CONTENTS-MILITARY INSTALLATION INSTRUCTIONS FOR WINTERIZATION KITS

PART NO.	KIT NO.	VEHICLE DESCRIPTION
14067741	1	TYPE "B" M1008 - CARGO SHELTER/TROOP SEAT
14067742	2	TYPE "D" M1031 - CAB CHASSIS
		TYPE "E" M1028 - CARGO SHELTER CARRIER
14067743	3	TYPE "A" M1009 - UTILITY
14067744	4	TYPE "C" M1010 - AMBULANCE

ALL ITEMS REMOVED AND REPLACED WITH NEW PARTS SHOULD BE IDENTIFIED AND RETURNED TO STOCK FOR USE AS SERVICE PARTS, SUCH AS OIL COOLER LINES, OIL PAN, TRANSMISSION PAN, BATTERY TRAYS, HEATER BLOWER ASSEMBLY, ENGINE COOLANT CROSSOVER, CARGO BOX TAILGATE AND HARDWARE. OTHER PARTS (WATER HOSES AND OLD INSULATORS) MAY BE DISCARDED.

NOTE HOW TO USE PARTS LIST.

1. REFER TO PICTURE ITEM NUMBER IN EACH FIGURE (SHOWN IN ☐) WHICH IS SHOWN IN EACH SECTION.

2. GO TO PARTS LIST AT THE END OF EACH SECTION. FIND THE BOX NUMBER AND READ ACROSS.

   A. FIRST COLUMN IS ITEM NUMBER ☐.
   B. SECOND COLUMN IS DESCRIPTION.
   C. THIRD COLUMN IS PART NUMBER (EACH PART IS TAGGED BY ITS OWN PART NUMBER).

Truck & Bus Group GM

PRINTED IN U.S.A. 260C84 PART NO. 15599242

CONTENTS-MILITARY INSTALLATION INSTRUCTIONS FOR WINTERIZATION KITS
(continued)

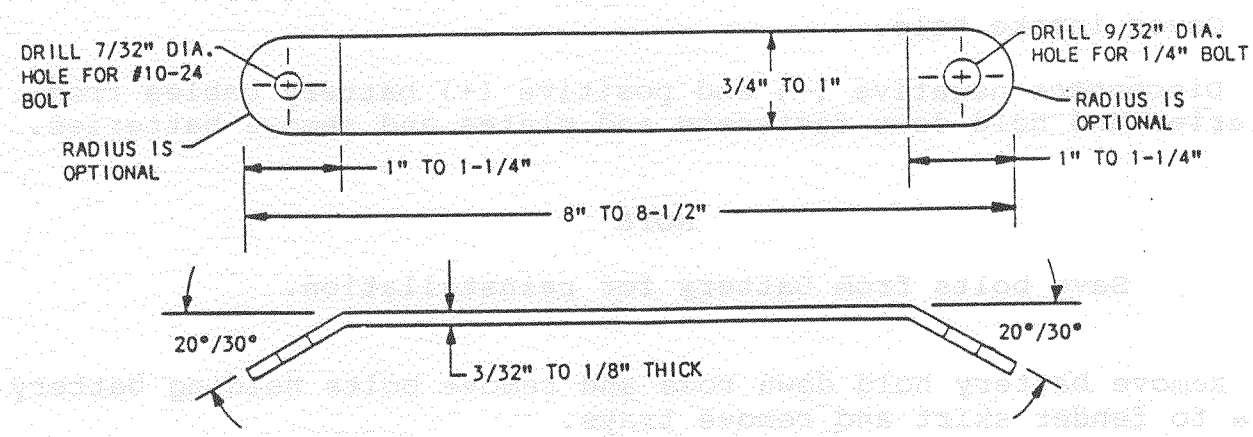
D. FOURTH COLUMN IS THE UNIT BOX THAT THE PART IS PACKAGED IN AND IS SUPPLIED IN THE KIT. IF THERE IS A NUMBER UNDER THE UNIT NUMBER IN PARENTHESES, EX. (12345678), THE PART IS IN THAT PACKAGE WHICH IS A PACKAGE INSIDE THE UNIT BOX.

E. FIFTH COLUMN SHOWS WHICH KIT THE PART IS REQUIRED FOR AND IS SUPPLIED IN THE KIT.

SPECIAL TOOLS REQUIRED FOR INSTALLATION OF WINTER KITS WHICH ARE INCLUDED IN KITS: INSTRUCTIONS FOR MANUFACTURING A JACKNUT TOOL, RTV SEALANT, TEFLON PASTE SEALER, AND ANTI-CORROSION SEALER.

SPECIAL TOOLS REQUIRED FOR INSTALLATION OF WINTER KITS NOT INCLUDED IN KITS: JACKNUT INSTALLATION TOOL, CAULKING GUN, HOLE SAWS IN THE FOLLOWING SIZES: 1-5/8 INCH, 1-3/8 INCH, 1-1/4 INCH, 1-1/8 INCH, 1 INCH, 3/4 INCH, AND 3-1/2 INCH.

MANUFACTURING A JACKNUT TOOL

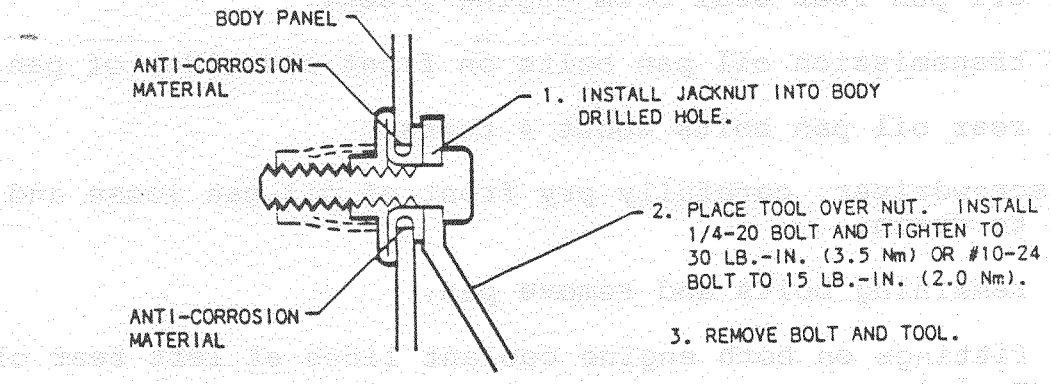


PLAIN STEEL
SAE 1008-1010

PROCURE A 1/4"-20 x 1-1/4" LONG HEX. HD. BOLT (FULL THREAD)

AND PROCURE #10-24 x 1-1/4" LONG HEX. HD. BOLT (FULL THREAD)

TOOL IS USED IN THE FOLLOWING MANNER:



I. INSTALL ENGINE COMPARTMENT HEATERS

1. Remove air cleaner.

2. Cover intake hole.

3. Disconnect negative (-) and positive (+) battery cables from batteries and hold down fasteners and plates and remove batteries.

NOTE

Save bolts from battery for reinstallation.

4. Remove battery hold down rods and remove bolts holding battery trays to fender skirt and remove trays.

5. Remove oil dipstick, remove nut and washer on dipstick mounting tube and pull out tube, and discard "O" ring seal.

6. Drain engine oil into container.

7. Remove transmission dust cover.

NOTE

Save bolts for later installation.

8. Remove bolts securing oil pan to engine and remove.

9. Remove oil pan rear seal from engine block.

10. Remove transmission oil pan bolts on front and sides of pan.

11. Loosen rear oil pan bolts about 4 turns.

12. Using screwdriver, carefully pry front of oil pan loose and allow fluid to drain.

13. Remove remaining bolts and remove pan.

14. Remove fittings on both engine coolant lines at left rear of engine (Figure 1.).

15. Remove bolt, nut and washer from bracket assembly located at engine. Remove lines from clip (Figure 15.).

16. Remove oil coolant lines at left side of radiator (Figure 1.).

17. Remove oil coolant lines from clip on left fender skirt (Figure 1.).

NOTE

Save oil coolant line clip for later use.

18. Remove oil coolant lines and clip from left fender skirt.

19. Remove two transmission coolant lines at transmission.

20. Install oil pan plug from old oil pan into new winterized oil pan.

21. Install new rear pan seal on engine (Figure 2.).

22. Clean gasket surfaces on engine block.

NOTE

Caution should be taken not to dislodge oil pickup unit when installing oil pan.

Place oil pan in position and install bolts before sealer dries.

23. Place 3/16 inch bead of RTV sealer on lip of new winterized oil pan and install (Figure 2.). Tighten two rear bolts to 15-20 lb.-ft. (20.0-27.0 Nm). Tighten remaining bolts to 55-90 lb.-in. (6.0-10.0 Nm).

24. Install transmission dust cover.

25. Install new "O" ring on oil dipstick tube.

26. Replace dipstick tube and push so that it is seated on "O" ring seal.

27. Install nut and washer on dipstick tube mounting bracket and install oil dipstick.

NOTE

Place oil pan in position and install bolts before sealer dries.

28. Clean gasket surfaces on transmission and place 3/16 inch bead of RTV sealer on winterization transmission oil pan and install. Tighten to 85-120 lb.-in. (9.5-14.0 Nm).

29. Connect transmission coolant lines at transmission.

NOTE

When installing new oil coolant lines, maintain 1/2 inch clearance to shift linkage.

Metal part of oil coolant lines to rear of engine.

30. Connect new oil coolant lines at rear of engine.

31. Remove existing bracket and two manifold screws at rear of manifold (Figure 1.).

32. Install two new manifold bolts and new bracket. Tighten to 19-26 lb.-ft. (25.0-35.0 Nm) (Figure 1.).

33. Install oil coolant lines in old clip with old bolt and washer to bracket. Tighten to 45-60 lb.-in. (5.0-7.0 Nm).

34. Connect new oil coolant lines to radiator and tighten (Figure 1.).

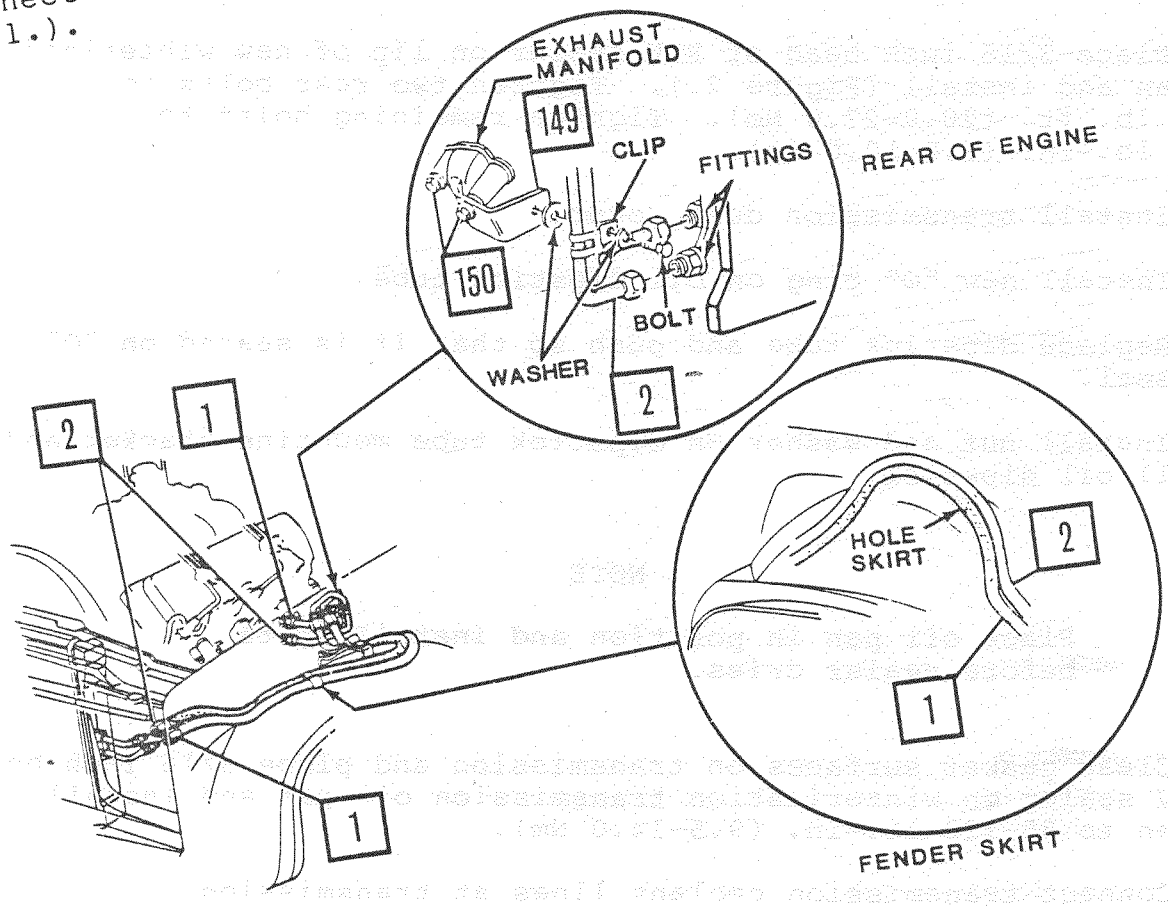


Figure 1.

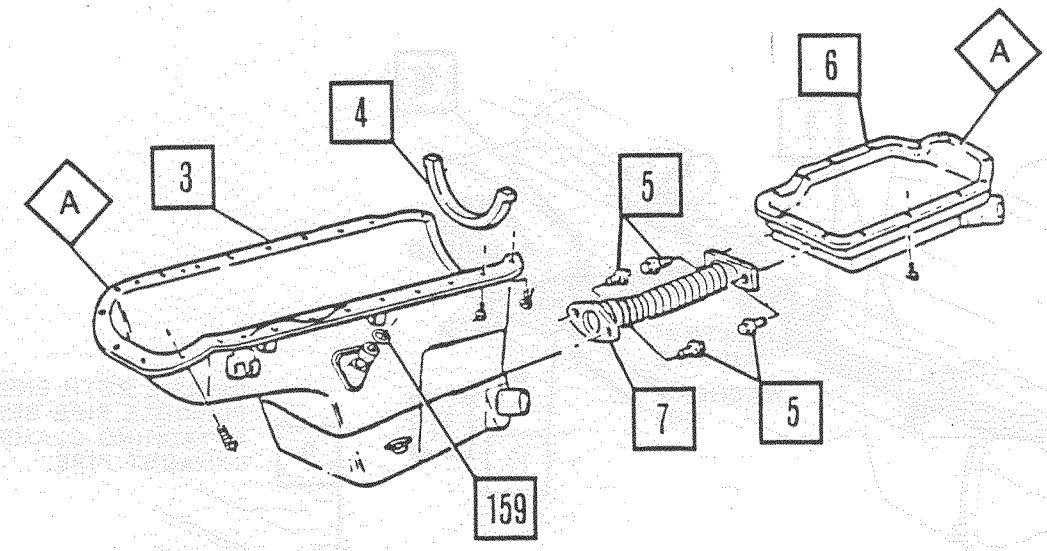


Figure 2.

35. Connect new winterized engine oil pan and new winterized transmission oil pan with new short exhaust pipe (Figure 2.). Tighten new screws to 40-60 lb.-in. (4.5-7.0 Nm).

36. Route new heater tailpipe above crossmember to new winterized transmission pan outlet and install clamp. Tighten to 75-95 lb.-in. (8.4-10.7 Nm).

37. Attach new heater tailpipe to transmission pan outlet with clamp. Route pipe along existing exhaust pipe and attach clamps an equal distance apart along existing exhaust pipe (Figure 3.). Tighten to 50-60 lb.-in. (6.0-8.0 Nm).

38. Secure end of heater tailpipe to stone shield in front of left rear wheel with nut and bolt (Figure 3.). Tighten to 8-11 lb.-ft. (11.0-15.0 Nm).

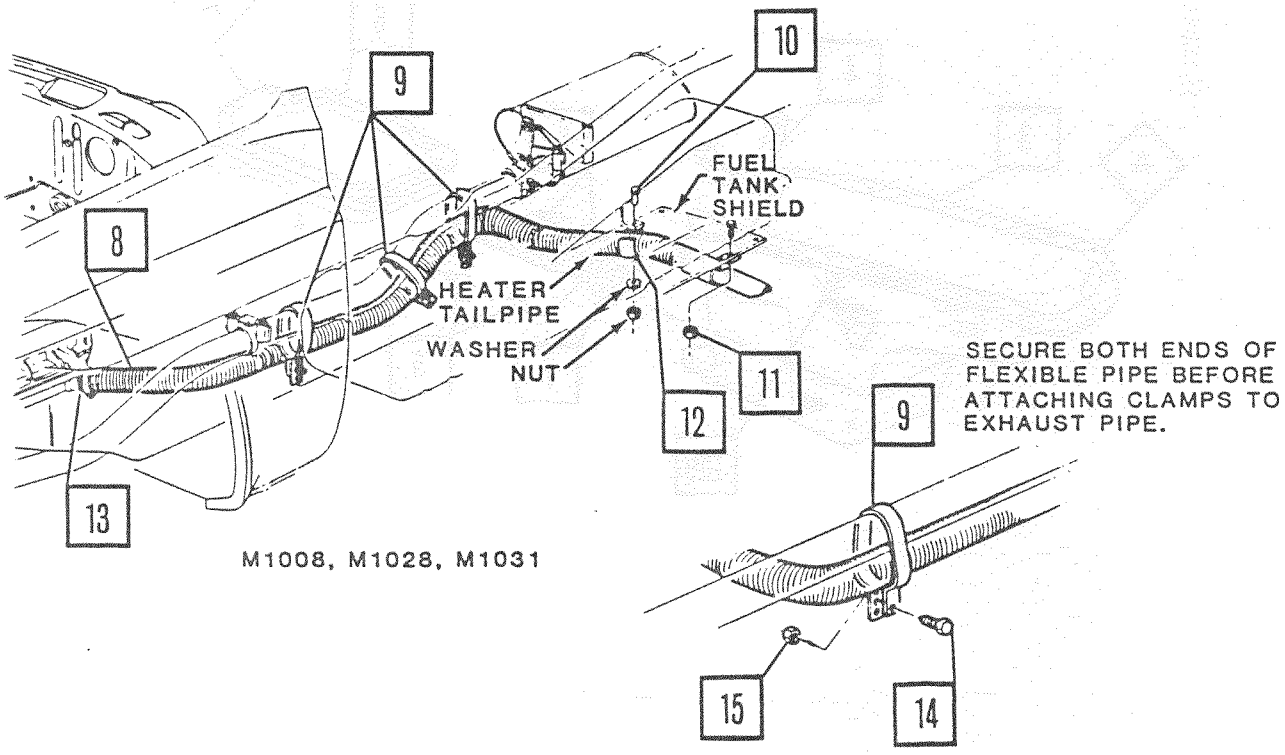


Figure 3.

NOTE

Step 39 for M1009 only.

39. Secure end of heater tailpipe to pencil brace in front of left rear wheel. Tighten to 14-22 lb.-in. (19.0-30.0 Nm). Drill 11/32 inch hole in frame and secure with clamp, nut and bolt (Figure 4.). Tighten to 8-11 lb.-ft. (11.0-15.0 Nm).

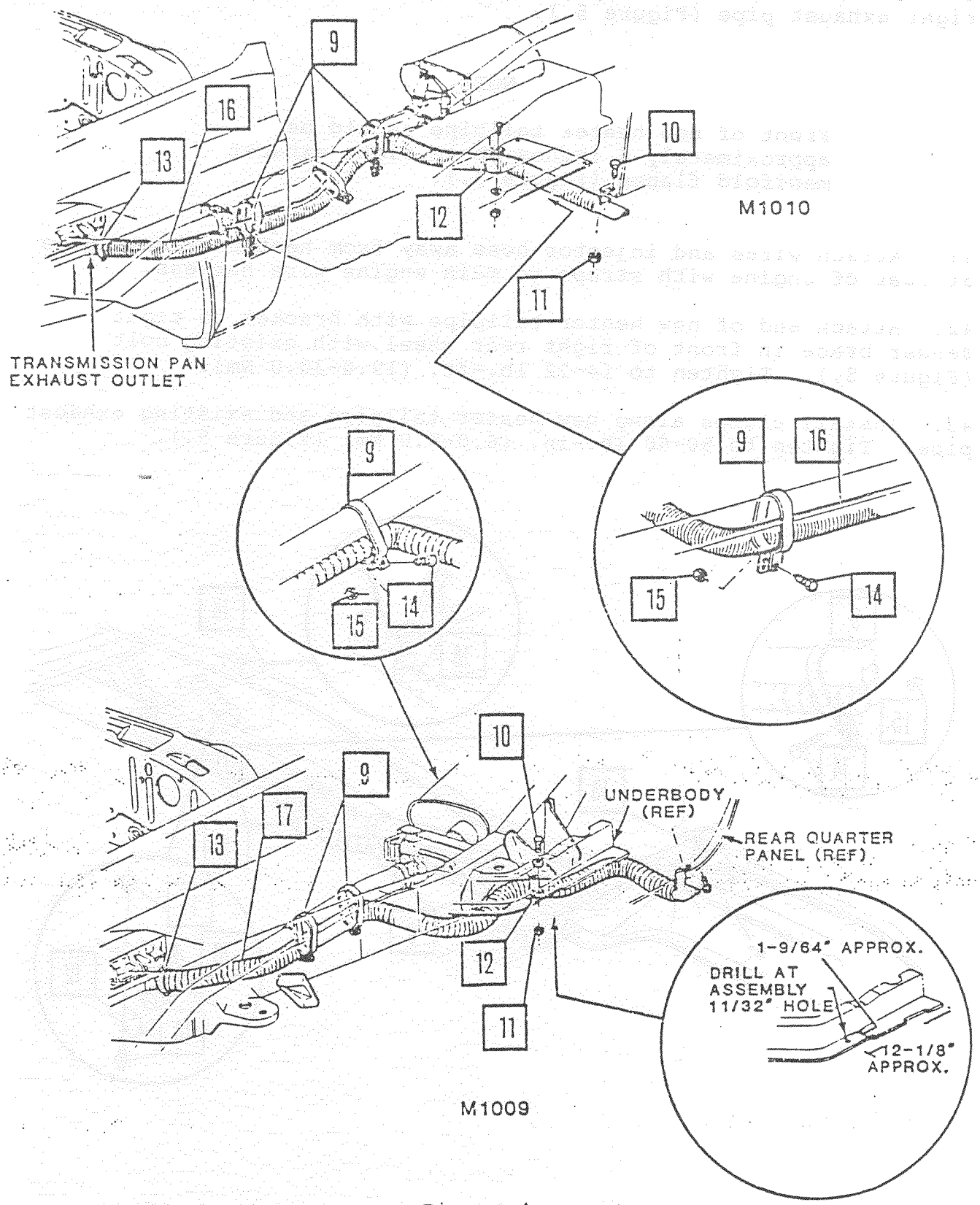

9
16
13
10
12
11
TRANSMISSION PAN
EXHAUST OUTLET
M1010
9
15
14
9
16
15
14
10
9
17
13
UNDERBODY
(REF)
REAR QUARTER
PANEL (REF)
12
11
1-9/64" APPROX.
DRILL AT
ASSEMBLY
11/32" HOLE
12-1/8"
APPROX.
M1009

Figure 4.

40. Route new heater tailpipe above transmission crossmember along right exhaust pipe (Figure 5.).

NOTE

Front of new heater tailpipe should be approximately 6 inches above right exhaust manifold flange (Figure 5.).

41. Attach wires and injector hose away from heater exhaust pipe at rear of engine with straps to main engine wire harness.

42. Attach end of new heater tailpipe with bracket to right fender brace in front of right rear wheel with existing bolt (Figure 5.). Tighten to 14-22 lb.-ft. (19.0-30.0 Nm).

43. Install clamps along new heater tailpipe and existing exhaust pipe. Tighten to 50-60 lb.-in. (6.0-8.0 Nm) (Figure 5.).

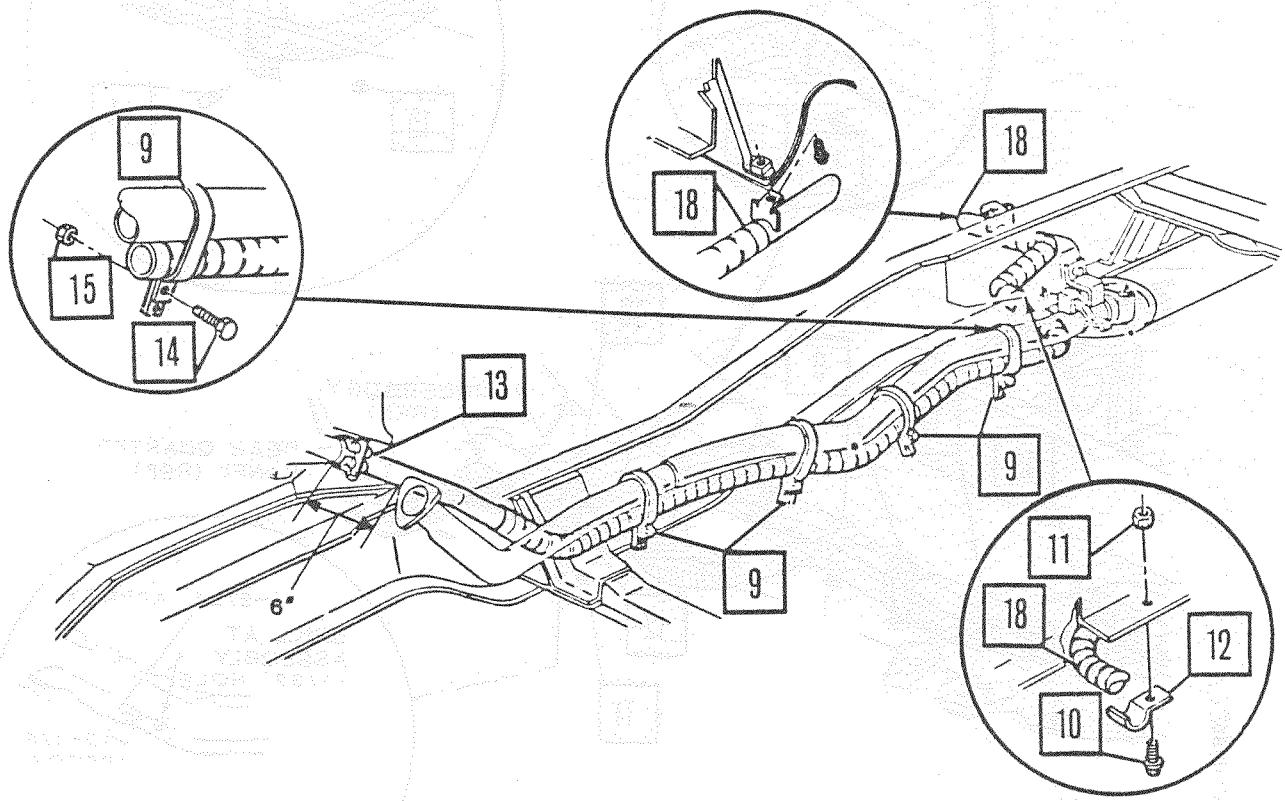


Figure 5. M1008, M1028 and M1031 Vehicles.

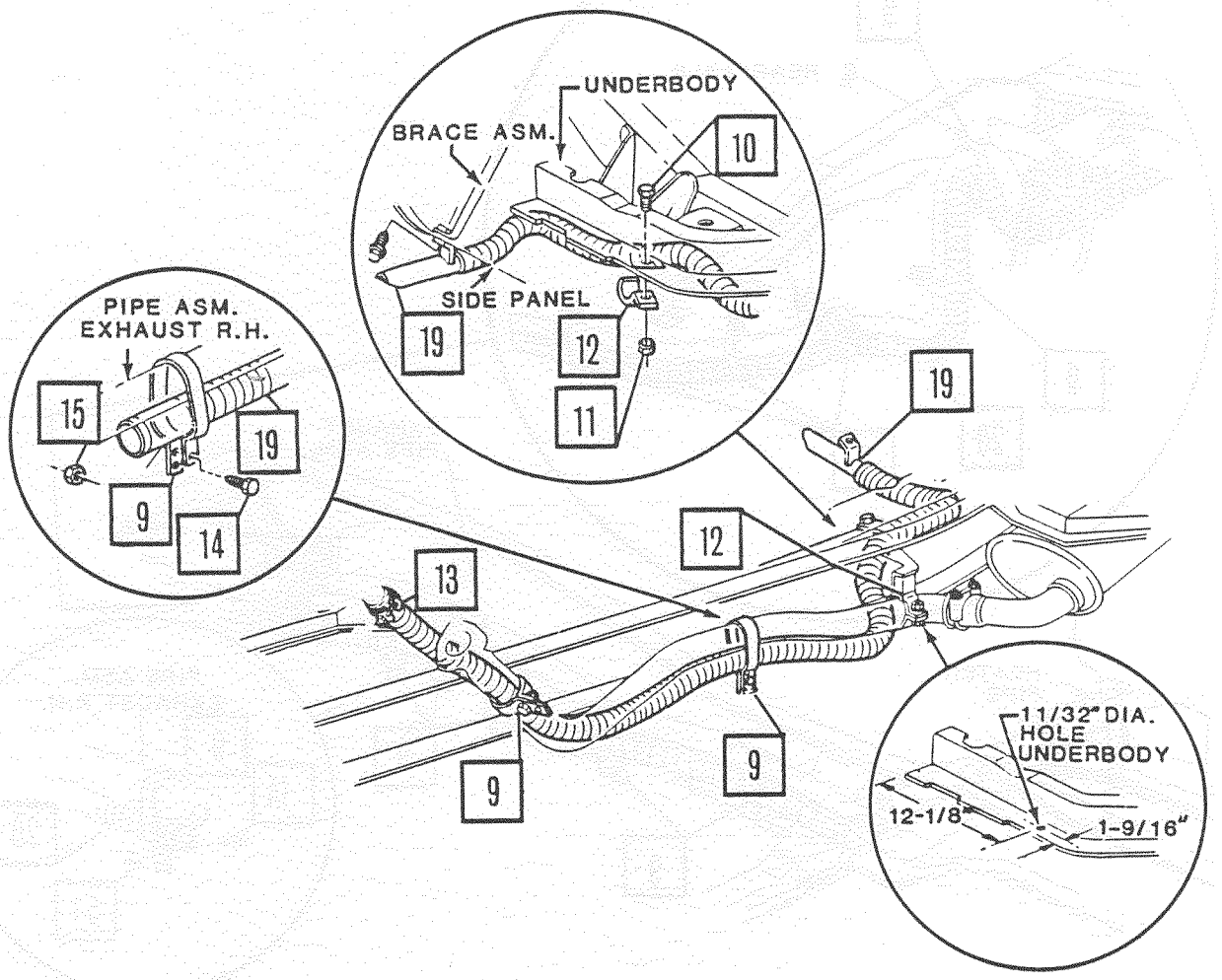


Figure 5a. M1009 Vehicle.

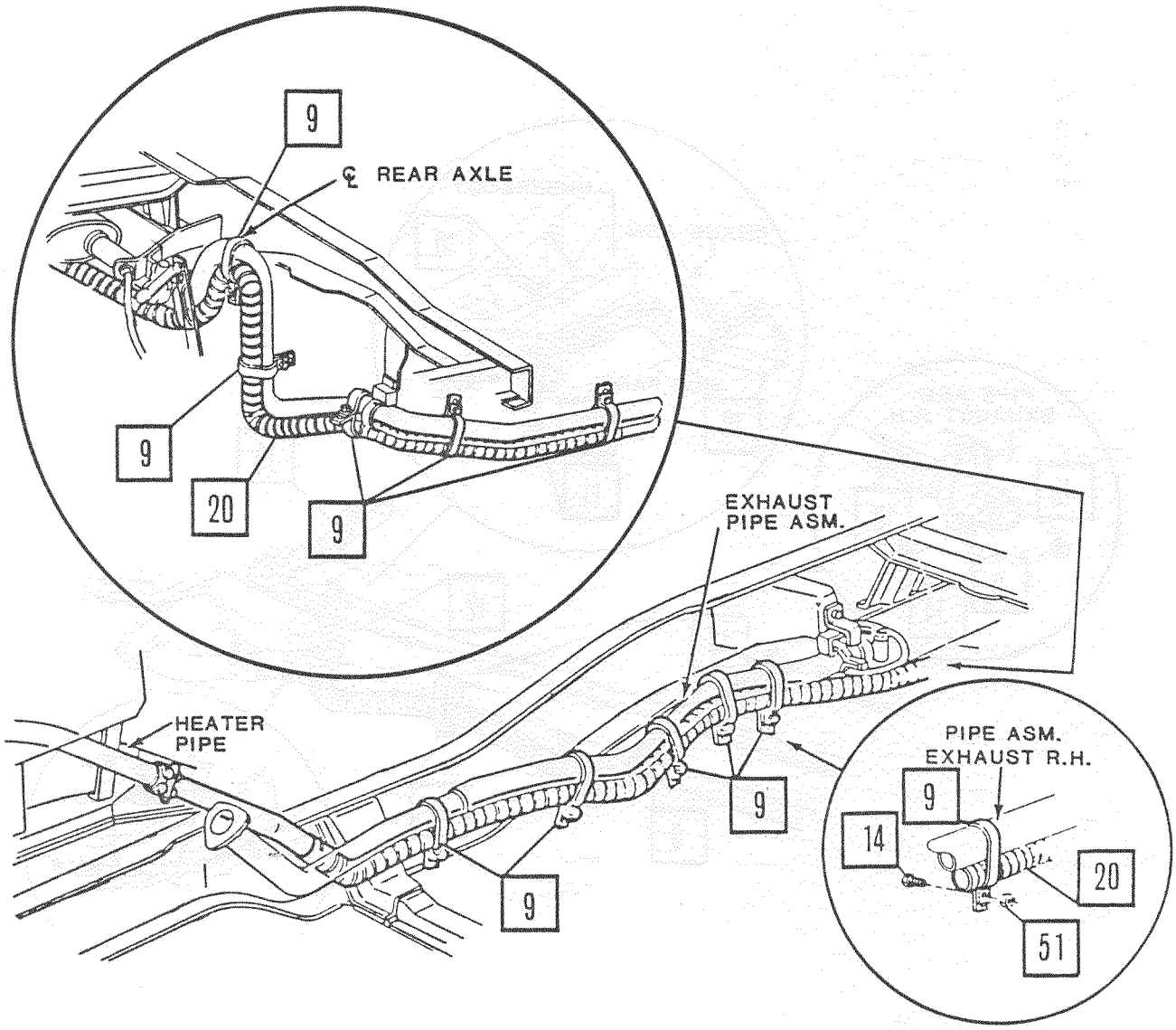


Figure 5b. M1010 Vehicle.

44. Open petcock and drain radiator.

45. Remove positive (+) battery cable from junction block and along firewall from plastic clips, and remove from vehicle.

NOTE

Do not pull on heater hoses when removing. They must be cut off by slitting to prevent damage to heater core outlets.

46. Remove heater hoses from firewall outlets, clips on fender skirt and radiator and engine connections.

47. Remove bolts securing right front fender skirt to radiator support.

48. Remove bolts securing fender skirt to fender.

49. Remove bolts securing fender skirt to firewall.

50. Remove screws from plastic panel under fender skirt.

51. Remove fender skirt.

NOTE

Save screws and bolts for later installation.

52. Disconnect electrical connectors and remove existing blower assembly and air inlet assembly (Figure 6.).

53. Bend weld flange upward toward firewall, 3 inches.

54. Clean firewall area of old sealer.

55. Place new air inlet blower assembly on firewall, and mark and drill a 5/32 inch hole in left top of assembly with missing hole in firewall (Figure 6.). Remove blower assembly after drilling hole.

56. Install RTV sealer on new air inlet blower assembly and install (Figure 6.). Tighten to 20-30 lb.-in. (2.3-3.4 Nm).

57. Install RTV sealer around top and sides of blower assembly after installation.

58. Transfer resistor from old blower assembly to new blower assembly and seal with RTV sealer (Figure 6.). Tighten to 10-15 lb.-in. (1.2-1.6 Nm).

59. Install new blower wire assembly to resistor and connector to existing electrical connectors (Figure 6.).

60. Transfer capacitor from old blower motor to new blower motor.

61. Cut 2 inches off end of loose resistor wire and tape to harness with electrical tape.

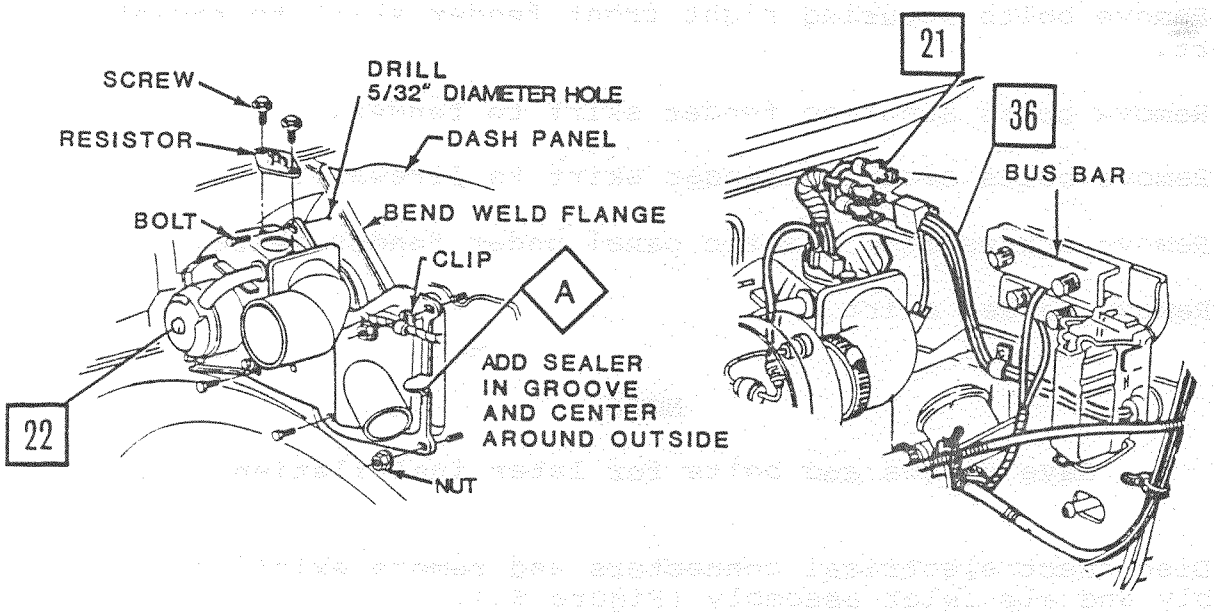


Figure 6.

62. Remove bus bar terminal covers.

NOTE

Apply anti-corrosion sealer to all drilled holes.

63. Remove two studs and heater hose clamp from right fender skirt.

64. Locate and drill 5/16 inch holes X, and 3/8 inch holes Y, in right fender skirt in prepunched depressions (Figure 7.).

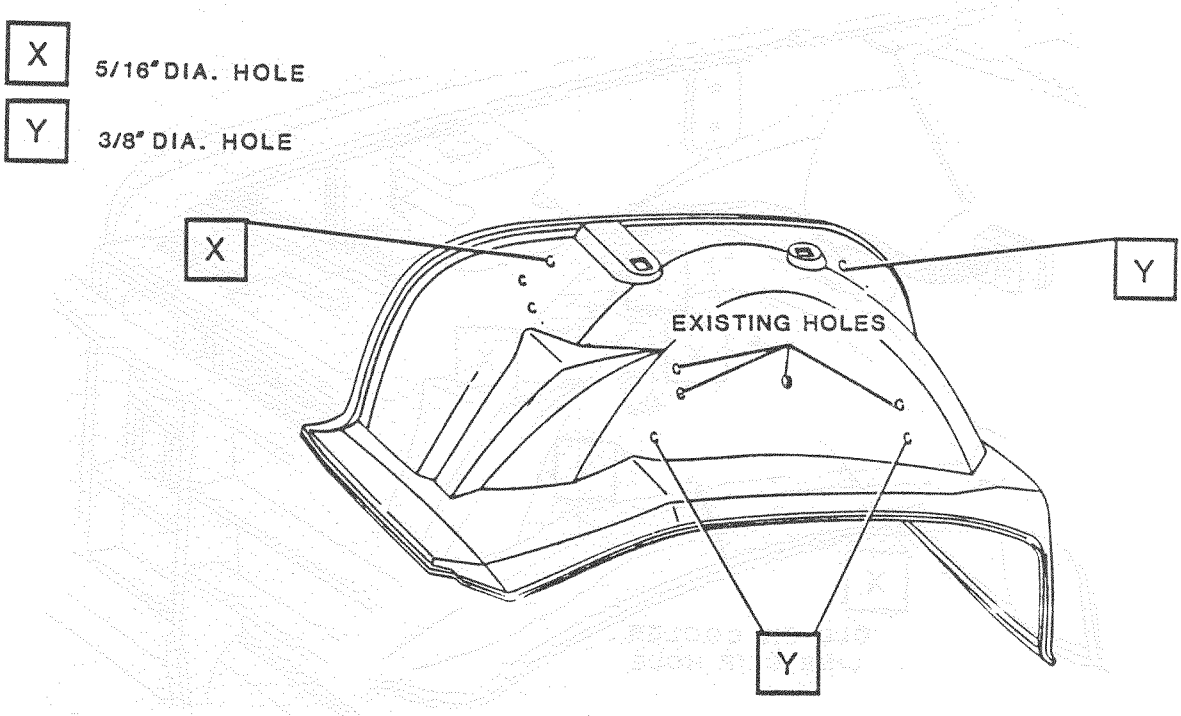


Figure 7.

65. Locate and drill 3/8 inch holes X, and 5/16 inch holes Y, in left fender skirt in prepunched depressions (Figure 8.).

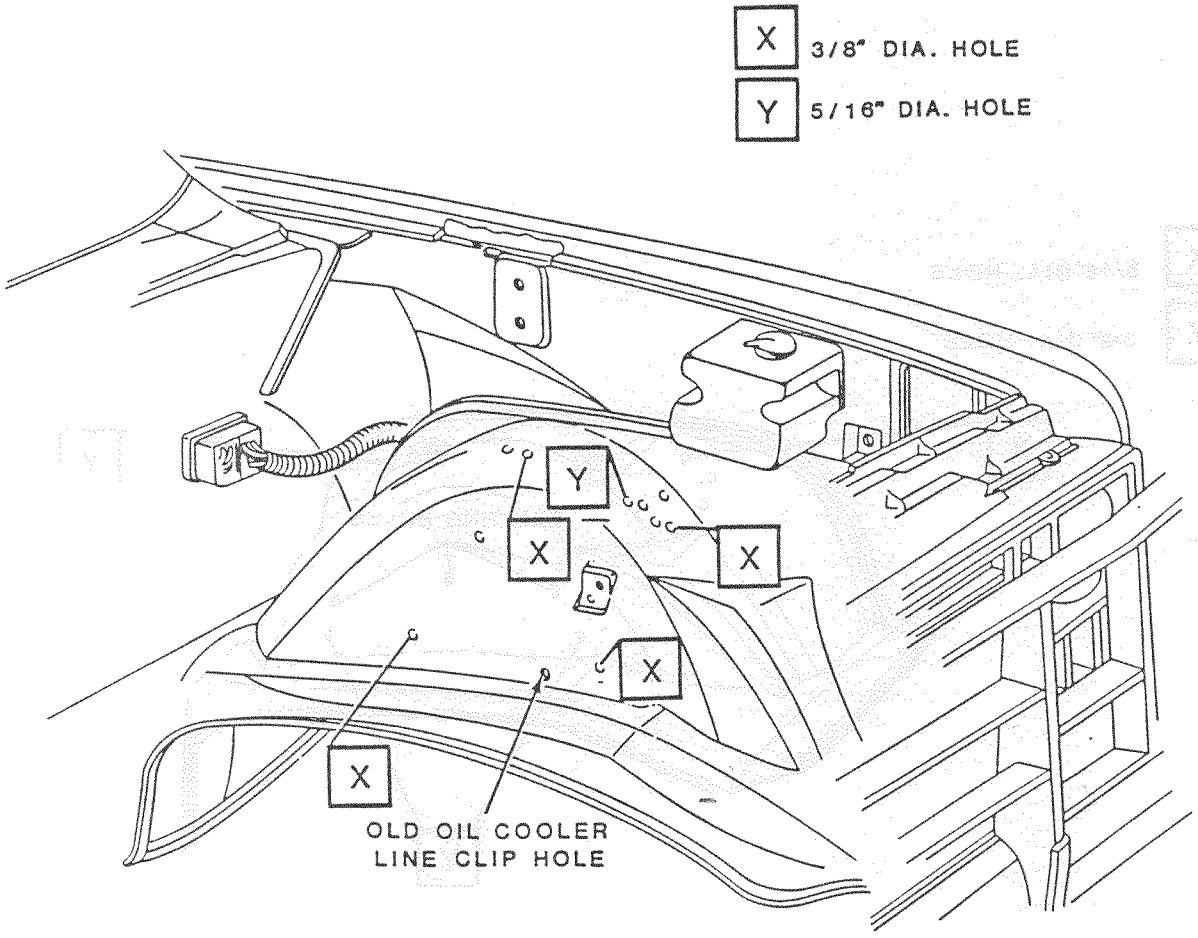

X 3/8" DIA. HOLE
Y 5/16" DIA. HOLE
Y
X
X
X
X
OLD OIL COOLER
LINE CLIP HOLE

Figure 8.

