

Figure 5-179. Headliner and Molding Group

(2) Install molding (2) and fasteners (3).

(3) Install screws (4).

5-5.10.7 *Window Mechanism Group*. Refer to figure 5-180, and perform the following steps to overhaul the window mechanism group.

a. Removal and disassembly. Disassembly is accomplished during removal. Remove window mechanism group components from both doors as follows:

(1) Remove socket head hex screw (8), handle (7) and washer (9).

(2) Remove knob kit (10) from handle (7).

(3) Remove trim panel and watershield.

(4) Lower glass to expose glass channel fasteners. Remove fasteners and guide channel. Raise window to full up position and apply masking tape to glass and over top of window frame.

(5) Remove vent frame lower attaching screw.

(6) Remove regulator screws (3).

(7) Remove washer head hex screw (5) and guide fastener (6).

(8) Push vent frame outward and remove regulator assembly (1) and (2) through access hole in inner door panel.

(9) Remove attaching hardware and remove guide regulator (4).

(10) Remove bumper (11).

b. Cleaning and inspection. Refer to paragraphs 5-4.3 and 5-4.4 for general cleaning and inspection procedures.

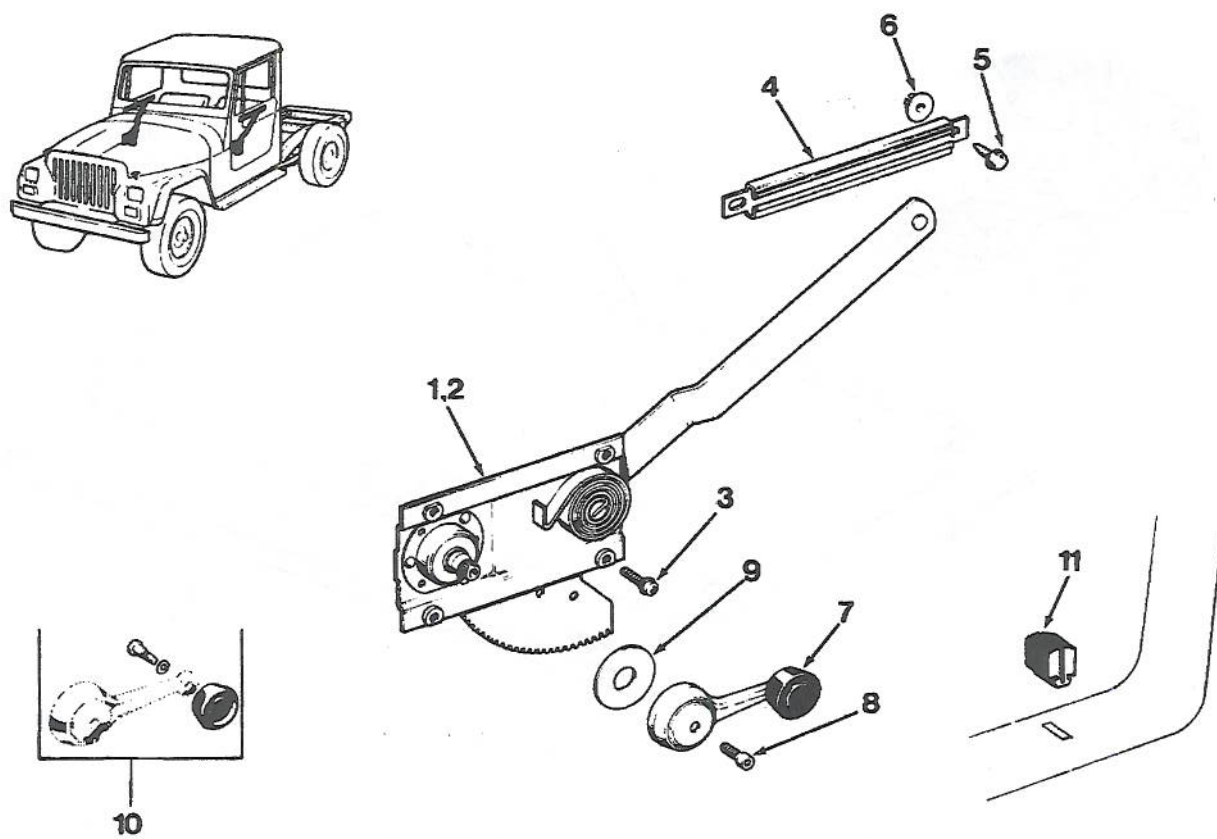
c. Repair and replacement. Replace all worn or damaged parts.

d. Assembly and installation. Assembly is accomplished during installation. Install window mechanism group as follows:

(1) Install regulator assemblies (1) and (2) in door using screws (3).

(2) Remove masking tape from glass and lower glass.

(3) Slide guide regulator (4) onto regulator arm and position guide regulator (4) on glass.



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- |                             |                           |              |
|-----------------------------|---------------------------|--------------|
| 1. Left Regulator Assembly  | 5. Washer Head Hex Screw  | 9. Washer    |
| 2. Right Regulator Assembly | 6. Guide Fastener         | 10. Knob Kit |
| 3. Screw                    | 7. Handle                 | 11. Bumper   |
| 4. Regulator                | 8. Socket Head Hex Screws |              |

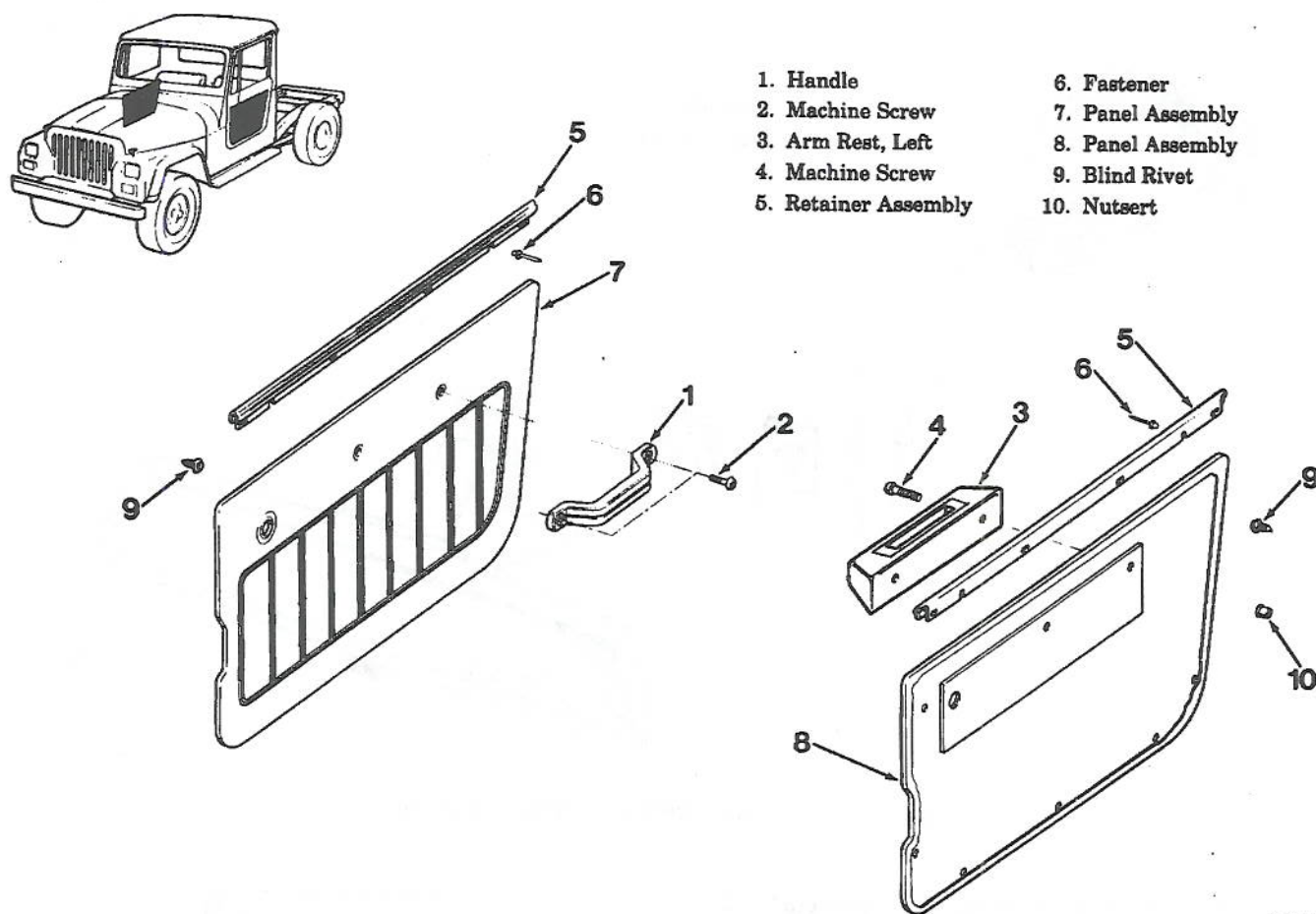
Figure 5-180. Window Mechanism Group

- (4) Install washer head hex screw (5) and guide fastener (6).
- (5) Install bumper (11).
- (6) Install vent frame in door and fasten with attaching hardware.
- (7) Check operation of regulator assembly (1) and (2).
- (8) Install watershield and door trim.
- (9) Install knob kit (10) on handle (7).
- (10) Install handle (7) and washer (9) using socket head screws (8).

5-5.10.8 *Door Trim Panels And Arm Rest Group*. Refer to figure 5-181, and perform the following steps to overhaul the door trim panels and arm rest group.

- a. Removal and disassembly. Disassembly is accomplished during removal. Remove door trim panels and arm rest group as follows:

- (1) Refer to paragraph 5-5.10.7 and remove window regulator handles.
- (2) Remove screws (2) with torx bit tool #J-25359-C.
- (3) Remove handle (1).



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Figure 5-181. Door Trim Panels and Arm Rest Group

- (4) Remove screws (4) and arm rest (3).
- (5) Remove retainer assemblies (5), blind rivets (9) and nutsert (10).
- (6) Pry fasteners (6) loose and remove panel assemblies (7) right, (8) left.
- b. Cleaning and inspection. Refer to paragraphs 5-4.3 and 5-4.4 for general cleaning and inspection procedures.
- c. Repair and replacement. Replace all worn or damaged parts.
- d. Assembly and installation. Assembly is accomplished during installation. Install door trim panels and arm rest group as follows:
  - (1) Position panel assemblies (7) right, (8) left on door and install fasteners (6).
  - (2) Install nutsert (10), blind rivets (9) and retainer assemblies (5).
  - (3) Install screws (4) and arm rest (3).
  - (4) Install handle (1) and screws (2) with torx bit tool #J-25359-C.
  - (5) Refer to paragraph 5-5.10.7 and install window regulator handles.

