Grease fitting and relief valve of track tension adjuster should be toward front of carrier. Make sure grease fitting is pointing out.

2. Place track adjuster (3) on shaft of idler arm.
3. Install mount (4) in front of adjuster (3). Raise adjuster and mount. Align hole in mount with hole in hull for screw (5).
4. Install screw (5) in mount (4). Tighten until snug.

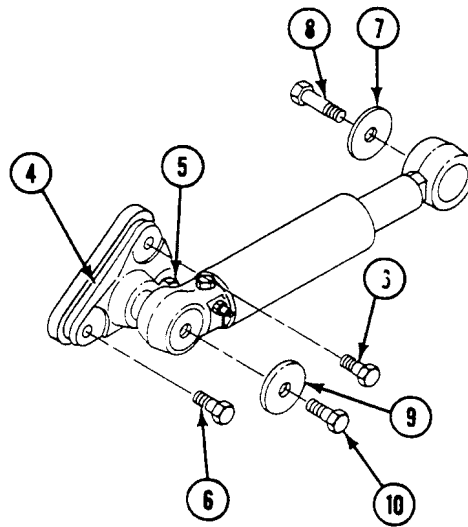


5. Rotate mount (4). Install two screws (6).

NOTE

**When using torque wrench with torque wrench adapter, torque value must be corrected.
Procedure for converting torque value is in WP 0120 00.**

6. TIGHTEN SCREW (5) AND TWO SCREWS (6) TO 130-140 LB-FT (176-190 N·M) TORQUE. Use torque wrench and adapter.
7. Install washer (7) and screw (8) in shaft idler arm. TIGHTEN SCREW TO 130-140 LB-FT (176-190 N·M) TORQUE. Use torque wrench.
8. Install washer (9) and screw (10) on mount (4). TIGHTEN SCREW TO 130-140 LB-FT (176-190 N·M) TORQUE. Use torque wrench.



FOLLOW-THROUGH STEPS

1. Connect and adjust track (see your -10).
2. Road test carrier to check that adjuster is installed properly (WP 0120 00).

END OF TASK

REPLACE SHOCK ABSORBER

0379 00

THIS WORK PACKAGE COVERS:

Removal (page 0379 00-1).
 Installation (page 0379 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Shock Remover (WP 0780 00, Item 54)
 Torque Wrench (WP 0780 00, Item 104)

Equipment Condition

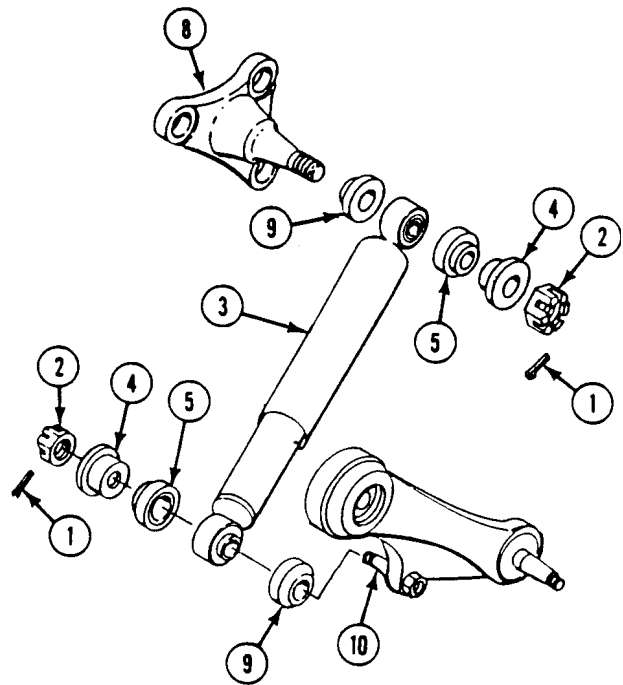
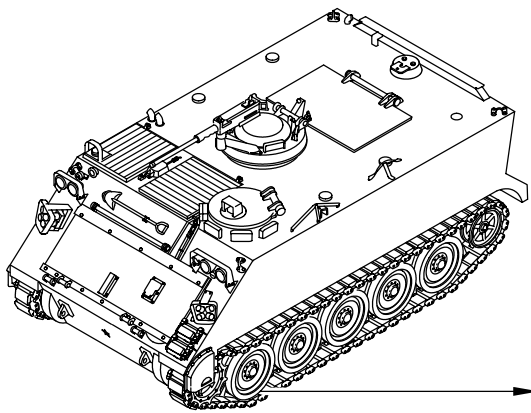
Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Remove road wheel for respective shock absorber
 (WP 0371 00)

Materials/Parts

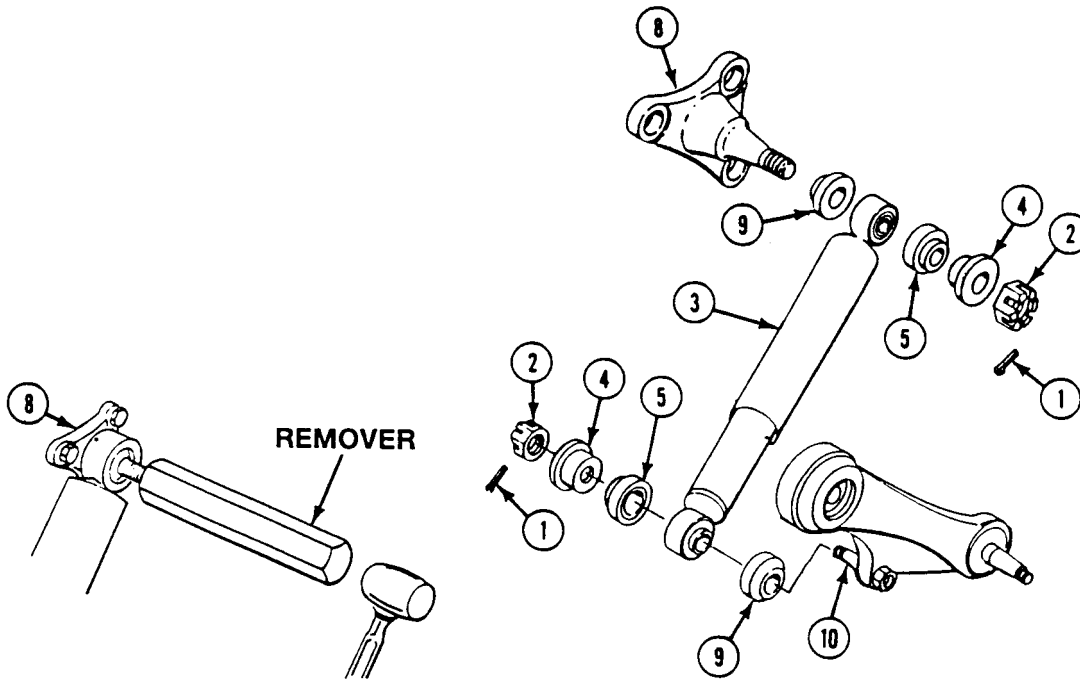
Cotter pin (2)
 Inner seal (2)
 Outer seal (2)

REMOVAL

1. Remove two cotter pins (1) and nuts (2) securing shock absorber (3) to hull mount and road arm. Discard cotter pins.
2. Remove two shoulder washers (4) and outer seals (5) from both ends of shock absorber (3). Discard outer seals.



3. Position remover on hull mounting bracket (8). Hit remover with heavy hammer to loosen upper end of shock absorber (3). Remove remover. Remove shock absorber and inner seal (9) from hull mounting bracket. Discard seal.
4. Position remover on support arm pin (10). Hit remover with heavy hammer to loosen lower end of shock absorber (3). Remove shock absorber and inner seal (9) from support arm pin. Discard seal.



INSTALLATION

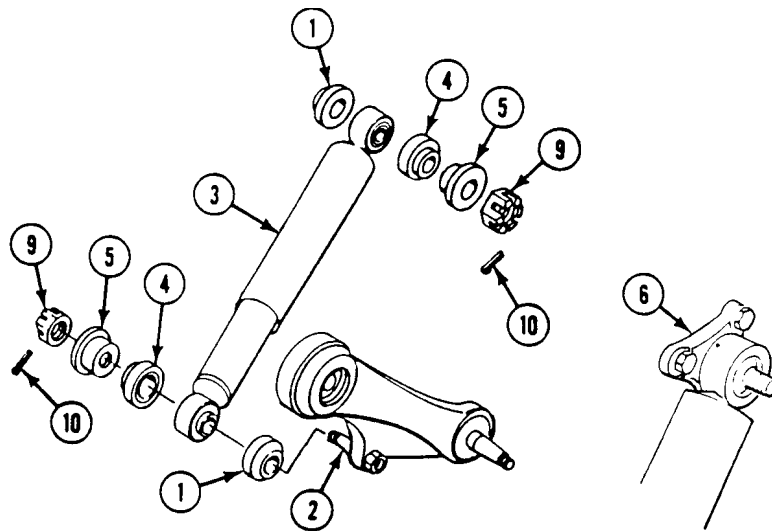
1. Install new inner seal (1) on support arm pin (2).

NOTE

Exercise new shock absorber to the fully extended position and move shock absorber back and forth several times until resistance can be felt throughout the entire length of the stroke.

Make sure shock absorber is installed with large end of bearings installed first.

2. Install shock absorber (3), new outer seal (4), and shoulder washer (5) on support arm pin (2).
3. Install new inner seal (1), shock absorber (3), new outer seal (4), and shoulder washer (5) on hull bracket (6).
4. Secure shock absorber (3) with two nuts (9).
5. **TIGHTEN TWO NUTS (9) TO 60-80 LB-FT (81-109 N·M) TORQUE.** Use torque wrench. Secure with new cotter pins (10).

**FOLLOW-THROUGH STEPS**

1. Install road wheel (WP 0371 00).
2. Road test carrier to check that shock absorber is installed properly (WP 0120 00).

END OF TASK

REPLACE SHOCK ABSORBER PIN

0380 00

THIS WORK PACKAGE COVERS:

Removal (page 0380 00-1).
 Installation (page 0380 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Socket Wrench Set (WP 0780 00, Item 97)
 Torque Wrench (WP 0780 00, Item 105)

Equipment Condition

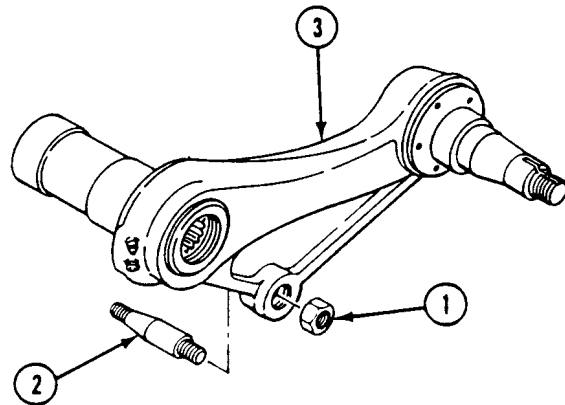
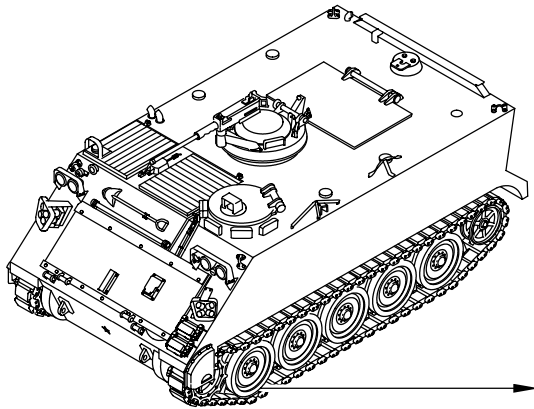
Carrier on level surface
 Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Respective road wheel removed (WP 0371 00)
 Respective road wheel support arm removed
 (WP 0374 00)

Materials/Parts

Locknut
 Wood blocks

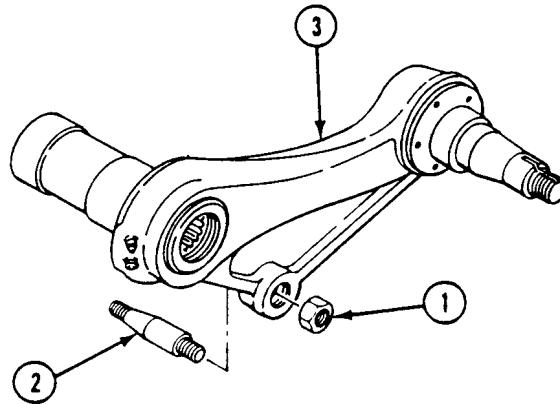
REMOVAL

1. Remove locknut (1) from pin (2). Discard locknut.
2. Place road wheel support arm (3) on wood blocks. Drive out pin (2) with a wood block and hammer.



INSTALLATION

1. Install pin (2) in road wheel support arm (3). Secure with new locknut (1). TIGHTEN LOCKNUT TO 210-230 LB-FT (283-310 N·M). Use torque wrench.

**FOLLOW-THROUGH STEPS**

1. Install road wheel support arm (WP 0374 00).
2. Install road wheel (WP 0371 00).
3. Road test carrier to check that shock absorber pin is installed properly (WP 0120 00).

END OF TASK

REPLACE SHOCK ABSORBER MOUNT

0381 00

THIS WORK PACKAGE COVERS:

Removal (page 0381 00-1).
 Installation (page 0381 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

Carrier on level surface
 Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Respective road wheel removed (WP 0371 00)
 Respective shock absorber removed (WP 0379 00)

Tools and Special Tools

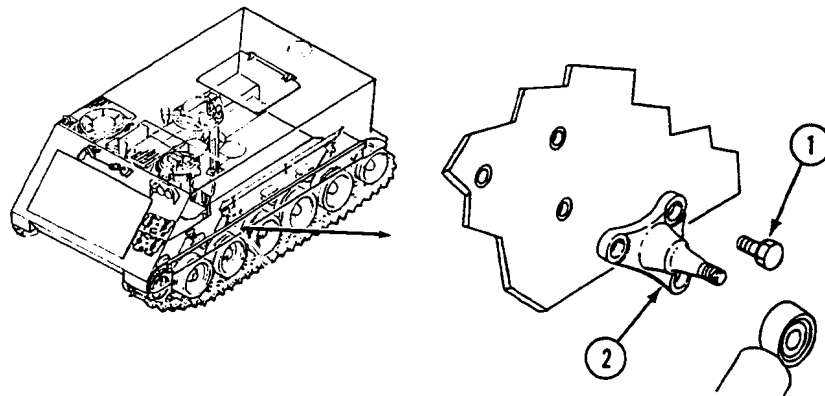
General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Torque Wrench (WP 0780 00, Item 103)

Personnel Required

Unit Mechanic

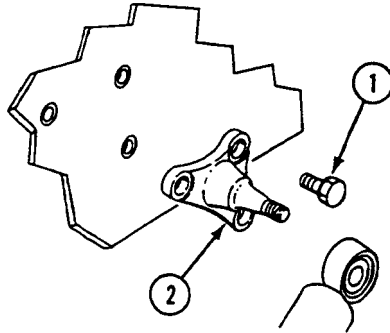
REMOVAL

1. Remove three screws (1) from shock absorber mount (2).
2. Remove mount (2) from hull.



INSTALLATION

1. Install mount (2) on hull.
2. Install three screws (1). TIGHTEN SCREWS TO 130-140 LB-FT (176-190 N·M) TORQUE. Use torque wrench.

**FOLLOW-THROUGH STEPS**

1. Install shock absorber (WP 0379 00).
2. Install road wheel (WP 0371 00).

END OF TASK

REPLACE T130 SPROCKET WHEEL ASSEMBLY

0382 00

THIS WORK PACKAGE COVERS:

- Removal (page 0382 00-1).
- Clean, Inspect, and Replace (page 0382 00-2).
- Installation (page 0382 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

TM 9-2350-261-24P

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Socket Wrench Set (WP 0780 00, Item 97)
- Torque Wrench (WP 0780 00, Item 105)

Equipment Condition

- Carrier on level surface
- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Track cover removed (WP 0365 00)
- Track disconnected (see your -10)

Materials/Parts

- Lock bolts (20)
- Lock bolts (10)

Personnel Required

Unit Mechanic

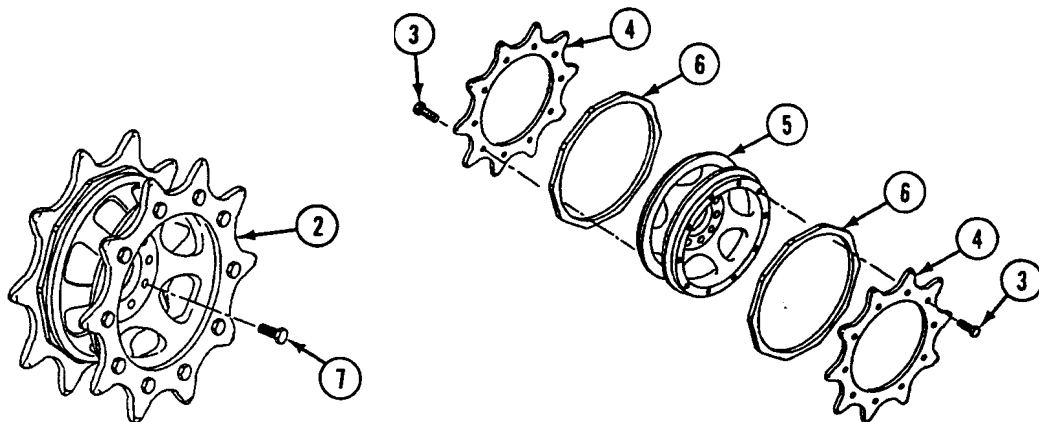
REMOVAL

NOTE

The following maintenance procedure applies to one sprocket wheel assembly only.

You will have one or two sprocket wheel assembly configurations. The oldest configuration uses a shorter bolt. Refer to TM 9-2350-261-24P for proper replacement part numbers.

1. Remove track from sprocket wheel assembly (2).
2. Remove ten lock bolts (7) and sprocket wheel assembly (2) from carrier. Discard lock bolts.
3. Remove 20 lock bolts (3) and two sprockets (4) from sprocket wheel (5). Discard lock bolts.
4. Remove two rubber cushions (6) from sprocket wheel (5).



- If needed, repeat Steps 1 - 4 for other sprocket wheel assembly.

CLEAN, INSPECT, AND REPLACE

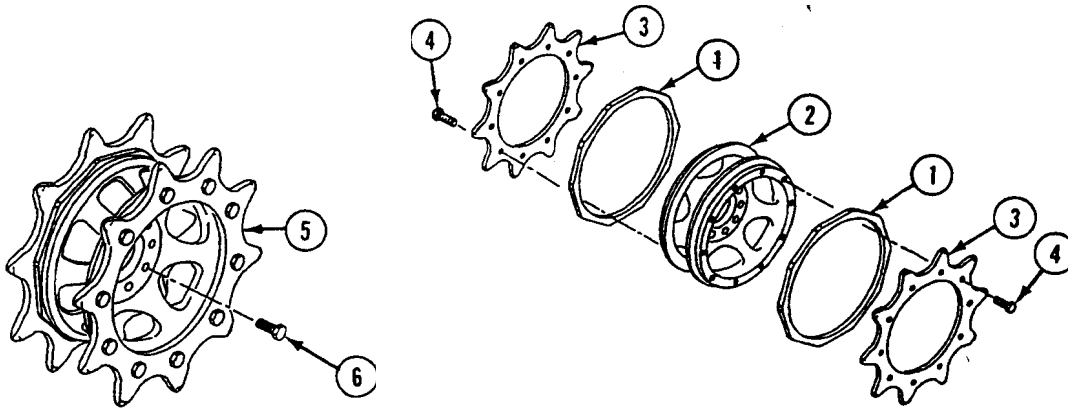
- Check cushions and sprockets for wear and damage. Replace if needed.

INSTALLATION

NOTE

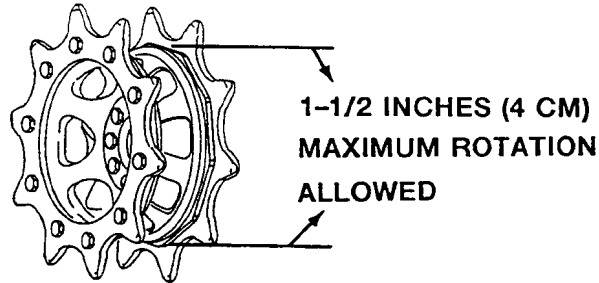
Make sure you use matching sprockets. New longer life sprockets are thicker and have one wear indicator on both sides of the sprocket teeth. Use as a set when replacing them on a sprocket wheel.

- Place two cushions (1) on sprocket wheel (2). Center short flat areas between mounting holes in sprocket wheel rim. Press on cushion until firmly seated against flange of sprocket wheel.
- Place two sprockets (3) on sprocket wheel (2). Secure with 20 new lock bolts (4). TIGHTEN LOCK BOLTS TO 110-115 LB-FT (149-156 N·M) TORQUE. Use torque wrench.
- Install sprocket wheel assembly (5) on carrier. Secure with ten new lock bolts (6). TIGHTEN LOCK BOLTS TO 170-195 LB-FT (231-264 N·M) TORQUE. Use torque wrench.
- Mark sprockets (3) and cushions (1) for rotation check after road test.
- Place track on sprocket wheel assembly (5).



FOLLOW-THROUGH STEPS

1. Connect track and adjust tension (see your -10).
2. Install track cover (WP 0365 00).
3. Road test carrier to check that sprocket wheel assembly is installed properly (WP 0120 00).
4. After road test, check rotation of cushion with respect to sprockets. Measure from the outer edge of the cushion. Replace cushion that rotates beyond 1 1/2 inches (4 cm) of initial position.

**END OF TASK**

REVERSE T150 SPROCKET WHEEL AND TRACK ASSEMBLIES

0383 00

THIS WORK PACKAGE COVERS:

Removal (page 0383 00-1).
 Installation (page 0383 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic
 Helper (H)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Socket Wrench (WP 0780 00, Item 97)
 Torque Wrench (WP 0780 00, Item 105)

Equipment Condition

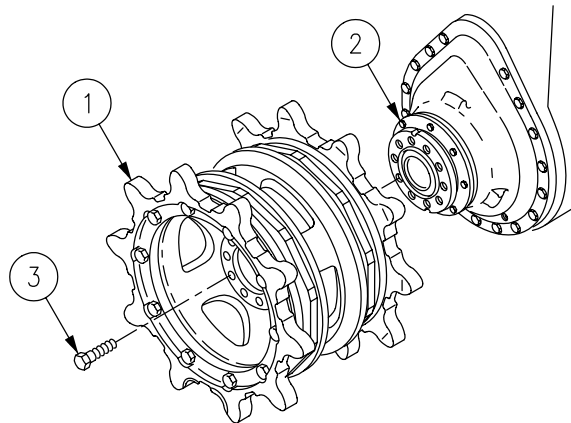
Carrier on level surface
 Engine stopped (see your -10)
 Carrier unblocked (see your -10)
 Track disconnected (see your -10)
 Carrier driven completely off tracks (see your -10)

Materials/Parts

Self-locking screws (10)

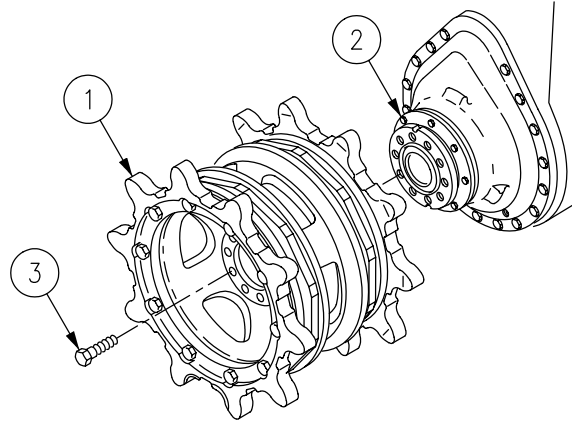
REMOVAL

1. Remove ten self-locking screws (3) and sprocket wheel assembly (1) from final drive (2). Lower sprocket wheel assembly to the ground. Repeat for other side of carrier. Have helper assist.

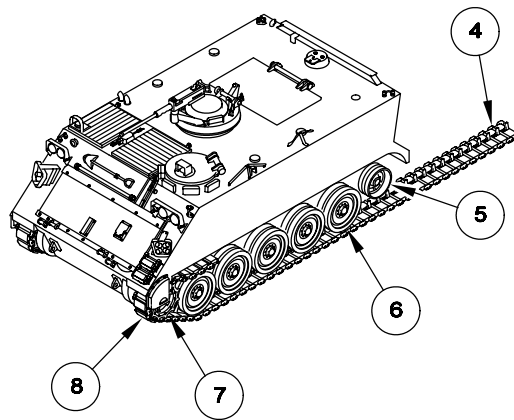


INSTALLATION

1. Move sprocket wheel assembly (1) to opposite side of carrier. Install sprocket wheel assembly (1) on final drive (2). Secure with ten self-locking screws (3). Repeat for other side of carrier. Have helper assist.
2. TIGHTEN TEN SCREWS (3) TO 170–190 LB-FT (231–258 N·M) TORQUE. Use torque wrench.

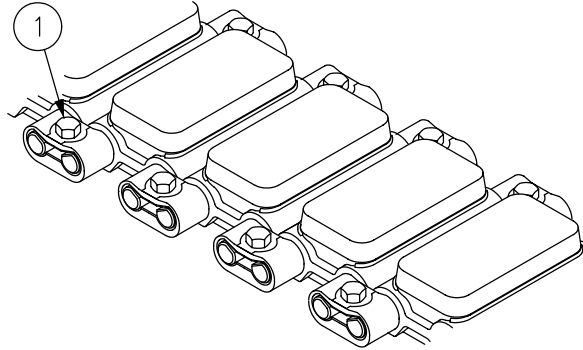


3. Reverse track direction. Use towing vehicle.
4. Align tracks in back of carrier. Tow disabled carrier onto tracks. Use towing vehicle.
5. Install tracks (8) on carrier.
 - a. (H): Notify driver in tow vehicle to stop when seven track shoes (4) have passed the fifth road wheel (6). Using a crowbar, position track (8) on sprockets (7). Notify driver to start carrier engine and slowly drive forward.
 - b. (H): Use crowbar to guide track (8) until over idler wheels (5). Notify driver to stop when three track shoes (4) remain before set of road wheels (6).
 - c. (H): Repeat for other side of carrier.



FOLLOW-THROUGH STEPS

1. Join track (see your -10).
2. TIGHTEN TWO END CONNECTOR BOLTS (1) TO 400–430 LB-FT (529–579 N·M) TORQUE. Use torque wrench.



3. Adjust track tension (see your -10).
4. Road test carrier to check that sprocket wheel and track assemblies are installed correctly (WP 0120 00).

END OF TASK

REPAIR T150 SPROCKET WHEEL AND TRACK ASSEMBLIES

0384 00

THIS WORK PACKAGE COVERS:

Disassembly (page 0384 00-1).
 Assembly (page 0384 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic
 Helper (H)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Socket Wrench (WP 0780 00, Item 97)
 Torque Wrench (WP 0780 00, Item 103)
 Torque Wrench (WP 0780 00, Item 105)

Equipment Condition

Engine stopped (see your -10)
 Carrier blocked (see your -10)
 Track cover removed (WP 0365 00)
 Track broken between sprocket or fifth road wheel (see your -10)
 Track removed from drive sprockets (WP 0367 00)

Materials/Parts

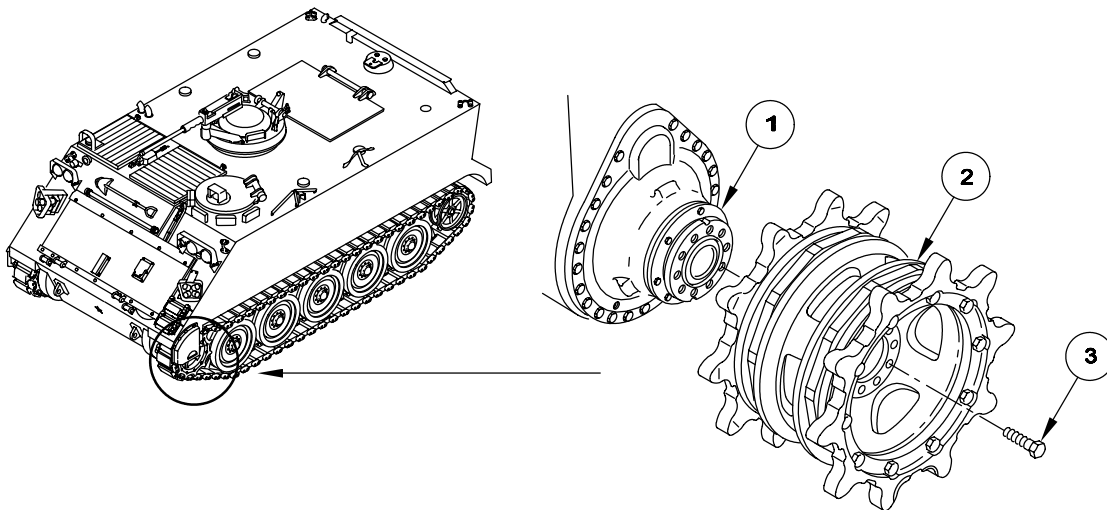
Self-locking screws (10)
 Self-locking screws (20)

DISASSEMBLY

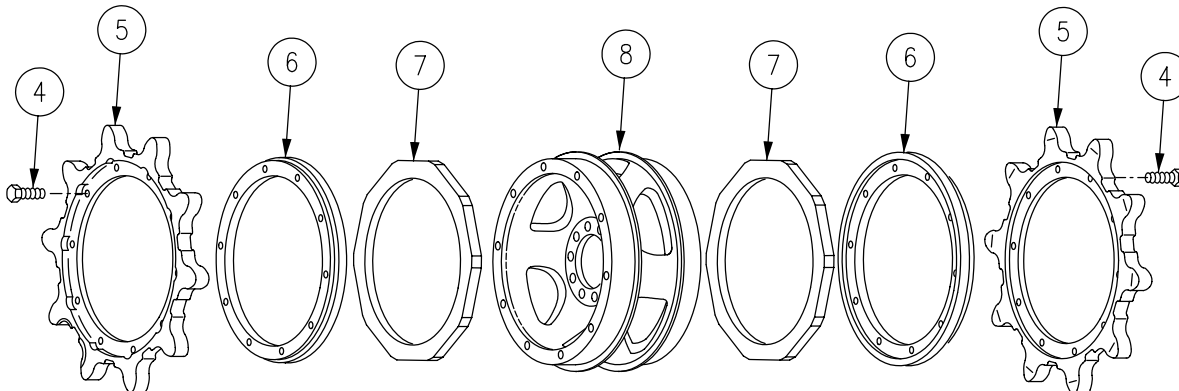
NOTE

Procedures for repairing left and right sprocket wheel assemblies are the same. Make sure you use matching sprockets. New longer life sprockets are thicker and have a wear indicator on both sides of the sprocket teeth. Use a set when replacing sprockets on a sprocket wheel.

1. Remove ten self-locking screws (3) and sprocket wheel assembly (2) from final drive (1). Lower sprocket wheel assembly to the ground. Have helper assist. Discard self-locking screws.



2. Remove 20 self-locking screws (4) two sprockets (5), and rings (6) from sprocket wheel (8). Discard self-locking screws.
3. Remove two rubber cushions (7) from sprocket wheel (8).

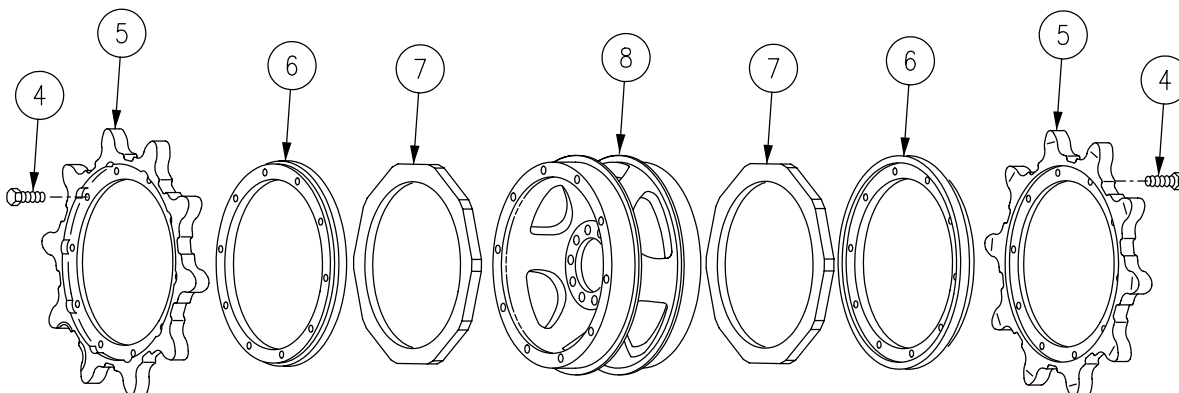


ASSEMBLY

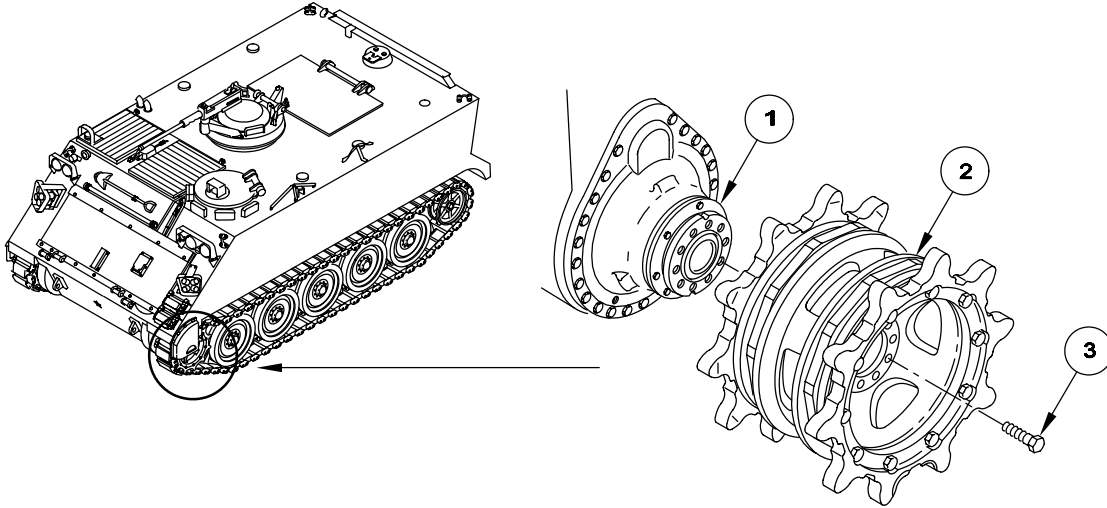
NOTE

Procedures for repairing left and right sprocket wheel assemblies are the same. Make sure you use matching sprockets. New longer life sprockets are thicker and have a wear indicator on both sides of the sprocket teeth. Use a set when replacing sprockets on a sprocket wheel.

1. Place two rubber cushions (7) on sprocket wheel (8). Center short flat areas between mounting holes in sprocket wheel rim. Press on rubber cushions until firmly seated against flange of carriers.
2. Install two rings (6), two sprockets (5), and 20 new self-locking screws (4) on sprocket wheel (8)
3. **TIGHTEN 20 SCREWS (4) TO 110–115 LB-FT (149–156 N·M) TORQUE.** Use torque wrench (WP 0780 00, Item 103).

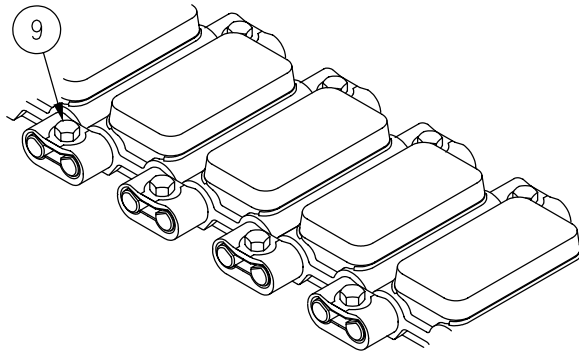


4. Place sprocket wheel assembly (2) on final drive (1). Secure with ten new self-locking screws (3). Have helper assist.
5. TIGHTEN TEN SCREWS (3) TO 170–190 LB-FT (231–258 N·M) TORQUE. Use torque wrench (WP 0780 00, Item 105).



FOLLOW-THROUGH STEPS

1. Install track on drive sprockets (WP 0367 00).
2. Join track (see your -10).
3. TIGHTEN TWO END CONNECTOR BOLTS (9) TO 400–430 LB-FT (543–583 N·M) TORQUE. Use torque wrench (WP 0780 00, Item 105).



4. Adjust track tension (see your -10).
5. Install track cover (WP 0365 00).
6. Road test carrier to check that drive sprocket and cushion are installed correctly (see your -10).

END OF TASK

REPLACE TORSION BAR

0385 00

THIS WORK PACKAGE COVERS:

Removal (page 0385 00-2).
 Installation (page 0385 00-4).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

Adapter (WP 0780 00, Item 9)
 General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Puller (WP 0780 00, Item 49)
 Road Wheel Lifter (T130) (WP 0780 00, Item 38)
 Road Wheel Lifter (T150) (WP 0780 00, Item 39)
 Socket Head Cap Screw (WP 0780 00, Item 64)
 Socket Wrench Attachment (WP 0780 00, Item 99)
 Torque Wrench (WP 0780 00, Item 103)

Materials/Parts

Grease (WP 0782 00, Item 24)

Personnel Required

Unit Mechanic
 Helper (H)

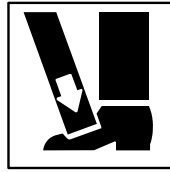
References

WP 0120 00

Equipment Condition

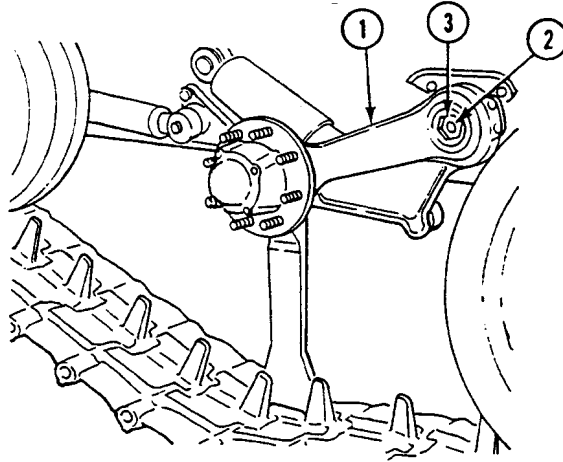
Engine stopped/shutdown (see your -10)
 Carrier on level surface
 Carrier blocked (see your -10)
 Road wheel removed (WP 0371 00) (T130) or
 (WP 0372 00) (T150)
 Shock absorber removed from second or fifth road wheel
 (WP 0379 00)
 Remove power plant for first torsion bar, right side only
 (WP 0131 00)
 Driver's front floor plate removed for first torsion bar,
 left side only (WP 0439 00)
 Power plant rear access panel removed for second
 torsion bar, right side only (see your -10)
 Driver's rear floor plate removed for second torsion bar,
 left side only (WP 0439 00)
 Floor plates removed for third and fourth torsion bar
 (WP 0436 00)
 Mortar turntable tread plates open (M1064 Only) for
 fifth torsion bar (see your -10)

REMOVAL

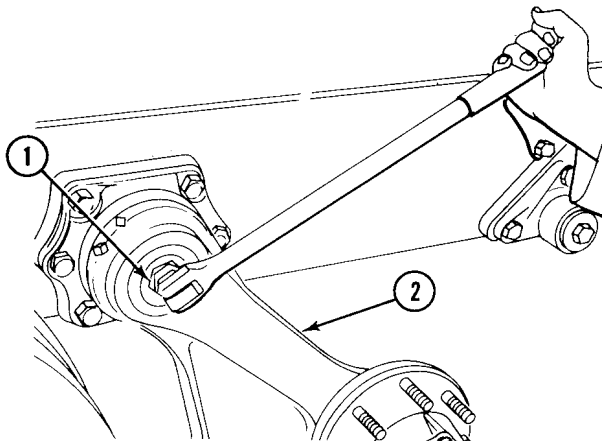
WARNING

If road wheel lifter slips while lowering road arm, it could injure you. Stand clear before you lower road arm.

1. With road wheel removed and road arm raised on lifter, start engine (see your -10). Place range selector in 1. Slowly drive carrier forward off lifter so that road wheel support arm (1) hangs freely.
2. Remove screw (2) from plug (3).



3. Remove plug (1) from road wheel support arm (2). Use socket wrench attachment.



NOTE

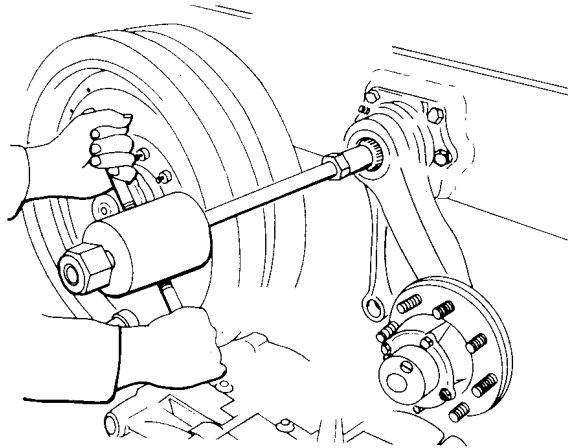
Special socket head cap screw is used with adapter.

4. Thread special screw through adapter.

NOTE

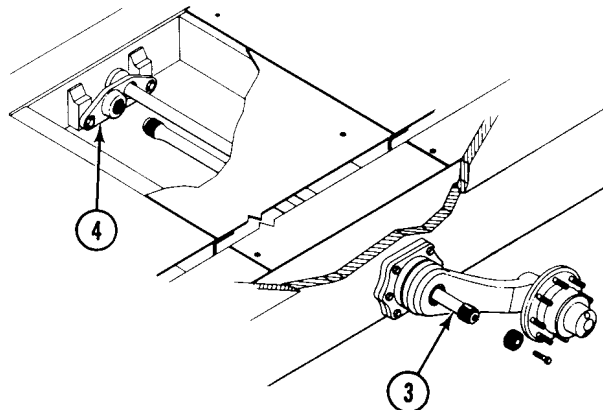
Screw is installed with head inside adapter.

5. Thread adapter on puller, then thread adapter with screw into torsion bar.

**CAUTION**

When removing or installing torsion bars, the index or missing tooth on the anchor end of torsion bar must align with index on spline in road wheel arm, to allow bar to pass through.

6. Pull torsion bar (3) from torsion bar anchor (4). Use slide hammer on puller.
7. Remove puller and adapter from torsion bar.
8. If torsion bar (3) is broken, remove as follows:
 - a. Remove road wheel end of torsion bar in the same way as unbroken torsion bar.
 - b. Pull or drive end of broken bar from its splined seat in torsion bar anchor (4).

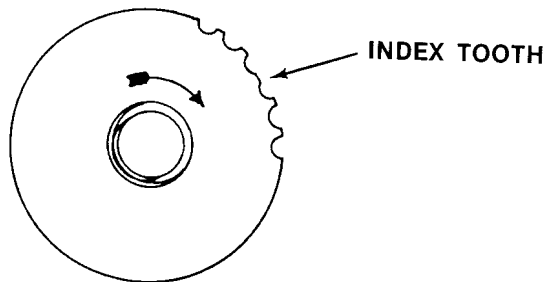


INSTALLATION**CAUTION**

When removing or installing torsion bars, the index or missing tooth on the anchor end of torsion bar must align with index on spline in road wheel arm, to allow bar to pass through.

CAUTION

Align index or missing tooth on end of torsion bar with index on road wheel arm and torsion bar anchor before installing.

**CAUTION**

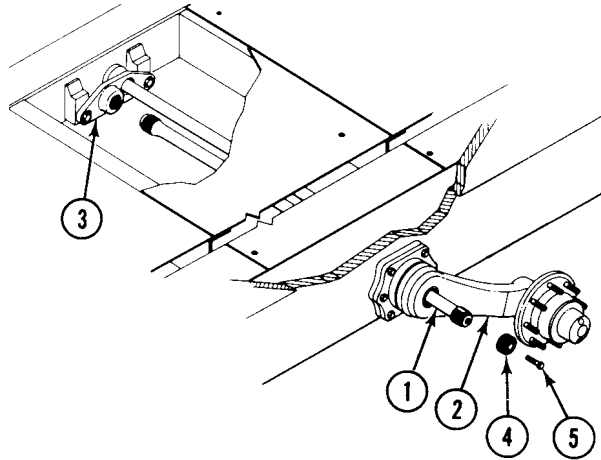
Handle torsion bar with care. Do not tear or cut wrapping.

NOTE

Left and right torsion bars are not interchangeable. To determine correct bar, place arrow on end of torsion bar outboard, with arrow at top. Arrow must point toward front of carrier.

1. Thread puller with adapter and screw into torsion bar.
2. Install torsion bar (1) through road wheel arm (2) and anchor (3). (H): Guide torsion bar into anchor to ensure proper alignment. Use slide hammer on puller to seat torsion bar.
3. Remove puller and adapter from torsion bar.
4. Put a light coat of grease on threads of plug (4) (WP 0120 00). Install plug in road wheel arm (2).
5. TIGHTEN PLUG (4) TO 50-75 LB-FT (68-102 N·M) TORQUE. Use torque wrench and socket wrench attachment.

6. Install screw (5) in plug (4).



NOTE

You may need to jack carrier, to raise road arm, before positioning road wheel lifter.

7. Position road wheel lifter (WP 0371 00) (T130) or (WP 0372 00) (T150).

FOLLOW-THROUGH STEPS

1. Install floor plates for third and fourth torsion bars (WP 0436 00).
2. Install driver's rear floor plate for second torsion bar, left side only (WP 0439 00).
3. Install power plant rear access panel for second torsion bar, right side only (see your -10).
4. Install driver's front floor plate for first torsion bar, left side only (WP 0439 00).
5. Install power plant for first torsion bar, right side only (WP 0131 00).
6. If removed, install shock absorber (WP 0379 00).
7. Install road wheel (WP 0371 00) (T130) or (WP 0372 00) (T150).
8. Road test carrier to check that torsion bar is installed properly (WP 0120 00).
9. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE TORSION BAR ANCHOR

0386 00

THIS WORK PACKAGE COVERS:

- Removal (page 0386 00-2).
 - Clean, Inspect, and Replace (page 0386 00-2).
 - Installation (page 0386 00-2).
-

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Socket Wrench Set (WP 0780 00, Item 97)
- Torque Wrench (WP 0780 00, Item 105)

Materials/Parts

- Cotter pin (2)
- Preformed packing

Personnel Required

Unit Mechanic

Equipment Condition

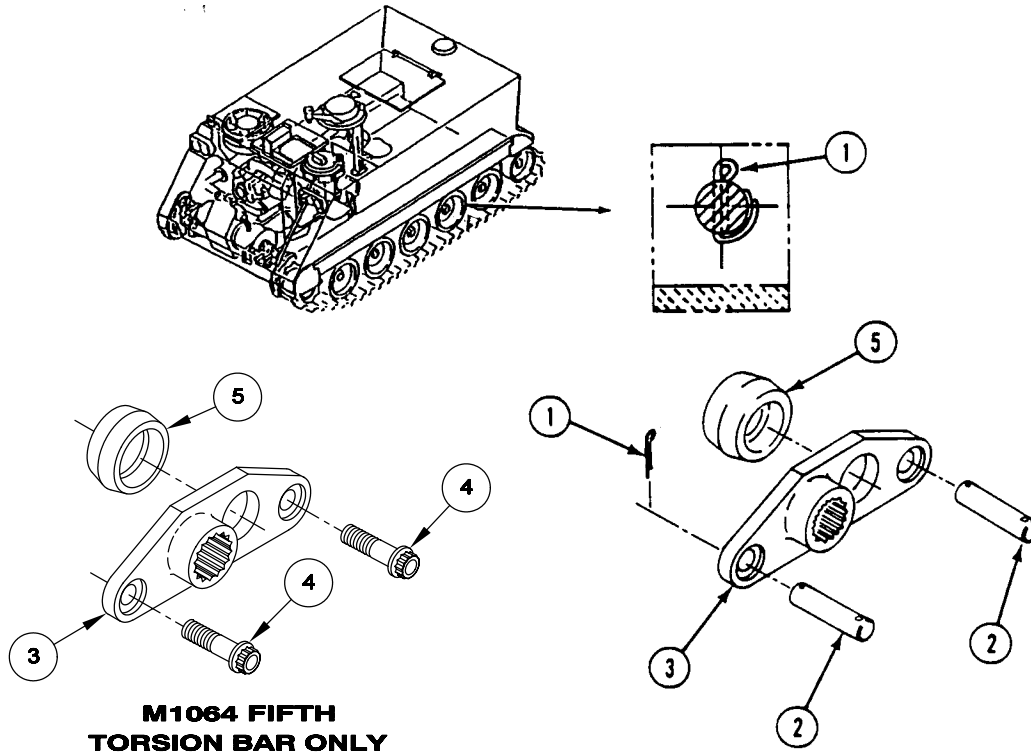
- Carrier on level surface
- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Road wheel removed (WP 0371 00) (T130) or (WP 0372 00) (T150)
- Torsion bar removed (WP 0385 00)
- Power plant removed for second torsion bar, right side only (WP 0131 00)

REPLACE TORSION BAR ANCHOR — Continued

0386 00

REMOVAL

1. Remove two cotter pins (1) and pins (2) from torsion bar anchor (3). Discard cotter pins.
2. Remove two screws (4) from anchor (3) on fifth torsion bar anchors (M1064 only).
3. Remove anchor (3) and preformed packing (5) from hull mount. Discard preformed packing.



CLEAN, INSPECT, AND REPLACE

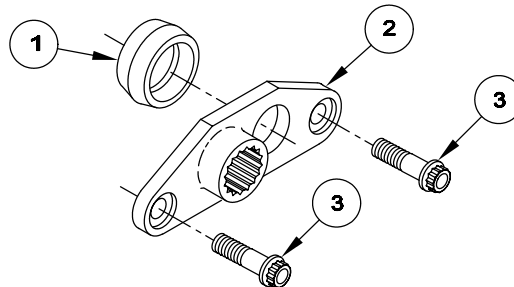
1. Check torsion bar anchor and pins for wear and damage. Replace if needed.

INSTALLATION

NOTE

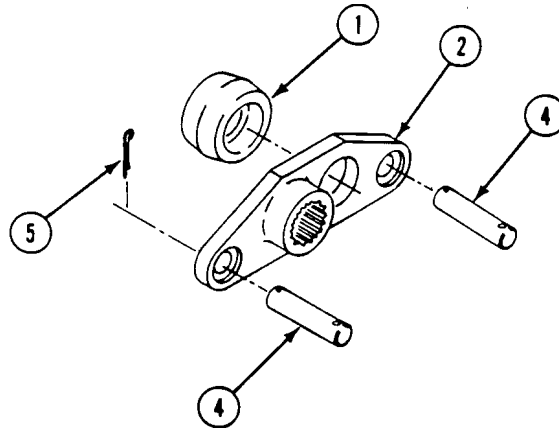
Preformed packing (1) is installed on third, fourth, and fifth anchor on all carriers.

1. Place new preformed packing (1) and torsion bar anchor (2) on hull mount.
2. Install two screws (3) in anchor (2) on fifth torsion bar anchor (M1064 only). **TIGHTEN SCREWS TO 320-330 LB-FT (434-447 N·M) TORQUE.** Use torque wrench.



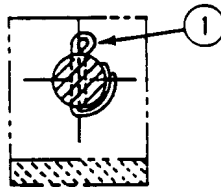
REPLACE TORSION BAR ANCHOR — Continued**0386 00**

3. On all other carriers and torsion bar positions, install two pins (4) in anchor (2). Secure pins with two new cotter pins (5). Bend pins as shown.

**NOTE**

Cotter pins must not prevent 360 degree rotation of anchor pins.

4. Bend cotter pins (1) so they allow 360 degree rotation of anchor pins.

**FOLLOW-THROUGH STEPS**

1. Install torsion bar (WP 0385 00).
2. Install power plant for second torsion bar anchor, right side only (WP 0131 00).
3. Install road wheel (WP 0371 00) (T130) or (WP 0372 00) (T150).
4. Road test carrier to check that torsion bar anchor is installed properly (WP 0120 00).
5. Stop/shutdown engine (see your -10).

END OF TASK

CHAPTER 23
UNIT MAINTENANCE INSTRUCTIONS
FOR DRIVER'S CONTROLS

WORK PACKAGE INDEX

<u>Title</u>	<u>Sequence No.</u>
ADJUST STEERING LINKAGE.....	.0387 00
ADJUST BRAKE LOCKING PAWL.....	.0388 00
REPAIR LEFT/RIGHT STEERING LEVERS.....	.0389 00
REPLACE STEERING LEVERS CROSS-SHAFTS AND BEARINGS.....	.0390 00
REPLACE STEERING LEVERS CROSS-SHAFT LINKS.....	.0391 00
REPLACE DIFFERENTIAL CROSS-SHAFTS AND BEARINGS.....	.0392 00
REPLACE DIFFERENTIAL CROSS-SHAFT LINKS.....	.0393 00
REPLACE DIFFERENTIAL STEERING BRAKE LEVERS.....	.0394 00
REPLACE LOWER ACCELERATOR PEDAL.....	.0395 00
REPLACE UPPER ACCELERATOR PEDAL ASSEMBLY.....	.0396 00
REPLACE TRANSMISSION AND LOWER ACCELERATOR LINKAGE.....	.0397 00
REPAIR TRANSMISSION AND LOWER ACCELERATOR LINKAGE.....	.0398 00
REPLACE UPPER ACCELERATOR LINKAGE.....	.0399 00
REPAIR UPPER ACCELERATOR LINKAGE.....	.0400 00
ADJUST ACCELERATOR AND TRANSMISSION THROTTLE VALVE LINKAGE.....	.0401 00
REPLACE HAND THROTTLE.....	.0402 00
REPLACE FUEL CUTOFF CONTROL CABLE ASSEMBLY.....	.0403 00
REPLACE TRANSMISSION RANGE SELECTOR.....	.0404 00
REPAIR TRANSMISSION RANGE SELECTOR.....	.0405 00
REPLACE NEUTRAL START SWITCH.....	.0406 00
REPLACE RANGE SELECTOR LINKAGE.....	.0407 00
REPLACE ENGINE POWER DISCONNECT.....	.0408 00
BLEED PIVOT STEER SYSTEM.....	.0409 00
REPLACE PIVOT STEER HANDLES AND LINKS.....	.0410 00
REPLACE PIVOT STEER BELLCRANKS AND BRACKETS.....	.0411 00
REPLACE PIVOT STEER MASTER CYLINDERS AND HOSES.....	.0412 00
REPLACE/REPAIR PIVOT STEER BRAKES, HOSES, TUBES, AND FITTINGS.....	.0413 00
REPLACE PIVOT STEER BRAKE DISK.....	.0414 00
ADJUST PIVOT STEER LINKAGE.....	.0415 00

ADJUST STEERING LINKAGE

0387 00

THIS WORK PACKAGE COVERS:

Adjustment (page 0387 00-1).

INITIAL SETUP:

Maintenance Level

Unit

References

WP 0185 00
WP 0390 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)
Carrier blocked (see your -10)
Ramp lowered (see your -10)
Trim vane lowered (see your -10)
Power plant front access door open (see your -10)
Driver's power plant access cover removed (WP 0430 00)

Materials/Parts

Cotter pin (2)
Screw 3/8-16 x 2-1/2 (2)

Personnel Required

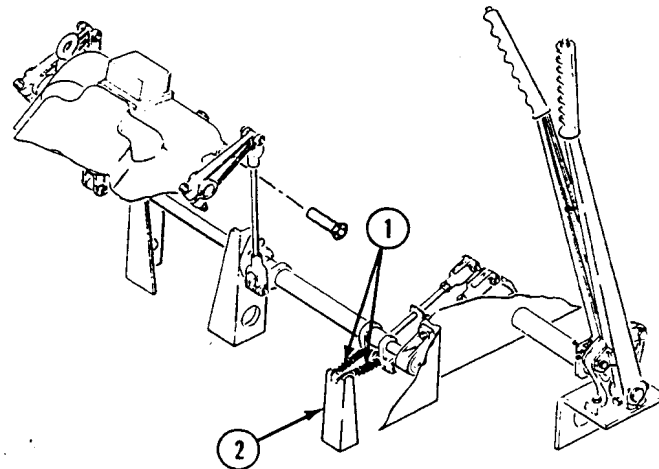
Unit Mechanic
Helper (H)

ADJUSTMENT

NOTE

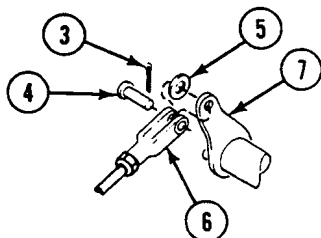
In most cases, adjustment of differential brake linkage is necessary only when a component of the control linkage has been repaired or replaced.

1. Remove air cleaner housing and element (WP 0185 00).
2. Unlock and release steering levers. Disconnect two return springs (1) from bracket (2).