66. Locate and drill holes on right firewall in prepunched depressions (Figure 9.). Remove existing clip in right firewall and drill existing washer retainer hole to 15/32 inch.

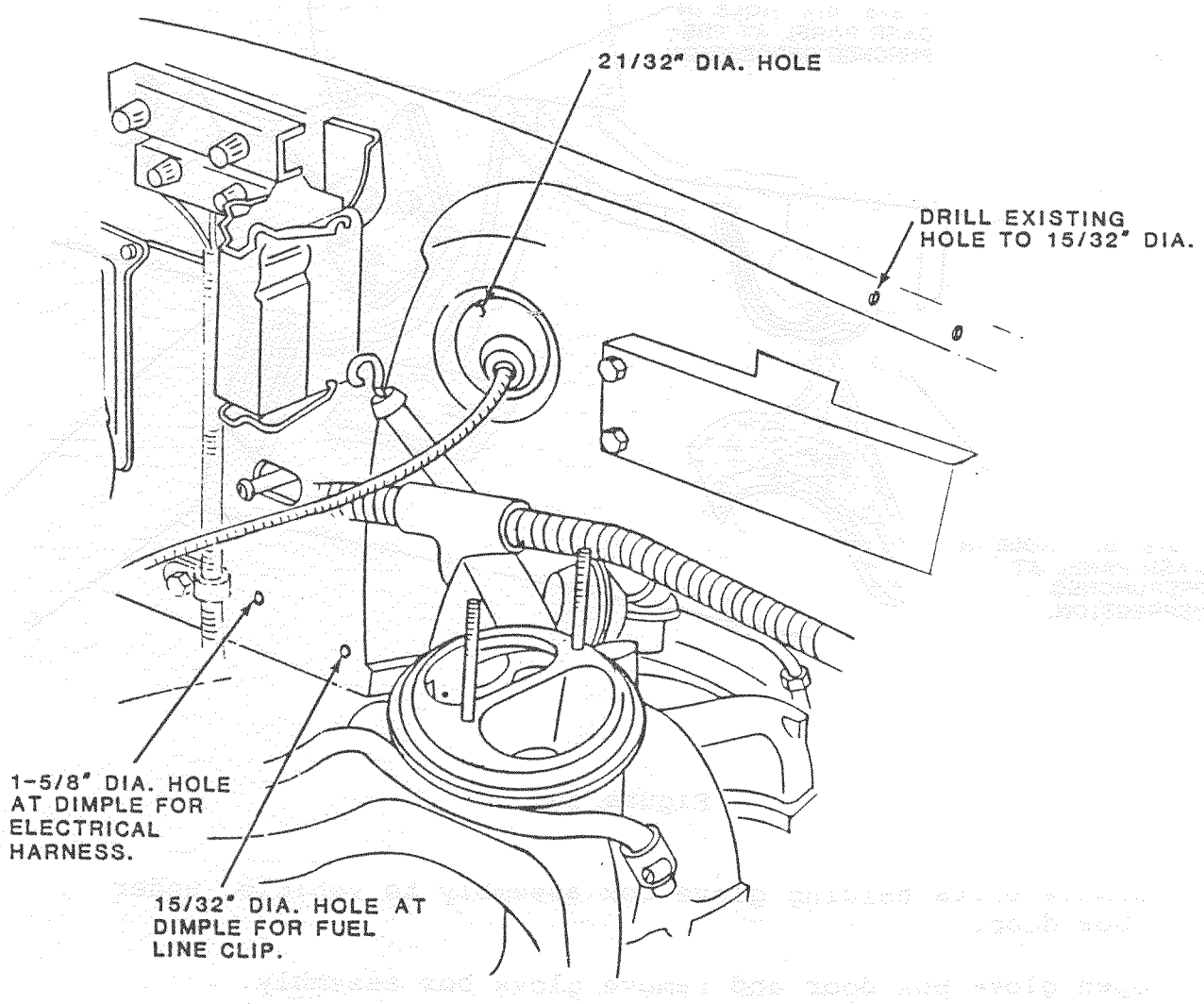


Figure 9.

67. From inside vehicle, remove insulation at perforated marks below fuse box and above gas pedal (Figure 10.).

68. Locate and drill holes in prepunched depressions (Figure 10.).

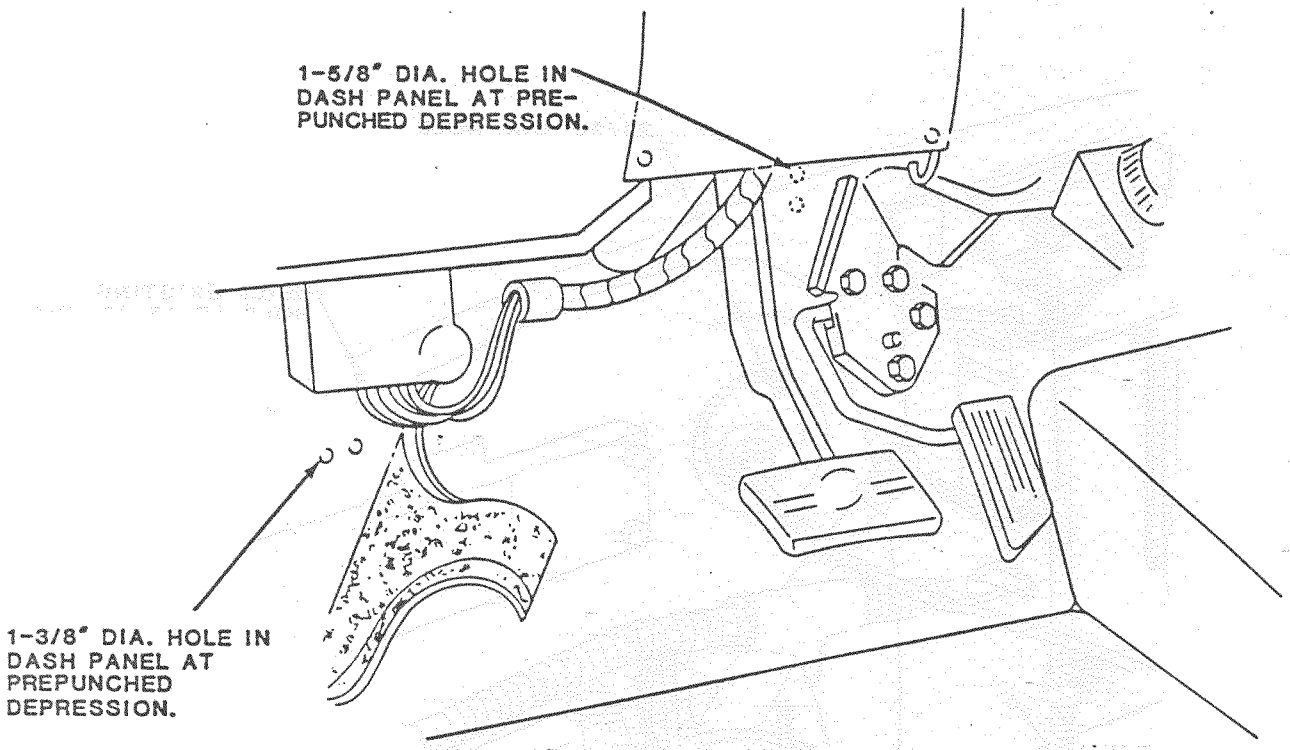


Figure 10.

69. Remove bolts holding glove box assembly to vehicle, under glove box door.

70. Open glove box door and remove glove box assembly.

NOTE

Removal of padded dash and cutting of molding is required for all models except M1009.

Save retaining screws and bolts from padded dash for later installation.

71. Remove padded dash retaining screws (Figure 11.).

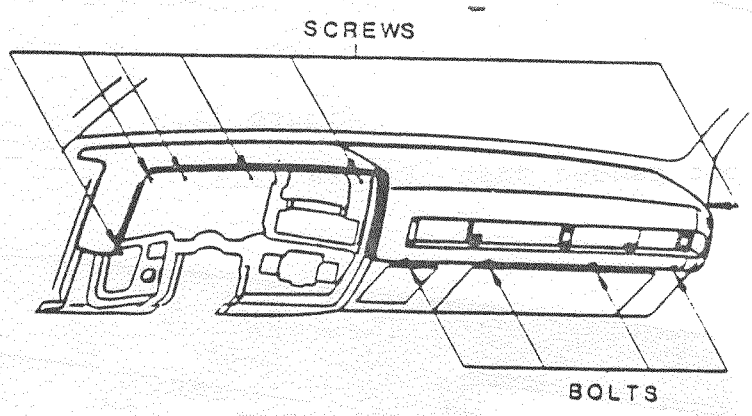


Figure 11.

74. Remove molding from padded dash and cut off end (Figure 12.).

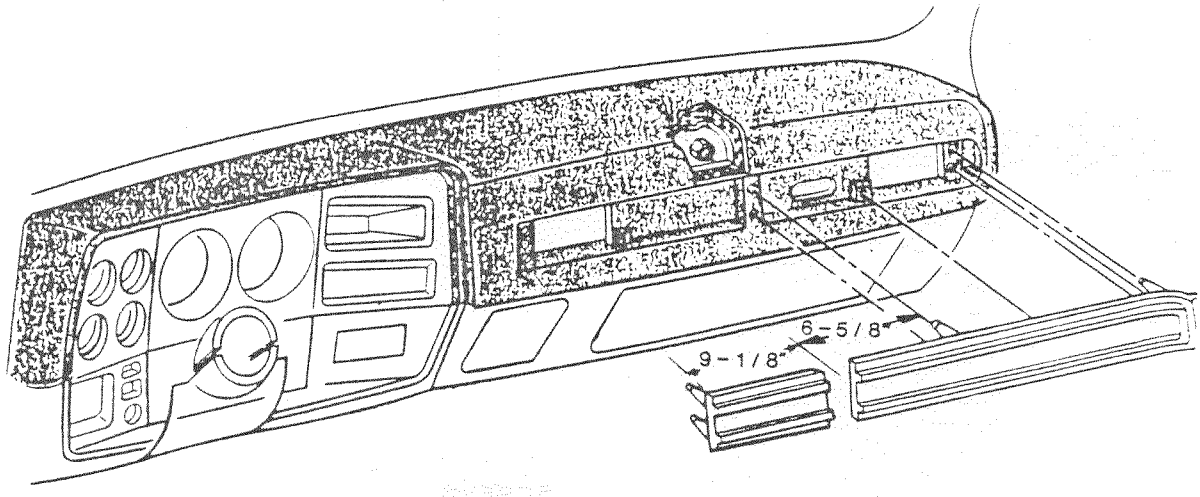
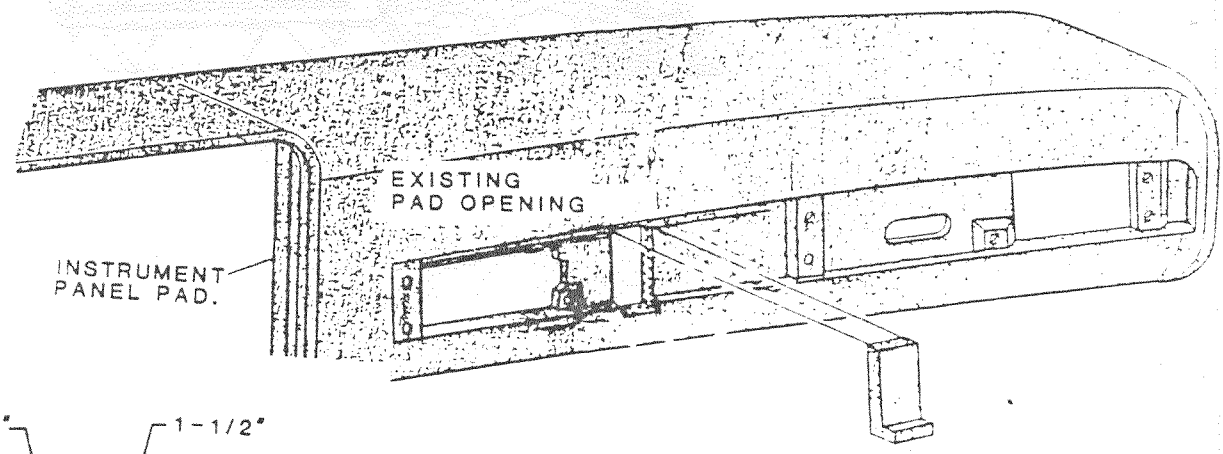


Figure 12.

75. Cut out padded dash (Figure 13.).



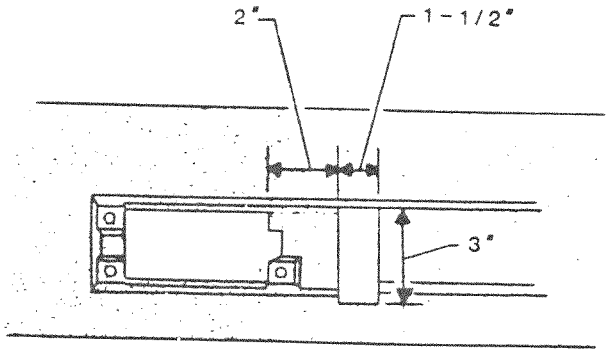


Figure 13.

76. Install 6-5/8 inch molding on padded dash.

77. Install spring nuts for heater bracket (Figure 14.).

78. Install padded dash on vehicle.

79. Install existing retaining screws and bolts in padded dash.

80. Install heater control bracket to padded dash panel (Figure 14.). Tighten to 50-65 lb.-in. (6.0-8.0 Nm).

81. Remove two screws on heater control assembly and remove cover (Figure 14.).

82. Feed control cable through bracket and 21/32 inch hole in firewall, and secure heater control assembly to bracket with screw, nuts and washers, and install grommet (Figure 14.).

83. Install cover on heater control assembly (Figure 14.). Tighten to 8-15 lb.-in. (1.0-2.0 Nm).

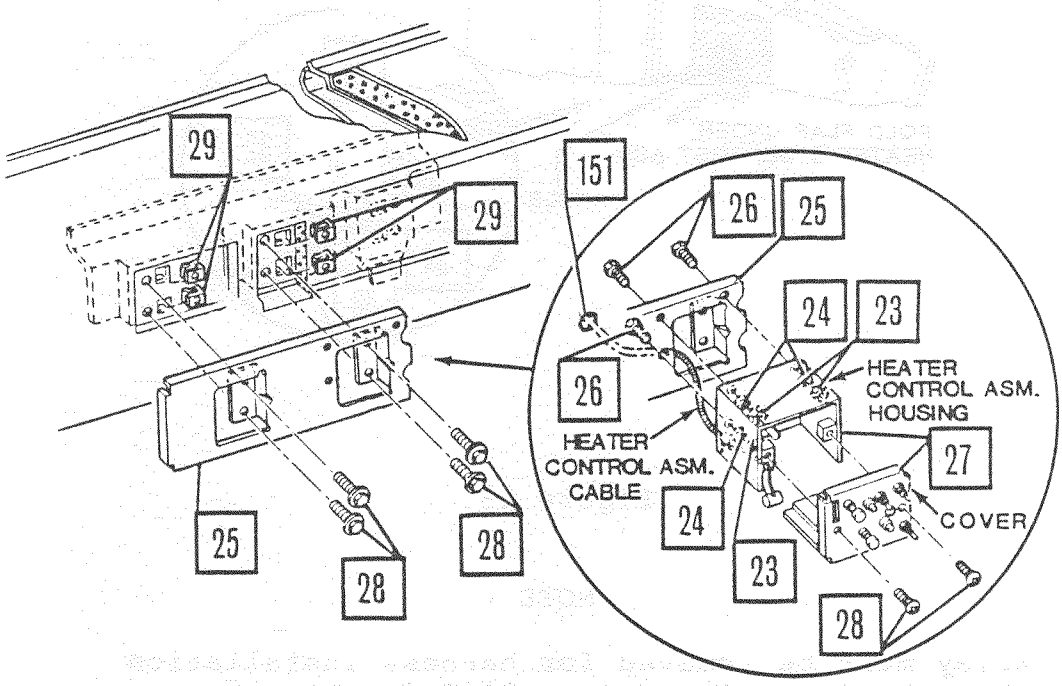


Figure 14.

NOTE

Place template with folded flap on level portion of duct nearest the angle on the heater and defrost assembly.

84. Using template, follow instructions on template to cut and drill to dimensions on template for temperature safety switch on heater/defroster assembly.

85. Install temperature safety switch with nuts, gasket and screws (Figure 15.). Tighten to 15-20 lb.-in. (1.6-2.2 Nm).

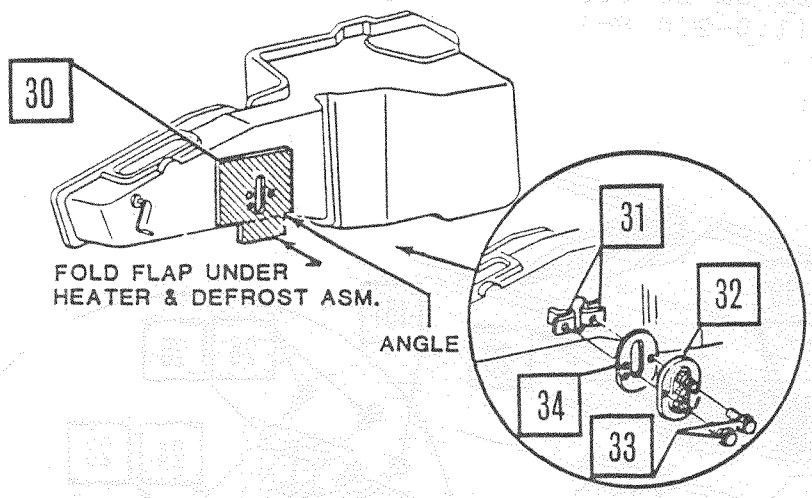


Figure 15.

NOTE

Relay must be removed for harness installation through firewall and installed in step 89.

86. Remove relays from engine air heater wiring harness assembly and engine coolant heater wiring harness assembly (Figure 16.).

87. From under hood, route engine air heater wiring harness assembly and attach wires through hole in firewall, leaving tee connection outside firewall (approximately 5 inches from hole) and install grommet (Figure 14.).

88. From under hood, route engine coolant heater wiring harness assembly through hole in firewall (Figure 16.).

89. Install relays on wire harnesses (Figure 16.).

90. Route engine coolant heater wiring harness assembly along main engine wire harness under brake master cylinder, and up along left inner fender to approximate center of fender at washer solvent container and install grommet.

NOTE

Engine coolant heater wiring harness assembly must be above accelerator pedal bracket.

91. Route engine coolant heater wiring harness assembly under dash to control box and connect to heater control box (Figure 16.).

NOTE

Two wrenches must be used when attaching wires to temperature safety switch to prevent rotation of bolts.

92. Connect wires for shut-off switch assembly on engine air heater wiring harness assembly to connections on temperature safety switch (Figure 16.).

93. Clip two relays on wire harness into holes in relay bracket (Figure 16.).

94. Drill 9/32 inch hole at bottom of dashboard (2 inches up from bottom), below heater control box and install nut, bolt, spacer, washers and clip to secure wire harnesses to dashboard (Figure 16.). Tighten bolt to 75-95 lb.-in. (8.5-11.0 Nm).

95. Install clip and washer on bottom of heater/defroster assembly at floor under existing bolt, and install engine air heater wiring harness assembly into clip (Figure 16.).

NO PAGE

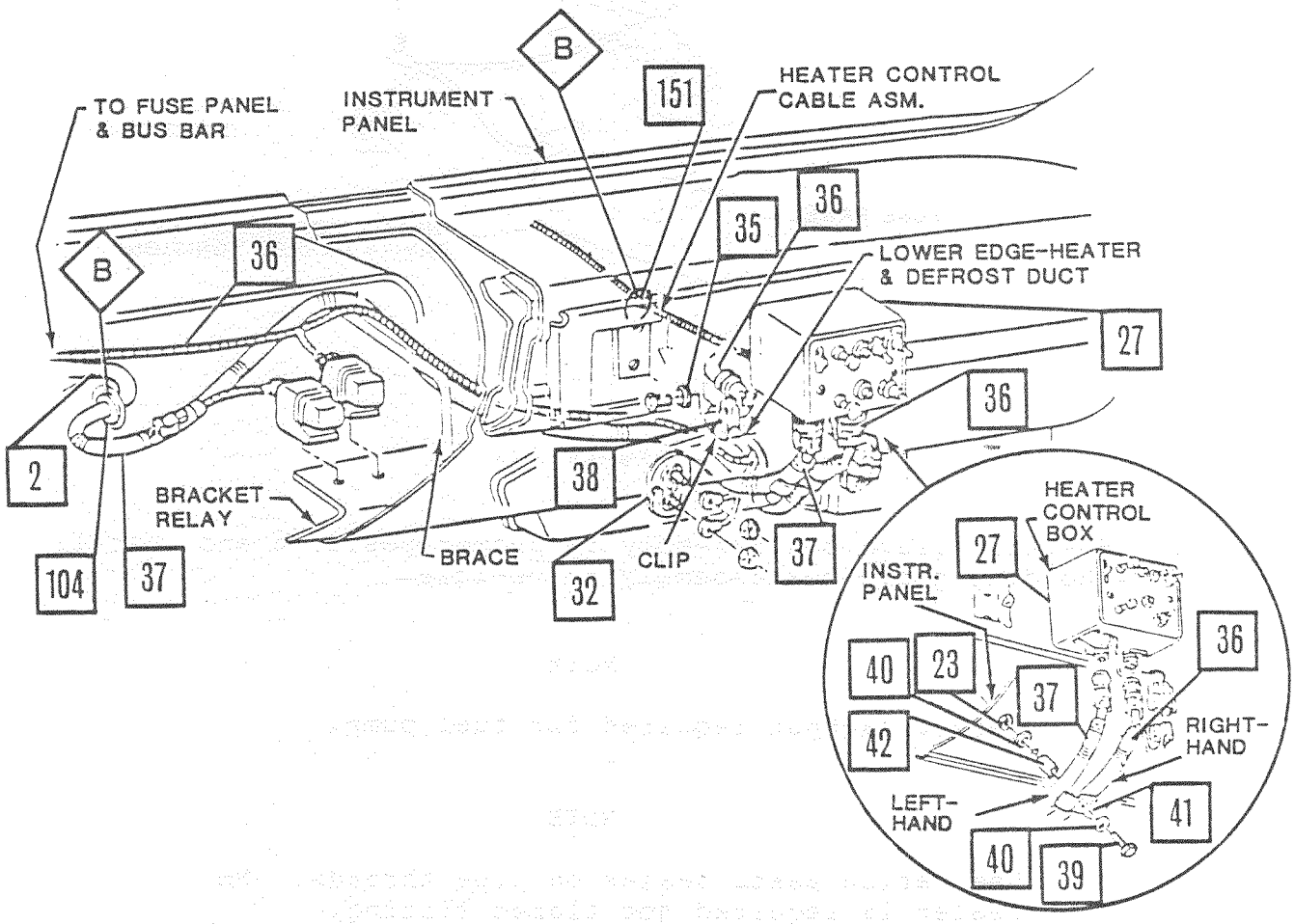


Figure 16.

96. Connect engine air heater wiring harness assembly to fuse box marked ignition and bus bar ground at parking brake area (Figure 17.).

97. Apply sealer to all grommets after seating in holes.

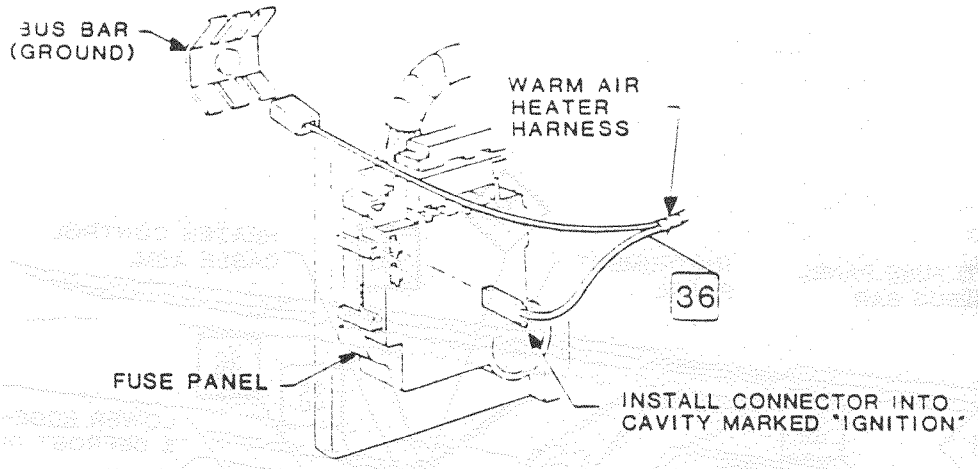


Figure 17.

98. Position glove box assembly to proper position and install bolts holding glove box assembly to vehicle.

NOTE

Larger jacknut required for fuel pump.

NOTE

Use Teflon paste sealer on pipe threads. No sealer is required for flared fitting.

NOTE

Inlet-Outlet is marked on fuel filter. Make sure the end of filter marked outlet is positioned as shown in Figure 18.

99. Install jacknuts for fuel filter on left inner fender with jacknut tool and bolts supplied (Figure 18.).

100. Assemble valve shut-off and two connectors on fuel filter (Figure 18.).

101. Install fuel filter and spacer on vehicle with bolts (Figure 18.).

NOTE

For M1010 model, do not use steps 102-118.

102. Install jacknuts for fuel pump on left inner fender with jacknut tool and bolts supplied (Figure 18.).

103. Assemble connector and tee-two way fittings on fuel pump (Figure 18.).

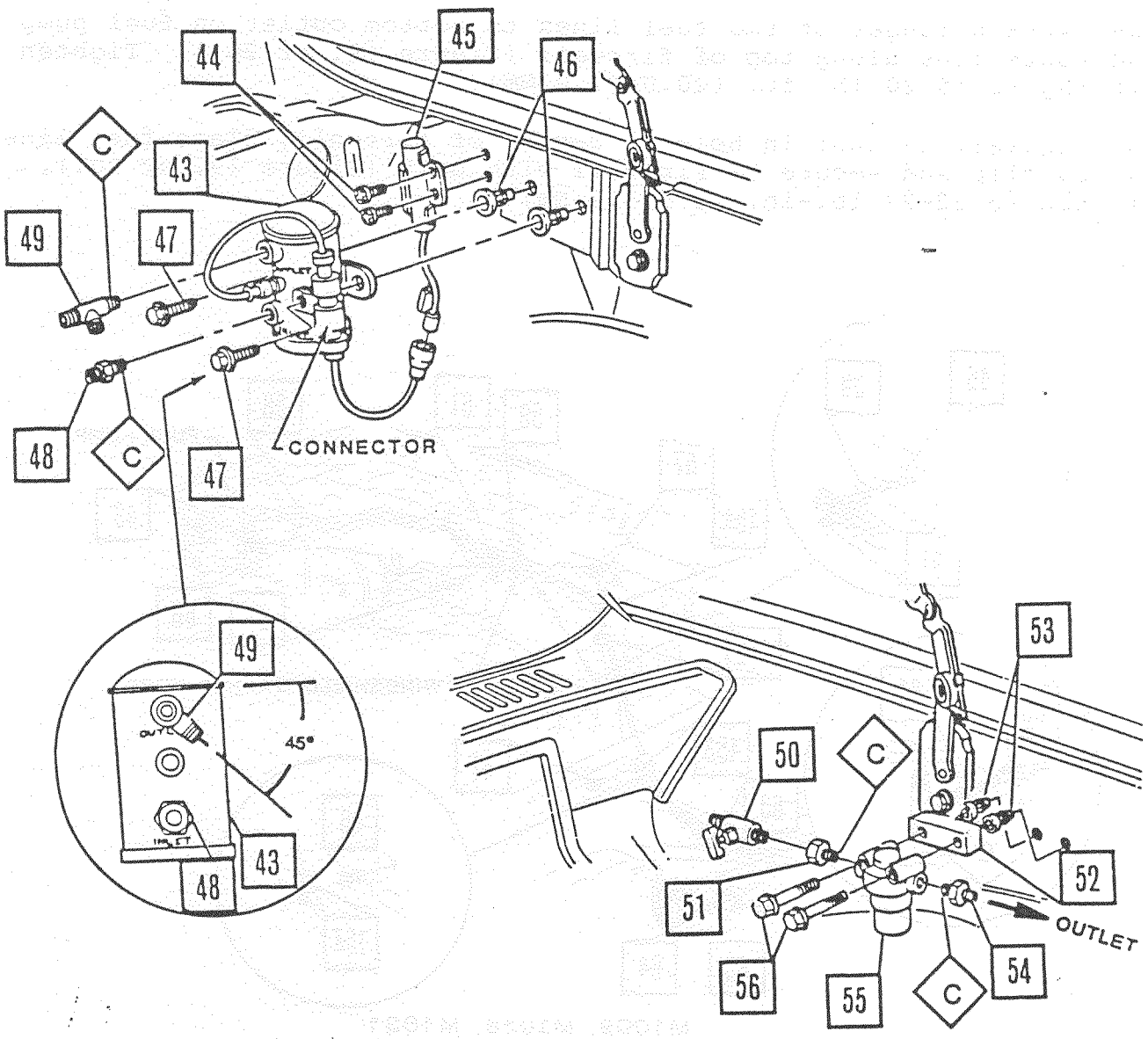


Figure 18.

104. Install fuel pump and connector on vehicle with bolts (Figure 18.). Tighten to 22-27 lb.-in. (2.5-3.0 Nm).

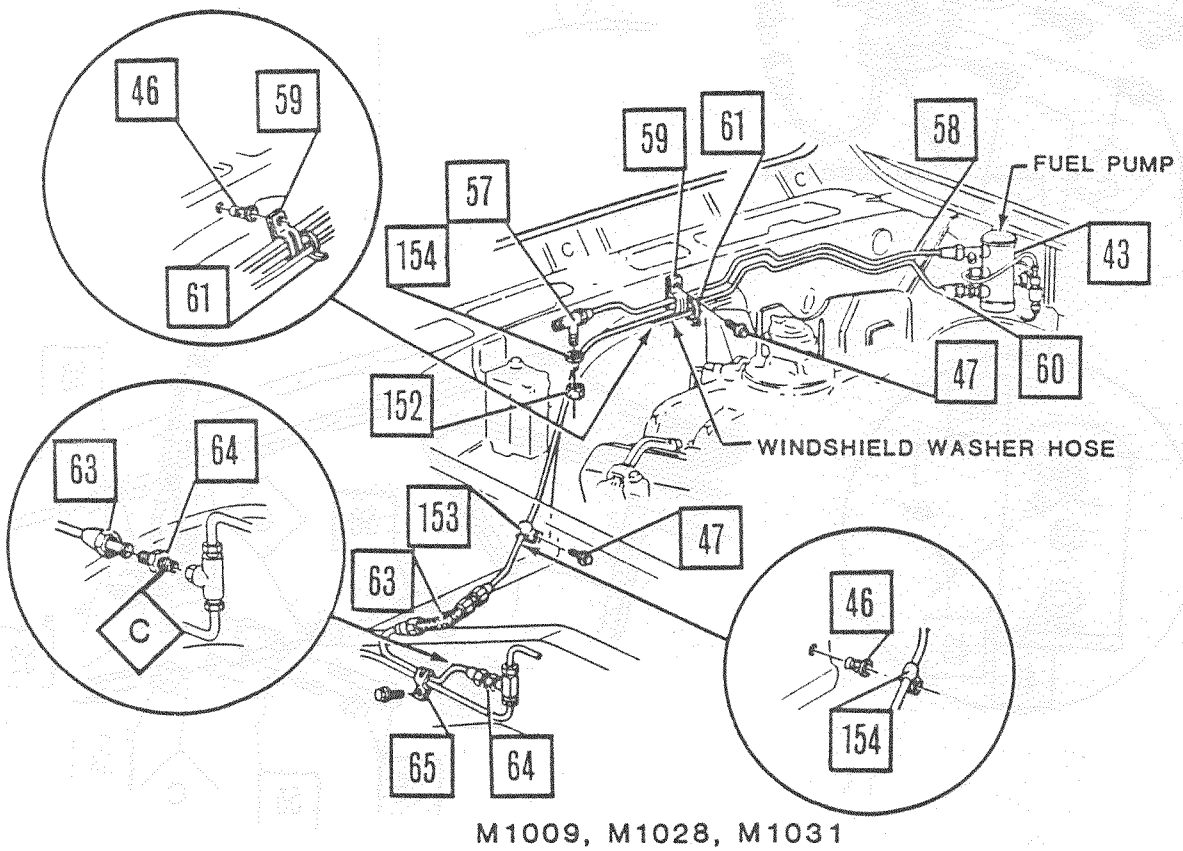
105. Install switch assembly, auxiliary heater fuel pump on vehicle with screws (Figure 18.).

106. Connect switch assembly, auxiliary heater fuel pump to connector on fuel pump (Figure 18.).

107. Attach shorter of two fuel lines to "T" fitting at top of fuel pump and route along top of firewall (Figure 19. or 20.). Tighten fitting to 15-20 lb.-ft. (20.0-27.0 Nm).

108. Attach longer of two fuel lines to bottom outlet on fuel pump and route line along top of firewall (Figure 19. or 20.). Tighten fitting to 15-20 lb.-ft. (20.0-27.0 Nm).

109. Install jacknut in hole in center of firewall, place fuel lines in new clip and secure to firewall with bolt (Figure 19. or 20.). Tighten to 22-27 lb.-in. (2.5-3.0 Nm).



M1009, M1028, M1031

Figure 19.

NOTE

Fuel will leak when plug is removed from connector on fuel supply line.

110. Remove plug from fuel feed line at connection on right side of frame (Figure 19. or 20.).

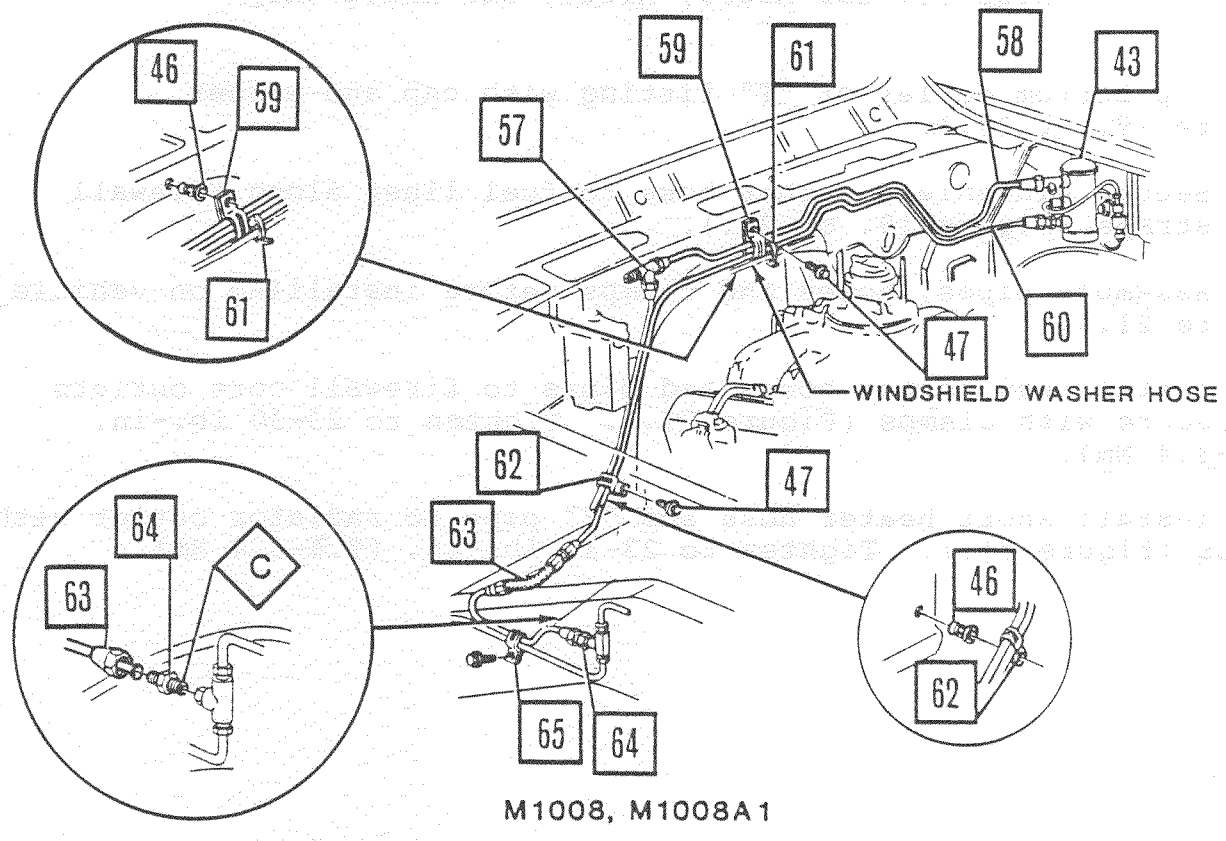


Figure 20.

111. Install connector (Figure 19. or 20.). Tighten to 96-120 lb.-in. (11.0-14.0 Nm).

112. Remove clip from fuel line to frame (Figure 19. or 20.).

113. Connect short line with rubber hose to long fuel line and fuel feed connection (Figure 19. or 20.). Tighten fittings to 15-20 lb.-ft. (20.0-27.0 Nm).

114. Install new clip to both lines. Tighten bolt to 120-160 lb.-in. (14.0-19.0 Nm) (Figure 19. or 20.).

115. Install jacknut in hole on lower right side of firewall, install clip on fuel line and secure in place with bolt (Figure 20.) and tighten to 22-27 lb.-in. (2.5-3.0 Nm).

116. Attach "T" fitting to short fuel line on firewall (Figure 19. or 20.).

NOTE

Step 117 for M1009, M1028, and M1031 only.

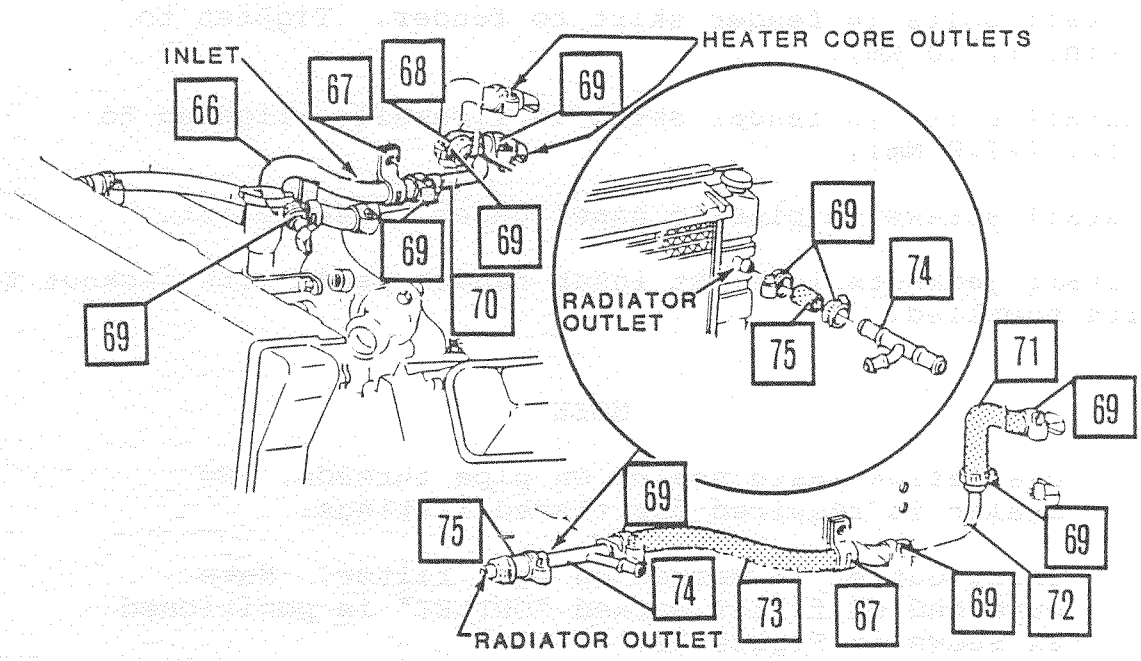
117. Cap bottom outlet of "T" fitting with cap and washer (Figure 19. or 20.).

118. Secure windshield washer hose to fuel lines along firewall with straps (Figure 19. or 20.).

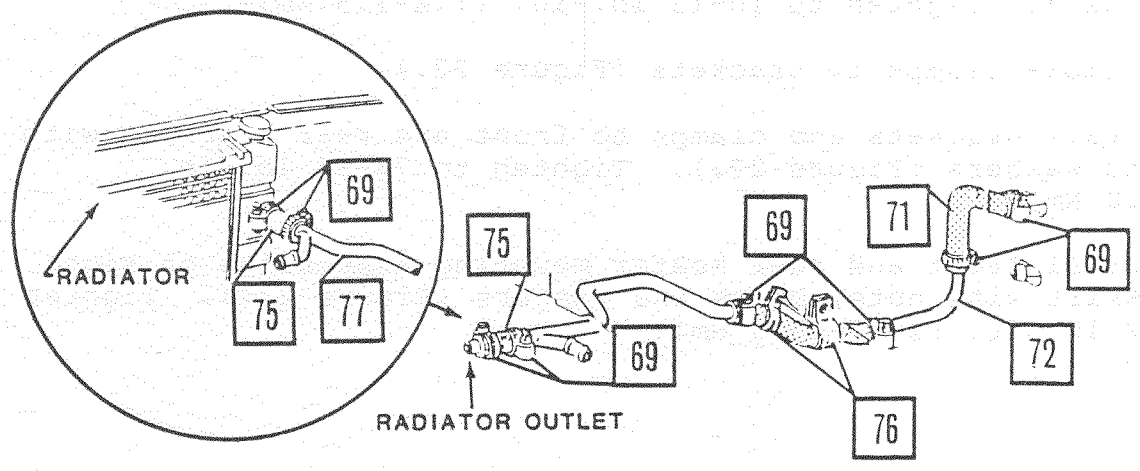
119. Assemble pipes, hoses and clamps before installing on vehicle (Figure 21.).

