BODY COMPONENTS—XJ VEHICLES

CONTENTS

GENERAL BODY SERVICE INFORMATION

RIGHT HAND DRIVE VEHICLES

The XJ Body Components procedures in this section were developed on a left hand drive (LHD) vehicle. Unless a component is unique to a right hand drive vehicle, it will not be specifically covered in this section, i.e. cargo barrier. In general, components on left hand drive vehicles will be located on the opposite side in right hand drive vehicles.

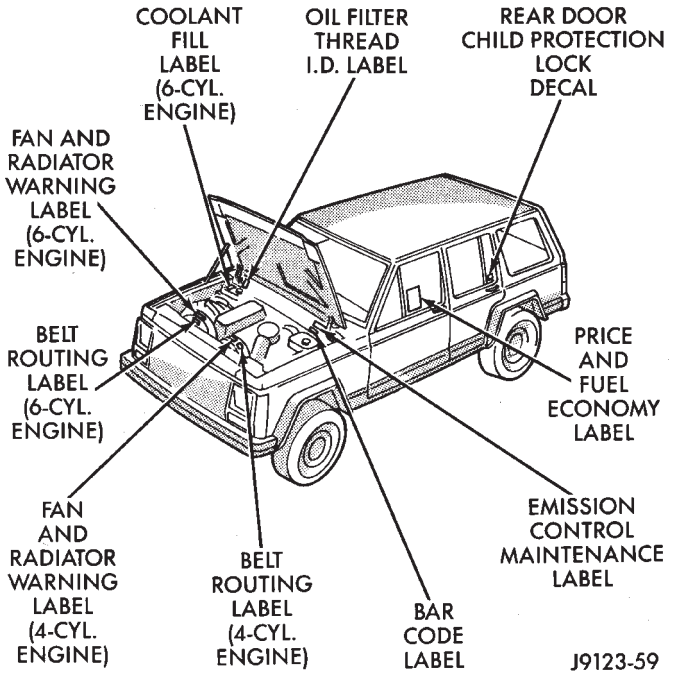


Fig. 1 XJ Underhood & Window Glass Labels/Decals

LABELS/DECALS/PLATES

Most of the labels that are affixed to the vehicles (Figs. 1 through 5) contain safety or maintenance information. If a body component or window glass are replaced, a replacement label should be installed. In most cases, label location on right hand drive (RHD) vehicles will be on the opposite side of the vehicle.

Refer to the Introduction of this manual for more information involving labels and plates.

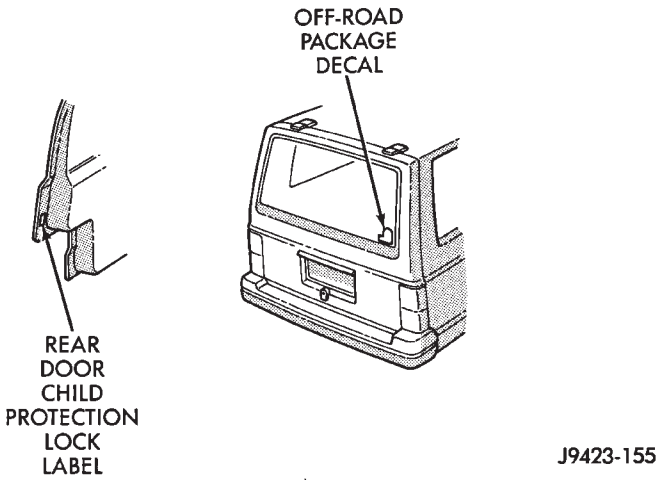


Fig. 2 XJ Exterior Labels/Decals

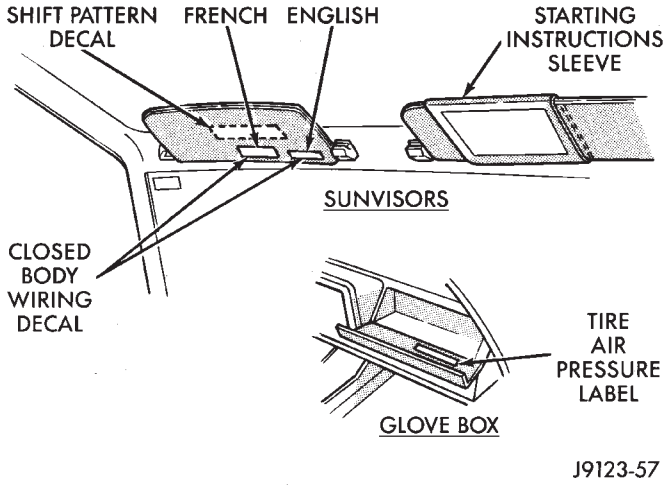


Fig. 3 XJ Interior Labels/Decals

INSTALLATION

Follow the instructions included with each replacement label.

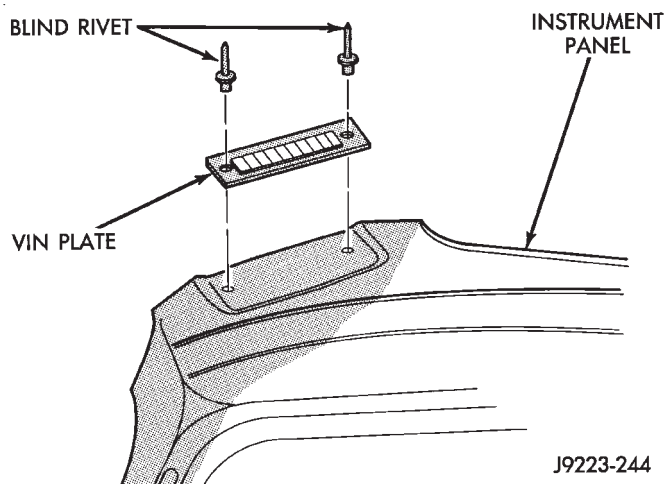


Fig. 4 XJ VIN Plate

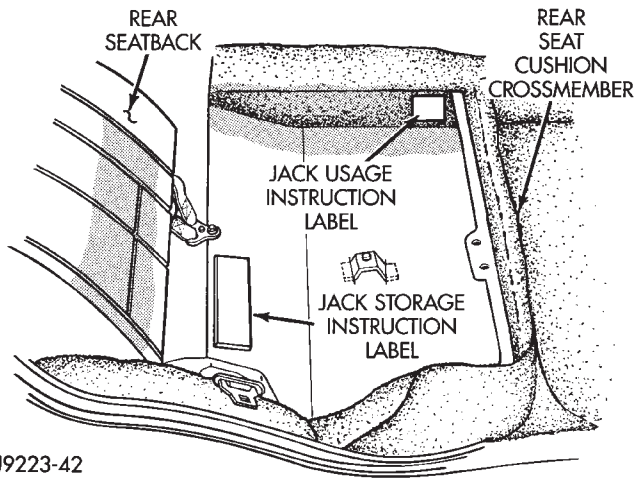


Fig. 5 XJ Jack Usage & Storage Instruction Labels

KEY LOCK CYLINDERS

The ignition switch, glove box door, front doors and liftgate all have key lock cylinders (Fig. 6). When lock cylinder access or replacement is necessary, refer to the applicable service information source:

- Ignition Switch—Group 8D,
- Instrument Panel,
- Front Doors, and
- Liftgate.

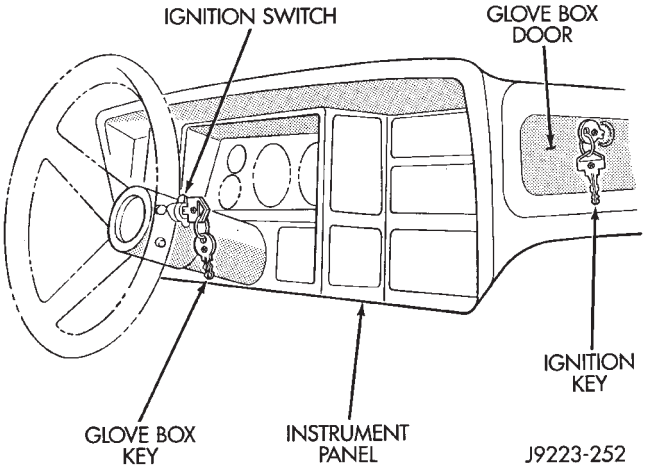


Fig. 6 Ignition Switch & Glove Box Door Key Lock Cylinders

EXTERIOR COMPONENTS

BRUSH GUARD

REMOVAL

(1) Remove the bolts and washers that attach the brush guard (Fig. 1) to the side sills.

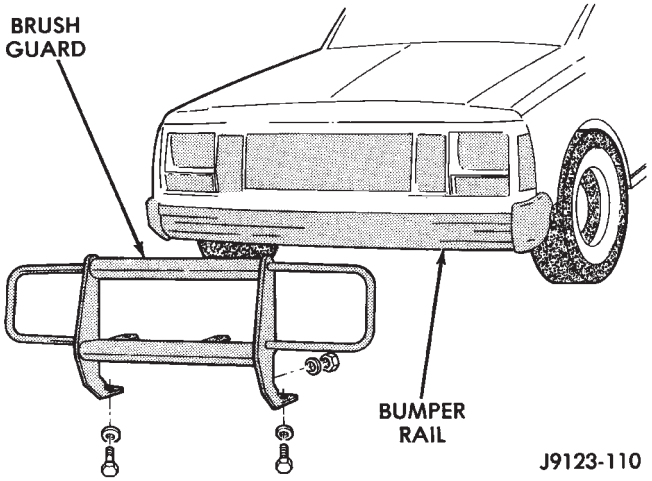


Fig. 1 Brush Guard Removal/Installation

(32 Remove the nuts and washers that the attach brush guard to the bumper. Remove the brush guard from the bumper.

INSTALLATION

(1) Position and support the brush guard on the bumper. Install the attaching washers and nuts.

Do not tighten the nuts until the brush guard is properly positioned on the vehicle and aligned.

(2) Install the bolts and washers to attach the brush guard to side sills.

(3) Align the brush guard and tighten the bolts.

GRILLE AND GRILLE OPENING PANEL (GOP)

REMOVAL

(1) Remove the screws and grille (Fig. 2) from the grille opening panel (GOP).

(2) Remove the screws, side marker lenses and the headlamp bezels from the grille opening panel (GOP) (Fig. 3).

(3) Remove the headlamps and park/turn signal lamps from the GOP (Fig. 4).

(4) Open the hood.

(5) Remove the nuts that attach the grille opening panel (GOP) to the bracket on radiator support cross-member.

(6) Remove the nuts that attach the grille opening panel (GOP) to the front fenders (Fig.5).

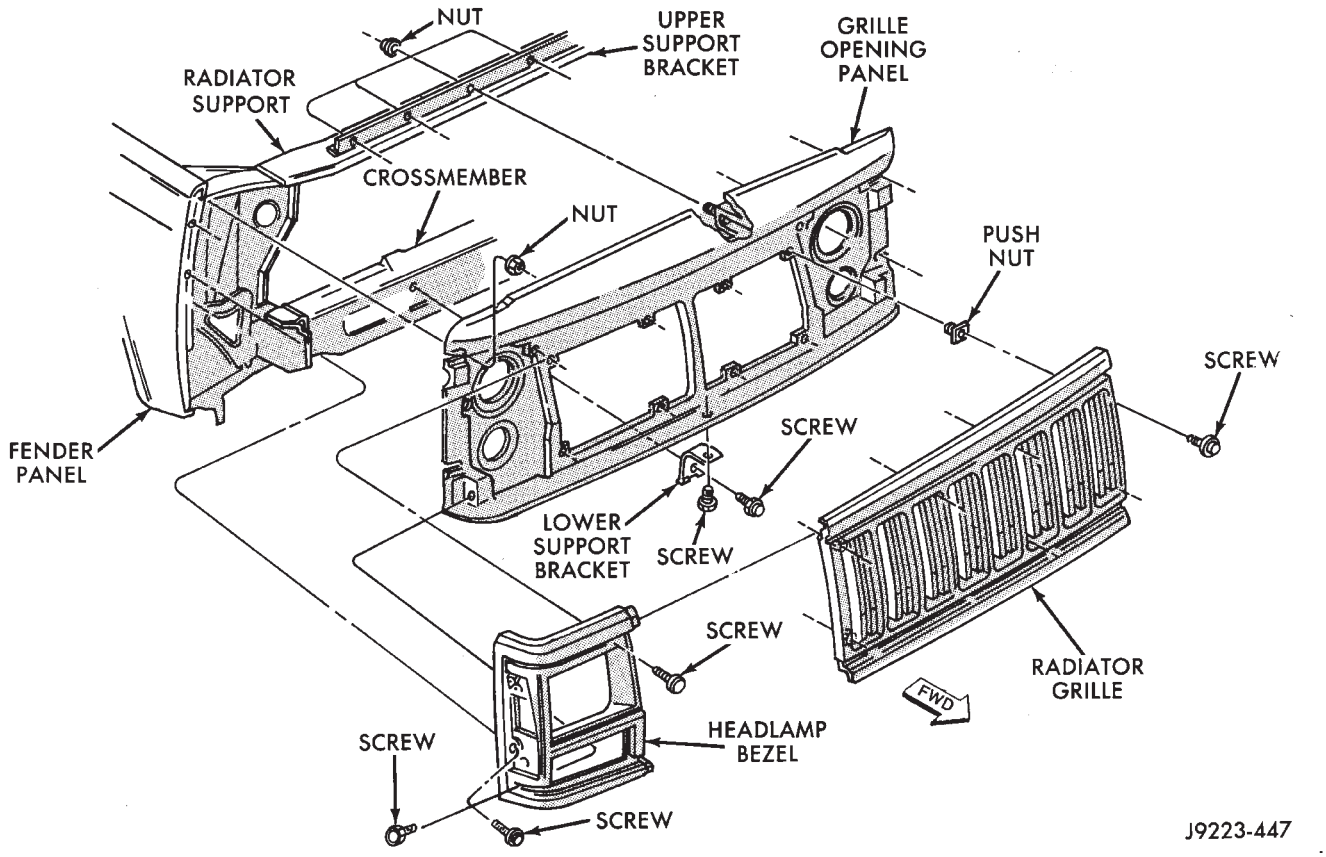


Fig. 2 Grille & GOP

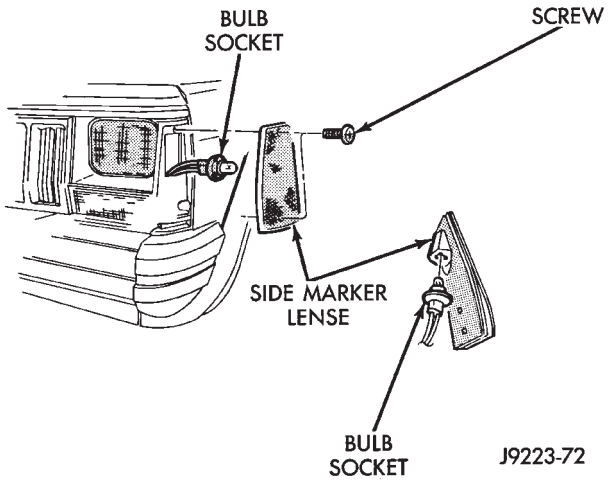


Fig. 3 Side Marker Lamp Removal/Installation

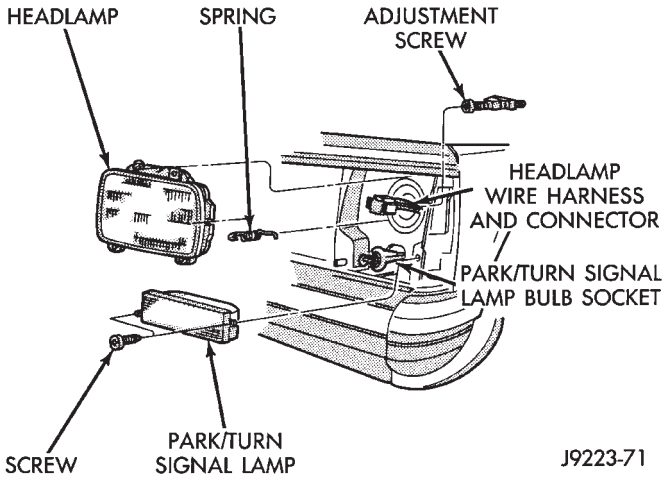


Fig. 4 Headlamp & Park/Turn Signal Lamp Removal/ Installation

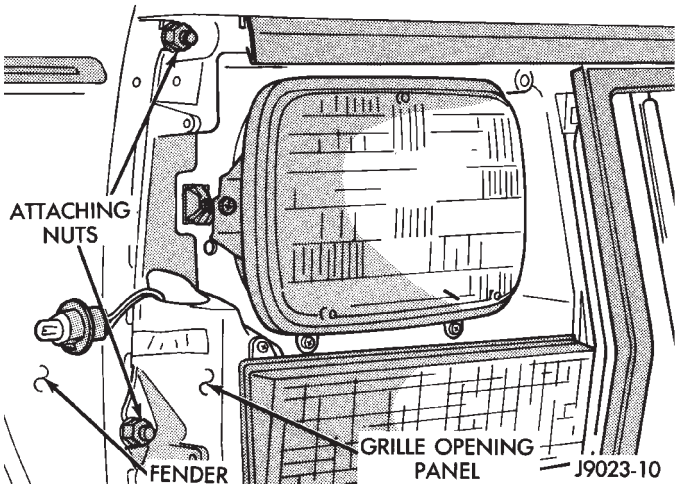


Fig. 5 GOP Attaching Nuts At Front Fender

(7) Remove the screws that attach the grille opening panel (GOP) support bracket to the front sill crossmember (Fig. 6).

(8) Pull the grille opening panel (GOP) forward and disconnect the clips and all the front lamp harness connectors (Fig. 7).

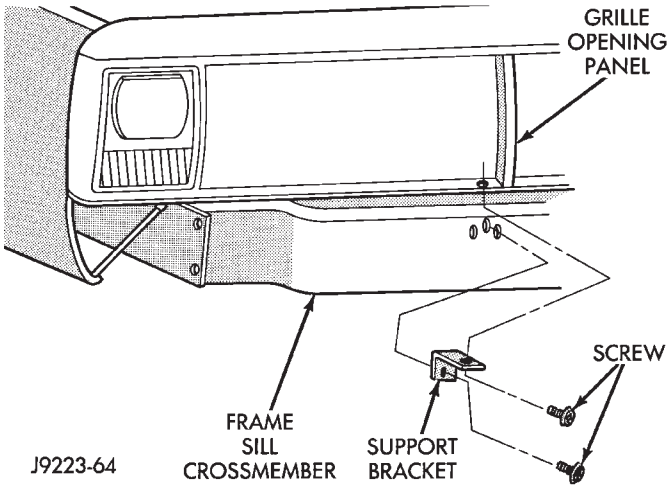


Fig. 6 Crossmember-to-GOP Support Bracket

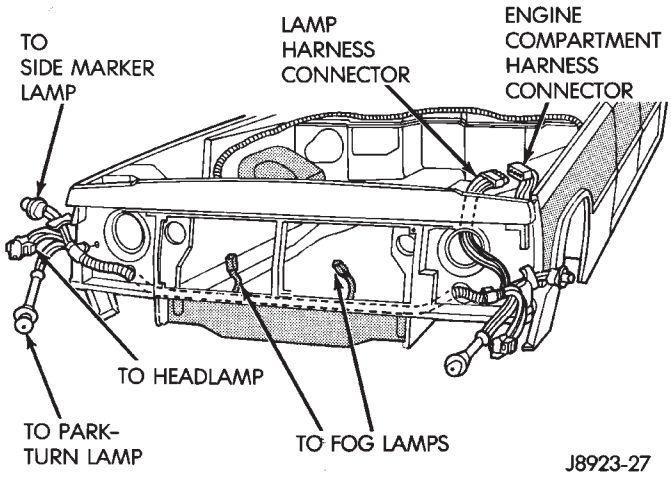


Fig. 7 Front Lamp Wire Harness Connectors

(9) Remove the grille opening panel (GOP) from the vehicle.

(10) If necessary, remove the air inlet baffles from GOP (Fig. 8).

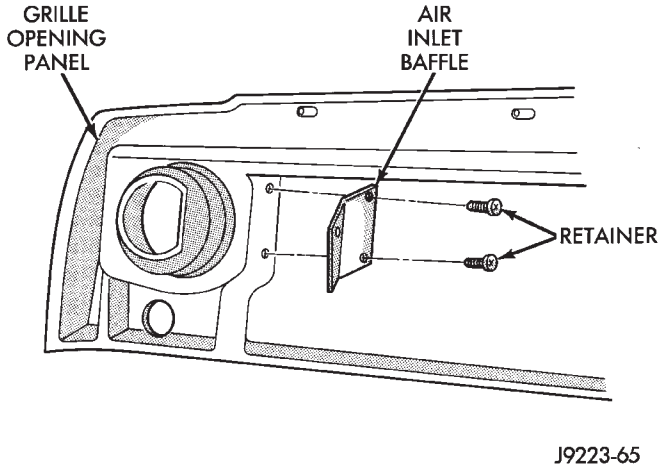


Fig. 8 GOP Air Inlet Baffles

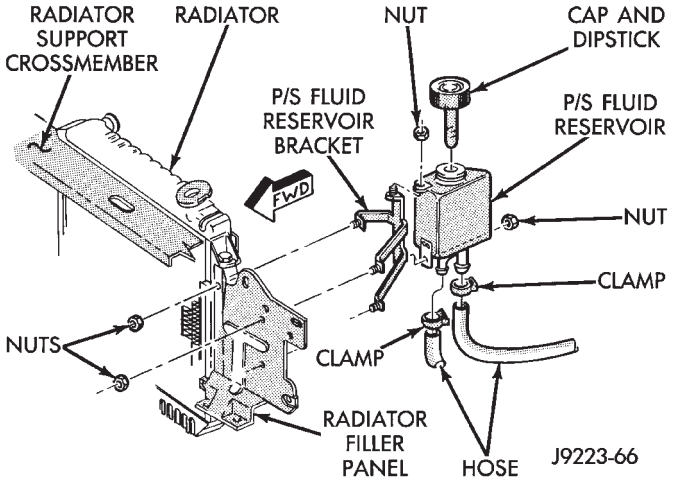


Fig. 9 P/S Pump Reservoir Removal/Installation

INSTALLATION

(1) Place the grille opening panel (GOP) on bumper and connect all front lamp wire harness connectors.

(2) Position the grille opening panel (GOP) on the vehicle and install the side and upper nuts. Tighten nuts to 7 N·m (58 in-lbs) torque.

(3) Install the screw to attach grille opening panel (GOP) to the crossmember support bracket. Tighten the screw to 1 N·m (11 in-lbs) torque.

(4) Install headlamps and park/turn signal lamps in GOP.

(5) Install the headlamp bezels on the GOP. Tighten the screws to 1 N·m (13 in-lbs) torque.

(6) Install the side marker lenses and screws on the grille opening panel (GOP). Tighten the screws to 1 N·m (13 in-lbs) torque.

(7) Install the grille on the GOP. Tighten screws to 1 N·m (13 in-lbs) torque.

(8) Adjust the headlamp aim, if necessary. Refer to the headlamp beam adjustment procedure within Group 8L.

RADIATOR SUPPORT CROSSMEMBER

REMOVAL

(1) Remove the grille opening panel (GOP) (Fig. 2).

(2) For 2.5L engines, remove the power steering pump reservoir from the left filler panel (Fig. 9).

(3) Remove the radiator support crossmember and radiator from the front of vehicle (Fig. 10).

(4) If additional disassembly is required, remove the horns, baffle braces and the wire harnesses from the baffles (Fig. 11).

INSTALLATION

(1) If removed, install the horns, baffle braces and the wire harnesses on the baffles (Fig. 11).

(2) Position the radiator and the radiator support

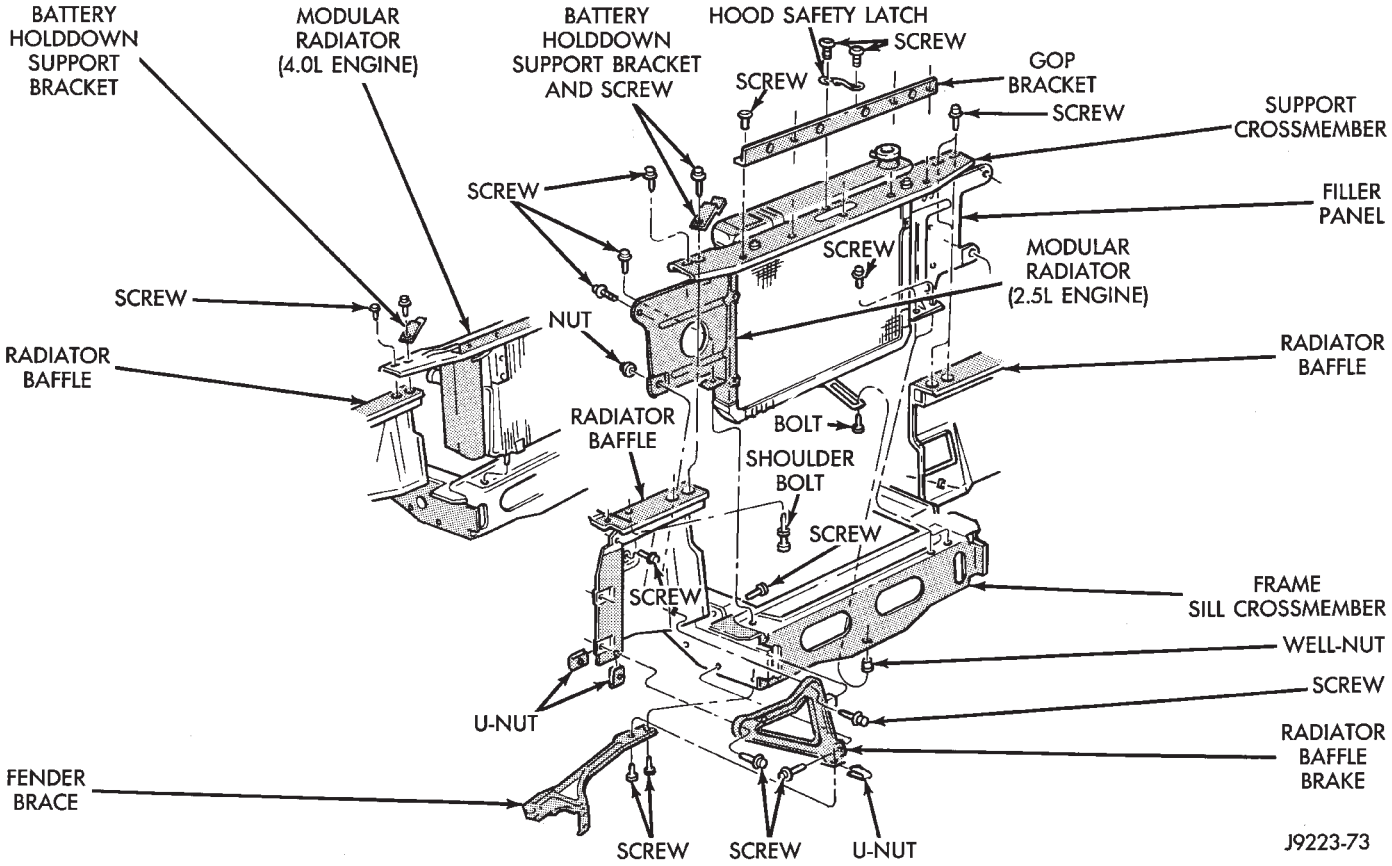


Fig. 10 Radiator Support Crossmember & Modular Radiator

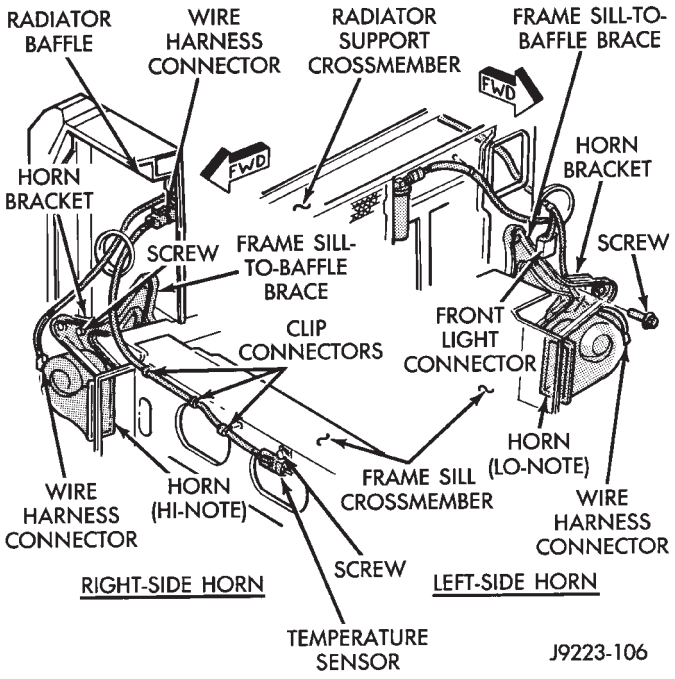


Fig. 11 Horns, Baffle Braces & Wire Harnesses

crossmember at the front of vehicle (Fig. 10). Install and tighten screws to 9 N·m (76 in-lbs) torque.

(3) For 2.5L engines, install the power steering pump reservoir on the left filler panel (Fig. 9).

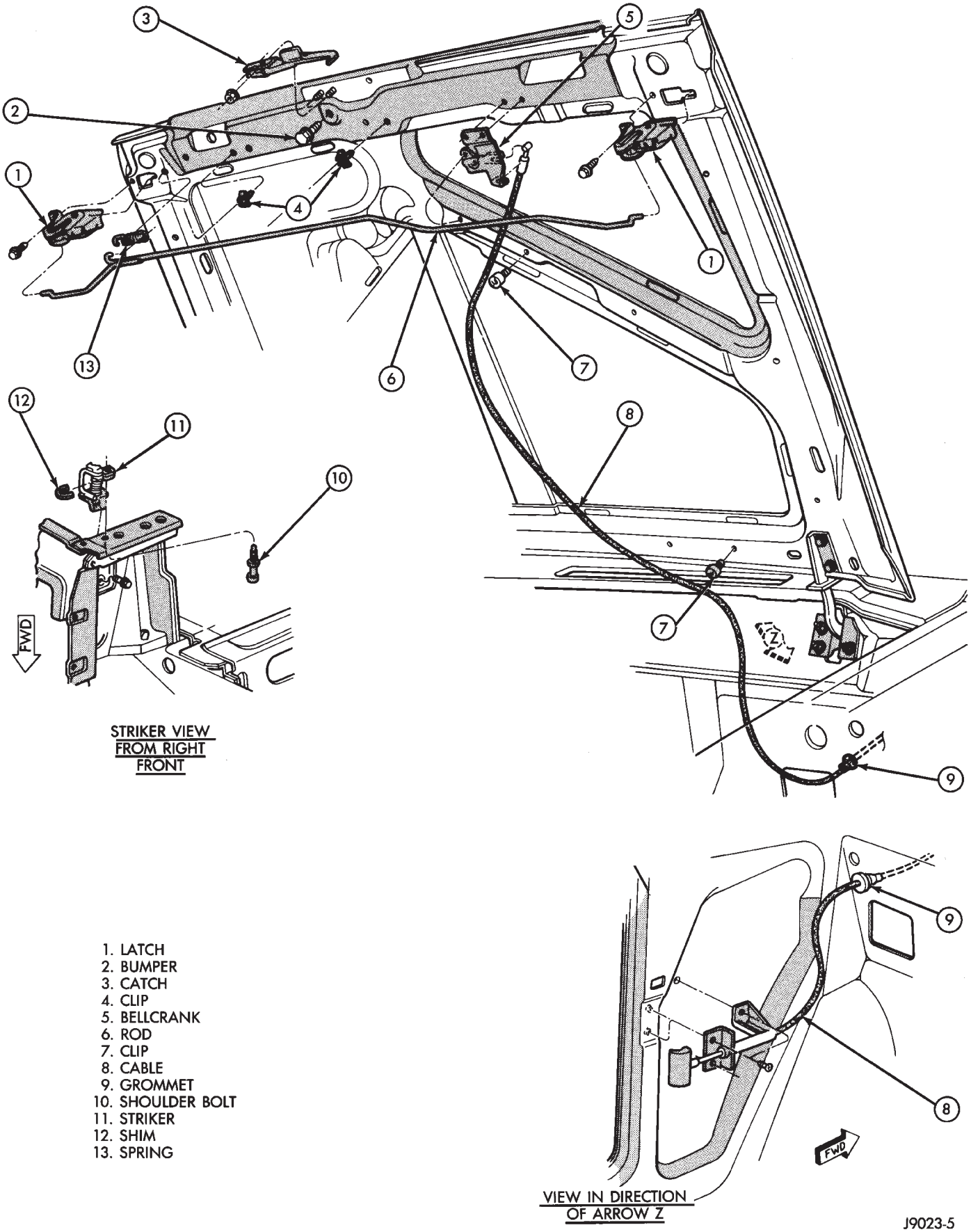
(4) Install the grille opening panel (GOP).

HOOD

The hood service procedures included in this section include:

- hood removal and installation;
- hood adjustment;
- hinge—latch—striker service; and
- latch release cable service.

Refer to Figures 12—16 for the hood component reference.



1. LATCH
2. BUMPER
3. CATCH
4. CLIP
5. BELLCRANK
6. ROD
7. CLIP
8. CABLE
9. GROMMET
10. SHOULDER BOLT
11. STRIKER
12. SHIM
13. SPRING

Fig. 12 Hood Latches, Rod, Release Cable, Striker & Safety Latch

HOOD REMOVAL

(1) Raise hood.

(2) Disconnect the underhood lamp wire harness connector, if equipped (Fig. 13).

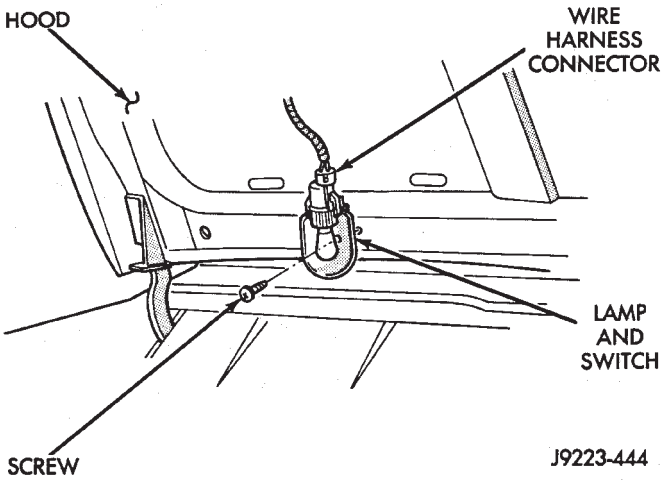


Fig. 13 Underhood Lamp

(3) Drill out and remove the rivets that attach the hood release cable bellcrank to the hood (Fig. 14).

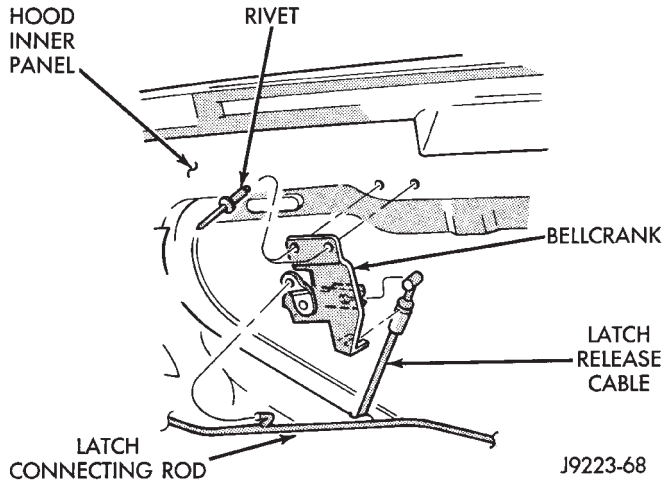


Fig. 14 Hood Release Cable Bellcrank

(4) Disconnect the bellcrank from the latch connecting rod and the release cable. Remove the bellcrank from the hood.

(5) Remove the latch release cable clips and remove the cable from the hood (Fig. 12).

(6) Remove the screws that attach the latches to the hood (Fig. 15).

(7) Disconnect the latches from the hood and latch connecting rod. Remove the latches from the hood.

(8) Remove the nuts that attach the safety latch to the hood. Remove the safety latch from the hood.

(9) Remove the clips and latch connecting rod from the hood.

(10) Mark the location of hood, the hinges and the hinge shims for installation (Fig. 16).

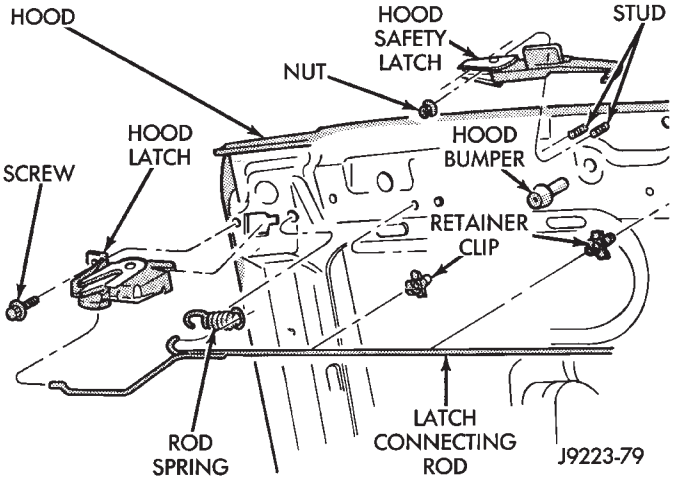


Fig. 15 Hood Latch & Safety Latch

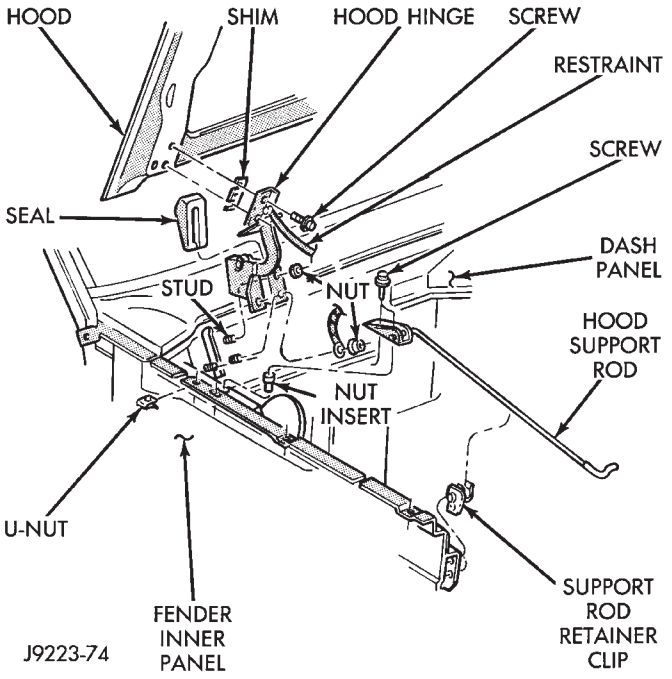


Fig. 16 Hood Hinges and Support Rod

(11) Remove the screws that attach the hinges to the hood. Remove the hood from the vehicle with the aid of a helper.

(12) Remove the insulation panel from the hood (Fig. 17).

HOOD INSTALLATION

(1) Install the insulation panel on the hood.

(2) Position the hood on the shims and hinges; finger-tighten the hinge bolts.

(3) Align the hinges and shims with the reference marks. Tighten the hinge bolts to 30 N·m (22 ft-lbs) torque.

(4) Connect the latch release cable and latch connecting rod to the bellcrank.

(5) Position the bellcrank on the hood and install the rivets.

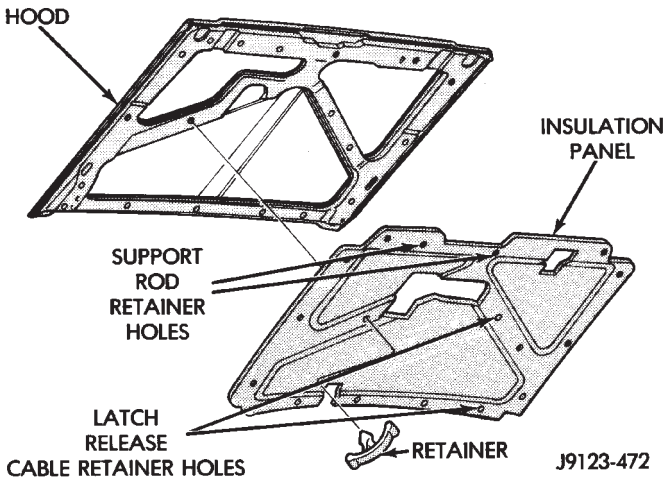


Fig. 17 Hood Insulation Panel

(6) Attach the latch release cable to the clips.

(7) Connect the latches to the latch rod and position them on the hood.

(8) Install the screws to attach the latches to the hood.

Tighten the screws to 9 N·m (77 in-lbs) torque.

(9) Position the safety latch on the hood and install the attaching nuts. Tighten the screws to 13 N·m (115 in-lbs) torque.

(10) Test latch release cable and latches for proper operation.

(11) Connect the underhood lamp wire harness connector.

(12) Inspect the hood for proper alignment and adjust as necessary.

HOOD ADJUSTMENT

The hood bolt holes are elongated for fore and aft and side-to-side adjustment.

(1) If hood is low to the cowl panel, insert shims between the hinge and hood at the rear hinge bolts.

(2) Adjust the hood bumper (Fig. 18) in or out to provide proper hood-to-fender height alignment.

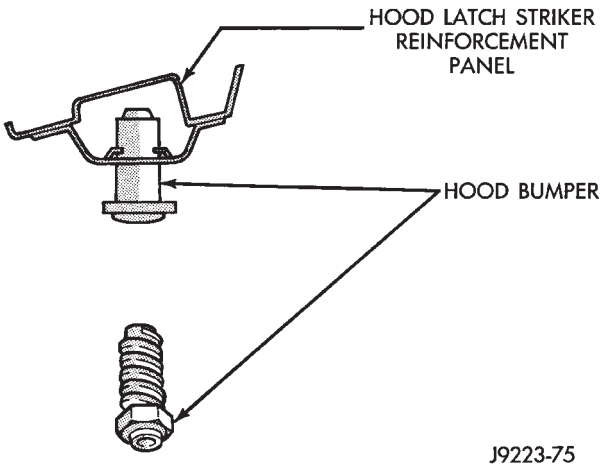


Fig. 18 Hood Bumper

(3) Adjust the hood strikers (Fig. 19) with shims as necessary. Tighten the screws to 22 N·m (16 ft-lbs) torque after adjustment.

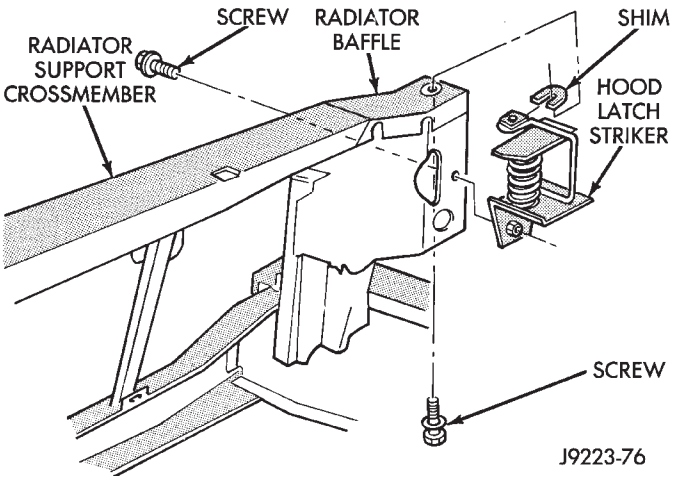


Fig. 19 Hood Latch Striker

(4) Align each latch and striker so that the striker enters latch squarely.

HOOD HINGE REPLACEMENT

REMOVAL

(1) Remove the hood from the vehicle.

(2) Remove the seal from the hinge base (Fig. 20).

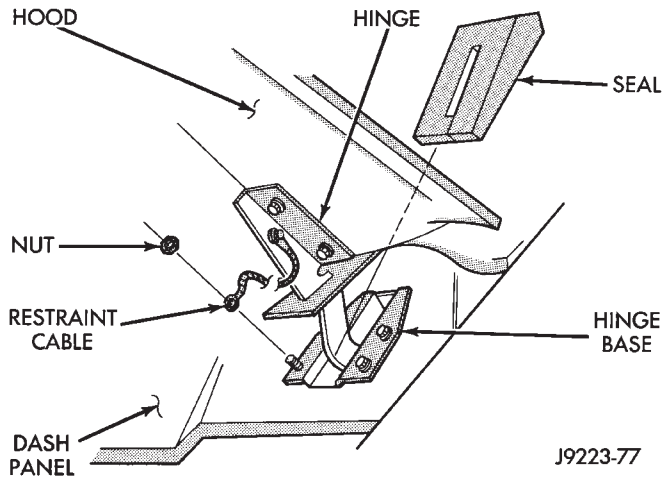


Fig. 20 Hood Hinge and Seal

(3) Remove the hinge retaining nuts from the studs.

(4) Remove the restraint cable and hinge from the cowl panel.

INSTALLATION

(1) Position the hinge over the studs and place the restraint cable on the right side, lower stud.

(2) Install the hinge nuts on the studs. Tighten the restraint cable nut to 4 N·m (38 in-lbs) torque. Tighten the remaining nuts to 9 N·m (77 in-lbs) torque.

If a replacement hinge seal is being installed, position it around the hinge arm, force it against the hinge base.

(3) Position the hinge seal around the hinge arm and on hinge base.

(4) Install the hood.

(5) Adjust the hood as necessary.

HOOD LATCH REPLACEMENT

REMOVAL

(1) Remove the screw that attaches the latch to the hood inner panel (Fig. 15).

(2) Disconnect the latch from the hood and latch connecting rod. Remove the latch from the hood.

INSTALLATION

(1) Connect the latch to the latch connecting rod and position it on the hood inner panel.

(2) Install the screw that attaches the latch to the hood inner panel.

(3) Tighten the screw to 9 N·m (77 in-lbs) torque.

(4) Test the operation of the latch release cable and latch.

HOOD LATCH STRIKER REPLACEMENT

REMOVE

(1) Remove the grille opening panel (GOP).

(2) Remove the screws that attach the striker to the radiator baffle (Fig. 19).

(3) Remove the striker and shims from the baffle.

INSTALLATION

(1) Position the shims and striker on the radiator baffle and install the screws.

(2) Tighten the screws to 21 N·m (15 ft-lbs) torque.

(3) Test the striker/hood alignment by opening and closing the hood several times. Adjust the striker, if necessary.

LATCH RELEASE CABLE REPLACEMENT

REMOVAL

(1) Drill out the bellcrank to hood rivet heads and remove the rivets (Fig. 14).

(2) Disconnect the bellcrank from the latch rod and the latch release cable. Remove the bellcrank from the hood.

(3) Disconnect the latch release cable from the clips on the hood.

(4) Remove the left cowl side trim panel.

(5) Remove the cable bracket screws from the cowl side panel.

(6) Pull the cable through the dash panel and remove it from under the instrument panel.

INSTALLATION

(1) Insert the replacement cable end through the hole in the dash panel into the engine compartment.

(2) Pull the cable forward and seat the grommet in the dash panel.

(3) Position the cable bracket on the cowl side panel and install the screws. Tighten the screws to 13 N·m (111 in-lbs) torque.

(4) Install the left cowl side trim panel.

(5) Connect the cable and latch rod to the bellcrank (Fig. 14).

(6) Position the bellcrank on the hood and install the rivets.

(7) Attach the cable to the clips.

(8) Test release the cable for proper operation.

SAFETY LATCH STRIKER REPLACEMENT

REMOVAL

(1) Remove the striker screws from the radiator support crossmember (Fig. 21).

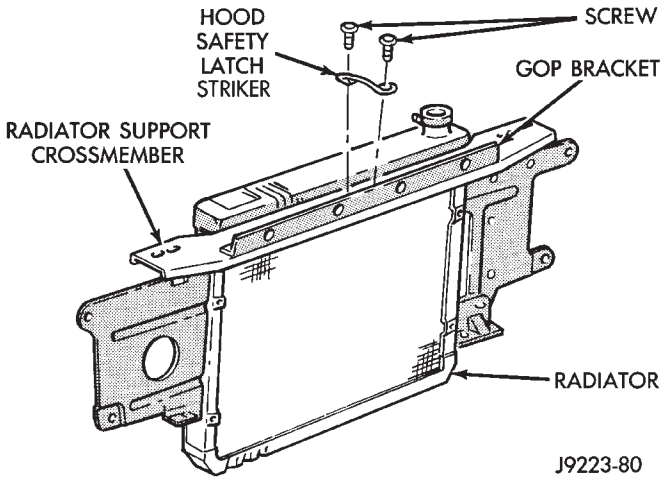


Fig. 21 Hood Safety Latch Striker—2.5L Engine (Typical)

(2) Remove the striker from the crossmember.

INSTALLATION

(1) Position the striker on the radiator support crossmember and install the screws. Tighten the screws to 9 N·m (77 in-lbs) torque.

(2) Test the safety latch operation.

COWL WEATHERSTRIP SEAL/CROSSMEMBER AIR DEFLECTOR

WEATHERSTRIP SEAL REPLACEMENT

(1) Pry upward along the length of seal (Fig. 22).

(2) Detach the seal retainers from the cowl panel.

(3) Remove the seal from cowl panel.

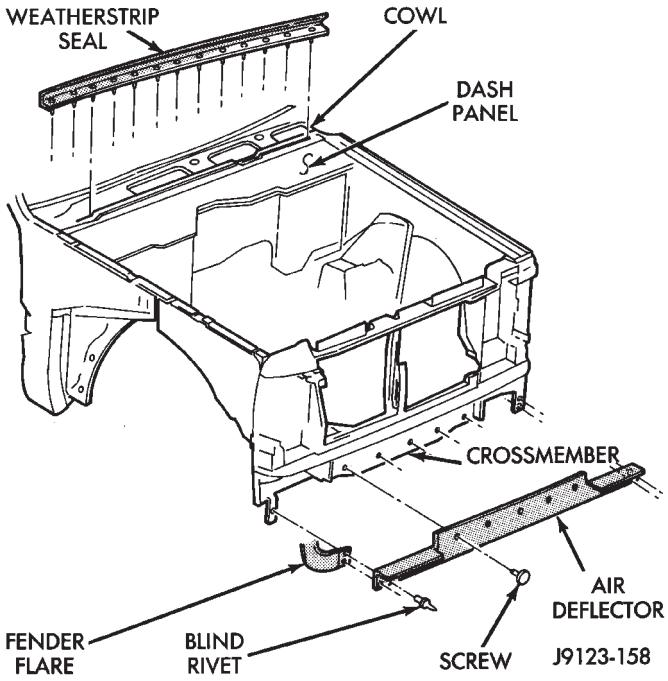


Fig. 22 Cowl Seal and Crossmember Air Deflector

(4) Position the weatherstrip seal on the cowl panel. Press to insert retainers into the cowl panel holes (Fig. 23).

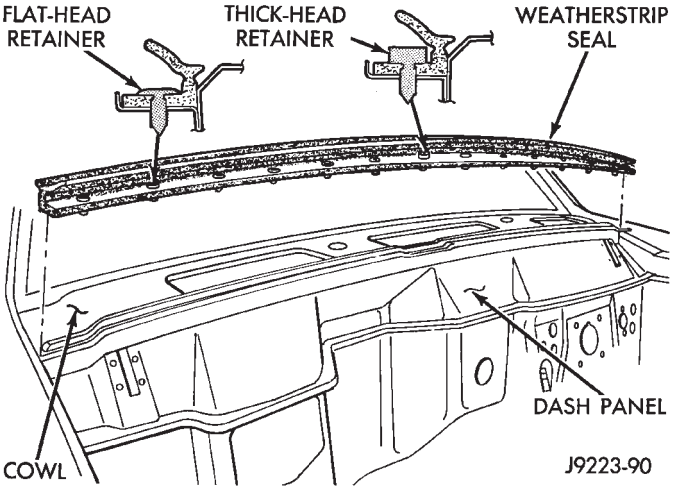


Fig. 23 Cowl Seal and Retainers

CROSSMEMBER AIR DEFLECTOR REMOVAL

(1) Remove the rivets that attach the air deflector to the fender flares (Fig. 22).

(2) Remove screws that attach air deflector to the crossmember.

(3) Remove the air deflector from the crossmember.

CROSSMEMBER AIR DEFLECTOR INSTALLATION

(1) Position the air deflector on the crossmember.

(2) Attach the air deflector to the crossmember with the screws.

(3) Attach the air deflector to the fender flares with blind rivets.

DASH PANEL INSULATOR PANEL

REMOVAL

(1) Remove the push-on nuts from the studs (Fig. 24).

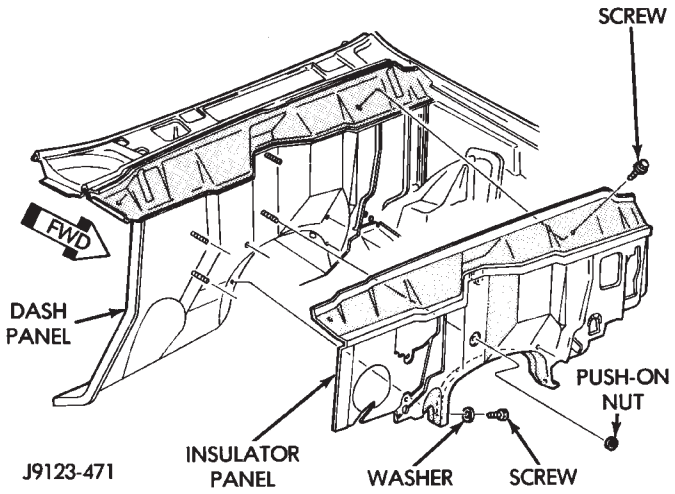


Fig. 24 Dash Panel Insulator Panel

(2) Remove the screws that attach the panel to the dash panel.

(3) Remove the insulator panel from the dash panel and engine compartment.

INSTALLATION

(1) Position the insulator panel on the dash panel.

(2) Install the push-on nuts on the studs.

(3) Attach the panel to the dash panel with screws. Tighten the screws to 2 N·m (18 in-lbs) torque.

COWL GRILLE AND SCREEN

REMOVAL

(1) Use a wax pencil to mark the position of the wiper arms (Fig. 25).

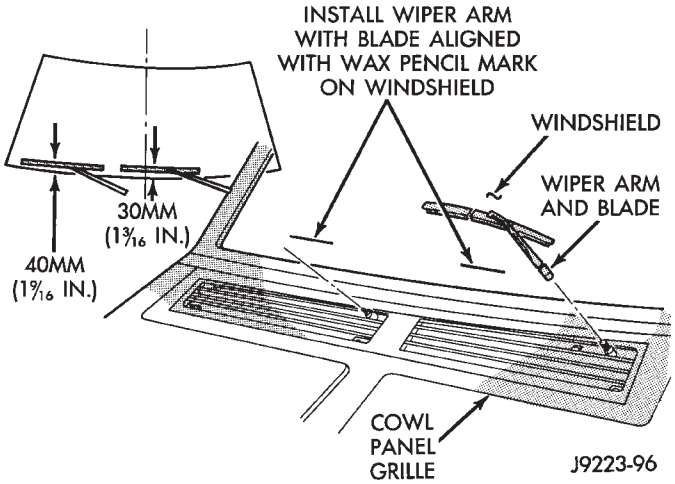


Fig. 25 Wiper Locations On Windshield

(2) Remove the windshield wiper arms from the pivots (Fig. 26).

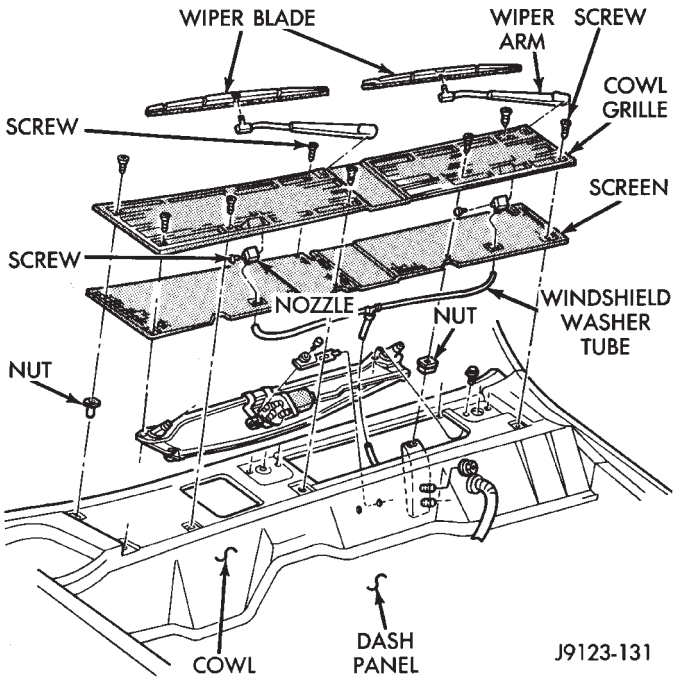


Fig. 26 Cowl Grille Components

(3) Remove the screws that attach the grille to the cowl.

(3) Remove the windshield washer tubes from the nozzles (Fig. 27).

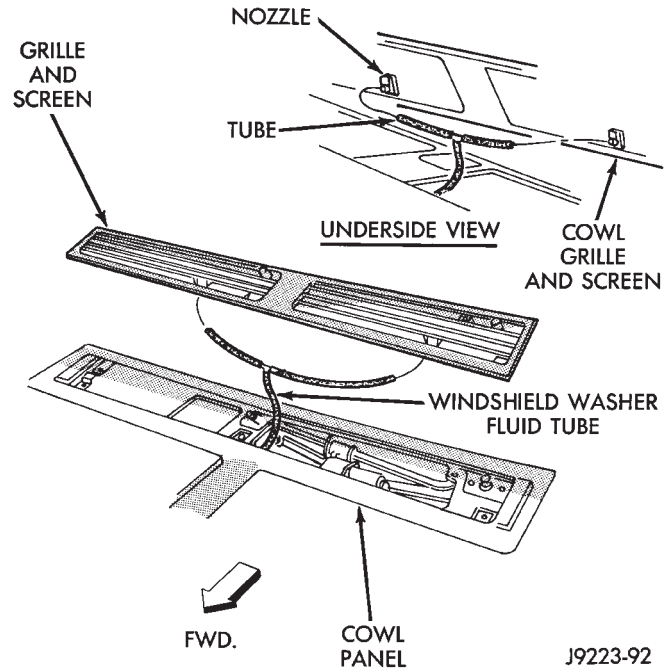


Fig. 27 Washer Fluid Tubes

(4) Remove the cowl grille and screen from the cowl (Fig. 28).

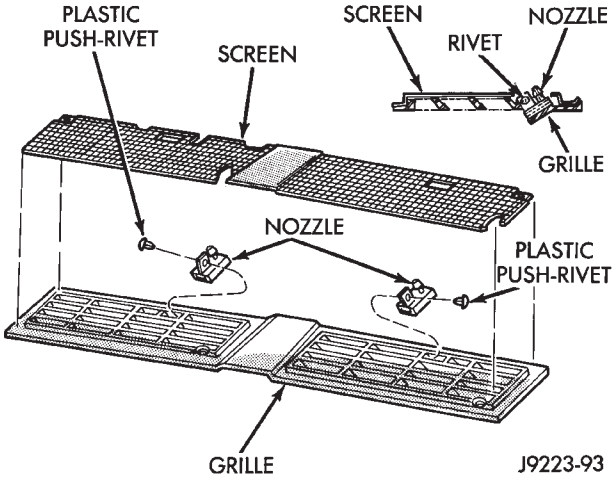


Fig. 28 Cowl Grille, Screen & Washer Nozzles

(5) If necessary, remove the push-rivets and washer nozzles from the cowl grille (Fig. 28).

(6) If necessary, remove the cowl grille push-nuts from the cowl panel (Fig. 29).

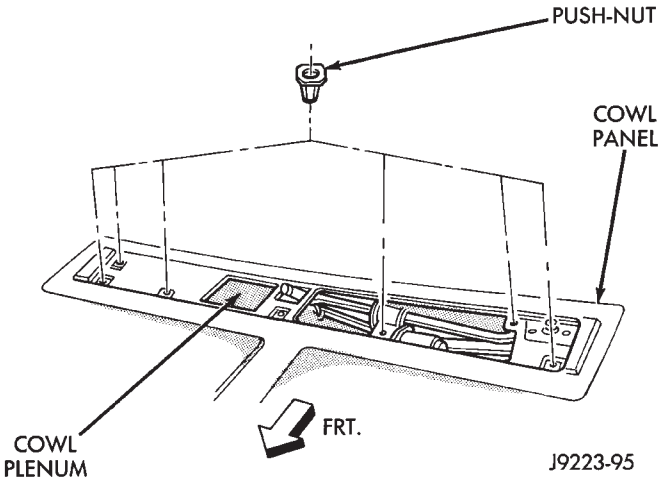


Fig. 29 Cowl Grille Push-Nuts

(7) If necessary, remove the nuts and cowl grille support bracket from the dash panel (Fig. 30).

INSTALLATION

(1) If removed, install the cowl grille support bracket on the dash panel (Fig. 30). Tighten the nuts to 9 N·m (77 in-lbs) torque.

(2) If removed, install the push-nuts in the cowl panel and the support bracket.

(3) If removed, install the push-rivets and washer nozzles in the cowl grille.

CAUTION: The washer fluid tubes must be routed and installed so that they are not pinched.

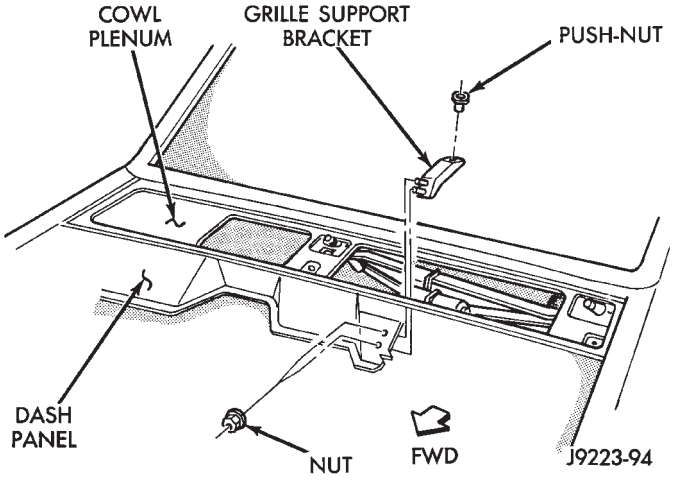


Fig. 30 Cowl Grille Support Bracket

(4) Position the cowl grille and screen on the cowl. Install the windshield washer tubes on the nozzles.

(5) Install the cowl screen and grille screws and tighten in the sequence shown in Figure 31.

Force the cowl grille rearward while tightening the screws.

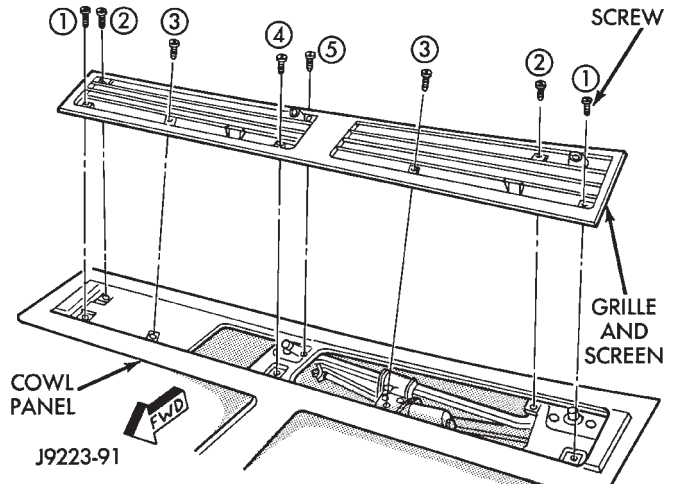


Fig. 31 Cowl Grille Screw Tightening Sequence

(6) Install the windshield wiper arms on the pivots.

BATTERY TRAY

REMOVAL

(1) Remove the screw, nuts, holddown support bracket and upper holddown bracket from the holddown rods (Fig. 32).

(2) Remove the battery from tray.

(3) Remove the nuts that attach battery tray to the inner fender panel.

(4) Remove the battery tray from the vehicle.

(5) If necessary, remove the retainers and holddown rods from the battery tray (Fig. 33).

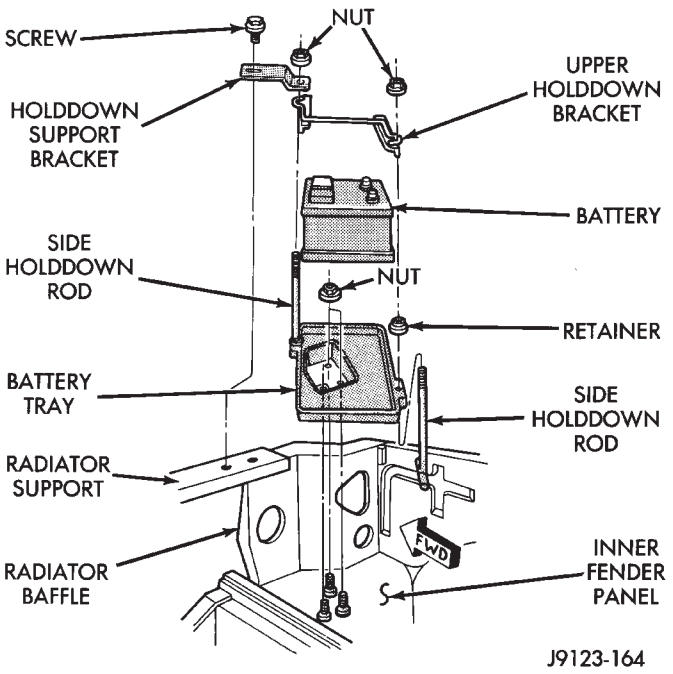


Fig. 32 Battery Tray Removal/Installation

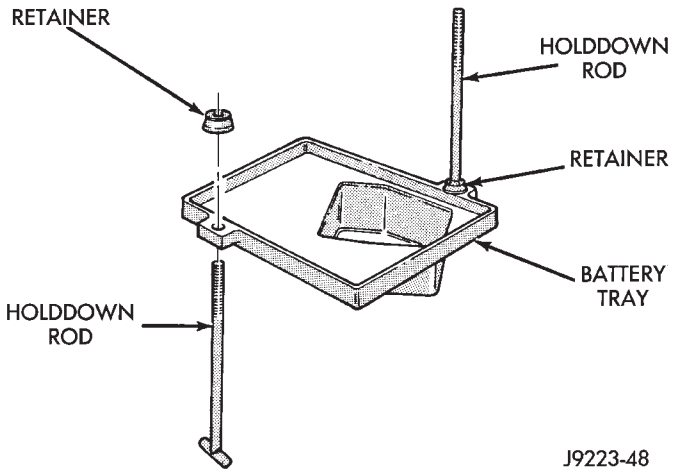


Fig. 33 Battery Holddown Rods & Retainers

INSTALLATION

(1) If removed, install side the holddown rods and retainers on the battery tray.

(2) Position the battery tray on the inner fender panel with the studs inserted in the holes.

(3) Attach the battery tray to the inner fender panel with the nuts. Tighten the nuts to 30 N·m (22 ft-lbs) torque.

(4) Install the battery in tray.

(5) Position the upper holddown bracket over the holddown rods.

(6) Install the holddown support bracket, screw, and nuts on the holddown rods. Tighten the screw and nuts.

FRONT FENDER

The following information includes procedures for removal/installation of:

- a fender liner,
- a front fender flare and retainers, and
- a front fender.

REMOVAL

(1) Remove the front bumper.

(2) Right fender only:

• if equipped, remove the radio antenna mast, and components from the fender (Figs. 34 and 35);

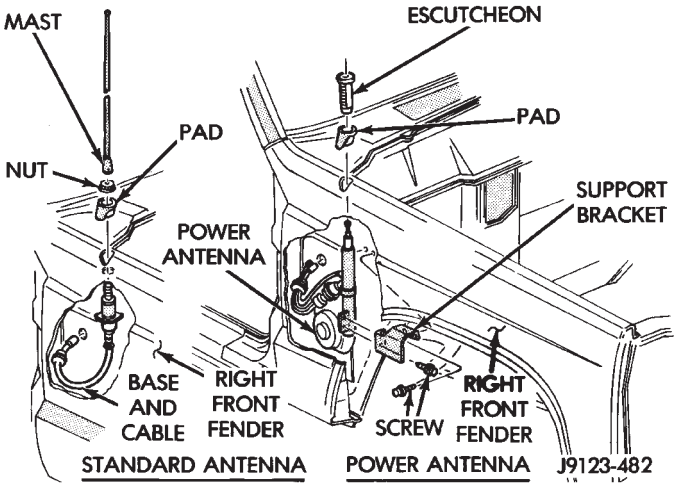


Fig. 34 Radio Antenna Removal/Installation

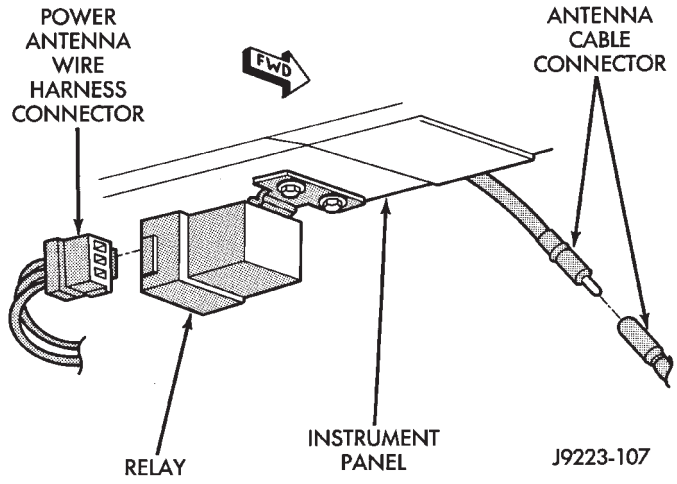


Fig. 35 Power Antenna Wire Harness & Cable Connectors

• remove the battery and tray from the fender inner panel (Figs. 36, 37 and 38);

• remove windshield washer reservoir from fender inner panel (Fig. 39);

• remove the hood ajar switch, if equipped, from fender (Figs. 40 and 41);

• remove the Power Distribution Center (PDC), the coolant recovery bottle and speed servo from fender the inner panel.

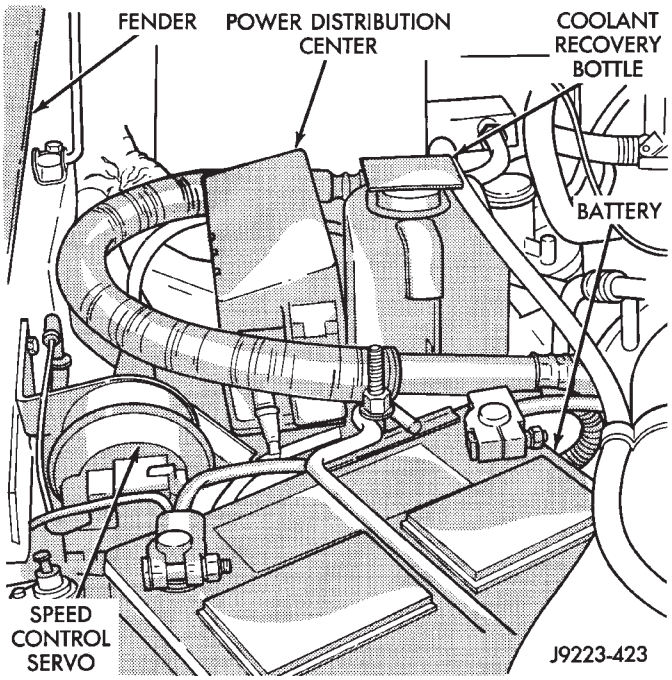


Fig. 36 Battery, Speed Servo, PDC & Coolant Recovery Bottle

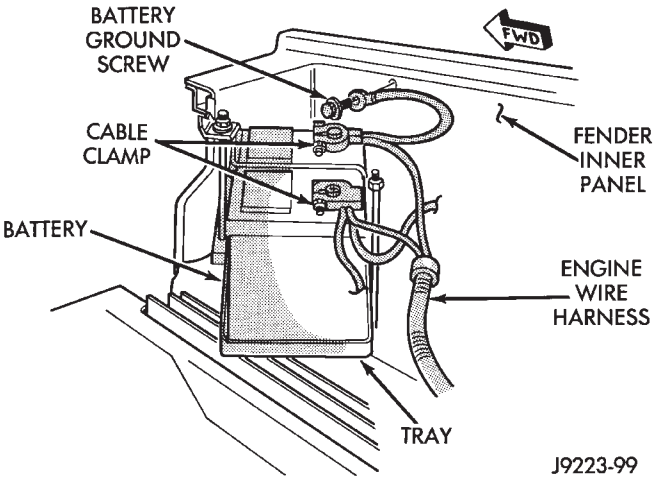


Fig. 37 Battery Removal/Installation

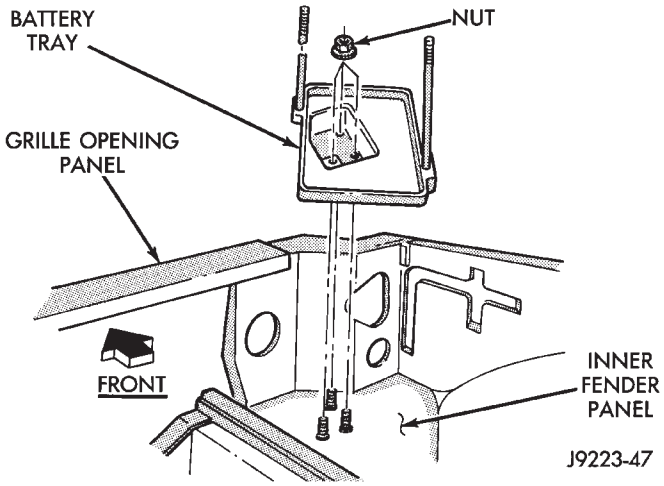


Fig. 38 Battery Tray Removal/Installation

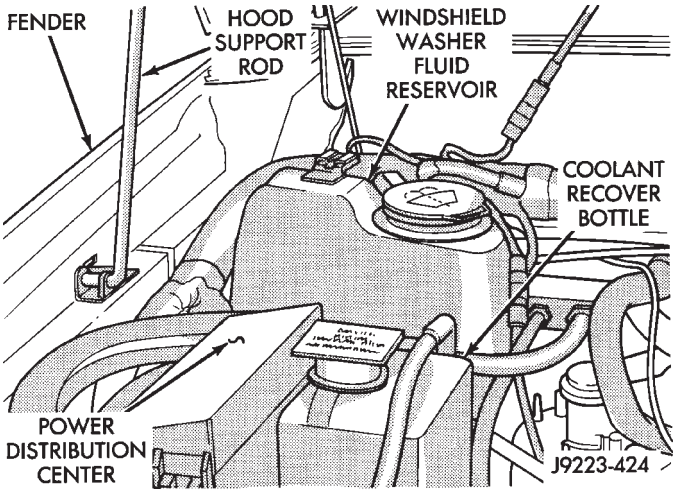


Fig. 39 Coolant Recovery Bottle, Windshield Washer Fluid Reservoir & Hood Support Rod

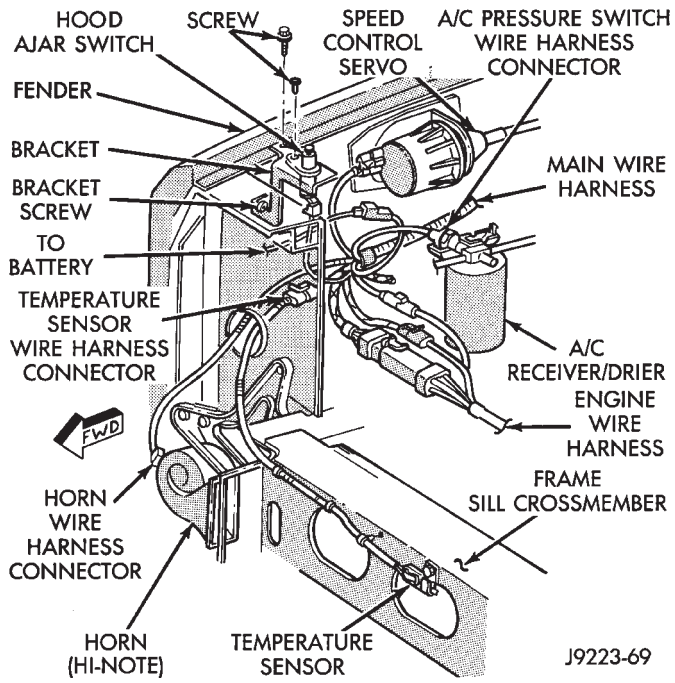


Fig. 40 Hood Ajar Switch, Speed Servo & A/C Receiver/Drier

• remove the vapor canister from the fender inner panel (Figs. 42 and 45);
• remove the A/C Receiver/Drier from the fender inner panel (Fig. 40); and
• if equipped, remove the Daytime Running Light (DRL) module from the fender inner panel (Fig. 46).
• support the hood and remove the hood support rod from the fender inner panel.

(3) Remove the hood bumper from the fender inner panel (Fig. 47).

(4) Raise and support the vehicle.

(5) Remove the front wheel.

(6) Remove the fender liner, fender flare and retainers (Fig. 48):

• remove the screws that attach the lower part of

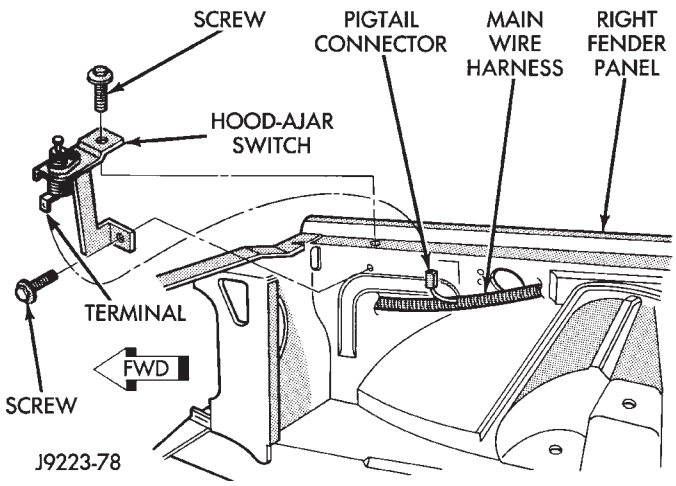


Fig. 41 Hood Ajar Switch Removal/Installation

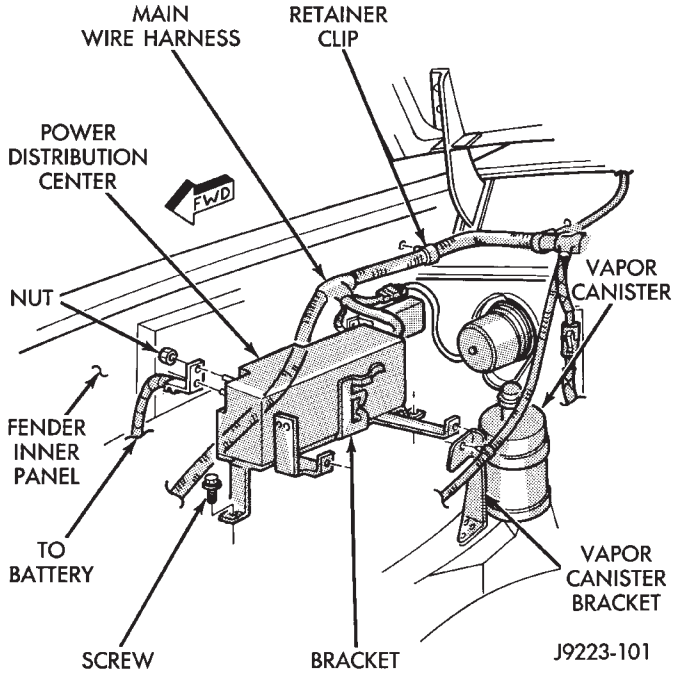


Fig. 42 Power Distribution Center and Vapor Canister

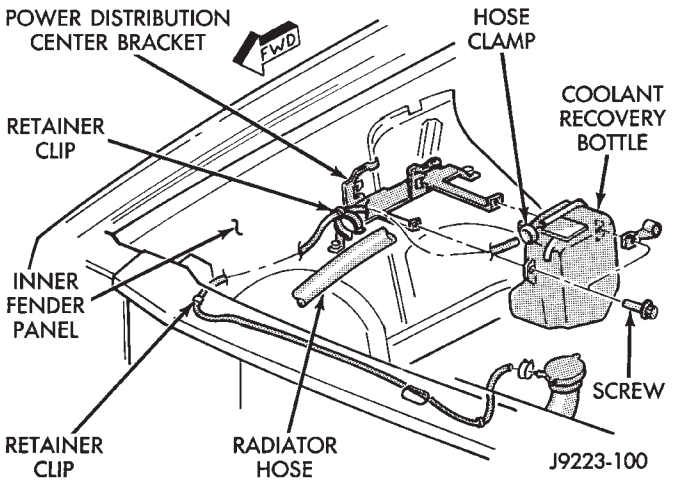


Fig. 43 Coolant Recovery Bottle

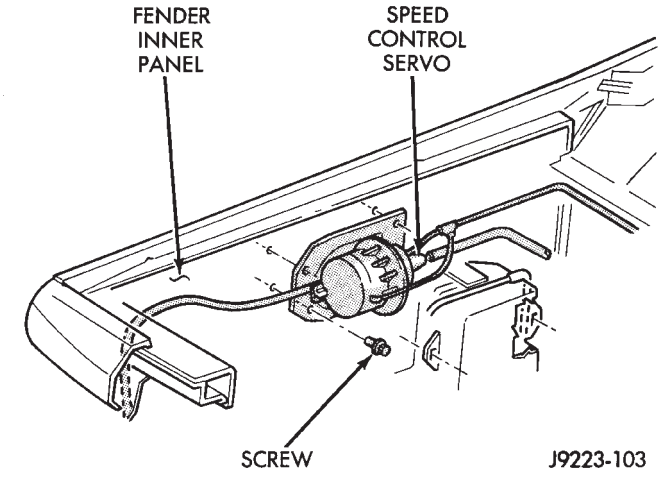


Fig. 44 Speed Servo

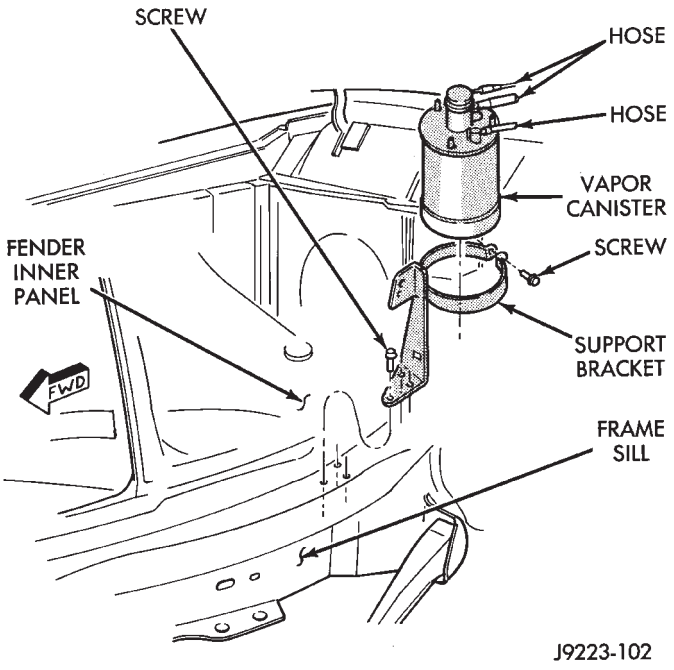


Fig. 45 Vapor Canister

flare to the fender outer panel;

- remove the rivets that attach the flare to the air deflector;
- remove the retainers that attach the fender liner to the fender inner panel;
- remove the nuts that attach the fender liner to the fender outer panel and flare retainers;
- remove the fender liner from between the fender panels;
- remove the push-nuts that attach the retainers to the fender outer panel; and
- remove the retainers and flare from the fender outer panel.

(7) Remove the grille opening panel (GOP).

(8) Remove the air deflector.

(9) Remove the rocker panel moulding from the fender.

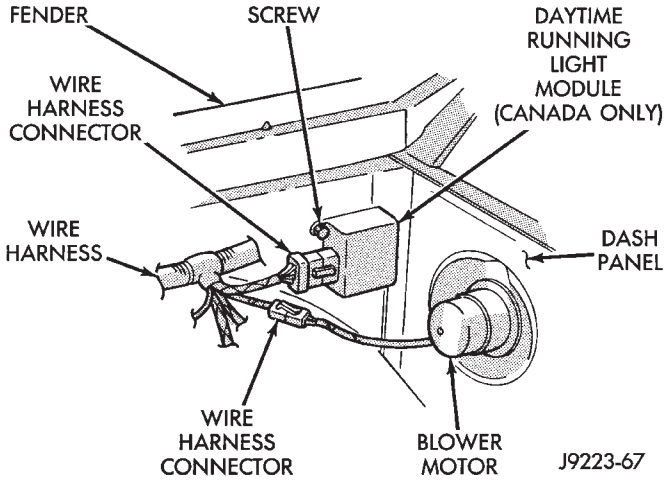


Fig. 46 Daytime Running Light (DRL) Module

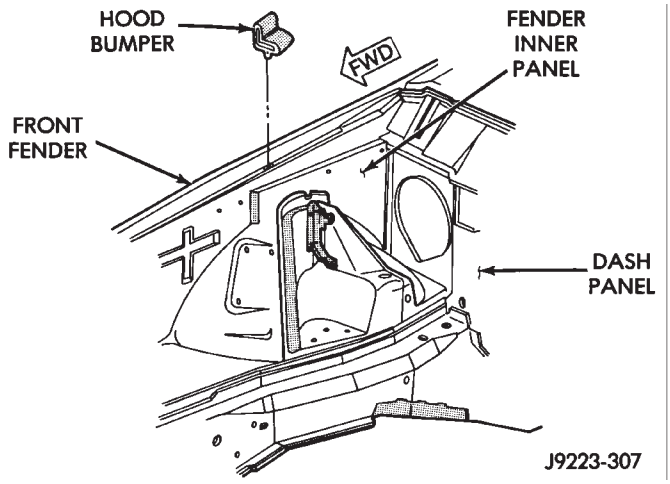


Fig. 47 Hood Bumper

(10) Remove all the fender braces (Fig. 49).

(11) Remove the fender lower screws (Fig. 49).

(12) Remove the fender top, front and the rear screws. Remove the fender from the inner fender panel (Fig. 49).

INSTALLATION

(1) Position the fender on the inner fender panel.

(2) Install all of the fender screws finger-tight.

(3) Install the fender braces.

(4) Align the fender with the body panels and tighten the fender screws to 8.5 N·m (76 in-lbs) torque.

(5) Install the grille opening panel (GOP).

(6) Install the air deflector.

(7) Install the fender flare and retainers (Fig. 50). Then install the fender liner.

- position the retainers and the flare on the fender;
- install the push-nuts to attach the retainers to the fender;
- position the fender liner between the fender and fender inner panel (Fig. 51);

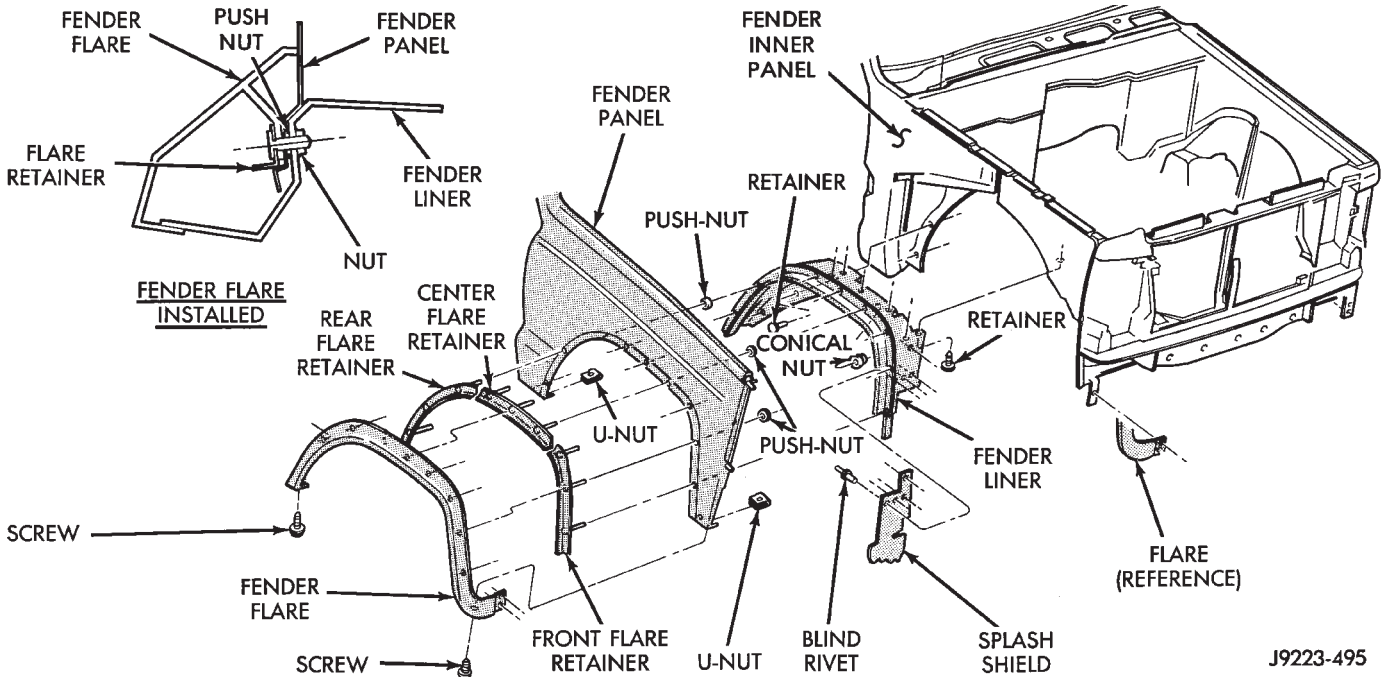


Fig. 48 Fender Flare & Liner Removal/Installation

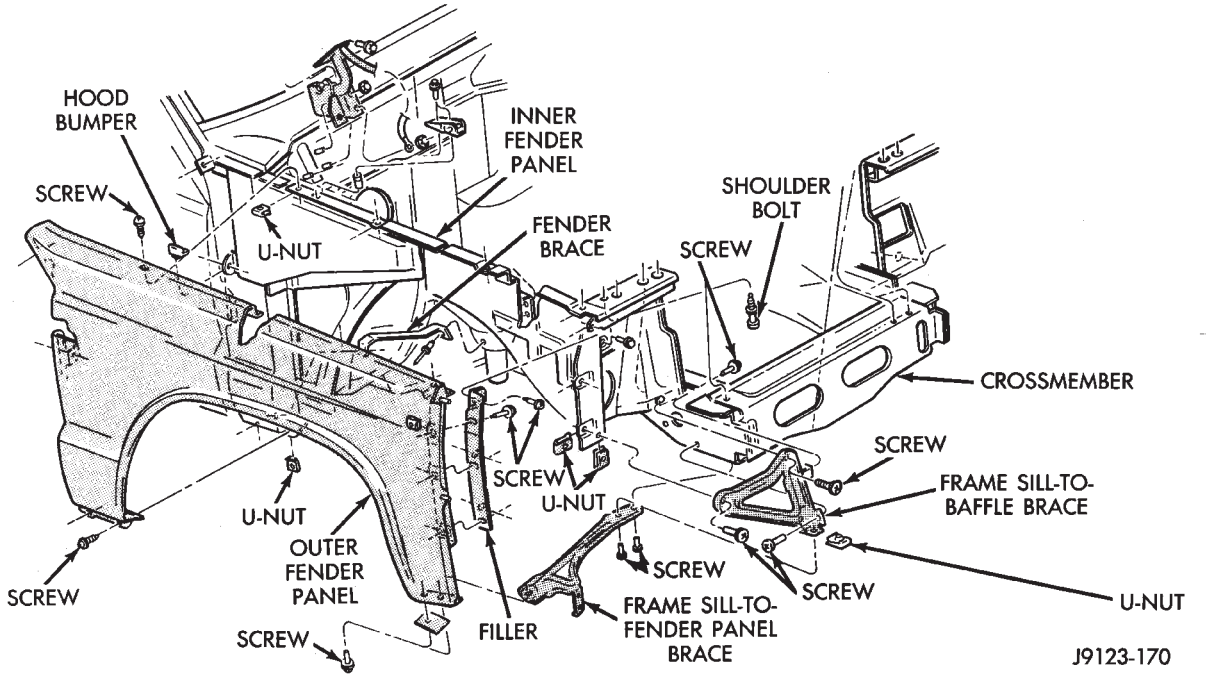


Fig. 49 Fender Removal/Installation

• install the nuts to attach the fender liner to the fender and flare retainers (Fig. 48);
• install the retainers to attach the fender liner to the fender inner panel;
• install the rivets to attach the flare to the air deflector (Figs. 48 and 50); and
• install the screws to attach the flare to the fender. Tighten the screws to 1 N·m (13 in-lbs) torque.

(8) Connect the front lamp wire harness connectors to the engine wire harness connectors (Fig. 52).

(9) Install the front lamps.

(10) Install the front bumper.

(11) Install the wheel, remove the support and lower the vehicle.

(12) Right fender only: install the hood support rod on the fender inner panel.

(13) Install the hood bumper on the fender inner panel.

(14) Right fender only: install the Daytime Running Light (DRL) module on fender inner panel.

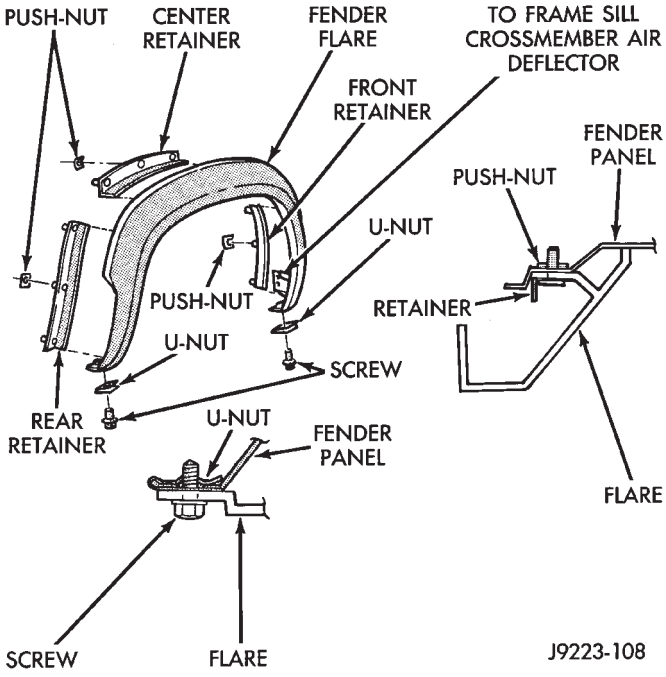


Fig. 50 Fender Flare & Retainers

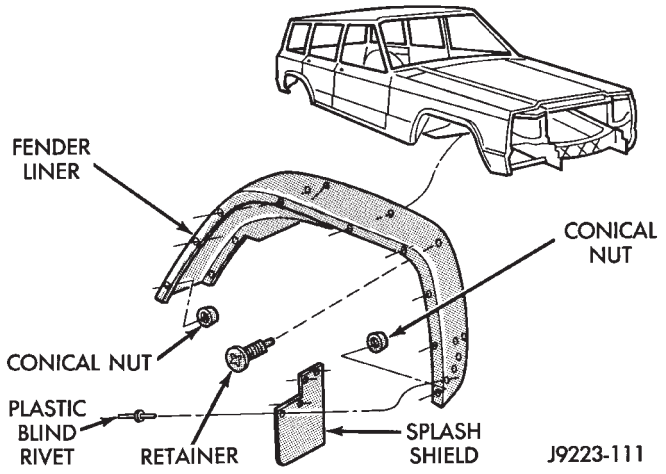


Fig. 51 Fender Liner and Retainers

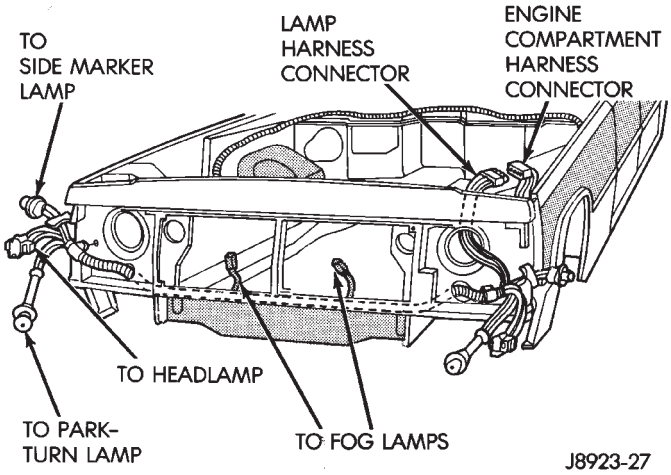


Fig. 52 Front Lamp Wire Harness Connectors

(15) Right fender only: install the A/C Receiver/ Drier on the fender inner panel.

(16) Right fender only: install the vapor canister on the fender inner panel. Tighten the vapor canister screws to 5 N·m (45 in-lbs) torque.

(17) Right fender only: install the PDC, coolant recovery bottle and speed servo on the fender inner panel.

(18) Right fender only: install the hood ajar switch, if equipped. Tighten the screws to 2 N·m (15 in-lbs) torque.

(19) Right fender only: install the windshield washer fluid reservoir on the inner panel (Fig. 39).

(20) Right fender only: install the battery tray and battery on the inner panel.

(21) Right fender only: if equipped, install the radio antenna. Tighten the nut/escutcheon to 4.5 N·m (40 in-lbs) torque. Tighten the power antenna bracket screws to 2 N·m (20 in-lbs) torque.

REAR WHEELHOUSE FLARES AND LINERS

REMOVAL

(1) Remove the flare and liner lower screws.

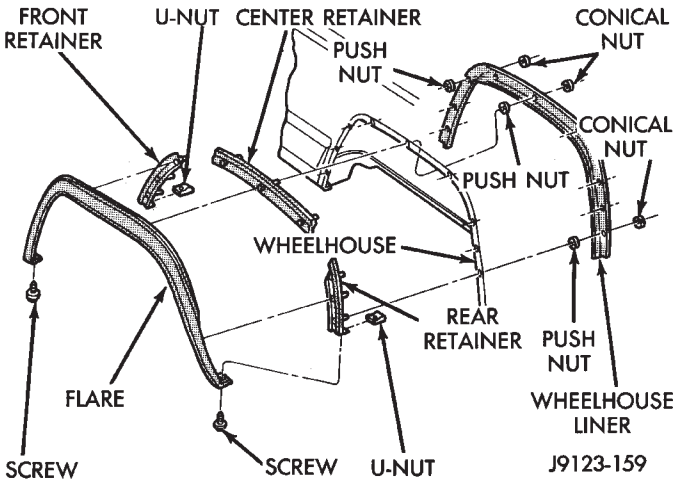


Fig. 53 Rear Wheelhouse Flare, Retainers and Liner

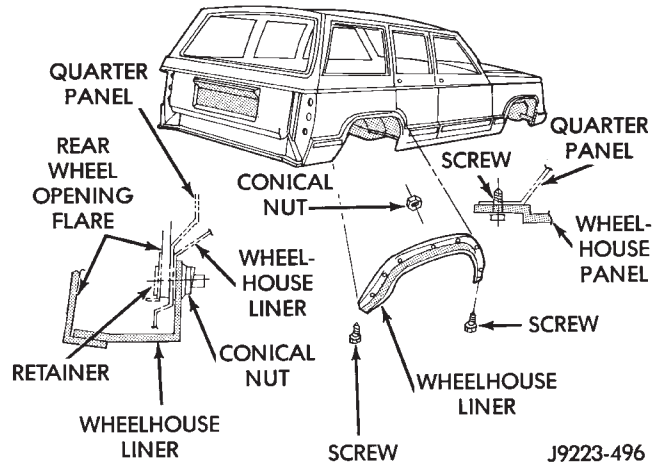


Fig. 54 Rear Wheelhouse Liner—XJ Vehicles

(2) Remove the nuts that attach the liner to the wheelhouse.

(3) Remove the liner from the wheelhouse.

(4) Remove the push-nuts that attach the flare retainers to the wheelhouse.

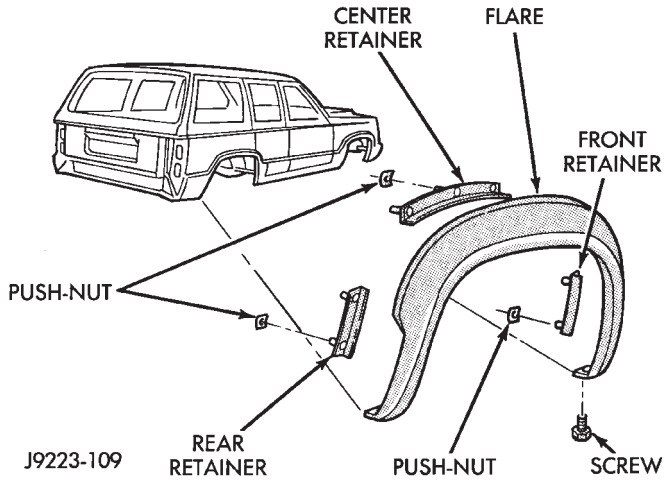


Fig. 55 Rear Wheel Opening Flare—XJ Vehicles

(5) Remove the flare and retainers from the wheelhouse.

INSTALLATION

(1) Position the flare and retainers at the wheelhouse.

(2) Install the push-nuts to attach the flare retainers to the wheelhouse.

(3) Position the liner in the wheelhouse.

(4) Install the nuts to attach the liner to the wheelhouse and flare retainers.

(5) Install the flare and liner lower screws. Tighten the screws to 1 N·m (13 in-lbs) torque.

BODY SIDE MOULDING/CLADDING

REMOVAL

(1) Loosen the vinyl body side moulding with a heat gun.

(2) Lift edge of moulding with a putty knife and peel moulding from body panel. Apply heat to any location where the moulding remains adhered to a panel.

(3) Remove the adhesive from the body panel with 3M All Purpose Cleaner, or an equivalent cleaner.

(4) If the original moulding will be installed, also remove all adhesive from it.

INSTALLATION

(1) Install 3M 06379 double-sided tape on the moulding.

(2) For vertical alignment, use masking tape or a string as reference.

(3) Remove the backing from the tape, align the moulding and position it on the body panel.

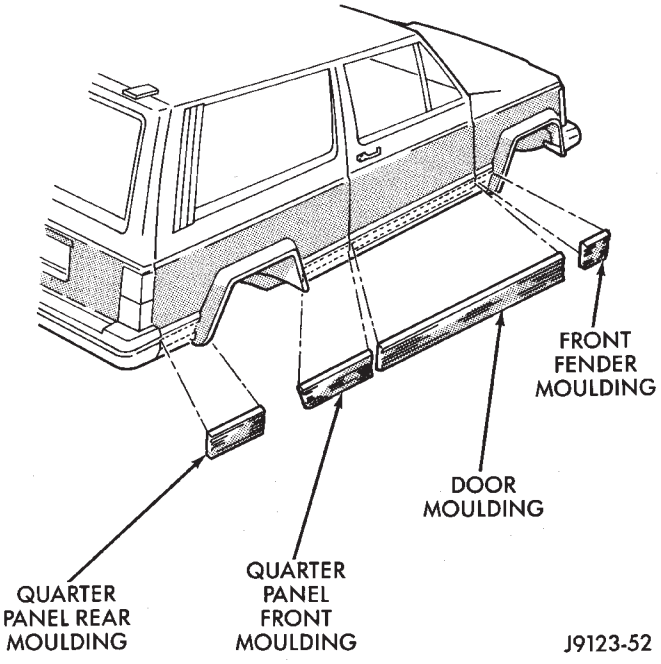


Fig. 56 Body Side Moulding—2-Door XJ Vehicles

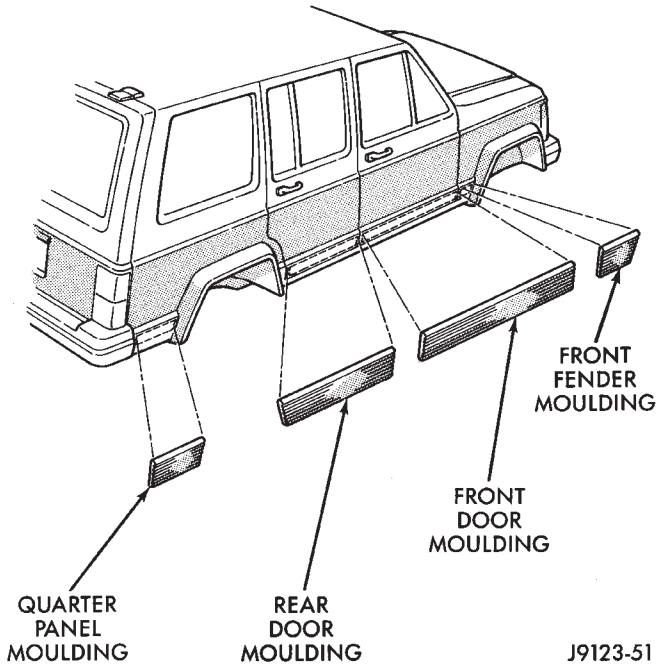


Fig. 57 Body Side Moulding/Cladding—4-Door XJ Vehicles

(4) Press the moulding onto the body panel with a roller or hand pressure.

WOODGRAIN MOULDING

SERVICE INFORMATION

Woodgrain mouldings are attached to the vehicle outer panels by four types of fasteners (Fig. 58):

- tubular clips,
- screws,
- nuts, and
- rivets.

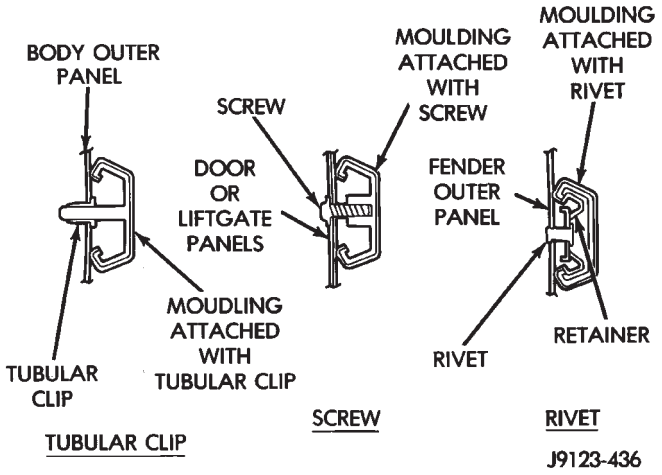


Fig. 58 Woodgrain Moulding Attaching Methods

Ensure that the method of moulding attachment is known (Fig. 62) before attempting removal.

FRONT FENDER MOULDINGS

REMOVAL/INSTALLATION

(1) Pry the moulding off outer fender panel.

(2) Align the moulding with retainers and with the clips in the fender panel. Press the moulding into place on the fender panel.

DOOR MOULDINGS

REMOVAL

(1) Remove the screw that attaches the moulding to the door panel edge.

(2) Pry the moulding off the door panel.

INSTALLATION

(1) Align the moulding with the clips in the door panel. Press the moulding into place on the door panel.

(2) Install the screw to attach the moulding to door panel edge. Tighten screw to 1 N·m (9 in-lbs) torque.

QUARTER PANEL MOULDINGS

REMOVAL/INSTALLATION

(1) Pry the moulding off the quarter panel.

(2) Align the moulding with clips in the quarter panel then press the moulding into place on the quarter panel.

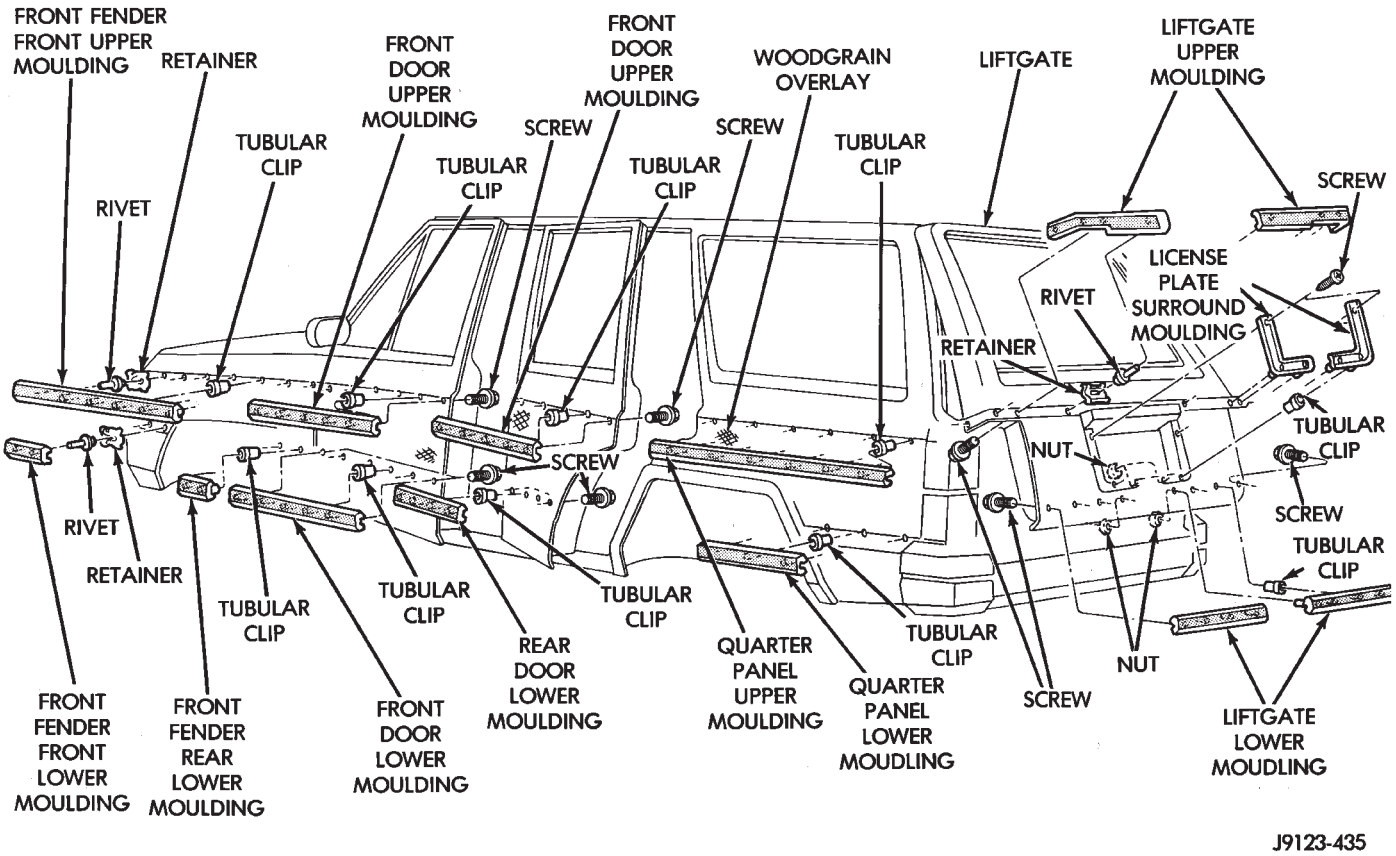


Fig. 59 Woodgrain Moulding—XJ

LIFTGATE UPPER MOULDING

REMOVAL

(1) Remove the screws that attach the moulding to the liftgate panel edge.

(2) Pry the moulding off the liftgate panel.

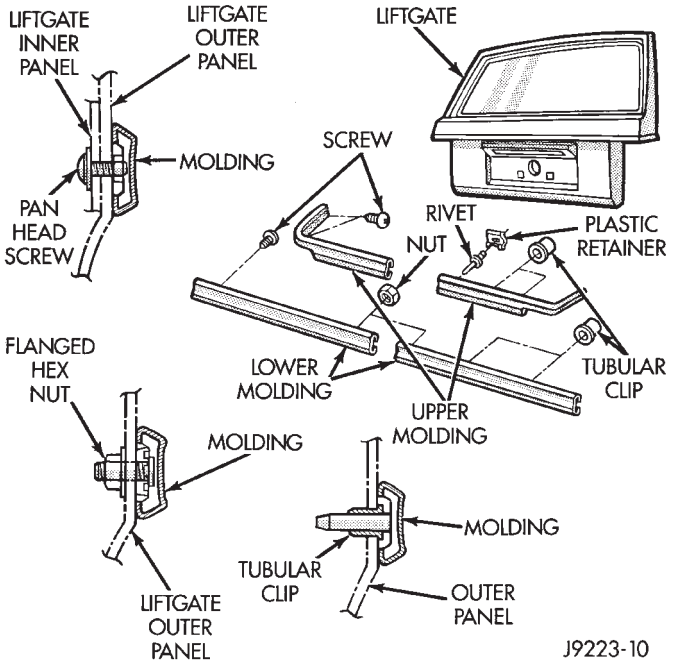


Fig. 60 Liftgate Mouldings—XJ

INSTALLATION

(1) Align the moulding with the retainer on the liftgate panel. Press the moulding into place on the liftgate panel.

(2) Install screws to attach the moulding to the liftgate panel edge. Tighten screws to 1 N·m (9 in-lbs) torque.

LIFTGATE LOWER MOULDING

REMOVAL

(1) Remove screw that attaches the moulding to the liftgate panel edge.

(2) Remove nut that attaches the inboard end of moulding to the liftgate panel.

(3) Pry the moulding off the liftgate panel.

INSTALLATION

(1) Align the moulding with the clips in liftgate panel. Press the moulding into place on the liftgate panel.

(2) Install the screw and nut to attach the ends of moulding. Tighten screw to 1 N·m (9 in-lbs) torque. Tighten the nut to 3 N·m (27 in-lbs) torque.

LICENSE PLATE SURROUND MOULDING

REMOVAL

(1) Remove the screw that attaches upper end of the moulding.

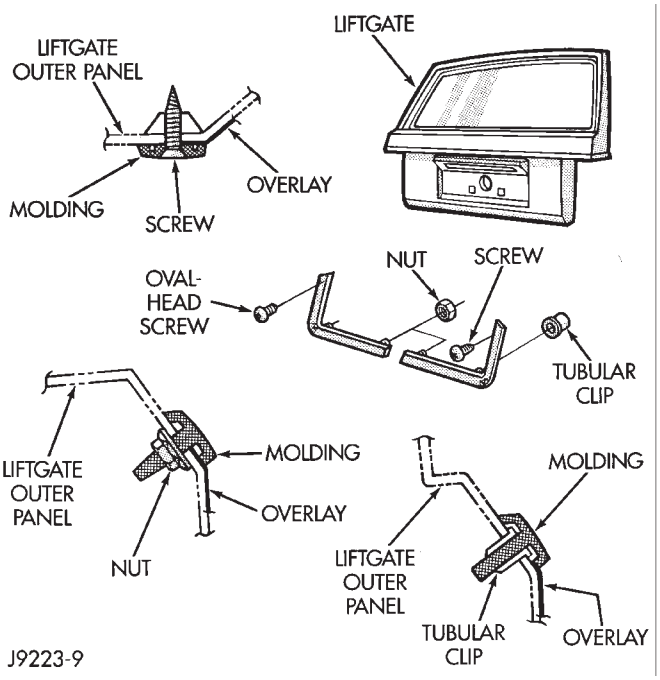


Fig. 61 License Plate Surround Moulding—XJ

(2) Remove the nut that attaches the inboard end of the moulding.

(3) Pry the moulding off the liftgate panel.

INSTALLATION

(1) Align the moulding with the clip in the liftgate panel. Press the moulding into place.

(2) Install the screw and nut to attach the ends of the moulding. Tighten the screw to 1 N·m (9 in-lbs) torque. Tighten nut to 3 N·m (27 in-lbs) torque.

LICENSE PLATE VISOR APPLIQUE

REMOVAL

(1) Drill the heads and remove the rivets that attach the outboard ends of the applique to the tailgate.

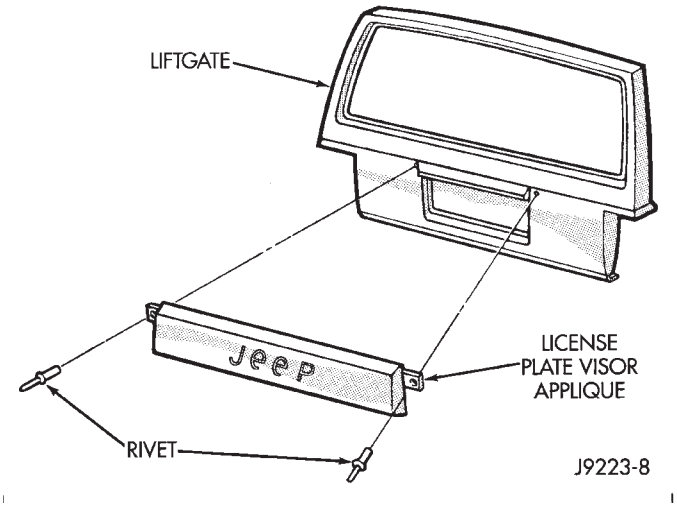


Fig. 62 License Plate Visor Applique

(2) Carefully pry the applique off the license plate visor and tailgate (Fig. 62).

INSTALLATION

(1) Align the moulding with the visor and then press the applique into place.

(2) Install the rivets to attach the outboard tabs on applique to the tailgate.

WOODGRAIN OVERLAY

SERVICE INFORMATION

Exterior woodgrain overlay is a weather-resistant vinyl. The adhesive backing is protected by a paper liner until removed for installation.

OVERLAY REPAIR

Small nicks and scratches on an overlay can be touched-up with paint.

To eliminate blisters and air bubbles, pierce them with a needle or pin. Force the trapped air out of the hole and press firmly on the overlay. Heat also can be applied to remove small wrinkles.

Whenever an overlay must be stretched, do not slit or cut it. Instead, apply heat and press or squeegee the overlay into place.

INSTALLATION REQUIREMENTS

Overlay replacement requires metal repair and paint refinish to be completed before the overlay is installed.

The work area temperature should be between 18°C (65°F) and 32°C (90°F). **A woodgrain overlay should not be replaced if the work area temperature is less than 18°C (65°F).**

The following equipment and material are necessary for overlay installation:

- a commercial woodgrain overlay removal solution;
- a commercial adhesive removal solution;
- liquid dish detergent (for wetting solution);
- a mixture of wetting solution;
- a commercial wax and silicone removal solution;
- isopropyl alcohol (rubbing alcohol);
- a squeegee (4 to 5 inches wide, plastic or hard rubber);
- a water bucket and sponge;
- sandpaper (no. 360 or no. 400, wet or dry type);
- a heat gun (or infra-red heat bulb);
- clean wiping rags or paper towels;
- a pair of scissors;
- a needle or pin; and
- a wax pencil.

Using a wetting solution helps the installation of an overlay. Prepare a solution by mixing two or three teaspoons of dish detergent with 1 gallon of water. **Do not use soap.**

Too much detergent will reduce the effectiveness of the mixture.

OVERLAY REMOVAL

(1) Remove the adjacent moulding from panel.

(2) Start at one corner and apply heat with a heat gun. Slowly peel the overlay from the panel (Fig. 63).

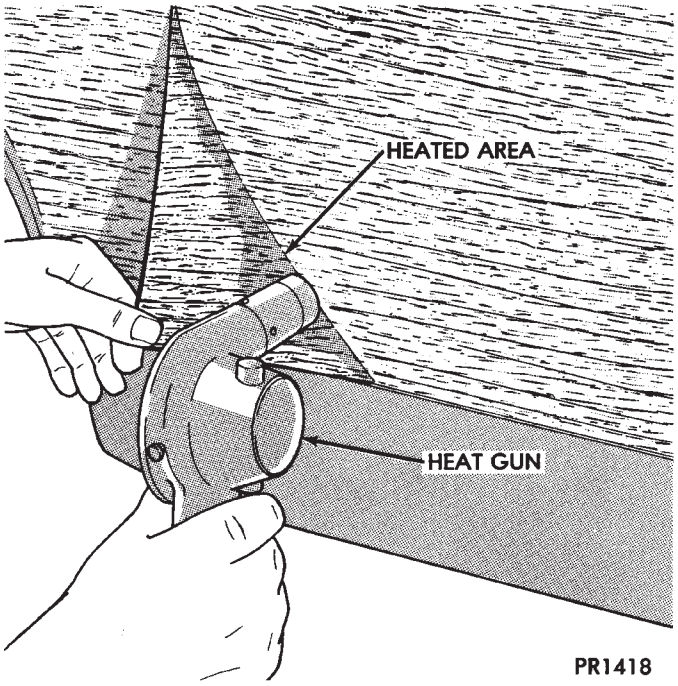


Fig. 63 Woodgrain Overlay Removal

WARNING: USE THE WOODGRAIN OVERLAY AND ADHESIVE REMOVAL SOLUTIONS IN A WELL-VENTILATED AREA ONLY.

(3) A commercial solution can be used for overlay removal where a heat gun is ineffective.

(4) Remove any adhesive remaining with a commercial solution.

(5) Wipe the panel with a cloth saturated with a cleaning solution.

OVERLAY INSTALLATION

The panel area that will be covered by the woodgrain overlay must be scuff sanded and then cleaned with a cleaning solution.

SURFACE PREPARATION

(1) Scuff-sand the painted surface with no. 360 or 400 sandpaper. **Freshly painted surfaces must be dry.**

(2) Clean the painted surface with a commercial wax and silicone removal solution. Wipe the surface with a clean cloth and allow it to dry.

OVERLAY PREPARATION

(1) If a complete panel overlay is not to be installed, position the overlay on the panel surface to be covered:

- mark the approximate outline on the overlay with a wax pencil;

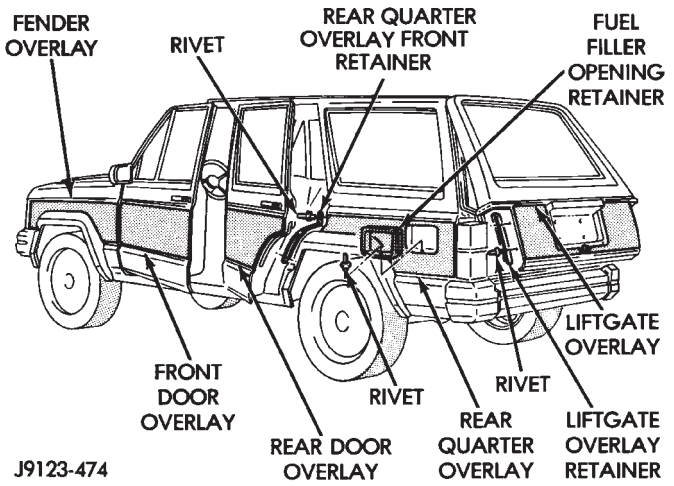


Fig. 64 Woodgrain Overlay—XJ Vehicles

• ensure that 12 mm (1/2 in) excess overlay material is allowed for wrapping around the door and fender flanges; and
• cut the overlay to the approximate size with scissors.