3. Remove cross-shaft access covers (WP 0390 00).

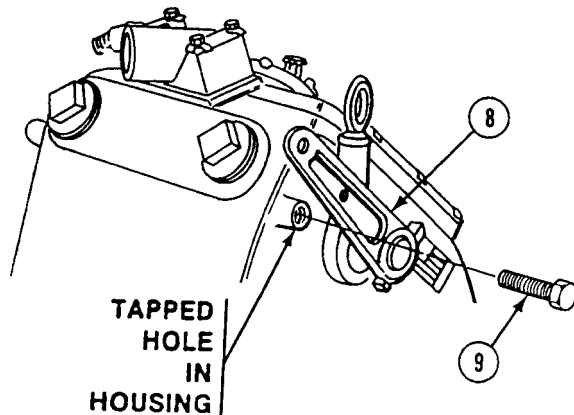
- Remove two cotter pins (3), clevis pins (4), and washers (5) from two clevises (6) and steering lever cross-shaft (7). Discard cotter pins.



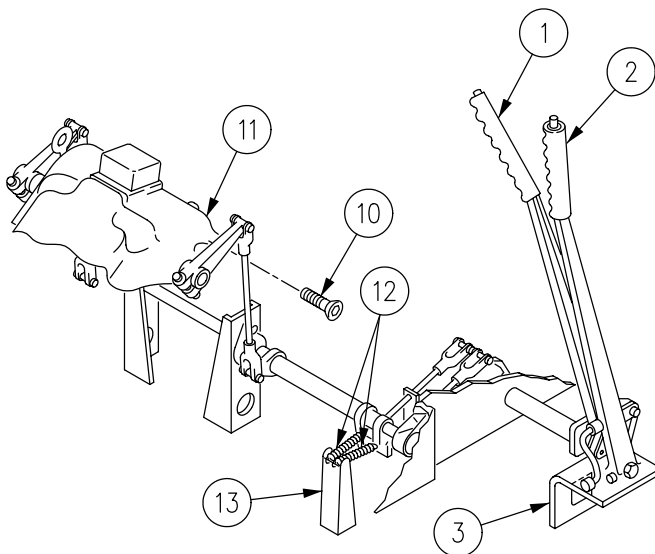
NOTE

If holes in differential brake levers will not align with tapped holes in differential housing, loosen adjustment by turning brake adjusting nut to left until holes align. Re-adjust differential brakes (WP 0362 00).

- Align holes in differential brake levers (8) with tapped holes in differential housing. Secure with two screws (9).



- Lock steering lever (1) and steering lever (2) in front notch of quadrant (3).

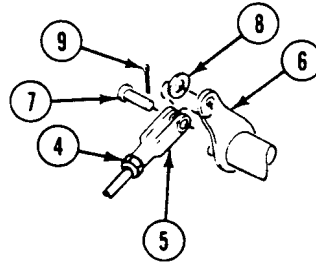


7. Loosen two jamnuts (4) and turn two clevises (5) until clevis holes align with steering lever cross-shaft (6) holes.

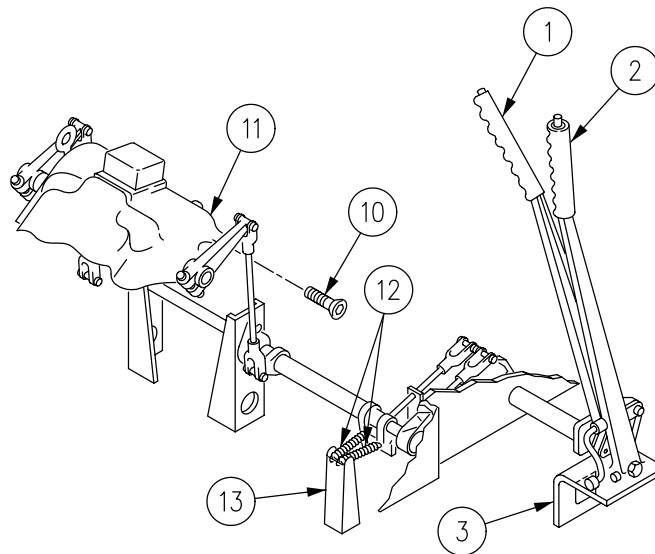
NOTE

Before installing clevis pin through clevis and cross shaft levers, ensure stoplight switch lever is on proper side of linkage tab (the side toward front of carrier); then check and adjust stoplight switch if necessary (WP 0290 00).

8. Install clevises (5) to steering cross-shaft (6). Secure with two clevis pins (7), washers (8), and new cotter pins (9).
9. Tighten two jamnuts (4).



10. Remove two screws (10) from differential brake levers (11). Release steering lever to full forward position.
11. Connect two return springs (12) to bracket (13).



12. Install linkage access covers (WP 0390 00).
13. Install air cleaner housing and element (WP 0185 00).

FOLLOW-THROUGH STEPS

1. Perform differential brake adjustment (WP 0362 00).
2. Close power plant front access door and raise trim vane (see your -10).
3. Install driver's power plant access cover (WP 0430 00).
4. Raise and lock ramp (see your -10).
5. Unlock steering levers. Operate carrier to check that steering brakes operate properly.
6. Stop/shutdown engine (see your -10).

END OF TASK

ADJUST BRAKE LOCKING PAWL

0388 00

THIS WORK PACKAGE COVERS:

Adjustment (page 0388 00-1).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

Drill Set (WP 0780 00, Item 23)

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Trim vane lowered and power plant front access door open (see your -10)

Driver's seat removed (WP 0478 00)

Remove air cleaner housing and element (WP 0185 00)

Materials/Parts

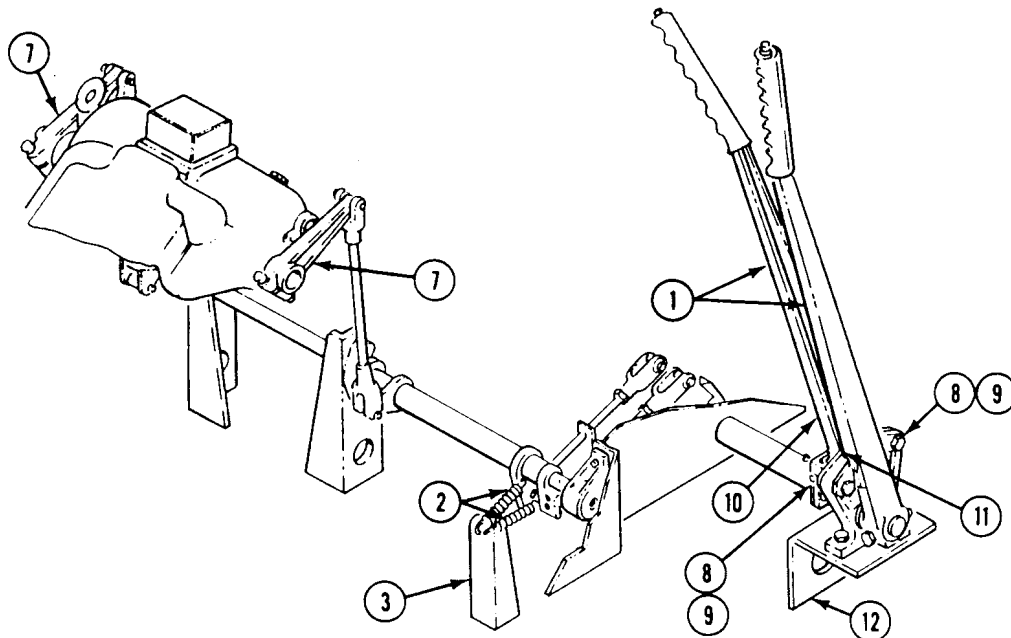
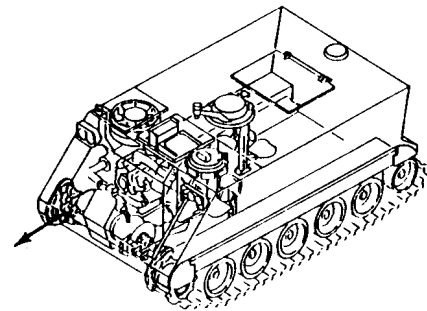
Cotter pin (2)

Locknut (2)

Spring pin (4)

ADJUSTMENT

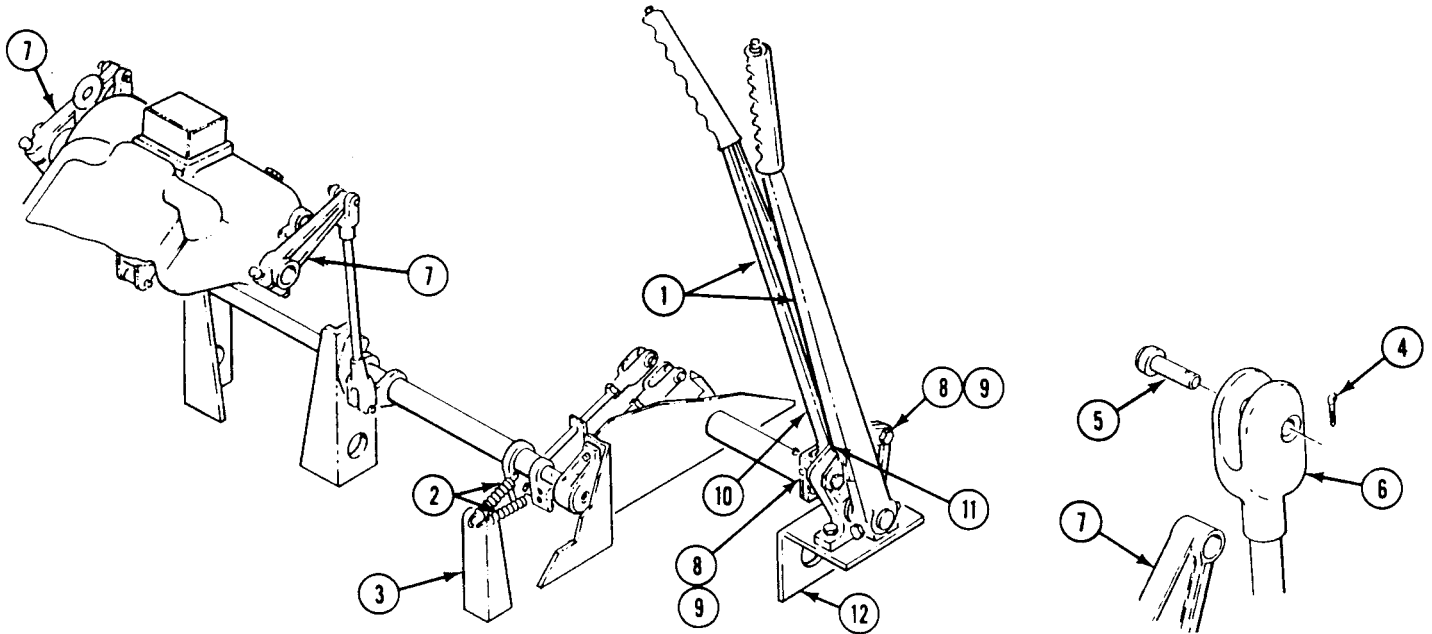
1. Unlock both steering levers (1).



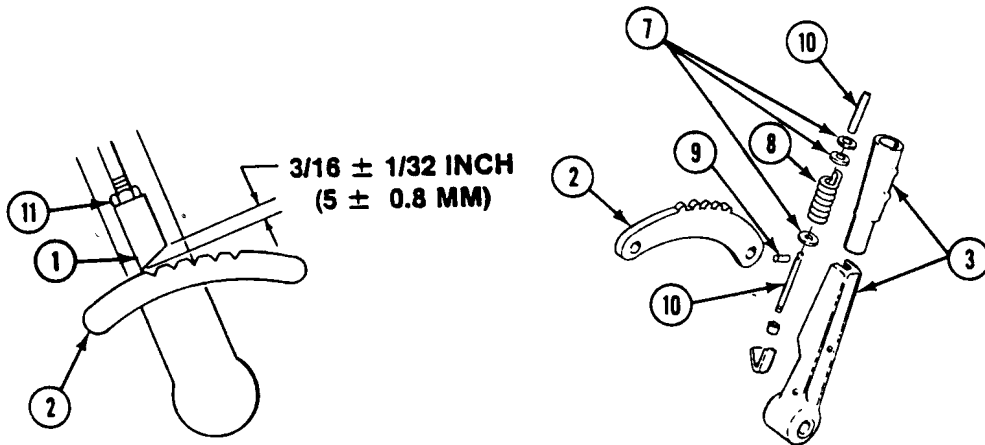
ADJUST BRAKE LOCKING PAWL — Continued

0388 00

2. Disconnect two return springs (2) from bracket (3).
3. Remove two cotter pins (4) and two clevis pins (5) from two clevises (6) and differential brake levers (7). Discard cotter pins.
4. Remove two screws (8), locknuts (9), two quadrants (10), and stops (11) from bracket (12). Discard locknuts.
5. Place quadrants (10) and stops (11) on bracket (12). Install screws (8) and new locknuts (9); push down on quadrants while screws and locknuts are tightened.




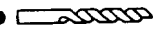


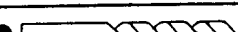
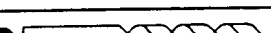

6. Check gap between pawls (1) and top of quadrants (2) while moving steering levers (3) from front to back. Use 5/32, 3/16, and 7/32 inch (4, 5, and 6 mm) diameter drill bit shanks to check gap. Clearance should be between 5/32 (4 mm) and 7/32 (6 mm). If 5/32 or 3/16 inch (4 and 5 mm) drills will fit but 7/32 inch (6 mm) drill will not, gap is right. If 7/32 inch (6 mm) drill will fit, it must be snug in gap throughout lever travel for gap to be right.



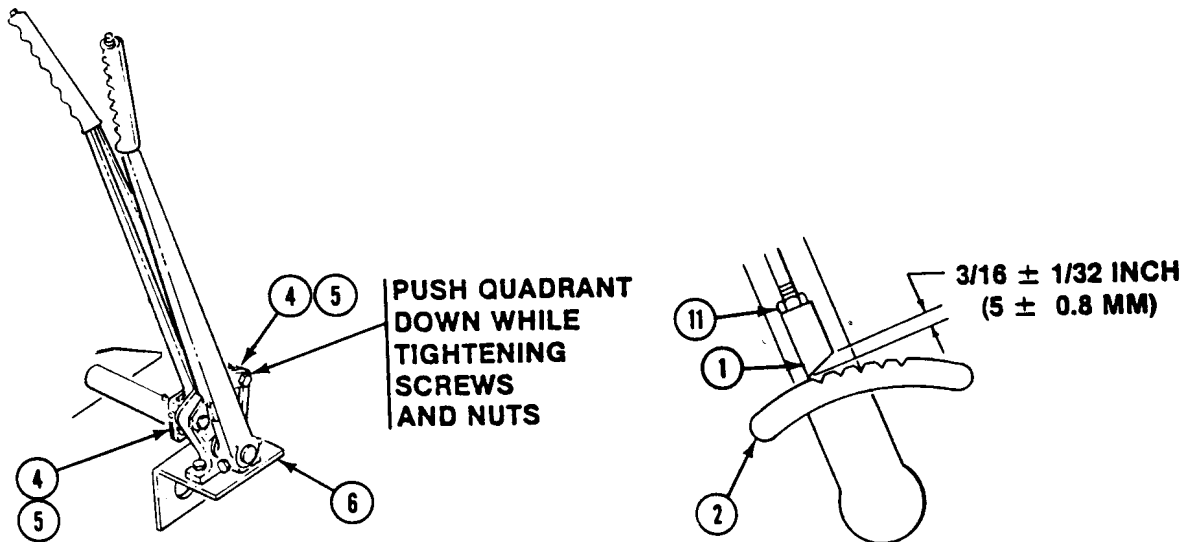
7. If gap is wrong, do Steps 8 - 16 while referring to pawl adjustment chart. If gap is correct, go to Step 17.

PAWL ADJUSTMENT CHART

**NOTE
USE COMMON DRILL BITS TO MEASURE
GAP BETWEEN PAWL AND QUADRANT**

A			B
DRILL DIA IN	METRIC DIA MM		MOVE PAWL
1/32	0.8	• 	5 FULL TURNS
1/16	2	• 	4 FULL TURNS
3/32	2	• 	3 FULL TURNS
1/8	3	• 	2 FULL TURNS
5/32	4	• 	1 FULL TURN
3/16	5	• 	0 TURNS
7/32	6	• 	BACK 1 FULL TURN

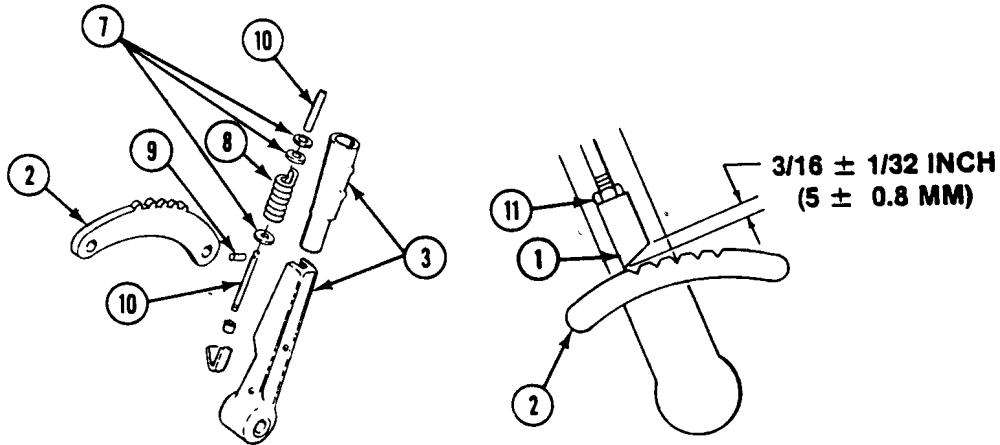
8. Loosen front quadrant screw (4) and locknut (5) that secure quadrants (2) to bracket (6).
9. Remove rear screw (4) and locknut (5) from bracket (6) and quadrants (2).



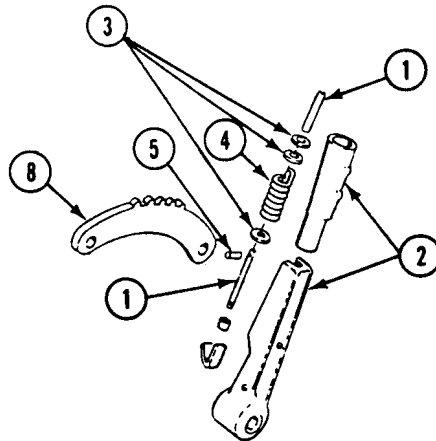
ADJUST BRAKE LOCKING PAWL — Continued

0388 00

10. Remove three washers (7), spring (8), and two spring pins (9) from plunger rod (10), and remove rod from steering lever (3). Discard spring pins.
11. Loosen pawl jamnuts (11) to adjust pawl (1) to quadrant clearance.
12. Set clearance between $\frac{5}{32}$ inch (4 mm) and $\frac{7}{32}$ inch (6 mm). Then tighten jamnuts (11). One complete turn will move pawl (1) $\frac{1}{32}$ inch (0.8 mm).



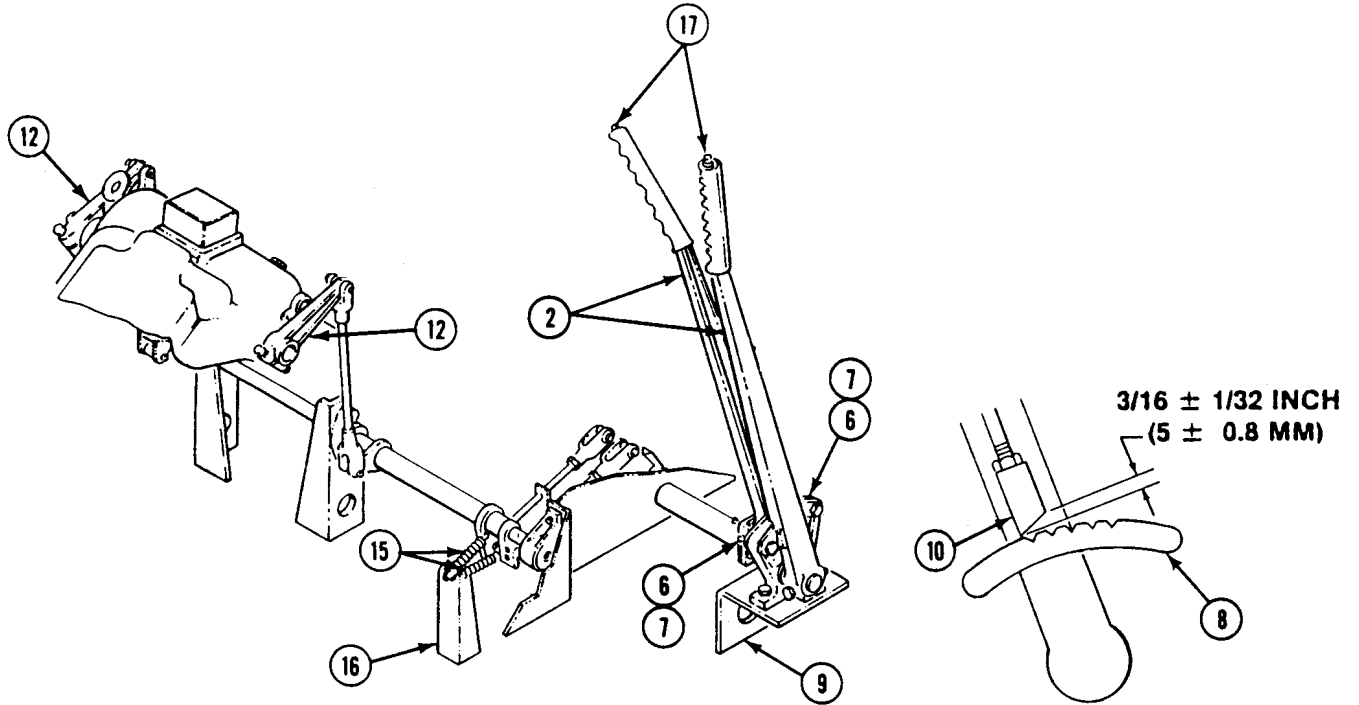
13. Place plunger rods (1) back in steering levers (2). Secure each rod with three washers (3), spring (4), and two new spring pins (5).



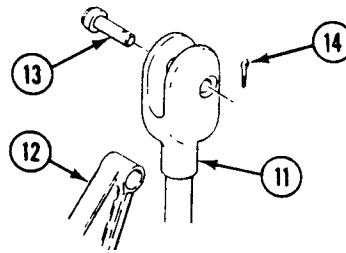
ADJUST BRAKE LOCKING PAWL — Continued

0388 00

14. Install rear screw (6) and locknut (7) in quadrants (8) and bracket (9).
15. Push quadrants (8) completely down. Tighten two screws (6) and locknuts (7).
16. Check gap between pawls (10) and quadrants (8) while moving steering levers (2) as in Step 6.



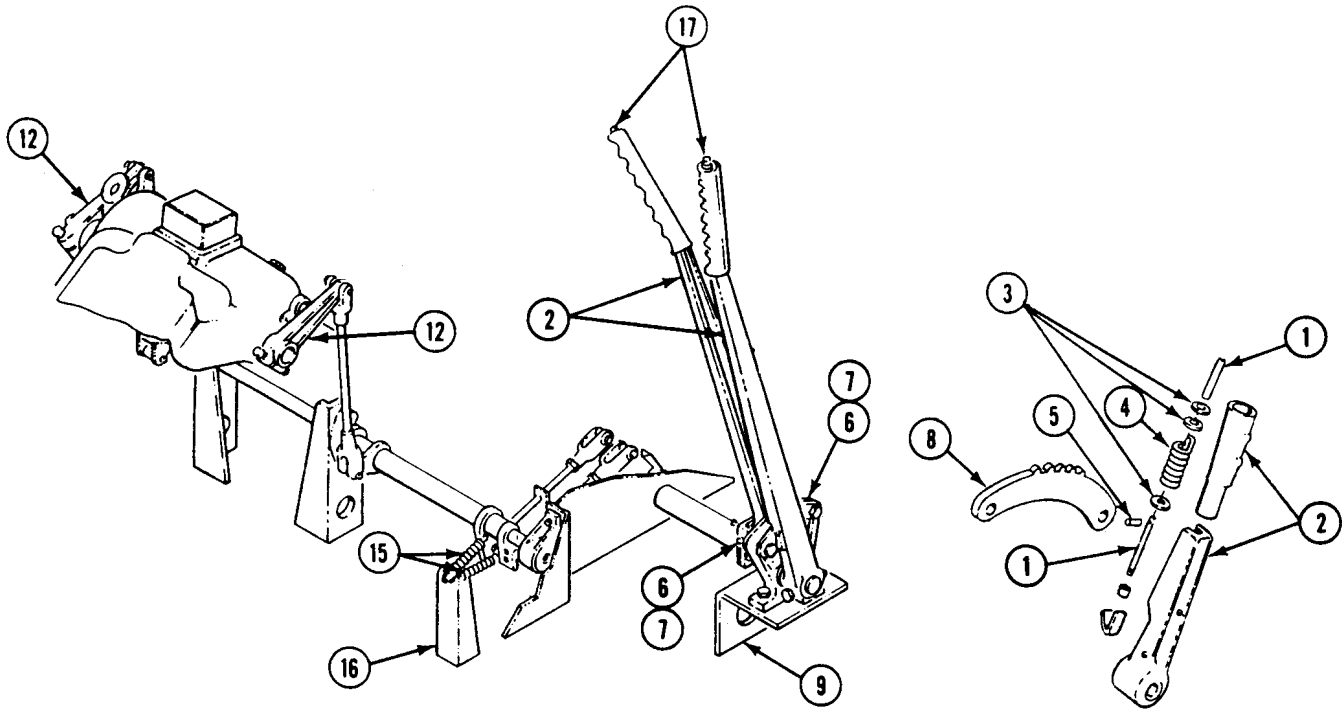
17. Install two clevises (11) to two differential brake levers (12). Secure with two clevis pins (13) and new cotter pins (14).



CAUTION

Make sure button (17) on top of steering levers (2) works freely. Pawl (9) must fully engage quadrant with steering lever back and button pressed. Button must pop up and pawl disengage from quadrant with slight pull on steering lever. Plunger rods (1) must move freely without binding.

18. Connect two springs (15) to hull bracket (16).

**FOLLOW-THROUGH STEPS**

1. Install air cleaner housing and element (WP 0185 00).
2. Close power plant front access door and raise trim vane (see your -10).
3. Install driver's seat (WP 0478 00).
4. Operate carrier (see your -10). Check that steering brakes operate properly.

END OF TASK

REPAIR LEFT/RIGHT STEERING LEVERS

0389 00

THIS WORK PACKAGE COVERS:

- Removal (page 0389 00-1)
- Clean, Inspect, and Replace (page 0389 00-3).
- Installation (page 0389 00-4)

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Snap Ring Pliers (WP 0780 00, Item 45)
- Socket Wrench Set (WP 0780 00, Item 96)
- Torque Wrench (WP 0780 00, Item 102)

Materials/Parts

- Locknut (2)
- Locknut (2)
- Locknut (2)
- Spring pin (3)

Personnel Required

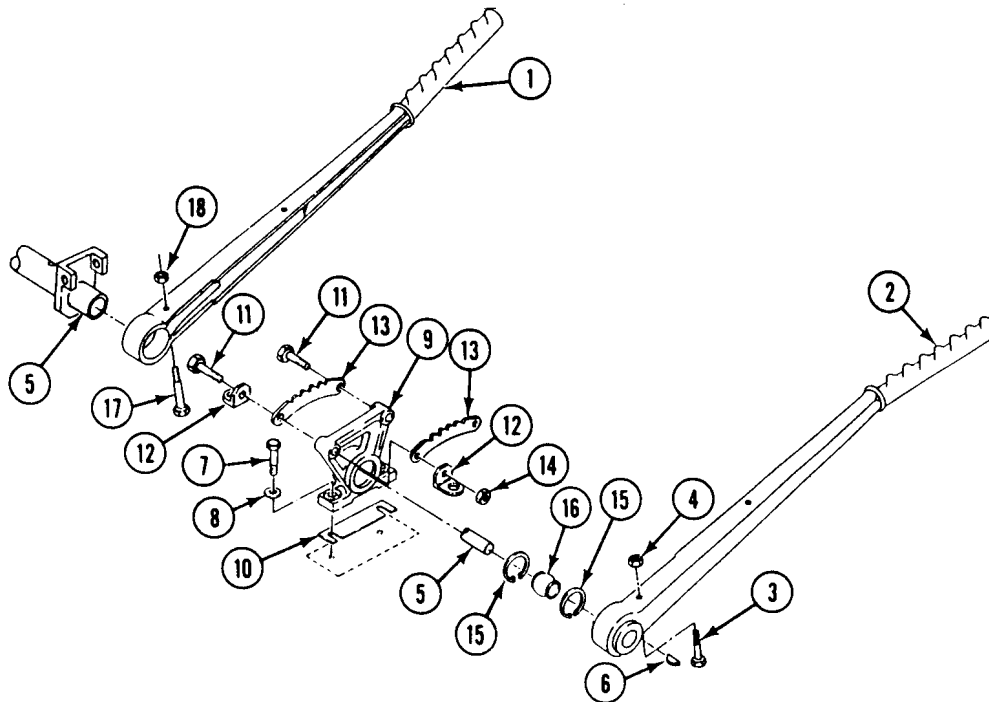
Unit Mechanic

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Driver's seat removed (WP 0478 00)

REMOVAL

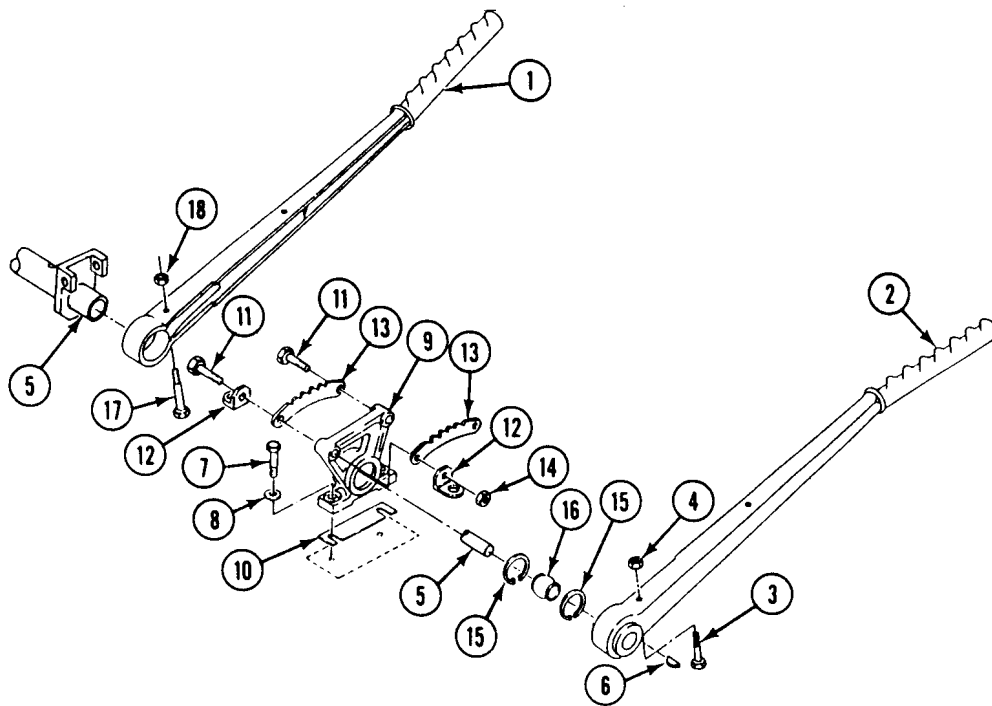
1. Place right steering lever (1) and left steering lever (2) full forward, in released position.
2. Remove screw (3), locknut (4), and left steering lever (2) from cross-shaft (5). Remove woodruff key (6) from cross-shaft. Discard locknut.



NOTE

The same number of shims removed will be installed.

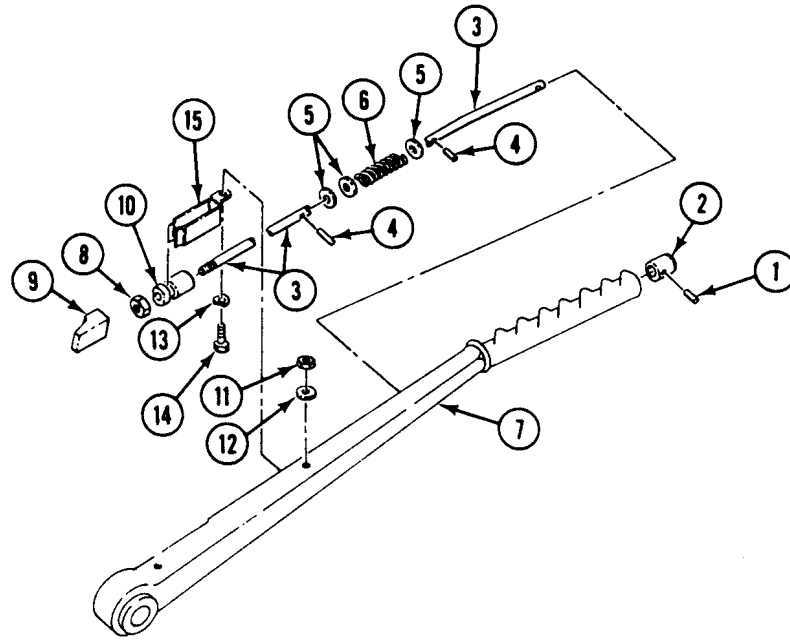
3. Remove two screws (7), washers (8), bracket (9), and shims (10) from driver's floor plate.
4. Remove bracket (9) from cross-shaft (5).
5. Remove two screws (11), two stop levers (12), two quadrants (13) and two locknuts (14) from bracket (9). Discard locknuts.
6. Remove two retaining rings (15), one bearing (16) from inside bracket (9).
7. Remove screw (17), locknut (18), and right steering lever (1) from cross-shaft (5). Discard locknut.



NOTE

Both right and left steering levers, in this section are removed and installed the same way.

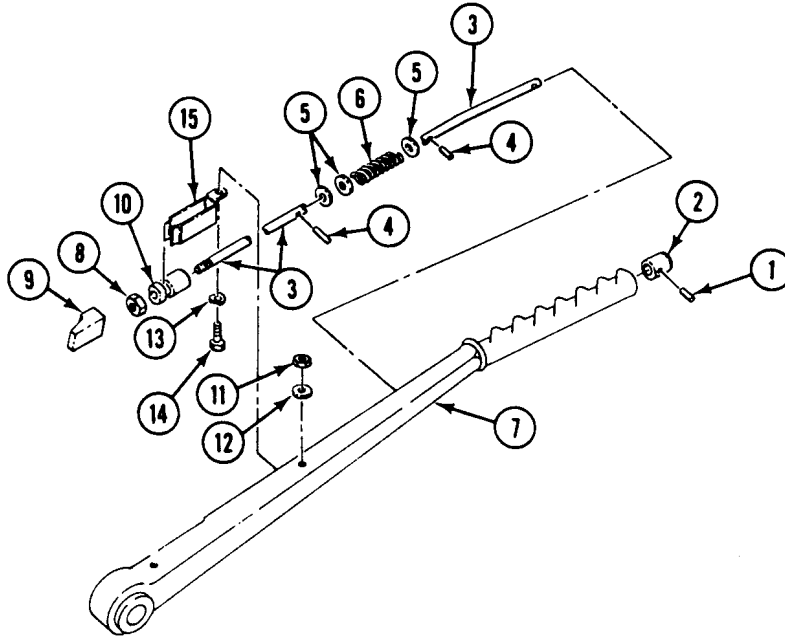
8. Remove spring pin (1) from plunger (2). Remove plunger from rod (3). Discard spring pin.
9. Remove two spring pins (4) from rod (3). Discard spring pins.
10. Remove rod (3), three washers (5), and spring (6) from lever arm (7).
11. Remove nut (8), pawl (9), and nut sleeve (10) from rod (3).
12. Remove locknut (11), flat washer (12), washer (13), bolt (14), and rod clip (15) from steering lever (7). Discard locknut.

**CLEAN, INSPECT, AND REPLACE**

1. Check lever arm, button, and spring. Replace cracked or broken parts.
2. Check all threads. Replace parts with stripped threads.
3. Check pawl. Replace nicked or worn pawl.
4. Check bearing, bracket, retaining rings, and quadrants for wear or damage. Replace all damaged parts.

INSTALLATION

1. Install rod clip (15) on steering lever (7). Secure with bolt (14), flat washer (12), washer (13), and new locknut (11).
2. Install nut sleeve (10), nut (8), and pawl (9) on rod (3).
3. Install three washers (5) and spring (6) on rod (3).
4. Install parts assembled in Steps 2 - 3 on steering lever (7). Secure with two new spring pins (4).
5. Install plunger (2) in rod (3). Secure with new spring pin (1).

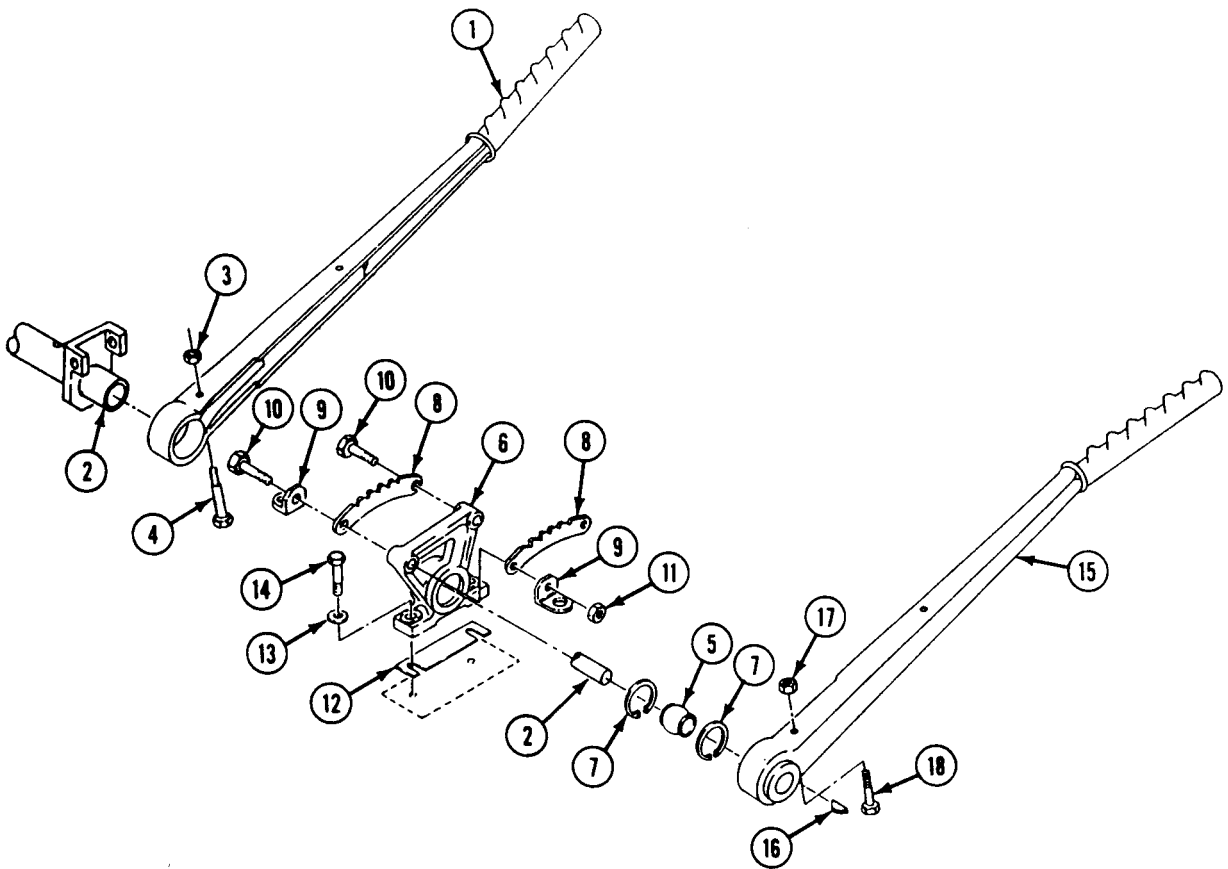


6. Install right steering lever (1) on cross-shaft (2). Secure with new locknut (3), and screw (4).
7. Install bearing (5) in bracket (6) and secure with two retaining rings (7). Use snap ring pliers.
8. Install two quadrants (8) and stop levers (9) on bracket (6) with two screws (10) and new locknuts (11).

NOTE

The same number of shims removed will be installed.

9. Install bracket (6) on cross-shaft (2). Install shims (12) between bracket (6) and driver's floor plate. Secure with two washers (13) and screws (14).
10. Install left steering lever (15) on cross-shaft (2). Secure with woodruff key (16), new locknut (17), and screw (18).
11. **TIGHTEN LOCKNUT (17) TO 204-240 LB-IN (23-27 N·M) TORQUE.** Use torque wrench.



FOLLOW-THROUGH STEPS

1. Adjust brake locking pawl (WP 0388 00).
2. Install driver's seat (WP 0478 00).
3. Operate carrier (see your -10). Check that steering levers operate properly.

END OF TASK

REPLACE STEERING LEVERS CROSS-SHAFTS AND BEARINGS

0390 00

THIS WORK PACKAGE COVERS:

Removal (page 0390 00-1).
 Installation (page 0390 00-4).

INITIAL SETUP:

Maintenance Level

Unit

References

WP 0120 00
 WP 0387 00
 WP 0388 00
 WP 0389 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Snap Ring Pliers (WP 0780 00, Item 45)

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Ramp lowered (see your -10)
 Trim vane lowered and power plant front access door open (see your -10)
 Driver's power plant access panel removed (WP 0430 00)
 Air cleaner housing and element removed (WP 0185 00)
 Oil can bracket removed (WP 0524 00)
 Driver's seat removed (WP 0478 00)

Materials/Parts

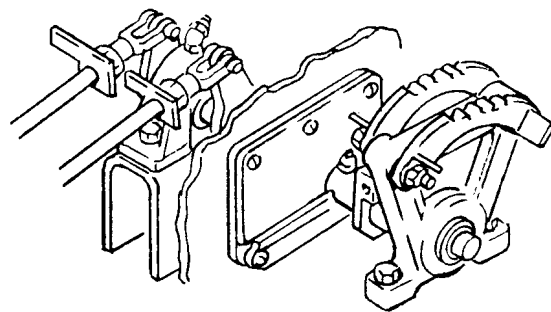
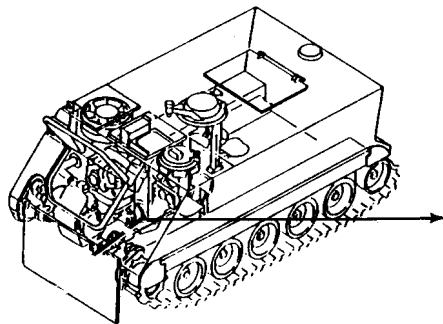
Cotter pin (2)
 Gasket
 Locknut (2)
 Locknut (2)
 Locknut (5)
 Spring pin (3)
 Tapered pin (2)

Personnel Required

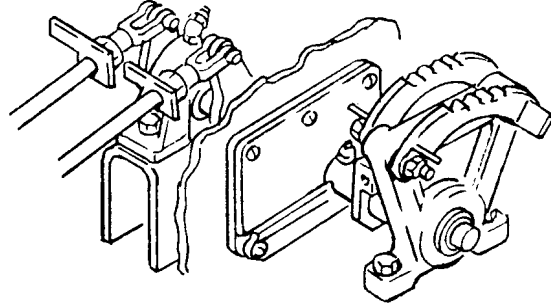
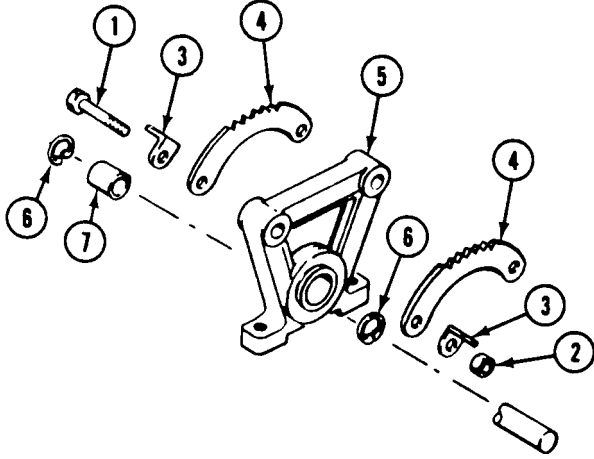
Unit Mechanic

REMOVAL

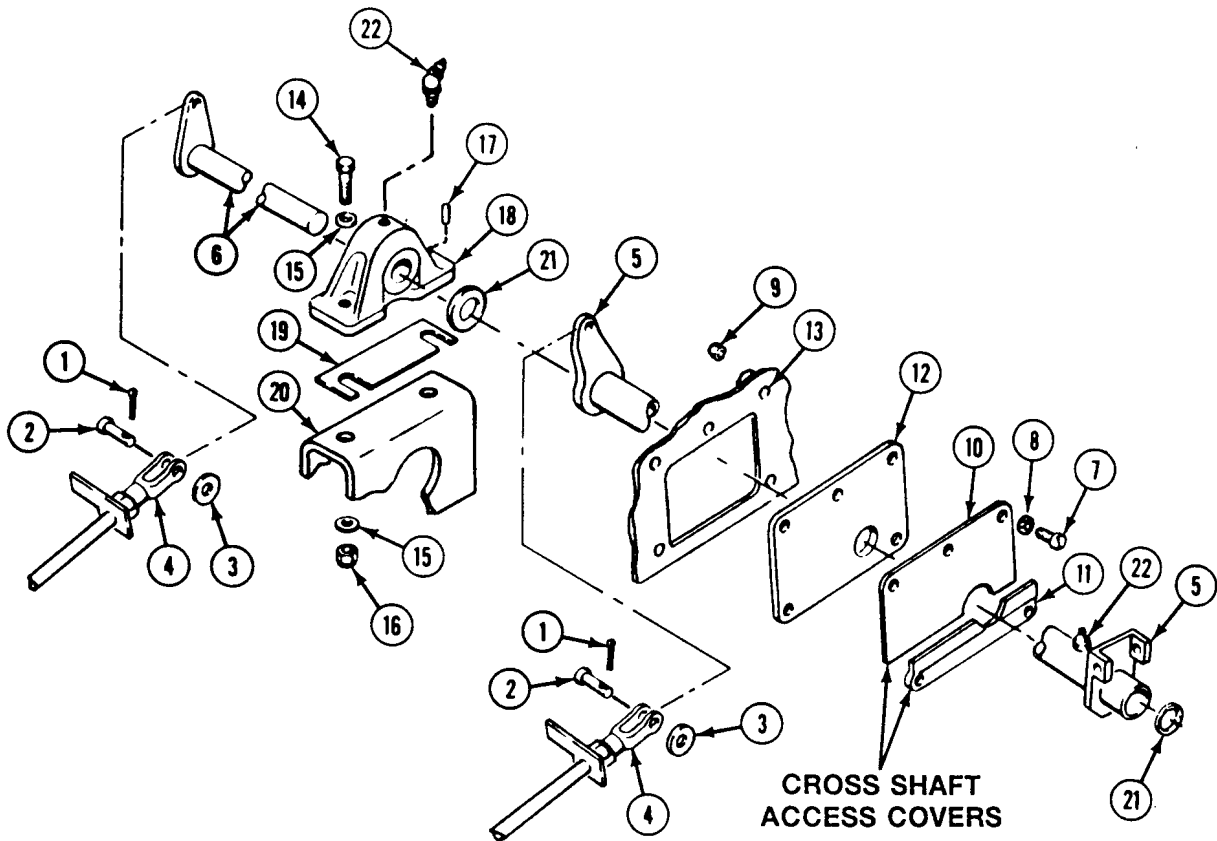
1. Disconnect two return springs (WP 0387 00).
2. Remove steering levers, bracket, and shim (WP 0389 00).



3. Remove two screws (1), locknuts (2), stops (3), and quadrants (4) from bracket (5). Discard locknuts.
4. Remove two retaining rings (6) and bearing (7) from bracket (5).



5. Remove two cotter pins (1), clevis pins (2), and washers (3) that secure two clevises (4) to cross shaft (5) and cross shaft (6). Discard cotter pins.
6. Remove five screws (7), washers (8), and locknuts (9) that secure cover (10), cover (11), and gasket (12) to five press nuts (13) in power plant compartment bulkhead. Discard gasket and locknuts.
7. Remove two screws (14), washers (15), locknuts (16), tapered pins (17), arm bearing (18), and shim (19) from bracket (20). Discard tapered pins and locknuts.
8. Remove cross-shaft (5), cross-shaft (6), and arm bearing (18) as a unit through power plant compartment bulkhead.
9. Separate cross-shaft (5), cross-shaft (6), arm bearing (18), and two thrust washers (21).
10. Remove lubrication fittings (22) from arm bearing (18) and cross-shaft (5).

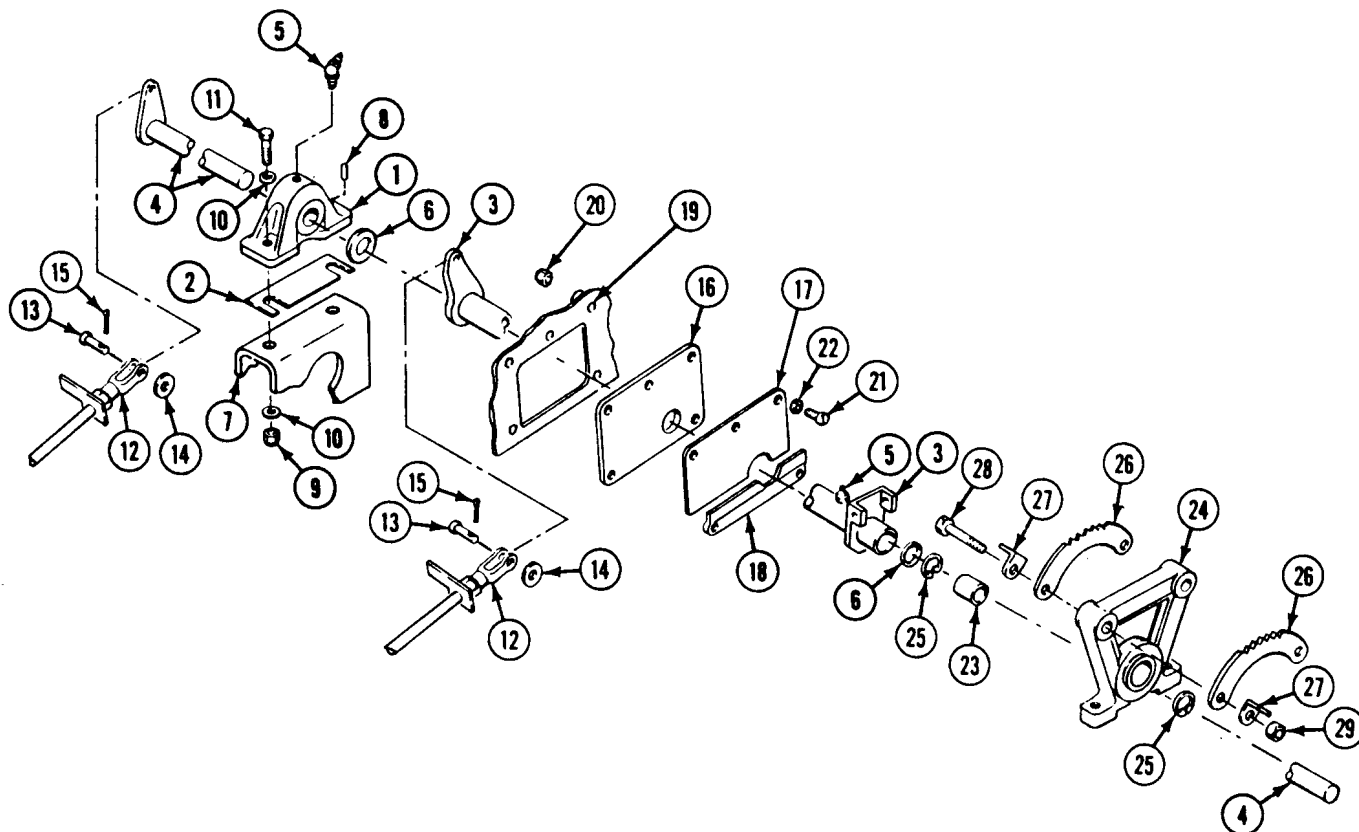


INSTALLATION

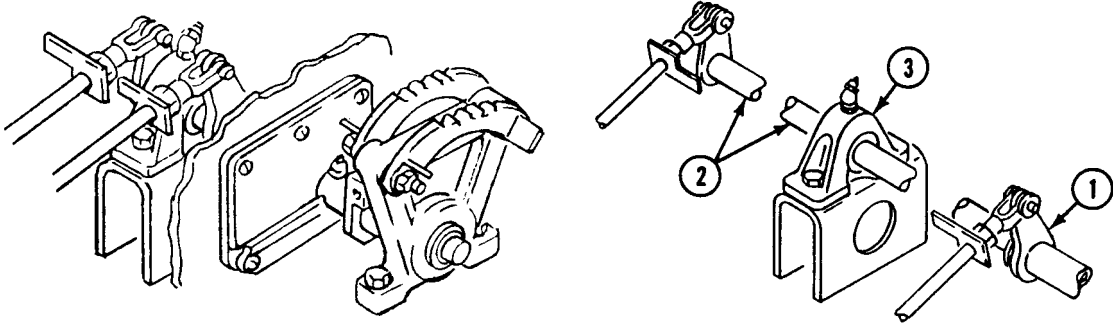
NOTE

If arm bearing (1) is to be replaced, use shim (2) as a template to locate and drill two .250-.252 inch (6 mm) holes in base of new bearing before installation. If there is no shim, make template from old bearing.

1. Assemble cross-shaft (3), cross-shaft (4), arm bearing (1), lube fittings (5), and two thrust washers (6) as a unit. Install through power plant compartment bulkhead opening.
2. Place shim (2) and bearing (1) on bracket (7). Secure with two new tapered pins (8), new locknuts (9), washers (10), and screws (11).
3. Install two clevises (12) on cross-shaft (3) and cross-shaft (4). Secure with two clevis pins (13), washers (14) and new cotter pins (15).
4. Install new gasket (16), cover (17), and cover (18) on five press nuts (19) in power plant compartment bulkhead. Secure with five new locknuts (20), screws (21), and washers (22).
5. Install bearing (23) in bracket (24). Secure with two retaining rings (25). Use snap ring pliers.
6. Install two quadrants (26) and stops (27) on bracket (24). Secure with two screws (28) and new locknuts (29).



7. Install steering levers, bracket, and shim (WP 0389 00).
8. Adjust brake locking pawl (WP 0388 00).
9. Lubricate cross-shaft (1), cross-shaft (2), and arm bearing (3) (WP 0120 00).



10. Connect two return springs (WP 0387 00).

FOLLOW-THROUGH STEPS

1. Install oil can bracket (WP 0524 00).
2. Install air cleaner housing and element (WP 0185 00).
3. Close power plant front access door and raise trim vane (see your -10).
4. Install driver's power plant access panel (WP 0430 00).
5. Install driver's seat (WP 0478 00).
6. Raise and lock ramp (see your -10).
7. Operate carrier (see your -10). Check that steering operates properly.
8. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE STEERING LEVERS CROSS-SHAFT LINKS

0391 00

THIS WORK PACKAGE COVERS:

- Removal (page 0391 00-1).
- Clean, Inspect, and Replace (page 0391 00-2).
- Installation (page 0391 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

Cotter pin (4)

Personnel Required

Unit Mechanic

References

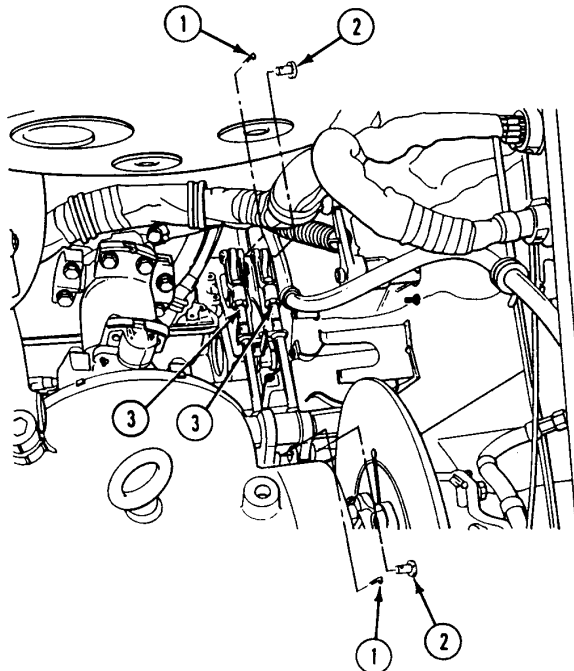
- WP 0290 00
- WP 0387 00
- WP 0390 00

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Trim vane lowered and power plant front access door open (see your -10)
- Driver's power plant access panel removed (WP 0430 00)
- Brakes released, steering levers full forward (see your -10)
- Air cleaner housing and element removed (WP 0185 00)
- Oil can bracket removed (WP 0524 00)

REMOVAL

1. Disconnect two return springs (WP 0387 00).
2. Remove cross-shaft cover from power plant compartment bulkhead (WP 0390 00).
3. Remove four cotter pins (1), clevis pins (2), and two links (3) from steering levers and differential cross-shafts. Discard cotter pins.