5-5.10.9 *Inside Rear View Mirror Assembly*. Refer to figure 5-182, and perform the following steps to overhaul the inside rear view mirror assembly

- a. Removal and disassembly. Disassembly is accomplished during removal. Remove inside rear view mirror assembly as follows:

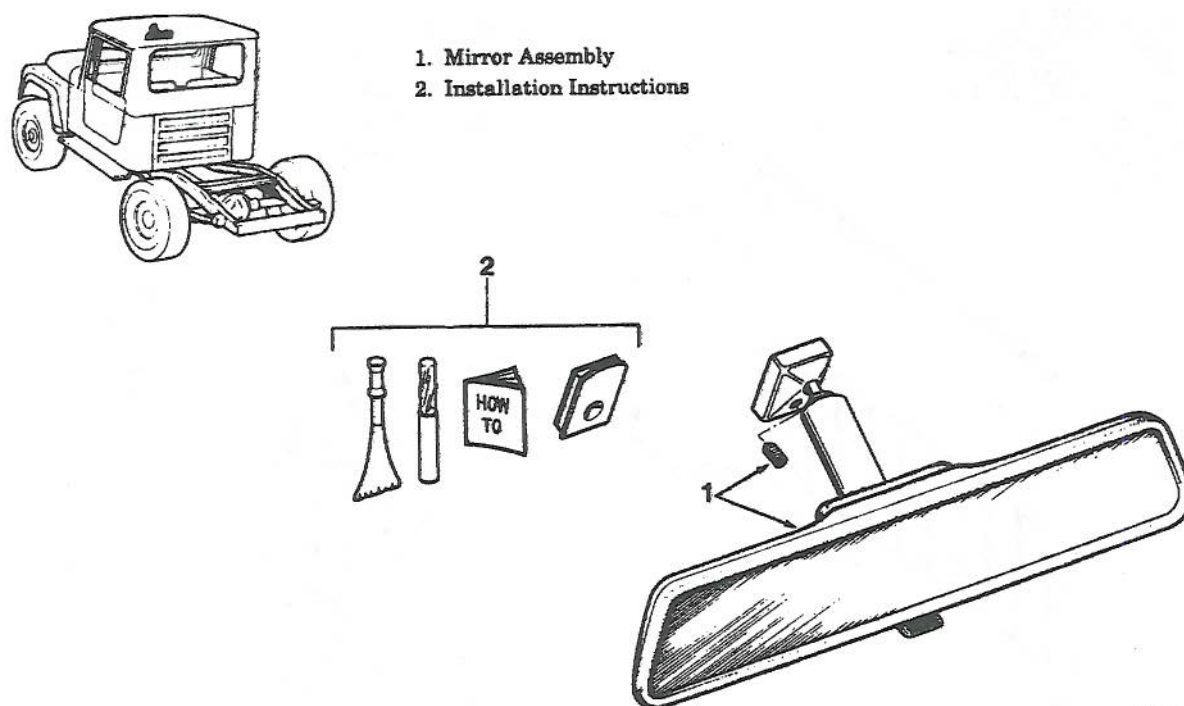
- (1) Remove inside rear view mirror (1) according to instructions in installation instructions (2).

### CAUTION

To prevent creasing of the panel assemblies, do not hammer or force the fasteners.

- (1) Position panel assemblies (7) right, (8) left on door and install fasteners (6).





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Figure 5-182. Inside Rear View Mirror Assembly

b. Cleaning and inspection. Refer to paragraphs 5-4.3 and 5-4.4 for general cleaning and inspection procedures.

c. Repair and replacement. Replace all worn or damaged parts.

d. Assembly and installation. Assembly is accomplished during installation. Install inside rear view mirror assembly as follows:

(1) Use wax pencil on outside of glass to locate mounting bracket (1).

(2) If vinyl pad has remained on windshield glass, apply low heat with an electric heat gun #J-25070 until vinyl softens. Then, peel pad from glass using care not to scratch or mar glass surface.

(3) Clean bracket mounting area of windshield glass thoroughly. Use clean cloth saturated with alcohol.

(4) Scuff bonding surface (the side without the 3/8-inch circular depression) of mirror bracket (1) with clean piece of fine grit sandpaper. Apply alcohol to clean towel and wipe surface clean.

## WARNING

Adhesives are flammable and toxic. Avoid prolonged or repeated skin contact. Use only in well-ventilated areas.

(5) Apply generous amount of accelerator (supplied with kit) to mirror bracket (1) mounting surface. Allow 5 minutes to dry.

(6) Apply thin film of accelerator to windshield. Allow 1 minute to dry.

## CAUTION

Do not touch surfaces to which accelerator has been applied or an imperfect bond could result.

(7) Apply one drop of adhesive at center of mirror bracket (1) bonding surface. Use bottom of adhesive tube to distribute adhesive evenly over entire surface.

(8) Position bottom straightedge of bracket (1) on horizontal line (figure 5-183). Press bracket (1, figure 5-182) to glass and hold firmly for one minute. Be sure bracket (1) is properly located as adhesive sets quickly.

- (9) Install mirror on bracket. Adjust mirror assembly and tighten using setscrew.

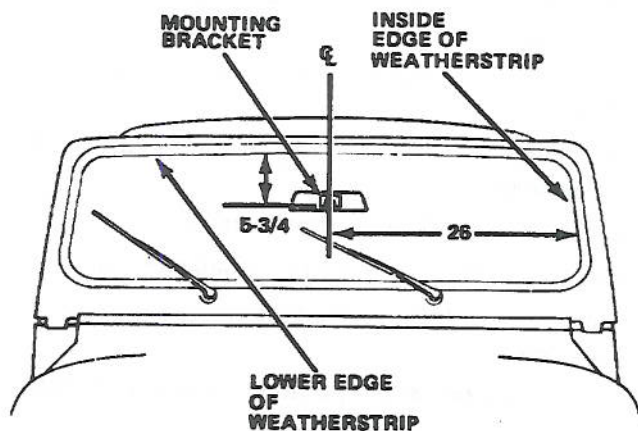
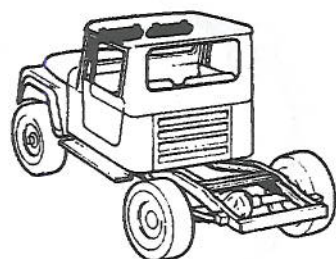


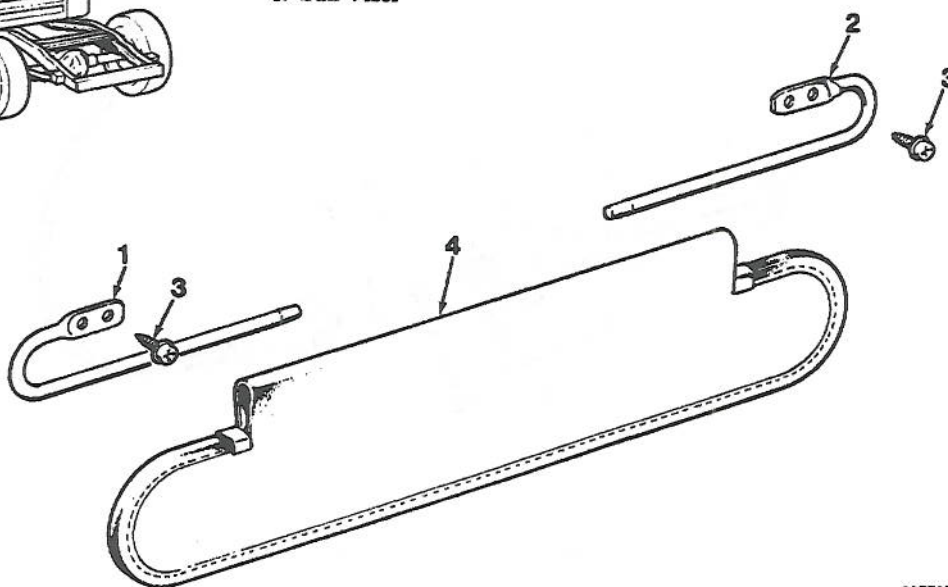
Figure 5-183. Windshield Mounted Rear View Mirror Bracket Location

5-5.10.10 *Sun Visor Group*. Refer to figure 5-184, and perform the following steps to overhaul the sun visor group.

- a. Removal and disassembly. Disassembly is accomplished during removal. Remove sun visor group as follows:
  - (1) Remove machine screws (3), mounting brackets (1) and (2) and sun visors (4).
  - (2) Remove mounting brackets (1) and (2) from sun visors (4).
- b. Cleaning and inspection. Refer to paragraphs 5-4.3 and 5-4.4 for general cleaning and inspection procedures.
- c. Repair and replacement. Replace all worn or damaged parts.
- d. Assembly and installation. Assembly is accomplished during installation. Install sun visor group as follows:
  - (1) Install mounting brackets (1) and (2) in sun visors (4).
  - (2) Install mounting brackets (1) and (2) on vehicle using machine screws (3).



1. Mounting Bracket
2. Mounting Bracket
3. Machine Screw
4. Sun Visor



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Figure 5-184. Sun Visor Group

5-5.10.11 *Speedometer Cable Group*. Refer to figure 5-185, and perform the following steps to overhaul the speedometer cable group.

a. Removal. Remove speedometer cable group as follows:

- (1) Remove shaft assembly (1) from speedometer.
- (2) Remove machine screw (5) and clamp (4).
- (3) Remove gear (8) from speedometer gear in transfer case.

b. Disassembly. Disassemble speedometer cable group as follows:

- (1) Remove shaft assembly (1) from adapter (6).
- (2) Remove retainer ring (2) and seal (3).
- (3) Remove gear (8) and speedometer ring (7) from adapter (6).

c. Cleaning and inspection. Refer to paragraphs 5-4.3 and 5-4.4 for general cleaning and inspection procedures.