120. Install new heater hoses and pipes to firewall core outlets and secure with clamps (Figure 21.). Tighten to 23-30 lb.-in. (2.6-3.4 Nm).

121. Install short heater hose and "Y" pipe to radiator outlet with clamps (Figure 21.). Tighten to 23-30 lb.-in. (2.6-3.4 Nm).



M1008, M1009, M1028, M1031



M1010 ONLY

Figure 21.

122. Install right fender skirt in vehicle.

123. Install bolts in fender skirt to radiator support. Tighten to 150 lb.-in. (17.0 Nm).

124. Install bolts in fender skirt to fender. Tighten to 150 lb.-in. (17.0 Nm).

125. Install bolts in fender skirt to firewall. Tighten to 35 lb.-ft. (47.0 Nm).

126. Install screws in plastic panel under fender skirt.

127. Install jacknuts in right inner fender panel with jacknut tool and bolts supplied.

NOTE

Use Teflon paste sealer on pipe threads. No sealer is required for flared fittings.

Inlet-Outlet is marked on fuel filter. Make sure end of filter marked "OUTLET" is positioned as shown in Figure 22.

128. Assemble connector, valve shut-off, and elbow 90° fittings to fuel filter (Figure 22.).

129. Install fuel filter and spacer on vehicle with bolts (Figure 22.). Tighten to 10-13 lb.-in. (1.2-1.5 Nm).

130. Assemble clamps to brackets (Figure 22.).

131. Install brackets and clamps to front and rear brackets with bolts and washers (Figure 22.). Tighten to 75-95 lb.-in. (8.0-11.0 Nm).

132. Install front and rear heater mounting assemblies on right fender skirt with nuts, bolts and washers (Figure 22.). Tighten to 15-22 lb.-ft. (20.0-30.0 Nm).

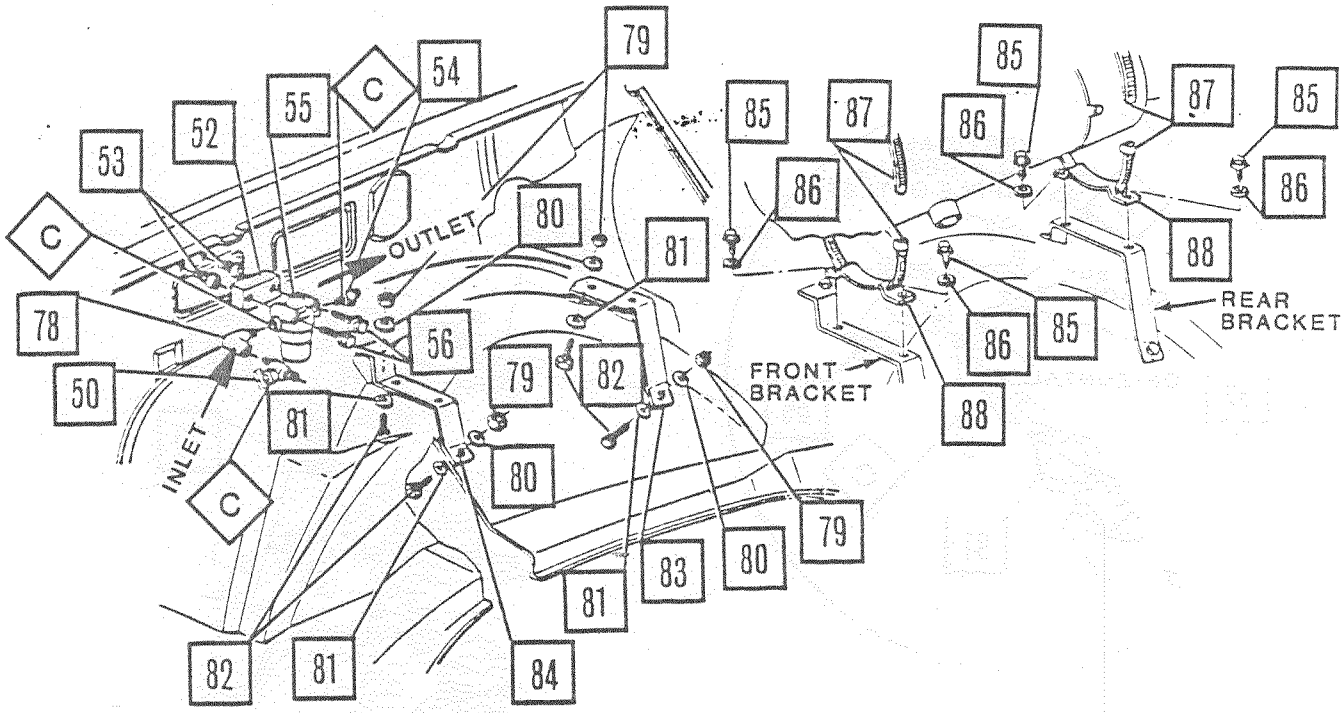


Figure 22.

133. Remove upper radiator hose at thermostat housing.

134. Remove hose from water pump to crossover pipe.

NOTE

Prior to removal of crossover pipe, left-hand stud must have alternator ground terminal removed. Failure to do so could cause breaking of wire.

135. Remove nut, bolt, stud and alternator ground wire from crossover pipe to cylinder head on left side.

136. Remove bolt from right alternator mounting bracket and move alternator to side.

137. Remove bolt and nut from alternator mounting bracket to right cylinder head and remove bracket.

138. Remove stud and bolt from crossover to right cylinder head (Figure 23.).

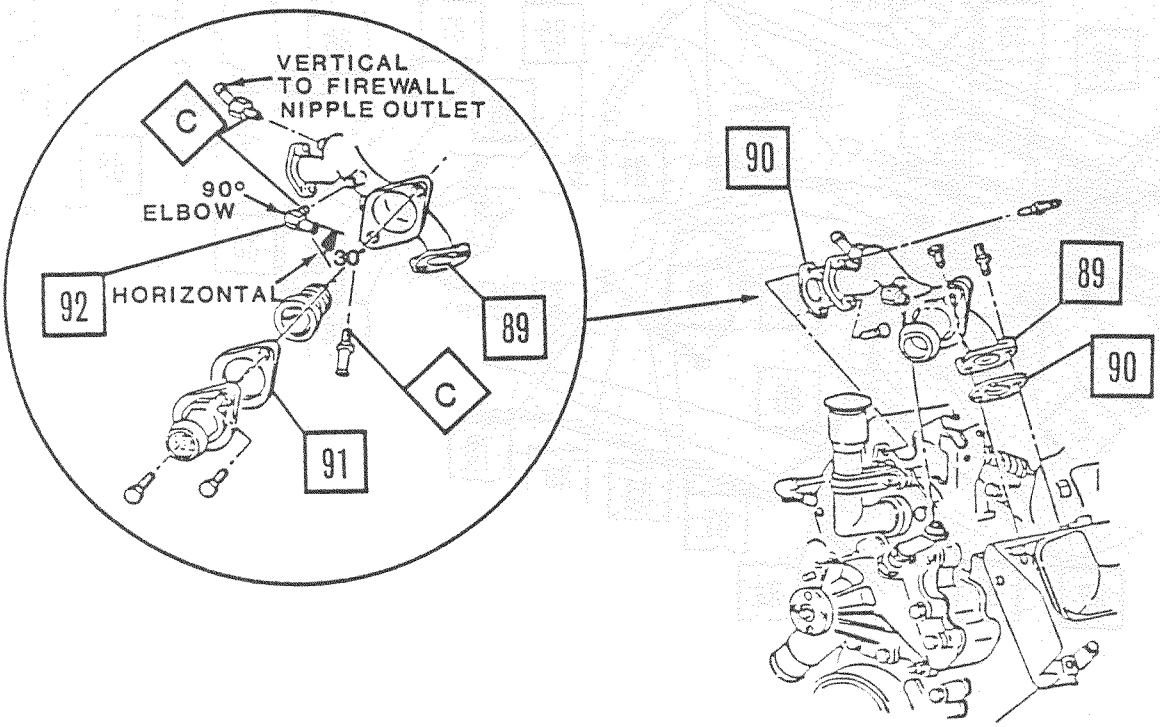


Figure 23.

139. Remove clamp on crank case depression regulator valve hose to oil filler neck and remove hose.

140. Remove crossover pipe.

NOTE

Use Teflon sealer on all pipe fittings.

141. Using fittings, thermostat, housing and bolts from old crossover pipe, install new gasket and 90° fitting to new coolant crossover pipe. Tighten thermostat housing bolts to 25-35 lb.-ft. (34.0-50.0 Nm) (Figure 23.).

142. Remove all gasket material from right and left cylinder heads.

NOTE

During reinstallation, hand tighten all bolts and studs prior to torquing.

143. Install new crossover engine coolant pipe on engine with new gaskets (Figure 23.).

144. Install stud, bolt, ground wire and nut to left cylinder head. Torque to 25-35 lb.-ft. (34.0-50.0 Nm) (Figure 23.).

145. Install stud and bolt to right cylinder head. Torque to 25-35 lb.-ft. (34.0-50.0 Nm).

146. Install alternator mounting to stud with nut. Tighten to 25-35 lb.-ft. (34.0-50.0 Nm).

147. Position alternator and install bolt to mounting bracket. Tighten to 26-37 lb.-ft. (36.0-50.0 Nm).

148. Install upper radiator hose to thermostat housing with clamp.

149. Install hose and clamp from water pump to crossover pipe.

150. Install clamp and crank case depression regulator valve hose to oil filler neck.

151. Connect heater hose from firewall outlet to crossover nipple and clamp into place. Tighten clamp to 15-22 lb.-ft. (20.0-30.0 Nm).

152. Assemble diverter assembly to warm air heater with screws and attach switch to diverter with screws (Figure 24.). Tighten to 8-14 lb.-in. (1.0-1.6 Nm).

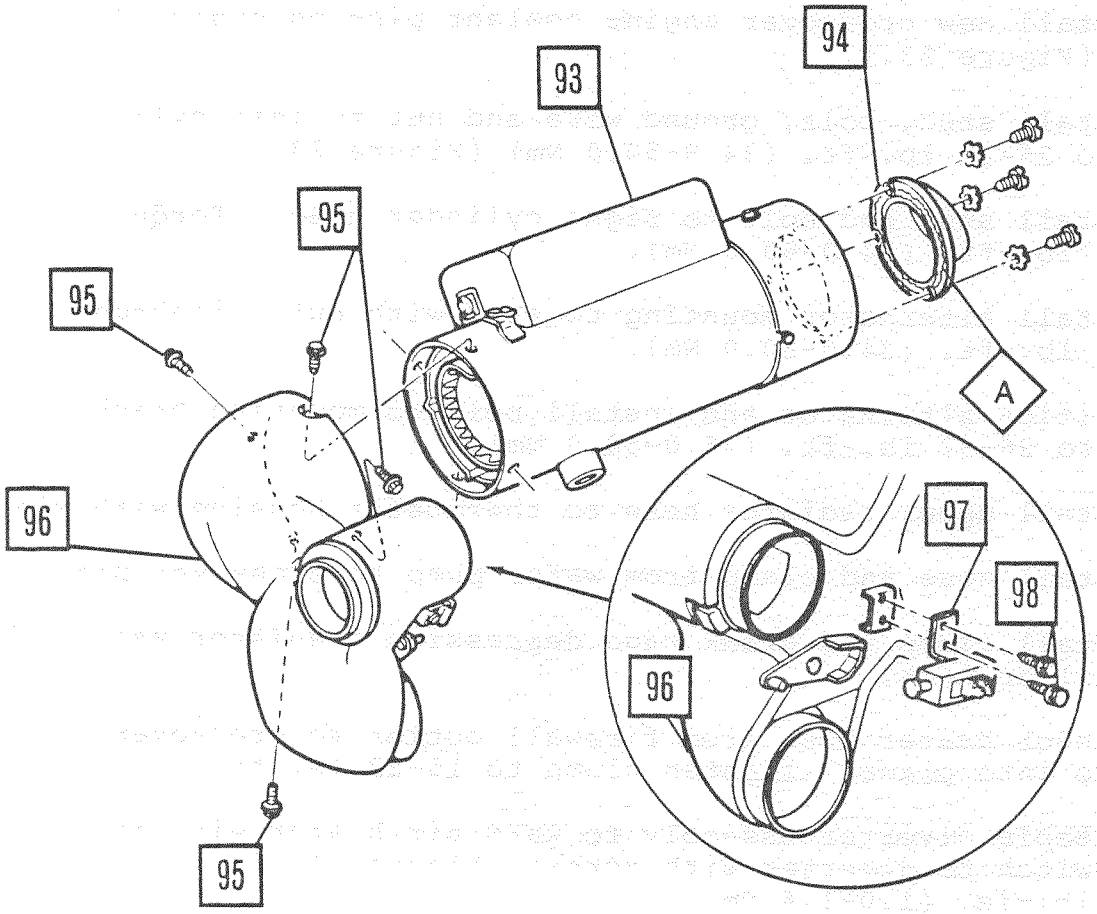


Figure 24.

153. Apply RTV sealer to end of warm air heater and install adaptor assembly with existing screws and washers (Figure 24.). Tighten to 8-14 lb.-in. (1.0-1.6 Nm).

154. In vehicle, attach short hose to top outlet on blower assembly and long hose to bottom outlet, and secure with clamps before placing heater into mounting bracket (Figure 25.). Tighten to 23-30 lb.-in. (2.6-3.4 Nm).

NOTE

Make sure that heater is in proper position before closing hood. Failure to do this could result in hood or heater damage.

155. Position heater in mounting brackets making sure that there is approximately a 1 inch clearance between heater and fender skirt, and a clearance between heater and hood.

156. After heater is in mounting brackets, loosely install mounting clamps (Figure 25.).

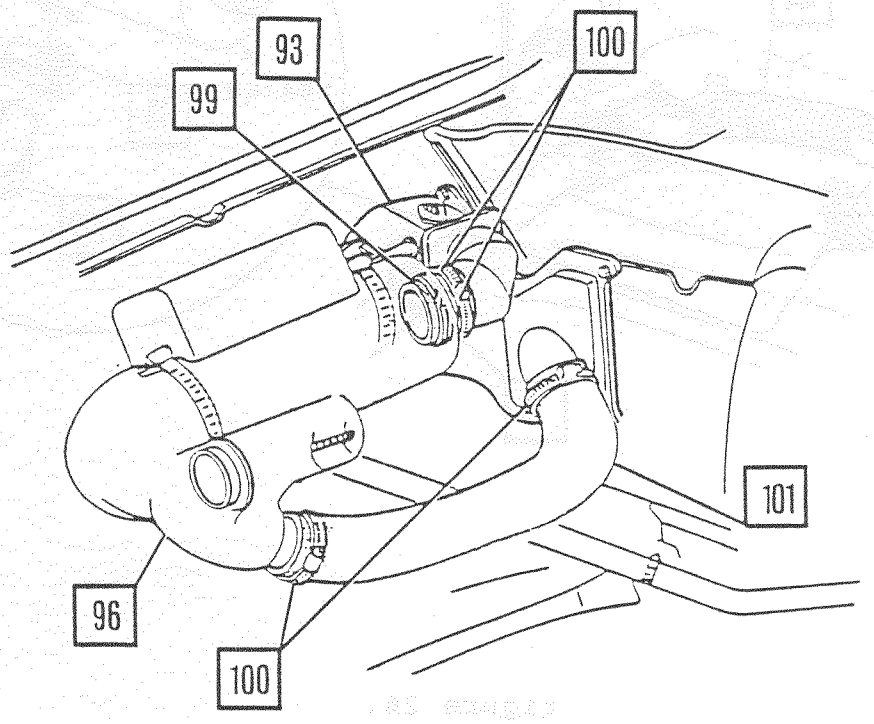


Figure 25.

NOTE

Make sure that clamps are properly positioned prior to tightening.

157. Attach short hose to rear of warm air heater and long hose to lower diverter outlet and clamp hoses into place (Figure 25.). Tighten to 23-30 lb.-in. (2.6-3.4 Nm).

158. Using two clamps, install heater exhaust to heater and exhaust pipe. Tighten clamps to 75-95 lb.-in. (8.5-11.0 Nm) (Figure 26.).

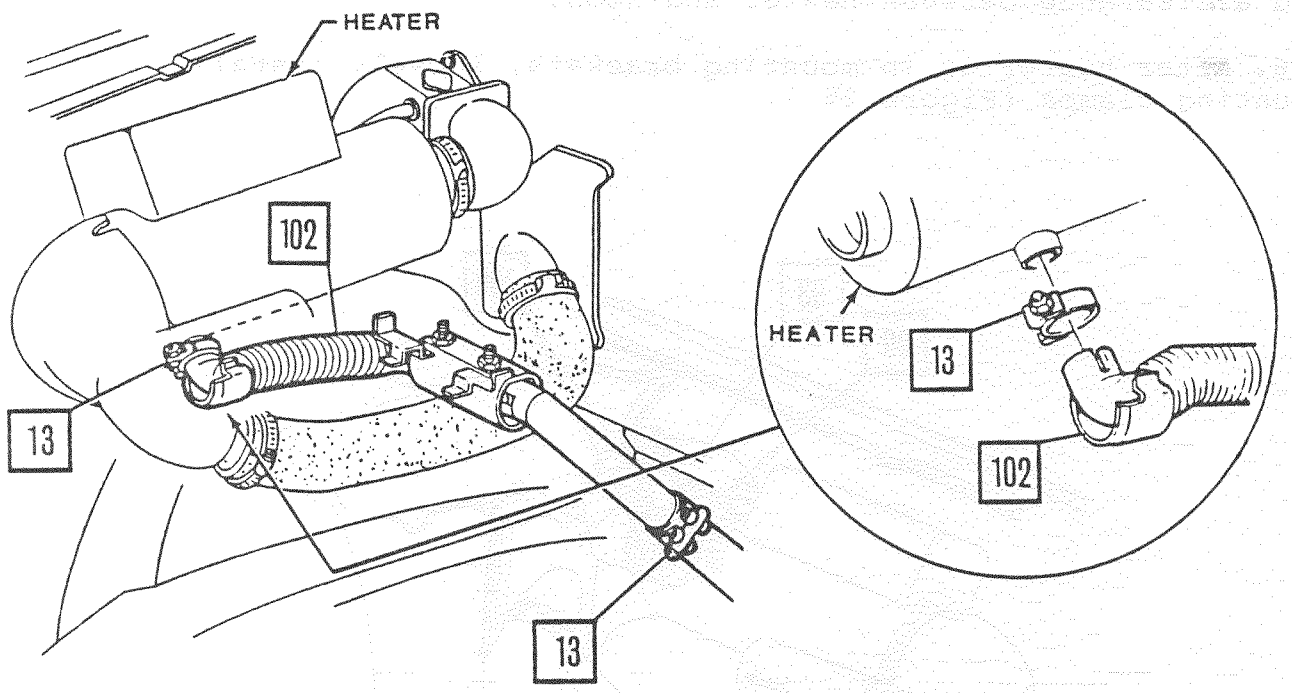


Figure 26.

159. Connect heater control box cable to lever and bracket on air diverter assembly with push nut (Figure 27.). Route cable in board and below EGR valve cannister. Tie with a strap.

160. Route heater wire harness under warm air heater hose and between fender and heater, connect wire harness to heater and diverter switch (Figure 27.).

161. Secure wire harness to battery cables with straps (Figure 27.).

162. Connect red wire from heater harness to bus bar, and connect black wire from heater harness to ground bar and install covers on bus bars (Figure 27.).

163. Adjust cable so that distribution door inside diverter assembly operates throughout the full range of movement when lever on control box is moved (Figure 27.).

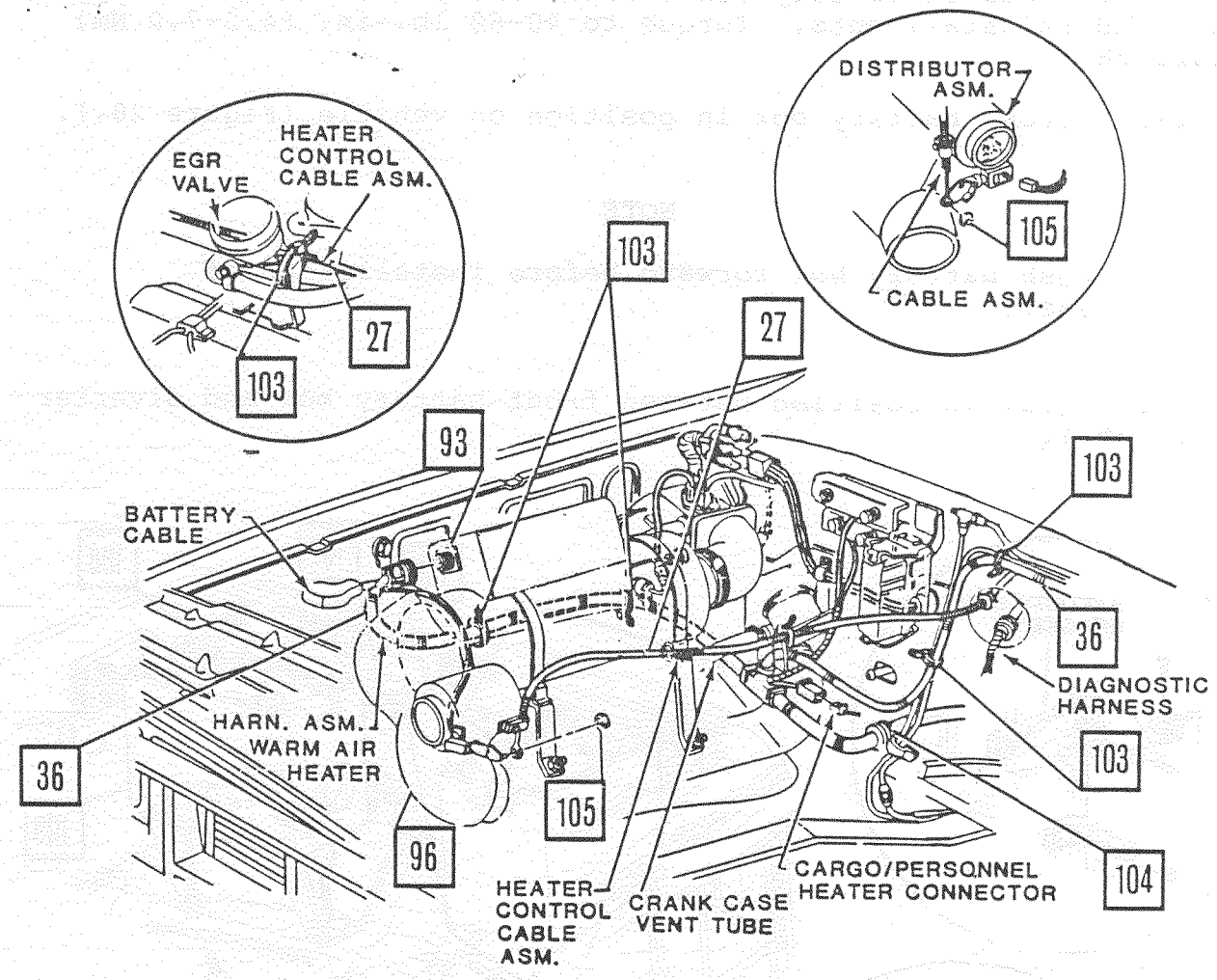


Figure 27.

164. Remove bolts from fuel filter bracket to firewall and move to side.

165. Place rear battery box into position on fender skirt with holes inside battery box alined with studs on heater exhaust pipe (Figure 28.).

166. Install nuts on heater exhaust pipe studs inside battery box (Figure 29.). Tighten to 35-55 lb.-in. (4.0-6.0 Nm).

167. Secure battery box to fender skirt with bolts (Figure 28.). Tighten to 10-15 lb.-ft. (14.0-20.0 Nm).

168. Reinstall bolts in fuel filter bracket and secure to firewall. Tighten to 15-20 lb.-ft. (20.0-27.0 Nm).

169. Remove nuts on battery box bracket and place bracket in upper holes, and reinstall nuts. Torque to 40-60 lb.-in. (4.5-7.0 Nm) (Figure 28.).

170. Place front battery box in position on vehicle (Figure 28.).

NOTE

Push battery box forward before installation of seal.

171. Place seal in position between front battery box and diverter (Figure 30.).

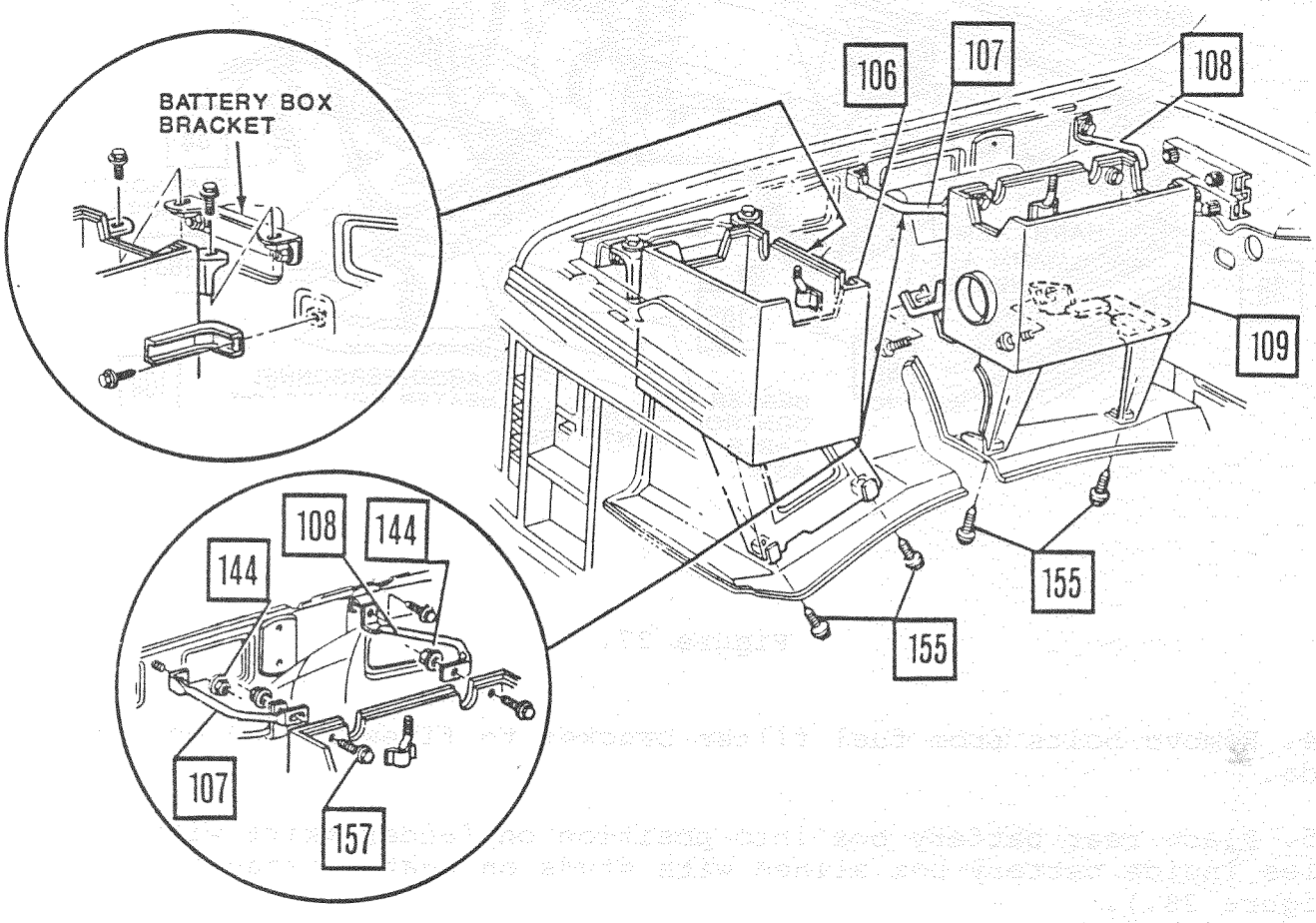


Figure 28.

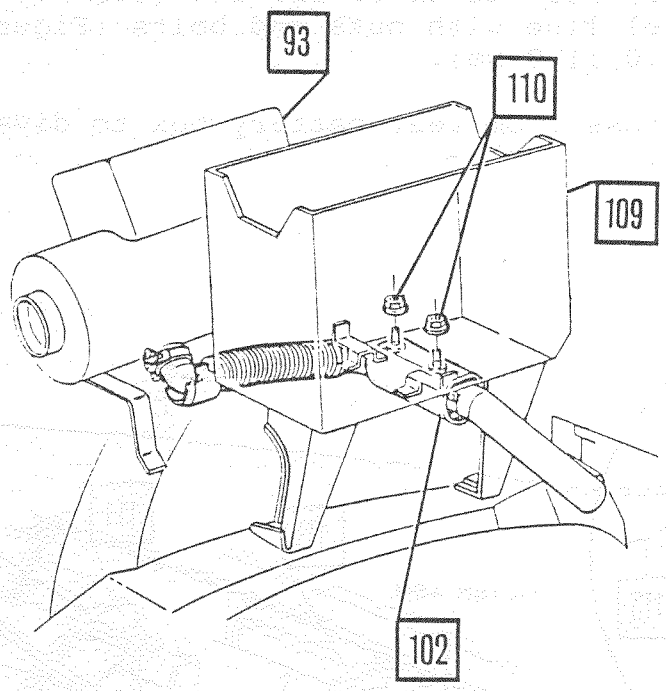


Figure 29.

172. Rotate heater until hole in front battery box is alined with diverter. Tighten clamps on heater and hose.

173. Loosely install front lower battery box screws first.

174. Install three screws on battery box and bracket, and tighten to 70-95 lb.-in. (8.0-11.0 Nm) (Figure 28.).

175. Tighten front lower battery box screws to 10-15 lb.-in. (14.0-20.0 Nm) (Figure 28.).

176. Install heater fuel line from "T" fitting on firewall to fuel filter (Figure 30.). Tighten to 15-20 lb.-ft. (20.0-27.0 Nm).

177. Remove plug from heater and install connector to heater (Figure 30.).

178. Install fuel line from filter to heater connector.

179. Install rear battery support bracket to right inner fender and battery box with nuts and bolts (Figure 28.). Tighten to 70-95 lb.-in. (8.0-11.0 Nm).

180. Install rear battery support bracket under battery cables to jacknut on right inner fender and battery box. Secure in place with nut and bolt (Figure 28.). Tighten to 70-95 lb.-in. (8.0-11.0 Nm).

181. Install rear battery support to right inner fender stud and battery box. Tighten stud to 40-60 lb.-in. (4.5-7.0 Nm). Install fuel line clip around fuel line with nuts and bolts (Figure 28.). Tighten to 70-95 lb.-in. (8.0-11.0 Nm).

182. Connect short hose from rear battery box to diverter with clamps (Figure 30.).

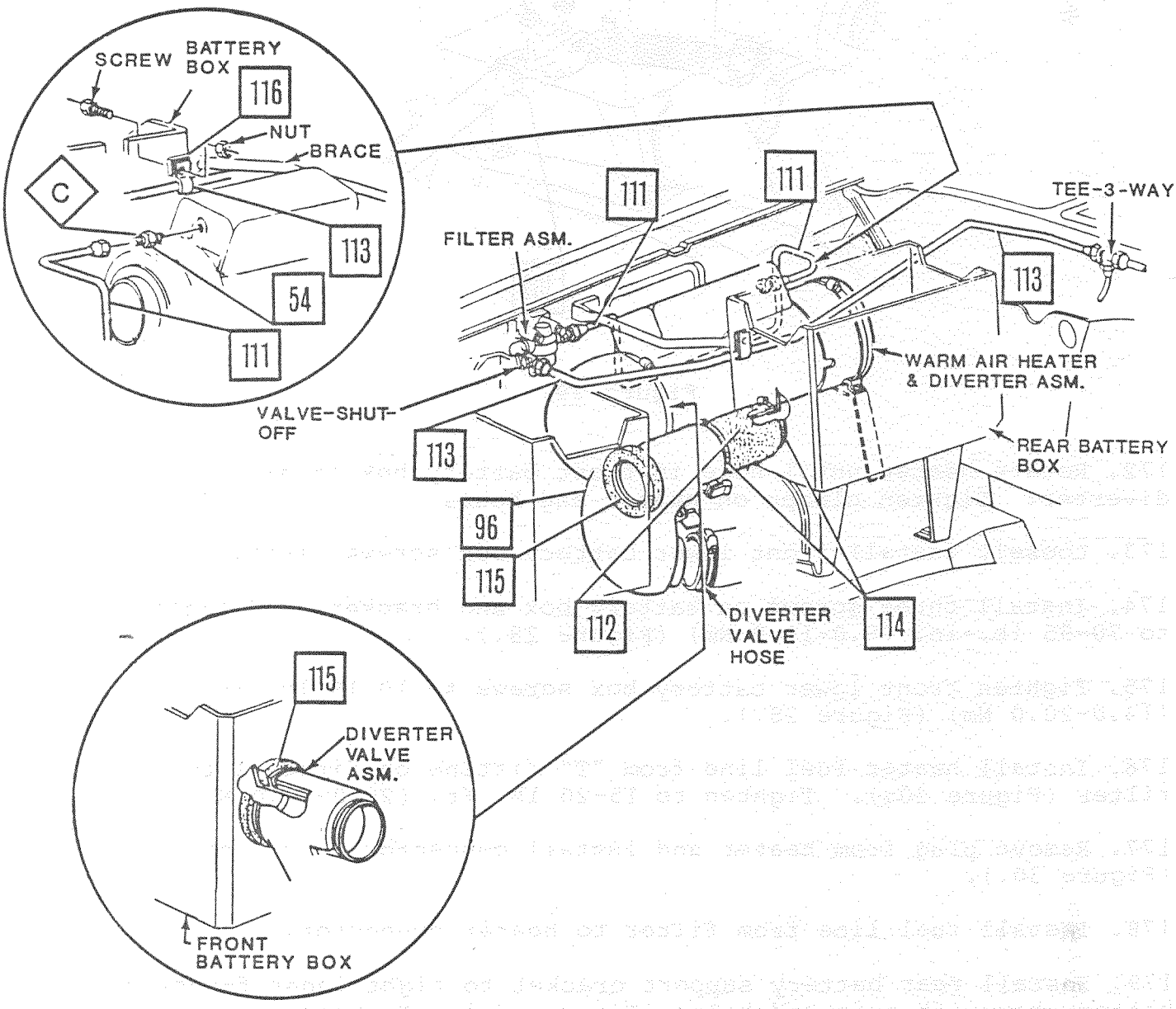


Figure 30.

NOTE

Step 183 is not for M1010.

183. Install oil coolant lines in clip and secure (Figure 31.). Tighten to 45-60 lb.-in. (.05-7.0 Nm).

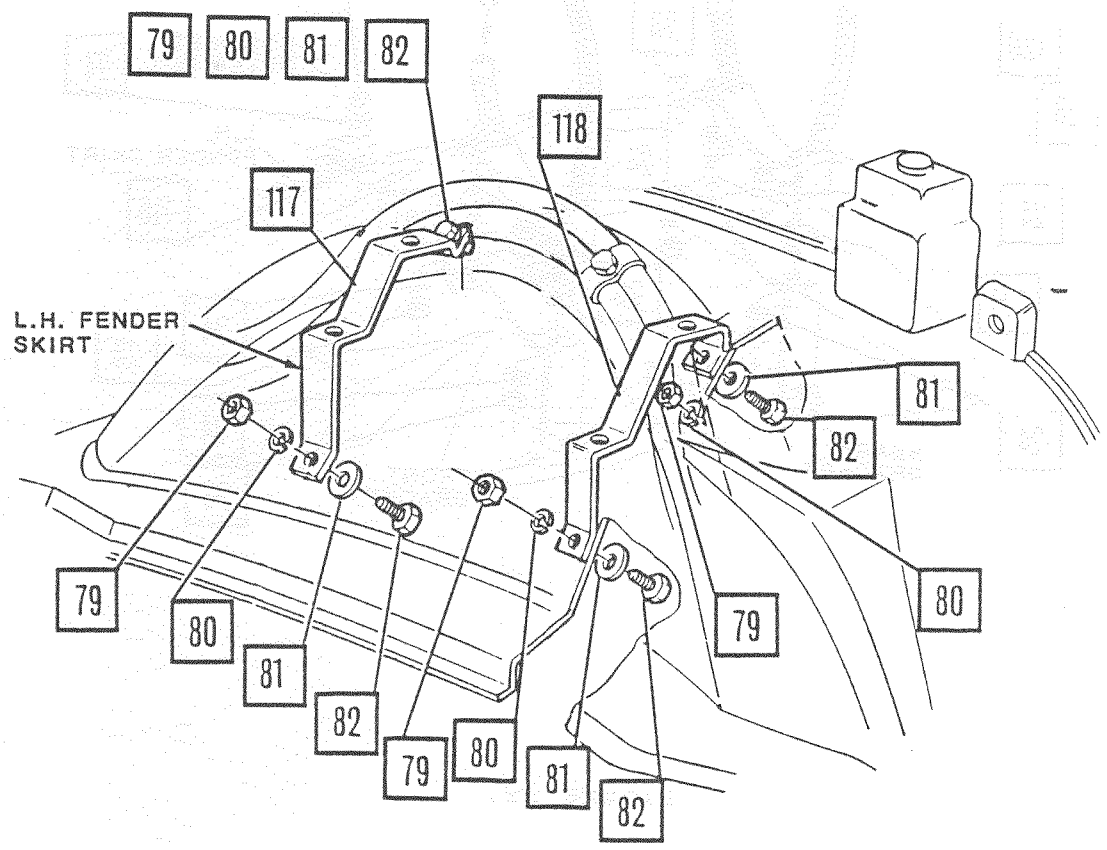


Figure 31.

184. Assemble saddle brackets, mounts, nuts, lockwashers and clamps to mounting brackets (Figure 32.). Tighten nuts to 40-60 lb.-in. (4.5-7.0 Nm).

185. Install items assembled in step 184 to furnace mounting brackets on left fender skirt and secure with nuts, bolts and washers (Figure 32.). Tighten to 15-22 lb.-ft. (20.0-30.0 Nm).

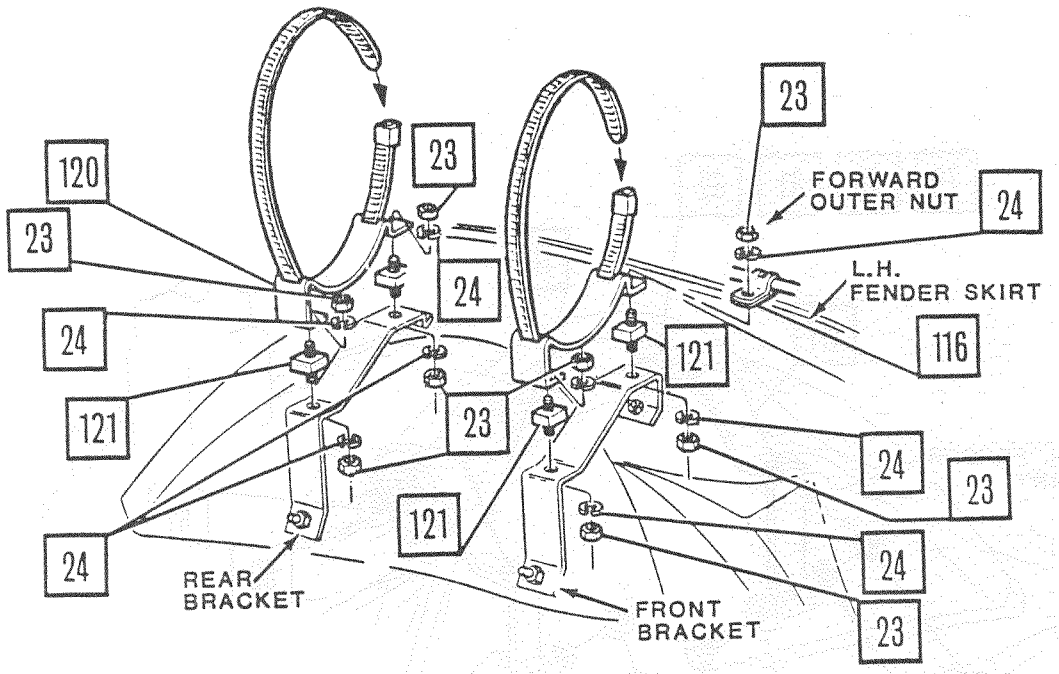


Figure 32.

186. Install coolant heater exhaust pipe under steering linkage and between engine and frame at cutout, and secure to oil pan outlet with clamp (Figure 34.). Tighten to 75-95 lb.-in. (8.5-11.0 Nm).

187. Secure heater exhaust pipe to frame with clamp, nut and self-tapping bolt (Figure 34.). Tighten to 120-180 lb.-in. (14.0-20.0 Nm).

NOTE

Step 188 is for M1009 only.

188. Secure heater exhaust pipe to frame with clamp, nut and bolt (Figure 34.).

189. Place heater into mounting bracket and secure heater exhaust pipe to heater with clamp (Figure 34.). Tighten clamp to 75-95 lb.-in. (8.5-11.0 Nm).

190. Remove cover on heater, place clamps into position and tighten clamps around heater. Reinstall cover on heater.

191. Install sensor assembly to forward heater port and tighten (Figure 33.).

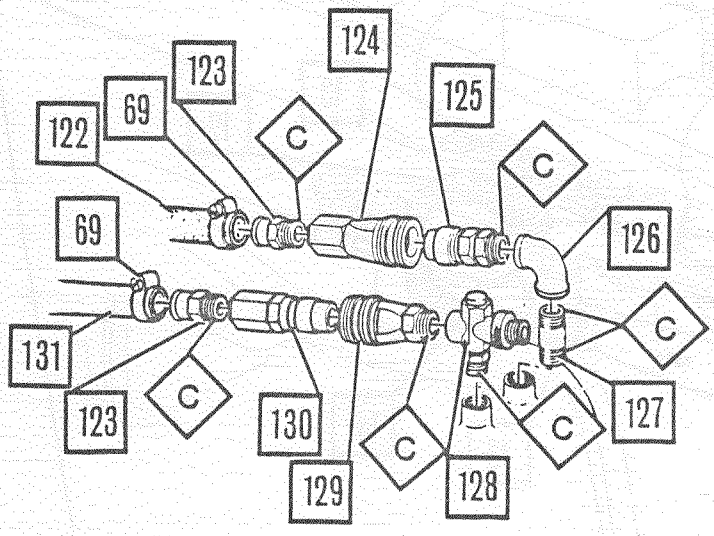


Figure 33.

192. Assemble nipple, elbow and coupling assemblies to coolant heater (Figure 33.).

NOTE

Aline all connectors before installing hoses.

193. Install end of each crossover hose to nipples with clamps (Figure 35.). Tighten to 23-30 lb.-in. (2.3-3.4 Nm).

194. Route short hose to coolant crossover outlet and long hose to radiator "Y" pipe, and clamp into place (Figure 35.). Tighten to 23-30 lb.-in. (2.2-3.4 Nm).