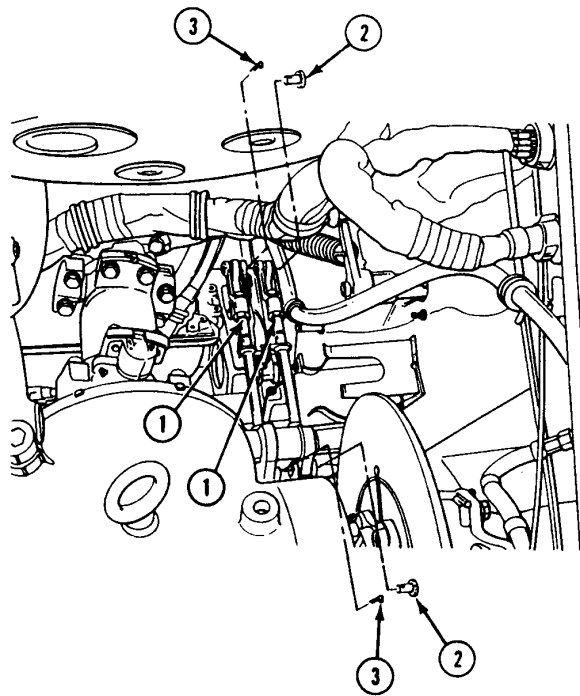


CLEAN, INSPECT, AND REPLACE

1. Check links. Replace links with cracks, breaks, or stripped threads.
2. Check link clevises. Replace link clevises with cracks or worn mounting holes.
3. Check clevis pins. Replace worn or grooved clevis pins.
4. Check stop light tangs. Replace links with cracked or broken tangs.

INSTALLATION

1. Install two links (1) on steering levers and differential cross-shafts. Secure with four clevis pins (2) and four new cotter pins (3).



2. Adjust linkage (WP 0387 00).
3. Adjust stoplight switch (WP 0290 00).
4. Connect two return springs (WP 0387 00).
5. Install cross-shaft covers on power plant compartment bulkhead (WP 0390 00).

FOLLOW-THROUGH STEPS

1. Install oil can bracket (WP 0524 00).
2. Install air cleaner housing and element (WP 0185 00).
3. Install driver's power plant access panel (WP 0430 00).
4. Close power plant front access door and raise trim vane (see your -10).
5. Operate carrier (see your -10). Check that steering operates properly.

END OF TASK

REPLACE DIFFERENTIAL CROSS-SHAFTS AND BEARINGS

0392 00**THIS WORK PACKAGE COVERS:**

Removal (page 0392 00-2).
Clean, Inspect, and Repair (page 0392 00-3).
Installation (page 0392 00-4).

INITIAL SETUP:Maintenance Level

Unit

References

WP 0120 00
WP 0387 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
Snap Ring Pliers (WP 0780 00, Item 45)

Equipment Condition

Engine stopped/shutdown (see your -10)
Carrier blocked (see your -10)
Trim vane lowered and power plant front access door
open (see your -10)
Air cleaner housing and element removed
(WP 0185 00)
Oil can bracket removed (WP 0524 00)

Materials/Parts

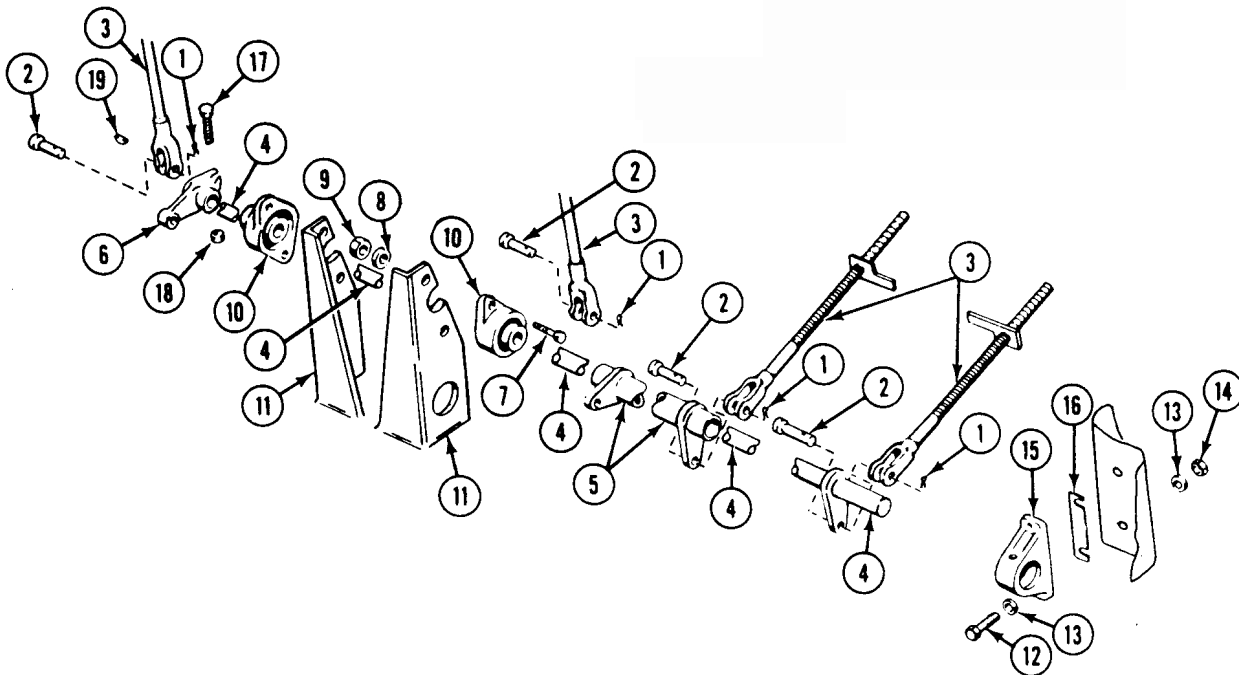
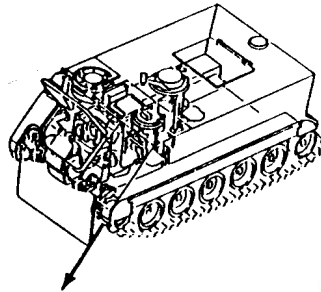
Cotter pin (4)
Locknut (3)
Locknut (4)

Personnel Required

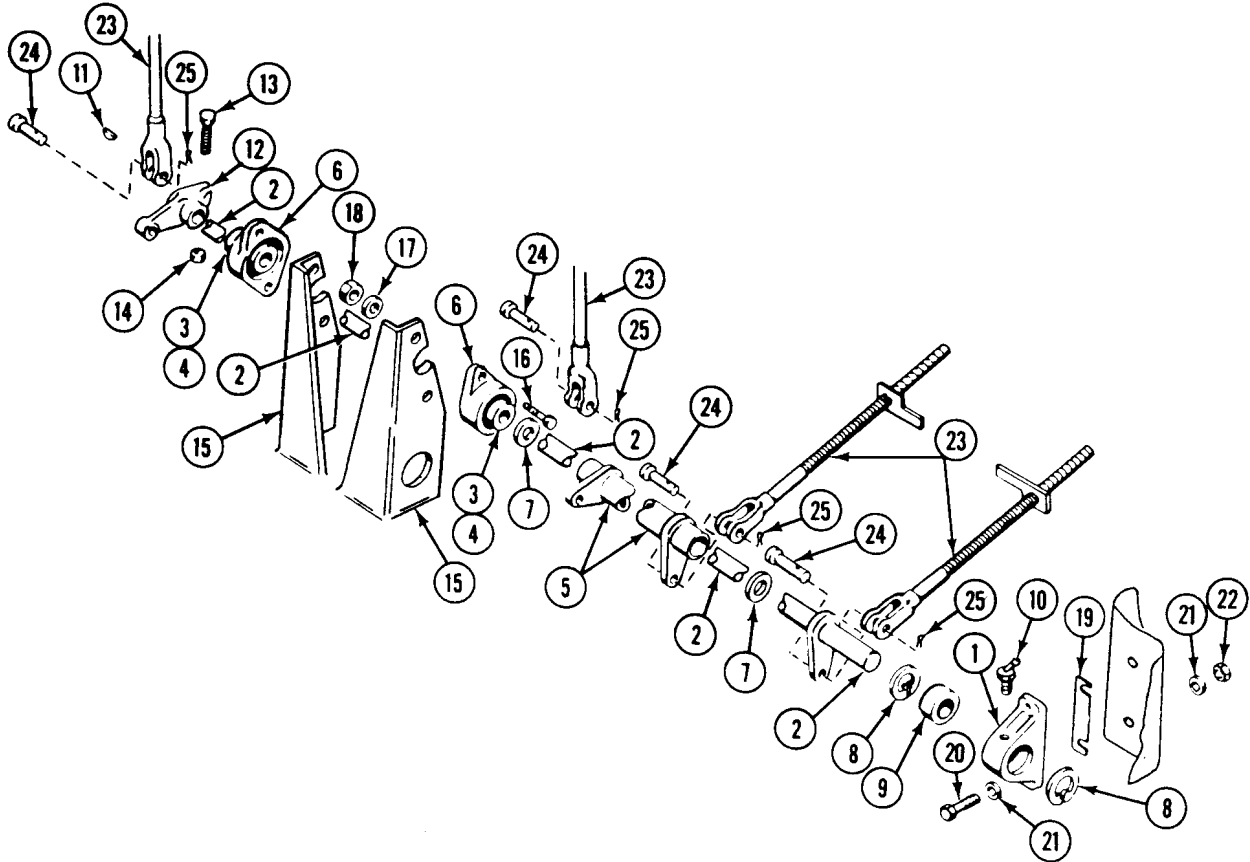
Unit Mechanic
Helper (H)

REMOVAL

1. Disconnect two return springs (WP 0387 00).
2. Remove four cotter pins (1), clevis pins (2), and links (3) from differential and steering lever cross-shaft (4), cross-shaft (5), and link arm (6). Discard cotter pin.
3. Remove four screws (7), washers (8), and locknuts (9) that secure two bearings (10) to two brackets (11). Discard locknuts.
4. Remove two screws (12), four washers (13), and two locknuts (14) that secure bearing (15) and shim (16) to driver's compartment bulkhead. Discard locknuts.
5. Remove differential and steering cross-shaft (4), cross-shaft (5), bearing (10), bearing (15), and link arm (6) from power plant compartment as a unit.
6. Remove screw (17), locknut (18), and link arm (6) from cross-shaft (4). Remove woodruff key (19) from cross-shaft. Discard locknut.



7. Remove bearing (1) from cross-shaft (2).
8. Loosen four set screws (3) in two bearing collars (4).
9. Separate cross-shaft (2), cross-shaft (5), two bearings (6), and two thrust washers (7).
10. Remove two retaining rings (8), bearing (9), and lubrication fitting (10) from bearing (1).

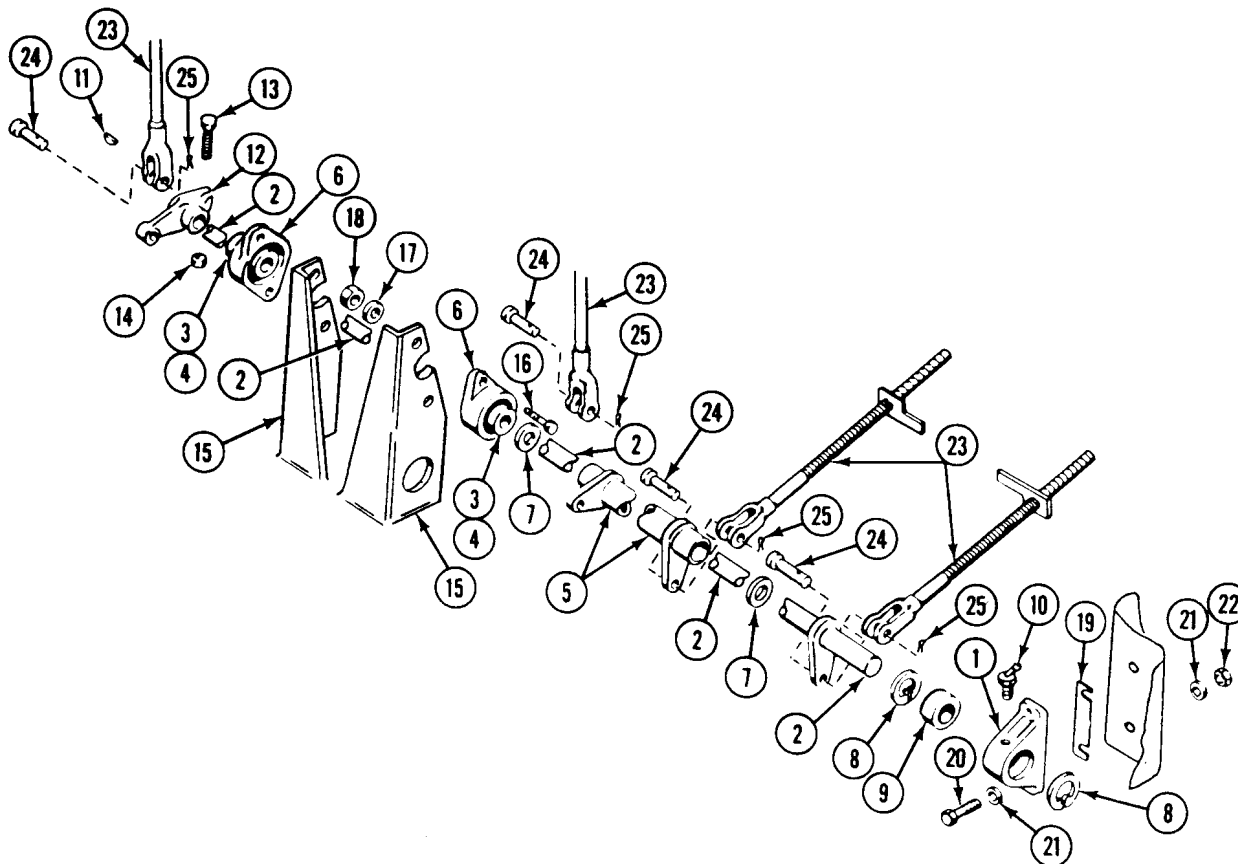


CLEAN, INSPECT, AND REPAIR

1. Check links. Replace links with cracks, breaks, or stripped threads.
2. Check bearings, retaining rings, and fittings for cracks or wear. Replace damaged parts.

INSTALLATION

1. Install bearing (9) in bearing (1). Secure with two retaining rings (8).
2. Install lubrication fitting (10) in bearing (1).
3. Assemble cross-shaft (2), cross-shaft (5), two bearings (6), two thrust washers (7), bearing (1), woodruff key (11), and link arm (12).
4. Install screw (13) and new locknut (14) in link arm (12). Do not tighten nut.
5. Place cross-shaft (2), cross-shaft (5), two bearings (6), and bearing (1) as a unit on two brackets (15).
6. Install two bearings (6) on two brackets (15). Secure with four screws (16), washers (17), and new locknuts (18).
7. Install bearing (1) and shim (19) to driver's compartment bulkhead. Secure with two screws (20), four washers (21), and two new locknuts (22).
8. Install four links (23) to cross-shaft (2), cross-shaft (5), and link arm (12). Secure with four clevis pins (24) and new cotter pins (25).
9. Tighten four set screws (3) in two bearing collars (4).
10. Tighten nut (14) on link arm (12).



11. Lubricate bearing (WP 0120 00).
12. Connect two return springs (WP 0387 00).

FOLLOW-THROUGH STEPS

1. Install oil can bracket (WP 0524 00).
2. Install air cleaner housing and element (WP 0185 00).
3. Close power plant front access door and raise trim vane (see your -10).
4. Operate carrier (see your -10). Check that differential cross-shafts and bearings operate properly.

END OF TASK

REPLACE DIFFERENTIAL CROSS-SHAFT LINKS

0393 00

THIS WORK PACKAGE COVERS:

- Removal (page 0393 00-1).
- Clean, Inspect, and Repair (page 0393 00-2).
- Installation (page 0393 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

WP 0387 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Trim vane lowered and power plant front access door open (see your -10)

Materials/Parts

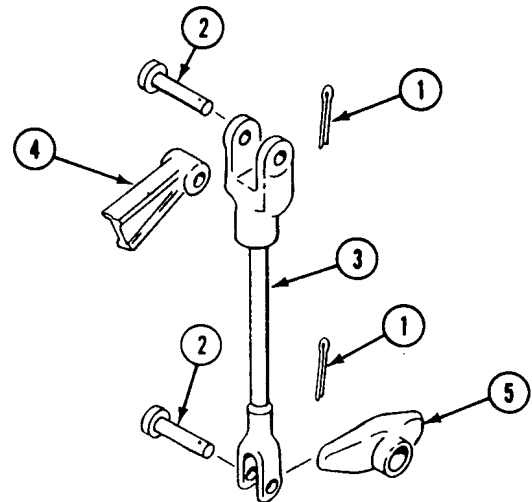
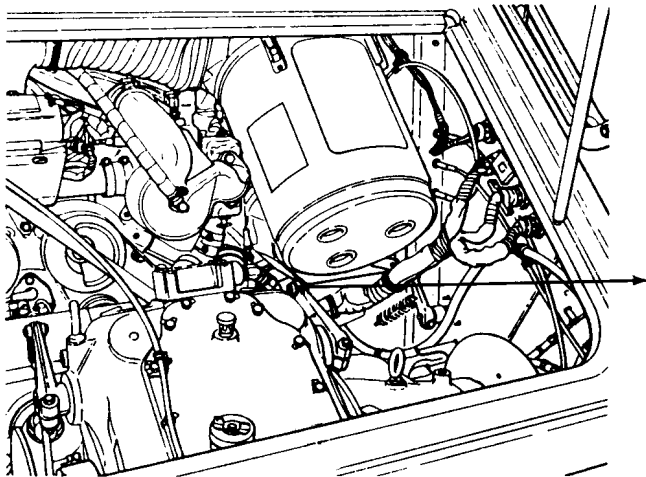
Cotter pin (4)

Personnel Required

Unit Mechanic

REMOVAL

1. Disconnect two return springs (WP 0387 00).
2. Remove four cotter pins (1), clevis pins (2), and two links (3) from differential steering levers (4) and differential cross-shafts (5). Discard cotter pins.

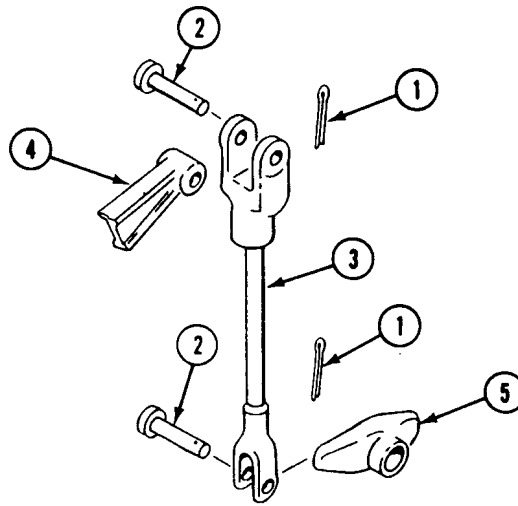


REPLACE DIFFERENTIAL CROSS-SHAFT LINKS — Continued**0393 00****CLEAN, INSPECT, AND REPAIR**

1. Check link rods. Replace cracked, bent, or broken links.
2. Check link clevises. Replace links with cracked or worn mounting holes.
3. Check clevis pins. Replace worn or grooved clevis pins.
4. Check springs. Replace cracked or worn springs.

INSTALLATION

1. Install two links (3) to differential steering levers (4) and differential cross-shafts (5). Secure with four clevis pins (2) and new cotter pins (1).



2. Adjust linkage (WP 0387 00).
3. Connect two return springs (WP 0387 00).

FOLLOW-THROUGH STEPS

1. Close power plant front access door and raise trim vane (see your -10).
2. Operate steering levers to check that differential cross-shaft links operate properly.

END OF TASK

REPLACE DIFFERENTIAL STEERING BRAKE LEVERS

0394 00

THIS WORK PACKAGE COVERS:

- Removal (page 0394 00-1).
 - Clean, Inspect, and Repair (page 0394 00-2).
 - Installation (page 0394 00-2).
-

INITIAL SETUP:

Maintenance Level

Unit

References

- WP 0387 00
- WP 0393 00

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Socket Wrench Set (WP 0780 00, Item 96)
- Torque Wrench (WP 0780 00, Item 102)

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Trim vane lowered and power plant front access door open (see your -10)

Materials/Parts

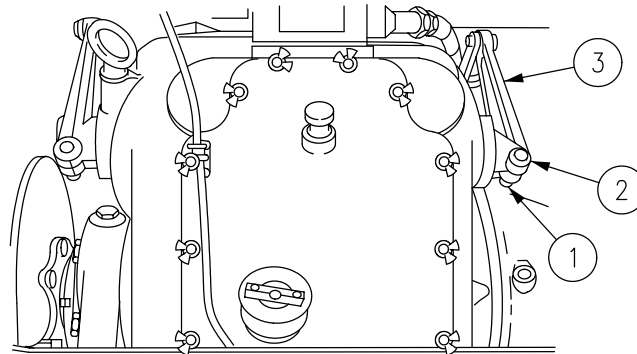
Locknut (2)

Personnel Required

Unit Mechanic

REMOVAL

1. Disconnect two return springs (WP 0387 00).
2. Disconnect two differential links (WP 0393 00).
3. Remove two locknuts (1), screws (2), and two brake levers (3) from differential brake lever shafts. Discard locknuts.

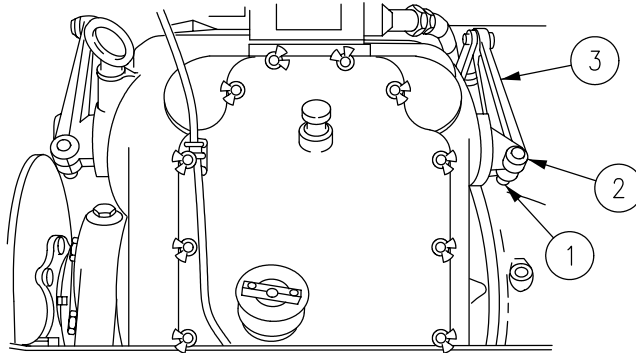


CLEAN, INSPECT, AND REPAIR

1. Check levers. Replace levers with cracked or worn clevis pin holes.
2. Check levers. Replace levers with damaged or chipped splines.

INSTALLATION

1. Install two levers (3) on differential brake lever shafts. Secure with two screws (2) and new locknuts (1).
2. **TIGHTEN NUTS (1) TO 360-420 LB-IN (41-48 N·M) TORQUE.** Use torque wrench.



3. Connect two differential links (WP 0393 00).
4. Adjust linkage (WP 0387 00).
5. Connect two return springs (WP 0387 00).

FOLLOW-THROUGH STEPS

1. Close power plant front access door and raise trim vane (see your -10).
2. Operate steering levers to check that differential steering brake levers operate properly.

END OF TASK

REPLACE LOWER ACCELERATOR PEDAL

0395 00

THIS WORK PACKAGE COVERS:

- Removal (page 0395 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0395 00-1).
- Installation (page 0395 00-2).
- Adjustment (page 0395 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

See your -10

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Driver's seat removed (WP 0478 00)

Materials/Parts

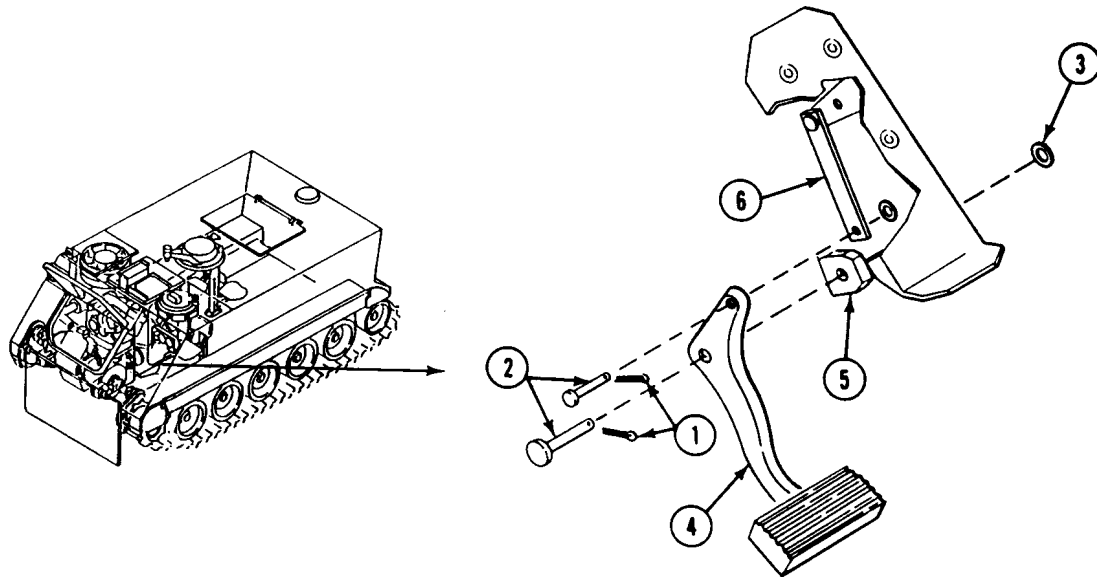
Cotter pin (2)

Personnel Required

Unit Mechanic

REMOVAL

1. Remove two cotter pins (1) from headed pins (2). Discard cotter pins.
2. Remove two headed pins (2) and washers (3) from accelerator pedal (4), pedal mount (5), and pedal link (6).

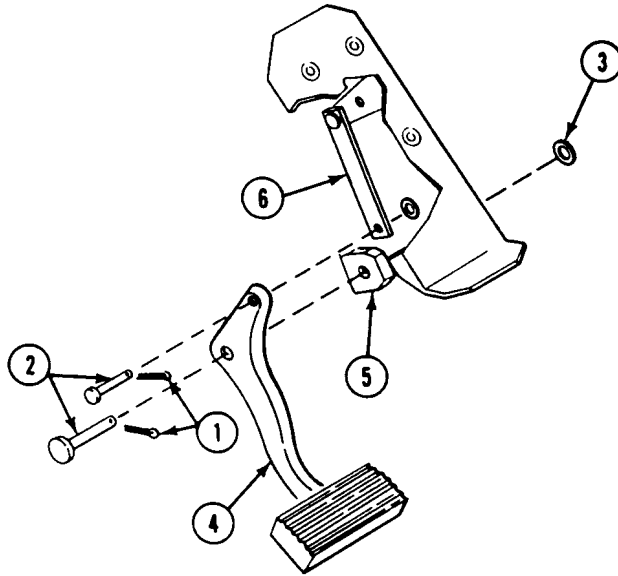


INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

1. Check pins, pedal mount, and pedal link. Replace parts that are cracked or have worn pivot holes.

INSTALLATION

1. Connect accelerator pedal (4) to pedal mount (5) and pedal link (6) with headed pins (2) and washers (3).
2. Secure headed pins (2) with new cotter pins (1).

**ADJUSTMENT**

1. Start engine (see your -10). Adjust accelerator pedal, if needed (WP 0401 00).

FOLLOW-THROUGH STEPS

1. Install driver's seat (WP 0478 00).
2. Raise and lock ramp (see your -10).
3. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE UPPER ACCELERATOR PEDAL ASSEMBLY

0396 00

THIS WORK PACKAGE COVERS:

- Removal (page 0396 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0396 00-2).
- Installation (page 0396 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Weighing Scale (WP 0780 00, Item 63)

Materials/Parts

- Locknut
- Locknut (2)

Personnel Required

Unit Mechanic

References

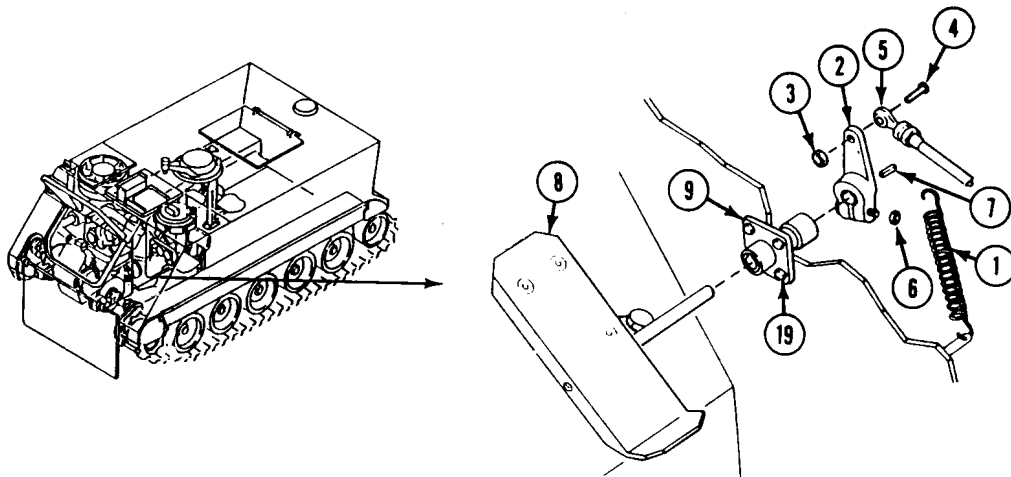
WP 0401 00

Equipment Condition

- Carrier blocked (see your -10)
- Engine stopped/shutdown (see your -10)
- Ramp lowered (see your -10)
- Trim vane lowered and power plant front access door opened (see your -10)
- Driver's power plant access panel removed (WP 0430 00)
- Driver's seat removed (WP 0478 00)
- Remove lower accelerator pedal (WP 0395 00)

REMOVAL

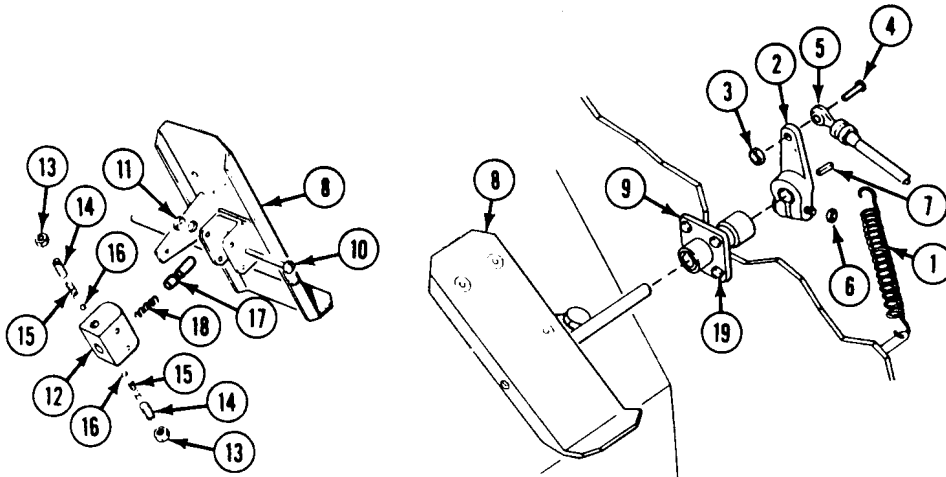
1. Disconnect return spring (1) from bellcrank (2).
2. Remove locknut (3), screw (4), and link (5) from bellcrank (2). Discard locknut.
3. Loosen locknut (6). Remove bellcrank (2) and woodruff key (7) from pedal assembly (8).
4. Remove pedal (8) from guide (9).



CAUTION

Detent plunger and spring will fall out if detent block is turned over during removal.

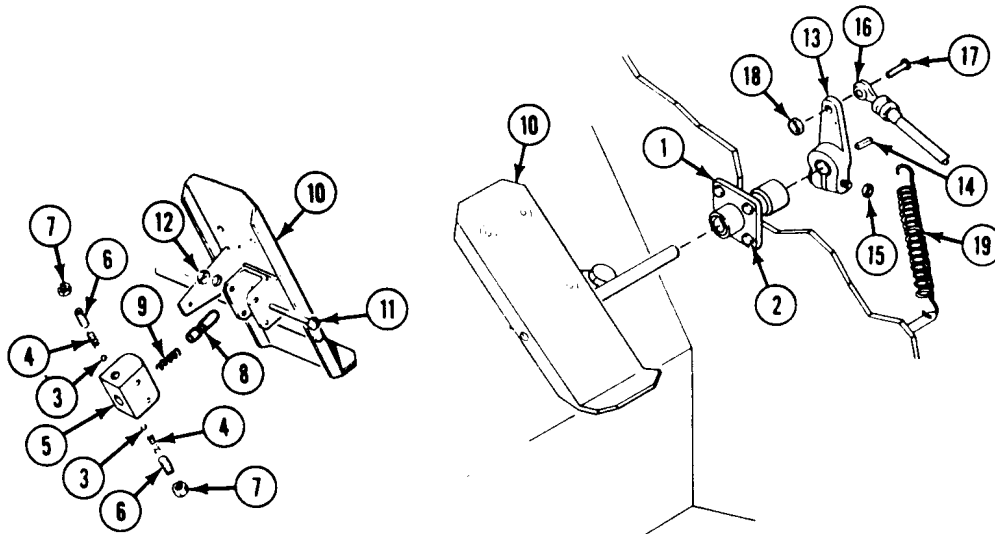
5. Remove two screws (10), locknuts (11), and pedal detent block (12) from pedal(8). Discard locknuts.
6. Remove two nuts (13) and set screws (14) from detent block (12). Then turn detent block (12) to allow two springs (15) and ball bearings (16) to slide out.
7. Remove plunger (17) and spring (18) from detent block (12).
8. Remove four screws (19) and remove guide (9) from power plant compartment.

**INSPECTION-ACCEPTANCE AND REJECTION CRITERIA**

1. Check pins, pedal mount, and pedal link. Replace parts that are cracked or have worn pivot holes.

INSTALLATION

1. Install guide (1) on power plant compartment. Secure with four screws (2).
2. Install two ball bearings (3) and springs (4) in pedal detent block (5). Secure with two set screws (6).
3. Install two nuts (7) on two set screws (6).
4. Install plunger (8) and spring (9) in pedal detent block (5).
5. Install pedal detent block (5) on pedal (10). Secure with two screws (11) and locknuts (12).
6. Use spring scale to adjust detent plunger (WP 0401 00). Use pressure to 35-40 pounds (16-18 kg).
7. Install pedal assembly (10) in guide (1).
8. Place bellcrank (13) and woodruff key (14) on pedal assembly (10) shaft. Tighten nut (15).
9. Install link (16) on bellcrank (13). Secure with screw (17) and new locknut (18).
10. Connect return spring (19) to bellcrank (13).



FOLLOW-THROUGH STEPS

1. Install lower accelerator pedal (WP 0395 00).
2. Install driver's power plant access panel (WP 0430 00).
3. Install driver's seat (WP 0478 00).
4. Close power plant front access door and raise trim vane (see your -10).
5. Raise and lock ramp (see your -10).
6. Start engine (see your -10)
7. Check that upper accelerator pedal operates properly.
8. Stop/shutdown engine.

END OF TASK

REPLACE TRANSMISSION AND LOWER ACCELERATOR LINKAGE

0397 00

THIS WORK PACKAGE COVERS:

- Removal (page 0397 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0397 00-4).
- Installation (page 0397 00-4).

INITIAL SETUP:

Maintenance Level

Unit

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Trim vane lowered and power plant front access door open (see your -10)
- Driver's power plant access panel removed (WP 0430 00)
- Hull bottom access cover removed (WP 0434 00)
- Air control valve removed (WP 0187 00)
- Air cleaner housing and element removed (WP 0185 00)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

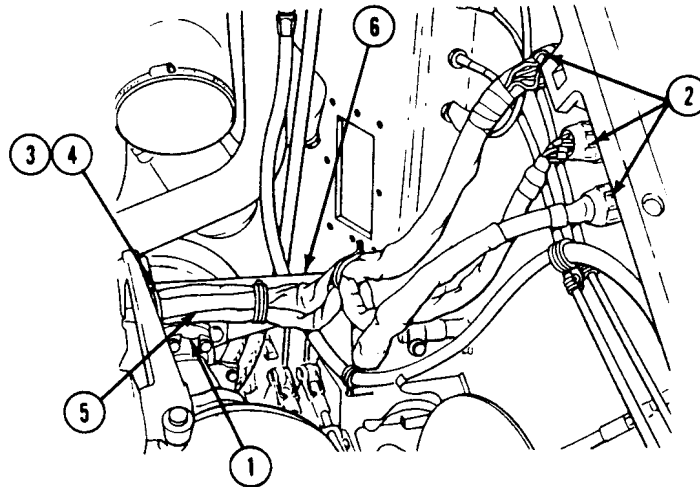
- Grease (WP 0782 00, Item 24)
- Key washer (2)
- Locknut (7)

Personnel Required

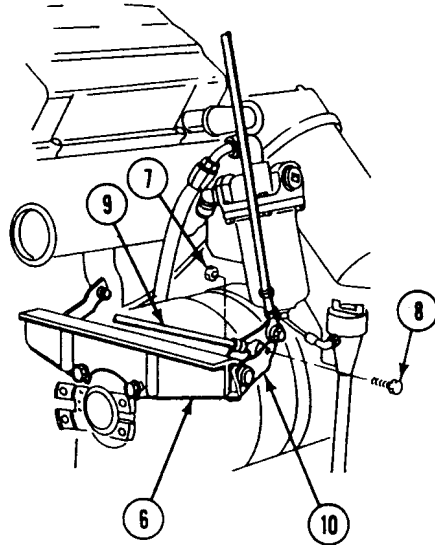
- Unit Mechanic
- Helper (H)

REMOVAL

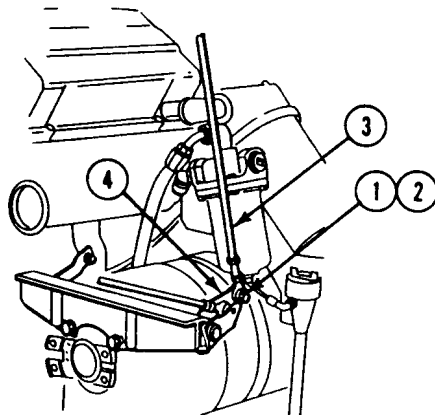
1. Rotate transmission drive shaft (1) so mounting flanges are in vertical position.
2. Disconnect three wiring harness connectors (2) at driver's compartment bulkhead.
3. Remove two screws (3), clamps (4), and wiring harness (5) from transmission cross-shaft bracket (6).



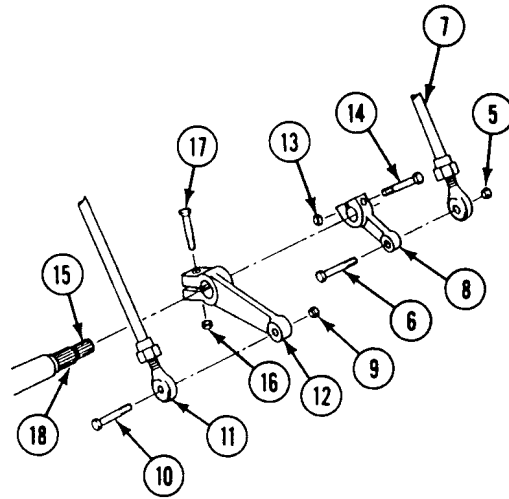
4. Remove locknut (7) and screw (8). Disconnect accelerator link (9) from accelerator cross-shaft bracket (10). Discard locknut.



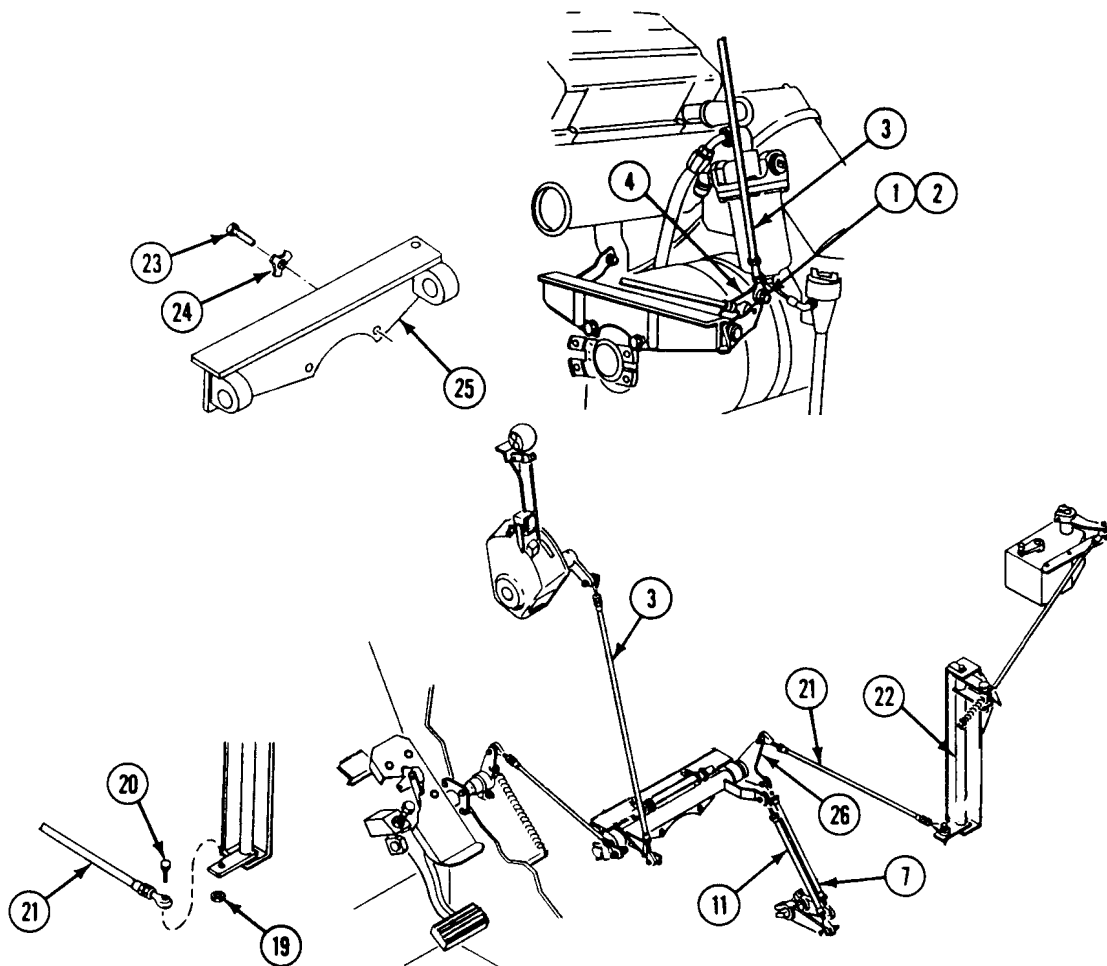
5. Remove locknut (1) and screw (2). Disconnect transmission range selector to cross-shaft link (3) from transmission arm (4). Discard locknut.



6. Remove locknut (5) and screw (6). Disconnect throttle valve link (7) from throttle valve lever (8). Discard locknut.
7. Remove locknut (9) and screw (10). Disconnect range selector link (11) from range selector lever (12). Discard locknut.
8. Remove locknut (13) and screw (14). Remove throttle valve lever (8) from transmission shaft (15). Discard locknut.
9. Remove locknut (16) and screw (17). Remove range selector lever (12) from transmission shaft (18). Discard locknut.



10. Remove locknut (19) and screw (20). Disconnect throttle link (21) from vertical transfer shaft (22). Discard locknut.
11. Remove two screws (23), key washers (24), transmission cross-shaft bracket (25), accelerator cross-shaft (4), bellcrank (26), two transmission links (7) and (11), and throttle link (21) from carrier. Discard key washers.



INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

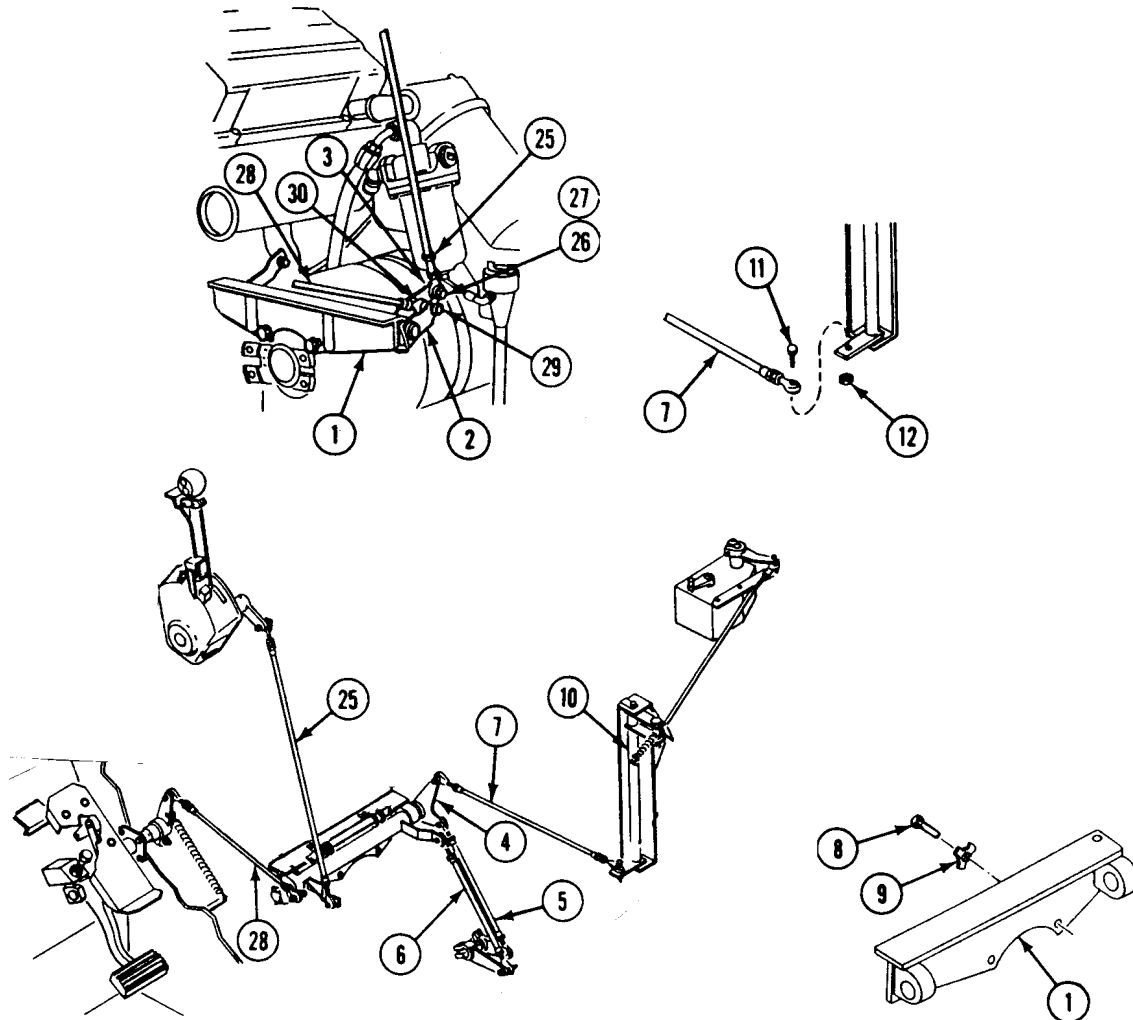
1. Check links, shafts, and brackets for wear and damage. Replace if needed.

INSTALLATION

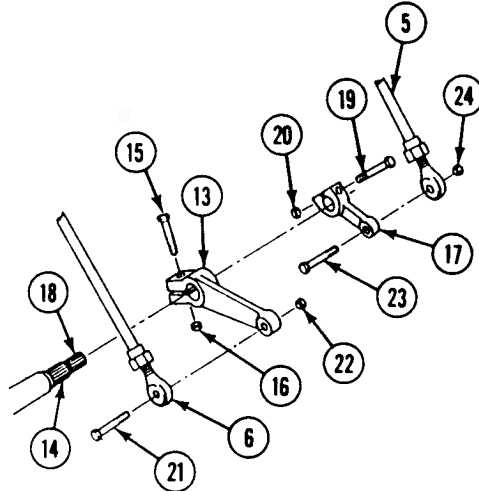
NOTE

Lubricate connecting link rod-end bearings before installation. Use GAA grease.

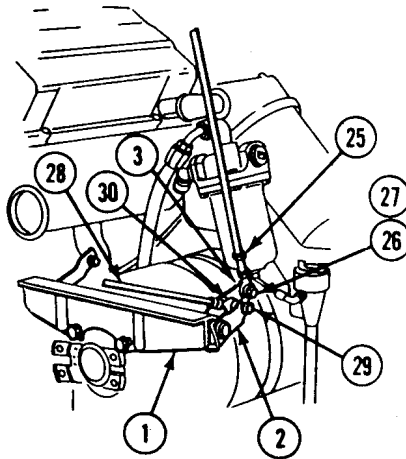
1. Place transmission cross-shaft bracket (1), accelerator cross-shaft (2), transmission cross-shaft (3), bellcrank (4), two transmission arm links (5) and (6), and throttle link (7) on transmission as a unit. Secure with two screws (8) and two new key washers (9).
2. Install throttle link (7) on vertical transfer shaft (10). Secure with screw (11) and new locknut (12).



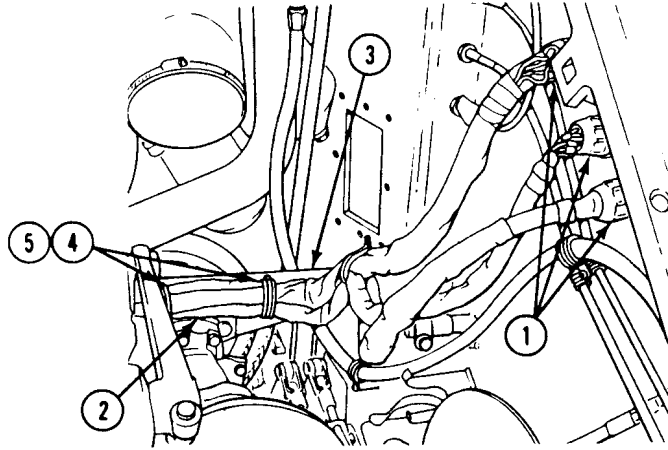
3. Install range selector lever (13) on transmission shaft (14) with off-set of lever toward transmission and clamp-screw hole aligned with flat on shaft. Secure with screw (15) and new locknut (16).
4. Install throttle valve lever (17) on transmission shaft (18) with off-set side of lever away from transmission and clamp-screw hole aligned with flat on shaft. Secure with screw (19) and new locknut (20).
5. Install range selector link (6) on transmission arm (13). Secure with screw (21) and new locknut (22).
6. Install throttle valve link (5) on transmission arm (17). Secure with screw (23) and new locknut (24).



7. Install transmission range selector to cross-shaft link (25) on transmission arm (3). Secure with screw (26) and new locknut (27).
8. Install accelerator link (28) on accelerator cross-shaft arm (2). Secure with screw (29) and new locknut (30).



9. Connect three wiring harness connectors (1) to receptacles on driver's compartment bulkhead.
10. Install wiring harness (2) on transmission cross-shaft bracket (3). Secure with two clamps (4) and screws (5).



FOLLOW-THROUGH STEPS

1. Adjust transmission cross-shaft linkage (WP 0401 00).
2. Install hull bottom access cover (WP 0434 00).
3. Install air control valve (WP 0187 00).
4. Install air cleaner housing and element (WP 0185 00).
5. Install driver's power plant access panel (WP 0430 00).
6. Close power plant front access door and raise trim vane (see your -10).
7. Operate carrier (see your -10). Check that transmission cross-shaft linkage operates properly.

END OF TASK

REPAIR TRANSMISSION AND LOWER ACCELERATOR LINKAGE

0398 00

THIS WORK PACKAGE COVERS:

- Disassembly page 0398 00-1.
- Inspection-Acceptance and Rejection Criteria (page 0398 00-2).
- Assembly (page 0398 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Transmission and lower accelerator linkage removed (WP 0323 00)

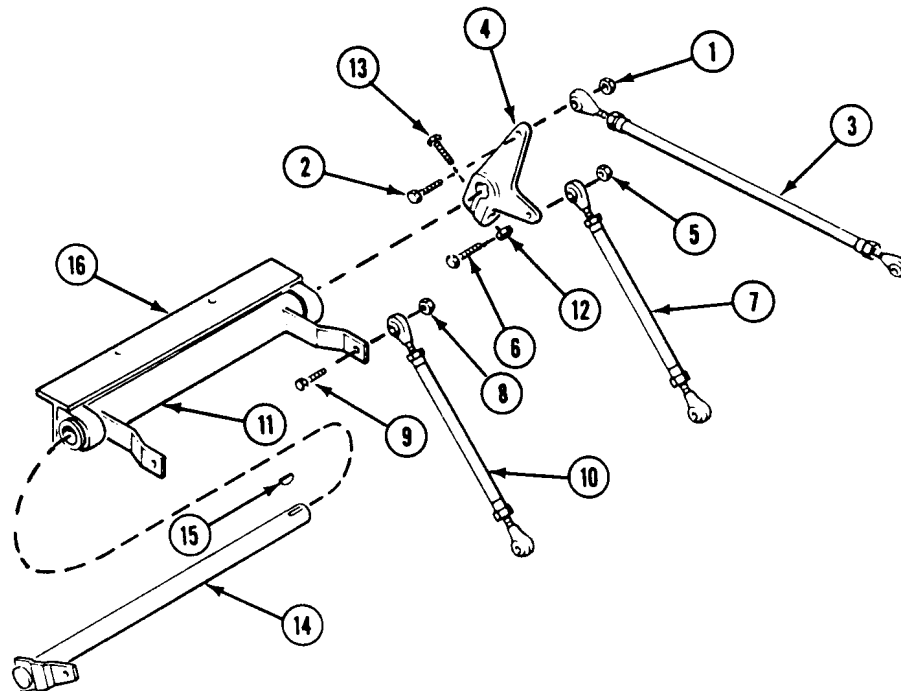
Materials/Parts

Grease (WP 0782 00, Item 24)

Locknut (4)

DISASSEMBLY

1. Remove locknut (1), screw (2), and throttle link (3) from bellcrank (4). Discard locknut.
2. Remove locknut (5), screw (6), and throttle valve link (7) from bellcrank (4). Discard locknut.
3. Remove locknut (8), screw (9), and transmission shifting link (10) from transmission cross-shaft (11). Discard locknut.
4. Remove locknut (12), screw (13), and bellcrank (4) from accelerator cross-shaft (14). Discard locknut.
5. Remove woodruff key (15) from accelerator cross-shaft (14).
6. Remove accelerator cross-shaft (14) from transmission cross-shaft (11).
7. Separate transmission cross-shaft (11) from accelerator cross-shaft bracket (16).



INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

1. Check links, shafts, and brackets for wear and damage. Replace if needed.

ASSEMBLY

NOTE

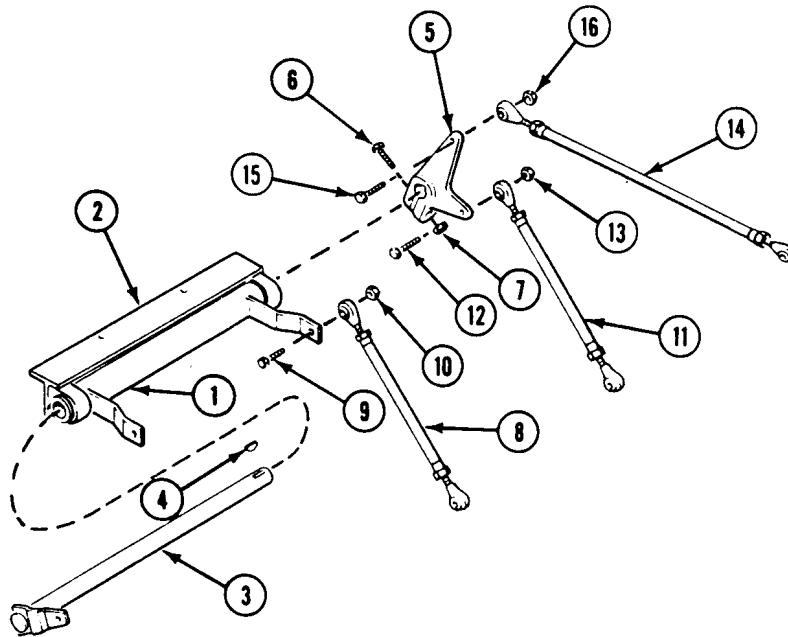
Lubricate connecting link rod-end bearings before installations. Use GAA grease.

1. Install transmission cross-shaft (1) in transmission cross-shaft bracket (2).
2. Install accelerator cross-shaft (3) in transmission cross-shaft (1).
3. Install woodruff key (4) in accelerator cross-shaft (3).
4. Install bellcrank (5) on accelerator cross-shaft (3). Secure with screw (6) and new locknut (7).
5. Install transmission shifting link (8) on transmission cross-shaft (1). Secure with screw (9) and new locknut (10).
6. Install throttle valve link (11) on bellcrank (5). Secure with screw (12) and new locknut(13).

NOTE

If any links were replaced or link ends turned, then adjust linkage (WP 0401 00).