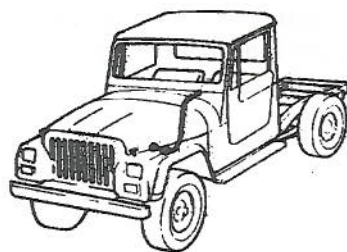
d. Repair and replacement. Replace all worn or damaged parts.

e. Assembly. Assemble speedometer group as follows:

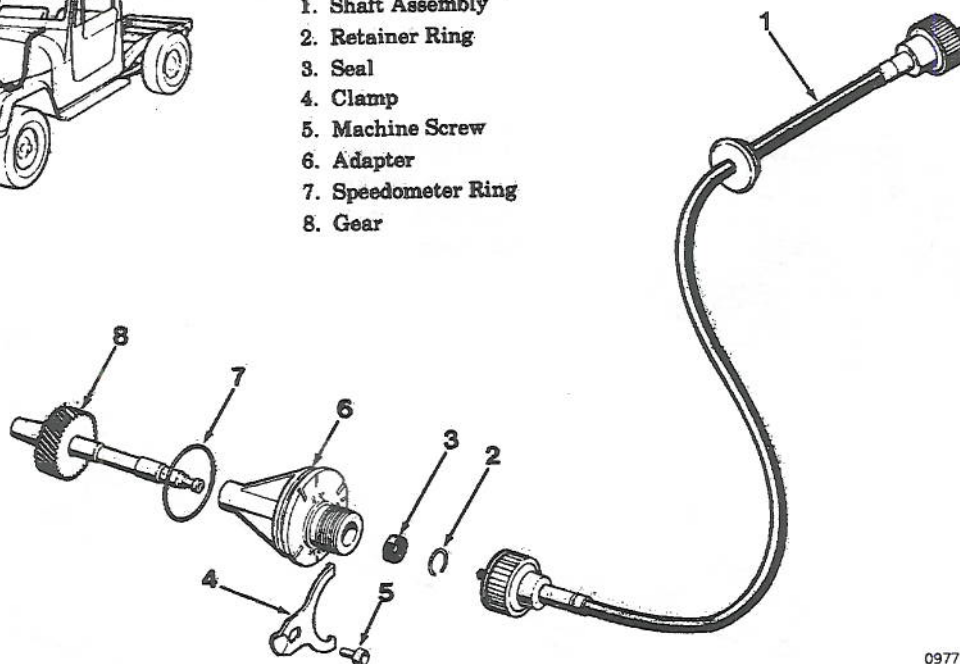
- (1) Install speedometer ring (7) and gear (8) on adapter (6).
- (2) Install seal (3) and retainer ring (2).
- (3) Install shaft assembly (1) on adapter (6).

f. Installation. Install speedometer cable group as follows:

- (1) Install gear (8) in speedometer gear in transfer case.
- (2) Install clamp (4) using machine screw (5).
- (3) Install shaft assembly (1) in speedometer.



1. Shaft Assembly
2. Retainer Ring
3. Seal
4. Clamp
5. Machine Screw
6. Adapter
7. Speedometer Ring
8. Gear



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Figure 5-185. *Speedometer Cable Group*



5-5.10.12 *Heater Hose Group*. Refer to figure 5-186, and perform the following steps to overhaul the heater hose group. If vehicle is equipped with the optional winterization kit, refer to paragraph 5-5.12 for modification of the heater hose group.

a. Removal and disassembly. Disassembly is accomplished during removal. Remove the heater hose group as follows:

- (1) Remove tie wrap (1).
- (2) Remove four hose clamps (6), heater hose (4), hot water hose (5) and seal (10).
- (3) Remove screw and washer (3) and two clips (2).
- (4) Remove hose clamp (7), heater drain hose (8) and seal (9).

b. Cleaning and inspection. Refer to paragraphs 5-4.3 and 5-4.4 for general cleaning and inspection procedures.

c. Repair and replacement. Replace all worn or damaged parts.

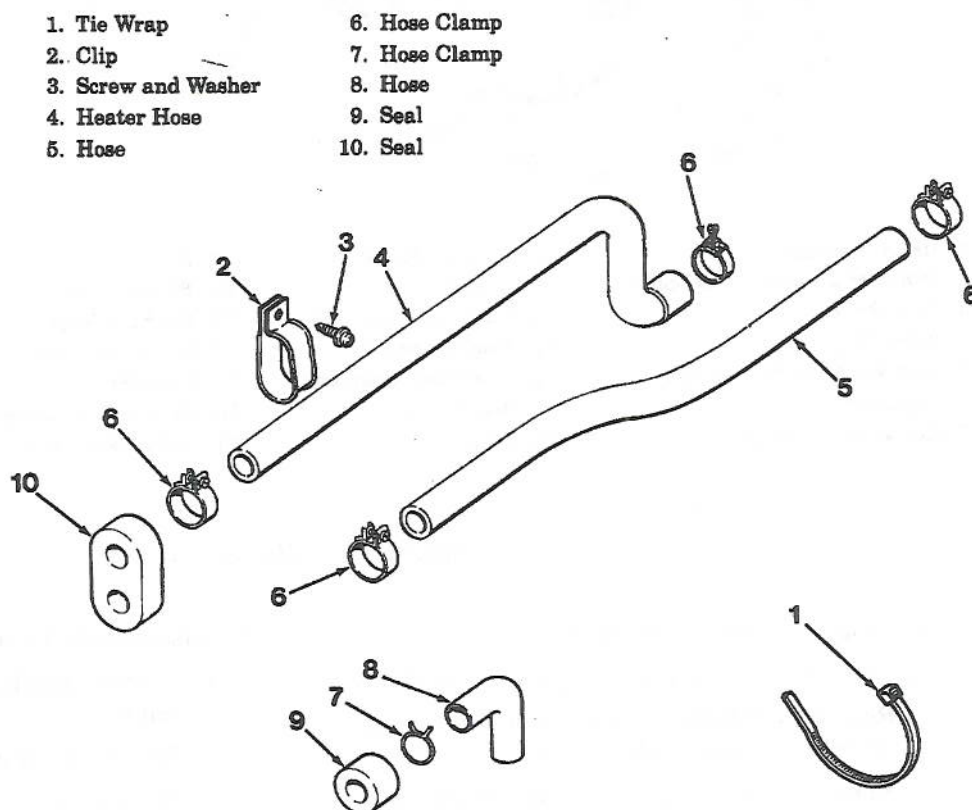
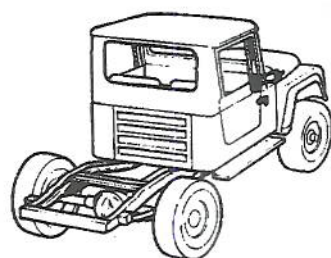
d. Assembly and installation. Assembly of the heater hose group is accomplished during installation. Install the heater hose group as follows:

- (1) Install seal (9), heater drain hose (8) and hose clamp (7).
- (2) Install two clips (2) and screw and washer (3).
- (3) Install seal (10), hot water hose (5), heater hose (4) and four hose clamps (6).
- (4) Install tie wrap (1).

5-5.10.13 *Heater Group*. Refer to figure 5-187, and perform the following steps to overhaul the heater group.

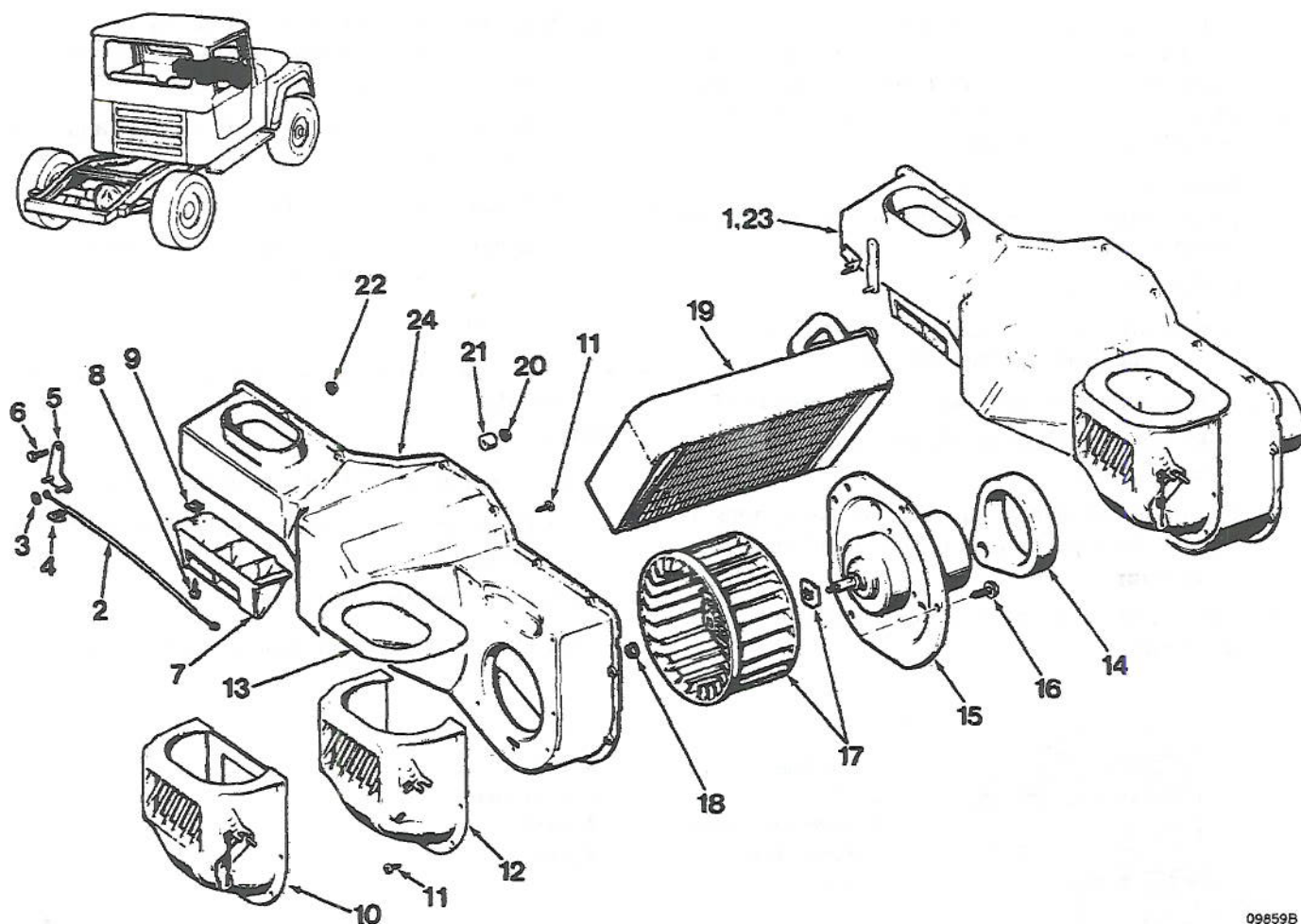
a. Removal. Remove heater group as follows:

- (1) Drain approximately 2 quarts of coolant from radiator.
- (2) Disconnect heater hoses.
- (3) Disconnect damper door control cables.