(2) Place the overlay on a clean, flat surface with the paper liner facing upward.

(3) Bend the corner of the overlay toward the woodgrain side and, with a flick of the finger, separate the paper liner from the overlay.

OVERLAY APPLICATION

(1) Use a clean sponge and apply the wetting solution to the overlay adhesive and to the painted panel surface.

(2) Position the adhesive side of the overlay on the panel.

(3) Apply solution to the woodgrain side of the overlay.

(4) For a complete, or a large section of overlay, the following method should be used:
• position a squeegee at the center and slide it across a short horizontal area of overlay;
• lift the right or left edge of the overlay, align it with the panel. Slide the squeegee toward the lifted edge with firm strokes;
• avoid stretching the overlay at its lifted edge;
• continue until all of the air bubbles and wetting solution are removed from the underside of the overlay.

If a wrinkle is trapped in the overlay, stop immediately. Lift the wrinkled area and re-align it to remove the wrinkle. Do not lift the overlay if only a few air bubbles exist.

(5) Notch the corner and curved edges of the overlay and trim the excess.

(6) Allow 12 mm (1/2 in) extra overlay to extend beyond the edges.

CAUTION: Use extreme care to avoid spilling isopropyl (rubbing) alcohol on the moulding or painted surfaces. Wipe spills immediately.

(7) Wipe the adhesive side of edges with isopropyl alcohol.

(8) Heat the overlay edges with a heat gun to soften and make them more pliable.

(9) Fold the edges over onto the panel flange area and press the overlay into place. Alternately heat and press the edge until it is bonded to the flange area.

(10) Carefully cut away the excess from panel the openings with a knife.

(11) Inspect the overlay. Remove all the air and moisture bubbles with a needle or pin.

(12) Install all the removed components and clean the vehicle as necessary.

FRONT FENDER OVERLAY APPLICATION

Install a complete front fender overlay according to the following instructions.

(1) Position the top edge of the front fender overlay at the character line and rear edge at the panel welds.

(2) Wipe the adhesive side of fender overlay edges with isopropyl alcohol.

(3) Heat the fender overlay edges with a heat gun to soften and make them more pliable.

CAUTION: Avoid unnecessary pulling and stretching at the ends.

(4) Fold the edges over onto the fender panel flange and press them into place.

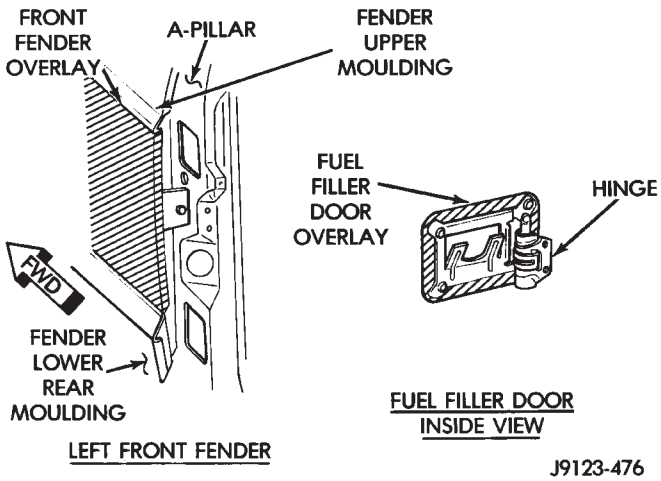


Fig. 65 Woodgrain Overlay Installation

(5) Install the fender moulding.

DOOR OVERLAY APPLICATION

Install a complete front or rear door overlay according to the following instructions.

(1) Position the top edge of the door overlay at the character line and the front edge at the panel welds.
(2) Wipe the adhesive side of the door overlay edges with isopropyl alcohol.
(3) Heat the door overlay edges with a heat gun to soften and make them more pliable.

CAUTION: Avoid unnecessary pulling and stretching at the ends.

(4) Fold edges over onto the door panel flange areas and press them into place.
(5) Install the overlay retainer at door front flange with rivets (Fig. 66).

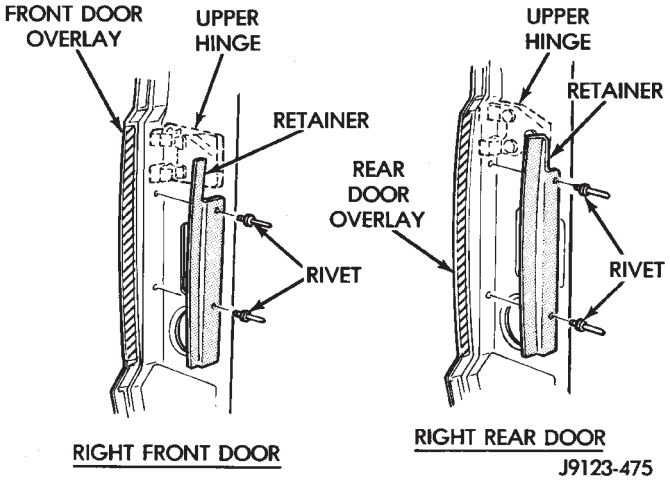


Fig. 66 Overlay Retainer At Door Front Flange

(6) Install the door edge guard (Fig. 67).

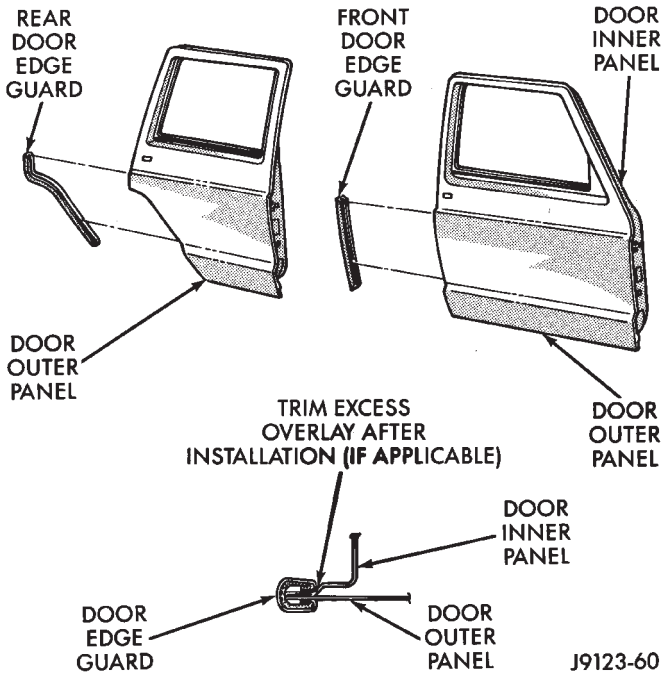


Fig. 67 Door Edge Guards

(7) Install the door moulding.

QUARTER PANEL OVERLAY APPLICATION

(1) Position the top edge of quarter panel overlay at character line and the rear edge at panel welds.
(2) Wipe the adhesive side of quarter panel overlay edges with isopropyl alcohol.
(3) Heat the quarter panel overlay edges with a heat gun to soften and make them more pliable.

CAUTION: Avoid unnecessary pulling and stretching at ends.

(4) Firmly fold the edges over onto quarter panel flange areas and press them into place.
(5) Install the overlay retainer at the rear door opening with rivets.

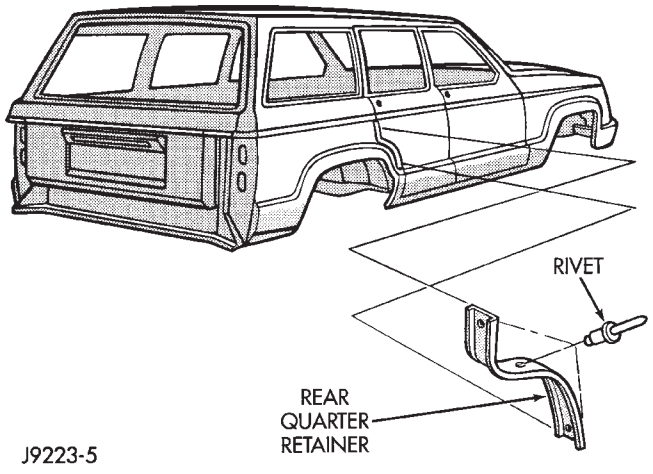


Fig. 68 Rear Door Opening Overlay Retainer

(6) Cut an opening in the overlay for the fuel filler opening.
(7) Install the overlay retainer at the fuel filler opening with rivets.

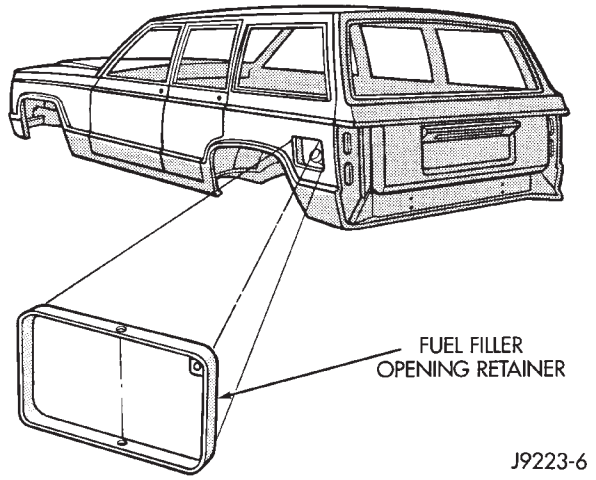


Fig. 69 Fuel Filler Opening Overlay Retainer

(8) Install the quarter panel moulding.

FUEL FILLER DOOR OVERLAY APPLICATION

(1) Clean the door flange with an appropriate solution.

(2) Position the top edge of the overlay at the character line and notches at door edge.

(3) Wipe the adhesive side of fuel filler door overlay edges with isopropyl alcohol.

(4) Heat the door overlay edges with a heat gun to soften and make them more pliable.

CAUTION: Avoid unnecessary pulling and stretching at the ends.

(5) Fold the overlay edges over onto the door panel flange areas and press them into place.

LIFTGATE OVERLAY APPLICATION

(1) Position the top edge of the overlay at character line and inner edges at the license plate recess.

(2) Wipe the adhesive side of the liftgate overlay edges with isopropyl alcohol.

(3) Heat the liftgate overlay edges with a heat gun to soften and make them more pliable.

CAUTION: Avoid unnecessary pulling and stretching at the ends.

(4) Fold the overlay edges over onto liftgate panel flange and press them into place.

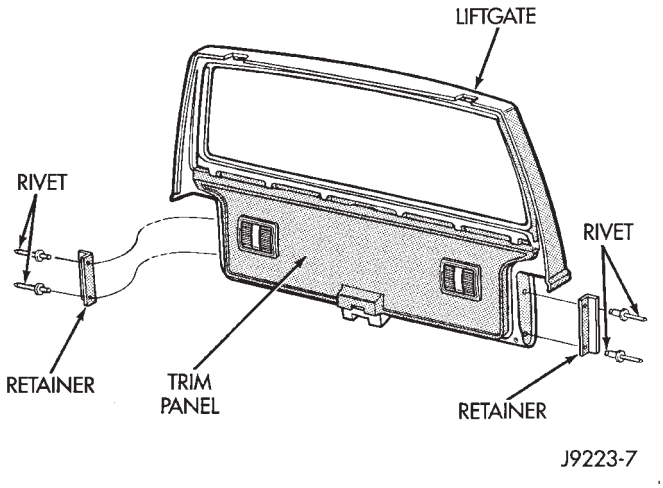


Fig. 70 Liftgate Overlay Side Retainers

(6) Install the liftgate moulding.

(7) Install the license plate visor applique.

BODY STRIPES/DECALS

SERVICE INFORMATION

XJ body stripes and decals are weather resistant tape with a adhesive backing.

REPAIR

Small nicks, scratches and other surface marks in a body stripe/decal can be touched-up with paint.

To eliminate blisters and air bubbles in a body stripe/decal, pierce them with a needle or pin.

A heat gun can also be used to remove small wrinkles in a stripe/decal.

REQUIREMENTS

Body stripe/decal replacement requires that the metal repair and paint refinish be completed first.

The work area temperature should be between 18°C (65°F) and 32°C (90°F). **A tape stripe/decal should not be replaced if the work area temperature is less than 18°C (65°F).**

The following equipment and material are necessary for removal and installation:

- a commercial tape stripe/decal removal solution;
- a commercial adhesive removal solution;
- liquid dish detergent (for the wetting solution);
- a mixture of wetting solution;
- a commercial wax and silicone removal solution;
- isopropyl (rubbing) alcohol;
- a small squeegee (plastic or hard rubber);
- a water bucket and sponge;
- clean wiping rags or paper towels;
- a heat gun (or infra-red heat bulb);
- a wax pencil;
- a sharp knife, single edge razor blade or X-acto knife;
- a pair of scissors; and
- a needle or pin.

The use of a wetting solution aids the installation of a tape stripe/decal on a painted panel. Prepare the wetting solution by mixing two or three teaspoons of dish detergent with 1 gallon of water. **Do not use soap.**

Too much detergent will reduce the effectiveness of the mixture.

REMOVAL

(1) Clean the repaired surface, adjacent panels and door the openings as necessary.

(2) Start at one end of the tape stripe/decal and apply heat with a heat gun. Slowly peel the stripe/decal from the panel by pulling it back. **Do not pull the tape stripe/decal outward from panel.**

WARNING: USE TAPE STRIPE/DECAL REMOVAL SOLUTION IN A WELL-VENTILATED AREA ONLY.

(3) A tape stripe/decal removal solution can be used for removal at areas where a heat gun is ineffective:

- Mask-off the body panel area surrounding the tape stripe/decal (Fig. 71);
- move solution spray across the complete length of stripe/decal with a steady motion;
- ensure that the complete stripe/decal is covered with solution;

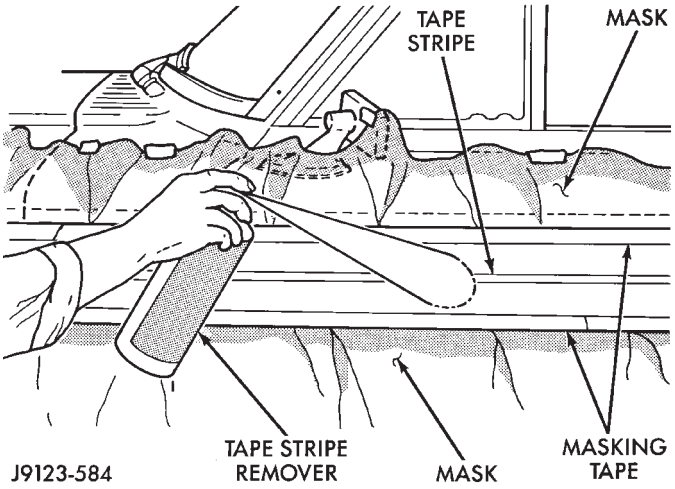


Fig. 71 Stripe/Decal Removal Solution Application

• allow stripe/decal removal solution to remain on the stripe/decal for 20 minutes;
• after 20 minutes, peel the stripe/decal away from flange area;

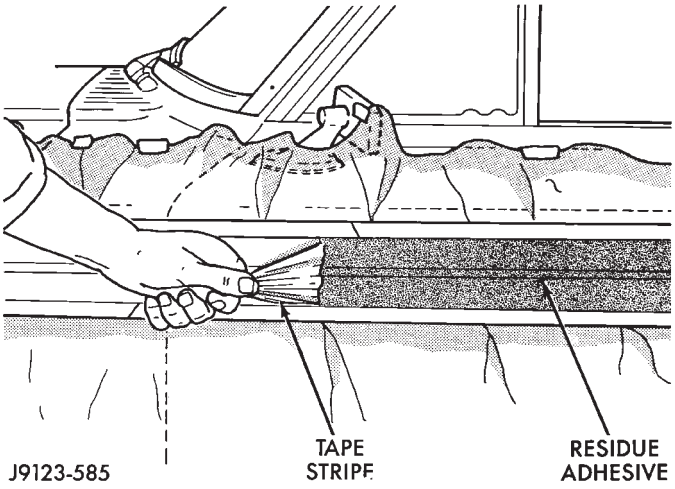


Fig. 72 Body Stripe/Decal Removal

• if there is difficulty with peeling the stripe/decal away from the body panel, use a squeegee (Fig. 73).
• with the stripe/decal removed, scrape all the stripe/decal solution from the panel surface before proceeding.

WARNING: USE THE ADHESIVE REMOVAL SOLUTION IN A WELL-VENTILATED AREA ONLY.

(4) After the stripe/decal is removed, remove any adhesive remaining with a removal solution.

Allow the adhesive removal solution to remain on the panel for 3 to 5 minutes only.

(5) After 3 to 5 minutes, use a squeegee to remove the adhesive (Fig. 74).

(6) Remove the masking tape and mask from the panel.

(7) Wipe the panel with a cloth saturated with an adhesive cleaning solution.

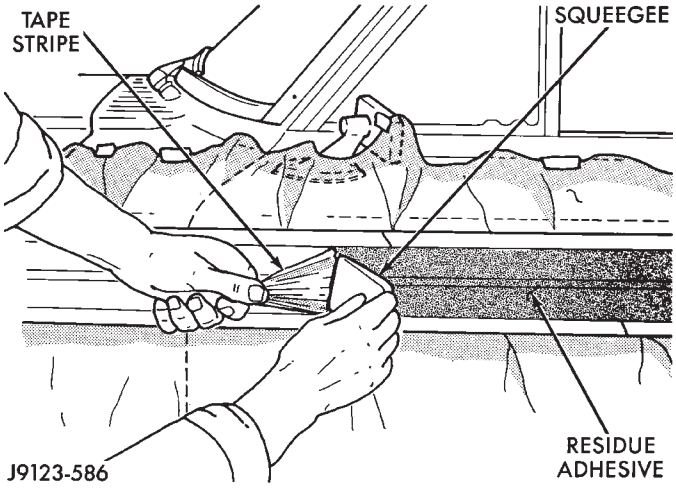


Fig. 73 Body Stripe/Decal Removal With A Squeegee

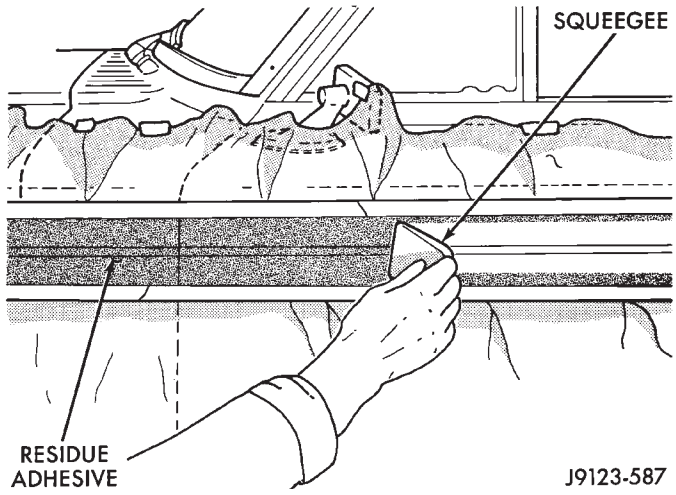


Fig. 74 Adhesive Removal With A Squeegee

BODY PANEL SURFACE PREPARATION

(1) The area that will be covered by the tape stripe/decal must be cleaned with cleaning solution.

(2) Freshly painted surfaces must be thoroughly dry.

(3) Clean the painted surface with a commercial wax and silicone removal solution. Wipe the surface with a clean cloth and allow it to dry.

REPLACEMENT ON ONE PANEL

For tape stripes/decals, use a clean sponge and apply the wetting solution:

• to the adhesive side of the tape stripe/decal, and
• to the painted panel surface.

The wetting solution will permit ease of tape stripe/decal movement when positioning it.

(1) Align a straight edge with the existing tape stripe/decal ends (Fig. 75).

If applicable, the body panel character line can be used as the tape stripe/decal alignment reference.

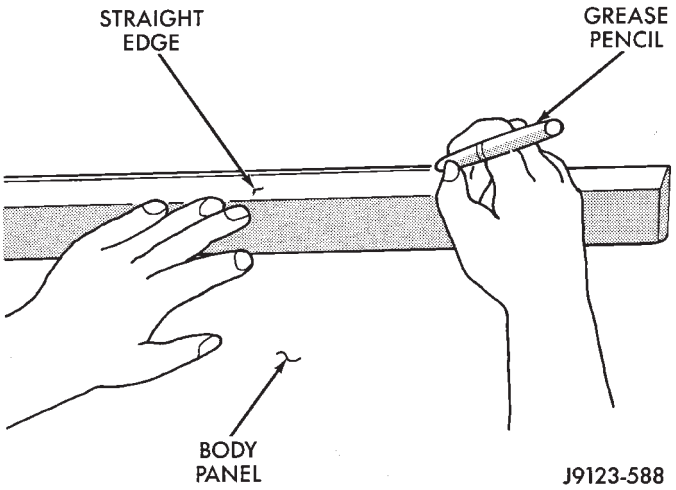


Fig. 75 Stripe/Decal Alignment Reference Mark

(2) Position the tape stripe/decal and carrier on the body panel and the mark length with a wax pencil.

(3) Cut the stripe/decal and carrier at the required length with scissors.

(4) Position the stripe/decal and carrier on the body panel and hold it in-place with masking tape (Fig. 76).

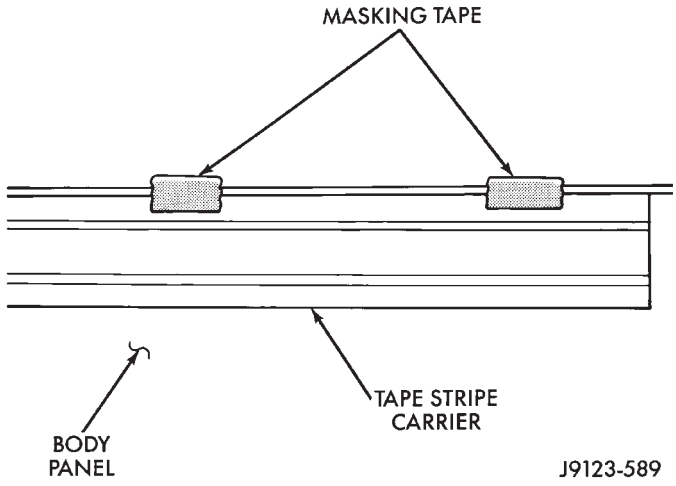


Fig. 76 Tape Stripe/Decal And Carrier Retained On Body Panel

(5) Lift the bottom edge of tape stripe/decal and carrier. Use the tape sections as hinges, and reverse the position of stripe/decal and carrier.

CAUTION: Always remove the carrier from the tape stripe/decal, never remove the tape stripe/decal from carrier

(6) Bend a corner of carrier outward and then, with a flick of the finger, separate the corner of carrier from the decal.

(7) Separate approximately 15 cm (6 in) of the carrier from one end of the tape stripe/decal.

(8) Return the tape stripe/decal back to its original position. If a solution is being used, position adhesive

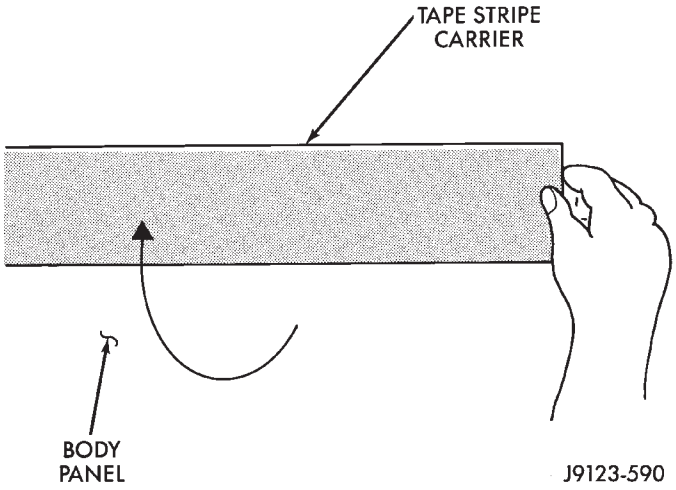


Fig. 77 Tape Stripe/Decal And Carrier Reversed On Body Panel

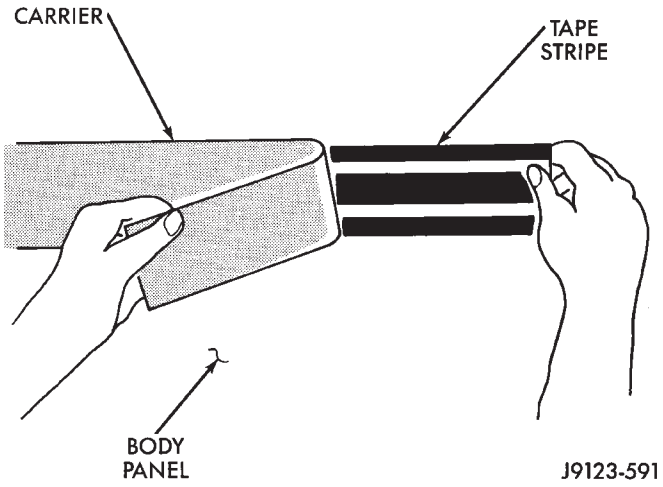


Fig. 78 Tape Stripe/Decal and Carrier Separated

side of the tape stripe/decal on panel. Apply the solution to the outside of the tape stripe/decal.

(9) Hold the tape stripe/decal against the panel surface while separating the carrier from the stripe/decal.

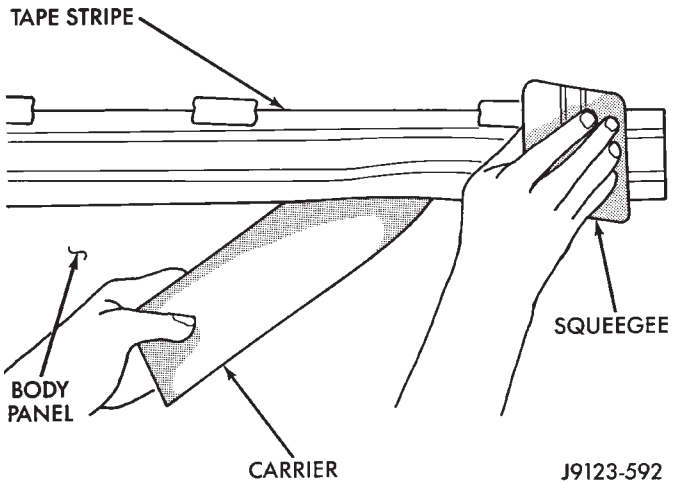


Fig. 79 Tape Stripe/Decal Installation

(10) Where applicable, extend the tape stripe/decal 12 mm (1/2 in) beyond door edge. Wrap it around the edge and press it to the door flange.

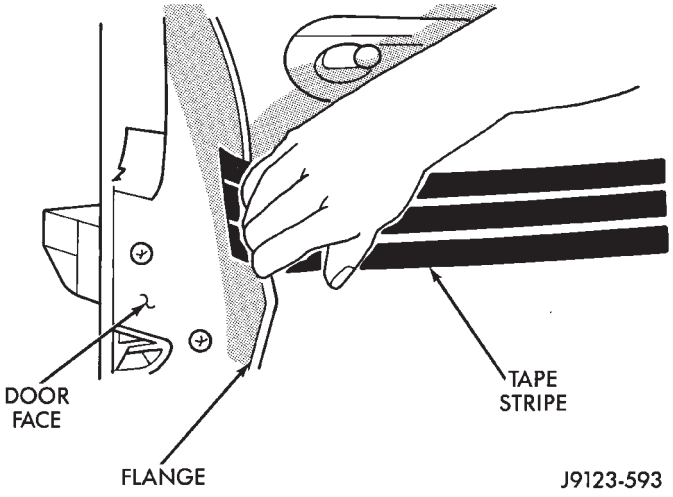


Fig. 80 Tape Stripe/Decal Installation On Door Flange

(11) If applicable, remove the cover from face of tape stripe/decal.

(12) Inspect the tape stripe/decal with reflected light to find any damage. Remove all the air and/or moisture bubbles.

COMPLETE REPLACEMENT

The following procedure will simplify the installation of a complete or very large section.

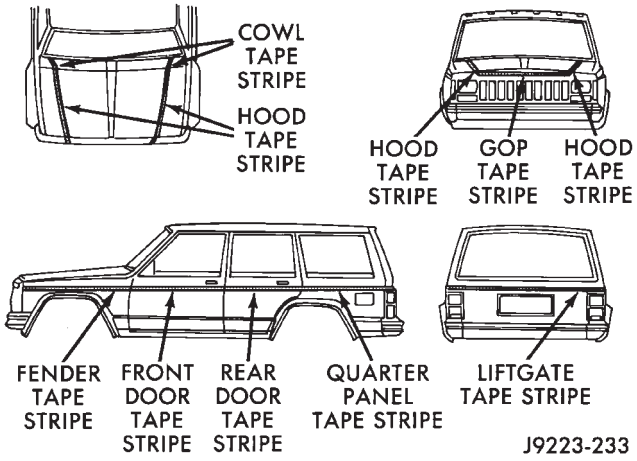


Fig. 81 Tape Stripes—XJ

(1) Place the tape stripe/decal on a clean, flat surface with the carrier side facing upward.

CAUTION: Always remove the carrier from tape stripe/decal, never remove the tape stripe/decal from the carrier.

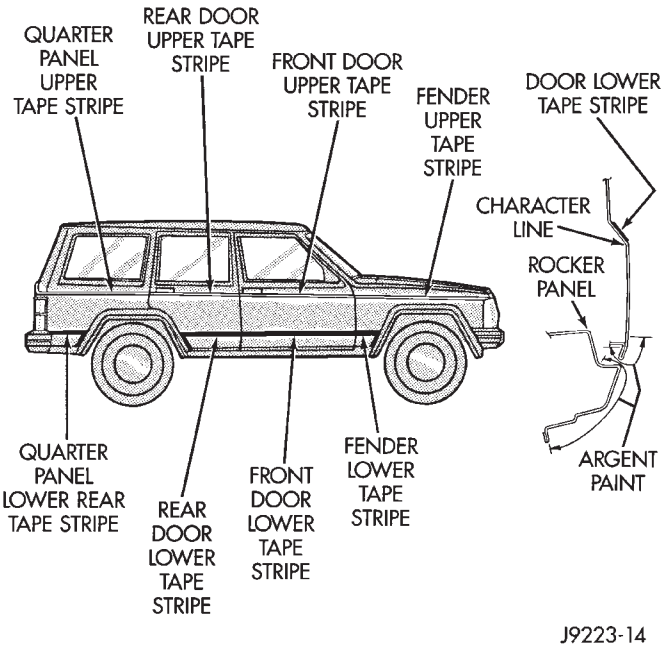


Fig. 82 Upper and Lower Body Side Tape Stripes—XJ Vehicles

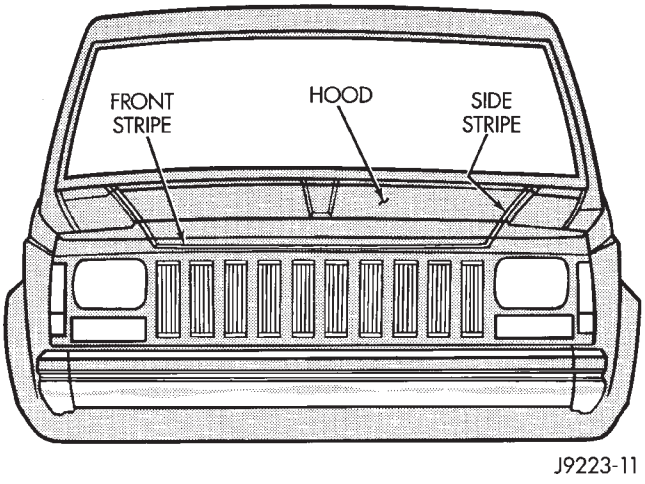


Fig. 83 Hood Tape Stripes—XJ Vehicles

(2) Bend a corner of the carrier inward and then, with a flick of the finger, separate the corner of carrier from the tape stripe/decal.

(3) Retain the tape stripe/decal firmly against flat surface and separate the carrier from tape stripe/decal.

(4) Use a sponge and apply solution to the tape stripe/decal adhesive and to panel surface.

(5) Position the adhesive side of tape stripe/decal on the panel with the bottom aligned with the character line.

- align the end of the replacement tape stripe/decal with the end of existing tape stripe/decal, and
- correctly align the index darts and index notches.

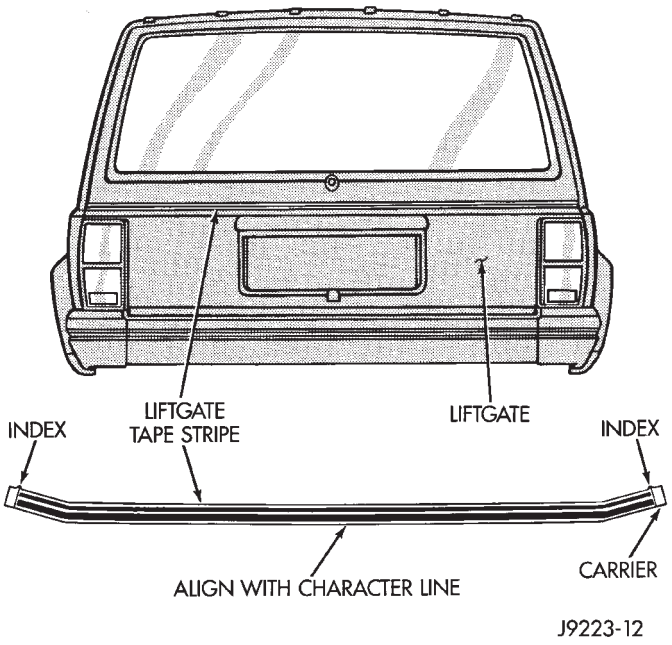


Fig. 84 Tailgate Tape Stripes—XJ Vehicles

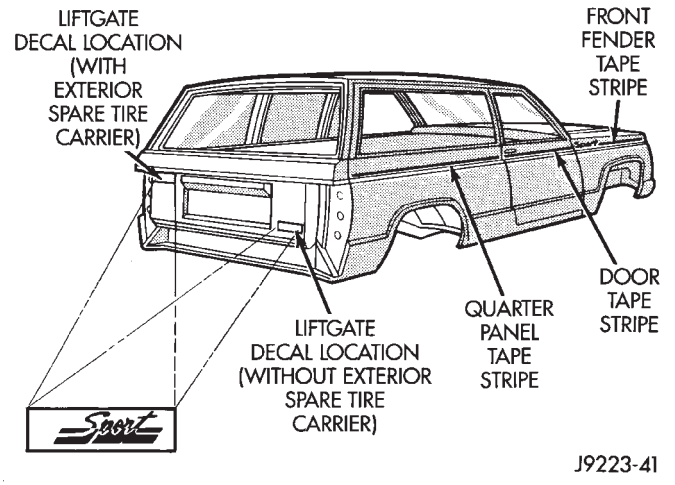


Fig. 85 Tape Stripes and Decal—XJ Sport

(6) If a complete replacement tape stripe/decal is not being installed:

- position the replacement tape stripe/decal section at the center of the repair area,
- align it with the existing tape stripe/decal, and
- allow at least 12 mm (1/2 in) of the tape stripe/decal section to overlap the tape stripe/decal edges.

(7) Apply the wetting solution to the outer side of the tape stripe/decal.

CAUTION: Avoid unnecessary pulling and stretching at the ends.

(8) Slide a squeegee from the center to the ends of the tape stripe/decal. Use firm strokes to remove all of the air bubbles.

(9) If a wrinkle is trapped in the tape stripe/decal stop immediately. Lift the wrinkled area and re-align it with the character line to remove the wrinkle. **Do not lift the tape stripe/decal if only a few air bubbles exist.**

(10) Where applicable, allow 12 mm (1/2 in) extra tape stripe/decal to extend beyond edges.

(11) Fold the excess tape onto the inside flange and adhere it with finger pressure.

(12) Inspect the tape stripe/decal installation with the reflected light to find any damage.

(13) Remove all the air and moisture bubbles from the tape stripe/decal with a needle or pin.

(14) Install any removed components and clean the vehicle as necessary.

QUARTER WINDOW APPLIQUE—XJ VEHICLES

REMOVAL/INSTALLATION

(1) Remove nuts from inside vehicle.

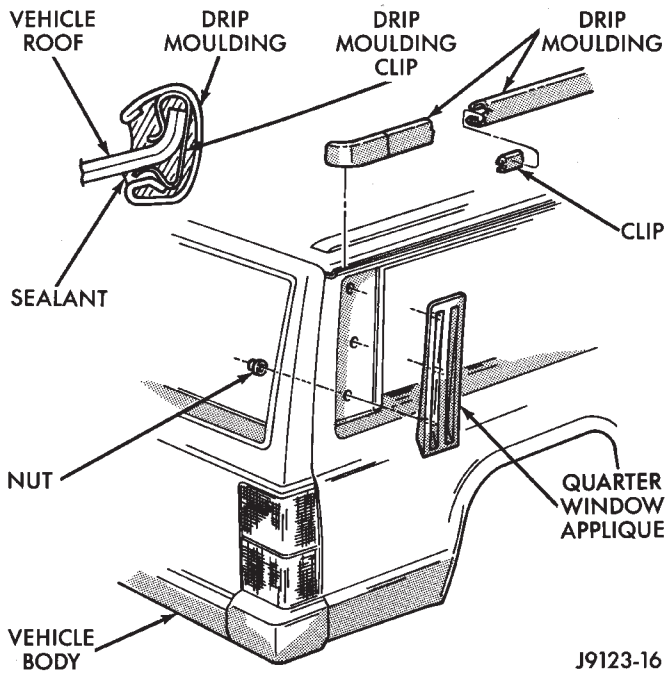


Fig. 86 Quarter Window Applique and Drip Moulding

(2) Carefully pry the applique the from panel.

(3) Position the replacement applique the on panel and install the nuts.

DRIP RAIL MOULDING—XJ VEHICLES

REMOVAL

(1) Pry the clips from the roof flange.

(2) Remove the clips and moulding from the roof flange.

(3) Remove the remaining sealant and clean the roof flange.

INSTALLATION

(1) Position the drip rail moulding with clips at the roof flange and force the clips onto the roof flange.

(2) Apply sealant to the inner side of the moulding to seal the roof flange.

AIR EXHAUST GRILLE—XJ VEHICLES

REMOVAL

(1) Remove the screw that attaches the grille to door the opening panel (Fig. 87).

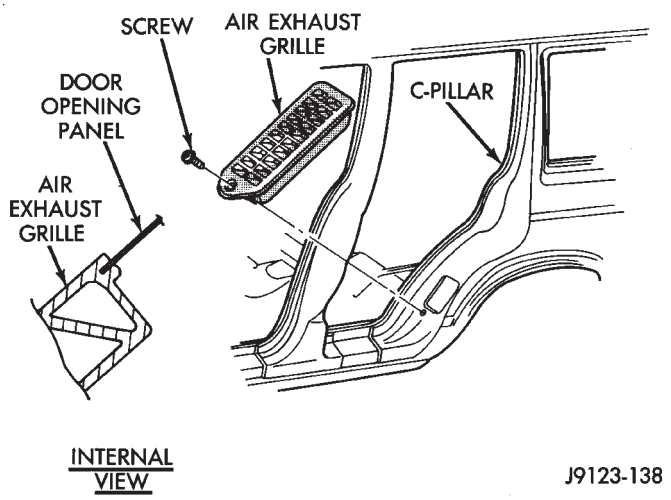


Fig. 87 Door Opening Air Exhaust Grille

(2) Pry the bottom edge of the grille from the door opening panel.

(3) Pull downward and remove the grille from exhaust port in the door opening panel.

INSTALLATION

(1) Position the slot located in the upper end of replacement grille at the exhaust port and insert edge in the slot.

(2) Push inward and seat the grille in the exhaust port.

(3) Install the screw to attach the grille to the door opening panel.

EXTERIOR NAMEPLATES

SERVICE INFORMATION

All of nameplates, with the exception of the JEEP nameplate located on the grille are attached with adhesive.

GRILLE OPENING PANEL NAMEPLATE

REMOVAL

(1) Remove the grille opening panel (GOP) support bracket.

(2) As applicable, remove the nut(s) from the letter(s) that must be replaced.

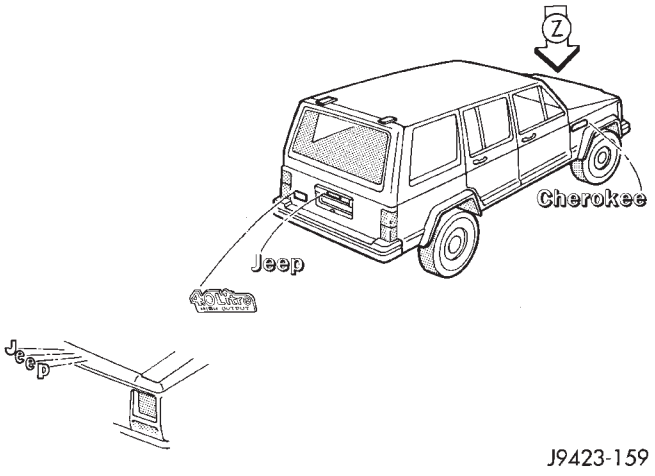


Fig. 88 XJ Exterior Nameplates

(3) Remove the nameplate letter(s) from GOP.

INSTALLATION

(1) Clean the panel surface.

(2) Position the replacement letter(s) on the GOP.

(3) Install the nut(s) and tighten.

ADHESIVE-BACKED NAMEPLATES

REMOVAL/INSTALLATION

(1) Pry the nameplate from vehicle panel.

(2) Clean the panel surface.

(3) Position the replacement nameplate on the panel push inward to seat it.

FUEL FILLER NOZZLE/TUBE

REMOVAL

(1) Remove the fuel filler door from the quarter panel (Fig. 89).

(2) For XJ vehicles, remove the fuel filler hose splash shield from the quarter inner panel and frame rail (Fig. 89).

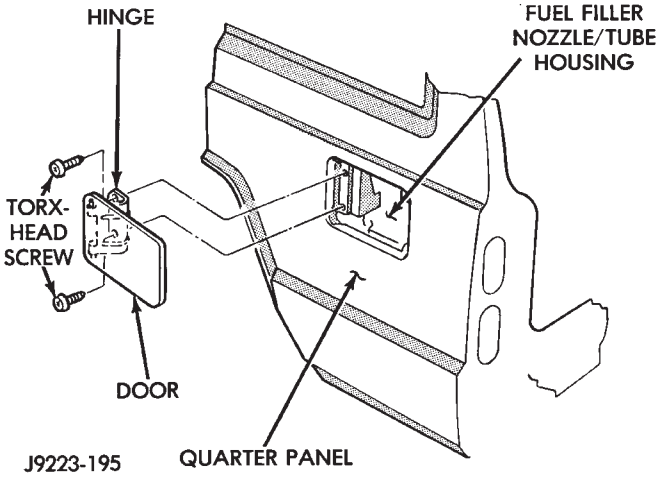


Fig. 89 Fuel Filler Door—Typical

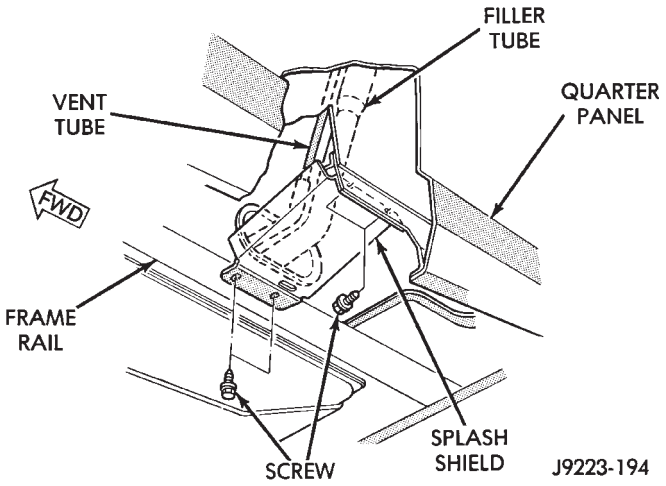


Fig. 90 Fuel Filler Hose Splash Shield—XJ Vehicles

(3) Remove the cap from the nozzle.

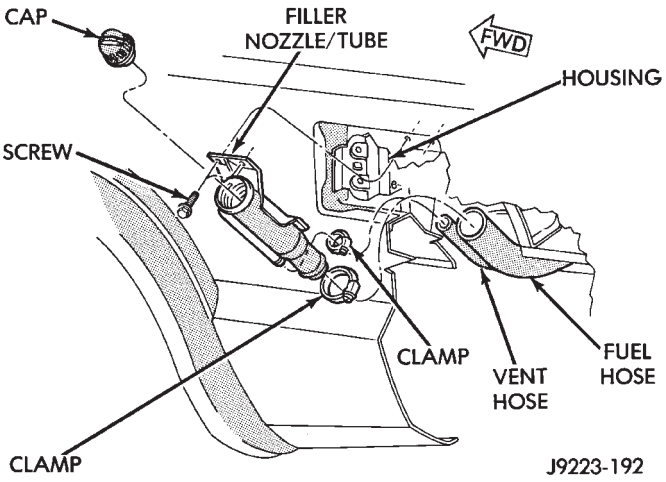


Fig. 91 Fuel Filler Nozzle/Tube—XJ Vehicles

(3) Loosen the clamps and separate the hoses from the tubes.

(4) Remove the screws that attach the nozzle to the housing.

(5) Remove the nozzle/tube from the fuel filler housing.

INSTALLATION

(1) Insert the fuel filler nozzle/tube into the housing.

(2) Install the screws to attach the nozzle/tube to the housing. Tighten screws to 2 N·m (20 in-lbs) torque.

(3) Attach the hoses to the tubes with clamps. Tighten the clamp screws to 4 N·m (35 in-lbs) torque.

(4) Install the cap on nozzle.

(5) For XJ vehicles, install the fuel filler hose splash shield on the quarter inner panel and frame rail.

(6) Install the fuel filler door on the quarter panel.

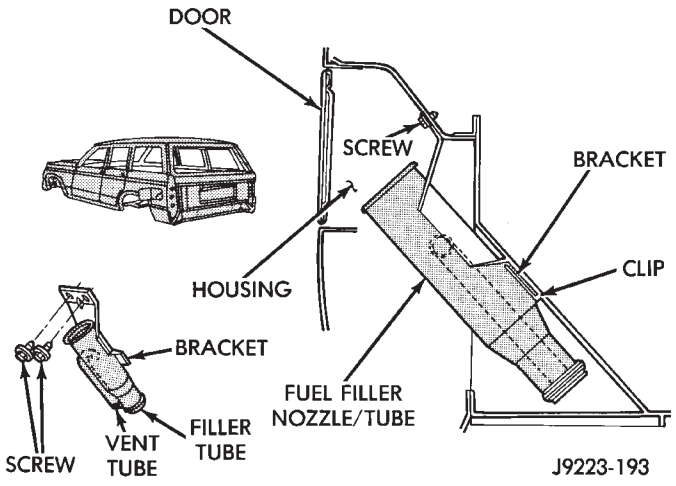


Fig. 92 Fuel Filler Nozzle/Tube Removal/Installation—XJ Vehicles

FUEL FILLER DOOR BUMPERS

REPLACEMENT

(1) Grasp the bumper with pliers and pull outward to remove it from the hole.

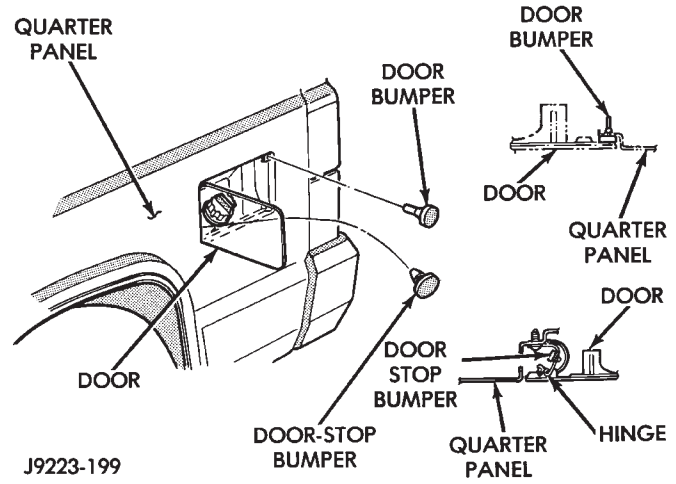


Fig. 93 Fuel Filler Door Bumpers

It may be necessary to remove the door to replace the door-stop bumper.

(2) Insert bumpers in the holes and force them inward until they are seated in the holes.

EXTERNAL MIRRORS

SERVICE INFORMATION

Service procedures for all external rear view mirrors are below.

REMOTE AND POWER/MANUAL MIRRORS

REMOVAL

(1) Remove the door trim panel.

(2) Remove the mirror inside trim cover screw.

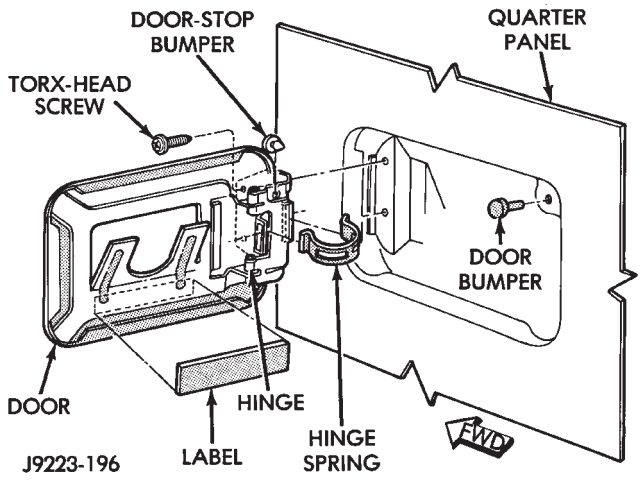


Fig. 94 Fuel Filler Door-Stop Bumper

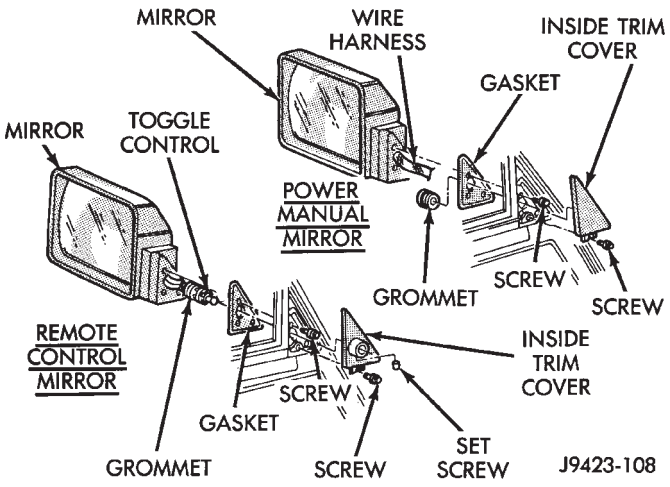


Fig. 95 Remote and Power/Manual Mirrors

(3) For power/manual mirrors, remove the inside trim cover.

(4) For remote control mirrors, loosen the toggle control setscrew.

(5) For remote control mirrors, remove the inside trim cover.

(6) Remove the mirror screws.

(7) Remove the mirror from the door. Refer to Group 8—Electrical.

INSTALLATION

(1) Position the mirror adjacent to the vent window.

(2) Install the mirror screws. Tighten the screws securely.

(3) For remote mirrors, position the inside trim cover over the toggle control and tighten the setscrew.

(4) Install the inside trim cover.

(5) Install the inside trim cover screw.

(6) Install the door trim panel.

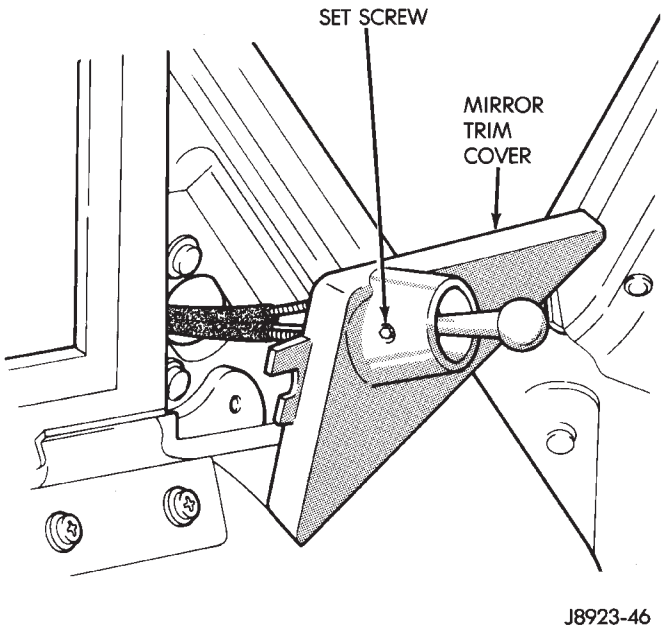


Fig. 96 Remote Mirror Toggle Control Set Screw

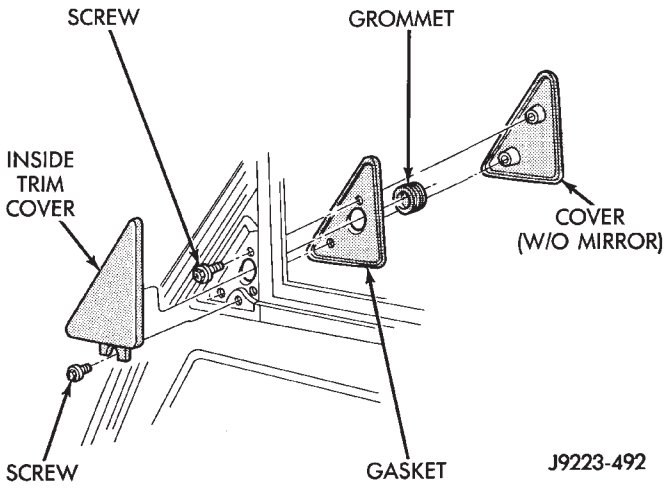


Fig. 97 Trim Covers Without External Mirror

LUGGAGE RACK—XJ VEHICLES

REMOVAL

(1) Remove the slide rail screws.

(2) Remove the luggage rack from the roof.

The skid strips are attached to the roof panel with adhesive.

(3) Loosen each skid strip with a heat gun.

(4) Lift one edge of each skid strip with a putty knife and peel it from the roof panel.

(5) Remove the original adhesive from the roof with an adhesive removal solution.

(6) If the original skid strips are installed, remove all the original adhesive from them.

INSTALLATION

(1) Install 3M 06379 double-sided tape, or an equivalent on skid strips.

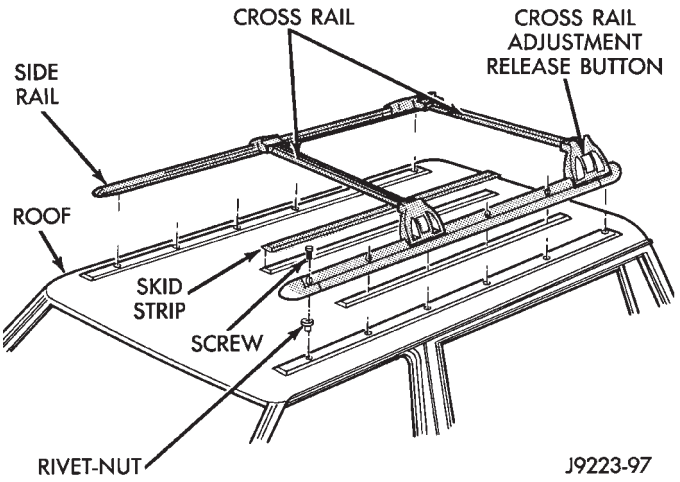


Fig. 114 Luggage Rack—XJ Vehicles

(2) Remove the backing from the double-sided tape, align each skid strip on the roof, and position it on the roof panel.

(3) Verify that each skid strip is properly aligned.

(4) Press each skid strip onto the roof panel with a roller (or use hand pressure).

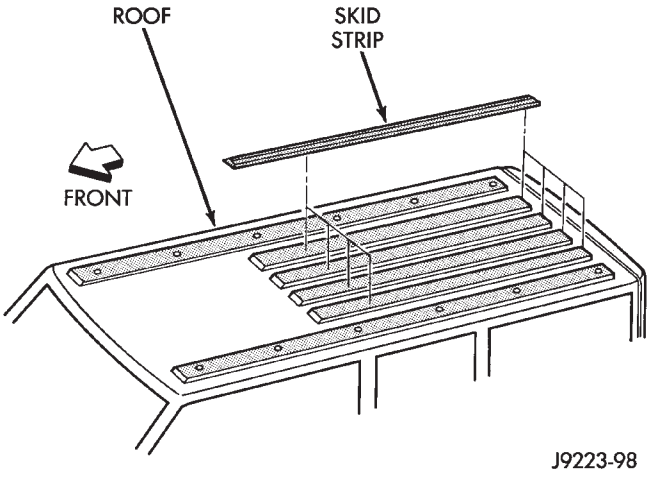


Fig. 115 Skid Strip Installation

To prevent water leaks, apply 3M Drip-Chek Sealant, or equivalent.

(5) Position the luggage rack on the roof with the screw holes aligned.

(6) Install and tighten the slide rail screws to 3 N·m (28 in-lbs) torque.

DOORS

INDEX

SERVICE INFORMATION

The door service procedures includes removal, installation and/or replacement of the following door components:

- door handles,
- armrests,
- trim panels,
- waterdams,
- door restraints,
- front doors,
- rear doors (XJ vehicles only),
- window glass regulators,

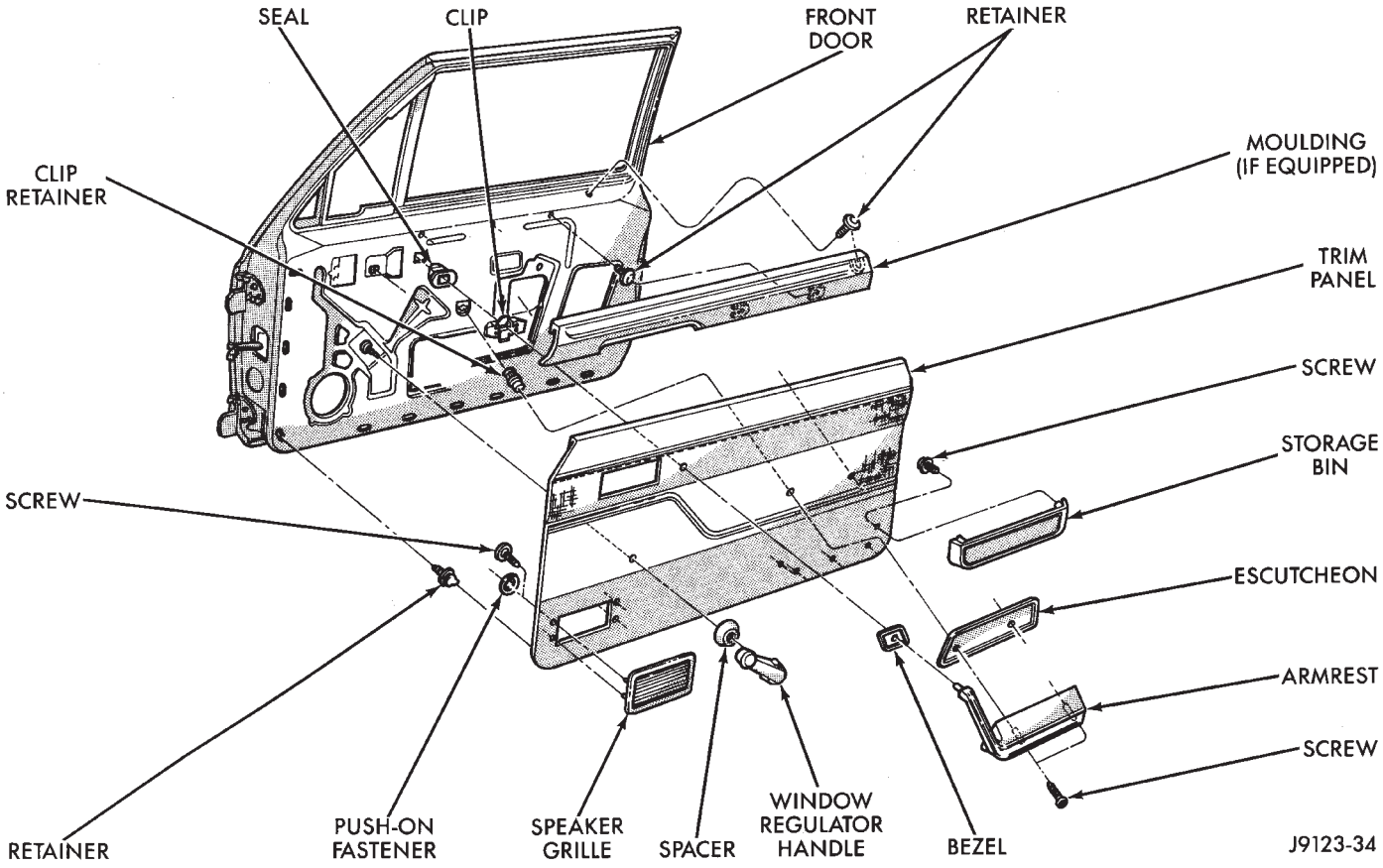


Fig. 1 Front Door Trim Panel

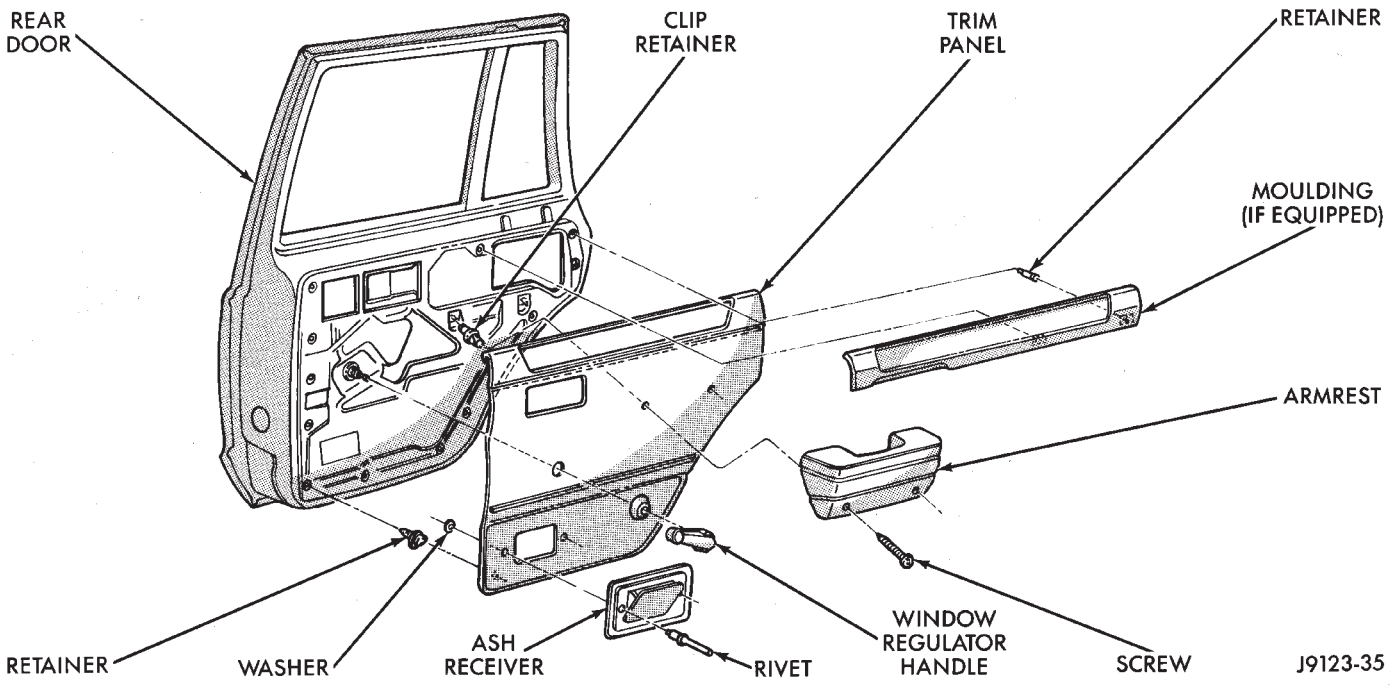


Fig. 2 Rear Door Trim Panel

- door vent and window glass,
- key lock cylinders,
- door half-hinges,
- liftgate (XJ vehicles only),
- liftgate hinges (XJ vehicles only),
- liftgate gas support rod cylinders (XJ vehicles only),
- rocker panel seals, and
- mouldings/weatherstrip seals.

DOOR TRIM PANEL

SERVICE INFORMATION

All attached components can be removed from door trim panels (Figs. 1 and 2).

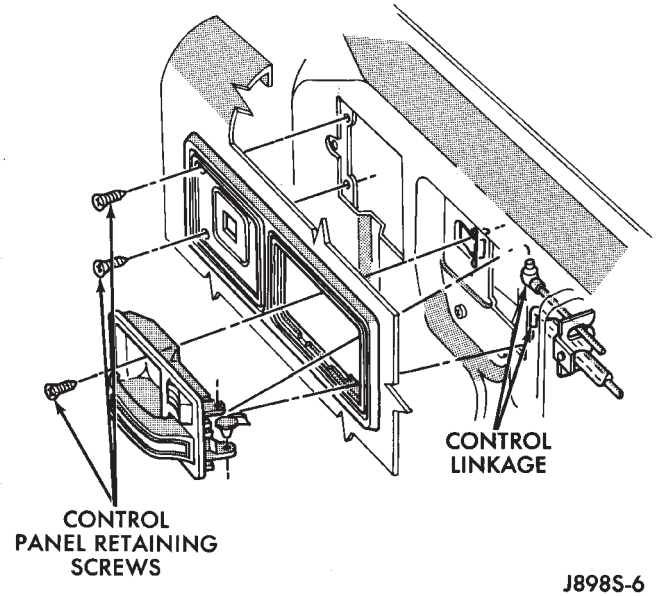


Fig. 3 Front Door Inside Latch Release Handle

REMOVAL

(1) Remove the door inside latch release handle screws (Figs. 3 and 4).

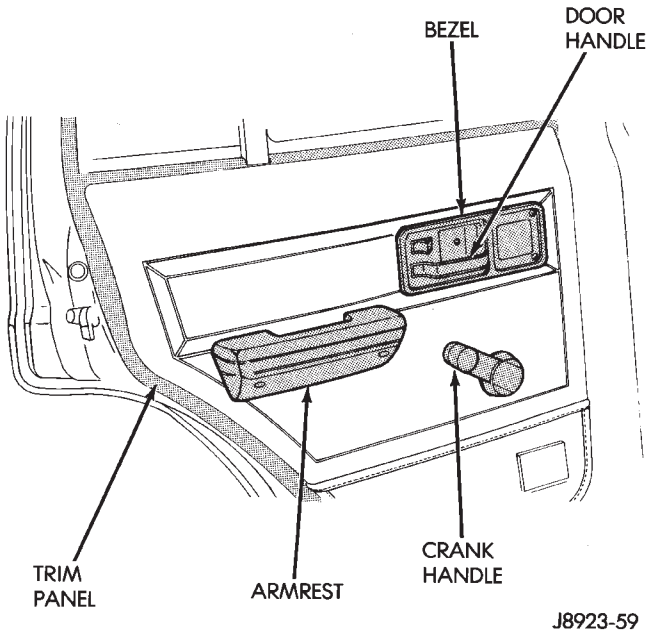


Fig. 4 Rear Door Inside Latch Release Handle

(2) Move the door handle outward and disconnect the handle-to-latch rods (Fig. 5). For vehicles equipped with power door locks/windows, disconnect the wire harness connector (Fig. 6).

(3) Remove the regulator handle (Fig. 7) or, if equipped, power window switches and bezel.

(4) Remove the armrest lower screws.

(5) Pull armrest straight outward from panel and remove the bezel.

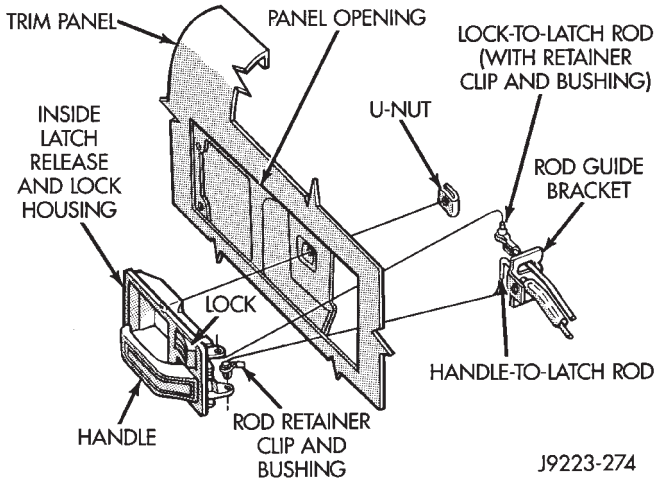


Fig. 5 Door Inside Latch Release Rods

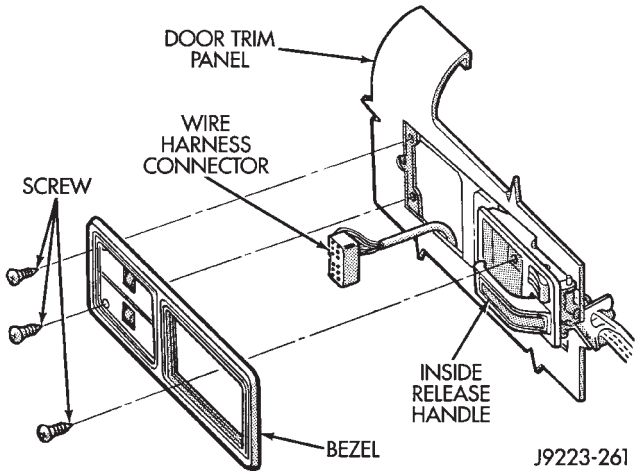


Fig. 6 Power Switch Wire Harness Connector

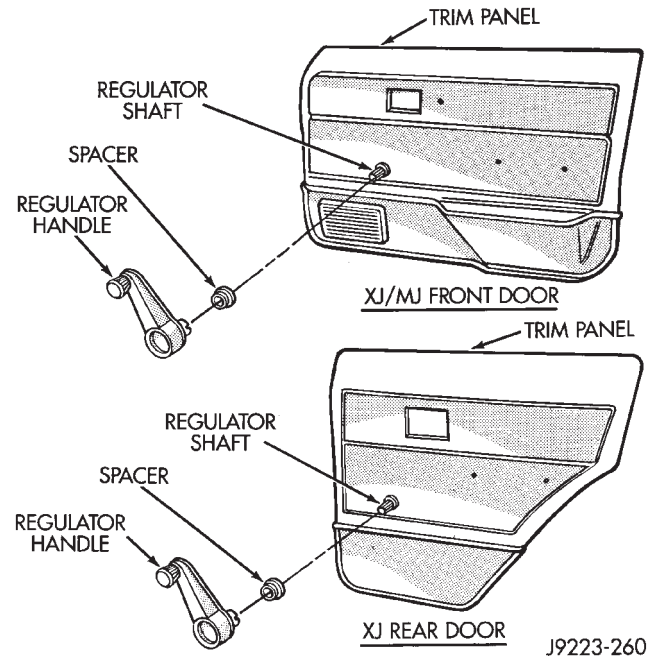


Fig. 7 Window Regulator Handles

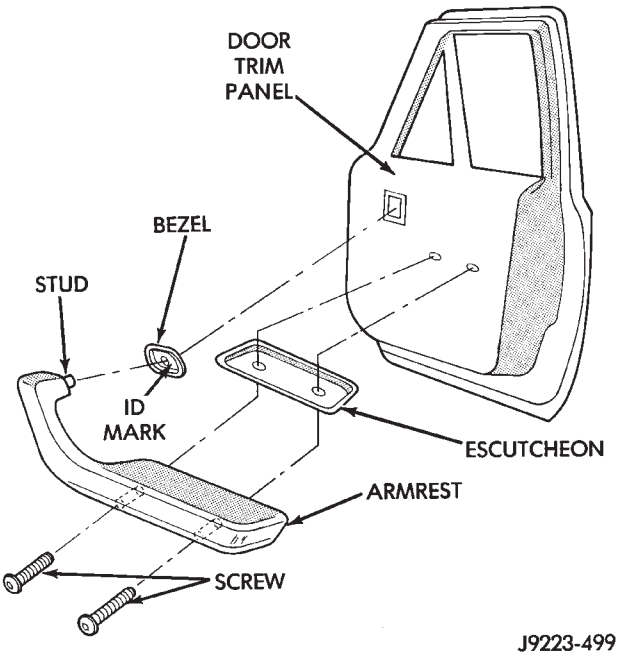


Fig. 8 XJ Front Door Armrest Removal/Installation

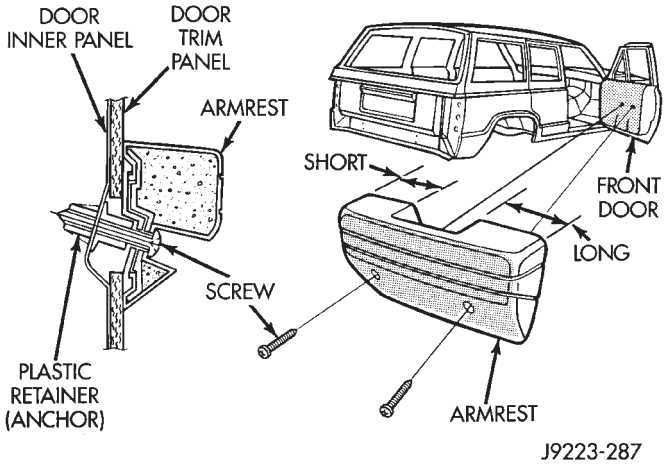


Fig. 9 XJ Front Door Armrest Removal/Installation

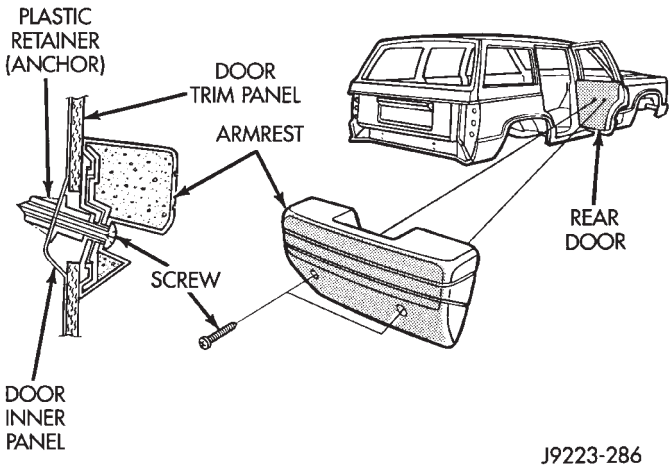


Fig. 10 XJ Rear Door Armrest Removal/Installation

(6) For XJ vehicles, remove the woodgrain moulding from the door inner panel and the inner weatherstrip seal (Figs. 11 and 12).

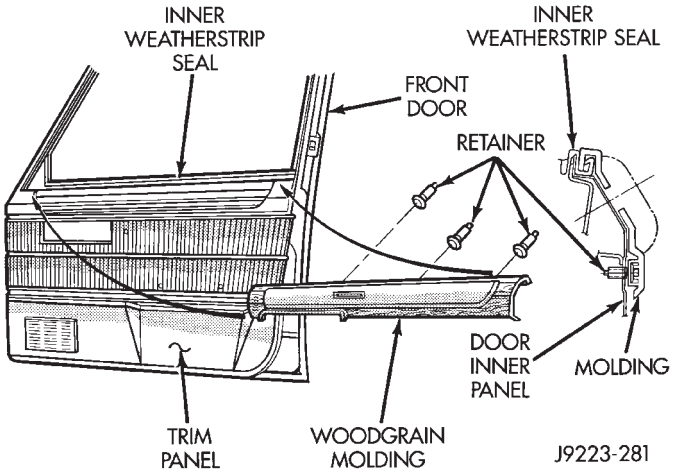


Fig. 11 XJ Woodgrain Moulding—Front Door

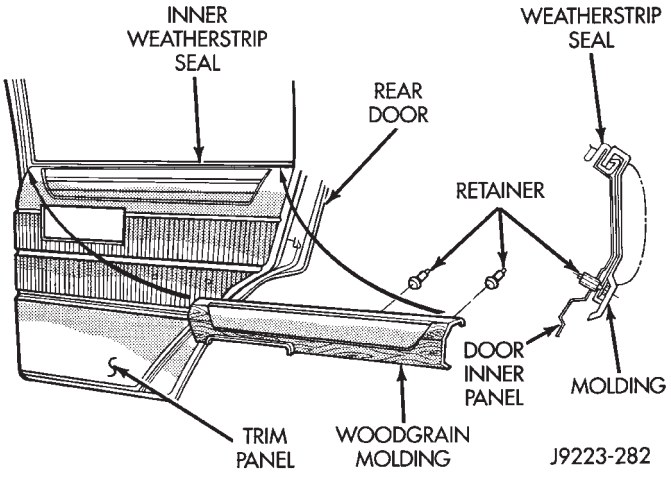


Fig. 12 XJ Woodgrain Moulding—Rear Door

(7) Remove the trim panel retainers from door inner panel with a pry tool (Fig. 13).

(8) Remove the trim panel from door (Fig. 14).

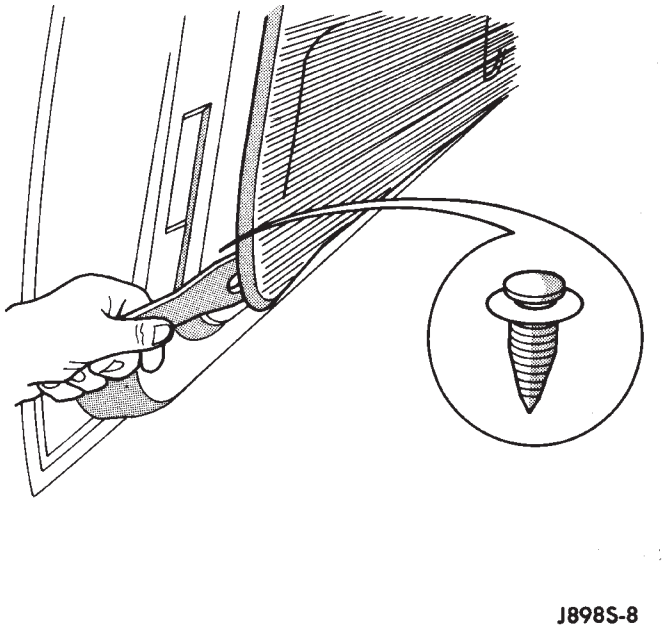


Fig. 13 Detaching Trim Panel Serrated Retainers

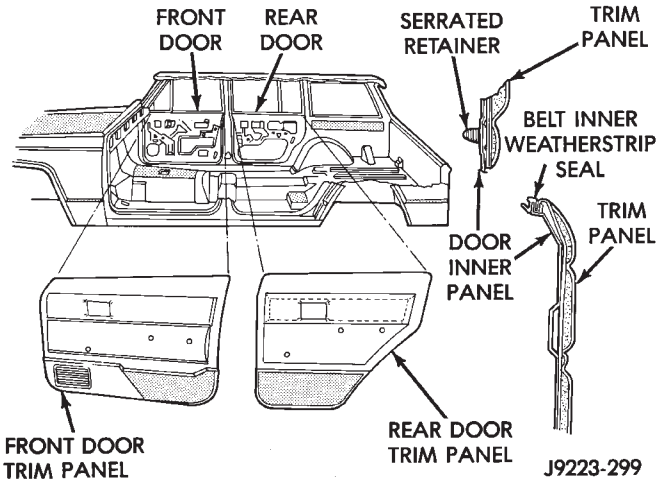


Fig. 14 Front and Rear Door Trim Panels

(9) If necessary, remove the waterdam from the door.

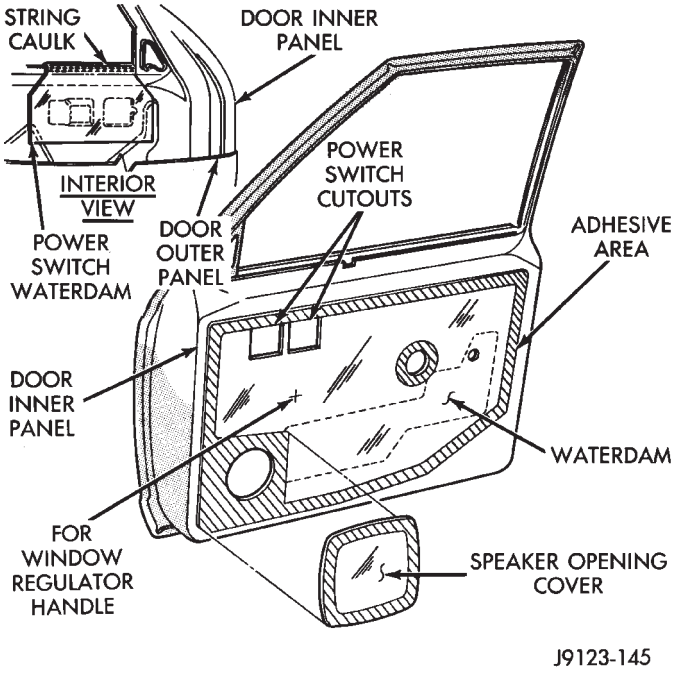


Fig. 15 Front Door Waterdam

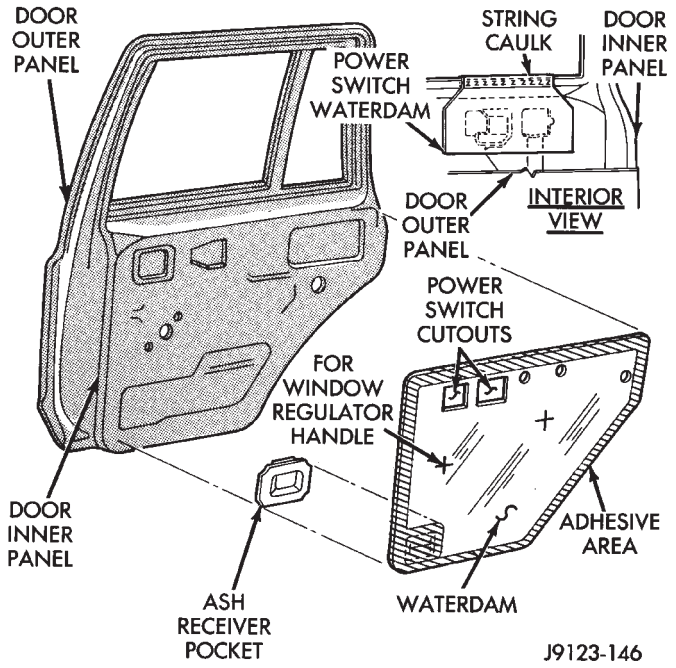


Fig. 16 Rear Door Waterdam

(10) If necessary, remove the storage bin panel and speaker grille from the front door trim panel (Fig. 19).

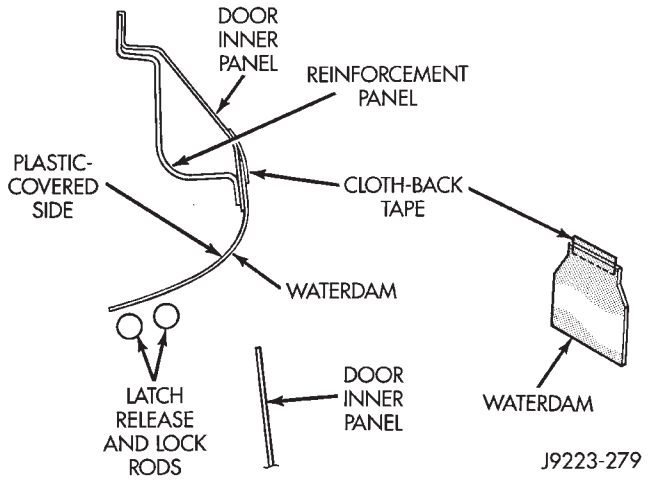


Fig. 17 Latch Release and Lock Rod Waterdam

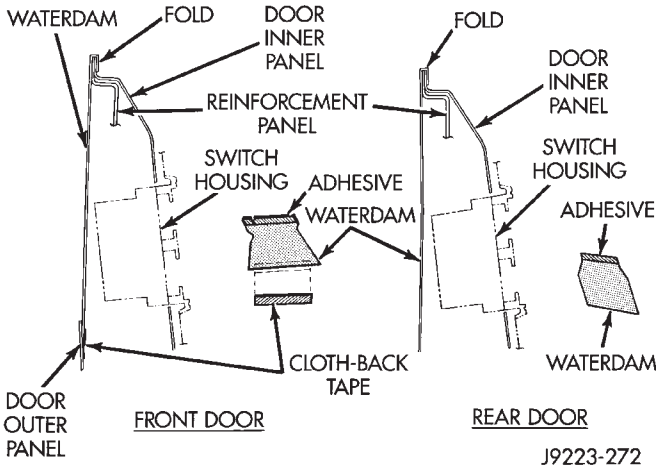


Fig. 18 Power Switch Waterdam

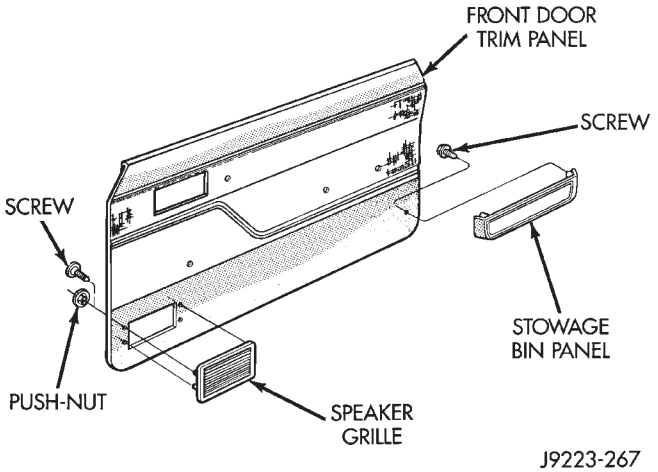


Fig. 19 Storage Bin Panel and Speaker Grille

(11) If necessary, remove the ash receiver tray housing from the rear door trim panel (Fig. 20).

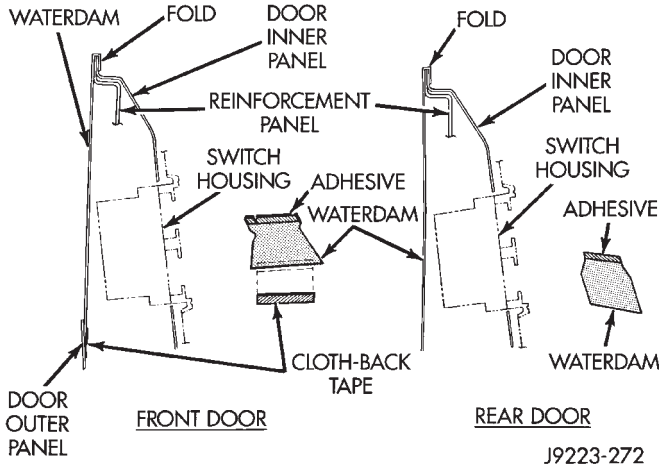


Fig. 20 Ash Receiver Tray Housing

(12) If necessary, replace the armrest upper retainer clip, retainer clip anchor and armrest support bracket.

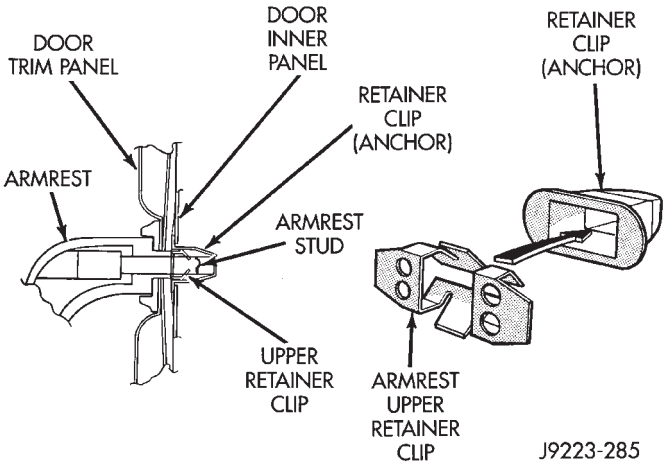


Fig. 21 Armrest Upper Retainer Clip and Anchor

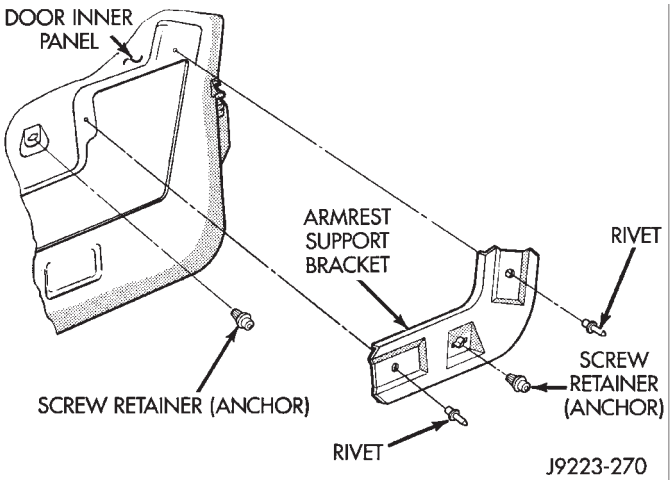


Fig. 22 Armrest Support Bracket

INSTALLATION

(1) If door waterdam was removed, apply sealant to the edges before installing (Fig. 23).

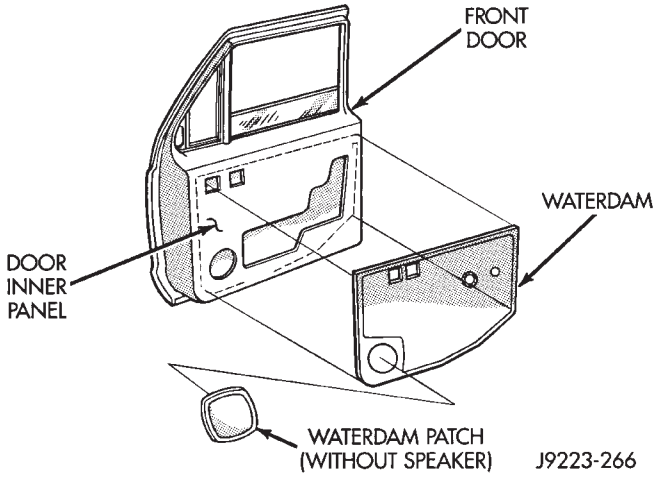


Fig. 23 Waterdam Installation

(2) Position the waterdam on door inner panel (Fig. 23).

(3) If removed, install the storage bin panel and speaker grille on the front door trim panel.

(4) If removed, install the ash receiver tray housing on the rear door trim panel.

(5) Position the trim panel on the door inner panel and press the retainers inward.

(6) Install the armrest and window glass regulator handle. Or (if equipped) the power window switches and bezel. Tighten the armrest screws to 4 N·m (34 in-lbs) torque.

(7) Connect the rods to the inside latch release handle and install the handle. Tighten the screws to 2 N·m (16 in-lbs) torque. For vehicles with power door locks/windows, connect the wire harness connector.

DOOR REMOVAL/INSTALLATION

REMOVAL

(1) Remove the door restraint (check) retaining pin (Fig. 24) with a punch.

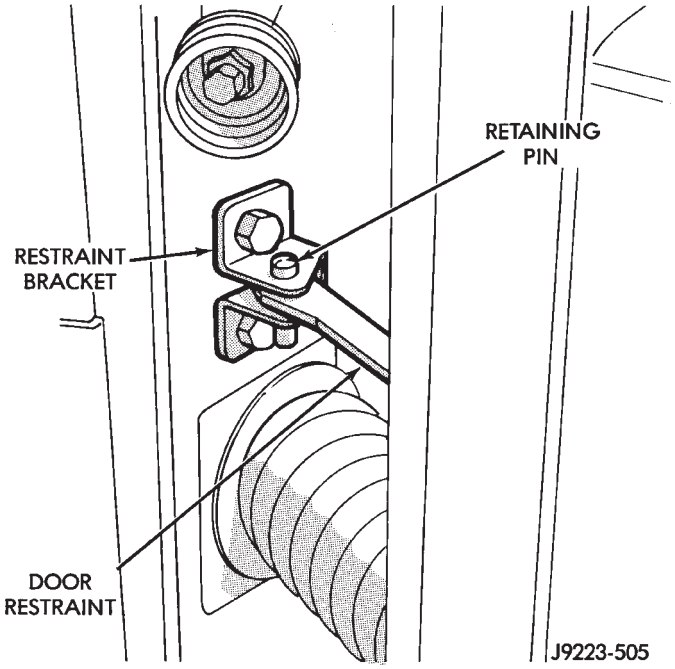


Fig. 24 Door Restraint Retaining Pin

(2) For vehicles equipped with power windows and power door locks, remove the trim panel and disconnect all components. Slide the wire harness out of the boot and door.

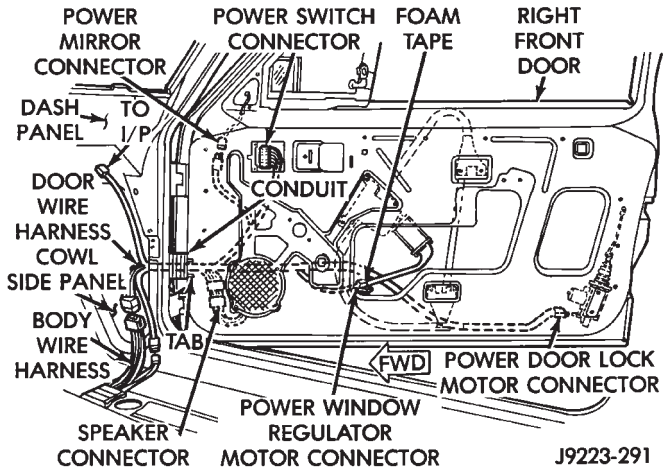


Fig. 25 XJ Right Front Door Wire Harness Connectors

(3) Remove the door hinge bolts, plates and shims (Fig. 30). Remove the door from the vehicle.

(4) Identify and retain the door hinge plates and the shims for correct installation (Fig. 30).

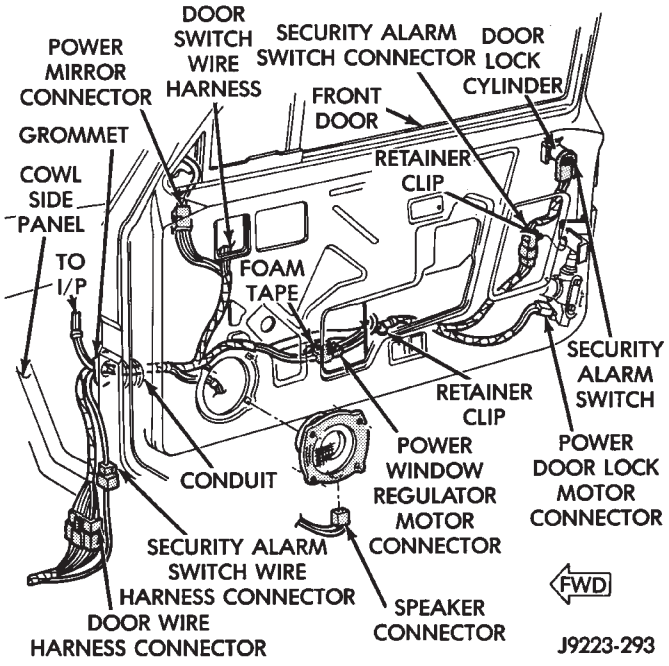


Fig. 26 XJ Right Front Door Wire Harness Connectors—With Security Alarm Switch

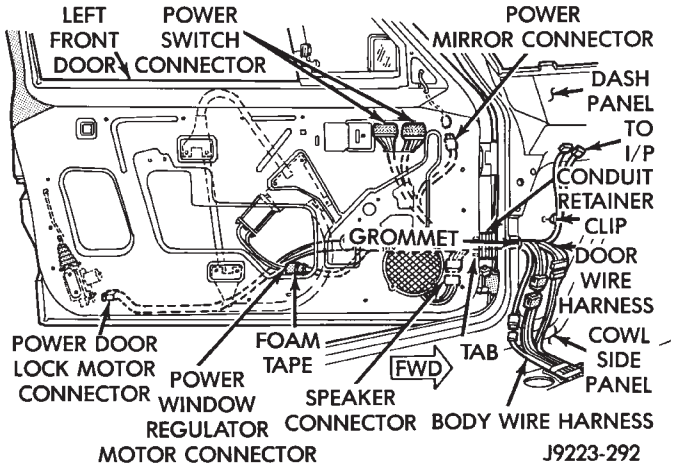


Fig. 27 XJ Left Front Door Wire Harness Connectors

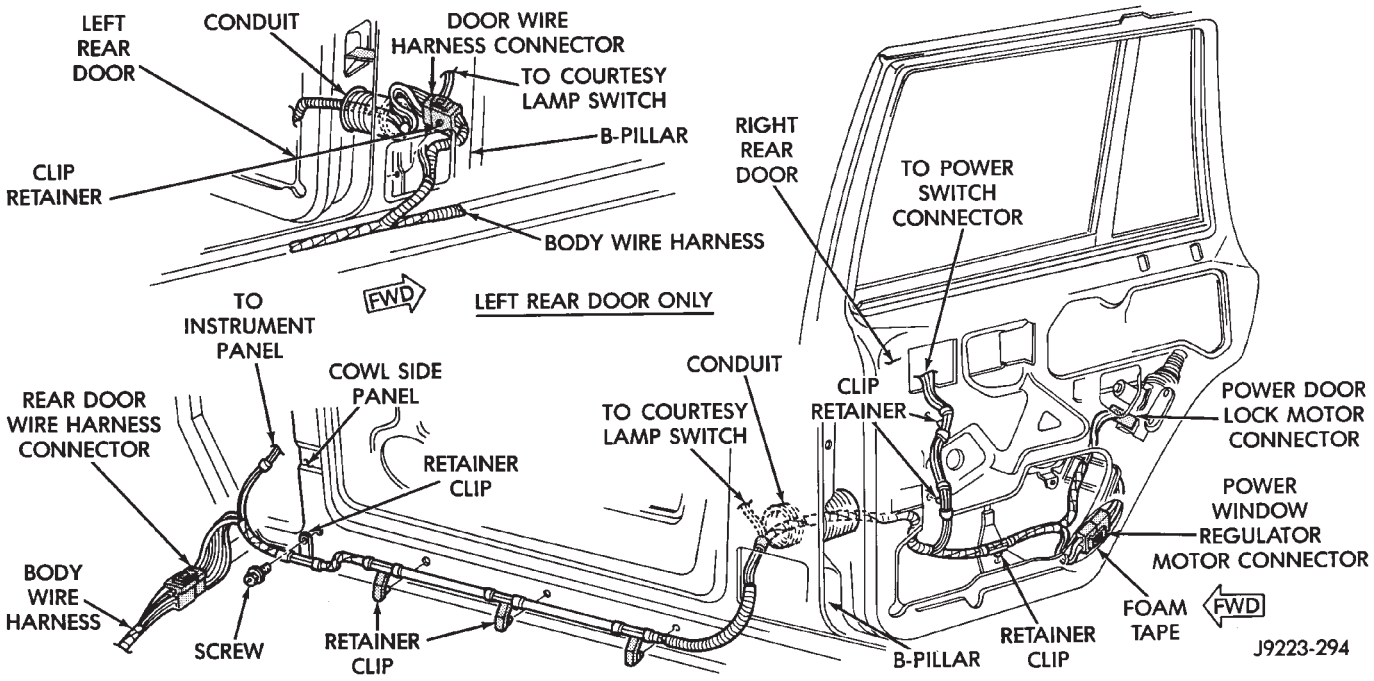


Fig. 28 XJ Rear Door Wire Harness Connectors

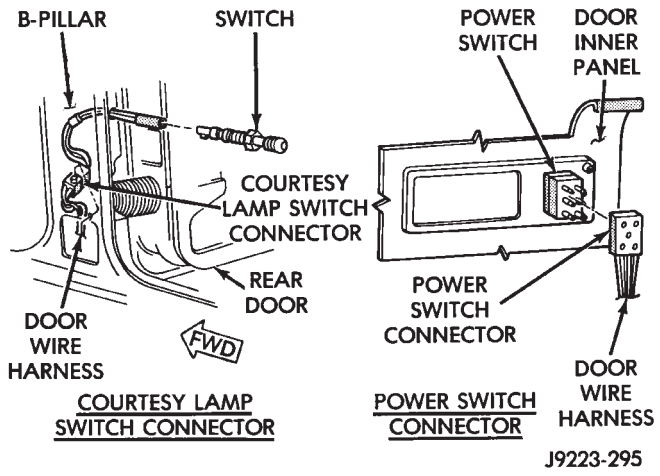


Fig. 29 XJ Rear Door Courtesy Lamp and Power Switch Wire Harness Connectors

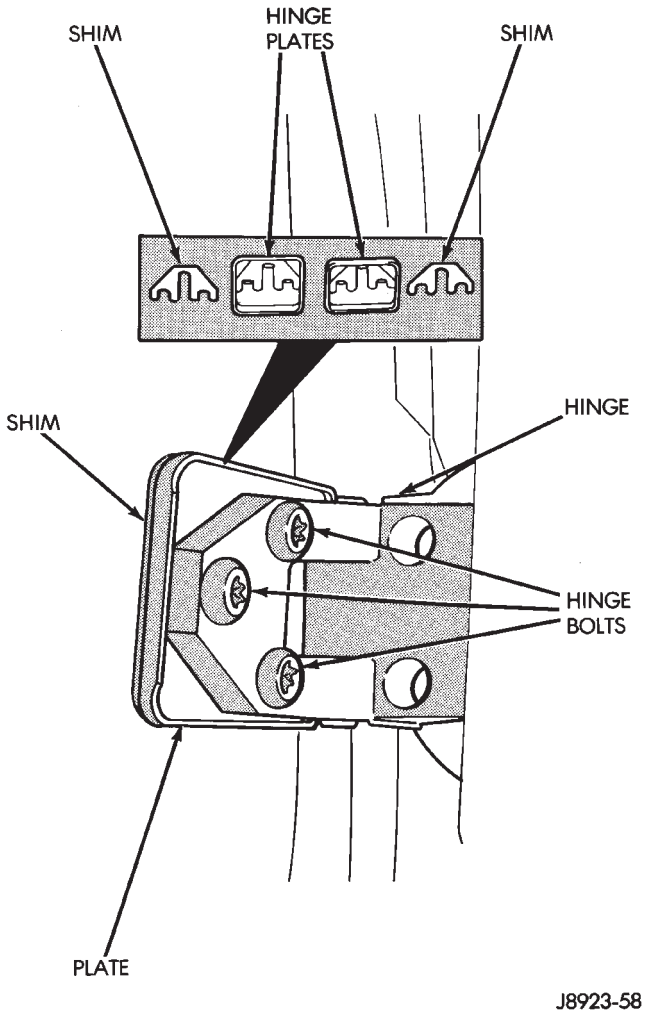


Fig. 30 Door Hinges, Bolts, Plates and Shims

INSTALLATION

(1) If a new front door is being installed, coat the door interior with anti-corrosion wax. Seal the door flange with sealant (Fig. 31).

(2) Before installing a replacement door, transfer original window glass, and components to replacement door.

(3) Position the door in the body opening.

(4) Align the door hinges, plates and shims with bolt holes and install the hinge bolts.

(5) Position the door restraint (check) in the bracket with the holes aligned and insert the pin. Tap the pin to seat it in the bracket.

(6) Align/adjust the door as necessary. Tighten the hinge bolts to 35 N·m (26 ft-lbs) torque.

(7) Apply general purpose sealant around the door hinges/door face mating area (Fig. 31).

(8) Adjust/align the latch striker and latch as necessary.

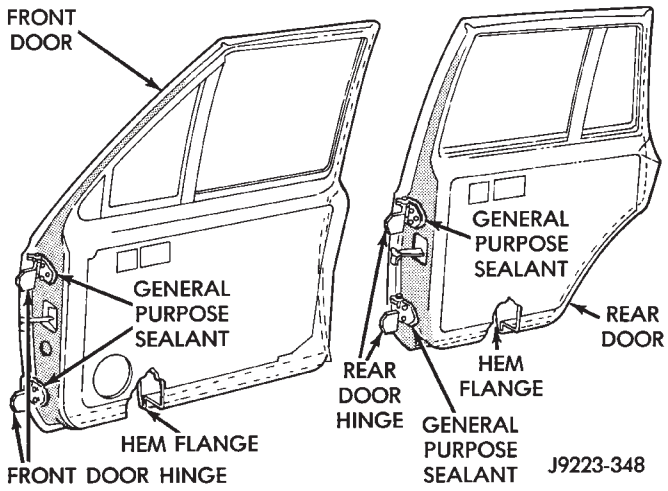


Fig. 31 Replacement Door Preparation

(9) If applicable, route and connect the wire harness connectors.

(10) Install the door waterdam (if removed), trim panel, armrest and regulator handle.

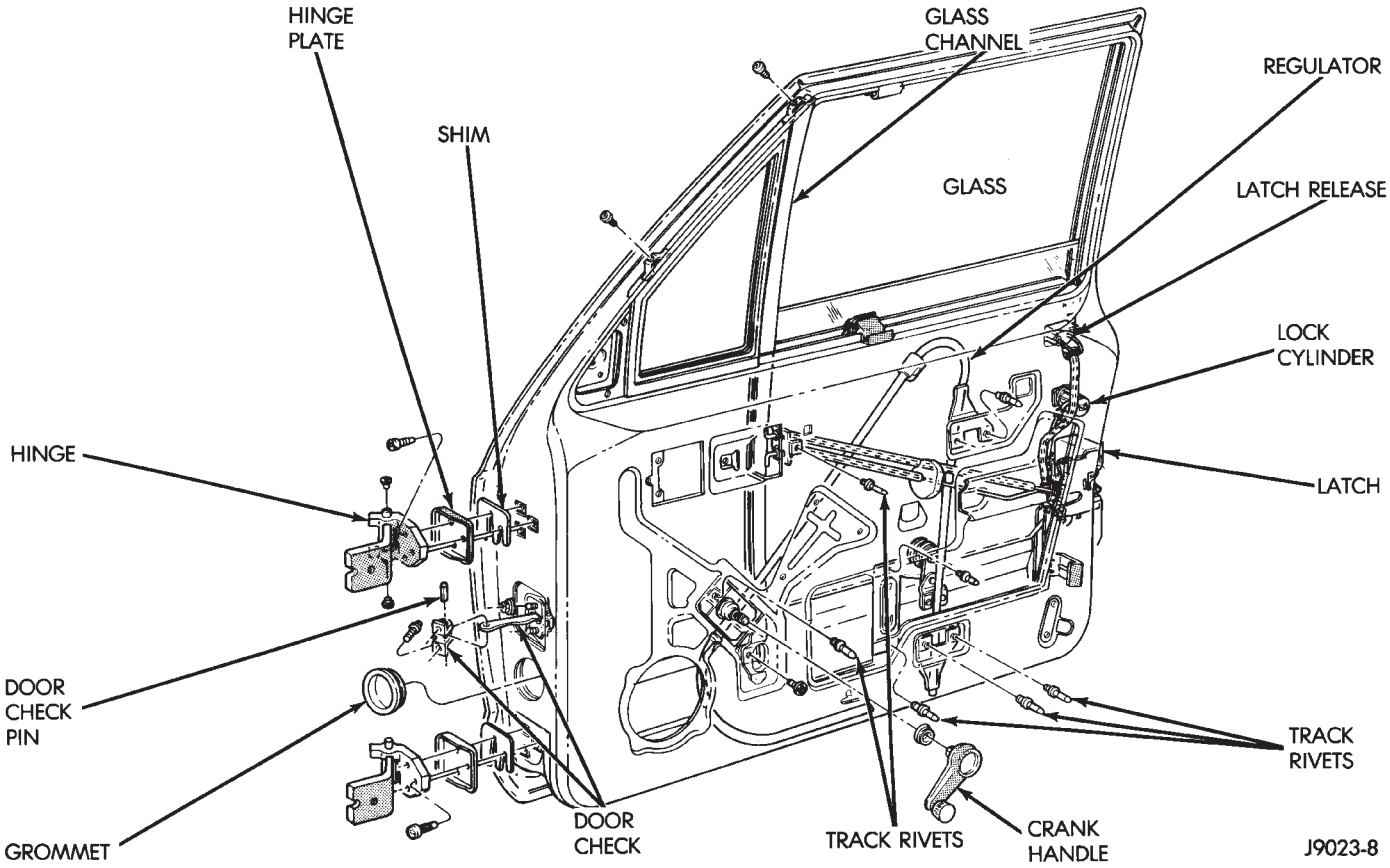


Fig. 32 Front Door Without Power Windows

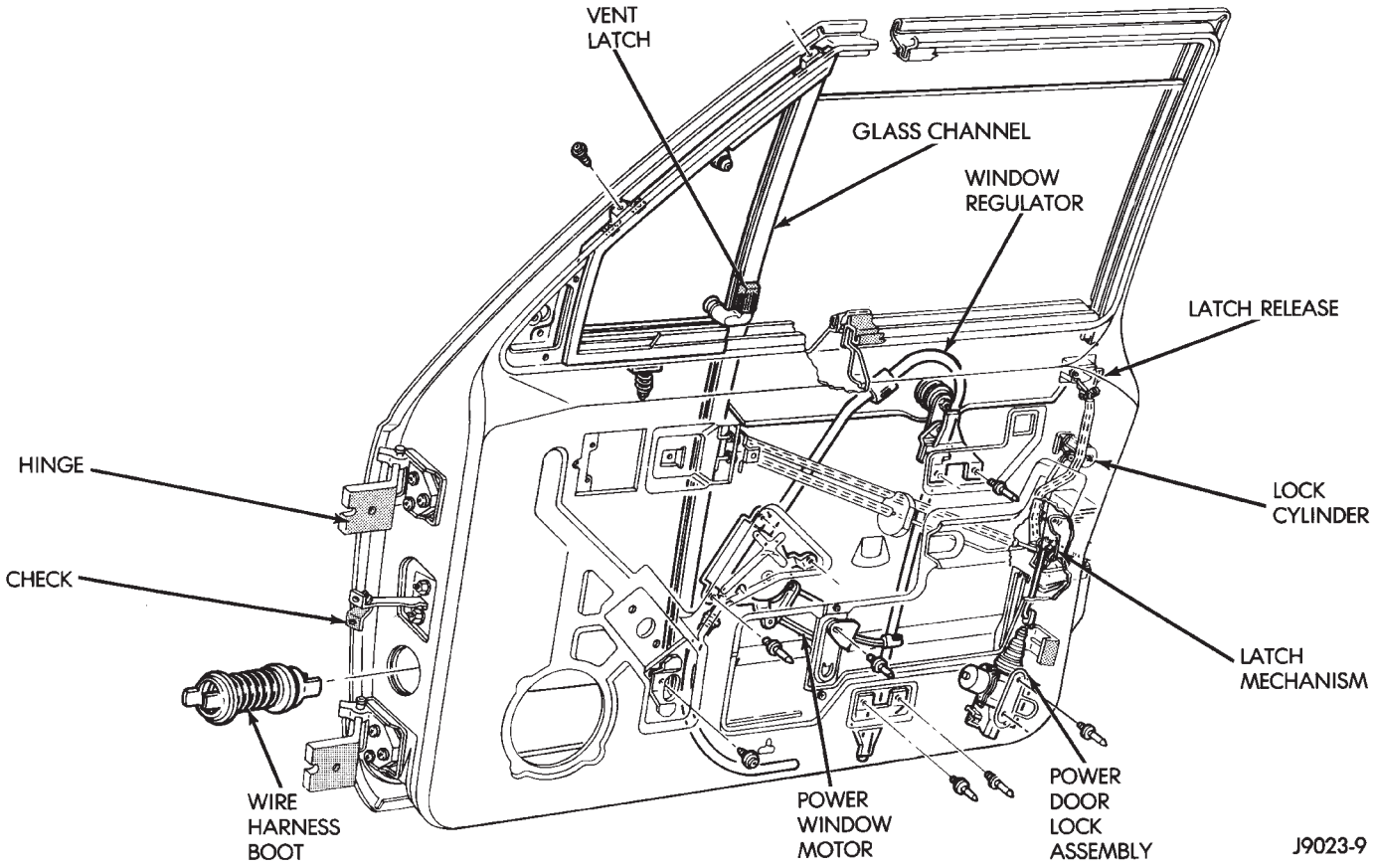


Fig. 33 Front Door With Power Windows

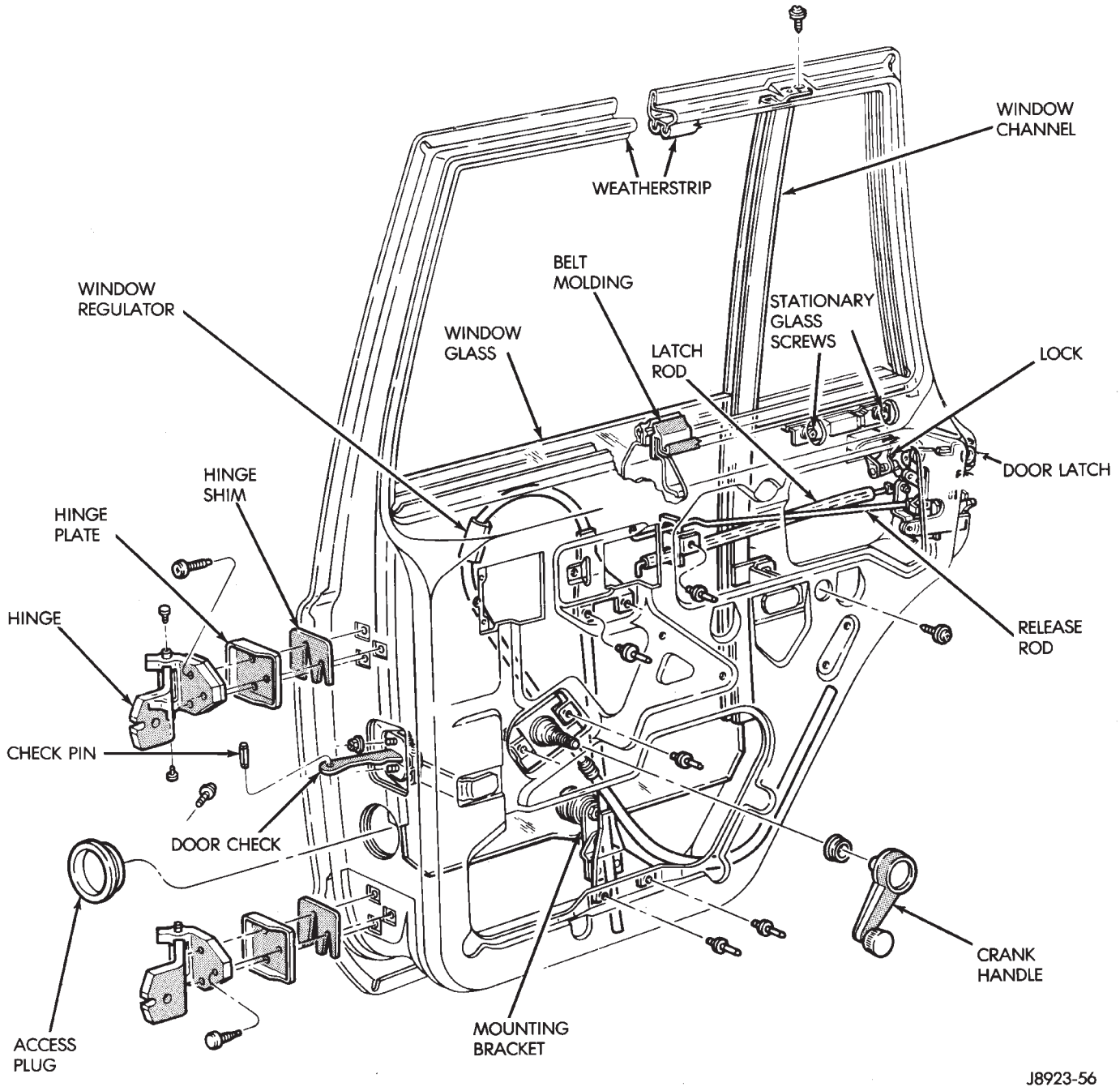


Fig. 34 Rear Door Without Power Windows

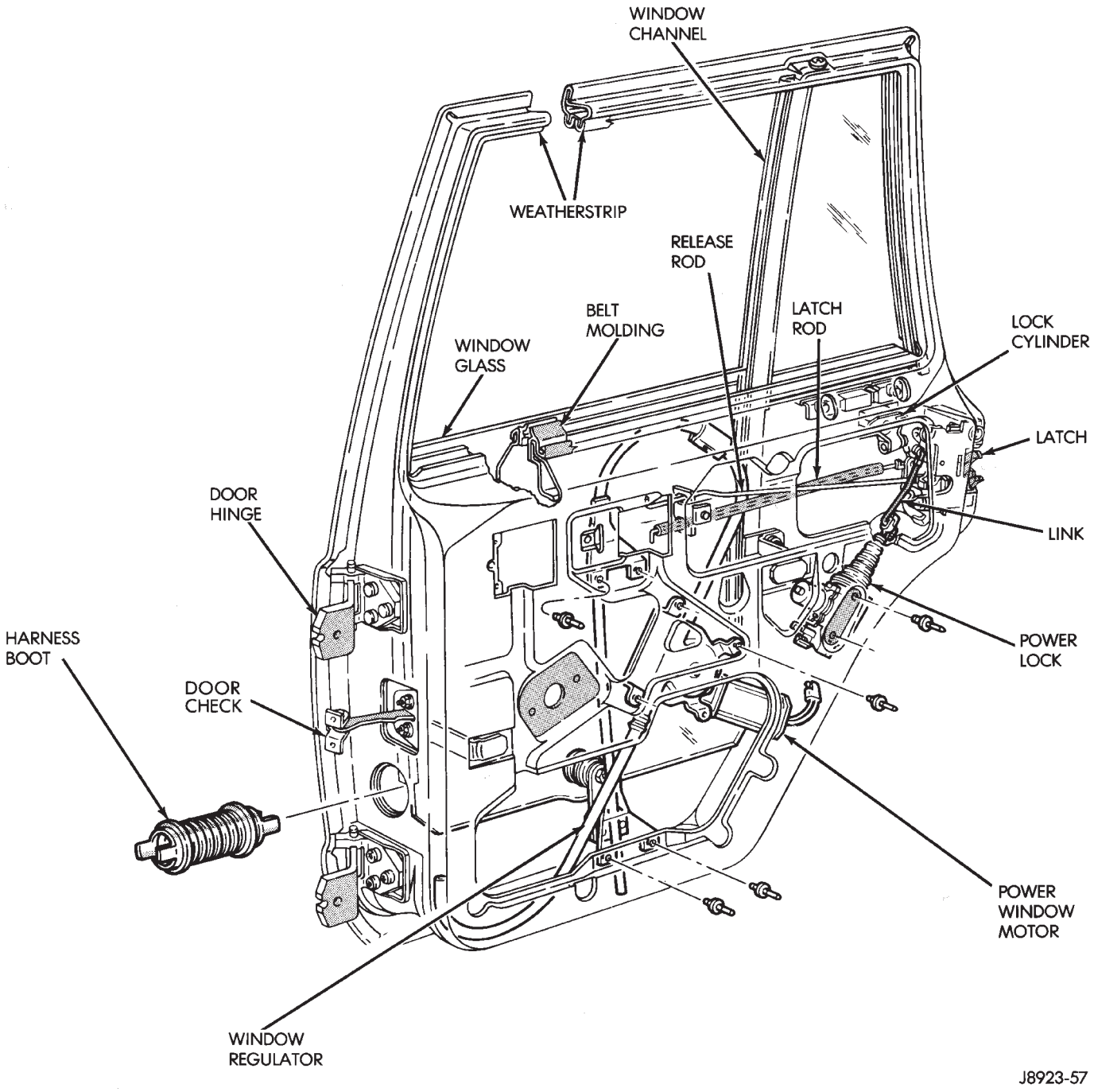
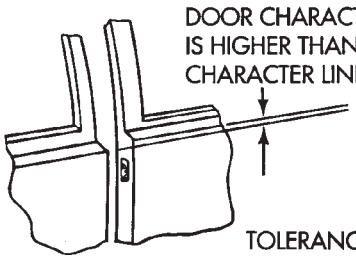
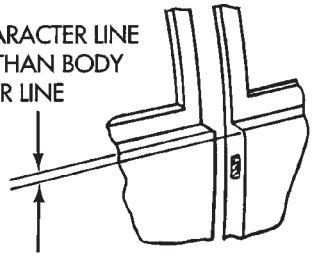
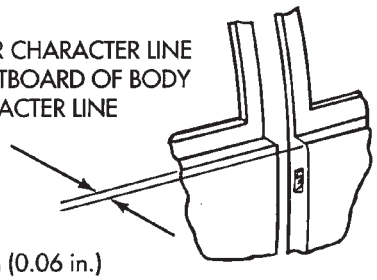
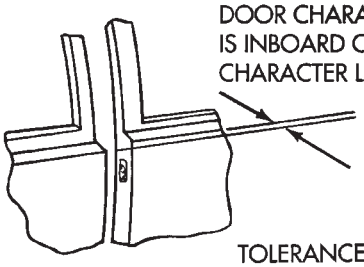


Fig. 35 Rear Door With Power Windows

DOOR ALIGNMENT ADJUSTMENT—MINOR

Minor adjustment for alignment of the door is made by moving the latch striker. Refer to Door Alignment (Minor) chart.