7. Install throttle link (14) on bellcrank (5). Secure with screw (15) and new locknut (16).



FOLLOW-THROUGH STEPS

1. Install transmission and lower accelerator linkage (WP 0323 00).

END OF TASK

REPLACE UPPER ACCELERATOR LINKAGE

0399 00

THIS WORK PACKAGE COVERS:

Removal (page 0399 00-1).
 Installation (page 0399 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Screwdriver Set (WP 0780 00, Item 65)
 Socket Wrench Set (WP 0780 00, Item 96)
 Torque Wrench (WP 0780 00, Item 102)

References

WP 0401 00
 WP 0120 00

Materials/Parts

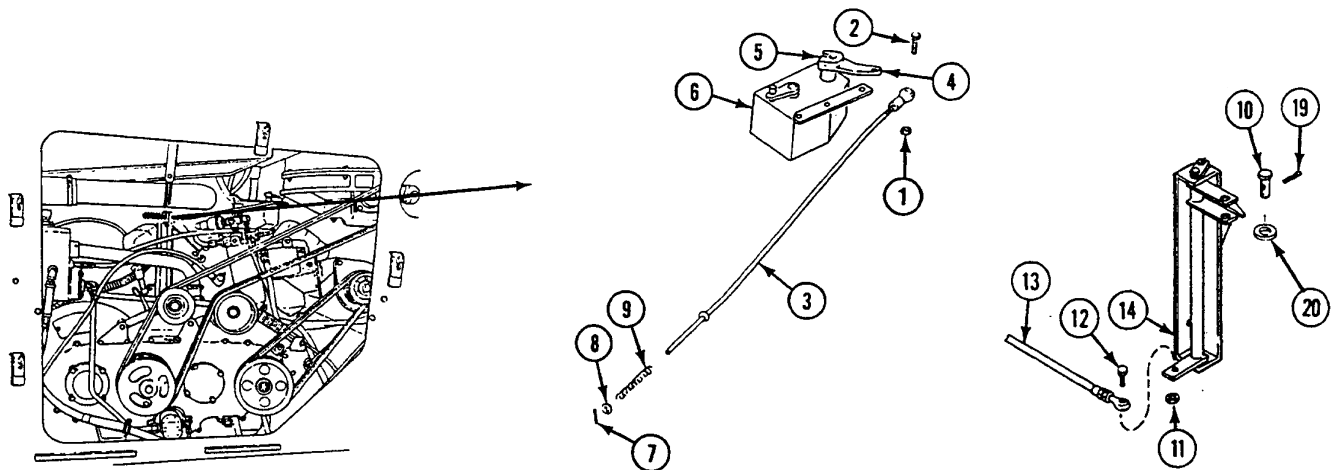
Antiseize compound (WP 0782 00, Item 8)
 Grease (WP 0782 00, Item 24)
 Cotter pin (2)
 Locknut (3)
 Lockwasher (3)

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Ramp lowered (see your -10)
 Power plant rear access panel removed (WP 0431 00,
 WP 0432 00, or WP 0433 00)

REMOVAL

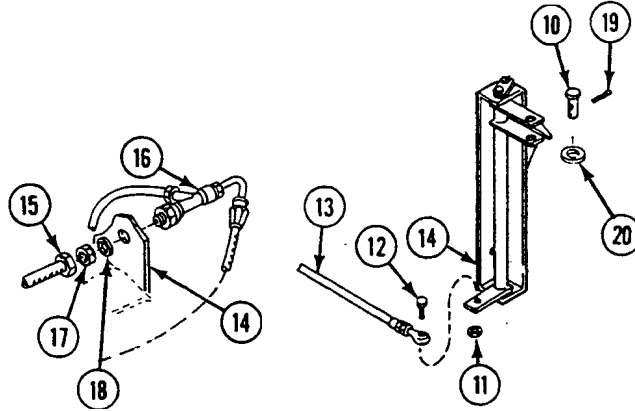
1. Remove locknut (1) and screw (2). Disconnect throttle link (3) from governor throttle arm (4). Discard locknut.
2. Loosen screw (5). Remove governor throttle arm (4) from governor (6).
3. Remove cotter pin (7), washer (8), spring (9), and throttle link (3) from pin (10). Discard cotter pin.
4. Remove locknut (11) and screw (12). Disconnect throttle link (13) from bracket assembly (14). Discard locknut.



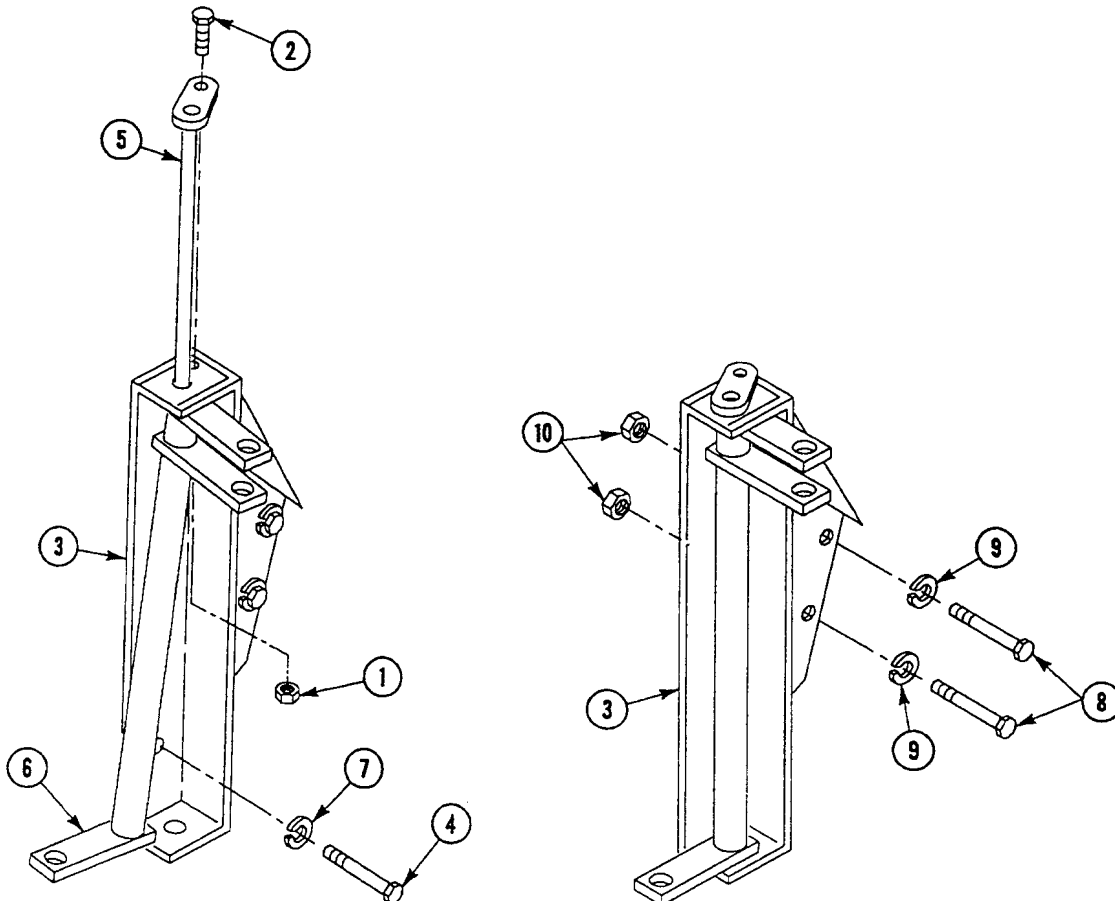
REPLACE UPPER ACCELERATOR LINKAGE — Continued

0399 00

5. Disconnect fuel hose (15) from tee (16).
6. Remove nut (17) and washer (18) that secure tee (16) to bracket assembly (14).
7. Remove cotter pin (19), washer (20) and pin (10) from bracket assembly (14). Discard cotter pin.



8. Remove locknut (1) and screw (2) from bracket assembly (3). Use cross-tip screwdriver. Discard locknut.
9. Before removing screw (4), raise inner transfer shaft (5) high enough to tilt the outer transfer shaft (6).
10. Remove screw (4) and lockwasher (7) from bracket assembly (3). Discard lockwasher.
11. Remove two screws (8), lockwashers (9), nuts (10), and bracket assembly (3) from power plant. Discard lockwashers.

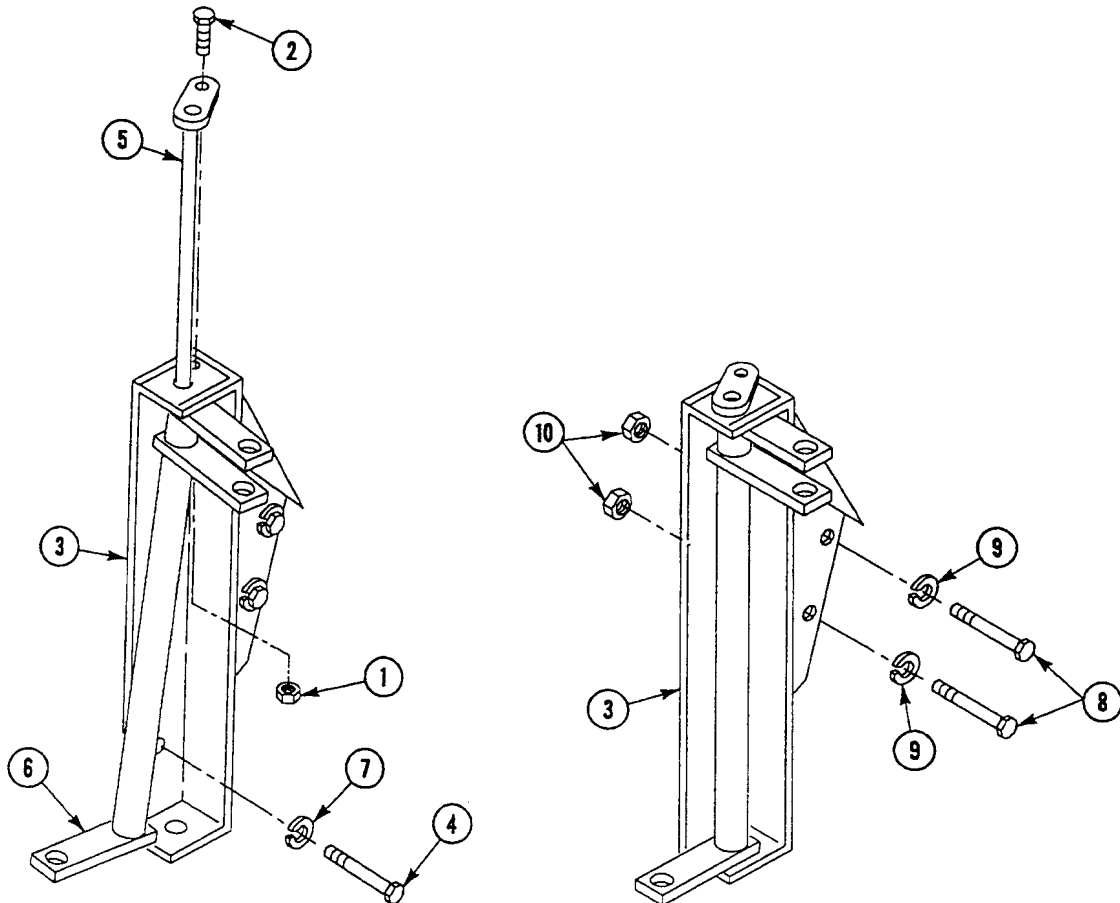


INSTALLATION

NOTE

Lubricate rod end bearings before assembling. Use GAA grease (WP 0120 00).

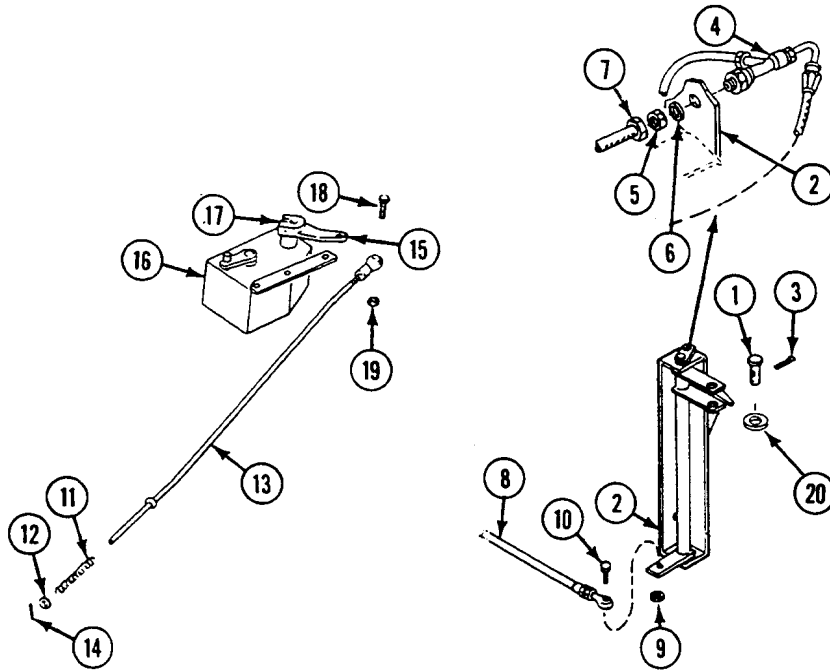
1. Apply thin coat of antiseize compound to cleaned threads of three screws (4) and (8).
2. Install bracket assembly (3) on power plant. Secure with two screws (8), new lockwashers (9), and nuts (10). TIGHTEN SCREWS TO 300-324 LB-IN (34-37 N·M) TORQUE. Use torque wrench and socket wrench set.
3. Install screw (4) and new lockwasher (7) in bottom hole of bracket assembly (3). TIGHTEN SCREW TO 264-288 LB-IN (30-33 N·M) TORQUE. Use torque wrench and socket wrench set.
4. Position inner transfer shaft (5) and outer transfer shaft (6) in bracket assembly (3). Secure with screw (2) and new locknut (1). Use cross-tip screwdriver.



REPLACE UPPER ACCELERATOR LINKAGE — Continued

0399 00

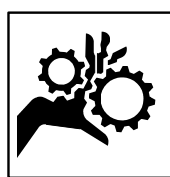
5. Install pin (1) and washer (20) on bracket assembly (2). Secure with new cotter pin (3).
6. Install tee (4) on bracket assembly (2). Secure with nut (5) and washer (6).
7. Connect fuel line (7) to tee (4).
8. Install throttle link (8) on bracket assembly (2). Secure with new locknut (9) and screw (10).
9. Install spring (11) and washer (12) on throttle link (13). Insert throttle link through pin (1) and secure with new cotter pin (14).
10. Install governor throttle arm (15) on governor (16). Tighten screw (17).
11. Install throttle link (13) on governor throttle arm (15). Secure with screw (18) and new locknut (19).



12. Adjust accelerator and transmission throttle valve linkage (WP 0401 00).

FOLLOW-THROUGH STEPS

WARNING



Wearing loose clothing around moving parts can allow personnel to get caught and cause injury or death. Tuck in loose clothing.

1. Start engine (see your -10). Check that upper accelerator linkage operates properly. Stop/shutdown engine (see your -10).
2. Install power plant rear access panel (WP 0431 00, WP 0432 00, or WP 0433 00).
3. Raise and lock ramp (see your -10).
4. Stop/shutdown engine (see your -10).

END OF TASK

REPAIR UPPER ACCELERATOR LINKAGE

0400 00

THIS WORK PACKAGE COVERS:

- Disassembly (page 0400 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0400 00-2).
- Assembly (page 0400 00-2)

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Upper accelerator linkage removed from carrier
(WP 0399 00)

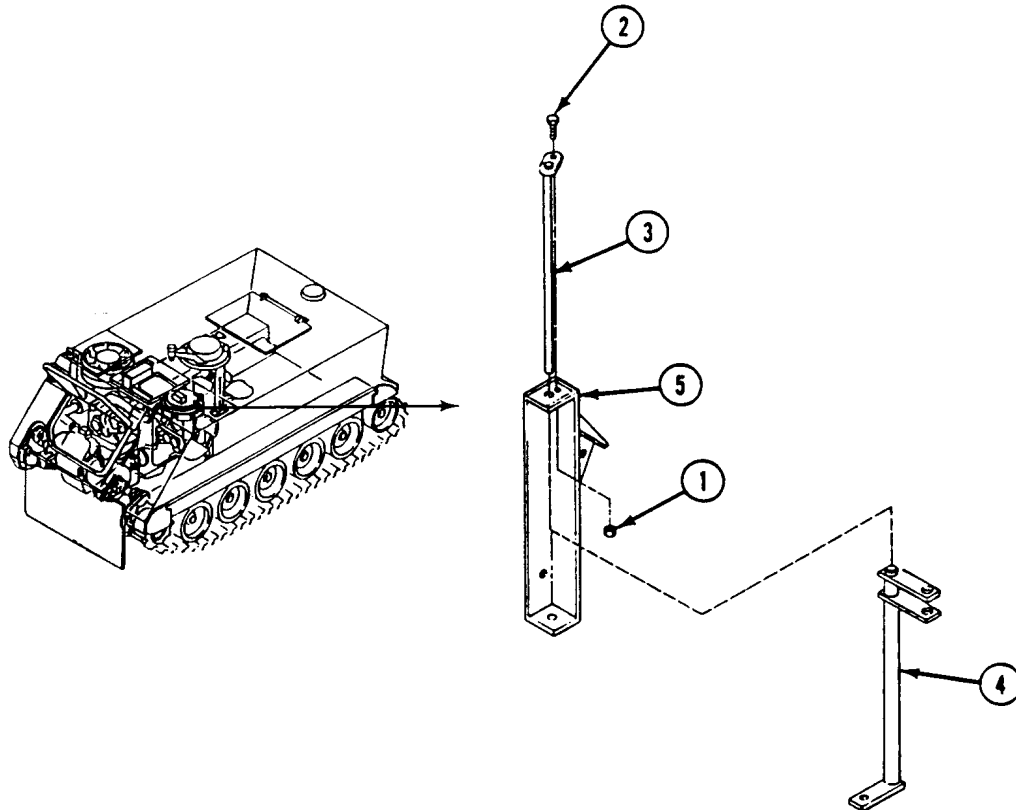
Materials/Parts

Grease (WP 0782 00, Item 24)

Locknut

DISASSEMBLY

1. Remove locknut (1), screw (2), and inner transfer shaft (3) from outer transfer shaft (4). Discard locknut.
2. Remove outer transfer shaft (4) from transfer shaft bracket (5).



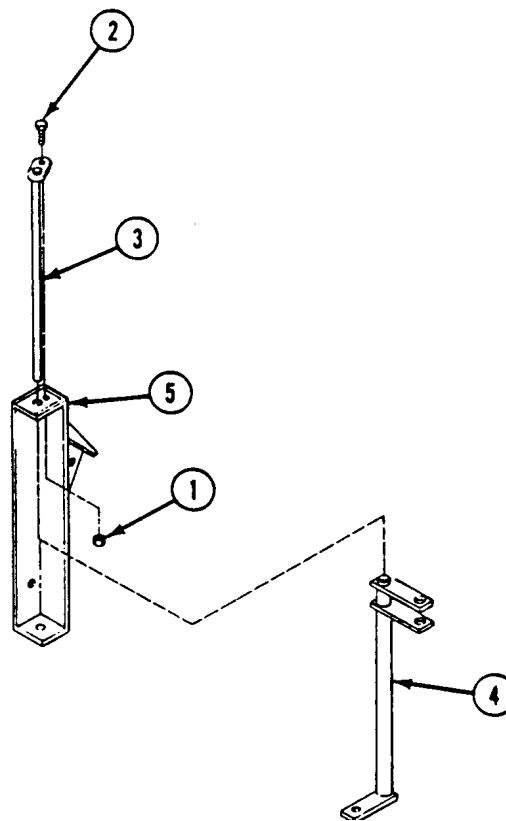
INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

1. Check links, shafts, and brackets for wear and damage. Replace if needed.

ASSEMBLY**NOTE**

Lubricate bearing surfaces of shafts before assembly. Use GAA grease.

1. Place outer transfer shaft (4) in transfer shaft bracket (5).
2. Insert inner transfer shaft (3) into outer transfer shaft (4).
3. Secure shaft (3) to bracket (5) with screw (2) and new locknut (1).

**FOLLOW-THROUGH STEPS**

1. Install upper accelerator linkage (WP 0399 00).

END OF TASK

**ADJUST ACCELERATOR AND TRANSMISSION THROTTLE
VALVE LINKAGE**

0401 00

THIS WORK PACKAGE COVERS:

- Adjust Governor Linkage (page 0401 00-2).
 - Adjust Throttle Valve Linkage (page 0401 00-4).
 - Adjust Idle Stop (page 0401 00-6).
 - Adjust Upper Accelerator Pedal Detent Stop (page 0401 00-7).
 - Adjust Upper Accelerator Pedal Toe Stop (page 0401 00-8).
 - Adjust Upper Accelerator Detent Plunger (page 0401 00-9).
 - Check Operation (page 0401 00-9).
-

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Weighing Scale (WP 0780 00, Item 63)

Personnel Required

Unit Mechanic

References

- See your -10
 - WP 0396 00
 - WP 0430 00
-

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Ramp lowered (see your -10)
- Trim vane lowered and power plant front access door open (see your -10)
- Driver's power plant access panel removed (WP 0430 00)
- Power plant rear access panel removed (WP 0431 00 or WP 0433 00)

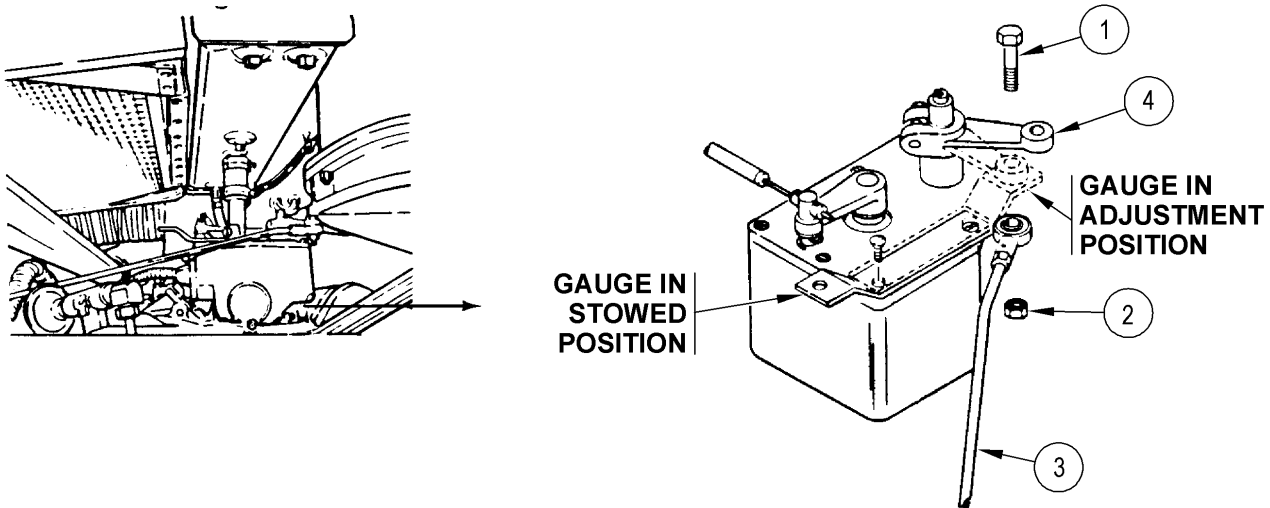
**ADJUST ACCELERATOR AND TRANSMISSION THROTTLE VALVE
LINKAGE — Continued**

0401 00

ADJUST GOVERNOR LINKAGE**NOTE**

Before accelerator and governor throttle arm linkage adjustments can be made, engine governor idle speed must be correct. Start engine (see your -10). Check idle speed on tachometer. If engine does not idle within range of 650-700 RPM, notify your supervisor to have the engine governor idle speed and engine no-load speed set.

1. Remove screw (1), locknut (2), and throttle link (3) from governor throttle arm (4).



**ADJUST ACCELERATOR AND TRANSMISSION THROTTLE VALVE
LINKAGE — Continued**

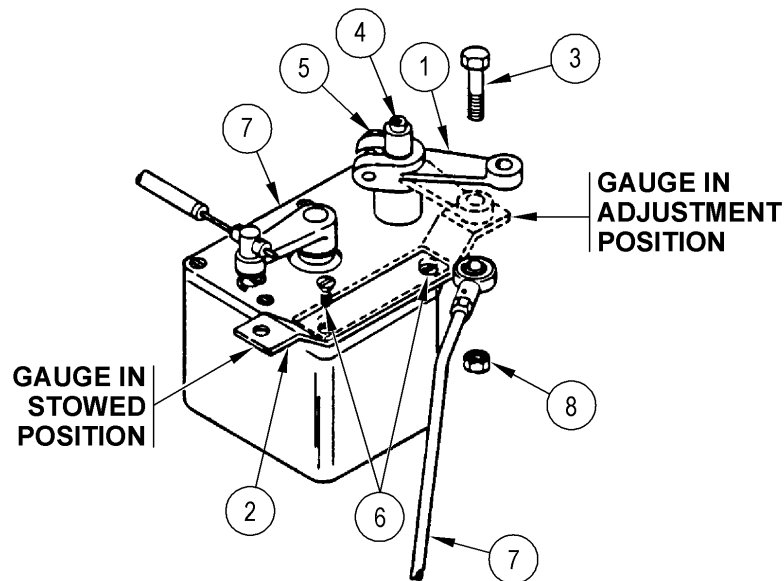
0401 00

2. Remove two screws (6) and gauge (2) from governor (7).

NOTE

Gauge (2) is identified as part number 12269180 (NSN 5340-01-086-3243).

3. Install gauge (2) in adjustment position on governor (7). Secure with two screws (6).
4. Loosen screw (5) that secures governor throttle arm (1) to governor shaft (4).
5. Align hole in governor throttle arm (1) with hole in gauge (2). Insert screw (3) through throttle arm and gauge.
6. Insert 3/16 inch (5 mm) key socket head screw in plug on top of governor shaft (4). Turn to the right to rotate governor shaft (4) to full throttle position and hold.
7. Tighten screw (5) that secures throttle arm (1) to governor shaft (4).
8. Remove screw (3) inserted in Step 5 above.
9. Remove two screws (6) that secure gauge (2) to governor (7) and return gauge to stowed position. Secure gauge with two screws (6).
10. Connect throttle link (7) to governor throttle arm (1). Secure with screw (3) and nut (8).

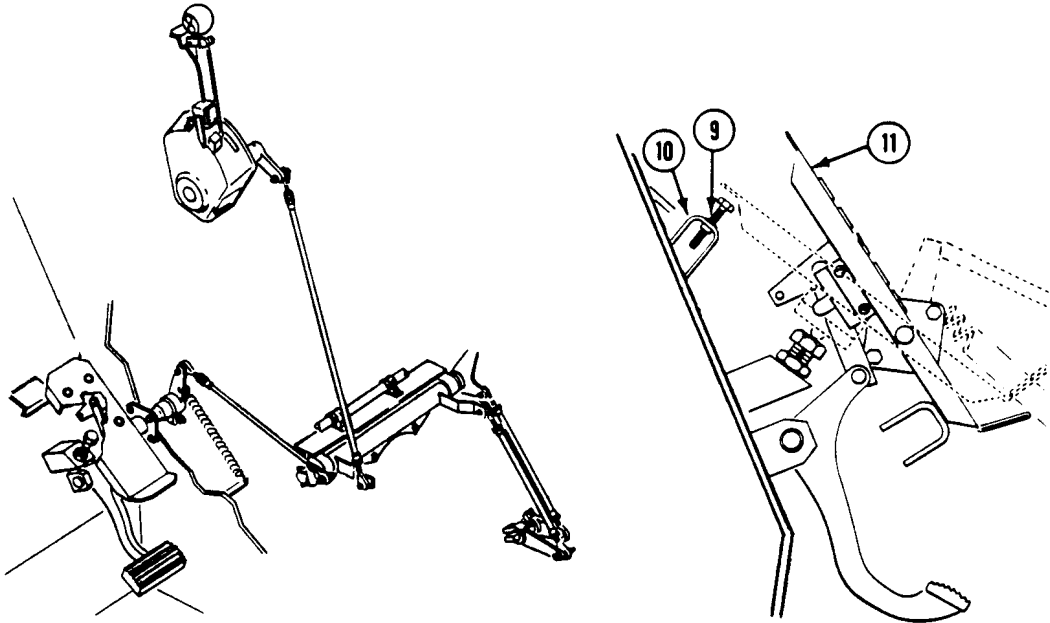


**ADJUST ACCELERATOR AND TRANSMISSION THROTTLE VALVE
LINKAGE — Continued**

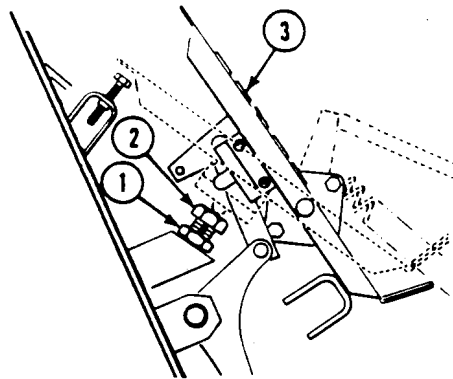
0401 00

ADJUST THROTTLE VALVE LINKAGE

1. Turn screw (9) into floor bracket (10) to allow free movement of accelerator pedal (11).



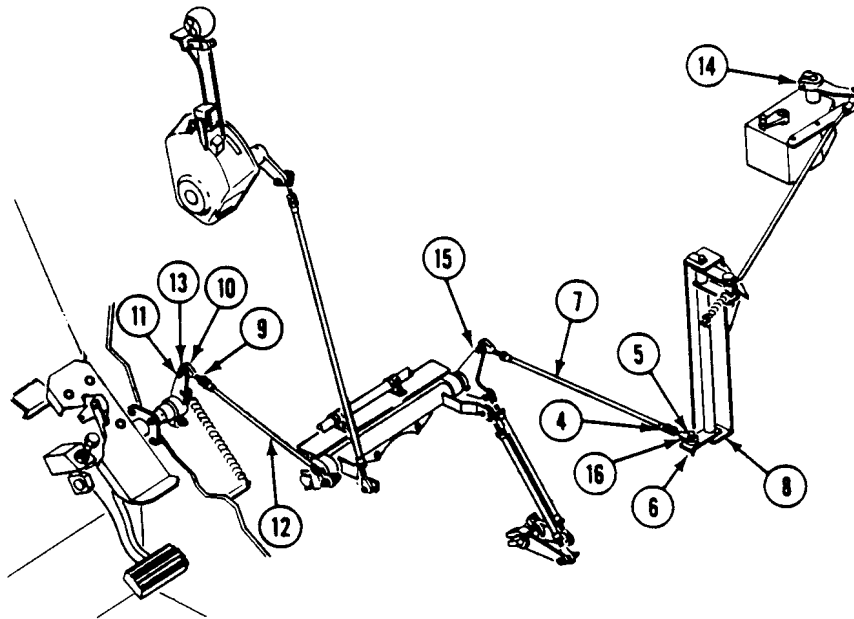
2. Loosen locknut (1). Turn detent stop screw (2) in to allow free movement of accelerator pedal (3).



**ADJUST ACCELERATOR AND TRANSMISSION THROTTLE VALVE
LINKAGE — Continued**

0401 00

3. Loosen locknut (4). Remove screw (5), nut (6), and throttle link (7) from outer transfer shaft (8).
4. Loosen locknut (9). Remove screw (10), nut (11), and accelerator pedal link (12) from bellcrank (13).
5. Place governor throttle arm (14) and bellcrank (15) in full throttle position.
6. Align holes in throttle link (7) and outer transfer shaft (8) so screw (5) will pass through freely. Shorten throttle link (7) by turning bearing end (16) 11 turns to the right.
7. Install throttle link (7) on outer transfer shaft (8). Secure with screw (5) and nut (6). Tighten locknut (4) on link (7).
8. Adjust idle stop. See ADJUST IDLE STOP Steps 1 - 5.

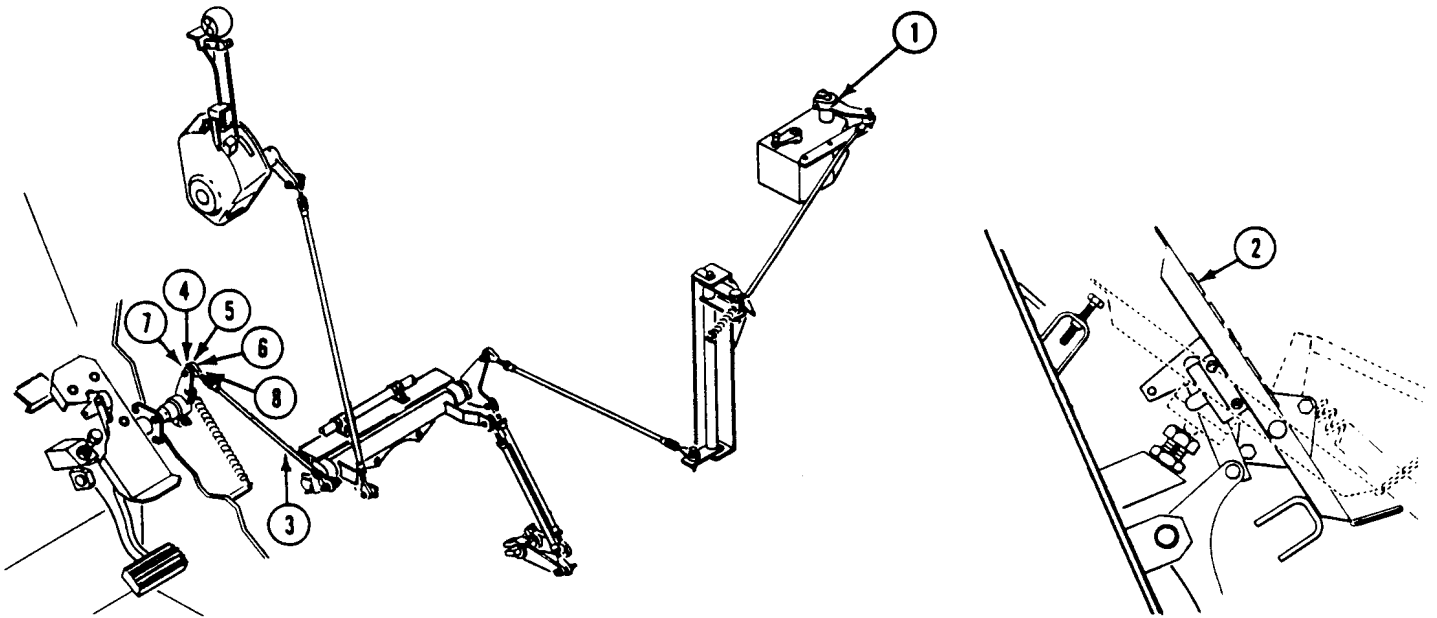


**ADJUST ACCELERATOR AND TRANSMISSION THROTTLE VALVE
LINKAGE — Continued**

0401 00

ADJUST IDLE STOP

1. Place throttle arm (1) at idle position and upper accelerator pedal (2) against heel stop.
2. Align holes in accelerator pedal link (3) and bellcrank (4) so screw (5) will pass through freely.
3. Lengthen accelerator pedal link (3) by turning bearing end (6) one turn to the left.
4. Install accelerator pedal link (3) on bellcrank (4). Secure with screw (5) and nut (7).
5. Tighten locknut (8) on accelerator pedal link (3).
6. Adjust upper accelerator pedal detent stop. See ADJUST UPPER ACCELERATOR PEDAL DETENT STOP Steps 1 - 2.

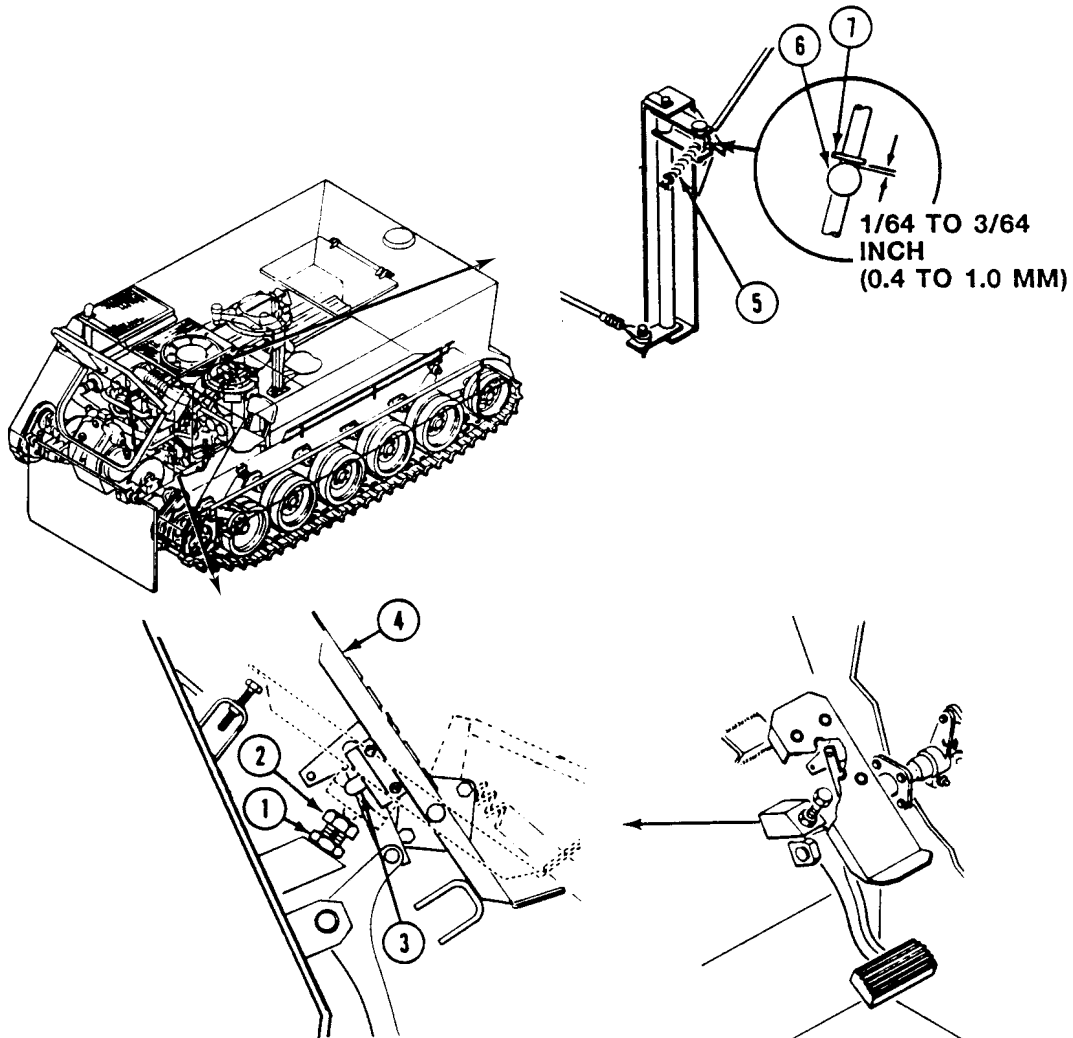


**ADJUST ACCELERATOR AND TRANSMISSION THROTTLE VALVE
LINKAGE — Continued**

0401 00

ADJUST UPPER ACCELERATOR PEDAL DETENT STOP

1. Loosen locknut (1). Adjust stop screw (2) so detent plunger (3) will contact stop screw at full throttle position.
2. With pedal (4) in full throttle position, travel spring (5) should be compressed so a gap of 1/64 to 3/64 inch (0.4 to 1.0 mm) exists between pivot pin (6) and rod stop (7).
3. Adjust upper accelerator pedal toe stop. See ADJUST UPPER ACCELERATOR PEDAL TOE STOP Steps 1 - 4.

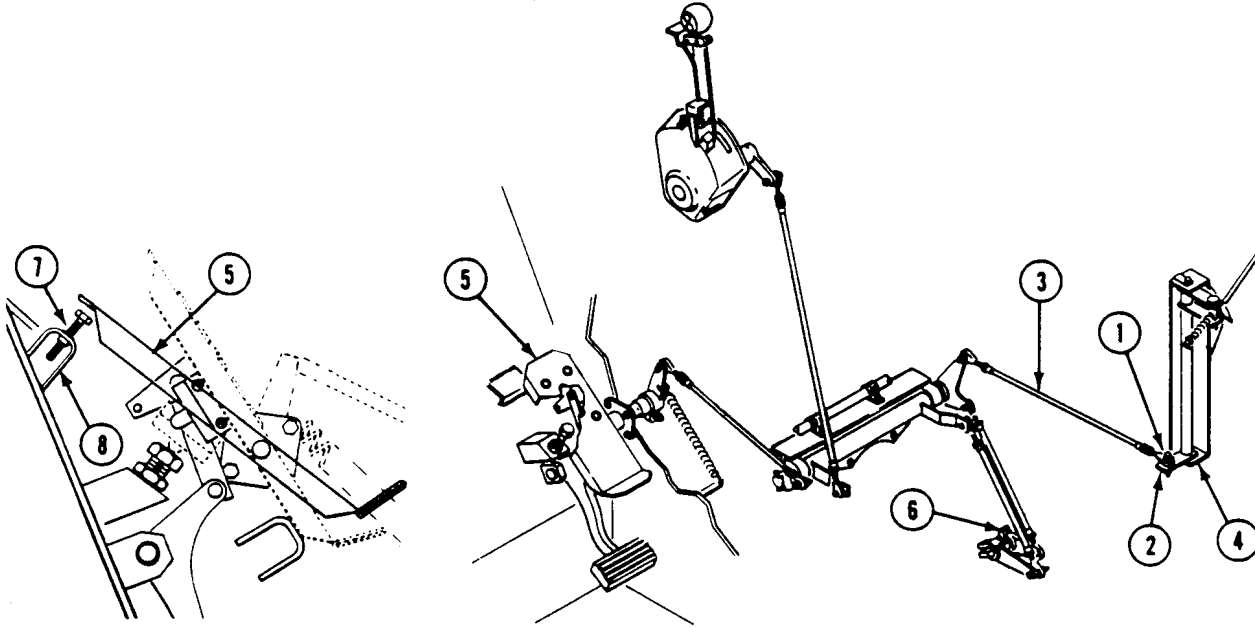


**ADJUST ACCELERATOR AND TRANSMISSION THROTTLE VALVE
LINKAGE — Continued**

0401 00

ADJUST UPPER ACCELERATOR PEDAL TOE STOP

1. Remove screw (1), nut (2), and throttle link (3) from outer transfer shaft (4).
2. Depress upper accelerator pedal (5) until transmission arm (6) is in full open position.
3. Adjust toe stop screw (7) in floor bracket (8) to 1/16 inch (2 mm) space between upper accelerator pedal (5) and screw.
4. Install throttle link (3) on outer transfer shaft (4). Secure with screw (1) and nut (2).



5. Adjust detent plunger if necessary. See ADJUST UPPER ACCELERATOR DETENT PLUNGER Steps 1 - 2.
6. Check operation of accelerator controls and transmission shift points. See CHECK OPERATION Steps 1 - 10.

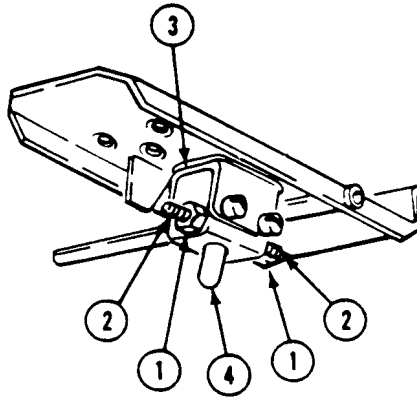
**ADJUST ACCELERATOR AND TRANSMISSION THROTTLE VALVE
LINKAGE — Continued**

0401 00

ADJUST UPPER ACCELERATOR DETENT PLUNGER**NOTE**

Detent plunger is factory lubricated and adjusted for a force of 35 to 40 pounds to push plunger through detent. If lubrication or repair is required, see REPLACE UPPER ACCELERATOR PEDAL ASSEMBLY (WP 0396 00). If adjustment only is required, do the following steps.

1. Remove upper accelerator pedal (WP 0396 00).
2. Loosen two locknuts (1). Turn two set screws (2) in detent block (3) to right to increase spring pressure on plunger (4), or to left to decrease pressure. Use scale to test for 35 to 40 pounds (16 to 18 kg) force required to push plunger (4) through detent.



3. Install upper accelerator pedal (WP 0396 00).
4. Check operation of accelerator controls and transmission shift points. See CHECK OPERATION Steps 1 - 10.

CHECK OPERATION

WARNING



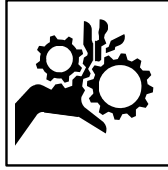
If you work on a carrier that has been running, you could be burned. All tasks begin with a cooled down carrier. Allow carrier to cool or use care if you work on a hot carrier.

1. Install power plant rear access panel (WP 0431 00 or WP 0433 00).
2. Install driver's power plant access panel (WP 0430 00).
3. Close power plant front access door and raise trim vane (see your -10).
4. Raise and lock ramp (see your -10).
5. Operate carrier until engine and transmission are at normal operating temperatures (see your -10).
6. With transmission range selector in 1 - 3 or 2 - 3 range and foot pedal held at full throttle position (detent plunger contacting detent screw but not compressing detent plunger), upshift from second lockup to third converter should occur at engine speed of 2640 to 2800 RPM.
7. If engine speed is not within specified range, park carrier and stop engine.

ADJUST ACCELERATOR AND TRANSMISSION THROTTLE VALVE LINKAGE — Continued

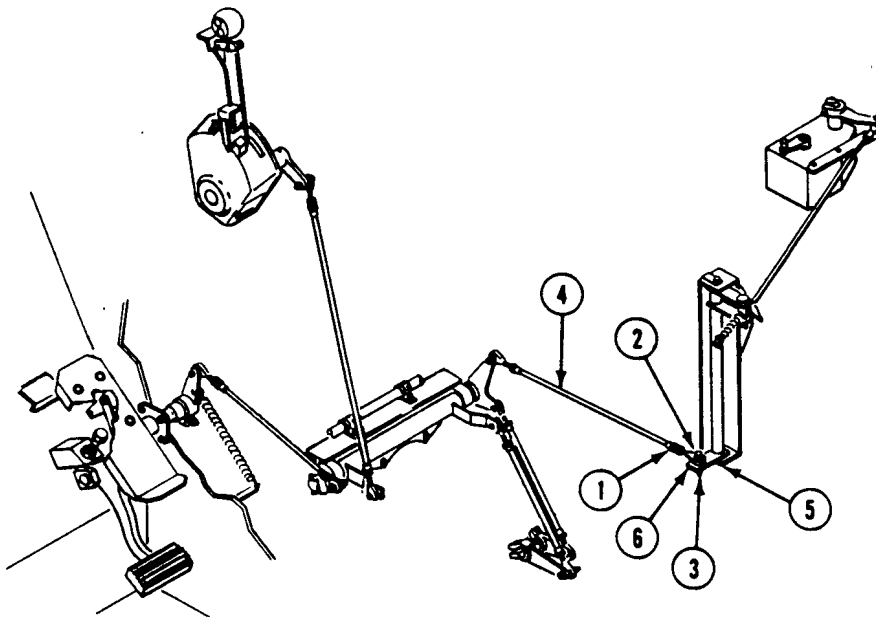
0401 00

WARNING



Adjusting accelerator linkage while the engine is running can cause your arm to be badly injured. Do not adjust accelerator linkage with the engine running.

8. Remove driver's and rear power plant access panels (WP 0430 00, WP 0431 00, WP 0432 00, or WP 0433 00).
9. Loosen locknut (1). Remove screw (2) and nut (3) from throttle link (4) and transfer shaft (5). To decrease engine RPM at shift point, shorten throttle link (4) by turning rod end (6) to the right. To increase engine RPM at shift point, lengthen throttle link (4) by turning rod end (6) to the left. Attach throttle link (4) to transfer shaft (5) with screw (2) and nut (3). Tighten locknut(1).



10. Readjust accelerator pedal stops by repeating the following procedures:
 - a. Adjust Idle Stop.
 - b. Adjust Upper Accelerator Pedal Detent Stop.
 - c. Adjust Upper Accelerator Pedal Toe Stop.
 - d. Repeat Check Operation.

FOLLOW-THROUGH STEPS

1. Engine stopped/shutdown (see your -10).

END OF TASK

REPLACE HAND THROTTLE

0402 00**THIS WORK PACKAGE COVERS:**

Removal (page 0402 00-2).
Installation (page 0402 00-3).
Adjustment (page 0402 00-3).

INITIAL SETUP:Maintenance Level

Unit

References

See your -10

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped (see your -10)

Carrier blocked (see your -10)

Trim vane lowered (see your -10)

Power plant front access door opened (see your -10)

Driver's power plant access panel removed
(see your -10)Materials/Parts

Cotter pin

Grommet

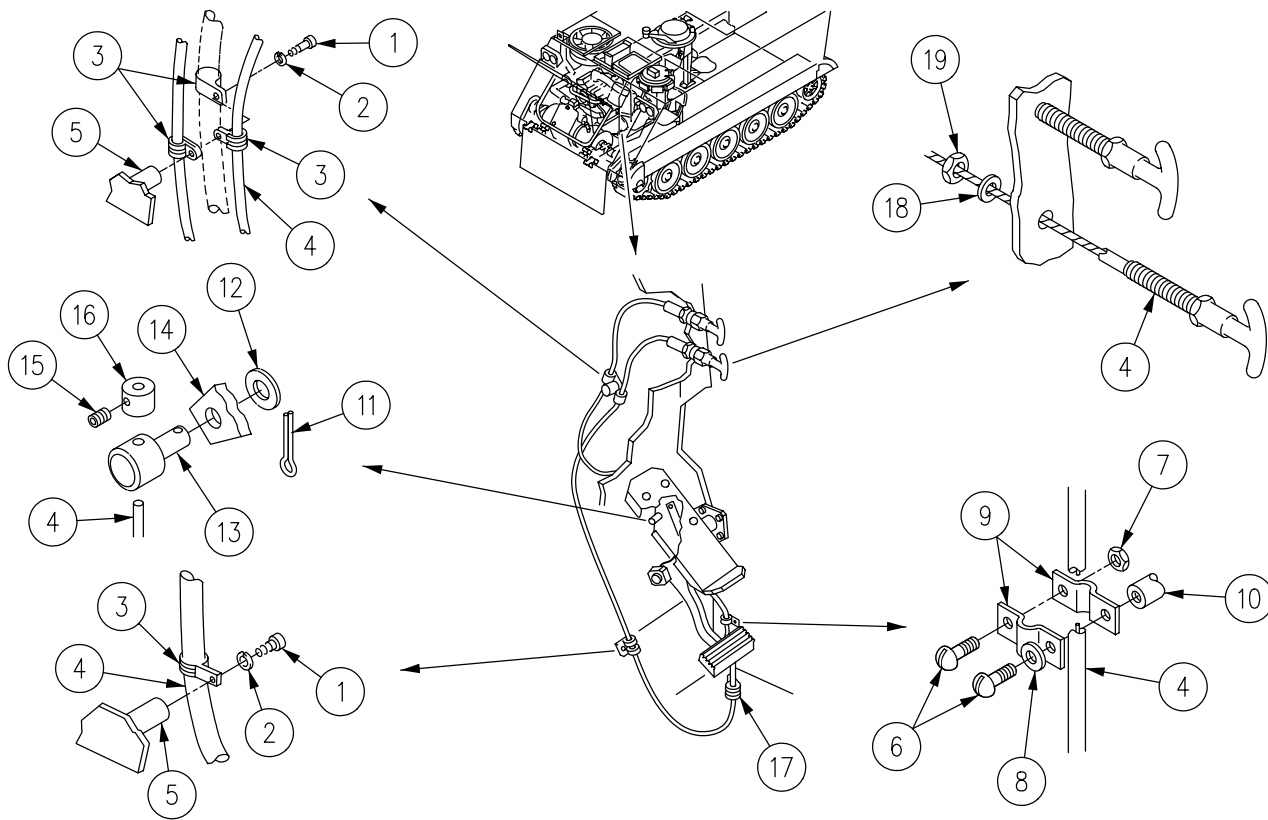
Locknut

Lockwasher

Personnel RequiredUnit Mechanic

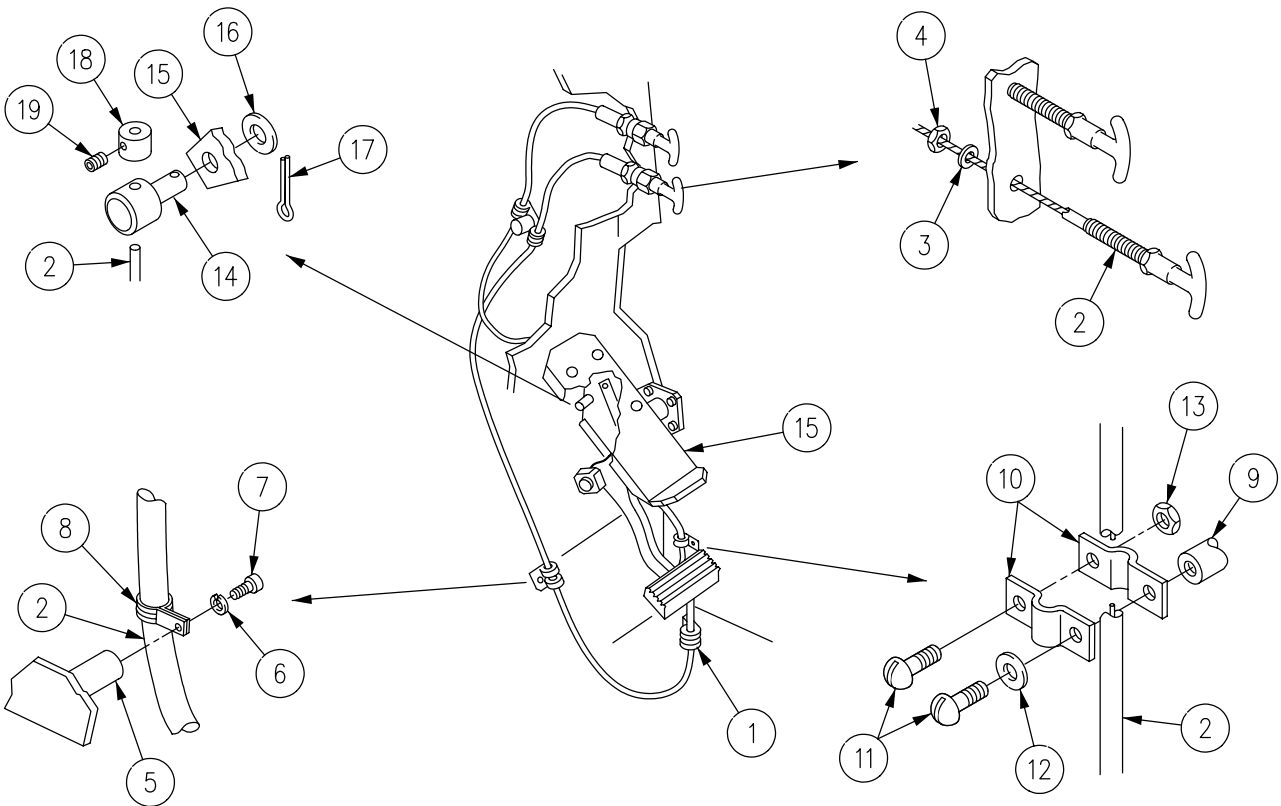
REMOVAL

1. Remove two screws (1), washers (2), and four clamps (3) that secure throttle control cable assembly (4) to two weldnuts (5).
2. Remove two screws (6), locknut (7), lockwasher (8), two straps (9), and cable assembly (4) from weldnut (10). Discard locknut and lockwasher.
3. Remove cotter pin (11) and washer (12). Disconnect pin (13) from accelerator pedal assembly (14). Discard cotter pin.
4. Loosen set screw (15). Remove collar (16) and pin (13) from cable assembly (4).
5. Pull cable assembly (4) through grommet (17) in driver's floor plate and out through power plant front access door opening. Discard grommet.
6. Remove nut (18) and washer (19) that secure cable assembly (4) to driver's compartment bulkhead.
7. Remove cable assembly (4) from driver's compartment.



INSTALLATION

1. Install new grommet (1) in driver's floor plate.
2. Feed cable assembly (2) through mounting hole in driver's compartment bulkhead to power plant front access door opening.
3. Slide washer (3) and nut (4) on cable assembly (2). Secure to driver's compartment bulkhead.
4. Install cable assembly (2) on two weldnuts (5). Secure with two washers (6), screws (7), and four clamps (8).
5. Install cable assembly (2) on weldnut (9). Secure with two straps (10), screws (11), new lockwasher (12), and new locknut (13).
6. Install pin (14) on accelerator pedal assembly (15). Secure with washer (16) and new cotter pin (17).
7. Install cable assembly (2) on pin (14). Secure with collar (18) and set screw (19).



ADJUSTMENT

1. Loosen set screw (19). Push control cable assembly (2) handle full forward.
2. Place pedal assembly (15) in full closed throttle position (see your -10). Tighten set screw (19) in collar (18).

FOLLOW-THROUGH STEPS

1. Start engine (see your -10). Using the pedal, check that hand throttle operates properly.
2. Stop/shutdown engine (see your -10)
3. Close power plant front access door (see your -10).
4. Raise trim vane (see your -10).
5. Install driver's power plant access panel (see your -10).