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Figure 5-186. Heater Hose Group



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- |                                 |  |                          |  |
|---------------------------------|--|--------------------------|--|
| 1. Heater Assembly              | 8. Machine Screw                         | 14. Seal                 | 21. Spacer                                 |
| 2. Temperature Control Assembly | 9. U-Nut                                 | 15. Blower Motor         | 22. Nut and Washer                         |
| 3. Push-On Nut                  | 10. Inlet Case Assembly                  | 16. Machine Screw        | 23. Heater Motor<br>(less core, fan motor) |
| 4. Speed Clip                   | 11. Machine Screw                        | 17. Blower Fan w/nut     | 24. Heater Case                            |
| 5. Link and Pivot Pin Assembly  | 12. Inlet Case Assembly<br>(less damper) | 18. Plain Nut            |  |
| 6. Capcrew                      | 13. Seal                                 | 19. Heater Core Assembly |  |
| 7. Heater Outlet Adapter        |  | 20. Self-Locking Nut     |  |

Figure 5-187. Heater Group

- (4) Disconnect blower motor wire.
- (5) Disconnect water drain hose and defroster hose.
- (6) Remove self-locking nuts (20) and spacers (21) from heater case studs.
- (7) Remove heater assembly (1) by tilting down to disengage from air inlet duct and pulling to rear of vehicle.

## b. Disassembly. Disassemble heater group as follows:

- (1) Remove machine screws (11) from heater assembly (1).
- (2) Remove back of heater assembly (1).
- (3) Remove heater core assembly (19).
- (4) Remove nut (18) and blower fan and nut (17).

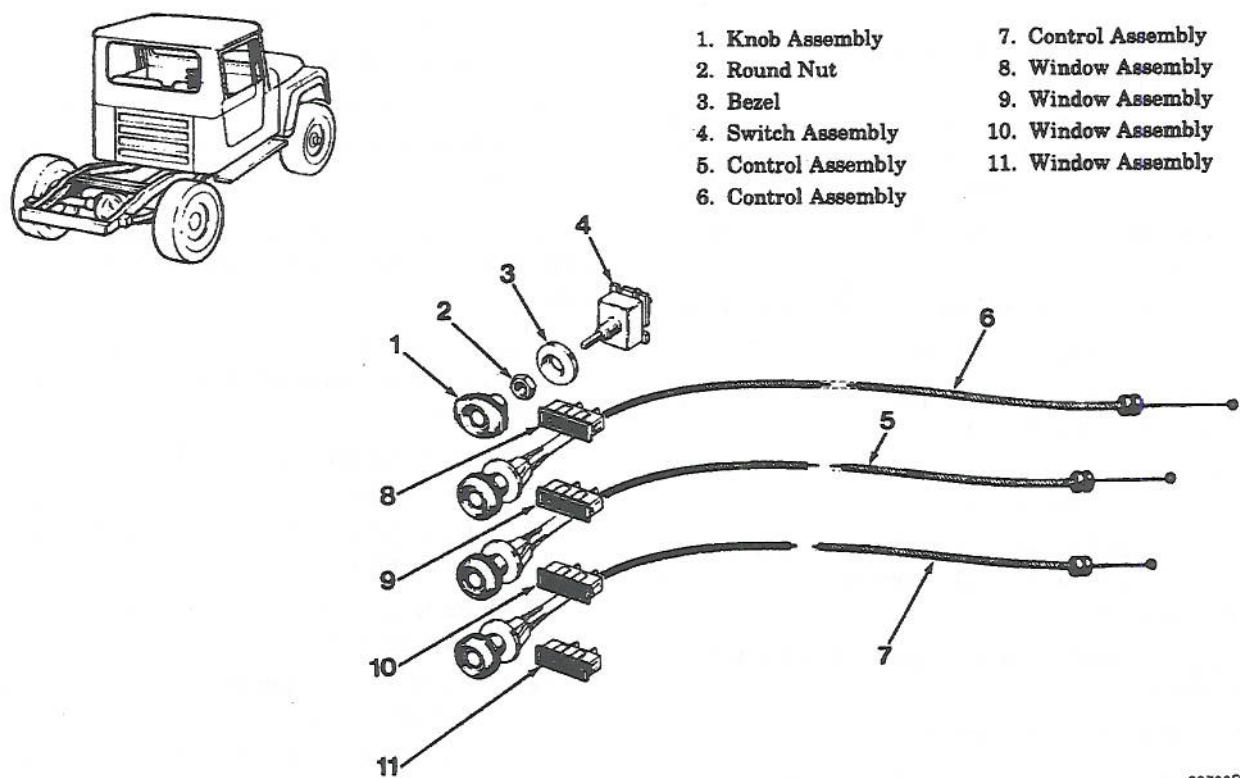


- (5) Remove machine screws (16) and blower motor (15).
- (6) Remove blower motor seal (14) from blower motor (15).
- (7) Remove machine screws (11) connecting inlet case assembly (10) to heater case (24) and remove inlet case assembly (10).
- (8) Remove air duct seal (13) from inlet case assembly (10).
- (9) Remove nut and washer (22) and capscrew (6).
- (10) Remove link and pivot pin assembly (5).
- (11) Remove speed clip (4), push nut (3) and temperature control assembly (2).
- (12) Remove machine screw (8), spring U-nut (9) and heater outlet adapter (7).
- c. Cleaning and inspection. Refer to paragraphs 5-4.3 and 5-4.4 for general cleaning and inspection procedures.
- d. Repair and replacement. Replace all worn or damaged parts.
- e. Assembly. Assemble heater as follows:
  - (1) Install heater outlet adapter (7) using machine screw (8) and spring U-nut (9).
  - (2) Install temperature control assembly (2) using push nut (3).
  - (3) Install speed clip (4).
  - (4) Install link and pivot pin assembly (5) using capscrew (6) and nut and washer (22).
  - (5) Install air duct seal (13) and damper from inlet case assembly (10).
  - (6) Install inlet case assembly (10) or (12) on heater case (24) using machine screws (11).
  - (7) Install blower motor seal (14) and install blower motor (15) using machine screws (16).
  - (8) Insert stem of blower motor (15) through back of heater assembly (1).
  - (9) Install blower fan and nut (17) and nut (18).
  - (10) Install heater core assembly (19).
  - (11) Install back of heater assembly (1) using machine screws (11).
- f. Installation. Install heater as follows:
  - (1) Install heater assembly in vehicle using selflocking nuts (20) and spacers (21).

- (2) Connect water drain hose and defroster hose.
- (3) Connect blower motor wire.
- (4) Connect damper door control cables.
- (5) Connect heater hoses.
- (6) Add approximately 2 quarts of coolant to radiator.

5-5.10.14 *Heater Controls*. Refer to figure 5-188, and perform the following steps to overhaul the heater controls.

- a. Removal and disassembly. Disassembly is accomplished during removal. Remove heater controls as follows:
  - (1) Refer to paragraph 5-5.10.13 and remove control assembly (6).
  - (2) Refer to paragraph 5-5.10.15 and remove control assembly (7).
  - (3) Refer to paragraph 5-5.10.16 and remove control assembly (5).
  - (4) Remove knob assembly (1), nut (2), bezel (3) and switch assembly (4).
  - (5) Refer to paragraph 5-5.10.18 and remove control assemblies (5), (6) and (7).
  - (6) Remove window assemblies (8), (9), (10) and (11).
- b. Cleaning and inspection. Refer to paragraphs 5-4.3 and 5-4.4 for general cleaning and inspection procedures.
- c. Repair and replacement. Replace all worn or damaged parts.
- d. Assembly and installation. Assembly is accomplished during installation. Install heater controls as follows:
  - (1) Install window assemblies (8), (9), (10) and (11).
  - (2) Refer to paragraph 5-5.10.18 and install control assemblies (5), (6) and (7).
  - (3) Install knob assembly (1), nut (2), bezel (3) and switch assembly (4).
  - (4) Refer to paragraph 5-5.10.16 and install control assembly (5).
  - (5) Refer to paragraph 5-5.10.13 and install control assembly (6).
  - (6) Refer to paragraph 5-5.10.15 and install control assembly (7).



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Figure 5-188. Heater Controls

5-5.10.15 *Defroster Duct Group*. Refer to figure 5-189, and perform the following steps to overhaul the defroster duct group.

a. Removal and disassembly. Disassembly is accomplished during removal. Remove defroster duct as follows:

- (1) Remove machine screws (2) and (4) and remove left air deflector (1) and right air deflector (3).
- (2) Disconnect negative battery cable.
- (3) Drain 2 quarts of coolant from radiator.
- (4) Refer to paragraph 5-5.10.12 and remove heater hoses.
- (5) Remove drain tube from heater housing.
- (6) Remove screw attaching heater motor housing to bracket.
- (7) Remove nuts attaching heater housing to dash panel from engine compartment.
- (8) Disconnect speedometer cable.
- (9) Remove glove box.

(10) Tilt heater housing assembly back. Pull to rear and lower housing.

(11) Disconnect heater control cables.

(12) Remove fresh air cover panel from cowl.

(13) Remove fresh air intake duct assembly.

(14) Lower windshield.

(15) Remove machine screws (7).

(16) Remove defroster nozzle (6) and hose (5).

(17) Separate defroster nozzle (6) and hose (5).

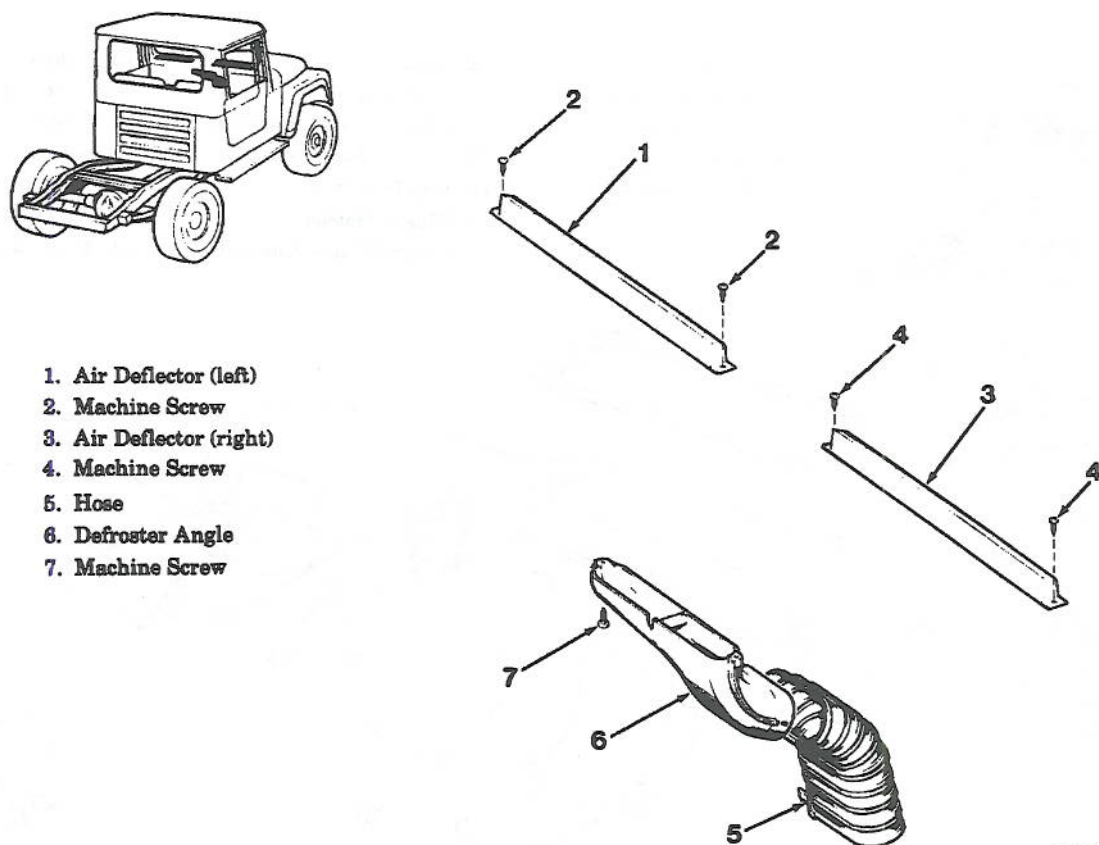
b. Cleaning and inspection. Refer to paragraphs 5-4.3 and 5-4.4 for general cleaning and inspection procedures.

c. Repair and replacement. Replace all worn or damaged parts.

d. Assembly and installation. Assembly is accomplished during installation. Install defroster duct group as follows:

- (1) Connect defroster nozzle (6) and hose (5).