XJ DOOR ALIGNMENT—MINOR

DOOR/BODY ALIGNMENT CONDITION		ALIGNMENT CORRECTION
A.  TOLERANCE: 1.5 mm (0.06 in.)	1	Open the door and loosen the striker.
	2	Tap the striker downward a sufficient distance to correct mismatch.
	3	Tighten the striker and close the door.
	4	Observe the door/body alignment.
	5	If alignment is OK, open the door and tighten striker* with 71 N·m (52 ft. lbs.) torque.
	6	If alignment is not OK, adjust striker as described above.
B.  TOLERANCE: 1.5 mm (0.06 in.)	1	Open the door and loosen the striker.
	2	Tap the striker upward a sufficient distance to correct mismatch.
	3	Tighten the striker and close the door.
	4	Observe the door/body alignment.
	5	If alignment is OK, open the door and tighten the striker* with 71 N·m (52 ft. lbs.) torque.
	6	If alignment is not OK, adjust striker as described above.
C.  TOLERANCE: 1.5 mm (0.06 in.)	1	Open the door and loosen the striker.
	2	Tap the striker inward a sufficient distance to correct mismatch.
	3	Tighten the striker and close the door.
	4	Observe the door/body alignment.
	5	If alignment is OK, open the door and tighten the striker* with 71 N·m (52 ft. lbs.) torque.
	6	If alignment is not OK, adjust striker as described above.
D.  TOLERANCE: 1.5 mm (0.06 in.)	1	Open the door and loosen the striker.
	2	Tap the striker outward a sufficient distance to correct mismatch.
	3	Tighten the striker and close the door.
	4	Observe the door/body alignment.
	5	If alignment is OK, open the door and tighten the striker* with 71 N·m (52 ft. lbs.) torque.
	6	If alignment is not OK, adjust striker as described above.
	*The center line (℄) of the striker anti-snag tab must be horizontal (±6 mm/1/4 in.).	

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DOOR ALIGNMENT ADJUSTMENT—MAJOR

Adjustment for alignment of the door is made by installing shims between hinge plates and door face (Fig. 36).

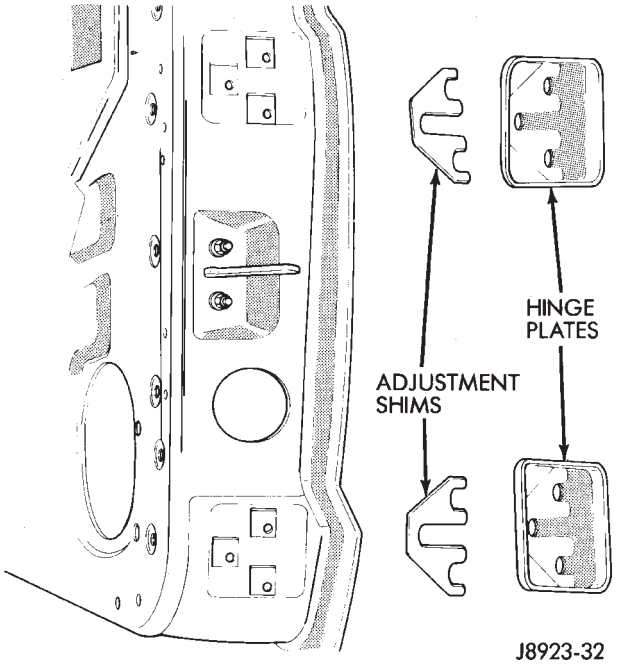

Fig. 36 Door Adjustment Shims

(1) If not loosened, loosen the door hinge bolts (Fig. 30).

(2) Add or remove shims as necessary to obtain the best door fit.

(3) Tighten door hinge bolts to 35 N·m (26 ft-lbs) torque after adjustment is completed.

(4) Apply general purpose sealant around the door hinges/door face mating area.

DOOR RESTRAINT REPLACEMENT

REMOVAL

(1) Remove the door trim panel.

(2) Front door: remove the door radio speaker from door inner panel.

(3) Remove the door restraint (check) retaining pin from the bracket with a punch (Fig. 37).

(4) Remove the nuts and remove the restraint via the speaker opening (front door) or access opening (rear door) in the door inner panel.

INSTALLATION

(1) Position the door restraint in the door by way of the opening and install the nuts. Tighten the nuts to 10 N·m (7 ft-lbs) torque.

(2) Position the door restraint in bracket with the holes aligned and insert the retaining pin (Fig. 37).

(3) Front door: install the radio speaker and door trim panel.

(4) Rear door: install the door trim panel.

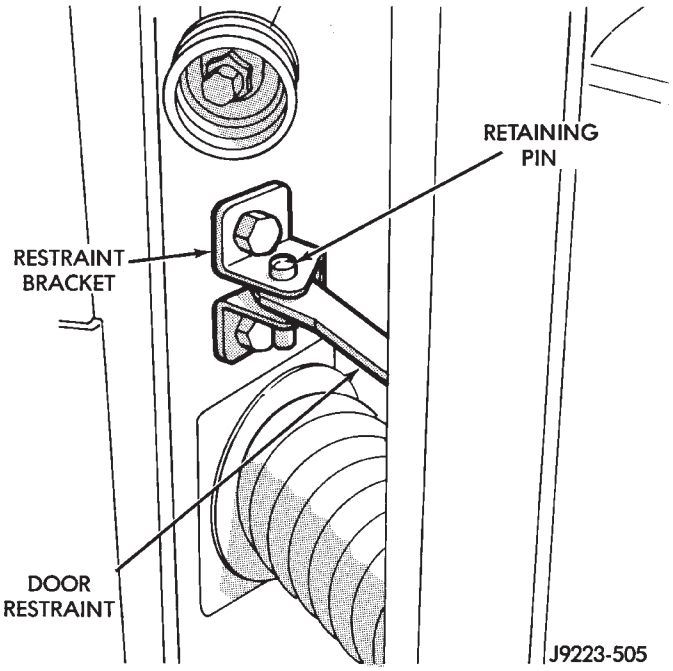

Fig. 37 Door Restraint (Check) Retaining Pin

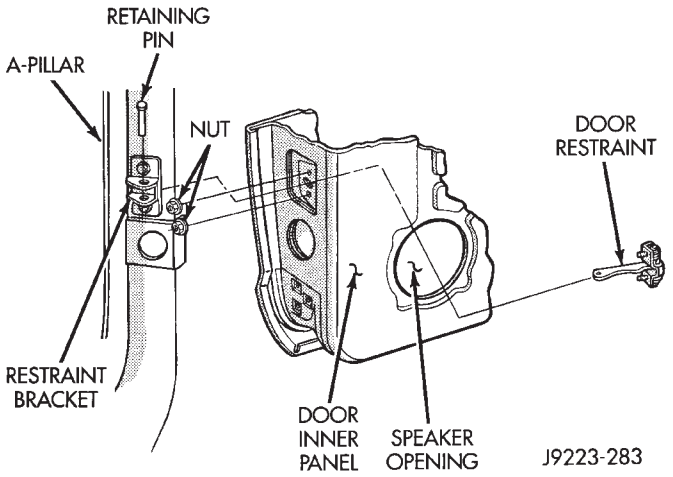

Fig. 38 Door Restraint (Check)—Front Door

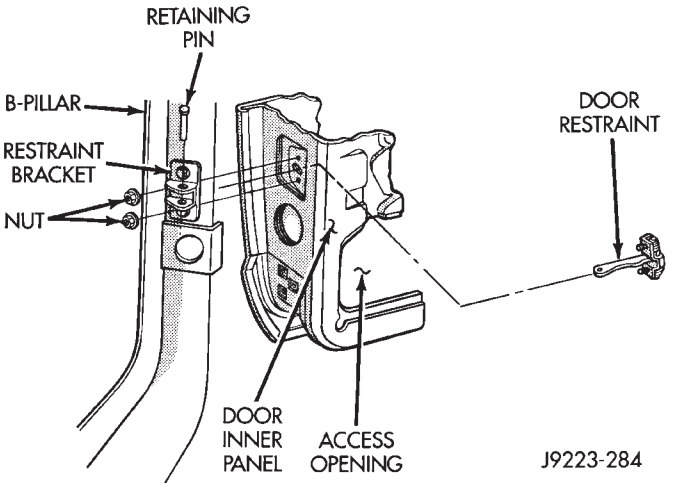

Fig. 39 Door Restraint (Check)—Rear Door

FRONT DOOR WINDOW GLASS REGULATOR

REMOVAL

(1) Remove the door trim panel and waterdam.

(2) Remove the window glass front channel bottom screw (Fig. 40).

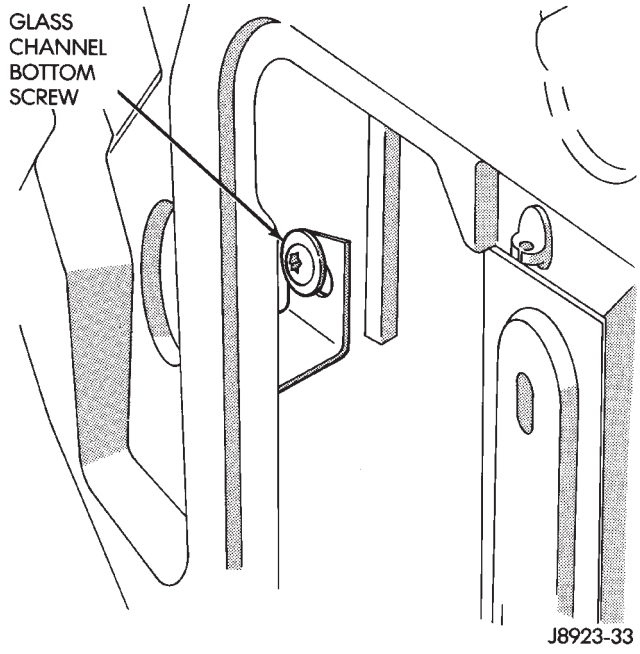

Fig. 40 Window Glass Front Channel Bottom Screw

(3) Remove the window regulator rivets by driving the rivet centers out with a punch. Remove the rivets with a 1/4-inch drill bit (Figs. 41 and 42).

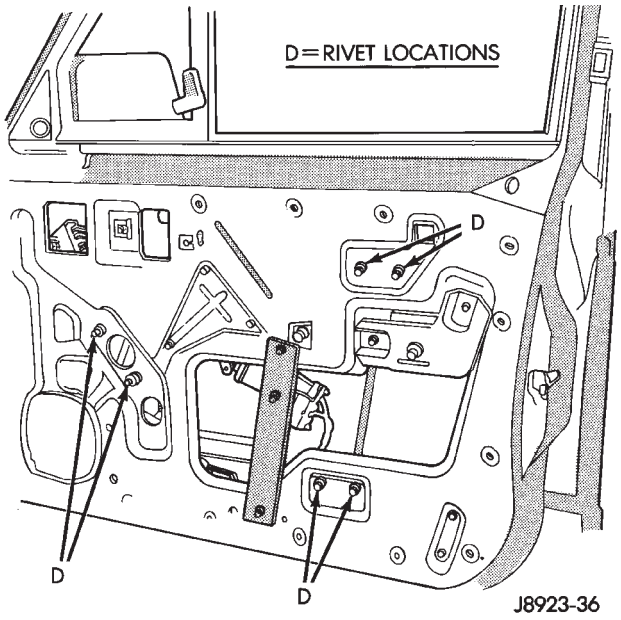

Fig. 41 Manual Window Regulator Rivets

(4) Lower the window to provide access to the regulator-to-glass screw.

(5) Remove the regulator-to-glass screw, bushing and retainer from the regulator (Fig. 43).

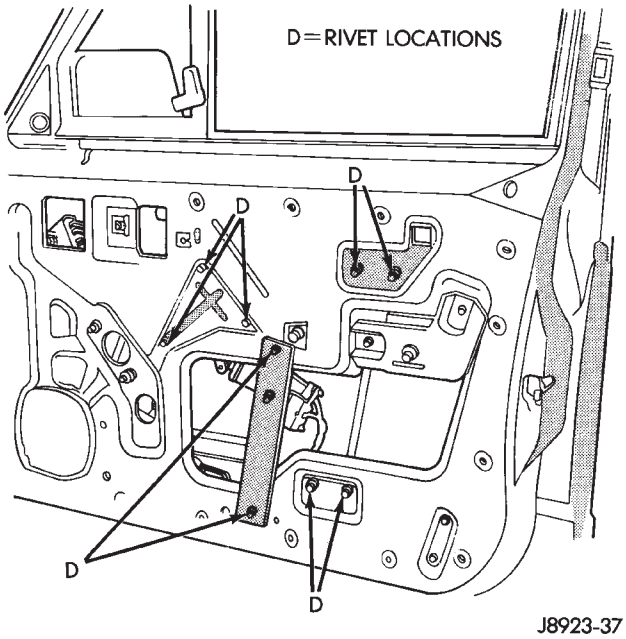

Fig. 42 Power Window Regulator Rivets

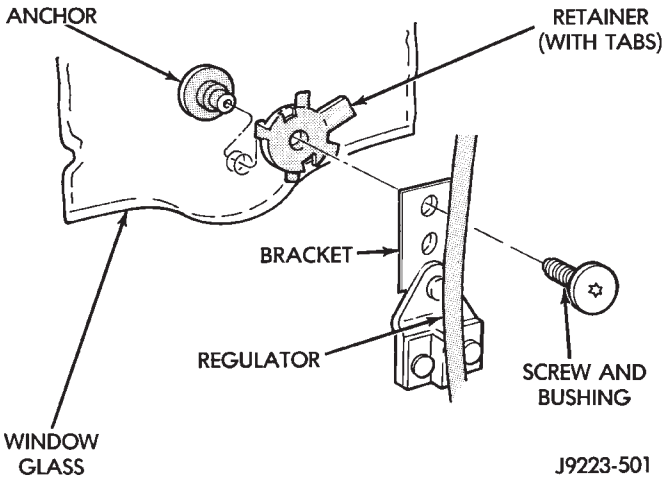

Fig. 43 Regulator-To-Glass Screw Removal/ Installation

(6) Lift the window glass upward and separate it from the regulator. Support the window glass.

(7) Remove the window glass regulator from the door.

INSTALLATION

(1) Position the window glass regulator within the door panels.

(2) Attach the regulator on door inner panel with replacement rivets or screws and nuts.

(3) Remove the support and position window glass at regulator. Install the regulator-to-window retainer, bushing and screw.

(4) Tighten the regulator-to-glass screw to 4 N·m (36 in-lbs) torque.

(5) Install the glass channel bottom screw (Fig. 40). Tighten screw to 9 N·m (7 ft-lbs) torque.

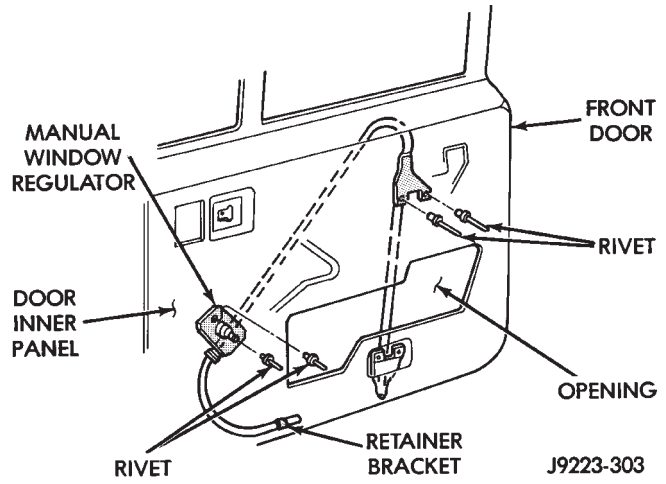

Fig. 44 Manual Regulator Installation—Upper Rivets

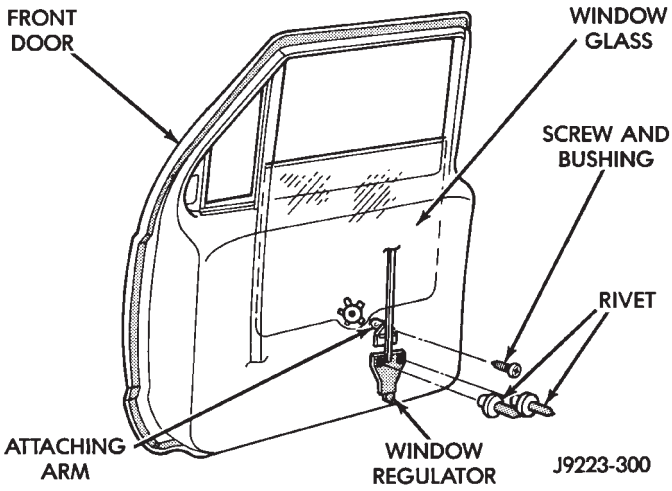

Fig. 45 Manual Regulator Installation—Lower Rivets and Glass Retaining Screw

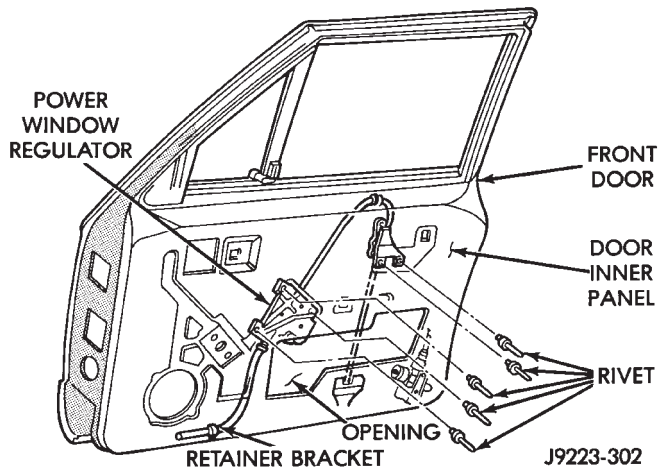

Fig. 46 Power Regulator Installation—Upper Rivets

(6) Attach the door waterdam to the door inner panel with sealant.

(7) Install the trim panel.

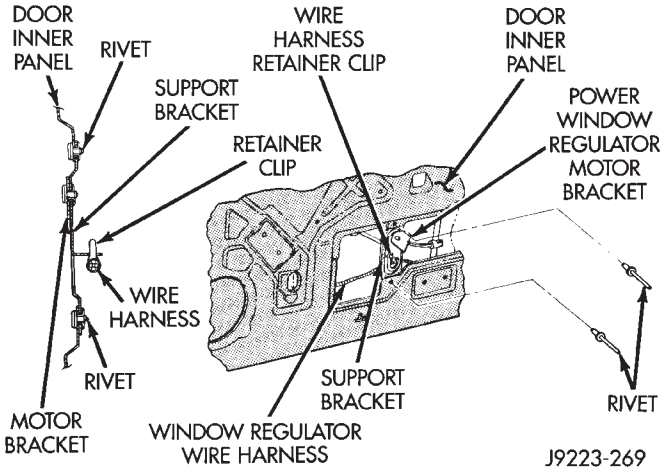

Fig. 47 Power Regulator Installation—Lower Rivets

FRONT DOOR WINDOW GLASS

REMOVAL

(1) Remove the door trim panel and waterdam.

(2) Remove the window glass channel hardware, beltline moulding and weatherstrip seals (Figs. 48 and 49).

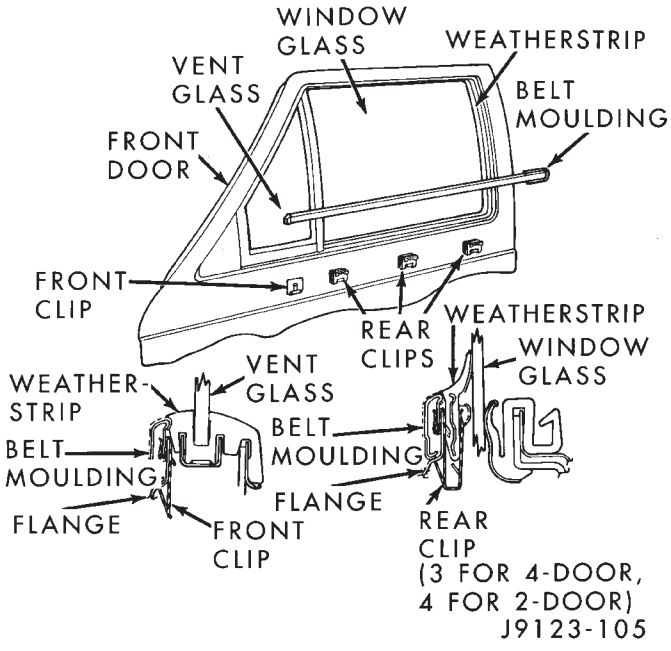

Fig. 48 Front Door Beltline Moulding and Weatherstrip Seals

(3) Remove the glass channel bottom screw.

(4) Remove the regulator-to-window glass screw, bushing and retainer (Fig. 43).

(5) Lift the glass upward and out of the door.

INSTALLATION

(1) Position the glass in the door and install the regulator-to-glass retainer, bushing and screw.

(2) Tighten the screw to 4 N·m (36 in-lbs) torque.

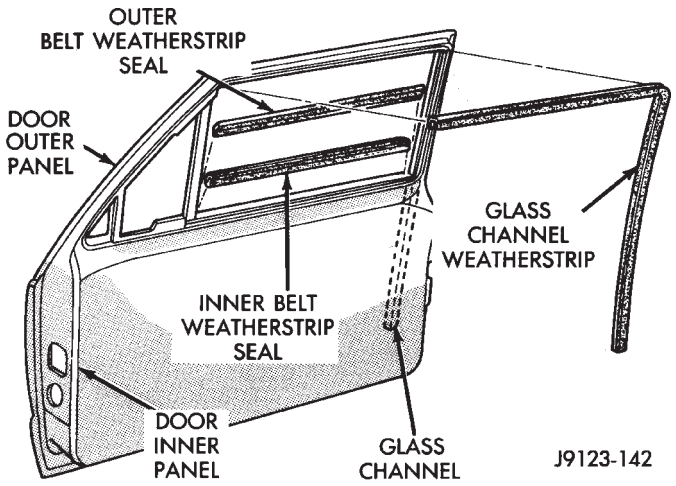

Fig. 49 Front Door Weatherstrip Seals

(3) Install the channel bottom screw. Tighten the screw to 9 N·m (7 ft-lbs) torque.

(4) Install the channel hardware, beltline moulding and weatherstrip seals.

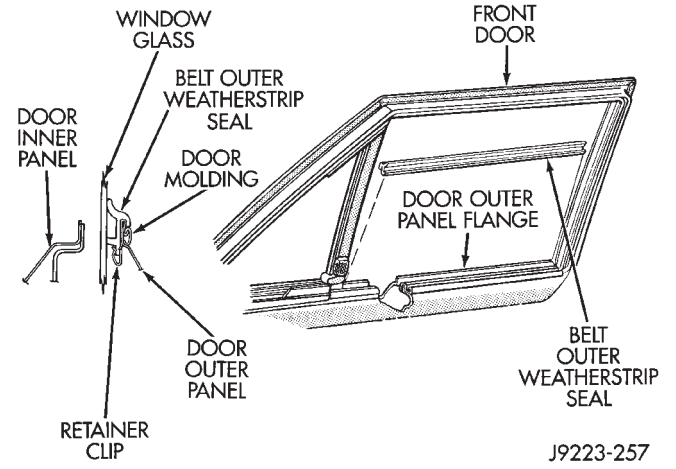

Fig. 50 Front Door Belt Outer Weatherstrip Seal

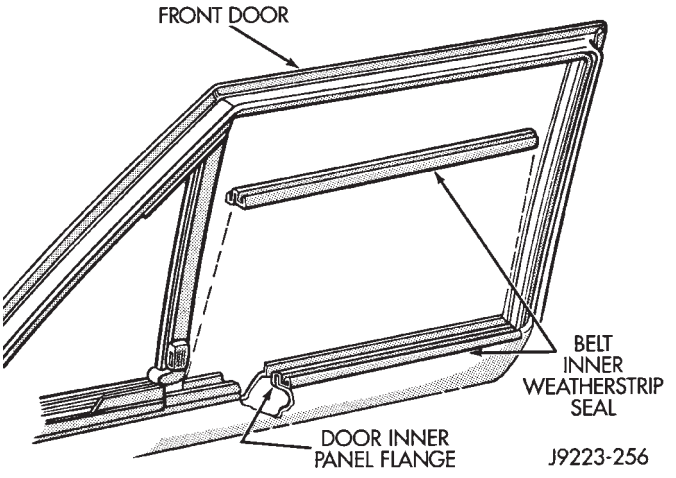

Fig. 51 Front Door Belt Outer Weatherstrip Seal

(5) Attach the door waterdam to the door inner panel with adhesive/sealant.

(6) Install the door trim panel.

FRONT DOOR VENT WINDOW

REMOVAL

(1) Remove the door trim panel and waterdam.

(2) Remove the window glass channel bottom screw.

(3) Remove the vent window glass frame screws (Fig. 52).

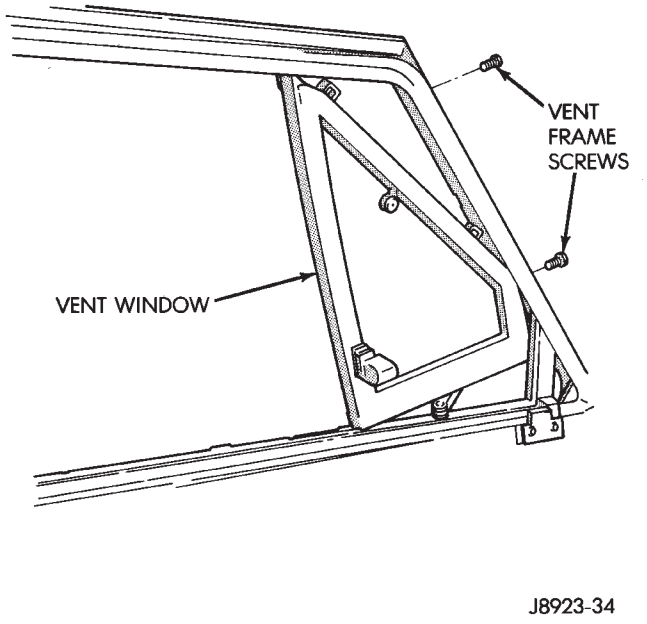

Fig. 52 Vent Window Glass Frame Screws

(4) Tilt the vent window glass frame and front channel rearward, and remove both as a unit (Fig. 52).

(5) Remove the vent window glass latch pin and latch (Fig. 53).

(6) Remove the glass hinge screw.

(7) Remove the pivot nut and the spring.

(8) Remove the vent window glass from the frame.

INSTALLATION

(1) Position the vent window glass in the frame and install the hinge screw, spring and pivot nut (Fig. 53).

(2) Install the window glass latch and pin.

(3) Install the vent window glass and the channel in the door (Fig. 54).

(4) Install the vent window glass frame screws (Fig. 54).

(5) Install the door window glass channel bottom screw.

(6) Install the door waterdam and trim panel.

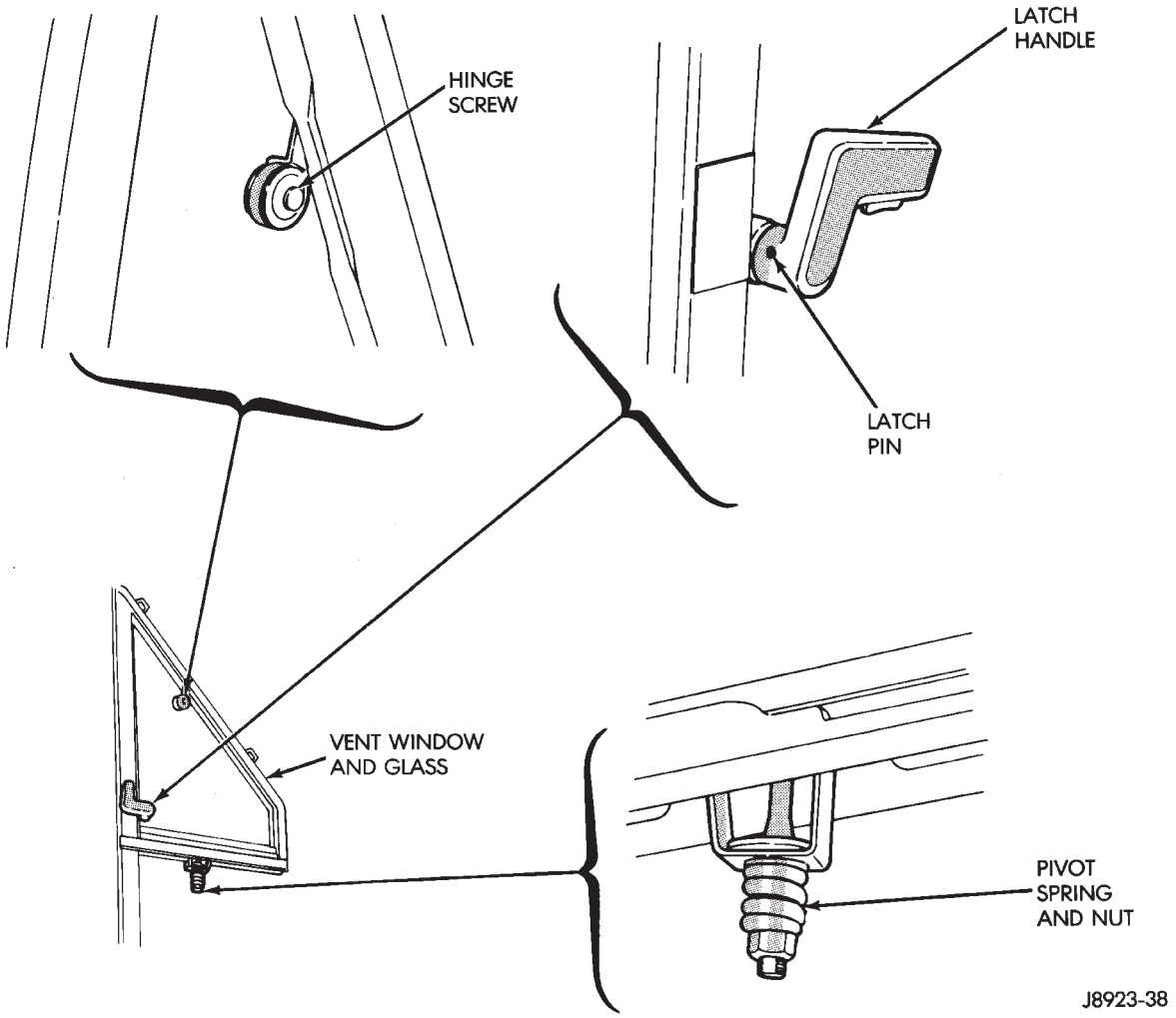

Fig. 53 Vent Window Glass Disassembly/Assembly

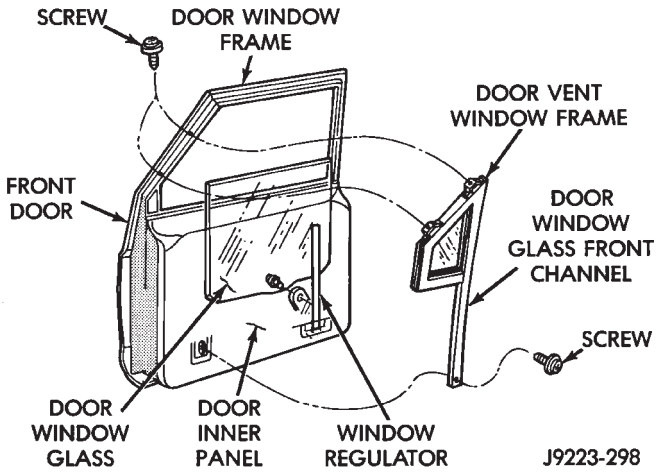

Fig. 54 Vent Window Frame and Front Channel Installation

REAR DOOR WINDOW GLASS REGULATOR

REMOVAL

(1) Remove the door trim panel and waterdam.

(2) Remove the window glass attaching screw, bushing and retainer from the regulator (Fig. 55). Support the glass.

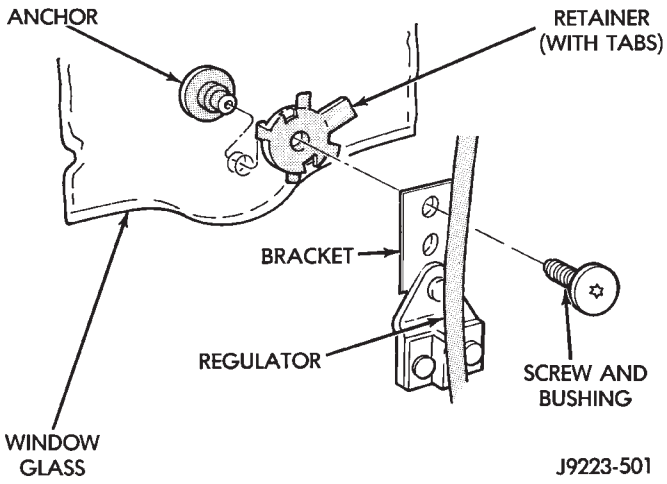

Fig. 55 Regulator-To-Glass Screw Removal/Installation

(3) Remove the regulator rivets by driving out the rivet center with a punch. Next, drill out the rivet body with a 1/4 inch diameter drill bit (Fig. 56).

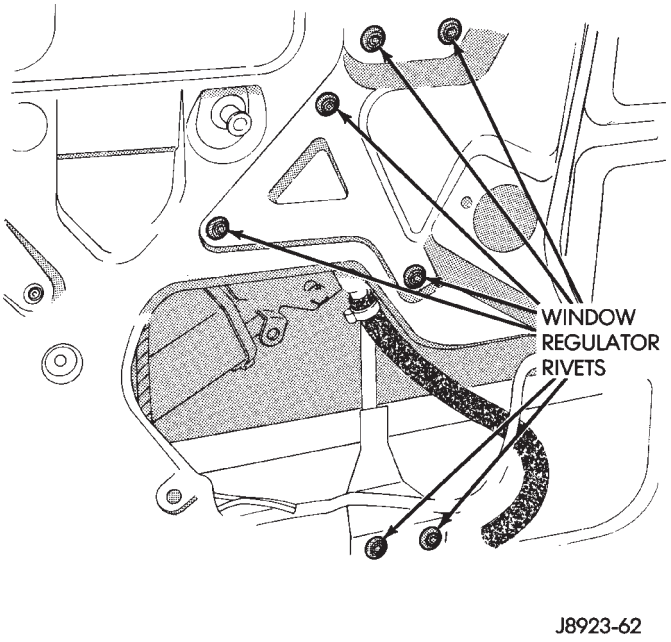

Fig. 56 Rear Door Window Regulator Rivets

(4) Power window: disconnect the wire harness connector from the regulator drive motor.

(5) Remove the regulator and drive motor, if equipped.

INSTALLATION

(1) Position window regulator and, if equipped, drive motor within the door panels.

(2) Attach the regulator to door inner panel with replacement rivets or with screws and nuts.

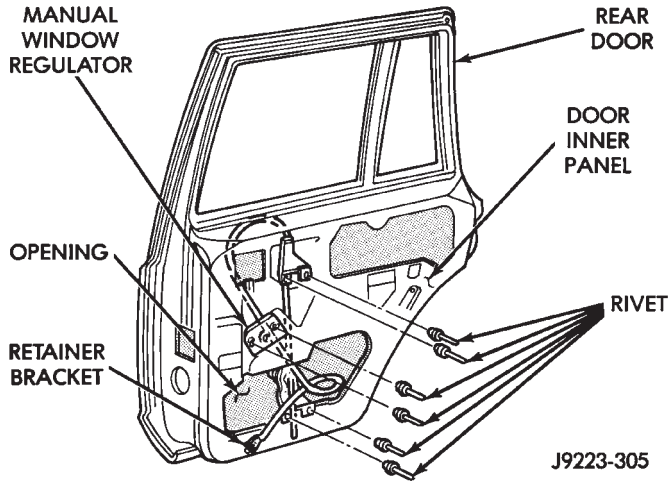

Fig. 57 Manual Regulator Rivet Installation

(3) Connect the regulator wire harness connector.

(4) Position the window glass at the regulator and install the retainer, bushing and screw.

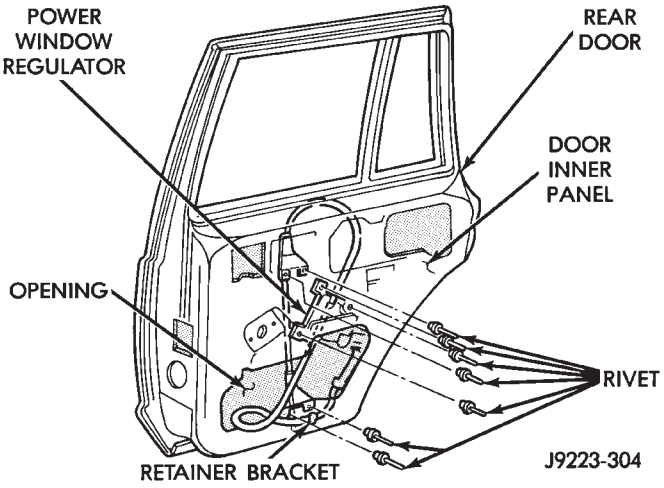

Fig. 58 Power Regulator Rivet Installation

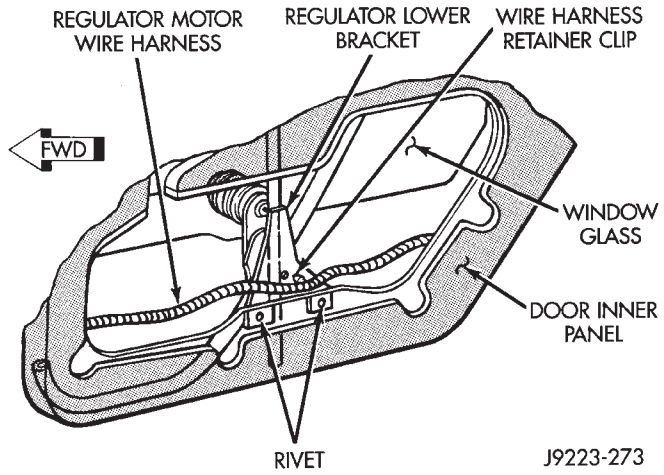

Fig. 59 Power Regulator Lower Bracket Rivet Installation

(5) Tighten the glass screw to 4 N·m (36 in-lbs) torque.

(6) Install the waterdam and trim panel.

REAR DOOR WINDOW GLASS

REMOVAL

(1) Lower the window glass.

(2) Pry the window beltline moulding from the clips and remove the moulding from the door.

(3) Remove the window weatherstrip seals from the door (Fig. 60).

(4) Remove the trim panel and waterdam from the door inner panel.

(5) Remove the channel/division bar screws and drill-out the rivet head to remove.

(6) Tilt the channel/division bar forward and remove it from the door.

(7) Remove the window glass screw, bushing and retainer from the regulator (Fig. 63).

(8) Remove the window glass from door.

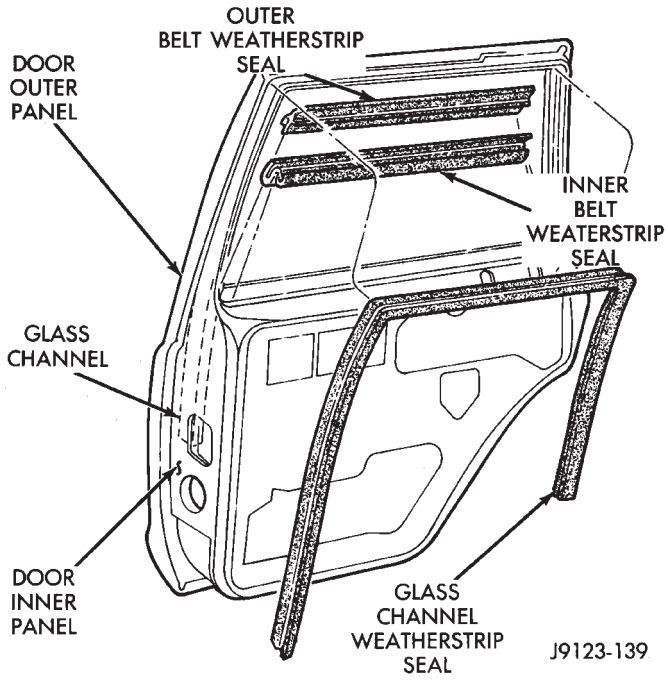

Fig. 60 Rear Door Window Weatherstrip Seals

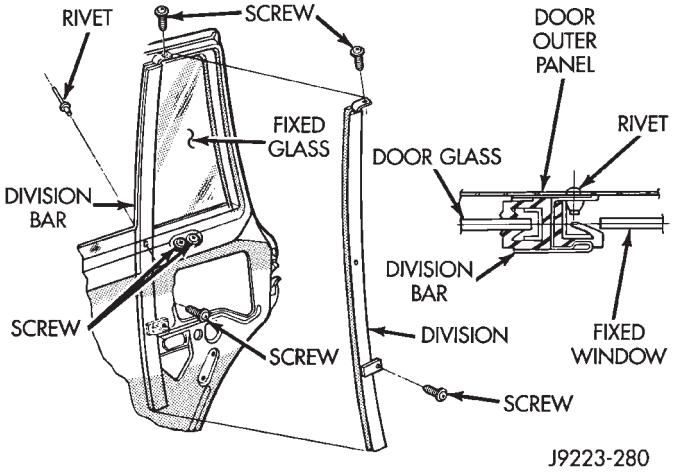

Fig. 61 Window Channel/Division Bar Screws and Rivet

INSTALLATION

(1) Install the glass in the door, and install the retainer, bushing and screw (Fig. 63).

(2) Tighten the glass attaching screw 6 N·m (53 in-lbs) torque.

(3) Install the window glass channel/division bar in the door.

(4) Install the window glass channel/division bar screws and rivet. Tighten the screws to 6 N·m (5 ft-lbs) torque.

(5) Install the window glass channel and belt weatherstrip seals.

(6) Install the window beltline moulding.

(7) Install the door waterdam and trim panel.

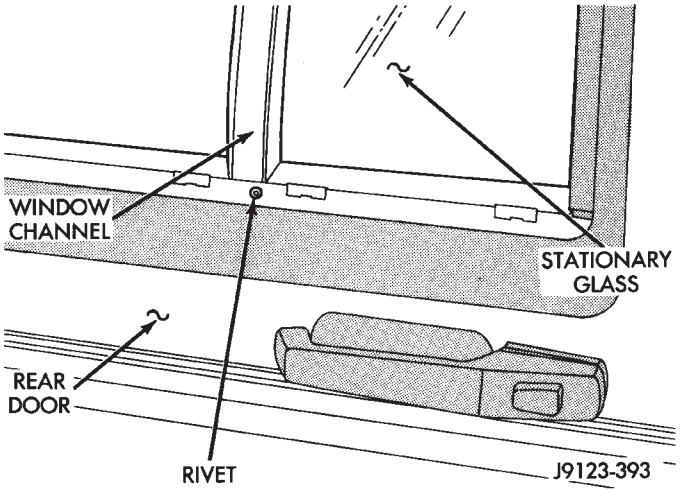

Fig. 62 Window Channel/Division Bar Rivet

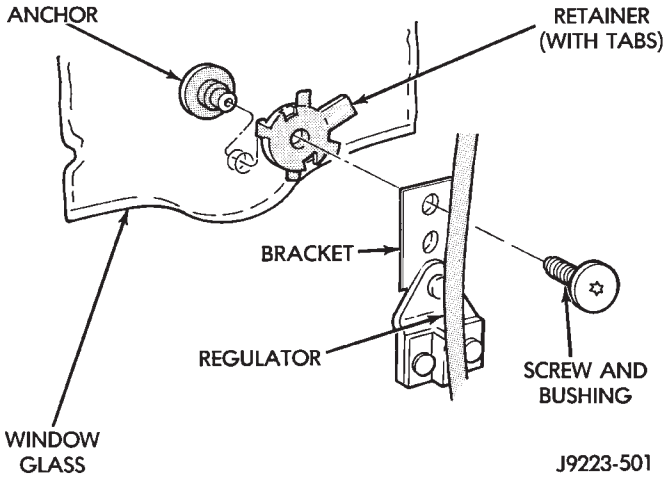

Fig. 63 Regulator-To-Glass Screw Removal/Installation

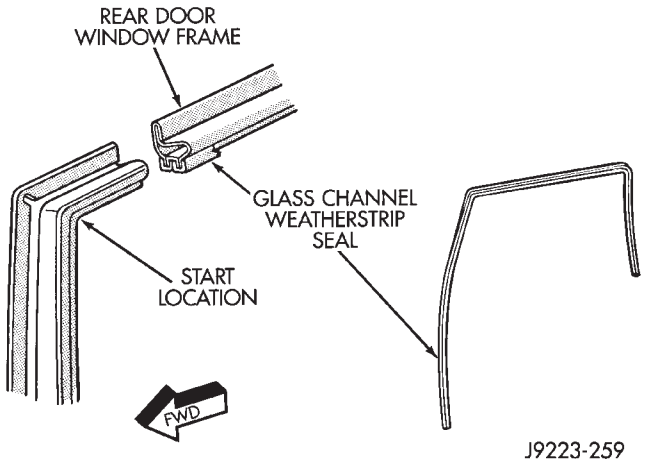

Fig. 64 Glass Channel Weatherstrip Seal

REAR DOOR FIXED WINDOW GLASS

REMOVAL

(1) Lower the window glass.

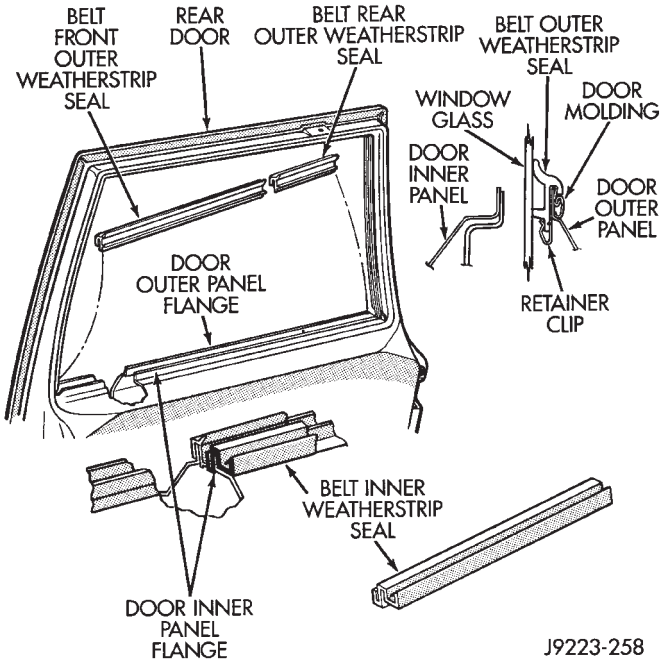

Fig. 65 Belt Weatherstrip Seals

(2) Pry the window beltline moulding away from the clips and remove the moulding from the door.

(3) Remove the window weatherstrip seals from the door.

(4) Remove the trim panel and waterdam from door inner panel.

(5) Remove the channel/division bar screws. Drill out the rivet head to remove it from the inner panel.

(6) Tilt the channel/division bar forward and remove it from the door.

(7) Remove the fixed glass support bracket bolts from the door inner panel reinforcement bracket (Fig. 66).

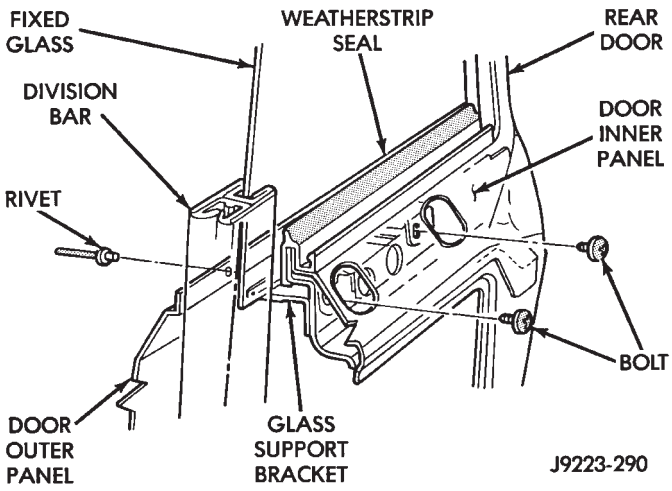

Fig. 66 Fixed Glass Support Bracket Bolts

(8) Remove the fixed glass from the door (Fig. 67).

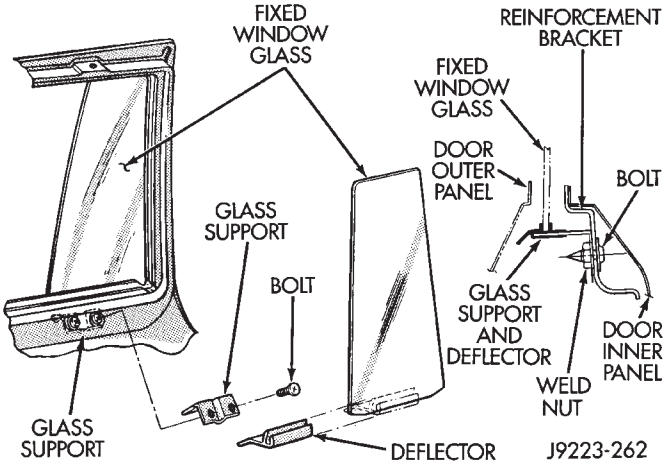

Fig. 67 Fixed Glass Removal/Installation

INSTALLATION

(1) Install the fixed glass in the door, and install the bolts in the reinforcement and support brackets.

(2) Tighten the bracket retaining bolts to 9 N·m (79 in-lbs) torque.

(3) Install the channel/division bar in the door.

(4) Install the channel/division bar screws and rivet. Tighten the screws to 6 N·m (5 ft-lbs) torque.

(5) Install the channel and belt weatherstrip seals.

(6) Install the beltline moulding.

(7) Install the door waterdam and trim panel.

DOOR KEY LOCK CYLINDER

REMOVAL

(1) Remove the door trim panel and waterdam.

(2) Disconnect the door latch-to-lock cylinder rod at the door latch (Fig. 68).

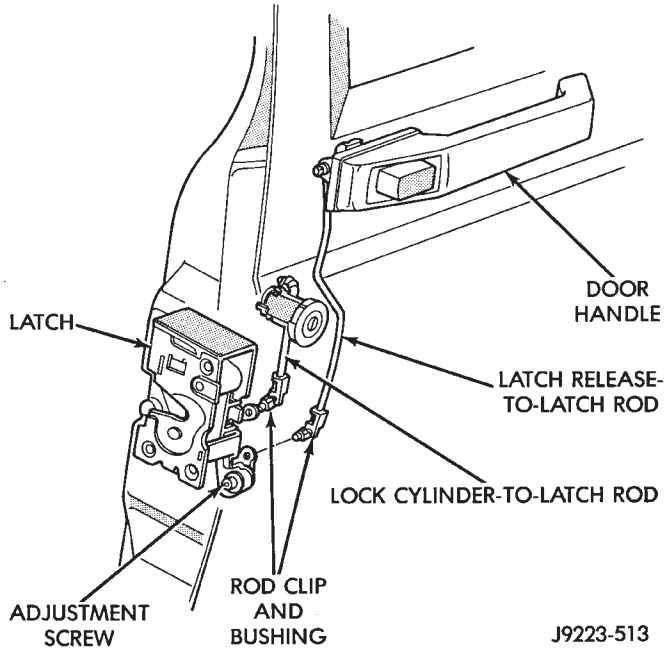

Fig. 68 Key Lock Cylinder and Door Latch

(3) If equipped, disconnect the security alarm switch connector from the lock cylinder (Fig. 69).

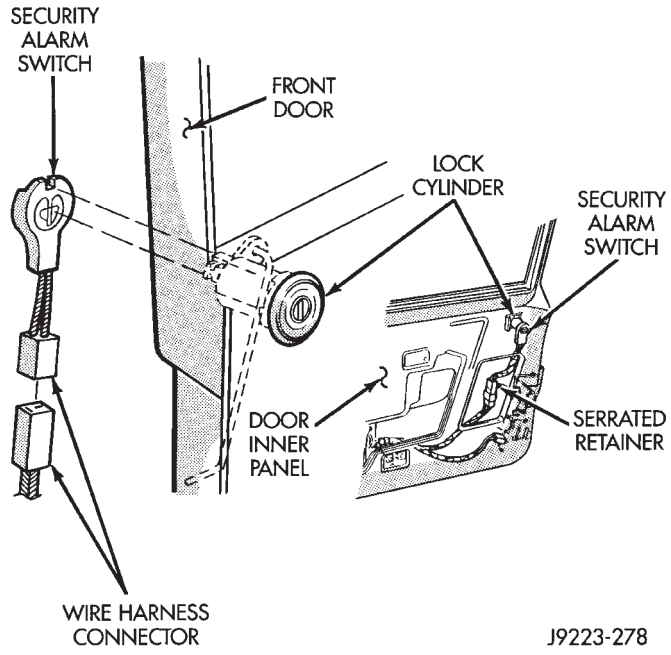

Fig. 69 Security Alarm Switch

(4) Remove the key lock cylinder retainer clip. Remove the lock cylinder, gasket and clip from the door opening (Fig. 70).

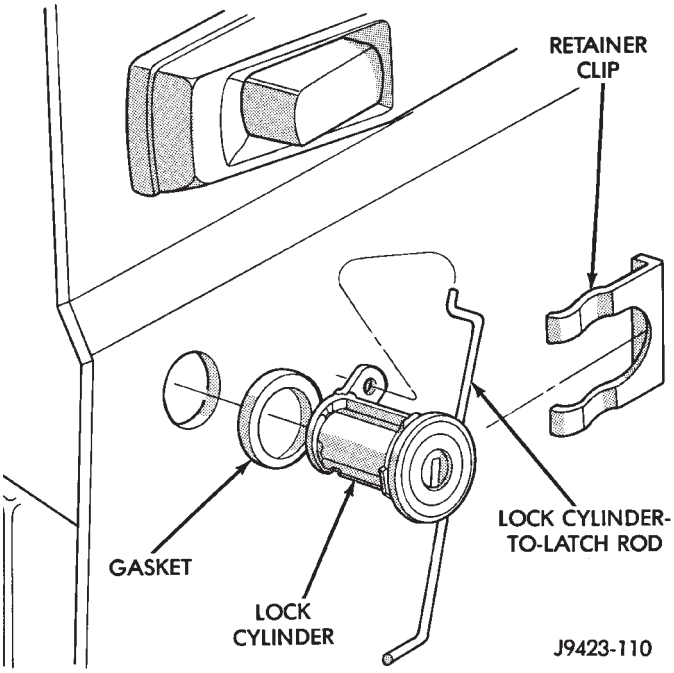

Fig. 70 Key Lock Cylinder Removal/Installation

(5) If applicable, remove the door latch-to-lock cylinder rod from the original lock cylinder. Connect it to the replacement lock cylinder.

INSTALLATION

(1) Position the lock cylinder and gasket in the door opening. Hold the lock cylinder in the opening with the retainer clip.

(2) Connect the door latch-to-lock cylinder rod to the door latch.

(3) If equipped, connect the security alarm switch connector to the lock cylinder.

(4) Test and, if necessary, adjust the door latch-to-lock cylinder rod operation.

(5) Install the door trim panel and waterdam.

(6) Adjust the door latch as described in DOOR LATCH ADJUSTMENT.

DOOR LATCH ADJUSTMENT

(1) Remove the access hole plug from the latch face (Fig. 71).

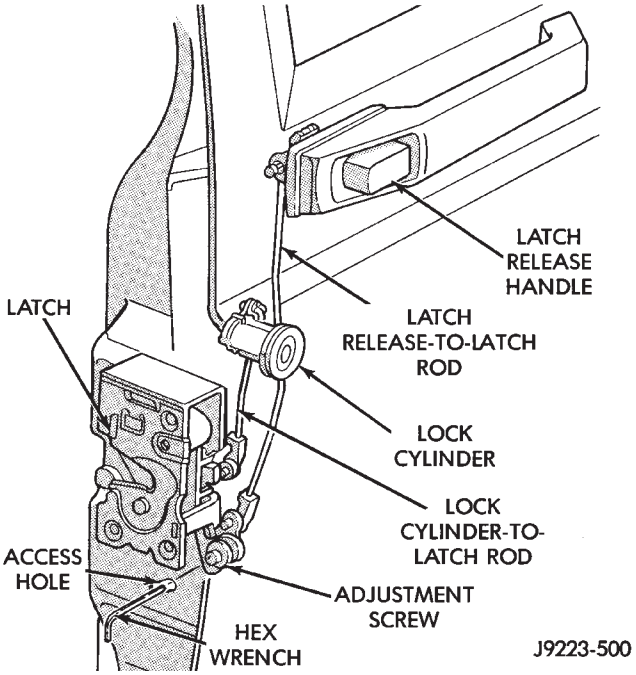

Fig. 71 Door Latch Adjustment

(2) Insert a 5/32-inch wrench through the hole and into the latch release lever adjustment screw and loosen.

(3) Press and release the outside door handle latch release button several times.

(4) Release the button and tighten adjustment screw to 3 N·m (30 in-lbs) torque.

(5) Test the release handle button and key lock cylinder for proper latch release.

(6) Install the door waterdam and trim panel.

DOOR EXTERNAL HANDLE

REMOVAL

(1) Remove the door trim panel and waterdam.

(2) Remove the access hole cover and remove the door handle nuts (Fig. 72).

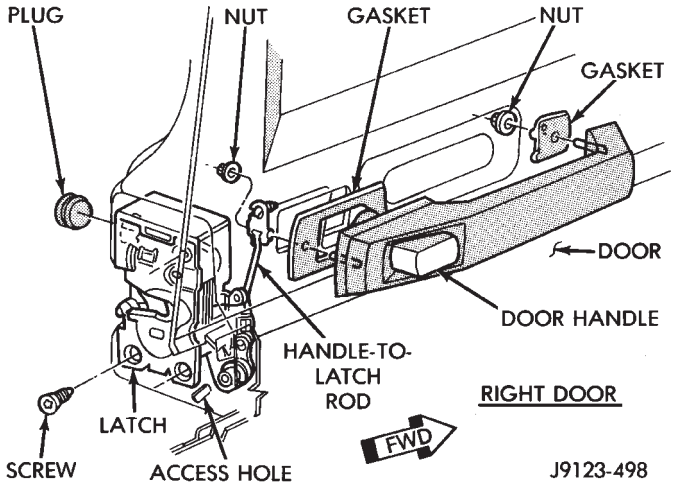

Fig. 72 Door External Handle Removal/Installation

(3) Disconnect the handle-to-latch rod from the handle latch release lever arm.

(4) Remove the nuts and handle from the door.

(5) Remove the gaskets from the door outer panel surface, if necessary.

INSTALLATION

(1) Assemble the replacement door handle, if necessary (Fig. 73). Apply silicone spray lubricant to the components.

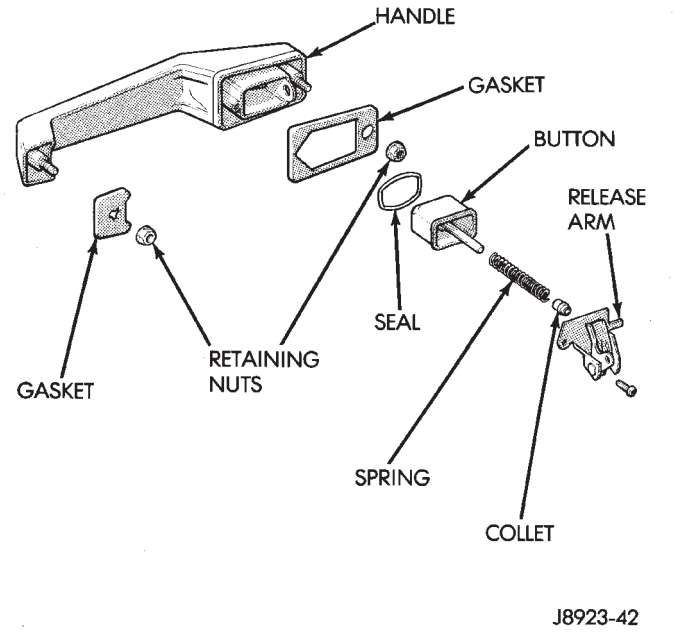

Fig. 73 Door Handle Components

(2) If the original gaskets were removed, position the replacement gaskets on the handle. Position the handle on the door outer panel.

(3) Install and tighten the handle nuts.

(4) Connect the latch-to-handle rod to the handle latch release lever arm.

(5) Install the door waterdam and trim panel.

(6) Adjust the door latch as described in DOOR LATCH ADJUSTMENT.

DOOR LATCH

REMOVAL

(1) Remove the access plug located at the upper end of the door (Fig. 74).

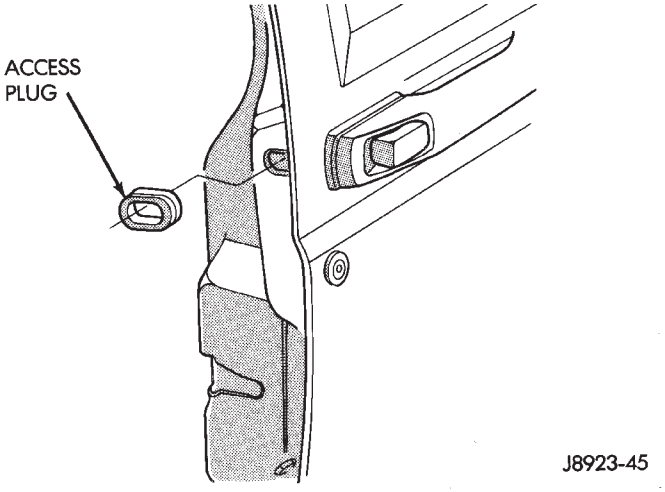

Fig. 74 Access Plug

(2) Remove the door trim panel and waterdam.

(3) Remove the door external handle from the door outer panel.

(4) Remove the door latch screws (Fig. 75).

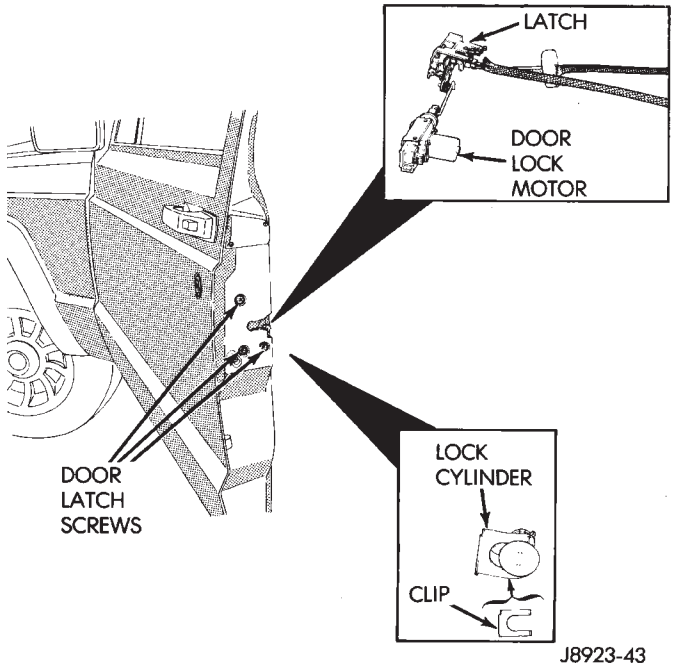

Fig. 75 Door Latch Retaining Screws

(5) Remove the retainer clip and key lock cylinder from the door outer panel.

(6) Disconnect all the rods from the door latch (Fig. 76).

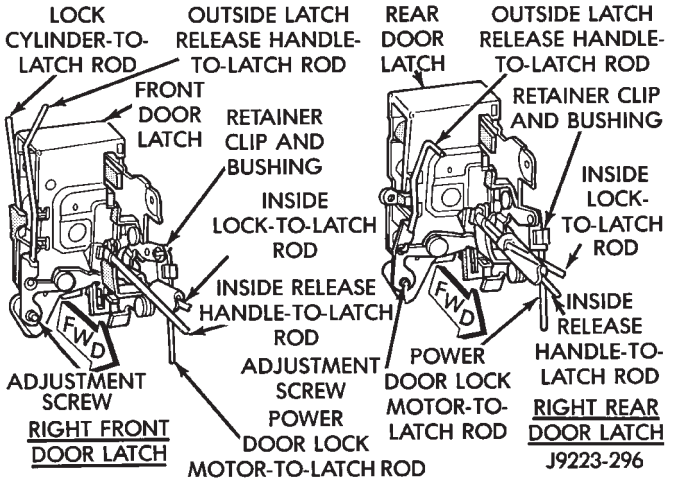

Fig. 76 Door Latches

(7) Remove the door latch from the door face.

(8) For vehicles equipped with power door locks, remove the lock motor rivets. Remove the motor and latch as a unit from the door. Detach the rod and motor from the latch (Fig. 77).

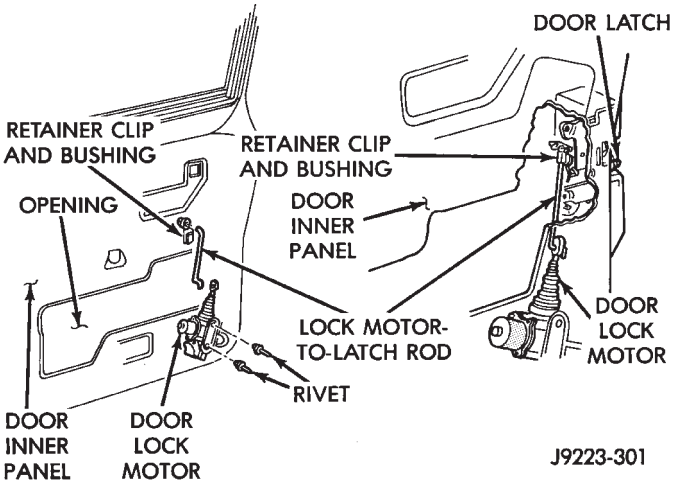

Fig. 77 Door Lock Motor

INSTALLATION

(1) If necessary, install a replacement latch striker.

(2) For vehicles equipped with power door locks, attach the rod and lock motor to the latch. Attach the lock motor to the door panel with either rivets or with bolts and nuts (Fig. 77).

(3) Install the door latch at the door face and connect all the rods to the latch (Fig. 76).

(4) Install the latch screws. Tighten the screws to 9 N·m (77 in-lbs) torque.

(5) Install the external handle.

(6) Install the latch-to-door handle rod.

(7) Install the key lock cylinder and retainer clip.

(8) Install the door waterdam and trim panel.

(9) Install the door access plug.

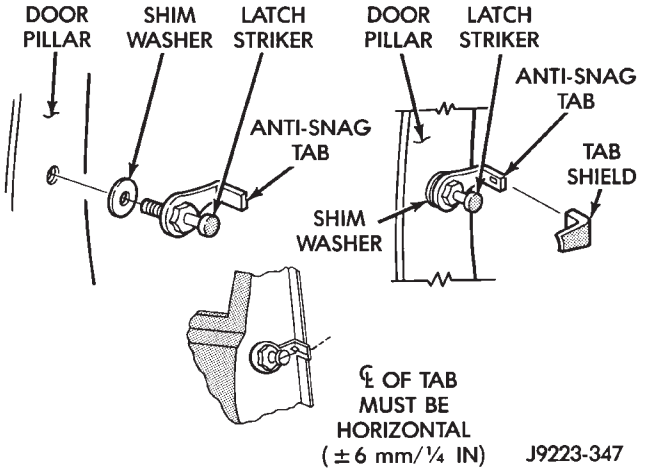

Fig. 78 Door Latch Striker Removal/Installation

(10) Adjust the door latch as described in DOOR LATCH ADJUSTMENT.

DOOR INSIDE LATCH RELEASE AND LOCK RODS

REMOVAL

(1) Remove the door inside latch release handle screws (Figs. 79 and 80).

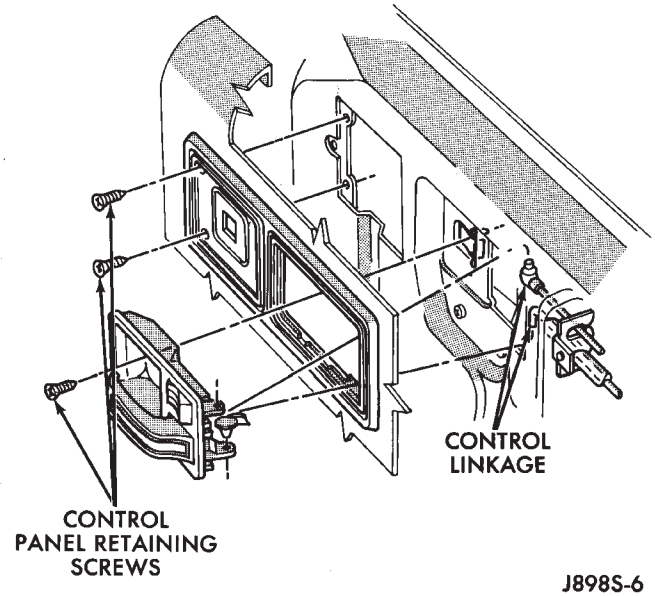

Fig. 79 Front Door Inside Latch Release Handle

(2) Move the door release handle outward and disconnect the handle-to-latch rods (Fig. 81). For vehicles equipped with power door locks/windows, also disconnect the wire harness connector (Fig. 82).

(3) Remove the door trim panel and waterdam.

(4) Drill-out the rivet heads and remove the rod guide bracket rivets from the door inner panel (Figs. 83 and 84).

(5) Remove the rod guide brackets and rods from the door.

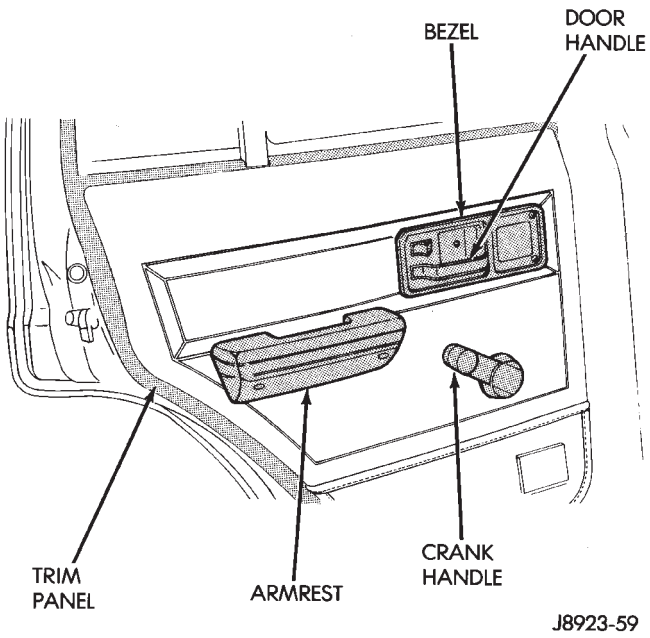

Fig. 80 Rear Door Inside Latch Release Handle

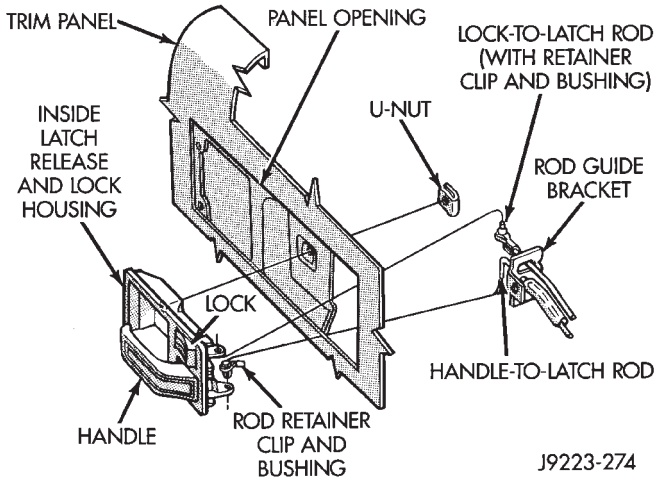

Fig. 81 Door Inside Latch Release Rods

INSTALLATION

(1) Position the rod guide brackets and rods in the door.

(2) Install rod the guide bracket rivets in the door inner panel (Fig. 85).

(3) Install the door trim panel and waterdam.

(4) Adjust the door latch as described in DOOR LATCH ADJUSTMENT.

DOOR HINGE/HINGE PIN REPLACEMENT

REMOVAL

(1) Remove the door restraint (check) retaining pin (Fig. 86) with a punch.

(2) Front door: open the door wide for access and remove the door hinge pin and bushing with a punch.

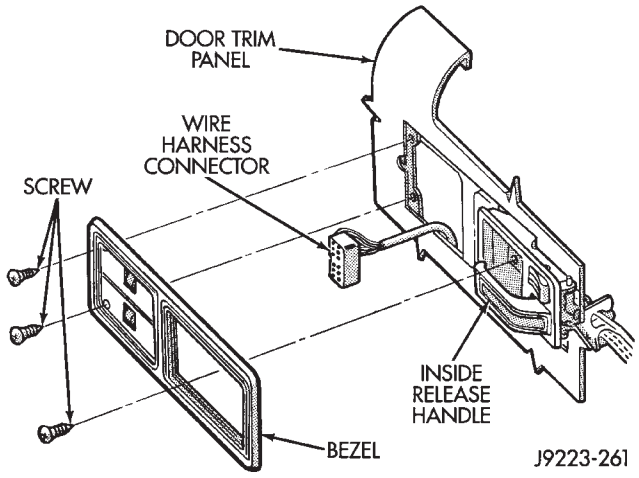

Fig. 82 Power Switch Wire Harness Connector

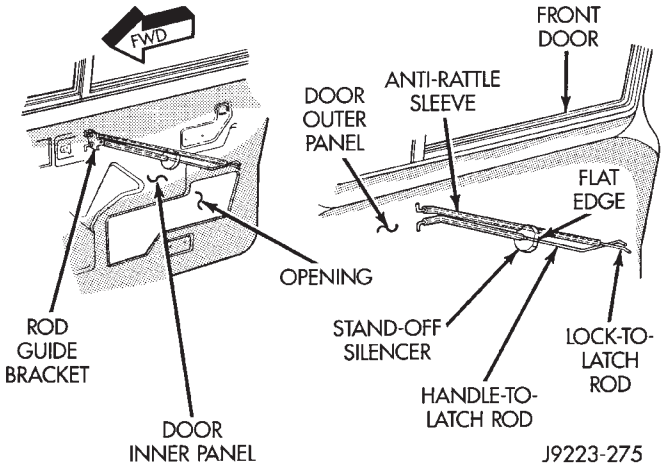

Fig. 83 Front Door Rod Guide Bracket and Rods

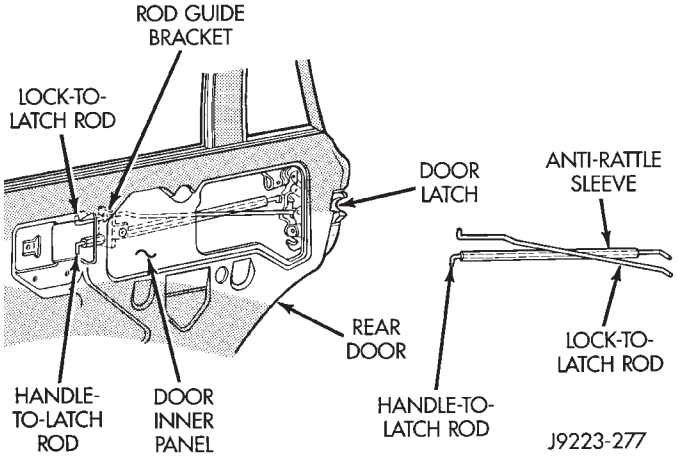

Fig. 84 Rear Door Rod Guide Bracket and Rods

(3) Rear door: with the door closed, remove the door hinge pin and bushing with a punch (Fig. 87).

(4) Remove the door hinge bolts, plates and shims (Fig. 88).

(5) Retain the door hinge plates and shims for correct installation.

(6) Separate the hinge halves.

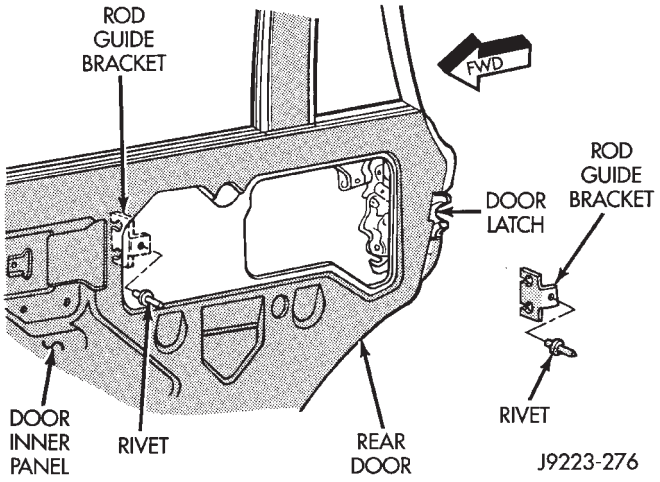

Fig. 85 Rod Guide Bracket Installation

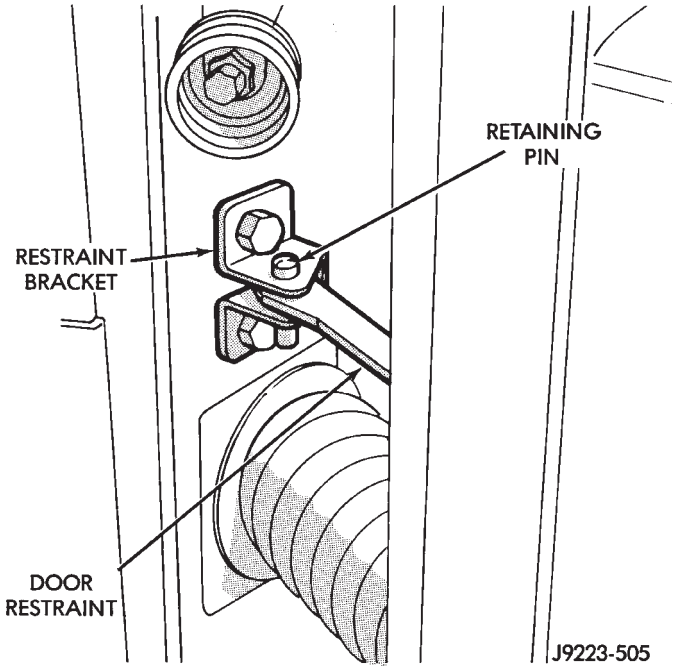

Fig. 86 Door Restraint (Check) Retaining Pin

INSTALLATION

(1) Position the hinge plates, shims and replacement hinge-half on the door face.

(2) Align the door hinges, plates and shims with bolt holes and install hinge bolts (Fig. 88).

(3) Insert a bushing in both body hinge halves from the bottom (Fig. 89).

(4) Allow the bushing material to stick out of the top of the hinge. Use the round end of a ball-peen hammer, lightly tap the bushing material to begin to roll it outward (Fig. 90).

(5) When the entire edge of the bushing is rolled outward, turn the hammer over and lightly tap the bushing material to form a flat head (Fig. 91). The head must be flat without overlapping or distorting the bushing material.

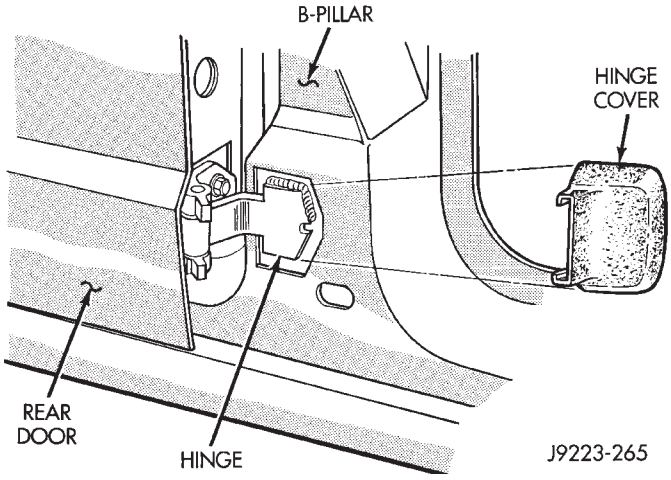

Fig. 87 Rear Door Hinge

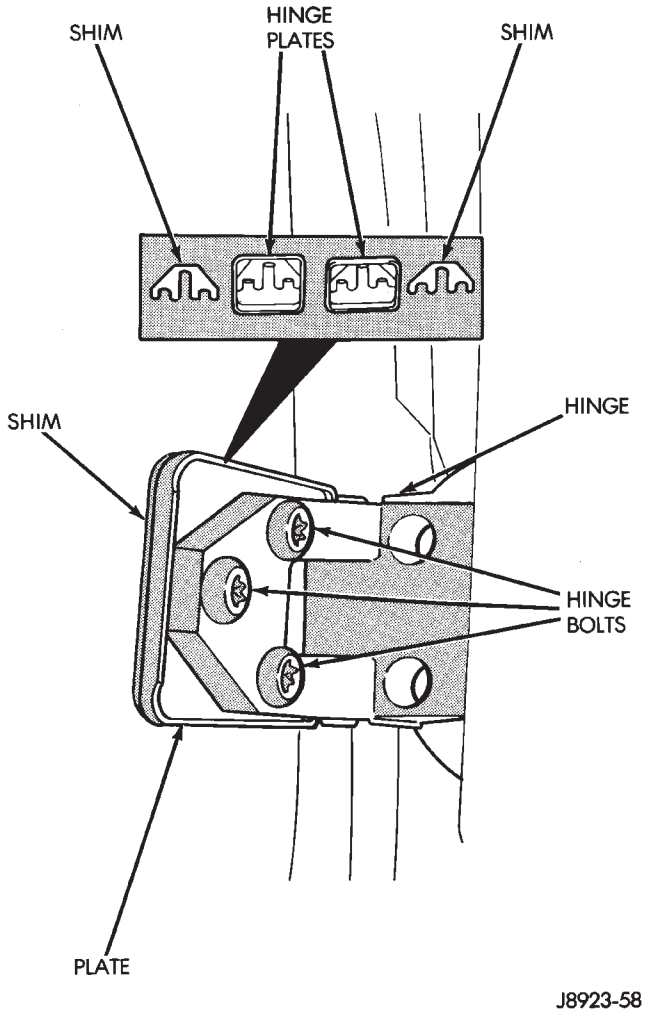

Fig. 88 Door Hinges, Bolts, Plates and Shims

(6) Slide the door half of the upper and lower hinges onto the body half of both hinges and align the hinge pin holes.

(7) Carefully start the hinge pins through the hinges (they will fit snugly) and then use a two pound hammer, carefully seat both hinge pins (Fig.

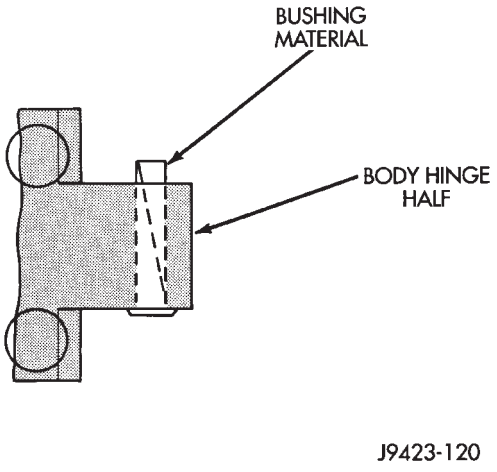

Fig 89 Install Bushing In Hinge

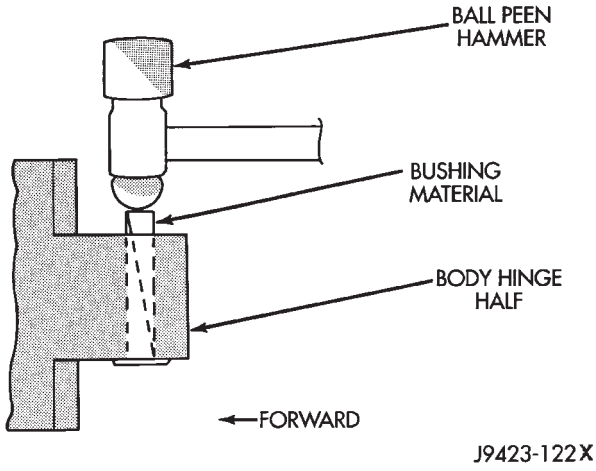

Fig. 90 Begin To Roll Bushing Material Outward

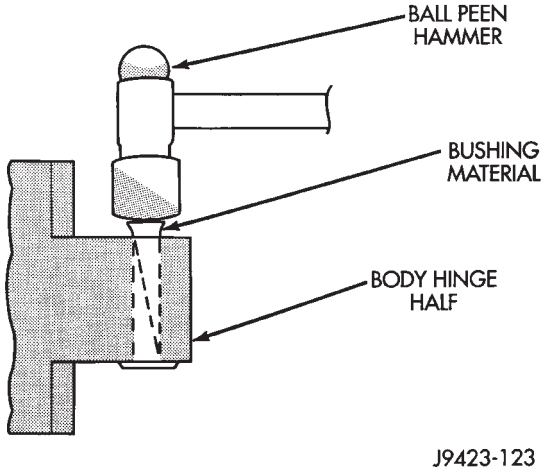

Fig. 91 Forming A Head On The Bushing

92). Be careful not to bend the hinge when driving the hinge pin, support may be required under the hinge.

(8) Adjust/align latch striker and latch as necessary.

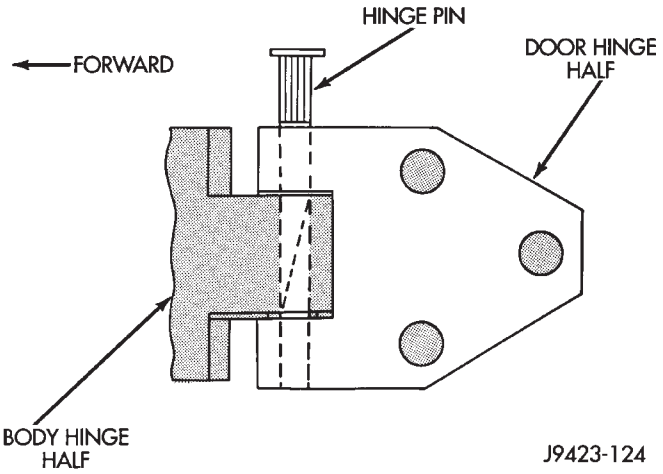

Fig. 92 Installing The Hinge Pin

(9) Install the door restraint (check) retaining pin with a punch.

FRONT DOOR SPACER BLOCKS—TWO-DOOR VEHICLES

REMOVAL

(1) Upper spacer block: drill-out the rivet heads and remove them from the reinforcement plate (Fig.93).

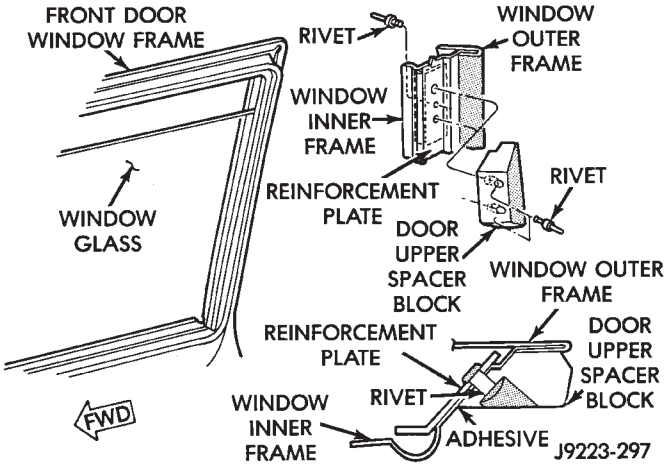

Fig. 93 Front Door Upper Spacer Block—Two-Door Vehicles

(2) Lower spacer block: remove the screws from the door face Fig. 94).

(3) As applicable, remove the spacer block from the door window frame or door face.

INSTALLATION

(1) As applicable, position the spacer block on the door window frame or door face.

(2) Upper spacer block: Install the replacement rivets in the spacer block and reinforcement plate.

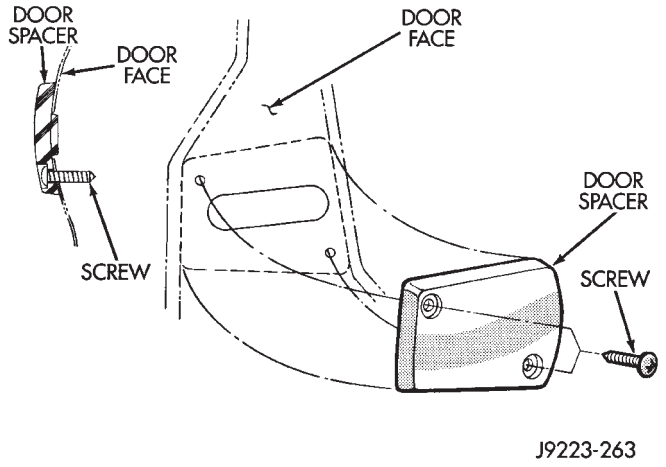

Fig. 94 Front Door Lower Spacer Block—Two-Door Vehicles

(3) Lower spacer block: install the screws in the door face. Tighten the screws to 1 N·m (11 in-lbs) torque.

DOOR EDGE GUARD/EDGE PROTECTOR STRIP

REPLACEMENT

(1) Pull outward and remove the door edge guard strip from the door edge (Fig. 95).

(2) Position the door edge guard strip on the door edge.

(3) Force the door edge guard strip inward until it is seated on the door edge.

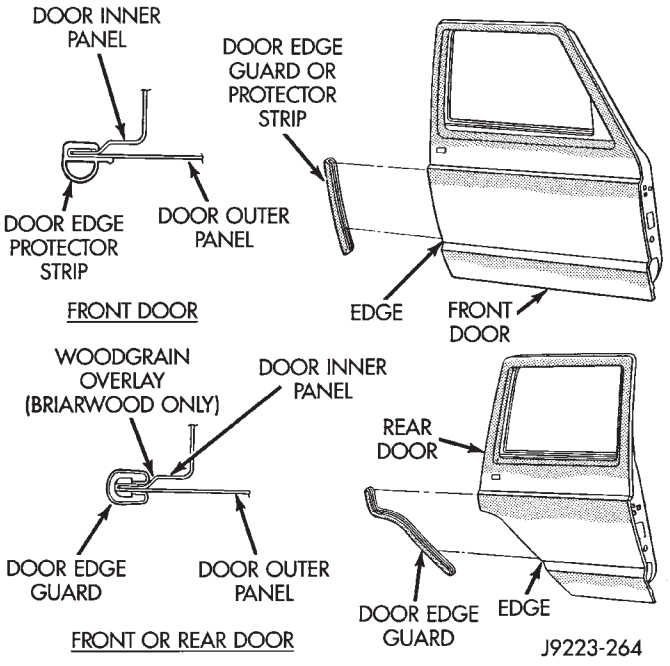

Fig. 95 Door Edge Guard/Protector Strip

DOOR WINDOW EXTERIOR MOULDINGS

REMOVAL

(1) When removing the front or rear door window exterior moulding, open the window completely (Figs. 96 and 97).

(2) Pry and pull the moulding sections from the door panel flange and clips.

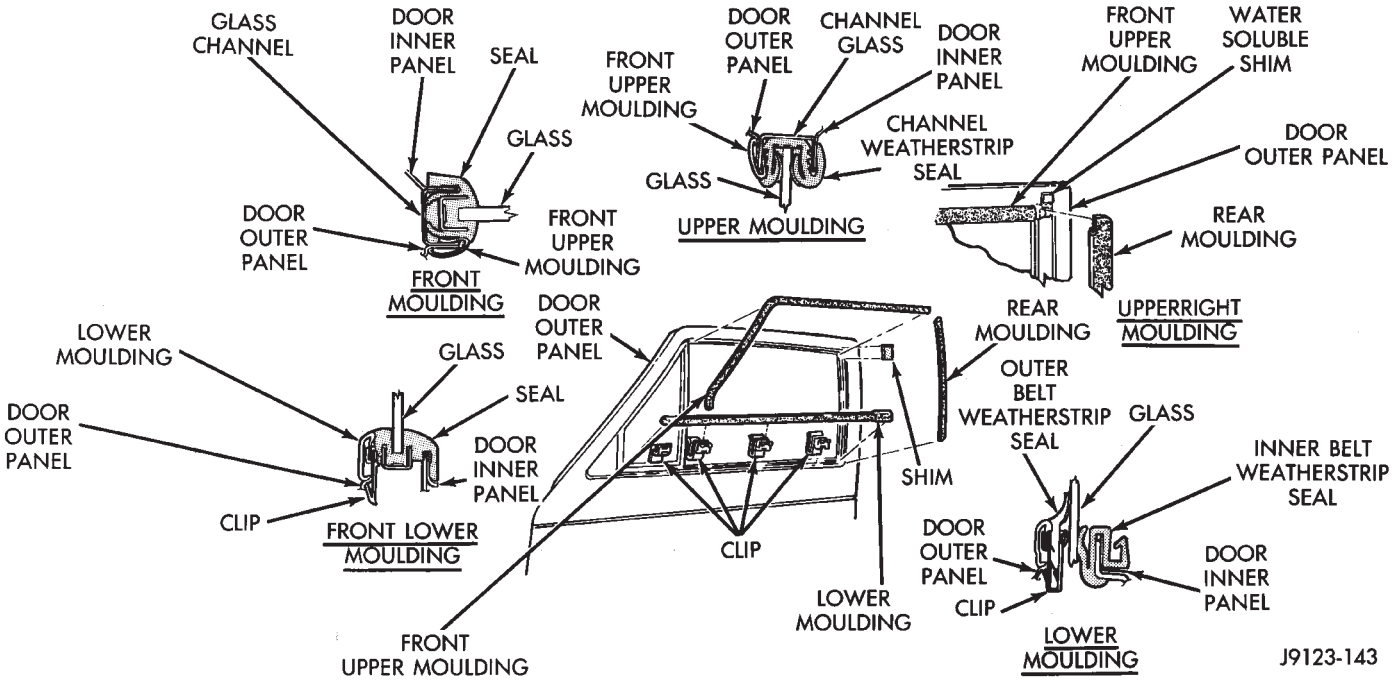

Fig. 96 Front Door Window Exterior Moulding

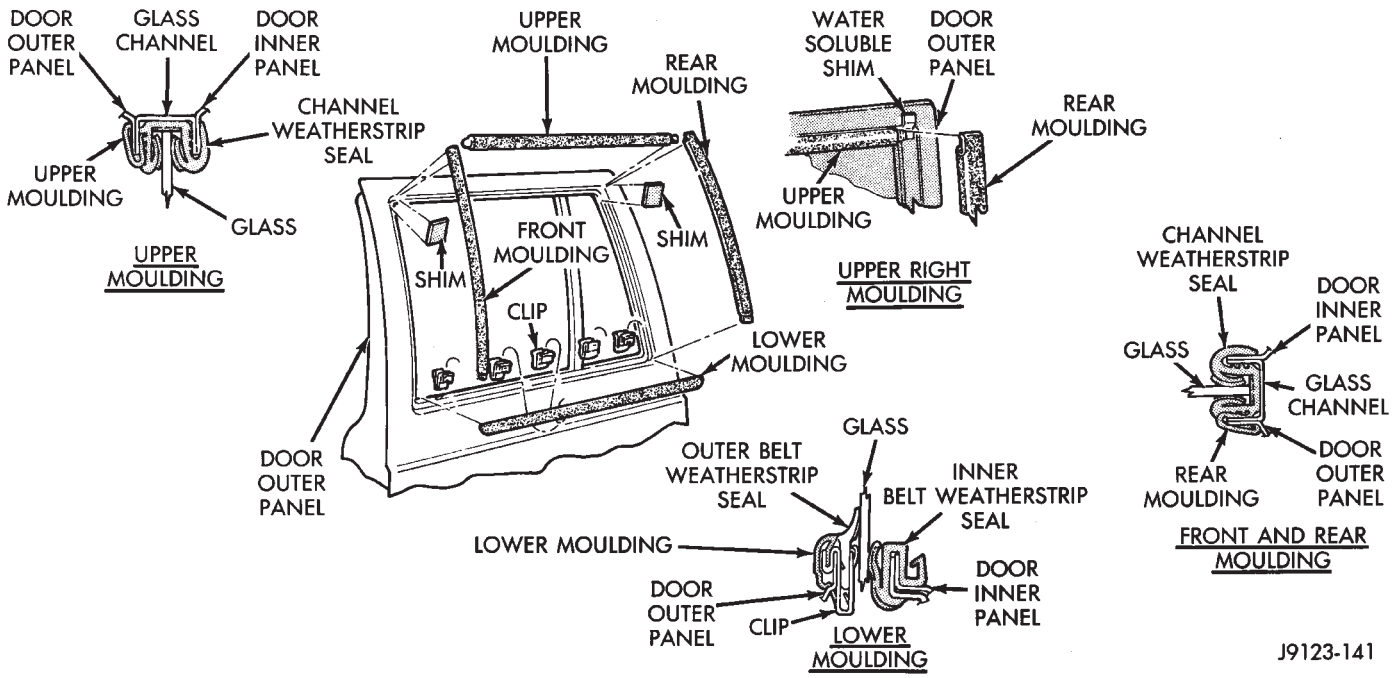

Fig. 97 Rear Door Window Exterior Moulding

INSTALLATION

(1) When installing window mouldings, start at the forward end of the upper moulding.

(2) Force the moulding onto the door panel and continue rearward until it is completely seated on the flange.

(3) Mate the rear moulding with the upper moulding and force the moulding edge inward.

(4) Continue pressing and moving downward to complete the installation.

(5) Position the lower moulding on the clips and force it downward.

DOOR WINDOW GLASS AND DOOR OPENING WEATHERSTRIP SEALS

REMOVAL

When removing the front or rear door window glass weatherstrip seals, open the window.

The window weatherstrip seals can be removed by hand or with the aid of a small putty knife (or similar tool).

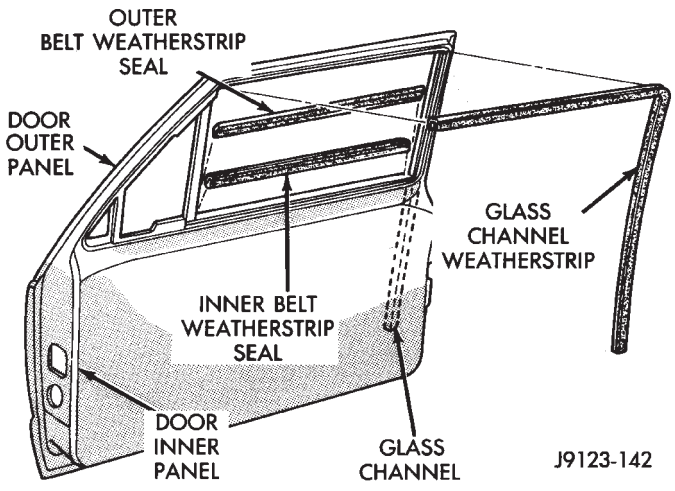

Fig. 98 Front Door Window Glass Weatherstrip Seals

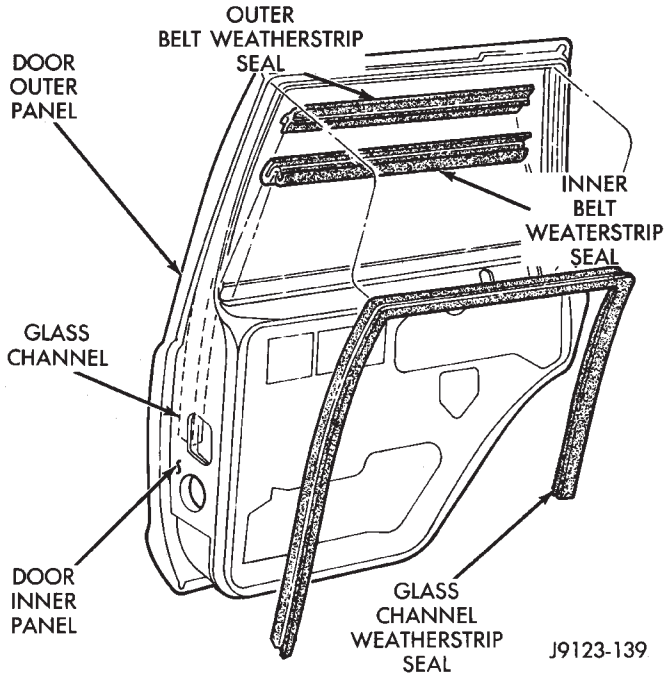

Fig. 99 Rear Door Window Glass Weatherstrip Seals

The door opening weatherstrip seal is attached to the periphery of the door opening in the body. The retaining push-studs can be removed with an appropriate pry tool. The front door secondary seal is attached to the A-pillar with plastic blind rivets (Fig. 100).

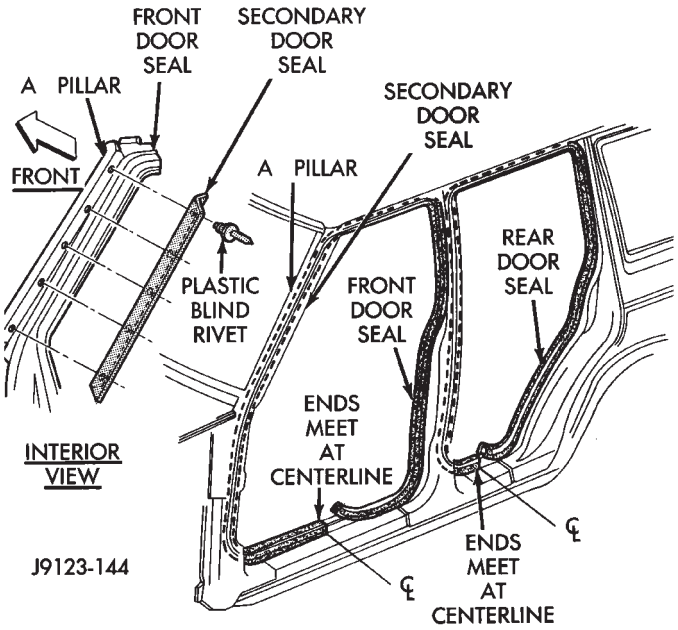

Fig. 100 Door Opening Weatherstrip Seals

The door-to-rocker panel seals are attached to the door inner panels with rivets (Fig. 101). The rivets can be removed with an appropriate pry tool.

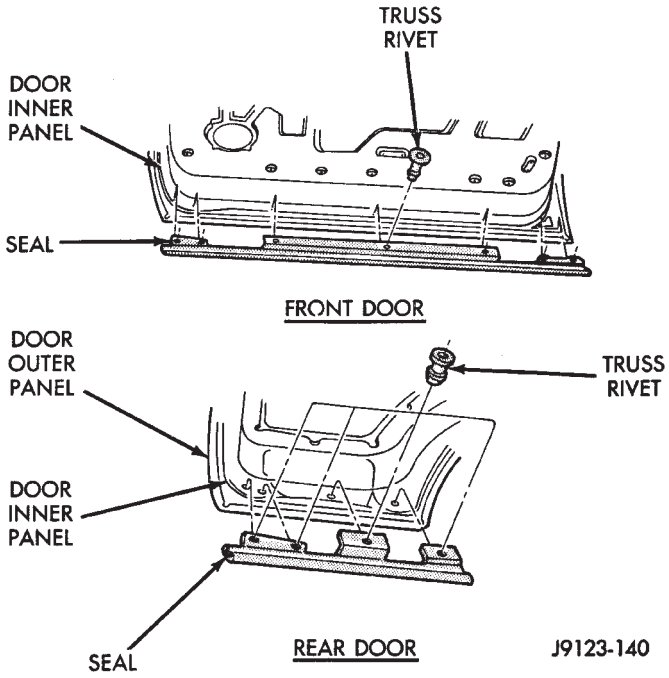

Fig. 101 Door-To-Rocker Panel Seals

WINDOW GLASS WEATHERSTRIP SEAL INSTALLATION

When installing front or rear door window glass weatherstrip seals, open the window completely.

(1) To install a front door window glass channel weatherstrip seal, start at the upper, rear corner (Fig. 102).

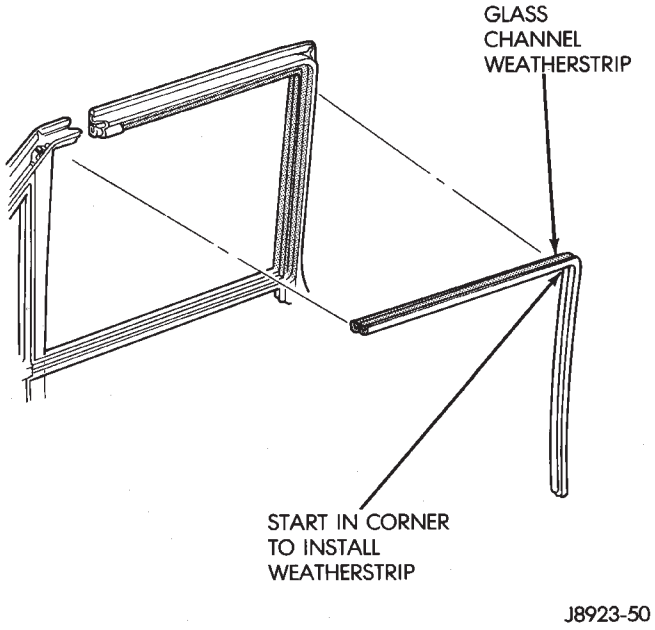

Fig. 102 Front Door Window Glass Channel Weatherstrip Seal

(2) To install a rear door window glass channel weatherstrip seal, start at the upper, front corner (Fig. 103).

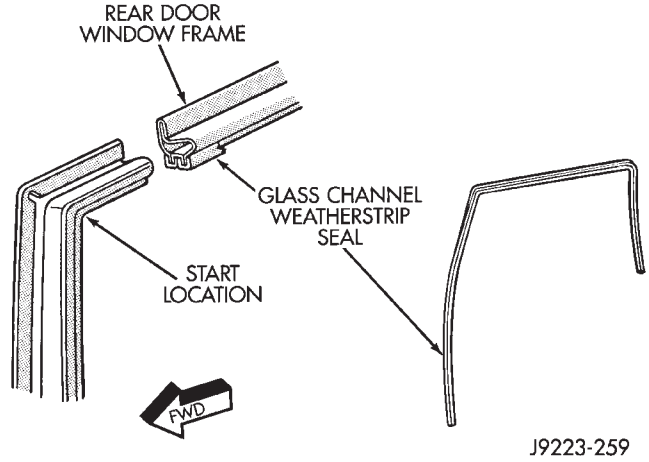

Fig. 103 Rear Door Window Glass Channel Weatherstrip Seal

(3) A small amount of adhesive can be used to hold the weatherstrip seal in-place, if necessary.

(4) As applicable, move forward or rearward and downward evenly until the weatherstrip seal is fully seated in the channel.

(5) Position the belt weatherstrip seals at the window edge (Figs. 104, 105 and 106) and force them downward until seated on the flange.

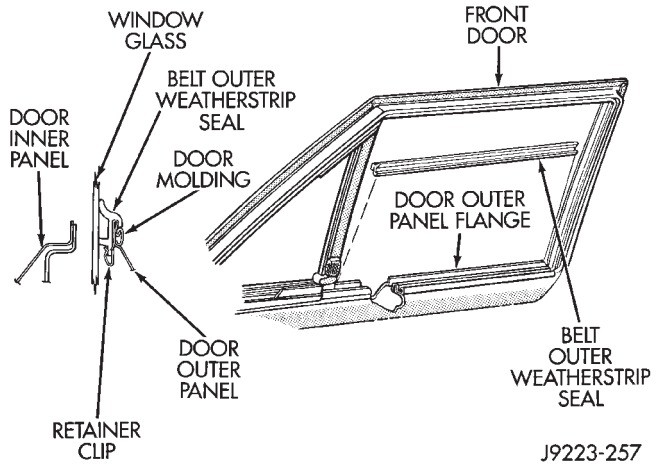

Fig. 105 Front Door Belt Outer Weatherstrip Seal

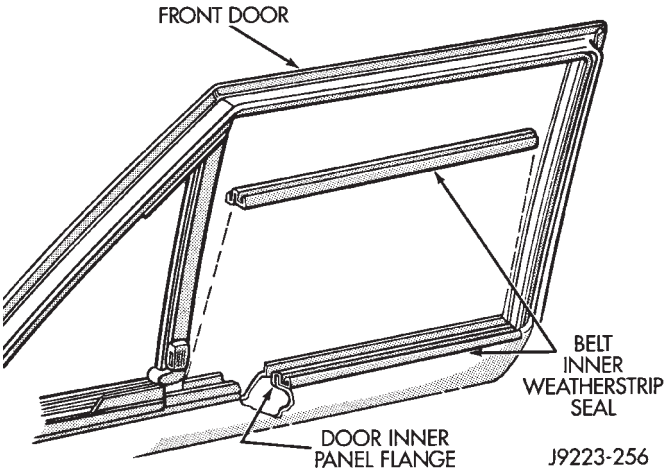

Fig. 106 Front Door Belt Inner Weatherstrip Seal

DOOR OPENING WEATHERSTRIP SEAL INSTALLATION

The weatherstrip seal is attached to the flange around the perimeter of the door opening with adhesive and plastic push-studs.

(1) When installing a door opening weatherstrip seal, start at the door sill center line.

(2) Use adhesive along with the push-studs to aid in retaining a weatherstrip seal.

(3) Move upward and around the perimeter of the door opening and seat the weatherstrip seal on flange (Fig. 108).

(4) Install the front door secondary seal with plastic blind rivets.

DOOR-TO-ROCKER PANEL SEAL INSTALLATION

(1) Position the seal on the door inner panel with the holes aligned.

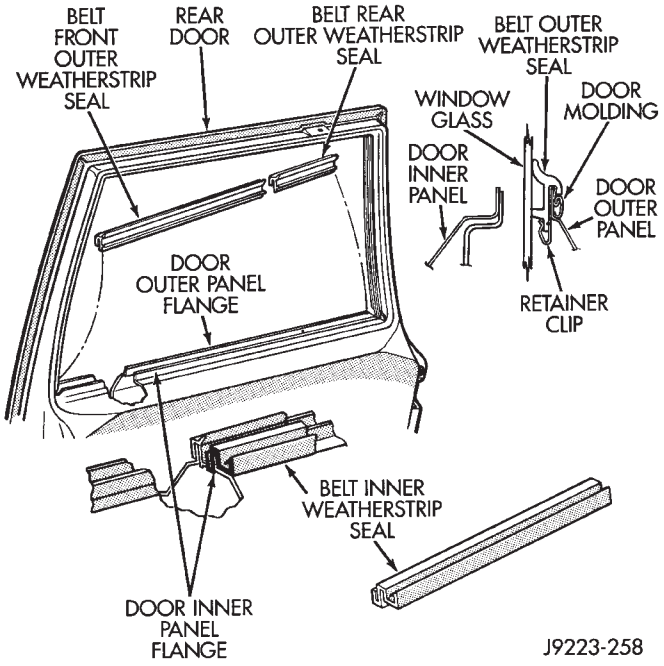

Fig. 107 Rear Door Belt Outer and Inner Weatherstrip Seal

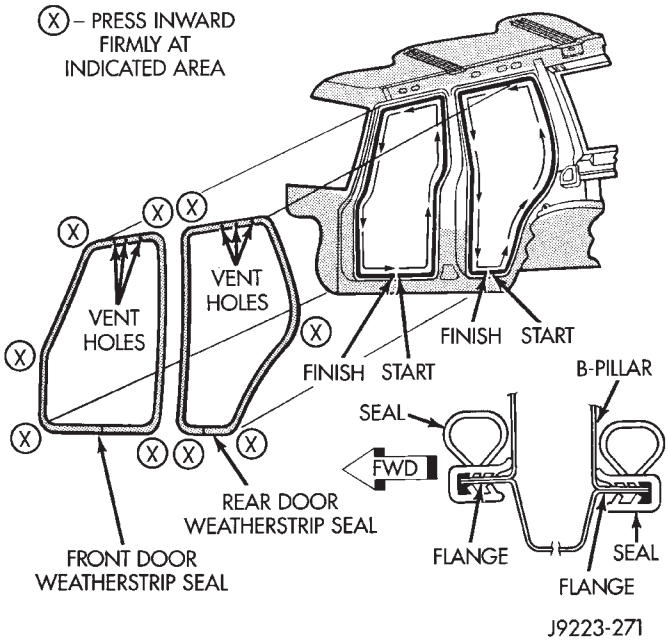

Fig. 108 Door Opening Weatherstrip Seals

(2) Attach the seal to the door inner panel with truss rivets.

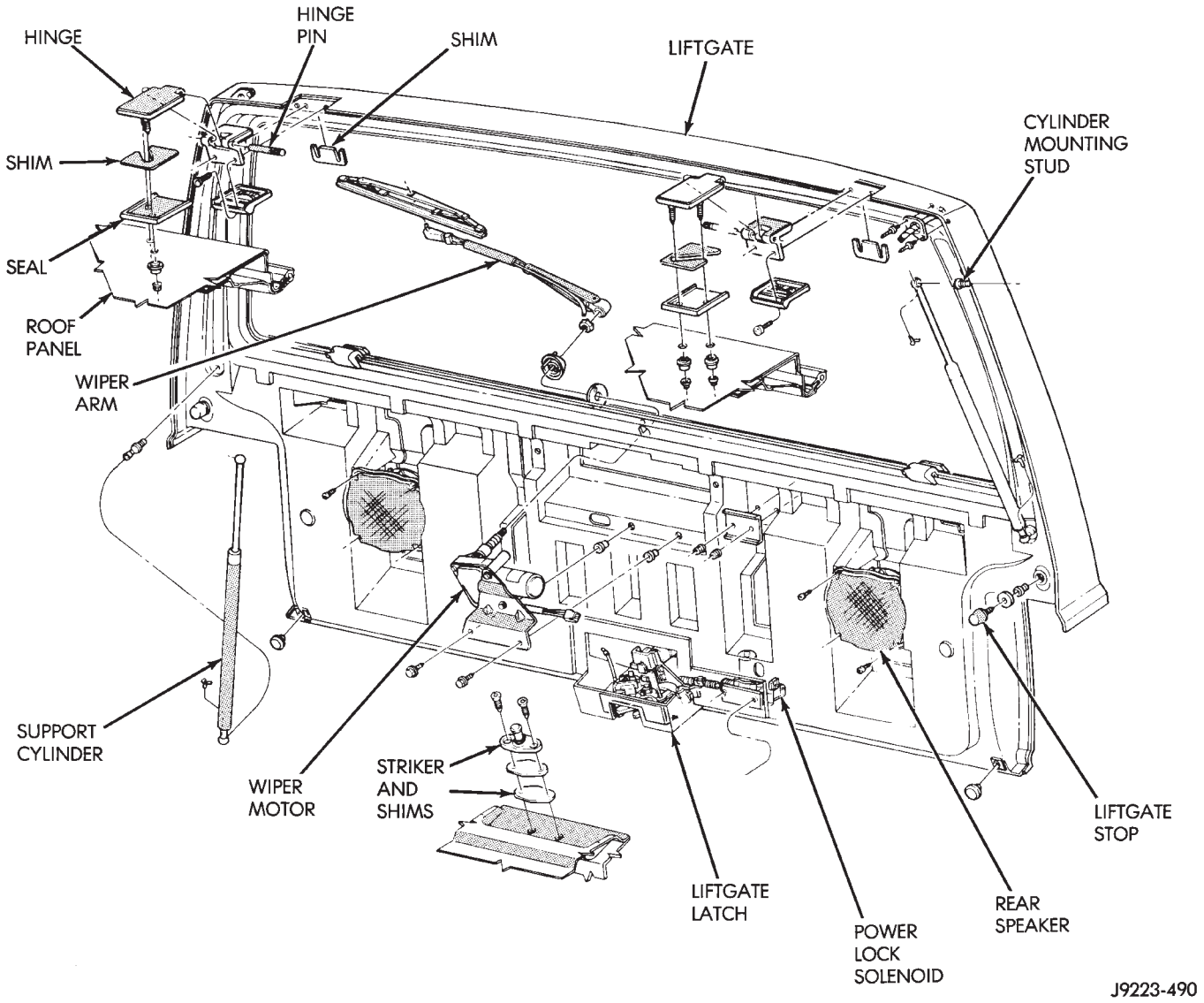

Fig. 109 Liftgate Components

LIFTGATE SERVICE INFORMATION—XJ VEHICLES

The liftgate components are illustrated in Figure 109.

LIFTGATE REMOVAL/INSTALLATION

REMOVAL

WARNING: DO NOT DISCONNECT THE SUPPORT ROD CYLINDERS WITH THE LIFTGATE CLOSED. THE SUPPORT ROD PISTONS ARE OPERATED BY HIGH PRESSURE GAS. THIS COULD CAUSE DAMAGE AND/OR PERSONAL INJURY IF THEY ARE REMOVED WHILE PISTONS ARE COMPRESSED.

(1) Open the liftgate.
(2) Remove the liftgate trim panel (Fig. 110).
(3) Remove the retainer clips that secure the support rod cylinders to the ball studs (Fig. 111).
(4) Remove the support rod cylinders from the ball studs.
(5) Remove the screws and the wire harness trim cover from the liftgate header (Fig. 112).
(6) Disconnect the connectors and remove the wire harness from the liftgate (Fig. 113).
(7) Remove the hinge-to-liftgate screws.
(8) Remove the liftgate from the vehicle.

INSTALLATION

(1) Position and support the liftgate at the opening in the body and install the hinge-to-liftgate screws.
(2) Adjust the liftgate to fit properly in the body opening. Refer to Liftgate Adjustment.
(3) Tighten the hinge-to-liftgate screws to 9 N·m (7 ft-lbs) torque.
(4) Connect the liftgate rod cylinders to the ball studs and install the rod cylinder retainer clips.
(5) Insert and connect the wire harness connectors.
(6) Position the wire harness trim cover on the header and install the screws. Tighten the screws to 1 N·m (11 in-lbs) torque.

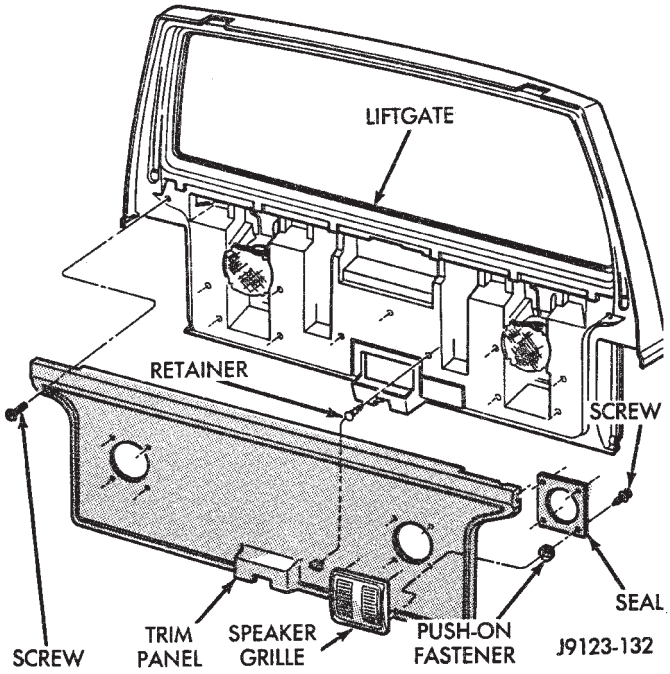

Fig. 110 Liftgate Trim Panel

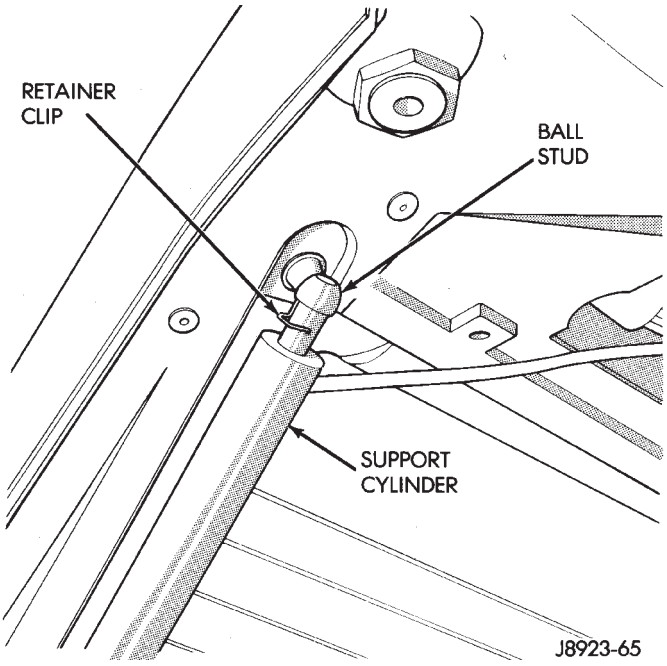

Fig. 111 Support Rod Retainer Clip

(7) Install the trim panel.

LIFTGATE TRIM PANEL

REMOVAL

(1) Remove the screws that attach the panel upper sides to the liftgate.

(2) Use a trim stick to detach the panel retainers from the liftgate.

(3) Remove the trim panel from the liftgate.

(4) If necessary, drill-out the rivet heads and remove the trim panel strip from the liftgate (Fig. 114).

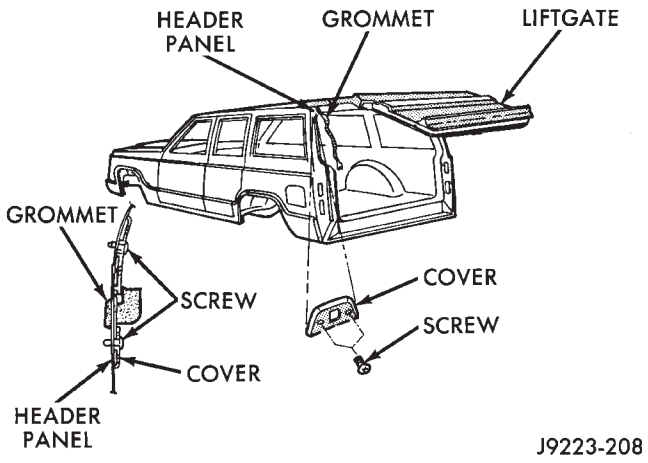

Fig. 112 Liftgate Wire Harness Trim Cover

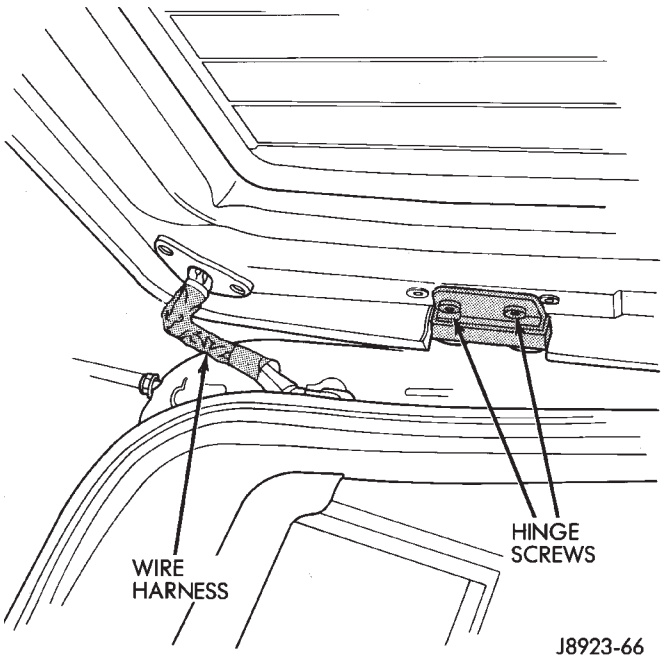

Fig. 113 Liftgate Wire Harness and Hinge Screws

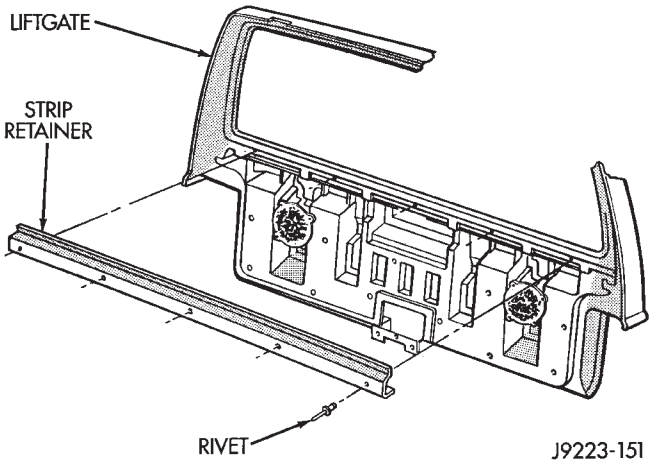

Fig. 114 Liftgate Trim Panel Strip Retainer

(5) If necessary, remove the screws and remove the speaker grilles from the trim panel (Fig. 115).