END OF TASK

REPLACE FUEL CUTOFF CONTROL CABLE ASSEMBLY

0403 00

THIS WORK PACKAGE COVERS:

- Removal (page 0403 00-1).
- Installation (page 0403 00-4).
- Adjustment (page 0403 00-5).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Helper (H)

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Trim vane lowered and power plant front access door open (see your -10)

Power plant rear access panel removed (WP 0431 00, WP 0432 00, or WP 0433 00)

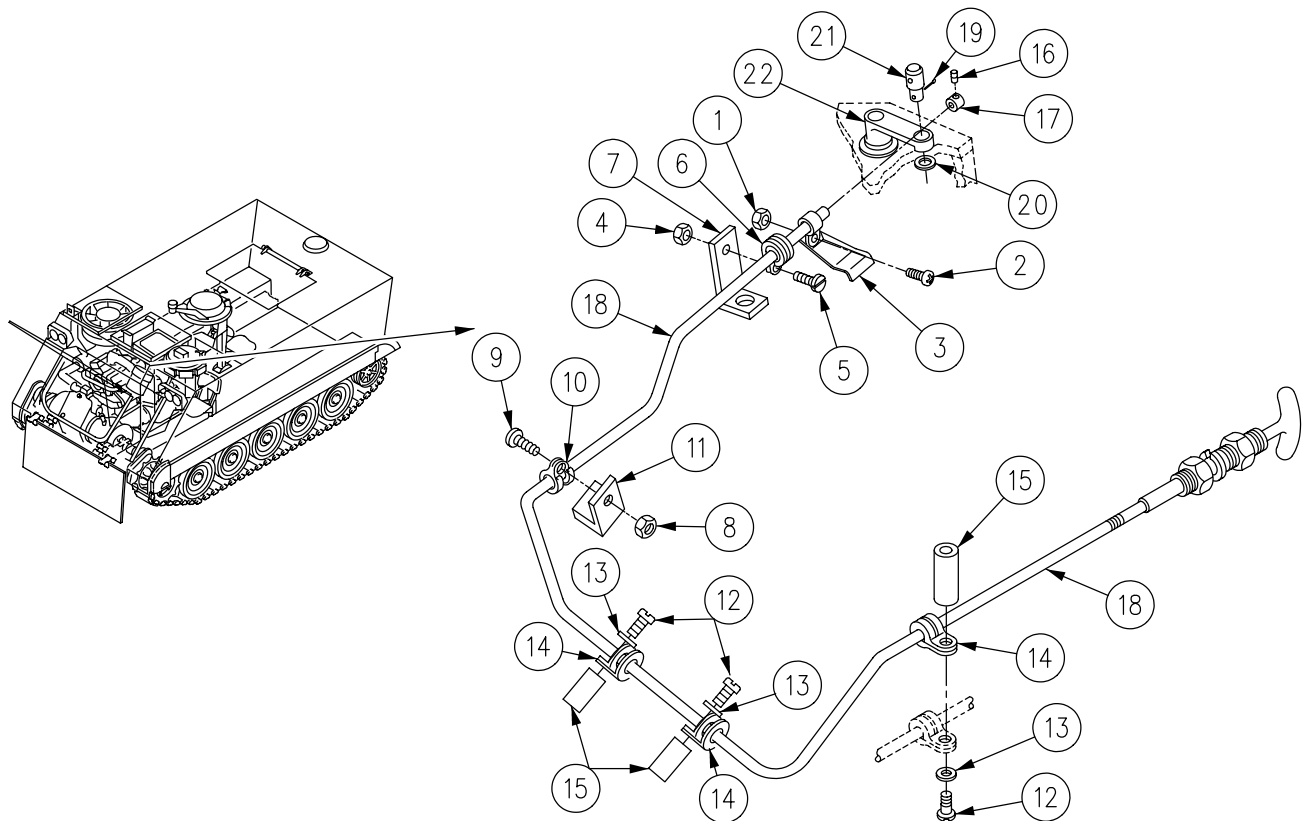
Materials/Parts

Cotter pin

Locknut (3)

REMOVAL

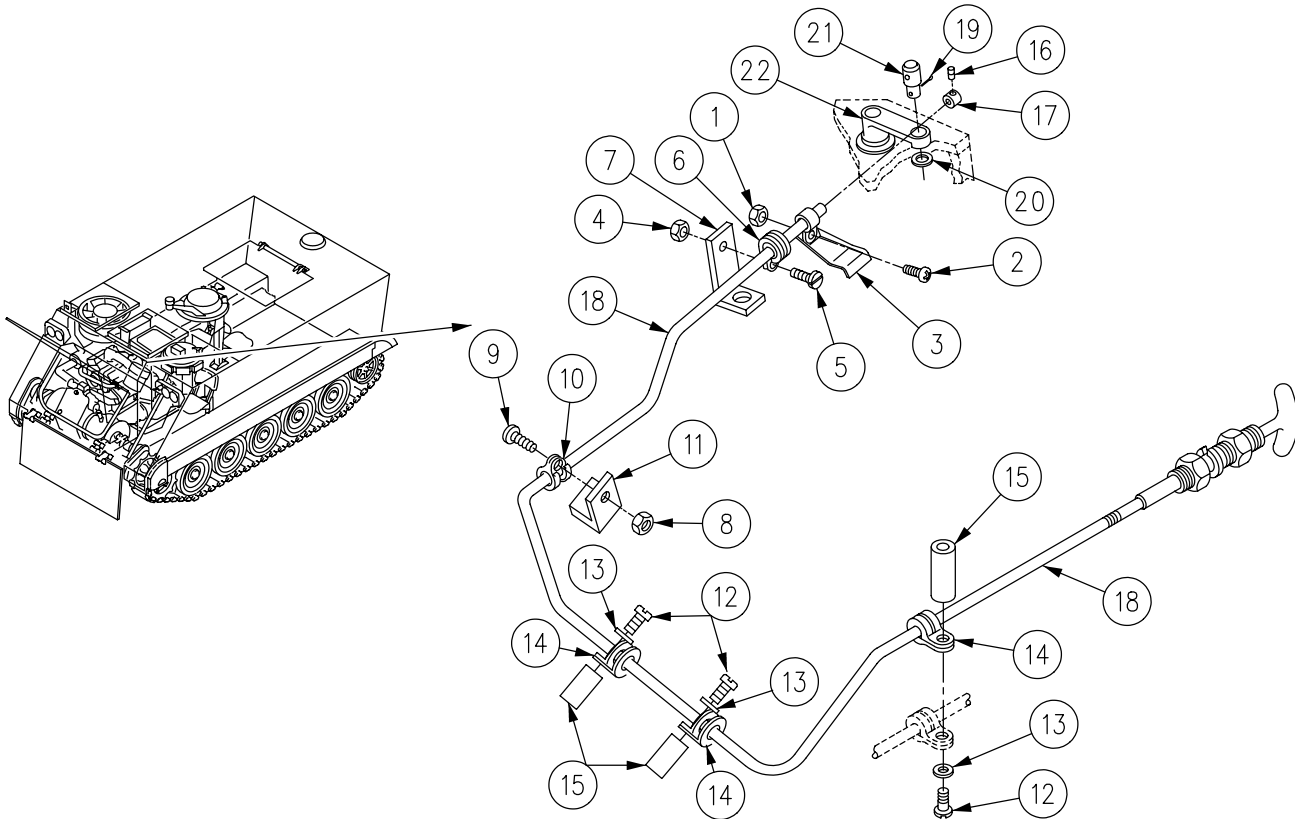
1. Remove locknut (1) and screw (2) from engine bracket (3). Discard locknut.
2. Remove locknut (4), screw (5), and clamp (6) from engine bracket (7). Discard locknut.



REPLACE FUEL CUTOFF CONTROL CABLE ASSEMBLY — Continued

0403 00

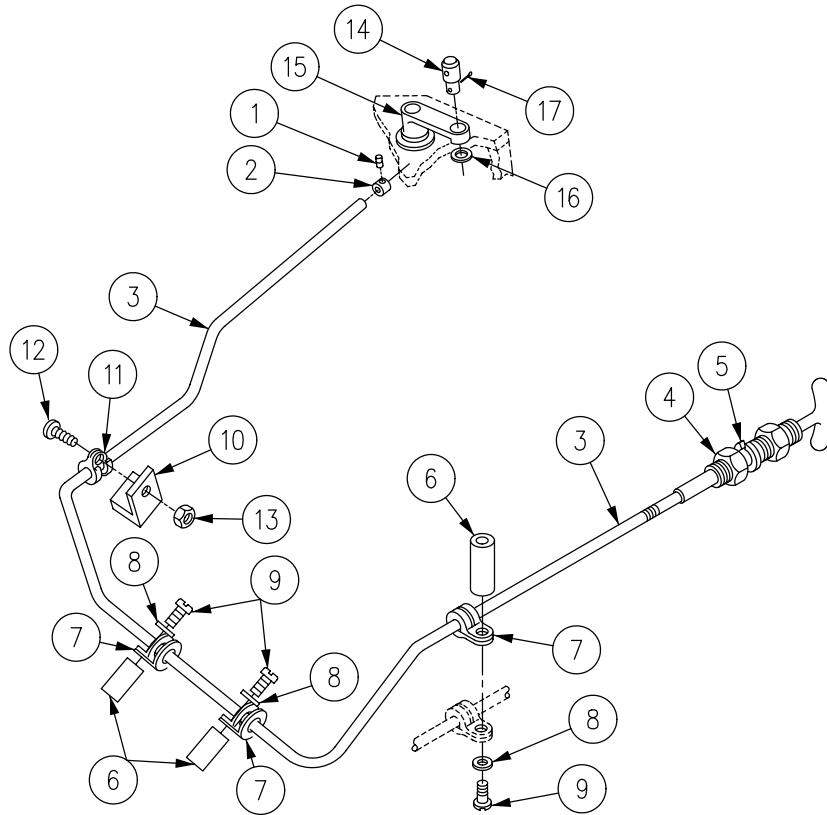
3. Remove locknut (8), screw (9), and clamp (10) from differential bracket (11). Discard locknut.
4. Remove three screws (12), washers (13), and clamps (14) from three weldnuts (15).
5. Loosen set screw (16). Remove front collar (17) from control assembly (18).
6. Remove cotter pin (19), washer (20), and pin (21) from control fuel arm (22). Discard cotter pin.



REPLACE FUEL CUTOFF CONTROL CABLE ASSEMBLY — Continued

0403 00

7. Loosen set screw (1). Remove rear collar (2) from control assembly (3).
8. Remove control assembly out of power plant compartment through power plant front access door.
9. Remove nut (4) and washer (5) from control assembly (3) at driver's compartment bulkhead.
10. Remove control assembly from driver's compartment.



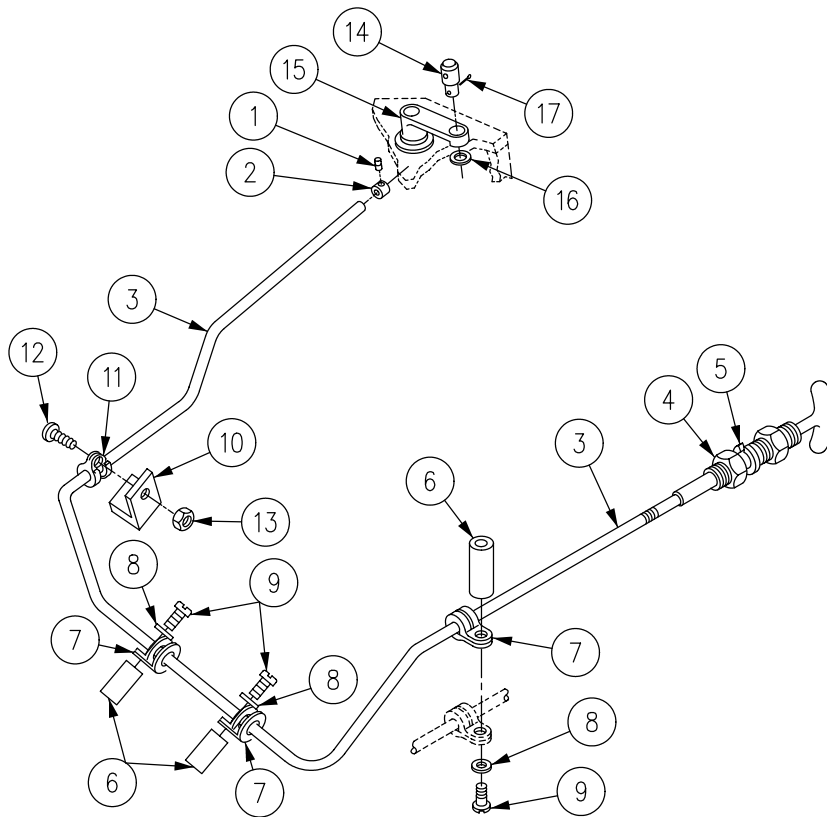
INSTALLATION

1. Feed control assembly (3) through mounting hole in driver's compartment bulkhead to power plant front access door opening.
2. Slide washer (5) and nut (4) onto control assembly (3). Secure control assembly to driver's compartment bulkhead.
3. Install control assembly (3) on three weldnuts (6). Secure with three clamps (7), washers (8) and screws (9).

CAUTION

Contact between the fuel shutoff cable and radiator coolant lines during operation of the carrier may cause melting of the plastic case on the fuel shutoff cable.

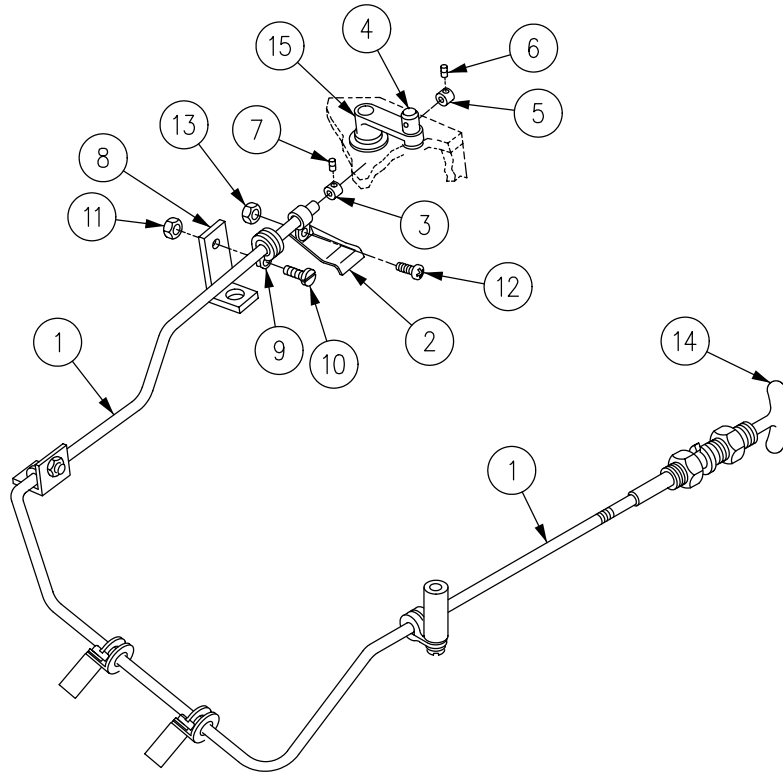
4. Remove slack from fuel shutoff cable so that it does not touch the auxiliary radiator tube.
5. Install control assembly (3) on differential bracket (10). Secure with clamp (11), screw (12), and new locknut (13).
6. Install pin (14) on fuel control arm (15). Secure with washer (16) and new cotter pin (17).



7. Insert control assembly (1) through engine bracket (2).
8. Install rear collar (3) on control assembly (1).
9. Insert control assembly (1) through pin (4).
10. Install front collar (5) on control assembly (1) with two set screws (6) and (7).
11. Secure collars (3) and (5) on control assembly (1) with two set screws (6) and (7).
12. Install control assembly (1) on engine bracket (8). Secure with clamp (9), screw (10), and new locknut (11).
13. Install control assembly (1) on engine bracket (2). Secure with screw (12) and new locknut (13).

ADJUSTMENT

1. Loosen two set screws (6) and (7) in collars (3) and (5).
2. Pull control assembly handle (14) to full out position.
3. Rotate fuel control arm (15) to full clockwise position.
4. Place two collars (3) and (5) on each side of pin (4). Secure with two set screws (6) and (7).



FOLLOW-THROUGH STEPS

1. Install power plant rear access panel (WP 0431 00, WP 0432 00, or WP 0433 00).
2. Start your engine (see your -10). Check that fuel shutoff cable operates properly.
3. Close power plant front access door and raise trim vane (see your -10).
4. Raise and lock ramp (see your -10).
5. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE TRANSMISSION RANGE SELECTOR

0404 00

THIS WORK PACKAGE COVERS:

Removal (page 0404 00-1).
 Installation (page 0404 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Materials/Parts

Locknut

Spring pin

Personnel Required

Unit Mechanic

Helper (H)

Equipment Condition

Engine stopped (see your -10)

Carrier blocked (see your -10)

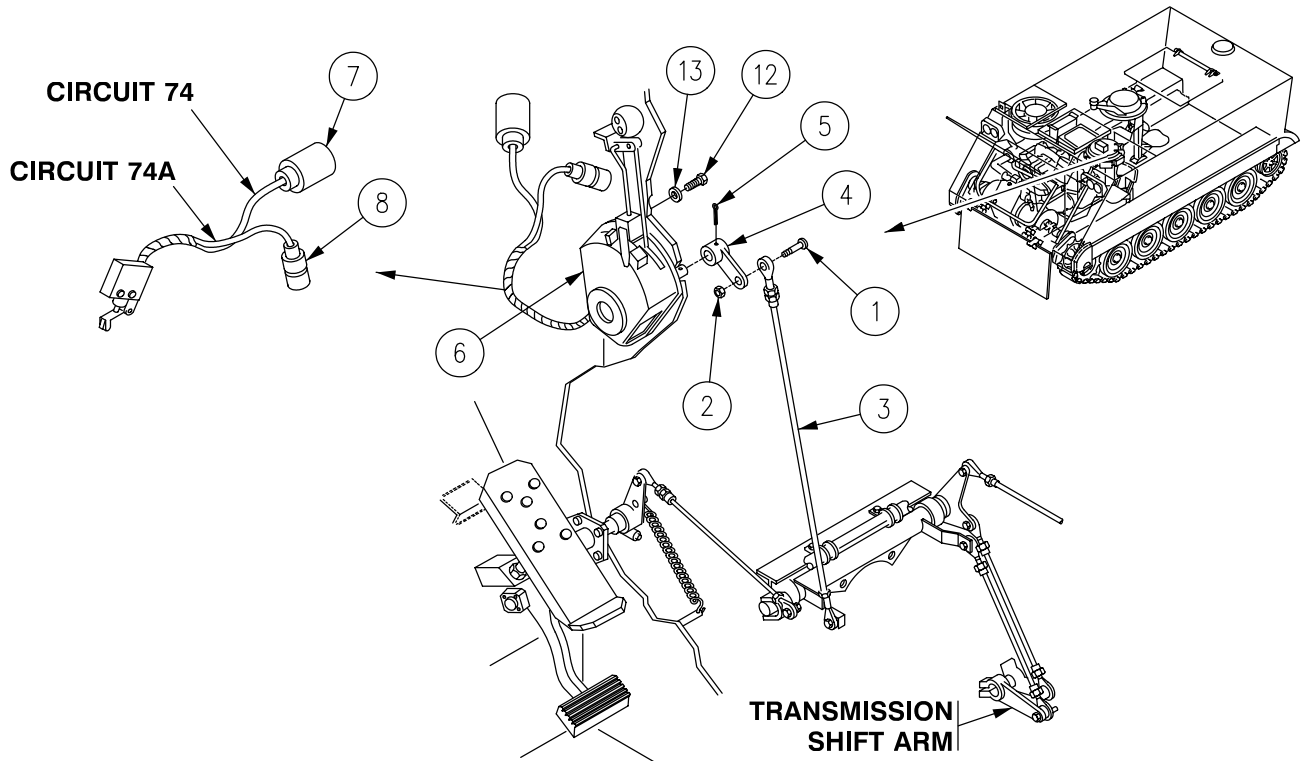
Trim vane lowered and power plant front access door open (see your -10)

Driver's power plant access panel removed (WP 0430 00)

Air cleaner housing and element removed (WP 0185 00)

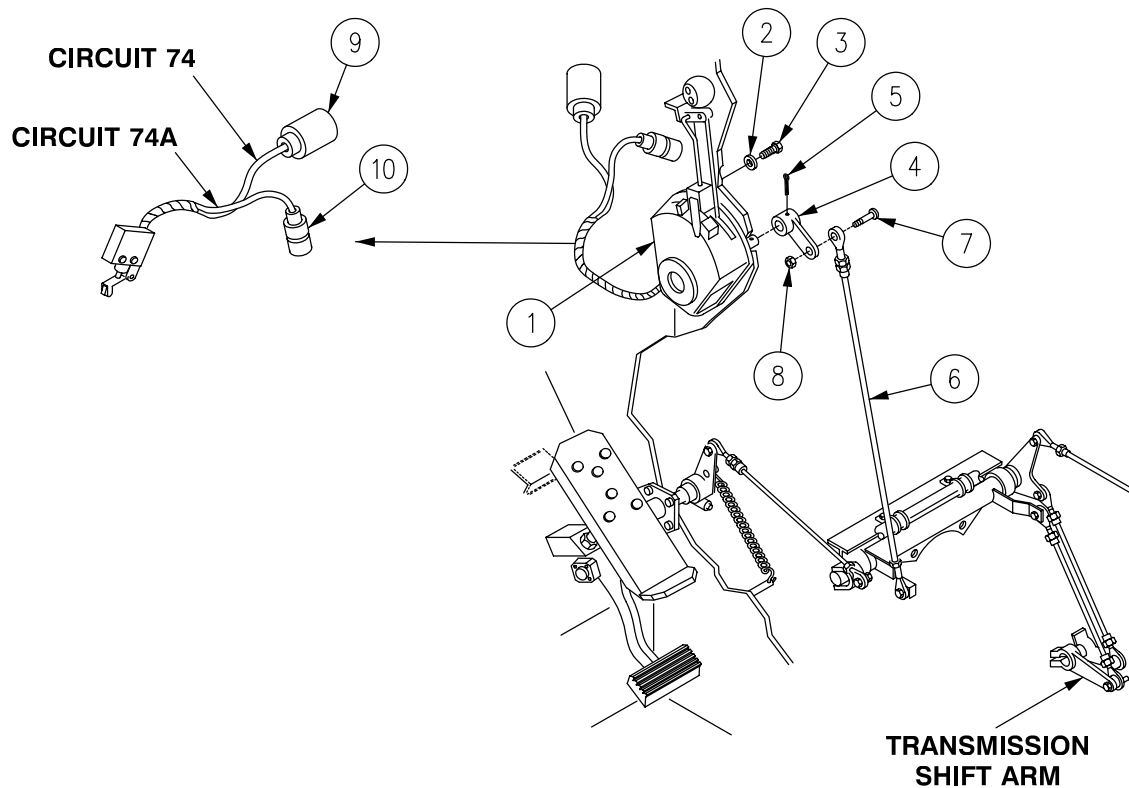
REMOVAL

1. Remove screw (1) and locknut (2). Discard locknut.
2. Disconnect link (3) from arm (4).
3. Remove spring pin (5) and arm (4) from range selector (6). Discard spring pin.
4. Disconnect two electrical leads (7) and (8) from circuits 74 and 74A.
5. Remove three screws (12), washers (13), and range selector (6) from driver's compartment bulkhead.



INSTALLATION

1. Place range selector (1) on driver's compartment bulkhead. Secure with three washers (2) and screws (3).
2. Install arm (4) on range selector (1). Secure with new spring pin (5).
3. Install link (6) on arm (4). Secure with screw (7) and new locknut (8).
4. Connect two electrical leads (9) and (10) to circuits 74 and 74A.

**FOLLOW-THROUGH STEPS**

1. Install air cleaner housing and element (WP 0185 00).
2. Install driver's power plant access panel (WP 0430 00)
3. Close power plant front access door and raise trim vane (see your -10).
4. Operate carrier to check that transmission range selector operates properly.
5. Stop/shutdown engine (see your -10).

END OF TASK

REPAIR TRANSMISSION RANGE SELECTOR

0405 00

THIS WORK PACKAGE COVERS:

- Disassembly (page 0405 00-1).
- Clean, Inspect, and Repair (page 0405 00-3).
- Assembly (page 0405 00-4).

INITIAL SETUP:

Maintenance Level

Unit

References

- WP 0404 00
- WP 0406 00
- WP 0407 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Ramp lowered (see your -10)
- Trim vane lowered and power plant front access door open (see your -10)
- Driver's power plant access panel removed (WP 0430 00)
- Range selector removed from carrier (WP 0404 00)

Materials/Parts

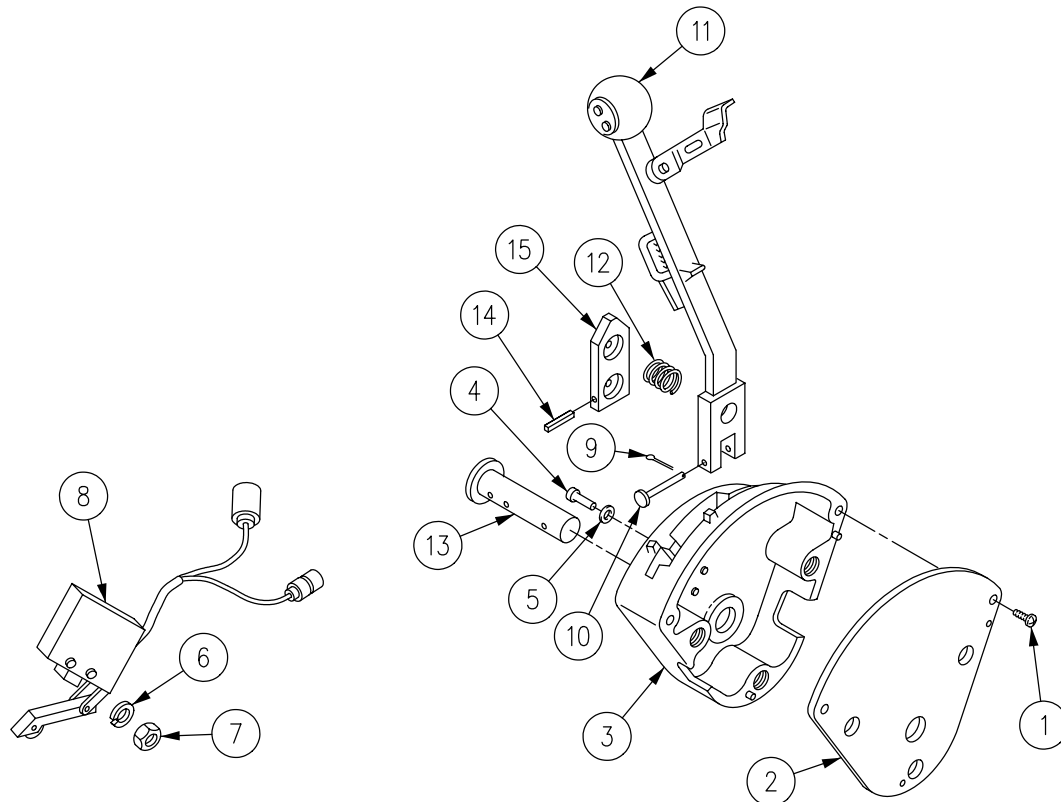
- Cotter pin (4)
- Lockwasher (2)
- Spring pin (2)

Personnel Required

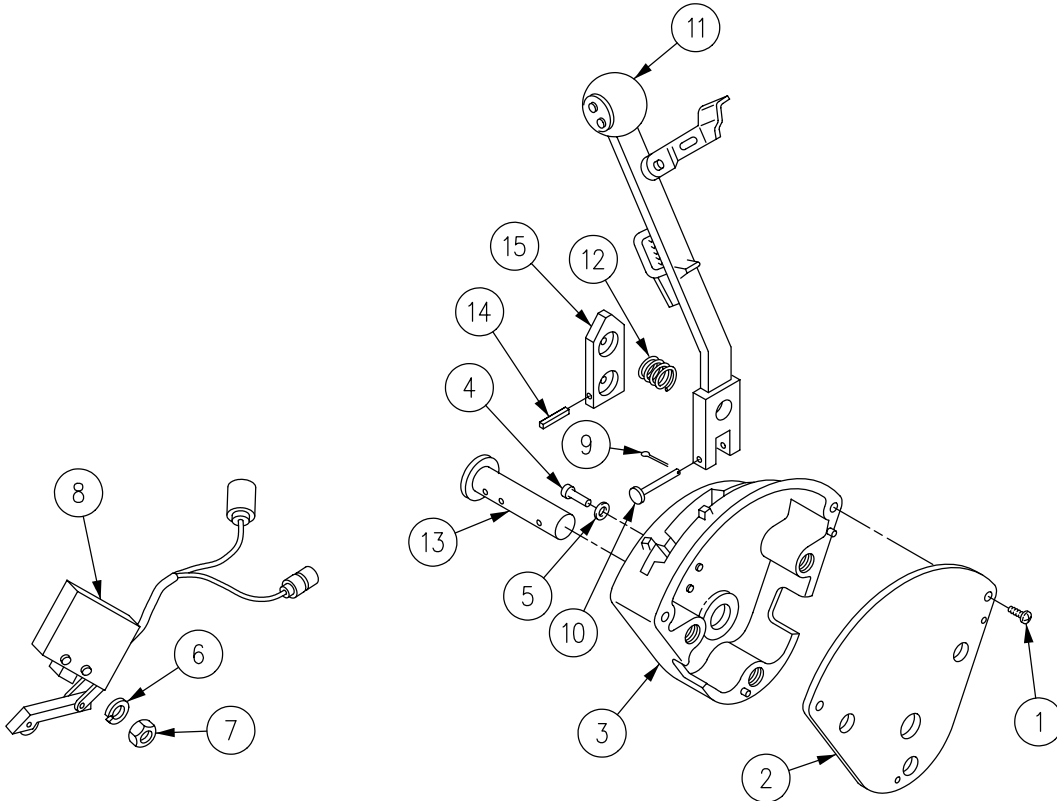
- Unit Mechanic
- Helper (H)

DISASSEMBLY

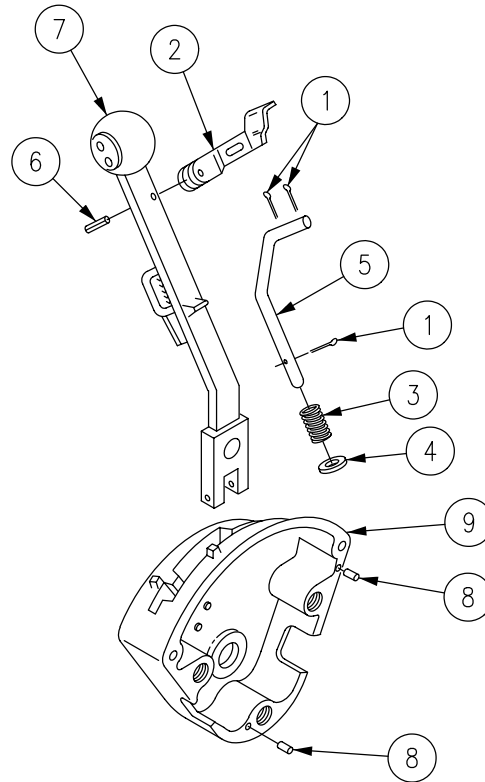
1. Remove two screws (1) and cover (2) from housing (3).
2. Remove two screws (4), washers (5), lockwashers (6), nuts (7), and neutral start switch (8) from housing (3). Discard lockwashers.



3. Remove cotter pin (9), pin (10), control lever assembly (11), and spring (12) from shaft (13). Discard cotter pin.
4. Remove spring pin (14) that secures cam (15) and shaft (13). Discard spring pin.
5. Remove cam (15) and shaft (13) from housing (3).



6. Remove three cotter pins (1), lock (2), spring (3), and washer (4) from control rod (5). Discard cotter pins.
7. Remove spring pin (6) and lock (2) from control lever (7). Discard spring pin.
8. Remove two pins (8) from housing (9).

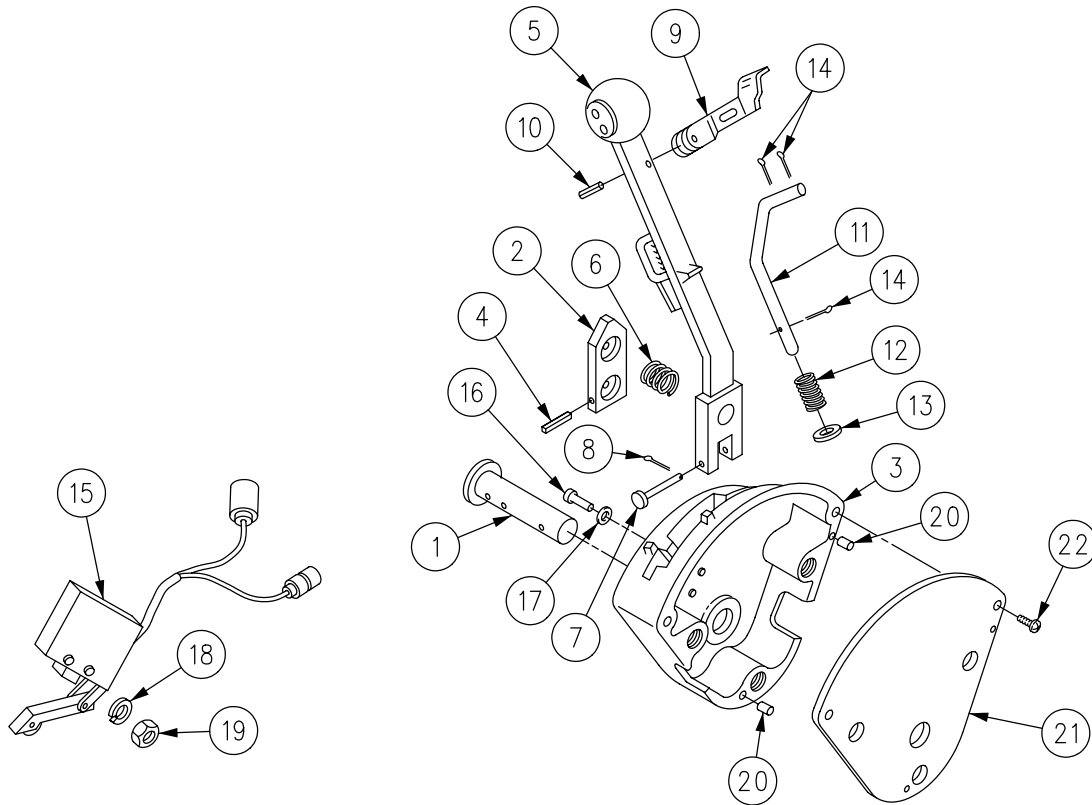


CLEAN, INSPECT, AND REPAIR

1. Clean range selector parts with dry cloth.
2. Check neutral parts switch leads and connectors. Replace bad leads or connectors (WP 0312 00).
3. Test neutral start switch (WP 0406 00). Replace bad switch.
4. Check springs. Replace broken or weak springs.
5. Check control rod, cam, and shaft. Replace cracked or worn parts.

ASSEMBLY

1. Install shaft (1) and cam (2) in housing (3). Secure cam to shaft with new spring pin (4).
2. Install control lever assembly (5) and spring (6) in housing (3). Secure control lever to shaft (1) with pin (7) and new cotter pin (8).
3. Install lock (9) on control lever (5). Secure with new spring pin (10).
4. Install control rod (11), spring (12), and washer (13) in control lever (5).
5. Secure rod (11) to lock (5) and lever (5) with three new cotter pins (14).
6. Install neutral start switch (15) in housing (3). Secure with two screws (16), washers (17), new lockwashers (18), and nuts (19).
7. Install two pins (20) in housing (3).
8. Secure cover (21) to housing (3) with two screws (22).



9. Install range selector in carrier (WP 0404 00).
10. Adjust range selector linkage (WP 0407 00).
11. Adjust neutral start switch (WP 0406 00).

FOLLOW-THROUGH STEPS

1. Install driver's power plant access panel (WP 0430 00).
2. Close power plant front access door and raise trim vane (see your -10).
3. Raise and lock ramp (see your -10).
4. Operate carrier (see your -10). Check that transmission range selector works properly.
5. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE NEUTRAL START SWITCH

0406 00

THIS WORK PACKAGE COVERS:

- Removal (page 0406 00-1).
- Clean, Inspect, and Replace (page 0406 00-2).
- Installation (page 0406 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

WP 0009 00

Tools and Special Tools

- Digital Multimeter (WP 0780 00, Item 43)
- General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Transmission range selector removed from carrier (WP 0405 00)

Materials/Parts

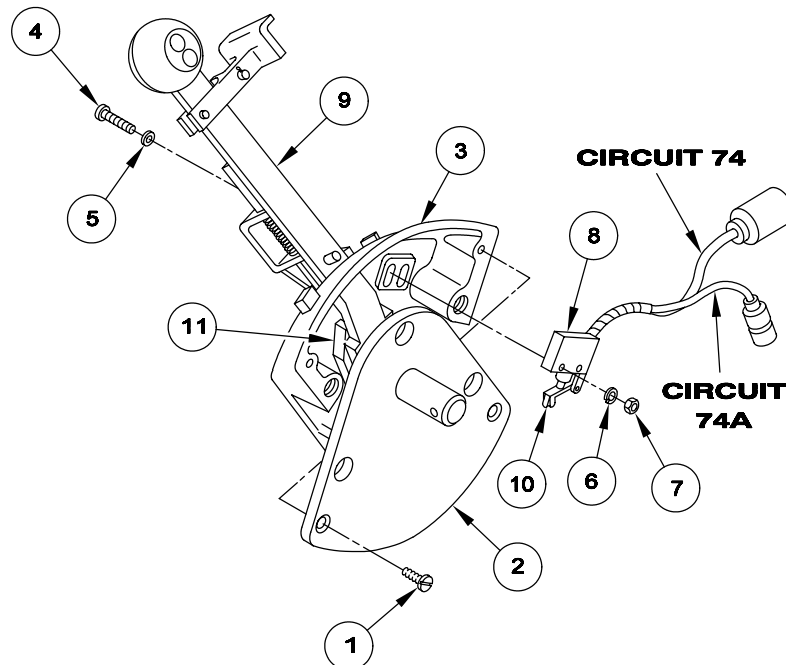
Lockwasher (2)

Personnel Required

Unit Mechanic

REMOVAL

1. Remove two screws (1) and cover (2) from housing (3).
2. Remove two screws (4), washers (5), lockwashers (6), nuts (7), and neutral start switch (8) from housing (3). Discard lockwashers.



CLEAN, INSPECT, AND REPLACE

1. Clean switch with a clean, dry cloth.
2. Check neutral start switch (WP 0009 00).
3. Check switch. Replace switch that has worn or damaged arm or roller.
4. Check switch leads. Replace damaged leads (WP 0312 00) or switch.

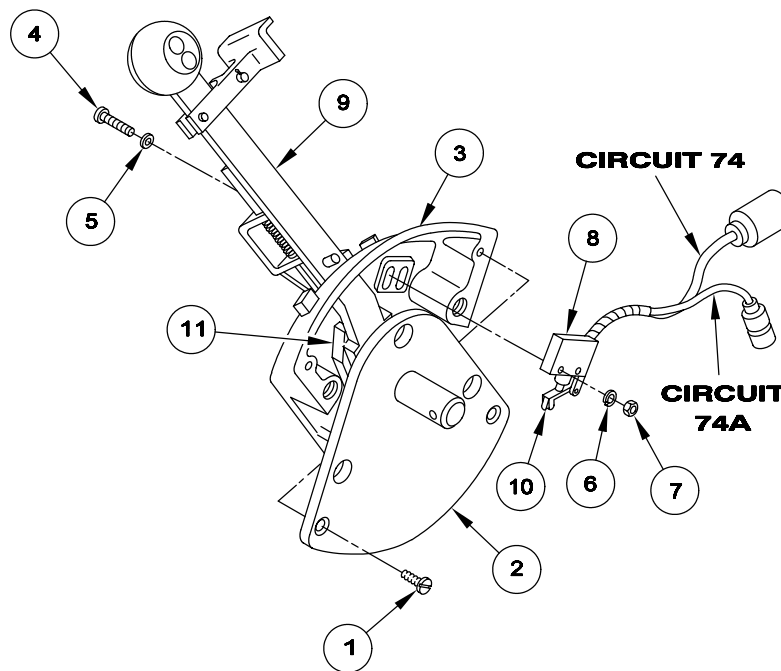
INSTALLATION

1. Install neutral start switch (8) on housing (3). Secure with two screws (4), washers (5), new lockwashers (6), and nuts (7). Do not tighten nuts.
2. Place selector (9) in neutral.
3. Slide neutral start switch (8) and attaching screws (4) up or down in elongated holes in housing (3) to set switch adjustment. Moving switch (8) down moves lever (10) closer to actuating cam (11). This increases selector (9) travel with switch actuated.
4. Adjust neutral start switch (8) so that electrical continuity is maintained as follows, use digital multimeter:
 - a. Neutral start switch (8) must maintain electrical continuity between circuits 74 and 74A at the N position.

NOTE

Switch must break electrical continuity between circuits 74 and 74A before reaching R or 2-3 position when shifting from N position.

5. When adjustment is correct, tighten two nuts (7).
6. Secure cover (2) to housing (3) with two screws (1).



FOLLOW-THROUGH STEPS

1. Install range selector in carrier (WP 0405 00).
2. Start engine (see your -10). Check that neutral start switch operates properly.
3. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE RANGE SELECTOR LINKAGE

0407 00

THIS WORK PACKAGE COVERS:

- Removal (page 0407 00-1).
- Clean, Inspect, and Repair (page 0407 00-2).
- Installation (page 0407 00-3).
- Adjustment (page 0407 00-4).

INITIAL SETUP:

Maintenance Level

Unit

References

WP 0404 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Air cleaner housing and element removed (WP 0185 00)

Air control valve removed (WP 0187 00)

Materials/Parts

Locknut (2)

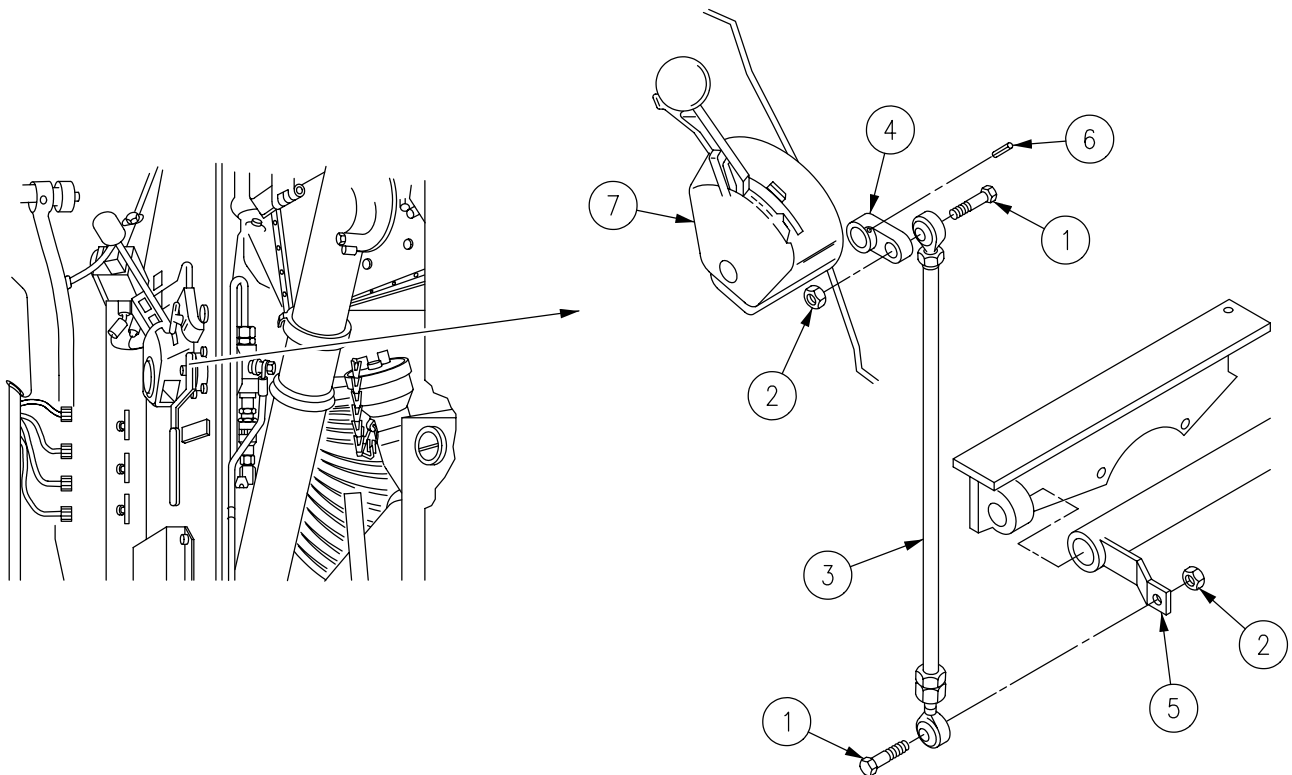
Spring pin

Personnel Required

Unit Mechanic

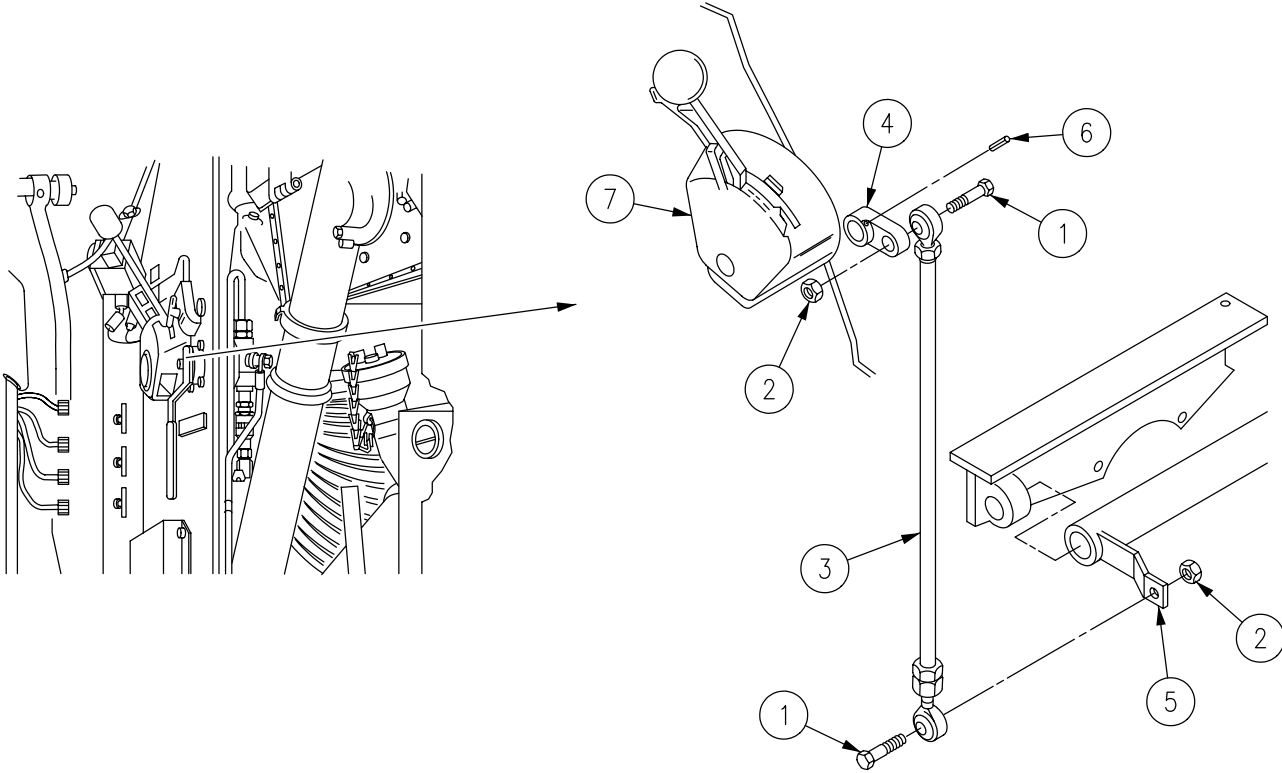
REMOVAL

1. Remove two screws (1), locknuts (2), and range selector link (3) from arm (4) and transmission cross-shaft (5). Discard locknuts.
2. Remove spring pin (6) and arm (4) from range selector (7). Discard spring pin.



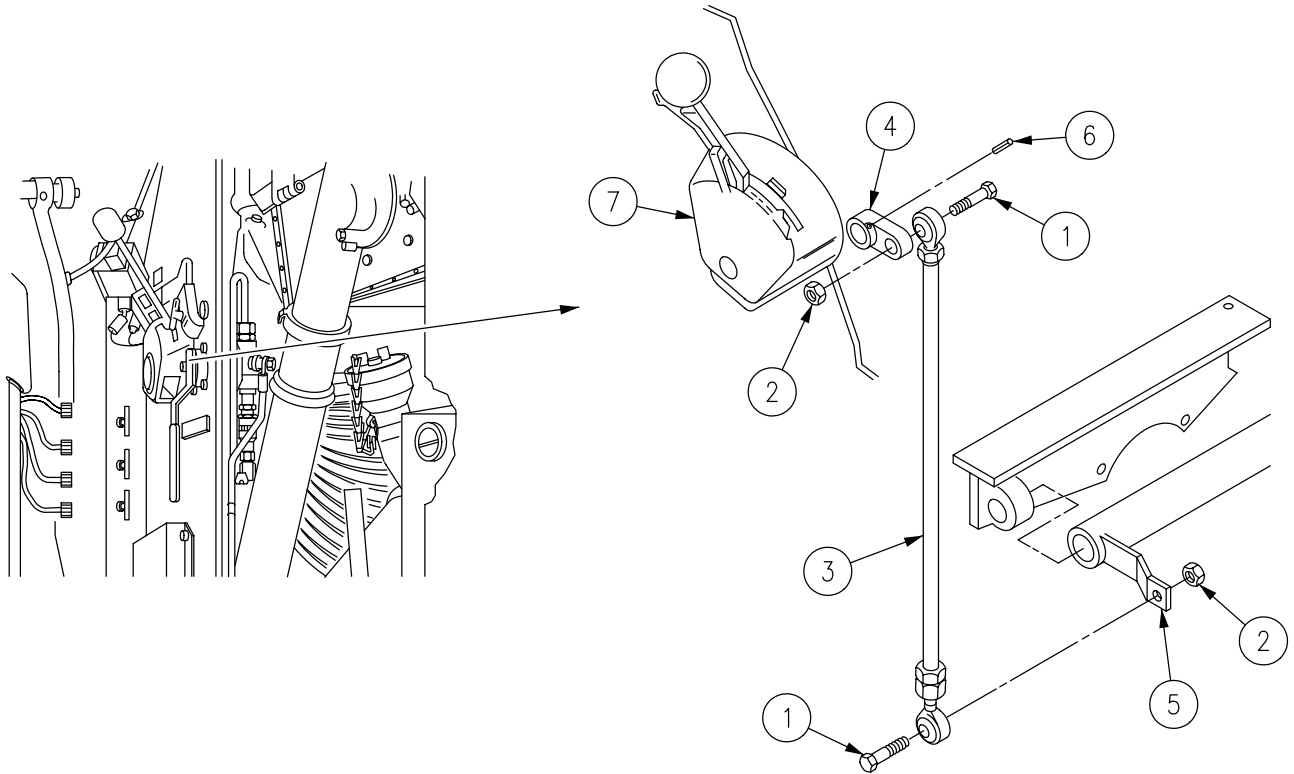
CLEAN, INSPECT, AND REPAIR

1. Check arm (4) and link (3). Replace cracked, bent, or worn arm or link.



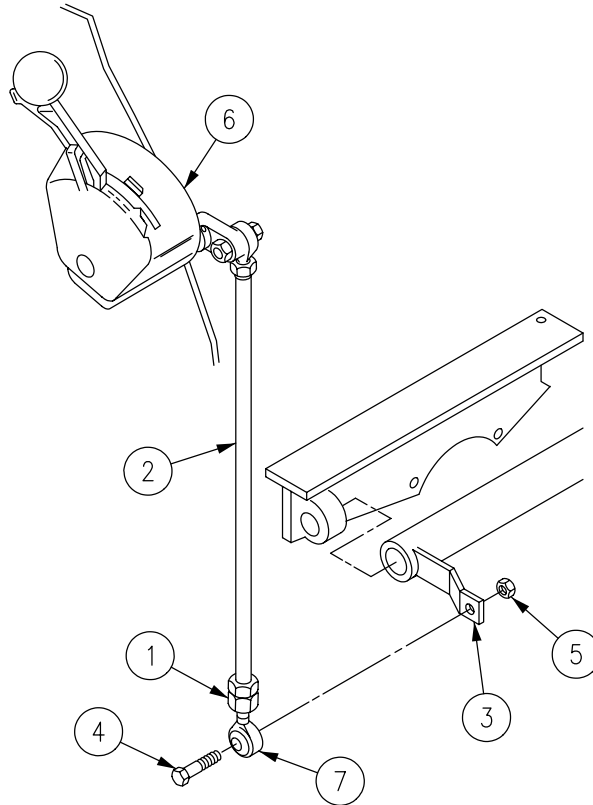
INSTALLATION

1. Secure arm (4) on range selector (7) with new spring pin (6).
2. Install range selector link (3) on arm (4) and transmission cross-shaft (5). Secure with two screws (1) and new locknuts (2).



ADJUSTMENT

1. Loosen locknut (1) on range selector link (2) at transmission cross-shaft (3) end.
2. Remove screw (4) and locknut (5) that secure range selector link (2) to cross-shaft (3).
3. Place range selector (6) in neutral position.
4. Pull transmission shift arm (WP 0404 00) to end of travel, then back one detent to place transmission in neutral.
5. Adjust range selector link bearing end (7) to free pin fit at transmission cross-shaft (3).
6. Check all range selector positions. Readjust range selector link bearing end (7), if needed, to obtain positive transmission detents in all positions.
7. Install range selector link (2) on transmission cross-shaft (3). Secure with screw (4) and new locknut (5).
8. Tighten locknut (1) on range selector link bearing end (7).



FOLLOW-THROUGH STEPS

1. Install air control valve (WP 0187 00).
2. Install air cleaner housing and element (WP 0185 00)
3. Operate carrier (see your -10). Check that range selector linkage operates properly.
4. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE ENGINE POWER DISCONNECT

0408 00

THIS WORK PACKAGE COVERS:

- Removal (page 0408 00-1).
- Installation (page 0408 00-2).
- Adjustment (page 0408 00-3).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

- General Mechanic's Tool Kit (WP 0780 00, Item 29)
- Torque wrench (WP 0780 00, Item 102)

Equipment Condition

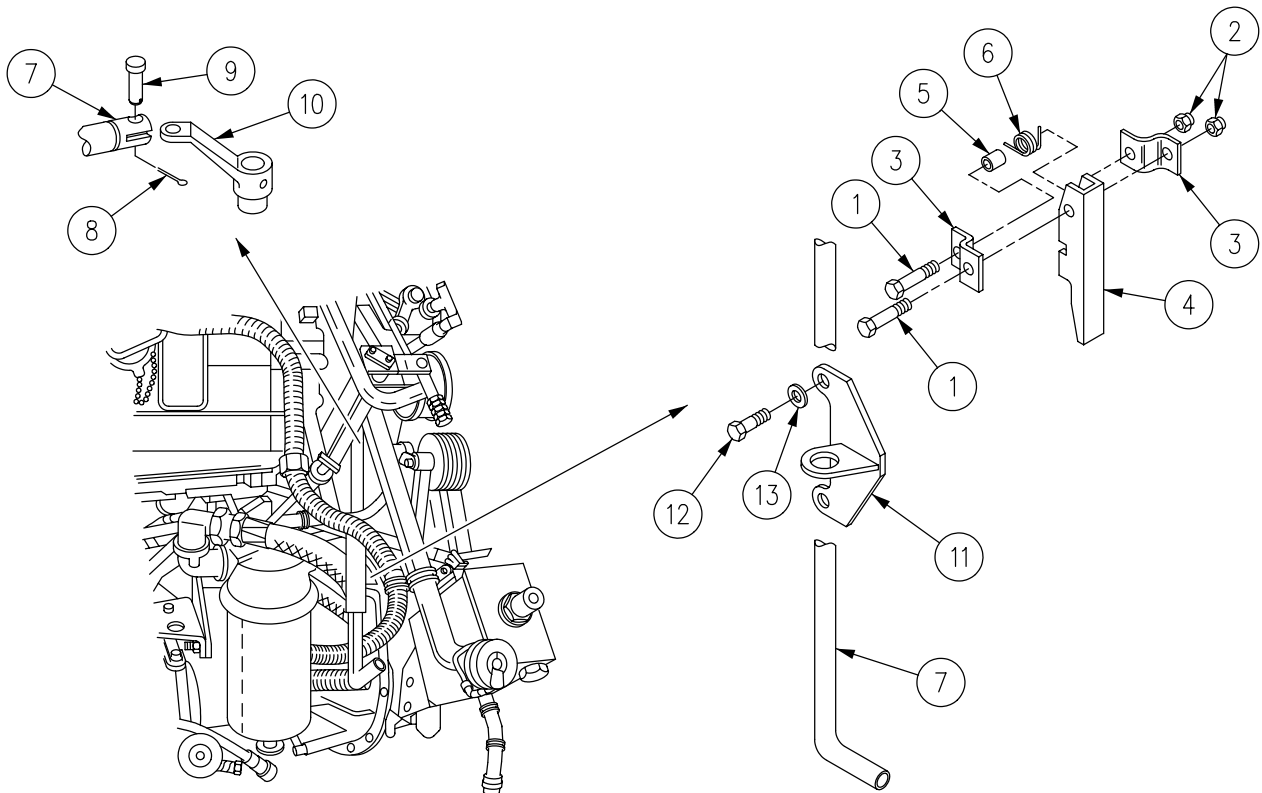
- Engine stopped/shutdown and ramp lowered (see your -10)
- Carrier blocked (see your -10)
- Trim vane lowered (see your -10)
- Power plant rear access panel removed (WP 0431 00, WP 0432 00, or WP 0433 00)
- Driver's power plant access panel removed (WP 0430 00)

Materials/Parts

- Antiseize compound (WP 0782 00, Item 8)
- Cotter pin
- Locknut (2)
- Tab washer (2)

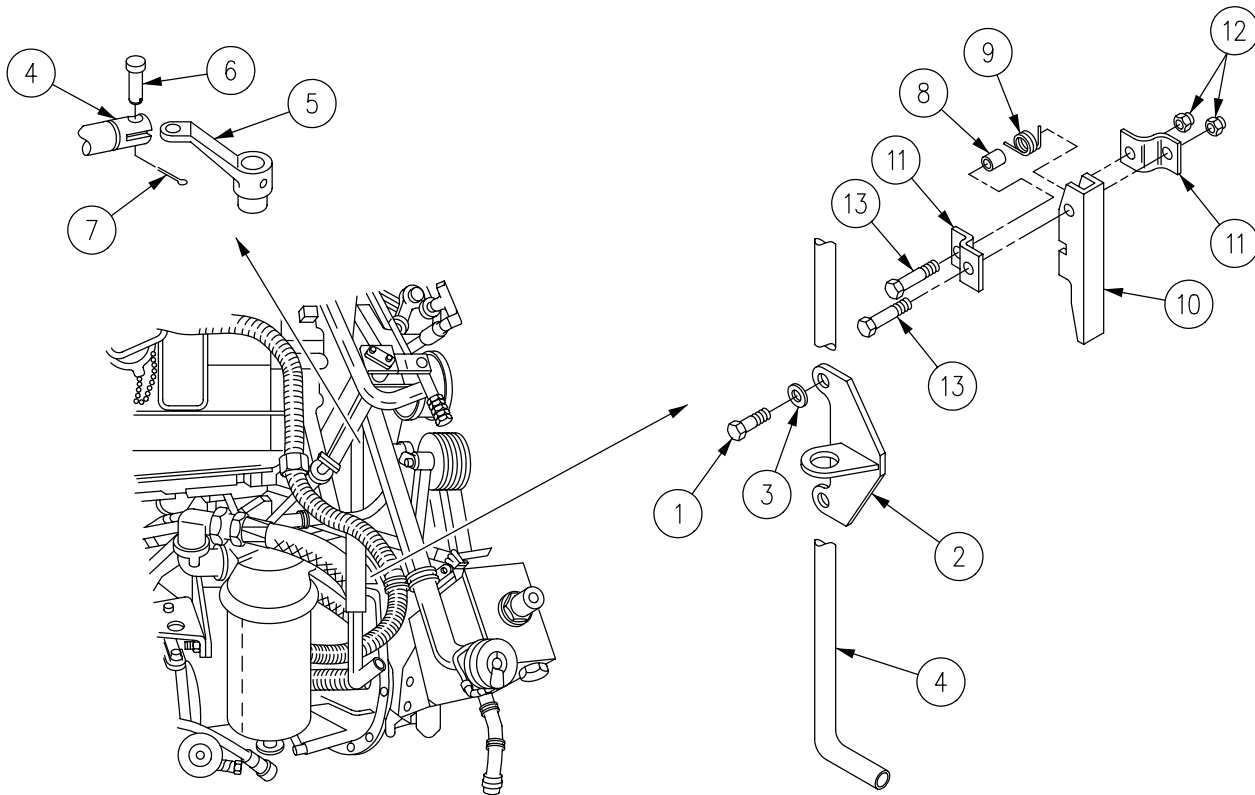
REMOVAL

1. Remove two screws (1), locknuts (2), supports (3), one lock (4), bushing (5) and spring (6) from lever (7). Discard locknuts.
2. Remove cotter pin (8) and pin (9) that secures lever (7) to arm (10). Discard cotter pin.
3. Remove lever (7) from guide (11).
4. Remove two screws (12), tab washers (13), and guide (11) from transmission housing. Discard tab washers.