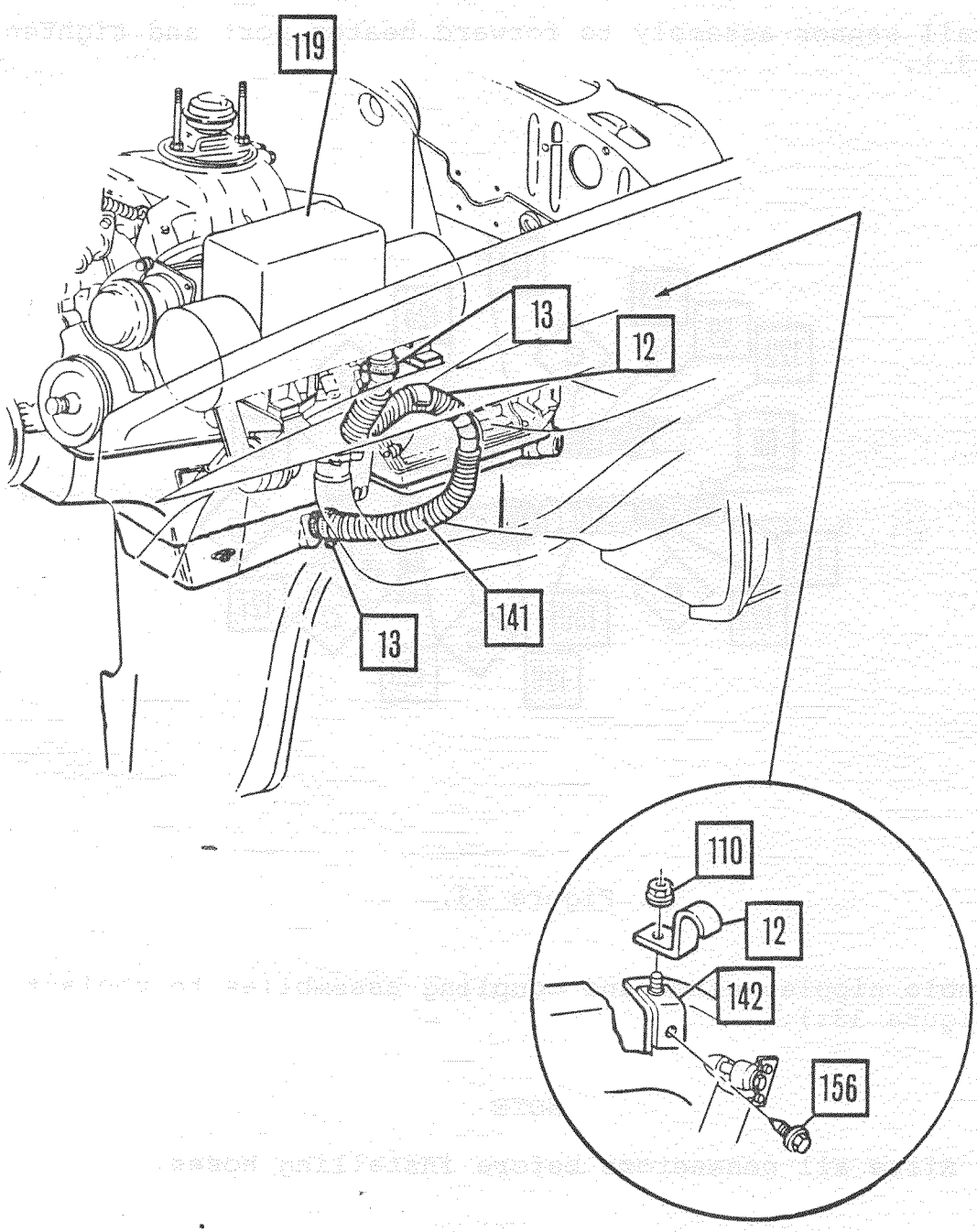


Figure 34.

195. Remove existing clip on top of radiator shroud and enlarge existing hole to 3/8 inch (Figure 35.).

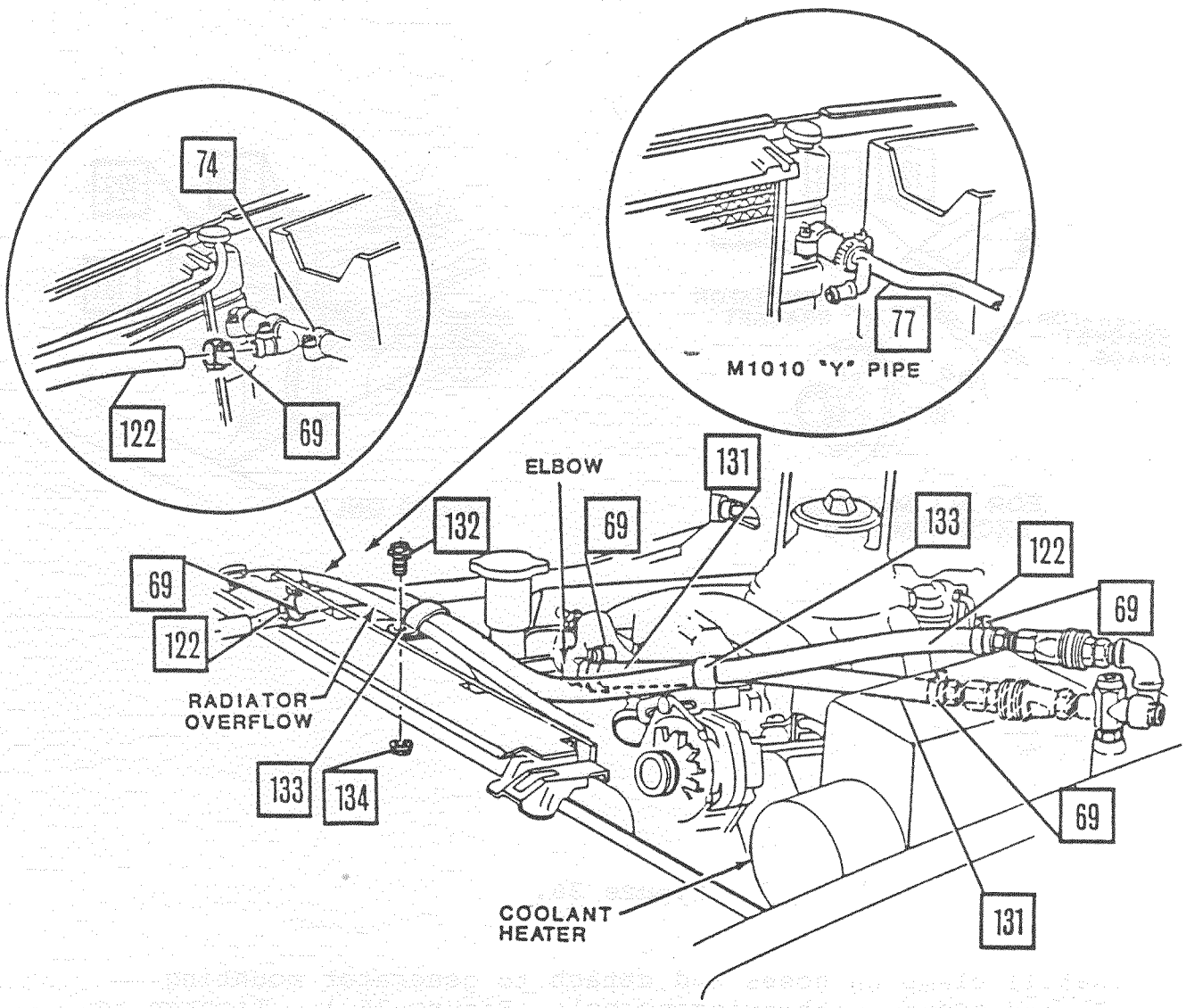
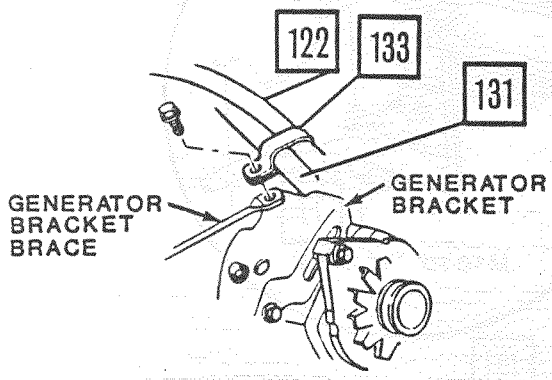
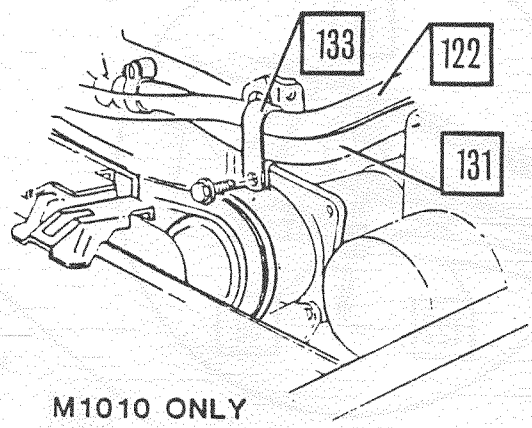


Figure 35.

196. Install clip around coolant heater hose and radiator overflow hose, and secure with nut and bolt (Figure 35.).



FOR ALL MODELS EXCEPT M1010



M1010 ONLY

Figure 36.

197. Install clamp on hoses and attach to generator mounting bracket, and secure with existing bolt (Figure 36.). Tighten to 26-37 lb.-ft. (36.0-50.0 Nm).

NOTE

Step 198 for M1010 only.

198. Attach clamp and hoses to AC compressor with existing bolt (Figure 36.). Tighten to 15-20 lb.-ft. (20.0-27.0 Nm).

199. Install fuel line from fuel pump to fuel filter (Figure 37.). Tighten to 15-20 lb.-ft. (20.0-27.0 Nm).

200. Install connector on inlet side of coolant heater and install fuel line with flex hose from fuel filter to coolant heater (Figure 37.). Clip fuel line to heater mount. Tighten to 15-20 lb.-ft. (20.0-27.0 Nm).

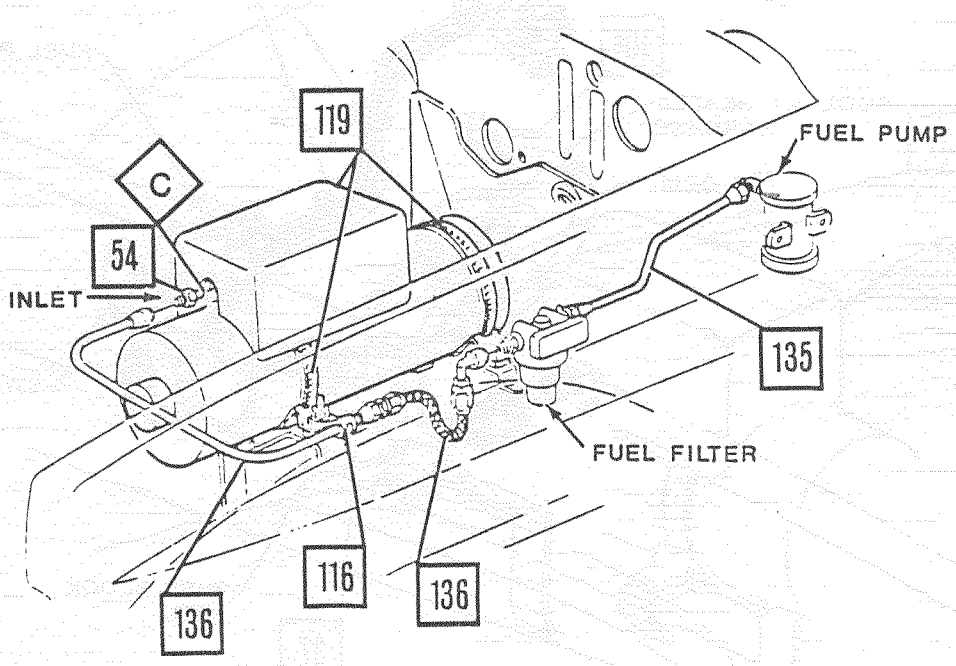


Figure 37.

201. Connect coolant electrical harness to heater, fuel pump, and switch assembly (Figure 38.), and secure to fuel lines with straps.

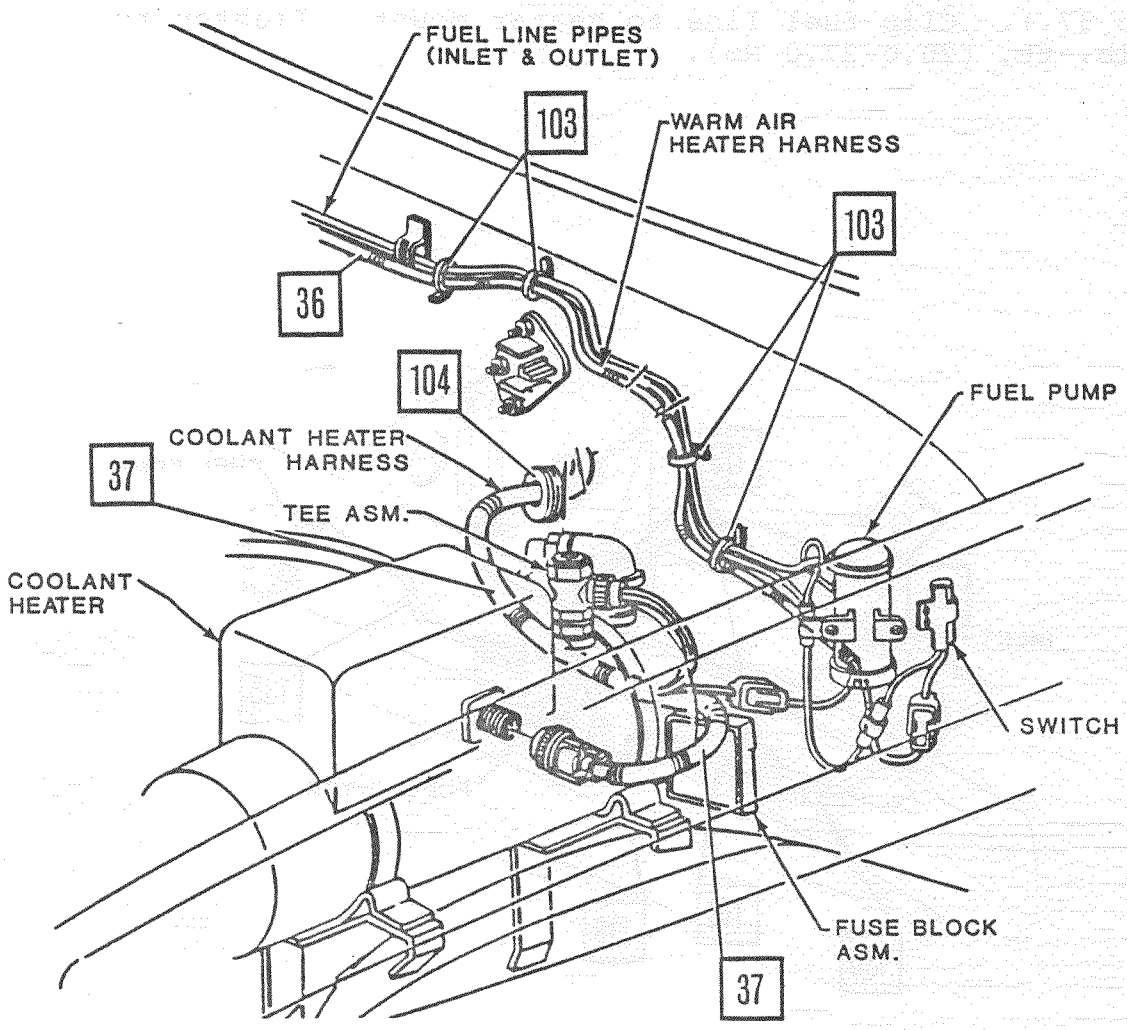


Figure 38.

202. Secure heater hoses to rear battery box with clip, nut and bolt (Figure 39.). Tighten to 15-22 lb.-ft. (20.0-30.0 Nm).

203. Secure long heater hose to lower hole in rear battery box with nut and bolt (Figure 39.). Tighten to 15-22 lb.-ft. (20.0-30.0 Nm).

204. Secure short heater hose to upper hole in rear battery box with nut and bolt (Figure 39.). Tighten to 15-22 lb.-ft. (20.0-30.0 Nm).

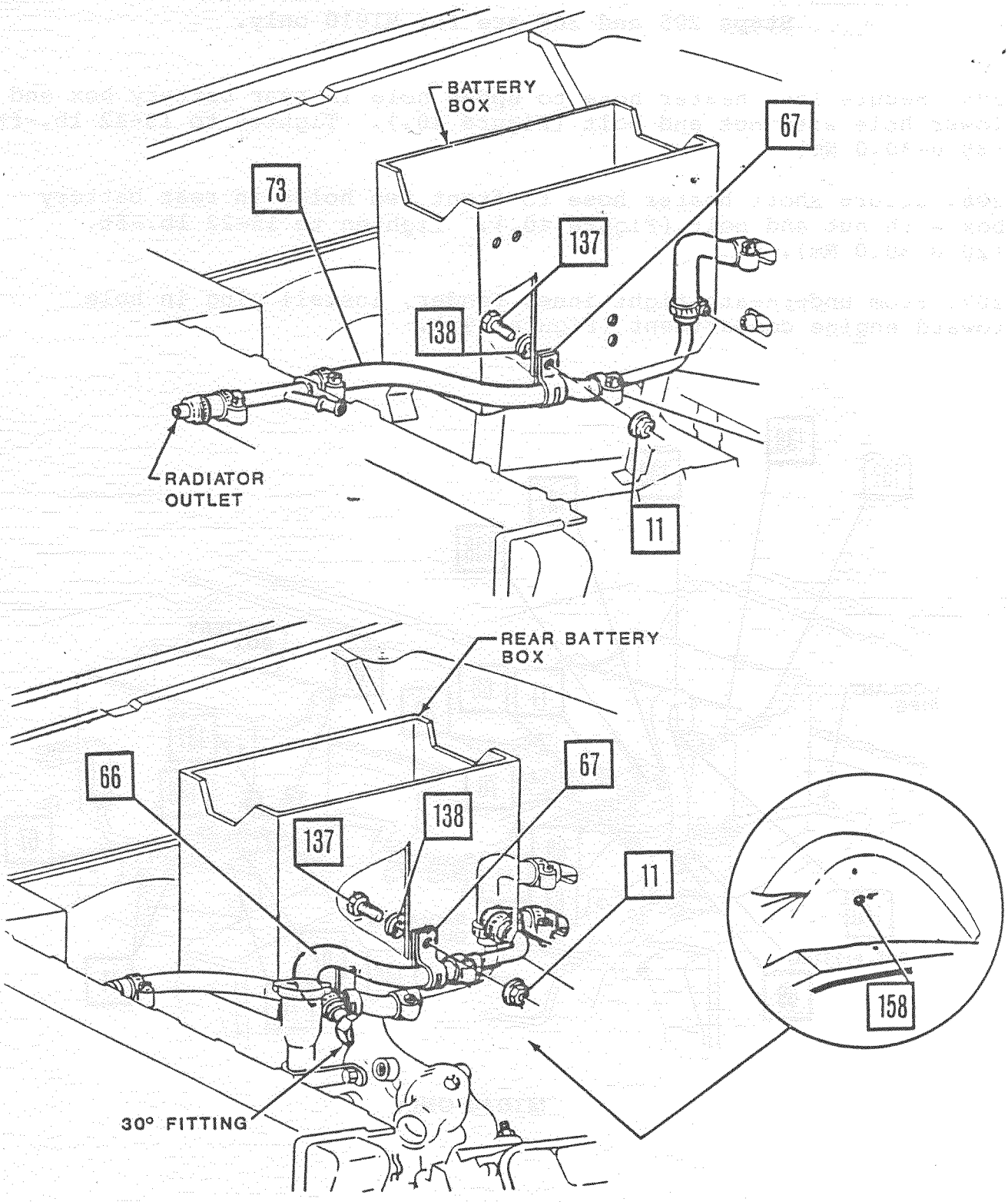

BATTERY BOX
73
67
137
138
RADIATOR OUTLET
11
REAR BATTERY BOX
66
67
137
138
11
158
30° FITTING

Figure 39.

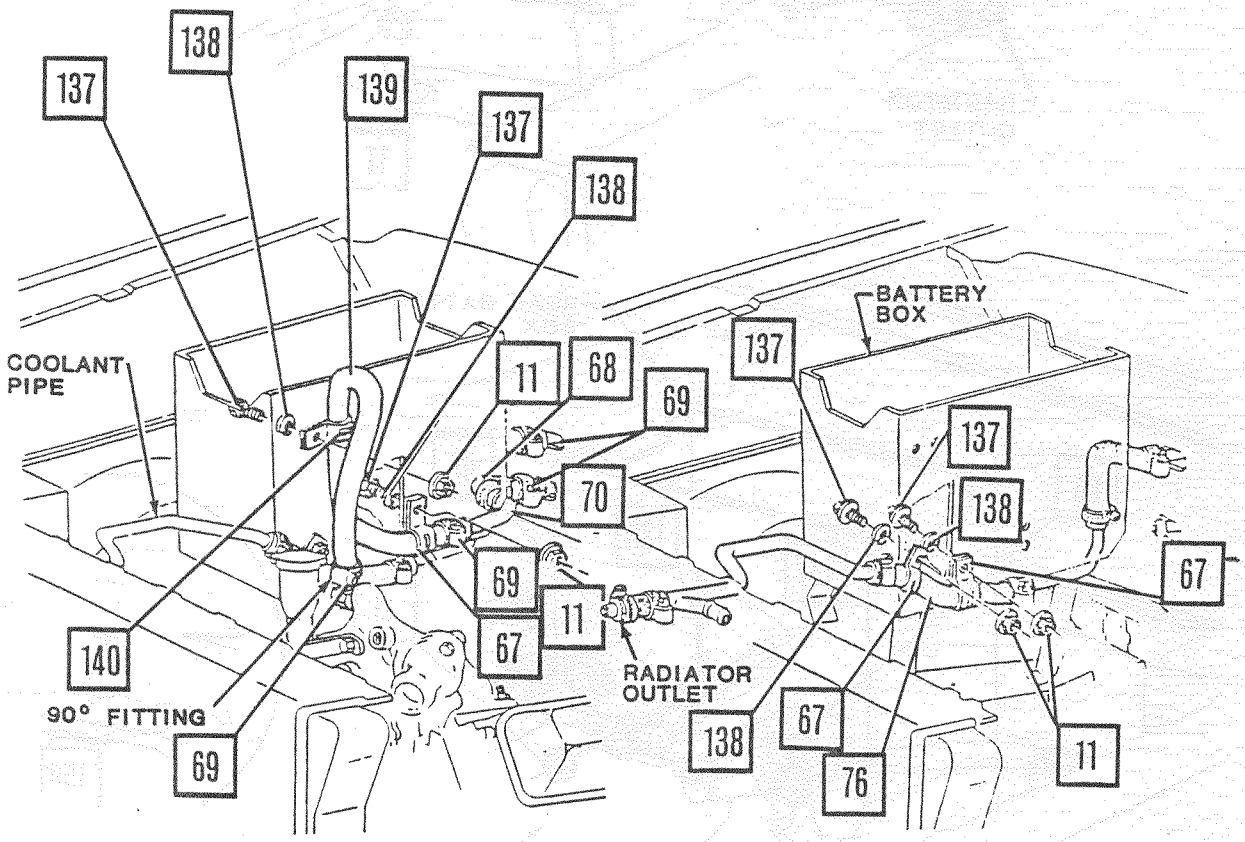
NOTE

Steps 205 and 206 are for M1010 only.

205. Secure long heater hose to upper hole in rear battery box and lower hole with nut and bolt (Figure 40.). Tighten to 15-22 lb.-ft. (20.0-30.0 Nm).

206. Secure short heater hose to front two holes in rear battery box with nut and bolt (Figure 40.). Tighten to 15-22 lb.-ft. (20.0-30.0 Nm).

207. From underneath right inner fender, install plug in hole toward engine compartment (Figure 39.).



M1010 ONLY

Figure 40.

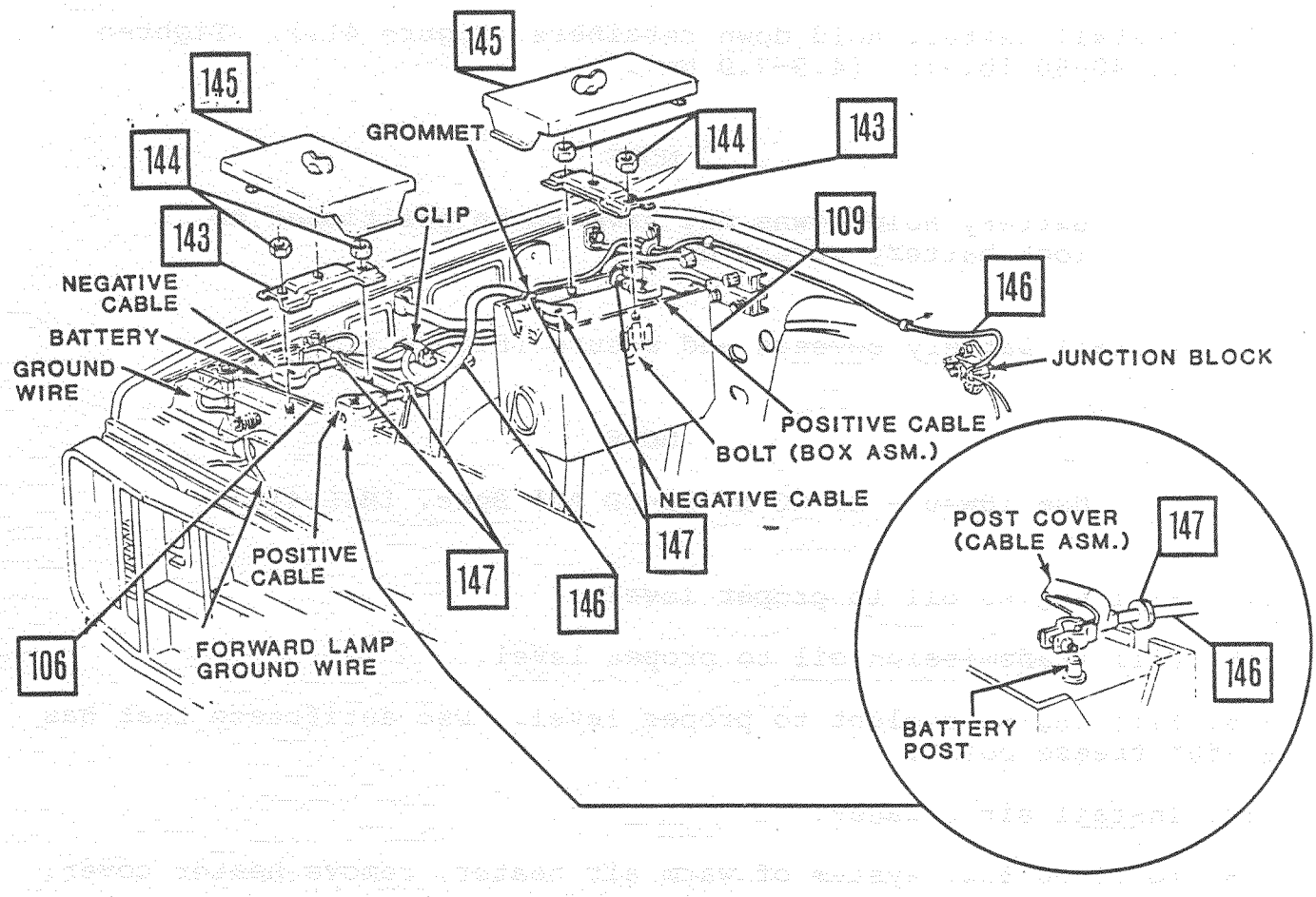


Figure 41.

208. Place batteries in winterized battery boxes.

209. Install new battery cables and attach positive cable to junction block (Figure 41.).

NOTE

Install grommet so split is facing down.

210. Attach battery cables to battery terminals and insert grommets in battery boxes around cables (Figure 41.).

211. Attach battery cables to clips in right fender skirt and secure clips to fender skirt with nuts and bolts (Figure 41.). Tighten to 40-60 lb.-in. (4.5-7.0 Nm), using existing rear hole and forward special drilled hole.

212. Install battery hold down retainers (Figure 41.). Tighten nuts to 40-60 lb.-in. (4.5-7.0 Nm).

NOTE

Battery hold downs may have to be positioned to lock battery covers down.

213. Install battery coveers and secure (Figure 41.).

NOTE

Use 10W30 - SF-CC or SF-CD API Spec. (MIL-4167).

214. Fill engine oil to proper level.

215. Fill transmission oil to proper level.

216. Fill engine coolant to proper level. Use antifreeze that has a -50° freeze point.

217. Install air cleaner.

218. To bleed fuel system of warm air heater, remove heater cover.

219. Open all heater fuel system shut-off valves.

220. Disconnect electrical connector on heater.

221. Disconnect fuel line connection at heater fuel inlet fitting.

NOTE

Provide a suitable container at outlet of fuel line to catch fuel.

222. Depress and hold heater control box "RUN-OFF-START" switch in "START" position to activate electrical fuel pump. Continue pump operation until a clean steady flow of fuel is obtained (approximately 10 seconds).

223. Reconnect fuel line at heater.

224. Reconnect electrical connector on heater.

225. Open bleed port on fuel regulator valve on heater.

226. Depress and hold heater control box "RUN-OFF-START" in "START" position to activate electrical fuel pump. Continue pump operation until a steady flow of fuel is obtained (approximately 10 seconds).

227. Close bleed port. Return control box switch to "OFF" position.

228. Install cover. Heater is now ready to start.

229. To bleed fuel system for coolant heater, remove heater cover.

230. Remove pipe plug at solenoid valve tee and unscrew nozzle assembly behind pipe plug.

231. Turn coolant heater control switch to "START" position until a constant flow of fuel comes from pipe plug hole (approximately 10 seconds).

232. Turn control switch to "OFF" position and install nozzle assembly.

233. Install pipe plug.

234. Install heater cover. Heater is now ready to start.

235. Affix auxiliary heater operating instruction label to roof inside cab between sun visors (Figure 42.).

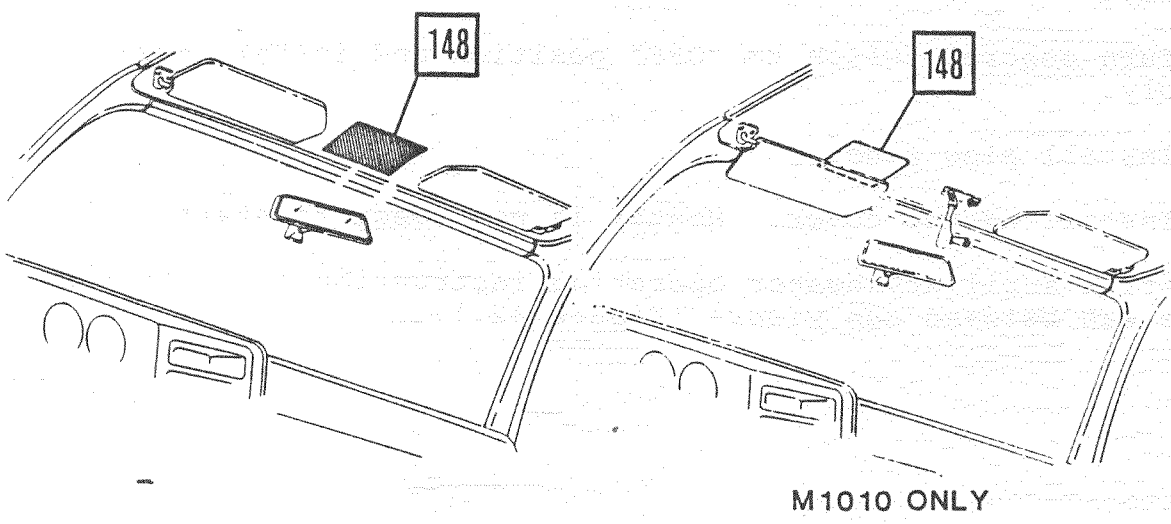


Figure 42.

NOTE

Refer to auxiliary heater operating instruction label to operate heaters.

236. Check for fuel, oil and coolant leaks.

PARTS LIST - ENGINE COMPARTMENT HEATERS

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO.	KIT NO. 1 2 3 4
1	HOSE ASM-ENG OIL CLR INL	14063336	14072400	X X X X
2	HOSE ASM-ENG OIL CLR OTLT	14063337	14072400	X X X X
3	PAN ASM-ENG OIL HT EXCH	14067730	14074404	X
			14072394	X
			14074403	X X
4	SEAL-OIL PAN RR	14022683	14074404	X
			14072394	X
			14074403	X X
5	BOLT-HEX FLG HD 1/4-20 x 9/16	9439930	14074404	X
			14072394	X
			14074403	X X
6	PAN ASM-TRANS OIL HT EXCH	15599201	14074404	X
			14072394	X
			14074403	X X
7	PIPE ASM-ENG OIL HTR INT EXH	15599200	14074404	X
			14072394	X
			14074403	X X
8	PIPE ASM-ENG COOL HTR RR EXH	15599215	14074403	X X
9	CLAMP	15599217	14074404	X
			14072394	X
			14074403	X X
			14072398	X
			14072397	X X
			14072399	X
10	BOLT-HEX FLG HD 5/16-18 x 3/4	9440316	14074404	X
			14072397	X X
			14072398	X
11	NUT-HEX FLG 5/16-18	15599921	14074404	X
			14072391	X X X
			14072397	X X
			14072398	X
			14074406	X
12	CLIP	15599275	14074404	X
			14072394	X
			14074403	X X
			14072397	X X
			14072398	X

PARTS LIST - ENGINE COMPARTMENT HEATERS (continued)

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO.	KIT NO. 1 2 3 4
13	CLAMP ASM	14074487	14074404	X
			14072394	X
			14074403	X X
			14072397	X X
			14072398	X
			14072399	X
14	BOLT-HEX HD 1/4-20 x 1	9440320	14074404	X
			14072394	X
			14074403	X X
			14072397	X X
			14072398	X
			14072399	X
15	NUT 1/4-20	9422273	14074404	X
			14072394	X
			14074403	X X
			14072397	X X
			14072398	X
			14072399	X
16	PIPE ASM-ENG COOL HTR RR EXH	14074499	14072394	X
17	PIPE ASM-ENG COOL HTR RR EXH	15599212	14074404	X
18	PIPE ASM-WM AIR HTR RR EXH	15599292	14072397	X X
19	PIPE ASM-WM AIR HTR RR EXH	15599211	14072398	X
20	PIPE ASM-WM AIR HTR RR EXH	15599290	14072399	X
21	WIRE ASM-BLO AIR INL RES	14076237	14072392	X X X X
22	BLOWER ASM-HTR AIR INL	14074465	14072393	X X X X
23	NUT-HEX 1/4-20	9419143	14072392	X X X X
			14074402	X X X X
24	WASHER-LOCK 6.5 x 12.4mm	15500190	14072392	X X X X
			14074402	X X X X
25	BRACKET-1/P REINF	14072415	14072392	X X X
26	SCREW-PAN HD 1/4-20 x .50	9440926	14072392	X X X X
27	CONTROL ASM-HTR CONT	14076284	14072392	X X X X
28	SCREW-HEX HD WA 1/4-20 x 3/4	9437680	14072392	X X X

PARTS LIST - ENGINE COMPARTMENT HEATERS (continued)

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO.	KIT NO. 1 2 3 4
29	NUT-SPRING 1/4-20	1494252	14072392	X X X X
30	TEMPLATE-HTR SHUT-OFF SW	14074478	14072392	X X X X
31	NUT-SPRING	14013891	14072392	X X X X
32	SWITCH ASM-WM AIR HTR SHUT-OFF	14074454	14072392	X X X X
33	SCREW-HEX WA 4.2 x 14	15502835	14072392	X X X X
34	GASKET-HTR SHUT-OFF SW	14076270	14072392	X X X X
35	WASHER-FL 6.6mm x 17mm	11503978	14072392	X X X X
36	HARN ASM-ENG AIR HTR WRG	14076236	14072392	X X X X
37	HARN ASM-ENG COOL HTR WRG	14075888	14072392	X X X X
38	CLAMP	8917260	14072392	X X X X
39	BOLT-HEX 1/4-20 x 3/4	9419008	14072392	X X X X
40	WASHER-FL .281	507295	14072392	X X X X
41	CLAMP	14061352	14072392	X X X X
42	SPACER	15599920	14072392	X X X X
43	PUMP-FUEL	14072370	14072396	X X X
44	SCREW-PAN HD 4.2-1.41 x 16	11501012	14072396	X X X
45	SWITCH ASM-AUX HTR F/PMP	14072347	14072396	X X X
46	NUT JACK 1/4-20	367292	14072396	X X X
47	BOLT-HEX 1/4-20 x 7/8	14007510	14072396	X X X
48	CONNECTOR	118749	14072396	X X X
49	TEE-TWO WAY	140642	14072396	X X X
50	VALVE-SHUT-OFF	9440173	14072395 10474402	X X X X X X X X
51	ADAPTOR	443998	14074402	X X X X

PARTS LIST - ENGINE COMPARTMENT HEATERS (continued)

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO.	KIT NO. 1 2 3 4
52	SPACER	14072374	14072395	X X X X
			14074402	X X X X
53	JACKNUT 10-24	15599231	14072395	X X X X
			14074402	X X X X
54	CONNECTOR	118749	14072395	X X X X
			14074402	X X X X
55	FILTER-FUEL	14072373	14072395	X X X X
			14074402	X X X X
56	BOLT-HEX 10-24 x 2.25	9440927	14072395	X X X X
			14072396	X X X
			14074402	X X
57	TEE-THREE WAY	118806	14072396	X X X
58	PIPE ASM-FUEL WARM AIR HTR	14072371	14072396	X X X
59	CLIP	343444	14072396	X X X
60	PIPE ASM-FUEL HTR PUMP FD	14072369	14072396	X X X
61	STRAP	11501906	14072396	X X X
62	CLIP	14004512	14072396	X X X
63	PIPE & HOSE ASM-FUEL FEED	14072368	14072396	X X X
64	CONNECTOR	110200	14072396	X X X
65	CLIP	343449	14072396	X X X
66	HOSE-HTR INL FRT	14075856	14072391	X X X
67	CLIP-HTR HOSE	356128	14072391	X X X
			14074406	X
68	HOSE-HTR INL RR	14074446	14072391	X X X
			14074406	X
69	CLAMP ASM-HTR HOSE	14074410	14072391	X X X
			14074401	X X X X
			14074406	X

ARTS LIST - ENGINE COMPARTMENT HEATERS (continued)

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO.	KIT NO. 1 2 3 4
70	PIPE-HTR INL RR	14074445	14072391	X X X
			14074406	X
71	HOSE-HTR OTLT RR	14074451	14072391	X X X
			14074406	X
72	PIPE-HTR OTLT RR	14074450	14072391	X X X
			14074406	X
73	HOSE HTR INTER	14074449	14072391	X X X
74	PIPE ASM-HTR OTLT FRT	14074448	14072391	X X X
75	HOSE-HTR OTLT FRT	14074447	14072391	X X X
			14074406	X
76	HOSE HTR-OTLT INTER	14074453	14074406	X
77	PIPE ASM-HTR OTLT FRT	14074452	14074406	X
78	ELBOW 90°	444476	14072395	X X X X
79	NUT-HEX 5/16-18	9417954	14072395	X X X X
			14074402	X X X X
80	WASHER-LOCK 8.0mm	11500191	14072395	X X X X
			14074402	X X X X
81	WASHER-FLAT 5/16	3770531	14072395	X X X X
			14074402	X X X X
82	BOLT-HEX 5/16-18 x 3/4	9417950	14072395	X X X X
			14074402	X X X X
83	BRACKET ASM-WM AIR HTR RR	14074471	14072395	X X X X
84	BRACKET ASM-WM AIR HTR FRT	14074470	14072395	X X X X
85	SCREW-HEX HD 1/4-20 x 5/8	3856691	14072395	X X X X
86	WASHER-FLAT 1/4	9421394	14072395	X X X X
87	CLAMP	14074414	14072395	X X X X
88	BRACKET-WM AIR HTR	14074469	14072395	X X X X
89	CROSSOVER-ENG COOLANT	14063338	14074401	X X X X
90	GASKET-CROSSOVER	14028951	14074401	X X X X

PARTS LIST - ENGINE COMPARTMENT HEATERS (continued)

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO.	KIT NO. 1 2 3 4
91	GASKET-THERMOSTAT	14028916	14074401	X X X X
92	ELBOW-HOSE 90°	10005327	14074401	X X X X
93	HEATER ASM-WM AIR	14074468	14072395	X X X X
94	ADAPTOR ASM-WM AIR HTR	14074466	14072395	X X X X
95	SCREW 8-32 x 5/16	423532	14072395	X X X X
96	VALVE ASM-WM AIR HTR DVTR	14074473	14072395	X X X X
97	SWITCH ASM-WM AIR HTR DVTR	15599972	14072395	X X X X
98	SCREW-HEX HD TP 4.2mm x 13mm	11503550	14072395	X X X X
99	HOSE ASM-HTR BLO INL ADPT	14074474	14072393	X X X X
100	CLAMP	14074413	14072393	X X X X
101	HOSE ASM-HTR DVRTR VLV BLO	14074475	14072393	X X X X
102	PIPE ASM-WM AIR HTR FRT EXH	15599287	14072397 14072398 14072399	X X X X
103	STRAP	11501906	14072392	X X X X
104	GROMMET	15599925	14072392	X X X X
105	NUT-PUSH 5/32	381700	14072392	X X X X
106	BOX ASM-BAT FRT	14076241	14072385	X X X X
107	SUPPORT-BAT BOX RR	14076249	14072385	X X X X
108	SUPPORT-BAT BOX RR	14076250	14072385	X X X X
109	BOX ASM-BAT RR	14076243	14072385	X X X X
110	NUT-HEX FLG 1/4-20	9439915	14072397 14072398 14072399 14072394 14074403 14074404	X X X X X X X X
111	PIPE ASM-FUEL WM AIR HTR	14072378	14072395	X X X X

PARTS LIST - ENGINE COMPARTMENT HEATERS (continued)

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO.	KIT NO. 1 2 3 4
112	HOSE ASM-WM AIR HTR	14074476	14072395	X X X X
113	PIPE ASM-FUEL WM AIR HTR	15599203	14072395	X X X X
114	CLAMP	14074412	14072395	X X X X
115	SEAL-WM AIR HTR	14074477	14072395	X X X X
116	CLIP	340815	14072395 14074402	X X X X X X X X
117	BRKT-CLT HTR RR	14074459	14074402	X X X X
118	BRKT-CLT HTR FRT	14074458	14074402	X X X X
119	FURNACE & CLAMPS	15599233	14074402	X X X X
120	BRKT-SADDLE CLT HTR	14074457	14074402	X X X X
121	MOUNT-ISOLATION	14074460	14074402	X X X X
122	HOSE-ENG COOL HTR OTLT	14063370	14074401	X X X X
123	NIPPLE-HOSE	3838094	14074401	X X X X
124	COUPLING ASM-ENG COOL HTR	15599240	14074401	X X X X
125	COUPLING ASM-ENG COOL HTR PLUG	15599239	14074401	X X X X
126	ELBOW 90°	144130	14074401	X X X X
127	PIPE-NIPPLE	189611	14074401	X X X X
128	SENSOR ASM-ENG COOL HTR THERMO	15599241	14074401	X X X X
129	COUPLING ASM-ENG COOL HTR SCKT	15599238	14074401	X X X X
130	COUPLING ASM-ENG COOL HTR PLUG	15599237	14074401	X X X X
131	HOSE-ENG COOL THR INLT	14063373	14074401	X X X X
132	BOLT-FLG HEX HD 3/8-16 x .625	9440034	14074401	X X X X
133	CLIP-HOSE	15599236	14074401	X X X X
134	NUT-LK FLG 3/8-16	15599928	14074401	X X X X
135	PIPE ASM-FUEL CLT HTR	14072372	14074402	X X X X

PARTS LIST - ENGINE COMPARTMENT HEATERS (continued)

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO.	KIT NO. 1 2 3 4
136	PIPE ASM-FUEL CLT HTR	15599234	14074402	X X X X
137	BOLT-HEX 5/16-18 x 1	9440283	14072391	X X X
			14074406	X
138	WASHER	187119	14072391	X X X
			14074406	X
139	HOSE-HTR INLT FRT	14074444	14074406	X
140	CLIP-HTR HOSE	14040809	14074406	X
141	PIPE ASM-ENG COOL HRT FRT EXH	15599243	14074403	X X
			14072394	X
			14074404	X
142	BRKT-ASM-EXHAUST	15599245	14074403	X X
			14072394	X
			14074404	X
143	RETAINER ASM-BAT HOLD DOWN	14076852	14072385	X X X X
144	NUT 1/4-20	3866846	14072385	X X X X
145	COVER ASM-BAT BOX	14076246	14072385	X X X X
146	CABLE ASM-BAT TO BAT	12039294	14072385	X X X X
147	GROMMET-BAT BOX	6256080	14072385	X X X X
148	LABEL-AUX HTR OPERATING INSTR	14067761	14072392	X X X X
149	BRKT ASM-ENG OIL COOLER	15599246	14072394	X
			14074403	X X
			14074404	X
150	BOLT-HEX FLG HD M10-1.5 x 65	14028922	14072394	X
			14074403	X X
			14074404	X
151	GROMMET-HTR CONT CBL	3723225	14072392	X X X X
152	CAP 45° FLARE	9409761	14072396	X X
153	CLIP-FUEL LINE	340815	14072396	X X
154	GASKET 45° FLARE	9409754	14072396	X X

PARTS LIST - ENGINE COMPARTMENT HEATERS (continued)

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO.	KIT NO. 1 2 3 4
155	SCREW	3846202	14072385	X X X X
156	SCREW-HEX W/HD M8-1.25 x 20	11503675	14072394	X
			14074403	X X
157	BOLT-HEX HD 1/4-20 x 1"	14016535	14072385	X X X X
158	PLUG-HTR HOSE CLIP FDR	3738198	14072391	X X X
			14074406	X
159	"O" RING SEAL	274244	14074404	X X X
			14074403	X X X
			14072394	X X X
A	SEALER	1052366	14072400	X X X
			14072394	X
B	SEALER	9981403	14072400	X X X
			14072394	X
C	SEALER	1052080	14072400	X X X
			14072394	X

II. INSTALL WINTER CARGO COMPARTMENT INSULATOR (M1009)

1. Remove spare tire, mounting bracket, jack handle, and jack handle mounting bracket.

2. Remove communications rack.

3. Push rear seat forward and remove bolts holding seat to floor and pivot arm to floor. Remove seat. Put pivot arm bolts back in holes in floor and tighten to 15-22 lb.-ft. (20-30 Nm).