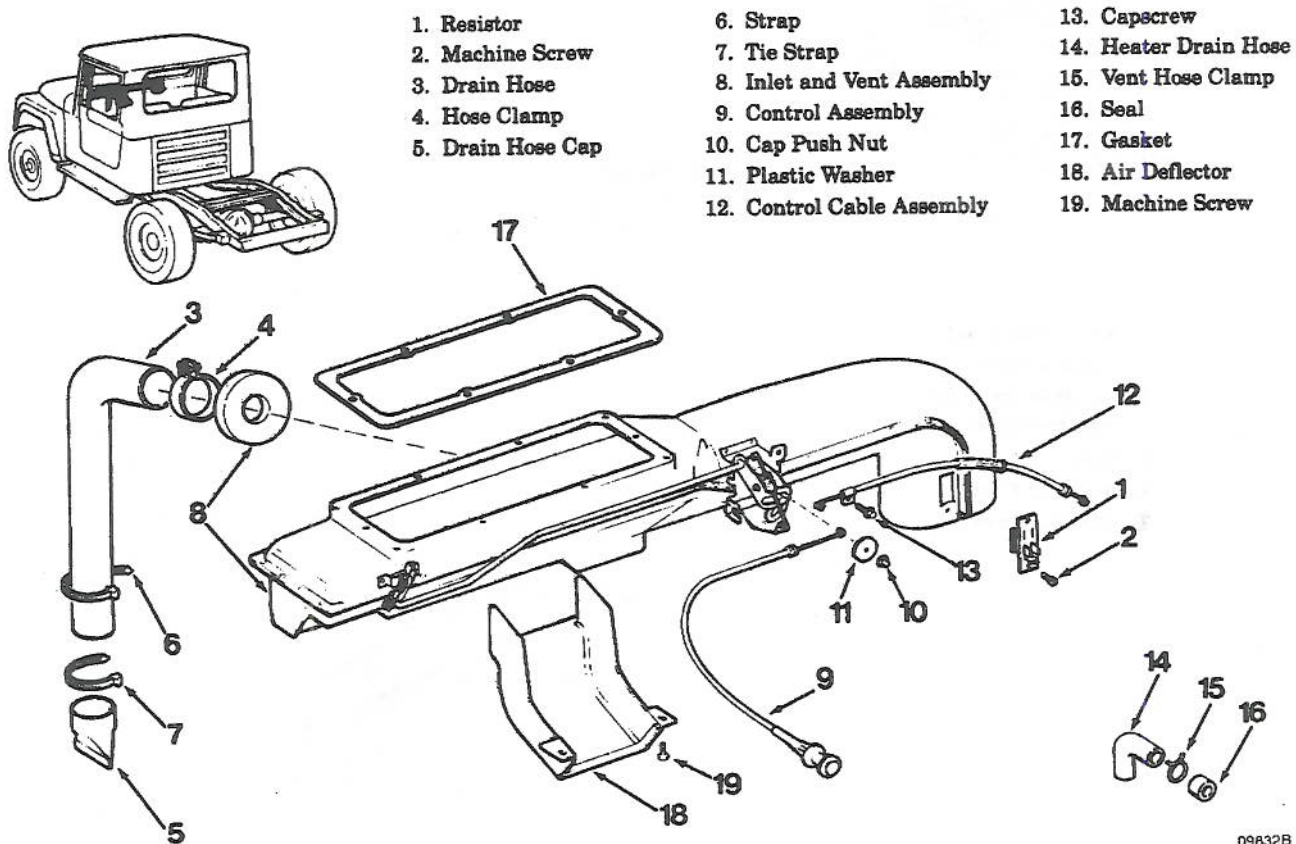


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Figure 5-189. Defroster Duct Group

- (2) Position defroster nozzle (6) and hose (5) and install using machine screws (7).
  - (3) Raise windshield and secure.
  - (4) Install fresh air intake duct assembly.
  - (5) Install fresh air cover panel from cowl.
  - (6) Connect heater control cables.
  - (7) Position heater housing assembly.
  - (8) Install glove box.
  - (9) Connect speedometer cable.
  - (10) Install nuts attaching heater housing to dash panel to engine compartment.
  - (11) Install screw attaching heater motor housing to bracket.
  - (12) Install drain tube on heater housing.
  - (13) Refer to paragraph 5-5.10.12 and install heater hoses.
  - (14) Add 2 quarts of coolant to radiator.
  - (15) Connect battery negative cable.
  - (16) Install left and right air deflector (1) and (3) using screws (2) and (4).
- 5-5.10.16 *Fresh Air Intake Group*. Refer to figure 5-190, and perform the following steps to overhaul the fresh air intake group.
- a. Removal and disassembly. Disassembly is accomplished during removal. Remove the fresh air intake group as follows:
    - (1) Disconnect negative battery cable.
    - (2) Drain 2 quarts of antifreeze from radiator.
    - (3) Remove heater hoses.
    - (4) Remove heater drain hose (14); remove vent hose clamp (15) and seal (16) from heater drain hose (14).
    - (5) Remove screw attaching heater motor housing to bracket.





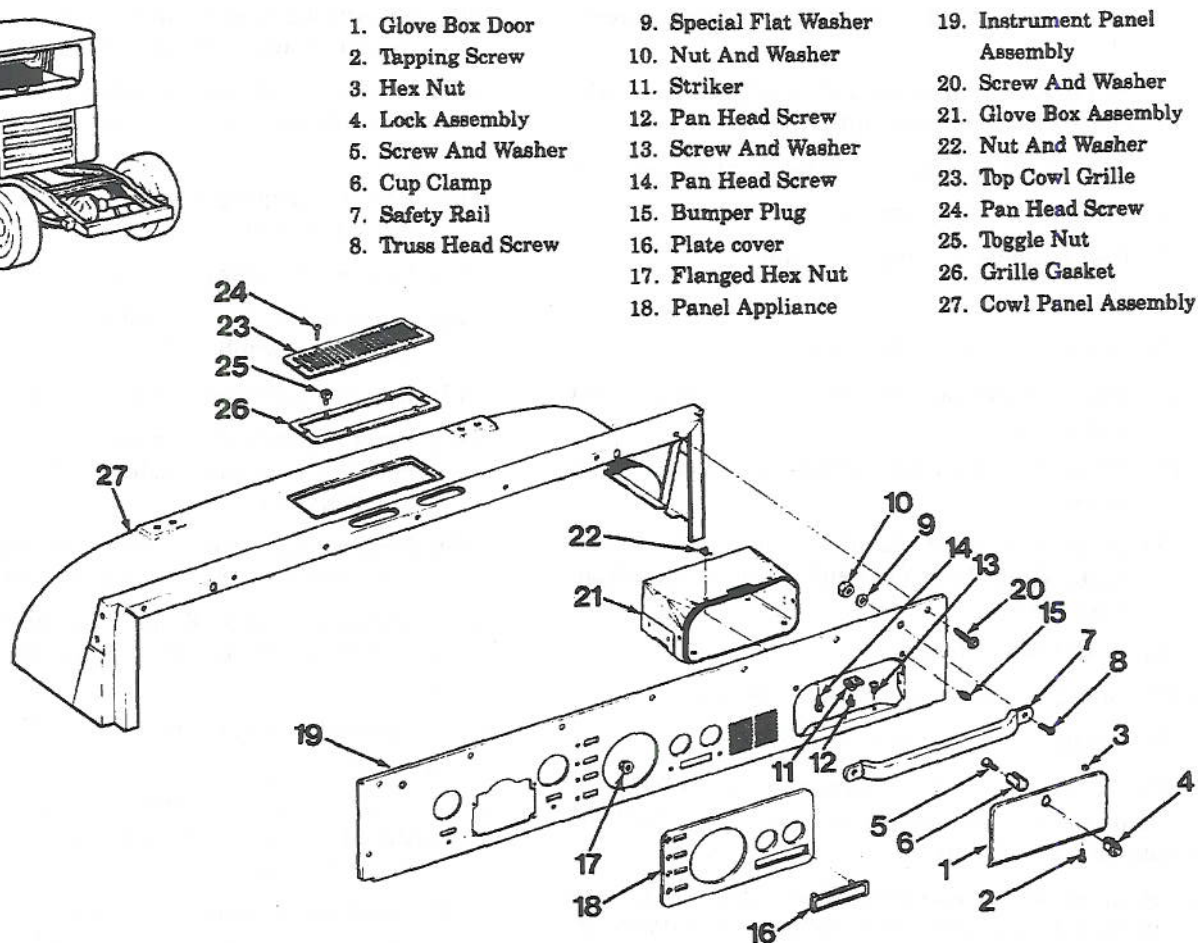
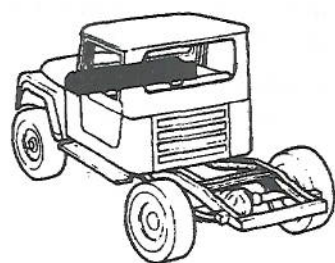
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Figure 5-190. Fresh Air Intake Group

- (6) Remove nuts attaching heater housing to dash panel from engine compartment.
  - (7) Disconnect speedometer cable.
  - (8) Remove glovebox.
  - (9) Tilt heater housing assembly back. Pull to rear and lower housing.
  - (10) Disconnect heater control cables.
  - (11) Remove capscrew (13) and control cable assembly (12).
  - (12) Remove push nut (10), plastic washer (11) and control assembly (9).
  - (13) Remove machine screws (19) and air deflector (18).
  - (14) Loosen hose clamp (4) and remove drain hose (3).
  - (15) Remove strap (6), tie strap (7) and drain hose cap (5).
  - (16) Remove machine screw (2) and resistor (1).
  - (17) Remove inlet and vent assembly (8).
  - (18) Remove gasket (17).
- b. Cleaning and inspection. Refer to paragraphs 5-4.3 and 5-4.4 for general cleaning and inspection procedures.
- c. Repair and replacement. Replace all worn or damaged parts.
- d. Assembly and installation. Assembly is accomplished during installation. Install fresh air intake group as follows:
- (1) Install gasket (17) on inlet and vent assembly (8).
  - (2) Install inlet and vent assembly (8).
  - (3) Install resistor (1) using machine screw (2).
  - (4) Install drain hose cap (5) on drain hose (3) using strap (6) and tie strap (7).
  - (5) Install drain hose (3) using hose clamp (4).