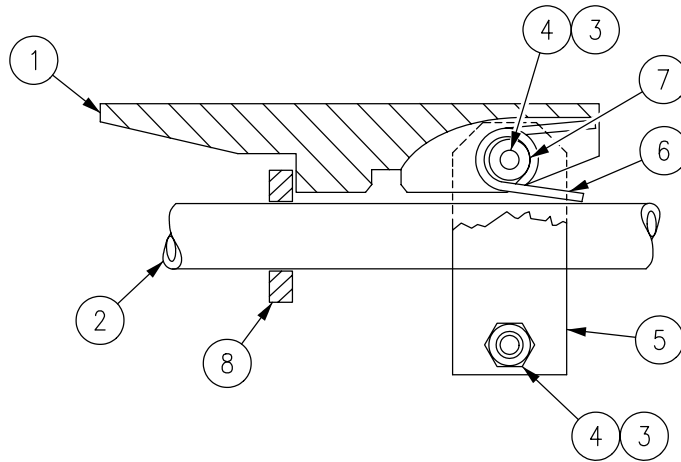
INSTALLATION

1. Apply a light coat of antiseize compound to threads of screws (1).
2. Install guide (2) on transmission housing. Secure with two screws (1) and new tab washers (3). **TIGHTEN SCREWS TO 253–300 LB-IN (28–34 N·M) TORQUE.** Use torque wrench.
3. Insert lever (4) through guide (2). Secure to arm (5) with pin (6) and new cotter pin (7)
4. Install bushing (8), spring (9), lock (10) and two supports (11) on lever (4). Secure with two new locknuts (12) and screws (13).



ADJUSTMENT

1. Lift lock (1) on control lever (2). Push lever in as far as it will go. This disconnects engine from the rest of power plant.
2. Loosen two screws (3) and nuts (4) that secure two supports (5), lock (1), spring (6), and bushing (7) to lever (2).
3. Move two supports (5) until the clearance between lock (1) and guide (8) is 1/32–3/32 in (0.8 mm-2.4 mm).
4. Tighten two screws (3) and locknuts (4).

**FOLLOW-THROUGH STEPS****WARNING**

Loose clothing is dangerous around moving belts and pulleys. You could get badly hurt if your clothes get caught in moving parts.

1. Check engine disconnect operation. Push control lever in. Then start engine (see your -10). Fan and fan belts should not work. Stop engine. Pull out control lever. Then start engine (see your -10). Fan and fan belts should operate properly.
2. Install power plant rear access panel (WP 0431 00, WP 0432 00, or WP 0433 00).
3. Install drive's power plant access panel (WP 0430 00).
4. Raise and lock ramp (see your -10).
5. Stop/shutdown engine (see your -10).

END OF TASK

BLEED PIVOT STEER SYSTEM

0409 00

THIS WORK PACKAGE COVERS:

 Servicing (page 0409 00-1).
 Test and Inspection (page 0409 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

See your -10

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Ramp lowered (see your -10)

Carrier blocked (see your -10)

Trim vane lowered and power plant front access door open (see your -10)

Materials/Parts

FRH hydraulic fluid (WP 0782 00, Item 27)

Personnel Required

Unit Mechanic

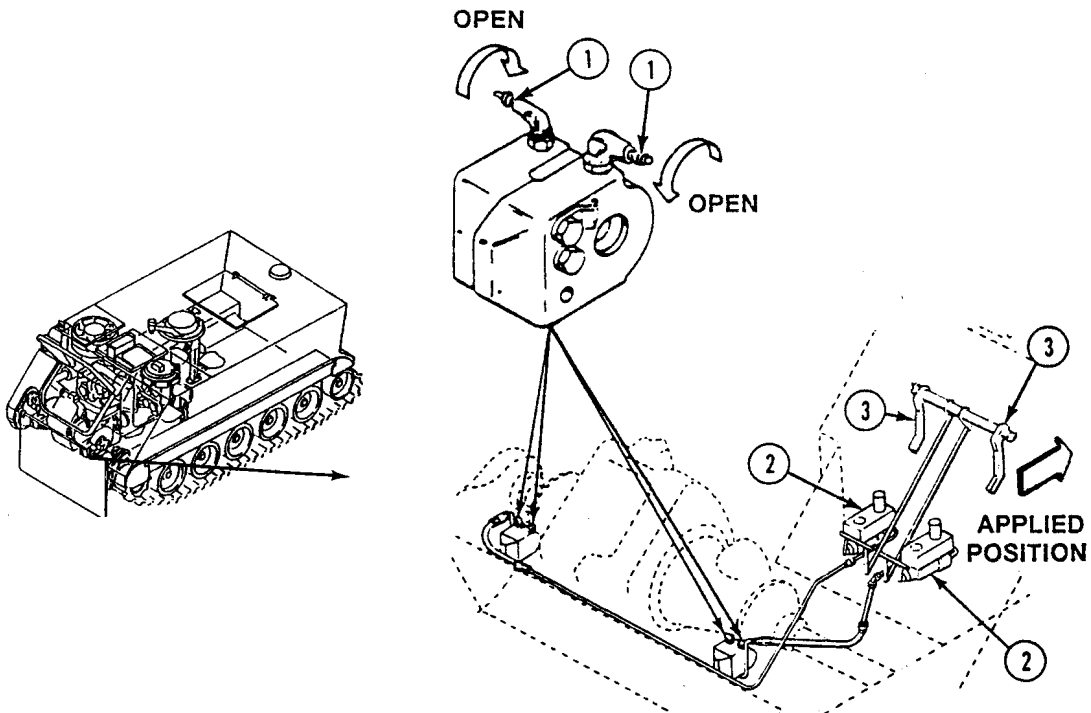
Helper (H)

SERVICING

NOTE

Bleed one side of system (two caliper halves) at a time. Keep master cylinder full during bleeding.

1. Attach a short hose and container to bleeder valves (1) (one valve at a time).
2. Remove master cylinder cap (2). Fill cylinder with FRH hydraulic fluid (see your -10).
3. Open bleeder valves (1).
4. Move handle (3) until fluid coming out of bleeder valves (1) is free of air.
5. Hold handle (3) back in applied position (as shown) and close bleeder valves (1).



6. After bleeding, add FRH hydraulic fluid only as needed. Fluid level should be within 1/2-3/4-in (13-9 mm) from top of cylinder. Do not overfill (WP 0120 00).

TEST AND INSPECTION

1. Pull control handle to applied position and hold it there. If handle continues to move after applied position is reached, master cylinder, hose, tube, or connection is bad. Repair or replace bad parts (WP 0412 00).

FOLLOW-THROUGH STEPS

1. Close power plant front access door and raise trim vane (see your -10).
2. Raise and lock ramp (see your -10).
3. Operate carrier (see your -10). Check that pivot steer system operates properly.
4. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE PIVOT STEER HANDLES AND LINKS

0410 00

THIS WORK PACKAGE COVERS:

Removal (page 0410 00-1).

Inspection-Acceptance and Rejection Criteria (page 0410 00-2).

Installation (page 0410 00-3).

INITIAL SETUP:

Maintenance Level

Unit

References

WP 0415 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Driver's seat removed (WP 0478 00)

Materials/Parts

Cotter pin (4)

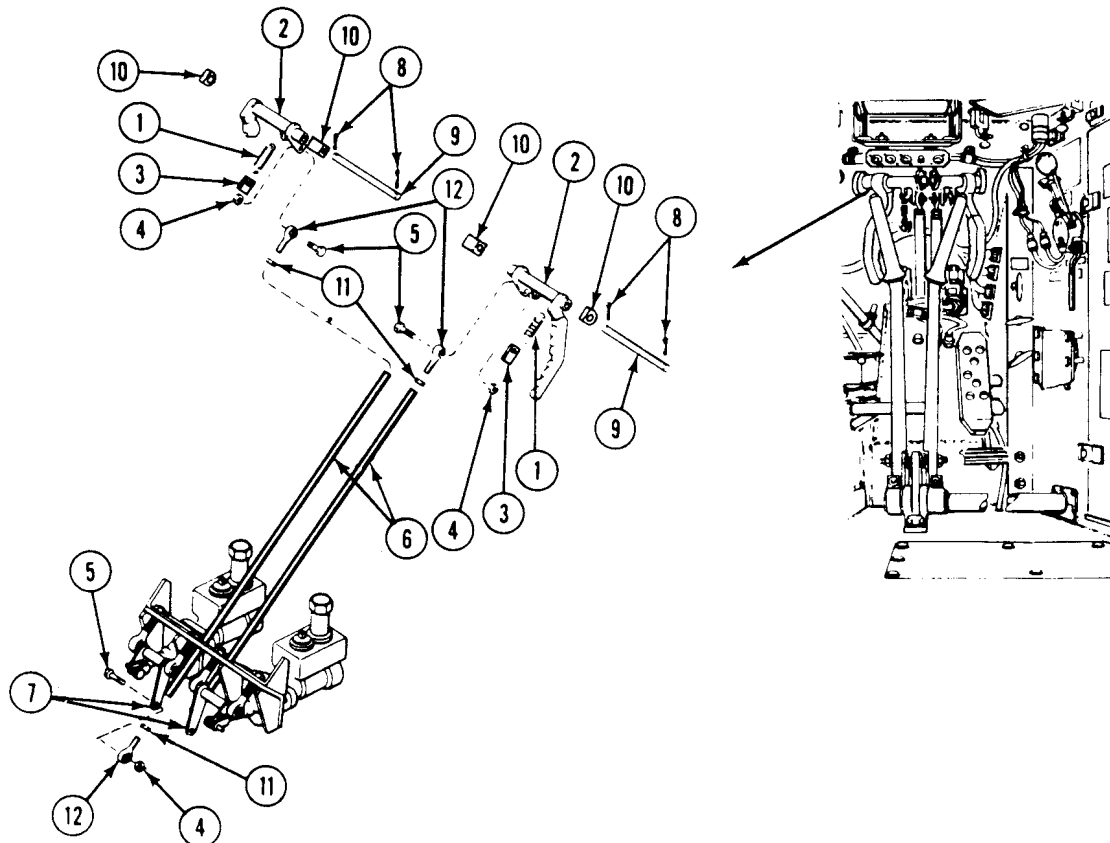
Locknut (4)

Personnel Required

Unit Mechanic

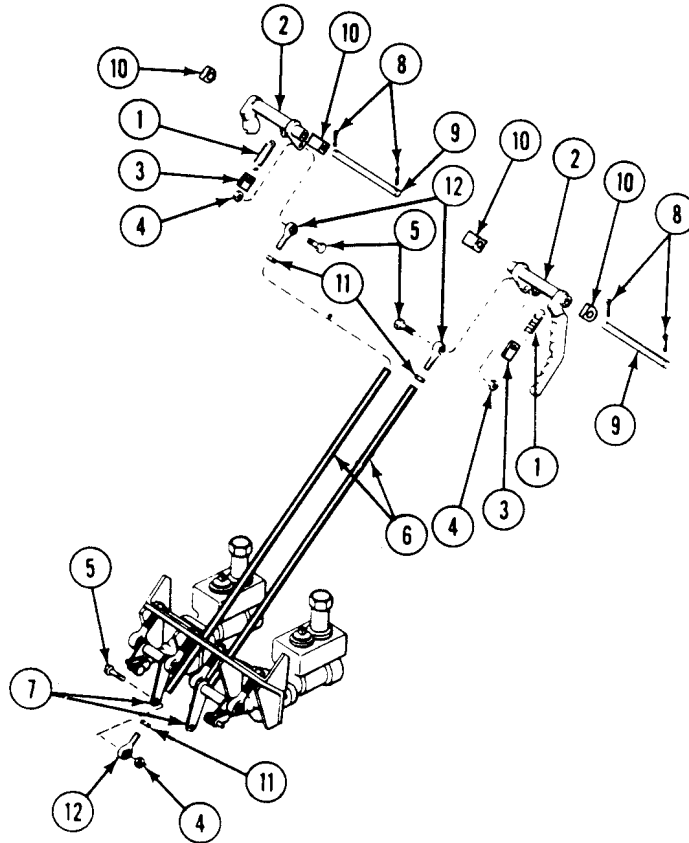
REMOVAL

1. Disconnect two springs (1) from two control handles (2) and brackets (3).
2. Remove four locknuts (4), screws (5), and two links (6) from two bellcranks (7) and control handles (2). Discard locknuts.



REPLACE PIVOT STEER HANDLES AND LINKS — Continued**0410 00**

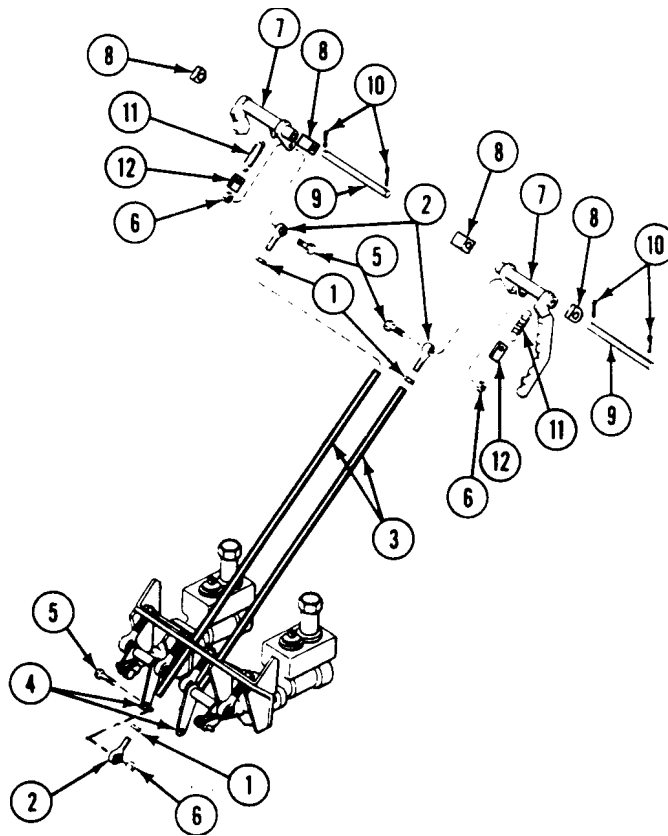
3. Remove four cotter pins (8), two shafts (9), and two control handles (2) from four mounts (10). Discard cotter pins.
4. Remove four nuts (11) and rod end bearings (12) from two links (6).

**INSPECTION-ACCEPTANCE AND REJECTION CRITERIA**

1. Check all parts for cracks, wear, and damage. Replace if needed.

INSTALLATION

1. Install four nuts (1) on rod end bearings (2).
2. Install four rod end bearings (2) in two links (3). Do not tighten nuts.
3. Install two links (3) on bellcranks (4). Secure with four screws (5) and new locknuts (6).
4. Place two handles (7) in four mounts (8). Secure with two shafts (9) and four new cotter pins (10).
5. Install two links (3) on handles (7). Secure with two screws (5) and nuts (6).
6. Attach two springs (11) to handles (7) and brackets (12).
7. Adjust pivot steer linkage (WP 0415 00).
8. Tighten four nuts (1) that secure rod end bearings (2) to two links (3).



FOLLOW-THROUGH STEPS

1. Install driver's seat (WP 0478 00).
2. Operate carrier (see your -10). Check that pivot steer system operates properly.
3. Adjust pivot steering links (WP 0415 00).
4. Engine stopped/shutdown (see your -10).

END OF TASK

REPLACE PIVOT STEER BELLCRANKS AND BRACKETS

0411 00

THIS WORK PACKAGE COVERS:

- Removal (page 0411 00-1).
- Inspection-Acceptance and Rejection Criteria (page 0411 00-2).
- Installation (page 0411 00-3).

INITIAL SETUP:

Maintenance Level

Unit

References

WP 0415 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

- Engine stopped/shutdown (see your -10)
- Carrier blocked (see your -10)
- Ramp lowered (see your -10)
- Driver's seat removed (WP 0478 00)

Materials/Parts

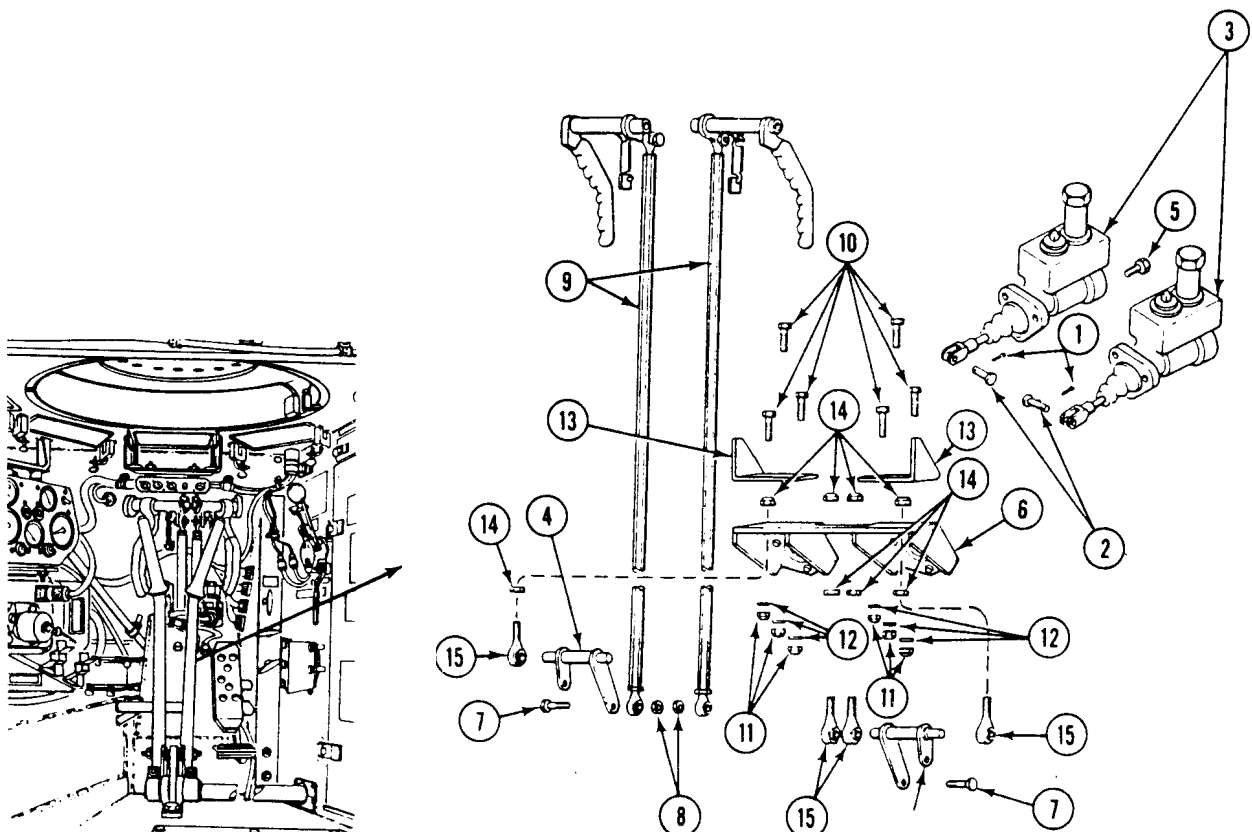
- Cotter pin (2)
- Locknut (10)

Personnel Required

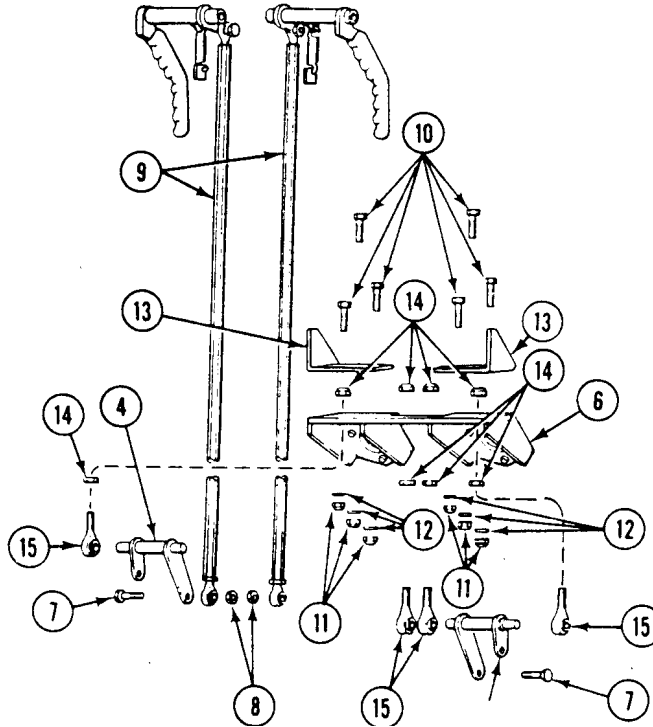
Unit Mechanic

REMOVAL

1. Remove two cotter pins (1) and clevis pins (2) that secure two master cylinders (3) to levers and shafts (4). Discard cotter pins.
2. Remove six screws (5). Pull two master cylinders (3) away from mount (6) as far as possible.
3. Remove two screws (7), locknuts (8), and links (9) from levers and shafts (4). Discard locknuts.



4. Remove six screws (10), nuts (11), washers (12), and mount (6) from two brackets (13).
5. Remove eight locknuts (14), four rod ends (15), and two levers and shafts (4) from mount (6). Discard locknuts.

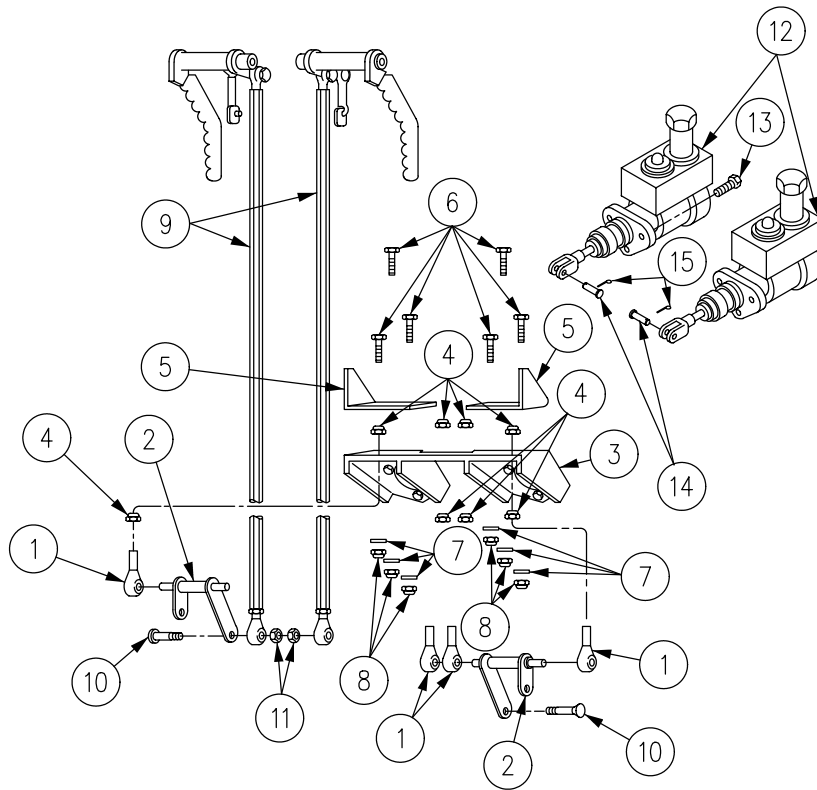


INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

1. Check all parts for cracks, wear and damage. Replace if needed.

INSTALLATION

1. Install four rod ends (1) on ends of levers and shafts (2).
2. Secure four rod ends (1) to mount (3) with eight new locknuts (4).
3. Install mount (3) on two brackets (5). Secure with six screws (6), washers (7), and nuts (8).
4. Install two links (9) to levers and shafts (2). Secure with two screws (10) and nuts (11).
5. Install two master cylinders (12) on mount (3). Secure with six screws (13).
6. Install two master cylinders (12) to levers and shafts (2). Secure with two clevis pins (14) and new cotter pins (15).
7. Adjust pivot steer linkage (WP 0415 00).



FOLLOW-THROUGH STEPS

1. Install driver's seat (WP 0478 00).
2. Start engine (see your -10).
3. Raise and lock ramp (see your -10).
4. Operate carrier (see your -10). Check that pivot steer system operates properly.
5. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE PIVOT STEER MASTER CYLINDERS AND HOSES

0412 00

THIS WORK PACKAGE COVERS:

Removal (page 0412 00-1).
 Installation (page 0412 00-2).

INITIAL SETUP:

Maintenance Level

Unit

References

WP 0409 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)
 Carrier blocked (see your -10)
 Ramp lowered (see your -10)
 Driver's seat removed (WP 0478 00)
 Pivot steer system drained (WP 0409 00)

Materials/Parts

FRH hydraulic fluid (WP 0782 00, Item 27)
 Cotter pin (2)
 Locknut (3)
 Preformed packing (2)

Personnel Required

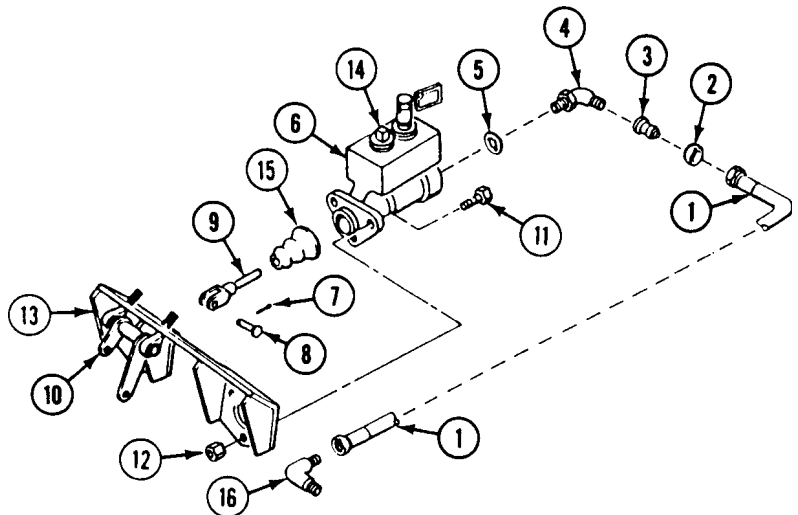
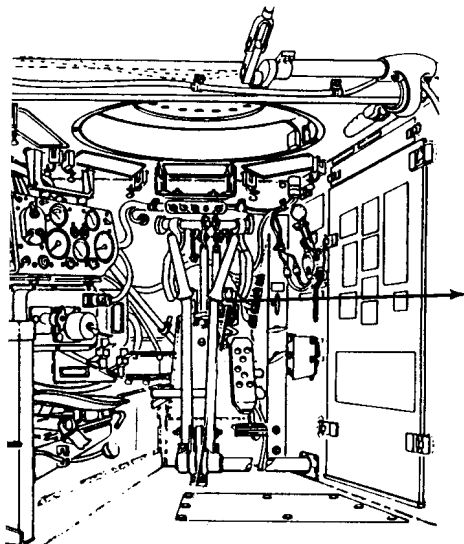
Unit Mechanic

REMOVAL

NOTE

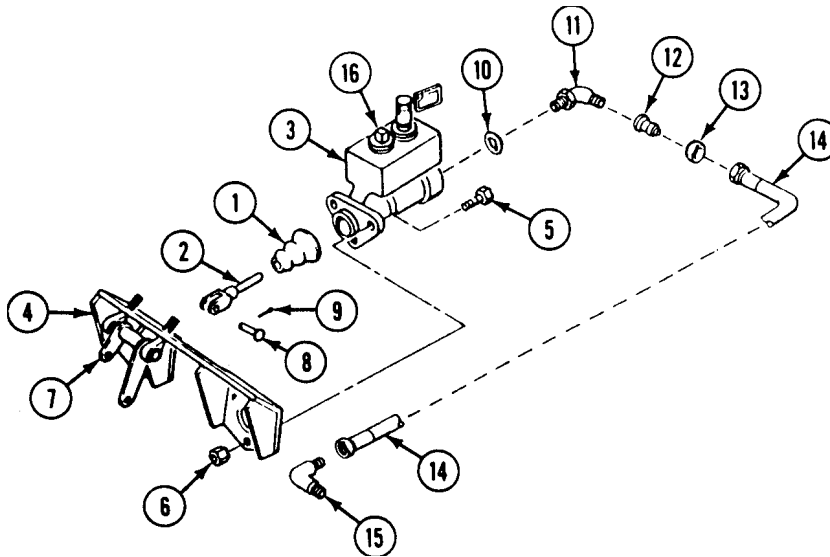
Both master cylinders are removed and installed in the same way.

1. Remove hose (1), nut (2), and adapter (3) from elbow (4).
2. Remove elbow (4) and preformed packing (5) from master cylinder (6). Discard packing.
3. Remove cotter pin (7) and clevis pin (8). Disconnect clevis (9) from levers and shaft (10). Discard cotter pin.
4. Remove three screws (11), locknuts (12), and master cylinder (6) from support (13). Discard locknuts.
5. Remove master cylinder filler cap (14). Empty master cylinder (6).
6. Remove clevis (9) and bellows (15) from master cylinder (6).
7. Disconnect hose (1) from bulkhead elbow (16).



INSTALLATION

1. Install bellows (1) and clevis (2) in master cylinder (3).
2. Place master cylinder (3) on support (4). Secure with three screws (5) and new locknuts (6).
3. Install clevis (2) to levers and shaft (7). Secure with clevis pin (8) and new cotter pin (9).
4. Install new preformed packing (10) and elbow (11) in master cylinder (3).
5. Secure adapter (12), nut (13), and hose (14) to elbow (11).
6. Connect hose (14) to bulkhead elbow (15).
7. Bleed and fill pivot steer system (WP 0409 00). Install master cylinder filler cap (16).

**FOLLOW-THROUGH STEPS**

1. Install driver's seat (WP 0478 00).
2. Start engine (see your -10). Check for hydraulic leaks.
3. Raise and lock ramp (see your -10).
4. Operate carrier to check that brake system operates properly.
5. Stop/shutdown engine (see your -10).

END OF TASK

**REPLACE/REPAIR PIVOT STEER BRAKES, HOSES, TUBES,
AND FITTINGS**

0413 00

THIS WORK PACKAGE COVERS:

- Removal (page 0413 00-2).
 - Inspection-Acceptance and Rejection Criteria (page 0413 00-3).
 - Installation (page 0413 00-4).
-

INITIAL SETUP:

Maintenance Level

Unit

References

WP 0120 00

WP 0409 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Torque Wrench (WP 0780 00, Item 104)

Equipment Condition

Engine stopped/shutdown (see your -10)

Ramp lowered (see your -10)

Carrier blocked (see your -10)

Trim vane lowered and power plant front access door
open (see your -10)

Materials/Parts

FRH hydraulic fluid (WP 0782 00, Item 27)

Packing (8)

Hull front access cover removed (WP 0457 00)

Pivot steer system drained (WP 0409 00)

Personnel Required

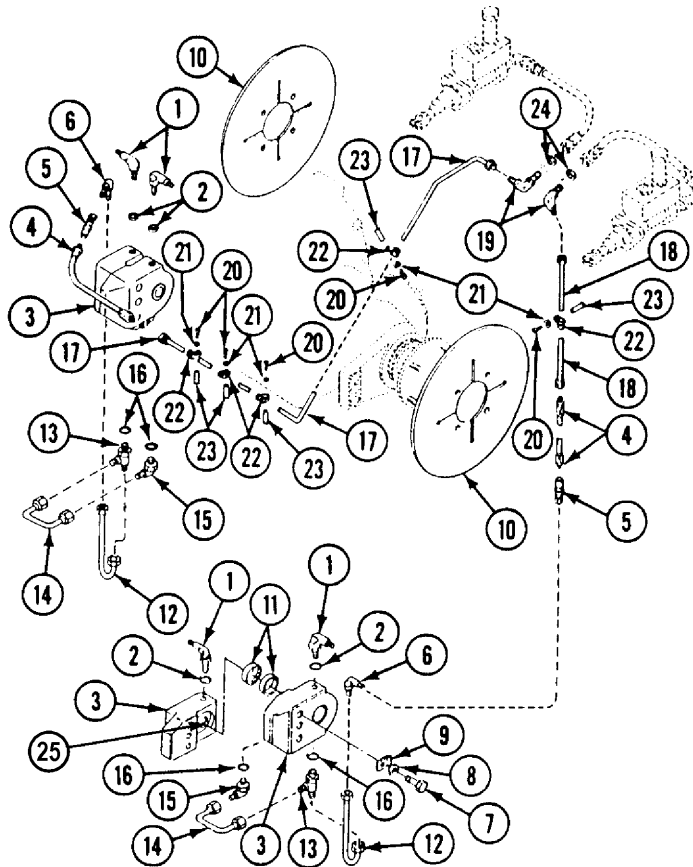
Unit Mechanic

REPLACE/REPAIR PIVOT STEER BRAKES, HOSES, TUBES, AND FITTINGS — Continued

0413 00

REMOVAL

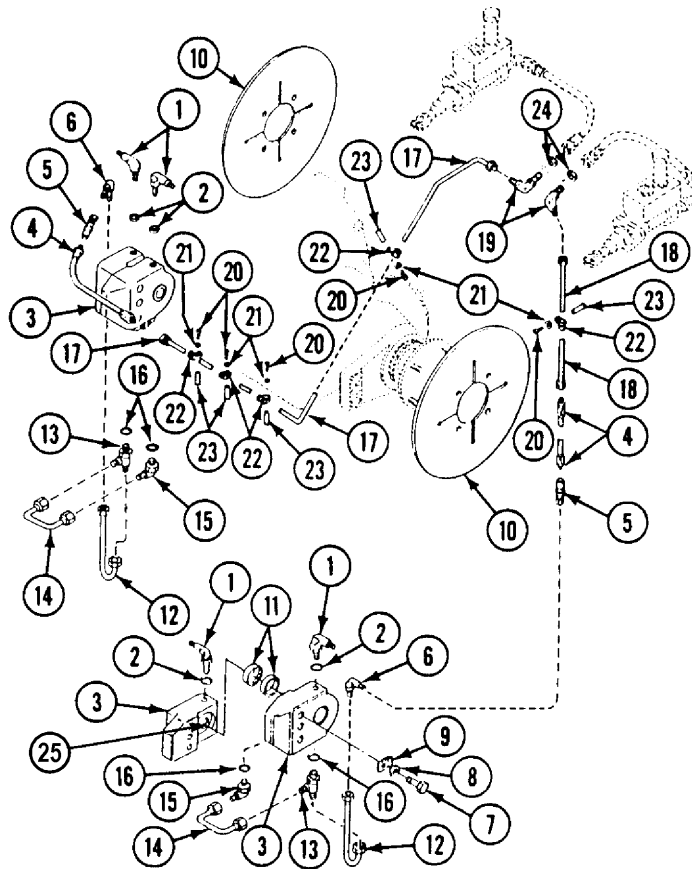
1. Remove four elbows (1) (with bleeder valves) and packings (2) from two pivot steer brakes (3). Discard packings.



REPLACE/REPAIR PIVOT STEER BRAKES, HOSES, TUBES, AND FITTINGS — Continued

0413 00

2. Disconnect two hoses (4) from quick disconnect couplings (5).
3. Remove two couplings (5) from two elbows (6).
4. Remove six screws (7), washers (8), two clips (9), and two pivot steer brakes (3) from two pivot steer disks (10).
5. Remove brake linings (11) from each pivot steer brake half (3).
6. Remove two elbows (6), tubes (12), tees (13), tubes (14), elbows (15), and four packings (16) from two pivot steer brakes (3). Discard packings.
7. Remove two hoses (4) from tubes (17) and (18).
8. Disconnect tubes (17) and (18) from elbows (19).
9. Remove five screws (20), washers (21), clamps (22), and tubes (17) and (18) from five weldnuts (23).
10. Remove two nuts (24) and elbows (19) from bulkhead.



INSPECTION-ACCEPTANCE AND REJECTION CRITERIA

1. Check all parts for cracks, wear, and damage. Replace if needed.

REPLACE/REPAIR PIVOT STEER BRAKES, HOSES, TUBES, AND FITTINGS — Continued

0413 00

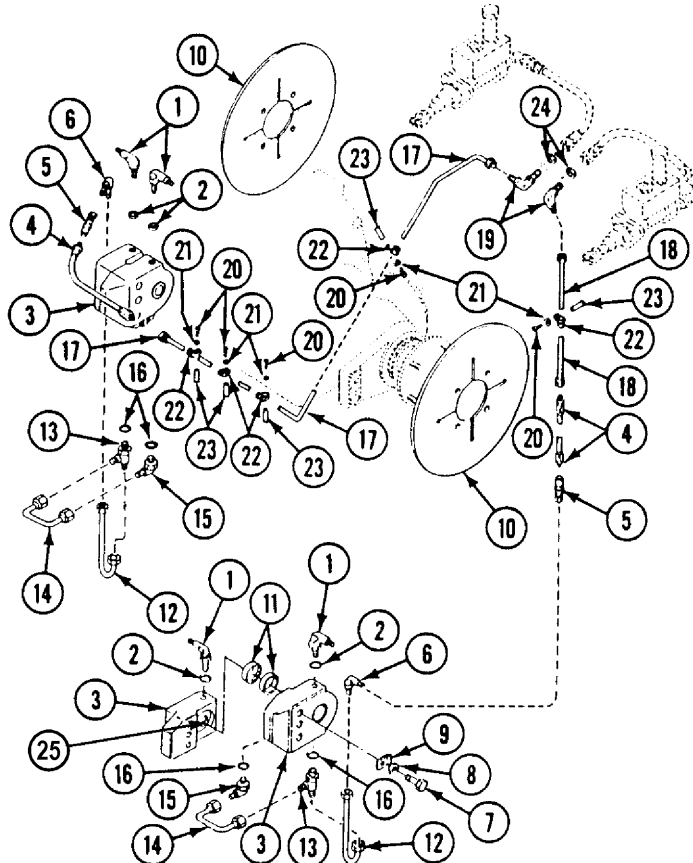
INSTALLATION

1. Install four new packings (16), two elbows (15), and tees (13) in pivot steer brakes (3).
2. Connect two tubes (14) to tees (13) and elbows (15).
3. Connect two tubes (12) to tees (13).
4. Install two elbows (6) in tubes (12).
5. Install four elbows (1) (with bleeder valves) and four new packings (2) in pivot steer brakes (3).

CAUTION

Do not scratch brake cylinder walls when pushing brake pistons to bottom of cylinders.

6. Using a suitable tool, push brake pistons (25) into pivot steer brake halves (3) until pistons bottom out.
7. Install one brake lining (11) in each pivot steer brake half (3).
8. Place two brakes (3) on pivot steer disks (10). Secure with six screws (7), washers (8), and two clips (9).
9. **TIGHTEN SIX SCREWS (7) TO 100-110 LB-FT (136-149 N·M) TORQUE.** Use torque wrench.
10. Connect two hoses (4) and quick disconnect couplings (5) to elbows (6).
11. Install two elbows (19) in bulkhead. Secure with two nuts (24).
12. Connect two tubes (17) and (18) to elbows (19) and hoses (4).
13. Install two tubes (17) and (18) to five weldnuts (23). Secure with five clamps (22), washers (21), and screws (20).



**REPLACE/REPAIR PIVOT STEER BRAKES, HOSES, TUBES, AND
FITTINGS — Continued**

0413 00

14. Fill pivot steer system (WP 0120 00).
15. Bleed pivot steer system (WP 0409 00).

FOLLOW-THROUGH STEPS

1. Close power plant front access door and raise trim vane (see your -10).
2. Install hull front access cover (WP 0457 00).
3. Start engine (see your -10). Check for hydraulic leaks.
4. Raise and lock ramp (see your -10).
5. Unblock carrier and operate carrier (see your -10). Check that pivot steer system operates properly.
6. Stop/shutdown engine (see your -10).

END OF TASK

REPLACE PIVOT STEER BRAKE DISK

0414 00

THIS WORK PACKAGE COVERS:

Removal (page 0414 00-1).
 Installation (page 0414 00-2).

INITIAL SETUP:

Maintenance Level

Unit

Personnel Required

Unit Mechanic

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)
 Torque Wrench (WP 0780 00, Item 103)

Equipment Condition

Engine stopped/shutdown (see your -10)
 Drive shaft removed (WP 0348 00)
 Brakes removed (WP 0413 00)
 Carrier blocked (see your -10)

Materials/Parts

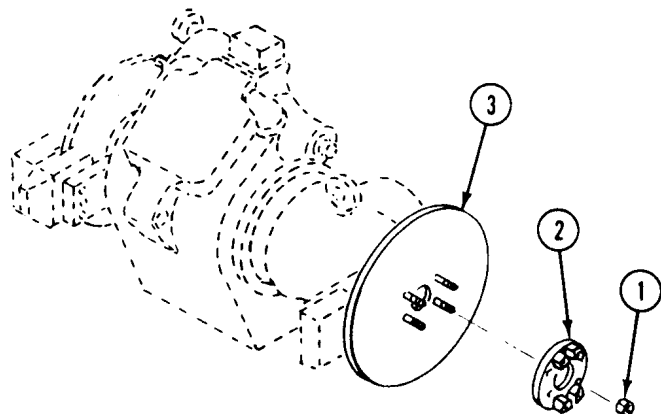
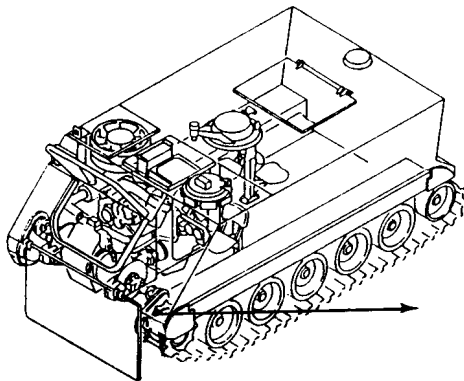
Locknut (4)

REMOVAL

NOTE

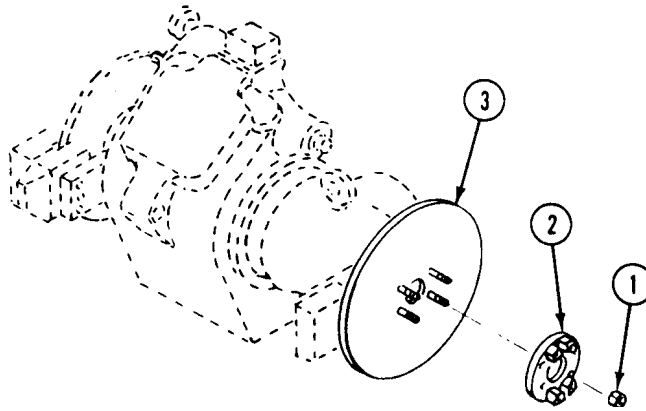
Left and right brake disks are removed and installed in the same manner.

1. Remove four locknuts(1), adapter (2), and brake disk (3) from differential output shaft. Discard locknuts.



INSTALLATION

1. Install new brake disk (3) and adapter (2) on differential output shaft. Secure with four new locknuts (1). **TIGHTEN NUTS TO 75-80 LB-FT (102-108 N·M) TORQUE.** Use torque wrench.

**FOLLOW-THROUGH STEPS**

1. Install drive shaft (WP 0348 00).
2. Install brakes (WP 0413 00).

END OF TASK

ADJUST PIVOT STEER LINKAGE**0415 00****THIS WORK PACKAGE COVERS:**

Adjustment (page 0415 00-1).

INITIAL SETUP:Maintenance Level

Unit

References

WP 0120 00

Tools and Special Tools

General Mechanic's Tool Kit (WP 0780 00, Item 29)

Equipment Condition

Engine stopped/shutdown (see your -10)

Carrier blocked (see your -10)

Ramp lowered (see your -10)

Driver's seat removed (WP 0478 00)

Materials/Parts

FRH hydraulic fluid (WP 0782 00, Item 27)

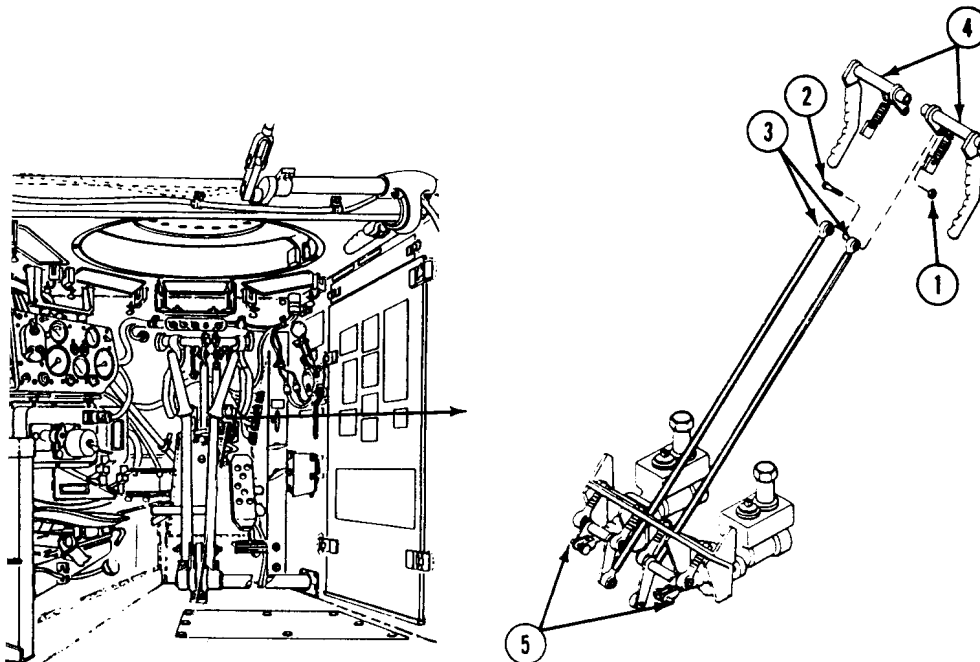
Locknut (2)

Personnel Required

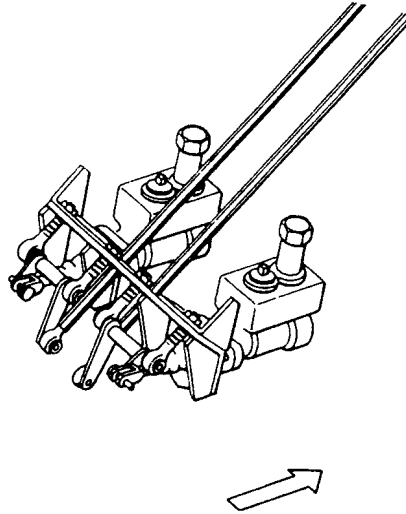
Unit Mechanic

ADJUSTMENT

1. Remove two locknuts (1), screws (2), and rod end bearings (3) from two control handles (4). Discard locknuts.
2. Push two control handles (4) forward to full release position.
3. Move two master cylinder clevises (5) until contact with master cylinder internal piston is made.



4. Pull master cylinder piston all the way in.

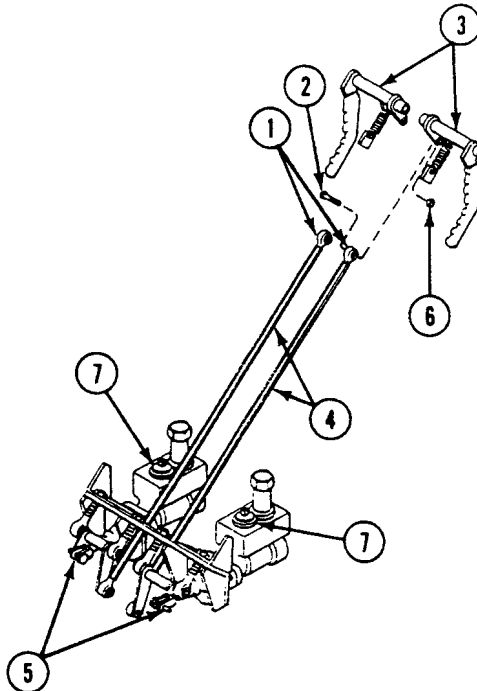


5. Turn two rod end bearings (1) until two screws (2) pass freely through two rod end bearings and two control handles (3).
6. Turn two rod end bearings (1) one turn to the left to lengthen two rods (4). Obtain 1/32 in (0.8 mm) clearance between master cylinder clevises (5) and master cylinder internal piston.
7. Install two rod end bearing (1) on control handles (3). Secure with two screws (2) and new locknuts (6).
8. Tighten locknuts (6) on rod end bearings (1).

CAUTION

Use FRH hydraulic fluid only (WP 0120 00).

9. Remove two master cylinder filler caps (7). Fill master cylinders to 1/2-3/4 in (13-19 mm) from top. Install filler caps.



FOLLOW-THROUGH STEPS

1. Install driver's seat (WP 0441 00).
2. Raise and lock ramp (see your -10).
3. Operate carrier (see your -10). Check that pivot steer system operates properly. Check for hydraulic leaks.
4. Stop/shutdown engine (see your -10).