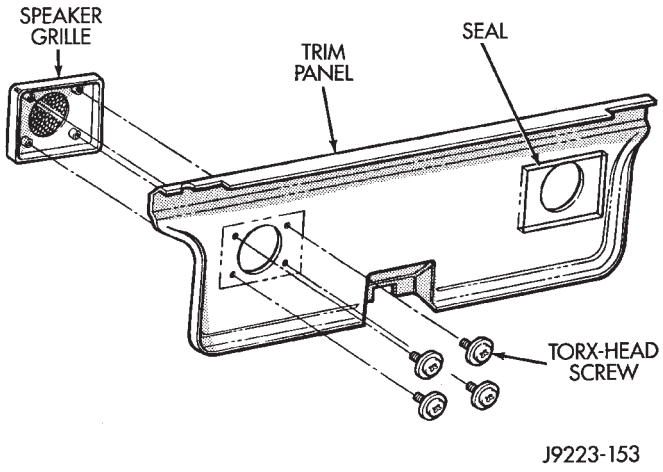

Fig. 115 Liftgate Trim Panel Speaker Grilles

INSTALLATION

(1) If removed, install the trim panel retainer strip on the liftgate with replacement rivets.

(2) If removed, install the speaker grilles on trim panel. Tighten the screws to 1 N·m (11 in-lbs) torque.

(3) Position the trim panel on liftgate.

(4) Align the trim panel retainers with the holes in the liftgate inner panel and force the trim panel inward.

(5) Install the screws to attach the panel upper sides to the liftgate.

LIFTGATE HINGE

REMOVAL

It is not necessary to remove the liftgate to replace one or both hinges.

(1) Remove the liftgate (headliner) upper trim moulding (Fig. 116).

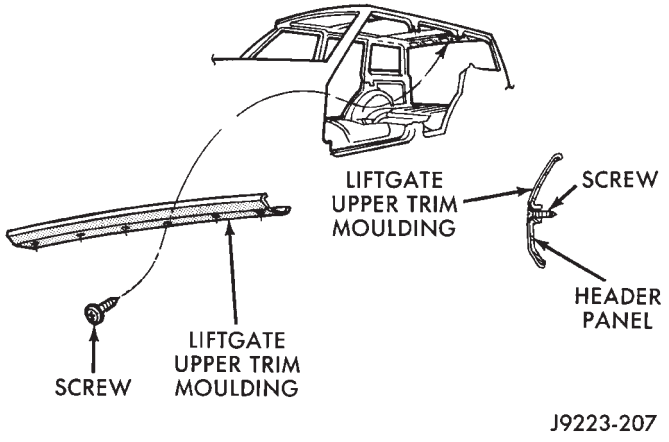

Fig. 116 Liftgate Upper Trim Moulding

(2) Remove the hinge-to-roof panel nuts (Fig. 117).

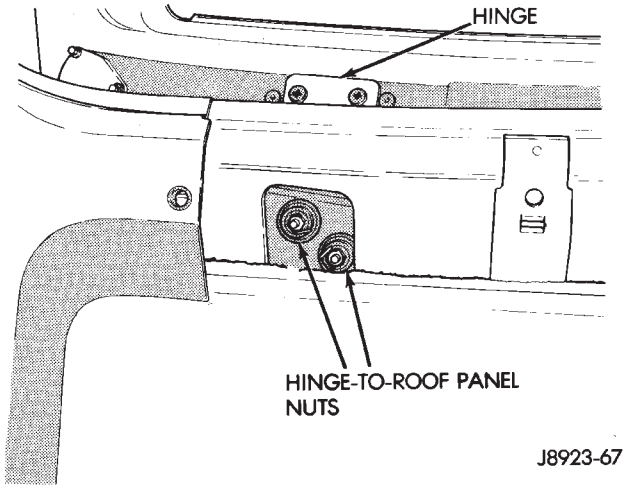

Fig. 117 Liftgate Hinge-To-Roof Panel Nuts

(3) Remove the hinge-to-liftgate screws and remove the hinge from the liftgate (Fig. 118).

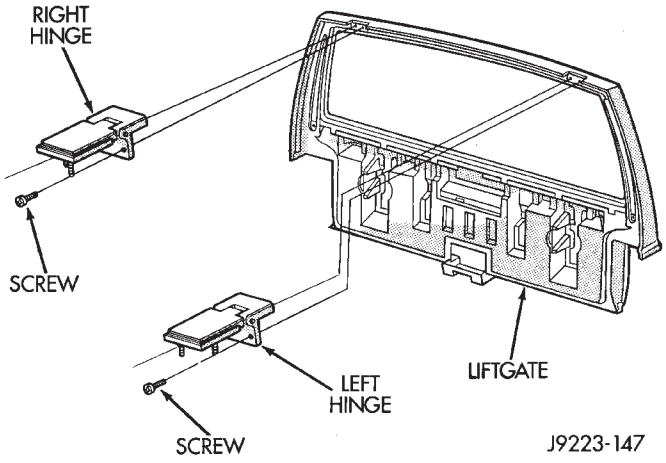

Fig. 118 Liftgate Hinges

INSTALLATION

(1) Position the gaskets, shim and hinge on the liftgate and the roof panel (Fig. 119).

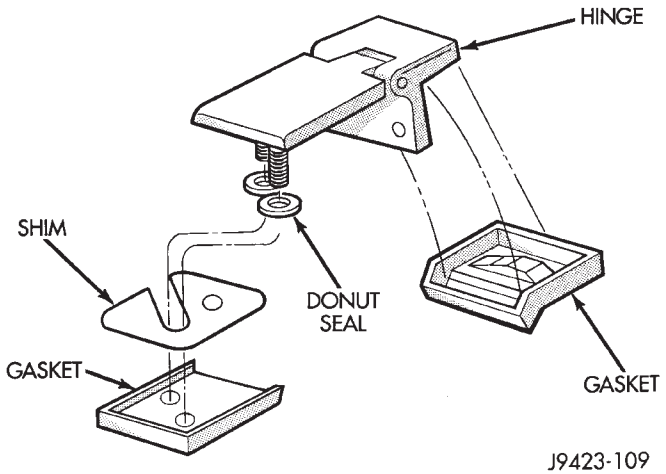

Fig. 119 Liftgate Hinge, Gaskets and Shim

(2) Install and tighten hinge-to-roof panel nuts to 9 N·m (7 ft-lbs) torque.

(3) Install the liftgate-to-hinge screws. Tighten screws to 9 N·m (7 ft-lbs) torque.

(4) Install the liftgate (headliner) upper trim moulding (Fig. 111).

LIFTGATE LATCH/KEY LOCK CYLINDER/STRIKER

REMOVAL

(1) Raise the liftgate and remove the latch screws (Fig. 120).

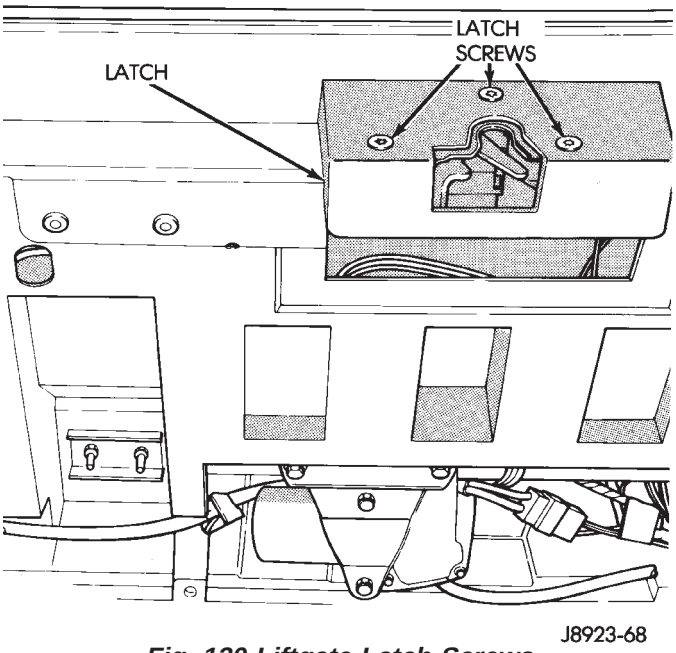

Fig. 120 Liftgate Latch Screws

(2) Disconnect the rod from the latch (Fig. 121).

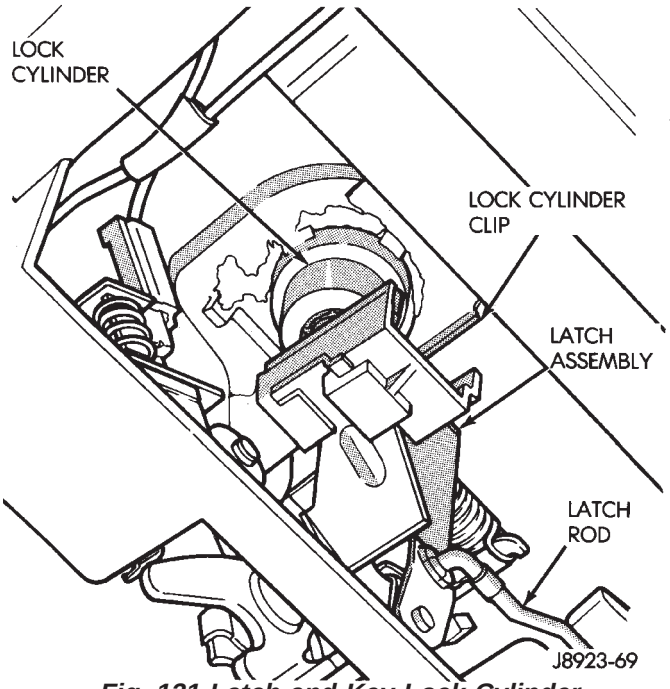

Fig. 121 Latch and Key Lock Cylinder

(3) Remove the latch from the liftgate (Fig. 122).

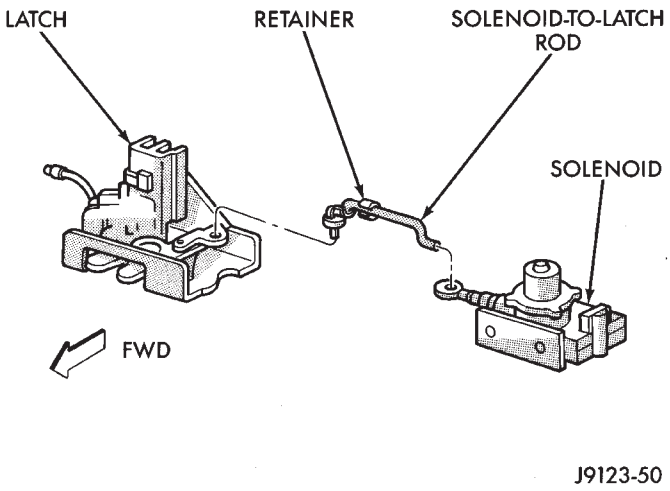

Fig. 122 Liftgate Latch and Solenoid

(4) Drill-out the rivet heads and remove the lock solenoid from liftgate (Fig. 123).

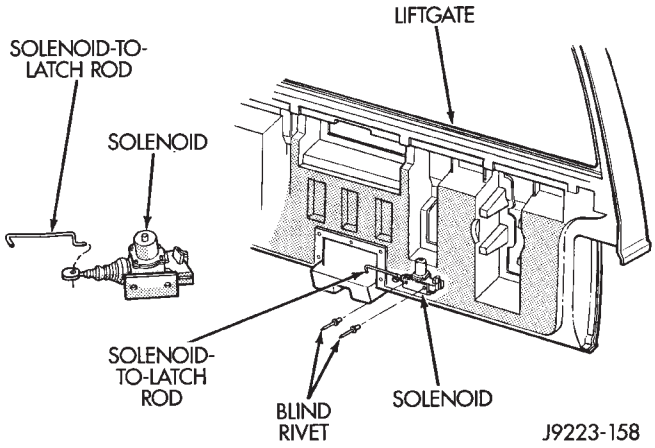

Fig. 123 Liftgate Lock Solenoid

(5) Remove the lock cylinder retainer clip (Fig. 124).

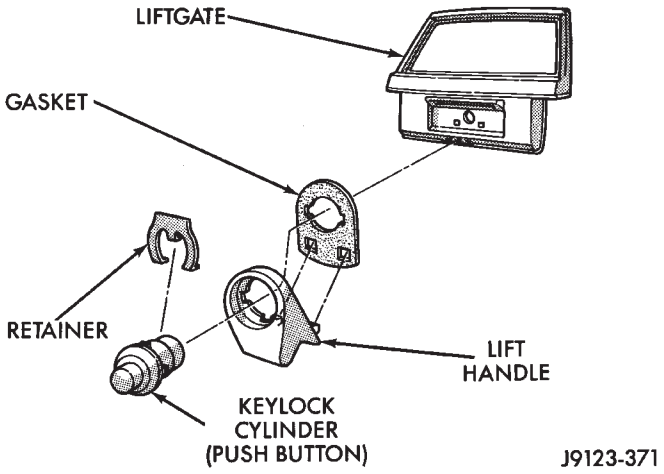

Fig. 124 Liftgate Key Lock Cylinder

(6) Remove the key lock cylinder.

(7) Remove the latch striker screws from the scuff plate and cross sill (Fig. 125)

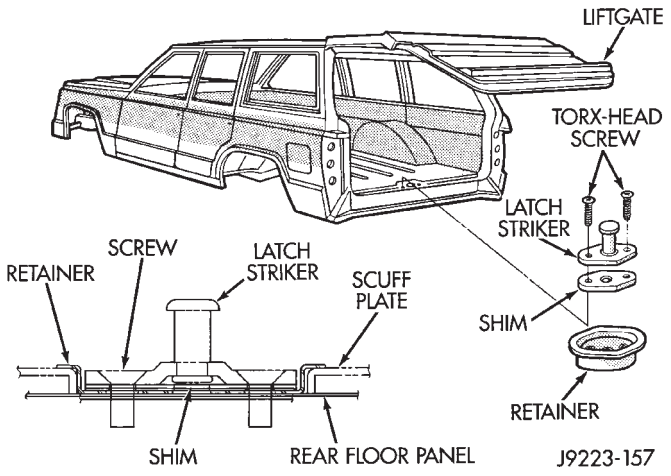

Fig. 125 Liftgate Latch Striker

(8) Remove the striker and shim from the retainer.

INSTALLATION

(1) Install the key lock cylinder. Secure the lock cylinder with the retainer clip (Fig. 126).

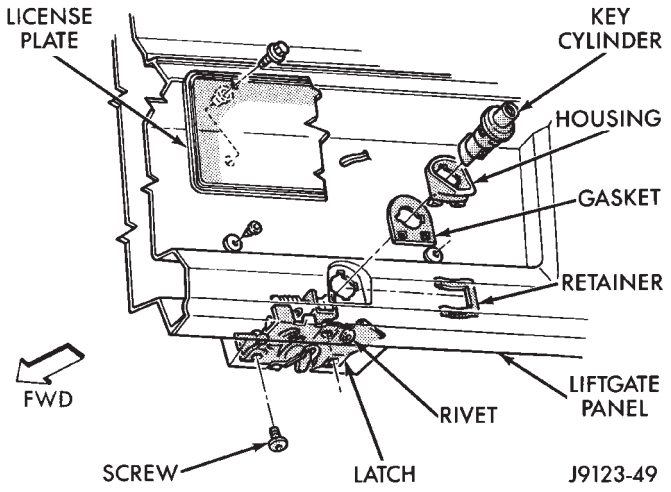

Fig. 126 Liftgate Key Lock Cylinder and Latch

(2) Position the latch in the liftgate.

(3) Connect the latch rod.

(4) Install and tighten the latch screws to 12 N·m (110 in-lbs) torque.

(5) Install the striker retainer, shim, striker and screws in the scuff plate cross sill.

LIFTGATE SUPPORT ROD CYLINDER

REMOVAL

WARNING: DO NOT REMOVE A SUPPORT ROD CYLINDER WITH THE LIFTGATE CLOSED. EACH SUPPORT ROD PISTON IS OPERATED BY HIGH PRESSURE GAS. IT CAN CAUSE DAMAGE AND/OR PERSONAL INJURY IF IT IS REMOVED WITH THE PISTON COMPRESSED. DO NOT ATTEMPT TO DISASSEMBLE OR REPAIR A SUPPORT ROD CYLINDER .

(1) Open the liftgate.

(2) Support the liftgate in the open position.

(3) Remove the clips that attach the support rod and cylinder to the ball studs (Fig. 127).

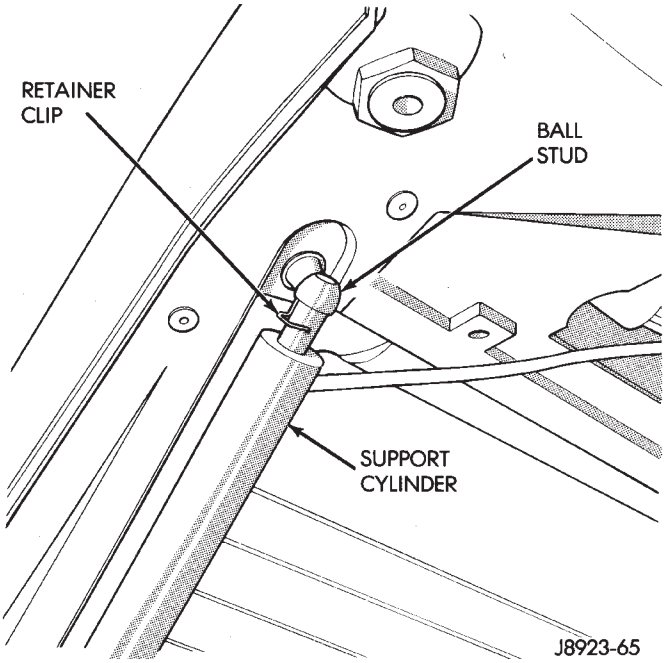

Fig. 127 Support Rod Retainer Clip

(4) Disconnect the support rod and cylinder from the ball studs and remove the cylinder from vehicle (Fig. 128).

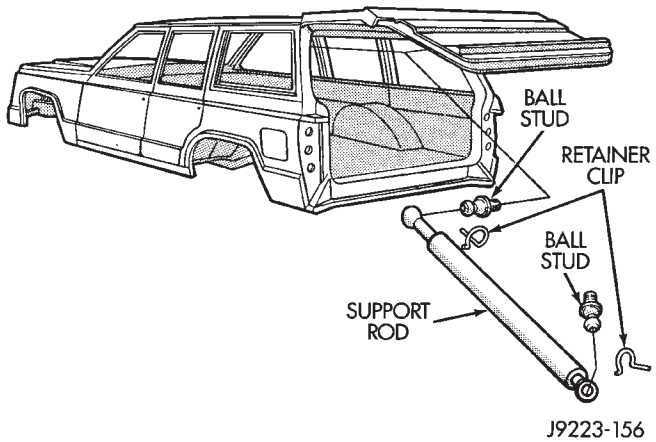

Fig. 128 Support Rod, Retainer Clips and Ball Studs

(5) De-pressurize the original rod cylinder before disposal. Refer to the procedure below.

INSTALLATION

(1) Connect the replacement support rod and cylinder to the ball studs.

(2) Secure the support rod and cylinder to the ball studs with the retainer clips.

(3) Remove the support from the liftgate and test the operation of the support rod.

LIFTGATE SUPPORT ROD CYLINDER DISPOSAL

WARNING: SAFETY GOGGLES MUST BE WORN DURING THE DISPOSAL PROCEDURE. THE HIGH PRESSURE GAS CHARGE IN THE SUPPORT ROD CYLINDERS WILL BE RELEASED DURING THE PROCEDURE .

(1) Remove the support rod cylinder(s) from the liftgate.

(2) Position the support rod cylinder horizontally in a vise and clamp the cylinder securely.

(3) Wrap the cylinder with 4-5 layers of shop towels.

(4) Measure 1 and 1/2 inches inward from the end of the cylinder. Mark this location on the towels with chalk. The cylinder will be punctured at this location to release the gas charge.

(5) Use a punch and hammer to puncture cylinder. Force the punch through towels and into the cylinder with a hammer. Continue striking the punch until the gas begins to escape **but do not remove the punch.**

(6) Hold the towels and punch in position until all the gas has escaped. Complete de-pressurization will require about 4 to 10 seconds. After all the gas has escaped, slowly remove the punch.

(7) Hold a towel over the hole in cylinder and press the support rod piston all the way into the cylinder to purge remaining oil.

(8) Remove the support rod cylinder from the vise and discard it.

(9) If both support rod cylinders are being replaced, repeat this procedure for the remaining cylinder.

LIFTGATE SUPPORT ROD BALL STUD REPLACEMENT

REMOVAL

(1) Open the liftgate.

(2) Support the liftgate in the open position.

(3) Remove the retainer clip that attaches the support rod and cylinder to the ball stud.

(4) Disconnect the support rod from the ball stud.

(5) Remove the ball stud from the liftgate with a T-30 Torx-head socket wrench (Fig. 129).

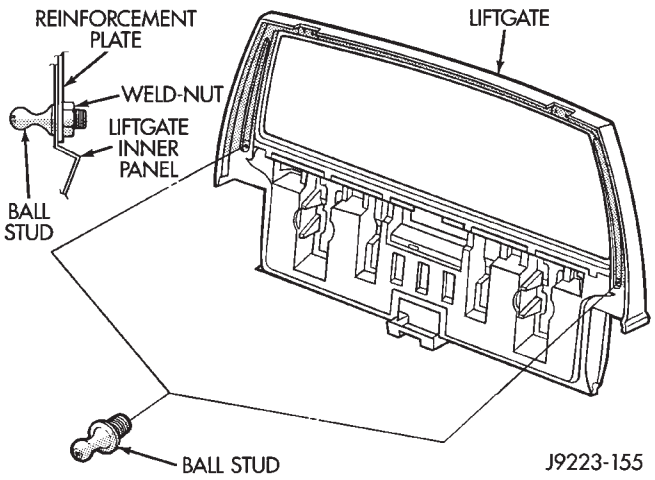

Fig. 129 Support Rod Ball Studs

INSTALLATION

(1) Install the replacement ball stud in the liftgate with a T-30 Torx-head socket wrench. Tighten the ball stud to 7 N·m (62 in-lbs) torque.

(2) Connect the support rod to the ball stud.

(3) Secure the support rod to the ball stud with the clip.

(4) Remove the support from the liftgate and test the operation of support rod.

LIFTGATE ADJUSTMENT

SERVICE INFORMATION

The position of the liftgate can be adjusted upward or downward, and inward or outward by the use of hinge shims. The liftgate stop bumpers must also be adjusted if liftgate hinges are adjusted. The inward/outward position of each stop bumper is adjusted by the use of shims (Fig. 130).

ADJUSTMENT PROCEDURE

(1) To move the position of the liftgate inward or outward, remove or add shims between the hinge-halves and liftgate.

(2) To move the position of the liftgate upward or downward, remove or add shims between the hinge-halves and roof panel.

(3) To move the position of liftgate stop bumpers inward or outward, remove or add shims between the stop bumper screws and anchors (Fig. 131).

LIFTGATE OPENING WEATHERSTRIP SEAL

REMOVAL

(1) Pull the seal away from the flange around the perimeter of liftgate opening and remove it (Figs. 132 and 133).

(2) Clean the flange as necessary.

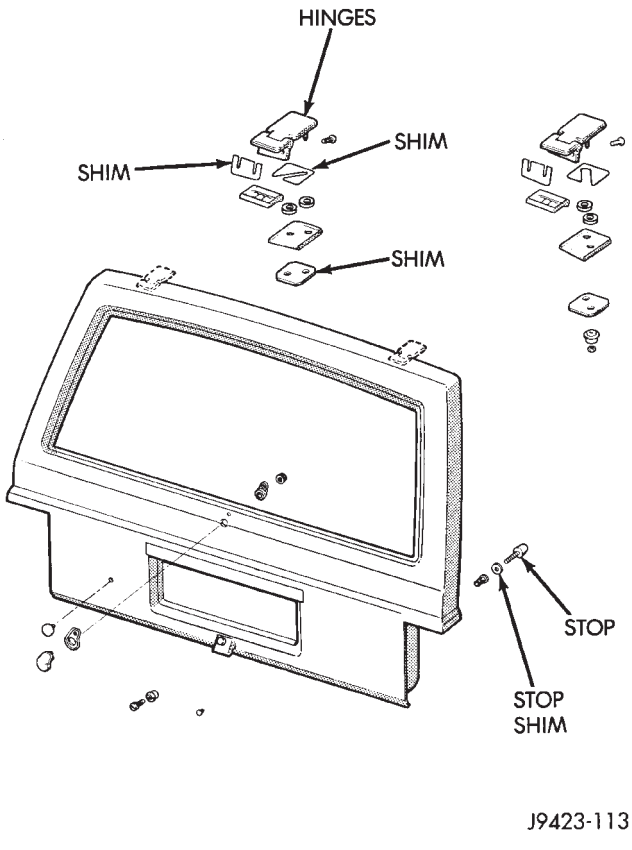

Fig. 130 Liftgate Adjustment Shims

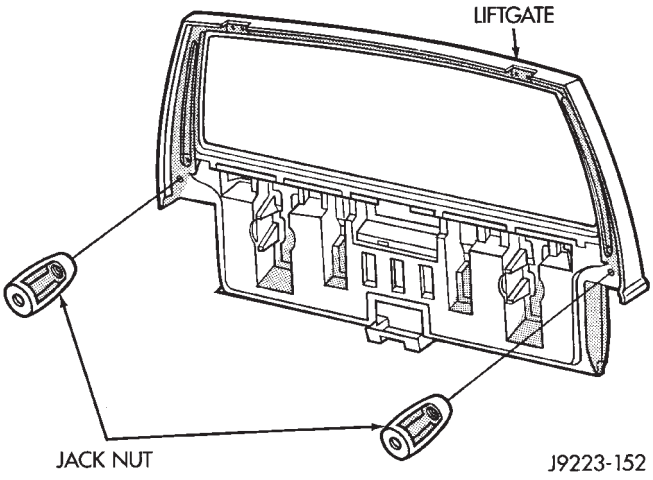

Fig. 131 Stop Bumper Screw Anchors

INSTALLATION

(1) Position weatherstrip seal in the opening with the left end of the seal at the opening centerline. Install the seal in a clockwise direction.

(2) Move to the left and mate the seal with the bottom-left flange (Fig. 122).

(3) Move upward and mate the seal with the left-side flange.

(4) Move to the right and mate the seal with the top-left roof flange.

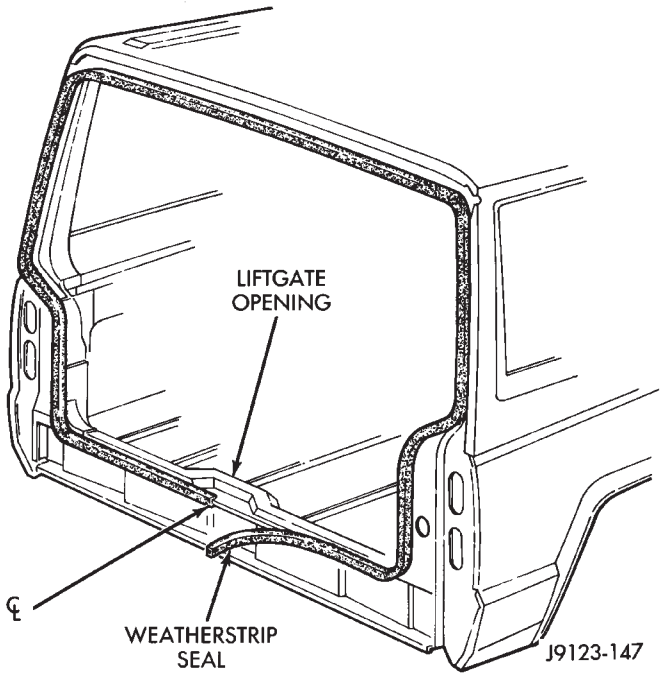

Fig. 132 Liftgate Opening Weatherstrip Seal Removal/Installation

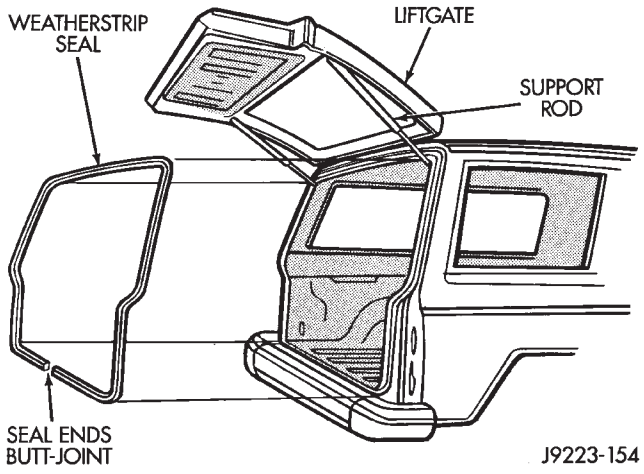

Fig. 133 Liftgate Opening Weatherstrip Seal

(5) Seat the installed part of the seal with a roller. Move the roller from the left-bottom end of seal to the top-left half of the seal.

(6) Move to the right and mate the seal with the top-right roof flange.

(7) Move downward and mate the seal with the right-side flange.

(8) Move to the left and mate the seal with the bottom-right flange.

(9) Center and butt seal the ends together at the centerline.

(10) Seat the remaining part of the seal with a roller. Move the roller the from top-left half of the seal to the right-bottom end of the seal.

LIFTGATE LICENSE PLATE LAMP HOUSING

REMOVAL

(1) Remove the lamp housing screws from the liftgate (Fig. 134).

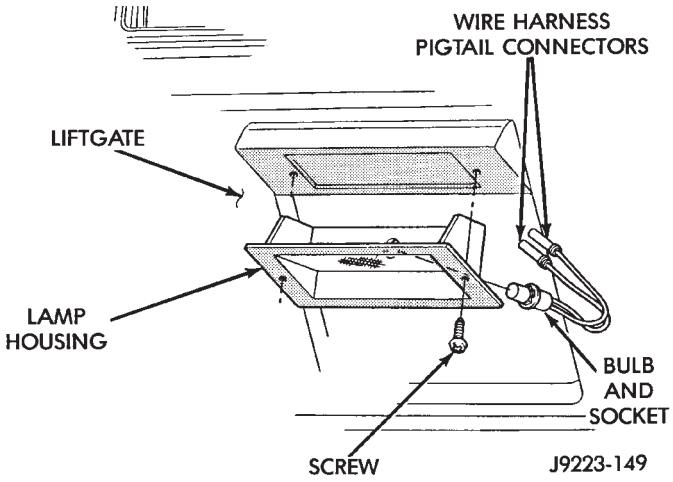

Fig. 134 Liftgate License Plate Lamp Housing

(2) Disconnect bulb socket from lamp housing.

(3) Remove the housing from the liftgate.

INSTALLATION

(1) Position the lamp housing at the liftgate.

(2) Connect the bulb socket to the lamp housing.

(3) Install the lamp housing retaining screws in the liftgate.

LIFTGATE LICENSE PLATE SCREW ANCHOR AND BUMPER

ANCHOR REPLACEMENT

(1) Remove the screw from the anchor (Fig. 135).

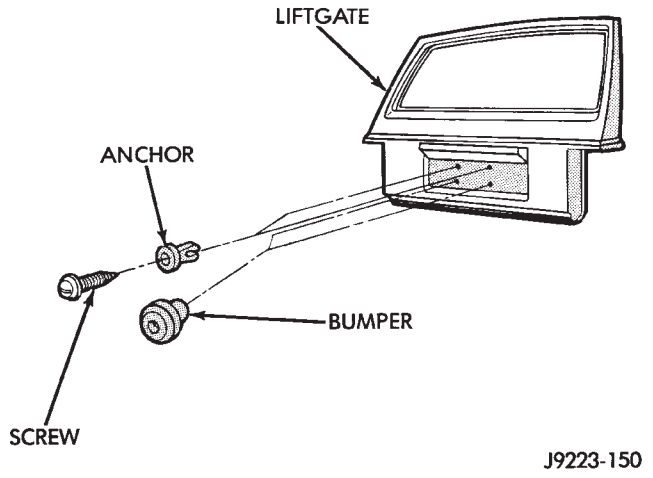

Fig. 135 Liftgate License Plate Screw Anchors and Bumpers

(2) Pry the anchor from the liftgate.

(3) Compress the ends and insert the anchor in the liftgate hole.

(4) Install the screw in the anchor.

BUMPER REPLACEMENT

(1) Pry the bumper from the liftgate.

(2) Insert the replacement screw anchor in the liftgate hole.

FIXED WINDOW GLASS

INDEX

SERVICE INFORMATION

The following service procedures include removal and installation of the:

- windshield reveal moulding,
- interior rearview mirror,
- windshield glass (using both the short and the extended installation method),
- rear quarter vent window glass,
- rear quarter window glass,
- liftgate window glass,
- cab rear window, and
- leak detection and repair.

WINDSHIELD REVEAL MOULDING

REMOVAL

(1) Disconnect the reveal mouldings from the clips around the windshield glass with an appropriate tool (Fig. 1).

(2) Remove the mouldings from the windshield frame.

(3) Inspect the reveal moulding retainer clips (Fig. 2). Replace broken, or loose clips (Fig. 3).

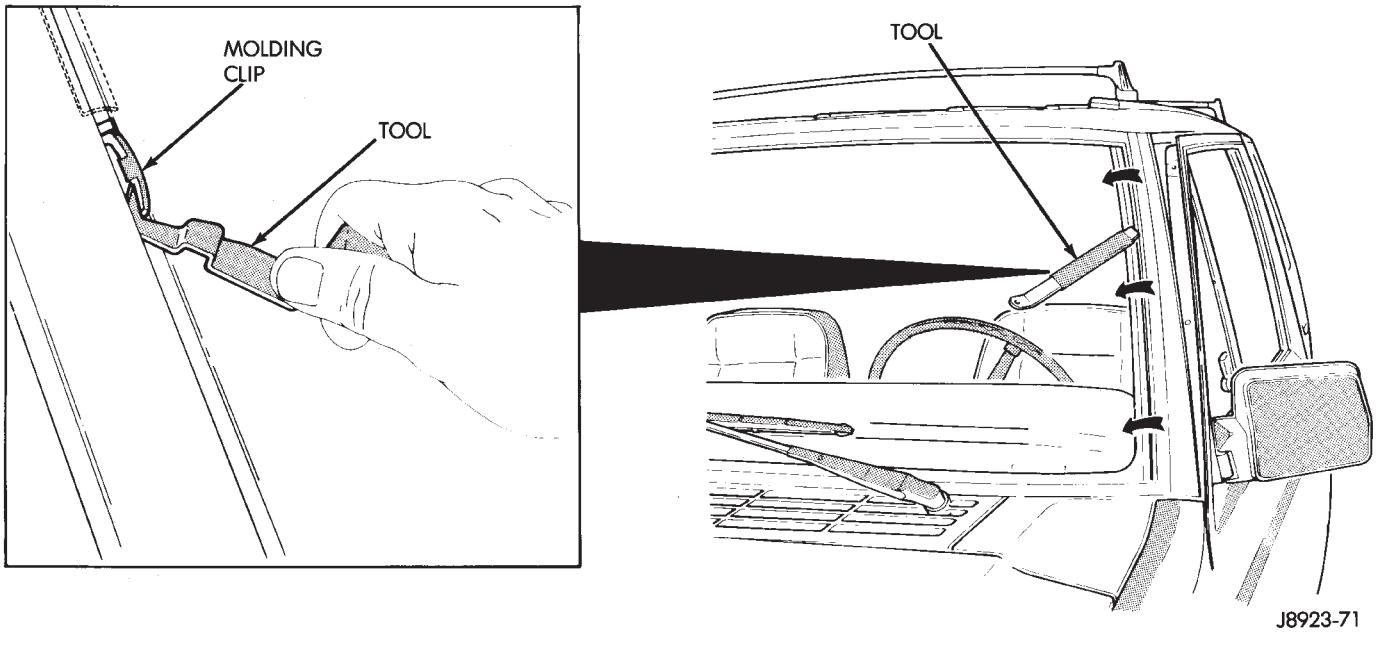

Fig. 1 Windshield Reveal Moulding Disengagement

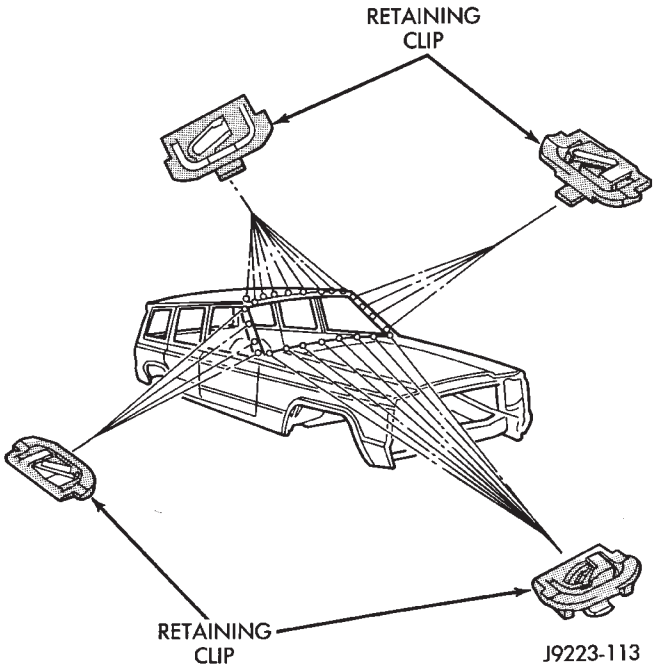

Fig. 2 Windshield Reveal Moulding Retainer Clips

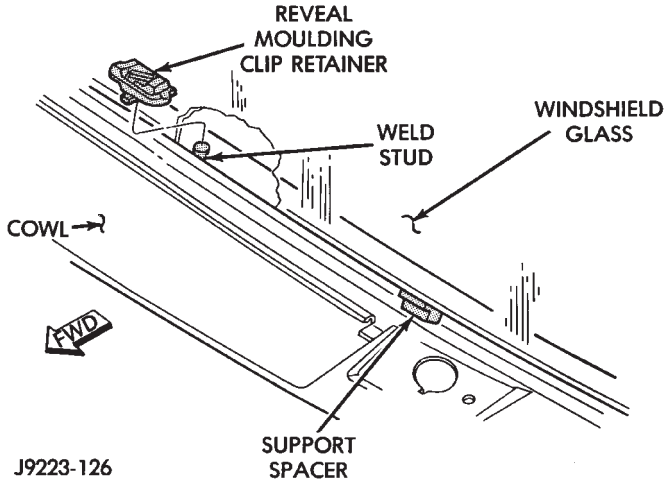

Fig. 3 Retainer Clip Removal/Installation

INSTALLATION

(1) Position mouldings on the windshield frame (Fig. 4).

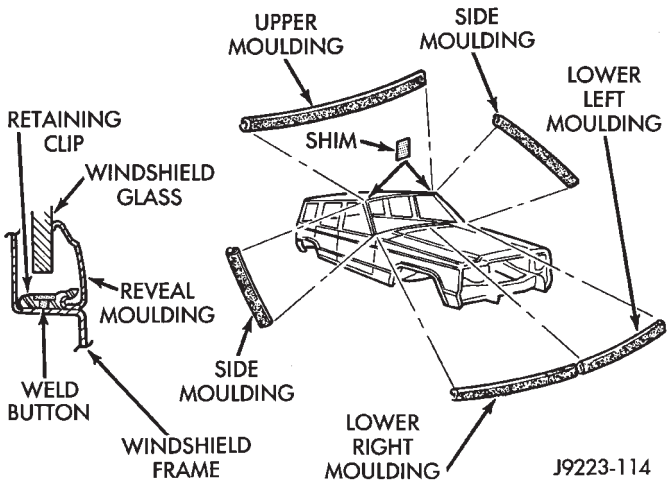

Fig. 4 Windshield Reveal Moulding

(2) Attach mouldings to the clips by tapping each moulding with a rubber mallet to seat it on the clips.

INTERIOR REARVIEW MIRROR

MIRROR REMOVAL

(1) Loosen the mirror base-to-bracket setscrew (Fig. 6).

(2) Slide the mirror base upward and off the support bracket (Fig. 7).

MIRROR INSTALLATION

(1) Slide the mirror base onto the support bracket (Fig. 7).

CAUTION: Do not over-tighten setscrew because glass chipping or breakage could result.

(2) Tighten the setscrew to 1 N·m (9 in-lbs) torque (Fig. 6).

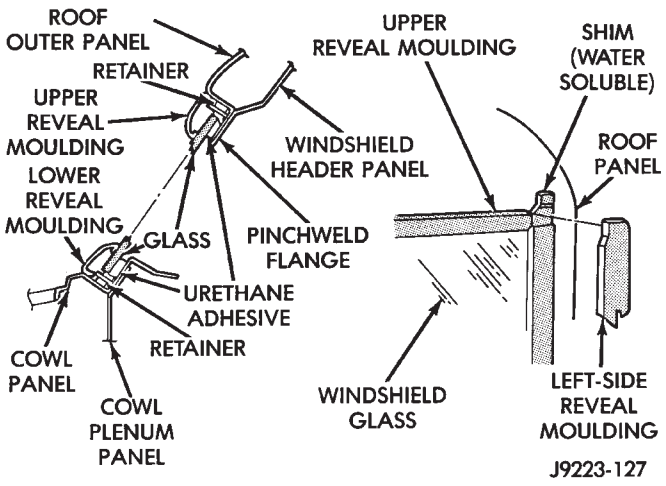

Fig. 5 Windshield Reveal Moulding Installation

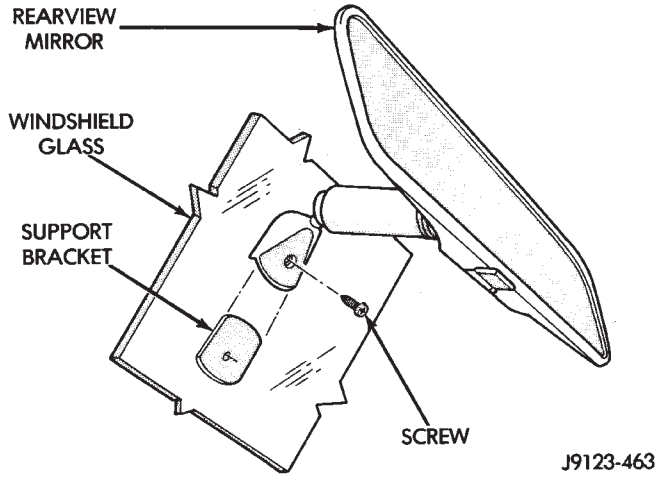

Fig. 6 Interior Rearview Mirror Setscrew Removal/ Installation

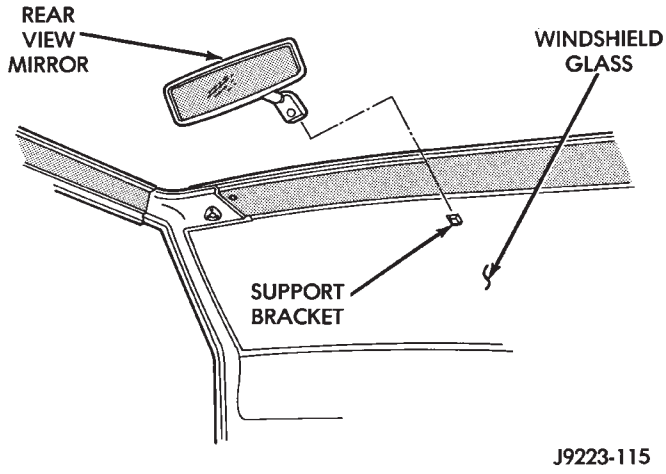

Fig. 7 Interior Rearview Mirror Removal/Installation

INTERIOR REARVIEW MIRROR SUPPORT BRACKET REPLACEMENT

PREPARATION

(1) Mark reference lines for the mirror support bracket on the outside of windshield glass with a wax pencil.

(2) If the vinyl pad remained on the windshield glass, soften and remove it with a heat gun.

(3) Clean the support bracket surface area on the glass. Use a mild abrasive cleaning powder on a cloth saturated with isopropyl (rubbing) alcohol.

(4) Lightly sand the contact surface on the support bracket with fine grit sandpaper. Wipe bracket contact surface clean with a paper towel and alcohol.

INSTALLATION

(1) Apply adhesive to the act surface on the support bracket according as follows:

- crush the vial in the plastic housing of the accelerator to saturate the felt applicator;
- remove the paper sleeve;
- apply a generous amount of accelerator to the contact surface on the mirror support bracket;
- do not touch the support bracket contact surface after the accelerator has been applied.
- allow the accelerator to dry for at least five minutes; and

(2) Apply accelerator to the support bracket contact surface on the windshield glass. Allow the accelerator to dry for one minute.

(3) Install the mirror bracket on the windshield glass follows:

- apply one drop of adhesive at the center of support bracket contact surface on windshield glass;
- immediately apply an even coat of adhesive to the contact surface on the support bracket;
- align the support bracket with the position reference lines on the windshield glass, then
- press and hold the support bracket in-place for at least one minute.

Ensure that the mirror support bracket is correctly aligned because the adhesive will cure rapidly.

(4) Allow the adhesive to cure for 8-10 minutes, then remove any residue adhesive with an alcohol-dampened cloth.

(5) Allow the adhesive to cure for an additional 8-10 minutes before installing the mirror base on the support bracket.

WINDSHIELD SERVICE INFORMATION

URETHANE ADHESIVE BONDING

The windshield glass is bonded to the body pinchweld flanges with urethane adhesive (Fig. 8). This method of windshield installation complies with the applicable Federal Motor Vehicle Safety Standards (FMVSS).

WARNING: DO NOT OPERATE THE VEHICLE FOR AT LEAST 24 HOURS AFTER WINDSHIELD INSTALLATION. THE URETHANE ADHESIVE MAY NOT PERFORM PROPERLY IN THE EVENT OF A COLLISION IF IT IS NOT SUFFICIENTLY CURED. REFER TO THE MANUFACTURER OF THE URETHANE BEING USED FOR CURING TIME SPECIFICATIONS. WHEN INSTALLING THE WINDSHIELD, DO NOT USE URETHANE ADHESIVE IF THE EXPIRATION DATE ON THE PRODUCT HAS PASSED. SAFETY AND QUALITY ON THE REPAIR WOULD BE QUESTIONABLE.

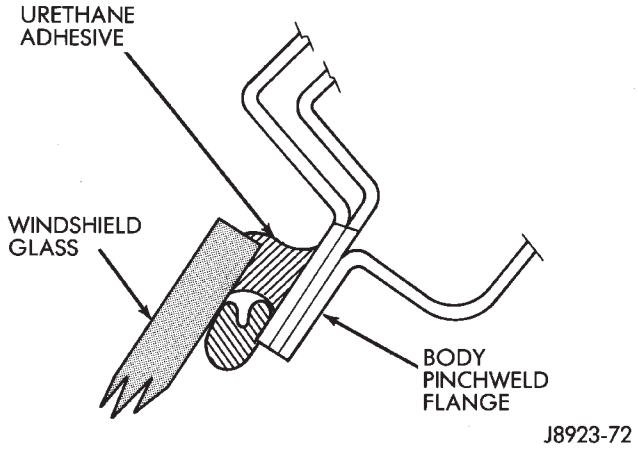

Fig. 8 Windshield Glass Bonding With Urethane

REMOVAL/INSTALLATION METHODS

Windshield glass removal is accomplished by the use of a razor knife and an electric hot knife to cut through the urethane adhesive. This removal method applies in all instances.

Depending on the circumstances, either one of two windshield glass installation methods can be used:

- the short method, and
- the extended method.

The short method is used when the windshield glass is removed intact, and the body opening and the pinchweld flanges do not require repair.

The extended method must be used when the body opening or a flange is damaged. The extended method must also be used when urethane no longer adheres to either the windshield glass or the pinchweld flanges.

WINDSHIELD GLASS REPLACEMENT

REMOVAL

(1) If the windshield glass short installation method will be used, ensure that a bead of urethane remains on the pinchweld flange.

(2) Cover the interior and exterior body surface areas with a protective covering.

(3) Remove the windshield wiper arms, reveal moulding, interior trim mouldings and rearview mirror.

(4) Make a cut around the **perimeter** of the windshield glass along the glass edge with a razor knife (Fig. 9).

(5) Clean the blade of the hot knife with solvent and a cloth. Sharpen the blade with a fine-tooth file.

CAUTION: When cutting through urethane with a hot knife, do not allow the knife blade to remain stationary at any location. Excessive heat will permanently soften urethane and cause complete replacement of the urethane.

(6) Start the hot knife blade between the glass and the urethane. Next, cut the adhesive as close to the glass edge as possible (Fig. 10). Allow as much adhesive to remain on the pinchweld flange as possible. **For best cutting results, clean the knife blade frequently with steel wool while the blade is hot.**

(7) Remove the windshield glass from the body opening.

(8) After the hot knife blade has cooled, clean the blade with solvent and a clean cloth.

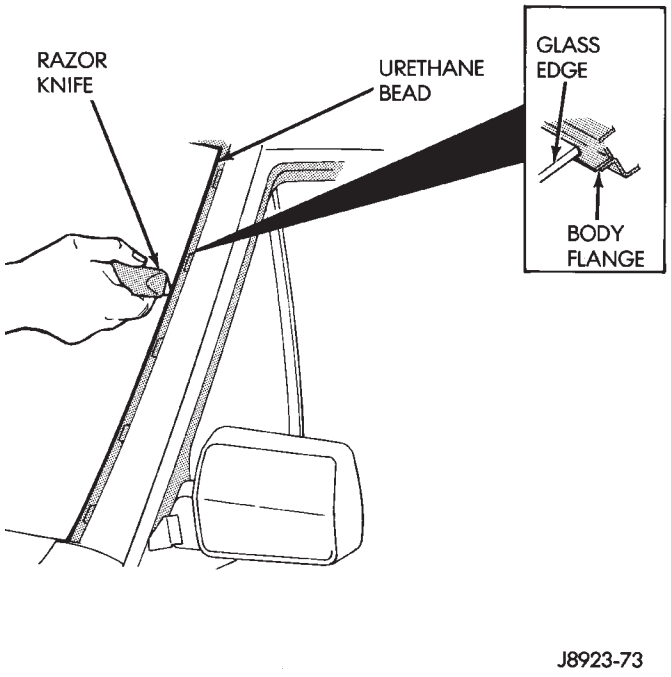

Fig. 9 Cutting Urethane Along the Glass Edge

INSTALLATION—SHORT METHOD

Normally, after a replacement windshield glass is installed, the rearview mirror bracket also requires

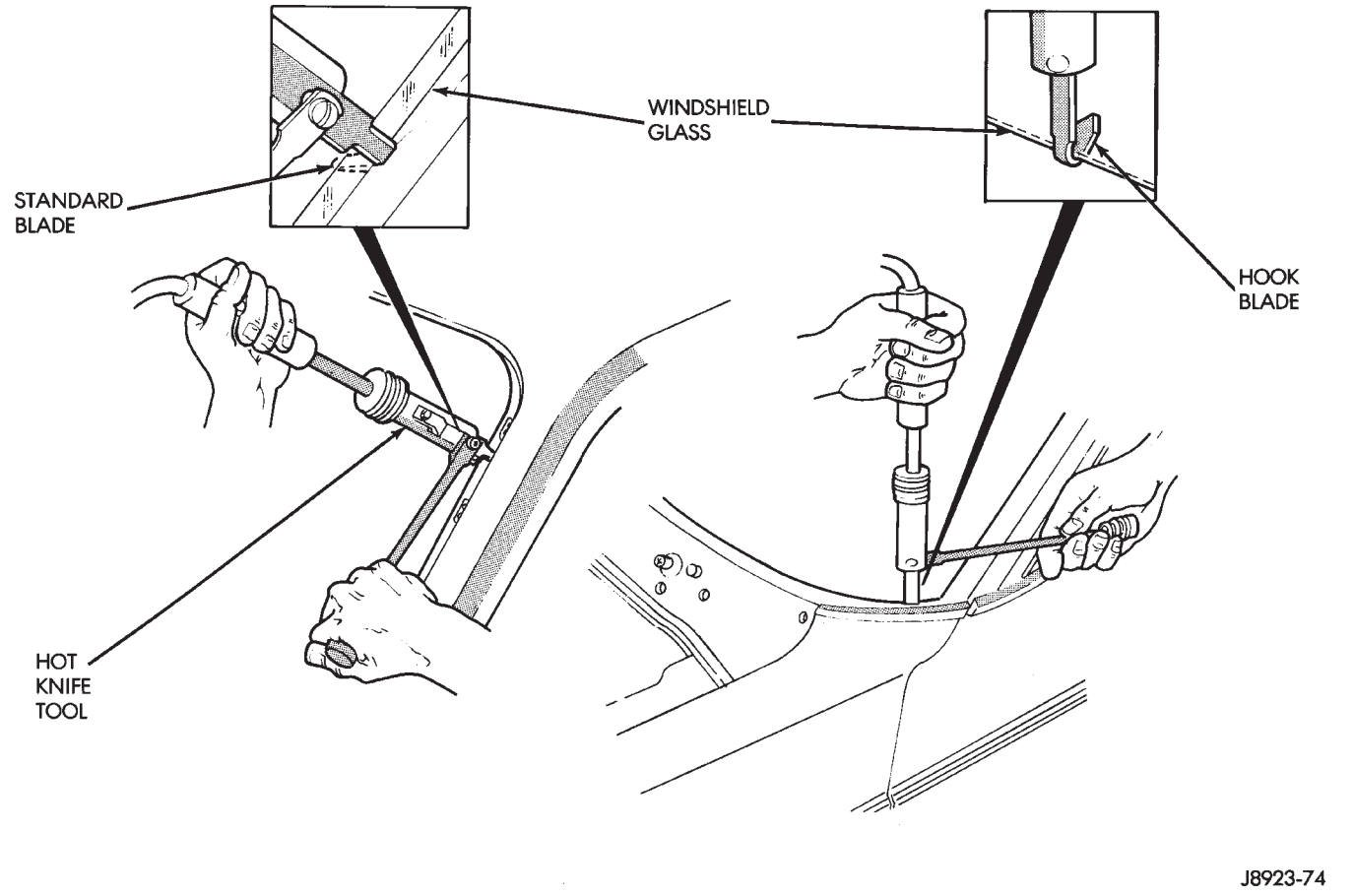

Fig. 10 Cutting Glass Urethane Adhesive With Hot Knife

installation. **Do not install the bracket until after the windshield glass installation is completed.**

(1) Inspect the windshield opening pinchweld flanges (Fig. 11). Prime any bare spots with urethane primer. Allow a minimum of 18 minutes for dry time.

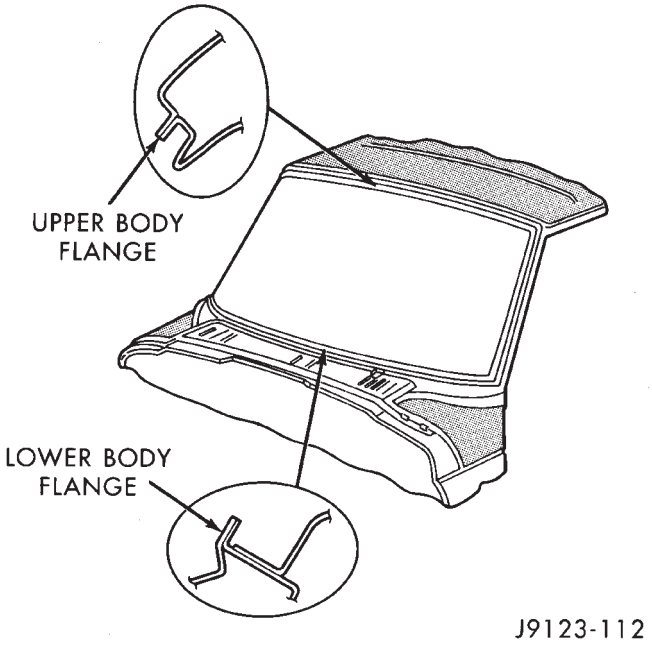

Fig. 11 Pinchweld Flanges

(2) Inspect urethane bead for high spots. Level bead by shaving off high spots with a razor knife.

(3) Inspect the reveal moulding retainer clips. Replace any broken, or loose clips (Fig. 12).

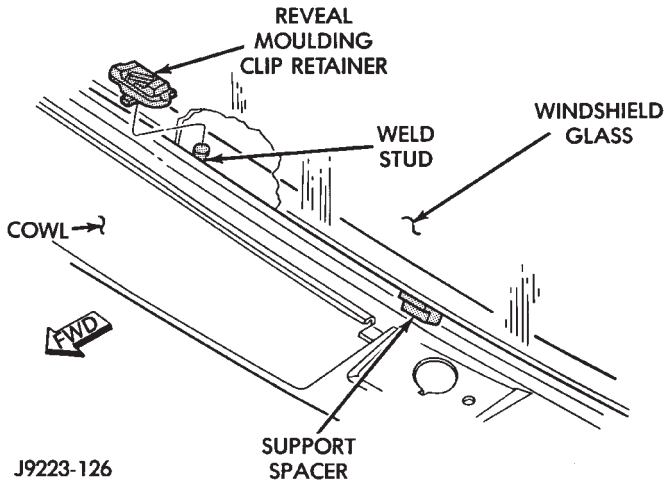

Fig. 12 Reveal Moulding Clip

(4) Clean the outer edge of windshield glass with naphtha or a equivalent product.

(5) Prime outer perimeter of interior side of glass 16 mm (5/8 inch) from edge. Use a wipe-off type urethane primer and wipe glass dry after primer application.

(6) Install two support spacers at the bottom of the windshield glass (Fig. 13).

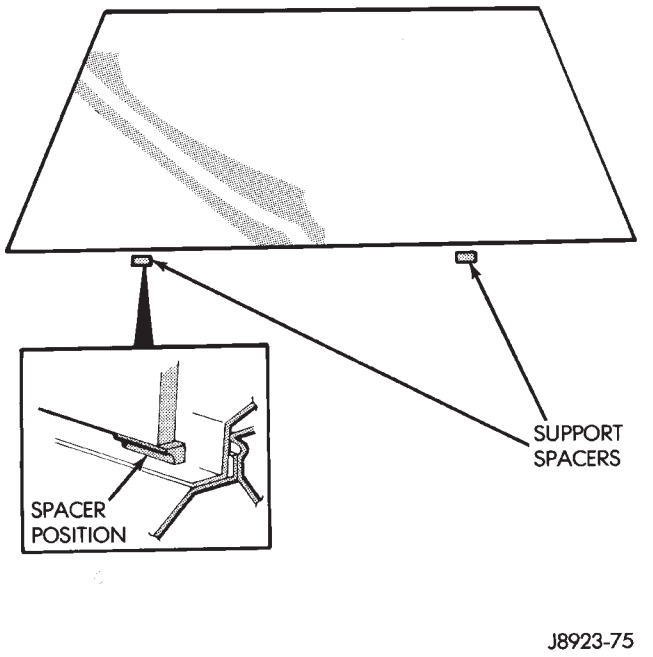

Fig. 13 Windshield Glass Bottom Support Spacers

(7) Place the glass on the pinchweld flanges and inspect for gaps in the urethane. Gaps in excess of 3 mm (1/8 inch) must be filled with urethane.

(8) Adjust windshield glass position until it is aligned with the flanges and adhesive. Next, make alignment marks on the glass and body.

(9) Remove the windshield glass (but not the support spacers) and position it on a flat surface.

(10) If the replacement windshield glass does not have blackout primer:

- attach a 25 mm (1 in) wide masking tape band around the interior side of the glass 16 mm (5/8 in) from the edge of the glass (Fig. 14);
- do not attach tape along the bottom of the glass and **attach it only to the inside of the glass;**

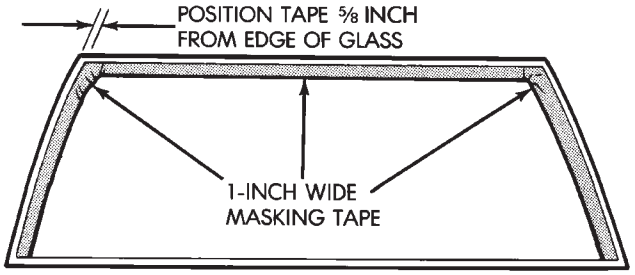

Fig. 14 Masking Tape Location For Blackout Primer

- clean the 16-mm (5/8-in) wide surface area around the glass with isopropyl alcohol;

CAUTION: Avoid spilling or dripping primer on painted surfaces. Clean spills or drips immediately. The primer will damage the paint if it remains on the surface for any length of time.

• thoroughly mix and apply glass blackout primer to the 16 mm (5/8 in) surface area around the interior side of the glass (Fig. 15); then

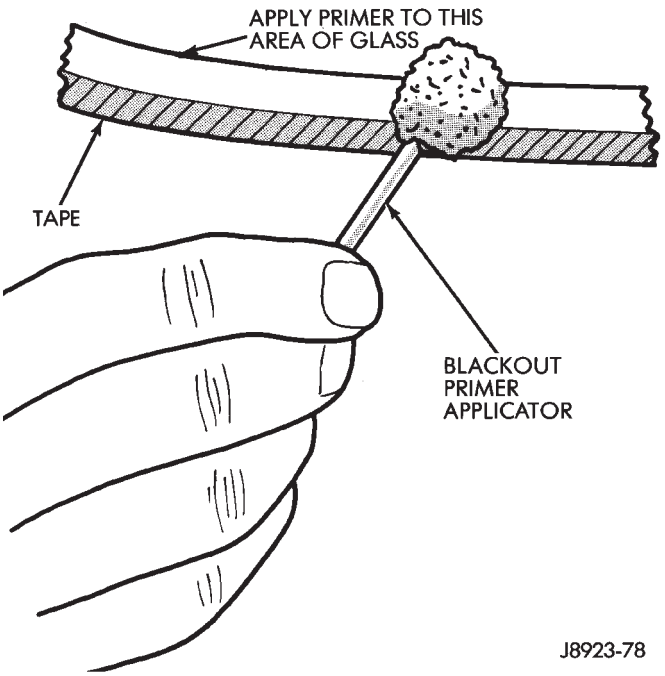

Fig. 15 Blackout Primer Application

• allow the primer to dry for at least 10-12 minutes.

(11) Cut the urethane adhesive applicator nozzle according to the instructions in Figure 16.

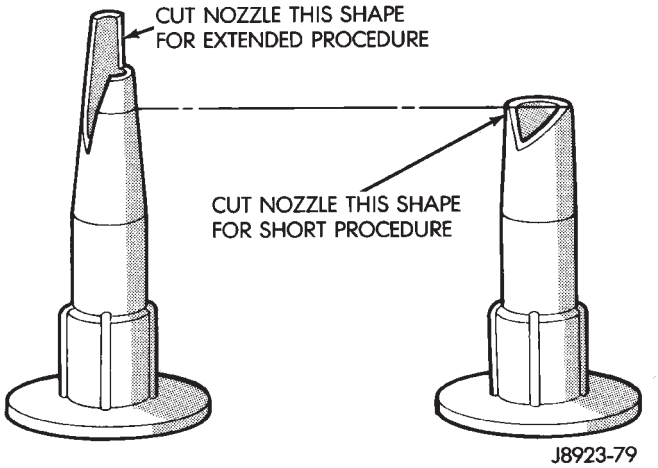

Fig. 16 Applicator Nozzle Preparation

(12) Apply a continuous, 6-mm (1/4-in) diameter bead of urethane adhesive to the surface area.

CAUTION: Be prepared to install glass immediately after applying the adhesive. The adhesive begins to cure within 10-15 minutes.

(13) Align the glass with the reference marks and position the glass on the pinchweld flanges. Ensure that the windshield glass is correctly seated on the support spacers.

(14) Force the windshield glass inward just enough to wet-out and set the urethane. Use care to avoid excessive squeeze-out of adhesive.

(15) Water test the windshield with a water spray after installation. Do not direct high pressure streams of water directly at urethane. If any leaks are detected, apply urethane as necessary.

(16) Install reveal mouldings and (if used) remove the masking tape from the inner surface of the glass.

(17) Install all components and clean the vehicle.

(18) Open the vehicle windows to prevent interior pressure while the urethane is curing. **If not vented, pressure in the interior of the vehicle may interfere with proper glass bonding.**

(19) Install the rearview mirror on the bracket and tighten mirror setscrew to 2 N·m (15 in-lbs) torque.

INSTALLATION—EXTENDED METHOD

Normally, after a windshield is installed, the rearview mirror bracket also requires installation.**Do not install the bracket until after the windshield installation is completed.**

(1) Remove the all of urethane from all pinchweld flanges. Use an electric hot knife and a plow-type knife blade to remove the adhesive.

(2) Inspect and repair the windshield opening and pinchweld flanges (Fig. 11).

(3) Inspect and replace any reveal moulding clips if bent, distorted, broken or loose (Fig. 12).

(4) Prime the pinchweld flanges with a urethane base primer (Fig. 17). However, if the flange is color-coated with paint, prime the flanges with a paint finish primer. **This is important because urethane adhesive will not adhere to all color-coat paints.** Allow primer sufficient time to dry.

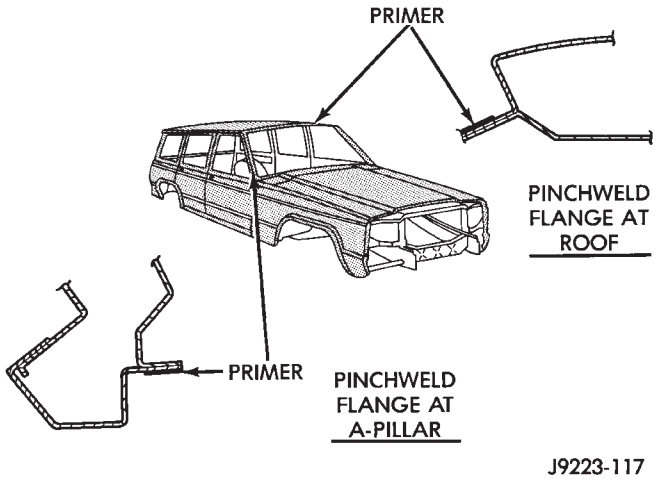

Fig. 17 Pinchweld Flange Primer

(5) Install the bottom support spacers and the stand-off spacers on the pinchweld flanges (Fig. 18). Ensure that all spacers are water soluble.

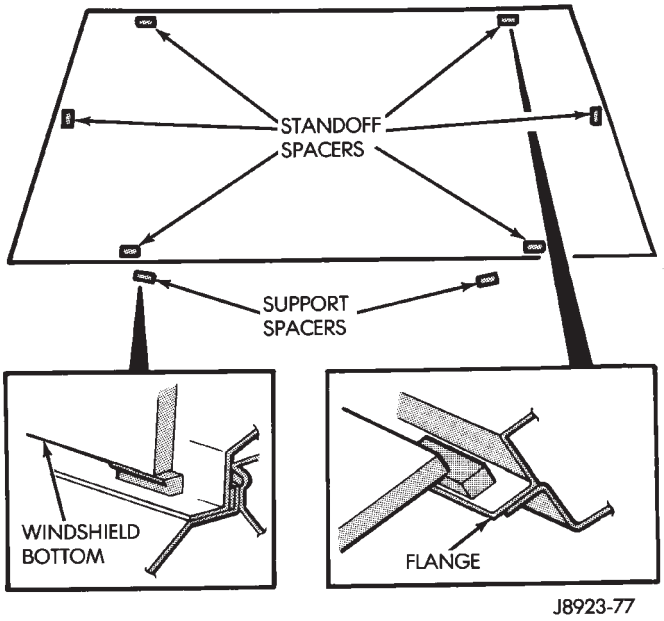

Fig. 18 Bottom Support and Stand-Off Spacers

(6) Install and inspect the fit of the windshield on the pinchweld flanges as follows:

- position windshield on spacers (Fig. 19) and adjust the position until it is aligned within windshield opening;

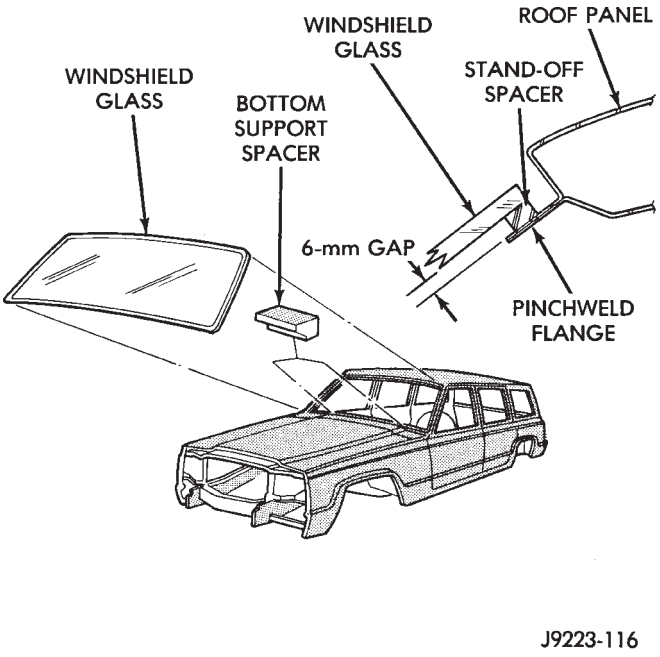

Fig. 19 Windshield Glass On Spacers

- measure the gap between the pinchweld flanges and glass around perimeter of the glass and flange;
- the gap should be at least 3 mm (1/8 in), but no more than 6 mm (1/4 in) at any point around the perimeter; and
- the flanges should also extend above the glass edge equally around the perimeter of the opening.

(7) If the pinchweld flanges require repair, remove the windshield glass and straighten, align, or repair the flange(s) as necessary.

(8) Position the windshield on the spacers and inspect the windshield fit again. Mark the windshield final position on the glass and body with a wax pencil (or use masking tape). The marks (or masking tape) will be used for installation alignment reference.

(9) If the replacement windshield does not have blackout primer:

- attach a 25-mm (1-in) wide masking tape band around the interior side of glass 16 mm (5/8 in) from edge of glass (Fig. 14);
- do not attach tape along the bottom of the glass and **attach only to the inside of glass;**
- thoroughly mix and apply blackout primer to the 16 mm (5/8 in) surface area around the interior side of the glass (Fig. 15); then
- allow the primer to dry for at least 10-12 minutes.

(10) Cut the urethane applicator nozzle according to the instructions in Figure 16.

(11) Apply a continuous bead of urethane to the surface area with blackout primer on the interior side of glass. The bead should be 6-mm (1/4-in) wide by 9-mm (3/8-in) deep for best results.

CAUTION: Be prepared to install the windshield immediately after applying the urethane adhesive. Most urethane adhesive begins to cure within 10-15 minutes.

(12) Align the windshield with the wax pencil installation alignment reference marks (or the tape strips). Position the windshield on pinchweld flanges and spacers (Fig. 20).

(13) Force the windshield inward just enough to wet-out and set the urethane. Use care to avoid excessive squeeze-out of adhesive.

(14) Water test the windshield with a water spray after installation. Do not direct high pressure streams of water directly at the urethane. If any leaks are detected, apply urethane as necessary.

(15) Install the windshield reveal mouldings and (if used) remove the masking tape from the inner surface of glass.

(16) Install all components and clean the vehicle. If necessary, refer to the installation procedures.

(17) Open the vehicle windows to prevent interior pressure while the urethane adhesive is curing. **If not vented, pressure in the interior of vehicle will interfere with glass bonding.**

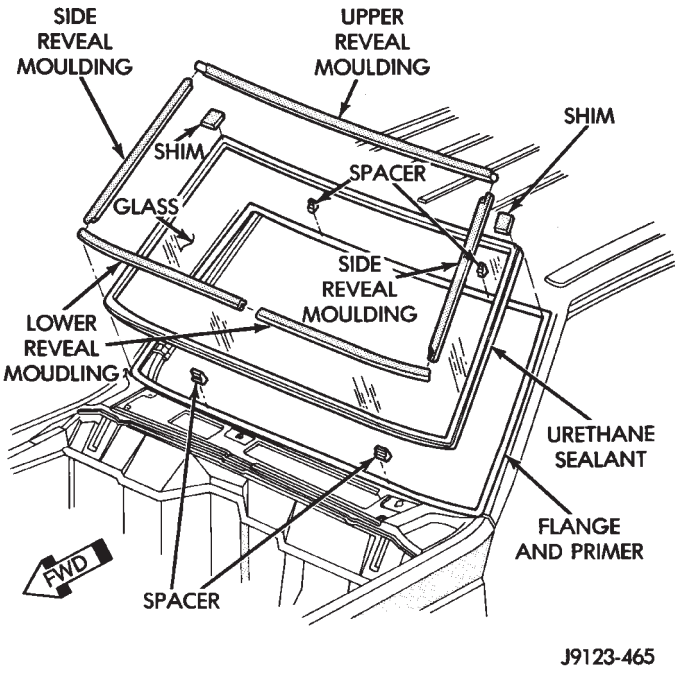

Fig. 20 Windshield Glass Installation

(18) Install the rearview mirror on the bracket and tighten the mirror setscrew to 2 N·m (15 in-lbs) torque.

REAR QUARTER VENT WINDOW GLASS—XJ VEHICLES

REMOVAL

(1) Remove the vent window handle retaining pin and nut (Fig. 21).

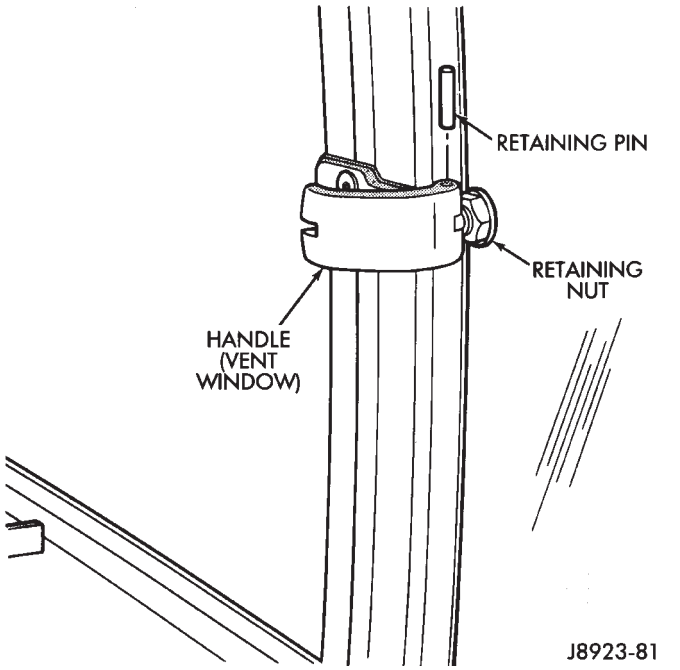

Fig. 21 Vent Window Handle Removal/Installation

(2) Remove the hinge-to-glass screws and remove the window glass. If glass adheres to the hinges, remove the glass by carefully pushing out hinge screw inserts.

INSTALLATION

(1) Position the vent window glass at the hinges and install the screws.

(2) Install the handle, pin and nut (Fig. 21).

(3) Test the vent window for water leaks.

REAR QUARTER WINDOW GLASS/REAR QUARTER PLASTIC INSERT —XJ VEHICLES

REMOVAL

(1) If equipped, remove the quarter window reveal moulding (Fig. 22).

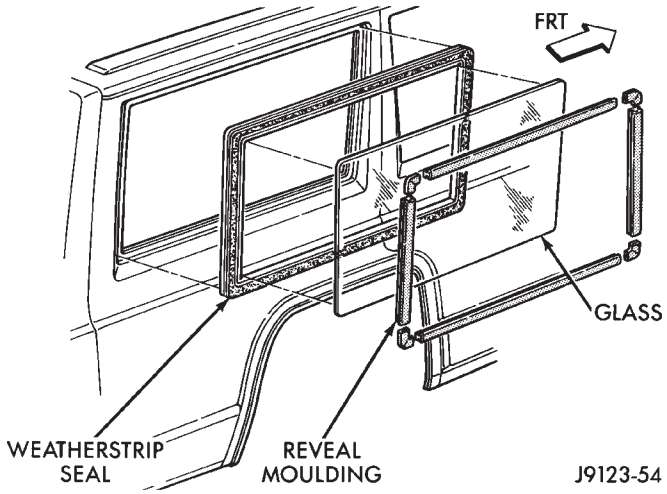

Fig. 22 Quarter Window Reveal Moulding, Glass and Seal

(2) Remove the quarter window interior trim covers.

(3) Separate the weatherstrip seal lip from the window opening flanges. Use a pry tool and carefully push the window glass and seal outward.

(4) Remove the weatherstrip seal and window glass from window opening.

(5) Remove the weatherstrip seal from the window glass (Fig. 23).

INSTALLATION

(1) Clean the original sealant from the weatherstrip channels and window opening flanges.

(2) Apply a 4-mm (1/6-in) diameter bead of sealant to the window channel in the weatherstrip seal.

(3) Install the weatherstrip on the window glass. Install the seal installation cord in the window opening flange channel (Fig. 24) using as follows:

- moisten a length of 6-mm (1/4-in) diameter cord with a soap and water solution;
- ensure that the cord is long enough to go all the way around the perimeter of the weatherstrip; and
- insert the cord into the window opening flange channel in the weatherstrip seal.

(4) Apply a 6-mm (1/4-in) diameter bead of sealant to the window opening flanges.

(5) For two-door vehicles, apply a 3-mm (1/8-in) diameter bead of sealant at the quarter panel applique and liftgate pillar seam.

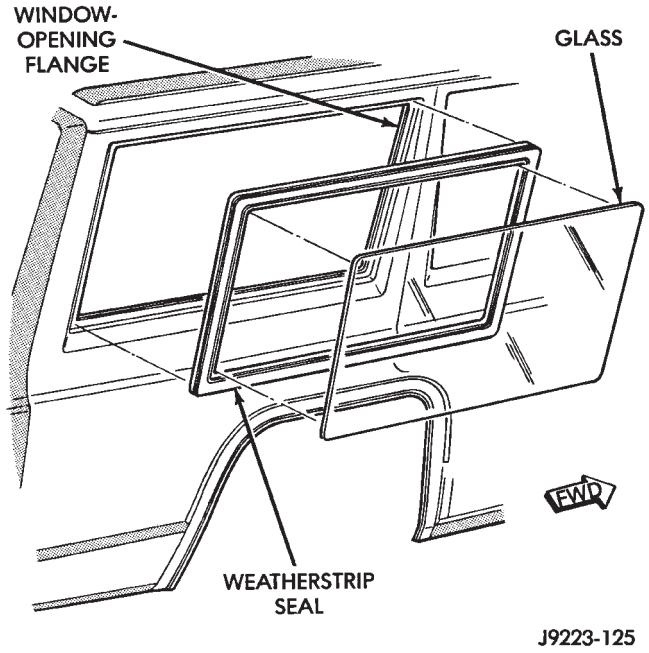

Fig. 23 Quarter Window Glass and Seal

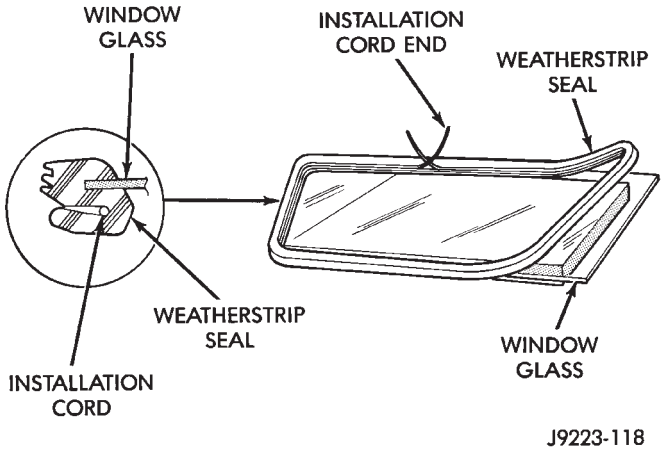

Fig. 24 Weatherstrip Seal and Cord Installation

(6) Position the quarter window glass and the weatherstrip seal in the window opening (Figs. 25 and 26) with the free ends of the cord inside the vehicle (Fig. 27).

(7) Pull on each end of the cord to pull the weatherstrip seal channel lip over the window opening flanges.

(7) Test the vent window for water leaks.

(8) Install the interior trim cover.

(9) If equipped, install the quarter window reveal moulding.

LIFTGATE WINDOW GLASS—XJ VEHICLES

REMOVAL

(1) If equipped, remove the liftgate window reveal moulding (Fig. 30).

(2) Remove the interior trim panels.

(3) Use a pry tool to separate the weatherstrip seal lip from the window opening flanges. Push the glass and weatherstrip seal outward from the top toward the rear of the vehicle.

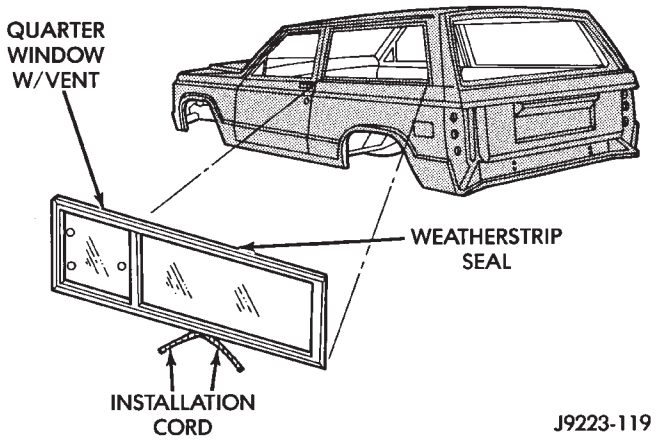

Fig. 25 Quarter Window With Vent

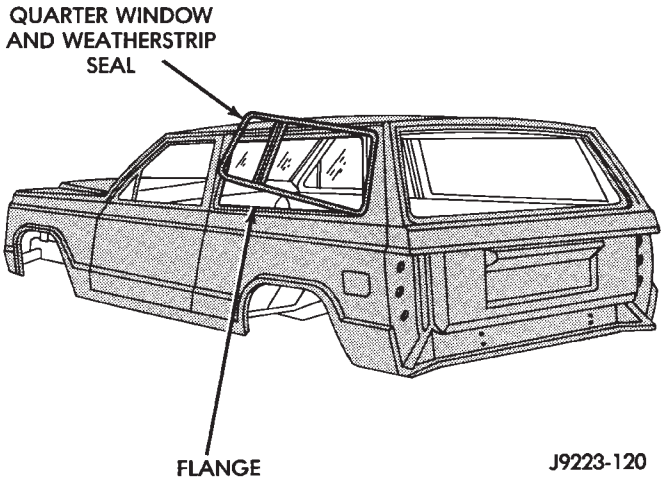

Fig. 26 Quarter Window Glass and Seal In Window Opening

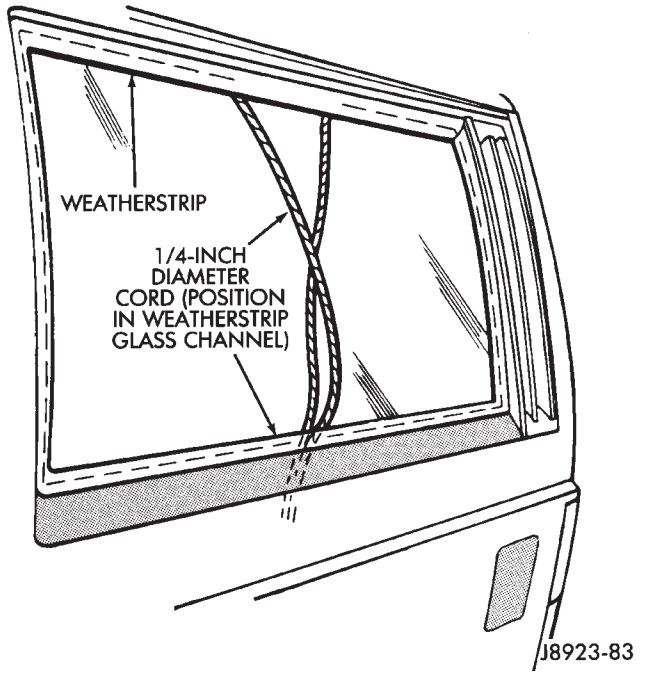

Fig. 27 Quarter Window Glass and Seal Installation

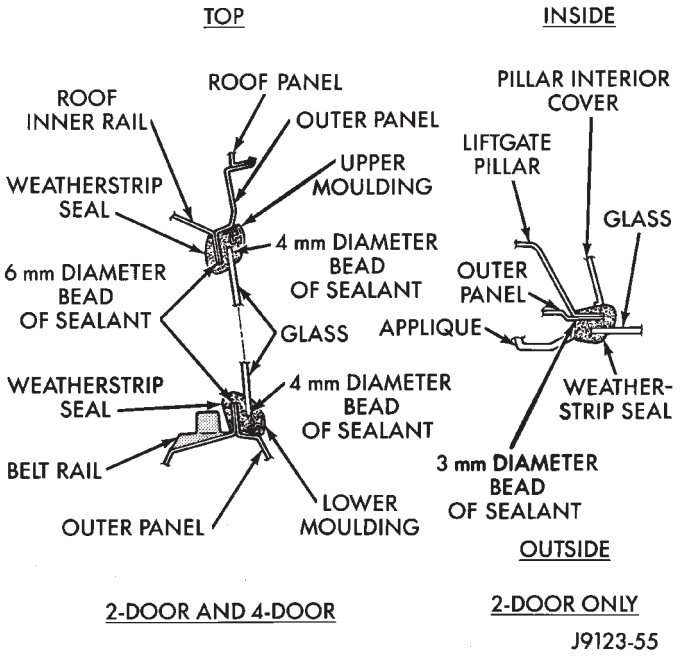

Fig. 28 Quarter Window Glass and Seal Installed

(4) Remove the glass and weatherstrip seal from the liftgate (Fig. 30).

(5) Remove the weatherstrip seal from the window glass.

(6) Clean the weatherstrip channels and window opening flanges.

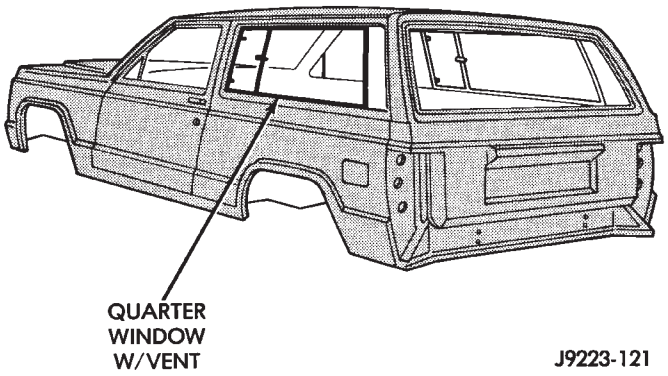

Fig. 29 Quarter Window Glass With Vent Installed

INSTALLATION

(1) Apply a 4-mm (1/6-in) diameter bead of sealant to liftgate glass channel in the weatherstrip seal (Fig. 30).

(2) Install weatherstrip seal on the glass (Fig. 31). Install the seal installation cord in the window opening channel as follows:

- moisten a length of 6-mm (1/4-in) diameter cord with a soap and water solution;
- insert the cord into the window opening flange channel in the weatherstrip seal.

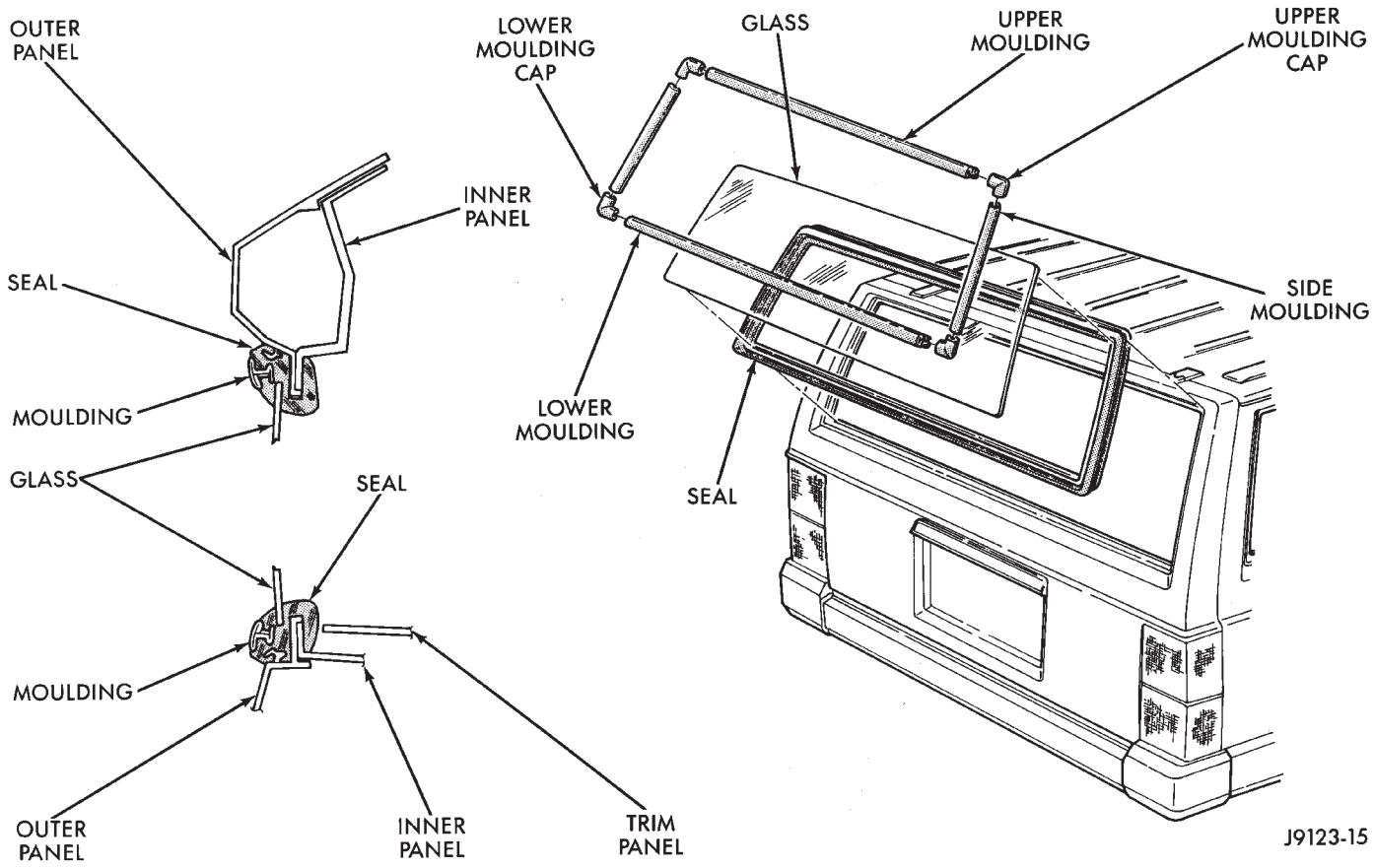

Fig. 30 Liftgate Window Glass Reveal Moulding, Glass and Seal

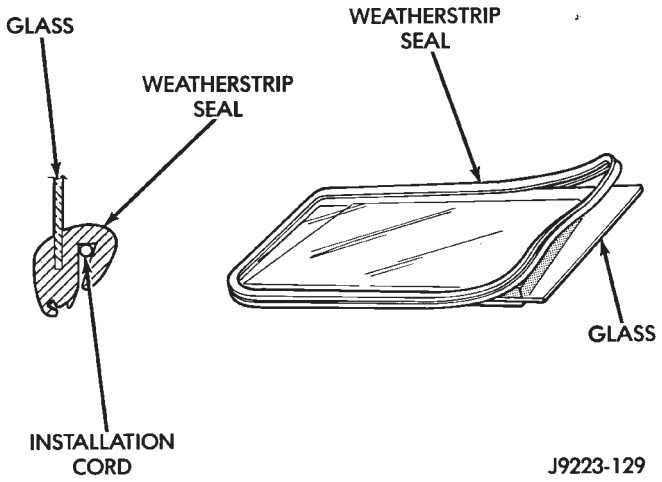

Fig. 31 Weatherstrip Seal and Cord Installation

(3) Apply a 6-mm (1/4-in) diameter bead of sealant around the perimeter of the window opening flange in the liftgate (Fig. 30).

(4) Install the window glass and the weatherstrip seal in the window opening with the cord according to the following instructions:

- position the window glass and the weatherstrip seal in the window opening with the free ends of the cord inside the vehicle (Fig. 32); and

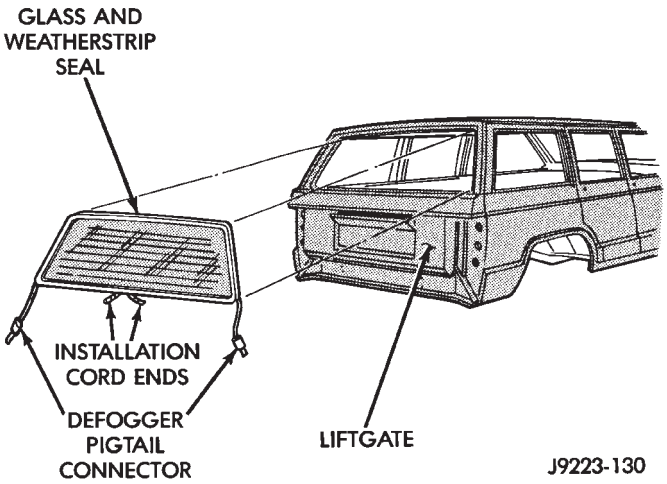

Fig. 32 Liftgate Window Glass Installation With Cord

- pull on each end of the cord to pull the weatherstrip seal channel lip over the window opening flange (Fig. 33).

(5) Test the liftgate window for water leaks.

(6) Install the interior trim covers.

(7) If equipped, install the liftgate window reveal moulding (Fig. 30).

FIXED GLASS WATER LEAK DETECTION AND REPAIR

SERVICE INFORMATION

Water leaks around the windshield or a fixed window glass can be sealed without removing the glass. If the windshield/window glass is bonded and only has a small leak, seal it with a liquid butyl sealant. If the weatherstrip seal or urethane adhesive has a large break, a urethane adhesive must be used to seal the leak.

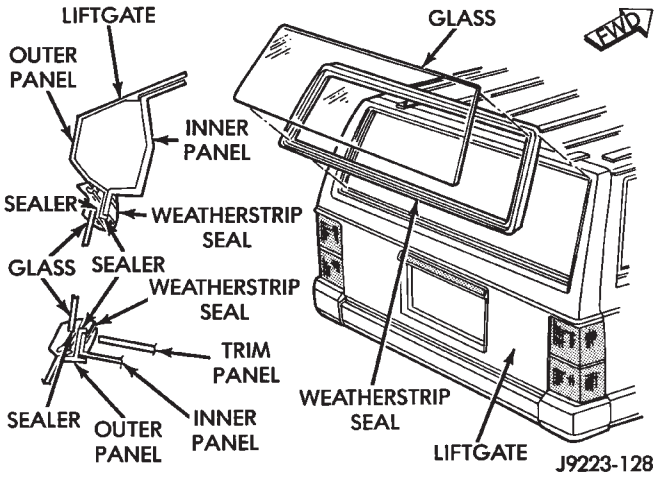

Fig. 33 Liftgate Window Glass and Weatherstrip Seal

LEAK TEST

Water test the windshield/window with a spray only. **Do not use hard streams of water.** Work from the bottom to the top of windshield/window glass.

If a water leak exists between the glass and weatherstrip seal (or between the seal and a body flange):

- push the glass outward at the leak area, and
- determine the extent of the gap.

Push the glass outward while a helper sprays the windshield/window with water.

SEALING MINOR LEAK AREAS

(1) Thoroughly clean and remove all foreign material from the leak area. Dry area with compressed air.

(2) Seal the leak area with butyl sealant. Allow the sealant to cure for at least 1/2 hour. Next, water test the glass to ensure that the leak is sealed.

SEALING MAJOR LEAK AREAS

(1) Thoroughly clean the leak area.

(2) As applicable, apply primer to either the windshield/window or weatherstrip seal leak area. Use blackout primer on the windshield/window and urethane primer on the weatherstrip seal.

(3) Apply urethane adhesive to the leak area. Use an adhesive cartridge with a pointed nozzle.

(4) Water test the windshield/window immediately with cold water spray. Allow water to spill over the edge of the windshield/window and weatherstrip seal. **Do not direct a hard stream of water on recently applied urethane.**

(5) Apply additional urethane adhesive, if necessary.

(6) Remove any excess urethane adhesive.

UNDERBODY COMPONENTS

INDEX

SERVICE INFORMATION

In some cases, components in the following procedures either support, or are concealed by other components. When necessary, refer to component removal procedure for service access.

FRONT SKID PLATE

REMOVAL

(1) Remove the screws that attach skid plate to side sills (Fig. 1).

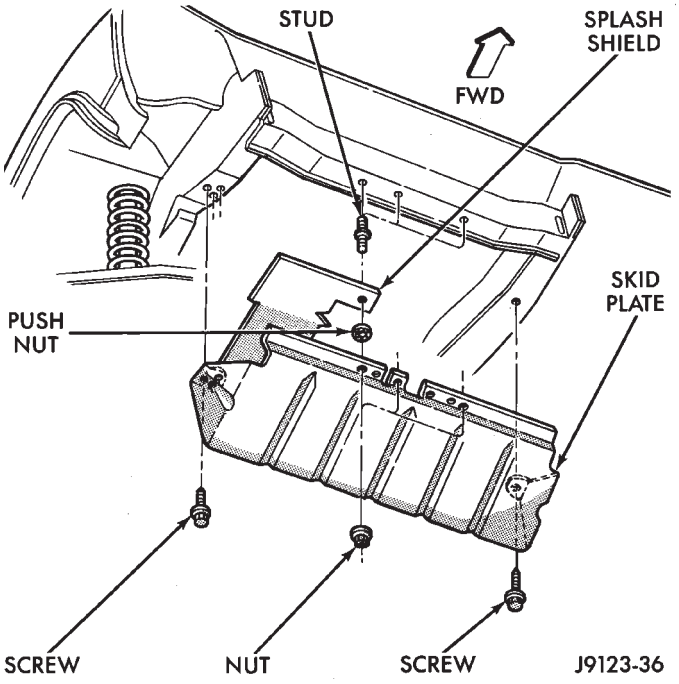

Fig. 1 Front Skid Plate Removal/Installation

(2) Remove the nuts that attach the skid plate to the crossmember (Fig. 1).

(3) Remove the skid plate from the vehicle (Fig. 1).

INSTALLATION

(1) Position the skid plate at front crossmember and side sills (Fig. 1).

(2) Install the nuts to attach the skid plate to crossmember.

(3) Install the screws to attach skid plate to side sills.

TRANSFER CASE SKID PLATE

REMOVAL

(1) Support the skid plate.

(2) Remove the bolts that attach the skid plate to the transmission support crossmember and frame sill (Fig. 2).

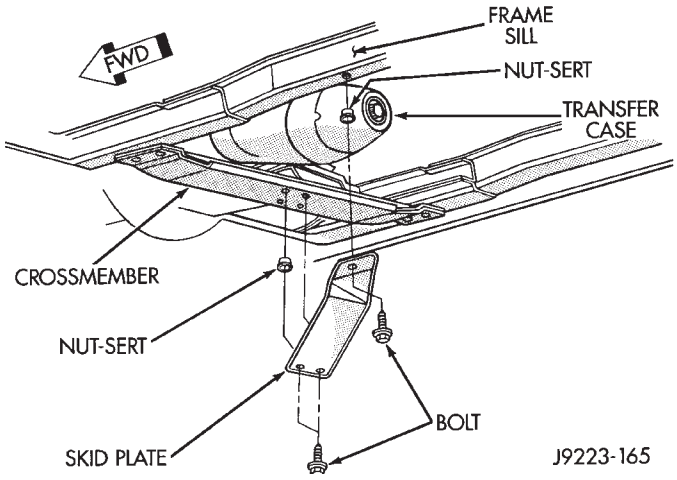

Fig. 2 Transfer Case Skid Plate

(3) Remove the support and skid plate from the vehicle.

INSTALLATION

(1) Position and support the skid plate at the frame sill and transmission support crossmember (Fig. 2).

(2) Attach the skid plate to the frame sill and crossmember with bolts. Tighten bolts to 22 N·m (16 ft-lbs) torque.

FUEL TANK SKID PLATE

REMOVAL—XJ VEHICLES

(1) Position a support under skid plate.

(2) Remove the bolts that attach skid plate to underbody side rails (Figs. 3 and 4).

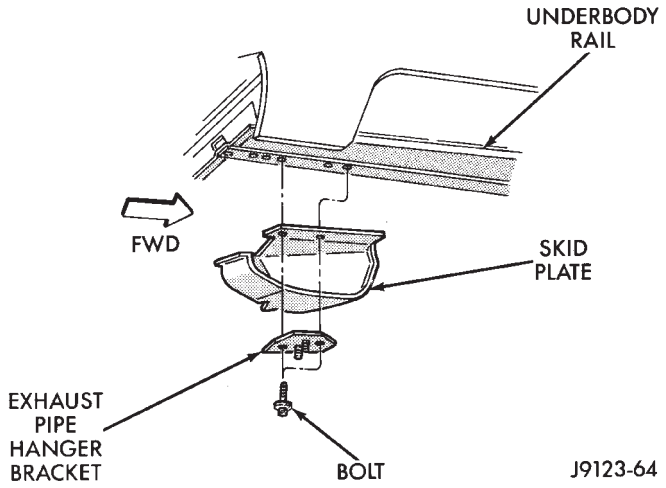

Fig. 3 Fuel Tank Skid Plate W/O Trailer Hitch Or Tow Hook

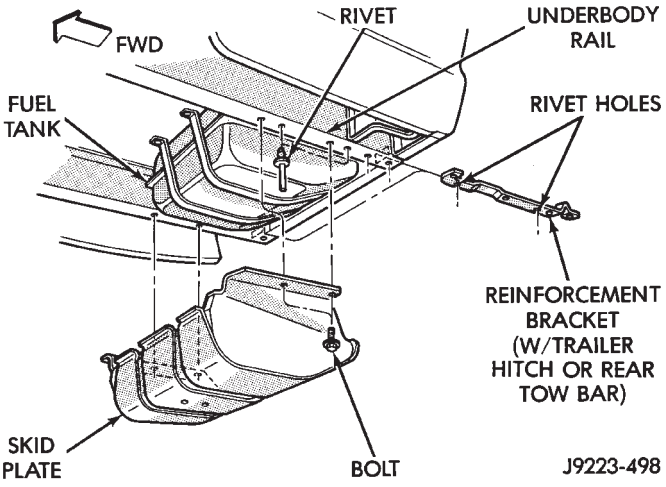

Fig. 4 Fuel Tank Skid Plate With Trailer Hitch Or Tow Hook

(3) Remove the support and the skid plate from the vehicle.

INSTALLATION—XJ VEHICLES

(1) Position and support skid plate under fuel tank.

(2) Install bolts to attach the skid plate to underbody rails. Tighten the bolts to 50 N·m (37 ft-lbs) torque.

(3) Remove the support from under skid plate.

CATALYTIC CONVERTER/MUFFLER/TAILPIPE SUPPORT BRACKETS

REMOVAL

(1) As applicable, detach the catalytic converter, muffler or tailpipe support bracket from insulator. Remove the insulator from bracket.

(1) As applicable, install nuts and bolts, or screws that attach bracket to frame. Tighten nuts/screws to 21 N·m (16 ft-lbs) torque.

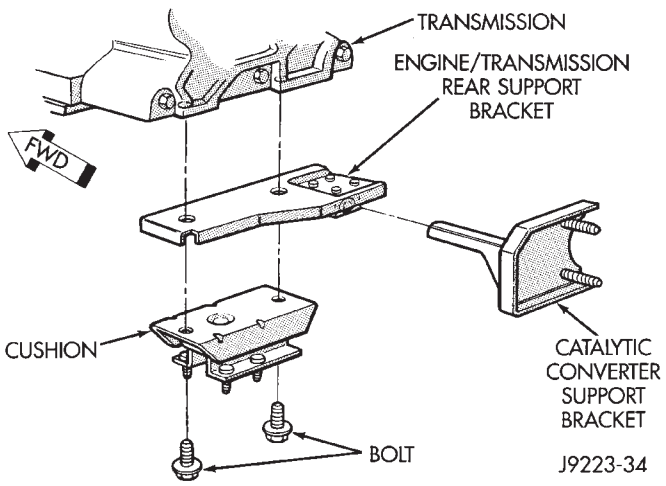

Fig. 1 Catalytic Converter Support Bracket

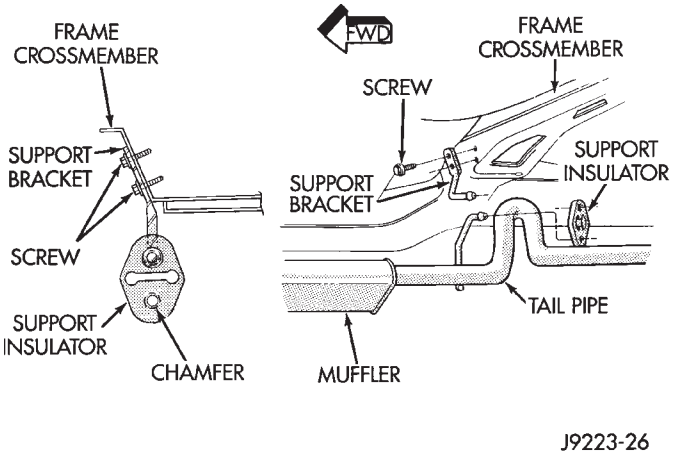

Fig. 2 Muffler/Tailpipe Support Bracket—XJ Vehicles

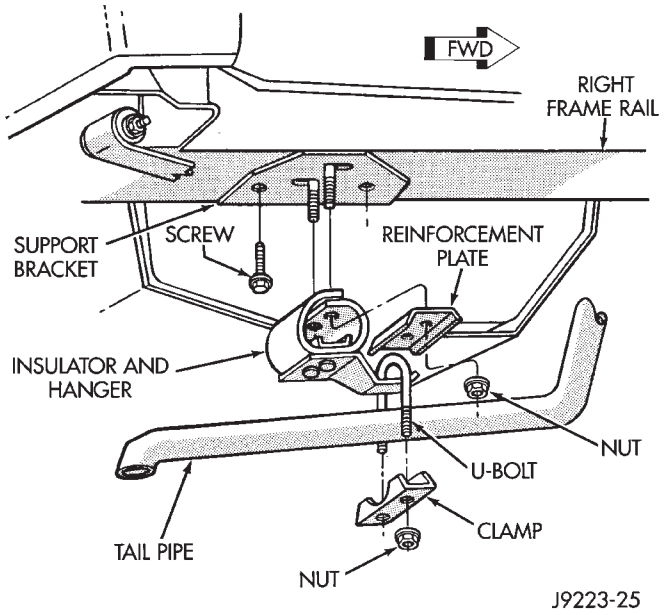

Fig. 3 Tailpipe Support Bracket—XJ Vehicles

(2) Install insulator on support bracket.

(3) Attach catalytic converter, muffler or tailpipe insulator to support hanger to insulator.

FUEL AND BRAKE FLUID TUBE RETAINER CLIP

REMOVAL

(1) Remove the fuel/brake fluid tubes from clip grooves.

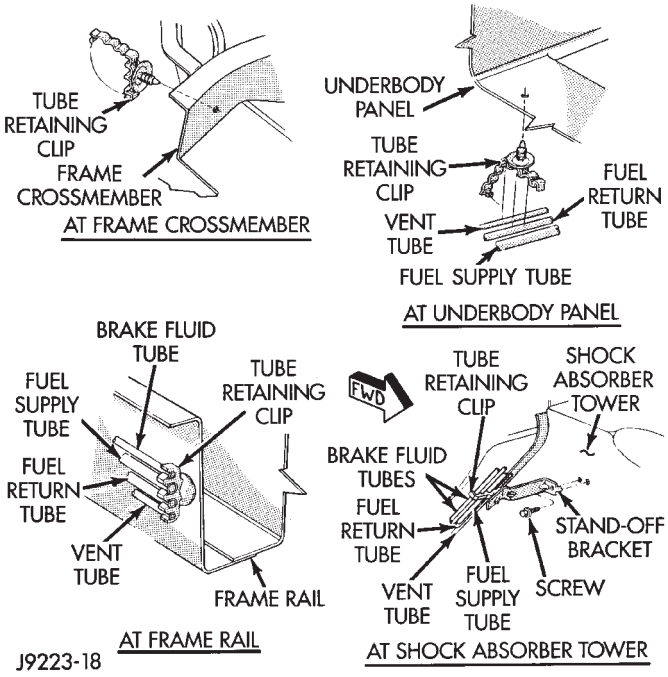

Fig. 4 Fuel and Brake Tube Serrated/Bracket-Type Retainer Clips—XJ Vehicles

(2) As applicable, pry serrated clip outward and remove it from frame rail hole, or remove stand-off bracket screw.

INSTALLATION

(1) Position clip at the frame/panel hole.

(2) As applicable, force serrated clip inward and seat it against the frame/panel, or install the stand-off bracket screw.

(3) Insert fuel/brake fluid tubes in clip grooves and press inward to seat them.

FUEL FILTER BRACKET

REMOVAL

(1) Remove screws that attach fuel filter bracket to frame rail.

(2) Remove the screw from fuel filter bracket clamp.

(3) Remove the clamp and fuel filter from bracket.

(4) Remove the bracket from filter.

INSTALLATION

(1) Position fuel filter bracket on filter.

(2) Position clamp on bracket and install screw. Tighten screw to 8 N·m (74 in-lbs) torque.

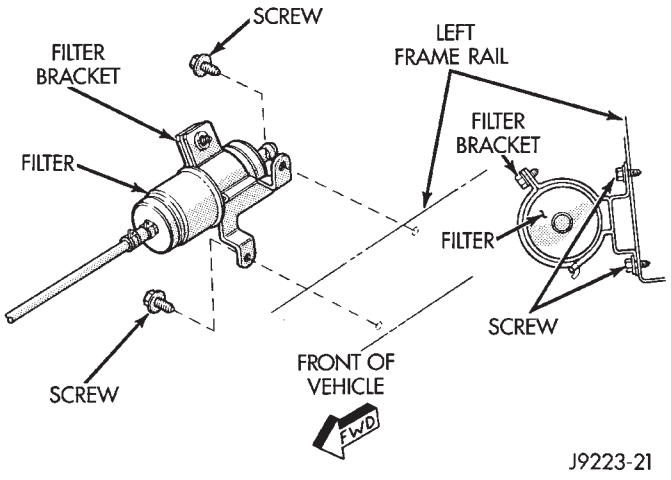

Fig. 5 Fuel Filter Bracket Removal/Installation

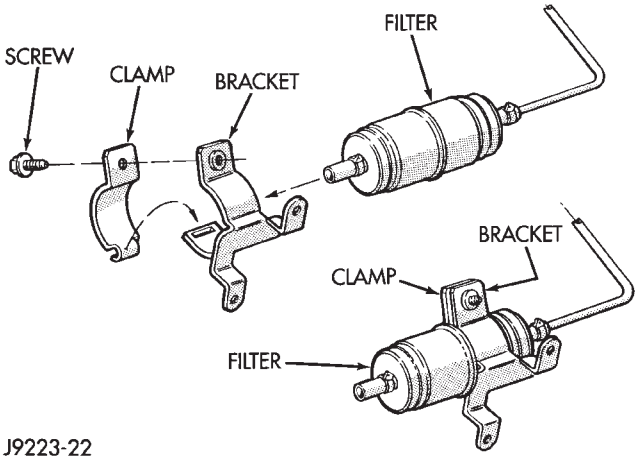

Fig. 6 Fuel Filter Bracket Clamp Removal/Installation

(3) Position fuel filter bracket on frame rail.

(4) Install the screws that attach bracket to frame rail. Tighten screws to 42 N·m (31 ft-lbs) torque.

FUEL FILLER HOSE SPLASH SHIELD—XJ VEHICLES

REMOVAL

(1) Remove the screws that attach fuel filler hose splash shield to wheelhouse panel and frame rail.

(2) Remove the hose splash shield from wheelhouse panel and frame rail (Fig. 7).

INSTALLATION

(1) Position fuel filler hose splash shield at wheelhouse panel and frame rail.

(2) Install screws to attach splash shield to wheelhouse panel and frame rail.

FUEL TANK SUPPORT STRAP

SERVICE INFORMATION

XJ fuel tank support straps are attached to the un-

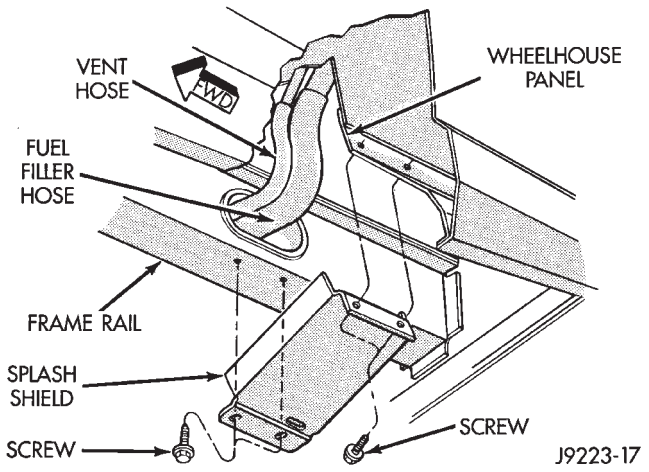

Fig. 7 Fuel Filler Hose Splash Shield—XJ Vehicles

derside of the vehicle via T-slots and hole-slots in the frame members.

REMOVAL

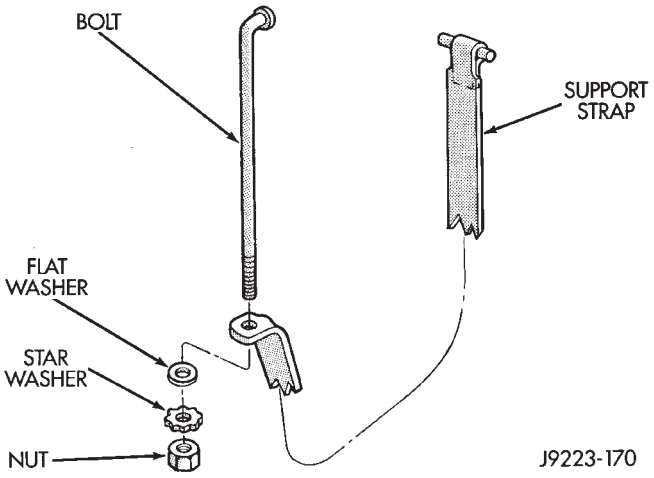

Fig. 8 Fuel Tank Support Strap—XJ Vehicles

(1) If equipped, position a support under skid plate.

(2) If equipped, remove the bolts that attach skid plate to underbody side rails.

(3) If applicable, remove the support and skid plate from fuel tank.

(4) Support fuel tank.

(5) Loosen nut from fuel tank support strap bolt to allow bolt head to be removed from hole-slot in frame member.

(6) Remove the strap T-end from frame member T-slot.

(7) Separate support strap from fuel tank and remove it from vehicle.

INSTALLATION

(1) Position support strap around fuel tank.

(2) Insert strap T-end in frame member T-slot.

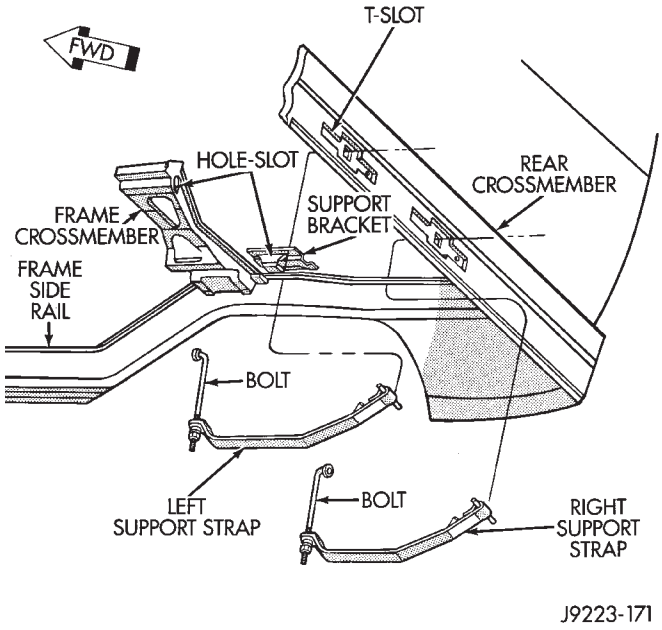

Fig. 9 Fuel Tank Support Straps—XJ Vehicles

(3) Insert bolt in hole-slot in frame member. Tighten nut on the bolt until bolt-head and T-end are seat and strap is tight against the bottom of fuel tank.

(4) Remove the support from the fuel tank.

(5) If removed, position and support and the fuel tank skid plate under the fuel tank.

(6) If applicable, install the bolts that attach the skid plate to the underbody side rails. Tighten the bolts to 50 N·m (37 ft-lbs) torque.

(7) Remove the support from under the skid plate.

REAR TOW HOOK—XJ VEHICLES

REMOVAL

(1) Remove the bolts that attach tow hook bracket to the frame rail and reinforcement bracket.

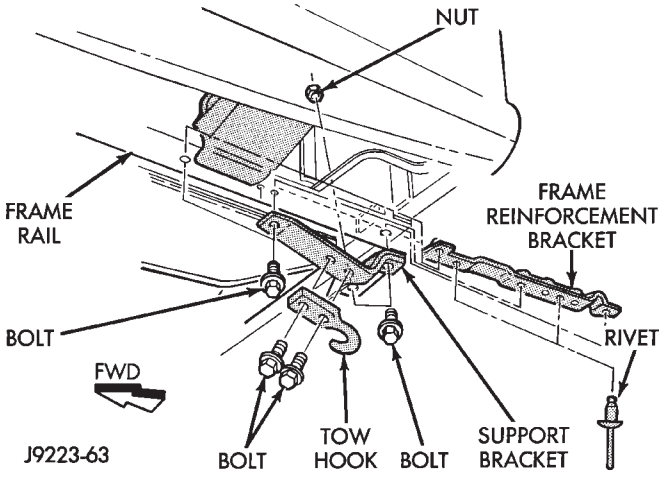

Fig. 10 Rear Tow Hook—XJ Vehicles

The reinforcement bracket is held on the frame rail with two blind rivets.

(2) Remove the bracket and tow hook from frame rail.

INSTALLATION

(1) Position bracket and tow hook on the frame rail.

(2) Install bolts that attach tow hook bracket to frame rail and reinforcement bracket. Tighten bolts to 75 N·m (55 ft-lbs) torque.

TRAILER HITCHES

CLASS III HITCH—XJ VEHICLES

A class III weight-distributing/equalizer type hitch can be used to tow a trailer:

- having a maximum gross weight of 5,000 lbs/2250 kg, and
- having a maximum tongue weight of 750 lbs/332 kg).

The following vehicle basic equipment is required for class III trailer towing:

- P205/75R15 or larger tires;
- full size spare tire;
- trailer sway control;
- trailer tow wire harness and connector;
- heavy duty turn signal flasher element;
- heavy duty axle (with synthetic lubricant);
- heavy duty cooling system;
- heavy duty generator/battery;
- auxiliary automatic transmission fluid cooler; and
- I-6, 4.0L engine.

Wide-angle type door mirrors are recommended but not required.

WIRE HARNESS CONNECTORS

CLASS I HITCH CONNECTOR

The trailer tow wire harness connector for class I trailer hitches is a 5-terminal, in-line type connector. Terminal 5 is the source for vehicle ground.

CLASS III HITCH CONNECTOR

The trailer tow wire harness connector for class III trailer-tow hitches is a 7-terminal, circular type connector.

The 12-volt circuit for the trailer is protected from overloads. A auto-reset type circuit breaker is located in the trailer tow wire harness near the plug-in relays.

CAUTION: The trailer tow wire harness package does not include a vehicle battery isolator unit. Because of this, the trailer battery can totally discharge the vehicle battery if the engine is not operated for an extended period of time.