- (6) Install air deflector (18) using machine screws (19).
  - (7) Install control assembly (9) using plastic washer (11) and cap push nut (10).
  - (8) Install cable assembly (12) using capscrew (13).
  - (9) Connect heater control cables.
  - (10) Position heater housing assembly.
  - (11) Install glovebox.
  - (12) Connect speedometer cable.
  - (13) Install heater housing assembly to dash panel using nuts.
  - (14) Install heater motor housing to bracket using screw.
  - (15) Install vent hose clamp (15) and seal (16) on heater drain hose (14) and install heater drain hose (14).
  - (16) Install heater hoses.
  - (17) Add 2 quarts of antifreeze to radiator.
  - (18) Connect negative battery cable.
- 5-5.10.17 *Instrument Panel Group*. Refer to figure 5-191, and perform the following steps to overhaul the instrument panel group.
- a. Removal and disassembly. Disassembly is accomplished during removal. Remove instrument panel group as follows:
    - (1) Disconnect battery negative cable.
    - (2) Remove steering column bezel.
    - (3) Disconnect speedometer cable.
    - (4) Disconnect heater cables from damper door levers.
    - (5) Remove windshield clamp knobs and brackets.
    - (6) Refer to paragraph 5-5.9.13 and remove hard-top enclosure.
    - (7) Fold windshield down onto hood.
    - (8) Disconnect all electrical connections.
    - (9) Refer to paragraph 5-5.4.1 and remove steering wheel.
    - (10) Remove screws and washers (20) and remove instrument panel assembly (19) from cowl panel assembly (27).
    - (11) Remove panel applique (18) and remove plate cover (16).
  - (12) Remove flanged hex nut (17); refer to paragraph 5-5.10.19 and remove instrument cluster.
  - (13) Remove truss head screws (8), nuts and washers (10), special flat washers (9) and safety rail (7).
  - (14) Remove tapping screws (2), hex nuts (3) and glove box door (1).
  - (15) Remove bumper plugs (15).
  - (16) Remove screw and washer (5), cup clamp (6) and lock assembly (4).
  - (17) Remove pan head screws (12) and striker (11).
  - (18) Remove pan head screws (14), screws and washers (13), nuts and washers (22) and glove box assembly (21).
  - (19) Remove pan head screws (24), top cowl grille (23), toggle nut (25) and grille gasket (26).
  - b. Cleaning inspection. Refer to paragraphs 5-4.3 and 5-4.4 for general cleaning and inspection procedures.
  - c. Repair and replacement. Replace all worn or damaged parts.
  - d. Assembly and installation. Assembly is accomplished during installation. Install instrument panel group as follows:
    - (1) Install grille gasket (26), toggle nut (25) and top cowl grille (23) using pan head screws (24) in cowl panel assembly (27).
    - (2) Install glove box assembly (21) using pan head screws (14), screws and washers (13) and nuts and washers (22).
    - (3) Install striker (11) using pan head screws (12).
    - (4) Install lock assembly (4) and cup clamp (6) using screw and washer (5).
    - (5) Install bumper plugs (15).
    - (6) Install glove box door (1) using tapping screws (2) and hex nuts (3).
    - (7) Install safety rail (7) using truss head screws (8), special flat washers (9) and nuts and washers (10).
    - (8) Refer to paragraph 5-5.10.19 and install instrument cluster using flanged hex nut (17).
    - (9) Install plate cover (16) in panel applique (18) and install panel applique (18) in instrument panel (19).





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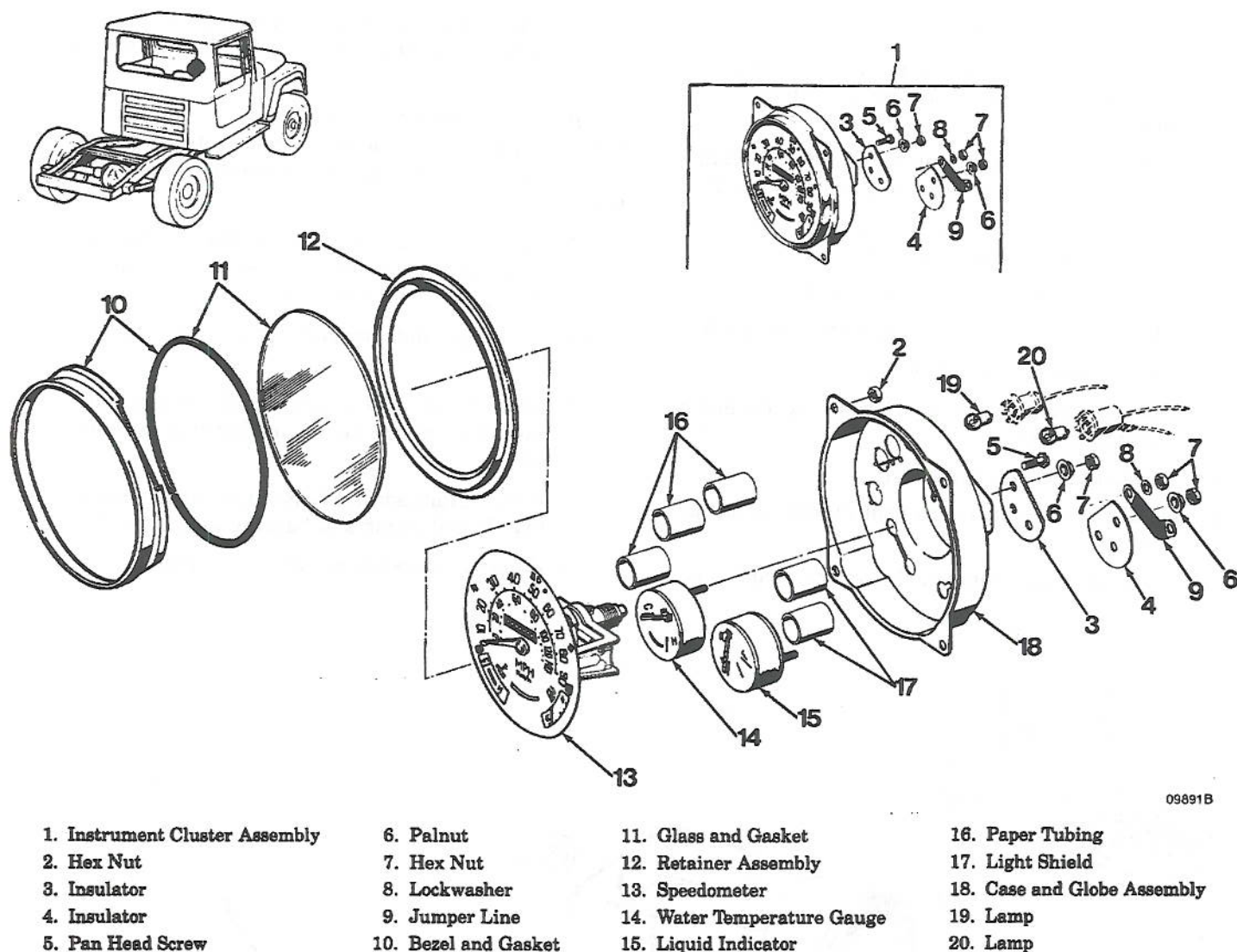
Figure 5-191. Instrument Panel Group

- (10) Install instrument panel assembly (19) in cowl panel assembly (27) using screws and washers (20).
- (11) Refer to paragraph 5-5.4.1 and install steering wheel.
- (12) Connect all electrical connections.
- (13) Raise windshield to upright position.
- (14) Refer to paragraph 5-5.9.13 and install hardtop enclosure.
- (15) Install windshield brackets and clamp knobs.
- (16) Connect heater control knobs to damper door levers.
- (17) Connect speedometer cable.
- (18) Install steering column bezel on instrument panel and install attaching screws.
- (19) Connect battery negative cable.

5-5.10.18 *Instrument Cluster Group.* Refer to figure 5-192, and perform the following steps to overhaul the instrument cluster group.

- a. Removal. Remove instrument cluster group as follows:
  - (1) Disconnect battery negative cable.
  - (2) Disconnect speedometer cable.
  - (3) Remove attaching screws and hex nuts (2) and instrument cluster assembly (1).
  - (4) Mark bulb and wire connectors and disconnect cluster electrical connectors and lamps.
- b. Disassembly. Disassemble instrument cluster group as follows:
  - (1) Remove bezel and gasket (10) from case and globe assembly (18).
  - (2) Remove glass and gasket (11) from case and globe assembly (18).





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Figure 5-192. Instrument Cluster Group

- (3) Remove retainer assembly (12).
  - (4) Remove speedometer (13) and paper tubing (16).
  - (5) Remove pan head screws (5).
  - (6) Remove hex nuts (7), palnuts (6), jumper link (9) and insulators (3) and (4).
  - (7) Remove water temperature gauge (14), liquid indicator (15) and light shields (17).
  - (8) Remove lamps (19) and (20).
- c. Cleaning and inspection. Refer to paragraphs 5-4.3 and 5-4.4 for general cleaning and inspection procedures.
- d. Repair and replacement. Replace all worn or damaged parts.
  - e. Assembly. Assemble instrument cluster group as follows:
    - (1) Install lamps (19) and (20).
    - (2) Install water temperature gauge (14), liquid indicator (15) and light shields (17).
    - (3) Install insulators (3) and (4), jumper link (9), palnuts (6) and hex nuts (7).
    - (4) Install pan head screws (5).

**NOTE**

If reinstalling old speedometer, the following odometer setting procedures need not be performed.