END OF TASK

INDEX

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
30 Cal. Gun Mount Adapter Assembly	
Installation	0665 00-1
Removal	0665 00-1
5.0 KW Auxiliary Power Unit	
Replace	0473 00-1
7.62MM M60 Machine Gun Mount Assembly	
Installation	0664 00-2
Removal	0664 00-1
A	
Accelerator Linkage	
Transmission and Lower	
Assembly	0398 00-2
Disassembly	0398 00-1
Inspection-Acceptance and Rejection Criteria	0397 00-4, 0398 00-2
Installation	0397 00-4
Removal	0397 00-1
Upper	
Assembly	0400 00-2
Disassembly	0400 00-1
Inspection-Acceptance and Rejection Criteria	0400 00-2
Installation	0399 00-3
Removal	0399 00-1
Accelerator Pedal	
Lower	
Adjustment	0395 00-2
Inspection-Acceptance and Rejection Criteria	0395 00-1
Installation	0395 00-2
Removal	0395 00-1
Upper	
Inspection-Acceptance and Rejection Criteria	0396 00-2
Installation	0396 00-3
Removal	0396 00-1
Access Cover	
Driver's Compartment	
Clean, Inspect, and Repair	0439 00-2
Installation	0439 00-2
Removal	0439 00-1
Fuel Tank	
M577A2 and M1068	
Installation	0156 00-2
Removal	0156 00-1
M981 and M1064	
Installation	0145 00-2
Removal	0145 00-1
Hull Front	
Installation	0429 00-2
Removal	0429 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Power Plant Bottom	
Clean, Inspect, and Repair	0434 00-3
Installation	0434 00-3
Removal	0434 00-2
Access Door, Radiator	
Assembly	0205 00-2
Disassembly	0205 00-1
Seals and Fasteners	
Installation	0204 00-3
Removal	0204 00-1
Repair	0204 00-2
Access Panel, Power Plant	
Installation	0430 00-2
Removal	0430 00-1
Adapter	
Speedometer Cable	
Installation	0248 00-2
Removal	0248 00-1
Tachometer Cable	
Installation	0246 00-3
Removal	0246 00-1
Adjustable Idler and Pulley, Fan Drive	
Installation	0213 00-2
Removal	0213 00-1
Adjuster, Track Tension	
Clean, Inspect, and Replace	0378 00-2
Installation	0378 00-2
Removal	0378 00-1
Adjustment Linkage	
100 Amp Generator	
Installation	0227 00-4
Removal	0227 00-1
200 Amp Generator	
Installation	0228 00-4
Removal	0228 00-1
Admittance Buzzer and Switch	
Clean, Inspect, and Repair	0282 00-2
Installation	0282 00-2
Removal	0282 00-1
Air Box Drain Hoses, Tubes, and Fittings	
Installation	0126 00-2
Removal	0126 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Air Box Heater	
Ignition Air Pump	
Installation	0177 00-2
Removal	0177 00-1
Ignition Coil	
Installation	0176 00-2
Removal	0176 00-1
Installation	0180 00-2
Removal	0180 00-1
Solenoid Valve	
Installation	0179 00-3
Removal	0179 00-1
Wiring Harness	
Installation	0181 00-2
Removal	0181 00-1
Air Box Heater to Fuel Return Tee Tube and Hose	
Installation	0169 00-4
Removal	0169 00-1
Air Cleaner	
Cover	
Installation	0184 00-2
Removal	0184 00-2
Filter Element	
Servicing	0182 00-1
Hoses	
Installation	0183 00-2
Removal	0183 00-1
Housing	
Installation	0185 00-2
Removal	0185 00-1
Restriction Indicator and Hose	
Installation	0186 00-2
Removal	0186 00-1
Air Control Valve	
Installation	0187 00-4
Removal	0187 00-1
Air Control Valve Cable	
Installation	0188 00-2
Removal	0188 00-1
Air Intake Pipes, Heater	
All Except M1064	
Installation	0622 00-3
Removal	0622 00-2
M1064 Only	
Installation	0623 00-2
Removal	0623 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Air Pump Vanes	
Installation	0178 00-2
Removal	0178 00-1
Air Ventilator, Rear Compartment	
Installation	0471 00-3
Removal	0471 00-2
Alternator/Generator Test Kit	
Connect	0019 00-1
Disconnect	0019 00-5
Ammunition Rack	
Horizontal	
Assembly	0508 00-4
Cleaning	0508 00-4
Disassembly	0508 00-2
Inspection and Repair	0508 00-4
Installation	0507 00-3
Removal	0507 00-2
Vertical	
Installation	0506 00-3
Removal	0506 00-2
Ammunition Stowage Rack	
Installation	0547 00-2
Removal	0547 00-1
Anchor, Torsion Bar	
Clean, Inspect, and Replace	0386 00-2
Installation	0386 00-2
Removal	0386 00-2
Antenna	
Cover	
Installation	0528 00-2
Removal	0528 00-1
Guard	
Installation	0527 00-2
Removal	0527 00-1
Mast Base Assembly	
Assembly	0554 00-7
Disassembly	0554 00-6
Installation	0554 00-7
Removal	0554 00-1
Mast Bracket Assembly	
Assembly	0554 00-7
Disassembly	0554 00-6
Installation	0554 00-7
Removal	0554 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Arm Assembly, Idler Wheel	
Clean, Inspect, and Replace	0377 00-2
Installation	0377 00-3
Removal	0377 00-2
Armor	
Side	
Installation	0474 00-2
Removal	0474 00-1
Smoke Generator	
Installation	0713 00-3
Removal	0713 00-2
Armor Shield	
Commander's Cupola	
Installation	0663 00-3
Removal	0663 00-2
Rear	
Installation	0668 00-3
Removal	0668 00-1
Rear, Mounting Arm Lock Assembly and Mount	
Installation	0669 00-2
Removal	0669 00-1
Artillery Communication Kit, Inside Cable	
Installation	0662 00-2
Removal	0662 00-1
Auxiliary Power (Slave) Receptacle	
All Except M577A2 and M1068	
Installation	0218 00-4
Removal	0218 00-1
M577A2 and M1068	
Installation	0219 00-4
Removal	0219 00-1
Auxiliary Power Unit	
Hoses	
Fuel Supply, Bulkhead-to-Hull	
Installation	0596 00-4
Removal	0596 00-2
Fuel Supply, Valve-to-Bulkhead	
Installation	0595 00-4
Removal	0595 00-2
Valve, Fuel Shutoff	
Installation	0594 00-3
Removal	0594 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Auxiliary Tank	
Installation	0206 00-3
Removal	0206 00-1
Auxiliary Tank Deaeration Hoses	
Installation	0209 00-2
Removal	0209 00-1
Auxiliary Tank to Coolant Pump Tube	
Installation	0207 00-2
Removal	0207 00-1
Auxiliary Tank to Radiator Tube	
Installation	0208 00-2
Removal	0208 00-1
Azimuth Lock, Commander's Cupola	
Installation	0453 00-2
Removal	0453 00-1
B	
Backrest, Personnel Seat	
Installation	0497 00-3
Removal	0497 00-2
Balance Hose	
Installation	0203 00-2
Removal	0203 00-1
Base, Smoke Grenade Launcher	
Installation	0576 00-2
Removal	0576 00-1
Batteries and Retainers	
All Except M1064	
Clean and Inspect	0302 00-3
Installation	0302 00-3
Removal	0302 00-1
M1064 Only	
Clean and Inspect	0303 00-3
Installation	0303 00-3
Removal	0303 00-1
Battery	
Access Cover	
M1068 Only	
Installation	0297 00-2
Removal	0297 00-1
M577A2 Only	
Installation	0296 00-2
Removal	0296 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Box	
Assembly	0305 00-3
Clean and Inspect	0305 00-2
Disassembly	0305 00-1
Cover and Ground Lead	
Clean, Inspect, and Repair	0295 00-3
Installation	0295 00-4
Removal	0295 00-1
Drawer	
Assembly	0306 00-3
Clean and Inspect	0306 00-3
Disassembly	0306 00-1
Leads	
M1068 Only	
Clean, Inspect, and Repair	0298 00-3
Installation	0298 00-4
Removal	0298 00-1
M577A2 Only	
Clean, Inspect, and Repair	0299 00-2
Installation	0299 00-3
Removal	0299 00-1
Battery Box Cover	
Assembly	0304 00-2
Clean and Inspect	0304 00-1
Disassembly	0304 00-1
Battery Box Insulation and Heat Exchanger	
M113A2, M901A1, and M1059	
Clean, Inspect, and Repair	0310 00-2
Installation	0310 00-3
Removal	0310 00-1
M577A2 and M1068	
Clean, Inspect, and Repair	0309 00-3
Installation	0309 00-4
Removal	0309 00-1
Battery Drawer Insulation and Heat Exchanger	
Clean, Inspect, and Repair	0308 00-3
Installation	0308 00-4
Removal	0308 00-1
Battery Ground Lead	
Connect	0294 00-2
Disconnect	0294 00-1
Battery Leads	
Clean, Inspect, and Repair	0300 00-3
Installation	0300 00-4
Removal	0300 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Bearings and Seals	
Road Wheel Support Arm	
Clean, Inspect, and Replace	0374 00-3
Installation	0374 00-3
Removal	0374 00-1
Bearings, Idler Wheel Arm	
Clean, Inspect, and Replace	0376 00-2
Installation	0376 00-2
Removal	0376 00-1
Belt	
100 Amp Generator Drive	
Installation	0226 00-2
Removal	0226 00-1
Repair or Replacement	0226 00-2
200 Amp Generator Drive	
Installation	0234 00-2
Removal	0234 00-1
Belts, Personnel Seat	
Installation	0496 00-3
Removal	0496 00-2
Bilge Pump	
Circuit Breakers	
Installation	0327 00-2
Removal	0327 00-1
System Schematic	0068 00-1
Blackout	
Marker Light	
Assembly	0259 00-2
Clean, Inspect, and Repair	0259 00-1
Disassembly	0259 00-1
Installation	0258 00-2
Removal	0258 00-1
Blackout Curtain	
Installation	0499 00-3
Removal	0499 00-1
Blackout Headlight	
Clean, Inspect, and Repair	0260 00-1
Installation	0260 00-2
Removal	0260 00-1
Blower Switch	
Installation	0336 00-2
Removal	0336 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Bracket	
Driver's Windshield	
Installation	0624 00-2
Removal	0624 00-1
High-Stow	
Assembly	0477 00-3
Disassembly	0477 00-2
Installation	0477 00-4
Removal	0477 00-1
Infrared Power Supply Shock Mount	
Installation	0292 00-2
Removal	0292 00-1
Test and Inspection	0292 00-1
Mortar Base Stowage	
Installation	0544 00-2
Removal	0544 00-1
Muffler	
Installation	0191 00-2
Removal	0191 00-1
Oil Can	
Clean, Inspect, and Repair	0524 00-1
Installation	0524 00-2
Removal	0524 00-1
Personnel Heater Control Box and Intercom Box	
Installation	0555 00-2
Removal	0555 00-1
Pivot Steer	
Inspection-Acceptance and Rejection Criteria	0411 00-2
Installation	0411 00-3
Removal	0411 00-1
Rifle	
Installation	0525 00-2
Removal	0525 00-1
Tripod Stowage	
Installation	0551 00-4
Removal	0551 00-2
Track Shoe Stowage	
Installation	0553 00-2
Removal	0553 00-1
Windshield Stowage	
Installation	0542 00-2
Removal	0542 00-1
Brake Assembly, Commander's Cupola	
Installation	0452 00-2
Removal	0452 00-1
Brake Disk, Pivot Steer	
Installation	0414 00-2
Removal	0414 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Brake Levers, Differential Steering	
Clean, Inspect, and Repair	0394 00-2
Installation	0394 00-2
Removal	0394 00-1
Brake Locking Pawl	
Adjustment	0388 00-1
Brake, Differential	
Adjustment	0362 00-1
Breather Hose, Ramp Cylinder	
All Except M1064	
Installation	0591 00-2
Removal	0591 00-1
M1064 Only	
Installation	0592 00-2
Removal	0592 00-1
Breather, Differential Oil Level Dipstick	
Inspection-Acceptance and Rejection Criteria	0357 00-2
Installation	0357 00-2
Removal	0357 00-1
Bulkhead Connection to Primary Fuel Filter Hose	
Installation	0163 00-3
Removal	0163 00-1
Bypass Switch, Dome Blackout Light	
Installation	0281 00-2
Removal	0281 00-1
C	
Cable	
AC Cable Assembly (W252)	
Installation	0755 00-3
Removal	0755 00-2
AC Light (W11)	
Installation	0747 00-2
Removal	0747 00-1
AC Power Extension (W7)	
Installation	0743 00-2
Removal	0743 00-1
AC Power Extension (W8)	
Installation	0744 00-2
Removal	0744 00-1
Air Control Valve	
Installation	0188 00-2
Removal	0188 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Artillery Communication (Inside)	
Installation	0662 00-2
Removal	0662 00-1
Cascade Remote Harness	
Installation	0745 00-2
Removal	0745 00-1
DC Battery (W4)	
Installation	0740 00-3
Removal	0740 00-2
DC Power Extension (W10)	
Installation	0746 00-2
Removal	0746 00-1
Ground Strap (W12)	
Installation	0748 00-2
Removal	0748 00-1
Harness (W32)	
Installation	0749 00-3
Removal	0749 00-1
Inverter AC (W5)	
Installation	0741 00-3
Removal	0741 00-2
Inverter DC (W6)	
Installation	0742 00-2
Removal	0742 00-1
LAN A or B (W103/W104)	
Installation	0756 00-3
Removal	0756 00-1
Power Distribution (W3)	
Installation	0739 00-2
Removal	0739 00-1
Single Point LAN (W40)	
Installation	0752 00-2
Removal	0752 00-1
Speedometer	
Assembly	0249 00-2
Disassembly	0249 00-1
Tachometer	
Installation	0246 00-3
Removal	0246 00-1
W124	
Installation	0757 00-3
Removal	0757 00-1
W126	
Installation	0758 00-2
Removal	0758 00-1
W28, W29, and Adapter	
Installation	0751 00-2
Removal	0751 00-1
W35, W28, and Adapter	
Installation	0750 00-2
Removal	0750 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
W4/W6	
Assembly	0759 00-2
Disassembly	0759 00-1
W42, W43, and W251	
Installation	0753 00-2
Removal	0753 00-1
W45	
Installation	0754 00-2
Removal	0754 00-1
Cable Assembly	
Fog Oil Pump	
Installation	0701 00-3
Removal	0701 00-2
Smoke Generator, Internal	
Installation	0702 00-3
Removal	0702 00-2
Cable Assembly, Repair	
Assembly	0314 00-2
Clean, Inspect, and Repair	0314 00-2
Disassembly	0314 00-1
Cable Reel Holder Assembly	
Assembly	0510 00-2
Disassembly	0510 00-1
Installation	0509 00-2
Removal	0509 00-1
Cable, Control	
Fuel Cutoff	
Adjustment	0403 00-5
Installation	0403 00-4
Removal	0403 00-1
Hand Throttle	
Adjustment	0402 00-3
Installation	0402 00-3
Removal	0402 00-2
Cap, Oil Filler	
Installation	0128 00-3
Removal	0128 00-2
Capstan Kit	
Drum Adapter	
Installation	0654 00-2
Removal	0654 00-1
Drum Assembly	
Installation	0653 00-2
Removal	0653 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Cargo Hatch	
Door	
Installation	0464 00-4
Removal	0464 00-2
Hold-Open Hook and Bumpers	
Installation	0465 00-2
Removal	0465 00-1
Latch	
Assembly	0469 00-2
Disassembly	0469 00-1
Latch, Interior	
Adjustment	0463 00-6
Installation	0463 00-4
Removal	0463 00-2
Support	
Installation	0470 00-2
Removal	0470 00-1
Chain Assembly	
Assembly	0659 00-3
Disassembly	0659 00-2
Installation	0658 00-2
Removal	0658 00-1
Chemical Agent Automatic Alarm Kit	
Distribution Box	
Assembly	0774 00-3
Disassembly	0774 00-2
Installation	0773 00-2
Removal	0773 00-1
M42 Alarm Unit Cable	
Installation	0775 00-2
Removal	0775 00-1
Mounting Bracket	
Installation	0777 00-3
Removal	0777 00-2
Wiring Harness	
Installation	0776 00-3
Removal	0776 00-2
Circuit 6 Lead	
Clean, Inspect, and Repair	0301 00-2
Installation	0301 00-3
Removal	0301 00-1
Circuit Breaker	
Dome Light	
Installation	0280 00-2
Removal	0280 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Generator-Regulator, 100 Amp Generator	
Installation	0231 00-3
Removal	0231 00-1
Repair or Replacement	0231 00-2
Installation	0239 00-2
Removal	0239 00-1
Clamps, Tent	
Installation	0504 00-2
Removal	0504 00-1
Collector Can, Crankcase Breather	
Installation	0127 00-3
Removal	0127 00-2
Combat Filler Cover and Lock	
Installation	0136 00-2
Removal	0136 00-1
Commander's Cupola	
Armor Shields	
Installation	0663 00-3
Removal	0663 00-2
Azimuth Lock	
Installation	0453 00-2
Removal	0453 00-1
Brake Assembly	
Installation	0452 00-2
Removal	0452 00-1
Cushioning Pad and Handle	
Installation	0450 00-2
Removal	0450 00-1
Interior Latch	
Adjustment	0454 00-2
Installation	0454 00-2
Removal	0454 00-1
Machine Gun Mount	
Assembly	0457 00-3
Clean, Inspect, and Repair	0457 00-2
Disassembly	0457 00-2
Installation	0457 00-4
Removal	0457 00-1
Commander's Cupola Cover	
Installation	0455 00-3
Removal	0455 00-2
Commander's Hatch	
Cover	
Installation	0461 00-2
Removal	0461 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Cushioning Pad and Handle	
Clean, Inspect, and Repair	0459 00-1
Installation	0459 00-2
Removal	0459 00-1
Hook and Bumper	
Installation	0462 00-4
Removal	0462 00-2
Interior Latch	
Adjustment	0460 00-3
Installation	0460 00-2
Removal	0460 00-1
Vision Block Locks and Seals	
Installation	0451 00-3
Removal	0451 00-1
Commander's Jump Seat	
Installation	0490 00-4
Removal	0490 00-2
Commander's Platform	
All Except M577A2 and M1068	
Assembly	0491 00-3
Clean, Inspect, and Repair	0491 00-3
Disassembly	0491 00-2
Installation	0491 00-5
Removal	0491 00-1
M577A2 and M1068	
Assembly	0492 00-4
Disassembly	0492 00-3
Inspection-Acceptance and Rejection Criteria	0492 00-3
Installation	0492 00-5
Removal	0492 00-2
Commander's Seat	
M1068 Only	
Assembly	0486 00-4
Disassembly	0486 00-2
Installation	0486 00-6
Removal	0486 00-1
M113A2, M1059, and M1064	
Assembly	0487 00-5
Clean, Inspect, and Repair	0487 00-4
Disassembly	0487 00-1
M901A1 Only	
Installation	0494 00-2
Removal	0494 00-1
Commander's Seat and Post	
All Except M1064	
Installation	0484 00-3
Removal	0484 00-1
M1064 Only	
Installation	0485 00-2
Removal	0485 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Communication Equipment	
Antenna Guard	
Installation	0761 00-2
Removal	0761 00-1
C-2298/VRC Intercom Station Bracket	
Installation	0760 00-2
Removal	0760 00-1
MX-777B/GRC or MX-777A/GRC Transient Suppressor Mounts and Ground Lead	
Installation	0762 00-2
Removal	0762 00-1
Compartment Blower	
Inspection-Acceptance and Rejection Criteria	0335 00-2
Installation	0335 00-2
Removal	0335 00-1
Control Box	
Coolant Heater	
Inspection-Acceptance and Rejection Criteria	0648 00-2
Installation	0648 00-2
Removal	0648 00-1
Personnel Heater	
Assembly	0614 00-5
Disassembly	0614 00-1
Installation	0613 00-2
Removal	0613 00-1
Repair or Replacement	0614 00-4
Control Valve and Fittings	
Ramp	
Installation	0589 00-4
Removal	0589 00-2
Coolant Flow Diagram	0192 00-1
Coolant Heater	
Bulkhead to Heater Fuel Inlet Hose	
Installation	0644 00-3
Removal	0644 00-2
Control Box	
Inspection-Acceptance and Rejection Criteria	0648 00-2
Installation	0648 00-2
Removal	0648 00-1
Exhaust Elbow and Pipes	
Installation	0647 00-3
Removal	0647 00-2
Flame Detector Switch	
Adjust	0637 00-4
Assembly	0637 00-3
Clean, Inspect, and Repair	0637 00-2
Disassembly	0637 00-2
Inspection-Acceptance and Rejection Criteria	0636 00-1
Installation	0636 00-2
Removal	0636 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Fuel Inlet Hose	
Installation	0645 00-3
Removal	0645 00-2
Fuel Pump	
M113A2, M901A1, and M1059	
Installation	0640 00-2
Removal	0640 00-1
M577A2 and M1068	
Installation	0641 00-2
Removal	0641 00-1
Fuel Pump to Bulkhead Hose	
M113A2, M1059, and M901A1	
Installation	0642 00-2
Removal	0642 00-1
M577A2 and M1068	
Installation	0643 00-2
Removal	0643 00-1
Igniter	
Inspection	0638 00-1
Installation	0638 00-2
Removal	0638 00-1
Pump	
Installation	0652 00-2
Removal	0652 00-1
Wiring Harness	
Inspection and Repair	0649 00-2
Installation	0649 00-2
Removal	0649 00-1
Coolant Heater and Pump Unit	
Inspection and Repair	0650 00-5
Installation	0650 00-5
Removal	0650 00-1
Coolant Heater, Replace	
Inspection and Repair	0651 00-2
Installation	0651 00-3
Removal	0651 00-1
Coolant System	
Servicing	0193 00-1
Cooling Fan Assembly	
Installation	0216 00-3
Removal	0216 00-1
Cooling System	
Servicing	0194 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Cover	
Air Cleaner	
Installation	0184 00-2
Removal	0184 00-2
Antenna	
Installation	0528 00-2
Removal	0528 00-1
Commander's Cupola	
Installation	0455 00-3
Removal	0455 00-2
Commander's Hatch	
Installation	0461 00-2
Removal	0461 00-1
Driver's Hatch	
Installation	0447 00-3
Removal	0447 00-1
Hull Access, Driver's Compartment	
Clean, Inspect, and Repair	0439 00-2
Installation	0439 00-2
Removal	0439 00-1
Mortar Hatch	
Installation	0468 00-3
Removal	0468 00-1
Track	
Installation	0365 00-2
Removal	0365 00-1
Crankcase Breather	
Collector Can	
Installation	0127 00-3
Removal	0127 00-2
Hose	
Installation	0127 00-3
Removal	0127 00-2
Crew Seat	
Installation	0498 00-2
Removal	0498 00-1
Cross-Shaft Links, Steering levers	
Clean, Inspect, and Replace	0391 00-2
Installation	0391 00-2
Removal	0391 00-1
Cross-Shafts and Bearings	
Differential	
Clean, Inspect, and Repair	0392 00-3
Installation	0392 00-4
Removal	0392 00-2
Steering Levers	
Installation	0390 00-4
Removal	0390 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Cushion Base, Low-Stow	
Installation	0475 00-2
Removal	0475 00-1
Cushioning Pad and Handle, Commander's Cupola	
Installation	0450 00-2
Removal	0450 00-1
Cushioning Pad, Driver's Hatch	
Installation	0443 00-2
Removal	0443 00-1
Cushions, Personnel Seat	
M1064 Only	
Installation	0497 00-3
Removal	0497 00-2
M577A2 Only	
Installation	0496 00-3
Removal	0496 00-2
Cylinder, Ramp	
Cleaning	0593 00-2
Installation	0593 00-2
Removal	0593 00-1
 D 	
Data Plates, Stencils, Markers, and Decals	
Cleaning	0511 00-2
Inspection of Installed Items	
All Models Except M901A1	0518 00-1
M1059 and M113A2	0521 00-1
M1064 Only	0520 00-1
M577A2 and M1068	0522 00-1
M901A1 Only	0519 00-2
Installation	0511 00-3
Removal	0511 00-2
Deaeration Elbow to Radiator Inlet Elbow Coolant Tube	
Installation	0198 00-2
Removal	0198 00-1
Deaeration Hoses, Auxiliary Tank	
Installation	0209 00-2
Removal	0209 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Diagram	
Coolant Flow	0192 00-1
Differential Oil Flow	0353 00-1
Engine Fuel System	0162 00-1
Engine Oil Flow	0121 00-1
Fuel Flow	
M113A2, M1059, and M901A1	0132 00-1
M577A2 and M1068	0133 00-1
M981 and M1064	0134 00-1
Heater Coolant Flow	0635 00-1
Hydraulic Fluid Flow	0578 00-1
Power Train/Steering/Brakes/Gear Selection/Throttle	0061 00-1
Differential	
Brake	
Adjustment	0362 00-1
Cross-Shaft Links	
Clean, Inspect, and Repair	0393 00-2
Installation	0393 00-2
Removal	0393 00-1
Cross-Shafts and Bearings	
Clean, Inspect, and Repair	0392 00-3
Installation	0392 00-4
Removal	0392 00-2
Gasket	
Installation	0364 00-3
Removal	0364 00-1
Gearbox to Differential Hose and Fittings	
Inspection-Acceptance and Rejection Criteria	0359 00-2
Installation	0359 00-2
Removal	0359 00-1
High Oil Temperature Switch	
Installation	0318 00-2
Removal	0318 00-1
Mounts	
Installation	0363 00-4
Removal	0363 00-1
Oil Cooler Hose and Fittings	
Inspection-Acceptance and Rejection Criteria	0360 00-2
Installation	0360 00-2
Removal	0360 00-1
Oil Filter and Fittings	
Inspection-Acceptance and Rejection Criteria	0355 00-2
Installation	0355 00-2
Removal	0355 00-1
Oil Filter Element	
Installation	0356 00-2
Removal	0356 00-1
Oil Filter Pump Hose and Fittings	
Inspection-Acceptance and Rejection Criteria	0361 00-2
Installation	0361 00-2
Removal	0361 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Oil Level Dipstick and Breather	
Inspection-Acceptance and Rejection Criteria	0357 00-2
Installation	0357 00-2
Removal	0357 00-1
Oil Pump	
Inspection-Acceptance and Rejection Criteria	0354 00-3
Installation	0354 00-4
Removal	0354 00-1
Oil Pump, Differential Hose and Fittings	
Inspection-Acceptance and Rejection Criteria	0358 00-2
Installation	0358 00-2
Removal	0358 00-1
Steering Brake Levers	
Clean, Inspect, and Repair	0394 00-2
Installation	0394 00-2
Removal	0394 00-1
Differential Shaft	
Transmission	
Clean, Inspect, Repair	0347 00-2
Installation	0347 00-2
Removal	0347 00-1
Differential Switch Lead	
Installation	0319 00-2
Removal	0319 00-1
Dipstick, Final Drive	
Inspect and Repair	0352 00-2
Installation	0352 00-2
Removal	0352 00-1
Distribution Box	
Assembly for 100 Amp Generator System (M113A2, M1064, and M1059)	
Installation	0269 00-3
Removal	0269 00-1
Assembly for 100 Amp Generator System (M577A2 Only)	
Installation	0267 00-3
Removal	0267 00-1
Assembly for 100 Amp Generator System (M901A1 Only)	
Installation	0268 00-3
Removal	0268 00-1
Assembly for 200 Amp Generator System (M113A2 and M1064)	
Installation	0270 00-3
Removal	0270 00-1
Assembly for 200 Amp Generator System (M577A2 and M1068)	
Installation	0266 00-3
Removal	0266 00-1
Assembly for 200 Amp Generator System (M901A1 Only)	
Installation	0271 00-3
Removal	0271 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Dome Blackout Light Bypass Switch	
Installation	0281 00-2
Removal	0281 00-1
Dome Light	
All Except M577A2 and M1068	
Assembly	0274 00-3
Clean, Inspect, and Repair	0274 00-2
Disassembly	0274 00-1
Installation	0273 00-2
Removal	0273 00-1
M577A2 and M1068	
Assembly	0276 00-3
Clean, Inspect, and Repair	0276 00-2
Disassembly	0276 00-1
Installation	0275 00-2
Removal	0275 00-1
Dome Light Circuit Breaker	
Installation	0280 00-2
Removal	0280 00-1
Door	
Cargo Hatch	
Installation	0464 00-4
Removal	0464 00-2
Power Plant	
Adjustment	0428 00-4
Assembly	0428 00-3
Disassembly	0428 00-2
Installation	0427 00-3
Removal	0427 00-1
Drain Cap and Sight Gauge	
Installation	0215 00-2
Removal	0215 00-1
Drain Fuel Tank	
M113A2, M901A1, and M1059	0135 00-1
Drain Plug	
Final Drive	
Installation	0435 00-2
Removal	0435 00-1
Fuel Tank	
Installation	0145 00-2
Removal	0145 00-1
Ramp	
Installation	0574 00-2
Removal	0574 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Drive Belt	
100 Amp Generator	
Installation	0226 00-2
Removal	0226 00-1
Repair or Replacement	0226 00-2
200 Amp Generator	
Installation	0234 00-2
Removal	0234 00-1
Fan	
Adjustment	0211 00-2
Installation	0211 00-2
Removal	0211 00-1
Driver's Compartment Hull Access Covers	
Clean, Inspect, and Repair	0439 00-2
Installation	0439 00-2
Removal	0439 00-1
Driver's Footrest	
Installation	0482 00-2
Removal	0482 00-1
Driver's Hatch	
Cover	
Installation	0447 00-3
Removal	0447 00-1
Cushioning Pad	
Installation	0443 00-2
Removal	0443 00-1
Interior Latch	
Adjustment	0445 00-4
Installation	0445 00-3
Removal	0445 00-2
Interior Lock	
Adjustment	0445 00-4
Installation	0445 00-3
Removal	0445 00-2
Latch and Bumper	
Clean, Inspect, and Repair	0448 00-3
Installation	0448 00-4
Removal	0448 00-1
M901A1 Only	
Assembly	0449 00-11
Cleaning	0449 00-9
Disassembly	0449 00-5
Inspection-Acceptance and Rejection Criteria	0449 00-9
Installation	0449 00-14
Removal	0449 00-1
Repair or Replacement	0449 00-9