4. Loosely position plywood floor insulators in vehicle with metal strips showing (Figure 1.).

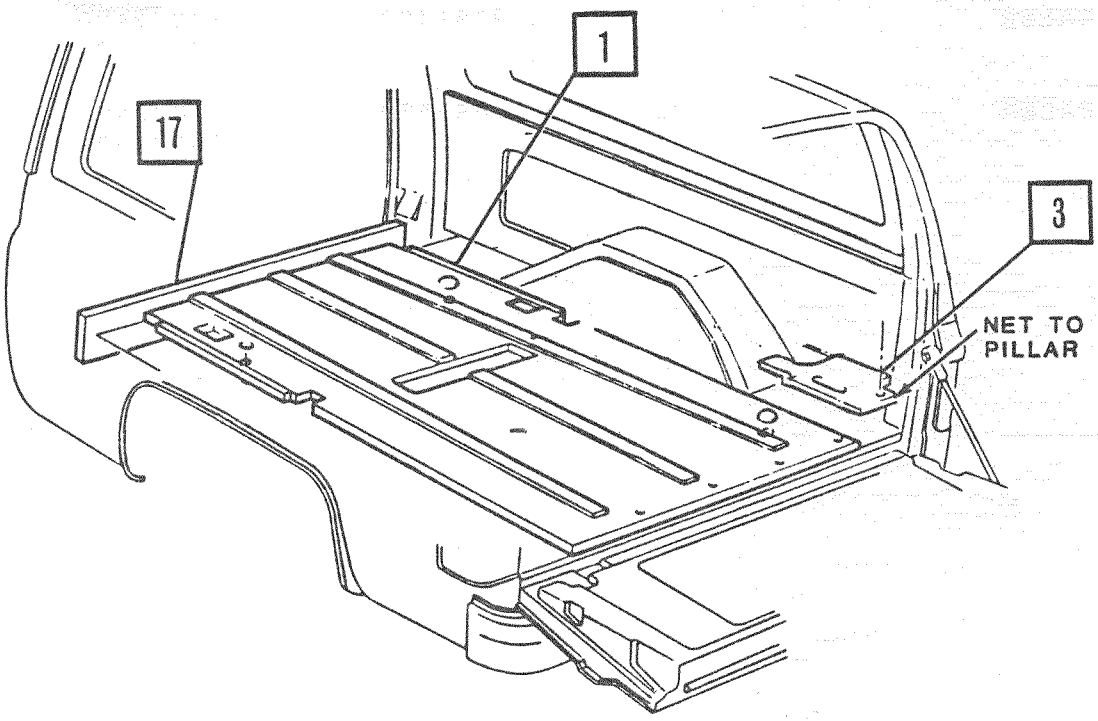


Figure 1.

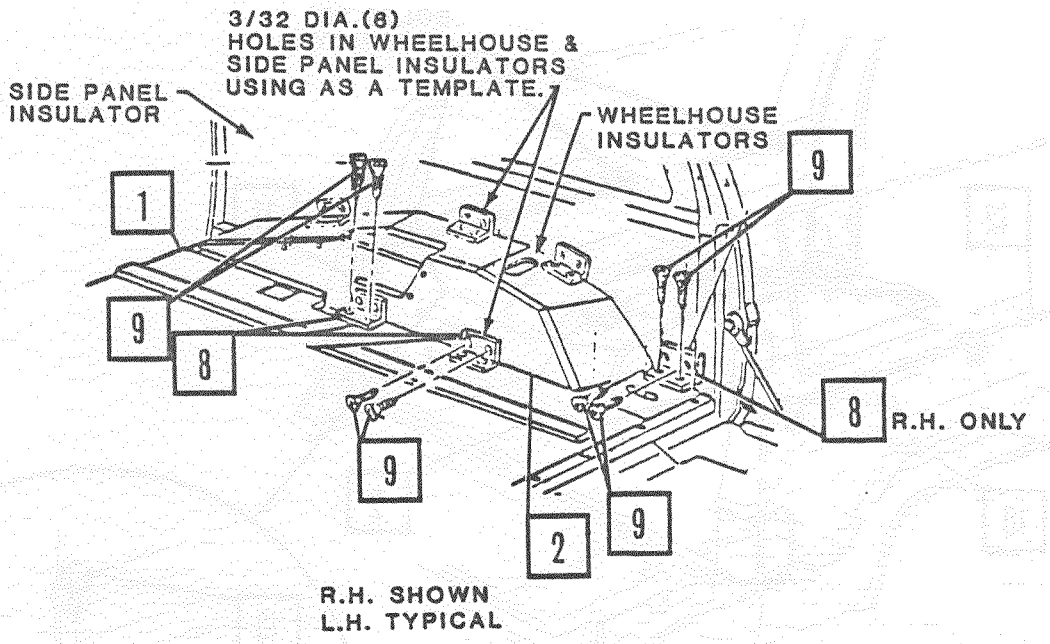


Figure 2.

5. Install three top insulator brackets on backside of each insulator assembly-side panels and attach brackets with wood screws in predrilled holes (Figure 3.).

6. Remove existing top mounting bolts along each side and install new longer top mounting bolts (3 on left and 1 on right) (Figure 3.). Hand tighten bolts.

7. Install each insulator assembly-side panel under mounting bracket and secure in place with nut, bolt and washer. Tighten to 95-140 lb.-in. (11.0-16.0 Nm) (Figure 3.).

8. Place wheelhouse insulator assemblies in position (Figure 2.).

9. Install side panel brackets to floor in predrilled holes with screws (Figure 2.).

NOTE

Aline center floor insulator and right rear floor insulator before drilling panels.

10. Using brackets as template, drill 3/32 inch holes in wheelhouse insulator assemblies and side panel assemblies.

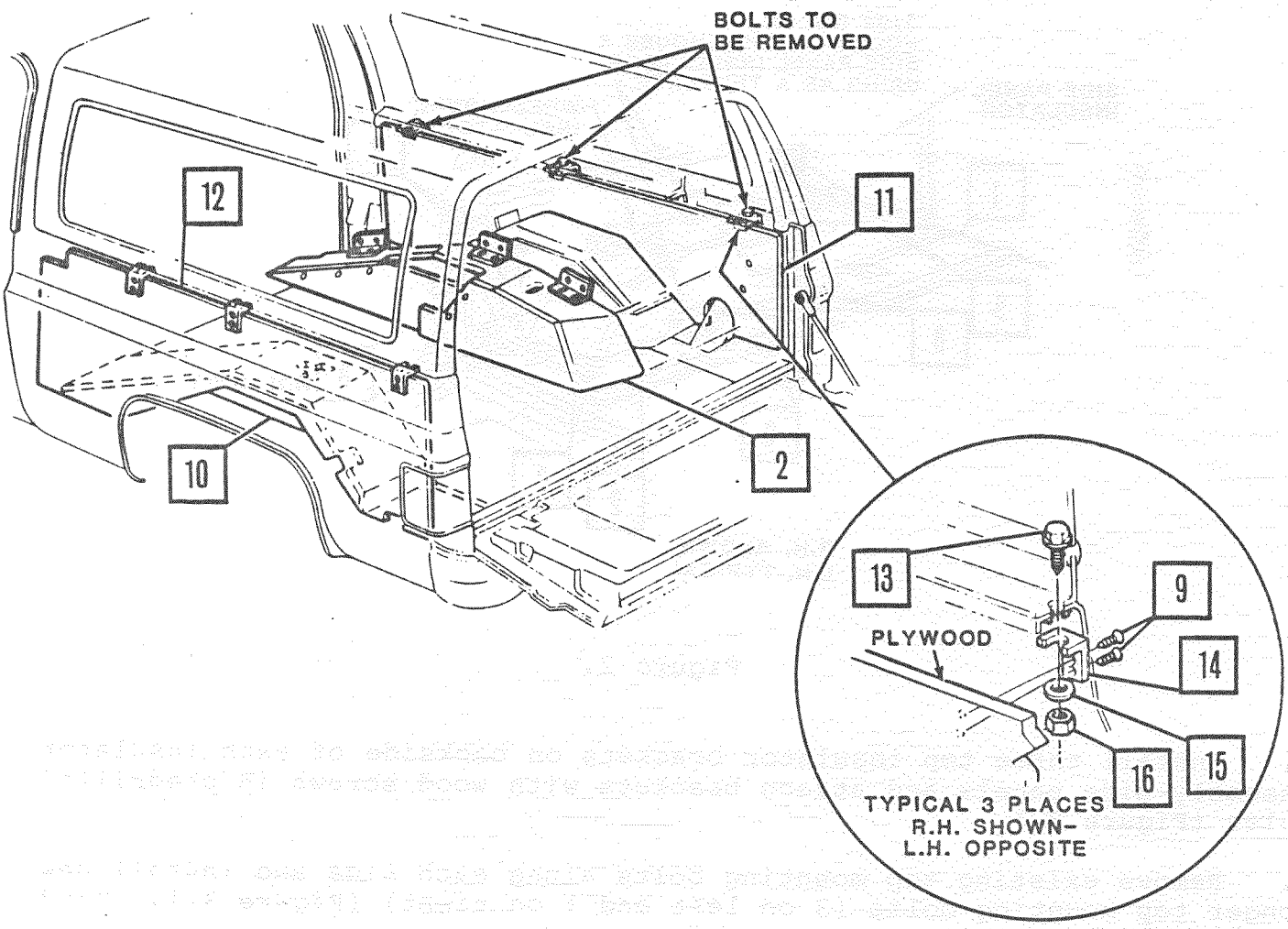


Figure 3.

11. Install wood screws in floor and wheelhouse insulators through brackets, and secure in place (Figure 2.).

12. Center rear sill molding on floor insulators using rear sill molding as a template. Drill 3/32 inch holes and secure rear sill molding in place with wood screws (Figure 4.).

NOTE

Tailgate must close before securing floor panel center assembly to floor of vehicle.

13. Close tailgate, drill four 13/32 inch holes in cargo floor using insulator as template (Figure 4.).

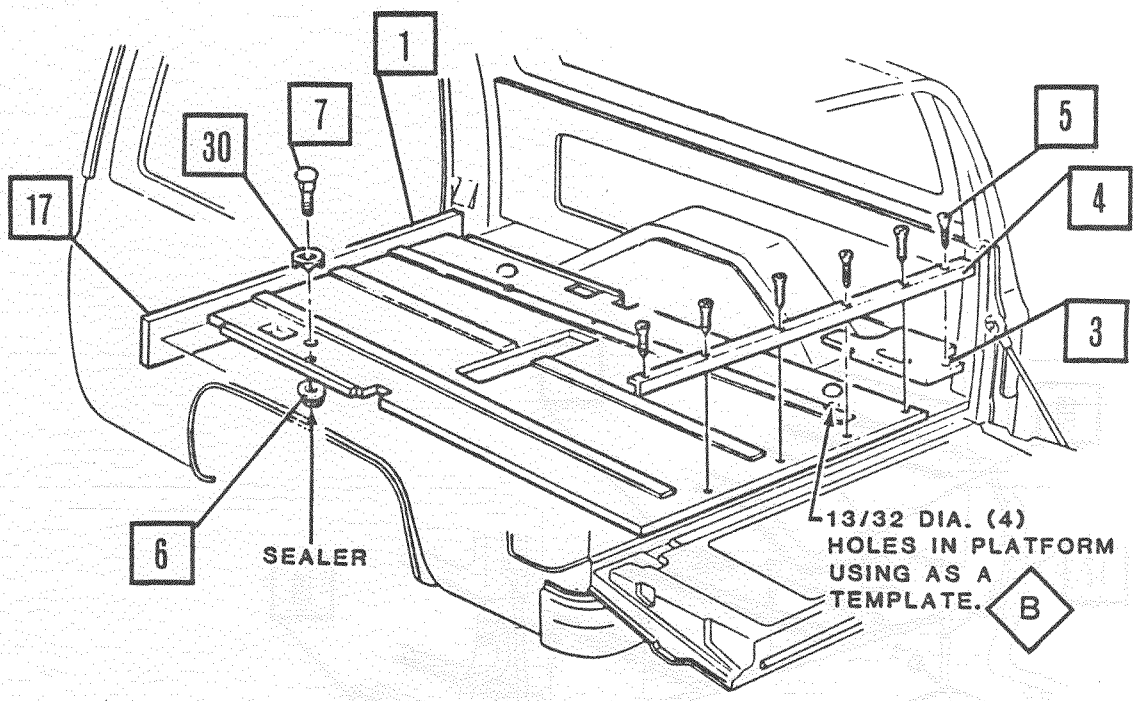


Figure 4.

14. Install bolt and washer in floor panel center assembly in drilled holes (Figure 4.).

15. Apply sealer around bolt, then install nut. Tighten to 15-22 lb.-ft. (20.0-30.0 Nm) (Figure 4.).

16. Remove screws from plastic molding at front of cargo area and remove plastic molding (Figure 4.).

17. Using front floor panel insulator as a template, drill two 9/32 inch holes through insulator and install bolt in drilled holes (Figure 5.).

18. Apply sealer around bolt, then install nut. Tighten to 40-70 lb.-in. (4.5-7.0 Nm) (Figure 5.).

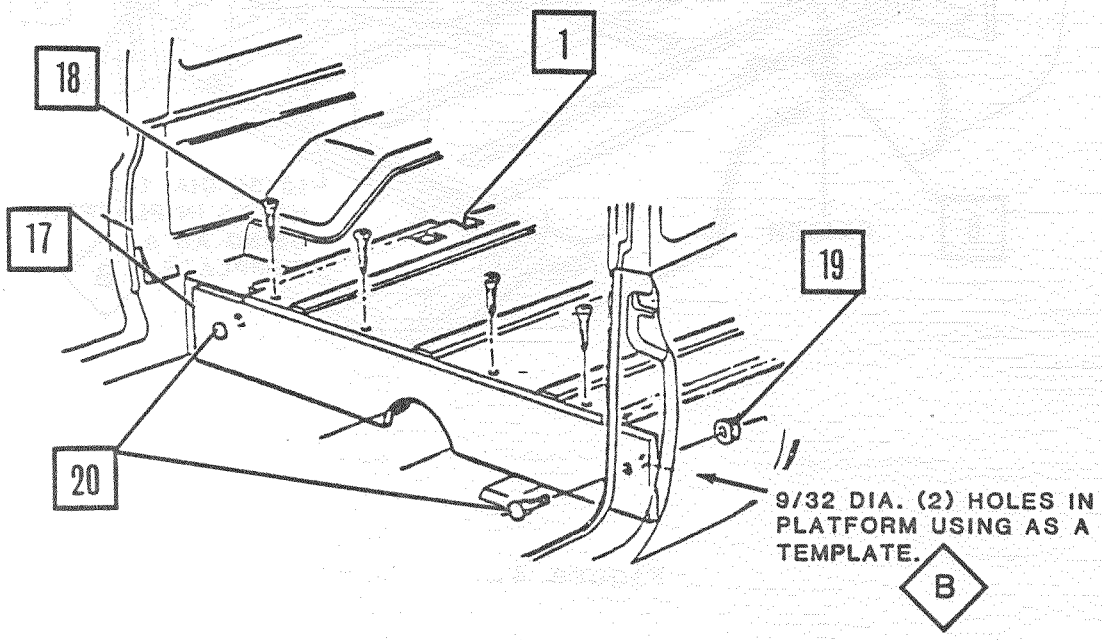


Figure 5.

19. Install screws in predrilled holes through floor insulators into front insulator (Figure 5.).

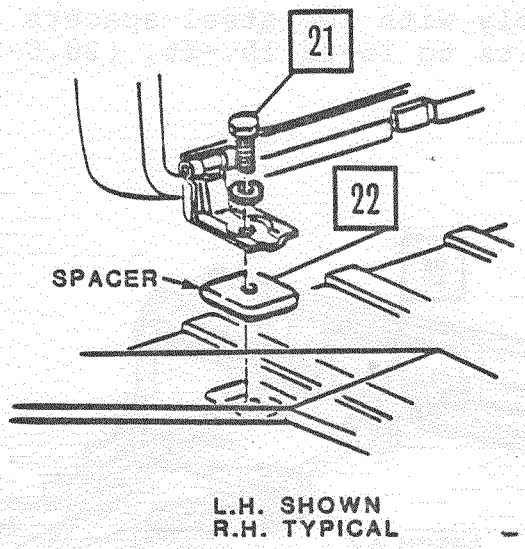


Figure 6.

20. Remove production seat prop assembly.

21. Install new seat prop assembly (Figure 7.). Tighten bolts to 10-15 lb.-ft. (14.0-20.0 Nm).

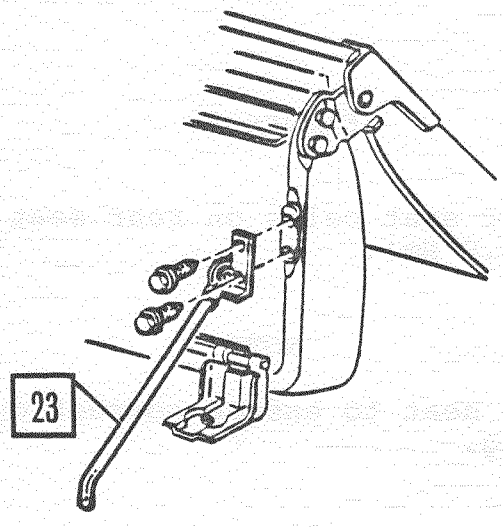


Figure 7.

22. Remove bolts from rear seat belts.

23. Remove rear seat latch assembly.

24. Install latch assembly with two steel spacers and new longer bolts (Figure 8.). Tighten bolts to 15-22 lb.-ft. (20.0-30.0 Nm).

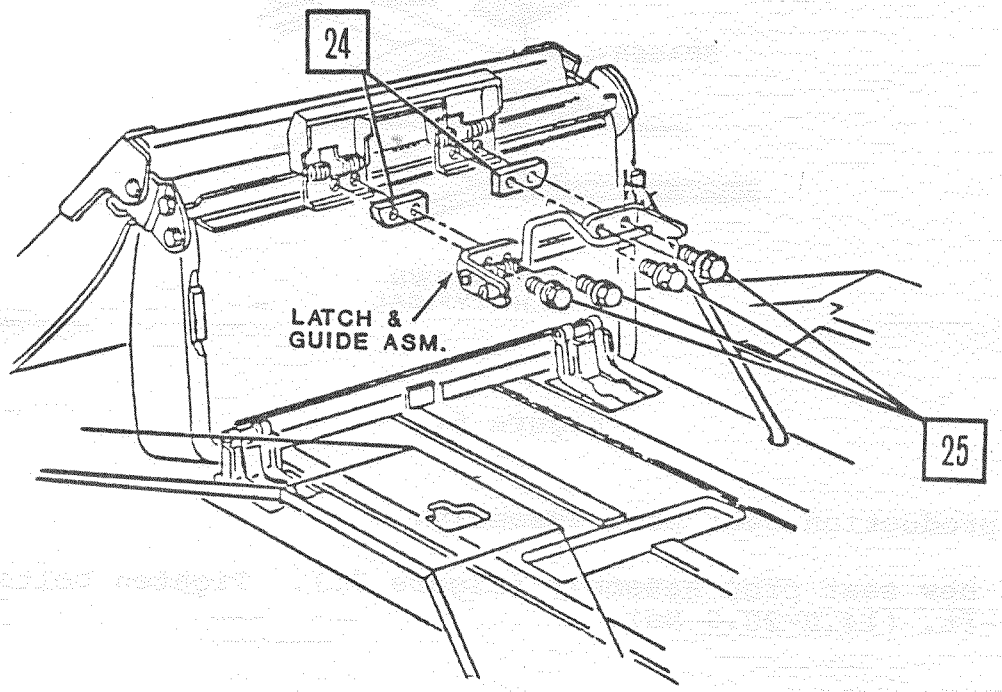


Figure 8.

25. Install bolts in rear seat belts on rear seat with bolts. Tighten to 30-45 lb.-ft. (40.0-60.0 Nm).

NOTE

Operate rear seat to ensure correct operation of seat latching.

26. Install rear seat assembly in vehicle and insert spacers next to floor (Figure 6.) using new longer bolt with washer. Tighten to 30-45 lb.-ft. (40.0-60.0 Nm).

27. Install jack handle mounting bracket to wood insulator (Figure 9.). Tighten bolts to 40-70 lb.-in. (4.5-7.0 Nm). Install jack handle.

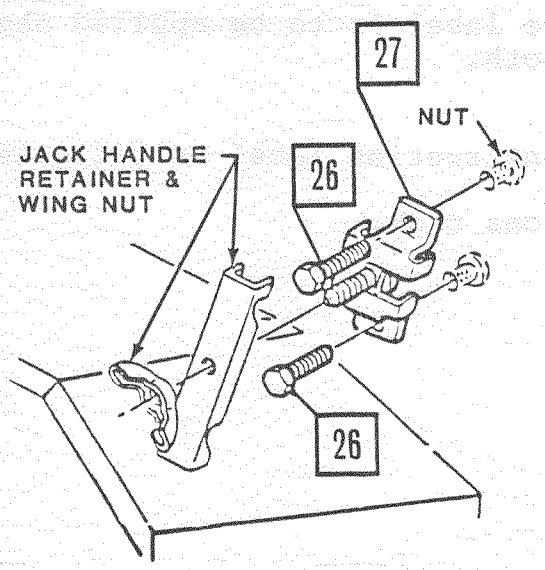


Figure 9.

28. Install tire mounting bracket through insulators and tighten to 30-45 lb.-ft. (40.0-60.0 Nm). Install spare tire mounting spacer and tire (Figure 10.).

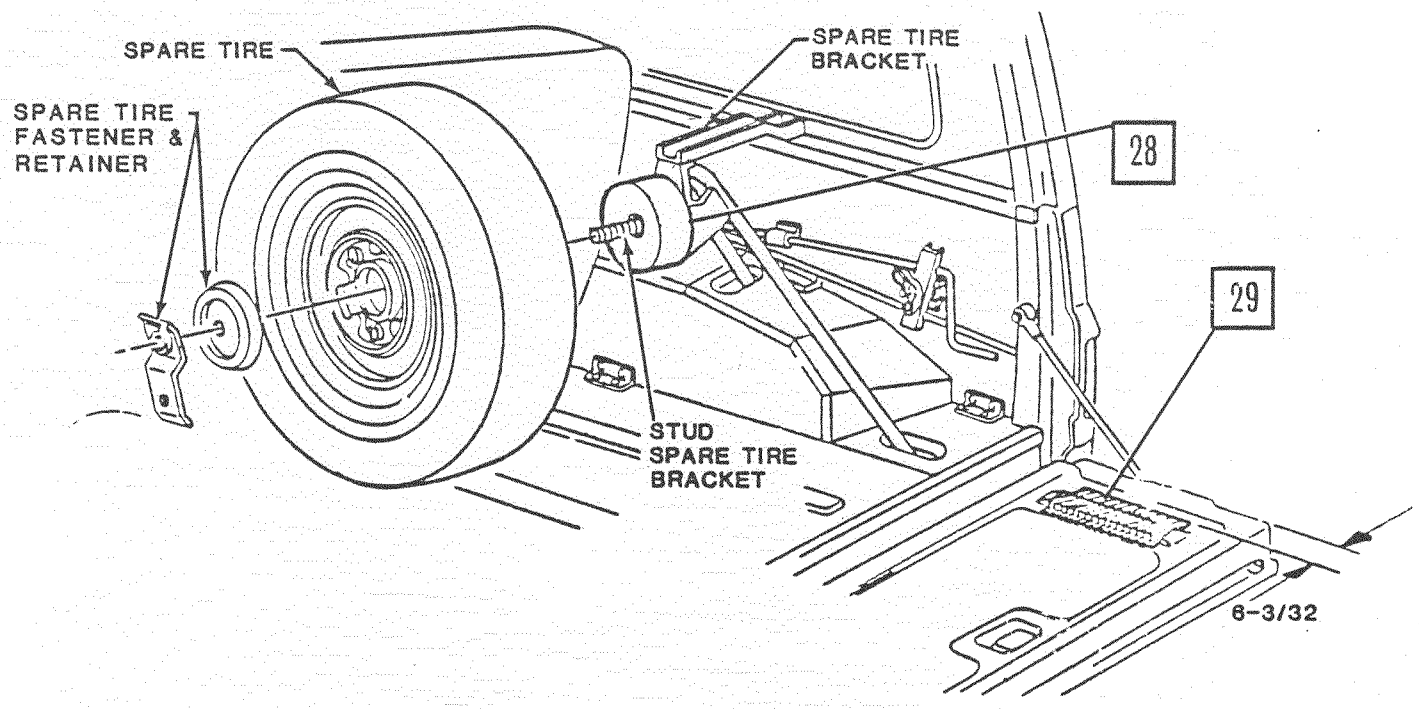


Figure 10.

NOTE

The area where label is to be applied should be clean and smooth.

29. Apply new jacking instruction label on tailgate (Figure 10.).

30. Install communications rack.

PARTS LIST-WINTER CARGO COMPARTMENT INSULATOR (M1009)

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO. (PACKAGE NO.)	KIT NO. 1 2 3 4
1	INSULATOR ASM-FLR PNL CTR	14063341	14072388	X
2	INSULATOR ASM-RR W/HOUSE RH	14063348	14072388	X
3	INSULATOR-FLR RR OTR RH	14063346	14072388	X
4	MOLDING-FLR PNL INSUL	14063350	14072388	X
5	SCREW-FL HD WD 10 x 3/4	129394	14072388 (15599904)	X X
6	NUT-LK 3/8-16	6262213	14072388 (15599904)	X X
7	BOLT-RD HD 3/8-16 x 2	9440185	14072388 (15599904)	X X
8	BRACKET-SIDE PNL INSUL	14063349	14072388 (15599904)	X X
9	SCREW-FL HD WD 8 x 5/8	129347	14072388 (15599904)	X X
10	INSULATOR ASM-RR W/HOUSE LH	14063347	14072388	X
11	INSULATOR ASM-SIDE PNL RH	14063344	14072388	X
12	INSULATOR-SIDE PNL LH	14063343	14072388	X
13	BOLT-HEX HD 5/16-18 x 1-1/2	15599281	14072388 (15599904)	X X
14	BRACKET-SIDE PNL INSUL	14063342	14072388 (15599904)	X X
15	WASHER-FL 5/16 x 1	3790662	14072388 (15599904)	X X
16	NUT-LK 5/16-18	9422275	14072388 (15599904)	X X
17	INSULATOR-FLR PNL FRT	14063351	14072388	X
18	SCREW-FLR HD WD 10 x 2	129642	14072388 (15599904)	X X
19	NUT-1/4-20	3866846	14072388 (15599904)	X X

PARTS LIST-WINTER CARGO COMPARTMENT INSULATOR (M1009) (continued)

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO. (PACKAGE NO.)	KIT NO. 1 2 3 4
20	BOLT-RD HD 1/4-20 x 1-3/4	126341	14072388	X
			(15599904)	X
21	BOLT-HEX 1/2-13 x 2	9419105	14072388	X
			(15599905)	X
22	SPACER-RR ST	14063352	14072388	X
			(15599905)	X
23	ROD ASM-R/SEAT-PROP	14063359	14072388	X
			(15599905)	X
24	SPACER-RR ST	14063353	14072388	X
			(15599905)	X
25	SCREW ASM-HEX HD 5/16-18 x 1-3/16	3992648	14072388	X
			(15599905)	X
26	BOLT-HEX HD 1/4-20 x 3/4	9419004	14072388	X
			(15599905)	X
27	BRACKET-JACK HOLDN	14063360	14072388	X
			(15599905)	X
28	SPACER SPA TIRE MTG	14063358	14072388	X
			(15599905)	X
29	LABEL-JK USAGE	14072450	14072388	X
			(15599905)	X
30	WASHER	143471	14072388	X
			(14074407)	X
B	SEALER	9981403	14072392	X X X X

III. INSTALL QUILTED COVER (M1009)

1. Remove bolts from antenna mount and remove mount.

2. Aline roof template provided, on rear edge of cab, and mark holes. (Instructions are printed on template.)

NOTE

Apply anti-corrosion sealer to all drilled holes.

3. Drill holes marked with 15/32 inch diameter drill bit.

4. Apply sealer and install jacknuts in drilled holes (Figure 1.).

5. Lay quilted cover with lettering facing up over cab and hood, maintaining front of cover over edge of removable cargo cover center right to left (Figure 1.).

NOTE

Do not overtighten screws in jacknuts or jacknuts will break. Torque to 22-27 lb.-in. (2.5-3.0 Nm).

When installing retainer bars, start all screws before tightening screws.

6. Install retainer bars on cover and fasten into position with screws (Figure 1.). Tighten screws to 22-27 lb.-in. (2.5-3.0 Nm).

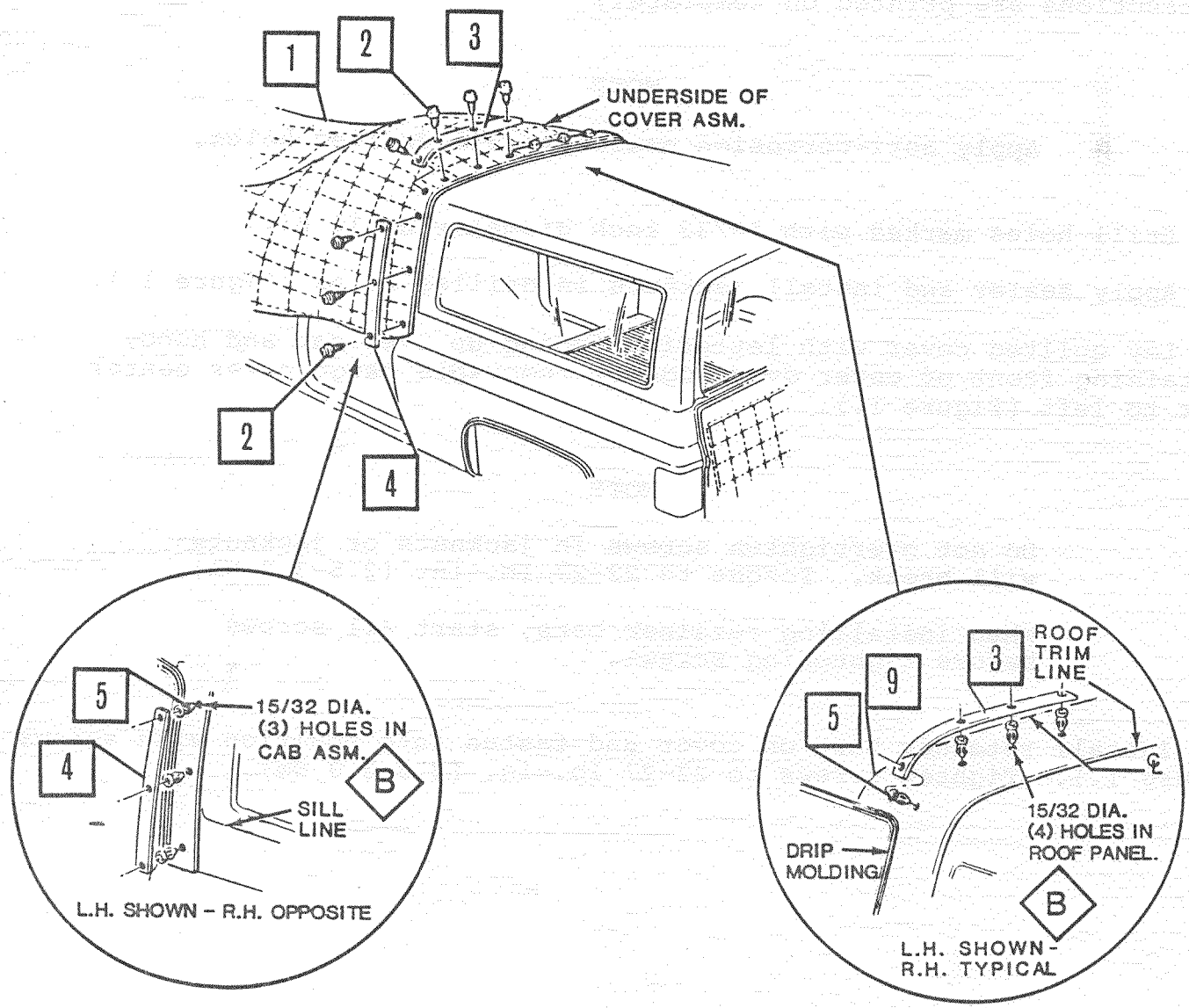
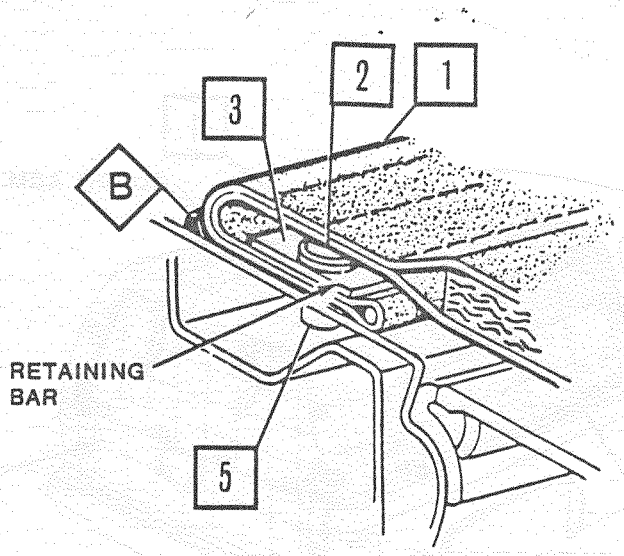


Figure 1.

7. Position cover over rear of vehicle. Retaining bars will be under cover (Figure 2.).



INSTALLED POSITION

Figure 2.

NOTE

Keep rear flap locked in position while fitting cover. When securing sides of cover, balance right and left sides. Do one side at a time to ensure a neater and proper fit.

8. Center cover over rear of vehicle.

NOTE

Do not pull side of cover tight. Smooth out only. Looseness left is for shrinkage.

9. Mark holes through center of holes in sides of cover, while keeping metal inserts in cover alined and straight (Figure 3.).

10. Center punch and drill 15/32 inch holes on right and left sides of vehicle (Figure 3.).

11. Apply sealer and install jacknuts in holes (Figure 3.).

12. Install antenna mounting plate through holes in cover with bolts (Figure 3.). Tighten bolts to 124-168 lb.-in. (14.0-19.0 Nm).

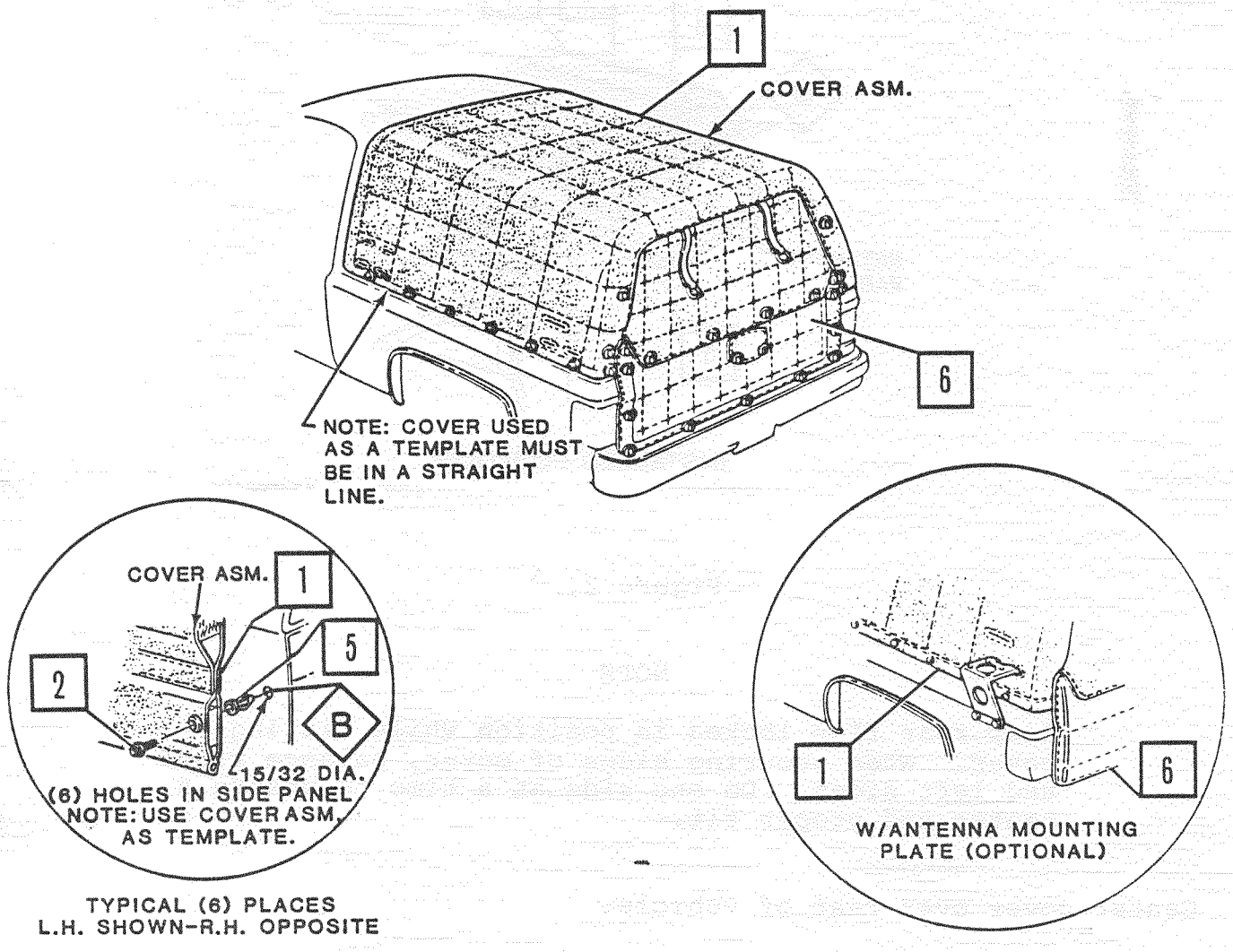


Figure 3.

13. Mark two holes on right and left sides through cover assembly at tailgate area (Figure 4.).

14. Center punch and drill 15/32 inch holes on right and left sides (Figure 4.).

15. Apply sealer and install jacknuts in drilled holes (Figure 4.).

16. Install cover turnbuttons in jacknuts and secure cover in place (Figure 4.). Tighten turnbuttons to 22-27 lb.-in. (2.5-3.0 Nm).

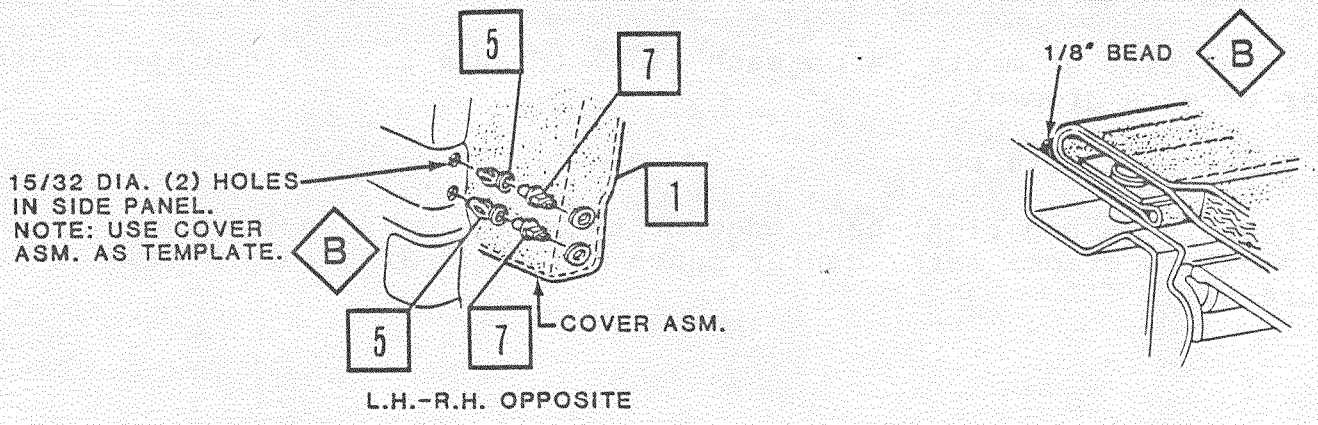


Figure 4.