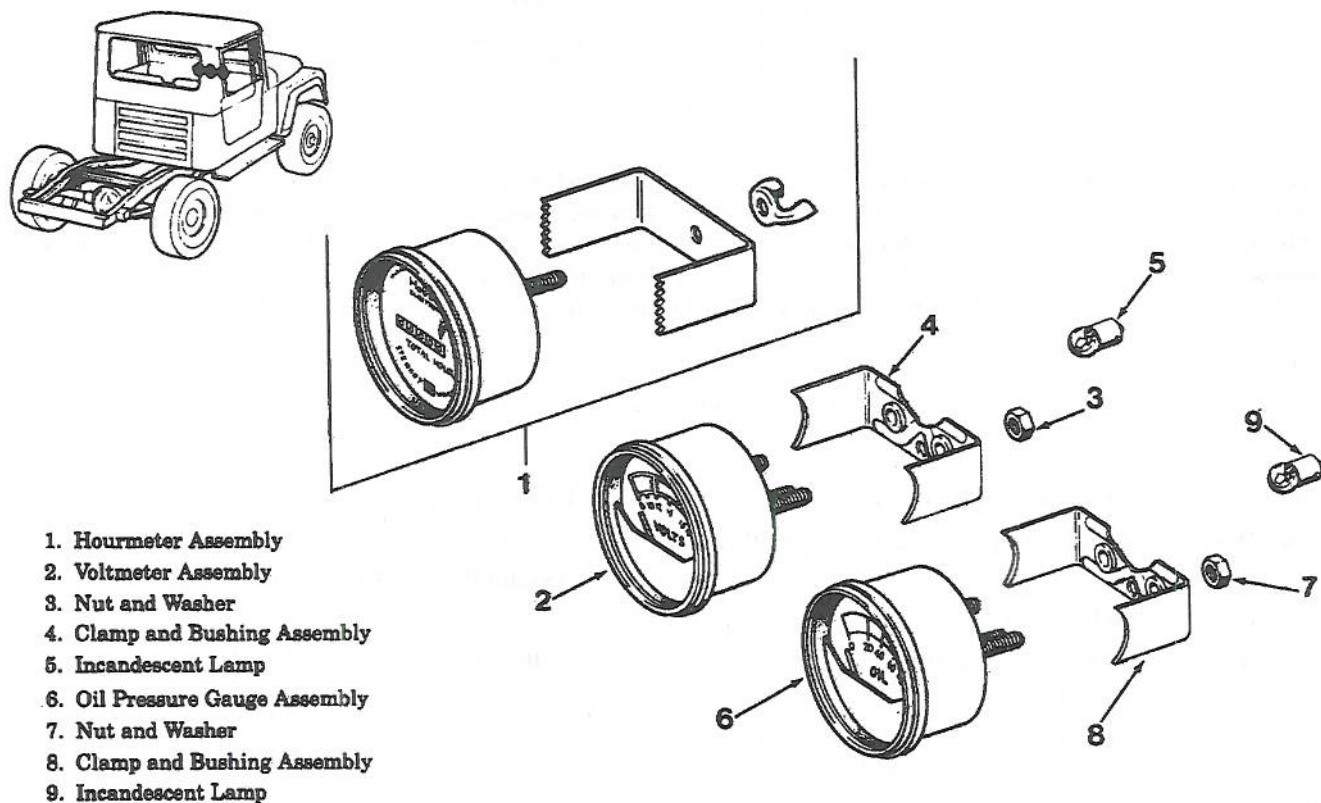
- (5) On new speedometer, unhook odometer retaining clip. Twist and push down to disengage clip.
  - (6) Remove odometer and set to mileage on odometer of old speedometer (13).
  - (7) Install odometer in speedometer (13).
  - (8) Install speedometer (13) and paper tubing (16).
  - (9) Install retainer assembly (12).
  - (10) Install glass and gasket (11) from case and globe assembly (18).
  - (11) Install bezel and gasket (10)
- f. Installation. Install instrument cluster group as follows:
- (1) Connect cluster lamps and electrical connectors.

- (2) Install instrument cluster assembly (1) on instrument panel using attaching screws and hex nuts (2).

5-5.10.19 *Instruments Including Hourmeter Group.* Refer to figure 5-193, and perform the following steps to overhaul the instruments including hourmeter group.

- a. Removal and disassembly. Disassembly is accomplished during removal. Remove the instruments including hourmeter group as follows:

- (1) Mark bulb and wire connectors, instrument cables.
- (2) Remove nut and washers (7), oil pressure gauge assembly (6) and clamp and bushing assembly (8).
- (3) Remove nuts and washers (3), voltmeter assembly (2) and clamp and bushing assembly (4).
- (4) Remove incandescent lamps (9) and (5).



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Figure 5-193. Instruments Including Hourmeter Group



- (5) Remove wingnut and hourmeter assembly (1).
- b. Cleaning and inspection. Refer to paragraphs 5-4.3 and 5-4.4 for general cleaning and inspection procedures.
- c. Repair and replacement. Replace all worn or damaged parts.
- d. Assembly and installation. Assembly is accomplished during installation. Install the instruments including hourmeter group as follows:
  - (1) Install hourmeter assembly (1) and tighten wingnut.
  - (2) Install incandescent lamps (9) and (5).
  - (3) Install voltmeter assembly (2) and clamp and bushing assembly (4) using nuts and washers (3).
  - (4) Install oil pressure gauge assembly (6) and clamp and bushing assembly (8) using nuts and washers (7).
  - (5) Connect instrument cables.

5-5.10.20 *Instrument Panel Switch Group*. Refer to figure 5-194 and perform the following steps to overhaul the instrument panel switch group.

- a. Removal and disassembly. Disassembly is accomplished during removal. Remove instrument panel switch group as follows:
  - (1) Refer to paragraph 5-5.10.17 and remove instrument panel.
  - (2) Remove wiring connector from window assembly (14) and remove window assembly (14).
  - (3) Remove knob assembly (9).
  - (4) Remove nut (10), bezel (11) and switch (12).
  - (5) Remove wiring connector from switch assembly (8); disconnect wiring harness (13) and remove switch assembly (8) and wiring harness (13).
  - (6) Remove knob and shaft assembly (4).
  - (7) Remove wiring connector from switch assembly (7).

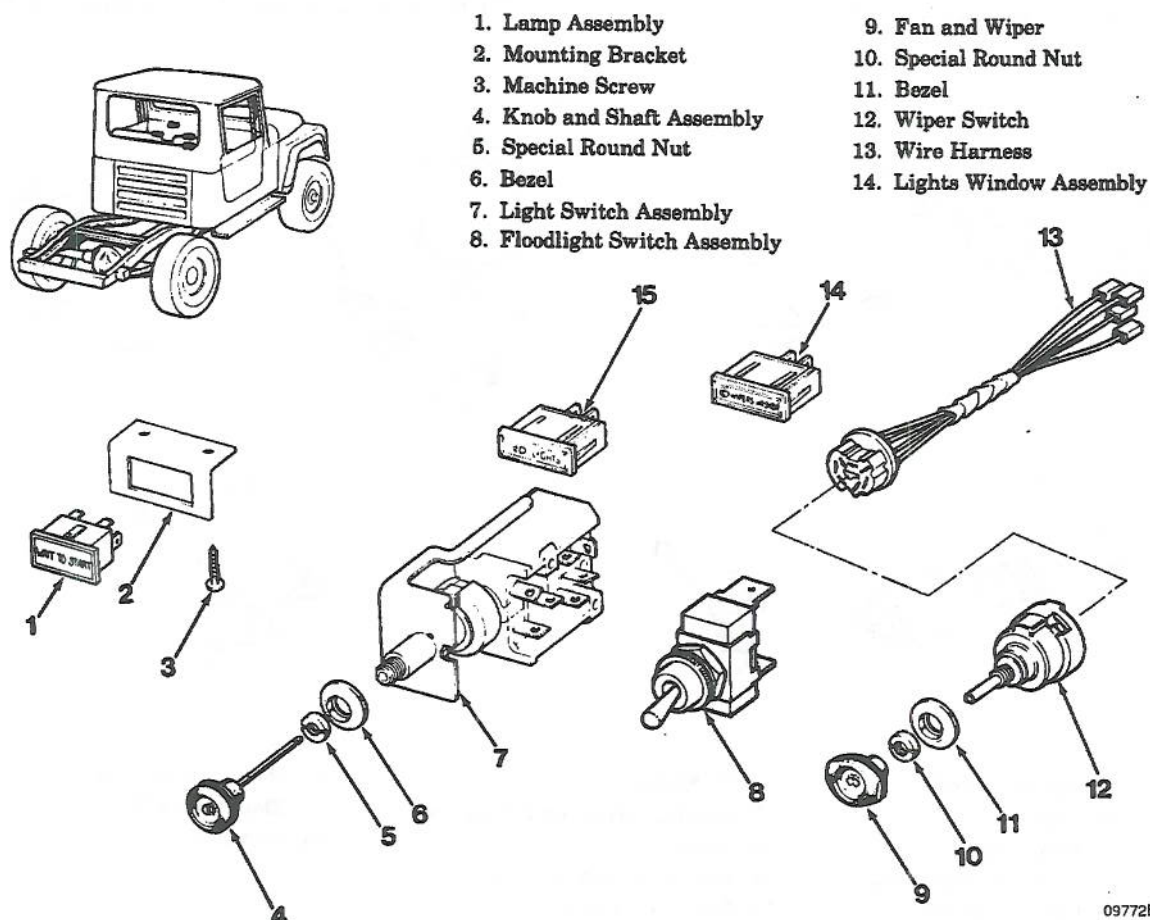


Figure 5-194. Instrument Panel Switch Group



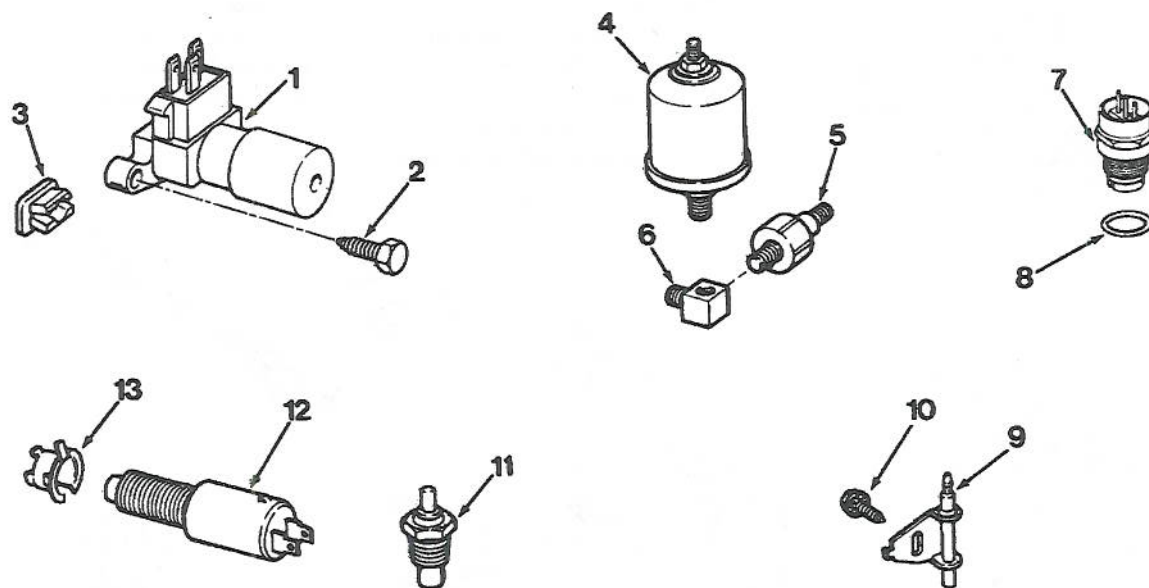
- (8) Remove nut (5), bezel (6) and switch assembly (7).
- (9) Remove machine screw (3) and mounting bracket (2).
- (10) Remove wiring connector from lamp assembly (1) and remove lamp assembly (1).
- b. Cleaning and inspection. Refer to paragraphs 5-4.3 and 5-4.4 for general cleaning and inspection procedures.
- c. Repair and replacement. Replace all worn or damaged parts.
- d. Assembly and installation. Assembly is accomplished during installation. Install instrument panel switch group as follows:
  - (1) Install lamp assembly (1) and connect wiring connector.
  - (2) Install bracket assembly (2) and machine screw (3).
  - (3) Install switch assembly (7) and connect wiring connector.
  - (4) Install bezel (6) and nut (5).