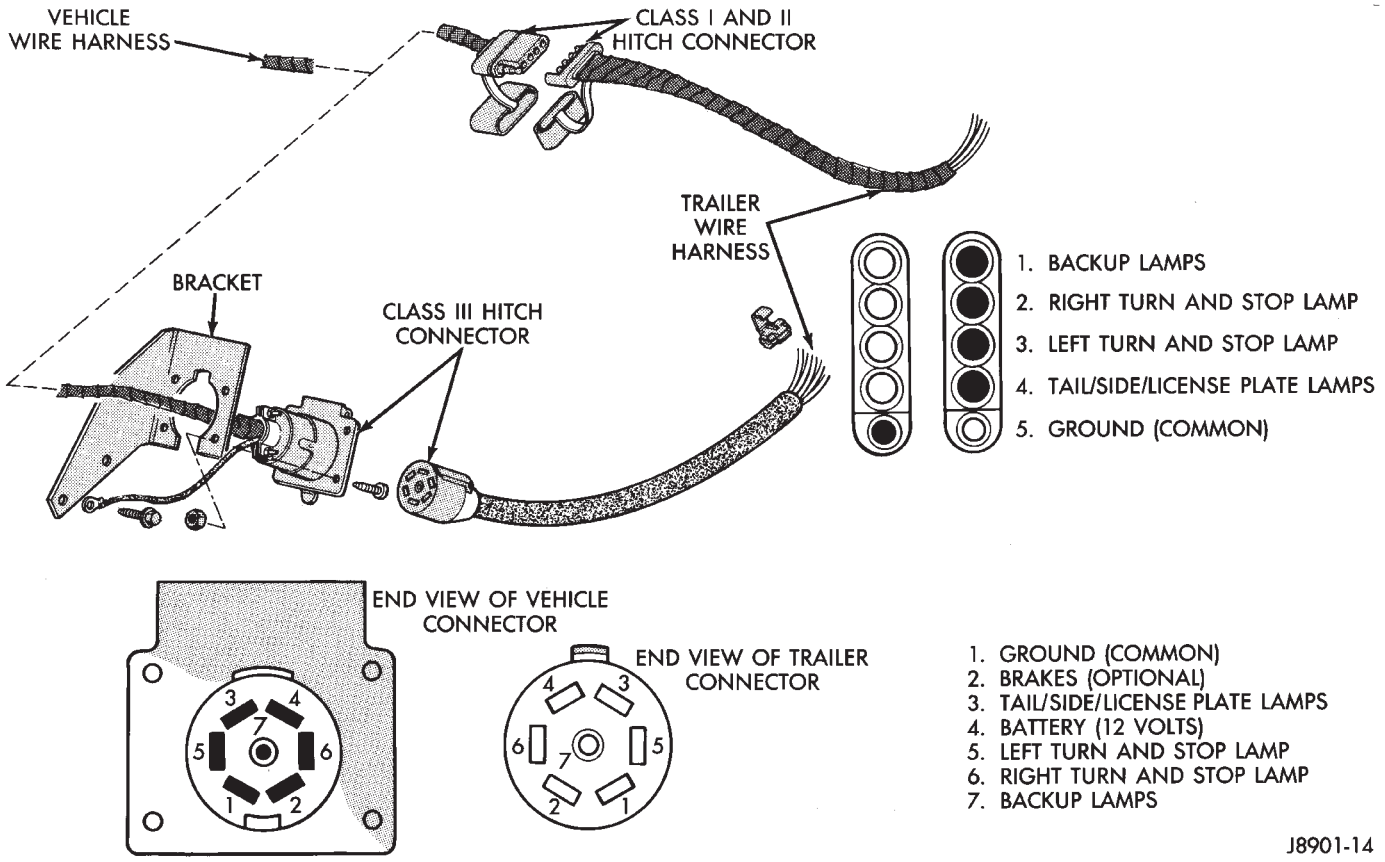

Fig. 11 Trailer Tow Wire Harness Connectors

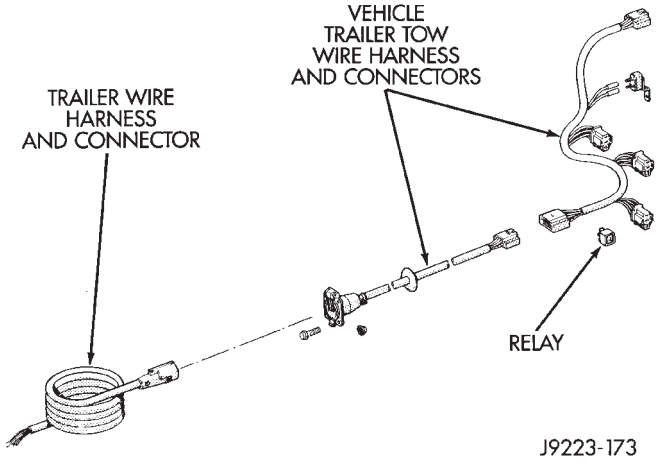

Fig. 12 Class III Trailer Tow Wire Harness and Connectors

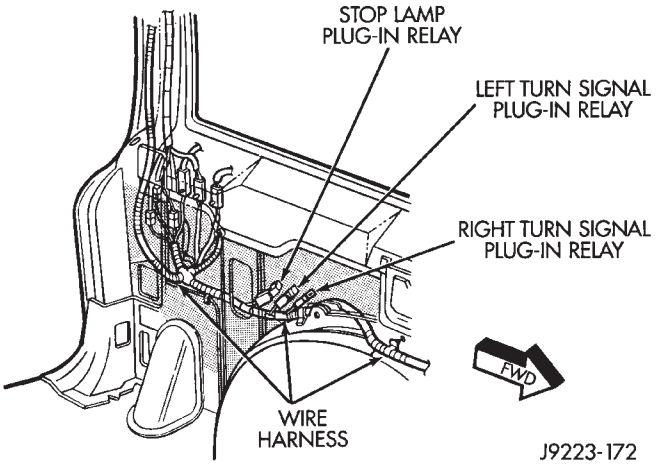

Fig. 13 Class III Trailer Tow Wire Harness Plug-In Relays

A blue wire (without a connector) located under instrument panel near fuse panel is available for trailer electric brake control unit.

The stop lamp and turn signal plug-in relays are located behind left quarter trim panel.

HITCH REMOVAL—XJ VEHICLES

An XJ class III, weight-distributing/equalizer type hitch is comprised of:

- a towing tube with a ball mount receptacle, and
- various reinforcement/support brackets that are attached to the vehicle frame sills and rear crossmember with bolts.

(1) If necessary, remove the trailer tow wire harness connector from the hitch.

(2) Support the hitch.

(3) Remove the bolts that attach the towing tube to the frame sills and reinforcement bracket. If equipped, remove the fuel tank skid plate.

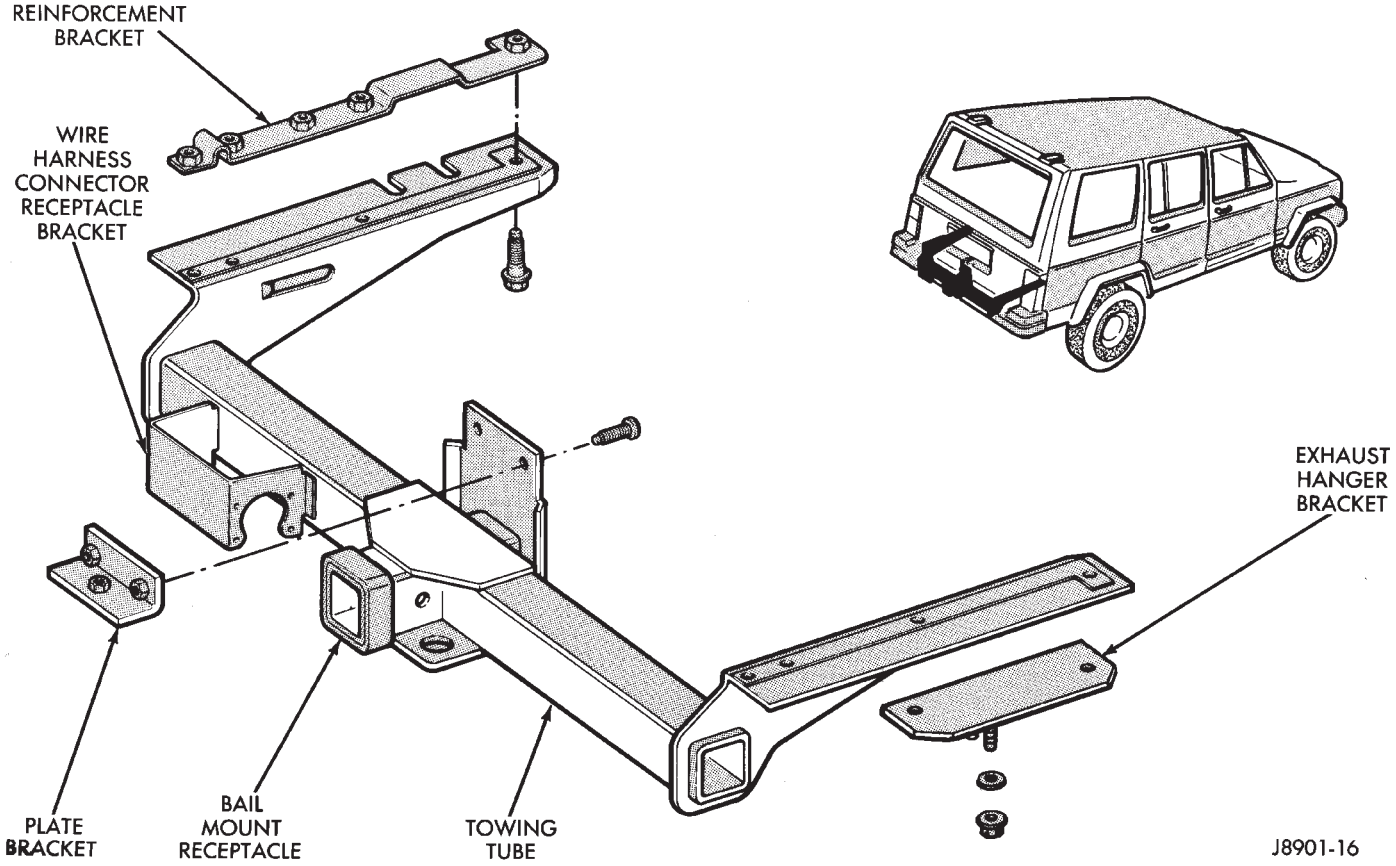

Fig. 14 Equalizer Type Hitch—XJ Vehicles

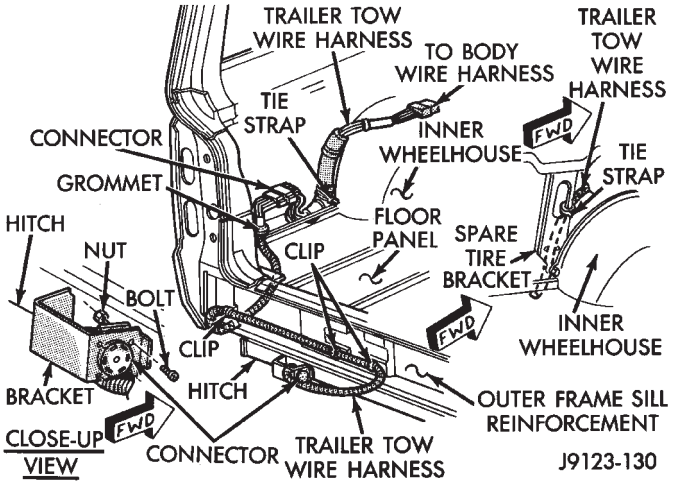

Fig. 15 Trailer Tow Wire Harness Connector

The reinforcement brackets are held on the frame sills with two blind rivets.

(4) Remove the bolts from the plate bracket and rear crossmember and lower the support and hitch.

INSTALLATION—XJ VEHICLES

(1) Install frame reinforcement brackets, if removed. Slide the brackets through the vehicle rear sill openings and hold in position on the frame sills with blind rivets.

(2) Place hitch on a lifting device. Raise, position hitch at the proper location for installation on vehicle and support it.

(3) If equipped, position fuel tank skid plate on vehicle frame sills.

(4) Loosely install the bolts to attach the towing tube (and the skid plate) to frame sills and reinforcement brackets.

(5) Position the plate bracket and install the attaching bolts through the vehicle rear crossmember.

(6) Tighten all bolts/nuts to the specified torque:

- towing tube-to-reinforcement bracket bolt, and
- plate bracket-to-rear crossmember nut.

(7) Remove the lift/support and, if removed, attach the trailer wire harness connector to the hitch.

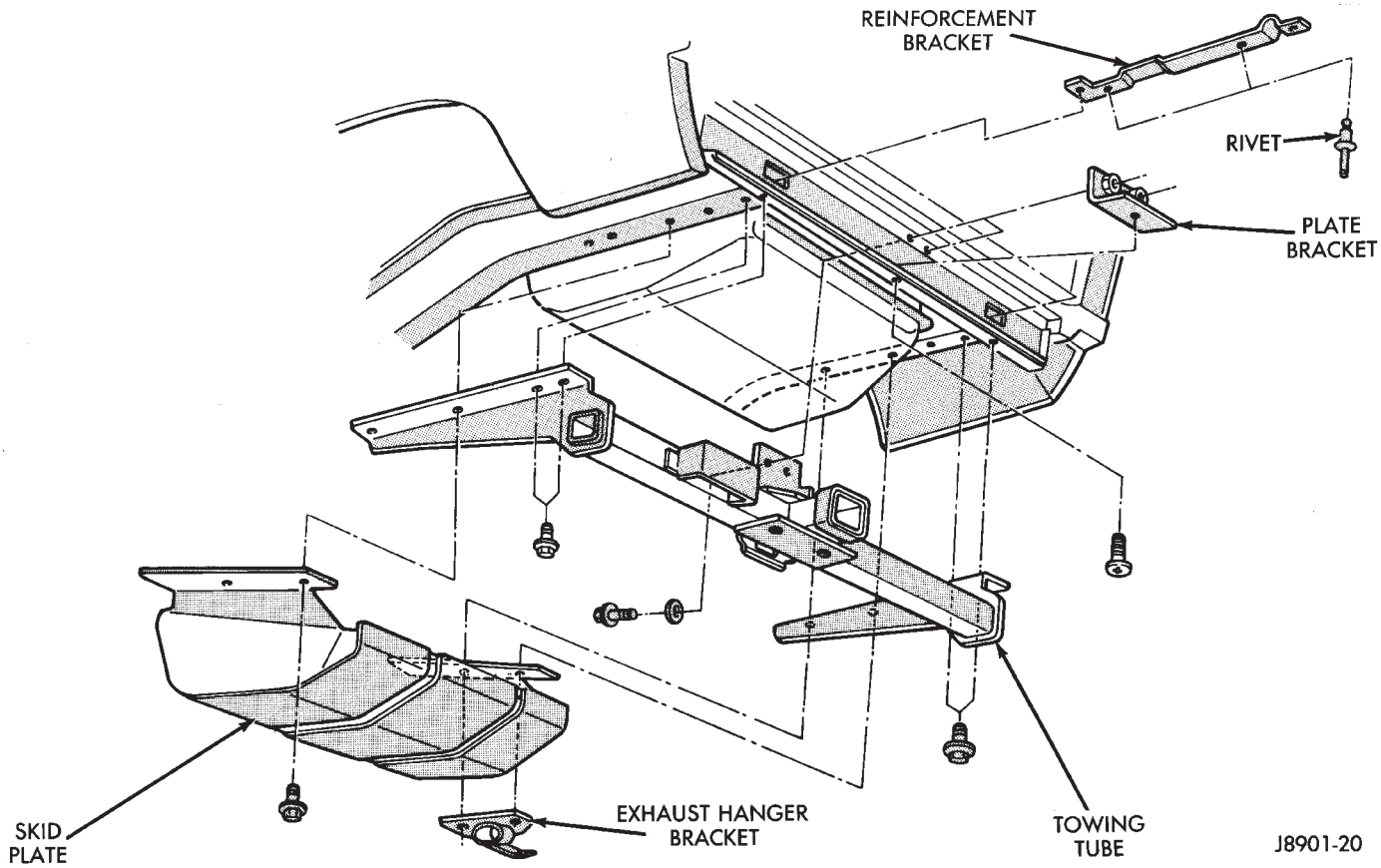

Fig. 16 Reinforcement Bracket and Hitch Installation

INTERIOR COMPONENTS

INDEX

INSTRUMENT CLUSTER BEZEL

REMOVAL

(1) Remove the bezel retaining screws (Fig. 1).

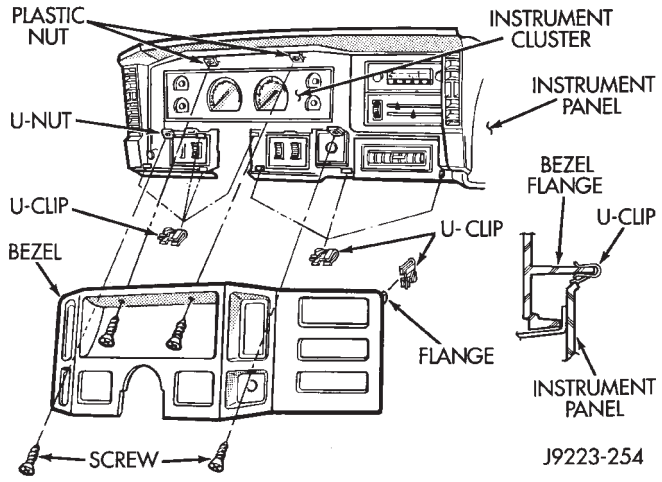

Fig. 1 Instrument Cluster Bezel Removal/Installation

(2) Separate the bezel from the U-clips and remove it from the upper section of the instrument panel.

(3) If necessary, remove or install rocker switch cover plates (Fig. 2).

INSTALLATION

(1) Position the bezel on the upper instrument panel and engage it with the U-clips.

(2) Install the bezel retaining screws. Tighten the screws with 1 N·m (11 in-lbs) torque.

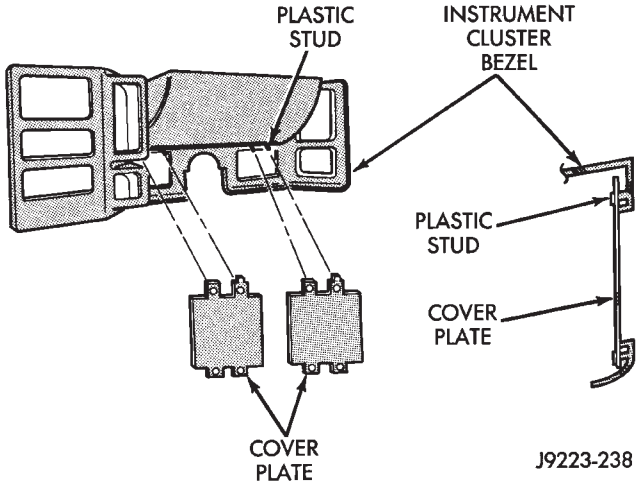

Fig. 2 Instrument Cluster Bezel Removal/Installation

INSTRUMENT CLUSTER/SWITCH/LIGHTER/RADIO/HEVAC

REMOVAL

(1) Remove the screws and instrument cluster bezel from instrument panel (Fig. 3).

(2) As applicable, remove the instrument cluster or other I/P component screws.

(3) Disconnect wire harness connector(s) from cluster or other I/P component. Refer to Group 8—Electrical.

(4) Remove the cluster or other I/P component from the upper section of instrument panel (Fig. 9).

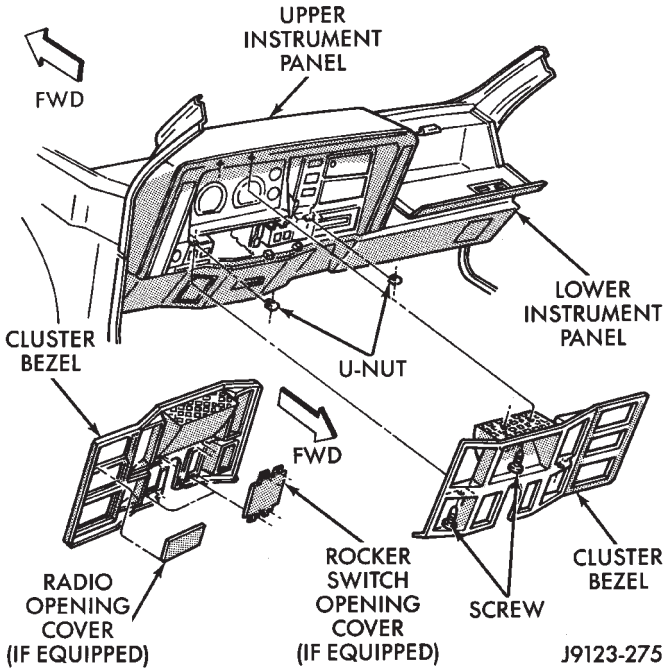

Fig. 3 Instrument Cluster Bezel

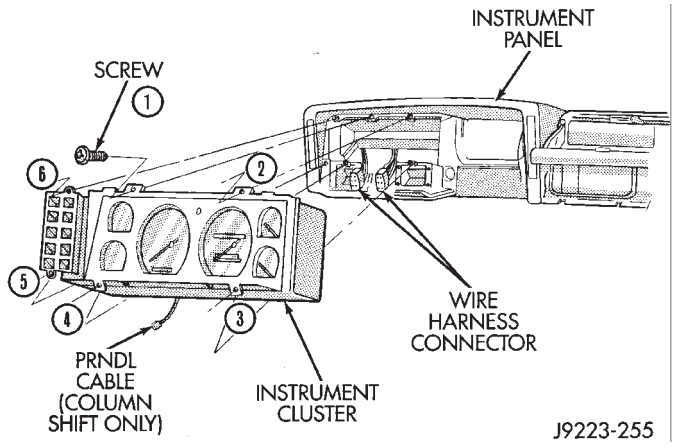

Fig. 4 Instrument Cluster

INSTALLATION

(1) Position the cluster or other I/P component at the upper section of the instrument panel and connect the wire harness connectors.

(2) Install the cluster or other I/P component retaining screws. Tighten the screws with 1 N·m (11 in-lbs) torque.

(3) Install the instrument cluster bezel on the instrument panel with the retaining screws.

I/P ASH RECEIVER TRAY LAMP

REMOVAL

(1) Remove the ash receiver tray from instrument panel (Fig. 10).

(2) Remove the lamp retaining screw from the ash receiver tray cavity (Fig. 11).

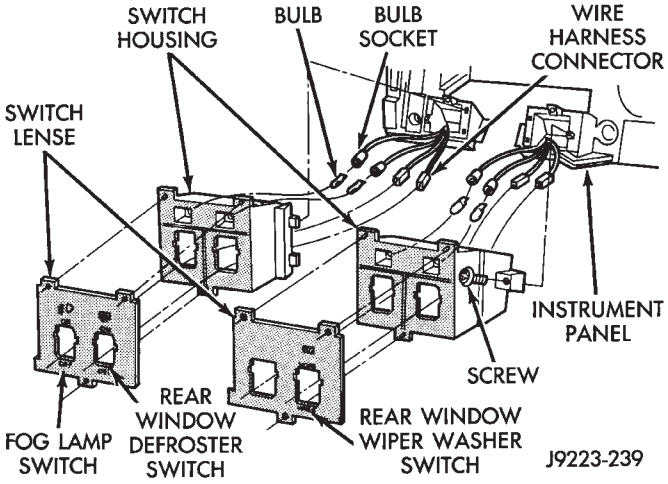

Fig. 5 Switch Housings and Lenses

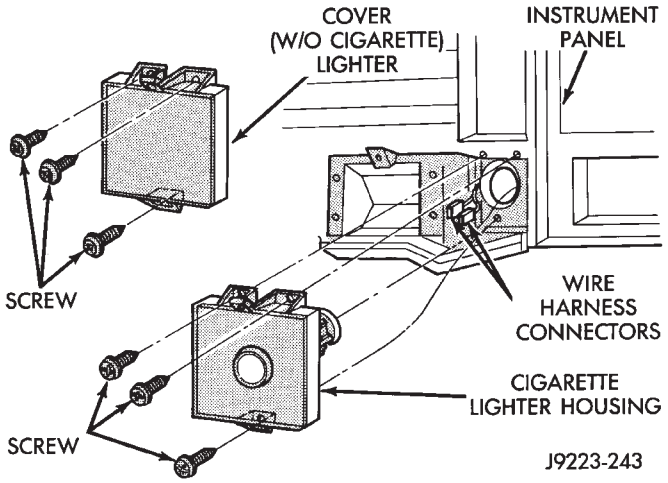

Fig. 6 Cigarette Lighter

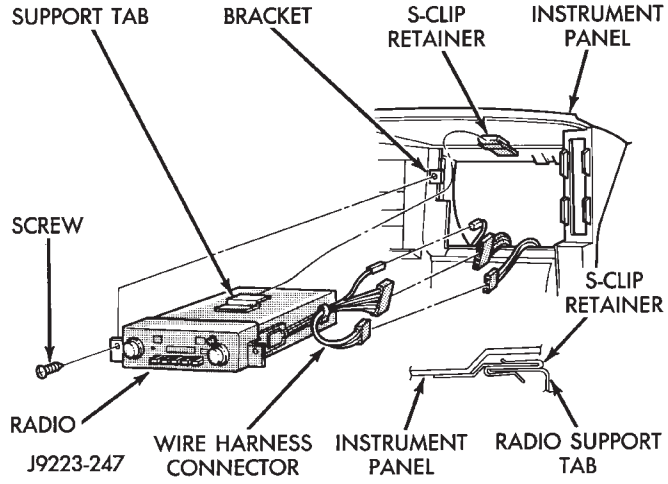

Fig. 7 Radio

(3) Disconnect the lamp wire harness connector and remove the lamp from the instrument panel.

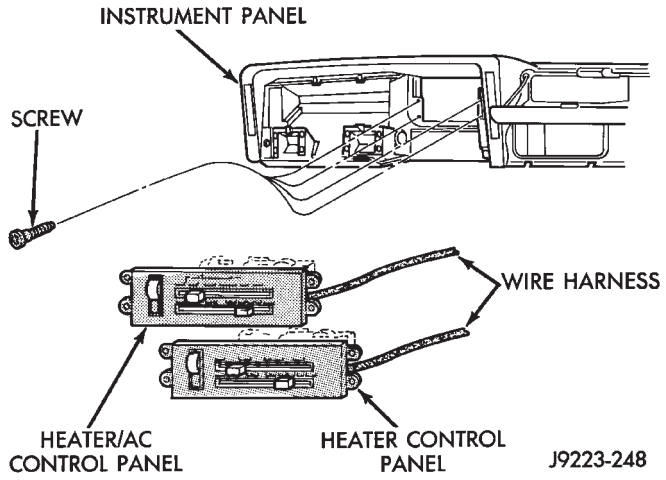

Fig. 8 Heater/AC and Heater Control Panels

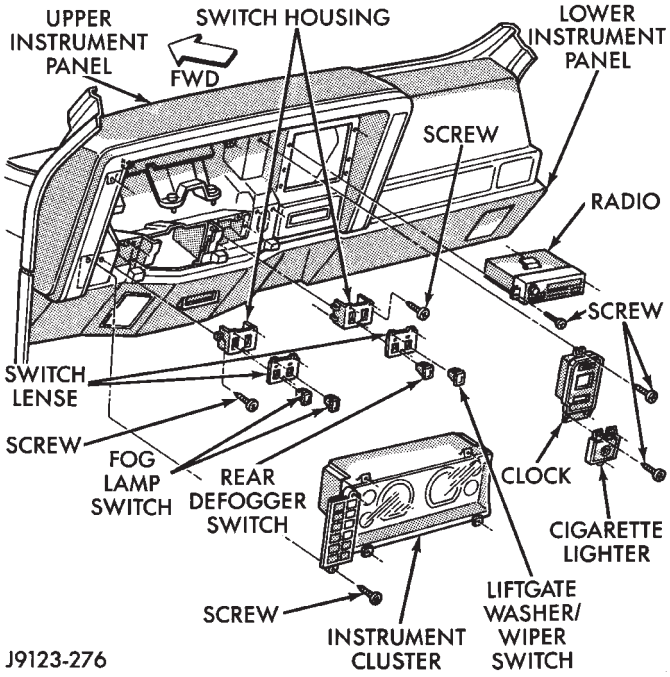

Fig. 9 Instrument Cluster and Other I/P Components

INSTALLATION

(1) Position the lamp under the instrument panel and connect the lamp wire harness connector.

(2) Install the lamp retaining screw in the ash receiver tray cavity.

(3) Install the ash receiver tray in the instrument panel.

INSTRUMENT PANEL

REMOVAL

(1) Remove the defroster duct bezel from the instrument panel.

(2) Remove the steering column cover insert from the instrument panel (Fig. 13).

(3) Remove the park brake screw from the lower section of the instrument panel (Fig. 14).

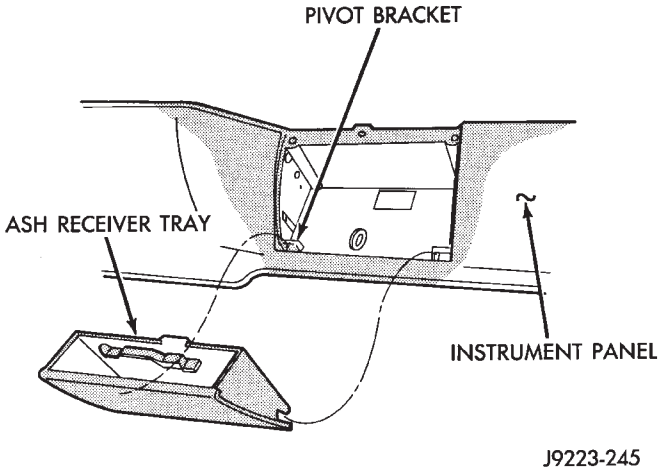

Fig. 10 Ash Receiver Tray

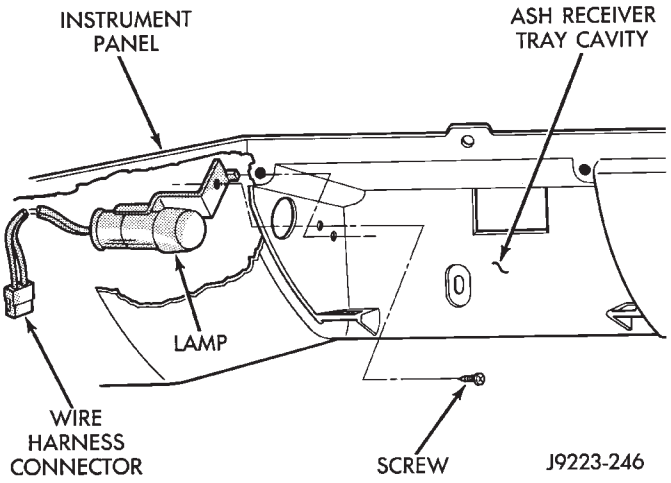

Fig. 11 Ash Receiver Tray Lamp

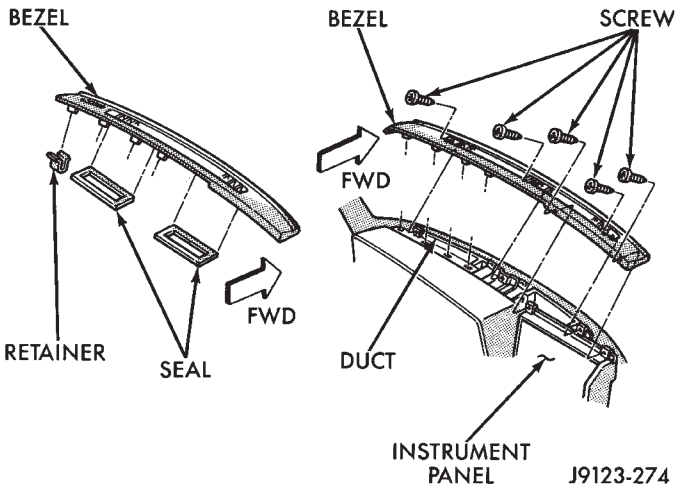

Fig. 12 Defroster Duct Bezel Removal/Installation

(4) Remove the screws from the lower section of the instrument panel (Fig. 15).

(5) Remove the lower section of the instrument panel from the upper section.

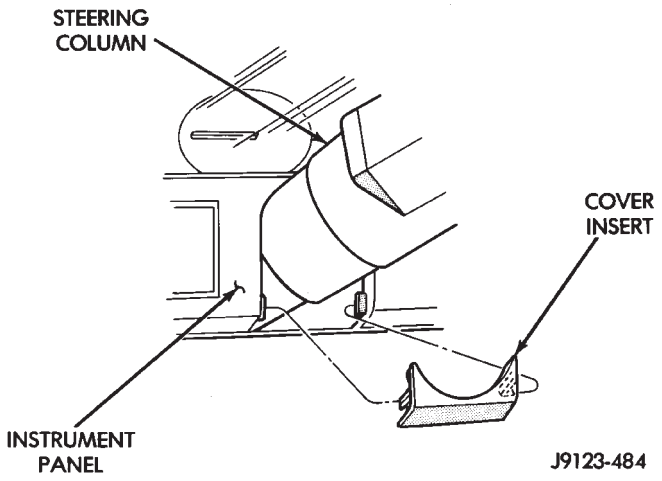

Fig. 13 Steering Column Cover Insert

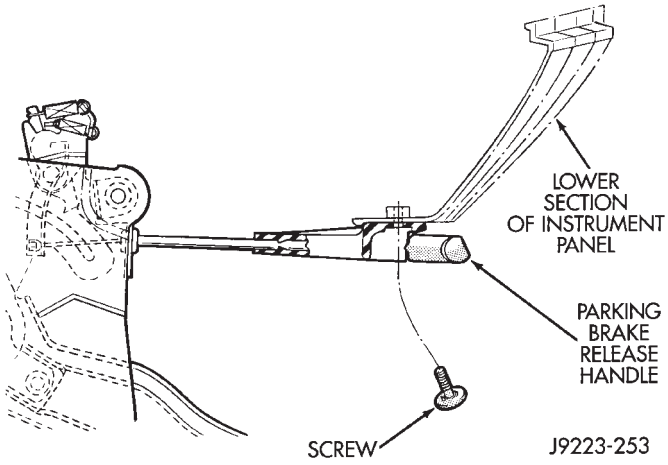

Fig. 14 Park Brake Release Handle

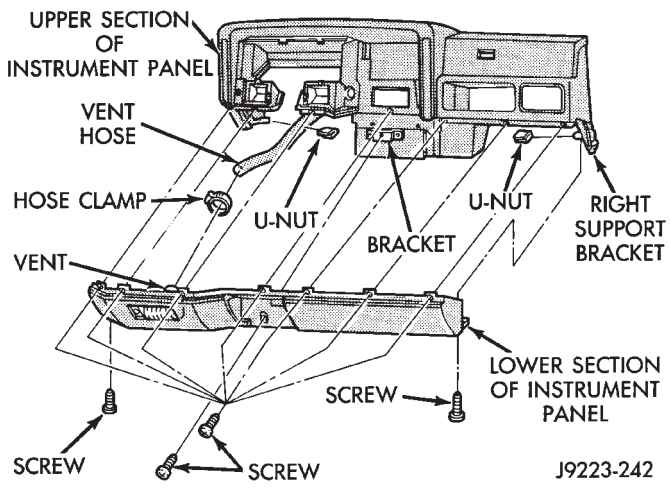

Fig. 15 Lower Section Of Instrument Panel Removal/ Installation

(6) Remove the screw and the ground wire from the upper section of the instrument panel (Fig. 16).

(7) Loosen the I/P-to-cowl side panel screws (Fig. 17).

(8) Pull the instrument panel outward from the

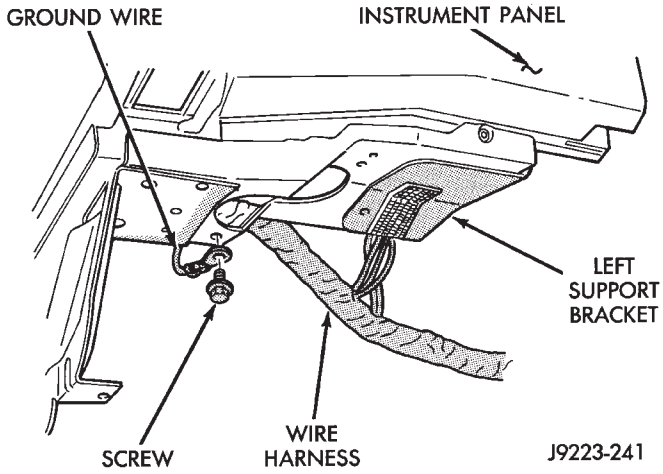

Fig. 16 Instrument Panel Ground Wire

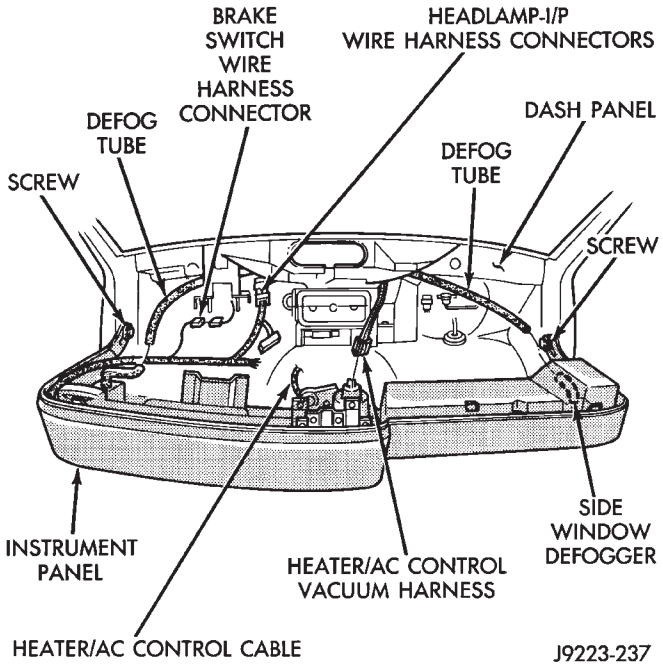

Fig. 17 Instrument Panel Tilted Rearward

dash panel for clearance, tilt it rearward and disconnect:

- the wire harness connectors,
- the side window defogger tubes,
- the heat/vent tube, and
- the temperature control cable from the upper section of instrument panel (Fig. 17).

(9) Remove the upper section of instrument panel from dash panel (Fig. 18).

INSTALLATION

(1) Position upper section of instrument panel at dash panel and supported by the I/P-to-cowl side panel screws.

(2) Connect wire harness connectors, side window defog tubes, heat/vent tube, and temperature control cable to the upper instrument panel.

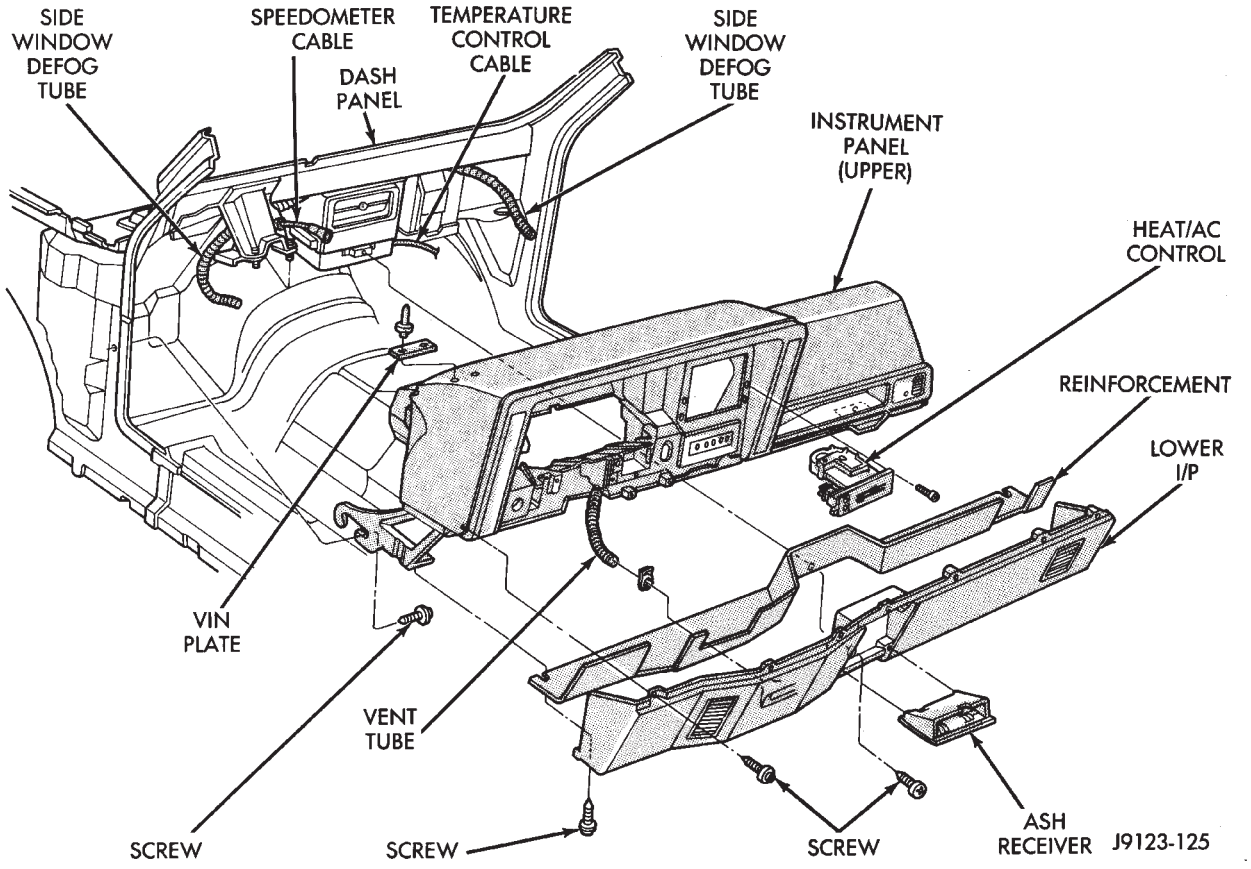

Fig. 18 Instrument Panel Disassembled

(3) Tilt instrument panel forward and tighten the I/P-to-side cowl panel screws and ground wire.

(4) Position lower section of the instrument panel at upper section.

(5) Install screws in lower section of the instrument panel. Tighten screws securely.

(6) Install the park brake and screw in lower section of the instrument panel. Tighten screw securely.

(7) Install steering column cover insert on instrument panel.

(8) Install the defroster duct bezel on the instrument panel.

(9) Install the defroster duct bezel on the instrument panel.

I/P TWEETER SPEAKER/COURTESY LAMP SUPPORT BRACKET

REMOVAL

(1) Remove the park brake retaining screw from the lower section of the instrument panel.

(2) Remove the retaining screws from the lower section of the instrument panel.

(3) Remove the lower section of the instrument panel from the upper section.

(4) Disconnect the wire harness connector and remove the speaker screws from lower section of instrument panel (Fig. 19).

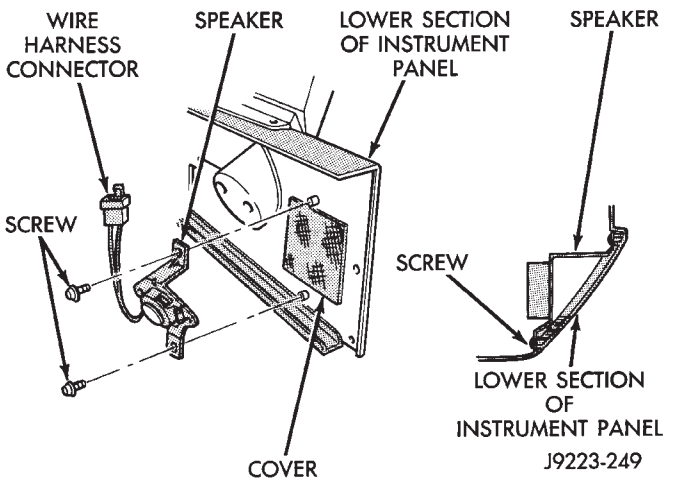

Fig. 19 Tweeter Speaker Removal/Installation

(5) Disconnect the wire harness connector and remove the courtesy lamp support bracket screw (Fig. 20).

DASH PANEL INSULATION PANEL

REMOVAL

(1) Remove the instrument panel from the dash panel. Remove the defroster tubes from the ducts (Fig. 21).

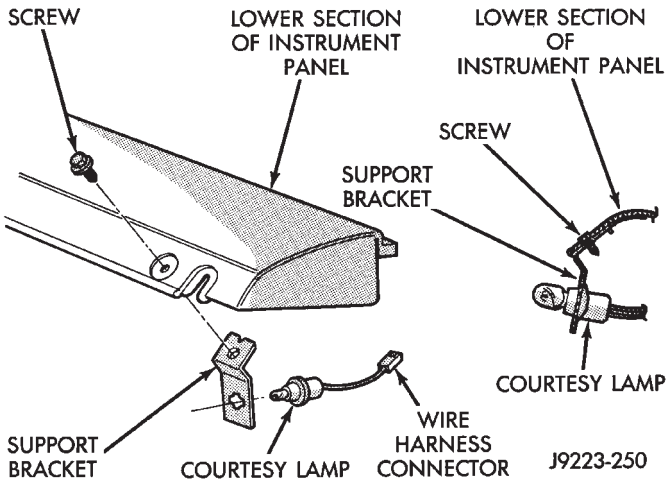

Fig. 20 Courtesy Lamp Support Bracket

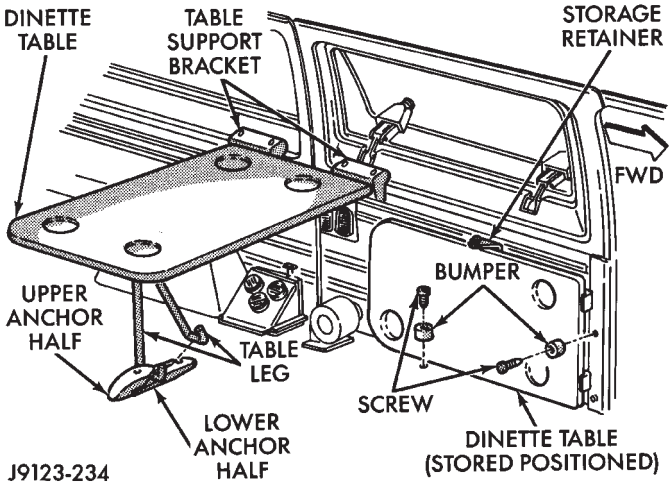

Fig. 21 Side window Defroster Tubes

(3) Remove the retaining screws at the cowl tabs and remove the defroster duct from the dash panel (Fig. 22).

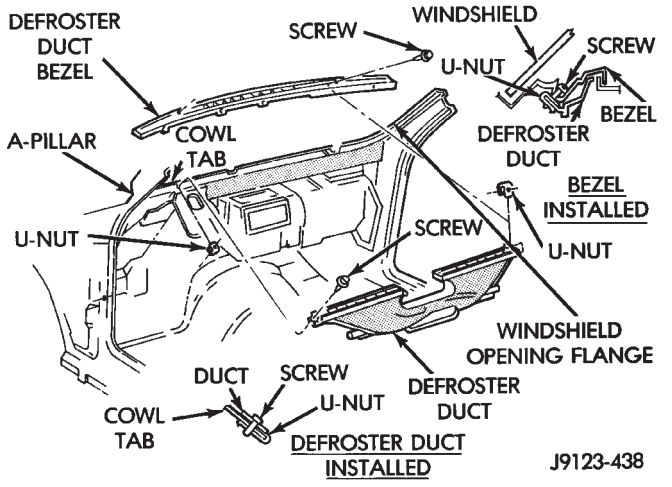

Fig. 22 Defroster Duct Removal/Installation

(4) Remove the steering column. Refer to the removal procedure in Group 19.

(5) Remove the screws and remove the control cable and vacuum motor covers from the cowl side and dash panel (Fig. 23).

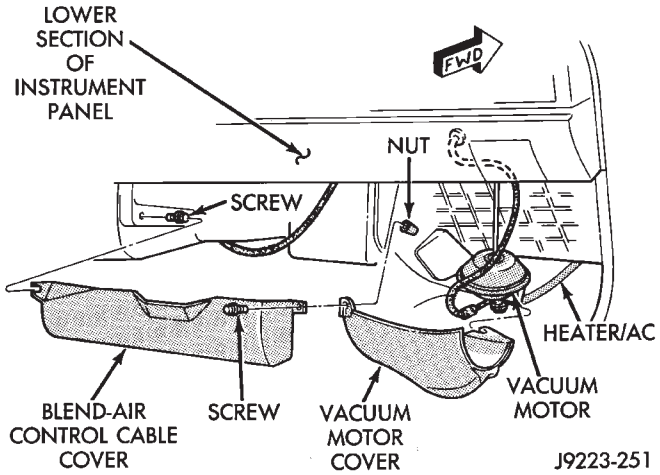

Fig. 23 Blend-Air and Vacuum Motor Covers

(6) Remove the heater and A/C evaporator unit from the dash panel (Figs. 24 and 25).

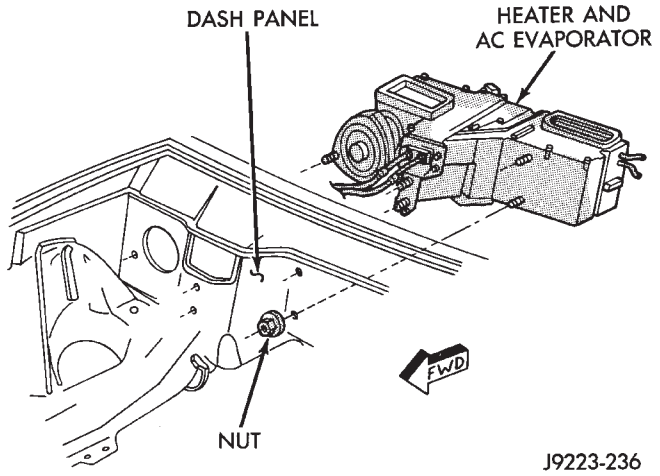

Fig. 24 Heater and A/C Evaporator Unit Retaining Nuts

(5) Remove the retainers, the push-on nuts and the insulation panel from the dash panel (Fig. 26).

INSTALLATION

(1) Position the insulation panel on the dash panel and install the retainers and the push-on nuts (Fig. 26).

(2) Install the heater and A/C evaporator unit on the dash panel. If necessary, refer to the installation procedure in Group 24.

(3) Install the steering column.

(4) Position the defroster duct on the cowl tabs and install screws. Tighten screws to 2 N·m (20 in-lbs) torque.

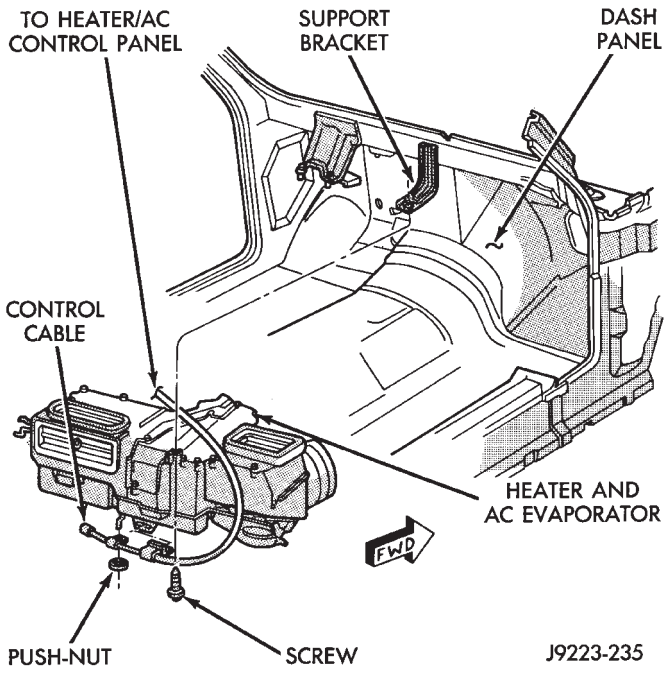

Fig. 25 Heater and A/C Evaporator Unit Removal/ Installation

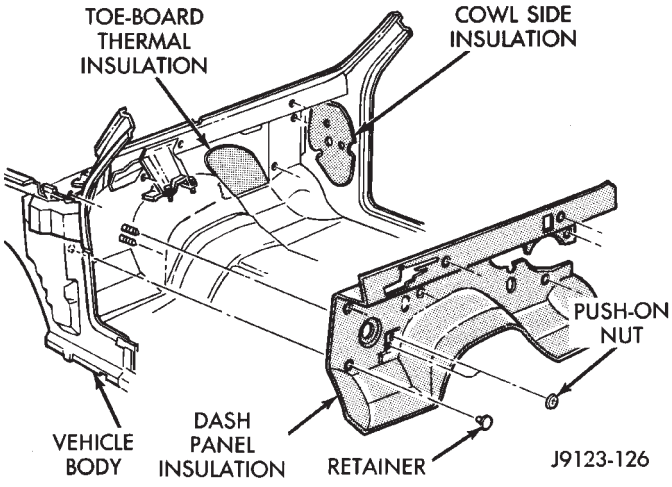

Fig. 26 Insulation Panel Removal/Installation

(5) Install the defroster tubes on the ducts.

(6) Install the instrument panel on the dash panel. If necessary, refer to the installation procedure.

FRONT BUCKET SEATS

REMOVAL

Bucket seat platforms are attached to the floor panel with studs and nuts. The trim covers are attached to the platform with either push-on fasteners (manual seats) or screws (power seats).

(1) Remove the seat platform trim cover push-on fasteners/screws and remove the trim covers from the seat platform.

(2) For power seats, disconnect the wire harness connector.

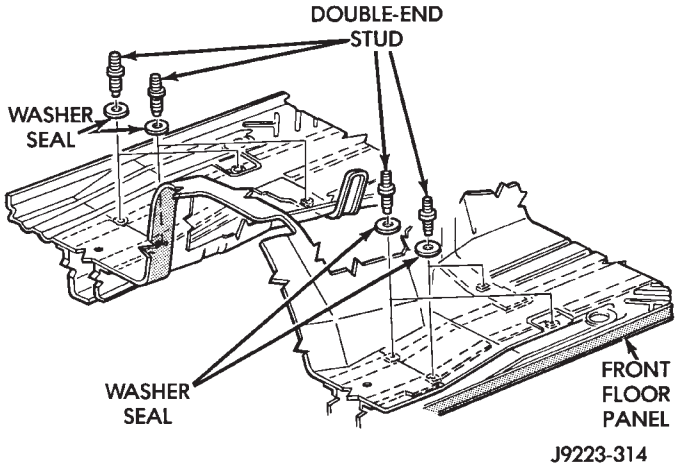

Fig. 27 Floor Panel Studs and Washer Seals

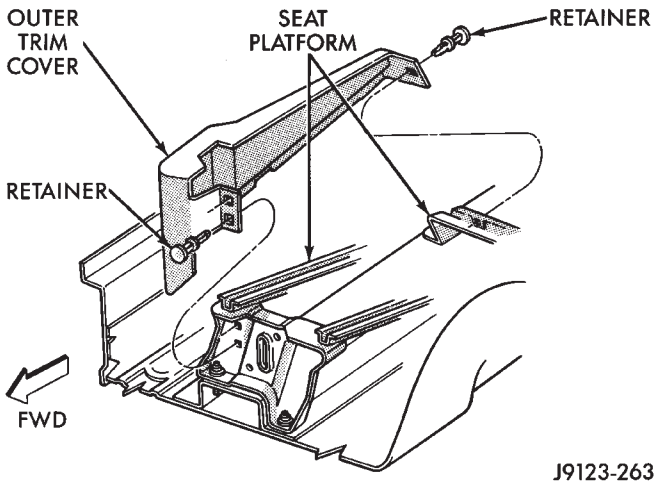

Fig. 28 Manual Bucket Seat Outer Trim Cover—Right Seat

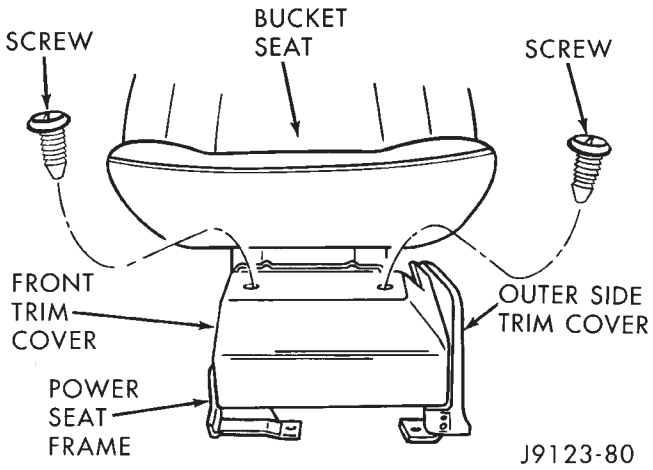

Fig. 29 Power Bucket Seat Front Trim Cover

(3) Remove the seat frame retaining nuts.

(4) Remove the seat from the floor panel.

INSTALLATION

(1) Position the seat on the floor panel.

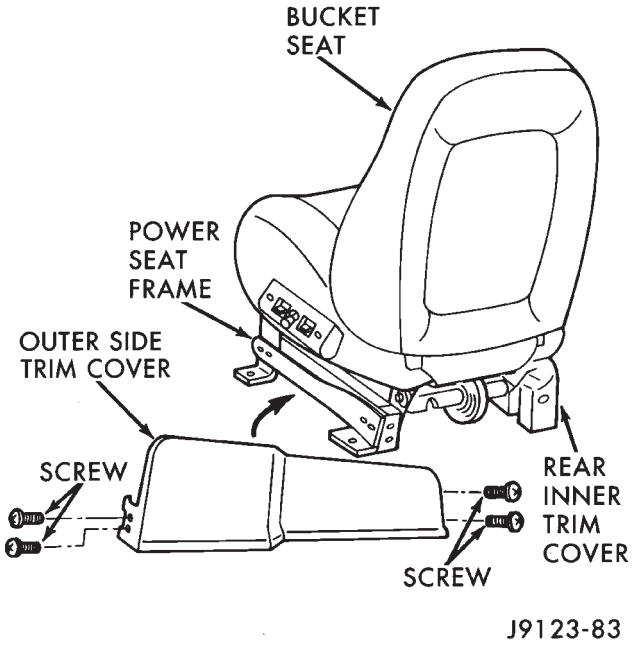

Fig. 30 Power Bucket Seat Outer Side Trim Cover

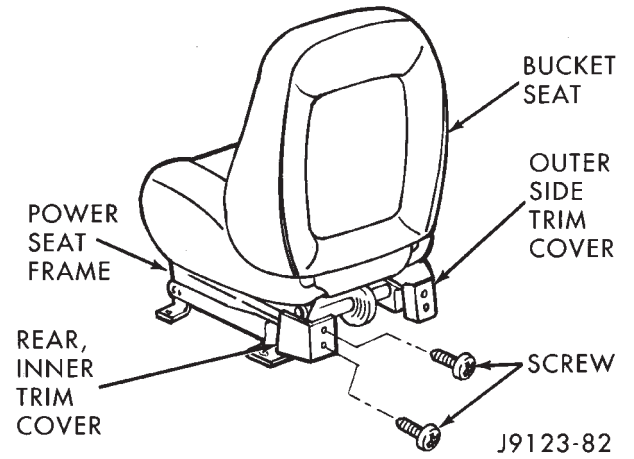

Fig. 31 Power Bucket Seat Rear, Inner Trim Cover

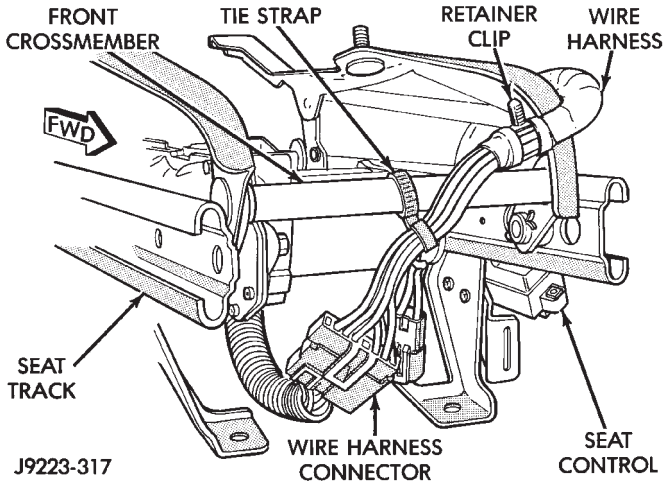

Fig. 32 Power Bucket Seat Wire Harness Connector

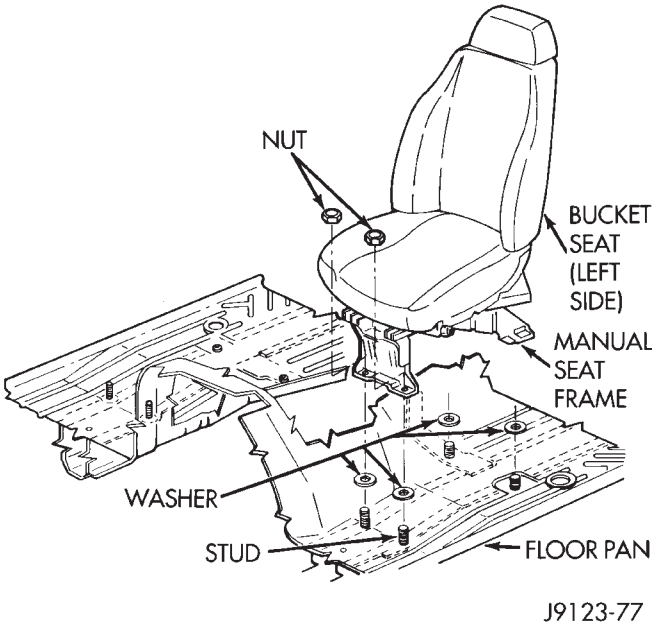

Fig. 33 Driver-Side Bucket Seat

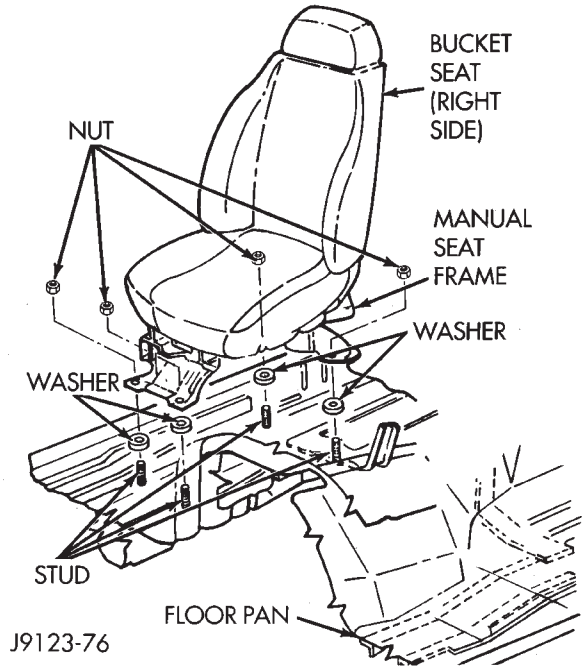

Fig. 34 Right-Side Bucket Seat

(2) Install and tighten the seat retaining nuts with 25 N·m (18 ft-lbs) torque.

(3) For power seats, connect the wire harness connector.

(4) Install the seat platform trim covers.

BUCKET SEAT CUSHION AND COVER

REMOVAL

(1) Remove the seat from the vehicle. If necessary, refer to the removal procedure.

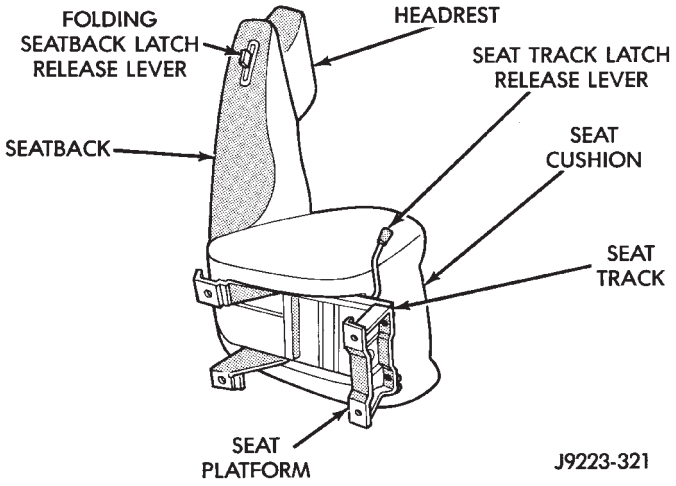

Fig. 35 Bucket Seat

(2) Remove the wire rod and rear carpet seat track cover (4-door vehicles only), and the flap retainer and elastic band wire ring from the seat.

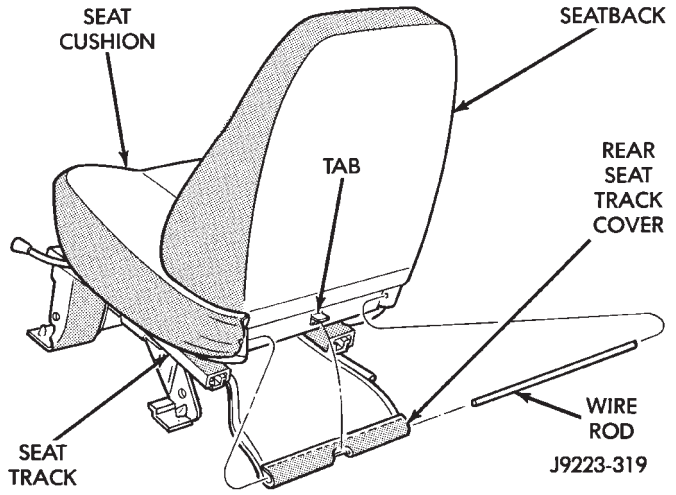

Fig. 36 Seat Track Cover Wire Rod—4-Door Vehicles

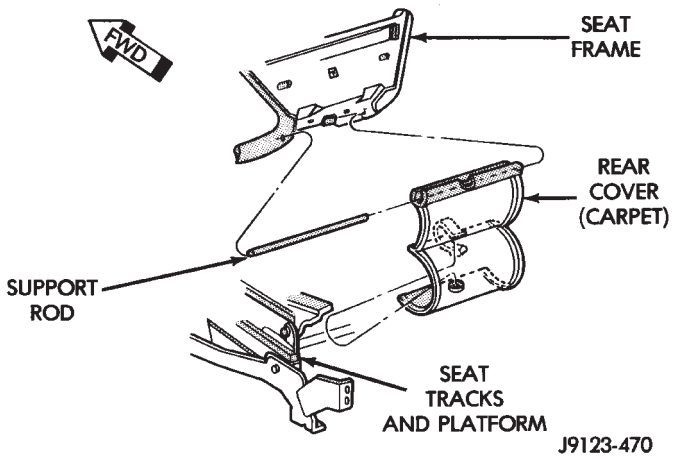

Fig. 37 Seat Track Cover—Removal/Installation

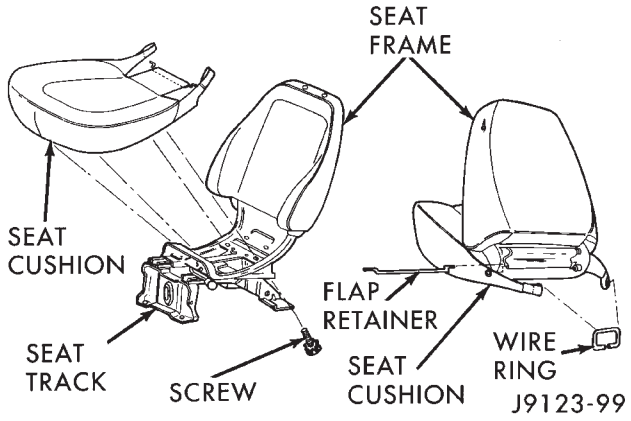

Fig. 38 Flap Retainer, Wire Ring and Seat Cushion Removal/Installation

(3) For power seats, remove the control housing from the seat cushion.

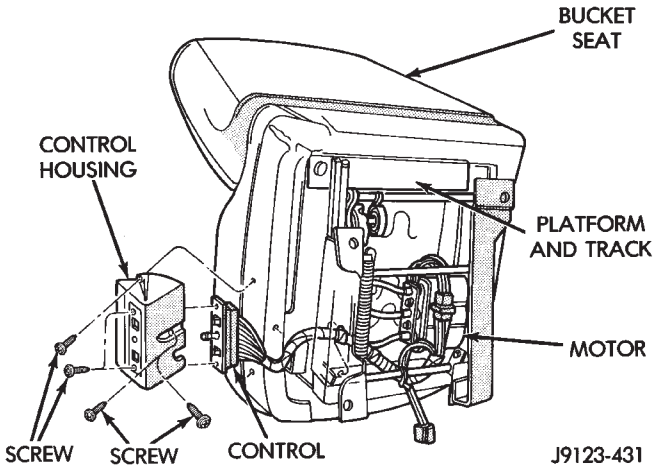

Fig. 39 Power Seat Control Housing Removal/ Installation

(4) Remove the retaining screws and the seat cushion from the seat frame.

(5) Remove the seat cushion cover screws and wire rods from the cushion cover. Remove the cover from the cushion frame.

INSTALLATION

(1) Install the seat cushion cover on the cushion frame. Install the wire rods and retaining screws. Tighten the screws to 2 N·m (13 in-lbs) torque.

(2) Install the cushion and the retaining screws on the seat frame.

(3) For power seats, install the control housing on the seat cushion. Tighten the screws to 2 N·m (13 in-lbs) torque.

(4) Install rear carpet seat track cover and the support rod (4-door vehicles only), and the flap retainer and elastic band wire ring on the seat.

(5) Install the seat in the vehicle.

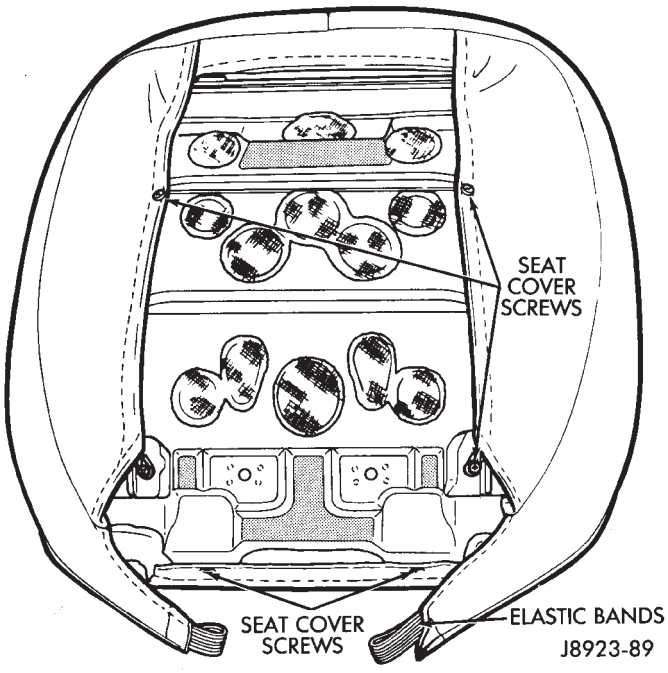

Fig. 40 Seat Cushion Cover Screws

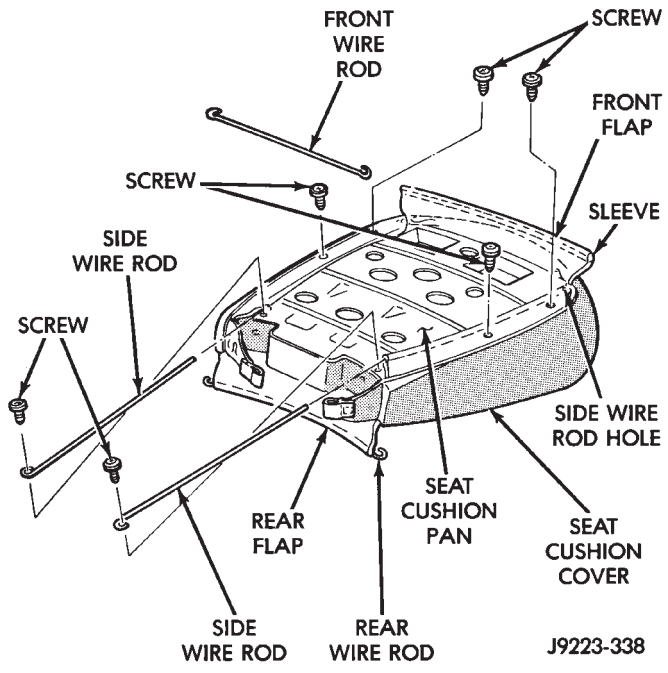

Fig. 41 Seat Cushion Cover Wire Rods

BUCKET SEATBACK COVER AND FRAME

REMOVAL

(1) Remove the seat from the vehicle. If necessary, refer to the removal procedure.

(2) Remove the seat cushion from the frame.

(3) If equipped, remove the reclining seatback release handle by pulling it outward from the shaft.

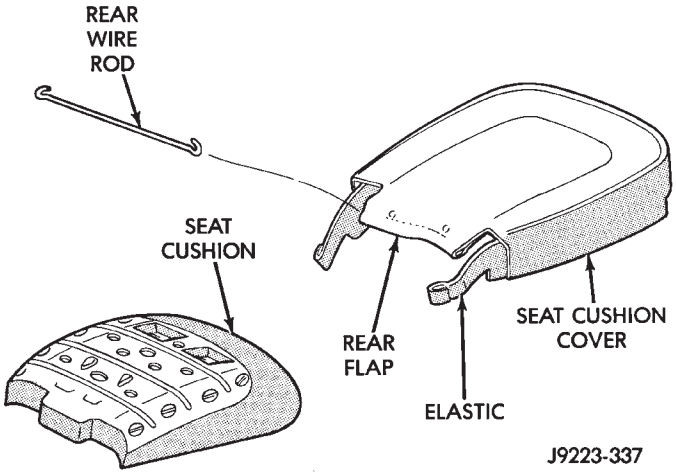

Fig. 42 Seat Cushion Cover Removal/Installation

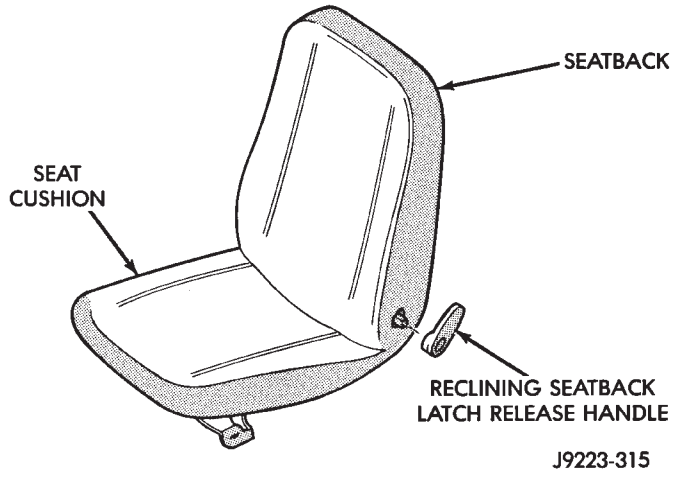

Fig. 43 Reclining Seatback Release Handle

(4) For two-door vehicles, remove the folding seatback release knob spring pin and knob from the lever. Remove the retaining screws and the bezel from the seatback.

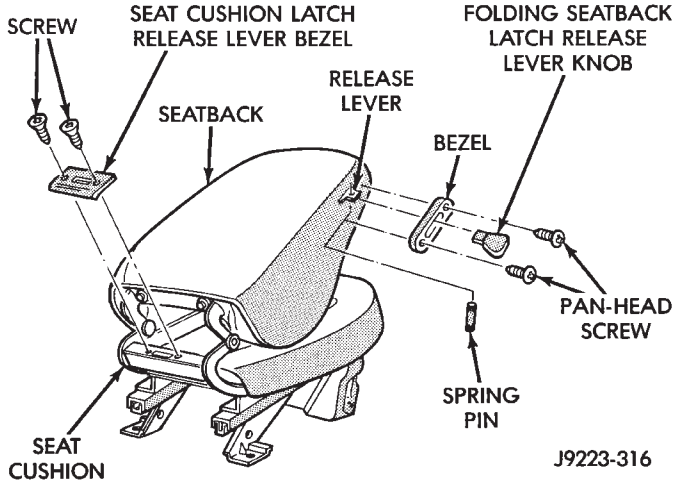

Fig. 44 Folding Seatback Release Lever and Knob

(5) Engage the headrest release lever and remove the headrest by pulling it up and out of the cylinders in the seatback.

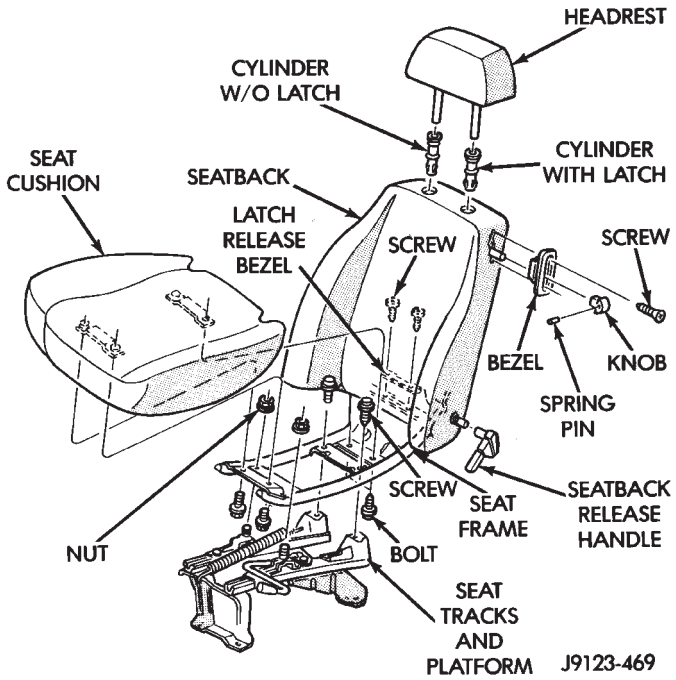

Fig. 45 Bucket Seat Components

(6) Remove the headrest latch release lever knob spring pin and remove the knob from the lever.

(7) Remove the headrest latch release lever bezel retaining screw and remove the bezel from the seatback.

(8) Pry the seatback insert upward to release the insert clips.

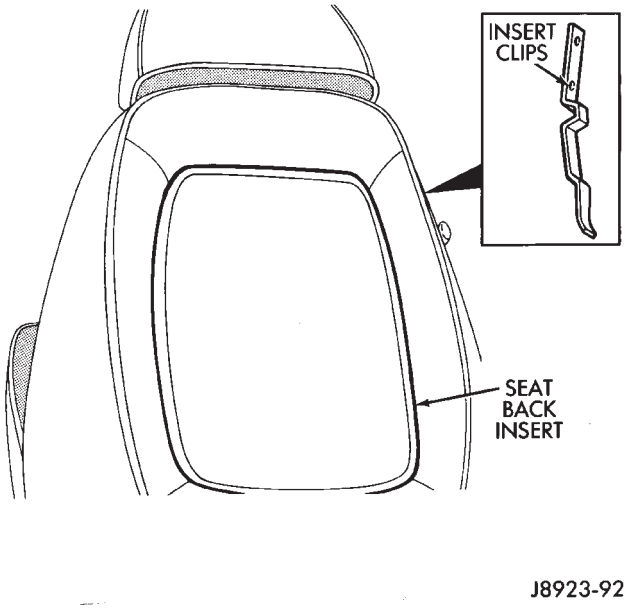

Fig. 46 Seatback Insert Removal/Installation

(9) Detach the Velcro flap from the front of the cover or elastic band at the bottom of the cover.

(10) Remove the cover retainer clips and remove the cover from the seatback.

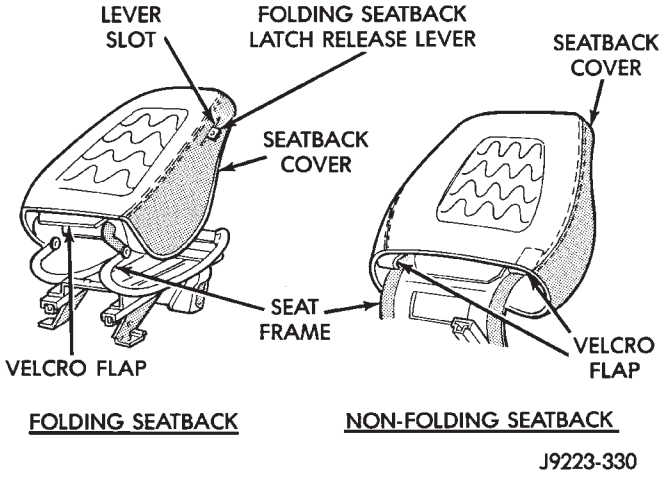

Fig. 47 Seatback Velcro Flap

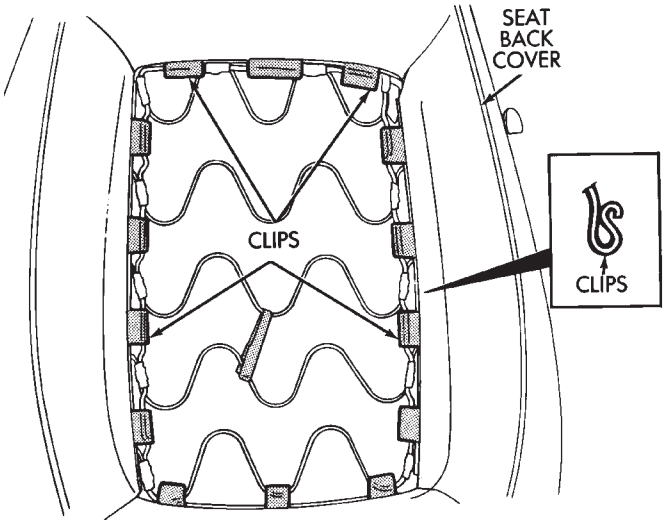

Fig. 48 Seatback Cover Retainer Clips

(11) For power seats, remove the retaining screws and remove the seat control from the seat track/platform.

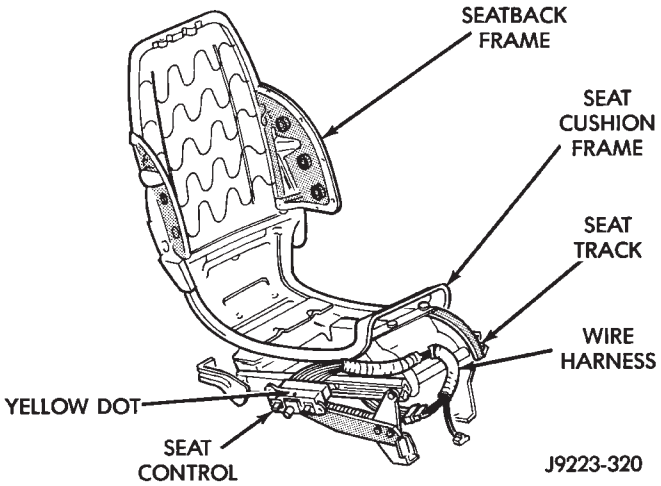

Fig. 49 Power Seat Control

(12) Remove the retaining screws and nuts, and remove the seat frame from the seat track/platform.

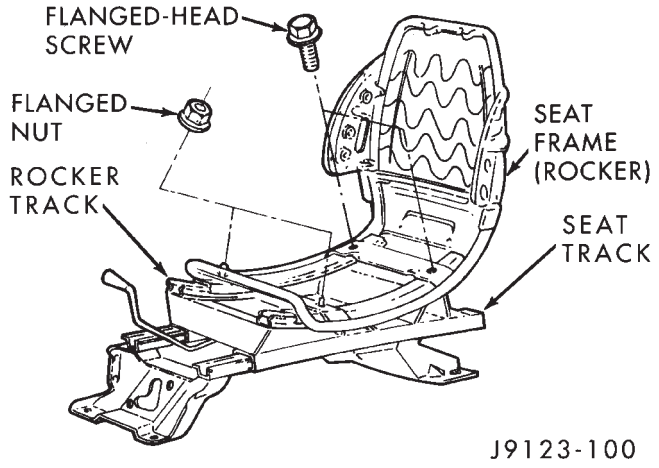

Fig. 50 Manual Seat Frame (Rocker) Removal/ Installation

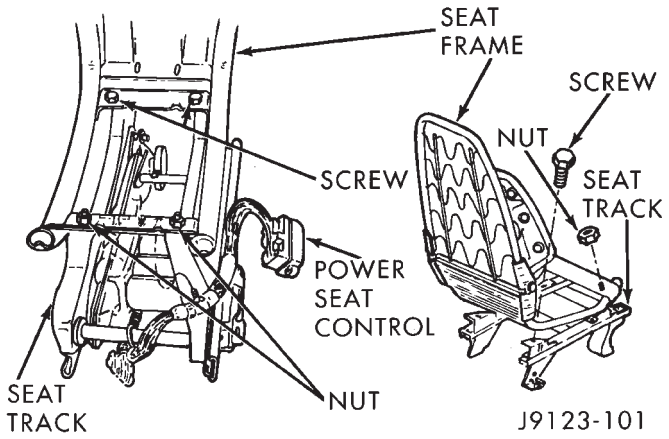

Fig. 51 Power Seat Frame Removal/Installation

INSTALLATION

(1) Position the seat frame on the seat track/platform and install screws and nuts.

(2) For power seats, position the seat control on the seat track/platform install screws. Tighten screws securely.

(3) Position the cover on the seatback and install the cover retainer clips.

(4) Attach the cover bottom elastic band or attach the Velcro flap to the front of the cover:

- folding seatback — tilt the seatback forward and attach the Velcro flap to the front of the cover; and
- non-folding seatback — slip the Velcro flap through the frame and attach the Velcro flap to the front of the cover.

(5) For non-folding seatbacks, install the seatback cover-to-frame wire rods.

(6) Install the seatback insert.

(7) Install the headrest latch release lever bezel and the retaining screw.

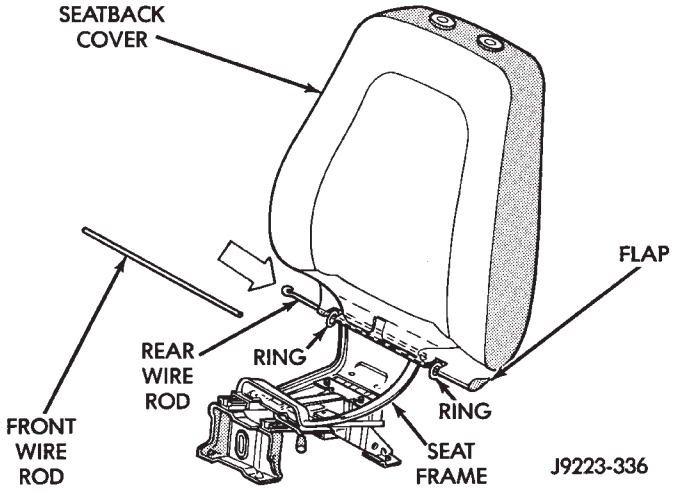

Fig. 52 Seatback Cover-To-Frame Wire Rod Installation

(8) Install the headrest latch release lever knob on the lever with the spring pin.

(9) Install the headrest by pushing it down into the seatback cylinders.

(10) For two-door vehicles, install the folding seatback release lever bezel with the retaining screws. Install the knob and spring pin on the lever.

(11) If equipped, install the reclining seatback release handle by positioning it on the shaft and pushing inward.

(12) Install the cushion on the frame. If necessary, refer to the installation procedure.

(13) Install the seat in the vehicle.

(14) For power seats, test the seat operation.

BUCKET SEATBACK RECONDITIONING

ASSEMBLY

(1) If equipped, install the reclining seatback latch cover.

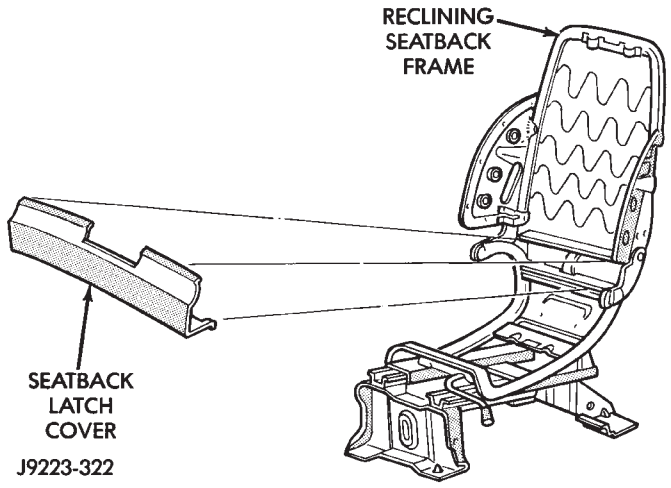

Fig. 53 Reclining Seatback Latch Cover Installation

(2) For wingback bucket seats, install the pivot bracket covers.

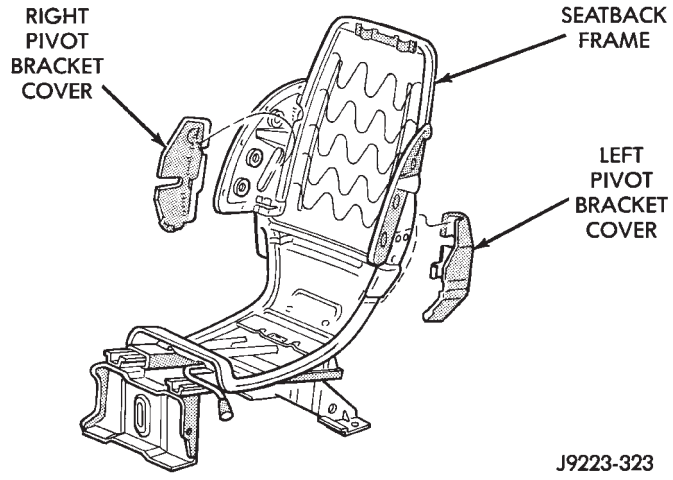

Fig. 54 Pivot Bracket Cover Installation—Wingback Seat

(3) For wingback bucket seats, install the side panel (wing) edge covers.

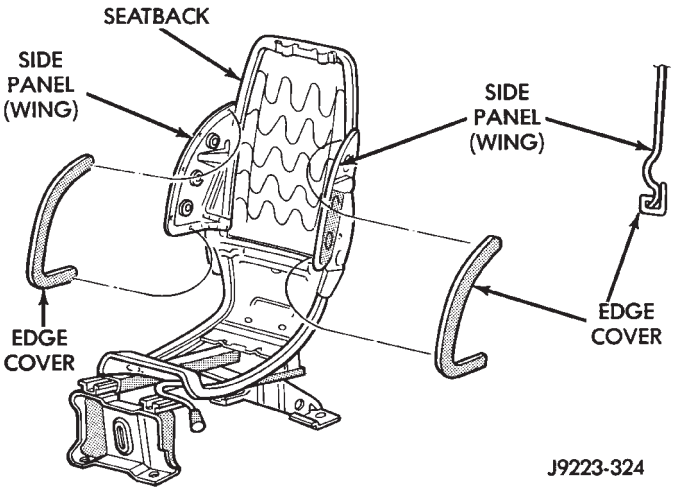

Fig. 55 Side Panel (Wing) Edge Cover Installation—Wingback Seat

(4) For wingback bucket seats, install the side panel (wing) pads.

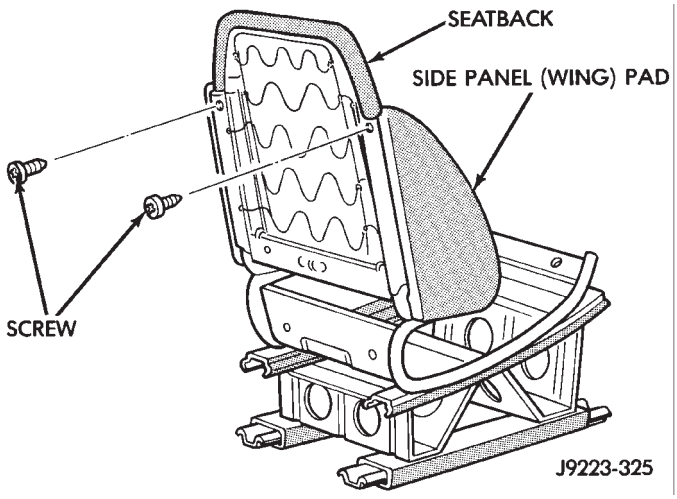

Fig. 56 Side Panel (Wing) Pad Installation—Wingback Seat

(5) Install the seatback pad.

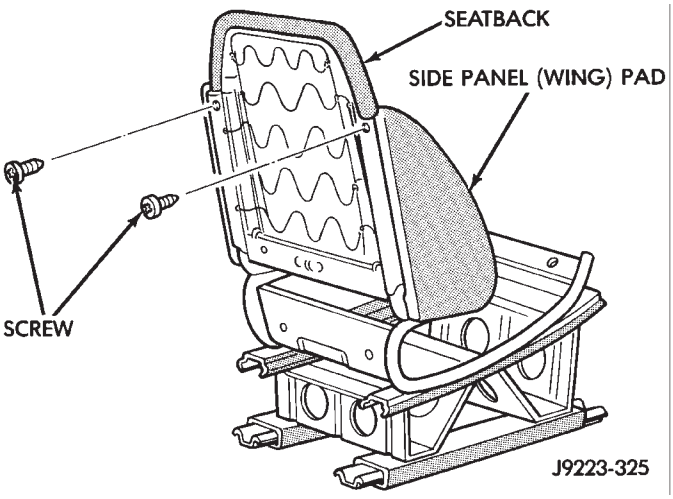

Fig. 57 Seatback Pad Installation—Wingback Seat

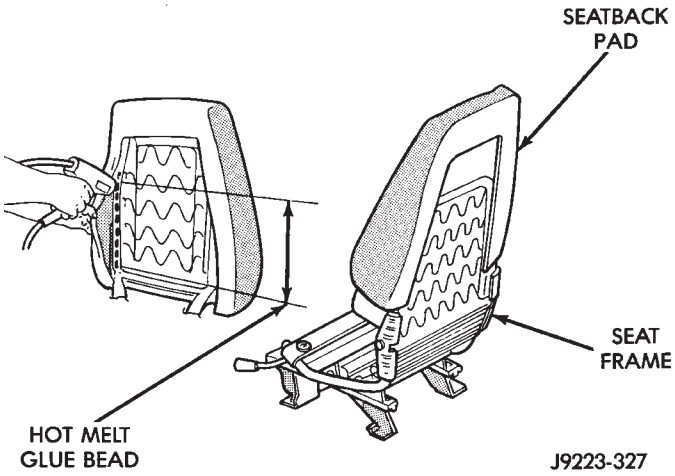

Fig. 58 Seatback Pad Installation—Lo-Back Seat

(6) Cut an opening for the folding seatback latch release lever. Position the reclining latch shaft at the center of the embossed area in the pad and push it through the pad).

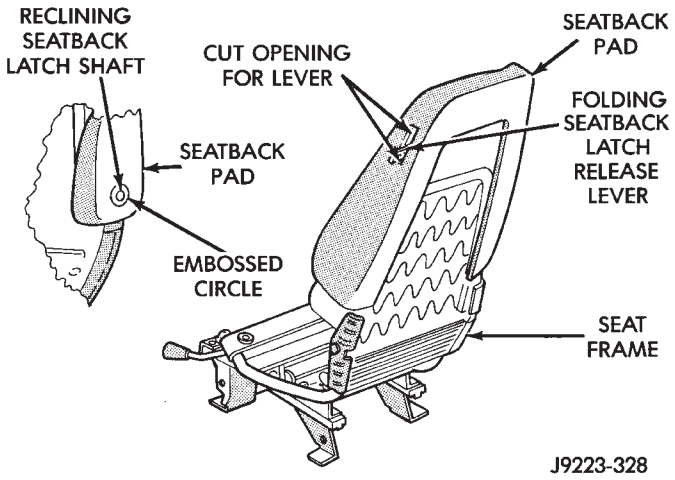

Fig. 59 Seatback Pad Latch Lever/Shaft Openings

(7) For wingback seatbacks, turn the side panel (wing) covers inside-out and install the seatback cover.

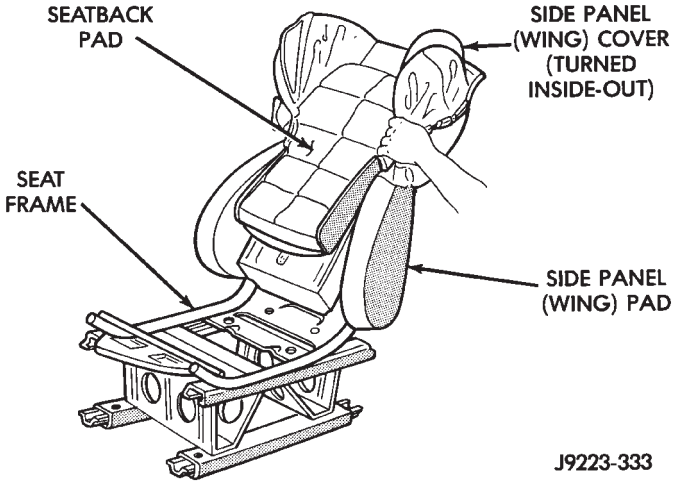

Fig. 60 Side Panel (Wing) Covers Inside-Out—Wingback Seat

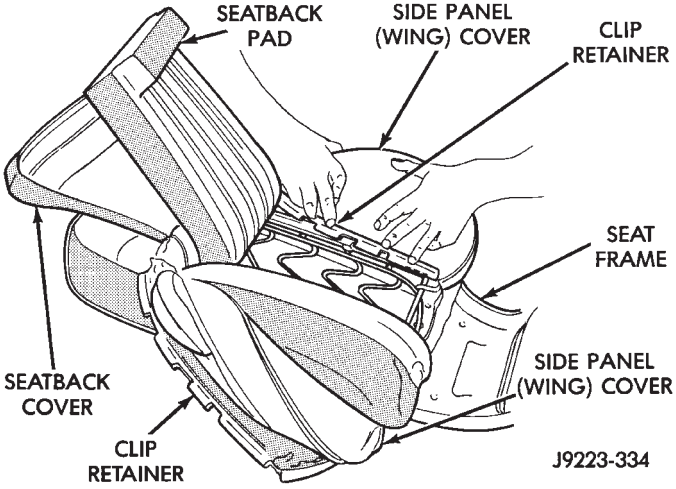

Fig. 61 Side Panel (Wing) Cover Installation—Wingback Seat

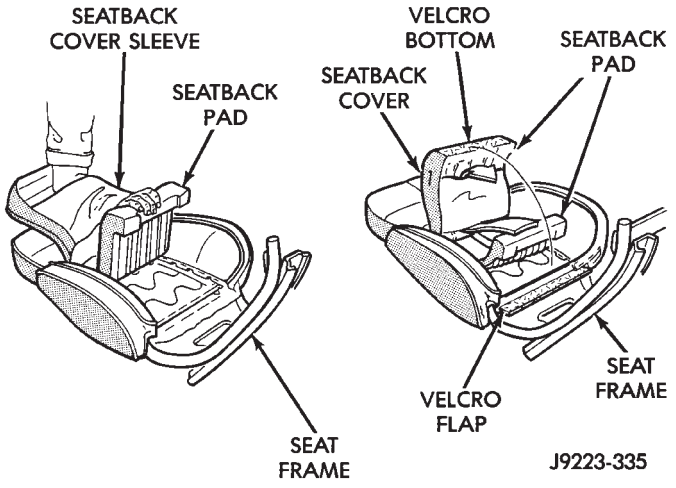

Fig. 62 Seatback Cover Installation—Wingback Seat

(8) For standard seatbacks, turn the cover inside-out and install over the pad. Ensure that the seam welts and the cover lining are straight.

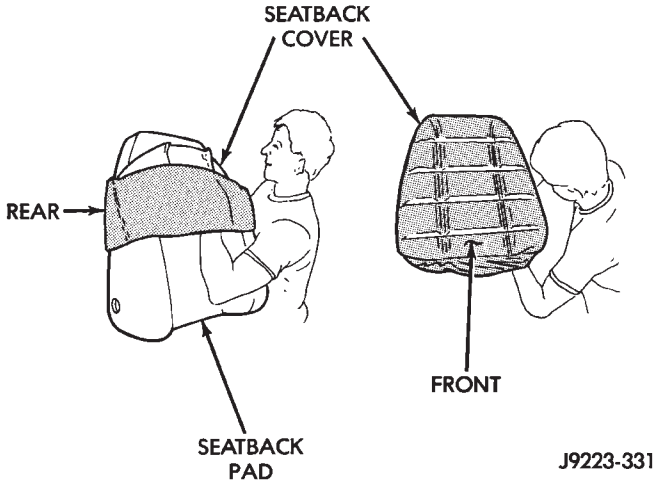

Fig. 63 Seatback Cover Installation—Standard Seat

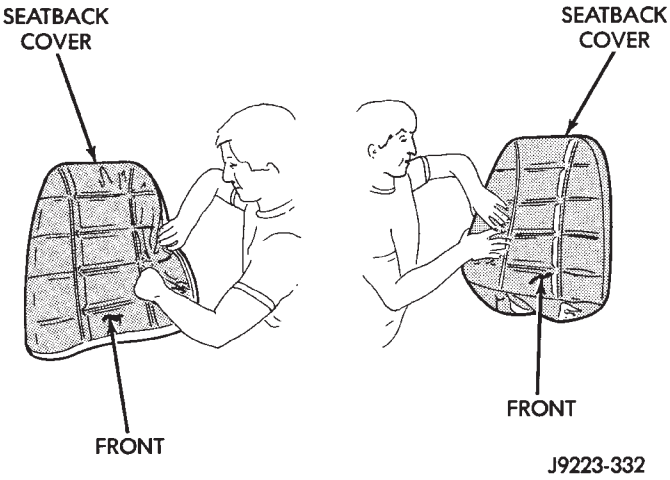

Fig. 64 Straightening Seam Welts and Lining—Standard Seat

(9) Install the seatback retainer clips and headrest cylinders.

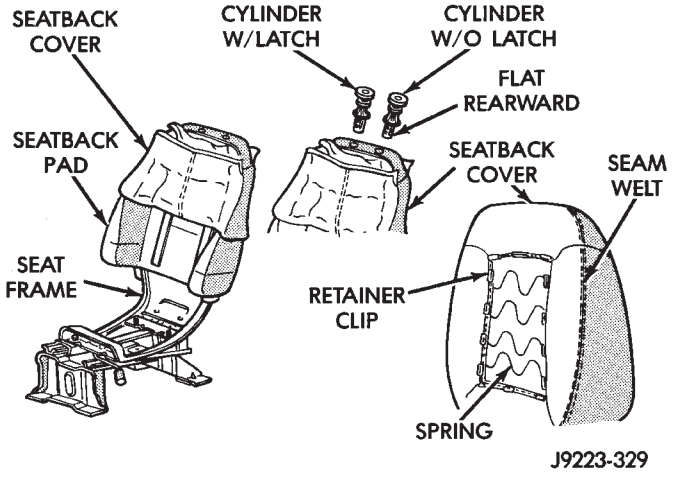

Fig. 65 Seatback Cover Retainer Clip and Headrest Cylinder Installation

(10) Attach the Velcro flap to the front of the cover:
• folding seatback — tilt the seatback forward and attach the Velcro flap to the front of the cover; and
• non-folding seatback — slip the Velcro flap through the frame and attach the Velcro flap to the front of the cover.

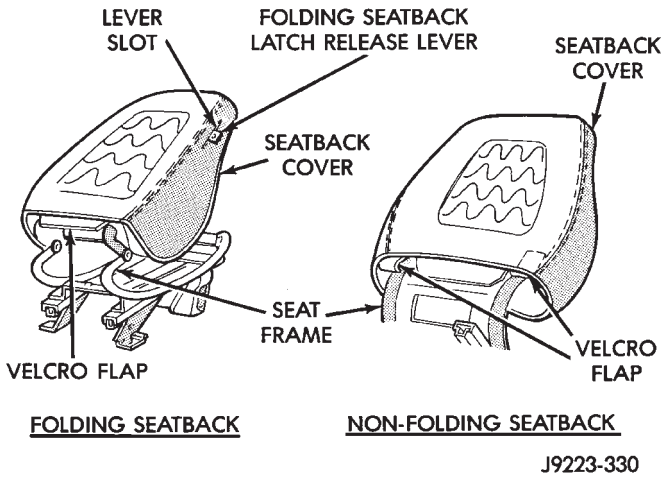

Fig. 66 Seatback Velcro Flap Installation

(11) For non-folding seatbacks, install the seatback cover-to-frame wire rods.

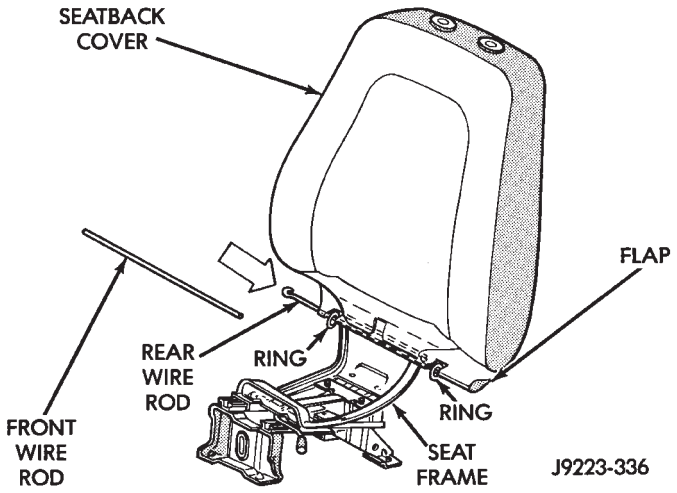

Fig. 67 Seatback Cover-To-Frame Wire Rod Installation

(12) Install the seatback insert.
(13) Install the headrest latch release lever bezel and the retaining screw.
(14) Install the headrest latch release lever knob on the lever with the spring pin.
(15) Install the headrest by pushing it down into the seatback cylinders.
(16) For two-door vehicles, install the folding seatback release lever bezel with screws. Install the knob and spring pin on the lever.

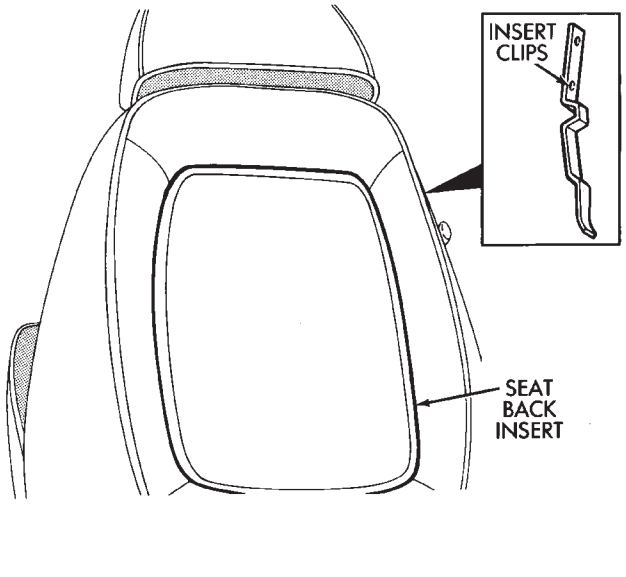

Fig. 68 Seatback Insert Installation

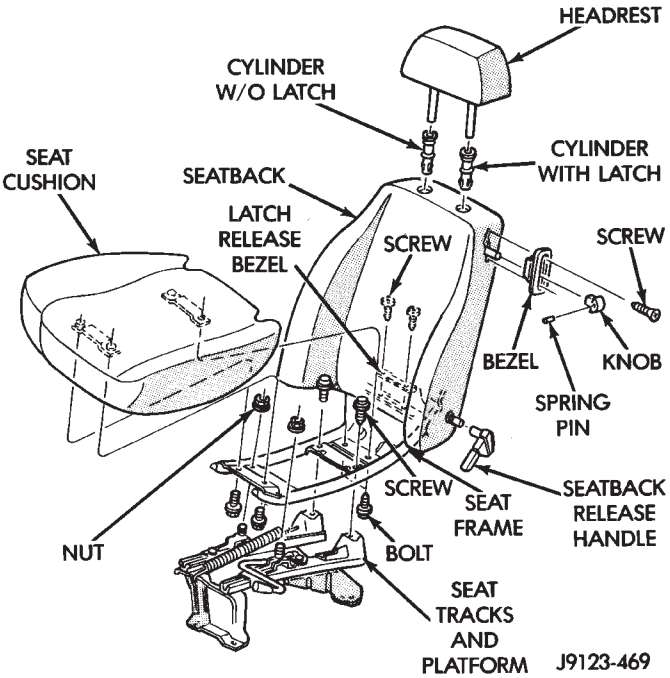

Fig. 69 Bucket Seat Components

(17) If equipped, install the reclining seatback release handle by positioning it on the shaft and pushing inward.
(18) Install the cushion on the frame. If necessary, refer to the installation procedure.
(19) Install the seat in the vehicle.
(20) For power seats, test the seat operation.

BUCKET SEAT PLATFORM AND TRACKS

REPLACEMENT

Bucket seat platforms and tracks are not repairable. If the seat platform or the tracks is/are damaged or defective, replace the platform and the tracks

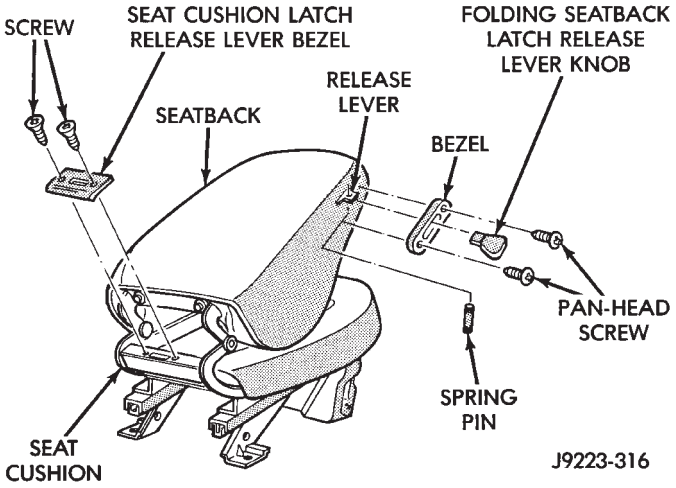

Fig. 70 Folding Seatback Release Lever and Knob

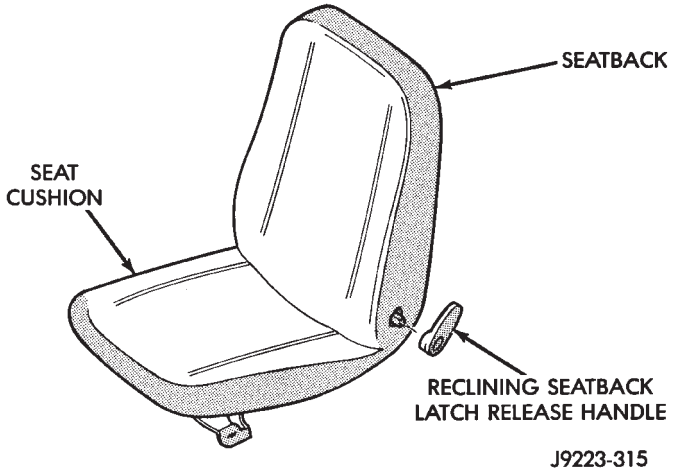

Fig. 71 Reclining Seatback Release Handle

as a unit. Refer to Power Seat Components (below) and to Group 8—Electrical.

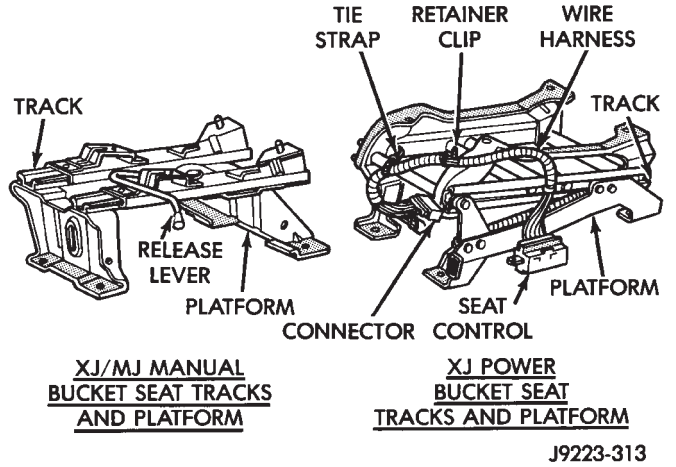

Fig. 72 Seat Tracks and Platform

A standard bucket seat platform has straight tracks. A rocker recliner seat platform has curved tracks.

Bucket seat platforms are attached to the floor panel with studs and nuts. The trim covers are attached to the platform with either push-on fasteners (manual seats) or screws (power seats).

Refer to the seatback cover and frame removal/installation procedures when seat platform (with tracks) replacement is necessary.

POWER BUCKET SEAT COMPONENTS

The power seat control is located at the outboard side of the seat. The power seat motor is located under the seat.

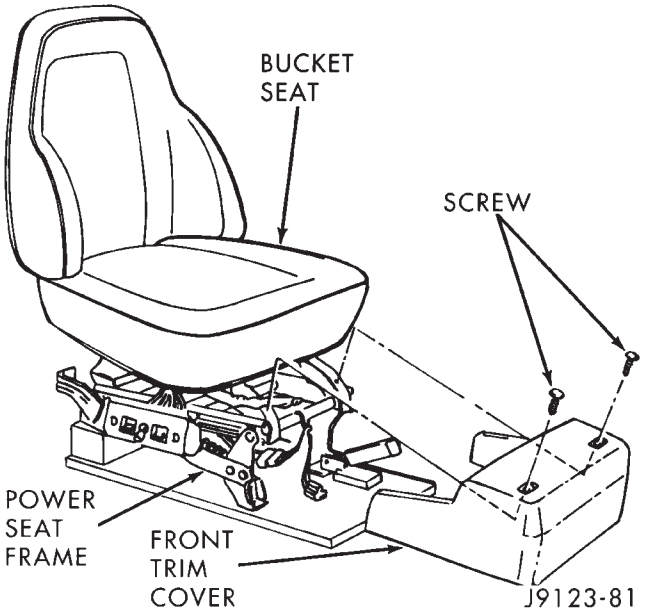

Fig. 73 Power Bucket Seat Control

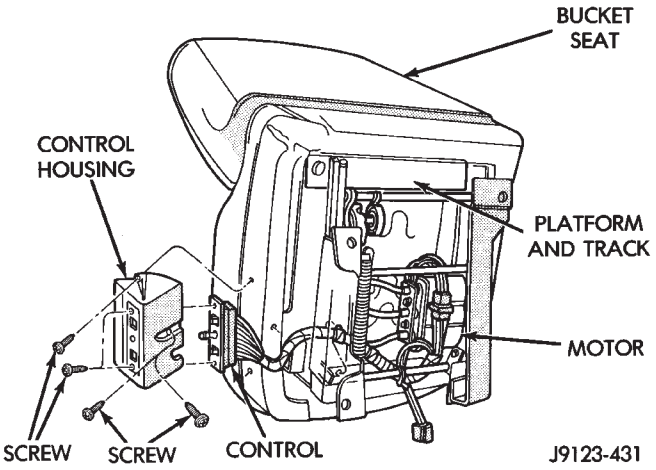

Fig. 74 Power Bucket Seat Motor and Control

The control housing, control and wire harness are accessible without removing the seat from the vehicle but if the motor requires service, the seat must be removed from the vehicle. Refer to Group 8—Electrical.

REAR SEAT CUSHION—XJ VEHICLES

REMOVAL

(1) Disengage the seat cushion at the rear by pulling upward on the release strap.

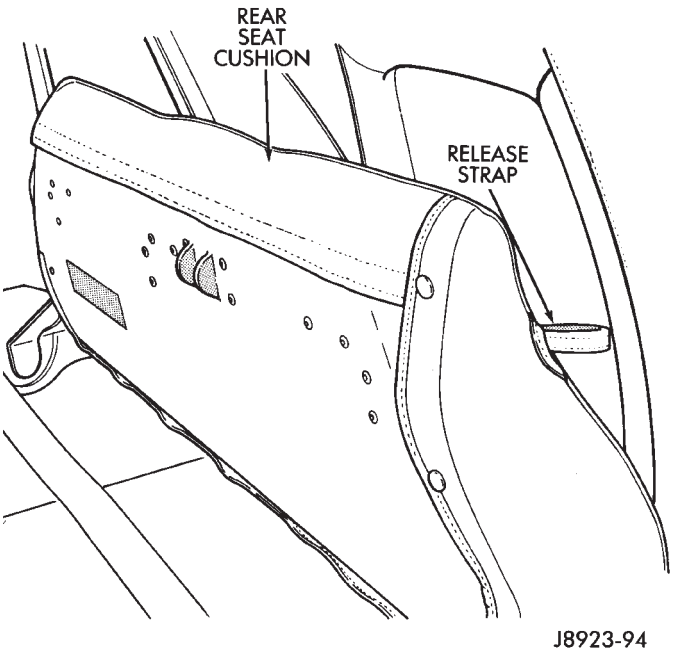

Fig. 75 Seat Cushion Disengagement At Rear

(2) Tilt the seat cushion forward.

(3) Disengage the seat cushion latch with the release lever knob. Separate the right side latch and then the left side seat bracket from the floor anchor bolts, and remove the cushion from the vehicle.

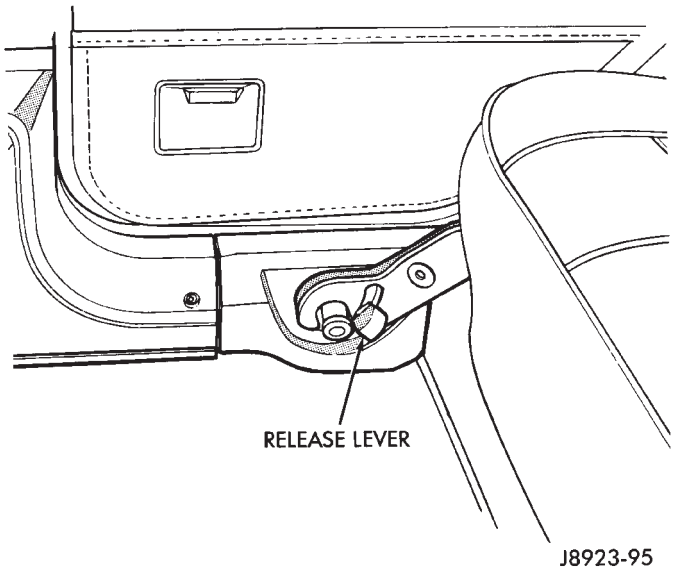

Fig. 76 Seat Cushion Disengagement At Front

INSTALLATION

(1) Position the seat cushion in the vehicle.

(2) Insert the left pivot in the anchor grommet.

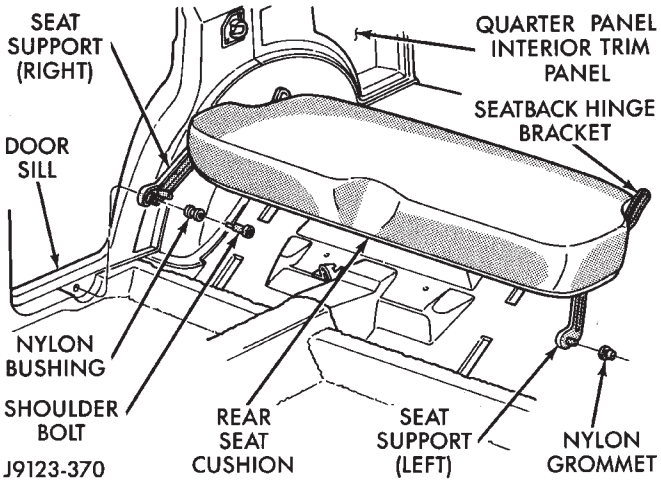

Fig. 77 Rear Seat Cushion Removal/Installation

(3) Force the right side latch onto the anchor bolt and pivot the seat cushion to the horizontal position.

(4) Lock the seat cushion in-place by pressing firmly on the center of the cushion until the latch engages.

REAR SEAT CUSHION COVER—XJ VEHICLES

REMOVAL

(1) Remove the seat cushion from the vehicle.

(2) Remove the cover side, front and rear retaining clips from the wire retainers with an appropriate removal tool.

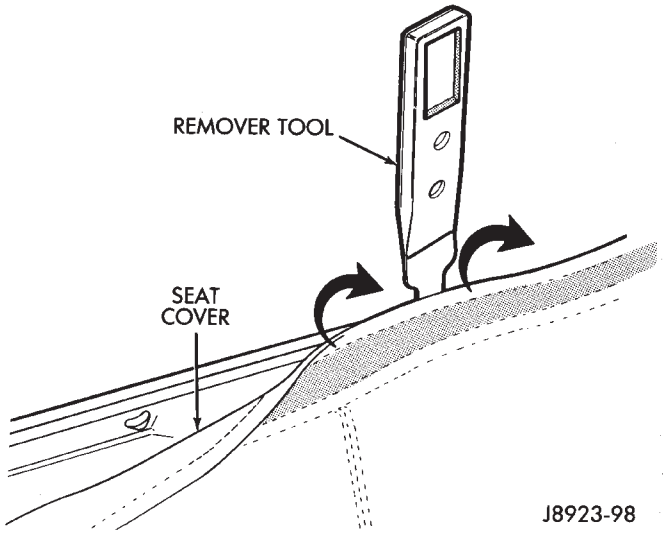

Fig. 78 Seat Cushion Cover Retaining Clip Removal

(3) Remove the serrated retainers from the front ends of the cover with a trim panel removal tool.

(4) Remove the seat cover from the cushion.

INSTALLATION

(1) Position the replacement cover on the cushion.

(2) Compress the cover and attach the retaining clips to the front and rear wire retainers.

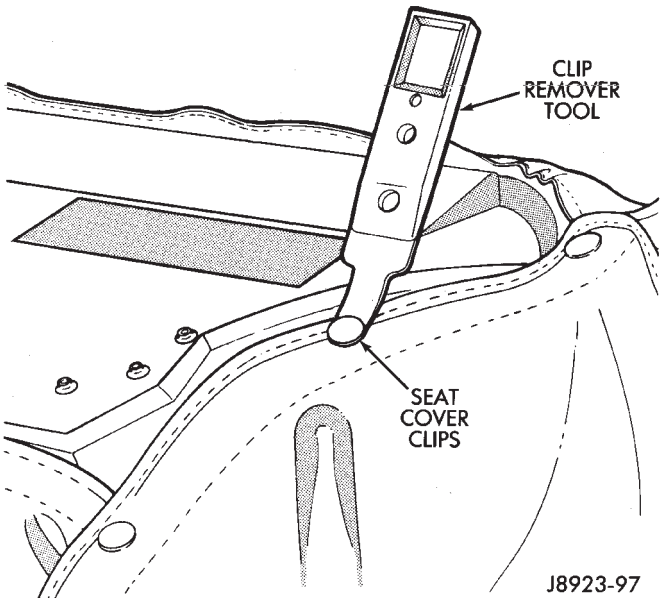

Fig. 79 Seat Cushion Cover Retaining Clip Removal

(3) Install the serrated retainers at the ends of the cover.

(4) Install the seat cushion in the vehicle. If necessary, refer to the installation procedure.

REAR SEAT CUSHION RECONDITIONING—XJ VEHICLES

ASSEMBLY

(1) Position the trim covers on the hinge arms and install the retaining ratchet rivets.

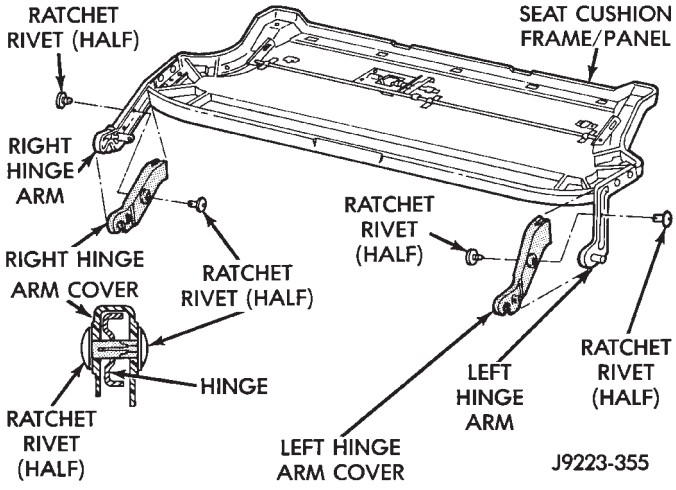

Fig. 80 Seat Cushion Hinge Arm Cover Installation

(2) Install the latch release knob and spring pin on the lever.