17. Seal front edge of cover with anti-corrosion sealer, top only (Figure 4.). Stop at left- and right-hand drip rails.

INSTALL QUILTED TAILGATE COVER

18. Install tailgate insulator to rear window insulator using the four 1/4 turnbuttons on the insulator window cover.

19. Attach all additional 1/4 turnbuttons to insulator.

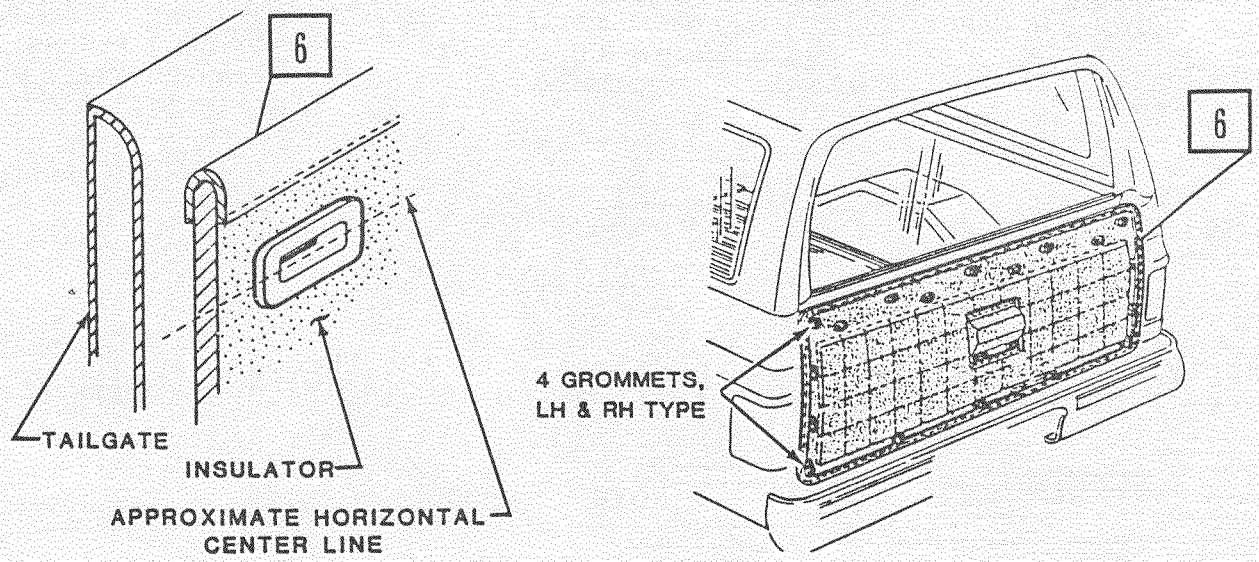


Figure 5.

20. Smooth tailgate insulator by gently pulling on bottom left- and right-hand corners.

21. Using side grommets (4 on each side) (Figure 5.) on insulator, mark center of each grommet.

22. Remove tailgate cover.

23. From left- and right-hand edge of tailgate, measure 1/4 inch toward window crank; mark, center punch and drill 9/32 inch holes (Figure 6.).

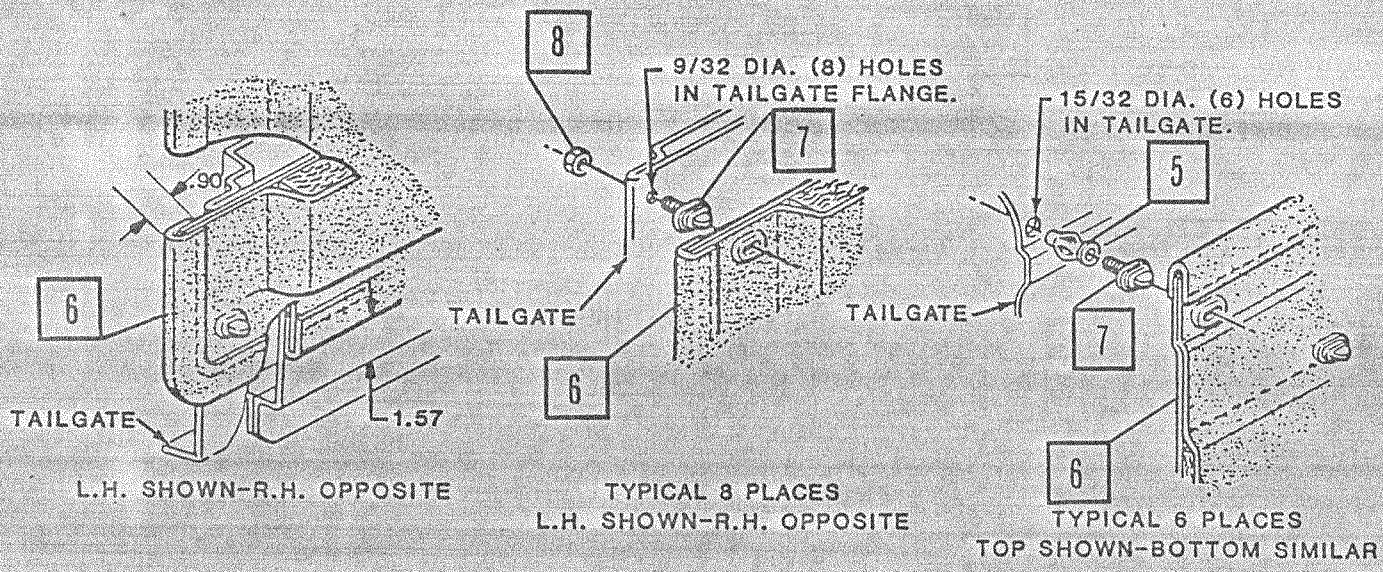


Figure 6.

24. Apply sealer and install turnbuttons with nut through lip of tailgate (Figure 6.). Tighten nuts to 35-50 lb.-in. (4.0-5.6 Nm).

NOTE

Window insulator will be used to aline.

25. Install tailgate insulator using side turnbuttons, and bring window insulator down and fasten to tailgate insulator.

26. Lift one side of window insulator at a time and mark holes in grommet openings in tailgate insulator while keeping tailgate insulator in a straight line.

CAUTION

Make sure tailgate window is completely rolled up when drilling holes at top of tailgate. Window will break if not completely in "up" position.

27. Remove tailgate insulator and drill 15/32 inch diameter holes along top of tailgate.

28. Apply sealer and install jacknuts in drilled holes in tailgate (Figure 6.).

29. Install turnbuttons into jacknuts in tailgate.

30. Install tailgate insulator.

31. Mark holes in bottom of tailgate insulator in grommet openings.

32. Remove tailgate insulator.

NOTE

There are two thicknesses of metal below window crank.

33. Center punch and drill 15/32 inch diameter holes.

34. Apply sealer and install jacknuts in drilled holes in tailgate.

35. Install turnbuttons into jacknuts.

36. Install tailgate insulator over turnbuttons and secure in place.

PARTS LIST-QUILTED COVER (M1009)

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO. (PACKAGE NO.)	KIT NO. 1 2 3 4
1	COVER ASM-ROOF	14075881	14072383	X
2	SCREW-WA ASM 1/4-20 x 7/8	9440210	14072383	X
			(15599906)	X
3	RETAINER-ROOF COVER	14075884	14072383	X
4	RETAINER-ROOF COVER	14075883	14072383	X
5	NUT-JACK 1/4-20	367292	14072383	X
			(15599906)	X
6	COVER ASM-TAILGATE	14075882	14072383	X
7	TURNBUTTON	14063367	14072383	X
			(15599906)	X
8	NUT-LK 1/4-20	271172	14072383	X
			(15599906)	X
9	TEMPLATE-ROOF COVER	15599903	14072383	X
B	SEALER	9981403	14072400	X X X X

IV. INSTALL CAB INSULATOR

1. Remove bolts holding front seats to floor and remove seats.

2. Remove transfer case bezel and boot assembly.

3. Remove 4 bolts holding NBC mounting bracket to floor of vehicle (Figure 1.) and remove bracket (Figure 1.).

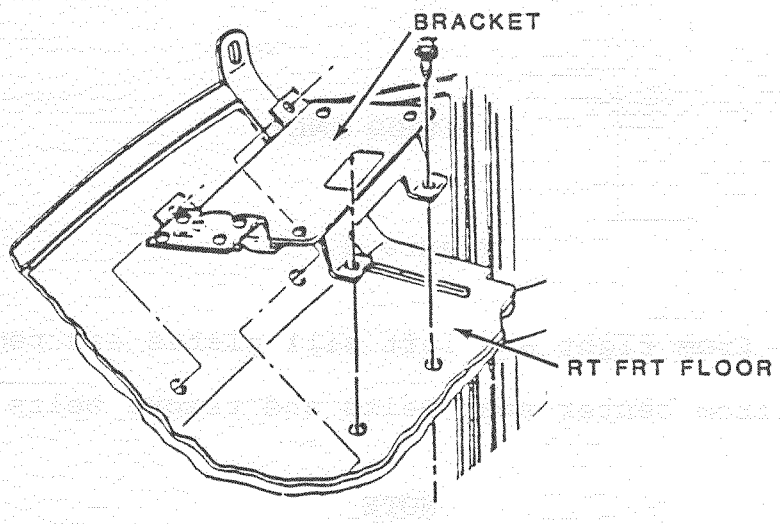
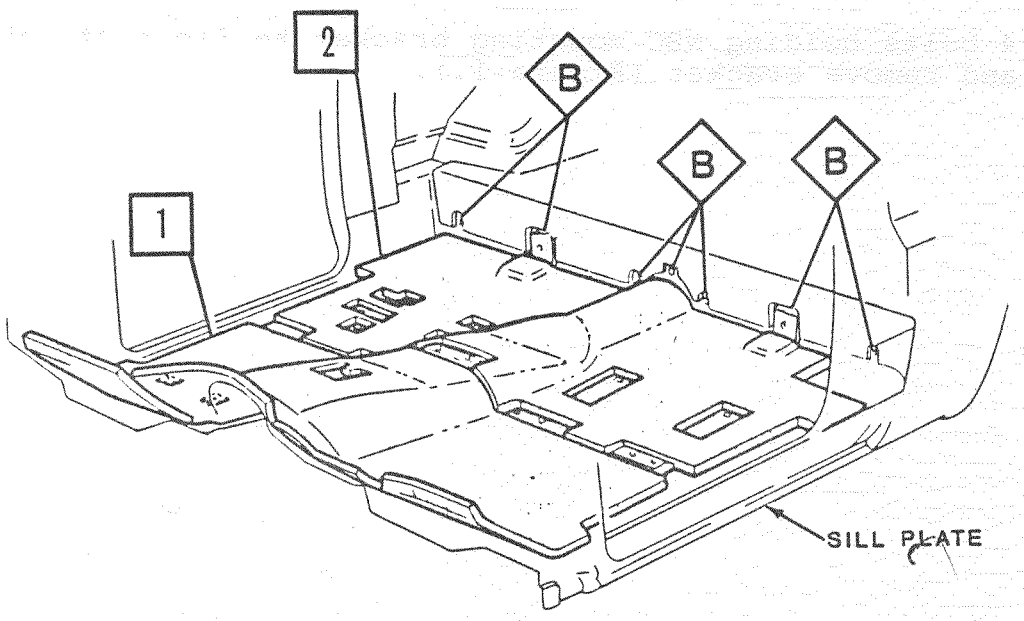


Figure 1.



M1009 ONLY

Figure 2.

4. Remove screws from right and left sill plates and remove.

5. Remove bolts from center seat belts and remove belts.

NOTE

Step 6 is not required for M1009.

6. Remove bolts from shoulder belt retractor box at floor.

7. Remove jack handle, jack and lug wrench from mountings.

8. Remove rubber floor mat.

9. Cut center of insulator, remove and discard.

NOTE

May be necessary to loosen bolts at transfer case control bracket to floor mounting and loosen wire before installing foam insulators.

10. Place two foam rubber insulators on floor of vehicle (Figures 2. and 3.).

NOTE

Step 11 for M1009 only.

11. Plug seven screw holes with sealer (for M1009 only) (Figure 2.).

NOTE

Step 12 is not required for M1009.

12. Place rubber side mats in place on each side of vehicle at rubber floor mat as required (Figure 3.).

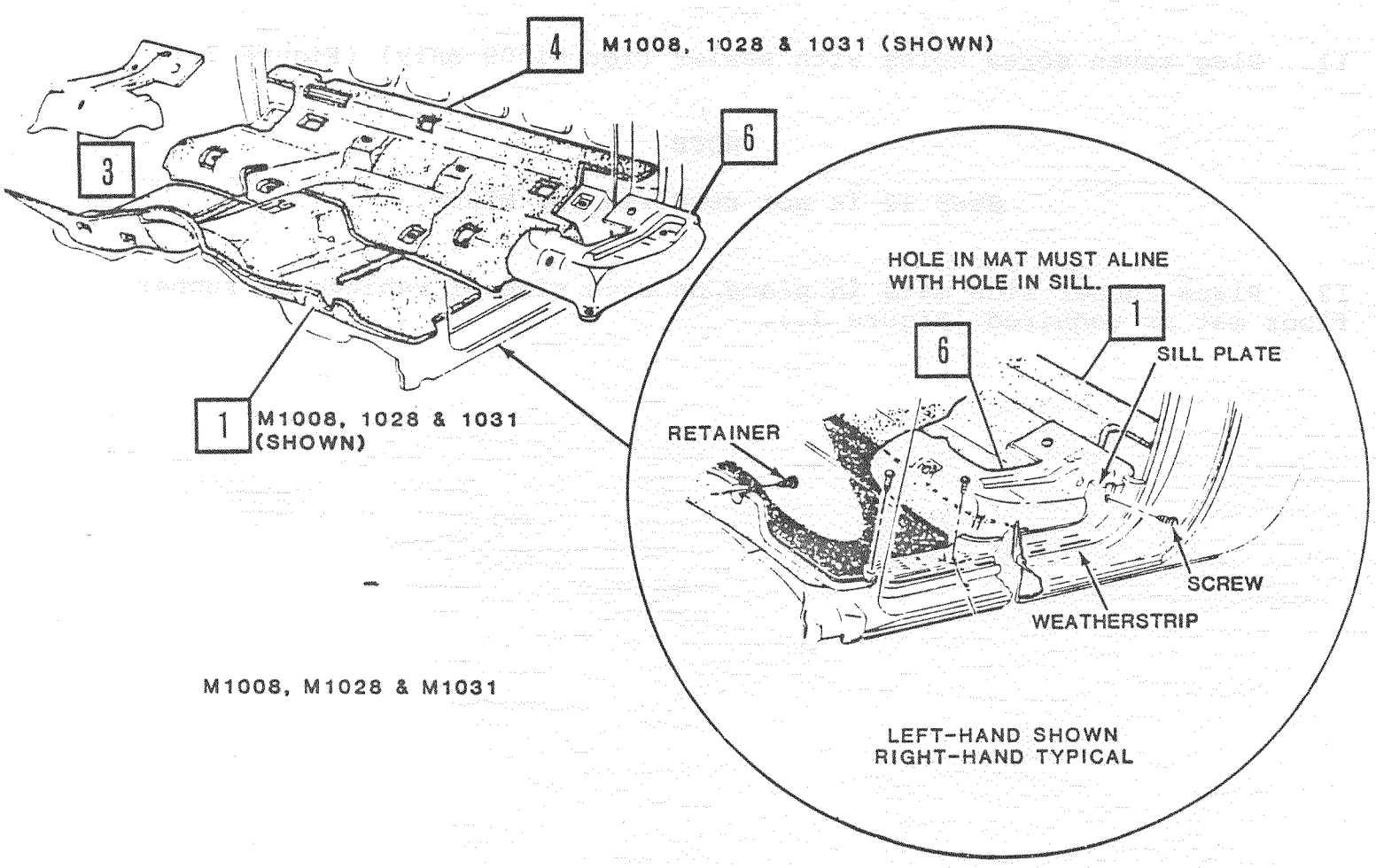
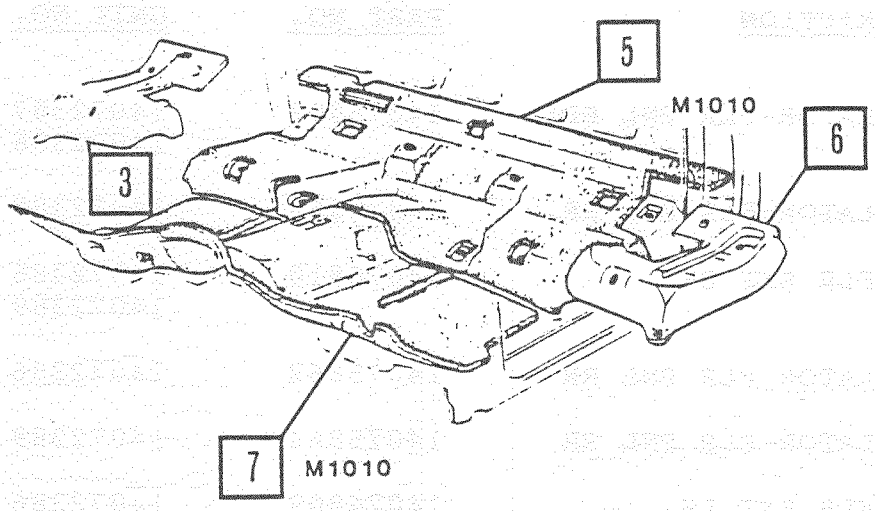

4
M1008, 1028 & 1031 (SHOWN)
3
6
1
M1008, 1028 & 1031 (SHOWN)
M1008, M1028 & M1031
HOLE IN MAT MUST ALINE WITH HOLE IN SILL.
1
6
SILL PLATE
RETAINER
SCREW
WEATHERSTRIP
LEFT-HAND SHOWN
RIGHT-HAND TYPICAL

Figure 3.



M1010 ONLY

Figure 3a.

13. Replace rubber floor mat over foam insulators.

14. Install jack handle, jack and lug wrench in mountings.

NOTE

Step 15 not for M1009.

15. Install bolts to shoulder belt retractor box to floor. Tighten to 30-45 lb.-ft. (40.0-60.0 Nm).

16. Install front NBC mounting bracket to floor with 4 bolts. Tighten 4 bolts to 35-55 lb.-in. (4.0-6.0 Nm).

17. Install right and left sill plates.

18. Install seat belts. Tighten to 30-45 lb.-ft. (40.0-60.0 Nm).

19. Install front seats. Tighten to 19-28 lb.-ft. (26.0-40.0 Nm).

20. Install transfer case bezel and boot assembly.

PARTS LIST-CAB INSULATOR

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO.	KIT NO. 1 2 3 4
1	INSULATOR-FLR PNL FRT	14076802	14072387	X
			14072386	X X
2	INSULATOR-FLR PNL RR	14075863	14072387	X
3	MAT-FLR EXT RH	14076810	14072386	X X
			14072389	X
4	INSULATOR-FLR PNL RR	14075862	14072386	X X
5	INSULATOR-FLR PNL RR	14075864	14072389	X
6	MAT-FLR EXT LH	14076809	14072386	X X
			14072389	X
7	INSULATOR-FLR PNL FRT	14076803	14072389	X
B	SEALER	9981403	14072400	X

V. INSTALL INSULATOR UNIT RADIATOR AND HOOD

1. Remove both headlight bezels.

2. Drill two holes in grill crossbar using a 1/4 inch drill bit and using dimension (Figure 1.).

3. Place washer on turnbutton stud and push through drilled holes. Place support and nut on end of turnbutton (Figure 1.) and tighten turnbutton nut.

NOTE

Lettering on radiator cover will face grill.

4. Position radiator cover behind brush guard with loops, behind bumper (Figure 1.).

5. Remove three screws that aline with snaps on cover.

6. Install and tighten snap fastener screws in place of screw removed in step 5 (Figure 1.).

7. Snap cover into place on top of radiator support and in center turnbuttons (Figure 1.).

8. Attach one spring to each loop at bottom of cover (Figure 2.).

9. Attach springs to frame slots and front lip of radiator support on each side (Figure 2.).

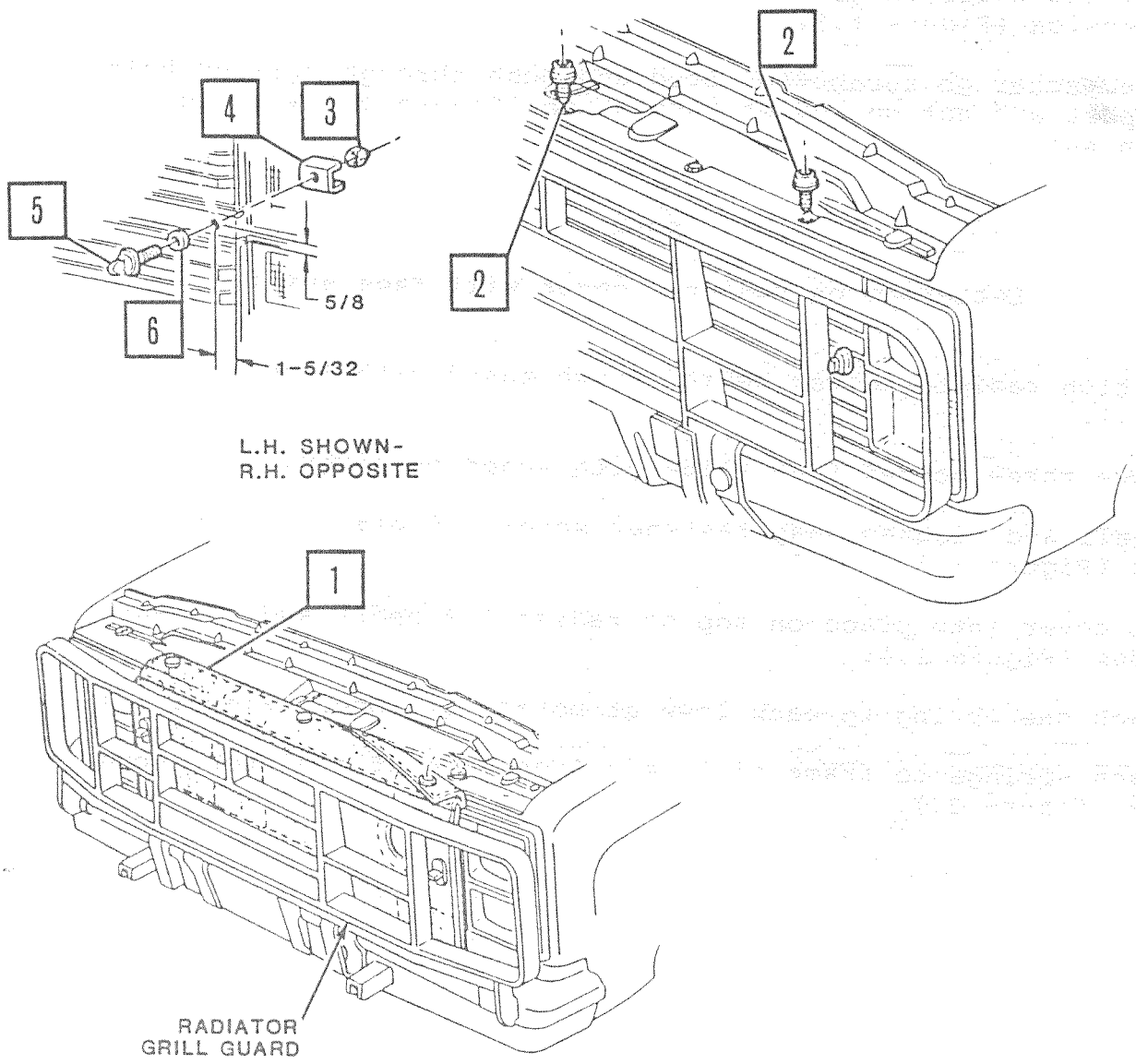


Figure 1.

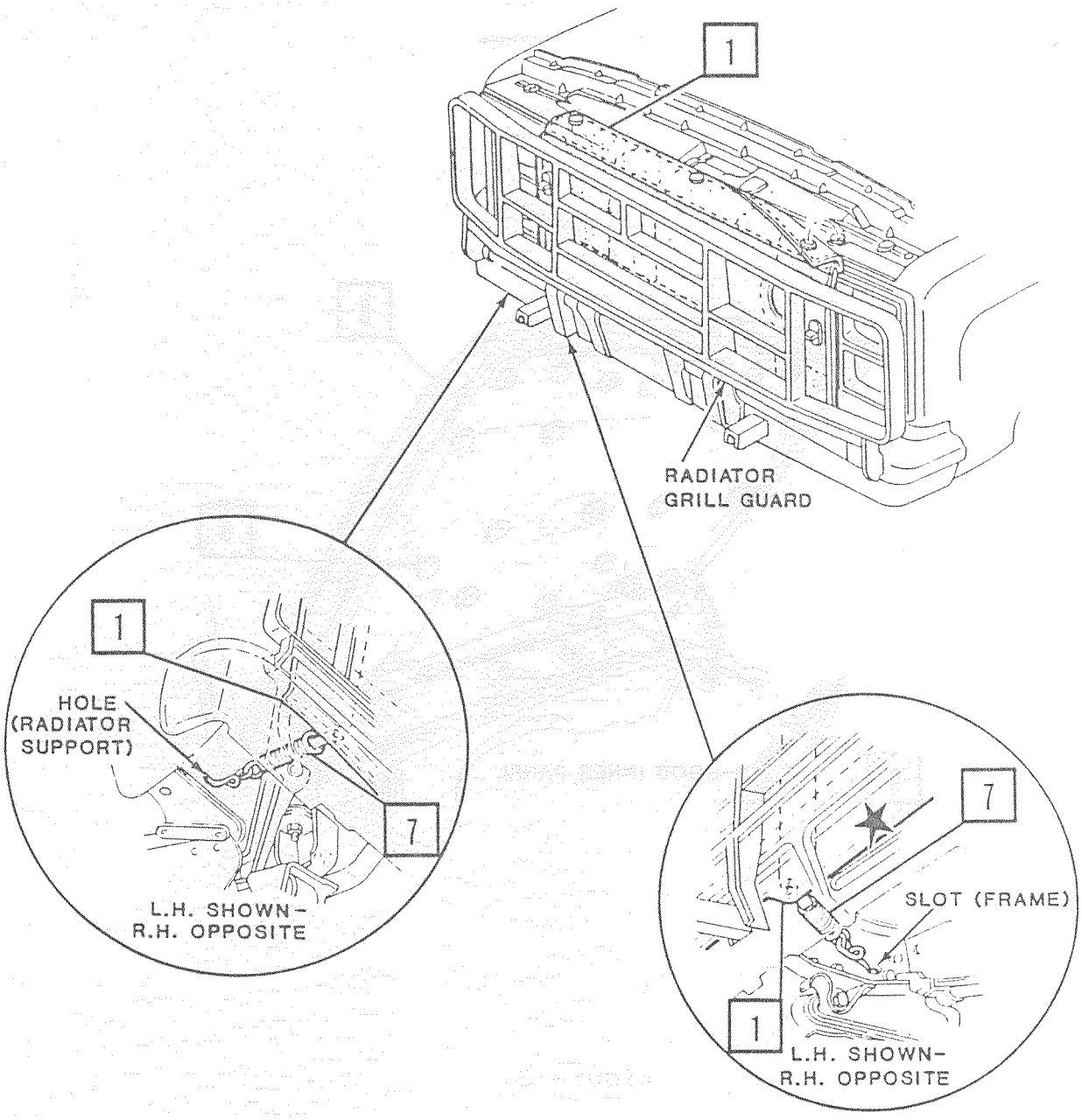


Figure 2.

NOTE

Hood insulator has holes in it that match up with holes on the inside of hood.

10. While holding insulator up to inside of hood, insert plastic retainers through insulator into holes.

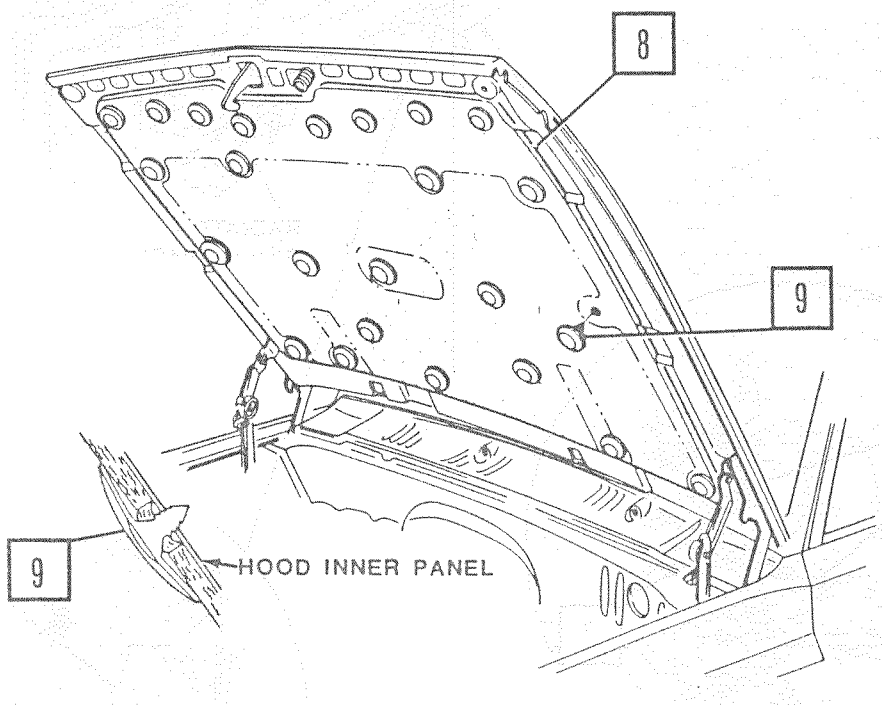


Figure 3.

11. Install both headlight bezels.

PARTS LIST-INSULATOR UNIT RADIATOR AND HOOD

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO.	KIT NO. 1 2 3 4
1	INSULATOR ASM-RAD	14063365	14072384	X X X X
2	STUD-RAD INSUL SNAP	9441638	14072384	X X X X
3	NUT-RAD 1/4-20	9422273	14072384	X X X X
4	REINF-RAD INSUL GRL	14063366	14072384	X X X X
5	TURNBUTTON-RAD INSUL	14063367	14072384	X X X X
6	WASHER-RAD INSUL	9419274	14072384	X X X X
7	SPRING-RAD INSUL	14063368	14072384	X X X X
8	INSULATOR ASM-HD	14057439	14072384	X X X X
9	RETAINER-HD INSUL	3977775	14072384	X X X X

VI. INSTALL WINTER CARGO COVER (M1008)

1. Lower tailgate to full down position.

2. Pull retaining straps up and out.

3. Raise tailgate halfway.

4. Remove retaining straps from tailgate.

5. Lift up and out on right side hinge.

6. Slide left side hinge out.

7. Remove tailgate.

8. Remove retaining straps with brackets from side of tailgate opening, and reinstall and tighten bolts.

9. Plug two remaining holes in tailgate side opening with caps from new heater fuel lines. Use sealer when installing caps in holes.

10. Put troop seats in upright position and replace pins. Remove hitch pin and clamp from all three pockets and remove troop seats. Put clamps and hitch pins back on seat assembly stow seats.

11. Remove communications rack.

NOTE

When marking and drilling holes along rear of tailgate opening, make sure that top of floor panel insulator molding is flat and flush against cargo bed, to ensure proper fit of door.

12. Using floor panel insulator molding as a template, mark holes along rear tailgate opening (Figure 1.).

13. Remove floor panel insulator molding and drill 15/32 inch holes at marks (Figure 1.).

NOTE

Apply anti-corrosion sealer to all drilled holes.

14. Apply sealer and install jacknuts into drilled holes.

15. Secure floor panel insulator molding with bolts (Figure 1.). Tighten to 22-27 lb.-in. (2.5-3.0 Nm).

16. Remove front communications rack support bracket from front of cargo bed.

NOTE

Save template, as it is used repeatedly throughout procedure. Instructions on template must be followed exactly, and holes should not be drilled through template.

17. Drill holes in cargo box floor for heater, as per template (Figure 5.). Instructions are printed on template.

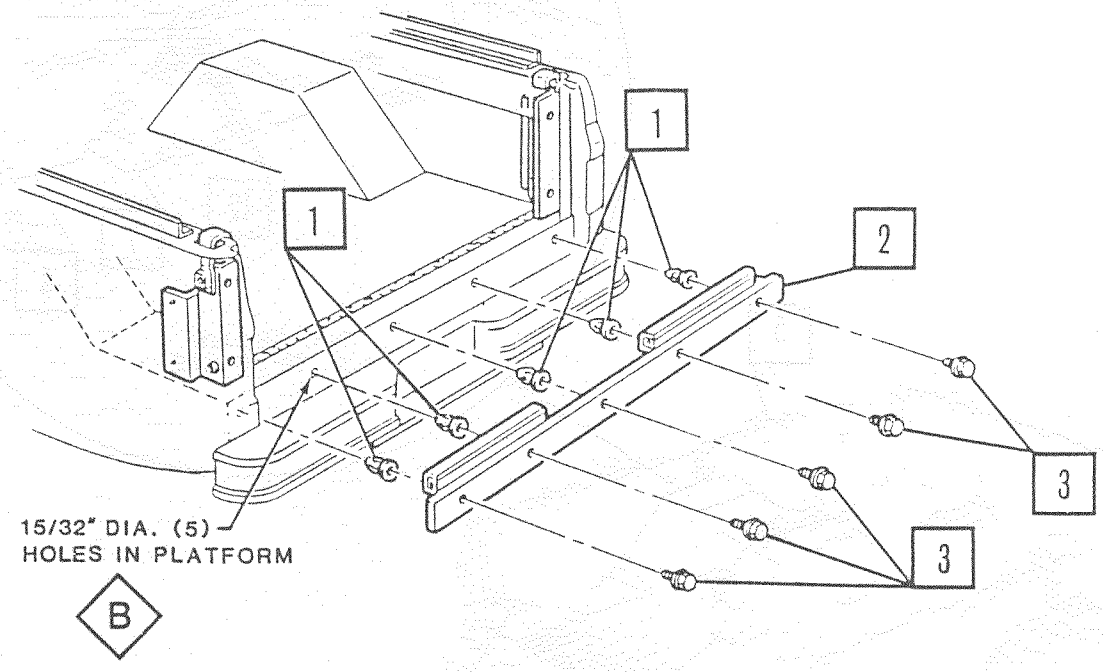


Figure 1.

18. Position side, front, and wheelwell insulators into pickup box (Figure 2.).

19. Using "L" brackets on wheelwell insulators as template, drill 3/32 inch holes in wood side insulators (Figure 2.).

20. Secure brackets with wood screws (Figure 2.).

NOTE

Step 21 is for vehicles with no communications rack.

21. With no communications rack, cut corner out of rear center floor as directed by instructions on template.

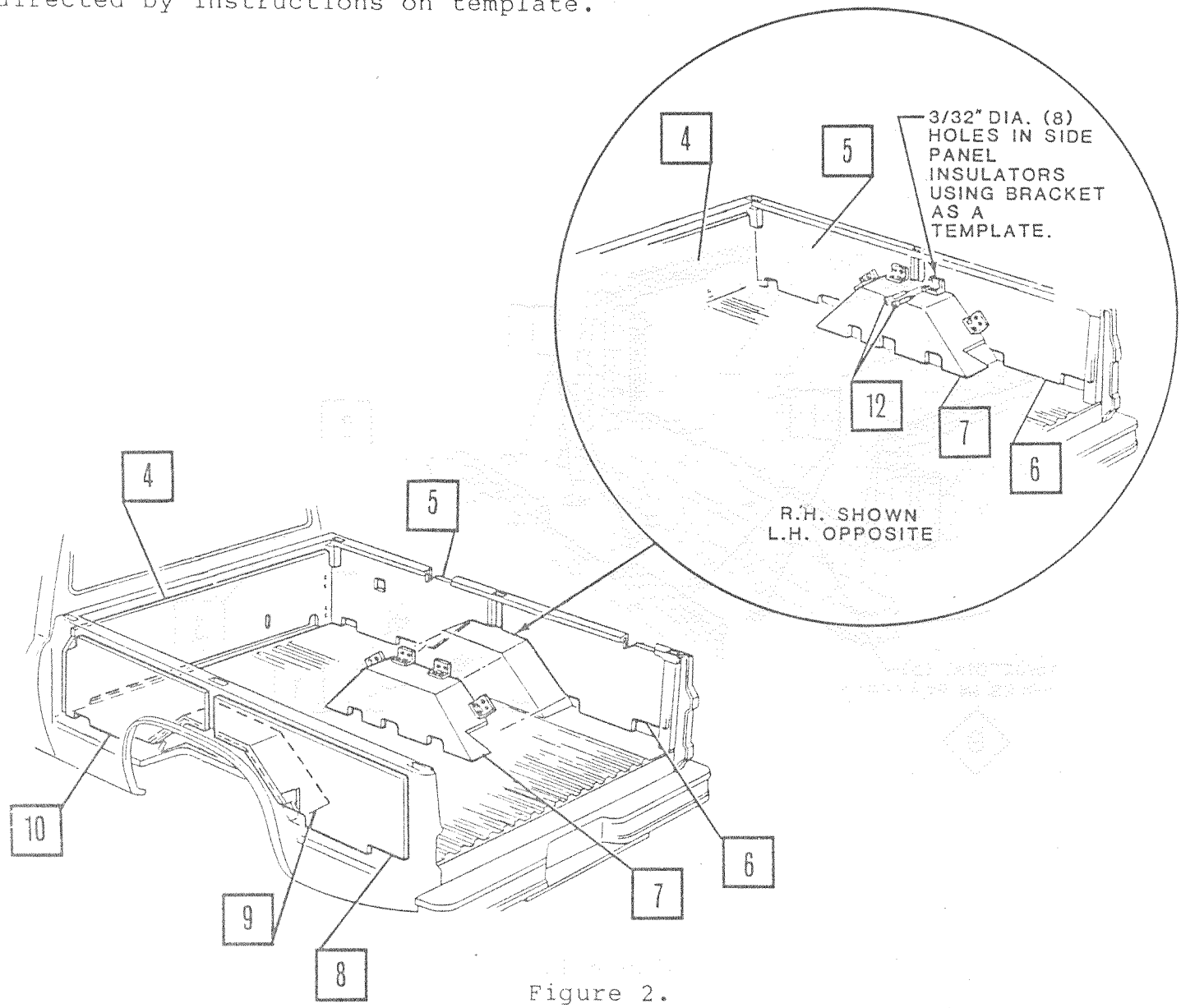


Figure 2.

NOTE

If communications rack is used, leave front floor insulators (items 13 and 16, Figure 3.) out and do not cut rear center floor.

22. Position center plywood insulators in floor of pickup bed (Figure 3.) with rear of center plywood against floor panel insulator molding.

NOTE

Reposition center floor panel to molding and center right to left in tailgate opening.

23. Install "L" brackets to front panel, center floor at wheelwells and floor pieces at rear side wall. Using "L" brackets as a template, drill 3/32 inch holes in wood side and front insulators, and secure with wood screws (Figure 3.).

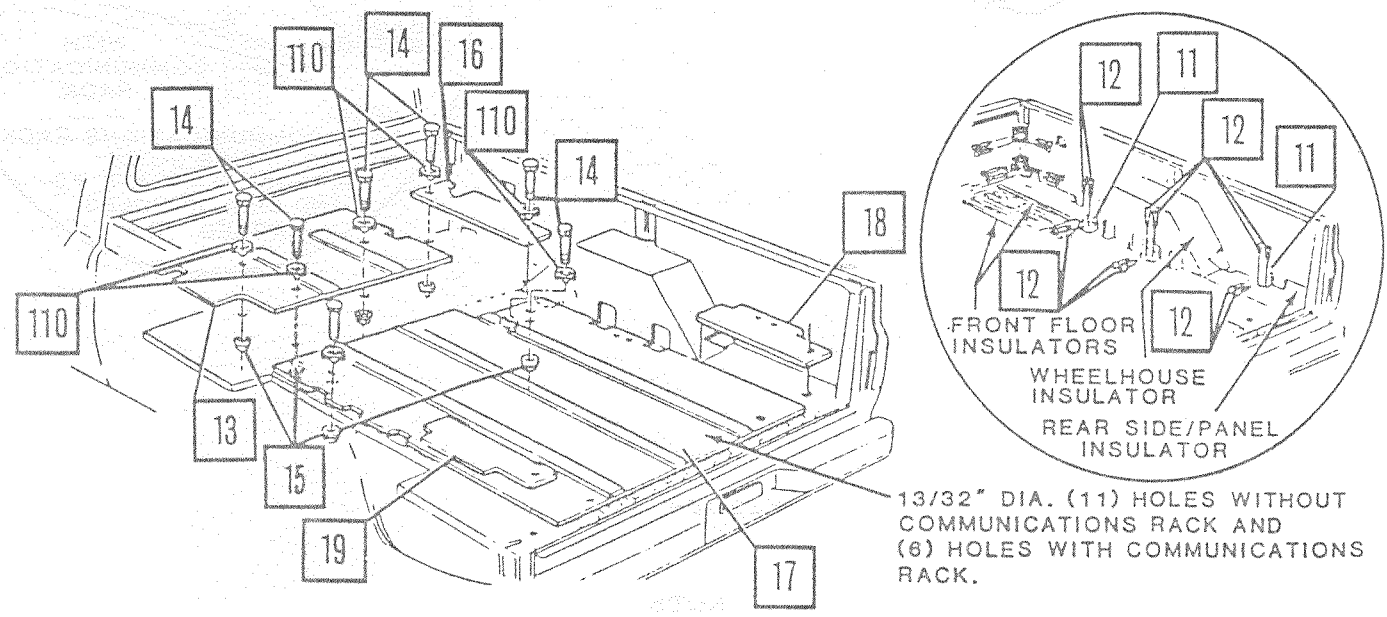


Figure 3.

24. Turn communications rack upside down and aline template to bottom of rack. Center punch, remove template and drill holes to sizes indicated on template (Figure 4.).

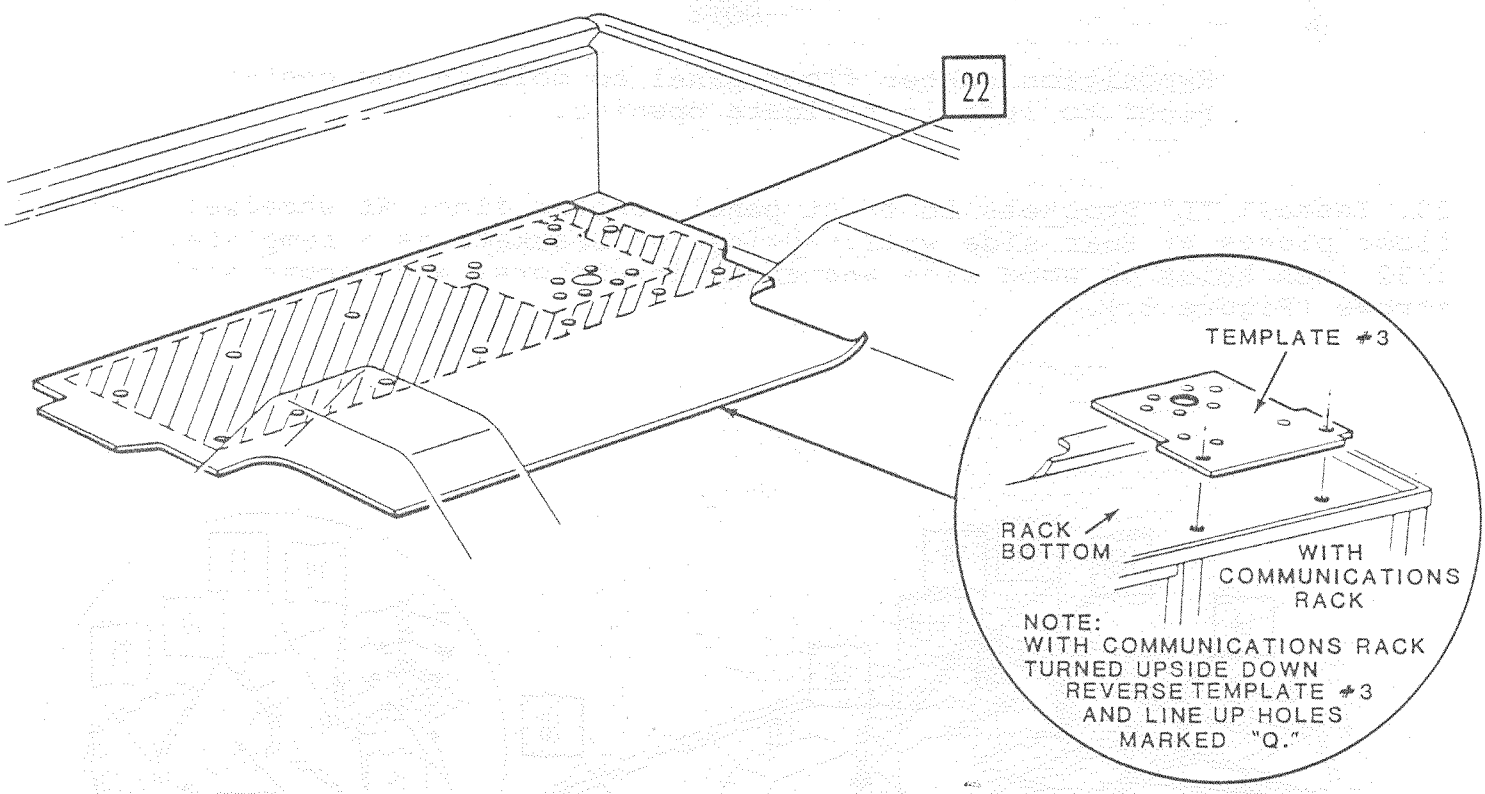


Figure 4.