- (5) Install knob and shaft assembly (4).
- (6) Install switch assembly (8) and wiring harness (13); connect wiring connector.
- (7) Install wiper switch (12) and connect wiring connector.
- (8) Install bezel (11) and nut (10).
- (9) Install fan and wiper knob assembly (9).
- (10) Install window assembly (14) and connect wiring connector.
- (11) Refer to paragraph 5-5.10.17 and install instrument panel.

5-5.10.21 *Miscellaneous Switches Group*. Refer to figure 5-195, and perform the following steps to overhaul the miscellaneous switches group.

- a. Removal and disassembly. Disassembly is accomplished during removal. Remove miscellaneous switches group as follows:

- (1) Remove harness plug from dimmer switch (1).
- (2) Remove capscrew (2) and dimmer switch (1).



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1. Dimmer Switch
2. Capscrew
3. Snap Ring
4. Pressure Transmitter
5. Oil Pressure Switch

6. Y - Fitting
7. Neutral Safety and Backup Switch
8. Gasket
9. Parking Switch Assembly
10. Screw and Washer

11. Temperature Transmitter
12. Electrical Switch
13. Switch Retainer

Figure 5-195. Miscellaneous Switches Group

- (3) Remove snap ring (3).
- (4) Remove attaching screws and remove neutral backup and safety switch (7) and gasket (8) from steering column.
- (5) Remove screw and lockwasher (10) and parking brake switch assembly (9).
- (6) Remove brake pedal and remove wiring harness from electrical switch (12).
- (7) Remove electrical switch (12) from switch retainer (13).
- (8) Remove pressure transmitter (4), oil pressure switch (5) and Y-fitting (6).
- (9) Refer to paragraph 5-5.1.11 and remove temperature transmitter (11).
- b. Cleaning and inspection. Refer to paragraphs 5-4.3 and 5-4.4 for general cleaning and inspection procedures.
- c. Repair and replacement. Replace all worn or damaged parts.
- d. Assembly and installation. Assembly is accomplished during installation. Install miscellaneous switches group as follows:
  - (1) Refer to figure 5-5.1.11 and install temperature transmitter (11).
  - (2) Install Y-fitting (6), oil pressure switch (5) and pressure transmitter (4).
  - (3) Install switch retainer (13) and electrical switch (12).
  - (4) Connect wiring connector to electrical switch (12) and install brake pedal.
  - (5) Install parking brake switch assembly (9) using screw and lockwasher (10).
  - (6) Install gasket (8) and neutral backup and safety switch (7) on steering column using screws.
  - (7) Install snap ring (3).
  - (8) Install dimmer switch (1) using capscrews (2).
  - (9) Connect harness plug to dimmer switch (1).

5-5.10.22 *Fuse Panel and Parts Group.* Refer to figure 5-196, and perform the following steps to overhaul the fuse panel and parts group.

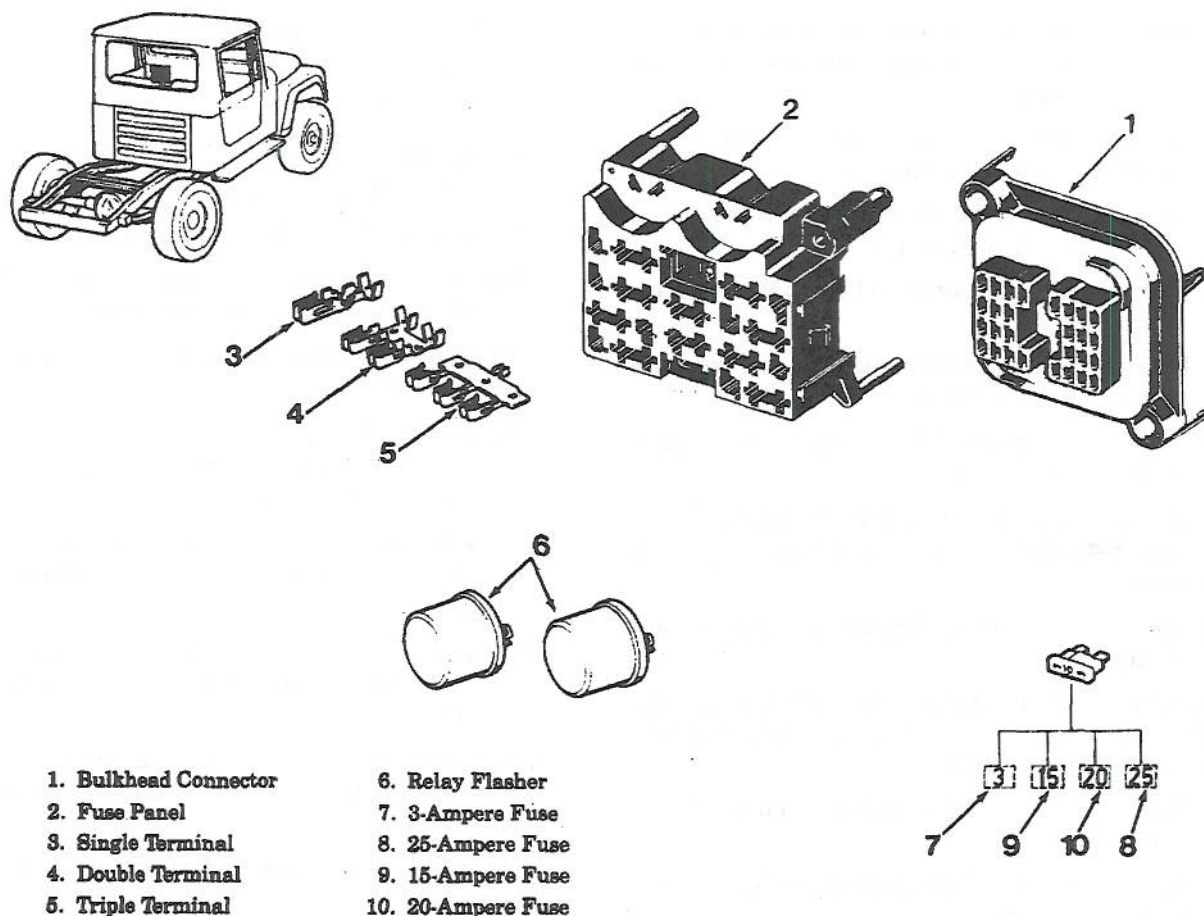
- a. Removal and disassembly. Disassembly is accomplished during removal. Remove fuse panel and parts group as follows:

#### NOTE

Remove all fuses from fuse panel before disassembly.

- (1) Disconnect battery negative cable.
- (2) Remove fuse panel (2) mounting screws and pull fuse panel (2) away from vehicle.
- (3) Remove relay flashers (6) from fuse panel (2).
- (4) Remove wiring from single terminals (3), double terminals (4) and triple terminal (5).
- (5) Remove terminals (3), (4) and (5) from back of fuse panel (2).
- (6) Remove 3-ampere fuse (7), 25-ampere fuse (18), 15-ampere fuse (9) and 20-ampere fuse (10) from bulkhead connector (1).
- (7) Remove screws attaching bulkhead connector (1) to vehicle and pull bulkhead connector (1) away from vehicle.
- (8) Remove wiring from back of bulkhead connector (1) and remove bulkhead connector (1) from vehicle.
- b. Cleaning inspection. Refer to paragraphs 5-4.3 and 5-4.4 for general cleaning and inspection procedures.
- c. Repair and replacement. Replace all worn or damaged parts.
- d. Assembly and installation. Assembly is accomplished during installation. Install fuse panel and parts group as follows:
  - (1) Position bulkhead connector (1) in vehicle and connect wiring to it.
  - (2) Install bulkhead on vehicle using attaching screws.
  - (3) Install 20-ampere fuse (10), 15-ampere fuse (9), 25-ampere fuse (8) and 3-ampere fuse (7).
  - (4) Install single terminals (3), double terminals (4) and triple terminals (5) on back of fuse panel (1).
  - (5) Install wiring on terminals (3), (4) and (5).
  - (6) Install relay flashers (6) on fuse panel (1).
  - (7) Install fuse panel (1) on vehicle.
  - (8) Connect negative battery cable and install fuses in fuse panel (1).





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Figure 5-196. Fuse Panel and Parts Group

5-5.10.23 *Directional, Ignition and Hazard Switches Group.* Refer to figure 5-197, and perform the following steps to overhaul the directional, ignition and hazard switches group.

a. Removal and disassembly. Disassembly is accomplished during removal. Remove directional, ignition and hazard switches group as follows:

- (1) Disconnect negative battery cable.
- (2) Remove horn center button by pulling straight out.
- (3) Remove screws, bushing, receiver and spring.
- (4) Remove steering wheel nut.

#### NOTE

Before removing steering wheel, note alignment of steering wheel to steering shaft index marks for later assembly reference.

- (5) Remove steering wheel with steering wheel puller #J-21232-01.
- (6) Remove lockplate cover.
- (7) Use lockplate compressor tool #J-23653 to depress lockplate.
- (8) Remove snap ring from steering shaft groove.
- (9) Remove lockplate compressor tool, snap ring and lockplate.
- (10) Remove retainer (1), pin (2), spring (3) and cam (4).
- (11) Remove upper bearing preload spring and thrust washer.
- (12) Place lever assembly (5) in right hand turn position, remove screw (6) and remove lever.
- (13) Depress hazard knob (11) and remove it by turning in counterclockwise direction.