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Periscope Guard and Quick Release Assembly	
Assembly	0446 00-6
Clean, Inspect, and Repair	0446 00-6
Disassembly	0446 00-4
Installation	0446 00-9
Removal	0446 00-2
Vision Block Locks and Seals	
Clean	0444 00-2
Installation	0444 00-3
Removal	0444 00-1
Driver's Seat	
Assembly	0479 00-3
Disassembly	0479 00-2
Driver's Seat Assembly	
Installation	0478 00-2
Removal	0478 00-1
Driver's Seat Mount	
Assembly	0481 00-3
Clean, Inspect, and Repair	0481 00-2
Disassembly	0481 00-2
Installation	0480 00-2
Removal	0480 00-1
Driver's Seat Post Assembly	
Assembly	0483 00-5
Clean, Inspect, and Repair	0483 00-5
Disassembly	0483 00-3
Installation	0483 00-8
Removal	0483 00-2
Driver's Windshield and Brackets	
Installation	0624 00-2
Removal	0624 00-1
Duct, Personnel Heater	
Assembly	0618 00-2
Disassembly	0618 00-1
E	
Electrical/Communication Equipment	
AC and DC Power Extension Boxes A6 and A9 and Mounts	
Installation	0735 00-2
Removal	0735 00-1
AC Cable Assembly (W252)	
Installation	0755 00-3
Removal	0755 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
AC Light Cable (W11)	
Installation	0747 00-2
Removal	0747 00-1
AC Power Extension Box A19	
Installation	0720 00-2
Removal	0720 00-1
AC Power Extension Box A7	
Installation	0719 00-2
Removal	0719 00-1
AC Power Extension Cable (W7)	
Installation	0743 00-2
Removal	0743 00-1
AC Power Extension Cable (W8)	
Installation	0744 00-2
Removal	0744 00-1
APIU Rack Mount and Bracket	
Installation	0725 00-2
Removal	0725 00-1
Cable Assembly (W4/W6)	
Assembly	0759 00-2
Disassembly	0759 00-1
Cable W35, W28, and Cable Adapter	
Installation	0750 00-2
Removal	0750 00-1
Cable W38, W29, and Cable Adapter	
Installation	0751 00-2
Removal	0751 00-1
Cascade Remote Harness	
Installation	0745 00-2
Removal	0745 00-1
Curbside Data Panel Assembly A12	
Installation	0716 00-2
Removal	0716 00-1
DC Battery Cable (W4)	
Installation	0740 00-3
Removal	0740 00-2
DC Power Extension Cable (W10)	
Installation	0746 00-2
Removal	0746 00-1
External Communication Box A11	
Installation	0723 00-4
Removal	0723 00-1
External Communication Box A11 Lid and Latches	
Installation	0717 00-2
Removal	0717 00-1
Fluorescent Light Assemblies	
Installation	0738 00-2
Removal	0738 00-1
Ground Strap (W12)	
Installation	0748 00-2
Removal	0748 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Harness (W32)	
Installation	0749 00-3
Removal	0749 00-1
Inverter AC Cable (W5)	
Installation	0741 00-3
Removal	0741 00-2
Inverter DC Cable (W6)	
Installation	0742 00-2
Removal	0742 00-1
Inverter Housing A2 Terminal Blocks TB1 and TB2	
Installation	0728 00-4
Removal	0728 00-2
LAN A or B (W103/W104) Cables	
Installation	0756 00-3
Removal	0756 00-1
LAN Ground Box Assembly A15	
Assembly	0722 00-2
Disassembly	0722 00-1
Installation	0721 00-2
Removal	0721 00-1
Power Control Enclosure AC and DC Meters and Light Indicators	
Installation	0729 00-3
Removal	0729 00-1
Power Control Enclosure Assembly A1	
Installation	0731 00-2
Removal	0731 00-1
Power Control Enclosure Circuit 44A Lead	
Installation	0732 00-2
Removal	0732 00-1
Power Control Enclosure Faceplate and Bracket	
Assembly	0730 00-5
Disassembly	0730 00-1
Power Distribution Box A3	
Assembly	0736 00-3
Disassembly	0736 00-2
Installation	0736 00-4
Removal	0736 00-1
Power Distribution Cable (W3)	
Installation	0739 00-2
Removal	0739 00-1
Power Entry Box Assembly A4	
Installation	0737 00-2
Removal	0737 00-1
Power Extension Box A18 and Bracket	
Installation	0726 00-2
Removal	0726 00-1
Power Supply Storage Box Assembly	
Assembly	0733 00-3
Disassembly	0733 00-2
Installation	0733 00-4
Removal	0733 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Right Equipment Rack Brackets and Mounts	
Installation	0718 00-2
Removal	0718 00-1
Roadside Data Panel Assembly A13 and Bracket	
Installation	0727 00-2
Removal	0727 00-1
Signal Patch Panel Box A10	
Installation	0724 00-2
Removal	0724 00-1
Single Point LAN Cable (W40)	
Installation	0752 00-2
Removal	0752 00-1
Tent Interface Panel Box Assembly A5	
Installation	0734 00-2
Removal	0734 00-1
W124 Cable	
Installation	0757 00-3
Removal	0757 00-1
W126 Cable	
Installation	0758 00-2
Removal	0758 00-1
W42, W43, and W251 Cables	
Installation	0753 00-2
Removal	0753 00-1
W45 Cable	
Installation	0754 00-2
Removal	0754 00-1
Electronic Equipment Heater	
Air Intake Hose and Exhaust Pipe	
Installation	0634 00-2
Removal	0634 00-1
Battery-to-Control Box Lead	
Installation	0631 00-2
Removal	0631 00-1
Bulkhead to Heater Hoses	
Installation	0629 00-4
Removal	0629 00-2
Control Box-To-Fuel Pump Lead	
Installation	0632 00-3
Removal	0632 00-2
Fuel Pump	
Installation	0626 00-3
Removal	0626 00-2
Fuel Pump to Bulkhead Connection Hose	
Installation	0628 00-3
Removal	0628 00-1
Heater Component Maintenance	0625 00-1
Heater Control Box	
Installation	0630 00-2
Removal	0630 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Shutoff Valve to Fuel Pump Hose	
Installation	0627 00-3
Removal	0627 00-1
Electronic Equipment Heater Assembly and Mounting Brackets	
Installation	0633 00-3
Removal	0633 00-2
Element, Air Cleaner	
Servicing	0182 00-1
Enclosure, Generator Set	
Installation	0472 00-2
Removal	0472 00-1
Engine Air Inlet Elbow to Air Box Heater Hoses	
Installation	0168 00-3
Removal	0168 00-1
Engine Coolant Heater System	
Drain	0639 00-2
Fill	0639 00-3
Engine Coolant Heater, Hoses and Fittings	
Installation	0646 00-7
Removal	0646 00-1
Engine Coolant Pump	
Idler Pulley and Belts	
Installation	0196 00-2
Removal	0196 00-1
Installation	0197 00-2
Removal	0197 00-1
Engine Coolant Temperature Switch	
Installation	0317 00-2
Removal	0317 00-1
Engine Fuel Pump	
Installation	0171 00-3
Removal	0171 00-1
Engine Fuel Pump to Secondary Fuel Filter Hose	
Installation	0165 00-3
Removal	0165 00-1
Engine Fuel System Diagram	0162 00-1
Engine Low Oil Pressure Switch	
Installation	0316 00-2
Removal	0316 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Engine Mount, Front	
Installation	0122 00-2
Removal	0122 00-1
Engine Oil Filter Assembly	
Installation	0124 00-2
Removal	0124 00-1
Engine Oil Filter Bracket, Hoses, and Fittings	
Installation	0125 00-3
Removal	0125 00-2
Engine Oil Filter Element and Parts	
Installation	0123 00-3
Removal	0123 00-1
Engine Oil Flow Diagram	0121 00-1
Engine Power Disconnect	
Adjustment	0408 00-3
Installation	0408 00-2
Removal	0408 00-1
Engine Start Switch	
Installation	0243 00-2
Removal	0243 00-1
Equipment Description	
Capabilities and Features	0002 00-1
Differences Between Carriers	0002 00-5
Equipment Data	0002 00-5
Location and Description of Major Components	0002 00-1
Equipment Stowage Shelf	
Installation	0503 00-2
Removal	0503 00-1
Exhaust Elbow and Pipes, Coolant Heater	
Installation	0647 00-3
Removal	0647 00-2
Exhaust Pipes	
Installation	0189 00-2
Removal	0189 00-1
Exhaust Pipes, Heater	
All Except M1064	
Installation	0622 00-3
Removal	0622 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
M1064 Only	
Installation	0623 00-2
Removal	0623 00-1
Expendable/Durable Supplies and Materials List	0782 00-1
Eye, Towing Hook	
Installation	0418 00-2
Removal	0418 00-1
F	
Fabricated Tools	0781 00-1
Fan Drive	
Adjustable Idler and Pulley	
Installation	0213 00-2
Removal	0213 00-1
Belts	
Adjustment	0211 00-2
Installation	0211 00-2
Removal	0211 00-1
Fixed Idler and Pulley	
Installation	0212 00-2
Removal	0212 00-1
Pulley and Access Cover	
Installation	0214 00-2
Removal	0214 00-1
Filler Cap	
Fuel Tank	
Installation	0137 00-2
Removal	0137 00-1
Strainer Parts	
M577A2 and M1068	
Installation	0154 00-3
Removal	0154 00-2
M981 and M1064	
Installation	0144 00-2
Removal	0144 00-1
Filler Cover and Lock	
Combat	
Installation	0136 00-2, 0210 00-2
Removal	0136 00-1, 0210 00-1
Fuel Tank	
Installation	0143 00-2
Removal	0143 00-1
Filler Flange, Fuel Tank	
Installation	0157 00-2
Removal	0157 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Filler Tube	
Final Drive	
Inspect and Repair	0352 00-2
Installation	0352 00-2
Removal	0352 00-1
Filter Assembly, Engine Oil	
Removal	0124 00-1, 0124 00-2
Filter Element and Parts, Engine Oil	
Installation	0123 00-3
Removal	0123 00-1
Filter Screen, Fuel Cap	
Cleaning	0150 00-1
Filter Switch and Mount Bracket, M3 NBC Kit	
Installation	0674 00-3
Removal	0674 00-2
Filters and Hoses, M13 NBC Kit	
Installation	0671 00-8
Removal	0671 00-2
Final Drive	
Clean, Inspect, and Repair	0350 00-3
Drain Plug	
Installation	0435 00-2
Removal	0435 00-1
Installation	0350 00-3
Removal	0350 00-1
Final Drive Pinion Oil Seal	
Inspect and Repair	0351 00-2
Installation	0351 00-2
Removal	0351 00-1
Final Drive Shaft	
Left	
Installation	0348 00-2
Removal	0348 00-1
Right	
Installation	0349 00-2
Removal	0349 00-1
Fire Extinguisher System	
Control Valve and External Handle	
Installation	0766 00-4
Removal	0766 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Cylinder and Mount	
Installation	0769 00-3
Removal	0769 00-2
Cylinder Discharge Tubes	
Installation	0768 00-2
Removal	0768 00-1
External Cable Tube	
Installation	0767 00-4
Removal	0767 00-2
External Handle Shield	
M1064 Only	
Clean, Inspect, and Repair	0765 00-2
Installation	0765 00-2
Removal	0765 00-1
M113A2, M901A1, and M1059	
Installation	0763 00-2
Removal	0763 00-1
M577A2 and M1068	
Installation	0764 00-2
Removal	0764 00-1
Extinguisher and Mount	
Clean, Inspect, and Repair	0771 00-3
Installation	0771 00-3
Removal	0771 00-2
Portable Fire Extinguisher Mount	
All Except M1068	
Installation	0770 00-3
Removal	0770 00-2
M1068 Only	
Assembly	0772 00-4
Disassembly	0772 00-3
Installation	0772 00-5
Removal	0772 00-2
Fittings	
Differential Gearbox to Differential Hose	
Inspection-Acceptance and Rejection Criteria	0359 00-2
Installation	0359 00-2
Removal	0359 00-1
Differential Oil Filter to Pump Hose	
Inspection-Acceptance and Rejection Criteria	0361 00-2
Installation	0361 00-2
Removal	0361 00-1
Differential Oil Pump to Differential Hose	
Inspection-Acceptance and Rejection Criteria	0358 00-2
Installation	0358 00-2
Removal	0358 00-1
Differential to Oil Cooler Hose	
Inspection-Acceptance and Rejection Criteria	0360 00-2
Installation	0360 00-2
Removal	0360 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Fuel Tank-to-Bulkhead	
Installation	0141 00-6
Removal	0141 00-1
Fuel Vent	
Installation	0160 00-4
Removal	0160 00-1
Fixed Idler and Pulley, Fan Drive	
Installation	0212 00-2
Removal	0212 00-1
Flame Detector Switch, Coolant Heater	
Adjust	0637 00-4
Assembly	0637 00-3
Clean, Inspect, and Repair	0637 00-2
Disassembly	0637 00-2
Inspection-Acceptance and Rejection Criteria	0636 00-1
Installation	0636 00-2
Removal	0636 00-1
Floor Plates	
M1059 Only	
Clean, Inspect, and Repair	0438 00-3
Installation	0438 00-3
Removal	0438 00-2
M1064 Only	
Installation	0437 00-3
Removal	0437 00-2
M1068 Only	
Installation	0440 00-2
Removal	0440 00-1
M901A1 Only	
Installation	0441 00-4
Removal	0441 00-2
Rear	
Installation	0436 00-2
Removal	0436 00-1
Fog Oil Pump, Cable Assembly	
Installation	0701 00-3
Removal	0701 00-2
Fog Oil Tank Module	
Installation	0695 00-5
Removal	0695 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Fog Oil Tank, Quick Disconnect to Adapter Access Plate	
Installation	0711 00-3
Removal	0711 00-2
Footrest, Driver's	
Installation	0482 00-2
Removal	0482 00-1
Frame, Blackout Curtain	
Installation	0499 00-3
Removal	0499 00-1
Frame, Stowage, Rear External	
Installation	0538 00-2
Removal	0538 00-1
Front Bilge Pump	
Pipes	
Installation	0323 00-2
Removal	0323 00-1
Strainer	
Installation	0322 00-2
Removal	0322 00-1
Front Bilge Valve	
Inspection-Acceptance and Rejection Criteria	0324 00-1
Installation	0324 00-2
Removal	0324 00-1
Front Dome Light Switch	
Installation	0278 00-2
Removal	0278 00-1
Fuel Can Lid Assembly, Smoke Generator	
Installation	0706 00-3
Removal	0706 00-2
Fuel Cap Vent and Filter Screen	
Cleaning	0150 00-1
Fuel Control Cable	
Adjustment	0403 00-5
Installation	0403 00-4
Removal	0403 00-1
Fuel Filter	
Mounting Bracket	
Installation	0175 00-2
Removal	0175 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Mounting Bracket (M577A2 and M1068 With 200 Amp Generator)	
Installation	0233 00-2
Removal	0233 00-1
Fuel Filter Elements	
Installation	0174 00-2
Removal	0174 00-1
Fuel Filter/Bracket	
Personnel Heater	
Installation	0616 00-3
Removal	0616 00-2
Fuel Flow Diagram	
M113A2, M1059, and M901A1 With Inside Tank or Compartment	0132 00-1
M577A2 and M1068	0133 00-1
M981 and M1064 With External Fuel Tanks	0134 00-1
Fuel Hose	
Left to Right Cylinder Head	
Installation	0167 00-2
Removal	0167 00-1
Secondary Fuel Filter to Left Cylinder Head	
Installation	0166 00-3
Removal	0166 00-1
Fuel Inlet Hose, Coolant Heater to Bulkhead	
Installation	0644 00-3
Removal	0644 00-2
Fuel Lines and Guards, Smoke Generator	
Installation	0707 00-3
Removal	0707 00-2
Fuel Pump	
Coolant Heater	
M113A2, M901A1, and M1059	
Installation	0640 00-2
Removal	0640 00-1
M577A2 and M1068	
Installation	0641 00-2
Removal	0641 00-1
Electronic Equipment Heater	
Installation	0626 00-3
Removal	0626 00-2
Engine	
Installation	0171 00-3
Removal	0171 00-1
Hose, Tee Connection to Fuel Pump	
Installation	0605 00-3
Removal	0605 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Fuel Pump Hose	
Installation	0608 00-2
Removal	0608 00-1
Fuel Quantity Selector Switch	
Installation	0337 00-2
Removal	0337 00-1
Fuel Quantity Transmitter	
M113A2, M1059, and M901A1	
Installation	0138 00-2
Removal	0138 00-1
M577A2 and M1068	
Cleaning	0155 00-2
Installation	0155 00-2
Removal	0155 00-1
M981 and M1064	
Installation	0146 00-3
Removal	0146 00-1
Fuel Return	
Hoses, Tubes, and Fittings	
M1064 Only	
Installation	0152 00-6
Removal	0152 00-1
M577A2 and M1068	
Installation	0159 00-5
Removal	0159 00-1
M981 Only	
Installation	0149 00-7
Removal	0149 00-1
Fuel Select Switch to Gauge Lead	
Inspection-Acceptance and Rejection Criteria	0250 00-1
Installation	0250 00-2
Removal	0250 00-1
Fuel Shutoff Valve	
Auxiliary Power Unit	
Installation	0594 00-3
Removal	0594 00-2
Installation	0615 00-2
Removal	0615 00-1
Fuel Supply	
Hoses, Tubes, and Fittings	
M1064 Only	
Installation	0151 00-6
Removal	0151 00-1
M577A2 and M1068	
Installation	0158 00-5
Removal	0158 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
M981 Only	
Installation	0148 00-7
Removal	0148 00-1
Fuel Supply Hoses	
Auxiliary Power Unit Bulkhead-to-Hull	
Installation	0596 00-4
Removal	0596 00-2
Auxiliary Power Unit Valve-to-Bulkhead	
Installation	0595 00-4
Removal	0595 00-2
Fuel Tank	
Access Covers	
M577A2 and M1068	
Installation	0156 00-2
Removal	0156 00-1
M981 and M1064	
Installation	0145 00-2
Removal	0145 00-1
All Except M1064	
Repair	0140 00-1
Drain	
M113A2, M901A1, and M1059	0135 00-1
M577A2 and M1068	0153 00-1
M981 and M1064	0142 00-1
Drain Plugs	
Installation	0145 00-2
Removal	0145 00-1
Filler Cover and Lock	
Installation	0143 00-2
Removal	0143 00-1
Filler Flange	
Installation	0157 00-2
Removal	0157 00-1
M113A2, M901A1, and M1059	
Assembly	0139 00-7
Cleaning, Inspection, and Repair	0139 00-7
Disassembly	0139 00-6
Installation	0139 00-10
Removal	0139 00-1
M577A2 and M1068	
Installation	0161 00-4
Removal	0161 00-1
M981 and M1064	
Installation	0147 00-6
Removal	0147 00-1
Fuel Tank Filler Cap and Strainer Parts	
Installation	0137 00-2
Removal	0137 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Fuel Vent Hoses, Tubes, and Fittings	
Installation	0160 00-4
Removal	0160 00-1
G	
Gasket, Differential	
Installation	0364 00-3
Removal	0364 00-1
Gauge Lead, Fuel Select Switch	
Inspection-Acceptance and Rejection Criteria	0250 00-1
Installation	0250 00-2
Removal	0250 00-1
Gauges, Instrument Panel	
Installation	0244 00-2
Removal	0244 00-1
Gearbox to Differential Hose and Fittings	
Inspection-Acceptance and Rejection Criteria	0359 00-2
Installation	0359 00-2
Removal	0359 00-1
General Information	
Destruction of Army Materiel to Prevent Enemy Use	0001 00-7
Maintenance Forms, Records, and Reports	0001 00-7
Nomenclature Cross-Reference	0001 00-7
Preparation for Storage or Shipment	0001 00-7
Reporting Equipment Improvement Recommendations (EIR)	0001 00-7
Safety, Care, and Handling	0001 00-10
Scope	0001 00-1
Generator	
100 Amp Generator	
Installation	0227 00-4
Removal	0227 00-1
200 Amp Generator	
Installation	0228 00-4
Removal	0228 00-1
Generator Drive Belt	
100 Amp Generator	
Installation	0226 00-2
Removal	0226 00-1
Repair or Replacement	0226 00-2
200 Amp Generator	
Installation	0234 00-2
Removal	0234 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Generator Field Switch	
Installation	0232 00-2
Removal	0232 00-1
Repair or Replacement	0232 00-1
Generator Set, Enclosure	
Installation	0472 00-2
Removal	0472 00-1
Generator-Regulator, Circuit Breaker	
Installation	0231 00-3
Removal	0231 00-1
Repair or Replacement	0231 00-2
Glow Plug Cable Assembly, Smoke Generator	
Installation	0714 00-4
Removal	0714 00-1
Grenade Stowage Box	
Installation	0540 00-2
Removal	0540 00-1
Grill, Power Plant	
Lower Grill	0130 00-11
Raise Grill	0130 00-2
Ground Lead	
Battery	
Connect	0294 00-2
Disconnect	0294 00-1
Horn	
Installation	0255 00-2
Removal	0255 00-1
Instrument Panel	
Installation	0238 00-2
Removal	0238 00-1
Guard	
Antenna	
Installation	0527 00-2
Removal	0527 00-1
Stoplight/Taillight	
Installation	0272 00-4
Removal	0272 00-1
Guide, Oil Gauge Rod	
Installation	0129 00-2
Removal	0129 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Gun Traverse Restrictor	
Installation	0667 00-2
Removal	0667 00-1
H	
Hand Throttle Control Cable	
Adjustment	0402 00-3
Installation	0402 00-3
Removal	0402 00-2
Hatch, Mortar, Interior Release Mechanism	
Adjustment	0466 00-4
Installation	0466 00-3
Removal	0466 00-2
Headlight	
Blackout	
Assembly	0261 00-2
Clean, Inspect, and Repair	0260 00-1
Cleaning	0261 00-1
Disassembly	0261 00-1
Installation	0260 00-2
Removal	0260 00-1
High Beam Selector Switch	
Installation	0285 00-2
Removal	0285 00-1
Service and Infrared	
Assembly	0257 00-2
Clean, Inspect, and Repair	0257 00-2
Disassembly	0257 00-1
Installation	0256 00-2
Removal	0256 00-1
Headlight Guard	
Installation	0262 00-2
Removal	0262 00-1
Heat Exchanger	
Battery Box Insulation	
M113A2, M901A1, and M1059	
Clean, Inspect, and Repair	0310 00-2
Installation	0310 00-3
Removal	0310 00-1
M577A2 and M1068	
Clean, Inspect and Repair	0309 00-3
Installation	0309 00-4
Removal	0309 00-1
Battery Drawer Insulation	
Clean, Inspect, and Repair	0308 00-3
Installation	0308 00-4
Removal	0308 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Heater Coolant Flow Diagram	0635 00-1
Heater Fuel Lines	
Bleeding Air From System	0599 00-1
Heater Fuel Pump	
Service Bendix/Facet	0597 00-1
Service Walbro	0597 00-2
Heater Tube, Bulkhead Connection	
Installation	0607 00-4
Removal	0607 00-2
High-Stow Bracket	
Assembly	0477 00-3
Disassembly	0477 00-2
Installation	0477 00-4
Removal	0477 00-1
High-Stow Launcher Support	
Assembly	0476 00-3
Disassembly	0476 00-2
Installation	0476 00-4
Removal	0476 00-1
Hold-Open Hook and Bumper, Commander's Cupola	
Installation	0456 00-2
Removal	0456 00-1
Hook and Bumper, Commander's Hatch	
Installation	0462 00-4
Removal	0462 00-2
Horn and Ground Lead	
Installation	0255 00-2
Removal	0255 00-1
Horn Switch	
Installation	0252 00-2
Removal	0252 00-1
Hoses	
Air Box Heater to Fuel Return Tee	
Installation	0169 00-4
Removal	0169 00-1
Air Cleaner Restriction Indicator	
Installation	0186 00-2
Removal	0186 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Bulkhead Connection to Primary Fuel Filter	
Installation	0163 00-3
Removal	0163 00-1
Bulkhead to Ramp Cylinder	
Installation	0590 00-3
Removal	0590 00-2
Crankcase Breather	
Installation	0127 00-3
Removal	0127 00-2
Electronic Equipment Heater	
Heater Fuel Pump to Bulkhead Connection	
Installation	0628 00-3
Removal	0628 00-1
Shutoff Valve to Fuel Pump	
Installation	0627 00-3
Removal	0627 00-1
Electronic Equipment Heater, Bulkhead to Heater Hose	
Installation	0629 00-4
Removal	0629 00-2
Engine Air Inlet Elbow to Air Box Heater	
Installation	0168 00-3
Removal	0168 00-1
Engine Fuel Pump to Secondary Fuel Filter	
Installation	0165 00-3
Removal	0165 00-1
Fuel Pump to Bulkhead	
Installation	0606 00-2
Removal	0606 00-1
Fuel Supply	
Auxiliary Power Unit Bulkhead-to-Hull	
Installation	0596 00-4
Removal	0596 00-2
Auxiliary Power Unit Valve-to-Bulkhead	
Installation	0595 00-4
Removal	0595 00-2
Fuel Tank to Fuel Pump	
Installation	0604 00-3
Removal	0604 00-2
Fuel Tank-to-Bulkhead	
Installation	0141 00-6
Removal	0141 00-1
Fuel Vent	
Installation	0160 00-4
Removal	0160 00-1
Left Cylinder Head Fuel Return	
Installation	0170 00-2
Removal	0170 00-1
Primary Fuel Filter to Engine Fuel Pump	
Installation	0164 00-3
Removal	0164 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Ramp Control Valve to Hydraulic Tank	
Installation	0583 00-3
Removal	0583 00-2
Ramp Pump to Pressure Relief Valve	
Clean, Inspect, and Repair	0581 00-3
Installation	0581 00-3
Removal	0581 00-2
Relief Valve Tee to Quick Disconnect	
Installation	0582 00-3
Removal	0582 00-1
 Hoses, Tubes, and Fittings	
Fuel Return	
M1064 Only	
Installation	0152 00-6
Removal	0152 00-1
M577A2 and M1068	
Installation	0159 00-5
Removal	0159 00-1
M981 Only	
Installation	0149 00-7
Removal	0149 00-1
Fuel Supply	
M1064 Only	
Installation	0151 00-6
Removal	0151 00-1
M577A2 and M1068	
Installation	0158 00-5
Removal	0158 00-1
M981 Only	
Installation	0148 00-7
Removal	0148 00-1
 Housing, Air Cleaner	
Installation	0185 00-2
Removal	0185 00-1
 Hub, Road Wheel	
Clean, Inspect, and Replace	0373 00-2
Installation	0373 00-2
Removal	0373 00-1
 Hull	
Poppet Valves	
Installation	0435 00-2
Removal	0435 00-1
Welding, repair by	0575 00-1
 Hydraulic Fluid Flow Diagram	0578 00-1
 Hydraulic Pump, Ramp	
Installation	0588 00-3
Removal	0588 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Hydraulic Tank	
Assembly	0586 00-3
Clean, Inspect, and Repair	0585 00-4
Disassembly	0586 00-1
Fill Hydraulic Tank	0585 00-7
Installation	0585 00-4
Removal	0585 00-2
Strainer	
Installation	0584 00-3
Removal	0584 00-2
I	
Idler Pulley and Belts, Engine Coolant Pump	
Installation	0196 00-2
Removal	0196 00-1
Idler Wheel	
Installation	0375 00-2
Removal	0375 00-1
Idler Wheel Arm Assembly	
Clean, Inspect, and Replace	0377 00-2
Installation	0377 00-3
Removal	0377 00-2
Igniter, Coolant Heater	
Inspection	0638 00-1
Installation	0638 00-2
Removal	0638 00-1
Ignition Coil, Air Box Heater	
Installation	0176 00-2
Removal	0176 00-1
Indicator Lights, Panel	
Installation	0240 00-2
Removal	0240 00-1
Indicator, Air Cleaner Restriction	
Installation	0186 00-2
Removal	0186 00-1
Instrument Panel	
Gauges	
Installation	0244 00-2
Removal	0244 00-1
Mounts and Ground Lead	
Installation	0238 00-2
Removal	0238 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
On-Off Switches	
Installation	0241 00-2
Removal	0241 00-1
Instrument Panel Tachometer	
Installation	0245 00-2
Removal	0245 00-1
Interior Latch	
Commander's Cupola	
Adjustment	0454 00-2
Installation	0454 00-2
Removal	0454 00-1
Commander's Hatch	
Adjustment	0460 00-3
Installation	0460 00-2
Removal	0460 00-1
Driver's Hatch	
Adjustment	0445 00-4
Installation	0445 00-3
Removal	0445 00-2
Interior Lock, Driver's Hatch	
Adjustment	0445 00-4
Installation	0445 00-3
Removal	0445 00-2
J	
Jump Seat, Commander's	
Installation	0490 00-4
Removal	0490 00-2
L	
Latch	
Cargo Hatch	
Assembly	0469 00-2
Disassembly	0469 00-1
Interior, Cargo Hatch	
Adjustment	0463 00-6
Installation	0463 00-4
Removal	0463 00-2
Launch Tube, Stowage Bracket	
Installation	0550 00-2
Removal	0550 00-1
Launcher Support, High-Stow	
Assembly	0476 00-3
Disassembly	0476 00-2
Installation	0476 00-4
Removal	0476 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Lead	
Battery	
Clean, Inspect, and Repair	0300 00-3
Installation	0300 00-4
Removal	0300 00-1
Circuit 49, Master Switch to Distribution Box Wire Assembly	
All Except M577A2 and M1068	
Installation	0225 00-4
Removal	0225 00-1
Repair	0225 00-3
M577A2 and M1068	
Installation	0235 00-2
Removal	0235 00-1
Repair or Replacement	0235 00-2
Circuit 6	
Clean, Inspect, and Repair	0301 00-2
Installation	0301 00-3
Removal	0301 00-1
Left Cylinder Head Fuel Return Tube and Hose	
Installation	0170 00-2
Removal	0170 00-1
Left Final Drive Shaft	
Installation	0348 00-2
Removal	0348 00-1
Left Side Rack Base	
Installation	0532 00-3
Removal	0532 00-2
Left to Right Cylinder Head Fuel Hose	
Installation	0167 00-2
Removal	0167 00-1
Left/Right Steering Levers	
Clean, Inspect, and Replace	0389 00-3
Installation	0389 00-4
Removal	0389 00-1
Lifting Eye	
Installation	0416 00-2
Removal	0416 00-1
Light	
Blackout Marker	
Assembly	0259 00-2
Clean, Inspect, and Repair	0259 00-1
Disassembly	0259 00-1
Installation	0258 00-2
Removal	0258 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Dome	
All Except M577A2 and M1068	
Assembly	0274 00-3
Clean, Inspect, and Repair	0274 00-2
Disassembly	0274 00-1
Installation	0273 00-2
Removal	0273 00-1
M577A2 and M1068	
Assembly	0276 00-3
Clean, Inspect, and Repair	0276 00-2
Disassembly	0276 00-1
Installation	0275 00-2
Removal	0275 00-1
Left Stoplight	
Installation	0263 00-2
Removal	0263 00-1
Left Taillight	
Installation	0263 00-2
Removal	0263 00-1
Right Stoplight	
Installation	0265 00-2
Removal	0265 00-1
Stoplight-Taillight and Guards	
Installation	0272 00-4
Removal	0272 00-1
Light Switch, Main	
Installation	0242 00-2
Removal	0242 00-1
Linkage	
Control, Trim Vane	
Assembly	0423 00-2
Disassembly	0423 00-1
Ramp	
M1064 Only	
Clean, Inspect, and Repair	0560 00-3
Installation	0560 00-3
Removal	0560 00-1
M113, M901A1, and M1059	
Installation	0558 00-4
Removal	0558 00-2
M577A2 and M1068	
Clean, Inspect, and Repair	0563 00-3
Installation	0563 00-4
Removal	0563 00-2
Steering	
Adjustment	0387 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Linkage, Accelerator and Transmission Throttle Valve	
Adjust Governor Linkage	0401 00-2
Adjust Idle Stop	0401 00-6
Adjust Throttle Valve Linkage	0401 00-4
Adjust Upper Accelerator Detent Plunger	0401 00-9
Adjust Upper Accelerator Pedal Detent Stop	0401 00-7
Adjust Upper Accelerator Pedal Toe Stop	0401 00-8
Check Operation	0401 00-9
Linkage, Range Selector	
Adjustment	0407 00-4
Clean, Inspect, and Repair	0407 00-2
Installation	0407 00-3
Removal	0407 00-1
Links	
Differential Cross-Shaft	
Clean, Inspect, and Repair	0393 00-2
Installation	0393 00-2
Removal	0393 00-1
Pivot Steer Handles	
Inspection-Acceptance and Rejection Criteria	0410 00-2
Installation	0410 00-3
Removal	0410 00-1
Litter Kit	
Chain Assembly	
Assembly	0659 00-3
Disassembly	0659 00-2
Installation	0658 00-2
Removal	0658 00-1
Post Assembly	
Assembly	0661 00-2
Cleaning, Inspection, and Repair	0661 00-2
Disassembly	0661 00-1
Installation	0660 00-2
Removal	0660 00-1
Lock, Ramp	
Adjustment	
M1064 Only	0559 00-2
M113A2, M901A1, and M1059	0556 00-3
M577A2 and M1068	0561 00-1
Low-Stow Cushion Base	
Installation	0475 00-2
Removal	0475 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
M	
Machine Gun Armor Shield Kit	
30 Cal. Gun Mount Adapter Assembly	
Installation	0665 00-1
Removal	0665 00-1
7.62MM M60 Machine Gun Mount Assembly	
Installation	0664 00-2
Removal	0664 00-1
Armor Shield, Rear, Mounting Arm Lock Assembly and Mount	
Installation	0669 00-2
Removal	0669 00-1
Gun Traverse Restrictor	
Installation	0667 00-2
Removal	0667 00-1
Rear Armor Shields	
Installation	0668 00-3
Removal	0668 00-1
Rear Gun Pintle Socket	
Installation	0666 00-2
Removal	0666 00-1
Machine Gun Mount Stops, Commander's Cupola	
Installation	0458 00-2
Removal	0458 00-1
Machine Gun Mount, Commander's Cupola	
Assembly	0457 00-3
Clean, Inspect, and Repair	0457 00-2
Disassembly	0457 00-2
Installation	0457 00-4
Removal	0457 00-1
Main Light Switch	
Installation	0242 00-2
Removal	0242 00-1
Maintenance Allocation Chart (MAC)	0779 00-1
Malfunction/Symptom Index	
Bilge Pumps	0006 00-2
Charging System	0006 00-1
Chemical Agent Auto Alarm System	0006 00-3
Communication Equipment (M1068 Only)	0006 00-3
Electrical Power Equipment (M1068 Only)	0006 00-2
Electrical System	0006 00-1
Engine System	0006 00-1
Personnel Heater	0006 00-2
Ramp System	0006 00-2
Smoke Grenade System	0006 00-2
Speedometer/Tachometer	0006 00-3
Steering System	0006 00-2
Winterization System	0006 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Map Board	
M1068 Only	
Installation	0535 00-2
Removal	0535 00-1
M577A2 Only	
Installation	0534 00-3
Removal	0534 00-2
Map Storage Box	
Assembly	0537 00-2
Disassembly	0537 00-1
Installation	0536 00-2
Removal	0536 00-1
Marine Recovery Kit	
Stowage Hooks and Brackets	
Installation	0656 00-2
Removal	0656 00-1
Tarpaulin and Straps	
Installation	0655 00-2
Removal	0655 00-1
Towlines	
Clean, Inspect, and Repair	0657 00-2
Installation	0657 00-3
Removal	0657 00-1
Master Cylinders and Hoses, Pivot Steer	
Installation	0412 00-2
Removal	0412 00-1
Master Switch	
Panel Assembly	
Early Slave Receptacle (All Except M577A2 and M1068)	
Installation	0223 00-3
Removal	0223 00-1
Early Slave Receptacle (M577A2 and M1068)	
Installation	0224 00-5
Removal	0224 00-1
To Distribution Box Wire Assembly (Circuit 49 Lead)	
All Except M577A2 and M1068	
Installation	0225 00-4
Removal	0225 00-1
Repair	0225 00-3
M577A2 and M1068	
Installation	0235 00-2
Removal	0235 00-1
Repair or Replacement	0235 00-2
Master Switch Assembly	
Installation	0221 00-4
Removal	0221 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Master Switch Panel Assembly	
Late Slave Receptacle	
Installation	0222 00-3
Removal	0222 00-1
Master Switch Panel Lead Assembly to Dome Lights	
Installation	0277 00-2
Removal	0277 00-1
Materials and Expendable Supplies List	0782 00-1
Missile Rack	
Assembly	0548 00-4
Clean, Inspect, and Repair	0548 00-3
Disassembly	0548 00-3
Installation	0548 00-4
Removal	0548 00-2
Missile Rack Retainers	
Installation	0549 00-2
Removal	0549 00-1
Mortar Hatch	
Covers	
Installation	0468 00-3
Removal	0468 00-1
Interior Release Mechanisms	
Adjustment	0466 00-4
Installation	0466 00-3
Removal	0466 00-2
Mortar Hatch, Exterior Catches and Bumpers	
Adjustment	0467 00-5
Installation	0467 00-4
Removal	0467 00-2
Mount	
Dome Light	
Assembly	0276 00-3
Clean, Inspect, and Repair	0276 00-2
Disassembly	0276 00-1
Driver's Seat	
Assembly	0481 00-3
Clean, Inspect, and Repair	0481 00-2
Disassembly	0481 00-2
Installation	0480 00-2
Removal	0480 00-1
Differential	
Installation	0363 00-4
Removal	0363 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Engine, Front	
Installation	0122 00-2
Removal	0122 00-1
Fire Extinguisher, Portable	
All Except M1068	
Installation	0770 00-3
Removal	0770 00-2
M1068 Only	
Assembly	0772 00-4
Disassembly	0772 00-3
Installation	0772 00-5
Removal	0772 00-2
Instrument Panel	
Installation	0238 00-2
Removal	0238 00-1
Ramp Door	
Adjustment	0283 00-3
Clean, Inspect, and Repair	0283 00-2
Installation	0283 00-2
Removal	0283 00-1
Shock Absorber	
Installation	0381 00-2
Removal	0381 00-1
Tent Frame	
Installation	0505 00-3
Removal	0505 00-1
Track Tension Adjuster	
Clean, Inspect, and Replace	0378 00-2
Installation	0378 00-2
Removal	0378 00-1
Traversing Unit	
Installation	0552 00-2
Removal	0552 00-1
Mounting Bracket	
Fuel Filter (M577A2 and M1068 With 200 Amp Generator)	
Installation	0233 00-2
Removal	0233 00-1
Muffler And Brackets	
Installation	0191 00-2
Removal	0191 00-1
Muffler Extension and Valve	
Installation	0190 00-3
Removal	0190 00-1
Multiple Pin and Socket Identification	
Inspection-Acceptance and Rejection Criteria	0311 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
N	
NATO Auxiliary Power (Slave) Receptacle	
Installation	0220 00-3
Removal	0220 00-2
NBC Kit	
M13	
Filter Switch and Mount Bracket	
Installation	0673 00-3
Removal	0673 00-2
Filters and Hoses (M1068 Only)	
Installation	0681 00-4
Removal	0681 00-2
Filters and Hoses (M577A2 Only)	
Installation	0671 00-8
Removal	0671 00-2
Heater Hoses	
Installation	0682 00-5
Removal	0682 00-2
Heater Wiring Harness (M1068 Only)	
Installation	0684 00-5
Removal	0684 00-1
Heater Wiring Harness (M577A2 Only)	
Installation	0670 00-3
Removal	0670 00-1
Heaters and Mounts	
Installation	0672 00-4
Removal	0672 00-2
Precleaner and Frame	
Installation	0680 00-2
Removal	0680 00-1
M14	
NBC Hoses and Brackets (M113A2 Ambulance)	
Installation	0688 00-4
Removal	0688 00-2
M3	
Control Box	
Installation	0675 00-2
Removal	0675 00-1
Filter Switch and Mount Bracket	
Installation	0674 00-3
Removal	0674 00-2
Filter Switch Assembly (M113A2 Ambulance)	
Installation	0686 00-3
Removal	0686 00-1
Heater Control Box	
Installation	0683 00-2
Removal	0683 00-1
Heater Hoses and Fittings (M113A2 Ambulance)	
Installation	0685 00-5
Removal	0685 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Heaters and Controllers (M113A2 Ambulance Only)	
Installation	0687 00-3
Removal	0687 00-1
M42	
Orifice Connector Assembly	
Installation	0692 00-2
Removal	0692 00-1
Ventilated Face Mask Gas Filter	
Installation	0693 00-3
Removal	0693 00-2
Ventilated Face Mask Heater	
Installation	0694 00-2
Removal	0694 00-1
Ventilated Face Mask Hose Assembly	
Installation	0691 00-2
Removal	0691 00-1
M8A3	
Cables, Switch Assembly, and Brackets	
Installation	0676 00-4
Removal	0676 00-2
Hoses and Brackets	
Installation	0677 00-4
Removal	0677 00-2
M8A3/M13	
Air Purifier/Precleaner and Frame	
Installation	0678 00-3
Removal	0678 00-2
M8A3/M13/M14	
Orifice Connector Assembly, Support, Quick Disconnect Assembly	
Installation	0679 00-3
Removal	0679 00-2
M8A3/M14	
Air Purifier and Frame	
Installation	0689 00-3
Removal	0689 00-2
Cables and Switch Assembly	
Installation	0690 00-3
Removal	0690 00-2
Neutral Start Switch	
Clean, Inspect, and Replace	0406 00-2
Installation	0406 00-2
Removal	0406 00-1
O	
Oil Can Bracket	
Clean, Inspect, and Repair	0524 00-1
Installation	0524 00-2
Removal	0524 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Oil Cooler Hose, Fittings, Differential	
Inspection-Acceptance and Rejection Criteria	0360 00-2
Installation	0360 00-2
Removal	0360 00-1
Oil Cooler to Transmission Hose and Fittings	
Clean, Inspect, and Repair	0339 00-2
Installation	0339 00-3
Removal	0339 00-1
Oil Filler Cap and Tube	
Installation	0128 00-3
Removal	0128 00-2
Oil Filter and Fittings, Differential	
Inspection-Acceptance and Rejection Criteria	0355 00-2
Installation	0355 00-2
Removal	0355 00-1
Oil Filter Element, Differential	
Installation	0356 00-2
Removal	0356 00-1
Oil Filter Pump Hose, Differential	
Inspection-Acceptance and Rejection Criteria	0361 00-2
Installation	0361 00-2
Removal	0361 00-1
Oil Gauge Rod	
Installation	0129 00-2
Removal	0129 00-1
Oil Level Dipstick, Breather, Differential	
Inspection-Acceptance and Rejection Criteria	0357 00-2
Installation	0357 00-2
Removal	0357 00-1
Oil Pump, Differential	
Inspection-Acceptance and Rejection Criteria	0354 00-3
Installation	0354 00-4
Removal	0354 00-1
Oil Seal, Final Drive Pinion	
Inspect and Repair	0351 00-2
Installation	0351 00-2
Removal	0351 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
On-Off Switches, Instrument Panel	
Installation	0241 00-2
Removal	0241 00-1
Operator's Seat	
Assembly	0488 00-4
Disassembly	0488 00-3
Installation	0488 00-5
Removal	0488 00-2
P	
Pad	
Cushioning	
Installation	0523 00-2
Removal	0523 00-1
Tow Cable	
Installation	0420 00-2
Removal	0420 00-1
Pad, Cushioning, Commander's Hatch	
Clean, Inspect, and Repair	0459 00-1
Installation	0459 00-2
Removal	0459 00-1
Panel	
Indicator Light	
Installation	0240 00-2
Removal	0240 00-1
Warning Light	
Installation	0254 00-2
Removal	0254 00-1
Panel Assembly, Master Switch	
Early Slave Receptacle	
All Except M577A2 and M1068	
Installation	0223 00-3
Removal	0223 00-1
M577A2 and M1068	
Installation	0224 00-5
Removal	0224 00-1
Late Slave Receptacle	
Installation	0222 00-3
Removal	0222 00-1
Pawl, Brake Locking	
Adjustment	0388 00-1
Periscope Mounting Bracket	
Installation	0546 00-3
Removal	0546 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Personnel Heater	
Air Intake and Exhaust Pipes	
All Except M1064	
Installation	0622 00-3
Removal	0622 00-2
M1064 Only	
Installation	0623 00-2
Removal	0623 00-1
All Except M1064	
Installation	0619 00-5
Removal	0619 00-2
Control Box	
Assembly	0614 00-5
Disassembly	0614 00-1
Installation	0613 00-2
Removal	0613 00-1
Repair or Replacement	0614 00-4
Duct	
Assembly	0618 00-2
Disassembly	0618 00-1
Duct and Hoses	
Installation	0617 00-3
Removal	0617 00-2
Fuel Filter	
Cleaning, Inspection, and Repair	0598 00-3
Installation	0598 00-4
Removal	0598 00-2
Fuel Filter, Hose, Tube, Fittings, and Shield	
M1068 Only	
Installation	0612 00-4
Removal	0612 00-2
M577A2 Only	
Installation	0611 00-4
Removal	0611 00-2
Fuel Filter, Hoses, and Fittings (M1064 Only)	
Installation	0609 00-4
Removal	0609 00-1
Fuel Filter/Bracket	
Installation	0616 00-3
Removal	0616 00-2
Fuel Pump	
M1064 Only	
Installation	0601 00-3
Removal	0601 00-2
M113A2 and M1059	
Installation	0600 00-3
Removal	0600 00-1
M577A2 and M1068	
Installation	0602 00-3
Removal	0602 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Fuel Supply Hoses	
Installation	0603 00-4
Removal	0603 00-2
Hose, Fuel Tank to Fuel Pump	
Installation	0610 00-3
Removal	0610 00-2
M1064 Only	
Installation	0621 00-4
Removal	0621 00-2
Repair	0620 00-1
Personnel Seat	
Backrest, Cushions, and Straps	
M1064 Only	
Installation	0497 00-3
Removal	0497 00-2
M113A2 Only	
Installation	0495 00-3
Removal	0495 00-2
Cushions and Belts (M577A2 Only)	
Installation	0496 00-3
Removal	0496 00-2
Pin, Shock Absorber	
Installation	0380 00-2
Removal	0380 00-1
Pivot Steer	
Bellcranks	
Inspection-Acceptance and Rejection Criteria	0411 00-2
Installation	0411 00-3
Removal	0411 00-1
Brackets	
Inspection-Acceptance and Rejection Criteria	0411 00-2
Installation	0411 00-3
Removal	0411 00-1
Linkage	
Adjustment	0415 00-1
Pivot Steer Brake	
Disk	
Installation	0414 00-2
Removal	0414 00-1
Hoses, Tubes, and Fittings	
Inspection-Acceptance and Rejection Criteria	0413 00-3
Installation	0413 00-4
Removal	0413 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Pivot Steer Handles, Links	
Inspection-Acceptance and Rejection Criteria	0410 00-2
Installation	0410 00-3
Removal	0410 00-1
Pivot Steer Master Cylinders, Hoses	
Installation	0412 00-2
Removal	0412 00-1
Pivot Steer System	
Servicing	0409 00-1
Test and Inspection	0409 00-2
Plates, Rear Tiedown	
Installation	0417 00-2
Removal	0417 00-1
Platform, Commander's	
Assembly	0491 00-3
Clean, Inspect,and Repair	0491 00-3
Disassembly	0491 00-2
Installation	0491 00-5
Removal	0491 00-1
Plug, Final Drive Drain	
Installation	0435 00-2
Removal	0435 00-1
Poppet Valves, Hull	
Installation	0435 00-2
Removal	0435 00-1
Portable Fire Extinguisher Mount	
All Except M1068	
Installation	0770 00-3
Removal	0770 00-2
M1068 Only	
Assembly	0772 00-4
Disassembly	0772 00-3
Installation	0772 00-5
Removal	0772 00-2
Post	
Commander's Platform	
M577A2 and M1068	
Assembly	0492 00-4
Disassembly	0492 00-3
Inspection-Acceptance and Rejection Criteria	0492 00-3
Installation	0492 00-5
Removal	0492 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
M1059 Only	
Installation	0485 00-2
Removal	0485 00-1
Post Assembly	
Assembly	0661 00-2
Cleaning, Inspection, and Repair	0661 00-2
Disassembly	0661 00-1
Installation	0660 00-2
Removal	0660 00-1
Post Assembly, Driver's Seat	
Assembly	0483 00-5
Clean, Inspect, and Repair	0483 00-5
Disassembly	0483 00-3
Installation	0483 00-8
Removal	0483 00-2
Power Cable, Intervehicle	
Assembly	0315 00-2
Disassembly	0315 00-1
Power Disconnect	
Adjustment	0408 00-3
Installation	0408 00-2
Removal	0408 00-1
Power Distribution Box A3	
Assembly	0736 00-3
Disassembly	0736 00-2
Installation	0736 00-4
Removal	0736 00-1
Power Plant	
Bottom Access Cover	
Clean, Inspect, and Repair	0434 00-3
Installation	0434 00-3
Removal	0434 00-2
Driver's Access Panel	
Installation	0430 00-2
Removal	0430 00-1
Grill Support Arm	
Installation	0442 00-2
Removal	0442 00-1
Rear Access Panel	
M1059 Only	
Installation	0432 00-3
Removal	0432 00-2
M113A2 and M901A1	
Installation	0431 00-2
Removal	0431 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
M577A2, M1068, and M1064	
Installation	0433 00-2
Removal	0433 00-1
Power Plant Assembly	
Installation	0131 00-11
Removal	0131 00-1
Power Plant Door	
Adjustment	0428 00-4
Assembly	0428 00-3
Disassembly	0428 00-2
Installation	0427 00-3
Removal	0427 00-1
Power Plant Door Combat Lock	
Installation	0426 00-2
Removal	0426 00-1
Power Plant Grill	
Lower Grill	0130 00-11
Raise Grill	0130 00-2
Power Plant Wiring Harness	
Installation	0321 00-5
Removal	0321 00-1
Power Supply	
Solid State Infrared	
Installation	0293 00-3
Removal	0293 00-1
Test and Inspection	0293 00-2
Tube Type Infrared	
Installation	0291 00-3
Removal	0291 00-1
Test and Inspection	0291 00-2
Power Supply Shock Mount Brackets, Infrared	
Installation	0292 00-2
Removal	0292 00-1
Test and Inspection	0292 00-1
Preventive Maintenance Checks and Services (PMCS), Including Lubrication Instructions	
Annual	0120 00-151
Explanation of PMCS Table Entries	0120 00-13
General Maintenance Instructions	0120 00-2
Lubrication Tables	0120 00-13
Maintenance Forms and Records	0120 00-1
PMCS Procedures	0120 00-2
Scope	0120 00-1
Semi-Annual	0120 00-20
Warnings and Cautions	0120 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Primary Fuel Filter Assembly	
Installation	0172 00-3
Removal	0172 00-1
Primary Fuel Filter to Engine Fuel Pump Hose	
Installation	0164 00-3
Removal	0164 00-1
Pulley Drive Shaft, Bearing, and Housing	
Installation	0217 00-2
Removal	0217 00-1
Pump	
Coolant Heater	
Installation	0652 00-2
Removal	0652 00-1
Engine Coolant	
Installation	0197 00-2
Removal	0197 00-1
Hydraulic, Ramp	
Installation	0588 00-3
Removal	0588 00-2
Q	
Quick Disconnect and Ramp Control Valve Tube to Bulkhead Connection	
Installation	0587 00-4
Removal	0587 00-2
R	
Rack	
Ammunition Stowage	
Installation	0547 00-2
Removal	0547 00-1
Horizontal Ammunition	
Assembly	0508 00-4
Cleaning	0508 00-4
Disassembly	0508 00-2
Inspection and Repair	0508 00-4
Installation	0507 00-3
Removal	0507 00-2
Missile	
Assembly	0548 00-4
Clean, Inspect, and Repair	0548 00-3
Disassembly	0548 00-3
Installation	0548 00-4
Removal	0548 00-2
Radio Stowage	
Installation	0539 00-2
Removal	0539 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Radio Stowage, Left Bulkhead	
Installation	0533 00-3
Removal	0533 00-2
Radio Stowage, Right Front	
Installation	0529 00-2
Removal	0529 00-1
Vertical Ammunition	
Installation	0506 00-3
Removal	0506 00-2
Rack Base, Right Side	
Installation	0531 00-3
Removal	0531 00-2
Radiac Wiring Harness	
Installation	0334 00-2
Removal	0334 00-1
Radiator	
Access Door	
Assembly	0205 00-2
Disassembly	0205 00-1
Access Door Seals and Fasteners	
Installation	0204 00-3
Removal	0204 00-1
Repair	0204 00-2
Cleaning	0195 00-1
Radiator and Parts	
Installation	0202 00-4
Removal	0202 00-1
Radiator Outlet Elbow to Coolant Pump Elbow Hose and Tube	
Installation	0199 00-2
Removal	0199 00-1
Radio Operator's Seat	
Assembly	0489 00-4
Disassembly	0489 00-2
Installation	0489 00-6
Removal	0489 00-1
Radio Stowage Rack	
Left Bulkhead	
Installation	0533 00-3
Removal	0533 00-2
Right Front	
Installation	0529 00-2
Removal	0529 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Ramp	
Control Valve and Fittings	
Installation	0589 00-4
Removal	0589 00-2
Cylinder	
Cleaning	0593 00-2
Installation	0593 00-2
Removal	0593 00-1
Cylinder Breather Hose	
All Except M1064	
Installation	0591 00-2
Removal	0591 00-1
M1064 Only	
Installation	0592 00-2
Removal	0592 00-1
Hose, Bulkhead to Cylinder	
Installation	0590 00-3
Removal	0590 00-2
Hydraulic Pump	
Installation	0588 00-3
Removal	0588 00-2
Inoperable/Unsafe	
Lower Inoperable/Unsafe Ramp	0579 00-8
Raise Inoperable/Unsafe Ramp	0579 00-1
Linkage	
M1064 Only	
Clean, Inspect, and Repair	0560 00-3
Installation	0560 00-3
Removal	0560 00-1
M113A2, M901A1, and M1059	
Installation	0558 00-4
Removal	0558 00-2
M577A2 and M1068	
Clean, Inspect, and Repair	0563 00-3
Installation	0563 00-4
Removal	0563 00-2
Ramp Access Door, Stop Bracket	
Installation	0573 00-2
Removal	0573 00-1
Ramp Bracket	
Installation	0572 00-2
Removal	0572 00-2
Ramp Control Valve to Hydraulic Tank Hose	
Installation	0583 00-3
Removal	0583 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Ramp Door	
Handles	
Adjustment	0569 00-3
Installation	0569 00-2
Removal	0569 00-1
Hook	
All Except M981 and M1064	
Clean, Inspect, and Repair	0568 00-2
Installation	0568 00-3
Removal	0568 00-2
M981 and M1064	
Installation	0567 00-2
Removal	0567 00-1
Shaft	
Adjustment	0569 00-3
Installation	0569 00-2
Removal	0569 00-1
Spring	
All Except M981 and M1064	
Clean, Inspect, and Repair	0568 00-2
Installation	0568 00-3
Removal	0568 00-2
M981 and M1064	
Installation	0567 00-2
Removal	0567 00-1
Switch And Mount	
Adjustment	0283 00-3
Clean, Inspect, and Repair	0283 00-2
Installation	0283 00-2
Removal	0283 00-1
Ramp Door Seal	
Installation	0566 00-3
Removal	0566 00-1
Ramp Drain Plugs	
Installation	0574 00-2
Removal	0574 00-1
Ramp Lock	
Adjustment	
M1064 Only	0559 00-2
M113A2, M901A1, and M1059	0556 00-3
M577A2 and M1068	0561 00-1
Handle and Arms	
Installation	0557 00-3
Removal	0557 00-2
Lever and Cable	
Clean, Inspect, and Repair	0562 00-2
Installation	0562 00-3
Removal	0562 00-1
Lock Test	0556 00-1
Seal Test	0556 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Ramp Pump	
Hydraulic Tank Strainer Tube	
Clean, Inspect, and Repair	0580 00-3
Installation	0580 00-3
Removal	0580 00-2
Pressure Relief Valve Hose	
Clean, Inspect, and Repair	0581 00-3
Installation	0581 00-3
Removal	0581 00-2
Ramp Seal	
Installation	0570 00-2
Removal	0570 00-1
Ramp Vision Port and Shield	
Installation	0571 00-2
Removal	0571 00-1
Range Selector	
Assembly	0405 00-4
Clean, Inspect, and Repair	0405 00-3
Disassembly	0405 00-1
Installation	0404 00-2
Removal	0404 00-1
Range Selector Linkage	
Adjustment	0407 00-4
Clean, Inspect, and Repair	0407 00-2
Installation	0407 00-3
Removal	0407 00-1
Rear Access Panel	
Power Plant	
M1059 Only	
Installation	0432 00-3
Removal	0432 00-2
M113A2 and M901A1	
Installation	0431 00-2
Removal	0431 00-1
M577A2, M1068, and M1064	
Installation	0433 00-2
Removal	0433 00-1
Rear Bilge Pump	
Pipes	
Installation	0326 00-2
Removal	0326 00-1
Strainer	
Inspection-Acceptance and Rejection Criteria	0325 00-3
Installation	0325 00-4
Removal	0325 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Rear Compartment Air Ventilator	
Installation	0471 00-3
Removal	0471 00-2
Rear Dome Light Switch	
Installation	0279 00-2
Removal	0279 00-1
Rear Gun Pintle Socket	
Installation	0666 00-2
Removal	0666 00-1
Rear Tiedown Plates	
Installation	0417 00-2
Removal	0417 00-1
Rear Utility Outlet Receptacle	
Inseption-Acceptance and Rejection Criteria	0332 00-2
Installation	0332 00-2
Removal	0332 00-1
Rear Utility Receptacle Circuit Breakers	
Inspection-Acceptance and Rejection Criteria	0333 00-2
Installation	0333 00-2
Removal	0333 00-1
Receptacle	
Auxiliary Power (Slave)	
All Except M577A2 and M1068	
Installation	0218 00-4
Removal	0218 00-1
M577A2 and M1068	
Installation	0219 00-4
Removal	0219 00-1
NATO Auxiliary Power (Slave)	
Installation	0220 00-3
Removal	0220 00-2
Receptacle, Repair	
Assembly	0313 00-2
Clean, Inspect, and Repair	0313 00-2
Disassembly	0313 00-1
Reel Holder Assembly, Cable	
Assembly	0510 00-2
Disassembly	0510 00-1
Installation	0509 00-2
Removal	0509 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
References	
Field Manuals	0778 00-2
Forms	0778 00-3
Lubrication Orders	0778 00-2
Military Specifications	0778 00-3
Other Publications	0778 00-2
Scope	0778 00-1
Technical Manuals	0778 00-1
Regulator, Voltage	
Adjustment	0229 00-1
Installation	0230 00-3
Removal	0230 00-1
Repair or Replacement	0230 00-2
Relief Valve Tee to Quick Disconnect Hose	
Installation	0582 00-3
Removal	0582 00-1
Repair Parts, Special Tools, TMDE, and Support Equipment	
Common Tools and Equipment	0004 00-1
Repair Parts	0004 00-1
Special Tools, TMDE, and Support Equipment	0004 00-1
Resilient Mount, Transfer Gearcase	
Clean, Inspect, and Repair	0342 00-2
Installation	0342 00-2
Removal	0342 00-1
Rifle Brackets	
Installation	0525 00-2
Removal	0525 00-1
Rifle Rack	
Installation	0493 00-2
Removal	0493 00-1
Right Equipment Rack, Brackets and Mounts	
Installation	0718 00-2
Removal	0718 00-1
Right Final Drive Shaft	
Installation	0349 00-2
Removal	0349 00-1
Road Wheel	
Hub	
Clean, Inspect, and Replace	0373 00-2
Installation	0373 00-2
Removal	0373 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Support Arm, Bearings, and Seals	
Clean, Inspect, and Replace	0374 00-3
Installation	0374 00-3
Removal	0374 00-1
T130	
Installation	0371 00-3
Removal	0371 00-1
T150	
Inspection	0372 00-1
Installation	0372 00-4
Removal	0372 00-1
S	
Schematic	
100 Amp Engine Charging System	0024 00-1
200 Amp Engine Charging System	0025 00-1
200 Amp Engine Charging System (M981 Only)	0026 00-1
Air Box Heater System	0017 00-1
Bilge Pump System	0068 00-1
Chemical Agent Auto Alarm	0098 00-1
Electrical (M577A2 Only)	0056 00-1
Electrical (M981 Only)	0057 00-1
Electrical System	0055 00-1
Engine Fuel System	0015 00-1
Indicators	0054 00-1
Ramp	0065 00-1
Starting System	0016 00-1
Seal	
Idler Wheel Arm	
Clean, Inspect, and Replace	0376 00-2
Installation	0376 00-2
Removal	0376 00-1
Ramp	
Installation	0570 00-2
Removal	0570 00-1
Ramp Door	
Installation	0566 00-3
Removal	0566 00-1
Seat	
Commander's	
Jump	
Installation	0490 00-4
Removal	0490 00-2
M1068 Only	
Assembly	0486 00-4
Disassembly	0486 00-2
Installation	0486 00-6
Removal	0486 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
M113A2, M1059, and M1064	
Assembly	0487 00-5
Clean, Inspect, and Repair	0487 00-4
Disassembly	0487 00-1
M901A1 Only	
Installation	0494 00-2
Removal	0494 00-1
Crew	
Installation	0498 00-2
Removal	0498 00-1
Driver's	
Assembly	0479 00-3
Disassembly	0479 00-2
Installation	0478 00-2
Removal	0478 00-1
Operator's	
Assembly	0488 00-4
Disassembly	0488 00-3
Installation	0488 00-5
Removal	0488 00-2
Personnel	
M1064 Only	
Installation	0497 00-3
Removal	0497 00-2
M577A2 Only	
Installation	0496 00-3
Removal	0496 00-2
Radio Operator's	
Assembly	0489 00-4
Disassembly	0489 00-2
Installation	0489 00-6
Removal	0489 00-1
Seat and Post, Commander's	
All Except M1064	
Installation	0484 00-3
Removal	0484 00-1
M1064 Only	
Installation	0485 00-2
Removal	0485 00-1
Secondary Fuel Filter Assembly	
Installation	0173 00-3
Removal	0173 00-1
Secondary Fuel Filter to Left Cylinder Head Fuel Hose	
Installation	0166 00-3
Removal	0166 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Service and Infrared Headlights	
Assembly	0257 00-2
Clean, Inspect, and Repair	0257 00-2
Disassembly	0257 00-1
Installation	0256 00-2
Removal	0256 00-1
Service Upon Receipt	
Administrative Storage	0119 00-3
General Instructions	0119 00-1
Preliminary Checks and Adjustments	0119 00-1
Specific Deprocessing Procedures	0119 00-2
Shelf Assembly, Right Side	
Installation	0530 00-3
Removal	0530 00-2
Shelf, Equipment Stowage	
Installation	0503 00-2
Removal	0503 00-1
Shock Absorber	
Installation	0379 00-3
Mount	
Installation	0381 00-2
Removal	0381 00-1
Pin	
Installation	0380 00-2
Removal	0380 00-1
Removal	0379 00-1
Shock Mount Brackets, Power Supply, Infrared	
Installation	0292 00-2
Removal	0292 00-1
Test and Inspection	0292 00-1
Side Armor	
Installation	0474 00-2
Removal	0474 00-1
Smoke Generator Equipment	
Adapter Access Plate and Gasket	
Installation	0708 00-3
Removal	0708 00-1
Adapter Access Plate to Cover Assembly Air Hose	
Installation	0710 00-3
Removal	0710 00-2
Adapter Access Plate to Generator Electrical Cable Assembly	
Installation	0703 00-3
Removal	0703 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Air Compressor Assembly	
Installation	0704 00-3
Removal	0704 00-2
Air Compressor Electrical Cable Assembly	
Installation	0700 00-3
Removal	0700 00-2
Armor	
Installation	0713 00-3
Removal	0713 00-2
Breather Hose Assembly	
Installation	0696 00-2
Removal	0696 00-1
Compressor Reservoir to Adapter Access Plate Air Hose	
Installation	0709 00-3
Removal	0709 00-2
Control Panel Assembly	
Installation	0698 00-3
Removal	0698 00-2
Cover Assembly Fog Oil Quick Disconnect to Adapter Access Plate Hose	
Installation	0712 00-3
Removal	0712 00-2
Fog Oil Pump Assembly	
Installation	0705 00-3
Removal	0705 00-1
Fog Oil Pump Electrical Cable Assembly	
Installation	0701 00-3
Removal	0701 00-2
Fog Oil Tank Module	
Installation	0695 00-5
Removal	0695 00-2
Fog Oil Tank Quick Disconnect to Adapter Access Plate	
Installation	0711 00-3
Removal	0711 00-2
Fuel Can Lid Assembly	
Installation	0706 00-3
Removal	0706 00-2
Fuel Filter/Water Separator	
Installation	0715 00-3
Removal	0715 00-1
Repair	0715 00-2
Fuel Lines and Guards	
Installation	0707 00-3
Removal	0707 00-2
Generator Assembly and Support Bracket	
Installation	0697 00-5
Removal	0697 00-2
Generator Internal Cable Assembly	
Installation	0702 00-3
Removal	0702 00-2
Glow Plug Cable Assembly	
Installation	0714 00-4
Removal	0714 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Power Supply Cable Assembly	
Installation	0699 00-3
Removal	0699 00-1
Smoke Grenade Launcher, Guard, Plate, and Base	
Installation	0576 00-2
Removal	0576 00-1
Socket Identification, Multiple Pin	
Inspection-Acceptance and Rejection Criteria	0311 00-1
Spacer, Traversing Unit Mount	
Installation	0552 00-2
Removal	0552 00-1
Spare IR (M19) Periscope Stowage Box	
Installation	0526 00-2
Removal	0526 00-1
Speedometer	
Cable	
Assembly	0249 00-2
Disassembly	0249 00-1
Cable and Adapter	
Installation	0248 00-2
Removal	0248 00-1
Installation	0247 00-2
Removal	0247 00-1
Sprocket Wheel and Track Assemblies (T150)	
Assembly	0384 00-2
Disassembly	0384 00-1
Installation	0383 00-2
Removal	0383 00-1
Sprocket Wheel Assembly (T130)	
Clean, Inspect, and Replace	0382 00-2
Installation	0382 00-2
Removal	0382 00-1
Start Switch	
Clean, Inspect, and Replace	0406 00-2
Installation	0406 00-2
Removal	0406 00-1
Starter	
Alternate Installation	0236 00-5
Alternate Removal	0236 00-4
Clean, Inspect, and Repair	0236 00-5
Cleaning	0236 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Ground Leads	
Cleaning	0237 00-2
Installation	0237 00-2
Removal	0237 00-1
Installation	0236 00-2
Removal	0236 00-1
STE/ICE-R Procedures	
Battery Evaluation Procedure	0099 00-12
Battery Packs	0099 00-11
Battery Test Cards	0099 00-11
Cable Assemblies	0099 00-4
Description of STE/ICE-R Equipment	0099 00-1
Description of Test Cards	0099 00-12
For Engine RPM	
Hook-up	0107 00-1
Removal	0107 00-2
For Power	
Hook-Up	0106 00-1
Removal	0106 00-2
For Starter Circuit Tests	
Hook-up	0108 00-1
Removal	0108 00-2
General	0099 00-1
Individual Batteries	0099 00-11
Manual	0099 00-6
Readout Display Messages	0099 00-7
Series Pairs	0099 00-11
STE/ICE-R Engine Troubleshooting Method	0099 00-10
Test 01	
Test	0110 00-1
Test 10	
Test	0111 00-1
Test 13	
Test	0112 00-1
Test 67	
Test	0114 00-1
Test 72	
Test	0115 00-1
Test 73 - Test 75	
Test	0116 00-1
Test 74	
Test	0117 00-1
Test 90	
Test	0118 00-1
Test Method	0099 00-9
Transducer Kit (TK)	0099 00-6
Transit Case	0099 00-7
Vehicle Test Card (VTC)	0099 00-10
Vehicle Test Meter (VTM)	0099 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Steer Linkage, Pivot	
Adjustment	0415 00-1
Steering Levers Cross-Shaft Links	
Clean, Inspect, and Replace	0391 00-2
Installation	0391 00-2
Removal	0391 00-1
Steering Levers Cross-Shafts and Bearings	
Installation	0390 00-4
Removal	0390 00-1
Steering Levers, Left/Right	
Clean, Inspect, and Replace	0389 00-3
Installation	0389 00-4
Removal	0389 00-1
Steering Linkage	
Adjustment	0387 00-1
Stencils	
Inspection of Installed Items	
M1059 Only	0514 00-1
M1064 Only	0517 00-2
M1068 Only	0515 00-1
M113A2 Only	0512 00-2
M577A2 Only	0513 00-1
M901A1 Only	0516 00-2
M113A2 Only	0512 00-1
Stoplight Switch	
Adjustment	0290 00-2
Installation	0290 00-2
Removal	0290 00-1
Stoplight, Left	
Clean, Inspect, and Repair	0264 00-1
Installation	0264 00-2
Removal	0264 00-1
Stoplight/Taillight and Guards	
Installation	0272 00-4
Removal	0272 00-1
Stowage Box	
Grenade	
Installation	0540 00-2
Removal	0540 00-1
Periscope	
Installation	0541 00-2
Removal	0541 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Spare IR (M19) Periscope	
Installation	0526 00-2
Removal	0526 00-1
Stowage Bracket	
Launch Tube	
Installation	0550 00-2
Removal	0550 00-1
Sight Extension Arm	
Installation	0543 00-2
Removal	0543 00-1
Tripod	
Installation	0551 00-4
Removal	0551 00-2
W1, W2, and NATO Slave Cables	
Installation	0545 00-2
Removal	0545 00-1
Stowage Frame, Rear External	
Installation	0538 00-2
Removal	0538 00-1
Stowage Hooks and Brackets	
Installation	0656 00-2
Removal	0656 00-1
Stowage Rack	
Ammunition	
Installation	0547 00-2
Removal	0547 00-1
Radio	
Left Bulkhead	
Installation	0533 00-3
Removal	0533 00-2
Right Front	
Installation	0529 00-2
Removal	0529 00-1
Strainer Parts	
Filler Cap	
M577A2 and M1068	
Installation	0154 00-3
Removal	0154 00-2
M981 and M1064	
Installation	0144 00-2
Removal	0144 00-1
Strainer Tube, Ramp Pump to Hydraulic Tank	
Clean, Inspect, and Repair	0580 00-3
Installation	0580 00-3
Removal	0580 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Strainer, Hydraulic Tank	
Installation	0584 00-3
Removal	0584 00-2
Straps, Personnel Seat	
Installation	0497 00-3
Removal	0497 00-2
Support, Cargo Hatch	
Installation	0470 00-2
Removal	0470 00-1
Switch	
Dome Blackout Light Bypass	
Installation	0281 00-2
Removal	0281 00-1
Engine Start	
Installation	0243 00-2
Removal	0243 00-1
Front Dome Light	
Installation	0278 00-2
Removal	0278 00-1
Headlight, High Beam Selector	
Installation	0285 00-2
Removal	0285 00-1
Horn	
Installation	0252 00-2
Removal	0252 00-1
Light, Main	
Installation	0242 00-2
Removal	0242 00-1
Rear Dome Light	
Installation	0279 00-2
Removal	0279 00-1
Switch and Mount, Ramp Door	
Adjustment	0283 00-3
Clean, Inspect, and Repair	0283 00-2
Installation	0283 00-2
Removal	0283 00-1

T

Table	
Left	
Installation	0502 00-4
Removal	0502 00-2
Right Forward	
Installation	0501 00-4
Removal	0501 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Right Rearward	
Installation	0500 00-3
Removal	0500 00-2
Tachometer	
Cable and Adapter	
Installation	0246 00-3
Removal	0246 00-1
Instrument Panel	
Installation	0245 00-2
Removal	0245 00-1
Taillight	
Left	
Clean, Inspect, and Repair	0264 00-1
Installation	0264 00-2
Removal	0264 00-1
Right	
Installation	0265 00-2
Removal	0265 00-1
Wiring Harness	
Assembly	0554 00-7
Disassembly	0554 00-6
Installation	0554 00-7
Removal	0554 00-1
Tank	
Auxiliary	
Installation	0206 00-3
Removal	0206 00-1
Hydraulic	
Clean, Inspect, and Repair	0585 00-4
Fill Hydraulic Tank	0585 00-7
Installation	0585 00-4
Removal	0585 00-2
Tarpaulin and Straps	
Installation	0655 00-2
Removal	0655 00-1
Teleposts And Cover	
Installation	0331 00-2
Removal	0331 00-1
Tent	
Clamps	
Installation	0504 00-2
Removal	0504 00-1
Frame Mounts	
Installation	0505 00-3
Removal	0505 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Light Assembly	
Installation	0284 00-2
Removal	0284 00-1
Test Kit, Alternator/Generator	
Connect	0019 00-1
Disconnect	0019 00-5
Theory of Operation	0003 00-1
Auxiliary Automotive System	0003 00-3
Differential Components	0003 00-7
Electrical System	0003 00-4
Electrical System (M1064 Only)	0003 00-18
Electrical System (M1068 Only)	0003 00-16
Electrical System (M113A2 and M1059)	0003 00-10
Electrical System (M577A2 Only)	0003 00-14
Electrical System (M901A1 Only)	0003 00-12
Hydraulic System	0003 00-3
Kit Integrated Systems	0003 00-20
Major Components	0003 00-5
Oil Cooling System Components - Engine, Transmission, and Differential	0003 00-8
Power Plant	0003 00-1
Power Plant Components	0003 00-6
Scope	0003 00-1
Special Equipment	0003 00-4
Suspension System	0003 00-4
Tracks and Suspension Components	0003 00-9
Thermostat Housing to Engine Coolant Tube	
Installation	0201 00-2
Removal	0201 00-1
Thermostat, Housing, and Deaeration Elbow	
Installation	0200 00-3
Removal	0200 00-1
Throttle Valve Linkage, Accelerator and Transmission	
Adjust Governor Linkage	0401 00-2
Adjust Idle Stop	0401 00-6
Adjust Throttle Valve Linkage	0401 00-4
Adjust Upper Accelerator Detent Plunger	0401 00-9
Adjust Upper Accelerator Pedal Detent Stop	0401 00-7
Adjust Upper Accelerator Pedal Toe Stop	0401 00-8
Check Operation	0401 00-9
Tools, Supplements, and Fixtures List	0780 00-1
Torsion Bar	
Installation	0385 00-4
Removal	0385 00-2

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Torsion Bar Anchor	
Clean, Inspect, and Replace	0386 00-2
Installation	0386 00-2
Removal	0386 00-2
Tow Cable, Pad	
Installation	0420 00-2
Removal	0420 00-1
Towing Hook, Eye	
Installation	0418 00-2
Removal	0418 00-1
Towing Pintle	
Assembly	0419 00-3
Disassembly	0419 00-2
Inspection-Acceptance and Rejection Criteria	0419 00-2
Installation	0419 00-4
Removal	0419 00-1
Towlines	
Clean, Inspect, and Repair	0657 00-2
Installation	0657 00-3
Removal	0657 00-1
Track	
T130	
Clean, Inspect, and Repair	0366 00-2
Installation	0366 00-3
Removal	0366 00-1
T150	
Installation	0367 00-2
Removal	0367 00-1
Tension Adjuster and Mount	
Clean, Inspect, and Replace	0378 00-2
Installation	0378 00-2
Removal	0378 00-1
Track Covers	
Installation	0365 00-2
Removal	0365 00-1
Track Shoe	
Pad (T150)	
Installation	0370 00-2
Removal	0370 00-1
Pad Assembly (T130)	
Installation	0368 00-2
Removal	0368 00-2
Replacement	0368 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Stowage Bracket	
Installation	0553 00-2
Removal	0553 00-1
T150	
Installation	0369 00-2
Removal	0369 00-1
Trailer Harness	
Inspection-Acceptance and Rejection Criteria	0328 00-2
Installation	0328 00-2
Removal	0328 00-1
Transfer Gearcase	
Lifting Eyebolt, Cover, and Plug	
Inspect and Replace	0346 00-2
Installation	0346 00-2
Removal	0346 00-1
Oil Dipstick, Tube, and Guide	
Clean, Inspect, and Repair	0343 00-2
Installation	0343 00-2
Removal	0343 00-1
Oil Filler	
Assembly	0345 00-2
Clean, Inspect, and Repair	0344 00-2, 0345 00-2
Disassembly	0345 00-1
Installation	0344 00-2
Removal	0344 00-1
Resilient Mount	
Clean, Inspect, and Repair	0342 00-2
Installation	0342 00-2
Removal	0342 00-1
Transmission	
Differential Shaft	
Clean, Inspect, and Repair	0347 00-2
Installation	0347 00-2
Removal	0347 00-1
High Oil Temperature Switch	
Clean, Inspect, and Repair	0320 00-1
Installation	0320 00-2
Removal	0320 00-1
Oil Cooler Hose and Fittings	
Clean, Inspect, and Repair	0338 00-2
Installation	0338 00-3
Removal	0338 00-1
Oil Filter and Drain	
Clean, Inspect, and Repair	0341 00-2
Installation	0341 00-2
Removal	0341 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Range Selector	
Assembly	0405 00-4
Clean, Inspect, and Repair	0405 00-3
Disassembly	0405 00-1
Installation	0404 00-2
Removal	0404 00-1
Throttle Valve Linkage, Accelerator	
Adjust Governor Linkage	0401 00-2
Adjust Idle Stop	0401 00-6
Adjust Throttle Valve Linkage	0401 00-4
Adjust Upper Accelerator Detent Plunger	0401 00-9
Adjust Upper Accelerator Pedal Detent Stop	0401 00-7
Adjust Upper Accelerator Pedal Toe Stop	0401 00-8
Check Operation	0401 00-9
Vent and Filler Tube	
Clean, Inspect, and Repair	0340 00-2
Installation	0340 00-2
Removal	0340 00-1
Transmitter	
Fuel Quantity	
M113A2, M1059, and M901A1	
Installation	0138 00-2
Removal	0138 00-1
M577A2 and M1068	
Cleaning	0155 00-2
Installation	0155 00-2
Removal	0155 00-1
M981 and M1064	
Installation	0146 00-3
Removal	0146 00-1
Traversing Unit Mount and Spacer	
Installation	0552 00-2
Removal	0552 00-1
Trim Vane	
Assembly	0422 00-2
Disassembly	0422 00-1
Installation	0421 00-2
Removal	0421 00-1
Trim Vane Control Linkage	
Assembly	0423 00-2
Disassembly	0423 00-1
Trim Vane Release	
Adjustment	0424 00-3
Assembly	0425 00-2
Disassembly	0425 00-1
Installation	0424 00-2
Removal	0424 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Tripod Stowage Brackets	
Installation	0551 00-4
Removal	0551 00-2
Troubleshooting	
Definitions and Descriptions of Troubleshooting Procedures	0005 00-1
Purpose	0005 00-1
Troubleshooting Basics	0005 00-2
Troubleshooting Sample	0005 00-4
Tubes	
Air Box Heater to Fuel Return Tee	
Installation	0169 00-4
Removal	0169 00-1
Fuel Tank-to-Bulkhead	
Installation	0141 00-6
Removal	0141 00-1
Fuel Vent	
Installation	0160 00-4
Removal	0160 00-1
Left Cylinder Head Fuel Return	
Installation	0170 00-2
Removal	0170 00-1
Oil Filler	
Installation	0128 00-3
Removal	0128 00-2
Quick Disconnect and Ramp Control Valve to Bulkhead Connection	
Installation	0587 00-4
Removal	0587 00-2
U	
Utility Outlet	
Lead Assembly	
Inspection-Acceptance and Rejection Criteria	0330 00-2
Installation	0330 00-2
Removal	0330 00-1
Receptacle	
Inspection-Acceptance and Rejection Criteria	0329 00-2
Installation	0329 00-3
Removal	0329 00-1
V	
Valve	
Air Control	
Installation	0187 00-4
Removal	0187 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Fuel Shutoff	
Auxiliary Power Unit	
Installation	0594 00-3
Removal	0594 00-2
Fuel Shutoff Assembly	
Installation	0615 00-2
Removal	0615 00-1
Valves, Hull Poppet	
Installation	0435 00-2
Removal	0435 00-1
Vent, Fuel Cap	
Cleaning	0150 00-1
Vision Block Locks and Seals, Commander's Hatch	
Installation	0451 00-3
Removal	0451 00-1
Vision Port, Ramp	
Installation	0571 00-2
Removal	0571 00-1
Voltage Regulator	
Adjustment	0229 00-1
Installation	0230 00-3
Removal	0230 00-1
Repair or Replacement	0230 00-2
W	
W1, W2, and NATO Slave Cables Stowage Bracket	
Installation	0545 00-2
Removal	0545 00-1
Warning Light Panel	
Installation	0254 00-2
Removal	0254 00-1
Warning Light Panel Assembly	
Installation	0253 00-2
Removal	0253 00-1
Warning Panel Lights	
Clean, Inspect, and Repair	0251 00-2
Installation	0251 00-2
Removal	0251 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Welding	
Aluminum Castings	0575 00-2
External Fuel Tanks (M981 and M1064 Only)	0575 00-3
General Welding Instructions	0575 00-4
Magnesium Castings	0575 00-2
MIG Welding Method	0575 00-5
Plastic Molding Material	0575 00-3
Safety Precautions	0575 00-1
Welding Near Mortar Ring (M1064 Only)	0575 00-4
Wheel	
Idler	
Installation	0375 00-2
Removal	0375 00-1
Windshield	
Driver's	
Installation	0624 00-2
Removal	0624 00-1
Stowage Bracket	
Installation	0542 00-2
Removal	0542 00-1
Wire Rope and Pulleys	
All Except M1064	
Installation	0564 00-2
Removal	0564 00-1
M1064 Only	
Installation	0565 00-2
Removal	0565 00-1
Wiring Harness	
Air Box Heater	
Installation	0181 00-2
Removal	0181 00-1
Battery to Radio, Left Side	
Installation	0307 00-4
Removal	0307 00-1
Coolant Pump to Heater	
Inspection and Repair	0649 00-2
Installation	0649 00-2
Removal	0649 00-1
M13 NBC Heater	
M1068 Only	
Installation	0684 00-5
Removal	0684 00-1
M577A2 Only	
Installation	0670 00-3
Removal	0670 00-1

INDEX, cont'd

<u>Subject</u>	<u>WP Sequence No.-Page No.</u>
Rear Main	
M1064	
Inspect and Repair	0288 00-13
Installation	0288 00-13
Removal	0288 00-1
M113A2, M901A1, and M1059	
Installation	0289 00-11
Removal	0289 00-1
M577A2 and M1068	
Inspection and Repair	0287 00-16
Installation	0287 00-16
Removal	0287 00-1
Right Headlight	
Inspect and Repair	0286 00-3
Installation	0286 00-3
Removal	0286 00-1
Smoke Grenade Launcher	
Installation	0577 00-7
Removal	0577 00-2
Wiring Harness, Repair	
Assembly	0312 00-4
Disassembly	0312 00-1

RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS For use of this form, see AR 25-30; the proponent agency is ODISC4.	Use Part II (reverse) for Repair Parts and Special Tools Lists (RPSTL) and Supply Catalogs/Supply Manuals SC/SM).	Date
TO: (Forward to proponent of publication or form) (Include ZIP Code)	FROM: (Activity and location) (include ZIP code)	

PART I – ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

PUBLICATION/FORM NUMBER TM 9-2350-261-20-2	DATE 26 AUGUST 2005	TITLE Unit Maintenance Manual for M113A2, M577A2, M1064, M1068, M1059, and M901A1
---	------------------------	--

ITEM	PAGE	PARA	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON
0052 00-4						Inspection Step 1 WP reference should be (WP 0003 00) <div style="text-align: center; font-size: 4em; opacity: 0.5;"> SAMPLE </div>

**Reference to line numbers within the paragraph or subparagraph.*

TYPED, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
-----------------------	--	-----------

TO: (Forward direct to addressee listed in publication)	FROM: (Activity and location) (Include Zip Code)	Date
--	---	-------------

PART II – REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS

PUBLICATION/FORM NUMBER TM 9-2350-261-20-2	DATE 26 AUGUST 2005	TITLE Unit Maintenance Manual for M113A2, M577A2, M1064, M1068, M1059, and M901A1
--	-------------------------------	---

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).

SAMPLE

TYPED, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
------------------------------	---	------------------

RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS For use of this form, see AR 25-30; the proponent agency is ODISC4.	Use Part II (reverse) for Repair Parts and Special Tools Lists (RPSTL) and Supply Catalogs/Supply Manuals SC/SM).	Date
--	---	------

TO: (Forward to proponent of publication or form) (Include ZIP Code)	FROM: (Activity and location) (include ZIP code)
---	---

PART I – ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

PUBLICATION/FORM NUMBER TM 9-2350-261-20-2	DATE 26 AUGUST 2005	TITLE Unit Maintenance Manual for M113A2, M577A2, M1064, M1068, M1059, and M901A1
---	------------------------	--

ITEM	PAGE	PARA	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON

**Reference to line numbers within the paragraph or subparagraph.*

TYPED, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
-----------------------	--	-----------

TO: (Forward direct to addressee listed in publication)	FROM: (Activity and location) (Include Zip Code)	Date
--	---	-------------

PART II – REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS

PUBLICATION/FORM NUMBER TM 9-2350-261-20-2	DATE 26 AUGUST 2005	TITLE Unit Maintenance Manual for M113A2, M577A2, M1064, M1068, M1059, and M901A1
--	-------------------------------	---

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, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
-----------------------	--	-----------

RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS For use of this form, see AR 25-30; the proponent agency is ODISC4.	Use Part II (reverse) for Repair Parts and Special Tools Lists (RPSTL) and Supply Catalogs/Supply Manuals SC/SM).	Date
TO: (Forward to proponent of publication or form) (Include ZIP Code)	FROM: (Activity and location) (include ZIP code)	

PART I – ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

PUBLICATION/FORM NUMBER TM 9-2350-261-20-2	DATE 26 AUGUST 2005	TITLE Unit Maintenance Manual for M113A2, M577A2, M1064, M1068, M1059, and M901A1
---	------------------------	--

ITEM	PAGE	PARA	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON

**Reference to line numbers within the paragraph or subparagraph.*

TYPED, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
-----------------------	---	-----------

TO: (Forward direct to addressee listed in publication)	FROM: (Activity and location) (Include Zip Code)	Date
--	---	-------------

PART II – REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS

PUBLICATION/FORM NUMBER TM 9-2350-261-20-2	DATE 26 AUGUST 2005	TITLE Unit Maintenance Manual for M113A2, M577A2, M1064, M1068, M1059, and M901A1
--	-------------------------------	---

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, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
-----------------------	--	-----------

<p>RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS</p> <p>For use of this form, see AR 25-30; the proponent agency is ODISC4.</p>	<p>Use Part II (reverse) for Repair Parts and Special Tools Lists (RPSTL) and Supply Catalogs/Supply Manuals SC/SM).</p>	<p>Date</p>
<p>TO: <i>(Forward to proponent of publication or form) (Include ZIP Code)</i></p>	<p>FROM: <i>(Activity and location) (include ZIP code)</i></p>	

PART I – ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

<p>PUBLICATION/FORM NUMBER TM 9-2350-261-20-2</p>	<p>DATE 26 AUGUST 2005</p>	<p>TITLE Unit Maintenance Manual for M113A2, M577A2, M1064, M1068, M1059, and M901A1</p>
---	--------------------------------	--

ITEM	PAGE	PARA	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON

**Reference to line numbers within the paragraph or subparagraph.*

<p>TYPED, GRADE OR TITLE</p>	<p>TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION</p>	<p>SIGNATURE</p>
------------------------------	---	------------------

TO: (Forward direct to addressee listed in publication)	FROM: (Activity and location) (Include Zip Code)	Date
--	---	-------------

PART II – REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS

PUBLICATION/FORM NUMBER TM 9-2350-261-20-2	DATE 26 AUGUST 2005	TITLE Unit Maintenance Manual for M113A2, M577A2, M1064, M1068, M1059, and M901A1
---	-------------------------------	--

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, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
-----------------------	--	-----------

TO: (Forward direct to addressee listed in publication)	FROM: (Activity and location) (Include Zip Code)	Date
--	---	-------------

PART II – REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS

PUBLICATION/FORM NUMBER TM 9-2350-261-20-2	DATE 26 AUGUST 2005	TITLE Unit Maintenance Manual for M113A2, M577A2, M1064, M1068, M1059, and M901A1
---	-------------------------------	--

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, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
-----------------------	--	-----------

By Order of the Secretary of the Army:

PETER J. SCHOOMAKER
General, United States Army
Chief of Staff

Official:


SANDRA R. RILEY
Administrative Assistant to the
Secretary of the Army
0520001

DISTRIBUTION: To be distributed in accordance with the initial distribution requirements for IDN: **371201**, requirements for TM 9-2350-261-20-2.

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

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

LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
 1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

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 Sq. Meters = 0.386 Sq. Miles

CUBIC MEASURE

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches
 1 Cu. Meter = 1,000,000 Cu. Centimeters = 35.31 Cu. Feet

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
 $(9/5 \times ^{\circ}\text{C}) + 32 = ^{\circ}\text{F}$

TO CHANGE	TO	MULTIPLY BY
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	Millimeters	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 per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square 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 Square Inch	0.145
Kilometers per Liter	Miles per Gallon	2.354
Kilometers per Hour	Miles per Hour	0.621