NOTE

Four holes along rear of floor insulator are used later in procedure. Drill them at this time, but do not install carriage bolts and nuts.

25. Using floor insulator holes as template, center punch and drill 13/32 inch holes in front of cargo floor, and install forward carriage bolts and nuts (Figure 3.). Tighten to 15-22 lb.-ft. (20.0-30.0 Nm).

26. Using hole in front insulator as template, center punch and drill a 1 inch hole (Figure 5.).

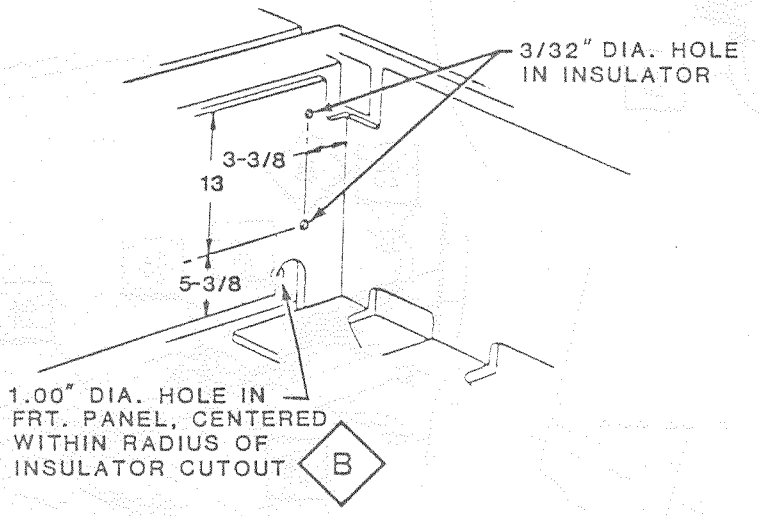


Figure 5.

27. Drill two 3/32 inch holes in front insulators (Figure 5.).

28. Install domelight harness through hole in headboard, apply sealer and install grommet (Figure 6.).

29. Route harness along frame, through 1-3/8 inch hole in firewall, and secure harness to frame and firewall with clips (Figure 6.).

30. Install harness grommet in firewall hole and apply sealer (Figure 6.).

31. Connect domelight harness to fuse box (Figure 6.).

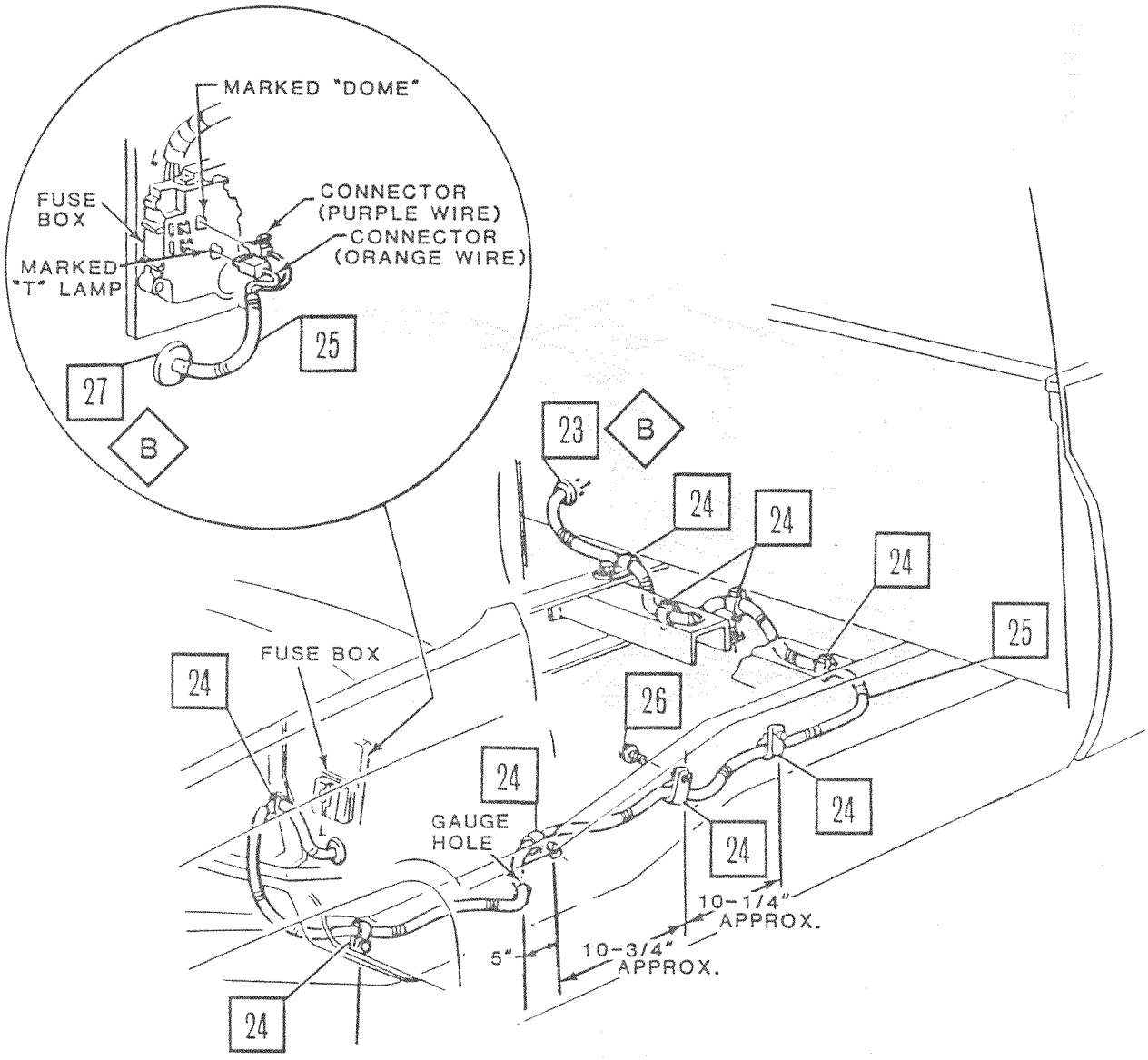
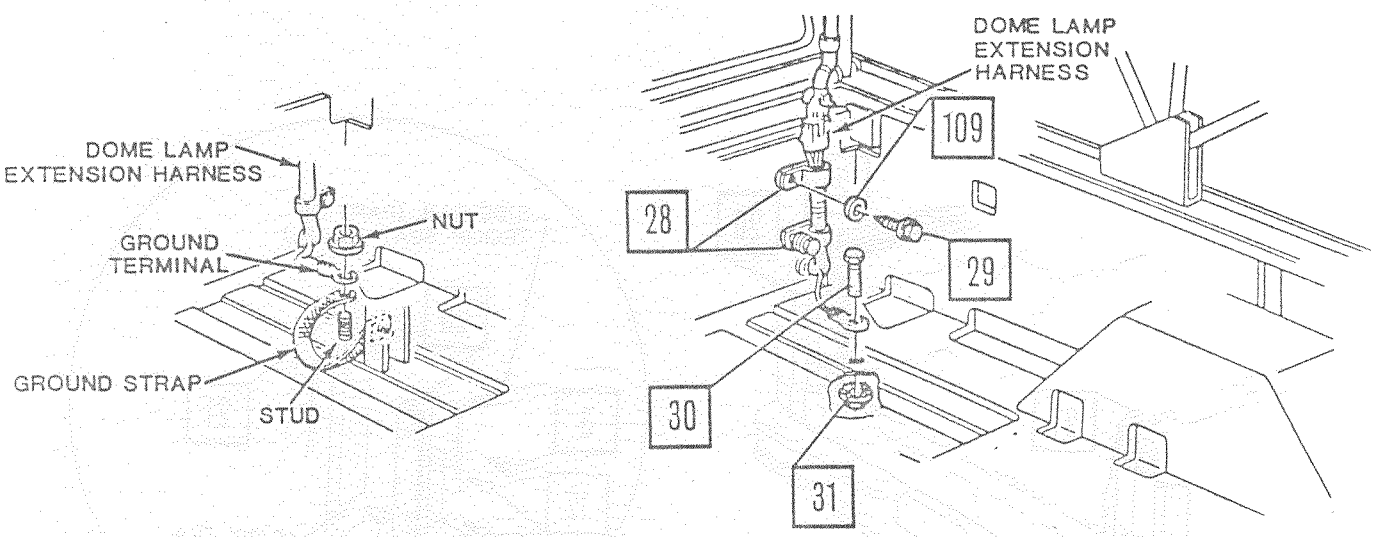


Figure 6.

32. Secure dome lamp harness to insulator with clips and wood screws, and ground harness to cargo box or communications rack (Figure 7.).



With Communications Rack Without Communications Rack

Figure 7.

33. Install troop seats with new rear bracket.

34. Using "Z" side brackets as a template (locate off top hole), center punch and drill 15/32 inch lower holes (Figure 8.).

35. Apply sealer and install jacknuts in lower holes, and secure brackets into position with bolts (Figure 8.). Tighten bolts to 22-27 lb.-in. (2.5-3.0 Nm). Using side brackets as a template, drill 3/32 inch holes in insulators and install wood screws (Figure 8.).

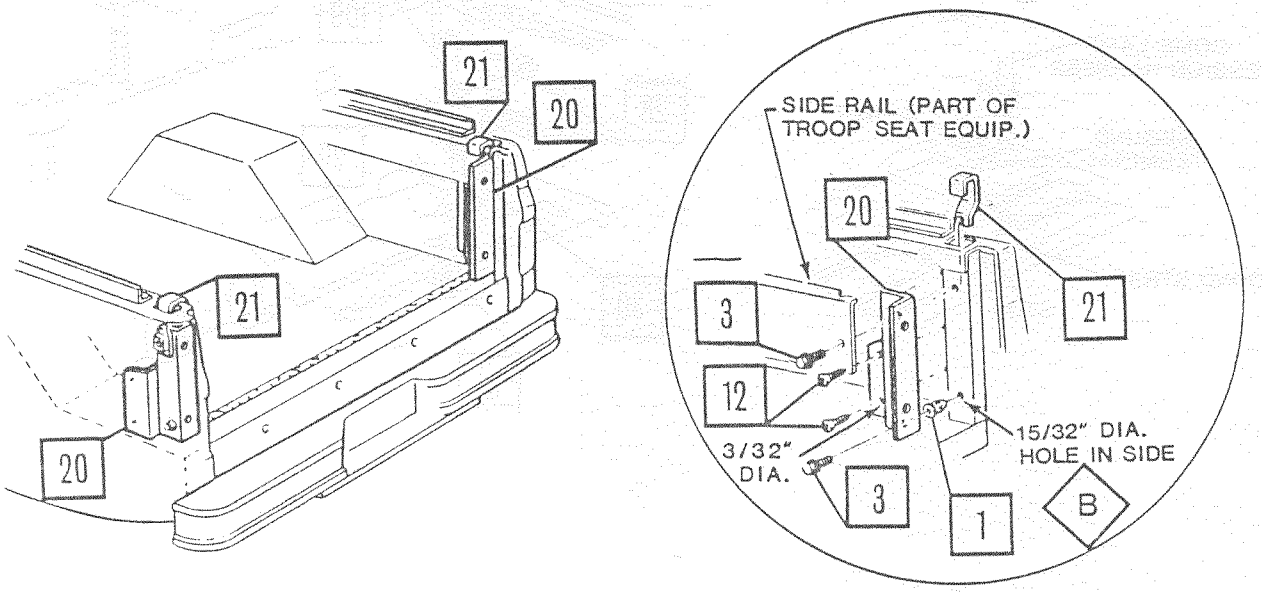


Figure 8.

36. Remove cargo cover rail assembly from pickup box and replace with new cargo cover rail assembly supplied (Figure 9.). Tighten bolts to 22-27 lb.-ft. (2.5-3.0 Nm).

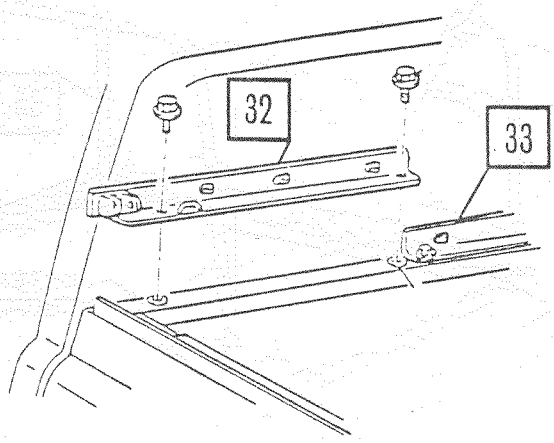


Figure 9.

37. Remove front roof bow tension straps and install new roof bow supports (Figure 10.). Tighten bolt to 50-60 lb.-in. (6.0-8.0 Nm).

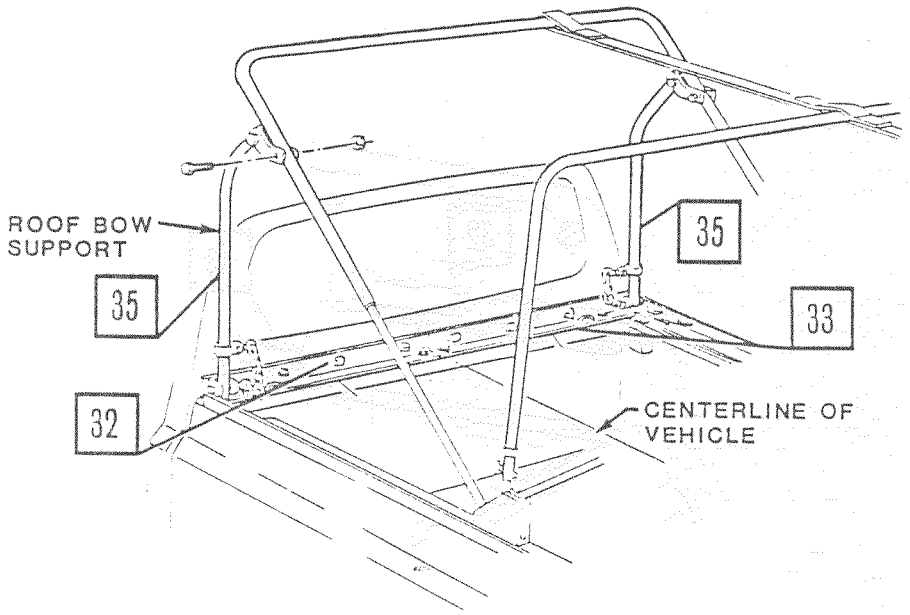


Figure 10.

38. Install heater in drilled holes in communications rack with nuts, bolts and washers (Figure 11.). Tighten bolts to 55-85 lb.-in. (6.0-9.5 Nm).

NOTE

Step 39 is for vehicles without a communications rack.

39. Without communications rack, mount heater directly to cargo floor with nuts, bolts and washers (Figure 11.). Tighten bolts to 55-85 lb.-in. (6.0-9.5 Nm).

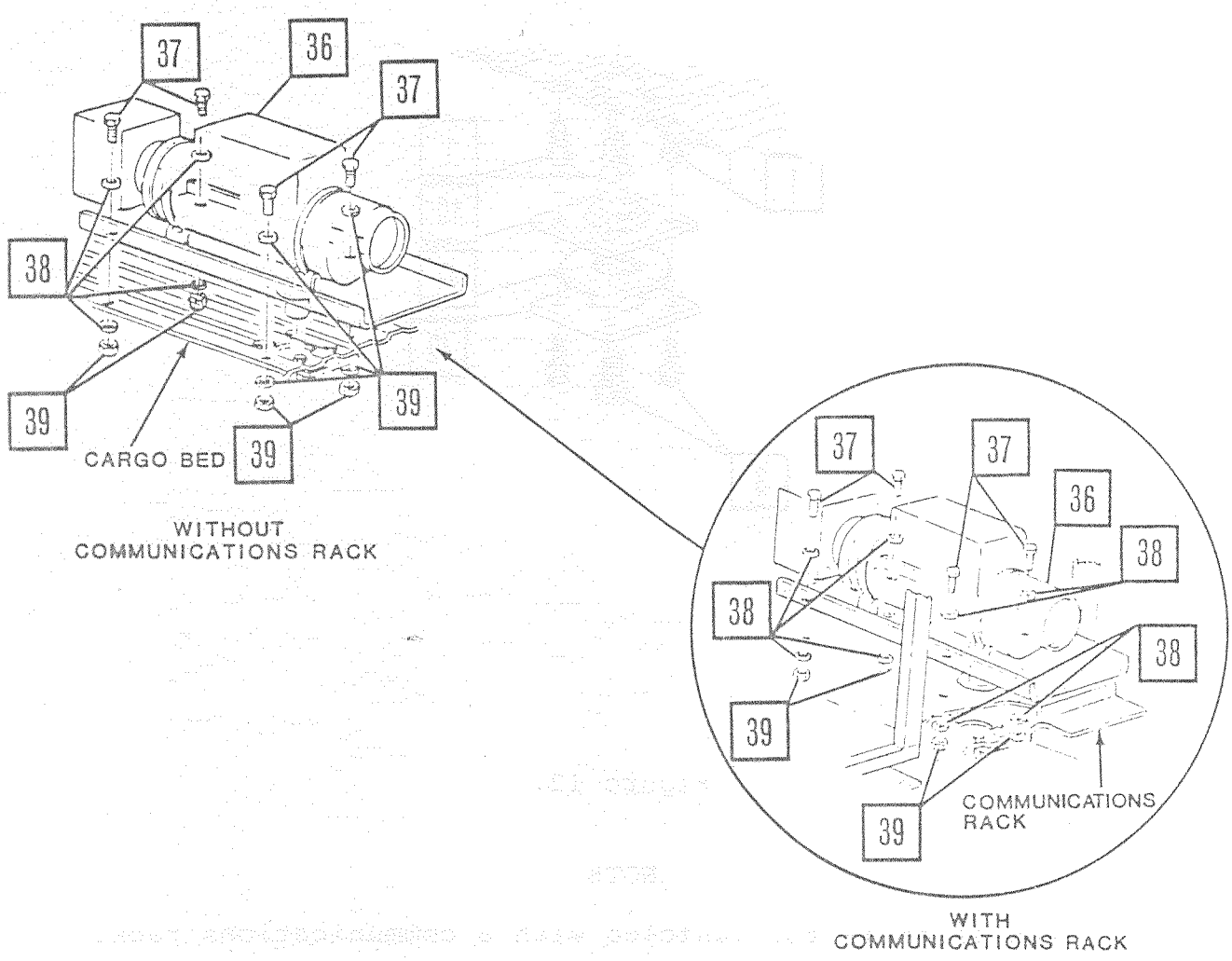


Figure 11.

40. From underside of cargo box, install jacknuts in drilled holes and install exhaust retainer and gaskets (Figure 12.). Tighten bolts to 22-27 lb.-in. (2.5-3.0 Nm).

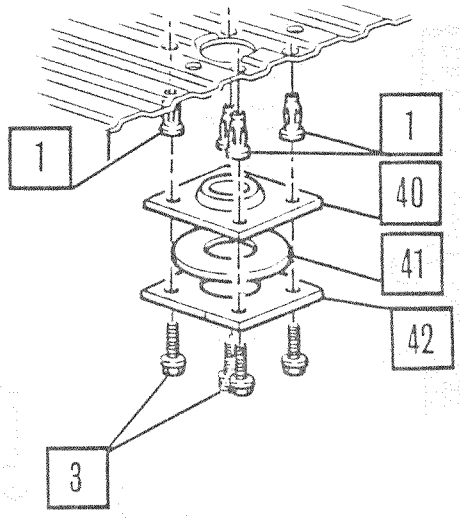


Figure 12.

NOTE

Step 41-45 is for vehicles with a communications rack.

41. Reposition heater control box, support bracket, and cable clamp for vehicles with a communications rack (Figure 13.). Tighten bolts to 55-85 lb.-in. (6.0-9.5 Nm).

42. Install communications rack support bracket in front of cargo bed, with raised lip toward the front of vehicle. Tighten to 30-45 lb.-in. (3.5-5.5 Nm).

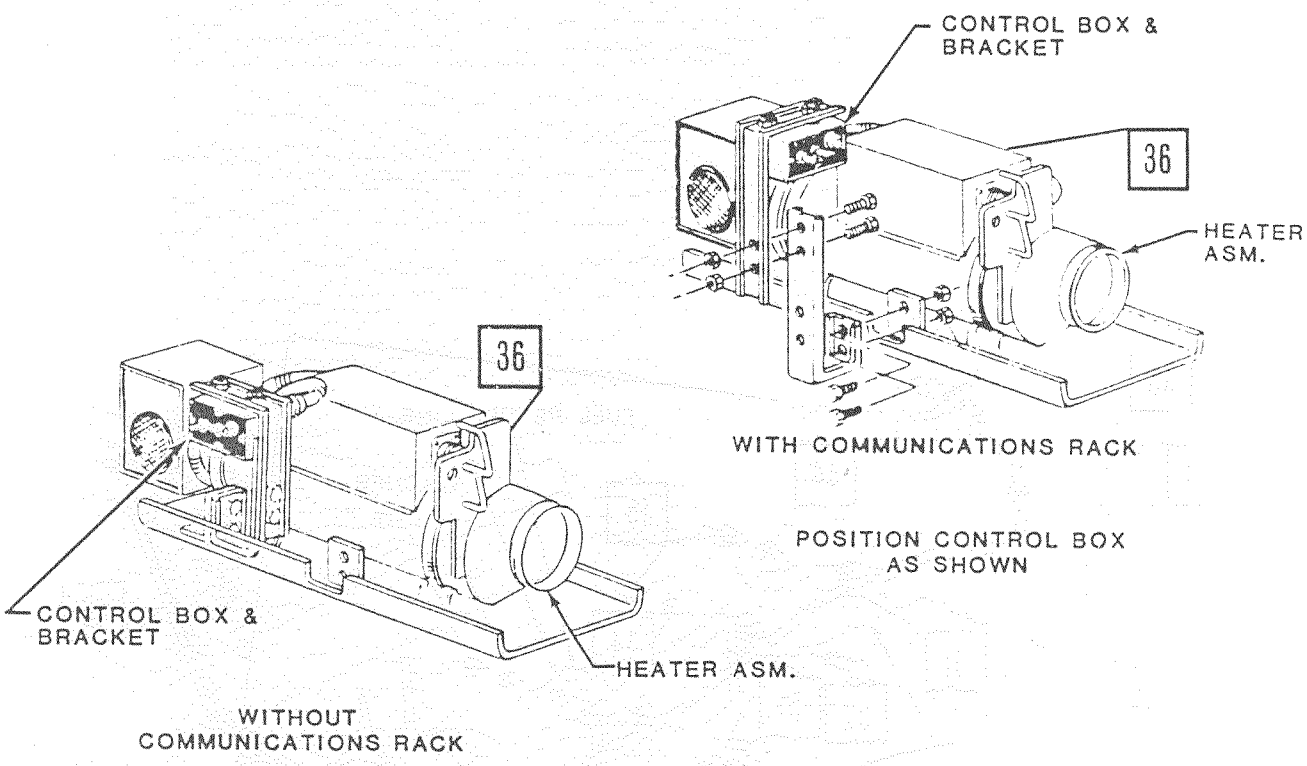


Figure 13.

43. Position rack to front of cargo bed, and aline with drilled holes in cargo bed with exhaust tube and fuel line positioned through holes in cargo floor. Tighten bolts to 30-45 lb.-in. (3.5-5.5 Nm).

44. Install ground strap from distribution box to communications rack support bracket.

45. Install ground strap from cargo bed to communications rack.

46. Remove 3 bolts from fuel filter bracket and pull filter away from firewall to install rear heater fuel line.

47. Drill 5/16 inch hole in body mount support rail (Figure 14.).

48. Install rear fuel line along frame and "T" fitting on firewall, and through hole in cargo bed (Figure 14.).

49. Secure fuel line in position with nuts, bolts and clips (Figure 14.). Tighten bolts to 20-30 lb.-ft. (27.0-40.0 Nm).

50. Install 3 bolts to fuel filter bracket and secure to firewall. Tighten to 14-19 lb.-ft. (20.0-27.0 Nm).

51. Install grommets on fuel line through cargo bed and communications rack (Figure 14.). If communications rack is not used, install through cargo bed only.

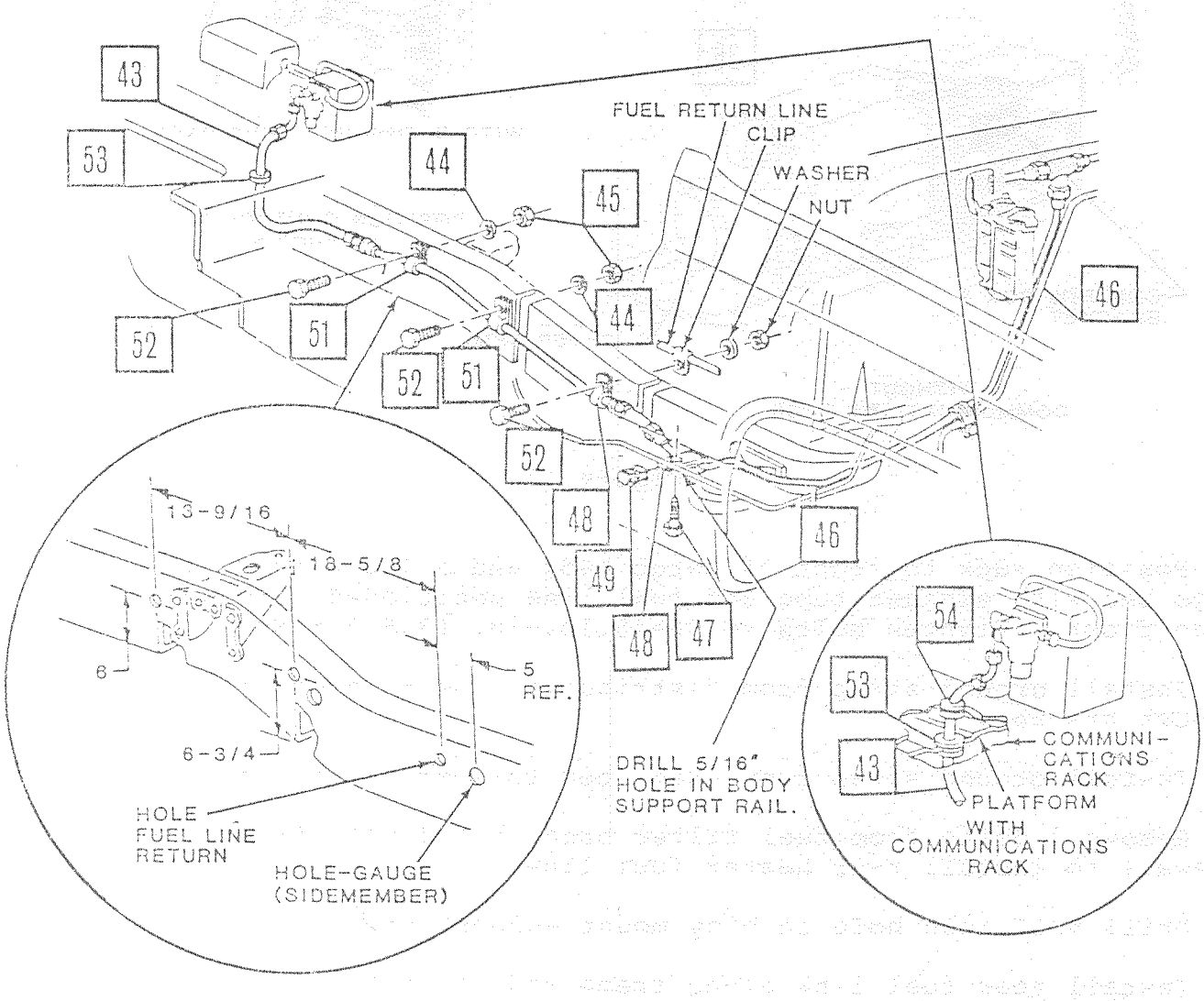

43
53
44
45
FUEL RETURN LINE CLIP
WASHER
NUT
46
52
51
44
52
51
52
48
49
48
47
46
13-9/16
18-5/8
6
5
REF.
6-3/4
HOLE
FUEL LINE
RETURN
HOLE-GAUGE
(SIDEMEMBER)
DRILL 5/16"
HOLE IN BODY
SUPPORT RAIL.
54
53
43
COMMUNI-
CATIONS
RACK
PLATFORM
WITH
COMMUNICATIONS
RACK

Figure 14.

NOTE

Step 52 is for vehicles without communications rack.

52. Without a communications rack, from underside of cargo box, push electrical harness through hole and install grommet (Figure 15.).

NOTE

Step 53 is for vehicles with communications rack.

53. With communications rack, push electrical harness through existing power distribution box grommet, from top (Figure 16.).

NOTE

Step 54 is for vehicles with communications rack.

54. With communications rack, route electrical wire along fuel line at frame and connect to heater wire harness. Secure to fuel line with straps (Figure 16.).

NOTE

Step 55 is for vehicles without communications rack.

55. Without communications rack, route auxiliary heater extension wire assembly along frame and connect to heater wire harness. Secure to frame with clips, nuts, bolts and washers (Figure 16.).

56. Connect to bus bar and auxiliary fuel pump (Figure 15.).

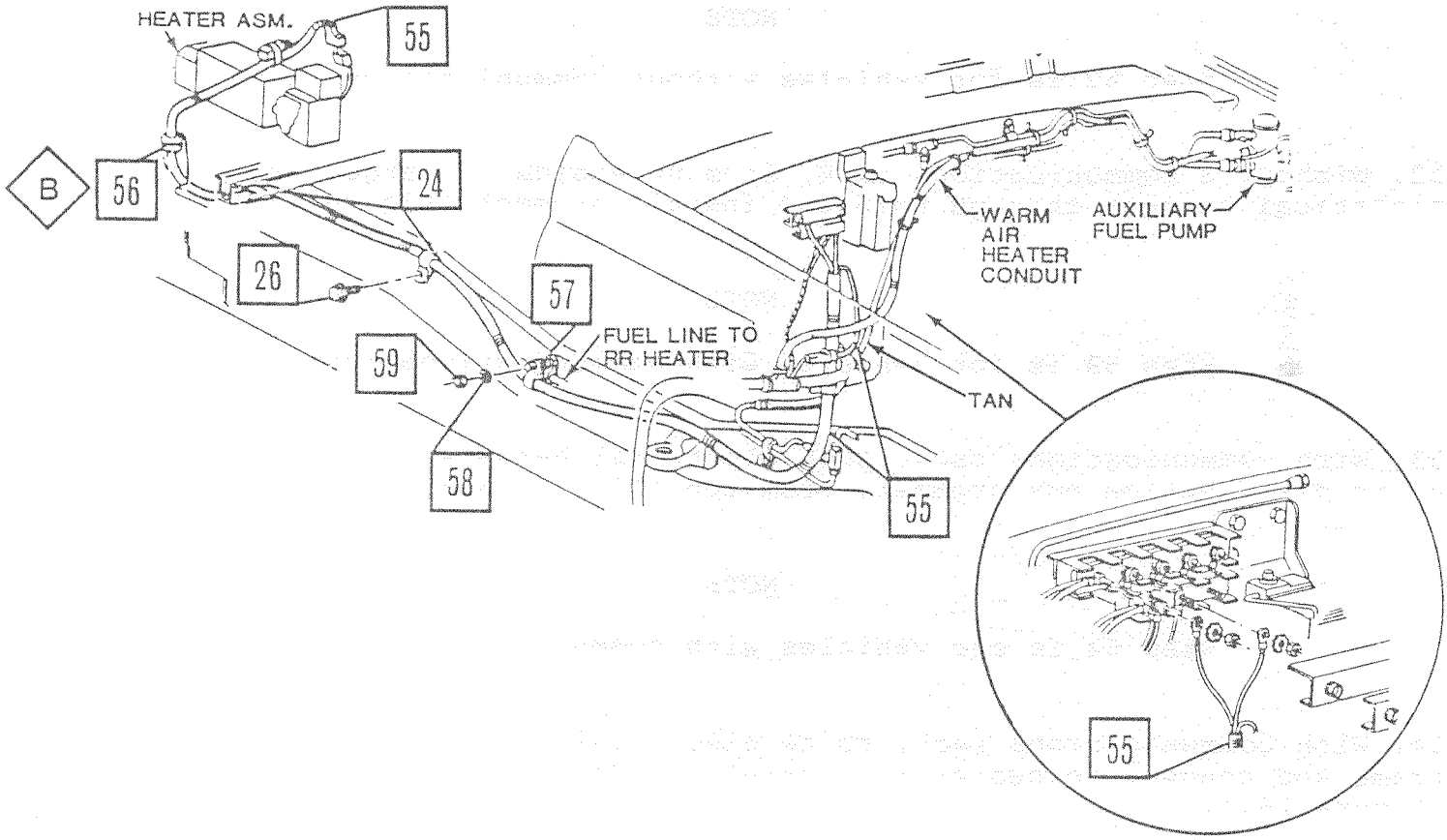
NOTE

When connecting heater control box cable to distribution box, route cable behind communications rack.

Steps 57 and 58 are for vehicles with a communications rack.

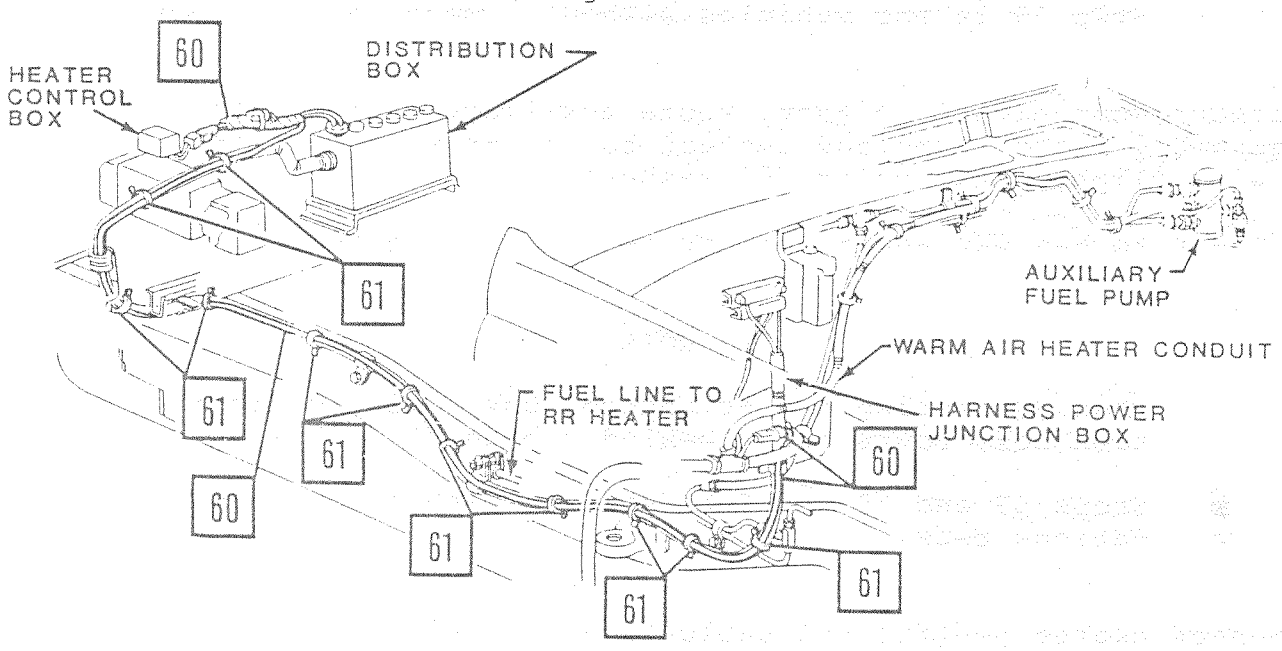
57. Connect heater control box cable to any connectors on distribution box and to heater control box (Figure 16.).

58. Disconnect power cable from dummy plug on right side wall and connect to right side plug on distribution box.



Without Communications Rack

Figure 15.



With Communications Rack

Figure 16.

NOTE

Cargo cover roof bow strap must be to outside of roof panels.

After roof panels are centered, it may be necessary later to shift them right or left to make door opening panels fit properly.

59. Position two roof panels with note "THIS SIDE UP" on top of bow assemblies and center right to left (Figure 17.).

60. Attach rear panel assembly to roof panels with three plate assemblies and loosely install nuts (Figure 17.).

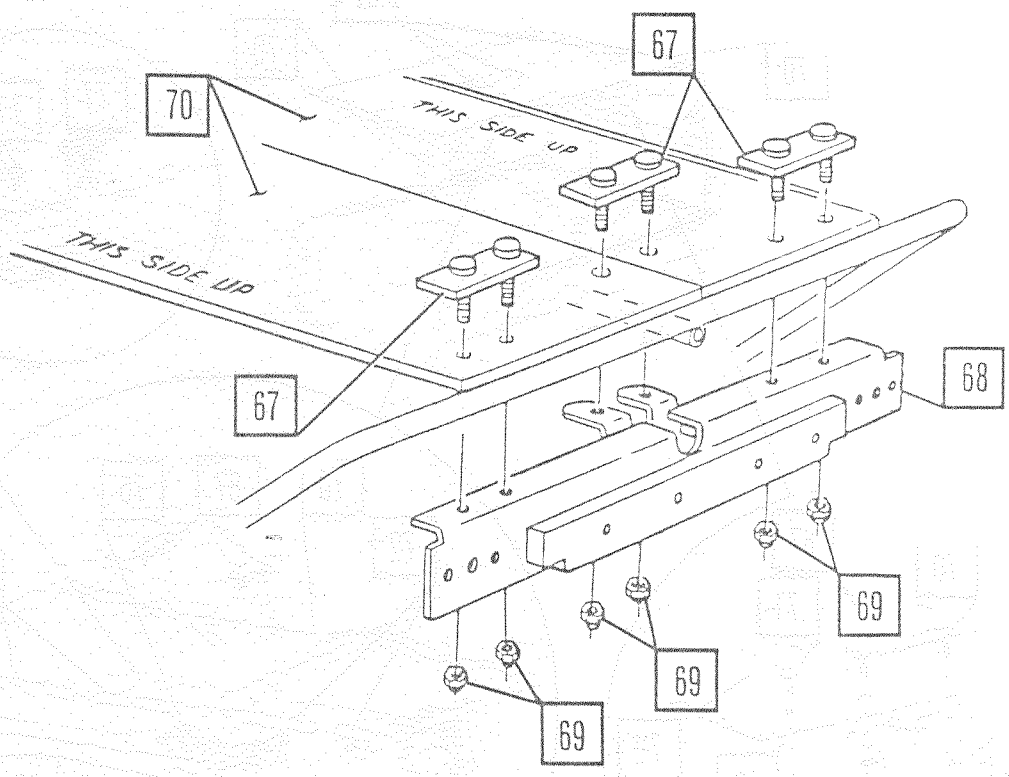


Figure 17.

61. Install dome lamp assembly with plug forward, to bracket and tighten to 12-16 lb.-ft. (16.0-22.0 Nm). Install bracket to roof panels (Figure 18.).

62. Position rear tubular support into rear header panel assembly and center lamp bracket (Figure 18.).

63. Loosely install front air intake duct adaptor assembly to roof panel inner support plate assembly, with nuts (Figure 18.).

64. Loosely install round head bolts, brackets and nuts around front bow and through roof panel (Figure 18.).

NOTE

It may be necessary to remove front and rear nuts on dome lamp bracket to install tubular support.

65. Install front tubular support identified by saw cut in end of tube to air intake duct adaptor and center lamp bracket (Figure 18.).

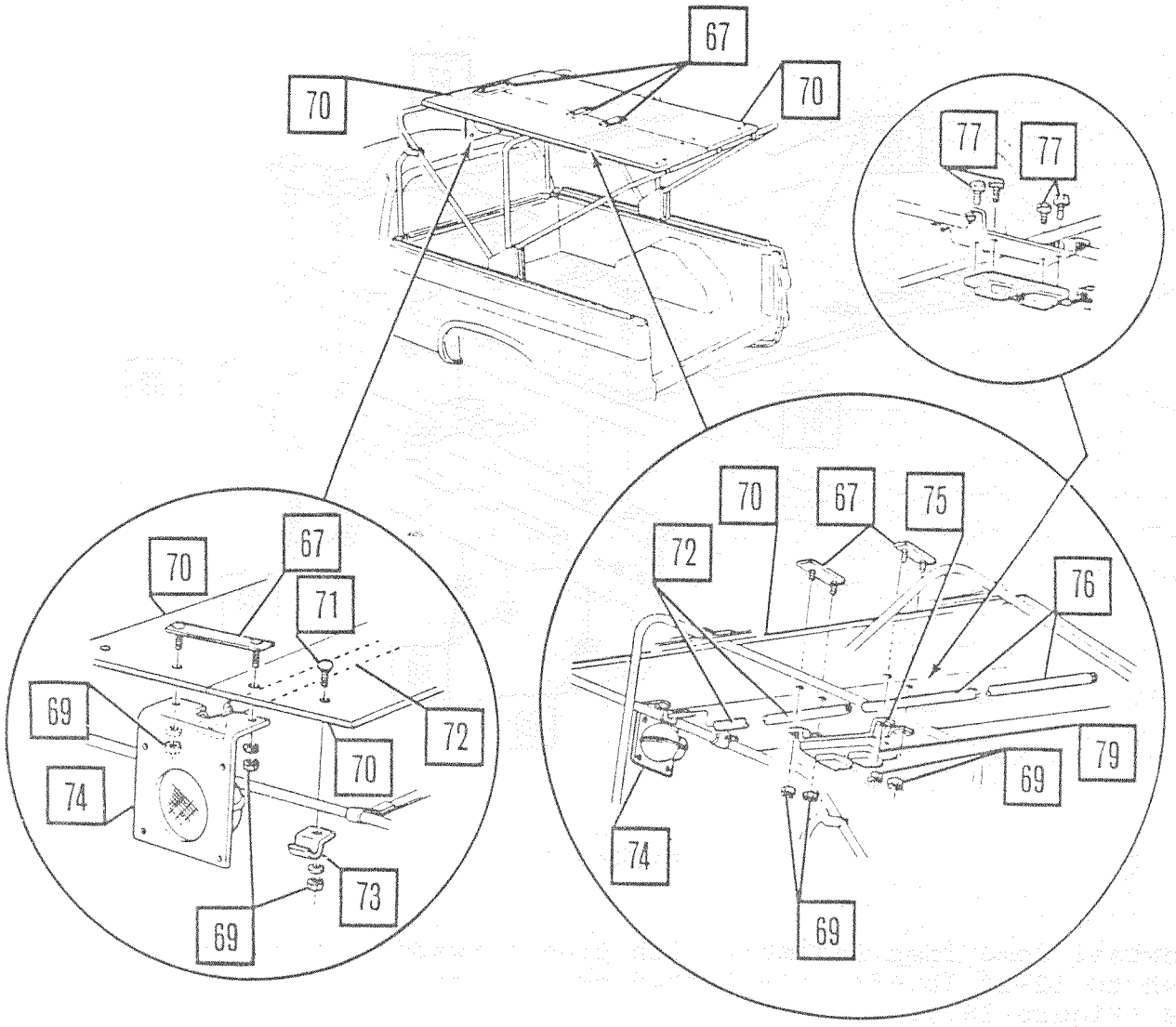


Figure 18.