(3) Position the seat cushion pad on the frame/panel and engage the wire tab retainers in the brackets.

(4) Turn the seat cushion cover inside-out and insert the wire retainers in the cover sleeves.

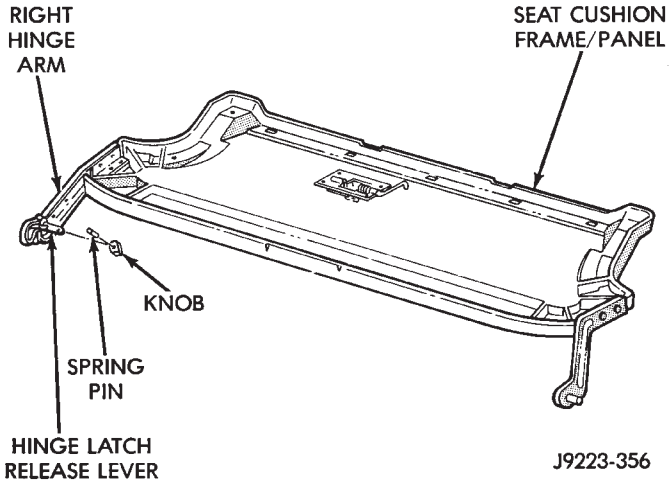

Fig. 81 Seat Cushion Latch Lever Knob Installation

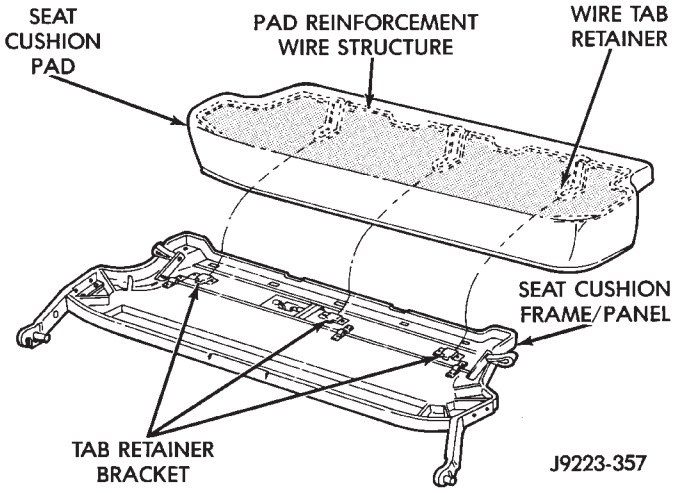

Fig. 82 Bench Seat Cushion Pad Installation

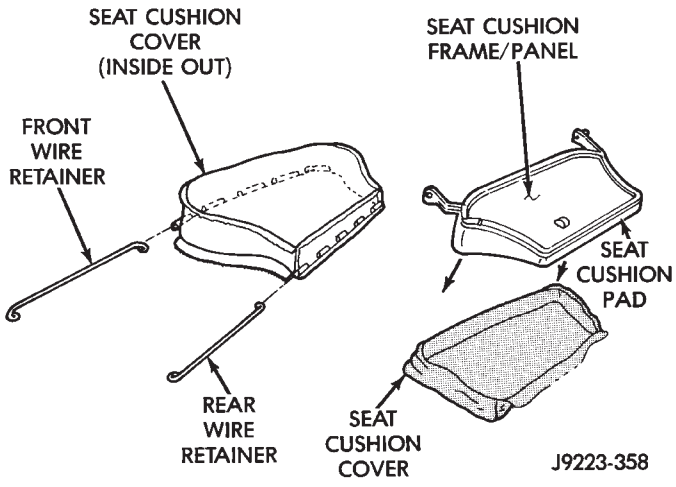

Fig. 83 Seat Cushion Cover Retainer Wire Installation

(5) Position the seat cushion pad on the cover. Pull seat cushion cover up around the pad.

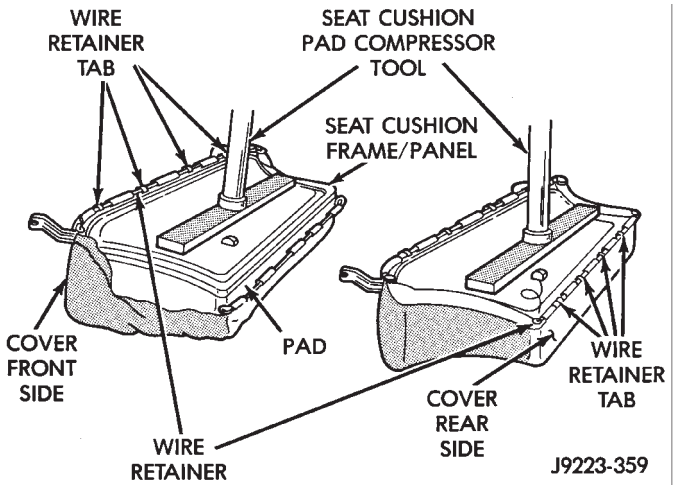

Fig. 84 Seat Cushion Cover On Pad

(7) Compress the seat cushion and attach the retainer tabs at the front and rear of the cover to the retainer wire.

(8) With the seat cushion compressed, install the serrated retainers at the sides of the cover and the frame edge.

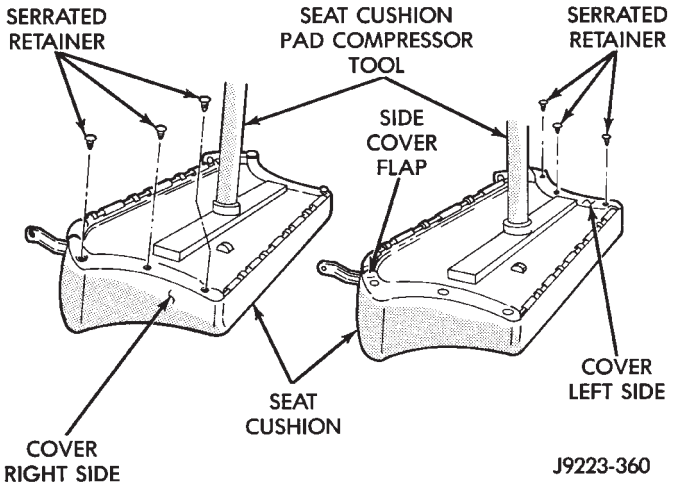

Fig. 85 Seat Cushion Cover Serrated Retainer Installation

REAR SEATBACK—XJ VEHICLES

REMOVAL

(1) Disengage the seat cushion at the rear by pulling upward on the release strap.

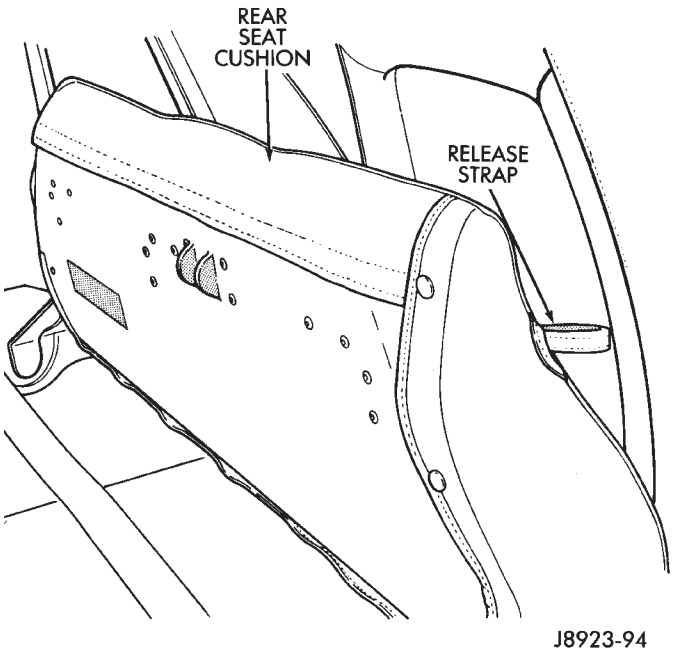

Fig. 86 Seat Cushion Disengagement At Rear

(2) Tilt the seat cushion forward.

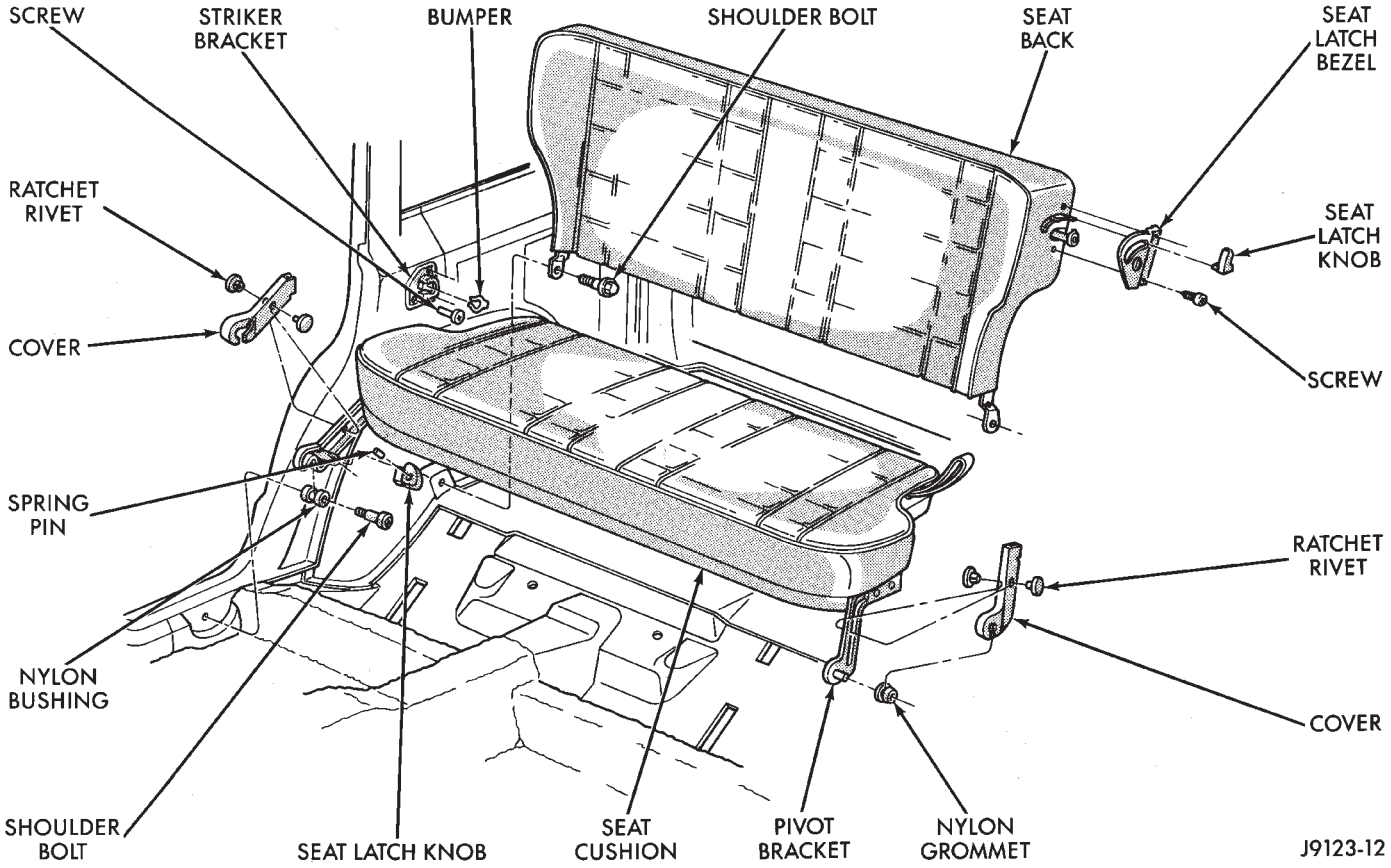

Fig. 87 Rear Seat—XJ Vehicles

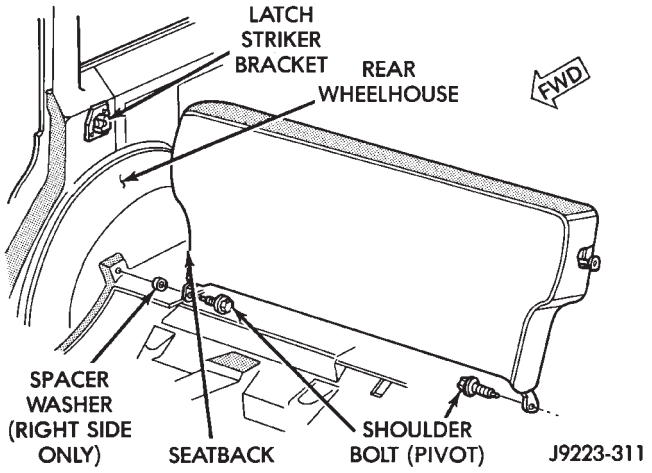

Fig. 88 Rear Seatback Removal/Installation

(3) Remove the shoulder/lap belt buckles from the elastic straps.

(4) Release the seatback latch from the striker.

(5) Remove the pivot bolts and the washers from the wheelhouse panel anchors.

(6) Tilt the seatback forward, lift it upward and remove it from the vehicle.

INSTALLATION

(1) Position the seatback in the vehicle.

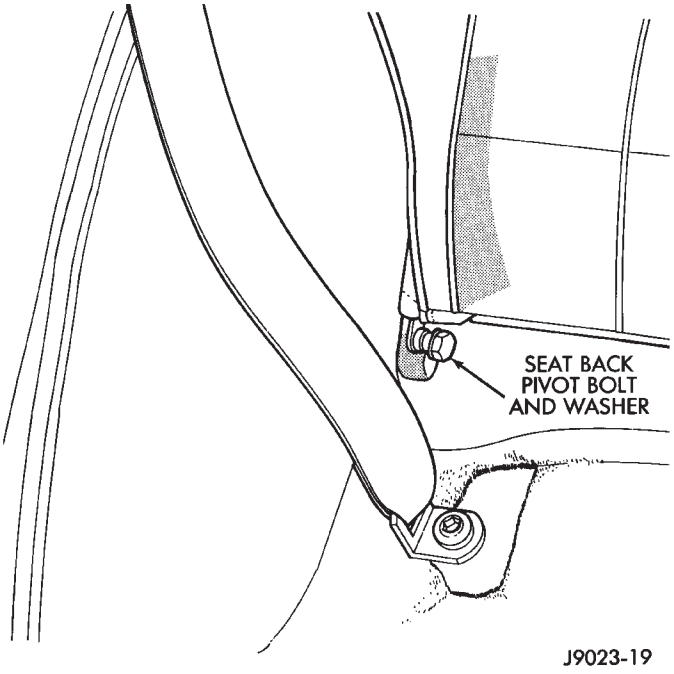

Fig. 89 Seatback Pivot Bolts

(2) Install the pivot bolts and the washer—right side only. Tighten the bolts with 45 N·m (33 ft-lbs) torque.

(3) Engage the seatback latch with the striker.

(4) Insert the shoulder/lap belt buckles in the elastic straps.

(5) Pivot the seat cushion to the horizontal position and lock the it in-place by pressing firmly on the center of the cushion until the latch engages.

REAR SEATBACK LATCH STRIKER AND BUMPER—XJ VEHICLES

REMOVAL

(1) Disengage the seat cushion at the rear by pulling upward on the release strap.

(2) Tilt the seat cushion forward.

(3) Release the seatback latch from the striker.

(4) Tilt the seatback forward for access to the striker bracket.

(5) Remove the retaining screws and the latch striker bracket from the trim panel.

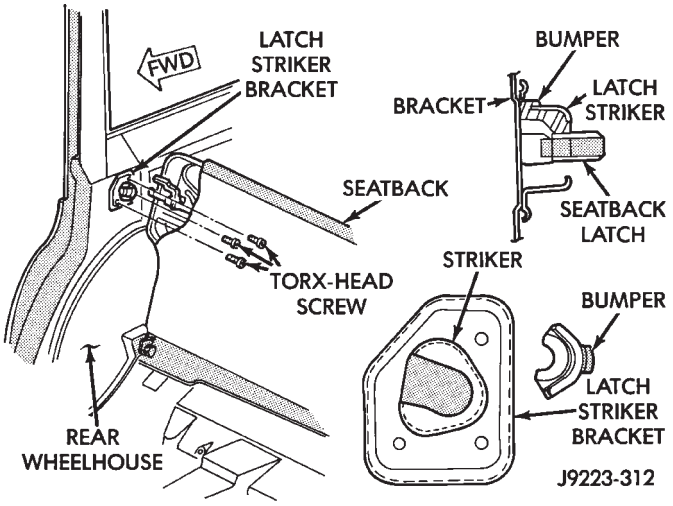

Fig. 90 Seatback Latch Striker Bracket Removal/ Installation

INSTALLATION

(1) Position the latch striker bracket on the trim panel and install the retaining screws. Tighten the screws with 6 N·m (50 in-lbs) torque.

(2) Engage the seatback latch with the striker.

(3) Pivot the seat cushion to the horizontal position and lock the it in-place by pressing firmly on the center of the cushion until the latch engages.

REAR SEATBACK COVER—XJ VEHICLES

REMOVAL

(1) Remove the seatback from the vehicle.

(2) Remove the seatback latch release handle and bezel from the seatback.

(3) Disengage the cover zipper and J-rail retainer. Remove the cover from the seatback pad.

INSTALLATION

(1) Install the replacement cover on the seatback.

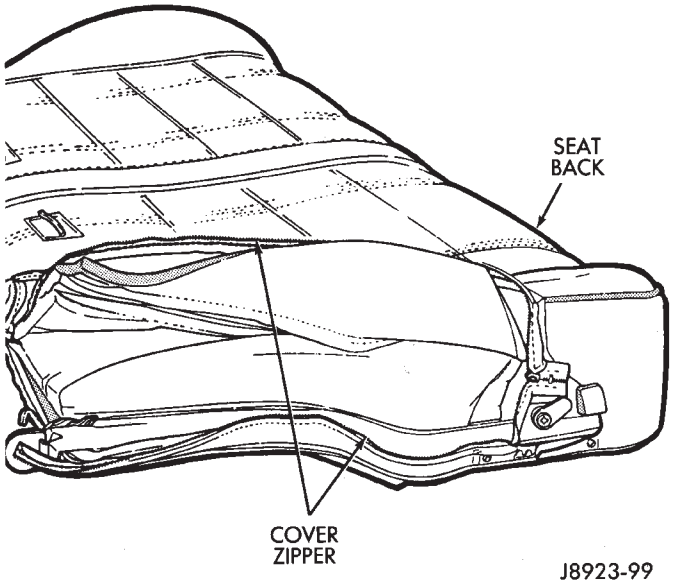

Fig. 91 Seatback Cover Removal

(2) Attach the cover J-rail retainer clip to the frame/panel edge and engage the cover zipper.

(3) Install the seat latch release bezel and handle on the cover and pad.

(4) Install the seatback in the vehicle.

REAR SEATBACK RECONDITIONING—XJ VEHICLES

ASSEMBLY

(1) Apply hot melt glue to the rear side of the frame/panel and position the seatback foundation board on the panel.

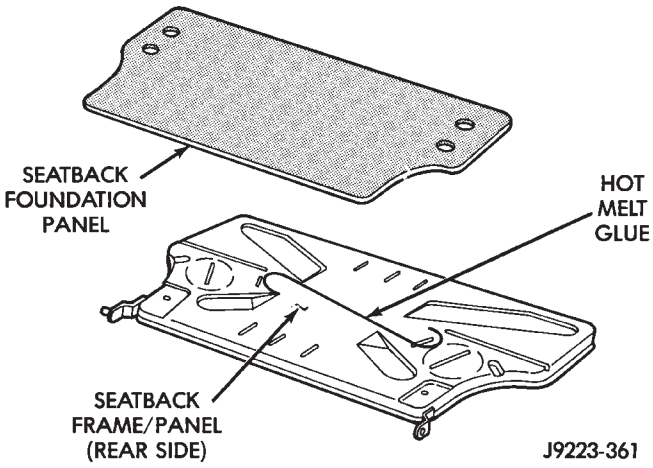

Fig. 92 Rear Seatback Foundation Board Installation

(2) Turn the seatback frame/panel over apply hot melt glue to the front side of the panel.

(3) Position the seatback pad on the frame/panel and hot melt glue.

(4) Position the seatback cover on the pad.

(5) Pull the seat cushion cover down around the pad.

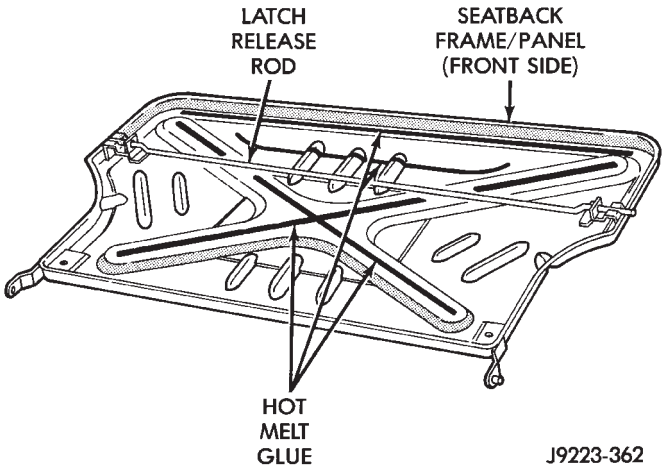

Fig. 93 Rear Seatback Hot Melt Glue Application

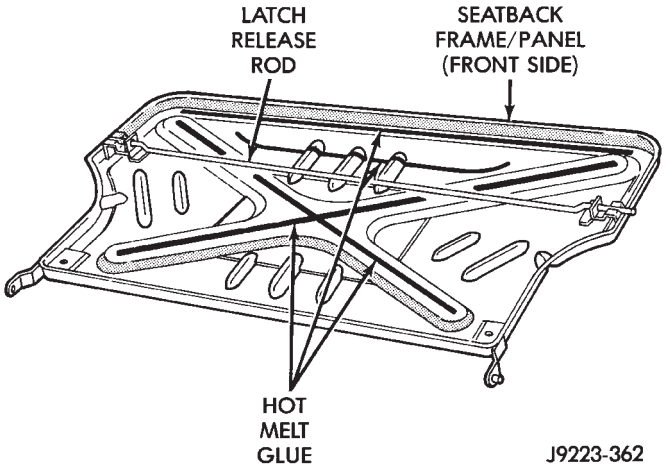

Fig. 94 Rear Seatback Pad Installation

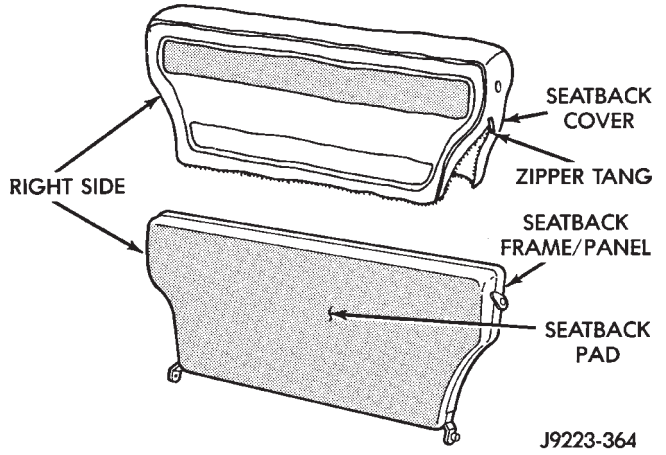

Fig. 95 Rear Seatback Cover and Pad

(6) Attach the cover J-rail retainer clip to the frame/panel edge and engage the cover zipper.

(7) Install the seatback latch release handle bezel and handle on the cover and pad.

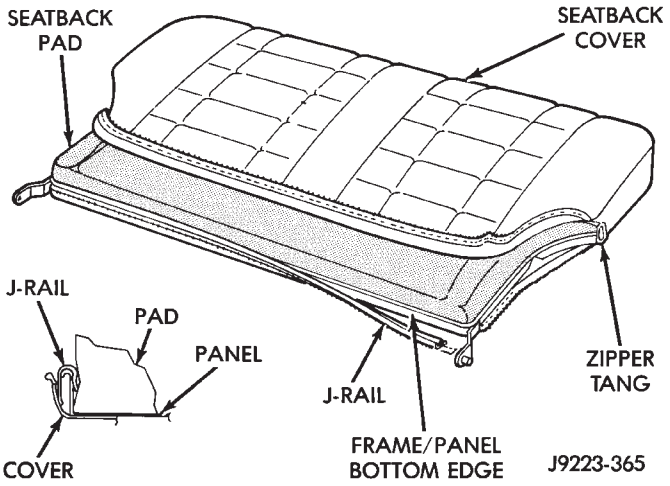

Fig. 96 Seatback Cover On Pad

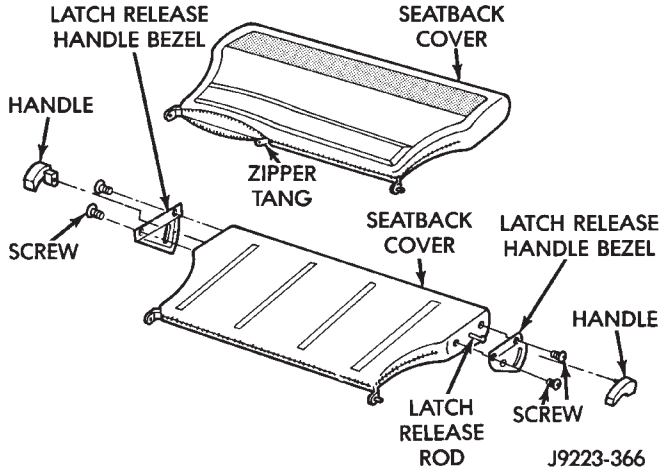

Fig. 97 Seatback Latch Release Bezel and Handle

INTERIOR TRIM PANELS AND SCUFF PLATES—XJ VEHICLES

SERVICE INFORMATION

The XJ interior trim panels, mouldings and inner scuff plate are illustrated in Figures 98 and 99. Most of the components are attached with either push-in screws or Phillips-head screws. Retainer clips are used to attach the rear quarter trim panels.

CAUTION: Do not remove trim panels/mouldings without first removing the overlapping panels, interior lamps, and other components. To avoid damaging the panels, ensure that all the screws and clips are removed before attempting to remove a trim panel/moulding.

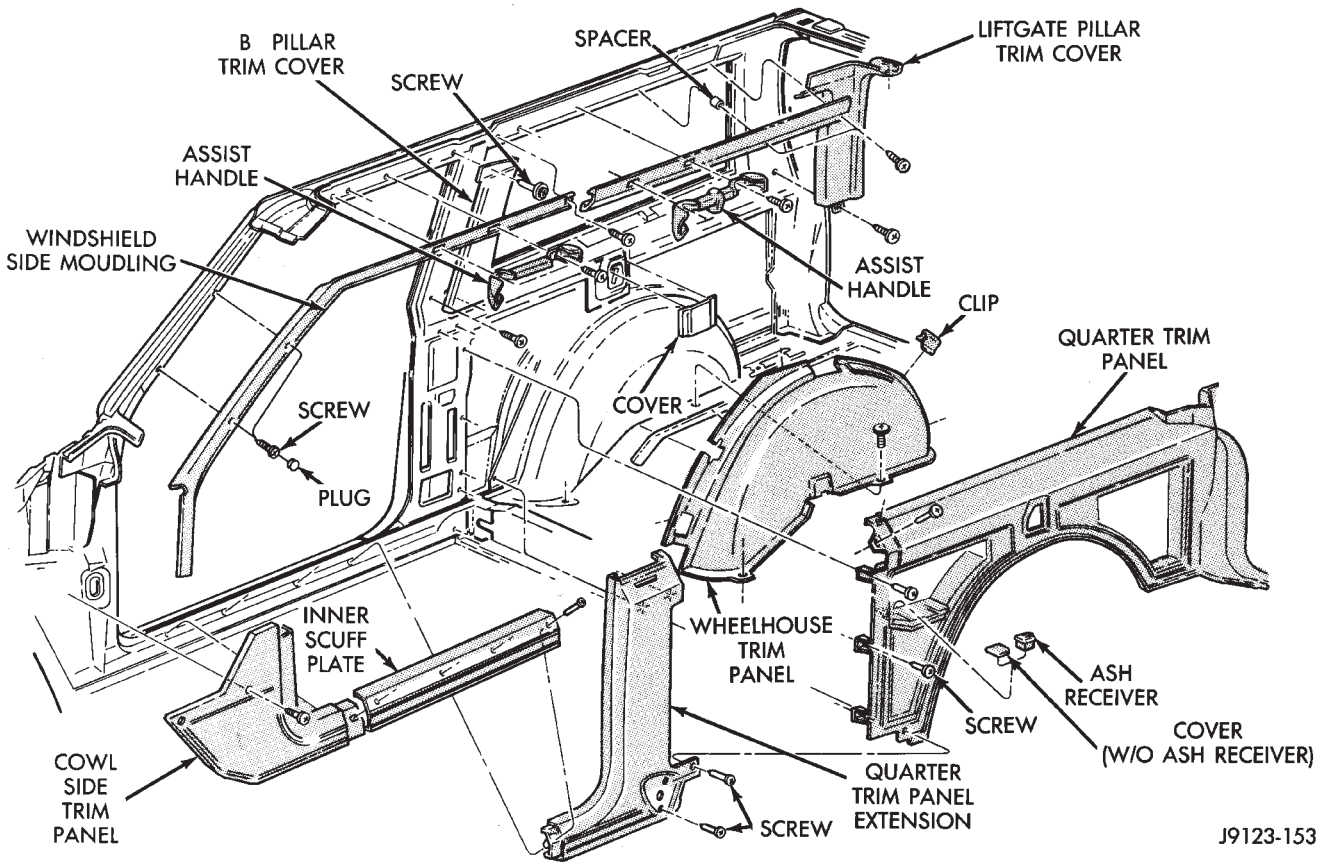

Fig. 98 Interior Trim Panels/Mouldings/Scuff Plate—XJ 2-Door Vehicles

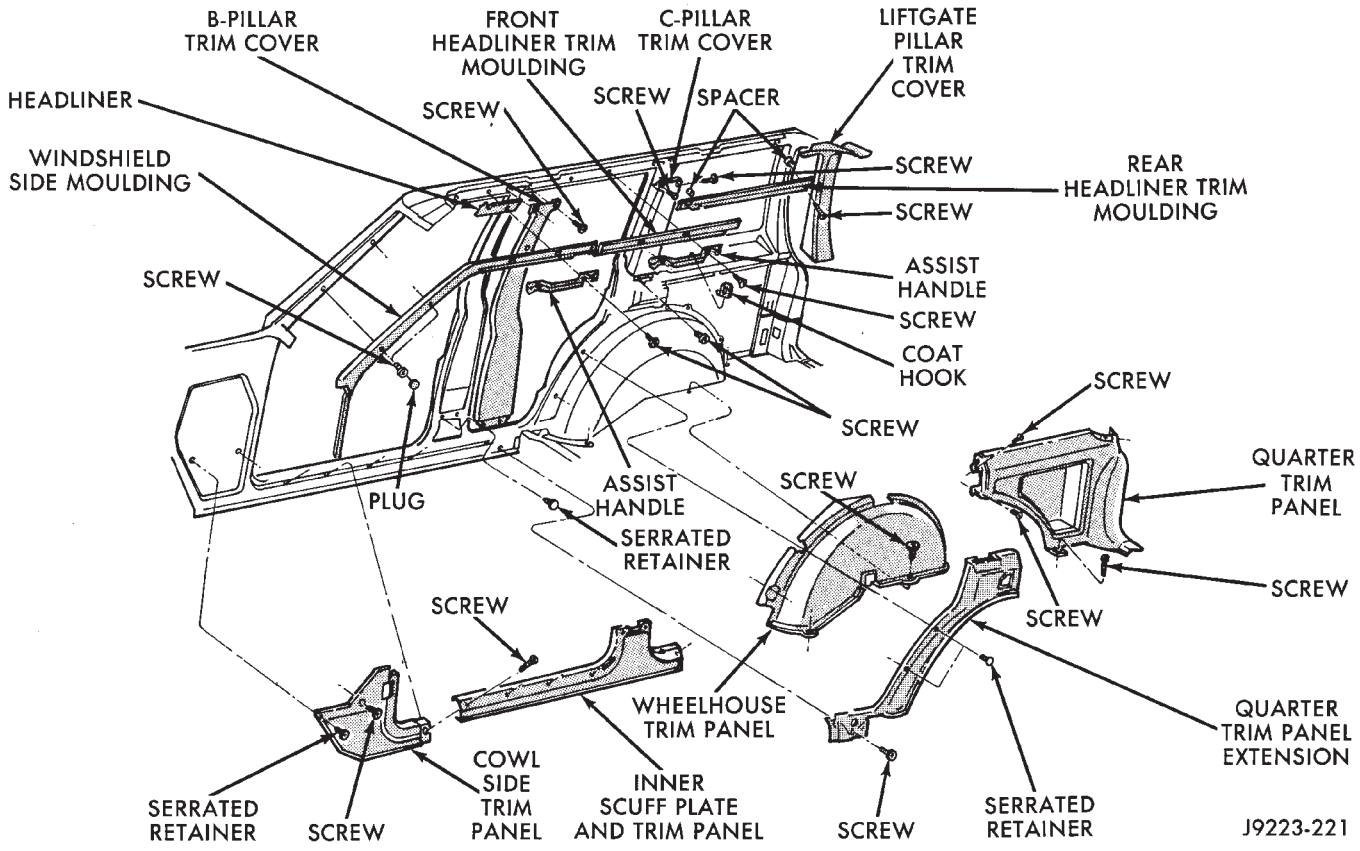

Fig. 99 Interior Trim Panels/Mouldings/Scuff Plate—XJ 4-Door Vehicles

FRONT INNER SCUFF PLATE/COWL SIDE TRIM PANEL—XJ VEHICLES

REMOVAL

(1) Remove the retaining screws and the inner scuff plate from the front door sill.

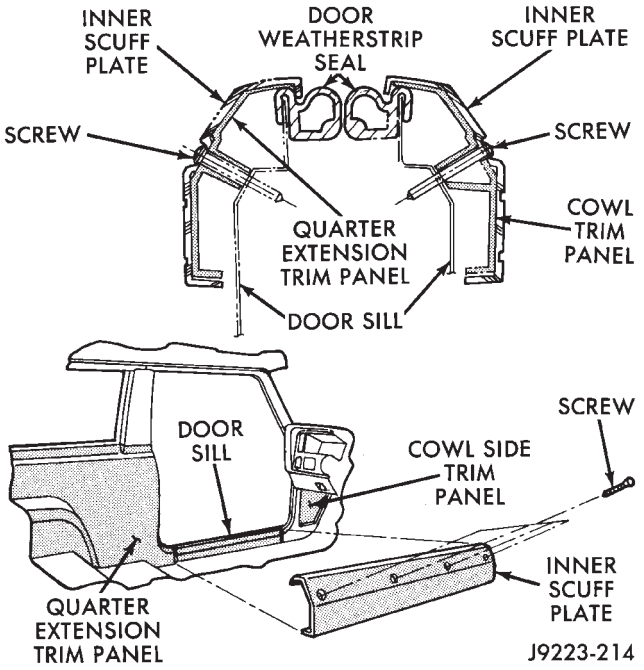

Fig. 100 Front Inner Scuff Plate—2-Door Vehicles

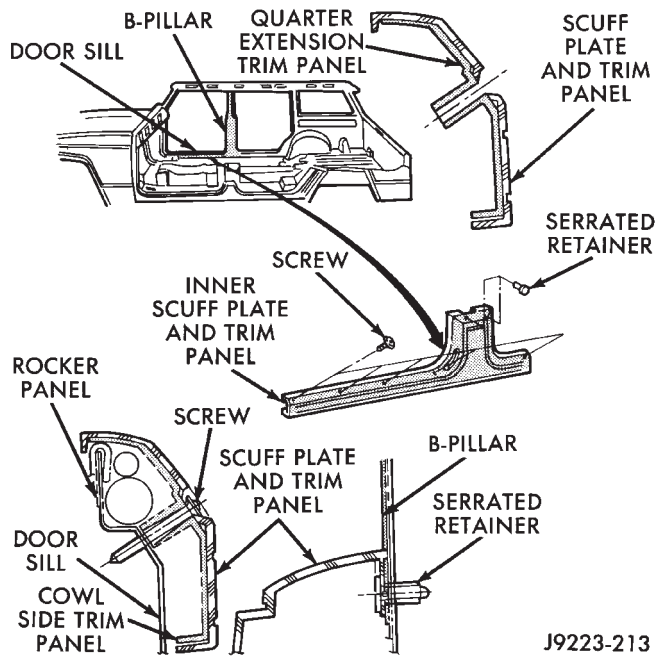

Fig. 101 Front Inner Scuff Plate—4-Door Vehicles

(2) Remove the retaining screws and cowl side trim panel from the cowl side panel.

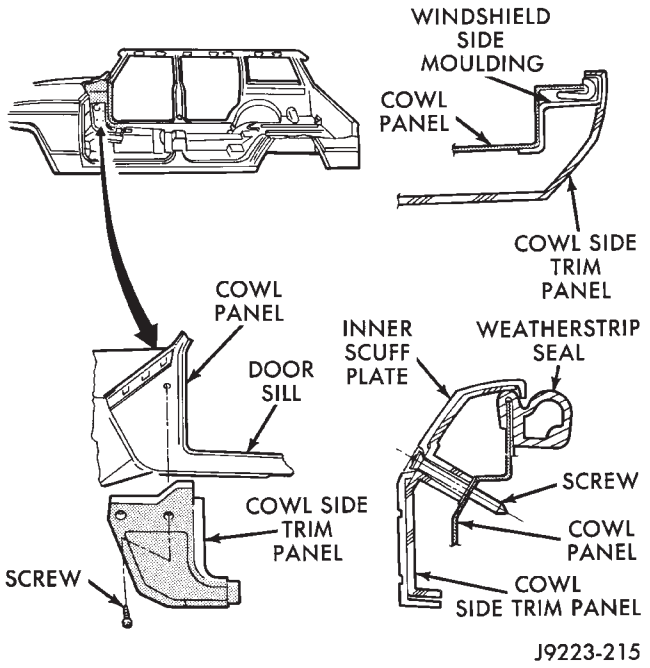

Fig. 102 Cowl Side Trim Panel

INSTALLATION

(1) Position the cowl side trim panel on the cowl side panel and install the retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.

(2) Position the inner scuff plate on the front door sill and install the retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.

WINDSHIELD SIDE MOULDING—XJ VEHICLES

REMOVAL

(1) Remove the retaining screws and the inner scuff plate, cowl side trim panel and headliner front trim moulding from the interior of the vehicle.

(2) Remove the retaining screws and the windshield side moulding from the A-pillar and door header.

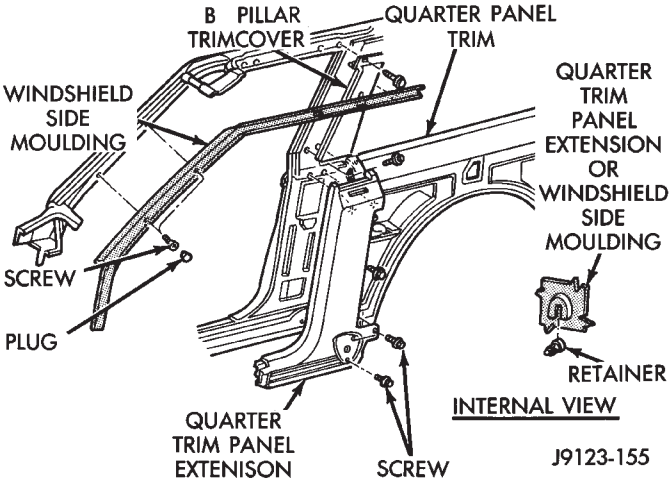

Fig. 103 Windshield Side Moulding, Quarter Trim and Extension Panels

INSTALLATION

(1) Position the windshield side moulding on the A-pillar and door header. Install the retaining screws and tighten to 1 N·m (11 in-lbs) torque.

(2) Install the headliner front trim moulding, the cowl side trim panel and the inner scuff plate in the interior of the vehicle. Tighten the retaining screw to 1 N·m (11 in-lbs) torque.

QUARTER TRIM PANEL EXTENSION—XJ VEHICLES

REMOVAL

(1) Remove the retaining screws and the inner scuff plate from the door sill.

(2) Remove the retaining screws and serrated retainers, and remove the panel extension from the wheelhouse and quarter trim panels.

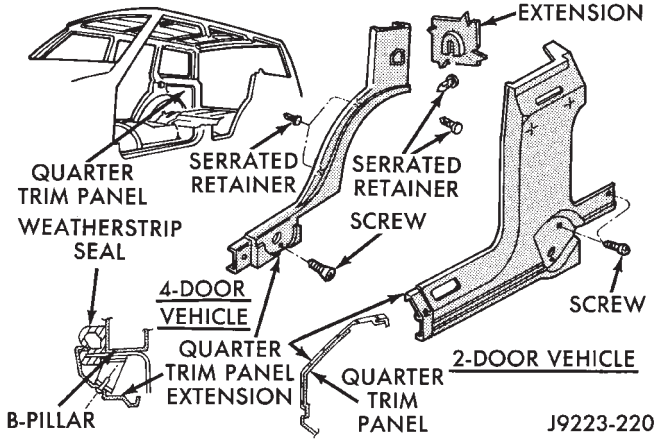

Fig. 104 Quarter Trim Panel Extension

INSTALLATION

(1) Position the quarter trim panel extension on the wheelhouse and quarter trim panels. Install the serrated retainers and retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.

(2) Position the inner scuff plate on the door sill. Install the retaining screws and tighten to 1 N·m (11 in-lbs) torque.

QUARTER AND WHEELHOUSE TRIM PANELS—XJ VEHICLES

REMOVAL

(1) Remove the retaining screws and the inner scuff plate from the door sill.

(2) Remove the retaining screws and serrated retainers, and remove the panel extension from the wheelhouse and quarter trim panels.

(3) Remove the retaining screws, and the liftgate scuff plate and latch striker from the carpet and cross sill.

(4) Remove the retaining screws and the quarter trim panel from the quarter panel and wheelhouse trim panel.

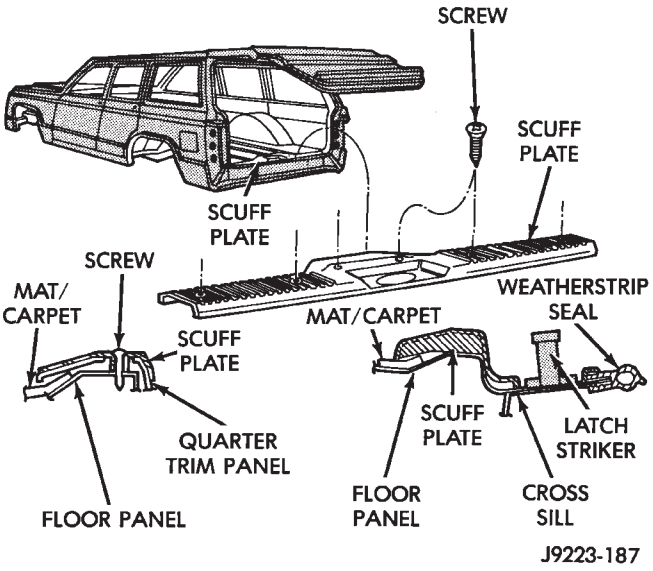

Fig. 105 Liftgate Scuff Plate

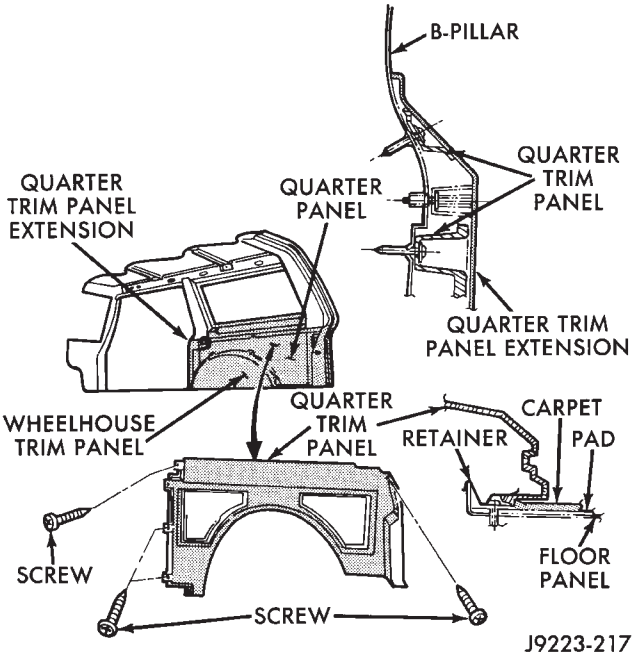

Fig. 106 Quarter Trim Panel—2-Door Vehicles

(5) If necessary, remove the retaining screws and the tire stand-off from the left quarter trim panel.

(6) If necessary, remove the ash receiver/cover plate from the quarter trim panel.

(7) Remove the retaining screws and U-clip retainers, and remove the wheelhouse trim panel from the quarter panel.

INSTALLATION

(1) Position the wheelhouse trim panel on the quarter panel and install the retaining screws and U-clip retainers. Tighten the screws to 1 N·m (11 in-lbs) torque.

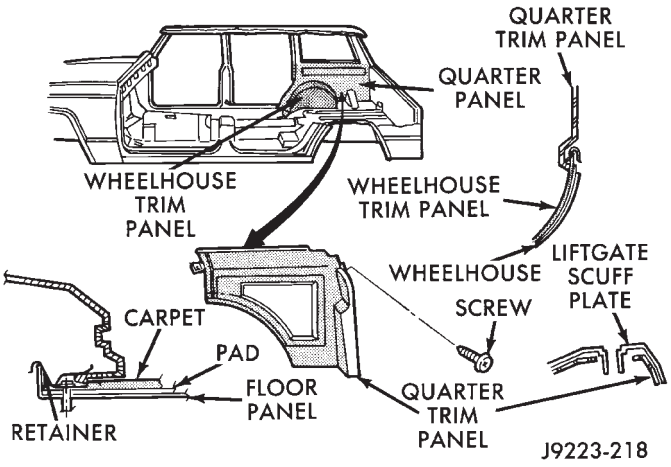

Fig. 107 Quarter Trim Panel—4-Door Vehicles

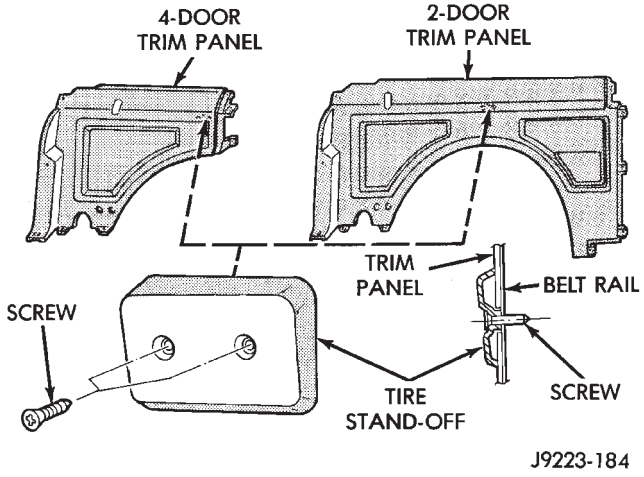

Fig. 108 Tire Stand-Off—Left Quarter Trim Panel

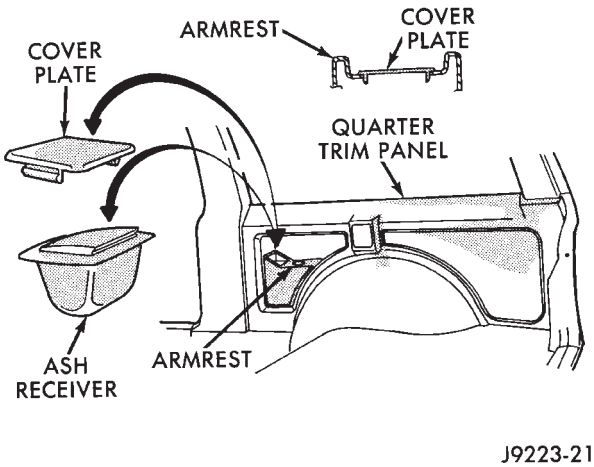

Fig. 109 Ash Receiver/Cover Plate

(2) If removed, install the tire stand-off on the left quarter trim panel. Tighten the retaining screws to 1 N·m (11 in-lbs) torque.

(3) If removed, install the ash receiver/cover plate on the quarter trim panel.

(4) Position the quarter trim panel on the quarter panel and wheelhouse trim panel. Install and tighten

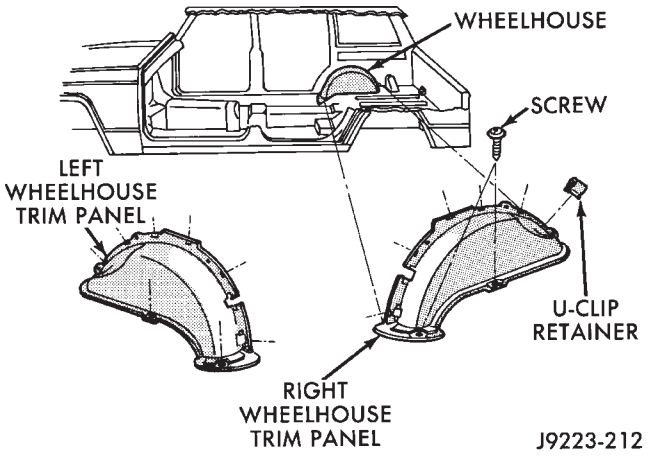

Fig. 110 Wheelhouse Trim Panel—Typical

the retaining screws to 1 N·m (11 in-lbs) torque.

(5) Position scuff plate and latch striker on the carpet and cross sill, and install the retaining screws.Tighten the scuff plate screws to 1 N·m (11 in-lbs) torque. Tighten the latch striker screws to 30 N·m (22 ft-lbs) torque.

(6) Position the quarter trim panel extension on the wheelhouse and quarter trim panels. Install the serrated retainers and retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.

(7) Position the inner scuff plate on the door sill. Install the retaining screws and tighten to 1 N·m (11 in-lbs) torque.

B/C-PILLAR AND LIFTGATE PILLAR TRIM COVERS—XJ VEHICLES

REMOVAL

(1) Remove the retaining screws and the inner scuff plate from the door sill.

(2) Remove the cowl side trim panel, the headliner trim moulding and the windshield side moulding from the interior of the vehicle.

(3) For 4-door vehicles, remove the retaining screws and remove the trim cover from the B-pillar.

(4) Remove the retaining screws and serrated retainers, and remove the panel extension from the wheelhouse and quarter trim panels.

(5) For 2-door vehicles, remove the retaining screws and remove the trim cover from the B-pillar.

(6) For 4-door vehicles, remove the retaining screws and remove the trim cover from the C-pillar.

(7) Remove the retaining screws, and the liftgate scuff plate and latch striker from the carpet and cross sill.

(8) Remove the retaining screws and the quarter trim panel from the quarter panel and wheelhouse trim panel.

(9) Remove the retaining screws and the liftgate upper trim moulding from the liftgate header.

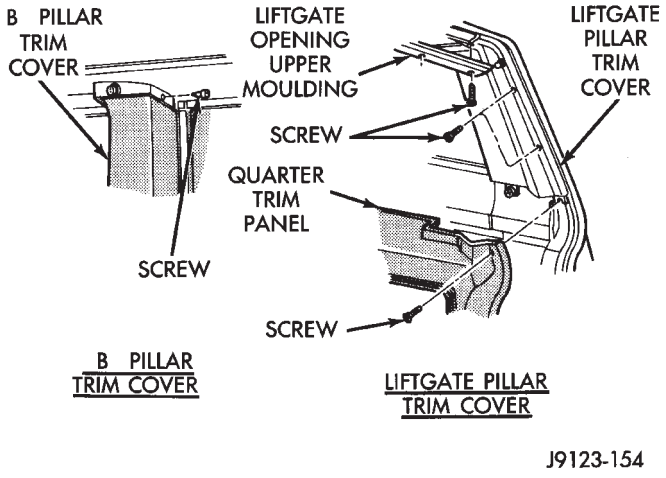

Fig. 111 B-Pillar and Liftgate Pillar Trim Covers

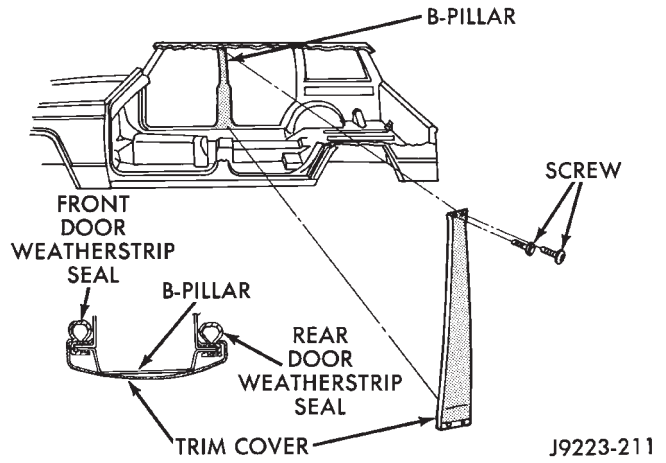

Fig. 112 B-Pillar Trim Cover—4-Door Vehicles

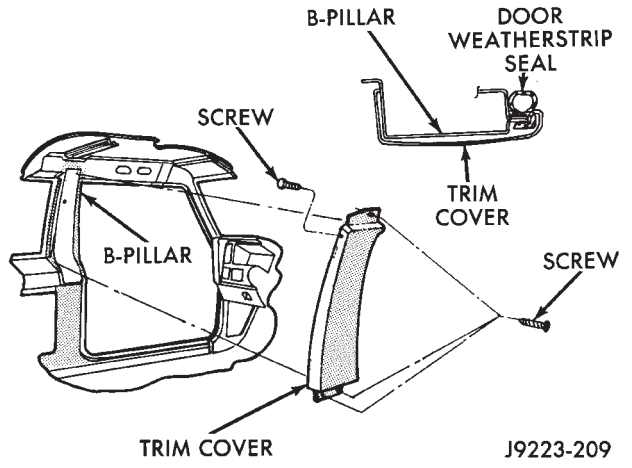

Fig. 113 B-Pillar Trim Cover—2-Door Vehicles

(10) Remove the retaining screws and the trim cover from the liftgate pillar.

INSTALLATION

(1) Position the trim cover on the liftgate pillar and install the retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.

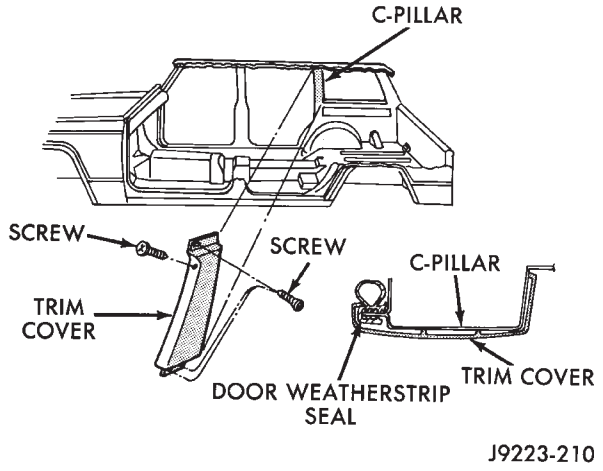

Fig. 114 C-Pillar Trim Cover—4-Door Vehicles

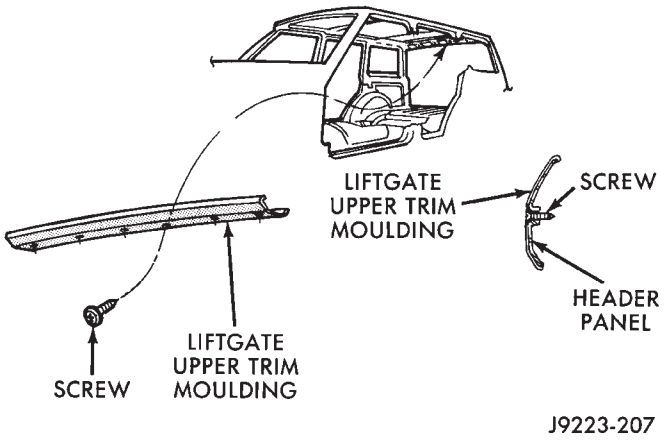

Fig. 115 Liftgate Upper Trim Moulding

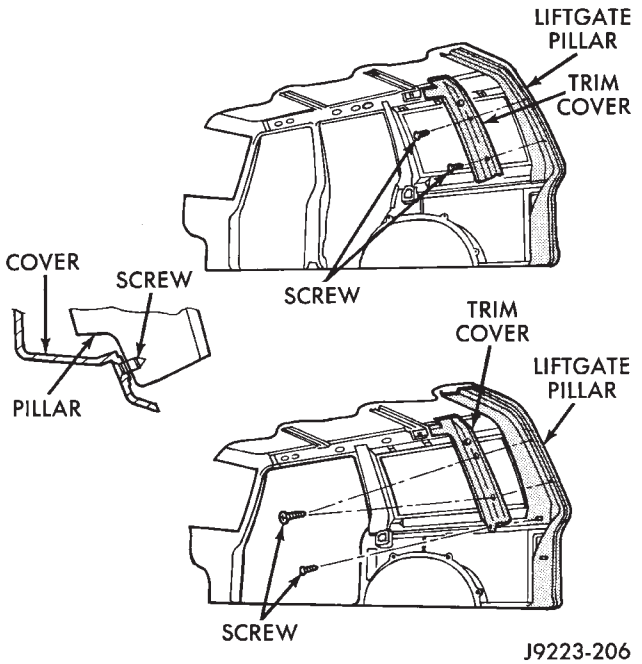

Fig. 116 Liftgate Pillar Trim Cover

(2) Position the upper trim moulding on the liftgate header and install the retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.

(3) Position the quarter trim panel on the quarter panel and wheelhouse trim panel. Install and tighten the retaining screws to 1 N·m (11 in-lbs) torque.

(4) Position the scuff plate and latch striker on the carpet and cross sill, and install the retaining screws. Tighten the scuff plate screws to 1 N·m (11 in-lbs) torque. Tighten the latch striker screws to 30 N·m (22 ft-lbs) torque.

(5) For 4-door vehicles, position the trim cover on the C-pillar and install the retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.

(6) For 2-door vehicles, position the trim cover on the B-pillar and install the retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.

(7) Position the quarter trim panel extension on the wheelhouse and quarter trim panels. Install the serrated retainers and retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.

(8) For 4-door vehicles, position the trim cover on the B-pillar. Install the retaining screws and tighten to 1 N·m (11 in-lbs) torque.

(9) Install the windshield side moulding, the headliner trim moulding and the cowl side trim panel in the interior of the vehicle. Tighten the screws to 1 N·m (11 in-lbs) torque.

(10) Position the inner scuff plate on the door sill. Install the retaining screws and tighten to 1 N·m (11 in-lbs) torque.

OUTER SCUFF PLATES—XJ VEHICLES

REMOVAL/INSTALLATION

The door sill outer and the liftgate scuff plates are attached to the sills with screws. Refer to Liftgate for latch striker information.

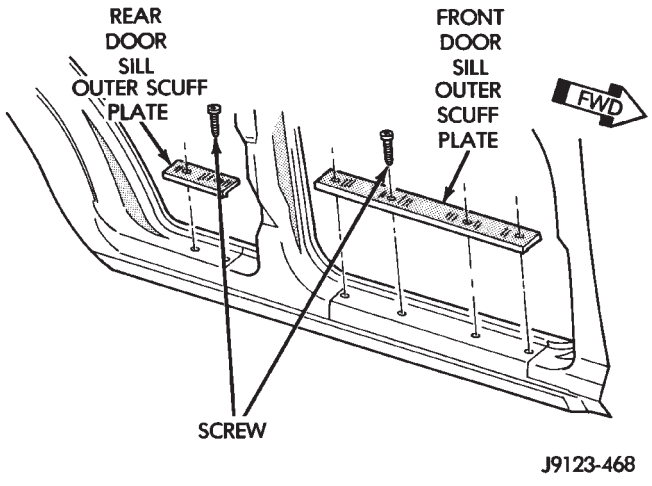

Fig. 117 Outer Scuff Plates—4-Door Vehicles

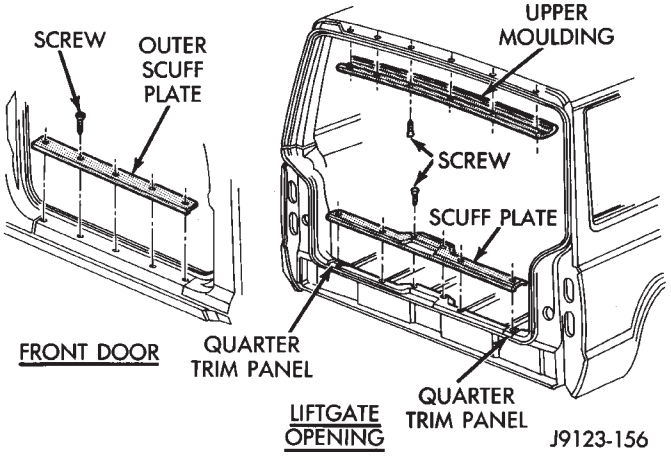

Fig. 118 Liftgate and Door Sill Outer Scuff Plate

ASSIST HANDLE—XJ VEHICLES

SERVICE INFORMATION

XJ assist handles are attached to the:

- windshield side trim moulding,
- A-pillar and door header trim moulding, and
- upper (headliner) trim mouldings with screws that concealed by the handle end covers (Fig. 119).

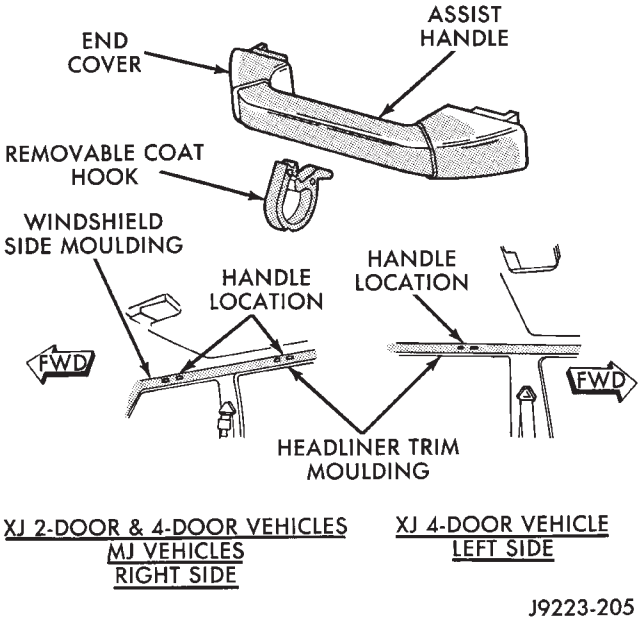

Fig. 119 Assist Handles—XJ Vehicles

REMOVAL

(1) Open the end covers that conceal the assist handle retaining screws.

(2) Remove the handle retaining screws.

(3) Remove the assist handle from the trim moulding.

INSTALLATION

(1) Position the handle on the trim moulding and install the retaining screws. Tighten the retaining screws to 3 N·m (22 in-lbs) torque.

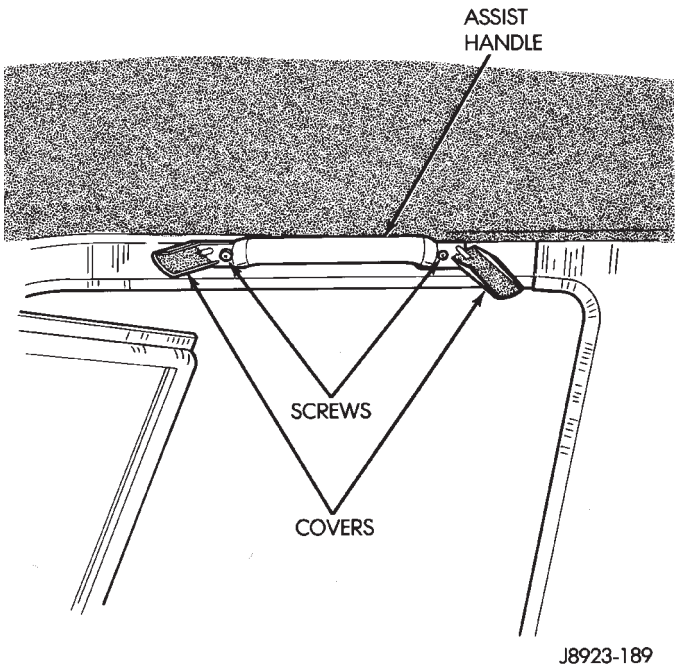

Fig. 120 Assist Handle Removal/Installation

(2) Fold the end covers over the retaining screws.

FRONT SHOULDER BELT/BUCKLE—XJ VEHICLES

REMOVAL

(1) Slide the front seats all the way forward for access to the belt anchor bolt.

(2) Disconnect the belt wire harness connector.

(3) Remove the anchor bolt cover.

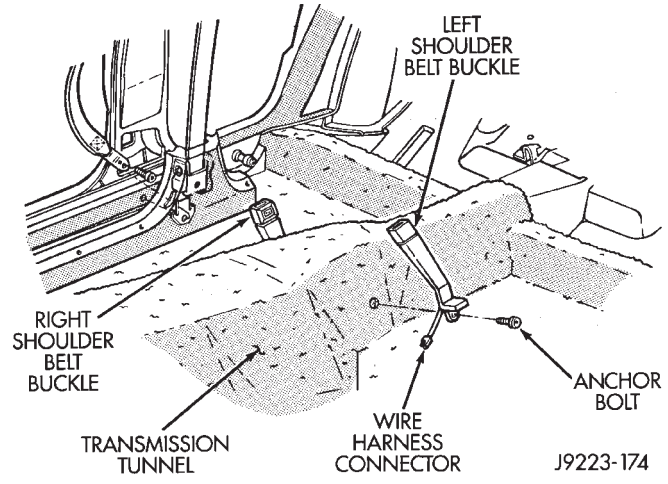

Fig. 121 Front Shoulder Belt Buckles

(4) Remove the shoulder belt buckle anchor bolt with a Torx bit.

(5) Remove the shoulder belt buckle from the transmission tunnel.

(6) Remove the cap concealing the shoulder belt upper anchor bolt.

(7) Use a Torx bit to remove the upper anchor bolt. Remove the support/guide washer.

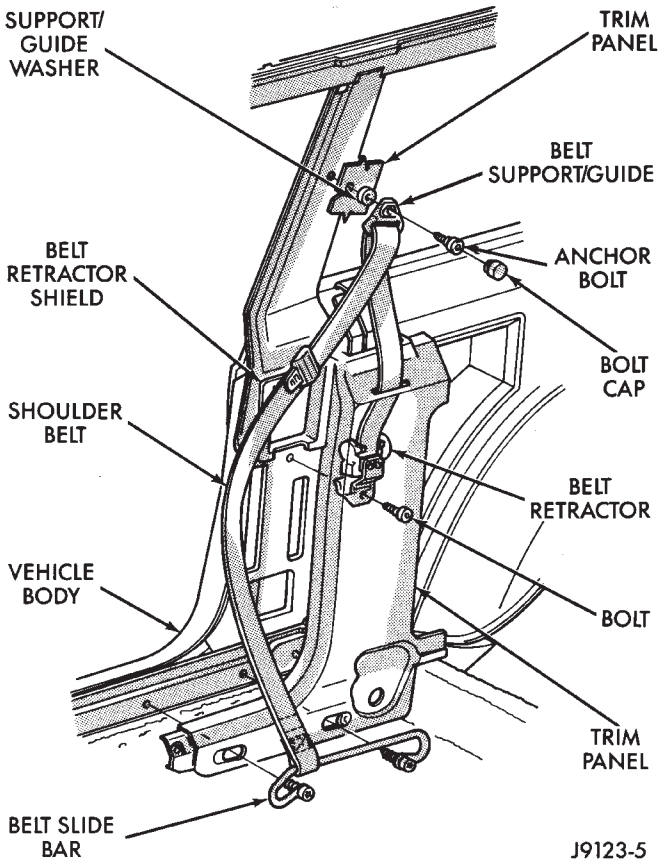

Fig. 122 Front Shoulder Belt—2-Door Vehicles

(8) Remove the inner scuff plate/trim panel from the door sill and remove the shoulder belt lower anchor bolt(s) with a Torx bit.

(9) Remove the shoulder belt and the retractor.

INSPECTION

Inspect the front shoulder belts and buckles. Replace any belt that is either cut, frayed, torn or damaged in any way. Replace the shoulder belt if the retractor is damaged or inoperative.

INSTALLATION

(1) Position the shoulder belt retractor in the shield and install the lower anchor bolt with a Torx bit.

(2) Position the support/guide washer and shoulder belt upper anchor plate on the trim panel. Install the upper anchor bolt with a Torx bit.

(3) Tighten the upper and lower anchor bolts to 41 N·m (30 ft-lbs) torque.

(4) Install the door sill inner scuff plate/trim panel and install the cap over the upper anchor bolt.

(5) Install the shoulder belt buckle and anchor bolt. Connect the wire harness connectors. Tighten the buckle anchor bolt to 41 N·m (30 ft-lbs) torque.

(6) Position the cover over the anchor bolt.

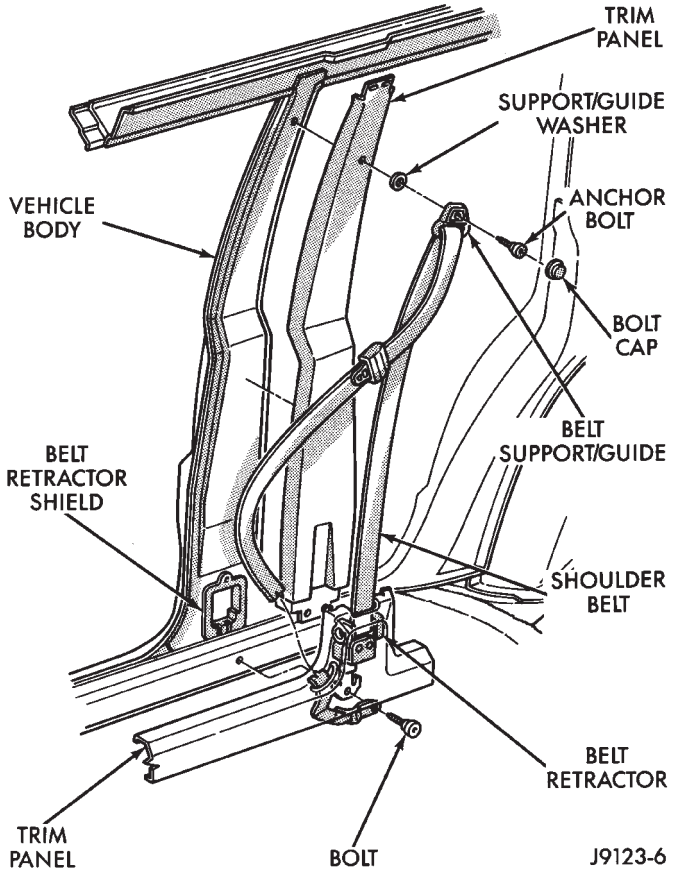

Fig. 123 Front Shoulder Belt—4-Door Vehicles

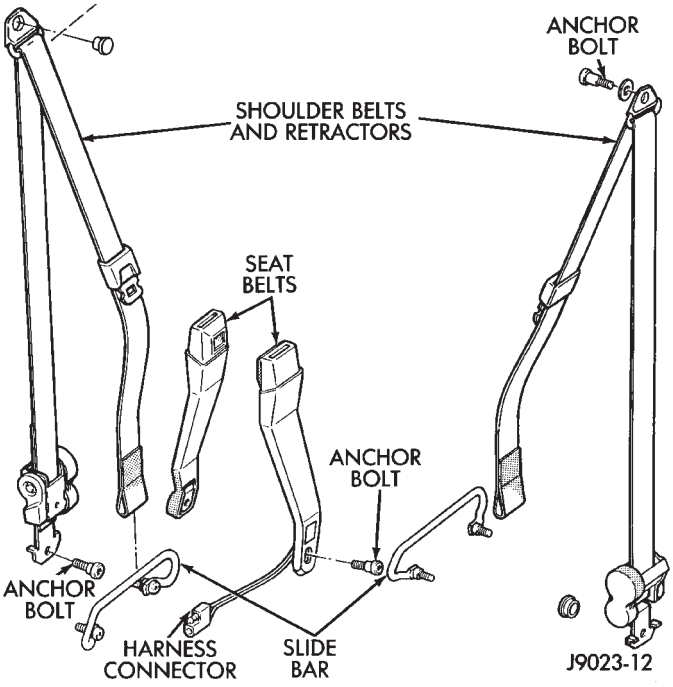

Fig. 124 Shoulder Belt Set—2-Door Vehicles

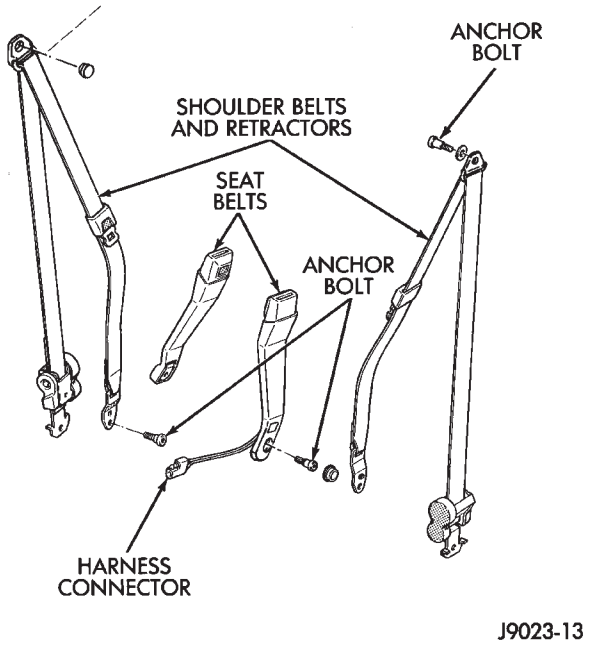

Fig. 125 Shoulder Belt Set—4-Door Vehicles

REAR SHOULDER/LAP BELT/BUCKLE—XJ VEHICLES

REMOVAL

(1) Pull the rear seat release strap and tilt the complete seat forward.

(2) Remove the shoulder belt buckle and lap belt/buckle anchor plate bolts from the floor panel.

(3) Remove the shoulder belt lower anchor bolt.

(4) Remove the quarter trim panel. If necessary, refer to the removal procedure.

(5) Remove the shoulder belt upper anchor bolt.

(6) Remove the belt retractor support retaining screw from the rear quarter rail.

(7) Remove the retractor and shoulder belt from the trim panel.

INSPECTION

Inspect the rear shoulder/lap belts and buckles. Replace any belt that is either cut, frayed, torn or damaged in any way. Replace the shoulder belt if the retractor is damaged or inoperative.

INSTALLATION

(1) Position the shoulder belt buckle and the lap belt/buckle anchor plates on the floor panel.

(2) Install the anchor bolts. Tighten the bolts to 37 N·m (27 ft-lbs) torque.

(3) Position the shoulder belt at the roof rail and install the upper anchor bolt. Tighten the bolt to 37 N·m (27 ft-lbs) torque.

(4) Route the shoulder belt through the quarter trim panel slot. Install the retractor support on the rear quarter rail. Tighten the screw to 5 N·m (45 in-lbs) torque.

(5) Install the quarter trim panel.

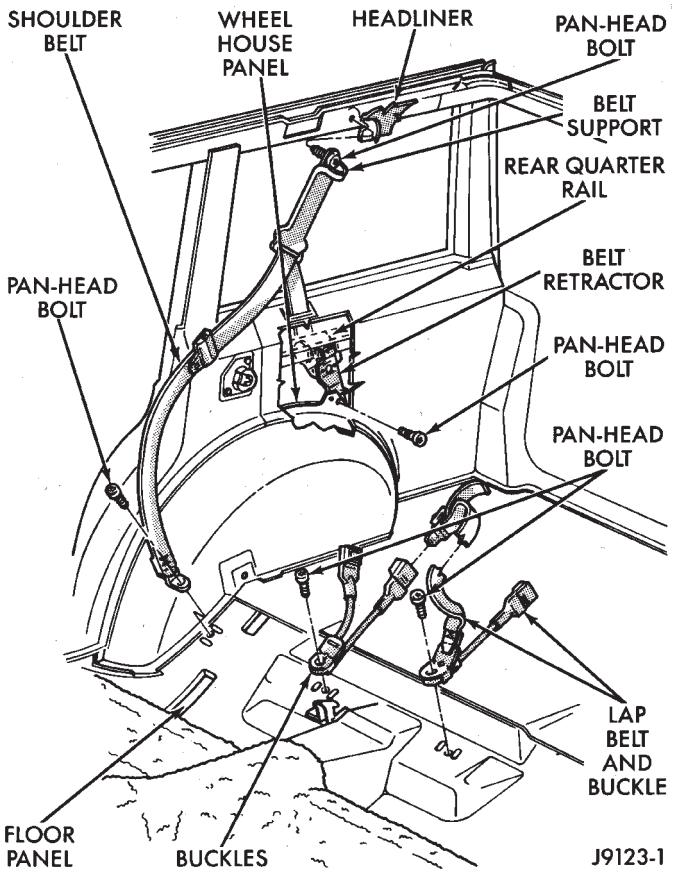

Fig. 126 Rear Seat Shoulder/Lap Belts and Buckles—XJ Vehicles

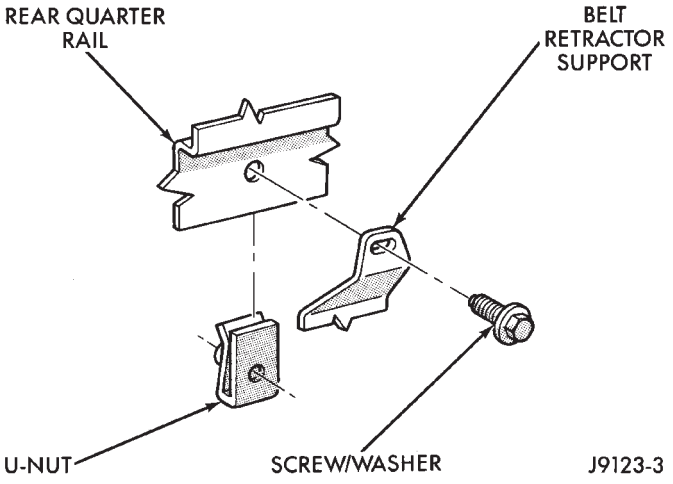

Fig. 127 Shoulder Belt Retractor Support Removal/ Installation

(6) Install the shoulder belt lower anchor bolt. Tighten the bolt to 37 N·m (27 ft-lbs) torque.

(7) Return the rear seat to the normal position and engage the latch.

HEADLINER

SERVICE INFORMATION

The upper trim mouldings and the headliner are attached to the roof rail with a combination of screws, velcro strips, clip retainers and rail retainers.

To remove a headliner, all of the upper trim mouldings must be removed from the perimeter of the headliner along with (as applicable):

- the assist handles,
- the sunvisors,
- the dome/cargo lamps,
- the overhead console,
- the keyless entry receiver module,
- the sunroof inner rubber seal and
- all other attached/overlapping components.

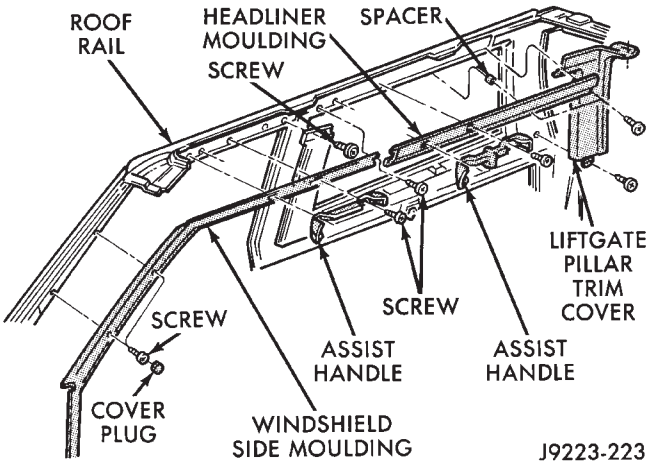

Fig. 128 Headliner Trim Mouldings—XJ Vehicles

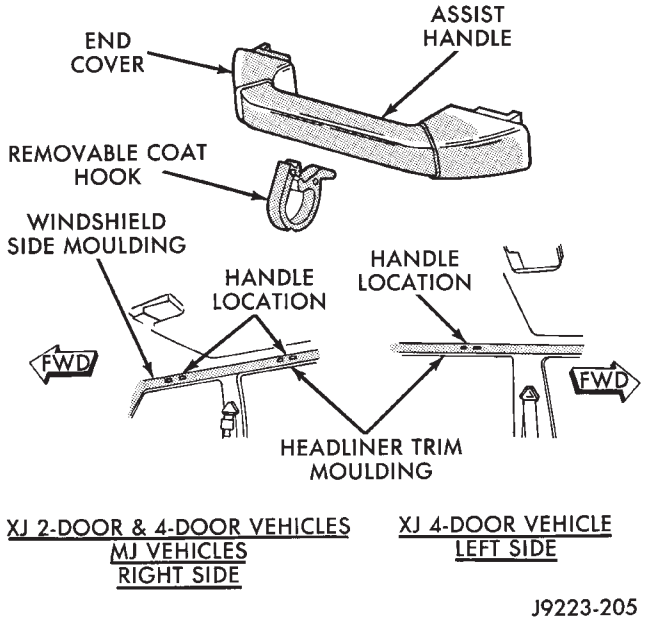

Fig. 129 Assist Handles—XJ Vehicles

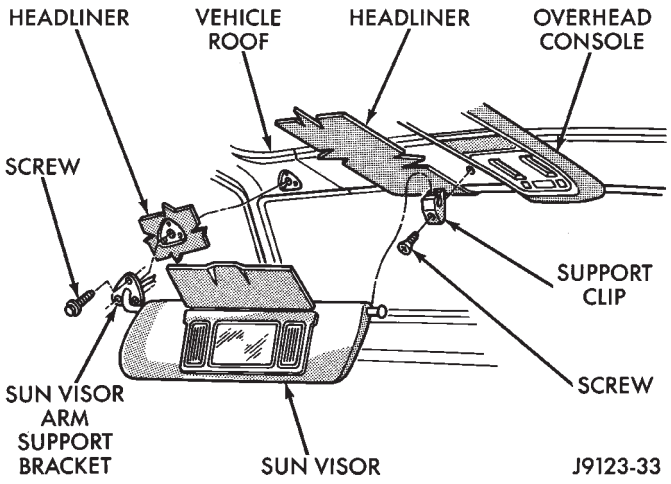

Fig. 130 Sunvisor and Overhead Console

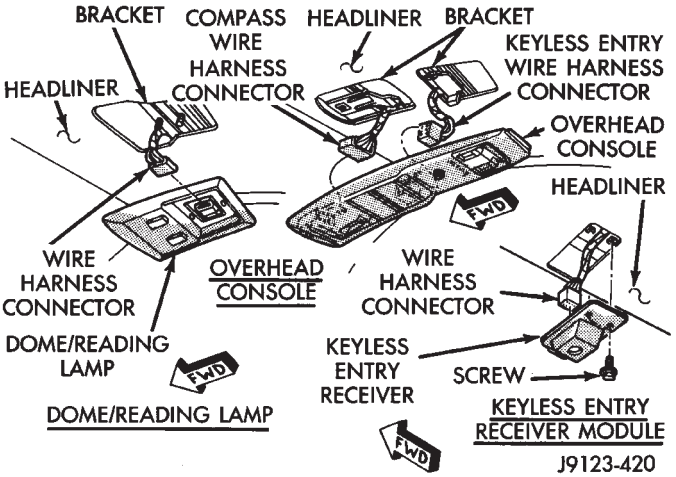

Fig. 131 Dome/Reading Lamp/Overhead Console/ Keyless Entry Module

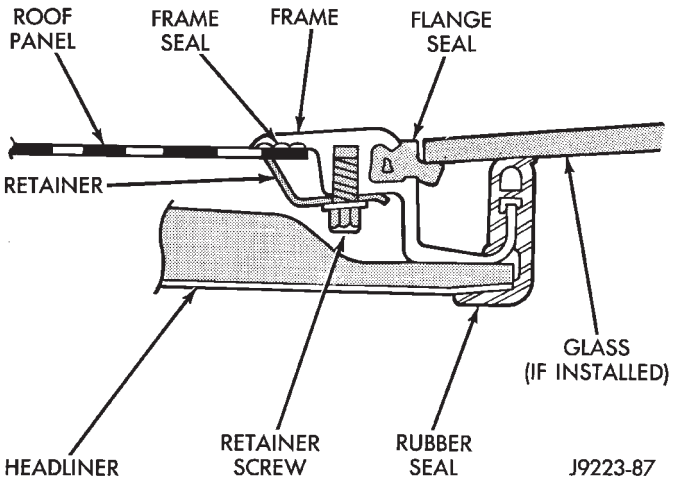

Fig. 132 Sunroof Rubber Seal

DOME/CARGO LAMP—XJ VEHICLES

REMOVAL

(1) Remove the dome lamp lens by squeezing both sides to release the retaining clips. Pull downward to remove the lens.

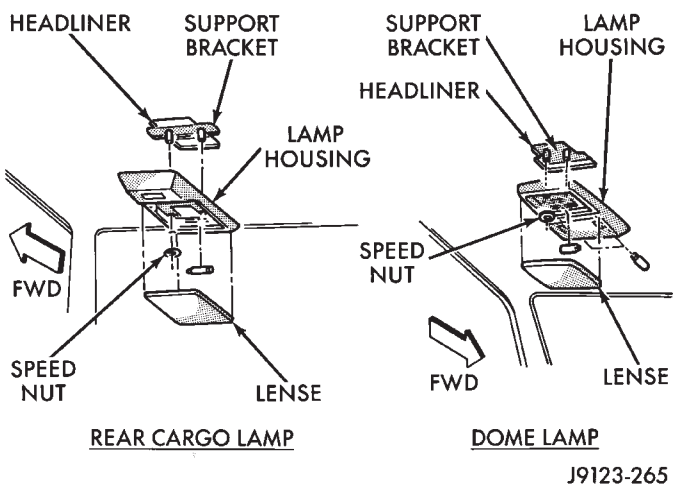

Fig. 133 Dome Lamp and Cargo Lamp

(2) Remove the speed nuts.
(3) Disconnect the wire harness connector.
(4) Remove the lamp from the headliner.

INSTALLATION

(1) Connect the dome lamp wire harness connector.
(2) Position the dome lamp in the headliner hole and install the speed nuts.
(3) Install the dome lamp lens.

HEADLINER REMOVAL

CAUTION: The headliner is a one-piece, molded component. It has limited flexibility and must not be bent during removal/installation.

(1) Remove the upper trim mouldings from the perimeter of the headliner.

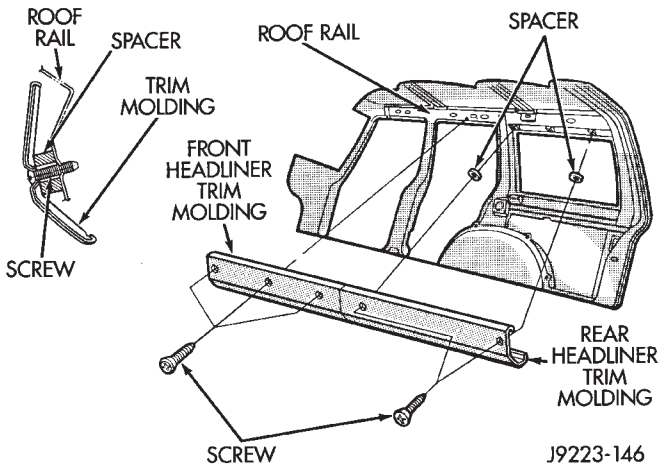

Fig. 134 Upper Trim Moulding—4-Door XJ Vehicles

(2) Ensure that all the retainer clips, screws and Velcro strips are disengaged before removing the headliner.

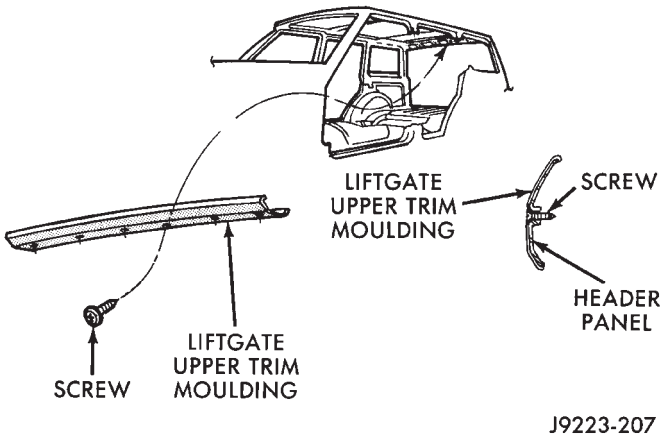

Fig. 135 Liftgate Trim Moulding—XJ Vehicles

HEADLINER INSTALLATION

(1) When installing a headliner, ensure that the retainer clips and rails are installed.

(2) Install the upper trim mouldings around the perimeter of the headliner. Tighten the retaining screws to 1 N·m (11 in-lbs) torque.

(3) As applicable, install:

- the assist handles,
- the sunvisors,
- the dome/cargo lamps,
- the overhead console,
- the keyless entry receiver module,
- the sunroof inner rubber seal and
- all other components removed to facilitate headliner removal.

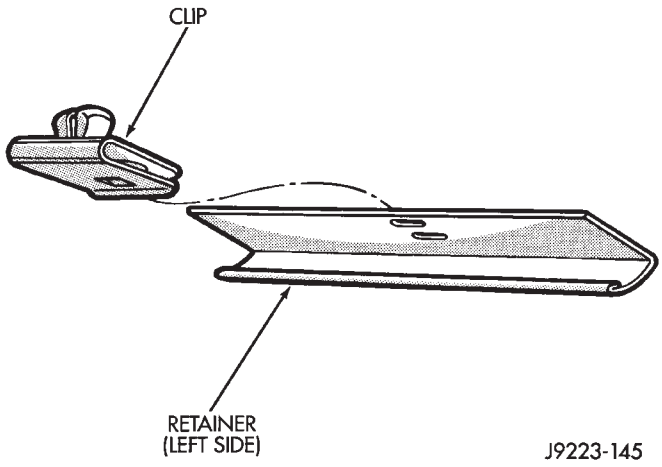

Fig. 137 Headliner Retainer Clip and Retainer Rail

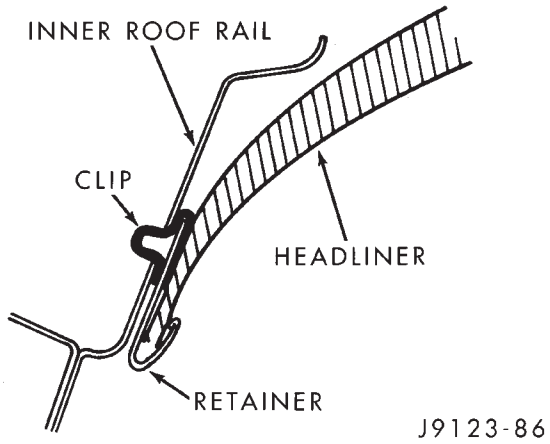

Fig. 138 Headliner Correctly Installed

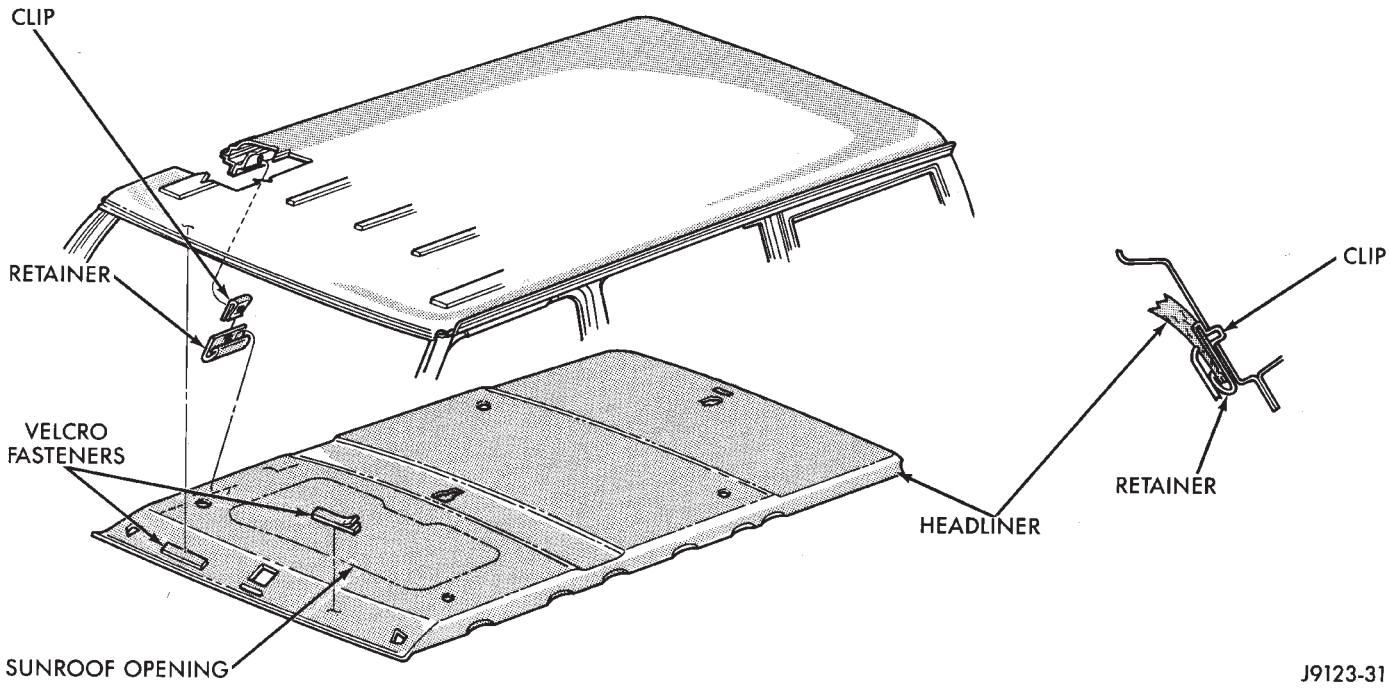

Fig. 136 Headliner—XJ Vehicles

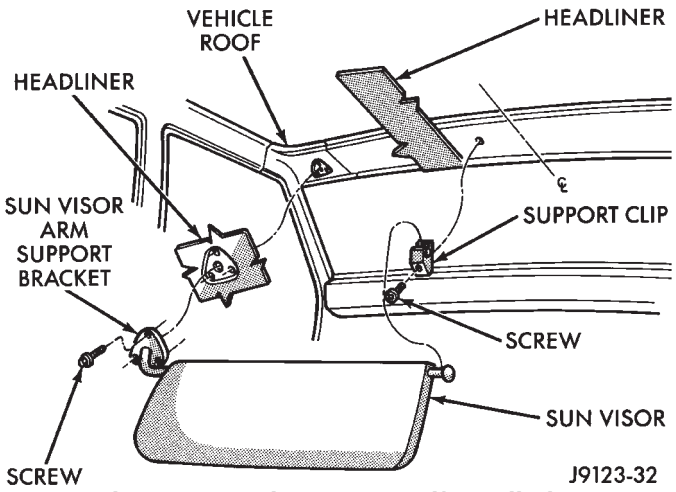

Fig. 139 Sunvisor Removal/Installation

SUNVISORS

REMOVAL

(1) Remove the screws that attach the sunvisor arm support bracket to the headliner and the roof panel.

(2) Detach the sunvisor from the support bracket.

(3) Remove the sunvisor from the vehicle.

(4) Remove the retaining screw and the support bracket.

INSTALLATION

(1) Install the support bracket and the retaining screw. Tighten the screw to 1 N·m (9 in-lbs) torque.

(2) Position the sunvisor in the support clip and align the arm support bracket holes with the headliner holes.

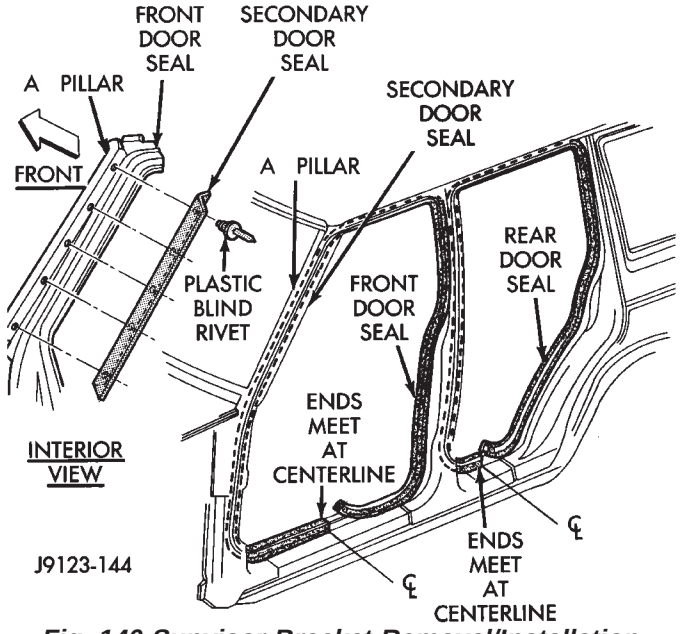

Fig. 140 Sunvisor Bracket Removal/Installation

(3) Install the screws that attach the sunvisor arm support bracket to the headliner and the roof panel. Tighten the screws to 4 N·m (35 in-lbs) torque.

MINI-FLOOR CONSOLE—XJ VEHICLES

SERVICE INFORMATION

Mini-consoles are installed in XJ vehicles with and without a transmission floor shift.

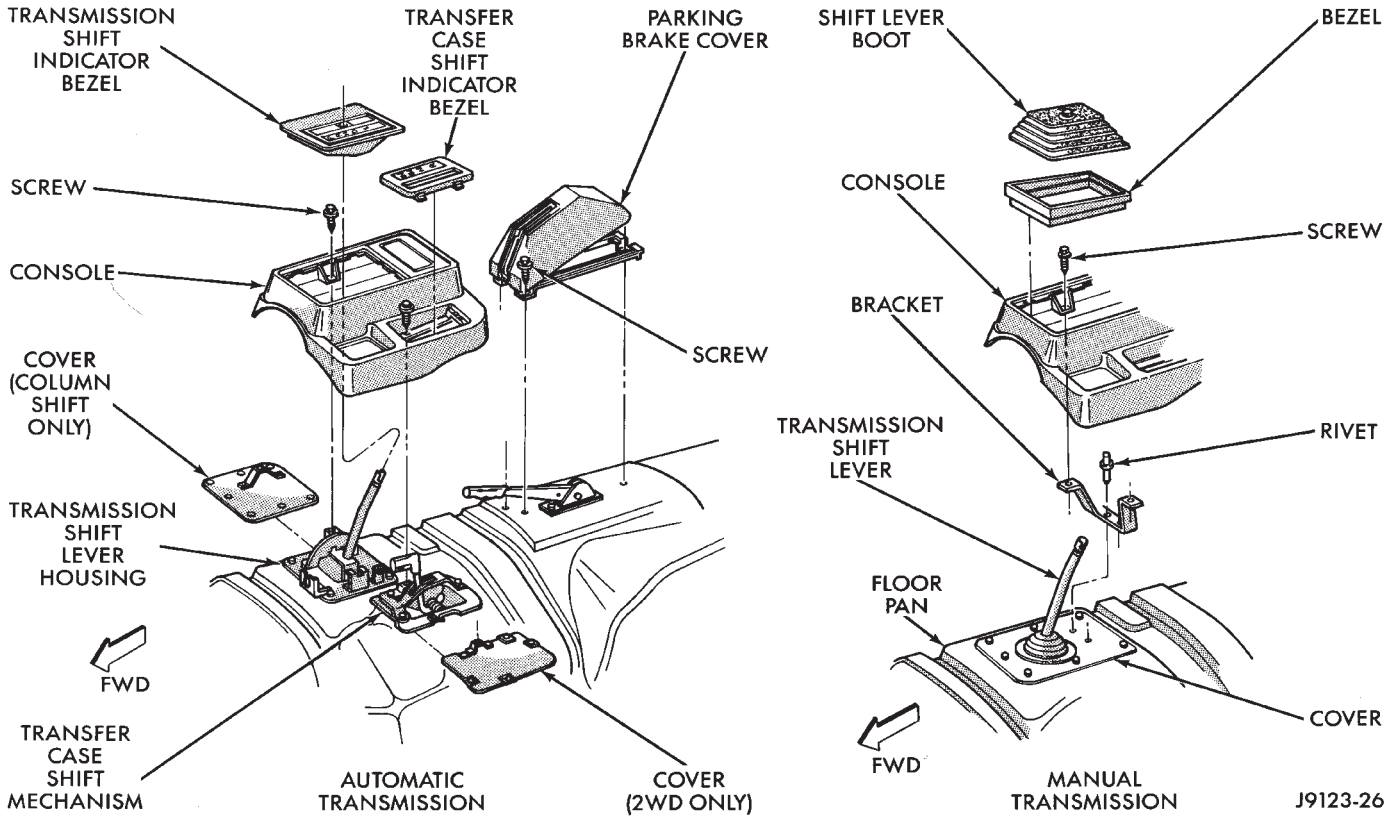

Fig. 141 Mini-Console With Floor Shift

PARKING BRAKE HANDLE COVER—XJ VEHICLES

REMOVAL

(1) Detach the rear of the cover from the base and pivot it upward.

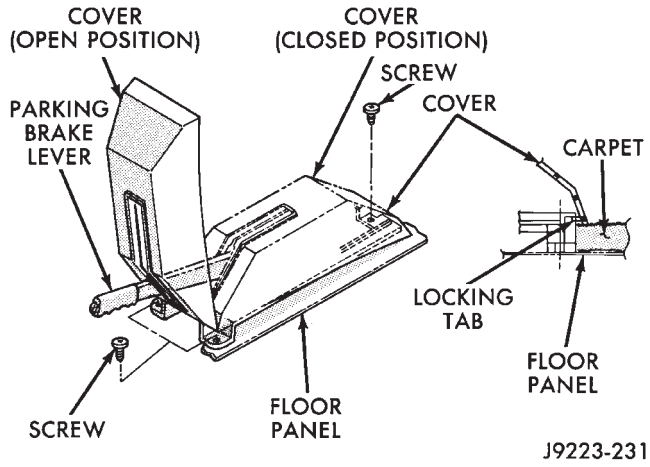

Fig. 142 Park Brake Cover With Mini-Console—XJ Vehicles

(2) Remove the retaining screws from the cover base.

(3) Remove the trim cover from the from the floor.

INSTALLATION

(1) Position the cover on the floor and install the retaining screws.

(2) Pivot the cover to the closed position and engage the locking tab.

MINI-CONSOLE WITH FLOOR SHIFT

REMOVAL

(1) Remove the transmission shift lever handle/knob. For vehicles with an automatic transmission, pull the handle straight up. For vehicles with a manual transmission, loosen the locknut and un-thread the shift knob from the shaft.

(2) Remove the automatic transmission and transfer case shift indicator bezel by prying upward to release them.

(4) Disconnect the lamp socket from the bezel.

(5) Remove the console retaining screws.

(6) Disconnect the wire harness connector.

(7) Remove the mini-console from the transmission tunnel.

INSTALLATION

(1) Position the mini-console on the transmission tunnel, connect the wire harness connector and install the retaining screws. Tighten the screws to 1 N·m (13 in-lbs) torque.

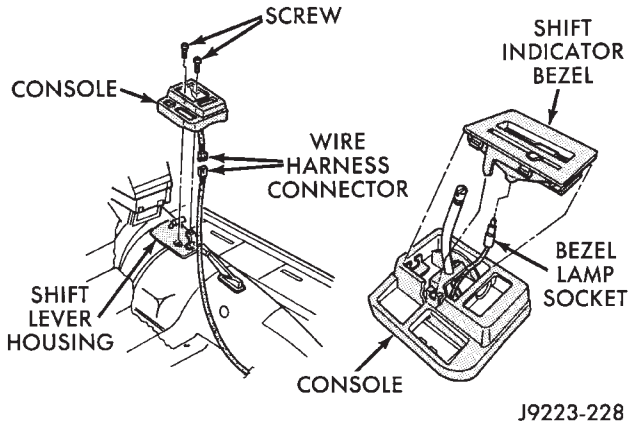

Fig. 143 Mini-Console With Floor Shift

(2) Position the shift indicator bezel at the console and connect the lamp socket to the bezel. Install the bezel in the console.

(3) Install the shift lever handle/knob. For automatic transmissions, push the handle downward until it is engaged. For manual transmissions, thread the knob onto the shaft and tighten the locknut.

FULL FLOOR CONSOLE—XJ VEHICLES

REMOVAL

(1) Remove the transmission shift lever handle/knob. For automatic transmissions, pull the handle straight upward to remove it. For manual transmissions, loosen the locknut and un-thread the shift knob from the shaft.

(2) Remove the automatic transmission shift indicator bezel. Remove the transfer case shift indicator bezel (if equipped) or cover plate from the console.

(3) If equipped, insert a thin-blade tool under the edge of the outside mirror remote control switch and pry outward to detach it from the console. Disconnect the wire harness connector from the switch (Fig. 195).

(4) Remove the cover retaining screws and remove the cover from the console.

(5) Remove the remainder of the console attaching screws from the brackets and disconnect the wire harness connector.

(6) Separate the console floor air duct from the air outlet duct.

(7) Remove the console and air duct from the floor.

(8) Separate the floor air duct from the console.

(9) Remove the retaining screws and detach the floor duct from the heater housing, if necessary.

(10) Remove the console support brackets.

The brackets are attached directly to the floor panel below the carpet.

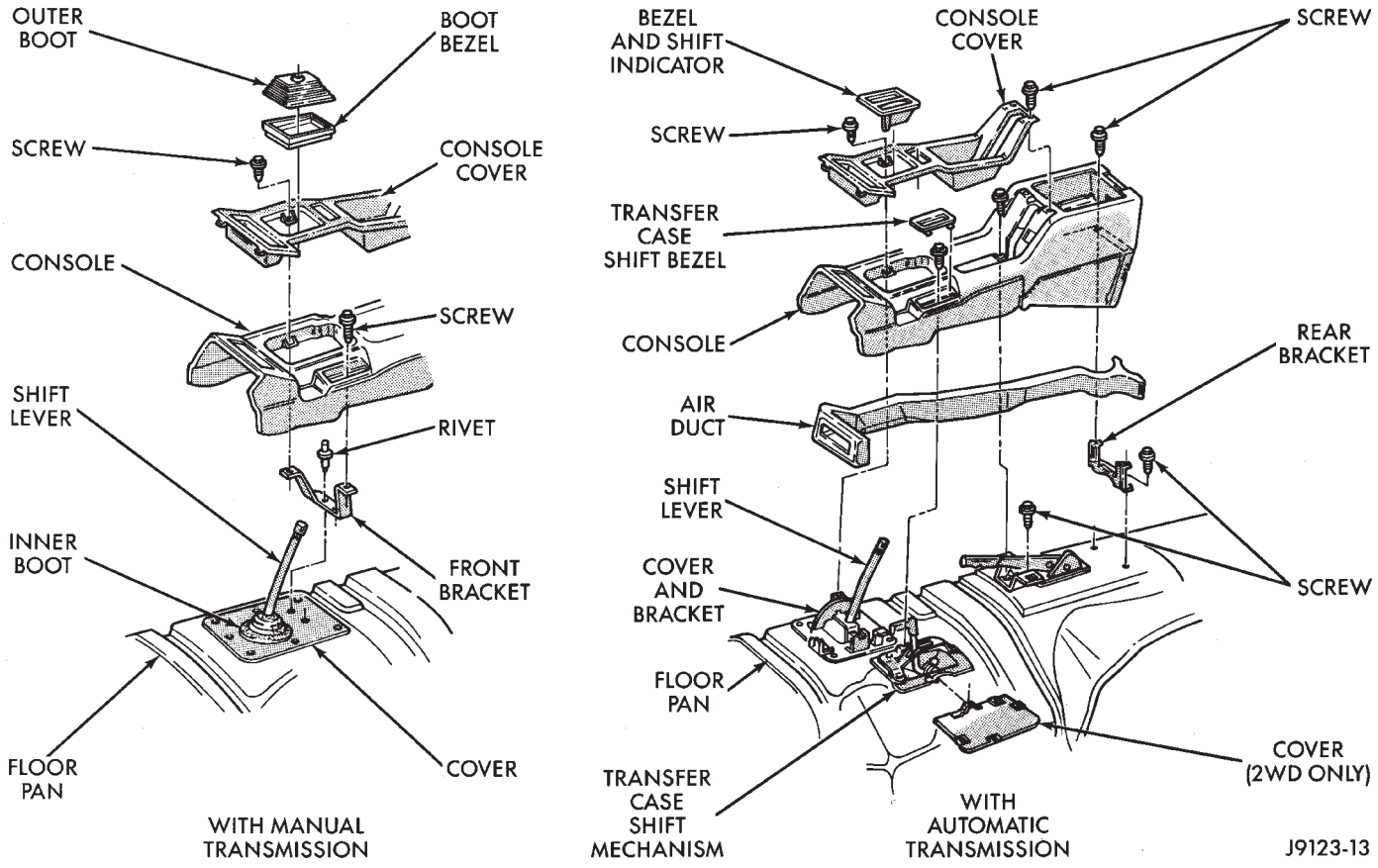

Fig. 144 Full Console—XJ Vehicles

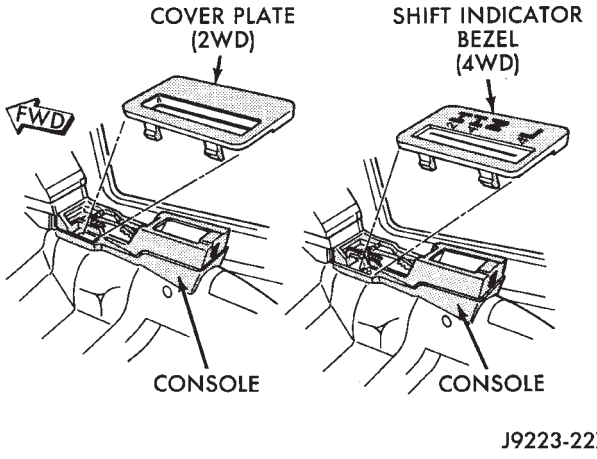

Fig. 145 Transfer Case Shift Indicator Bezel/Cover Plate

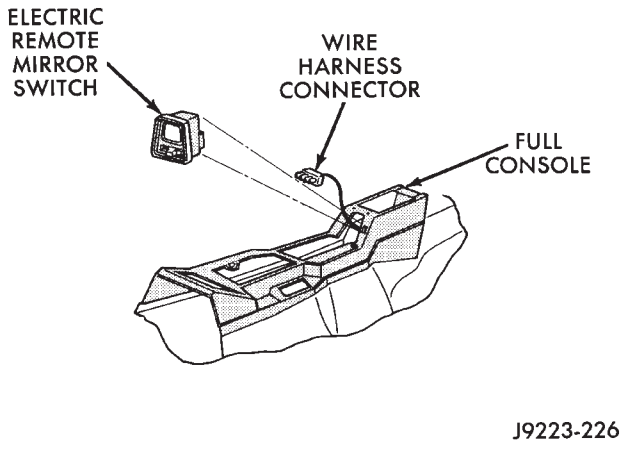

Fig. 146 Outside Mirror Remote Control Switch—XJ Vehicles

INSTALLATION

(1) Install the console support brackets, if removed. Tighten the screws to 1 N·m (11 In-lbs) torque.

The brackets are attached directly to the floor panel below the carpet.

(2) Attach the floor duct to the heater housing, if removed. Tighten the screws to 1 N·m (11 In-lbs) torque.

(2) Attach the air duct to the console.

(3) Position the console on the floor, attach the air duct to the air outlet duct, connect the wire harness connector and install the console retaining screws in the brackets. Tighten the screws to 1 N·m (11 In-lbs) torque.

(4) Install the console cover and shift indicator bezels (or cover plate). Tighten the screws to 1 N·m (11 In-lbs) torque.

(5) If equipped:

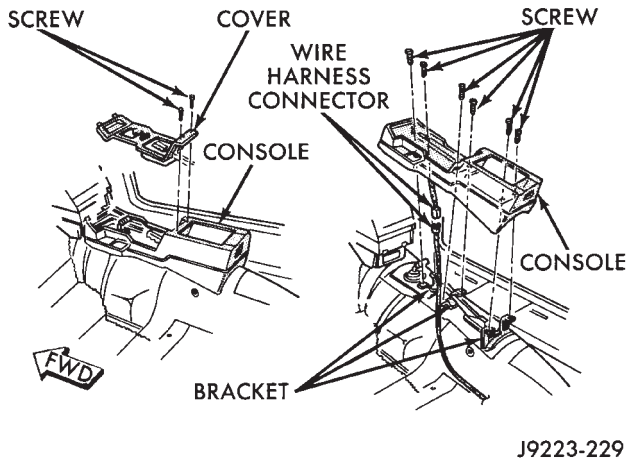

Fig. 147 Full Console Removal/Installation

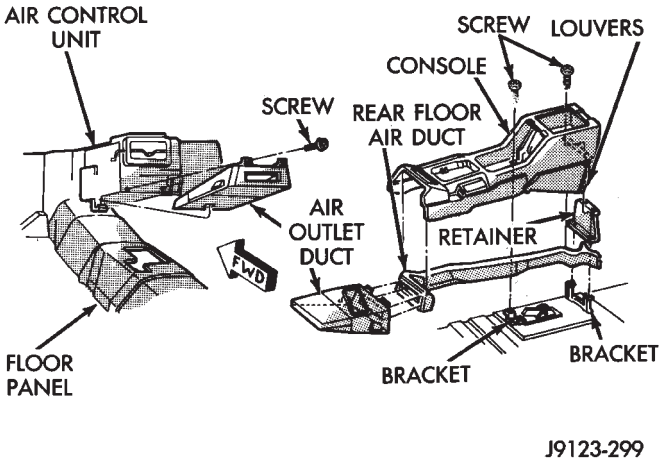

Fig. 148 Air Outlet and Console Floor Air Ducts

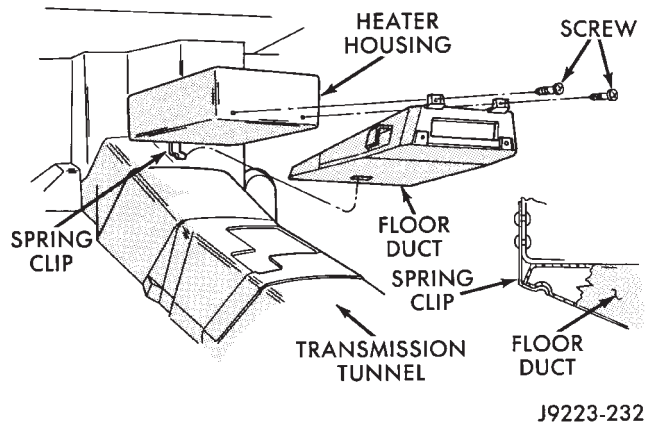

Fig. 149 Floor Duct Removal/Installation

- connect the wire harness connector to the outside mirror remote control switch,
- insert the switch into the console hole, and
- push inward to engage the retaining clips.

(6) Install the shift lever handle/knob.

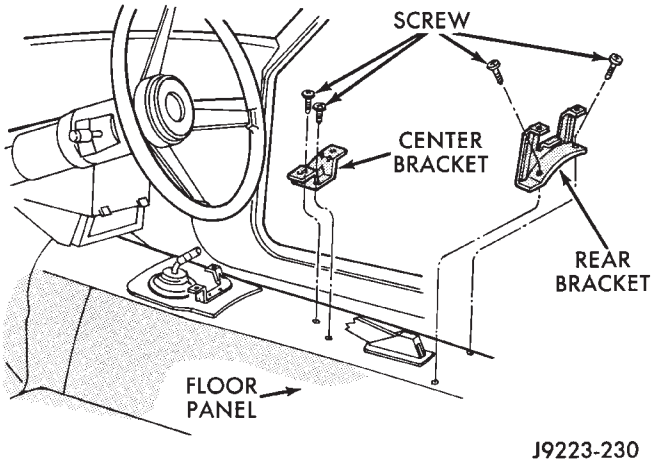

Fig. 150 Floor Console Support Brackets

JACK STORAGE—XJ VEHICLES

SERVICE INFORMATION

The XJ lift jack and related tools are stored under the rear seat behind the front passenger's seat. The jack and tools are attached to the floor panel and seat cushion crossmember with a retainer and holddown bolt.

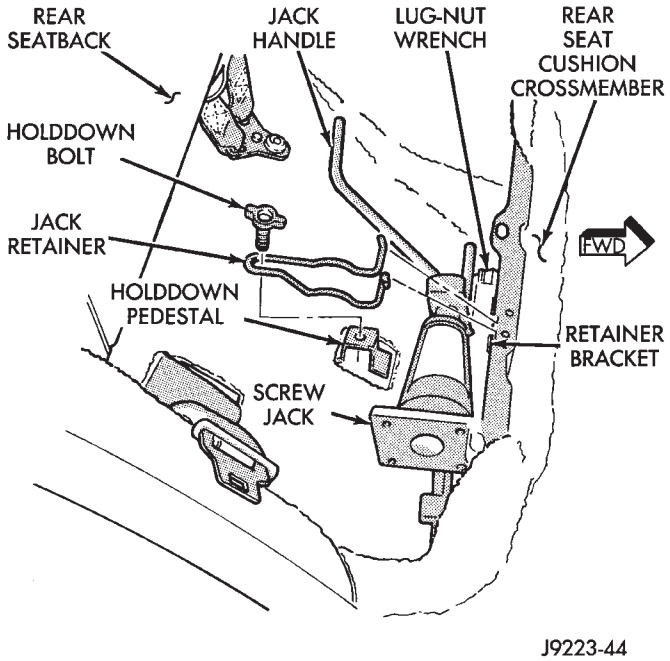

Fig. 151 Jack and Related Tools—XJ Vehicles

When necessary, the jack retainer bracket can be removed from the crossmember by drilling-out the rivet heads and then removing the rivet bodies with a punch. Install the retainer bracket with either rivets or bolts and nuts.

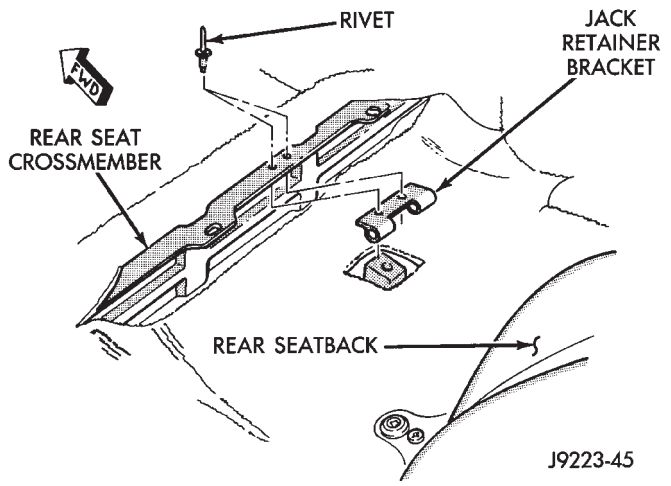

Fig. 152 Jack Retainer Bracket—XJ Vehicles

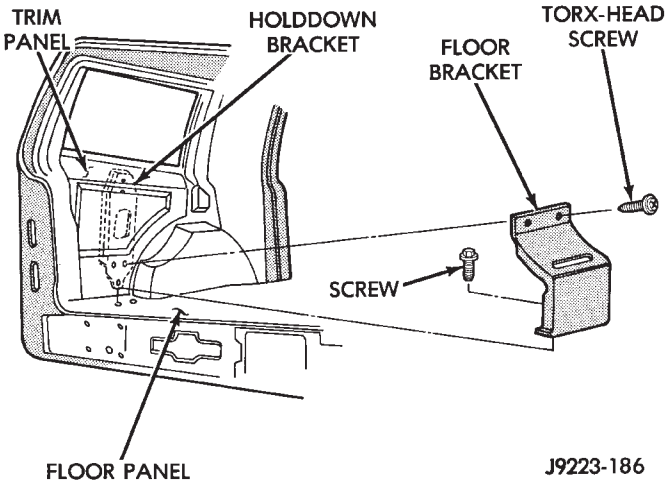

Fig. 154 Spare Tire/Wheel Floor Bracket

SPARE TIRE/WHEEL HOLDDOWN AND FLOOR BRACKETS—XJ VEHICLES

REMOVAL

(1) Remove the spare tire and wheel.

(2) Remove the floor bracket retaining screws.

(3) Remove the holddown bolt from the holddown bracket.

(4) Remove the trim panel from the quarter panel. If necessary, refer to the removal procedure.

(5) Remove the retaining screws and the holddown bracket from the quarter panel.

INSTALLATION

(1) Position the holddown bracket on the quarter panel and install the retaining screws. Tighten the screws to 8 N·m (71 in-lbs) torque.

(2) Install the quarter trim panel. If necessary, refer to the installation procedure.

(3) Install the holddown bolt in the holddown bracket.

The length of the holddown bolt is different for P195 and P225 tires.

(4) Position the floor bracket on the trim panel and install the retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.

(5) Install the spare tire and wheel.

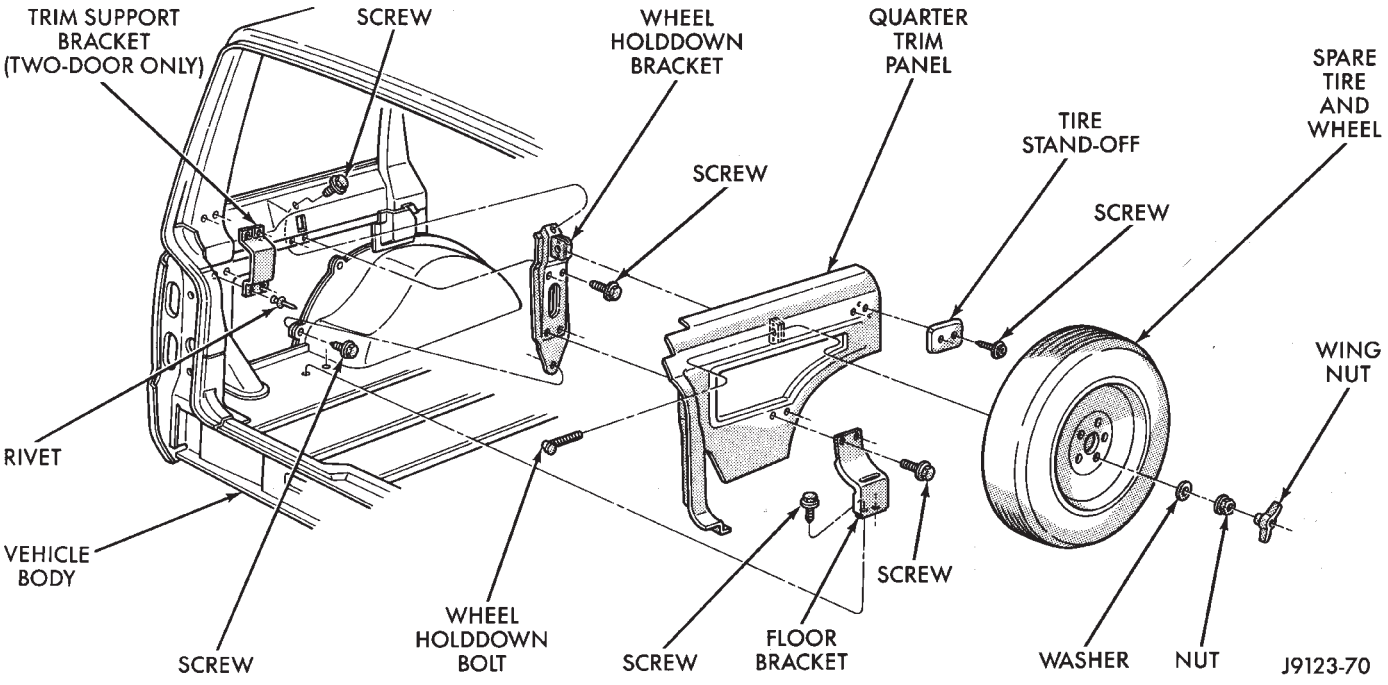

Fig. 153 Interior Spare Tire/Wheel Holddown and Floor Brackets

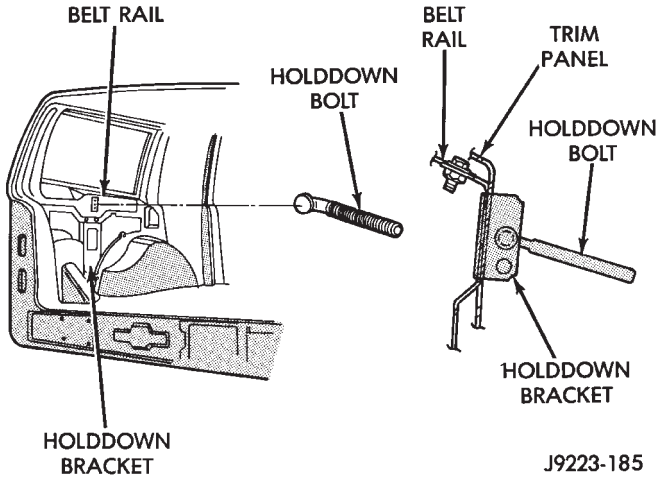

Fig. 155 Spare Tire/Wheel Holddown Bolt and Bracket (LHD)

CARPETS AND FLOOR MATS

SERVICE INFORMATION

The carpets/mats are retained around the perimeter of the floor panel by the interior trim mouldings and trim panels. To remove a carpet/mat, all of the retaining trim mouldings and panels must be removed along with all the interfering components (as applicable):

- the seat(s),
- the parking brake lever cover—XJ vehicles,
- the floor console, and
- the transmission and transfer case (if equipped) floor shift cover/boot.

If necessary, refer to the applicable removal procedure(s) within this manual.

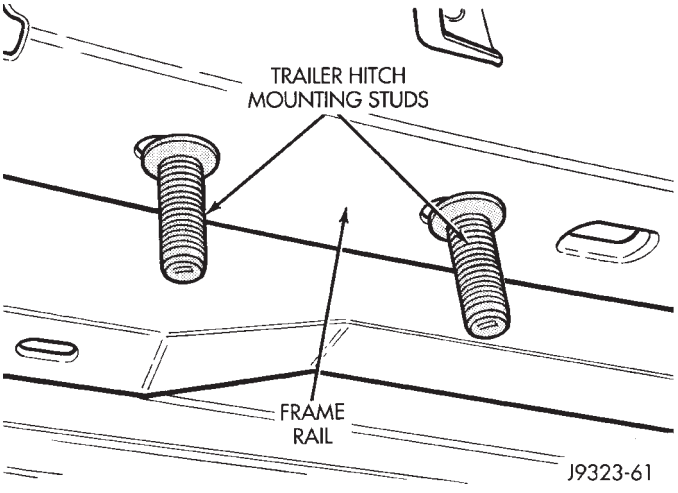

Fig. 156 Spare Tire/Wheel Holddown Bolt and Bracket (RHD)

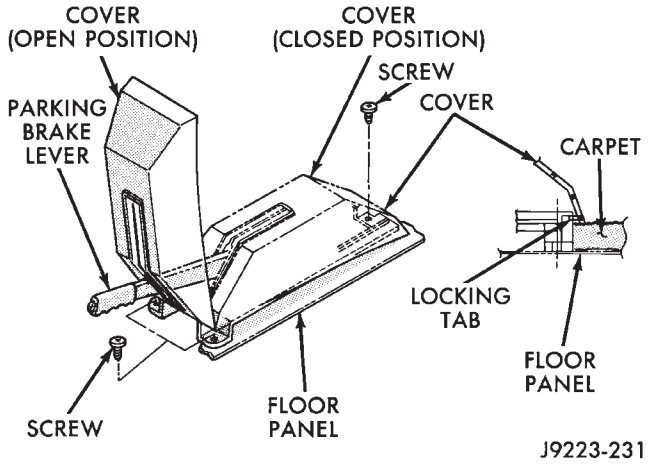

Fig. 157 Parking Brake Lever Removal/Installation

FRONT CARPET/MAT—XJ VEHICLES

REMOVAL

(1) Remove the door sill inner scuff plates.
(2) Remove the front and rear seats (as applicable).
(3) As necessary, remove the trim panels and mouldings.
(4) Remove all other interfering components.
(5) Remove the carpet and mat from the floor panel.

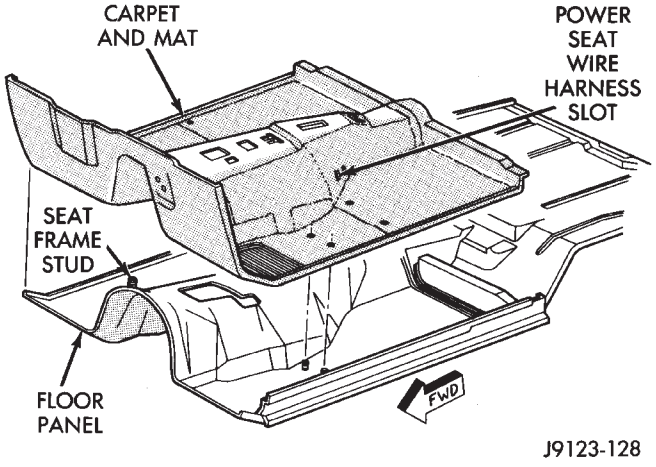

Fig. 158 Front Carpet and Mat—XJ Vehicles

INSTALLATION

(1) Position the carpet and mat on the floor panel.
(2) Install all the components that were removed to facilitate carpet/mat removal.
(3) Install the trim panels and mouldings.
(4) Install the door sill inner scuff plates.
(5) Install the front and rear seats (as applicable).

REAR CARPET/MAT—XJ VEHICLES

REMOVAL

(1) Remove the retaining screws, and the liftgate latch striker and scuff plate.

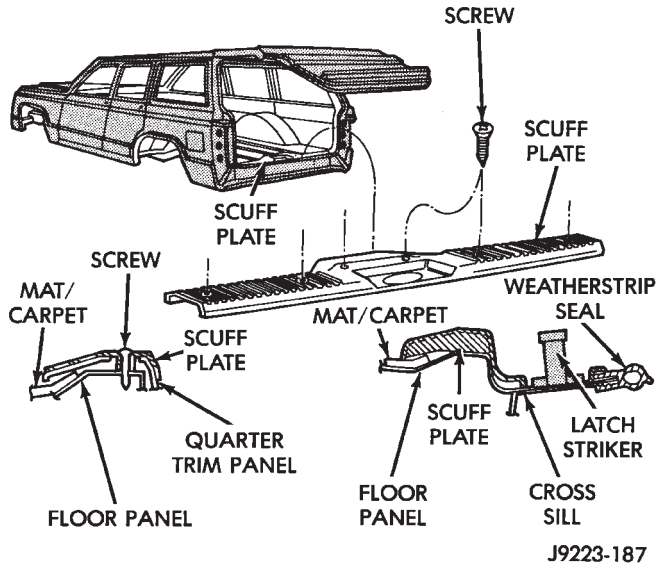

Fig. 159 Liftgate Latch Striker and Scuff Plate

(2) Drill-out the retaining rivet heads and remove the cargo tie-down footman loops from the carpet.

(3) As necessary, remove the trim panels and mouldings.

(4) Remove the all other interfering components.

(5) Remove the carpet and mat from the floor panel.

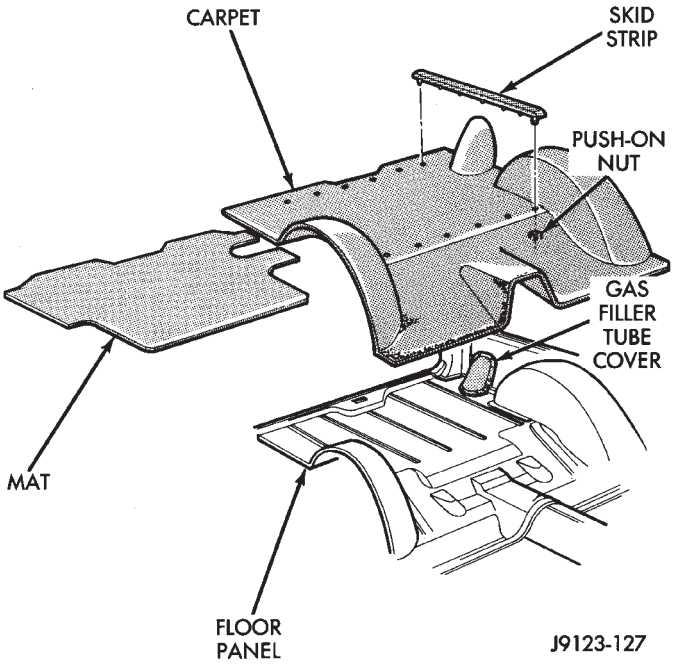

Fig. 160 Rear Carpet and Mat—XJ Vehicles

(6) If necessary, remove the skid strips from the carpet.

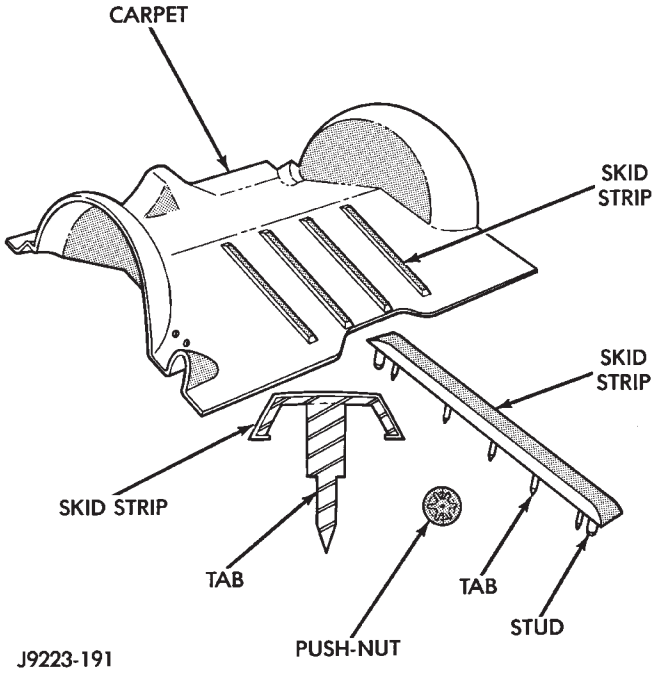

Fig. 161 Rear Carpet Skid Strips—XJ Vehicles

(7) If necessary, remove the insulation from the wheelhouses.

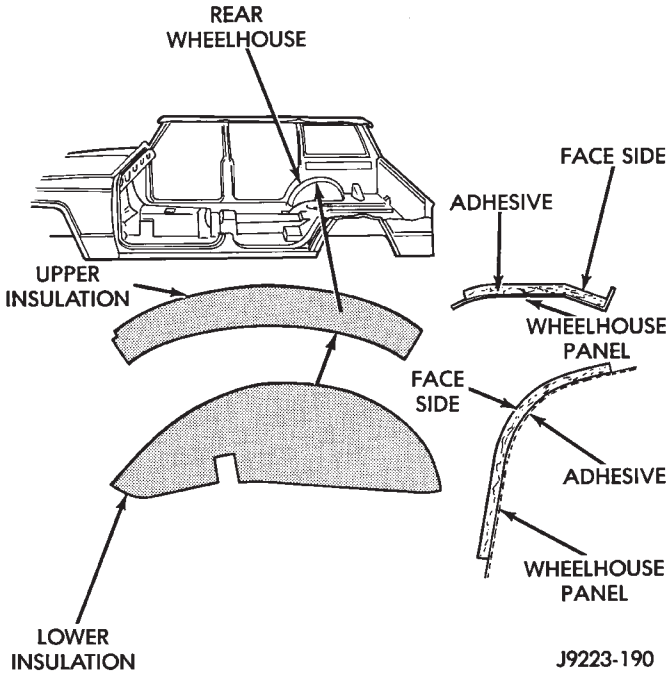

Fig. 162 Wheelhouse Insulation

INSTALLATION

(1) If removed, install the skid strips on the carpet.

(2) If removed, install the insulation on the wheelhouses.

(3) Position the mat on the floor panel.

(4) Position the carpet on the mat.

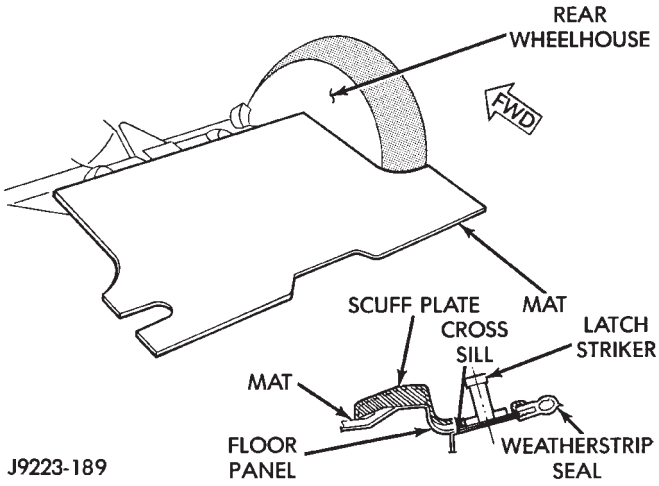

Fig. 163 Cargo Area Mat—XJ Vehicles

(5) Install all the components that were removed to facilitate carpet and mat removal.

(6) Install the trim panels and mouldings.

(7) Install the cargo tie-down footman loops on the carpet with replacement rivets.

(8) Position the liftgate scuff plate and latch striker on the carpet and cross sill. Install and tighten the scuff plate screws to 1 N·m (11 in-lbs) torque. Tighten the latch striker screws to 30 N·m (22 ft-lbs) torque.

●CARGO BARRIER

REMOVAL

(1) Tilt both seats forward and raise the storage compartment lid.

(2) Remove the wing nuts from the front side of the cargo barrier (Fig. 164).

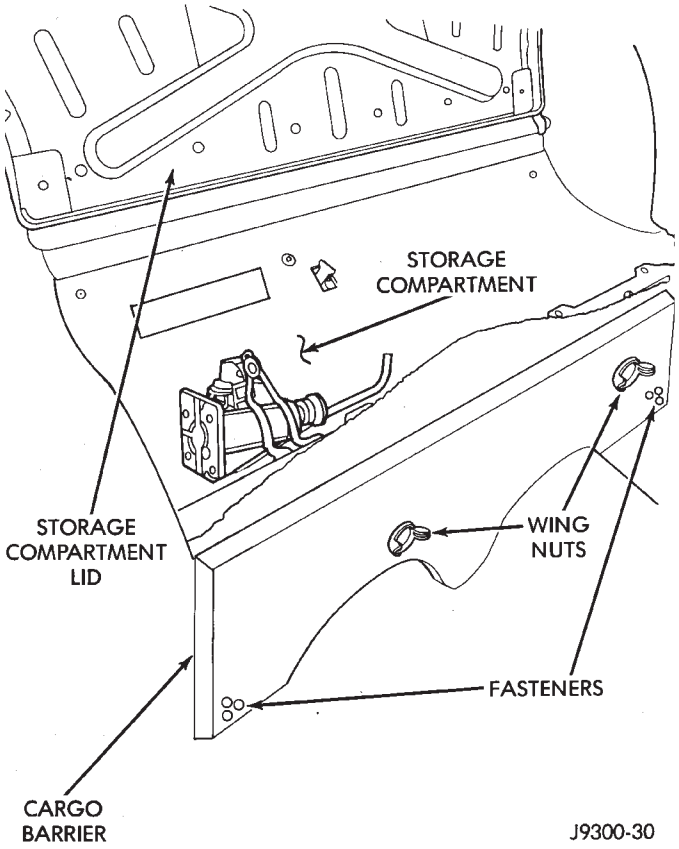

Fig. 164 Cargo Barrier

(3) Remove the fasteners from the lower outer corners of the cargo barrier.

(4) Remove the cargo barrier.

INSTALLATION

(1) Reverse the removal procedure to install the cargo barrier.

BODY COMPONENTS—YJ VEHICLES

CONTENTS

GENERAL SERVICE INFORMATION

LABELS/DECALS/PLATES

Most of the labels, decals and metal plates that are affixed to YJ vehicles (Figs. 1, 2, 3, 4 and 5) contain either safety or otherwise essential information.

Refer to the Introduction of this manual for additional information involving labels and metal plates.

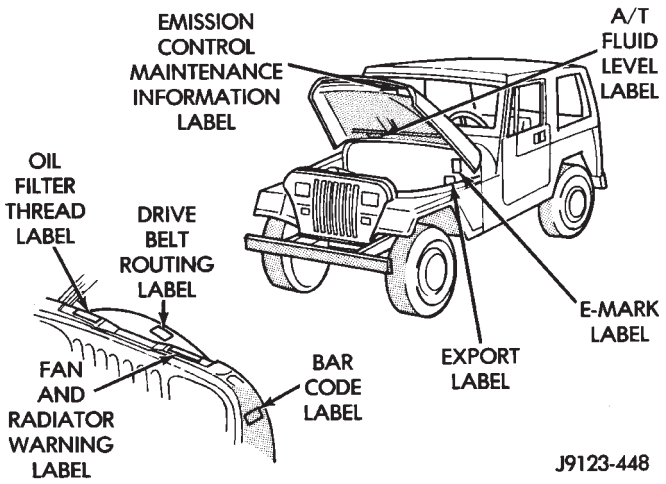

Fig. 1 YJ Underhood Labels/Decals

INSTALLATION

Follow the instructions included with each replacement label/decal/plate to affix it to a panel, component or window glass.

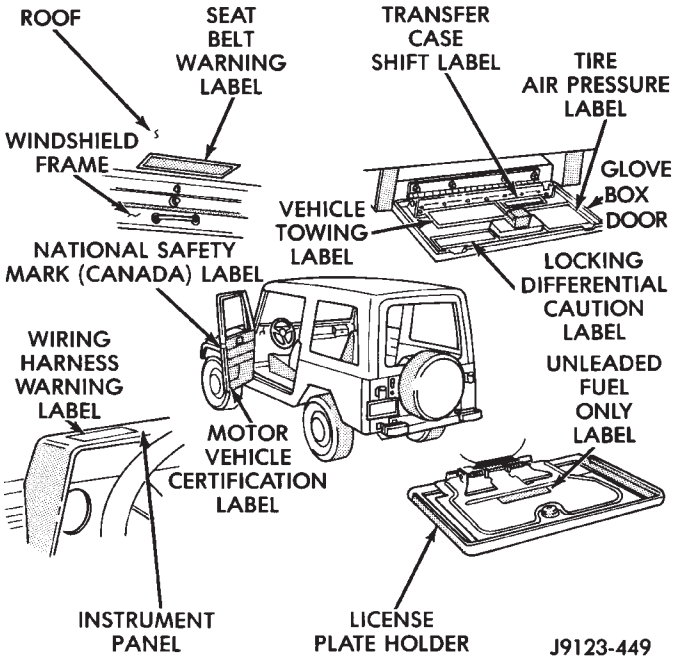

Fig. 2 YJ Interior and License Plate Holder Labels/ Decals

KEY LOCK CYLINDERS

The ignition switch, glove box door, floor console, metal front doors and the tailgate all have key lock cylinders. When lock cylinder service is necessary, refer to the applicable service information source:

- Ignition Switch—Group 8D,
- Instrument Panel,
- Floor Consoles,
- Front Doors, and
- Tailgate.

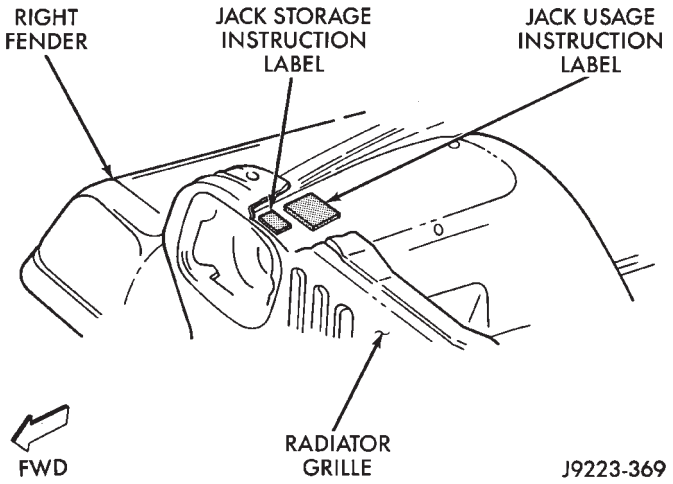

Fig. 3 YJ Jack Storage and Usage Labels

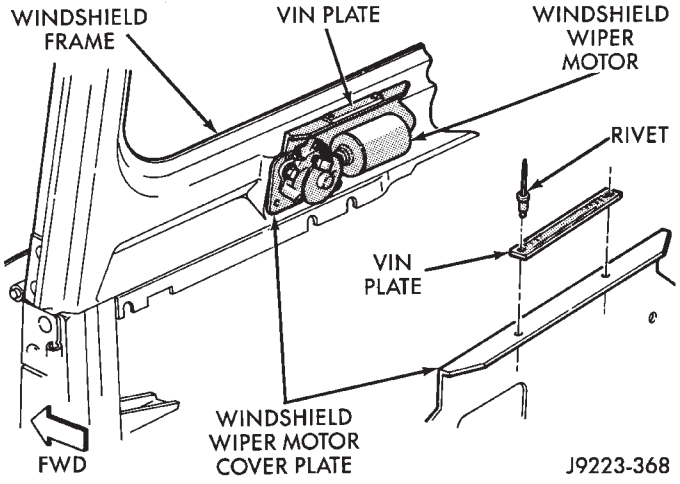

Fig. 5 YJ VIN Plate

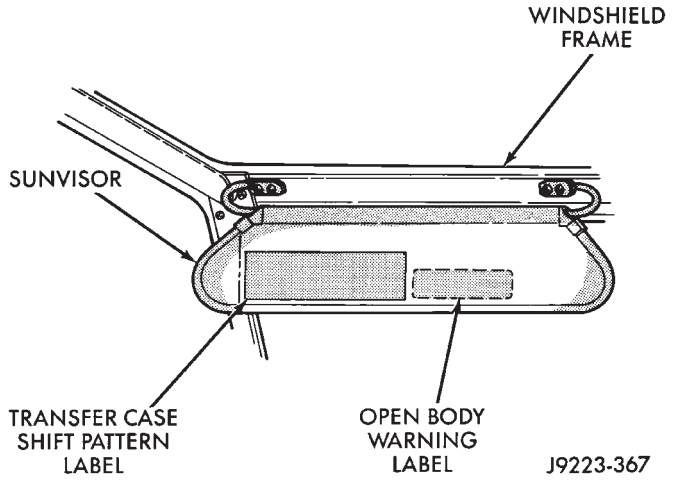

Fig. 4 YJ Sunvisor Labels

EXTERIOR COMPONENTS

INDEX

RADIATOR GRILLE APPLIQUE

REMOVAL

(1) Raise the hood.

(2) Remove the headlamp bezels (Fig. 1).

(3) Remove the headlamp bulb retainer screws (Fig. 2).

(4) Disconnect and remove the headlamps and buckets as a unit (Fig. 2).

(5) Remove the parking lamp retaining screws (Fig. 2).

(6) Disconnect the wire harness connectors and remove the parking lamps (Fig. 2).

(7) Remove the front crossmember cover.

(8) Remove the retaining screws and the bumper inserts at the top of the grille panel (Fig. 1).

(9) Detach the grille applique from the grille panel (Fig. 1).

(10) Remove the double faced foam adhesive tape at the bottom of the grille applique (Fig. 1).

INSTALLATION

(1) Install double faced foam tape at the bottom, interior side of the grille applique (Fig. 1).

(2) Position the grille applique over the grille panel and press inward along the bottom where the tape is located (Fig. 1).

(3) Install the grille applique retaining screws and the bumper inserts (Fig. 1).

(4) Connect the wire harness connectors and position the headlamp buckets and headlamps in the grille panel (Fig. 2).

(5) Install the headlamp bulb retainer and the screws (Fig. 1). Tighten the screws to 2 N·m (18 in-lbs) torque.

(6) Install the headlamp bezels and the retaining screws (Fig. 1). Tighten the screws securely.

(7) Connect the wire harness connectors and install the parking lamps (Fig. 2).

(8) Install the parking lamp retaining screws. Tighten the screws to 2 N·m (18 in-lbs) torque.

(9) Close the hood.

(10) Install the front crossmember cover.

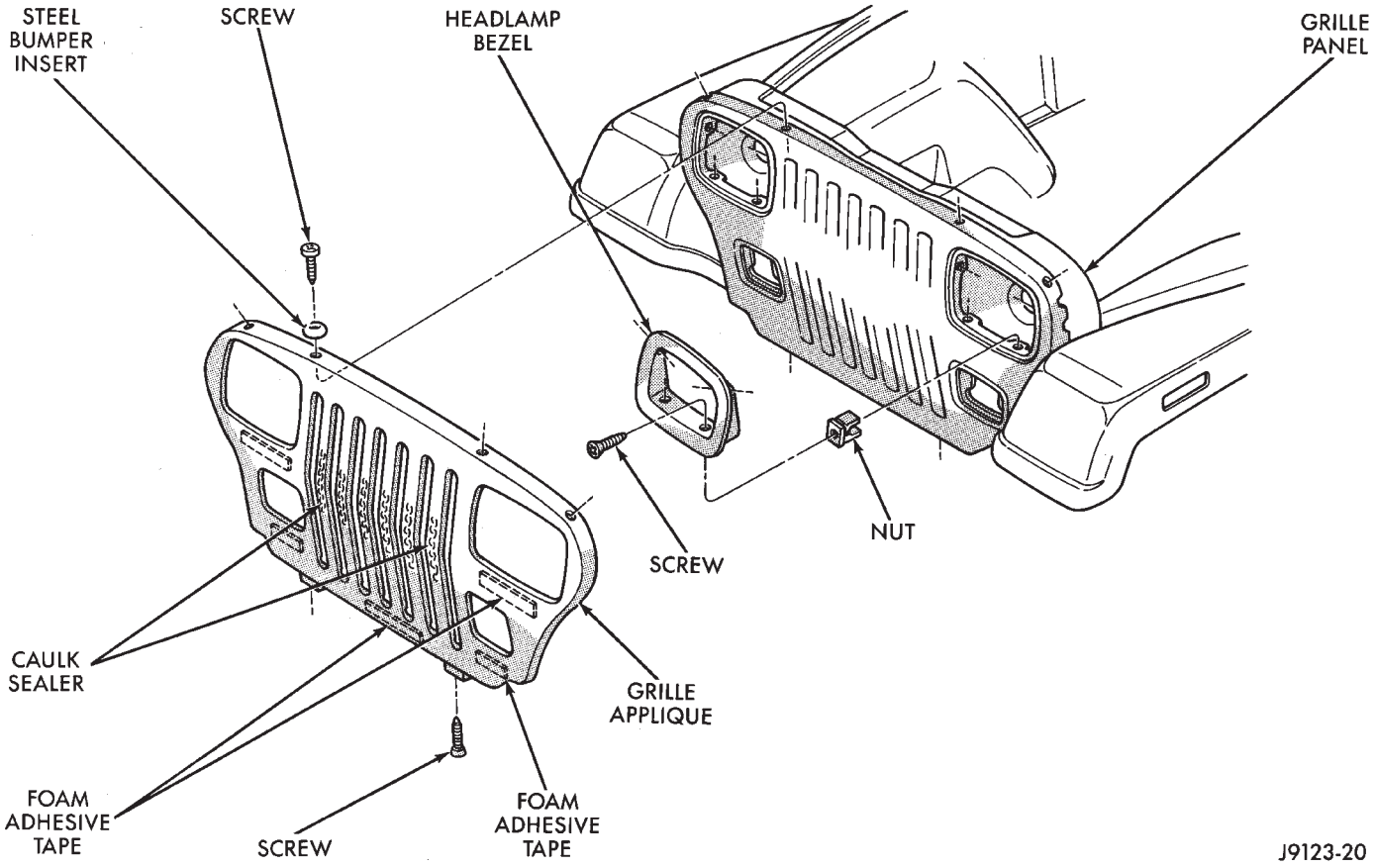

Fig. 1 Grille Applique, Headlamp Bezel and Grille Panel

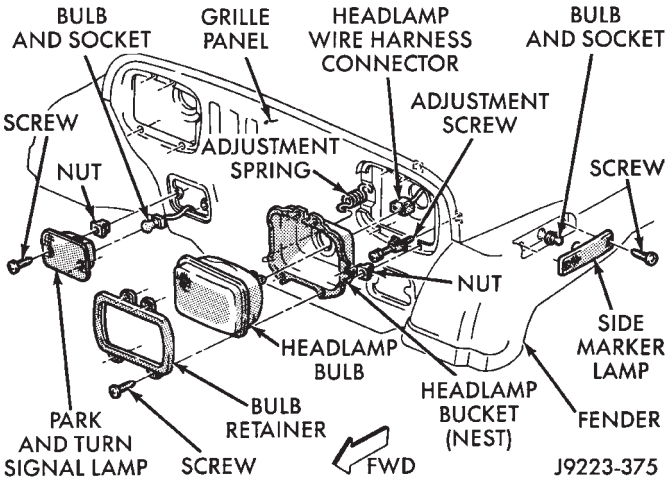

Fig. 2 Front Lamps

RADIATOR GRILLE PANEL

REMOVAL

(1) Remove the front crossmember cover.

(2) Remove the screws and washers, and separate the radiator and shroud from the grille panel (Fig. 3).

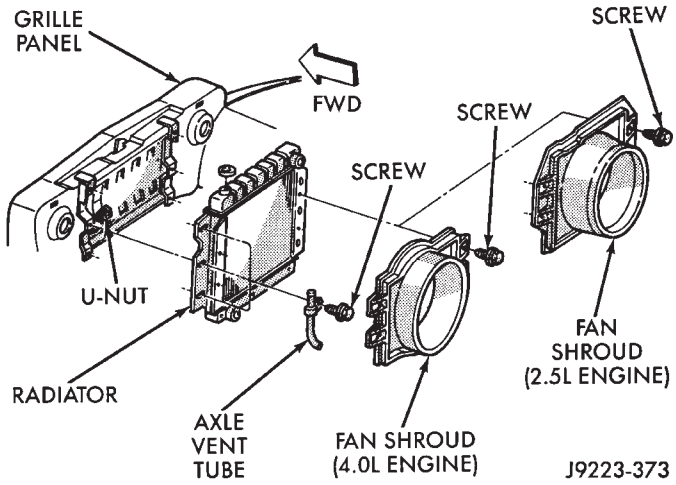

Fig. 3 Radiator and Shroud

(3) If equipped, remove the retaining bolts and separate the A/C condenser from the grille panel (Fig. 4).

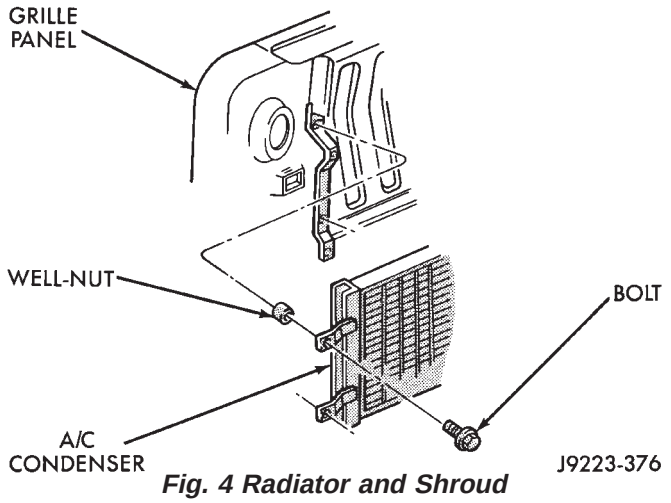

Fig. 4 Radiator and Shroud

(4) Remove the retaining screws and the P/S fluid reservoir from the grille panel (Fig. 5).

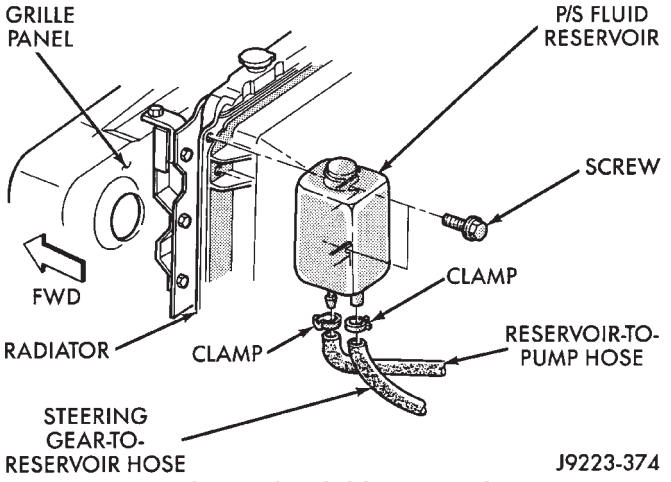

Fig. 5 P/S Fluid Reservoir

(5) Remove the retaining screws and the air intake adapters from the grille panel (Fig. 6).

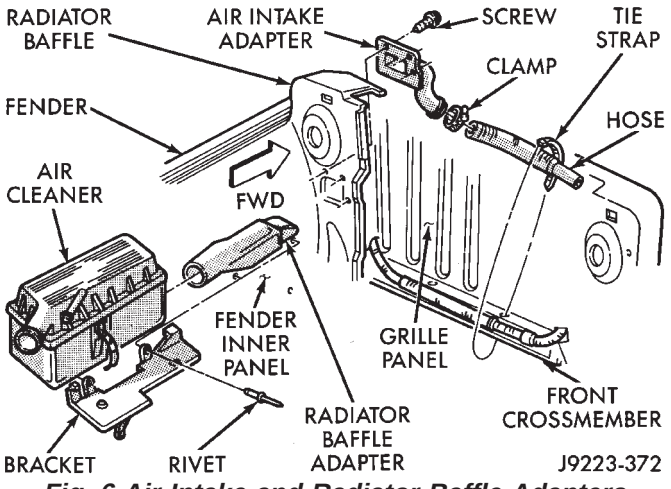

Fig. 6 Air Intake and Radiator Baffle Adapters

(6) Remove the bolts and washers that attach the grille panel to the fenders (Fig. 7).

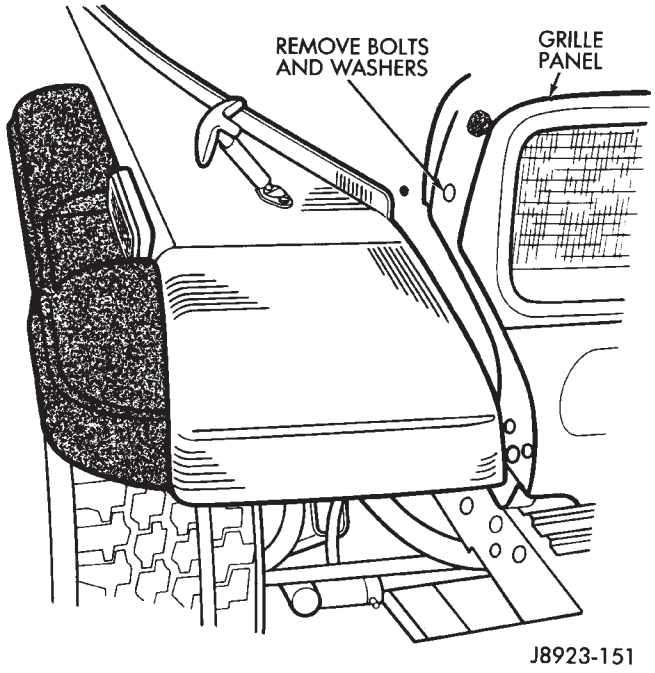

Fig. 7 Grille Panel Front Bolt

(7) Remove the bolts, washers and spacers that attach the grille panel to the front crossmember (Fig. 8).

(8) Remove the nuts that attach the radiator support rods to the front brackets (Fig. 9). Remove the rods from the brackets.

(9) Tilt the grille panel forward and disconnect the head lamp, turn signal and marker lamp wire harness connectors.

(10) For vehicles equipped with A/C, discharge the A/C system. Disconnect the high pressure hose at the sight glass connection and at the compressor. Cap the hose and fittings to prevent foreign material entry. If necessary, refer to Group 24—Heating And Air Conditioning.

(11) Remove the grille panel from the vehicle (Fig. 8).

(12) If a replacement radiator grille panel will be installed, remove the grille applique (Fig. 8) and transfer the lamps, the headlamp buckets and the retaining brackets.

INSTALLATION

(1) Position the grille panel on the vehicle.

(2) Connect the marker, park and headlamp wire harness connectors.

(3) Connect the radiator support rods with the retaining brackets (Fig. 9).

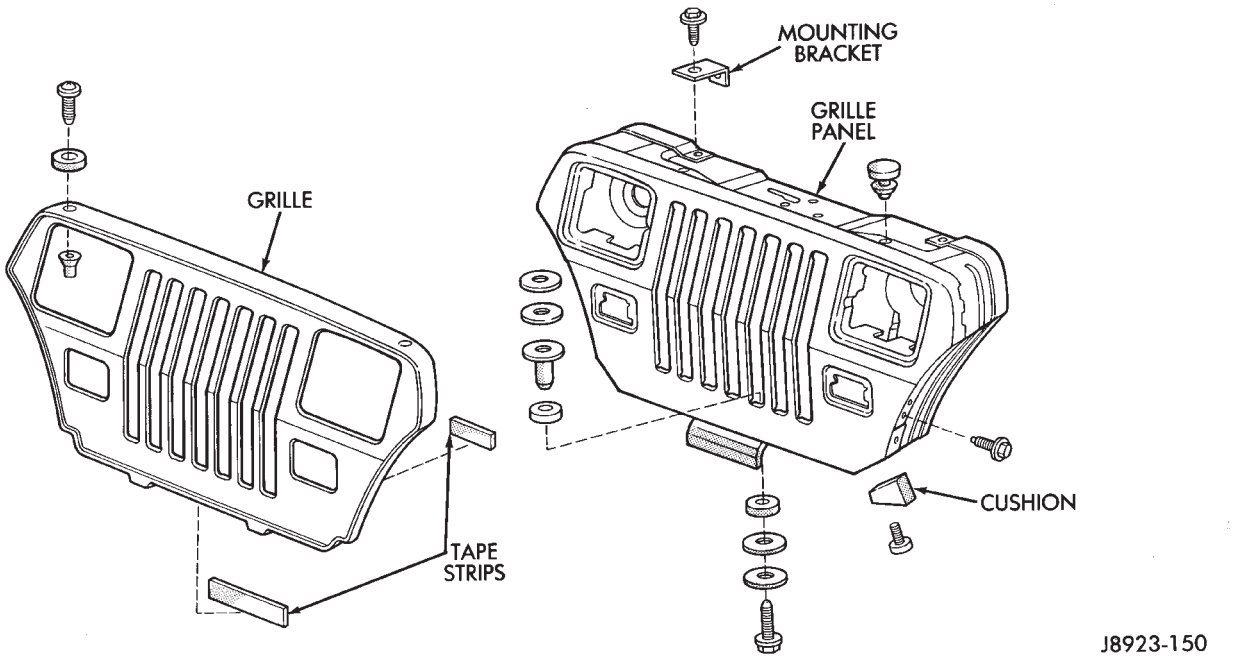

Fig. 8 Radiator Grille Applique and Grille Panel

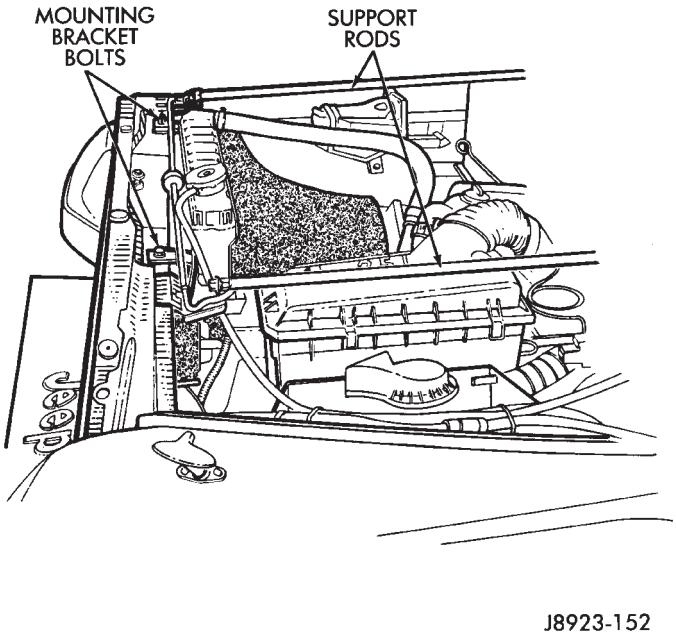

Fig. 9 Radiator Support Rods

(4) Attach the grille panel to the front crossmember.

(5) Install the grille panel-to-front fender bolts (Fig. 7). Tighten the retaining screws to 27 N·m (20 ft-lbs) torque.

(6) Install the air intake adapters on the grille panel (Fig. 6). Tighten the retaining screws to 3 N·m (25 in-lbs) torque.

(7) Install the P/S fluid reservoir on the grille panel (Fig. 5). Tighten the retaining screws to 8 N·m (72 in-lbs) torque.

(8) If equipped, install the A/C condenser on the grille panel (Fig. 4). Tighten the retaining screws to 2 N·m (20 in-lbs) torque. Connect the high pressure hose at the sight glass connection and at the compressor.

(9) Install the radiator and shroud on the grille panel (Fig. 3). Tighten the retaining screws to 15 N·m (132 in-lbs) torque.

(10) Install the front crossmember cover.

(11) If removed, install the grille applique (Fig. 8).

(12) Evacuate and charge the A/C system.

HOOD

REMOVAL

(1) Raise and support the hood.

(2) Disconnect the underhood lamp wire harness connector (Fig. 10).

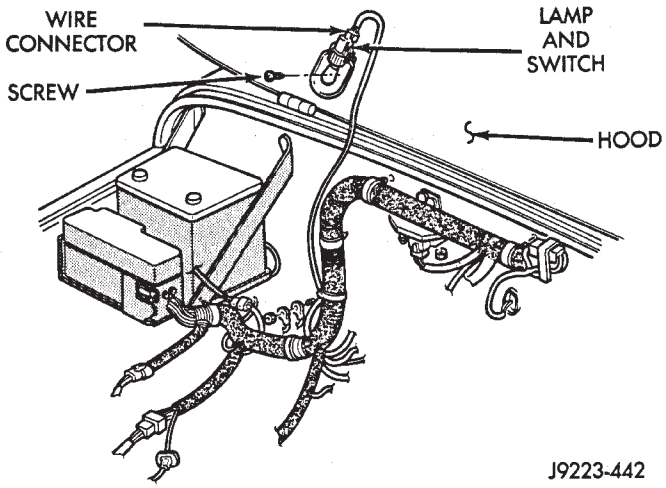

Fig. 10 Underhood Lamp

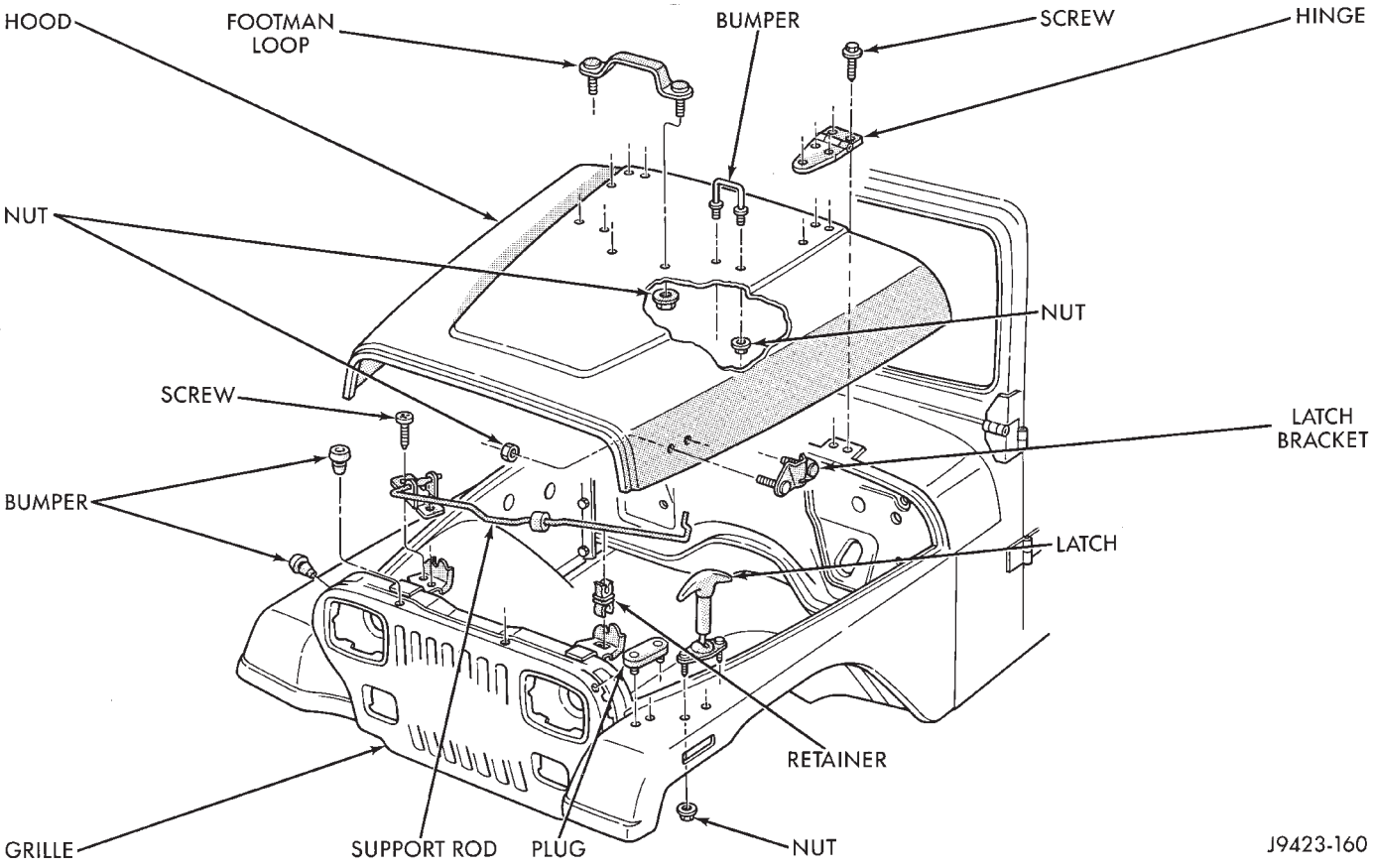

Fig. 11 Hood and Components

(3) Mark the position of the hinges on the hood for installation alignment reference (Fig. 11).

(4) Remove the hinge attaching screws and remove the hood (Fig. 11).

(5) If the hood must be replaced, remove and transfer the insulator panel, hinges, latches, bumpers, brackets, footman loop, hood lamp, support rod, and safety latch to the replacement hood.

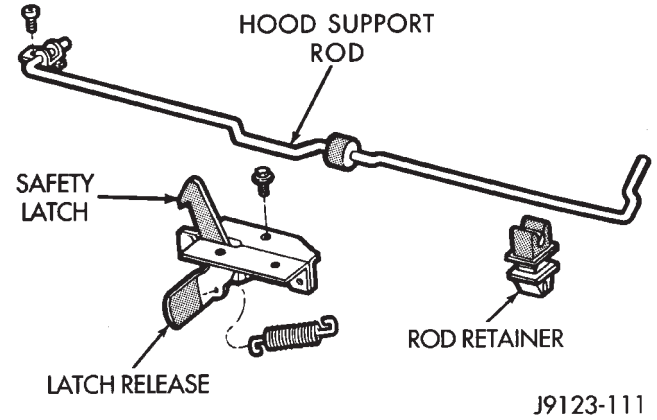

Fig. 12 Safety Latch and Support Rod

INSTALLATION

(1) Position the hood on the vehicle and install the hinge attaching screws (Fig. 11).

(2) Align the hinges with the installation reference marks on the hood and tighten the hinge screws securely.

(3) Connect the underhood lamp wire harness connector (Fig. 10).

(4) Close the hood.

HOOD ALIGNMENT

The hood hinge attaching screw holes are oversized to facilitate hood adjustment movement.

(1) Loosen the hinge attaching screws.

(2) Move the hood in the direction(s) required for correct alignment.

(3) Tighten the hinge attaching screws.

HOOD INSULATOR PANEL

REMOVAL

(1) Raise and support the hood.

(2) Remove the insulator panel retainers (Fig. 13).

(3) Remove the insulator panel from the hood.

INSTALLATION

(1) Position the insulator panel on the hood.

(2) Install the insulator panel retainers.

(3) Remove the support rod and close the hood.

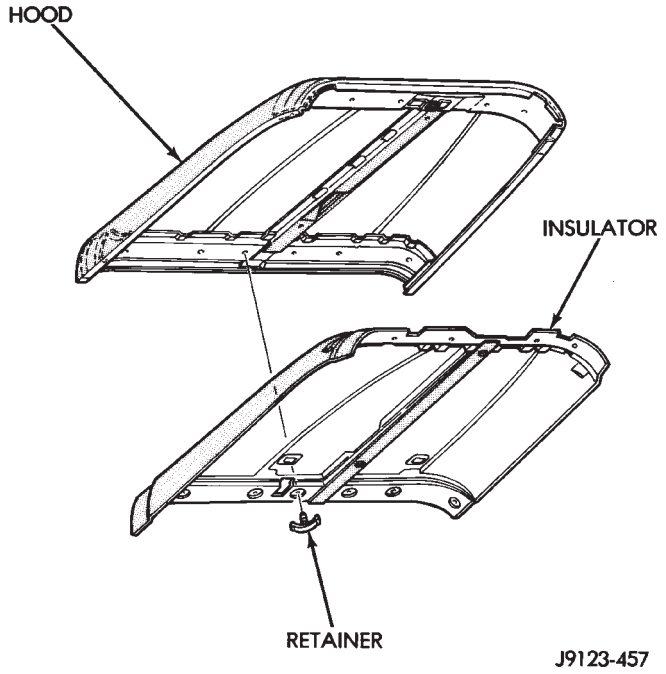

Fig. 13 Hood Insulator Panel

HOOD SAFETY LATCH

REMOVAL

(1) Raise and support the hood.

(2) Remove the latch retaining screws from the grille panel (Fig. 14).

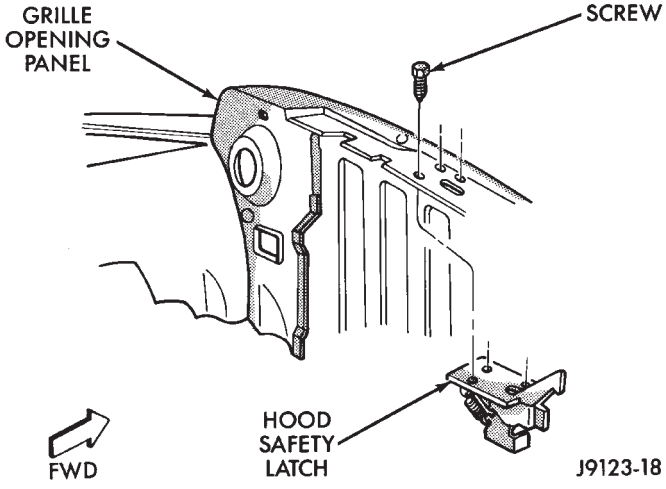

Fig. 14 Hood Safety Latch Removal/Installation

(3) Remove the latch from the grille panel.

INSTALLATION

(1) Position the latch on the grille panel (Fig. 14).

(2) Install the latch retaining screws.

(3) Remove the support rod and close the hood.

COWL WEATHERSTRIP SEAL

REMOVAL/INSTALLATION

(1) Carefully separate the seal from the cowl/dash panel flange (Fig. 15).

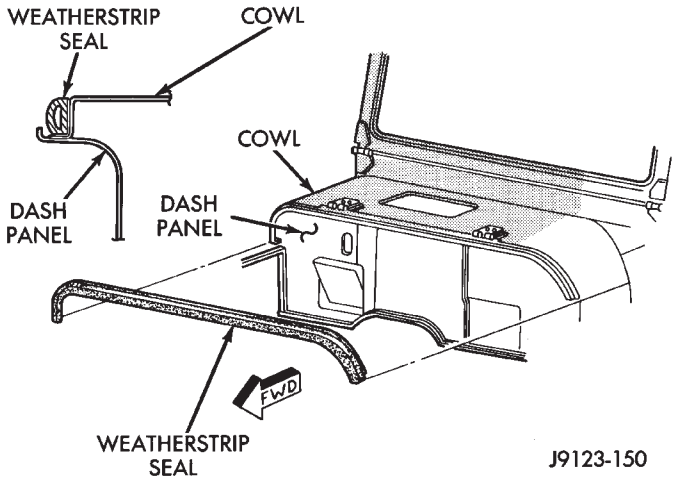

Fig. 15 Cowl Weatherstrip Seal

(2) Position the seal on the cowl/dash panel flange (Fig. 15) and press it against the panel edge.

COWL GRILLE AND SCREEN

REMOVAL

(1) Remove the screws that attach the cowl air intake grille to the cowl and to the air intake duct (Fig. 16).

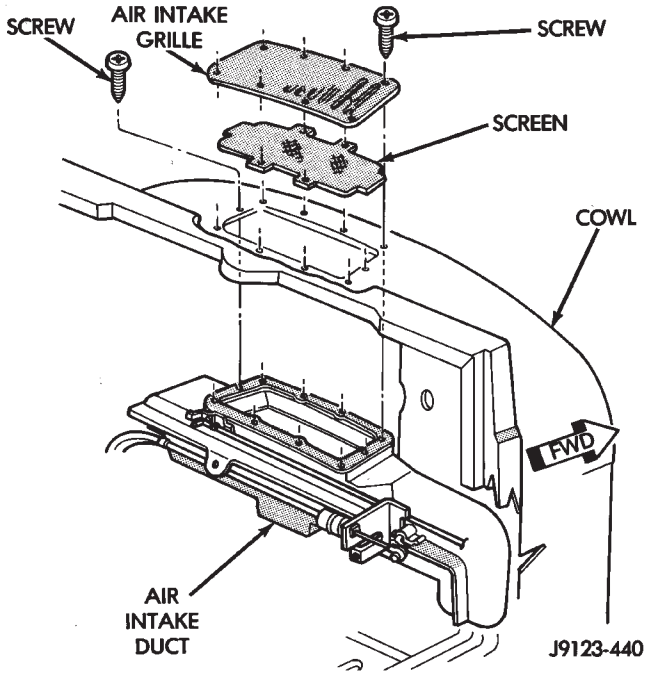

Fig. 16 Cowl Grille Removal/Installation

(2) Remove the grille and screen from the cowl (Fig. 16).

INSTALLATION

(1) Position the cowl screen and grille on the cowl.

(2) Attach the grille and screen to the cowl and the air intake duct with the screws (Fig. 16).

BATTERY TRAY

REMOVAL

(1) Remove the cables from the battery and power distribution center (Fig. 17).

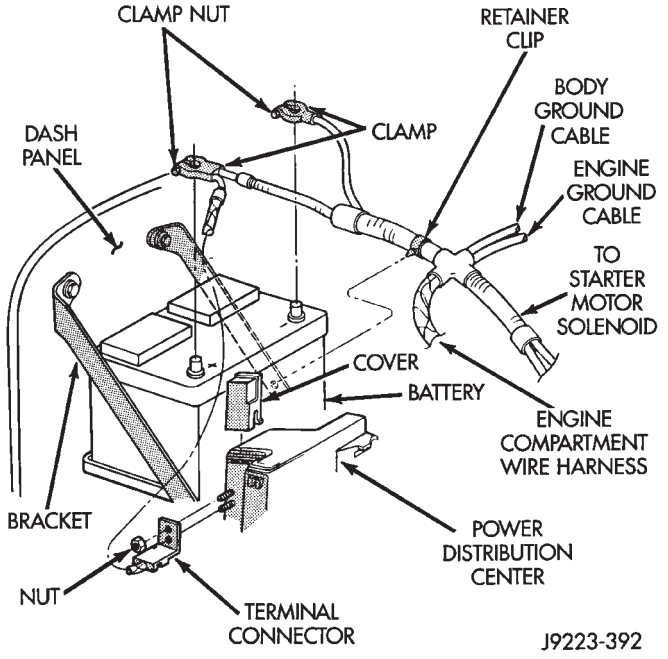

Fig. 17 Battery and PDC Cables

(2) Remove the retaining nuts and the battery holddown bracket from the holddown J-bolts (Fig. 19).

(3) Remove the battery from the tray (Fig. 18).

(4) Remove the retaining screws, the support bracket and the PDC from the battery tray (Fig. 19).

(5) Remove the nuts that attach the battery tray to the cowl panel (Fig. 19).

(6) Remove the screws that attach the support brackets to the fender inner panel (Fig. 19).

(7) Remove the screw that attaches the brace to the battery tray (Fig. 19).

(8) Remove the battery tray from the vehicle (Fig. 19).

INSTALLATION

(1) If removed, install the J-bolts on the battery tray.

(2) Position the battery tray on the cowl panel with the studs inserted in the holes.

(3) Attach the battery tray to the cowl panel studs with the attaching nuts.Tighten the nuts on the studs to 4 N·m (35 in-lbs) torque.

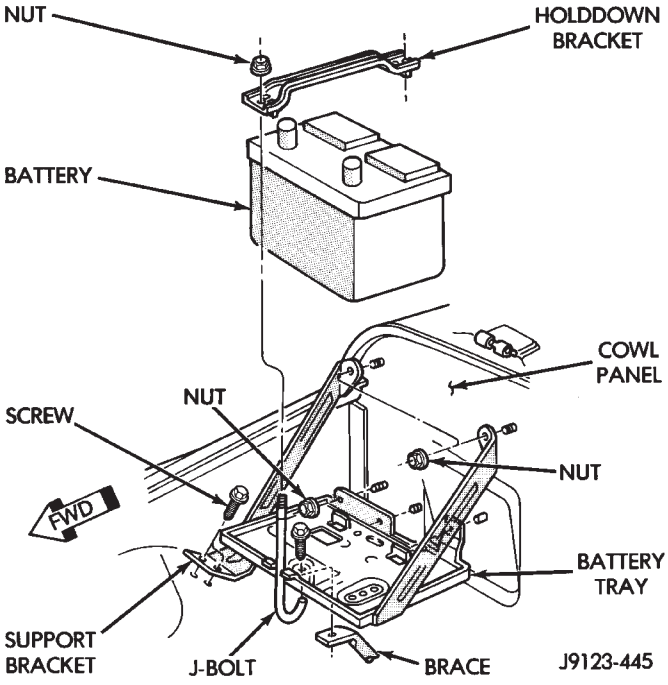

Fig. 18 Battery Tray Removal/Installation

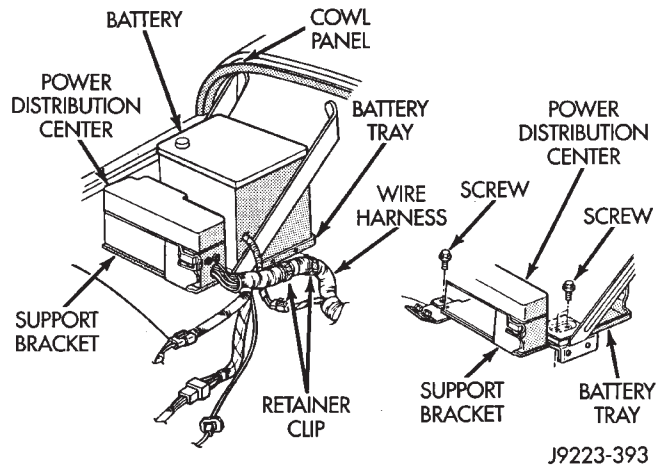

Fig. 19 PDC and Bracket Removal/Installation

(4) Install the screw that attaches the brace to the battery tray. Tighten the screw to 18 N·m (156 in-lbs) torque.

(5) Install the screws that attach the support brackets to the fender inner panel. Tighten the screws to 18 N·m (156 in-lbs) torque.

(6) Install the support bracket and PDC on the battery tray. Tighten the screws to 18 N·m (156 in-lbs) torque.

(7) Install the battery in the tray.

(8) Position the holddown bracket over the J-bolts.

(9) Install the retaining nuts on the J-bolts. Tighten the nuts to 4 N·m (35 in-lbs) torque.

(10) Remove the cables from the battery and power distribution center.

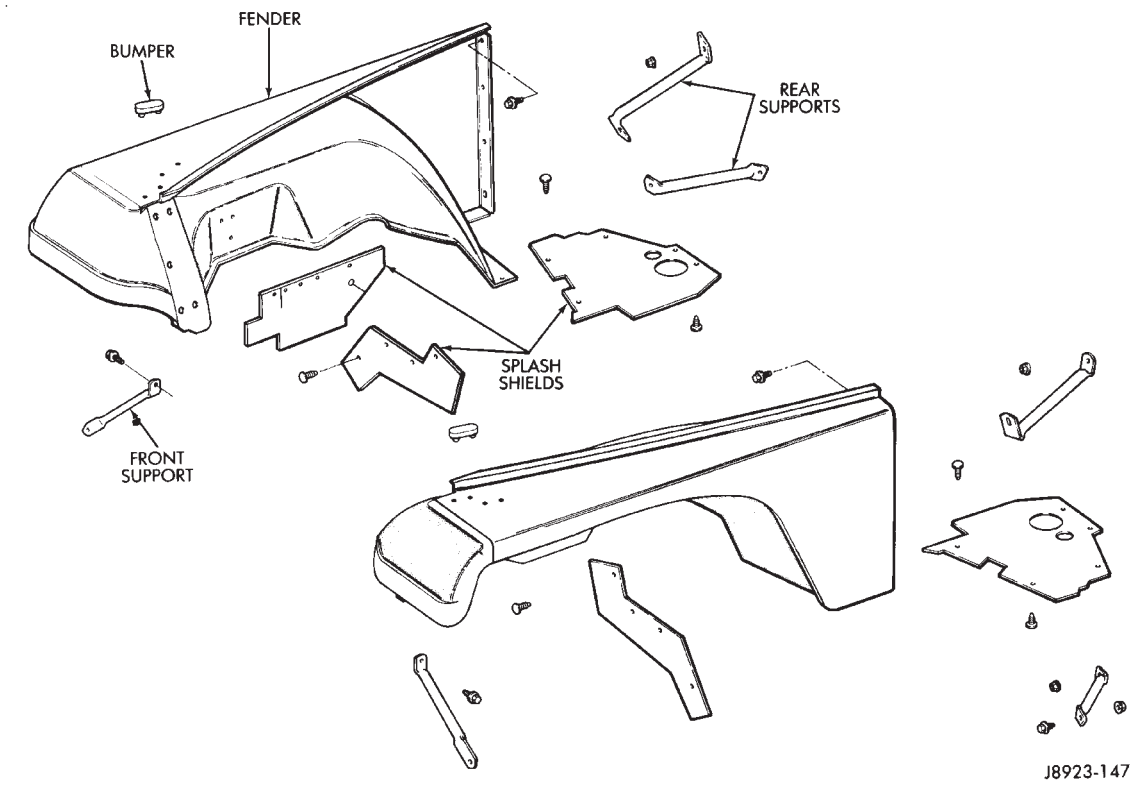

Fig. 20 Fender Components

FENDERS

SERVICE INFORMATION

YJ fenders are comprised of the fender outer panel, the fender inner panel, the front and rear support brackets, and the splash shields (Fig. 20).

Standard YJ fenders can not be used for installation on YJ Renegade vehicles. Renegade fender must have additional metal removed for tire clearance. The Renegade fender must have a section of metal removed for fog lamp installation (Fig. 21).

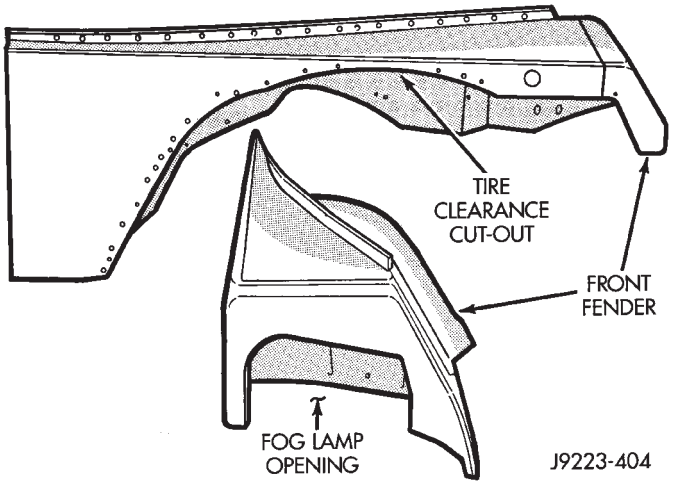

Fig. 21 YJ Renegade Fender

Before installation of a YJ Renegade fender, all newly drilled holes must be pre-primed with a primer before any bolts/screws are installed.

REMOVAL

(1) For YJ Renegade vehicles, refer to Front Fender Extension Panel Removal.

(2) As applicable, remove or disconnect all components attached to the fender inner panel.

(3) Left fender:

• remove the air cleaner housing and support bracket from the fender inner panel (Figs. 22 and 23);

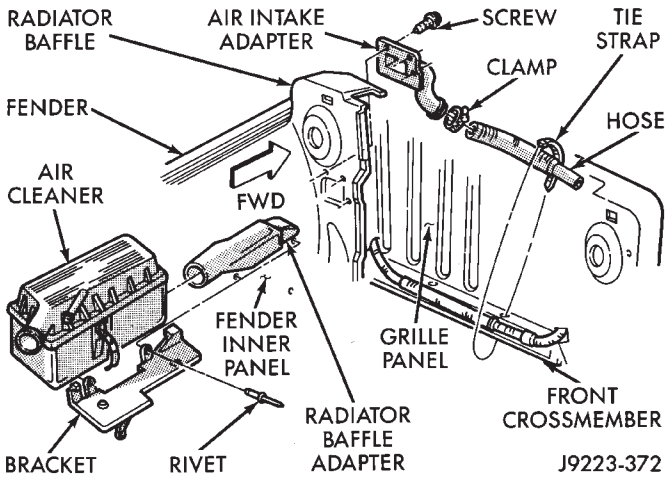

Fig. 22 Air Cleaner Housing and Radiator Baffle Adapter Fender

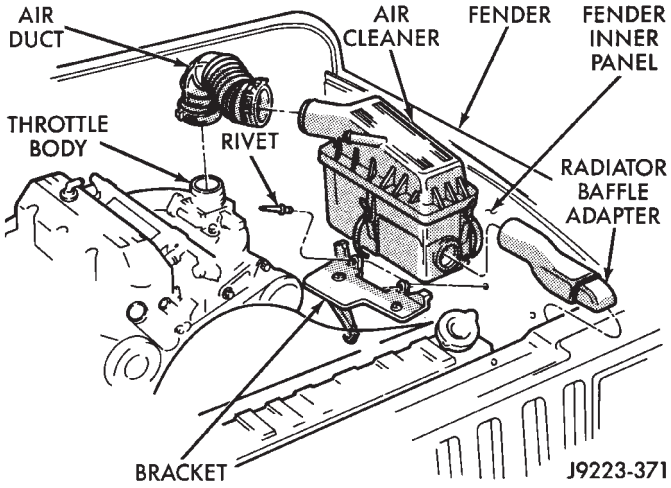

Fig. 23 Air Cleaner Housing and Support Bracket

• remove the horn from the fender inner panel (Fig. 24); and

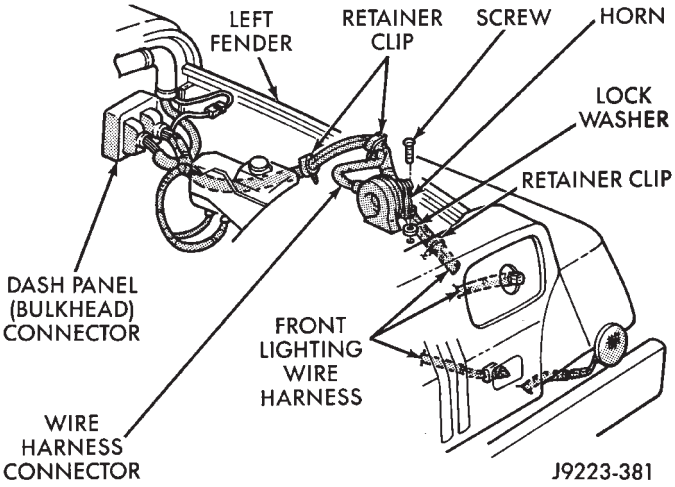

Fig. 24 Horn Removal/Installation

• remove the windshield washer fluid reservoir and coolant reserve bottle from the fender inner panel (Figs. 25 and 26).

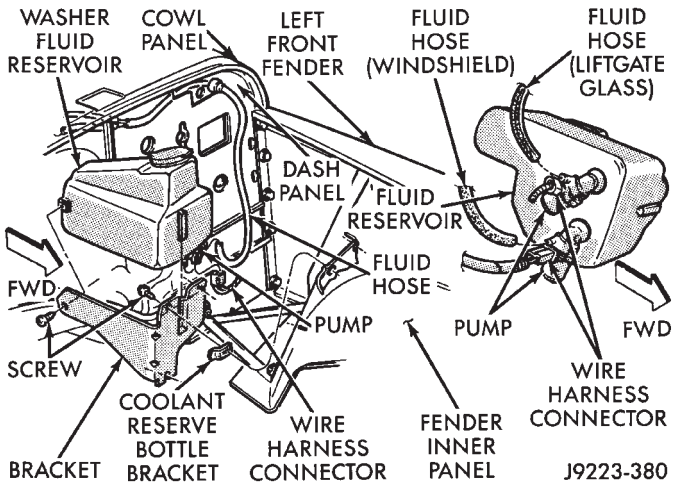

Fig. 25 Windshield Washer Fluid Reservoir

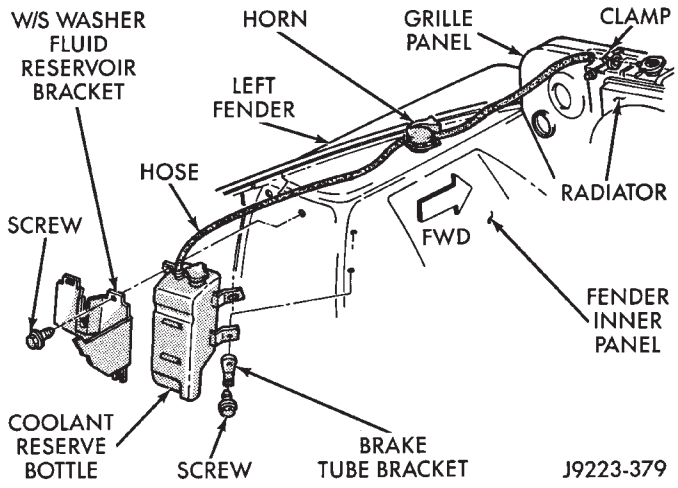

Fig. 26 Coolant Reserve Bottle

(4) Right fender:

• remove the jack and related tools from the jack storage tray (Fig. 27);

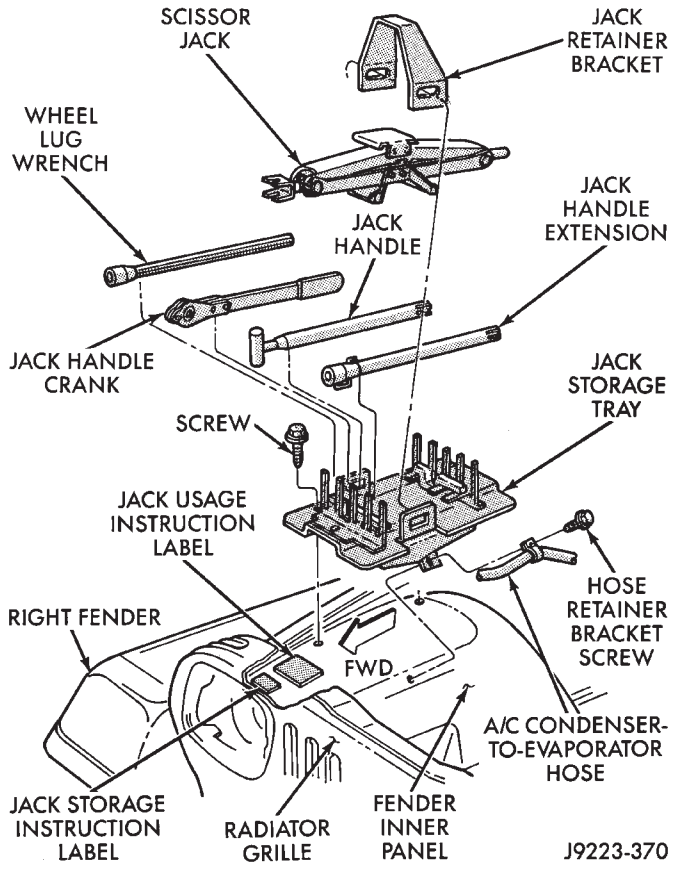

Fig. 27 Jack and Related Tools

• remove the jack storage tray and A/C receiver/drier from the fender inner panel (Fig. 28); and

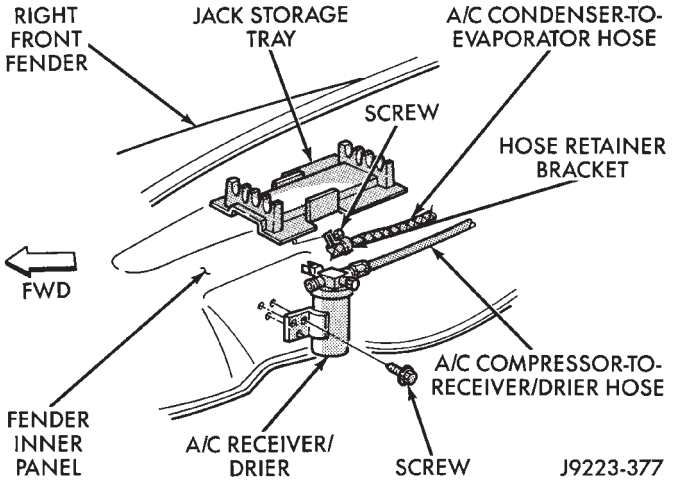

Fig. 28 Jack Storage Tray and A/C Receiver/Drier

• remove the radio antenna (if equipped) from the fender outer panel (Figs. 29 and 30).

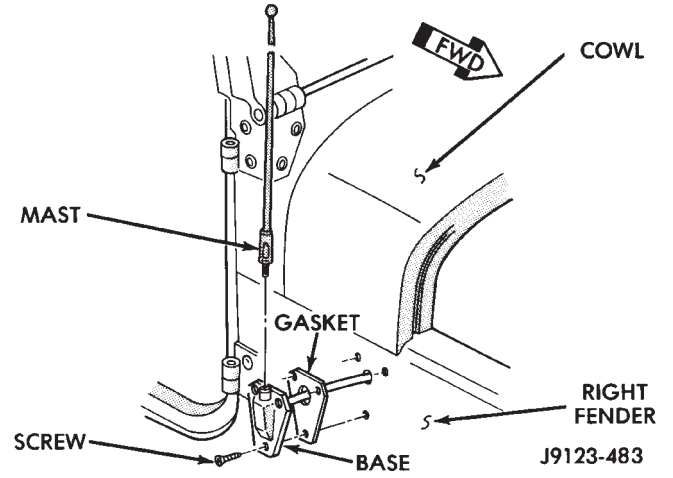

Fig. 29 Radio Antenna

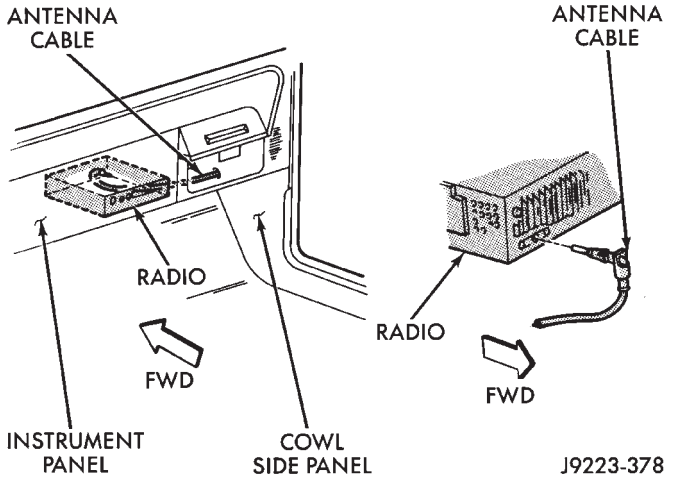

Fig. 30 Radio Antenna Cable

(5) Disconnect the side marker lamp wire harness bulb socket and the hood holddown clamp (Fig. 31).

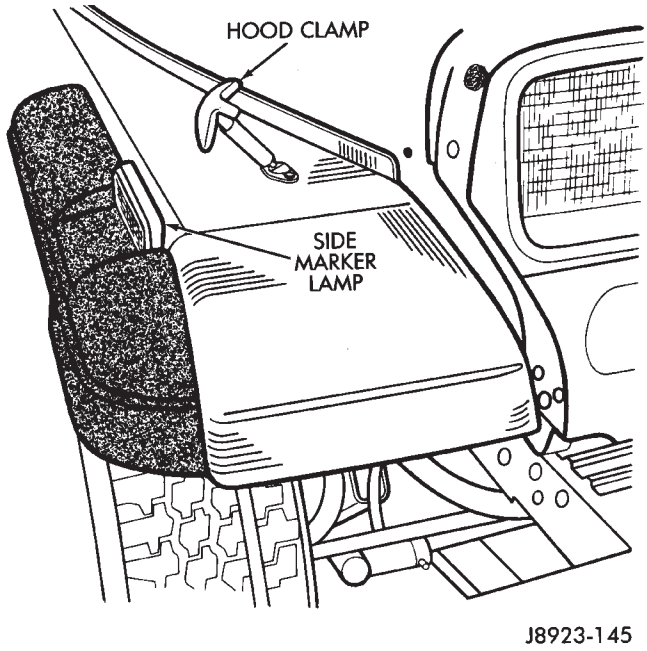

Fig. 31 Hood Holddown Clamp and Side Marker Lamp

(6) Remove the screws that attach the battery tray support brackets to the right fender inner panel (Fig. 32).

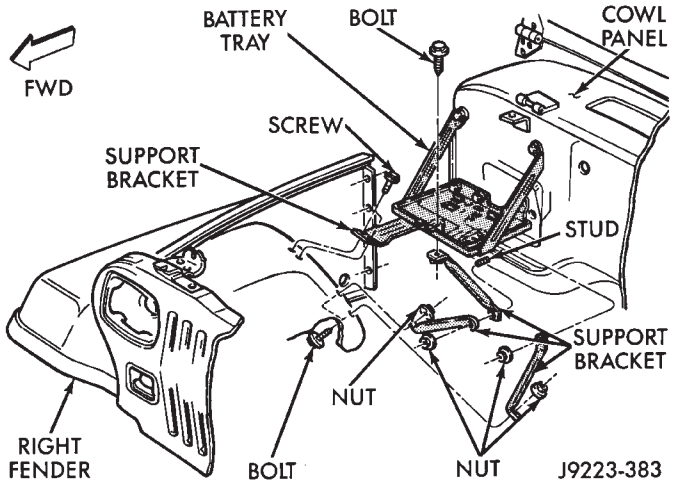

Fig. 32 Battery Tray Support Brackets

(7) Remove the fender front attaching bolts/nuts and brackets from the grille panel (Fig. 33).

(8) Remove the splash shields from the fender (Fig. 34).

(9) Remove the bolts that attach the fender and rear supports to the cowl panel (Fig. 33).

(10) Pull the fender outward and lift it from the vehicle.

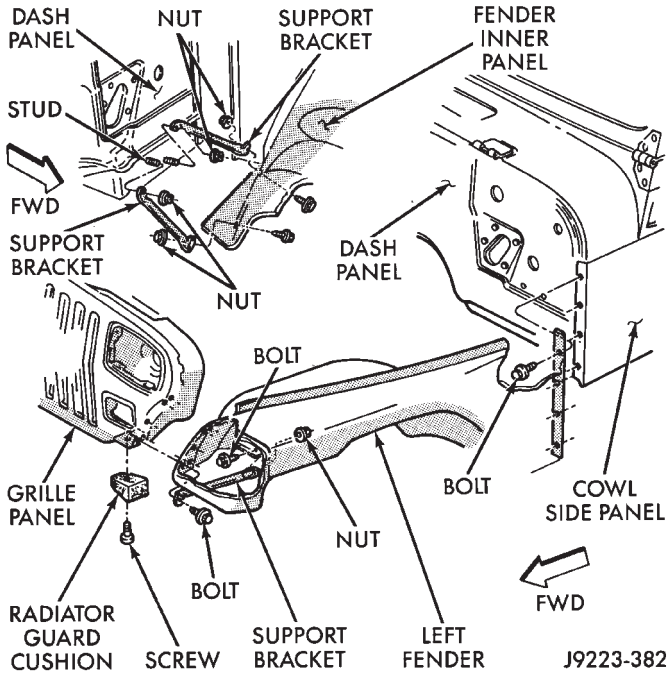

Fig. 33 Fender Front and Rear Attaching Bolts/Nuts

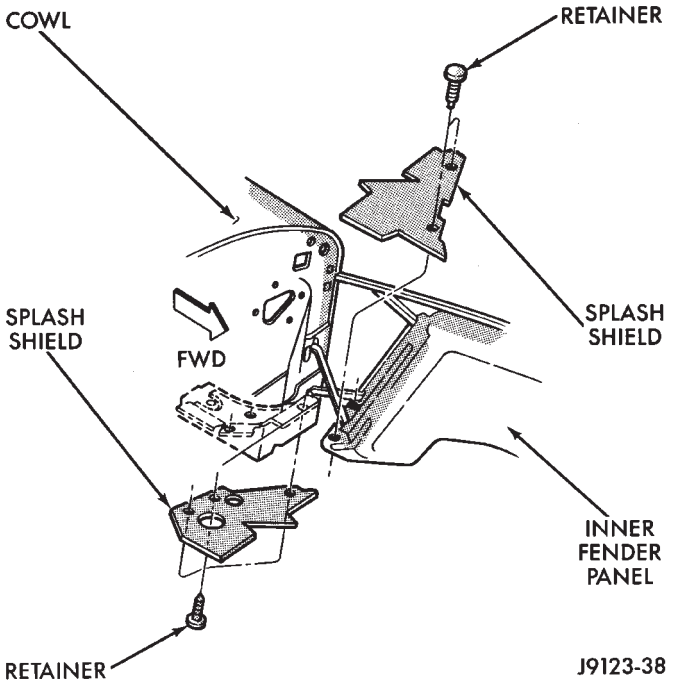

Fig. 34 Fender Splash Shields

INSTALLATION

(1) Position the fender and rear support brackets at the vehicle body and install the attaching washers and bolts (Fig. 33). Tighten the bolts and nuts to 18 N·m (156 in-lbs) torque.

(2) Install the fender front attaching bolts/nuts. Tighten the bolts and nuts to 18 N·m (156 in-lbs) torque.

(3) Install the splash shields with the serrated retainers (Fig. 34).

(4) Install the battery tray support bracket-to-right fender inner panel screws (Fig. 32). Tighten the screws to 18 N·m (156 in-lbs) torque.

(5) Connect the side marker lamp wire harness connector and the hood holddown clamp (Fig. 31).

(6) Connect the radio antenna, if equipped.

(7) Install/connect all the components removed/disconnected from the fender inner panel.

(8) Left fender:

- install the air cleaner housing and support bracket on the fender inner panel (Figs. 22 and 23);
- install the horn on the fender inner panel (Fig. 24); and
- install the windshield washer fluid reservoir and coolant reserve bottle on the fender inner panel.

(9) Right fender:

- install the jack storage tray and A/C receiver/drier on the fender inner panel (Fig. 28); and
- install the jack and related tools in the jack storage tray (Fig. 35).

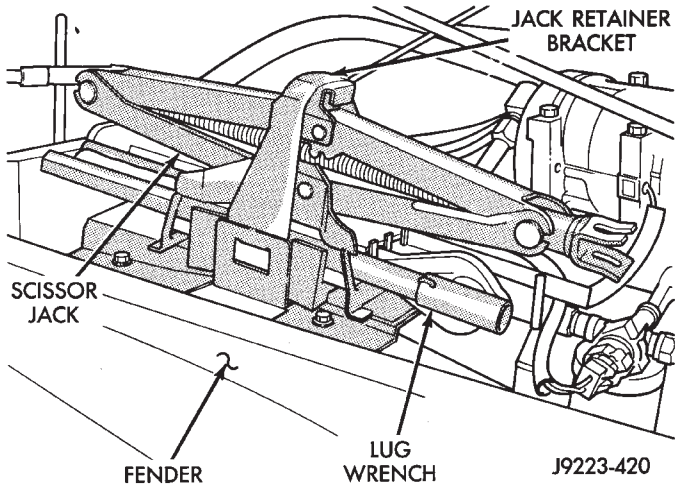

Fig. 35 Jack Installation

(10) For YJ Renegade vehicles, refer to Front Fender Extension Panel Installation.

FENDER FLARE

REMOVAL

(1) Remove the side marker lamp lens and disconnect the wire harness bulb socket.

(2) Remove the serrated retainers, screws and plastic nuts that attach the flare to the front fender or rear wheelhouse.

(3) Remove the flare and clean the contact surface on the body.

(4) Inspect the flare serrated retainers and plastic nuts. Replace any hardware that is loose or damaged.

INSTALLATION

(1) Clean the contact surface on the flare and position it on the front fender or wheelhouse.

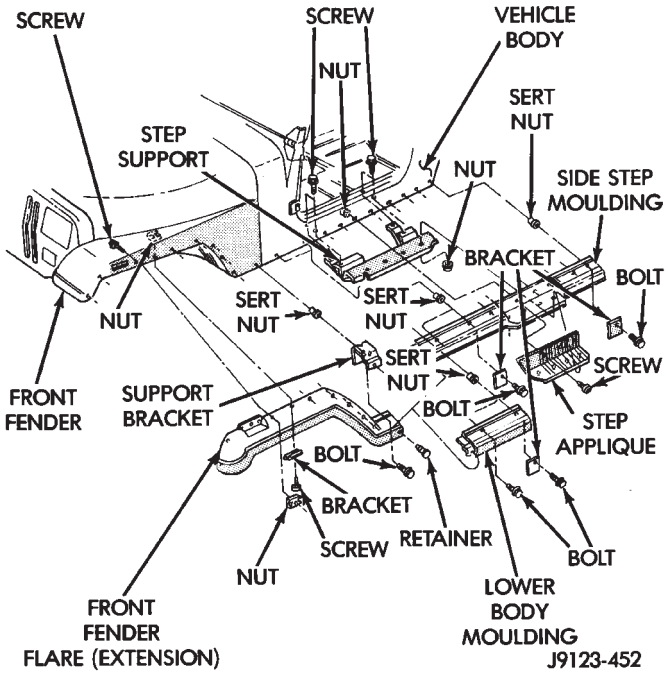

Fig. 36 Front Fender Flare and Side Step Moulding

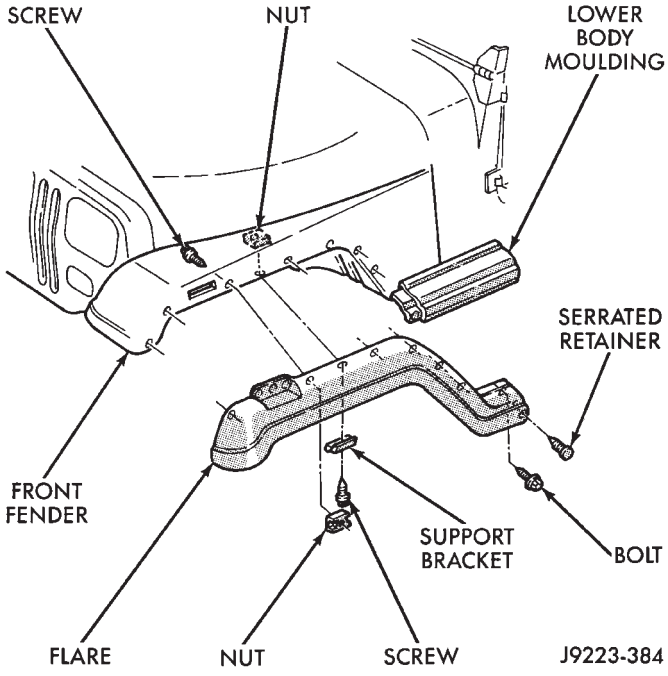

Fig. 37 Front Fender Flare and Side Step Moulding

(2) Install the flare serrated retainers, screws and nuts (Figs. 36, 37 and 38). Tighten the screw at the lower moulding (Fig. 37) to 11 N·m (96 in-lbs) torque. Tighten the upper screws (Fig. 37) to 11 N·m (96 in-lbs) torque.

BODY SIDE STEP MOULDING

REMOVAL/INSTALLATION

The body side mouldings are attached to the step supports and to the body side panels.

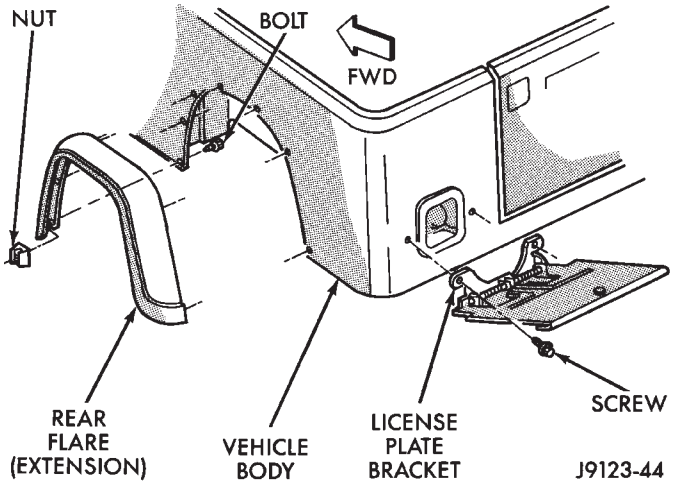

Fig. 38 Rear Flare and license Plate Bracket

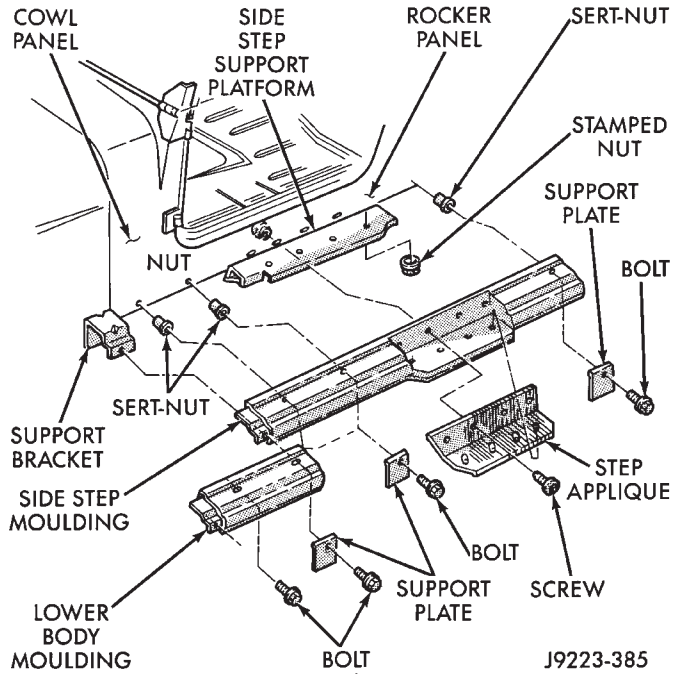

Fig. 39 Side Step Support Platform and Moulding/ Applique

(1) It is necessary to loosen the fender flare retaining screws (Figs. 36, 37 and 38) before removing the lower body and step mouldings.

(2) Remove the retaining bolts and the lower body moulding from the support bracket and cowl side panel (Fig. 39).

(3) Remove the retaining bolts/screws, the applique and the side step moulding from the cowl side panel/ rocker panel (Fig. 39).

(4) If necessary, remove the retaining bolt/screws and the support bracket and side step support platform from the cowl side panel/rocker panel (Fig. 40).

INSTALLATION

(1) If removed, install the support bracket and side step support platform on the cowl side panel/rocker

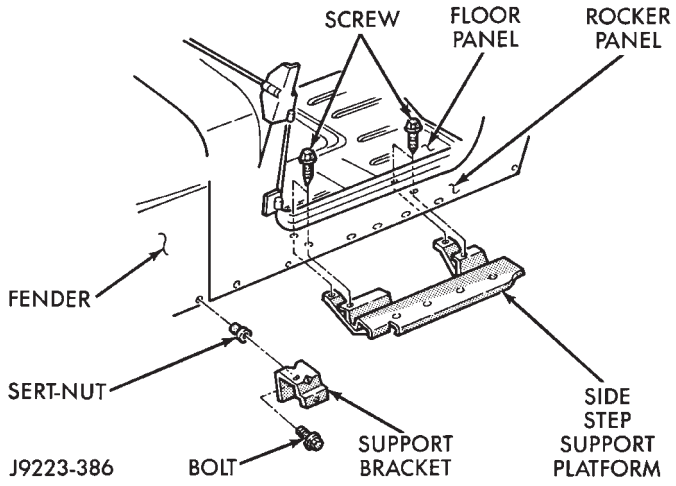

Fig. 40 Side Step Support Platform and Support Bracket

panel (Fig. 40). Install and tighten the support bracket retaining bolt to 11 N·m (96 in-lbs) torque. Install and tighten the support platform retaining screws to 41 N·m (30 ft-lbs) torque.

(2) Install the side step moulding and applique on the cowl side panel/rocker panel (Fig. 39). Install and tighten the moulding retaining bolts to 11 N·m (96 in-lbs) torque. Install and tighten the applique retaining screws to 41 N·m (30 ft-lbs) torque.

(3) Install the lower body moulding on the support bracket and cowl side panel with the retaining bolts and (Fig. 39). Tighten the moulding retaining bolts to 11 N·m (96 in-lbs) torque.

(4) Tighten the fender flare retaining screws (Figs. 36, 37 and 38) to 11 N·m (96 in-lbs) torque.

WHEELHOUSE SPLASH LINERS

REMOVAL

(1) Remove the liner attaching screws (Fig. 41).

(2) Remove the rivets that attach the liner to the wheelhouse (Fig. 41).

(3) Remove the rivets that attach the liner rear splash shield to the rear crossmember (Fig. 41).

(4) Remove the liner from the wheelhouse (Fig. 41).

(5) Remove the rivets that attach the rear splash shield to the wheelhouse liner (Fig. 41).

INSTALLATION

(1) Attach the rear splash shield to the wheelhouse liner with rivets (Fig. 41).

(2) Position the liner in the wheelhouse (Fig. 41).

(3) Install the screws and rivets to attach the liner to the wheelhouse (Fig. 41).

(4) Install the rivets to attach the rear splash shield to the crossmember (Fig. 41).

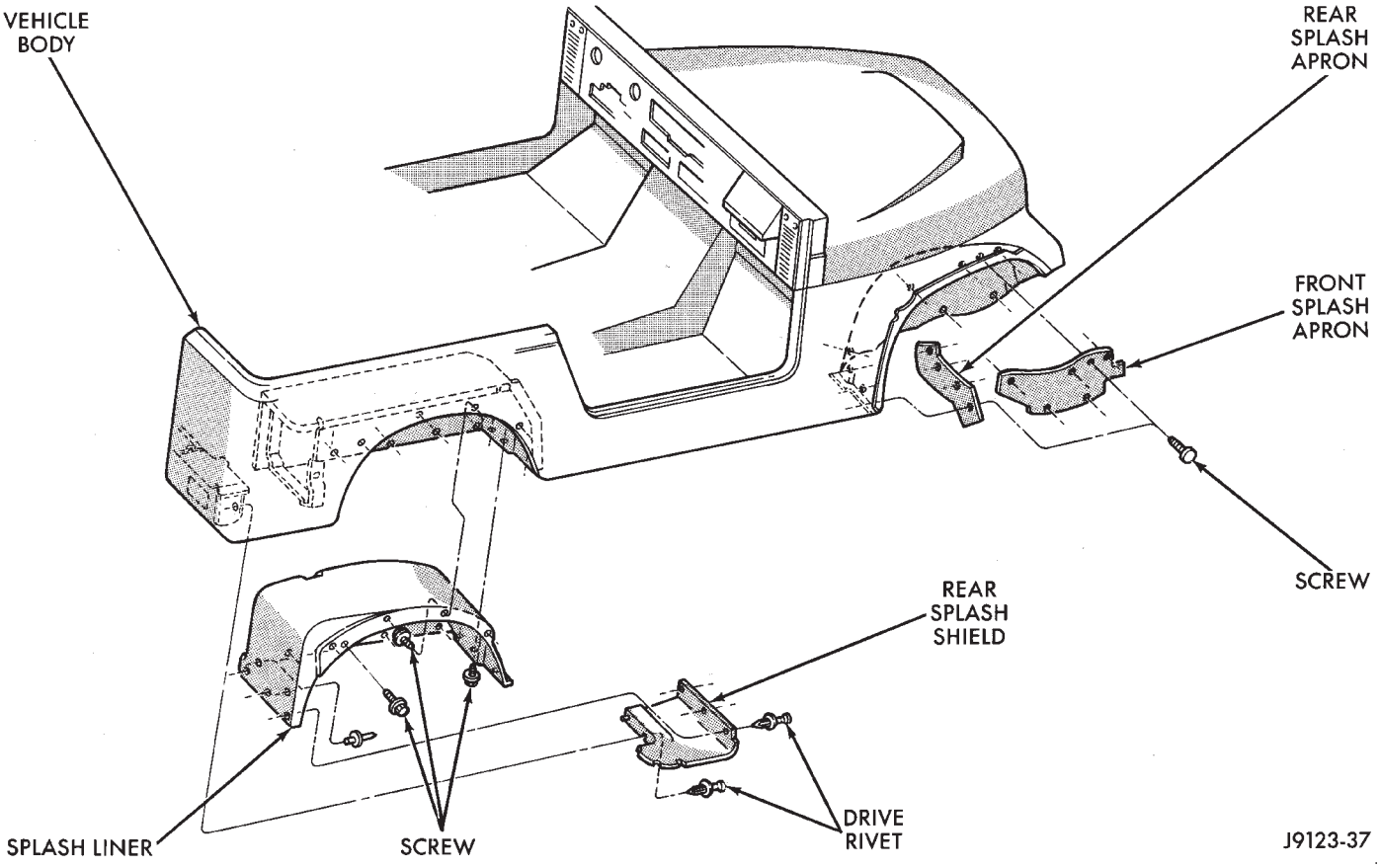

Fig. 41 Wheelhouse Liner, Splash Shield and Splash Aprons

FENDER SPLASH APRONS

REMOVAL

(1) Remove the splash apron attaching screws (Fig. 41).

(2) Remove the aprons from the fender well (Fig. 41).

INSTALLATION

(1) Position the aprons in the fender well (Fig. 41).

(2) Install the screws to attach the splash aprons to the fender well (Fig. 41).

FENDER INNER SPLASH SHIELDS

REMOVAL

(1) Remove the splash shield retainers from the cowl panel and inner fender panel (Fig. 42).

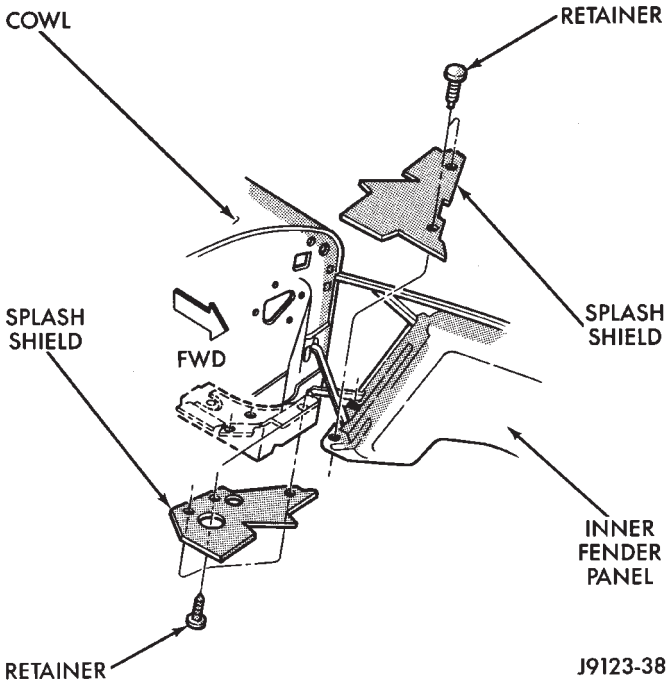

Fig. 42 Fender Inner Splash Shields

(2) Remove the splash shields from the inner fender and cowl panel (Fig. 42).

INSTALLATION

(1) Position the splash shields on the inner fender panel rear flange and on the cowl panel extension (Fig. 42).

(2) Install the splash shield retainers (Fig. 42).

BODY EXTENSION PANELS AND FASCIAS—YJ RENEGADE VEHICLES

SERVICE INFORMATION

The extension panels, the front and rear fascias, and the front and rear skid plates that are attached to YJ Renegade bodies (Figs. 43 and 44). are attached with:

- push pins,
- bolts,
- rivnuts,
- U-nuts,
- stamped nuts,
- self-tapping screws, and
- rivets.

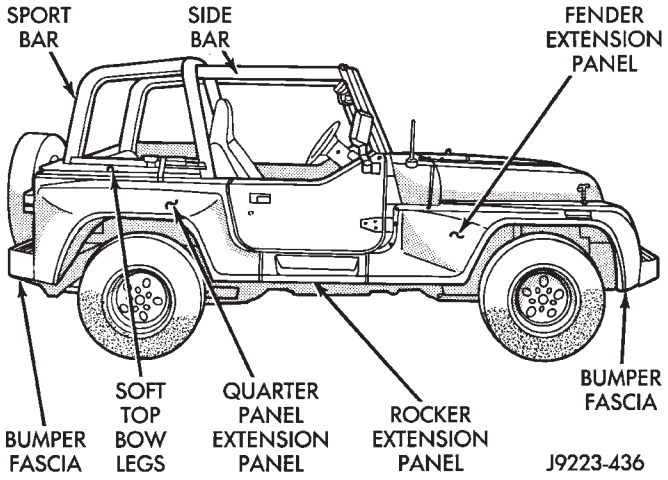

Fig. 43 YJ Renegade Extension Panels

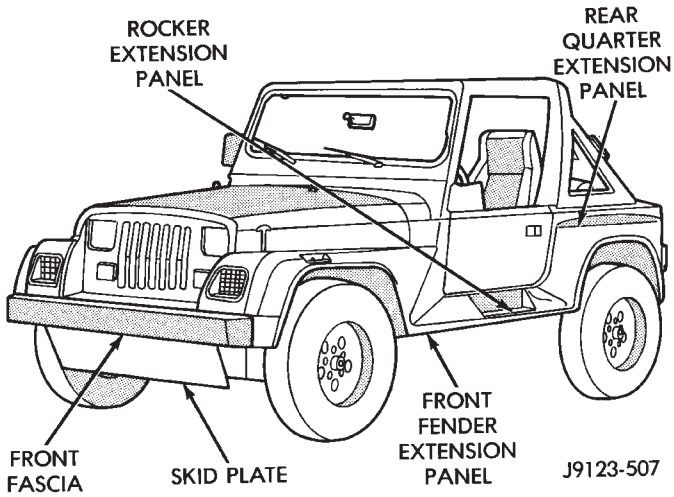

Fig. 44 YJ Renegade Extension Panels, Fascias and Skid Plates

If a Renegade front fender must be replaced, a template will be included with the replacement fender for removing a section of the metal for fog lamp installation (Fig. 45).

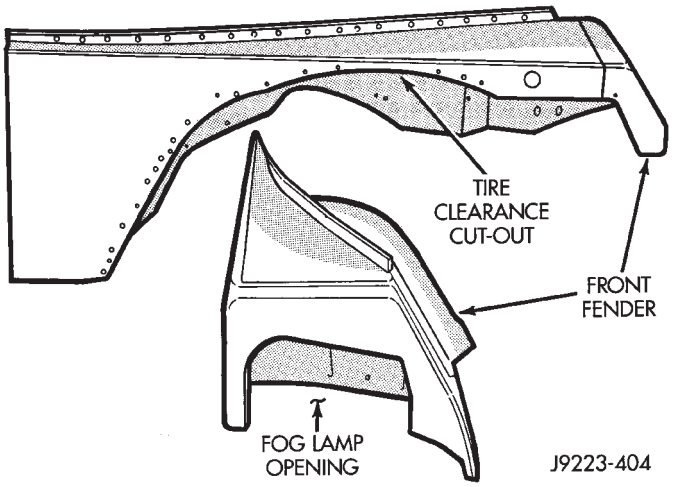

Fig. 45 YJ Renegade Front Fender

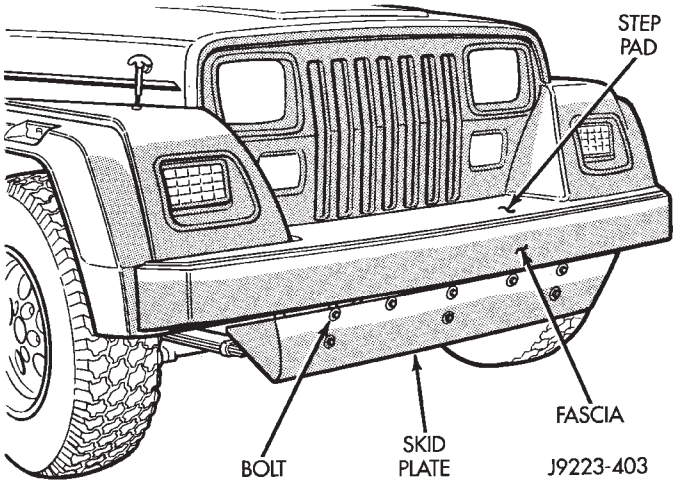

Fig. 46 Front Fascia and Skid Plate

FRONT FASCIA AND SKID PLATE—YJ RENEGADE VEHICLES

The skid plate and the front fascia can also be removed independently.

REMOVAL

(1) For convenience, lift the vehicle to a comfortable height on a hoist. Support the vehicle.

(2) If necessary, remove the step pad from the fascia (Figs. 46 and 47).

(3) Remove the fascia push pins from the fascia support and retaining bolts from the skid plate. Remove the fascia from the frame crossmember (Fig. 48).

(4) Remove the retaining bolts and the fascia spacer from the frame crossmember (Fig. 47).

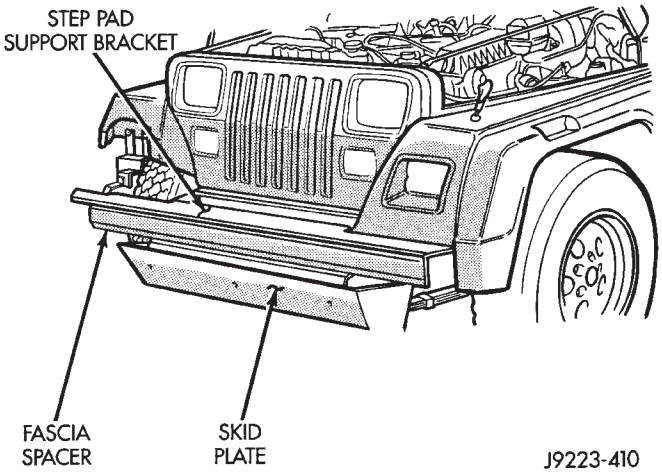

Fig. 48 Front Fascia Removed

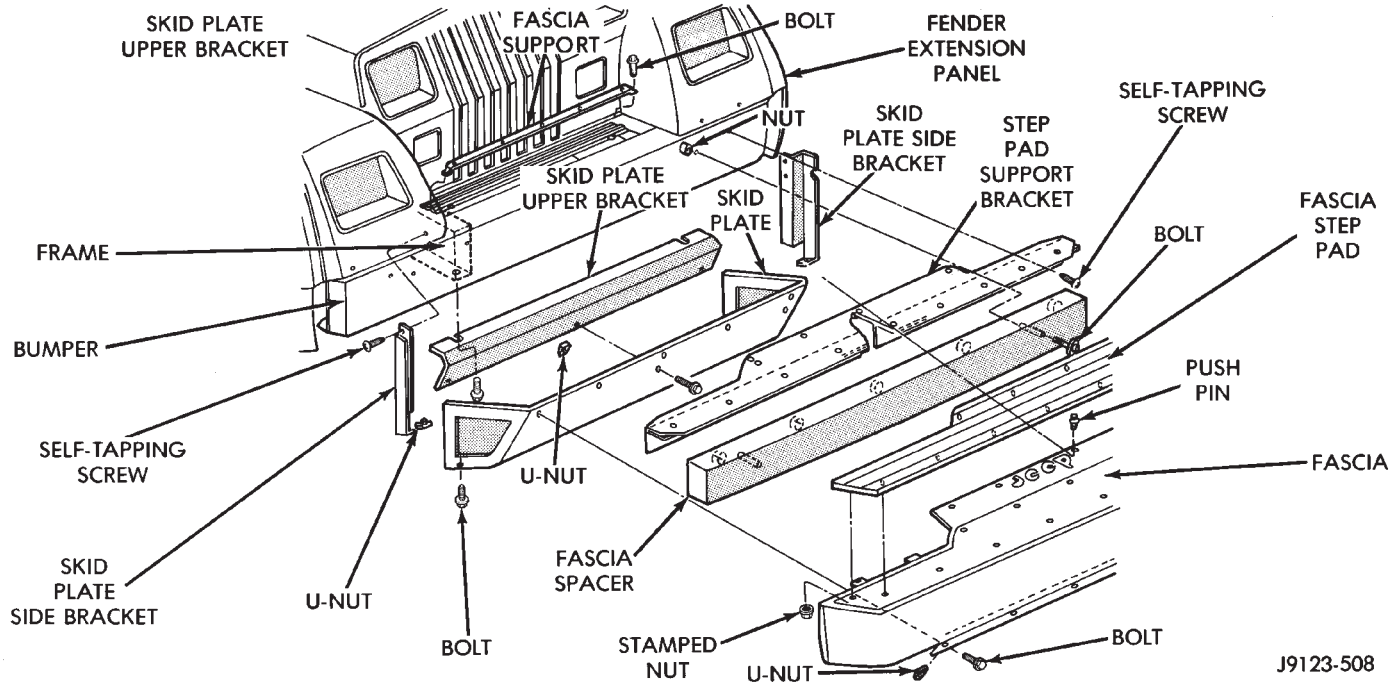

Fig. 47 Front Fascia and Skid Plate—Exploded View

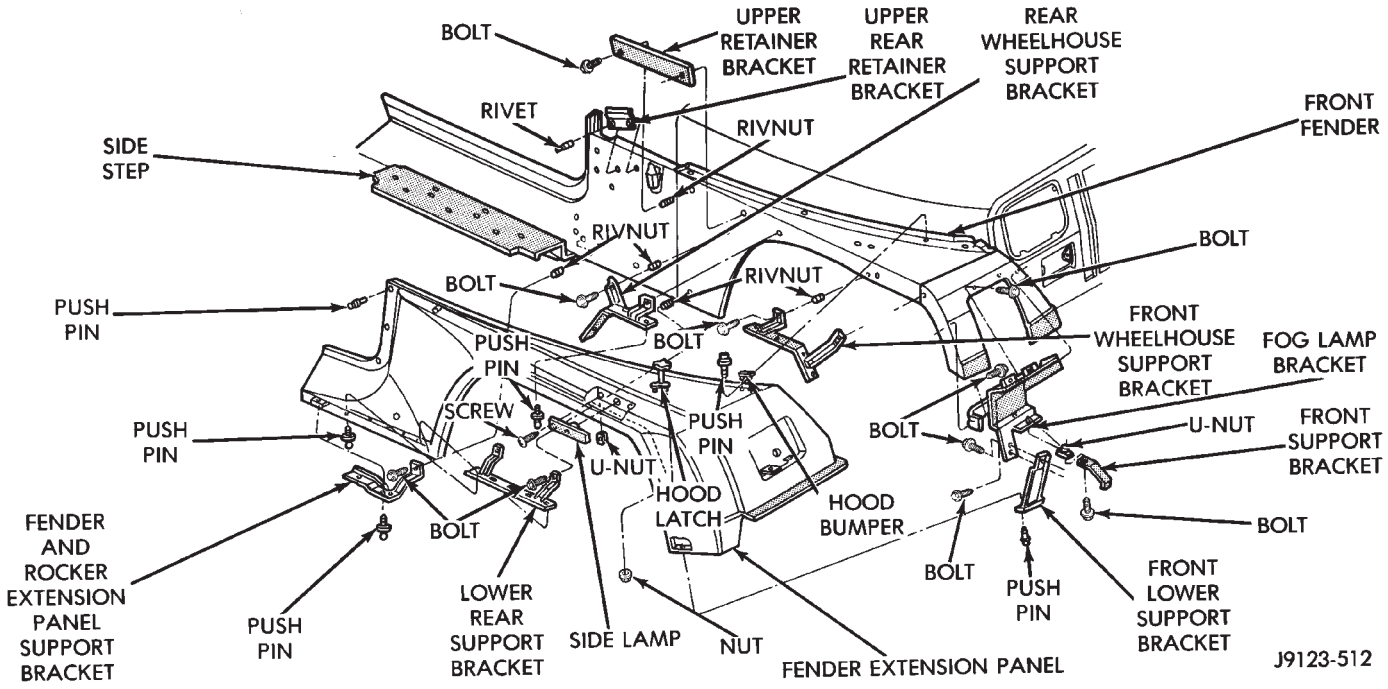

Fig. 49 Front Fender Extension Panel

(5) Remove the retaining screws and the fascia step pad support bracket from the frame crossmember (Fig. 47).

(6) Remove the retaining bolts from the skid plate. Remove the skid plate from the brackets.

(7) Remove the retaining screws from the skid plate brackets. Remove the brackets from the frame rails.

(8) Remove the retaining bolts and the fascia support from the cover plate.

INSTALLATION

(1) Position the fascia support on the cover plate and install the retaining bolts (Fig. 47). Tighten the bolts to 5 N·m (44 in-lbs) torque.

(2) Position the skid plate brackets at the frame rails and install the retaining screws. Tighten the screws to 25 N·m (18 ft-lbs) torque.

(3) Position the skid plate at the brackets and install the retaining bolts. Tighten the bolts to 25 N·m (18 ft-lbs) torque.

(4) Position the fascia step pad support bracket at the frame crossmember and install the retaining screws. Tighten the screws to 25 N·m (18 ft-lbs) torque.

(5) Position the fascia spacer at the frame crossmember and install the retaining bolts. Tighten the nuts to 6 N·m (53 in-lbs) torque.

(6) Position the fascia at the frame crossmember and install the retaining bolts and push pins. Tighten the bolts to 10 N·m (7 ft-lbs) torque.

(7) Install the step pad on the fascia.

(8) If applicable, remove the support and lower the vehicle.

FRONT FENDER EXTENSION PANEL—YJ RENEGADE VEHICLES

REMOVAL

(1) For convenience, lift the vehicle to a comfortable height on a hoist. Support the vehicle.

(2) Remove the radio antenna mast from the fender extension panel.

(3) Remove the hood bumper from the extension panel.

(4) Remove the fog lamp from the extension panel. If necessary, refer to the removal procedure.

(5) Detach the hood latch from the hood.

(6) Disconnect the side marker lamp wire harness bulb socket.

(7) Remove the push pins that attach the fender extension panel to the support brackets (Fig. 49). Remove the panel from the from the front fender.

(8) If necessary, remove the hood latch and the side marker lamp from the extension panel (Fig. 49).

(9) Remove the retaining bolts and the support/retainer brackets from the front fender (Figs. 49 and 50).

The fender and rocker extension panel support bracket (Fig. 50) also supports the rocker extension panel. Before the bracket can be removed, the rocker extension panel must first be separated from the bracket.

INSTALLATION

(1) If removed, install the hood latch and the side marker lamp on the extension panel (Fig. 49).

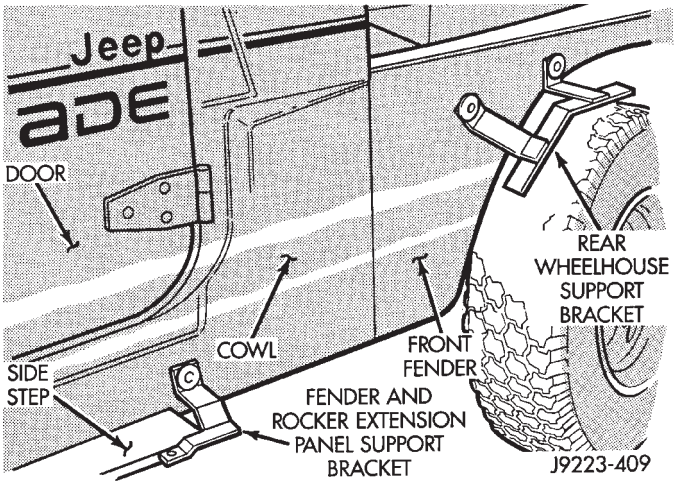

Fig. 50 Front Fender Extension Panel Removed

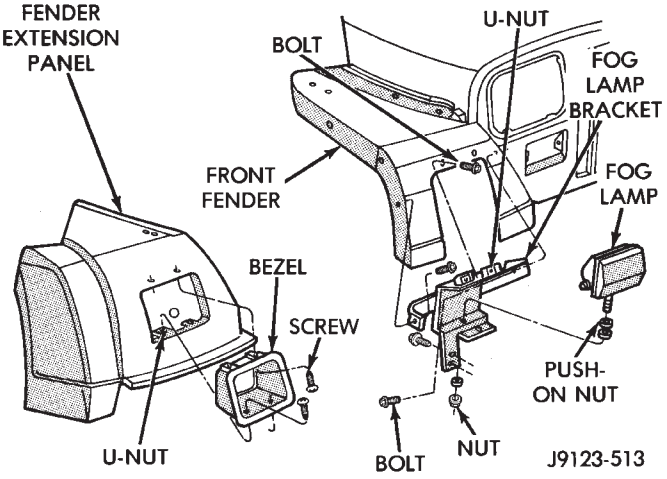

Fig. 51 Fog Lamp Removal/Installation

(2) If removed, install the fender and rocker extension panel support bracket (Fig. 50), and attach the rocker extension panel to the bracket.

(3) Position the support/retainer brackets on the front fender and install the retaining bolts. Tighten the bolts to 10 N·m (7 ft-lbs) torque.

(4) Position the extension panel on the brackets and install the push pins (Fig. 49).

(5) Connect the side marker lamp wire harness bulb socket.

(6) Install the fog lamp in the extension panel. If necessary, refer to the installation procedure.

(7) Attach the hood latch to the hood.

(8) Install the radio antenna mast.

(9) Install the hood bumper on the extension panel.

(10) If applicable, remove the support and lower the vehicle.

FOG LAMP—YJ RENEGADE VEHICLES

REMOVAL

(1) Disconnect the wire harness connector.

(2) Remove the fog lamp retaining nut and washer from the fog lamp and bracket (Fig. 51).

(3) Remove the bezel retaining screws (Fig. 51).

(4) Remove the fog lamp and the bezel from the fender extension panel (Fig. 51).

If it is necessary to remove the fog lamp bracket from the front fender, the fender extension panel must first be removed.

(5) With the fender extension panel removed, remove the fog lamp bracket retaining bolts from the front fender (Fig. 51).

INSTALLATION

(1) If removed, install the fog lamp bracket and the retaining bolts on the front fender (Fig. 51). Tighten the bolts to 10 N·m (7 ft-lbs) torque.

(2) If removed, install the fender extension panel. If necessary, refer to the installation procedure.

(3) Position the bezel and the fog lamp in the fender extension panel (Fig. 51).

(4) Install the bezel retaining screws (Fig. 51). Tighten the screws to 1.5 N·m (13 in-lbs) torque.

(5) Install the fog lamp washer and retaining nut on the fog lamp and bracket (Fig. 51). Tighten the nut to 10 N·m (7 ft-lbs) torque.

(6) Connect the fog lamp wire harness connector.

ROCKER EXTENSION PANEL—YJ RENEGADE VEHICLES

REMOVAL

(1) For convenience, lift the vehicle to a comfortable height on a hoist. Support the vehicle.

(2) From inside the vehicle, remove the nuts from the upper retainer bracket studs (Fig. 52).

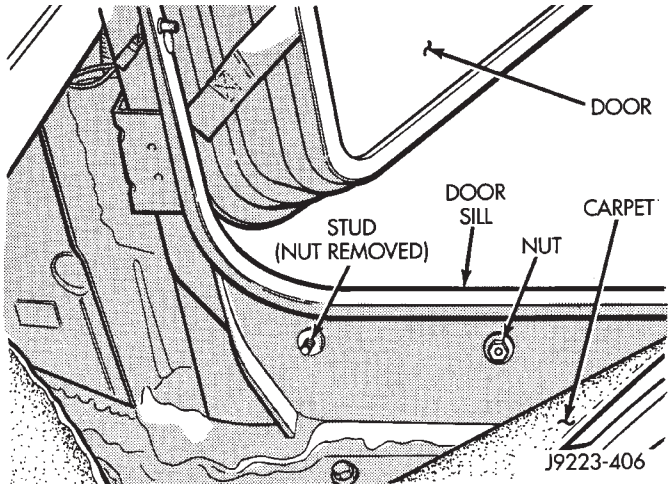

Fig. 52 Upper Retainer Bracket Stud Nuts Removal/ Installation

(3) Remove the push pins from the support brackets (Fig. 53).