66. Tighten all roof attachments. Tighten to 50-65 lb.-in. (6.0-8.0 Nm).

67. Install dome lamp harness assembly to dome lamp and snap clips on harness into center tubular support holes (Figure 19.).

68. Using clips on harness as template, drill 1/4 inch holes in bow assemblies along front, and attach harness clips into bows and connect existing harness (Figure 19.).

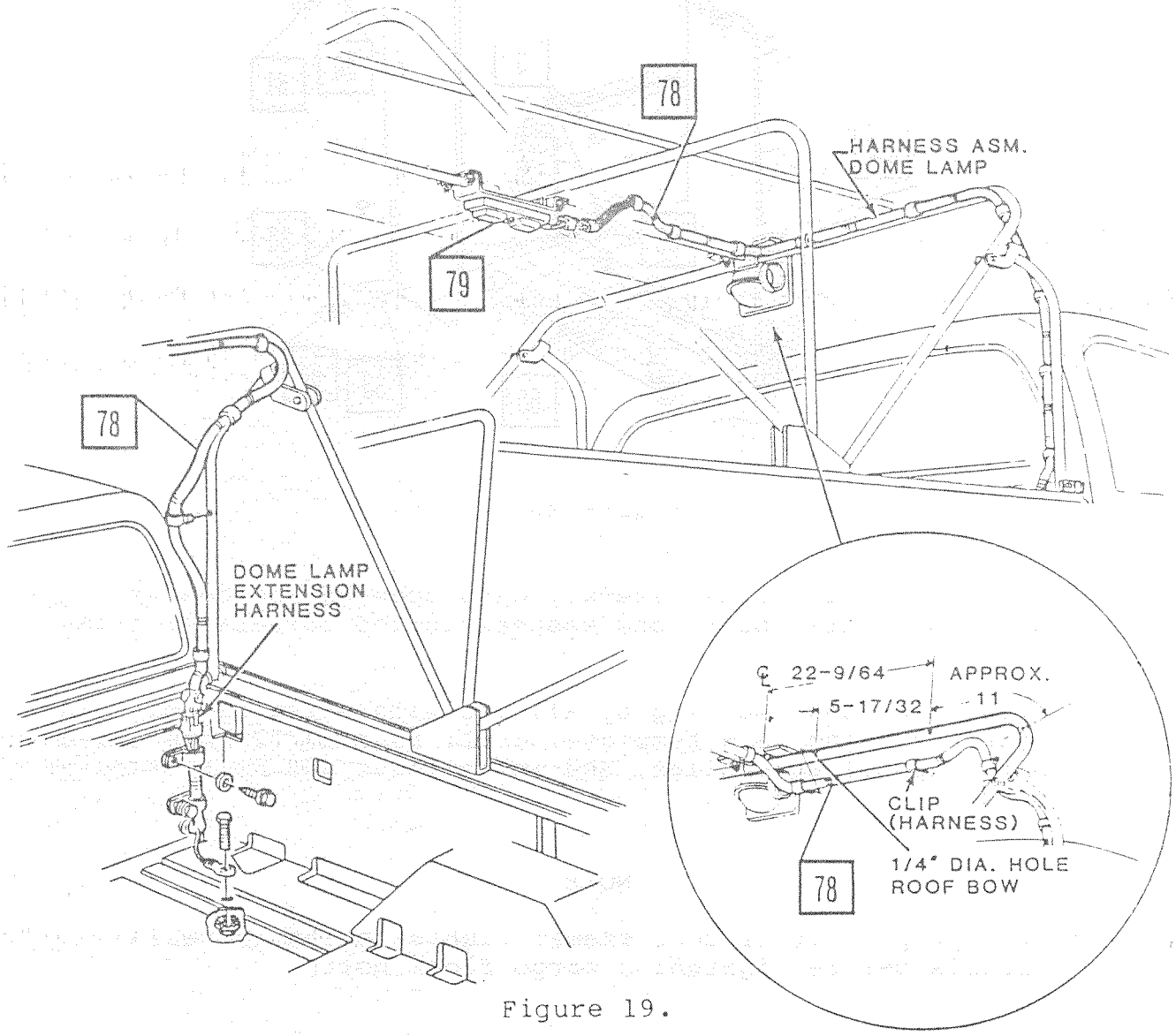


Figure 19.

NOTE

Loosely install nuts and bolts in panels and frame assemblies.

69. Attach right and left rear side panel assemblies on upper outer holes with nut, bolt and washers (Figure 20.).

70. Attach panels to side brackets on right and left sides with "T" nuts and bolts (Figure 20.).

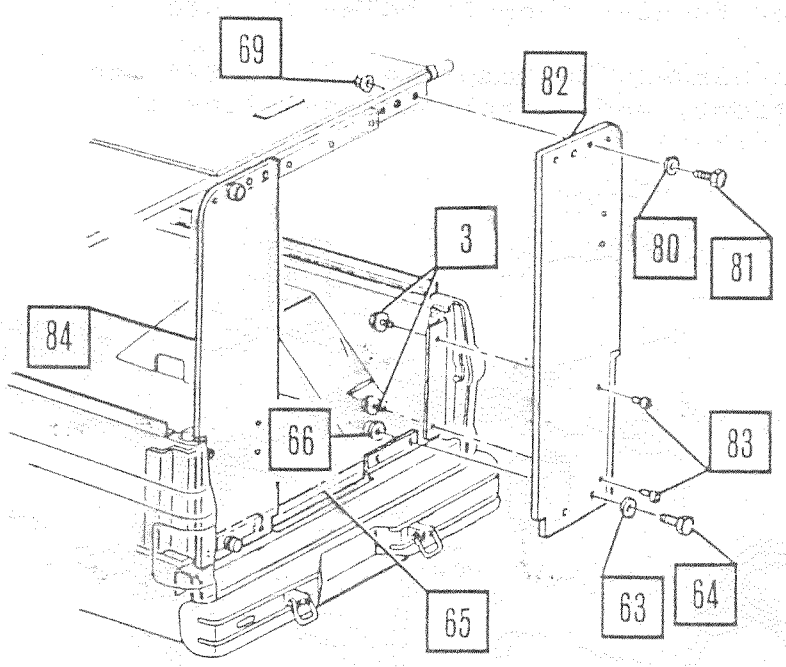


Figure 20.

71. Place rear door panel frame assembly onto opening and center right to left, and install nuts, bolts and washers in top corners of frame (Figure 21.).

72. Install rear door seal molding by alining with existing holes in the floor insulator and using as a template, drill four 13/32 inch holes from the inside out in panel assemblies, and install nut and bolt in outer holes (Figure 20.).

NOTE

For proper fit of door frame, tighten bolts in rear panels before tightening cargo floor bolts.

73. Secure rear door seal molding to rear panels and cargo floor with bolts, nuts and washers (Figure 22.). Tighten bolts to 22-30 lb.-in. (30.0-40.0 Nm).

74. Install three screws through rear door seal molding into floor insulator (Figure 22.).

75. Using door frame as a template, drill 13/32 inch side and top holes along opening (Figure 21.).

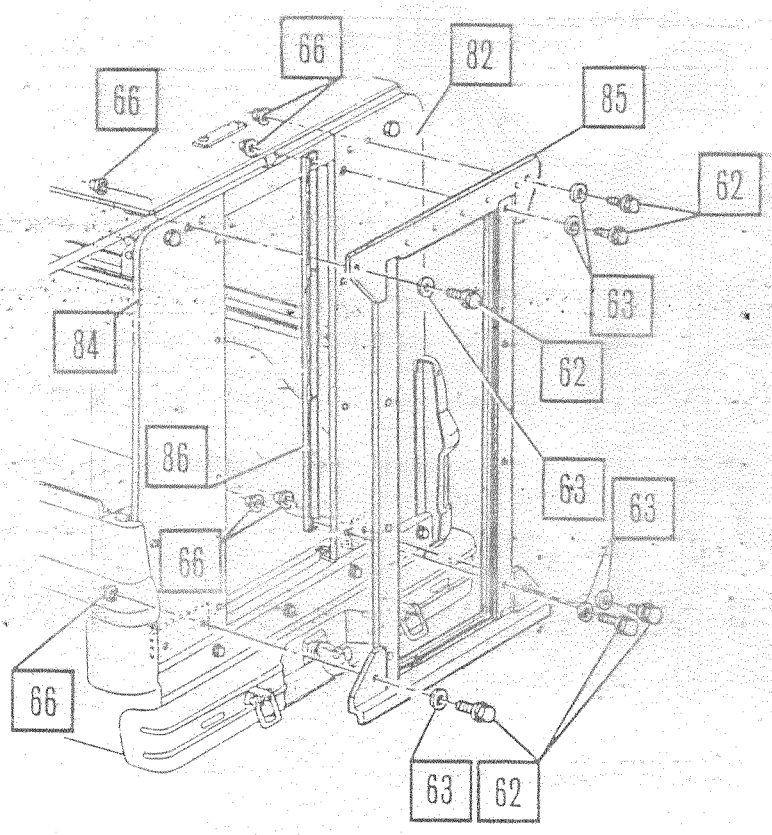


Figure 21.

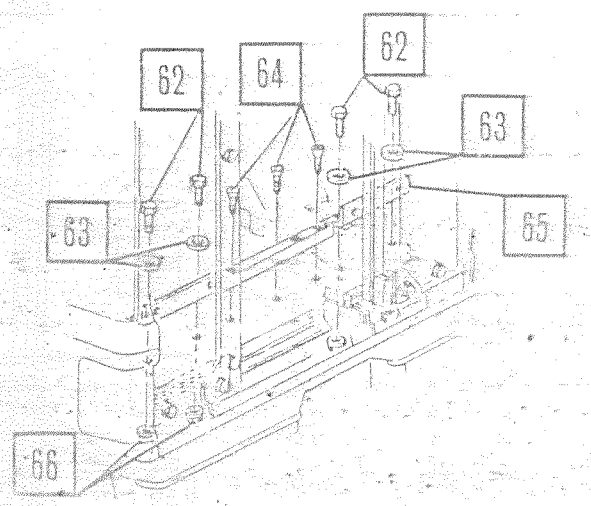


Figure 22.

76. Install rear panel inner side molding with nuts, washers and bolts at top and bottom of opening on the right-hand side (Figure 21.).

77. Tighten nuts and bolts in panel assembly to 22-30 lb.-ft. (30-40 Nm) and "T" nuts and bolts to 40-60 lb.-in. (4.5-7.0 Nm).

NOTE

Before assembling door hardware, lubricate all latches, brackets and moving parts for ease of operation.

78. Assemble outside latch assembly to door with "T" nuts and bolts (Figure 23.). Tighten bolts to 22-27 lb.-in. (2.5-3.0 Nm).

79. Assemble inside latch handle assembly to door and assemble with "T" nuts and bolts (Figure 23.). Tighten to 25-31 lb.-in. (2.8-3.5 Nm). Assemble top and bottom latches with "T" nut and tighten to 22-27 lb.-in. (2.5-3.0 Nm).

80. Assemble inside handle to latch assembly (Figure 23.).

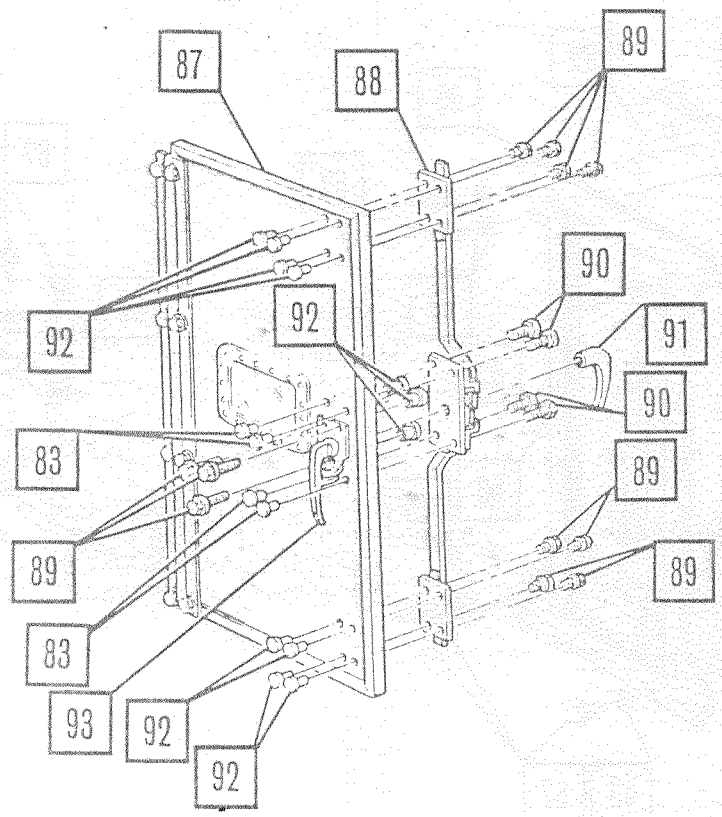


Figure 23.

NOTE

Door must be closed when installing.

81. Install door and inner side molding in door frame molding with bolts, washers and nuts (Figure 24.). Tighten bolts to 22-30 lb.-ft. (30-40 Nm).

NOTE

If door does not fit properly, loosen four bolts holding hinge to side panel, lift door, and retighten bolts.

82. Install strap assembly to side panel and door with rear door check brackets, nuts, bolts and washers (Figure 24.). Tighten bolts to 50-65 lb.-in. (6.0-8.0 Nm).

83. Install assist handle to right side of door opening with nuts, washers and bolts (Figure 24.). Tighten bolts to 22-30 lb.-ft. (30.0-40.0 Nm).

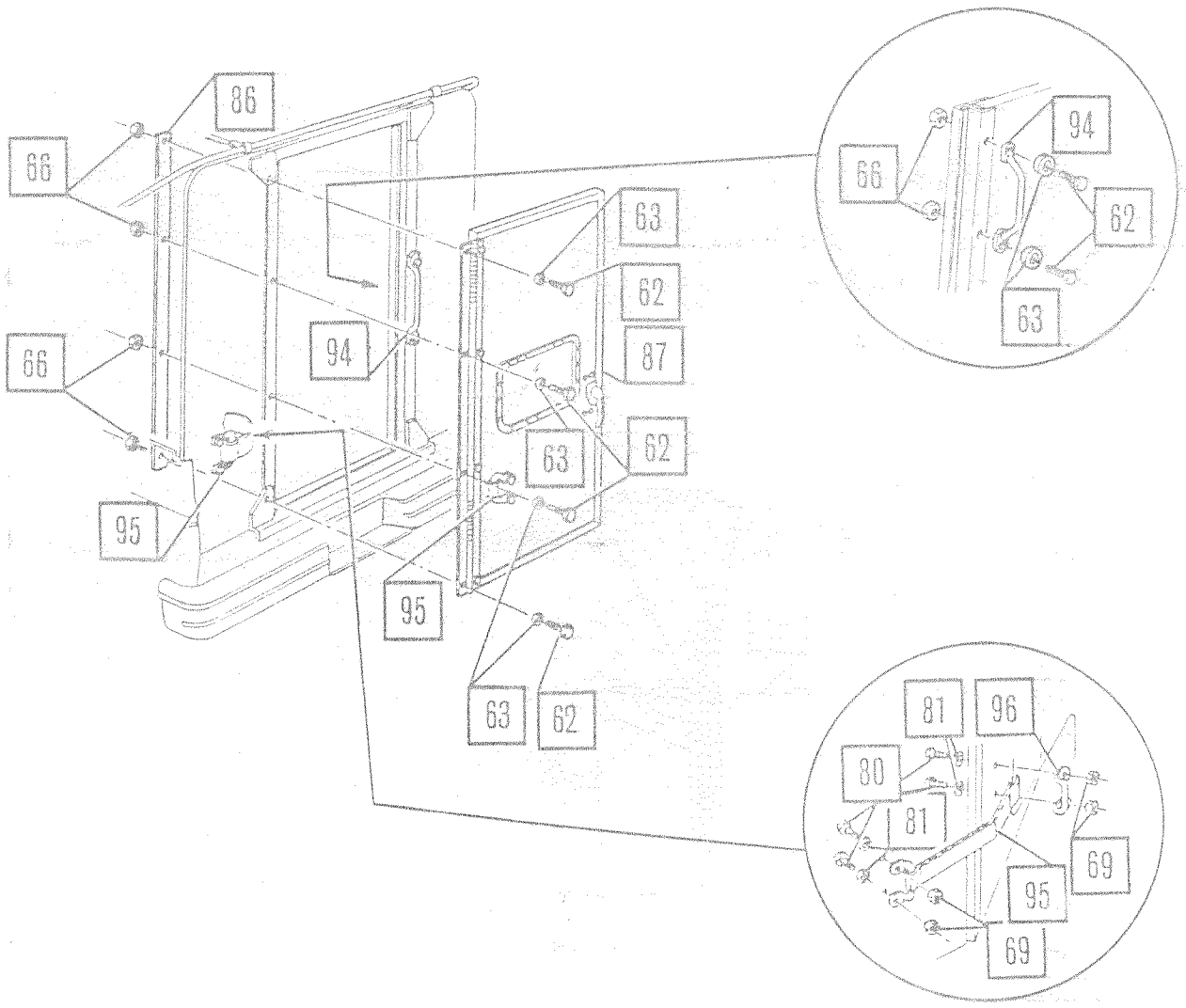


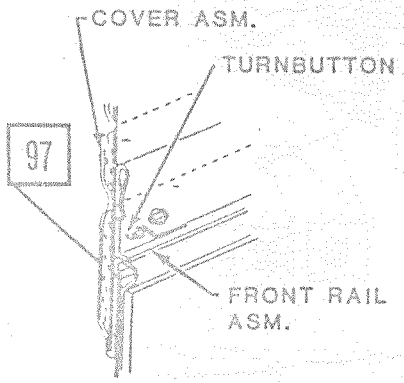
Figure 24.

NOTE

Antenna mounts must be removed before installing quilted cover.

84. Remove protective paper from window in front of cover and position quilted cover over tubular frame and wood insulators. Check antenna mount area, air intake and air exhaust areas for best balance position of cover.

85. Snap front of quilted cover to inside front rail assembly (Figure 25.).



TYPICAL (8) PLACES

Figure 25.

NOTE

Apply sealer to both sides of vent parts before installing.

86. Apply 3/16 inch bead of sealer and install bolts, nuts, adaptor assembly and front deflector assembly (Figure 26.). Tighten bolts to 50-60 lb.-in. (6.0-8.0 Nm).

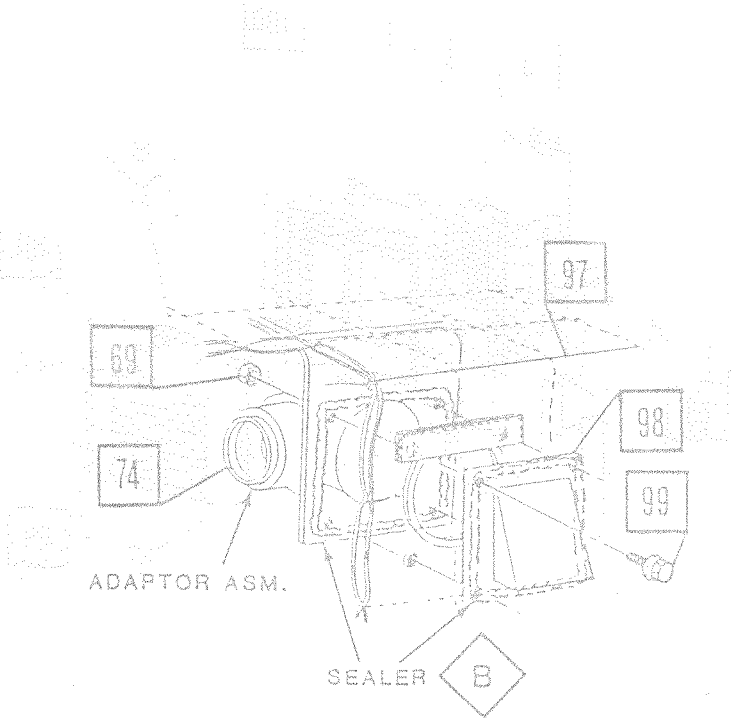


Figure 26.

87. Install "T" nuts in holes on right rear side panel (Figure 27.).

NOTE

Apply sealer to both sides of vent parts before installing.

88. Apply 3/16 inch bead of sealer to air exhaust vent assembly (Figure 27.).

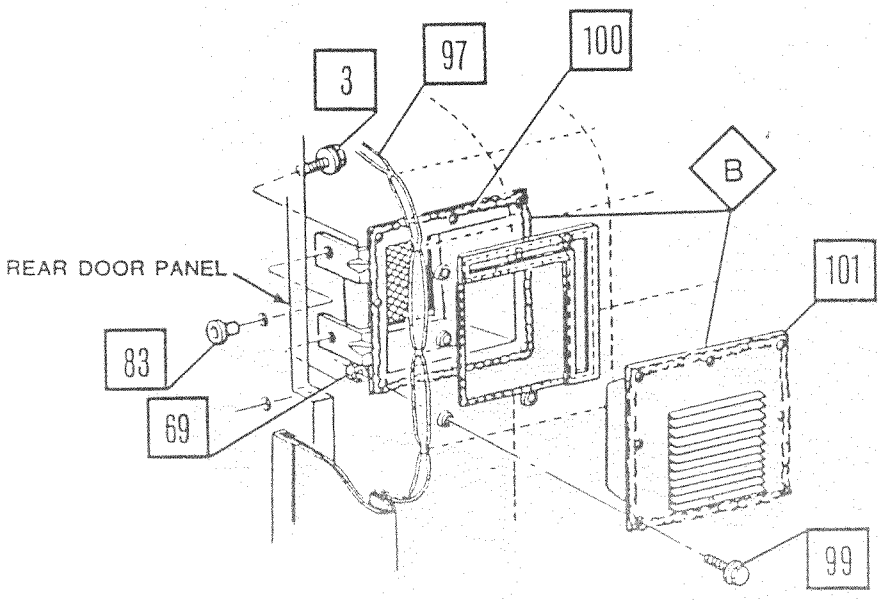


Figure 27.

89. Apply 3/16 inch bead of sealer on air exhaust vent louver assembly. Install air exhaust vent louver assembly to air exhaust vent assembly with nuts and bolts through cover (Figure 27.). Tighten bolts to 50-65 lb.-in. (6.0-8.0 Nm).

90. Secure cover above door with 6 nuts, bolts and washers. Tighten to 50-65 lb.-in. (6.0-8.0 Nm). Install 2 screws and "T" nuts in outer panels. Tighten to 25-31 lb.-in. (2.8-3.5 Nm) (Figure 28.).

NOTE

Do not pull cover tight, smooth out and position only. Looseness is for shrinking.

NOTE

Bottom hole on each side panel should be secured with bolt, washer, and nut.

91. Using cover as a template, center punch and drill 13/32 inch holes down sides of rear plywood, starting at top and working down (Figure 28.).

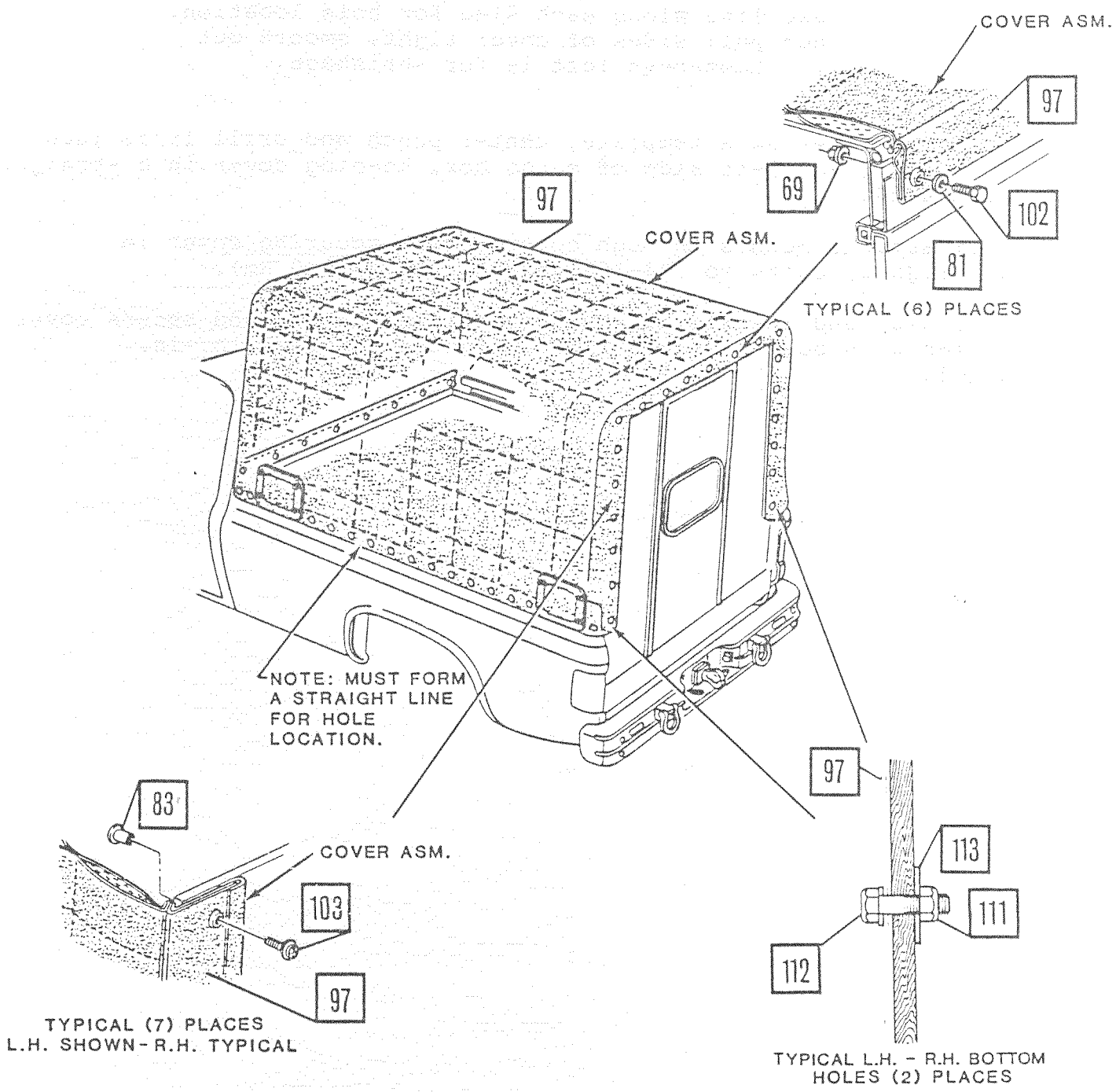


Figure 28.

92. Install "T" nuts into drilled holes and secure into place with bolts (Figure 28.). Tighten to 25-31 lb.-in. (2.8-3.5 Nm).

93. Attach vent assembly with bolts. Tighten bolts to 25-31 lb.-in. (2.8-3.5 Nm) (Figure 26.).

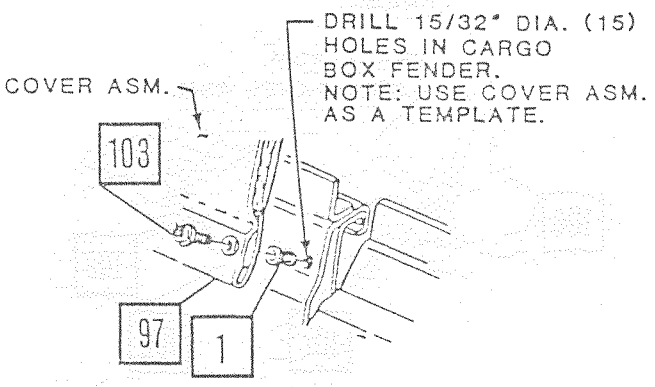
NOTE

Cover must form a straight line to fender crease line along each side for hole location. Do not pull sides of cover tight, smooth out only. Looseness left is for shrinkage.

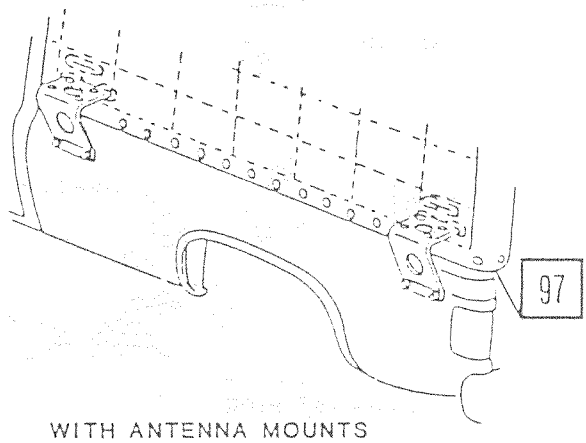
94. Using cargo cover as a template, center punch and drill 15/32 inch holes along right and left side of cargo box, keeping cover in a straight line. (Figure 28.).

95. Install antenna mounts through cover before securing cover in position. Tighten bolts to 124-168 lb.-in. (14.0-19.0 Nm).

96. Apply sealer and install jacknuts in drilled holes, and secure cover into position with bolts (Figure 29.). Tighten to 22-27 lb.-in. (2.5-3.0 Nm).



TYPICAL (15) PLACES
L.H. SHOWN - R.H. TYPICAL



WITH ANTENNA MOUNTS
L.H. SHOWN - R.H. TYPICAL

Figure 29.

97. Attach hose assembly to front of warm air heater and duct adaptor with clamps, and tighten clamps to 23-30 lb.-in. (2.6-3.4 Nm) (Figure 30.). Secure to cover through strap on cover.

98. Install warm air heater exhaust pipe to heater exhaust outlet with clamp (Figure 30.). Tighten clamp to 75-95 lb.-in. (8.5-11.0 Nm).

99. Secure end of clamp to brace in front of right rear wheel (Figure 30.). Tighten to 15-22 lb.-ft. (20.0-30.0 Nm).

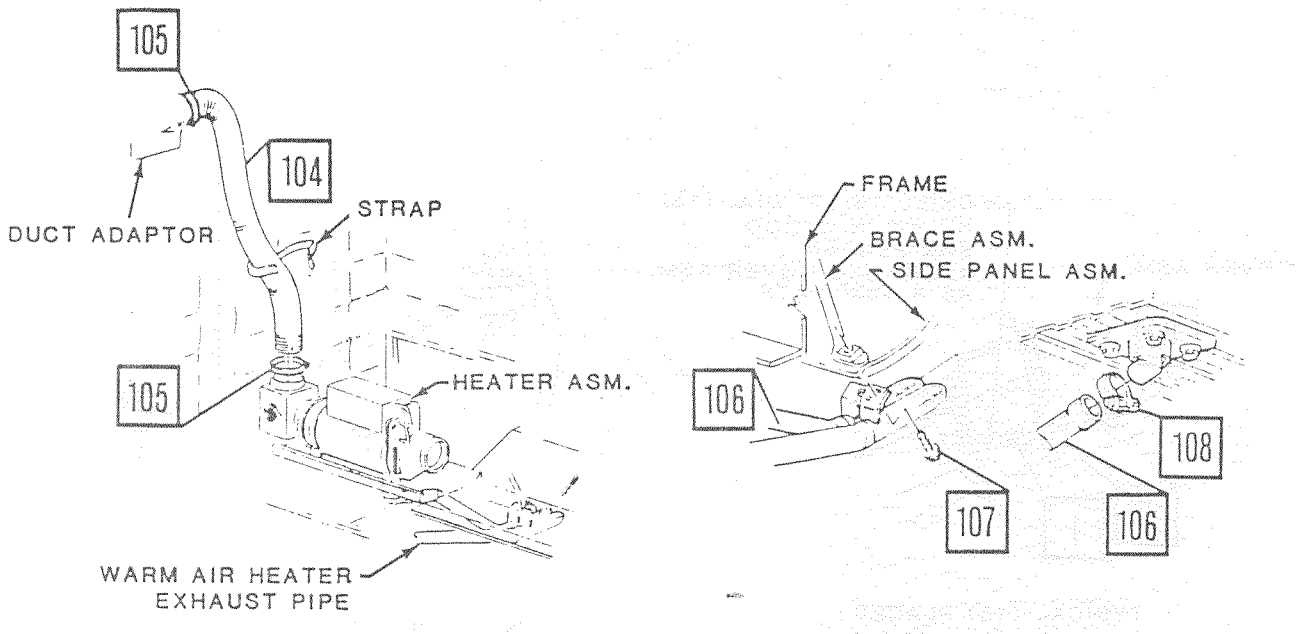


Figure 30.

100. Remove heater cover.

101. Disconnect fuel line connection at heater fuel inlet fitting.

102. Open shut-off valve.

103. Disconnect electrical connector on heater.

NOTE

Provide a suitable container at outlet of fuel line to catch fuel.

104. Depress and hold heater control box "RUN-OFF-START" switch in "START" position. Continue operation until a clean steady flow of fuel is obtained (approximately 10 seconds).

105. Reconnect fuel line at heater.

106. Reconnect electrical connector on heater.

107. Open bleed port on fuel regulator valve on heater.

108. Depress and hold heater control box "RUN-OFF-START" switch in "START" position. Continue operation until a clean steady flow of fuel is obtained (approximately 10 seconds).

109. Close bleed port, return control box switch to "OFF" position.

110. Install cover. Heater is now ready to start.

111. Install heater shield.

PARTS LIST-WINTER CARGO COVER (M1008)

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO.	KIT NO. 1 2 3 4
1	NUT-JACK 1/4-20	367292	14074407	X
			(14076888)	X
			14072382	X
			(14076873)	X
2	MOLDING-FLR PNL INSUL	15599914	14074404	X
3	BOLT-HEX FLG HD 1/4-20 x 1	9440334	14074407	X
			(14076888)	X
			(15599911)	X
			(14076868)	X
			14072382	X
4	INSULATOR-FRT PNL	14076281	14074407	X
5	INSULATOR-SIDE PNL FRT RH	14076278	14074407	X
6	INSULATOR-SIDE PNL RR RH	14076280	14074407	X
7	INSULATOR ASM-W/HOUSE CVR RH	14076274	14074407	X
8	INSULATOR-SIDE PNL RR LH	14076279	14074407	X
9	INSULATOR ASM-W/HOUSE CVR LH	14076273	14074407	X
10	INSULATOR-SIDE PNL FRT LH	14076277	14074407	X
11	BRACKET-RF PNL RR SUPT	14063349	14074407	X
			(14076888)	X
12	SCREW-WD FL HD 8 x 5/8	129347	14074407	X
			(14076888)	X
13	INSULATOR ASM-FLR PNL FRT	14076271	14074407	X
14	BOLT-RD HD SQ NK 3/8-16 x 2	9440185	14074407	X
			(14076888)	X
15	NUT-HEX FLG 3/8-16	6262213	14074407	X
			(14076888)	X
16	INSULATOR-FLR PNL FRT RH	14076229	14074407	X
17	INSULATOR ASM-FLR PNL RR	14076272	14074407	X
18	INSULATOR-PNL RR FLR RH	14076276	14074407	X

PARTS LIST-WINTER CARGO COVER (M1008) (continued)

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO.	KIT NO. 1 2 3 4
19	INSULATOR-PNL RR FLR LH	14076275	14074407	X
20	BRACKET-RR DR PNL SIDE	15599273-4	14074407 (14076888)	X X
21	CLAMP ASM-SEAT SUPT	14076889	14074407 (14076888)	X X
22	TEMPLATE-AUX HTR MTG	14075885	14072382	X
23	GROMMET-DM LP WRG	3698448	14074405	X
24	CLIP	719177	14074405	X
25	HARNESS ASM-DOME LP EXT	14076239	14074405	X
26	SCREW-WA HD 8.0mm x 16.0mm	11505370	14074405	X
27	GROMMET-DM LP	3918889	14074405	X
28	CLIP-DM LP WRG	342679	14074405	X
29	SCREW-10-16 x 1/2	9419303	14074405	X
30	BOLT-HEX HD 1/4-20 x 3/4	180020	14074405	X
31	NUT-HEX EXT TTH LW 1/4-20	271172	14074405	X
32	RAIL ASM-CARGO CVR	14076299	15599912	X
33	RAIL ASM-CARGO CVR	14076300	15599912	X
34	SUPPORT ASM-RF BOW LH	15599917	15599912	X
35	SUPPORT ASM-RF BOW RH	15599918	15599912	X
36	HEATER ASM-AUX	14076251	14072382	X
37	BOLT-HEX HD 1/4-20 x 1	180022	14072382	X
38	WASHER-FLAT 1/4	9419892	14072382	X
39	NUT-HEX 1/4-20	9422273	14072382	X
40	GASKET-AUX HTR EXH	15599941	14072382	X

PARTS LIST-WINTER CARGO COVER (M1008) (continued)

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO.	KIT NO. 1 2 3 4
41	GASKET-AUX HTR EXH	15599947	14072382	X
42	RETAINER-AUX EXH ADAPT	15599942	14072382	X
43	HOSE ASM-AUX HTR FUEL	14076390	14072382	X
44	WASHER-LOCK 10mm	11500046	14072382	X
45	NUT-HEX 3/8-16	9418931	14072382	X
46	PIPE ASM-AUX HTR FUEL FRT	14063323	14072382	X
47	BOLT-HEX HD 5/16-18 x 5/8	3846201	14072382	X
48	CLIP	340815	14072382	X
49	NUT-HEX 5/16-18	1494253	14072382	X
50	HOSE ASM-AUX HTR RR	14063324	14072382	X
51	CLIP	356755	14072382	X
52	BOLT-HEX HD 3/8-16 x 7/8	9428821	14072382	X
53	GROMMET	3886908	14072382	X
54	GROMMET	3655180	14072382	X
55	WIRE ASM-AUX HTR EXT	14076240	14074405	X
56	GROMMET-DM LP	14075889	14074405	X
57	CLIP	3949922	14074405	X
58	WASHER-AUX HTR	11500190	14074405	X
59	NUT-1/4-20	9419143	14074405	X
60	WIRING ASM-AUX HTR CONTROL	14076811	14074405	X
61	STRAP	11501906	14074405	X
62	BOLT-SCR FLG HEX HD 3/8-16-2	9440339	15599912 (15599911)	X X
63	WASHER-FL 3/8 x 3/4	9440955	15599912 (15599911)	X X

PARTS LIST-WINTER CARGO COVER (M1008) (continued)

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO.	KIT NO. 1 2 3 4
64	SCREW-SLOTTED FLAT HD 8 x 1.00	108810	15599912 (15599911)	X X
65	MOLDING-RR DR SEAL	14076208	15599912	X
66	NUT-LK FLG HEX 3/8-16	15599928	15599912 (15599911)	X X
67	PLATE ASM-RF PNL INR SUPT	14076233	15599912	X
68	PANEL ASM-RR DR CTR	14076861	15599912	X
69	NUT-LK 1/4-20	9439915	15599912 (14076868) (14076873) (14076878) (14076896) (15599911)	X X X X X X
70	PANEL-RF	14076222	15599912	X
71	BOLT-RD HD SQ NECK 1/4-20 x 1	126317	15599912 (14076896)	X X
72	SUPPORT-RF PNL INNER	14076232	15599912	X
73	BRACKET-RF PNL FRT	14076230	15599912 (14076896)	X X
74	ADAPTOR ASM-AIR INT DUCT	14075843	15599912 (14076896)	X X
75	BRACKET-RF PNL INTER	14076231	15599912 (14076896)	X X
76	SUPPORT-RF PNL INNER	15599916	15599912	X
77	SCREW-DOME LP	9420146	14074405	X
78	HARNESS ASM-DONE LP FEED	14076238	14074405	X
79	LAMP ASM-DOME	14075887	14074405	X
80	BOLT-SCR HEX HD 1/4-20 x 1-5/8	9440338	15599912 (14076878) (15599911)	X X X

PARTS LIST-WINTER CARGO COVER (M1008) (continued)

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO.	KIT NO. 1 2 3 4
81	WASHER-FLAT	14038397	15599912	X
			(14076873)	X
			(14076878)	X
			(15599911)	X
82	PANEL ASM-RR DR OPNG RH	14076872	15599912	X
83	NUT-TEE 1/4-20	9440332	15599912	X
			(14076868)	X
			(14076873)	X
			(14076883)	X
			(15599911)	X
84	PANEL ASM-RR DR OPNG LH	14076871	15599912	X
85	FRAME ASM-RR DR PNL	15599910	15599912	X
86	MOLDING-RR DR PNL FRM	14076204	15599912	X
87	DOOR ASM-RR COMPL	14076875	15599912	X
88	LATCH ASM-RR DR	14076882	15599912	X
			(14076883)	X
89	SCREW-HEX WA HD 10-24 x 1.00	9440335	15599912	X
			(14076883)	X
90	BOLT-SCR FLG	9419008	15599912	X
			(14076883)	X
91	HANDLE-RR DR LATCH INR	15599951	15599912	X
			(14076883)	X
92	NUT-TEE 10-24	9440333	15599912	X
			(14076883)	X
93	HANDLE-RR DR LATCH OTR	15599950	15599912	X
			(14076883)	X
94	HANDLE-RR DOOR ASSIST	14076221	15599912	X
			(15599911)	X
95	STRAP ASM-RR DR CHK	365977	15599912	X
			(14076878)	X
96	BRACKET-RR DR CHK STRAP	3794767	15599912	X
			(14076878)	X

PARTS LIST-WINTER CARGO COVER (M1008) (continued)

ITEM NO.	DESCRIPTION	PART NO.	UNIT NO.	KIT NO. 1 2 3 4
97	COVER ASM-RF	14076228	15599912	X
98	DEFLECTOR ASM-AIR INT DUCT	14075845	15599912 (14076868)	X X
99	BOLT-SCR FLG HEX HD 1/4-20 x 5/8	9440033	15599912 (14076868)	X X
100	VENTILATOR ASM-AIR EXH	14075879	15599912 (14076868)	X X
101	LOUVER ASM-AIR EXH VENT	14072364	15599912 (14076868)	X X
102	BOLT-HEX HD 1/4-20 x 2	9440252	15599912 (14076873)	X X
103	SCREW-WA ASM 1/4-20 x 1-1/4	9440211	15599912 (14076873)	X X
104	HOSE-AUX HTR AIR INL	14076268	14072382	X
105	CLAMP	14074413	14072382	X
106	PIPE ASM-AUX HTR EXH	15599943	14072382	X
107	BOLT	3847758	14072382	X
108	CLAMP	14074487	14072382	X
109	WASHER-LOCK	3769610	14074405	X
110	WASHER	143471	14074407 (14076888)	X X
111	NUT	9439915	15599912 (14076873)	X X
112	BOLT	9440338	15599912 (14076873)	X X
113	WASHER	14038397	15599912 (14076873)	X X
B	SEALER	9981403	14072400	X X X