(4) Remove the step pad, extension panel and spacer retaining nuts from the bottom of the side step (Fig. 53).

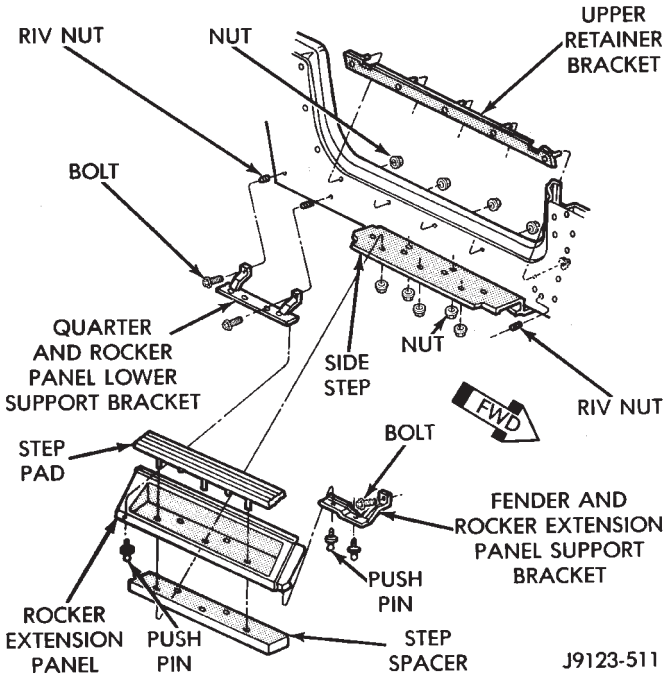

Fig. 53 Rocker Extension Panel—Exploded View

(5) Pull the front fender extension panel outward (Fig. 54) and remove the extension panel (with step pad and spacer) from the side step (Fig. 54).

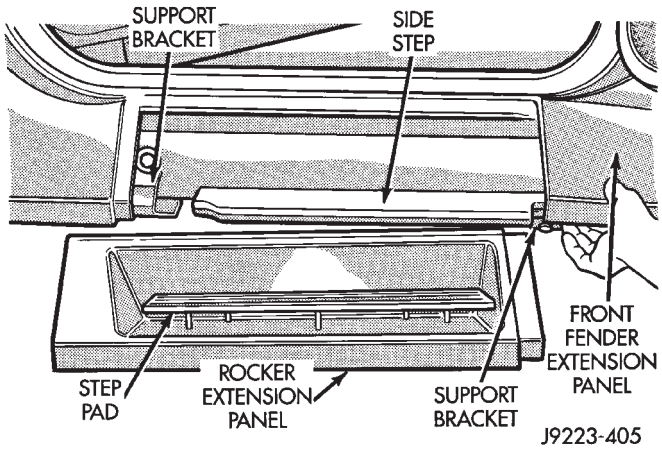

Fig. 54 Rocker Extension Panel Removal/Installation

(6) Remove the retaining nuts and upper retaining bracket from the rocker panel (Fig. 53).

(7) If necessary, separate and remove the step pad and spacer from the extension panel (Fig. 53).

The fender/quarter and rocker extension panel support brackets also support the fender/quarter extension panel. Before either bracket can be removed, the applicable extension panel must first be separated from the bracket.

INSTALLATION

(1) If removed, install the fender/quarter and rocker extension panel support bracket(s) (Fig. 53), and attach it to the applicable extension panel(s). If necessary, refer to the installation procedure(s).

(2) Install the upper retainer bracket and the retaining nuts (Fig. 52). Tighten the nuts to 6 N·m (53 in-lbs) torque.

(3) If removed, install the spacer and step pad on the extension panel (Fig. 53).

(4) Position the extension panel (with step pad and spacer) on the side step (Fig. 54).

(5) Install the push pins in the support brackets (Fig. 53).

(6) Install the step pad, extension panel and spacer retaining nuts at the bottom of the side step (Fig. 53). Tighten the nuts to 6 N·m (53 in-lbs) torque.

(7) If applicable, remove the support and lower the vehicle.

REAR QUARTER EXTENSION PANEL—YJ RENEGADE VEHICLES

REMOVAL

(1) For convenience, lift the vehicle to a comfortable height on a hoist. Support the vehicle.

(2) Remove the rear bumper fascia. If necessary, refer to the removal procedure.

(3) Loosen the fascia support bracket.

(4) Remove the retaining bolts and the support brackets from the quarter panel (Fig. 55).

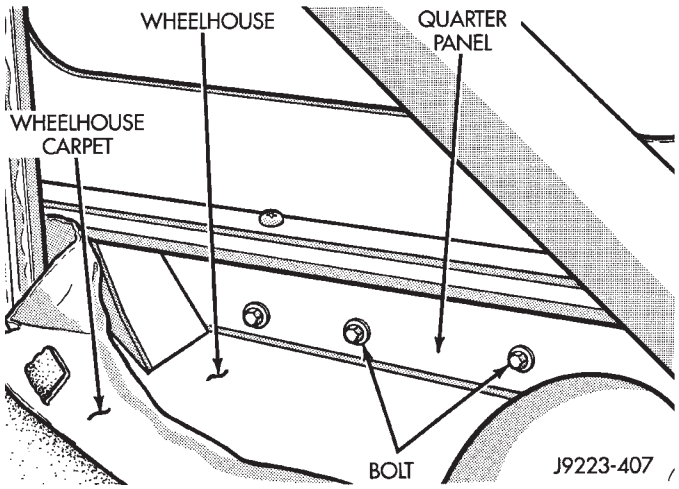

Fig. 55 Upper Retainer Bracket Removal/Installation

(5) Remove the screws that attach the extension panel to the wheelhouse lower, rear support brackets (Fig. 56).

(6) Remove the push pins that attach the extension panel to the quarter panel at the rear of the vehicle (Fig. 57).

(7) Remove the extension panel from the quarter panel and the support brackets (Fig. 55).

The quarter and rocker extension panel support bracket (Fig. 58) also supports the rocker extension panel. Before the bracket can be re-

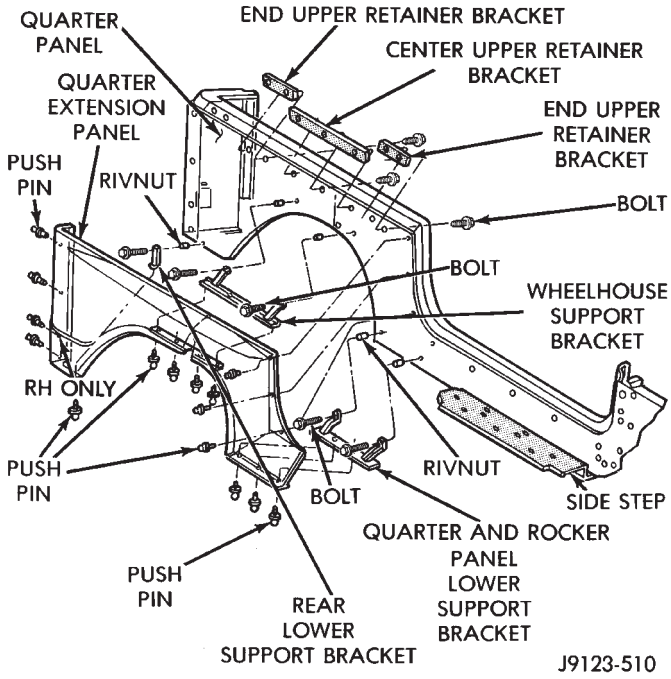

Fig. 56 Rear Quarter Extension Panel—Exploded View

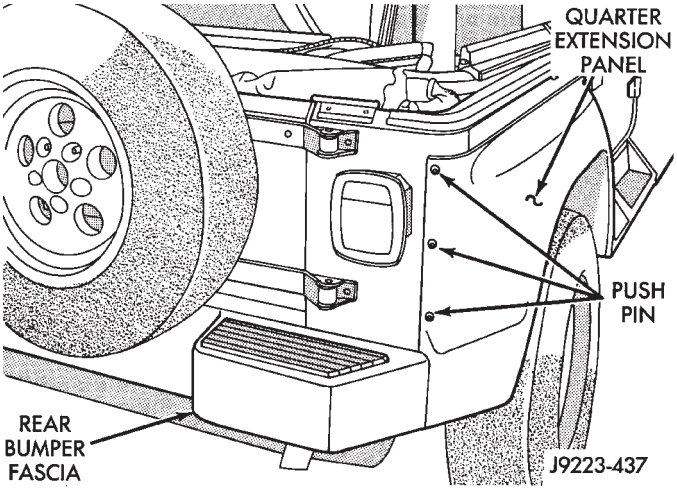

Fig. 57 Rear Quarter Extension Push Pins

moved, the rocker extension panel must first be separated from the bracket.

INSTALLATION

(1) If removed, install the quarter and rocker extension panel support bracket (Fig. 58), and attach the rocker extension panel to it. If necessary, refer to the installation procedure.

(2) Position the support brackets on the quarter panel and install the retaining bolts (Figs. 55 and 56). Tighten the bolts to 6 N·m (53 in-lbs) torque.

(3) Position the extension panel on the brackets and the quarter panel, and install the screws to attach the panel to the brackets (Fig. 56).

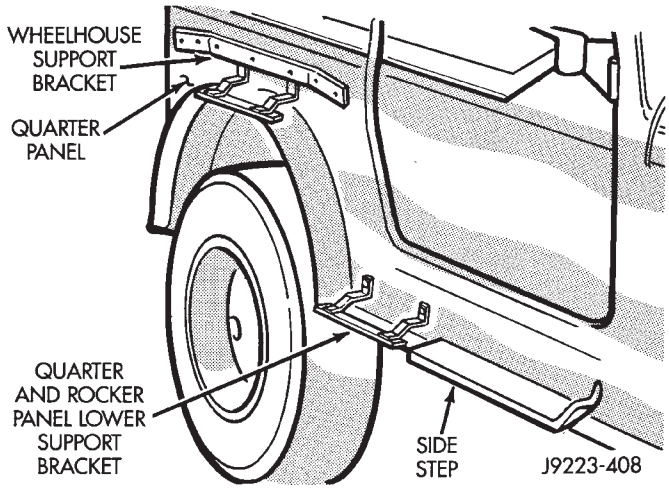

Fig. 58 Rear Quarter Extension Panel Brackets

(4) Install the push pins to attach the extension panel to the quarter panel at the rear of the vehicle (Fig. 57).

(5) If applicable, remove the support and lower the vehicle.

(6) Tighten the fascia support bracket:

- tighten the screws to 25 N·m (18 ft-lbs) torque; and
- tighten the nuts to 50 N·m (37 ft-lbs) torque.

(7) Install the rear bumper fascia. If necessary, refer to the installation procedure.

REAR FASCIA AND SKID PLATE—YJ RENEGADE VEHICLES

The skid plate and the rear fascia (Fig. 59) can also be removed independently.

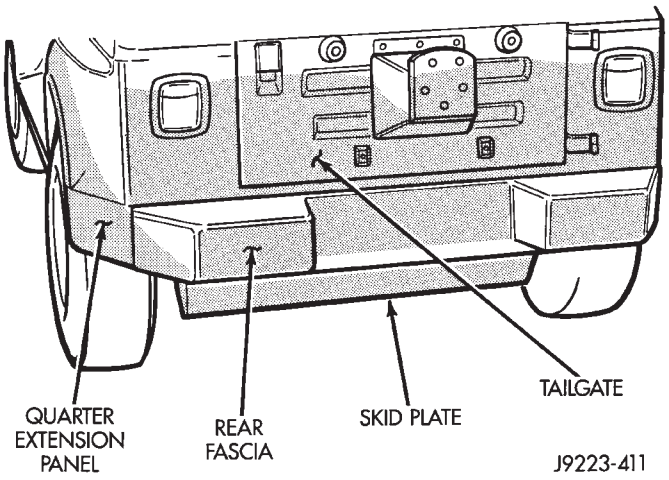

Fig. 59 Rear Fascia and Skid Plate

REMOVAL

(1) For convenience, lift the vehicle to a comfortable height on a hoist. Support the vehicle.

(2) Remove the retaining bolts and from the skid plate. Remove the skid plate from the brackets and the fascia (Fig. 60).

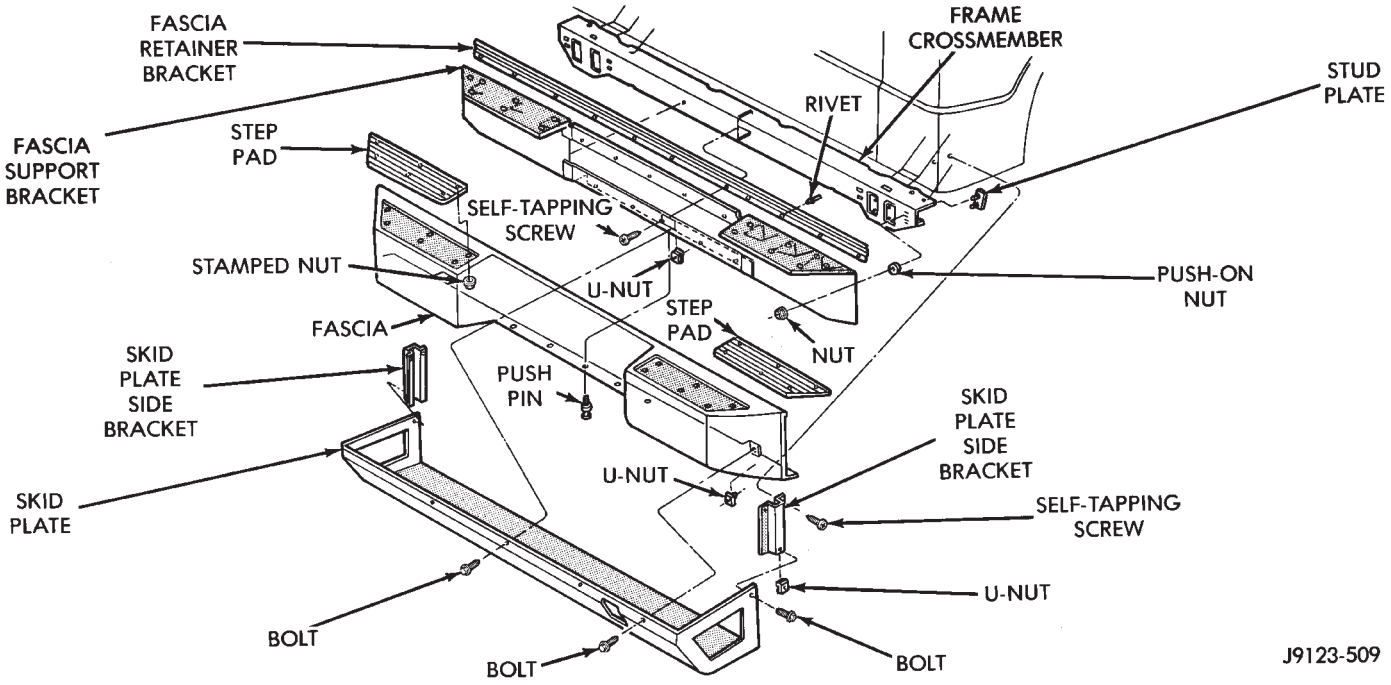

Fig. 60 Rear Fascia and Skid Plate—Exploded View

(3) Remove the retaining bolts from the skid plate brackets. Remove the brackets from the frame rails (Fig. 60).

(4) Remove the fascia retaining push pins from the fascia support bracket. Remove the fascia from the retainer and the support bracket (Fig. 60).

(5) If necessary, remove the retaining nuts and the step pads from the fascia (Fig. 60).

(6) Remove the retaining nuts and screws, and the fascia support bracket from the frame crossmember (Fig. 60).

(7) If necessary, remove the rivets and the fascia retainer from the support bracket (Fig. 60).

INSTALLATION

(1) If removed, position the fascia retainer on the support bracket and install the retaining rivets (Fig. 60).

(2) Position the fascia support bracket at the frame crossmember and install the retaining screws and nuts (Fig. 60). Tighten the screws to 25 N·m (18 ft-lbs) torque. Tighten the nuts to 50 N·m (37 ft-lbs) torque.

(3) Position the skid plate brackets at the frame rails and install the retaining screws (Fig. 60). Tighten the screws to 10 N·m (7 ft-lbs) torque.

(4) If removed, install the fascia step pads on the fascia and retain them in-place with the stamped nuts (Fig. 60). Tighten the nuts to 6 N·m (4 ft-lbs) torque.

(5) Position the fascia at the support bracket and retainer, and install the retaining push pins (Fig. 60).

(6) Position the skid plate at the brackets and fascia, and install the retaining bolts (Fig. 60). Tighten the center bolt to 25 N·m (18 ft-lbs) torque. Tighten the outer bolts to 10 N·m (7 ft-lbs) torque. Tighten the skid plate-to-bracket bolt to 25 N·m (18 ft-lbs) torque.

(7) If applicable, remove the support and lower the vehicle.

BODY STRIPES/DECALS

SERVICE INFORMATION

YJ body stripes and decals are durable tape stripes/decals with a adhesive backing.

REPAIR

Small nicks, scratches can be touched-up with paint. A correct color match can be obtained by blending small amounts of appropriate paint colors.

To eliminate blisters and air bubbles in a body stripe/decal, pierce them with a needle or pin. Force the trapped air out of the hole.

A heat gun can also be used to remove small wrinkles and irregularities in a stripe/decal.

REQUIREMENTS

Body stripe/decal replacement because of collision damage requires that the metal repair and paint refinish be completed first.

The work area temperature should be between 18°C (65°F) and 32°C (90°F). **A tape stripe/decal should not be replaced if the work area temperature is less than 18°C (65°F).**

The following equipment and material are necessary for body stripe/decal removal and installation:
- a commercial tape stripe/decal removal solution;
- a commercial adhesive removal solution;
- liquid dish detergent (for the wetting solution);
- a mixture of wetting solution;
- a commercial wax and silicone removal solution;
- isopropyl (rubbing) alcohol;
- a small squeegee (plastic or hard rubber);
- a water bucket and sponge;
- clean wiping rags or paper towels;
- a heat gun (or infra-red heat bulb);
- a wax pencil;
- a sharp knife, single edge razor blade or X-acto knife;
- a pair of scissors; and
- a needle or pin.

A wetting solution assures a better bond between the painted surface of the body and the tape stripe/decal. Prepare a supply of wetting solution by mixing two or three teaspoons of dish detergent with 1 gallon of water. **Do not use soap.**

Too much detergent will reduce the effectiveness of the mixture.

REMOVAL

The key to successful tape stripe/decal removal is to apply heat to area and slowly peel stripe/decal from panel.

(1) Clean the repaired surface, adjacent panels and door openings as necessary.

(2) Start at one end of the tape stripe/decal and apply heat with a heat gun. Slowly peel the stripe/decal from the panel by pulling it back. **Do not pull the tape stripe/decal outward from the panel.**

WARNING: USE THE TAPE STRIPE/DECAL REMOVAL SOLUTION IN A WELL-VENTILATED AREA ONLY.

(3) A commercial tape stripe/decal removal solution can be used for stripe/decal removal at areas where a heat gun is ineffective:
- mask-off the body panel area surrounding the tape stripe/decal (Fig. 61);
- move the removal solution spray back and forth across the complete length of the stripe/decal with a smooth, steady motion;
- ensure that the complete stripe/decal is covered with the solution;
- allow the stripe/decal removal solution to remain on the stripe/decal for 20 minutes;
- after 20 minutes, peel stripe/decal away from the flange and, starting at a corner, peel the stripe/decal from the body (Fig. 62);
- if there is difficulty with peeling stripe/decal away from body use a squeegee for stripe/decal removal (Fig. 63); and

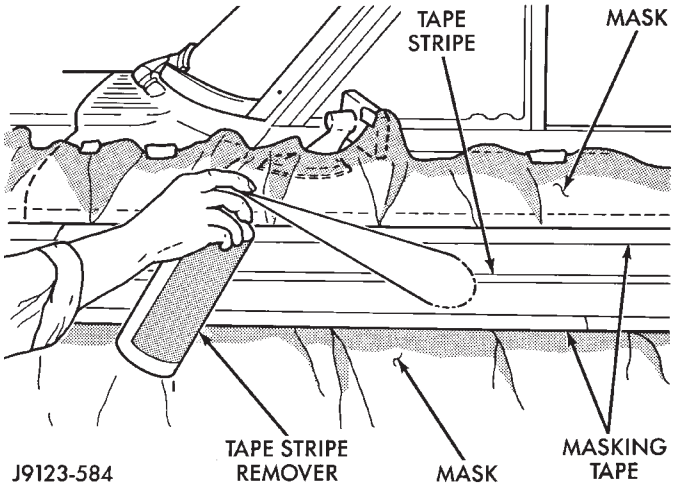

Fig. 61 Stripe/Decal Removal Solution Application

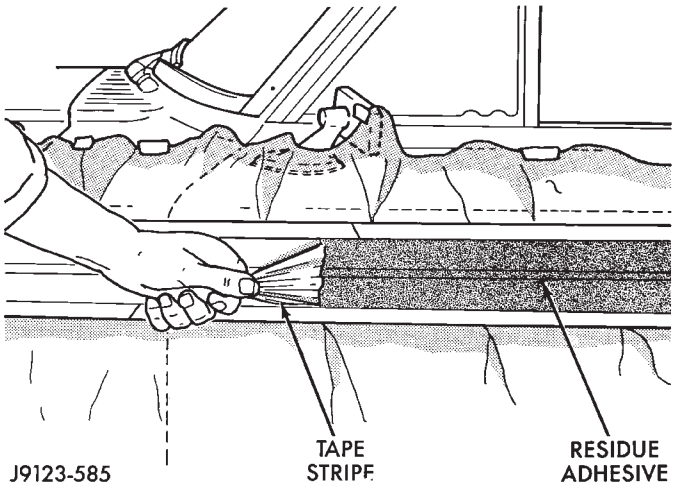

Fig. 62 Body Stripe/Decal Removal

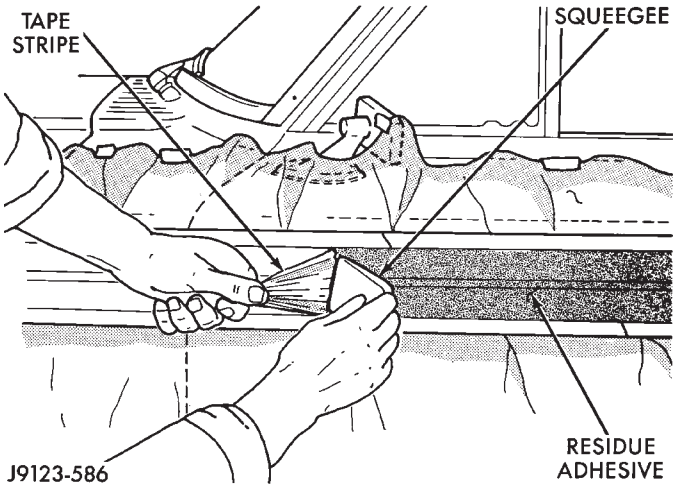

Fig. 63 Body Stripe/Decal Removal With A Squeegee

- with the stripe/decal removed, scrape all the stripe/decal removal solution from the panel surface before proceeding.

WARNING: USE THE ADHESIVE REMOVAL SOLUTION IN A WELL-VENTILATED AREA ONLY.

(4) After the stripe/decal is removed, remove any adhesive remaining on body with a removal solution.

(5) After 3 to 5 minutes, use a squeegee to remove adhesive (Fig. 64).

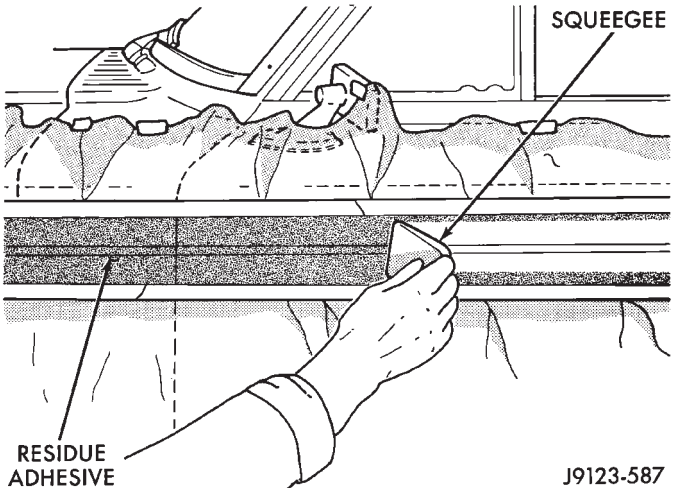

Fig. 64 Adhesive Removal With A Squeegee

(6) Remove the masking tape and mask from the panel.

(7) Wipe the panel with a cloth with a general purpose cleaning solution.

BODY PANEL SURFACE PREPARATION

(1) The area that will be covered by the tape stripe/decal must be cleaned with an cleaning solution to remove any residue paint.

(2) Freshly painted surfaces must be thoroughly dry.

(3) Clean painted surface with a commercial wax and silicone removal solution. Wipe surface with a clean cloth and allow to dry.

REPLACEMENT ON ONE PANEL

For large tape stripes/decals, use a clean sponge and apply ample wetting solution:

- to the adhesive side of the tape stripe/decal, and
- to the painted panel surface.

The wetting solution will permit ease of tape stripe/decal movement when positioning it on the panel.

(1) Align a straight edge with the existing tape stripe/decal ends and use a wax pencil to mark a line on the panel (Fig. 65).

If applicable, the body panel character line can be used as the tape stripe/decal alignment reference.

(2) Position tape stripe/decal and carrier on panel and mark the required length with a wax pencil.

(3) Cut the stripe/decal and carrier at the required length with scissors.

(4) Position stripe/decal and carrier on panel and hold it in-place with pieces masking tape (Fig. 66).

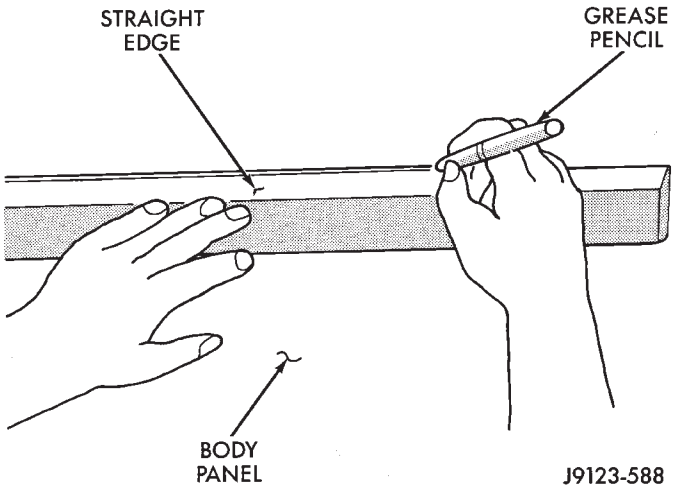

Fig. 65 Stripe/Decal Alignment Reference Mark

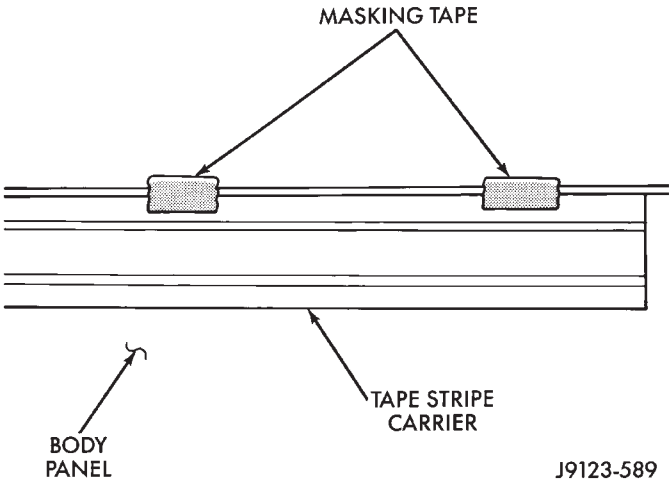

Fig. 66 Tape Stripe/Decal and Carrier Retained On Body Panel

(5) Lift the bottom edge of the tape stripe/decal and carrier, use the tape sections as hinges, and reverse the position of the stripe/decal and carrier (Fig. 67).

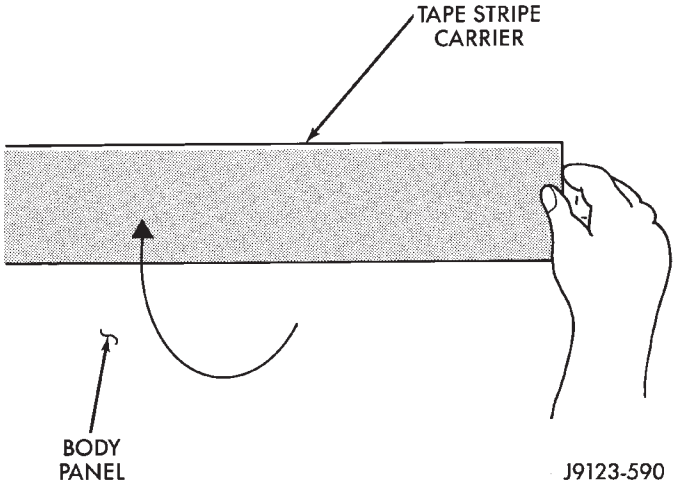

Fig. 67 Tape Stripe/Decal and Carrier Reversed On Body Panel

CAUTION: Always remove the carrier from the tape stripe/decal, never remove the tape stripe/decal from the carrier.

(6) Bend a corner of the carrier outward with a flick of the finger, separate the corner of the carrier from the tape stripe/decal.

(7) Separate approximately 15 cm (6 in) of the carrier from one end of the tape stripe/decal (Fig. 68).

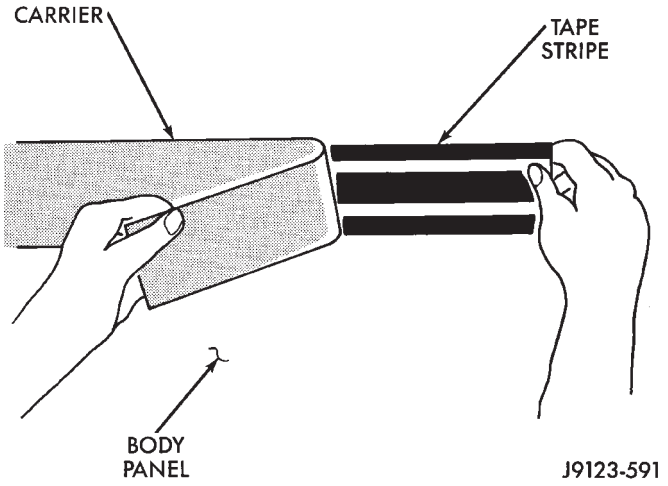

Fig. 68 Tape Stripe/Decal and Carrier Separated

(8) Return the tape stripe/decal back to its original position. If a wetting solution is used, position the adhesive side of the tape stripe/decal on the panel. Apply wetting solution to the outside of the tape stripe/decal. Use firm strokes with a squeegee to adhere the tape stripe/decal to the body.

(9) Hold tape stripe/decal firmly against the panel surface while separating the carrier from the tape stripe/decal (Fig. 69).

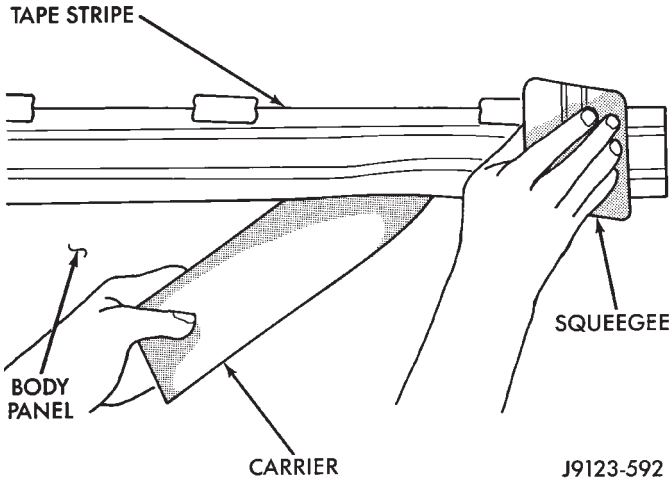

Fig. 69 Tape Stripe/Decal Installation

(10) Where applicable, extend the tape stripe/decal 12 mm (1/2 in) beyond the door edge. Next, wrap it around on the flange and adhere it to the door flange Fig. 70). **Use care to avoid trapping air under the tape stripe/decal.** Where necessary, trim excess tape stripe/decal.

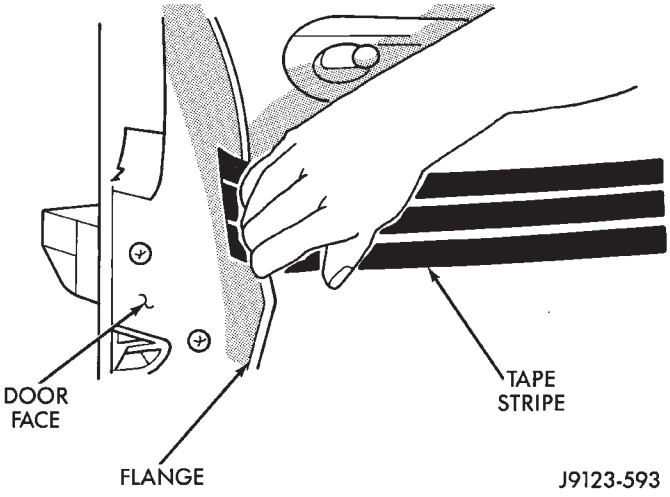

Fig. 70 Tape Stripe/Decal Installation On Door Flange

(11) If applicable, remove the cover from the face of the tape stripe/decal.

(12) Inspect tape stripe/decal with reflected light to check for defects that could have developed during the installation process. Remove all air and/or moisture bubbles.

COMPLETE REPLACEMENT

The following procedure will simplify installation of a complete or large section(s) of tape stripe/decal on a vehicle.

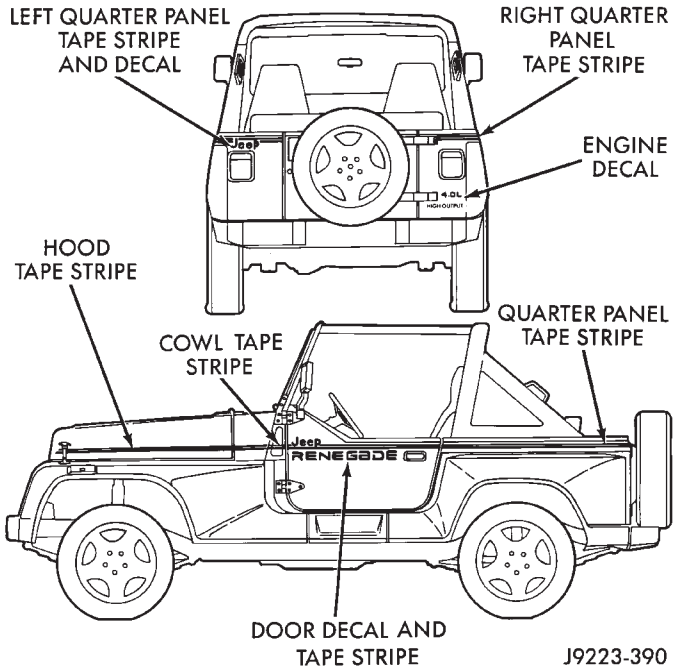

Fig. 71 Renegade Tape Stripes/Decals

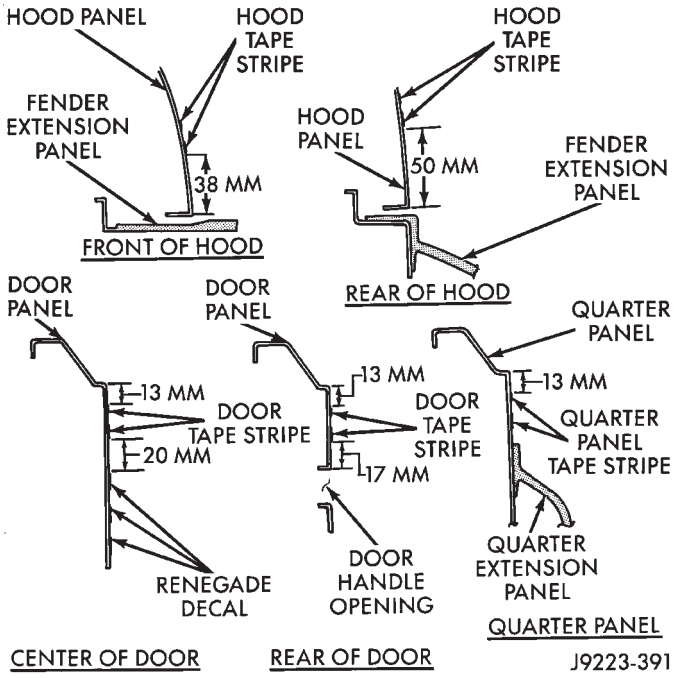

Fig. 72 Renegade Tape Stripe/Decal Positioning

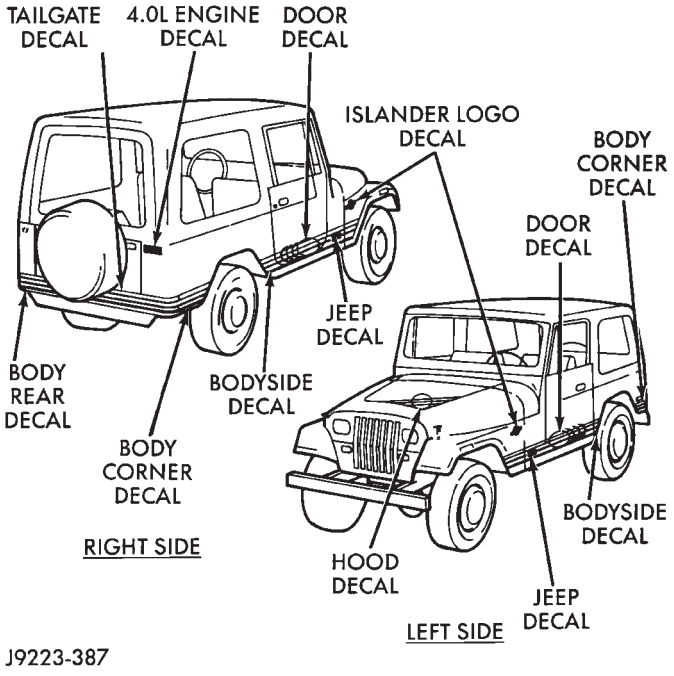

Fig. 73 Islander Decals

(1) Place the tape stripe/decal on a clean, flat surface with the carrier side facing upward.

(2) Bend a corner of the carrier inward and then, with a flick of the finger, separate the corner of the carrier from the tape stripe/decal.

CAUTION: Hold tape stripe/decal at extreme outer edges of the corners while separating the carrier.

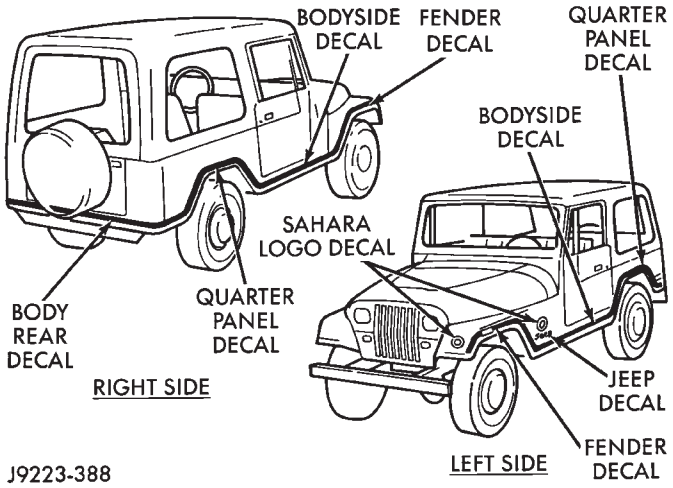

Fig. 74 Sahara Decals

(3) Hold tape stripe/decal firmly against the flat surface and separate the carrier from the tape stripe/decal.

If hot and humid, a slight jerking motion will aid separating the carrier from the tape stripe/decal.

(4) Use a clean sponge and apply ample wetting solution to the tape stripe/decal adhesive and to the painted panel surface. The solution will permit ease of tape stripe/decal movement when positioning it on the panel.

(5) Position adhesive-coated side of tape stripe/decal on the panel with the bottom aligned with character line. Where applicable:

- align the end of the replacement tape stripe/decal with the end of the existing tape stripe/decal, and
- correctly align the index darts and index notches.

(6) If a complete replacement tape stripe/decal is not being installed:

- position the replacement tape stripe/decal section at the center of the repair area,
- align it with the existing tape stripe/decal, and
- allow at least 12 mm (1/2 in) of the tape stripe/decal section to overlap the existing tape stripe/decal edges.

(7) Apply wetting solution to the outer side of the tape stripe/decal to allow the squeegee to freely slide while adhering the stripe/decal to the panel.

CAUTION: Avoid unnecessary pulling and stretching at the ends of the tape stripe/decal because this could cause it to tear.

(8) Position and slide a squeegee from the center to the ends of the tape stripe/decal. This will ensure complete bonding of the tape stripe/decal to the painted panel surface.

(9) If a wrinkle is trapped in the tape stripe/decal during the squeegee operation, stop. Lift wrinkled

area and re-align stripe/decal with panel character line. **Do not lift the tape stripe/decal if only a few air bubbles exist.**

(10) Where applicable, allow 12 mm (1/2 in) extra tape stripe/decal to extend beyond the edges to be folded over.

(11) Fold the excess tape stripe/decal back onto inside flange area. **Use care to avoid trapping air under the tape stripe/decal.** Where necessary, trim excess tape stripe/decal.

(12) Inspect tape installation with reflected light to detect any defects that could have developed during the installation.

(13) Remove all air and moisture bubbles from the tape stripe/decal with a needle or pin.

(14) Install any removed components and clean the vehicle as necessary.

EXTERIOR NAMEPLATES (ADHESIVE-BACKED)

All of the YJ exterior nameplates (Fig. 75) are attached to the vehicle panels with adhesive.

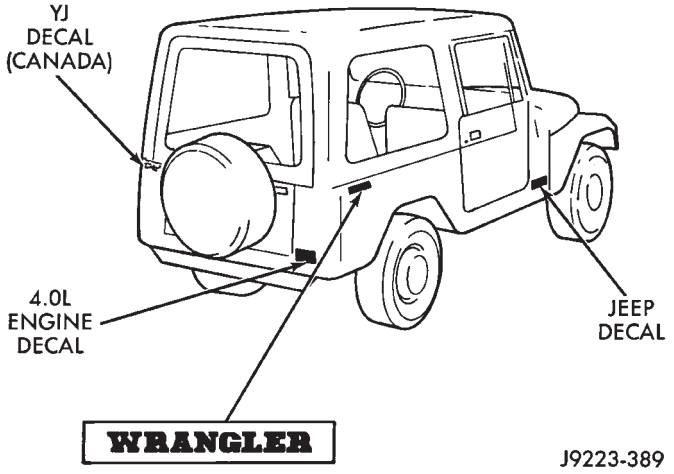

Fig. 75 YJ Nameplate Decals

REMOVAL/INSTALLATION

(1) Carefully pry the nameplate (Fig. 75) from the body outer panel.

(2) Clean the panel surface.

(3) Position the replacement nameplate (Fig. 75) on the panel and apply inward force to seat it.

FUEL FILLER PROTECTOR/NOZZLE

REMOVAL

(1) Either remove it or support the license plate bracket away from the fuel filler protector and nozzle (Fig. 76).

(2) Remove the cap from the nozzle (Fig. 76).

(3) Loosen the clamps at the nozzle and separate the hoses from the nozzle (Fig. 76).

(4) Remove the screws that attach the protector to the body panel (Fig. 76).

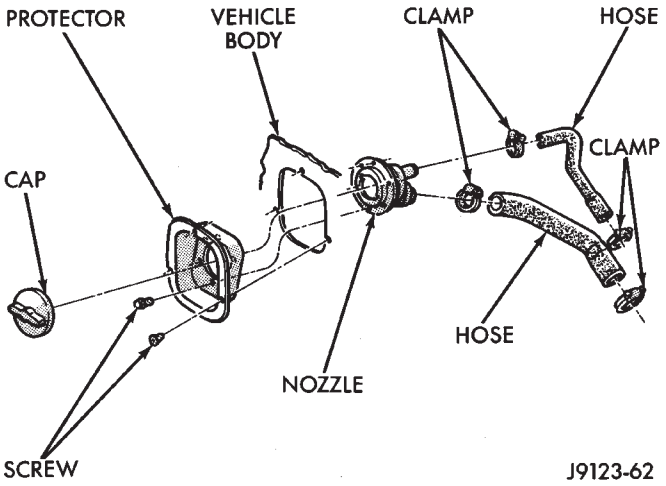

Fig. 76 Fuel Filler Cap, Protector, Nozzle and Hoses

(5) Remove the protector and nozzle from the opening in the body (Fig. 76).

(6) Remove the screws and separate the nozzle from the protector (Fig. 76).

INSTALLATION

(1) Position the fuel filler nozzle on the protector and install screws (Fig. 76). Tighten the screws to 2 N·m (20 in-lbs) torque.

(2) Position the protector and the nozzle in body panel opening, and install (Fig. 76). Tighten the screws to 3 N·m (25 in-lbs) torque.

(3) Attach the hoses to the tubes and tighten the clamp screws to 3 N·m (30 in-lbs) torque (Fig. 76).

(4) Install the cap on the nozzle (Fig. 76).

(5) If removed, install the license plate bracket.

HALF METAL DOOR MIRROR (EXTERNAL)

REMOVAL

(1) Remove the mirror base attaching screws from the door hinge (Fig. 78).

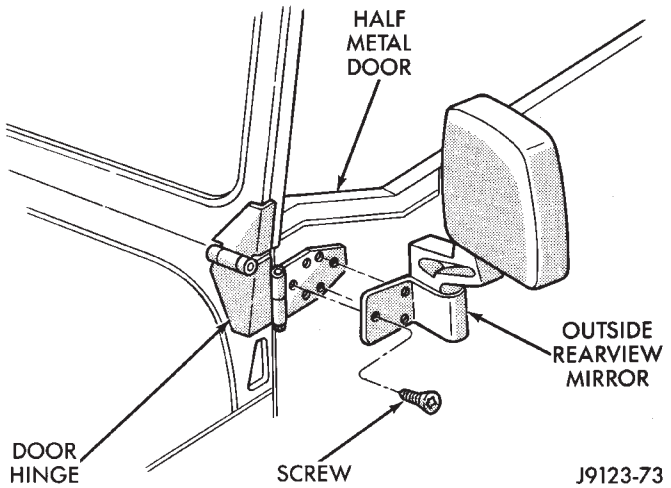

Fig. 78 Half Metal Door Mirror

(2) Remove the mirror from the door hinge (Fig. 78).

INSTALLATION

(1) Clean the door hinge-mirror base contact surface.

(2) Position the mirror base at the door hinge (Fig. 78).

(3) Install the mirror base attaching screws in the door hinge (Fig. 78). Tighten the attaching screws to 11 N·m (96 in-lbs) torque.

TAILGATE SERVICE INFORMATION

The following tailgate service procedures include:

- tailgate removal/installation,
- tailgate hinge replacement,
- tailgate adjustment,
- tailgate latch removal/installation,
- tailgate lock cylinder removal/installation,
- tailgate latch striker removal/installation, and
- tailgate seal replacement.

TAILGATE SERVICE

REMOVAL

(1) For YJ Renegade vehicles:

- open the tailgate;
- remove the tailgate check rod cover by removing the screws located at the outer edge of the cover (Fig. 80);

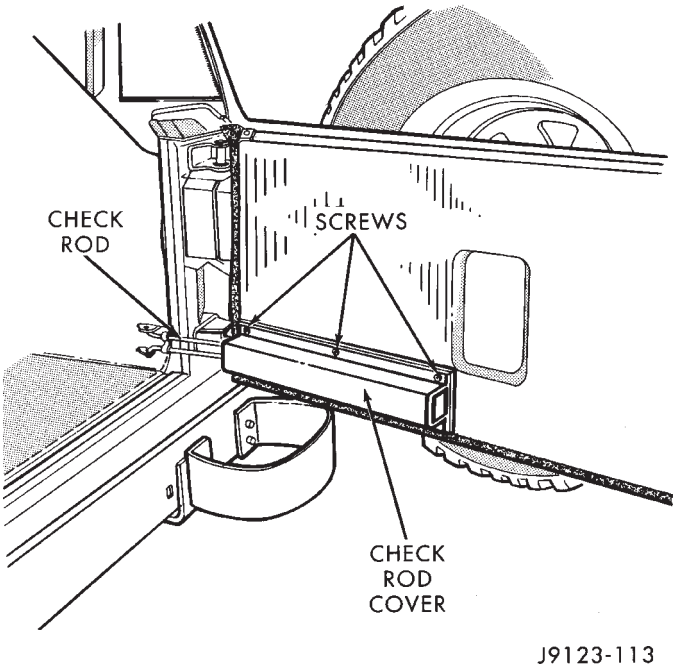

Fig. 80 Check Rod Cover Removal/Installation—Renegade Vehicles

- use a small pry bar to pry out the rod spacer that retains the check rod in the bracket (Fig. 81);

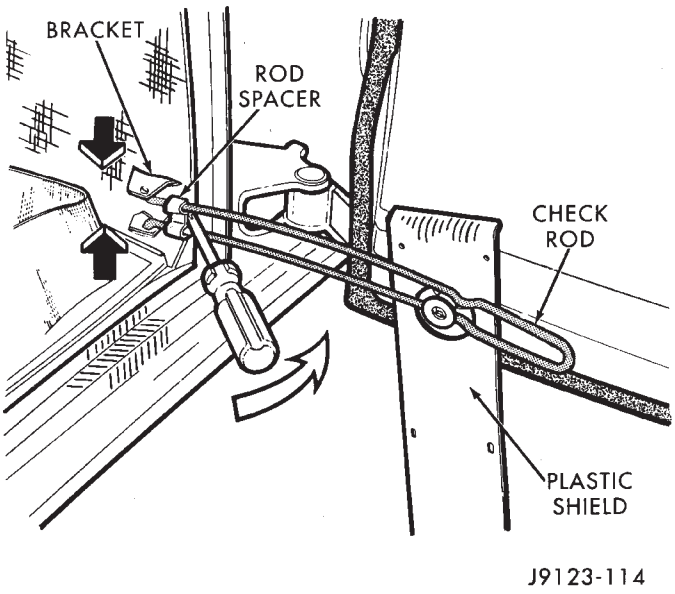

Fig. 81 Check Rod Spacer Removal—Renegade Vehicles

- apply inward pressure on the rod to release it from the bracket (Fig. 81);
- remove the check rod from the tailgate;
- remove the plastic shield from the tailgate (Fig. 81); and
- close the tailgate.

(2) For all vehicles, remove the tailgate hinge screws with a Torx bit (Fig. 82).

(3) Disengage the latch and remove the tailgate from the vehicle.

INSTALLATION

(1) Position and align the tailgate in the body opening and engage the latch.

(2) Install the hinge retaining screws (Fig. 82). Tighten the screws to 18 N·m (156 in-lbs) torque.

(3) For YJ Renegade vehicles, install the shield, check rod and spacer (Figs. 81 and 82). Tighten the slide pin to 75 N·m (55 ft-lbs) torque.

(4) For YJ Renegade vehicles, install the check rod cover (Figs. 80 and 82). Tighten the screws to 3 N·m (24 in-lbs) torque.

TAILGATE HINGE

REPLACEMENT

(1) Remove the hinge retaining screws and remove the hinge (Fig. 82).

(2) Prepare and paint the replacement hinge to match the body paint color.

(3) Lubricate the hinge with spray lubricant.

(4) Position the hinge on the body and install the retaining screws (Fig. 82). Tighten the screws to 18 N·m (156 in-lbs) torque.

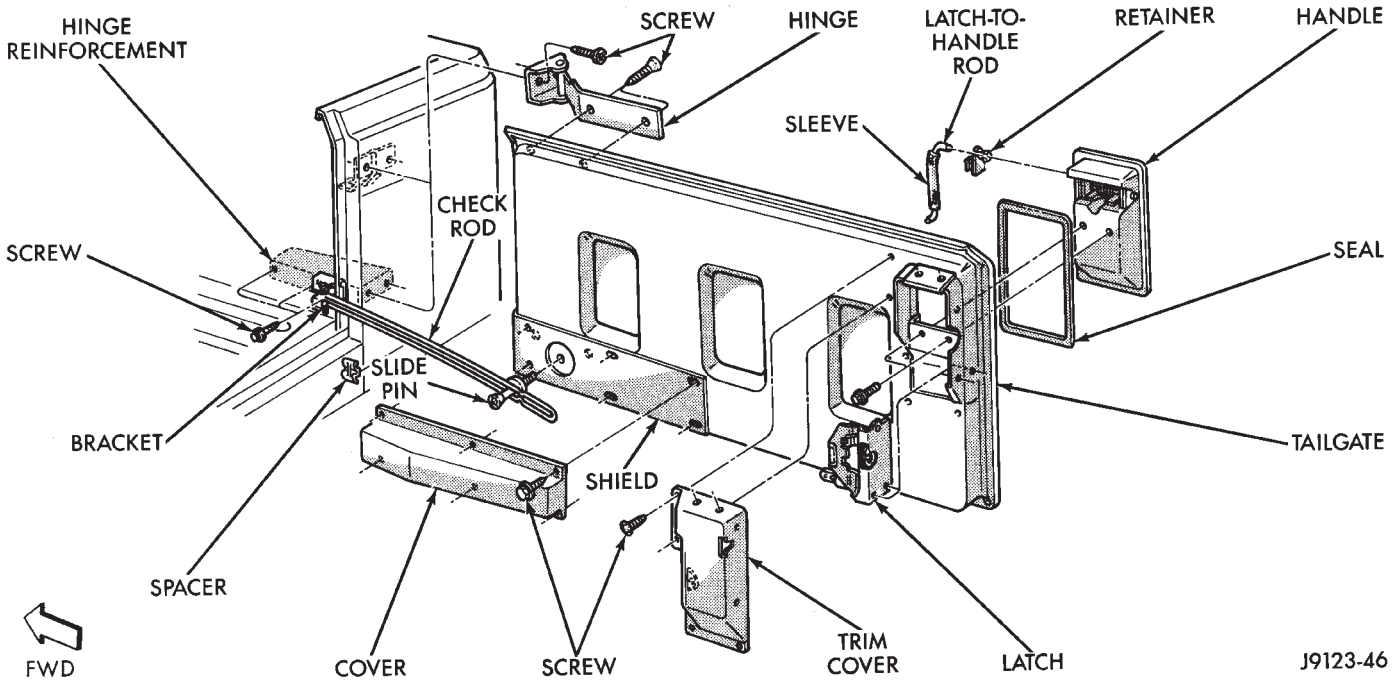

Fig. 82 Tailgate and Components

(5) Align the tailgate with the hinge and install the hinge-to-tailgate screws (Fig. 82). Tighten the screws to 18 N·m (156 in-lbs) torque.

TAILGATE ADJUSTMENT

(1) Loosen the tailgate hinge-to-body screws (Fig. 82).

(2) Align the tailgate in the body opening and tighten the hinge screws to 18 N·m (156 in-lbs) torque (Fig. 82).

TAILGATE LATCH AND RELEASE HANDLE

REMOVAL

(1) Open the tailgate and remove the latch trim cover (Fig. 82).

(2) Remove the tailgate latch-to-handle rod retainer and disconnect the rod from the latch (Fig. 82).

(3) Remove the latch-to-tailgate screws (Fig. 82).

(4) Remove the retainer clip from the latch-to-lock cylinder rod and disconnect the rod from the lock cylinder (Fig. 83).

(5) Remove the retainer clip from the latch-to-release handle rod and disconnect the rod from the release handle (Fig. 83).

(6) Remove the latch from the tailgate (Fig. 82).

(7) Remove the latch release handle screws (Fig. 82).

(8) Remove the release handle and seal from the tailgate (Fig. 82).

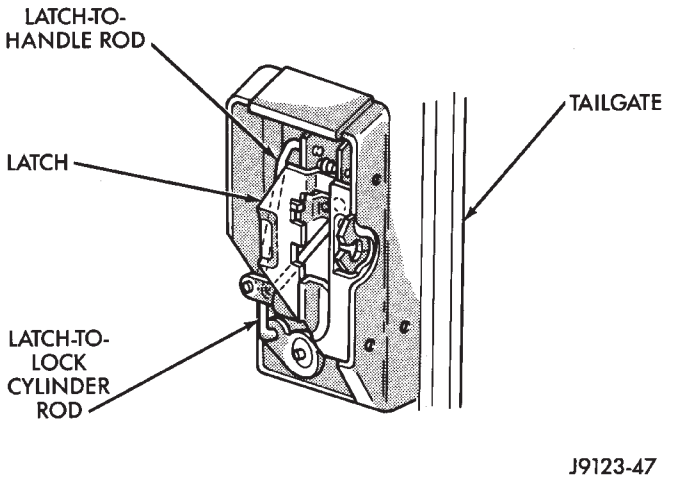

Fig. 83 Tailgate Latch and Rods

INSTALLATION

(1) Position seal latch release handle on the tailgate and install screws (Fig. 82). Tighten the screws to 6 N·m (50 in-lbs) torque.

(2) Position the latch at the tailgate (Fig. 82).

(3) Install the latch retaining screws and connect the latch rods and rod retainers (Figs. 83 and 84). Tighten the screws to 6 N·m (50 in-lbs) torque.

(4) Install the latch cover (Fig. 82). Tighten the screws to 11 N·m (96 in-lbs) torque.

TAILGATE LOCK CYLINDER

REMOVAL

(1) Open the tailgate.

(2) Remove the latch cover (Fig. 82).

(3) Remove the lock cylinder retainer clip (Fig. 85).

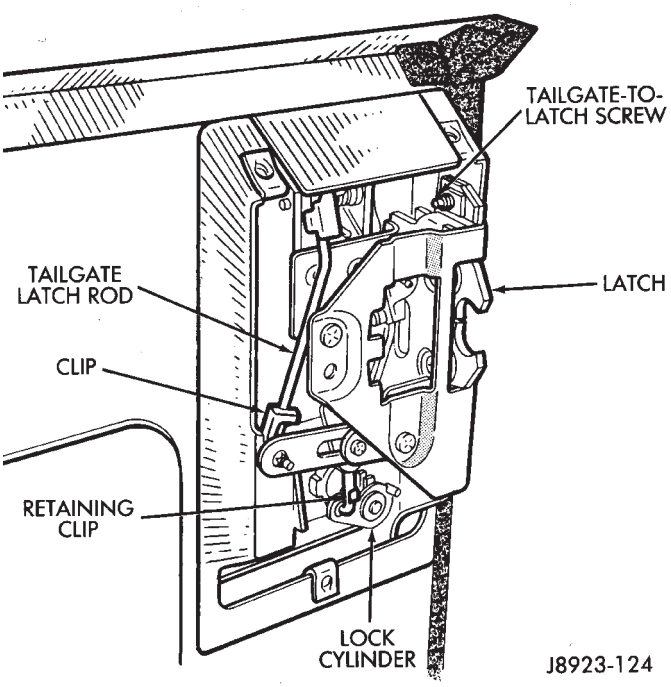

Fig. 84 Tailgate Latch Installation

(4) Disengage the lock cylinder lever (Fig. 85) from

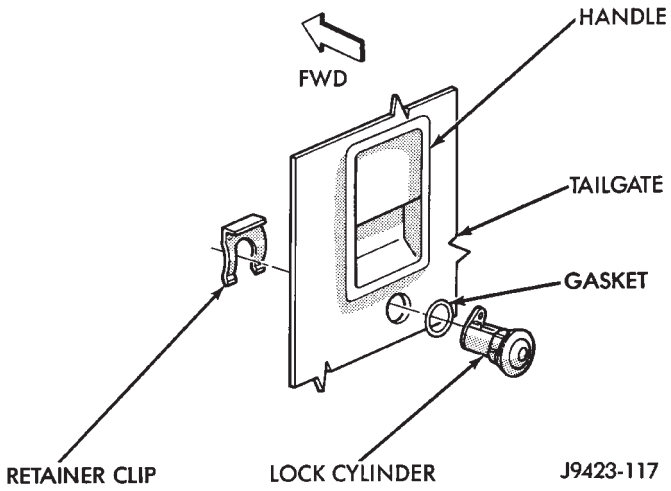

Fig. 85 Tailgate Lock Cylinder Removal/Installation

the latch-to-lock cylinder rod.

(5) Remove the lock cylinder from the tailgate opening.

(6) Remove the E-clip and separate the lever from the lock cylinder (Fig. 85).

INSTALLATION

(1) Inspect the retainer clip and the gasket. As applicable, replace if distorted or damaged.

(2) Attach the lever to the lock cylinder with the E-clip and position the lock cylinder in the tailgate opening (Fig. 85).

(3) Connect the latch-to-lock cylinder rod to the lever.

(4) Install the lock cylinder retainer clip (Fig. 85).

(5) Install the latch cover (Fig. 82). Tighten the screws to 11 N·m (96 in-lbs) torque.

TAILGATE LATCH STRIKER

REMOVAL

(1) Remove the striker from the bracket with a Torx bit (Fig. 86).

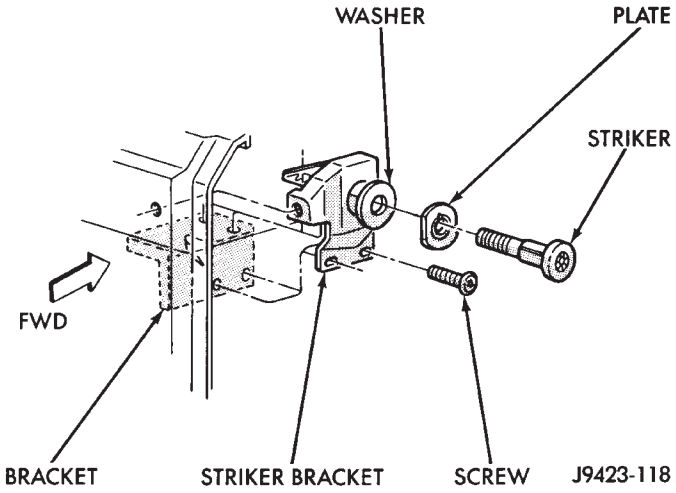

Fig. 86 Tailgate Latch Striker Removal/Installation

(2) Remove the plate, shim and washer from the bracket (Fig. 86).

(3) Remove the retaining screws and the striker bracket from the tailgate reinforcement bracket (Fig. 86).

INSTALLATION

(1) Position the striker bracket on the tailgate and install the retaining screws in the reinforcement bracket (Fig. 86). Tighten the screws to 11 N·m (96 in-lbs) torque.

(2) Position the washer, shim and plate on the striker bracket (Fig. 86).

(3) Install the striker in the bracket with a Torx bit (Fig. 86). Tighten the striker to 71 N·m (52 ft-lbs) torque while retaining the striker plate in-place.

TAILGATE WEATHERSTRIP SEAL

REMOVAL

(1) Remove the seal retaining rivets (Fig. 87).

(2) Carefully separate the seal and the retainers from the tailgate edge (Fig. 87).

(3) If the original seal will be installed, clean it with a dampened cloth.

(4) Clean the seal contact surface on the tailgate (Fig. 87).

(5) Inspect the seal and retainers (Fig. 87). Replace the seal if damaged.

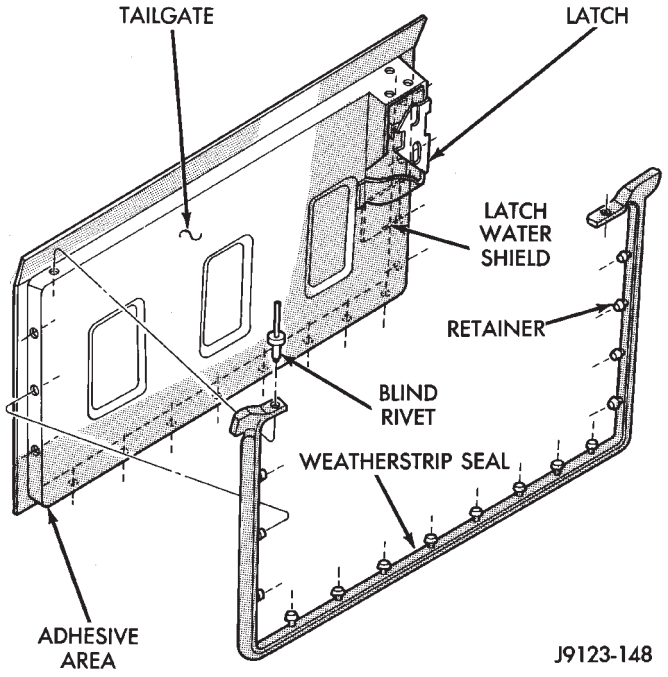

Fig. 87 Tailgate Weatherstrip Seal Removal/Installation

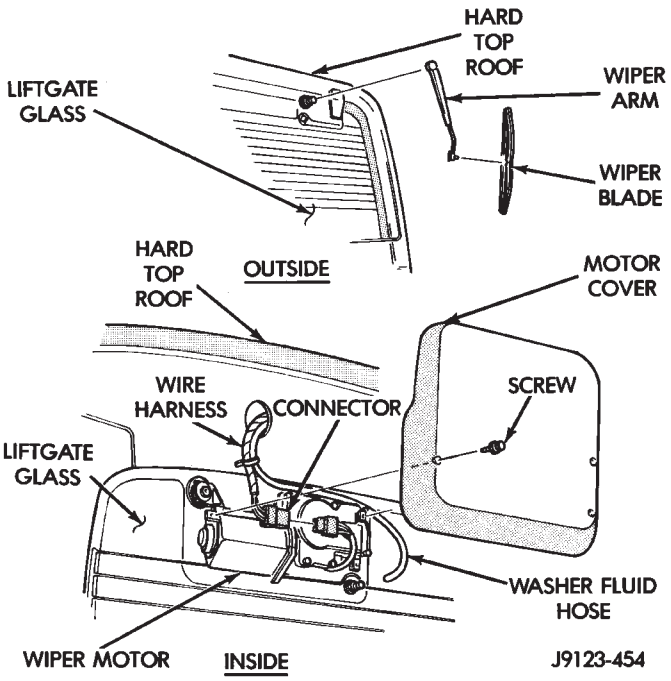

Fig. 88 Liftgate Wiper Motor

INSTALLATION

(1) Apply weatherstrip adhesive around the perimeter of the seal contact surface on the tailgate edge (Fig. 87).

(2) Position the seal on the tailgate and press it against the inner panel and flange.

(3) Install the seal retaining rivets (Fig. 87).

CAUTION: Do not apply graphite, brake fluid or wax to the seal.

HARD TOP LIFTGATE GLASS

REMOVAL

(1) Disconnect the rear defroster/dome lamp wire harness connectors.

(2) Remove the wiper motor cover. Disconnect the wiper motor wire harness connector and the washer fluid hose (Fig. 88).

(3) Remove the wiper arm and blade (Fig. 88).

WARNING: DO NOT REMOVE THE LIFTGATE SUPPORT RODS WITH THE LIFTGATE CLOSED. THE SUPPORT ROD PISTONS ARE OPERATED BY HIGH PRESSURE GAS AND COULD CAUSE PERSONAL INJURY AND/OR VEHICLE DAMAGE IF THEY ARE REMOVED WITH THE PISTONS COMPRESSED (LIFTGATE CLOSED). ONCE REMOVED, DO NOT ATTEMPT TO DISASSEMBLE OR REPAIR THE SUPPORT RODS.

(4) Open the tailgate (Fig. 89).

(5) Remove the support rod cylinder retaining clips at both ends of each support rod cylinder (Fig. 89)

(6) Pull the support rods off the ball studs (Fig. 89).

(7) Remove the liftgate glass hinge bolts (Fig. 89).

(8) Remove the liftgate glass from the hard top (Fig. 89).

(9) Remove the weatherstrip seal (Fig. 89), if necessary.

INSTALLATION

(1) Assemble the liftgate components, if necessary

(2) Position the liftgate glass in the hard top opening and install the hinge bolts (Fig. 89). Do not tighten the bolts.

(3) Adjust the liftgate glass to fit the hard top opening.

(4) Tighten the hinge bolts to 11 N·m (95 in-lbs) torque.

(5) Position the support rod cylinders on the ball studs (Fig. 89).

(6) Install the support rod cylinder retainer clips (Fig. 89).

(7) Connect the wiper motor wire harness connector and the washer fluid hose. Install the wiper motor cover (Fig. 88).

(8) Install the wiper arm and blade (Fig. 88).

(9) Connect the rear window defroster/dome lamp wire harness connectors.

DISASSEMBLY

(1) Remove retaining screws and the lower, inner trim moulding from the latch panel (Fig. 90).

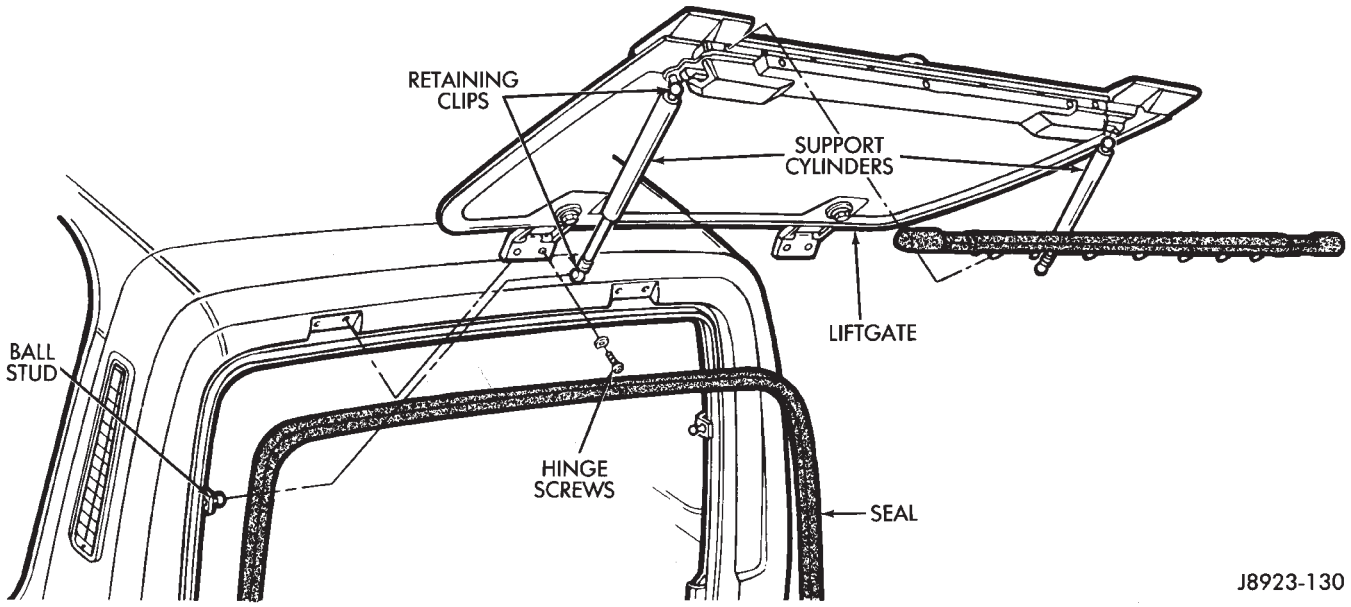

Fig. 89 Liftgate Removal/Installation

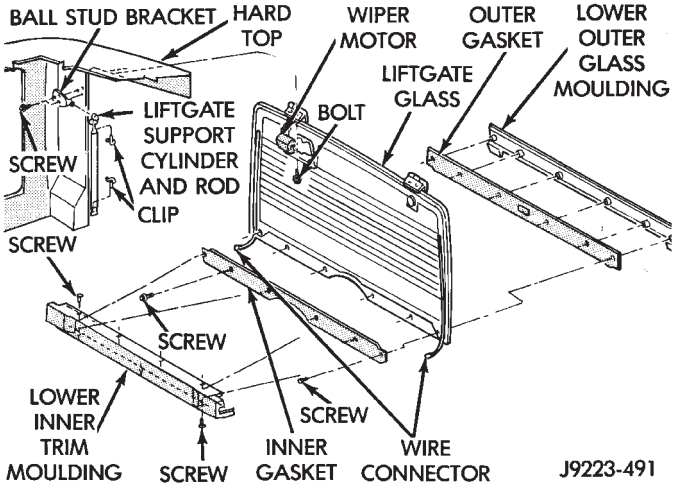

Fig. 90 Liftgate and Components

(2) Remove the retaining screws and the latch panel, inner gasket, outer gasket, and the lower, outer liftgate moulding from the liftgate (Fig. 90).

(3) Refer to Group 8—Electrical for service information involving the wiper motor and the defroster.

(4) If necessary, remove the latch strikers and the ball stud brackets from the hard top inner panel (Fig. 90).

ASSEMBLY

(1) If removed, install the latch strikers and the ball stud brackets on the hard top inner panel (Fig. 90).

(2) Position the latch panel, and gaskets, and liftgate moulding on liftgate and install screws (Fig. 90). Tighten the screws to 7 N·m (60 in-lbs) torque.

(3) Position the lower, inner trim moulding on the latch panel. Install screws (Fig. 90). Tighten the screws to 2 N·m (12 in-lbs) torque.

LIFTGATE GLASS WEATHERSTRIP SEAL REPLACEMENT

REMOVAL

(1) Remove the liftgate glass from the hard top. If necessary, refer to the removal procedure.

(2) Remove the retaining screws from the liftgate-to-tailgate weatherstrip seal (Fig. 91).

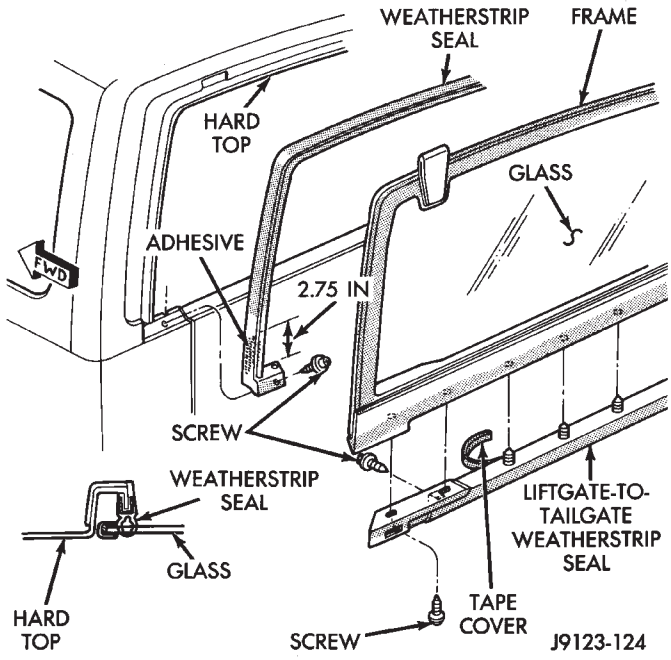

Fig. 91 Liftgate Glass Weatherstrip Seals

(3) Carefully separate the seal and retainers from the bottom of the liftgate glass (Fig. 91).

(4) Remove the hard top weatherstrip seal retaining screws from body rear panels (Fig. 91).

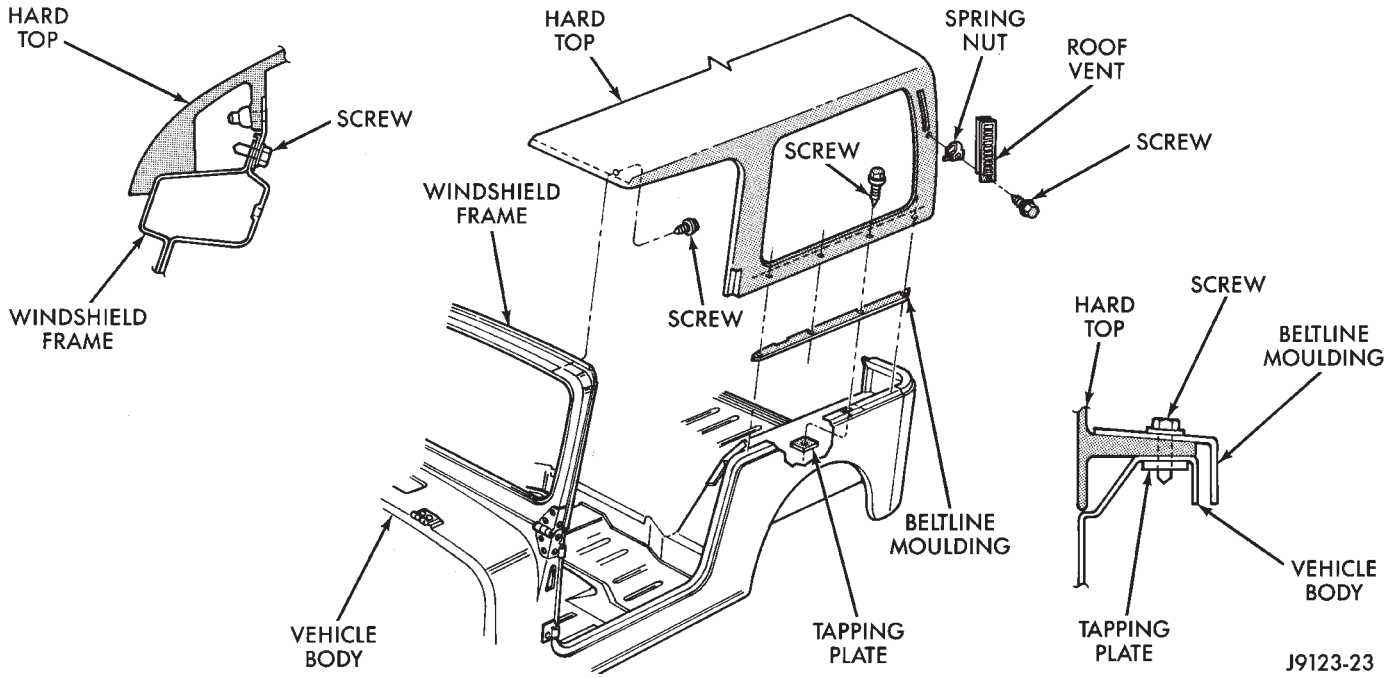

Fig. 92 Hard Top Removal/Installation

(5) Carefully separate the weatherstrip seal from the rear panels and the hard top (Fig. 91).

(6) Remove the residual adhesive from the seal contact areas.

INSTALLATION

(1) Remove the tape cover and position the liftgate-to-tailgate weatherstrip seal at the bottom of the liftgate glass (Fig. 91).

(2) Carefully insert the retainers into the holes and press the seal against the bottom of the liftgate glass (Fig. 91).

(3) Install the liftgate-to-tailgate weatherstrip seal screws (Fig. 91). Tighten the screws securely.

(4) Apply weatherstrip adhesive to the hard top weatherstrip seal as indicated in Figure 91.

(5) Carefully position the weatherstrip seal on the rear panels and the hard top (Fig. 91).

(6) Press the seal onto the hard top flange and ensure that it is correctly seated on the flange (Fig. 91).

(7) Install the seal retaining screws in the rear panels and tighten them securely (Fig. 91).

HARD TOP SERVICE INFORMATION

The following service procedures include:

- hard top removal/installation, and
- hard top repair procedures.

The hard top is constructed of compressed molded fiberglass and painted to a special spatter paint. The hard top can be removed for service access or for other purposes.

HARD TOP SERVICE

REMOVAL

CAUTION: When removing the hard top, avoid damaging the foam sealant between the hard top and body panels.

(1) Remove the screws that attach the hard top to the windshield frame (Figs. 92 and 93).

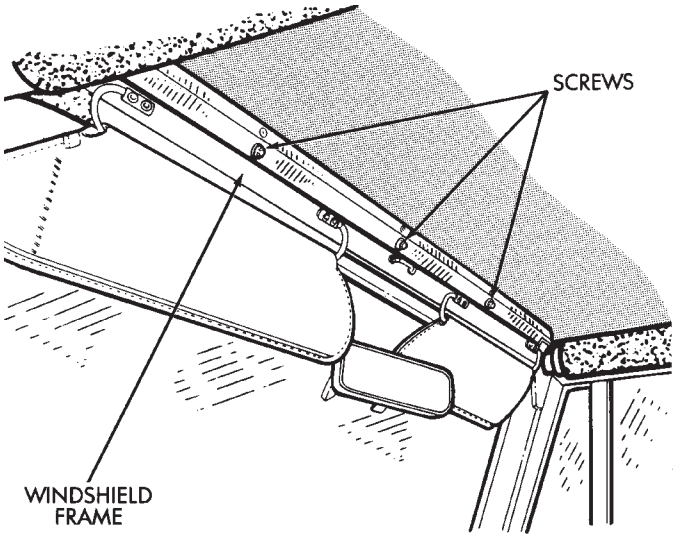

Fig. 93 Hard Top-To-Windshield Frame Screws

(2) Remove the screws that attach the hard top to the rear beltline mouldings, body panels and tapping plates (Figs. 92 and 94).

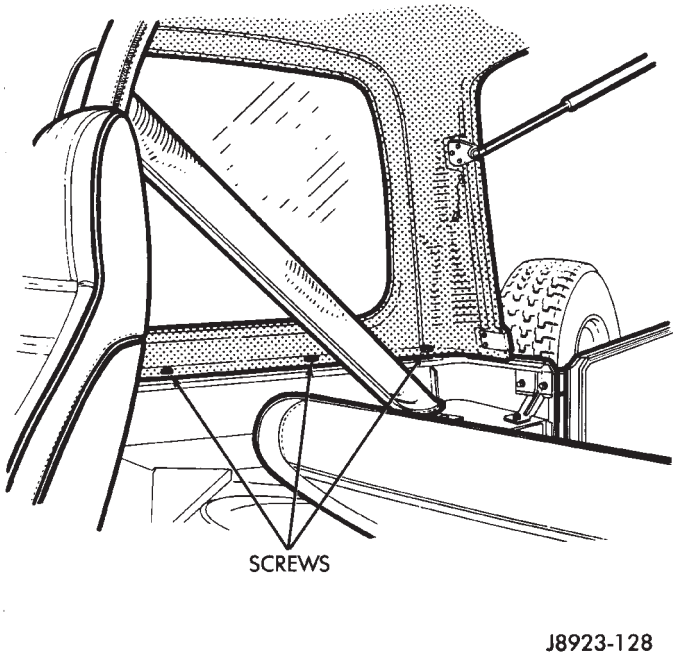

Fig. 94 Hard Top-To-Body Panel Screws

(3) Disconnect the wire harness connectors (Fig. 95).

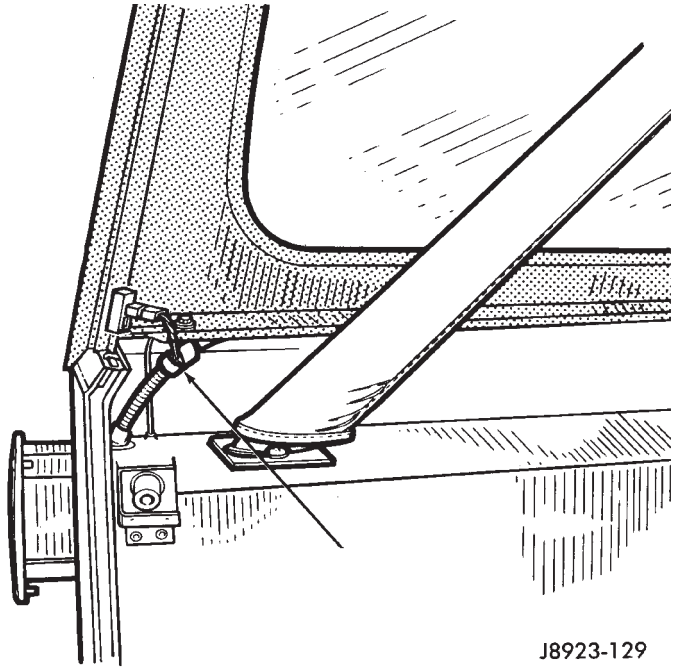

Fig. 95 Wire Harness Connection—Typical

(4) Remove the beltline mouldings and the hard top from the vehicle (Fig. 92).

INSTALLATION

(1) Inspect the hard top seals for damage and replace, if necessary.

(2) Carefully position the hard top on the vehicle (Fig. 92).

CAUTION: When installing the hard top, avoid damaging the foam sealant located between the top and body panels.

(3) Position the beltline moulding on the hard top flange and install the screws (Figs. 92 and 94). Tighten the screws securely.

(4) Connect the wire harness connectors (Fig. 95).

(5) Install the screws to attach the hard top to the windshield frame (Figs. 92 and 93). Tighten the screws securely.

HARD TOP ROOF VENT

REMOVAL/INSTALLATION

(1) Remove the roof vent retaining screw from the spring nut (Fig. 92).

(2) Remove the roof vent from the hard top (Fig. 92).

(3) Position the roof vent on the hard top and install the retaining screw (Fig. 92).

HARD TOP REPAIR

The hard top fiberglass material can be repaired. The required repair materials include:

- fiberglass mat or cloth;
- fiberglass resin and hardener;
- structural adhesive (3M brand or an equivalent product);
- glazing putty;
- aluminum foil; and
- plastic spreader.

HARD TOP HOLE REPAIR

(1) Use a grinder to remove the paint and outline the damaged area. Use a grade 24 grit disc for paint removal.

(2) Grind the outlined surface area again to a 50 grit disc to prevent coarse scratches from appearing in the final finish.

(3) If cracks extend from the hole, it will be necessary to stop-drill the crack(s) with a 3-mm (1/8-in) diameter drill bit.

(4) Position a fiberglass mat or cloth on the repair surface area. Cut the mat to allow a 2.5-cm (1-in) overlap of the repair surface area.

(5) Clean the repair surface area.

(6) Place the fiberglass cloth on aluminum foil.

(7) Pour the fiberglass resin into a clean container.

(8) Mix the appropriate amount of hardener and resin. Follow the manufacturers instructions.

(9) Apply the hardener/resin mixture to both sides of the fiberglass cloth.

(10) Place the fiberglass cloth over the repair surface area. Next, place the aluminum foil over the

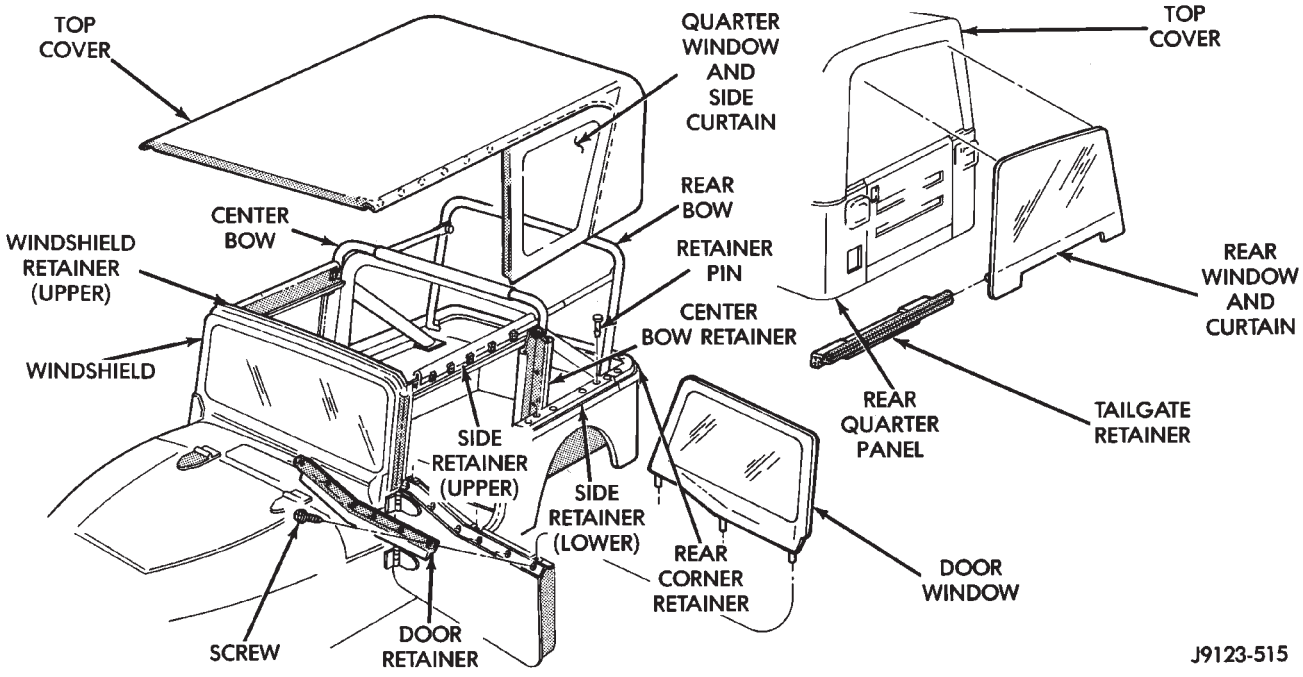

Fig. 96 Soft Top Cover, Curtains and Windows

cloth. Use a plastic spreader to smooth-out the cloth and resin. Use firm pressure to remove air bubbles and to smooth-out the cloth.

(11) Allow the resin to "cure".

(12) Smooth-out the surface area to the contour of the hard top with a 50-grit disc.

(13) Apply plastic filler to complete the repair. Finish smoothing the surface area with 80-grit paper.

(14) Repeat the previous step on the inside surface area of the hard top.

(15) "Featheredge" the repaired surface area.

(16) Prime the repaired surface area with Ditzler Epoxy Chromate Primer (DP-40/401), or an equivalent product.

(17) Apply surface primer to the surface area.

(18) Sand the surface area for paint preparation. After sanding, re-prime the surface area, if necessary.

(19) Prime the surface area for the color coat.

(20) Color coat the repaired surface area.

FRACTURE REPAIR

(1) Use a grinder to remove the paint (from both, the inner and outer surface areas of the hard top) and to outline the damaged area.

(2) "Stop-drill" the crack(s) with a 3-mm (1/8-in) diameter drill bit.

(3) Bevel the edges of the crack(s) on both sides with a rotary file.

The edges should be beveled on the inside and outside of the top to ensure sufficient surface area for good bonding.

(4) Complete the repairs with fiberglass cloth and resin as described above in the hard top hole repair procedure.

TEXTURED PAINT REPAIR

The textured paint applied to hard tops is available from Mopar Parts sources. The paint supplied will duplicate the original texture on the hard top.

SOFT TOP SERVICE INFORMATION

The soft top fabric consists of the top cover and the side and rear curtains (Fig. 96). The top cover is supported by a tubular bow (frame) and is attached to the upper side retainers (above the doors) with snap-on retainers (Fig. 97).

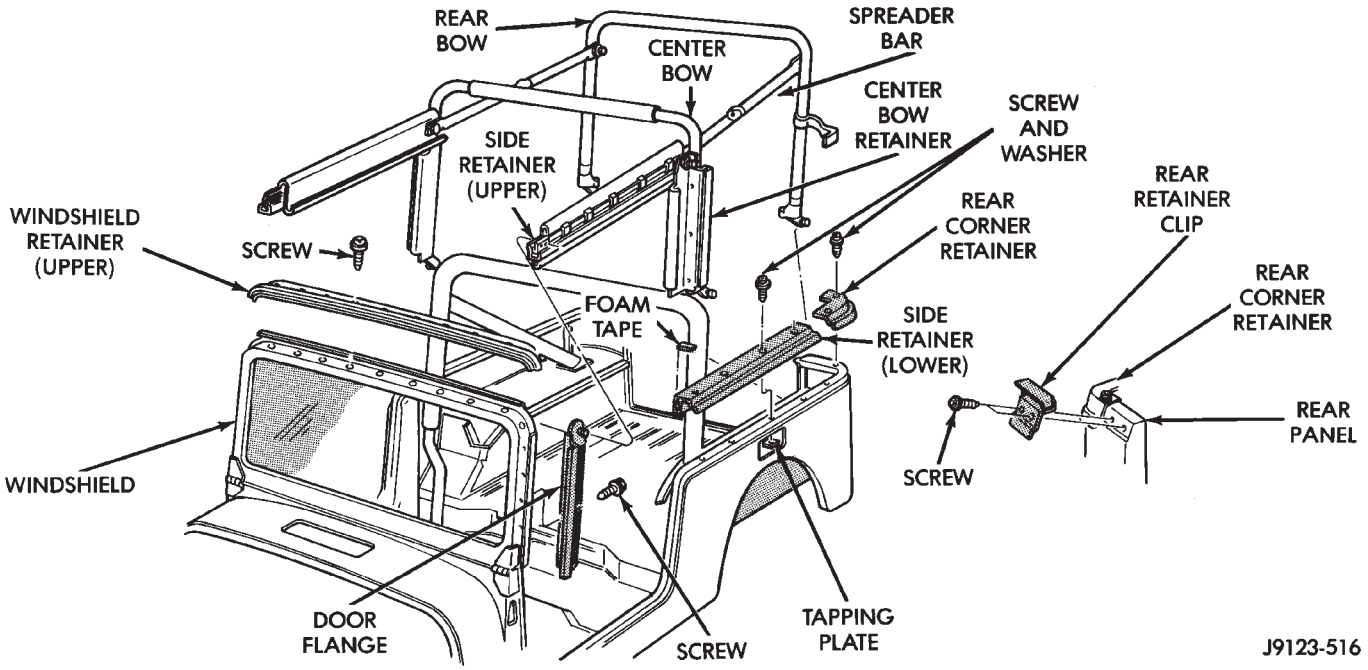

Fig. 97 Soft Top Bow, Spreader Bar and Retainers

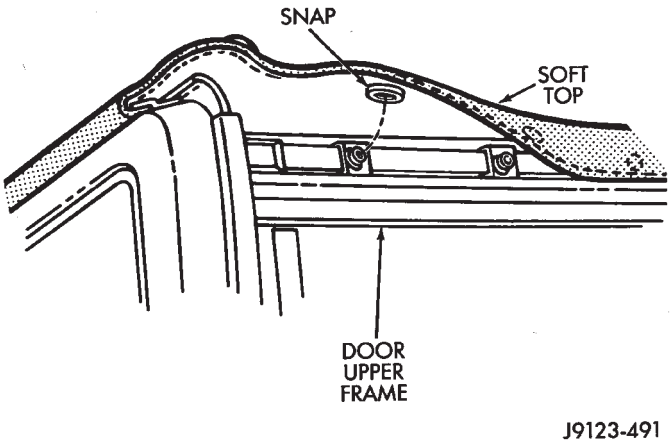

Fig. 98 Upper Side Retainers

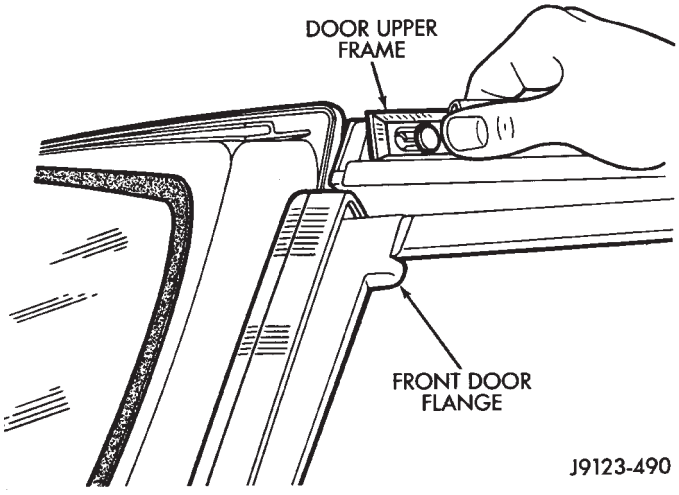

Fig. 99 Upper Side Retainer Removal From Door Flange

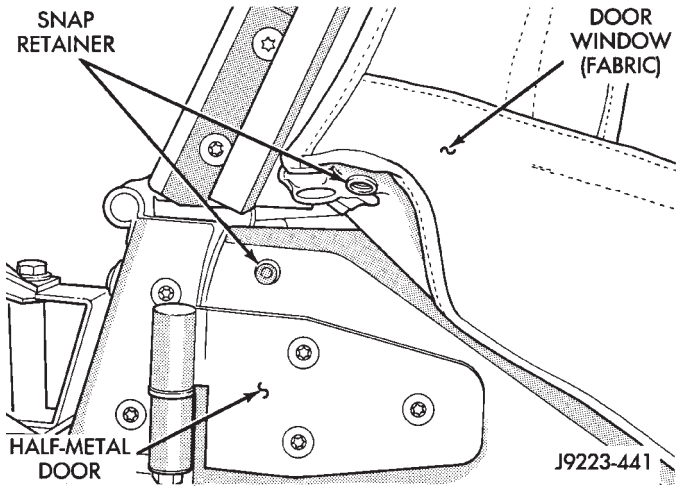

Fig. 100 Door Window Snap-On Retainer

SOFT TOP SERVICE

REMOVAL

(1) Detach the snap-on retainers from the upper side retainers (Figs. 96 and 98).

(2) Slide the upper side retainer lock forward. Next, disengage the lock from the pin and remove the retainer from the door flange (Figs. 96, 97 and 99).

(3) Detach the snap-on retainer at the front corner (Fig. 100, turn the retainers and remove the door windows (Fig. 101).

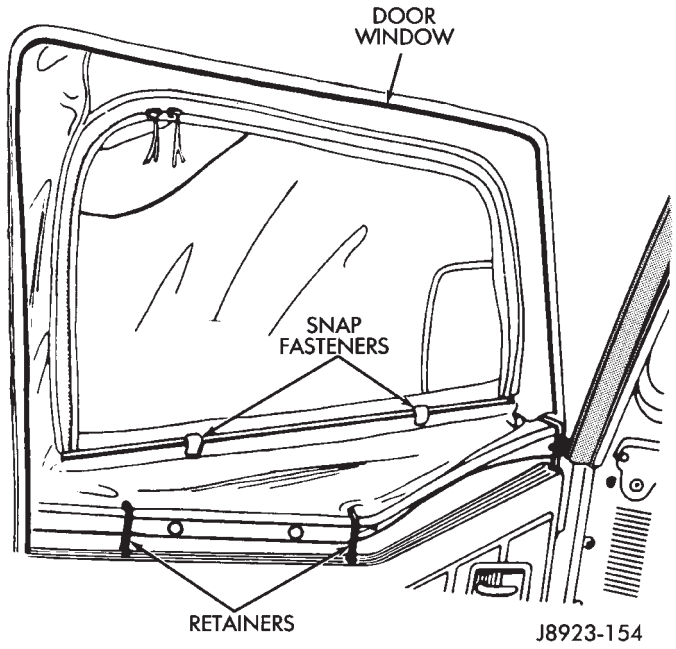

Fig. 101 Door Window Removal/Installation

(4) Open the side curtain upper and rear zippers (Figs. 96 and 102).

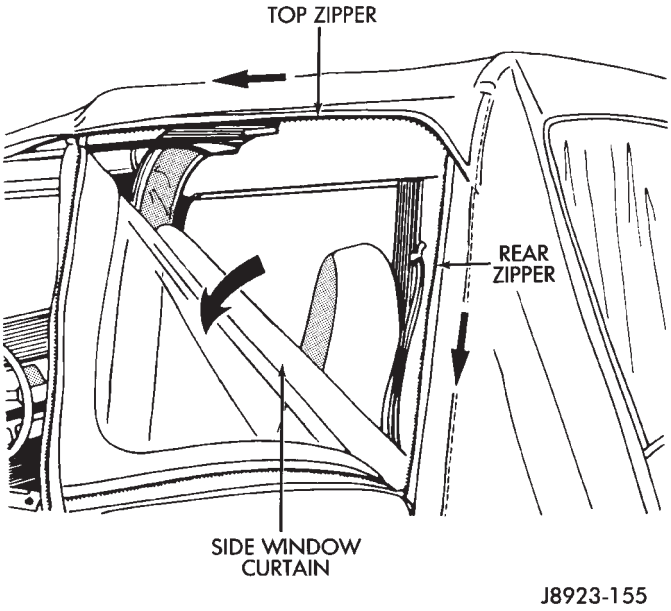

Fig. 102 Side Curtain Zippers

(5) Detach the interior snap-on retainer and tab, and pull the bottom edge of each side curtain out of the lower side retainer channel (Fig. 103).

(6) Slide the front edge of the side curtain downward and remove it from the center bow retainer channel (Figs. 96 and 104).

(7) Pull downward on the spreader bar to release the lock and the tension on the center and rear bows (Figs. 97 and 105).

(8) Open the tailgate.

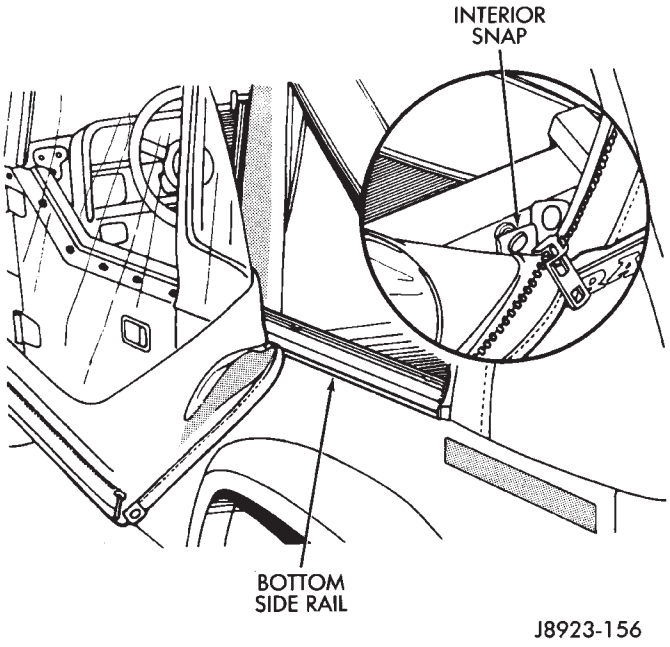

Fig. 103 Side Curtain and Lower Side Retainer

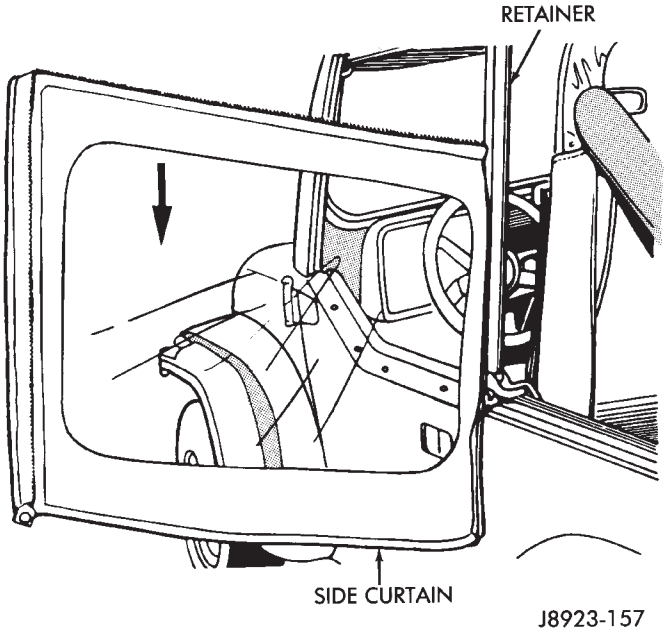

Fig. 104 Side Curtain Removal/Installation

(9) Open the rear curtain upper and side zippers (Fig. 106).

(10) Roll up the rear curtain and attach it to the top cover with the elastic straps and snap-on retainers (Fig. 107).

(11) Pull the bottom edge of the rear corners outward and detach from the side (lower) retainer (Fig. 108).

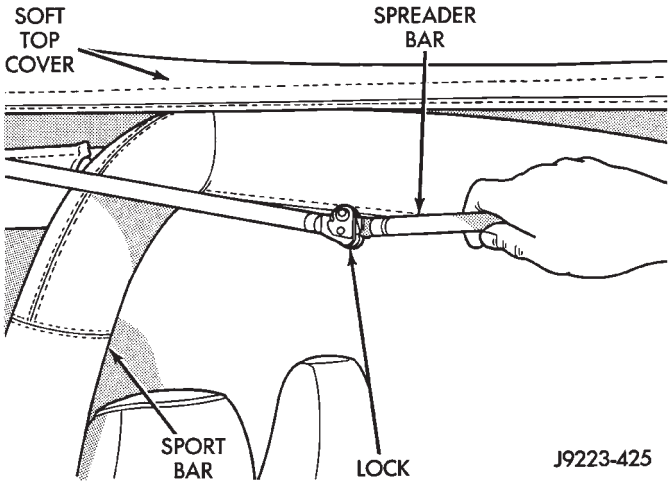

Fig. 105 Releasing Spreader Bar Tension

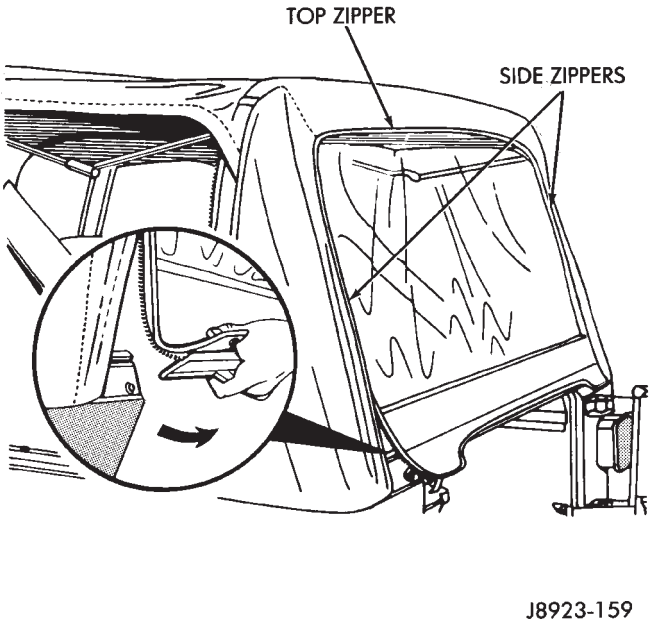

Fig. 106 Rear Curtain Upper and Side Zippers

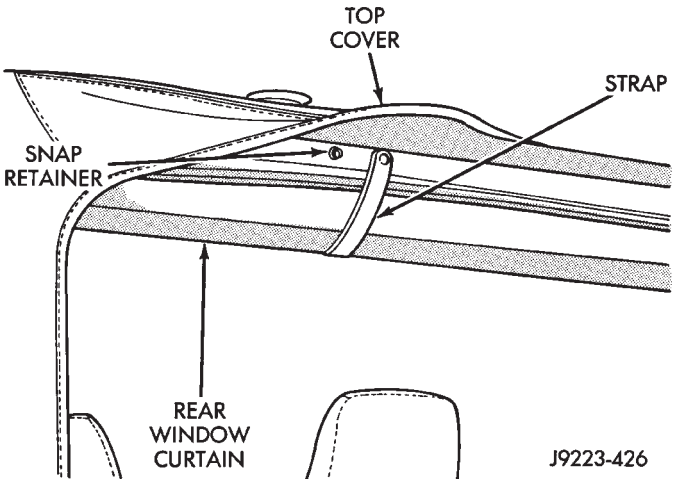

Fig. 107 Rear Curtain Upper and Side Zippers

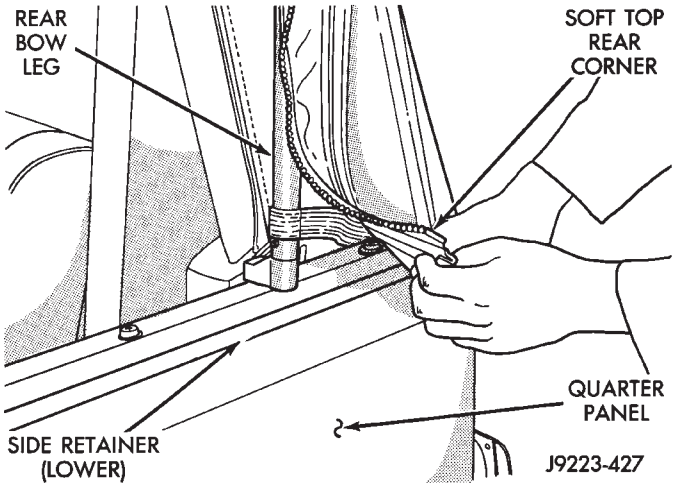

Fig. 108 Detaching Rear Corner Side (Lower) Retainer

(12) Detach the top cover from the upper side retainers located above the doors (Fig. 109). Next, detach the top cover from the retainer channel located along the upper edge of the windshield frame (Figs. 96 and 110).

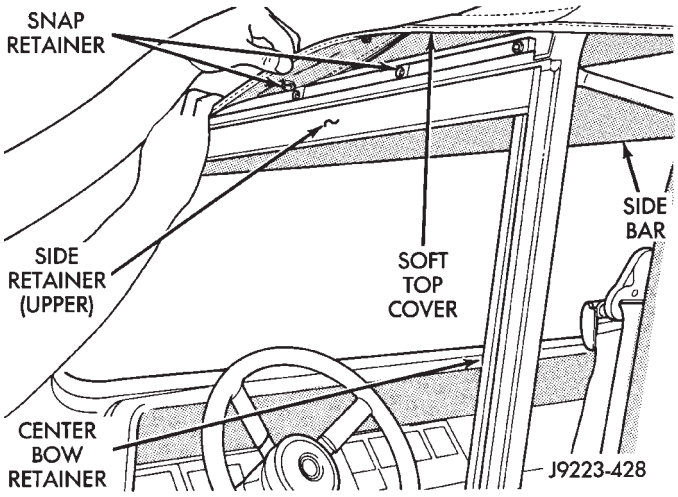

Fig. 109 Top Cover Snap-On Retainers At Upper Side Retainers

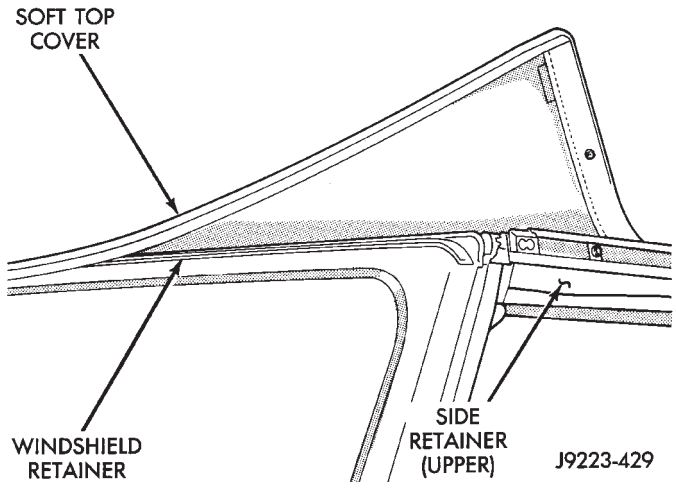

Fig. 110 Detaching Top Cover At Windshield

(13) Pull the top cover rearward from the windshield frame and fold it above the center bow (Fig. 111).

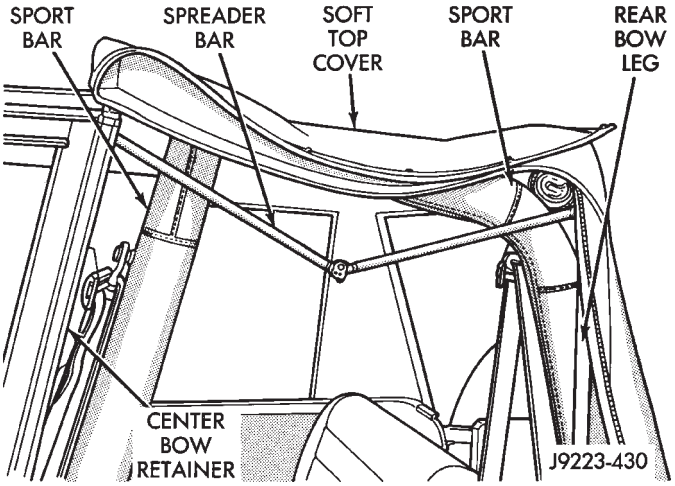

Fig. 111 Folding Top Cover

(14) Slide the top cover rearward (Fig. 112). The rear bow legs should move forward and fold under the center bow legs and the upper side retainers.

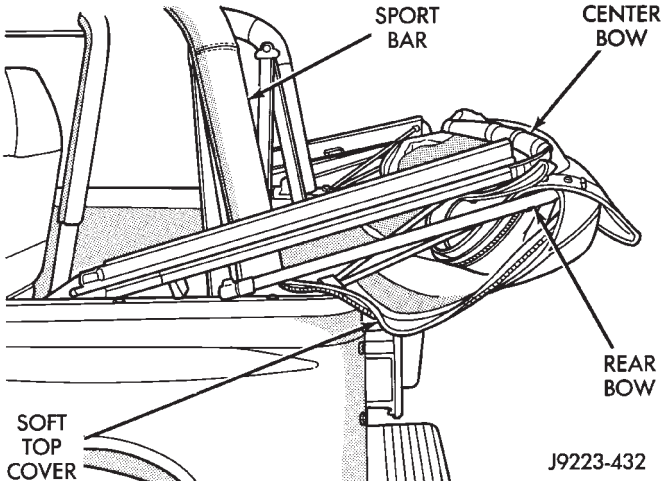

Fig. 112 Sliding Top Cover Rearward

(15) Slide the center bow legs out of the lower side retainers and remove the top cover from the vehicle.

INSTALLATION

(1) If stowed at the rear of the vehicle, detach the elastic straps that retain the top cover (Fig. 113).

(2) If not stowed, position the center bow legs anchor pins in the lower side retainer receptacles (Fig. 114).

(3) Grasp the cover at the upper side snap retainers (Fig. 115) and pull the top cover upward and forward.

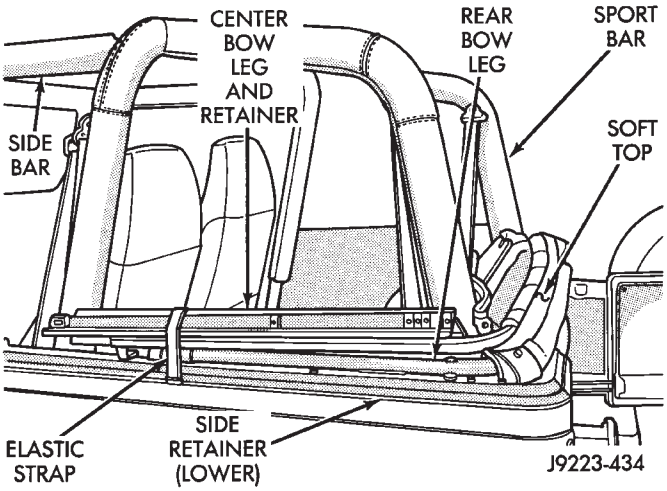

Fig. 113 Stowed Top Cover

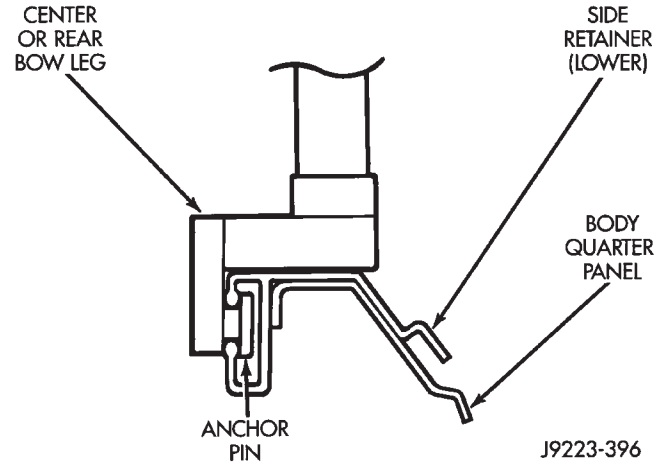

Fig. 114 Bow Leg and Anchor Pin

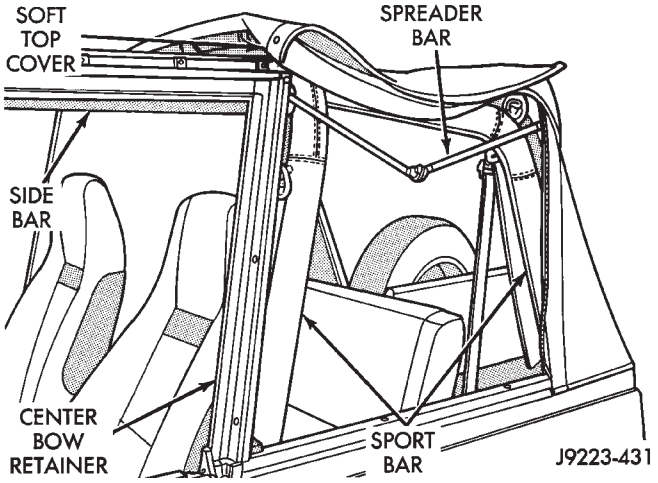

Fig. 115 Top Cover Up

(4) Position front of the upper side snap retainers at the door flanges and lock pin at each side of the vehicle (Fig. 116). Engage the locks with the pins and then slide the locks rearward.

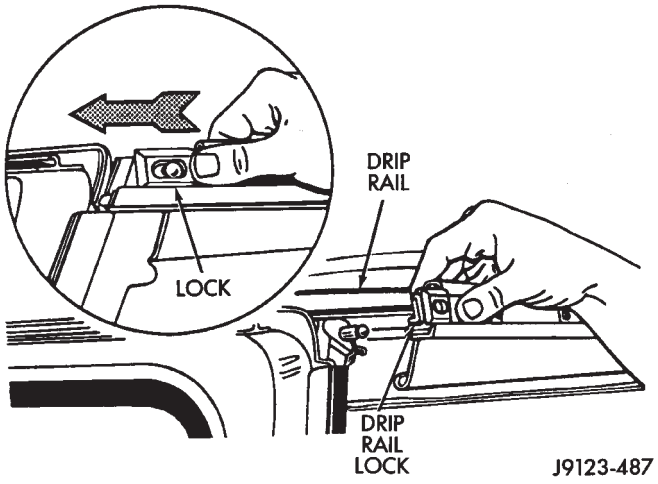

Fig. 116 Upper Side Retainer Lock Engagement

(5) Insert the front edge of the top cover into the retainer channel on the windshield frame (Figs. 110 and 117).

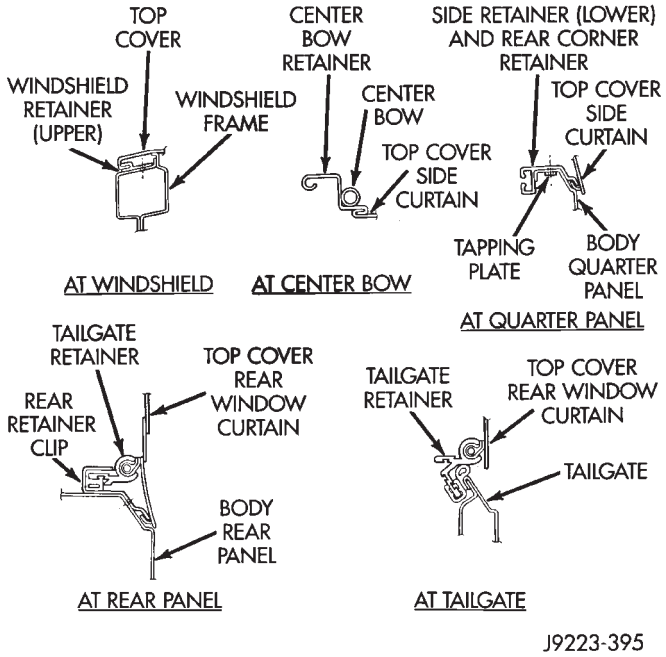

Fig. 117 Soft Top Installation

(6) Ensure that the center bow leg is positioned all the way forward in the receptacle.

(7) Ensure that the rear corners of the top cover are inserted in the retainer channels (Fig. 117).

(8) Pull the rear bow legs rearward until they engage with the notch in the lower side retainers. Ensure that the side curtain rear zippers are not entrapped or folded behind the rear bow.

(9) Force the spreader bars (Fig. 118) upward until the lock engages.

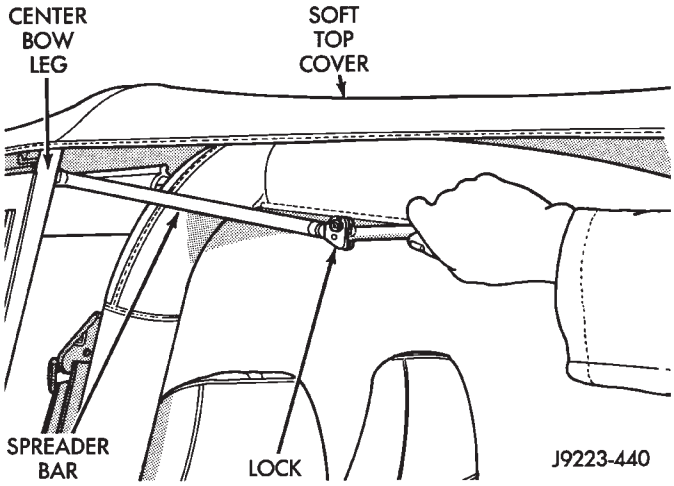

Fig. 118 Engaging Spreader Bar Lock

(10) Slide the front edge of each side curtain upward into the retainer channel on the center bow (Figs. 104 and 117).

(11) Close top zipper on each side curtain 5 - 8 cm (2 - 3 in). Next, close the rear zipper at the bottom corner of the curtain 5 - 8 cm (2 - 3 in).

(12) Attach the side curtain front and rear tab snap-on retainers to the lower side retainer (Fig. 103).

(13) Completely close both side curtain zippers.

(14) Pull downward firmly on the side curtains. Start at one end and move toward the opposite end. The bottom edge of the curtains must be completely inserted in the lower side retainer channels (Fig. 103).

(15) Release the rear window curtain straps and insert the bottom edge into the tailgate retainer channel (Fig. 117). Close the rear window curtain zippers and attach the side snap-on retainers.

(16) Attach all the top cover snap-on retainers to the upper side retainers located above both doors (Fig. 109). As necessary, slide the mating half of the snap-on retainers so that they will align with the snap-on retainers on the top cover. Tuck the edge of the top cover inside the side retainer.

(17) Install the door windows by inserting the retainers into the door grommets. Attach the snap-on retainers located along the bottom edge of the window to the door retainer (Fig. 100).

SPORT BAR

REMOVAL

(1) Remove the screws that attach the sport bar base plates to the floor and wheelhouse panels (Fig. 119).

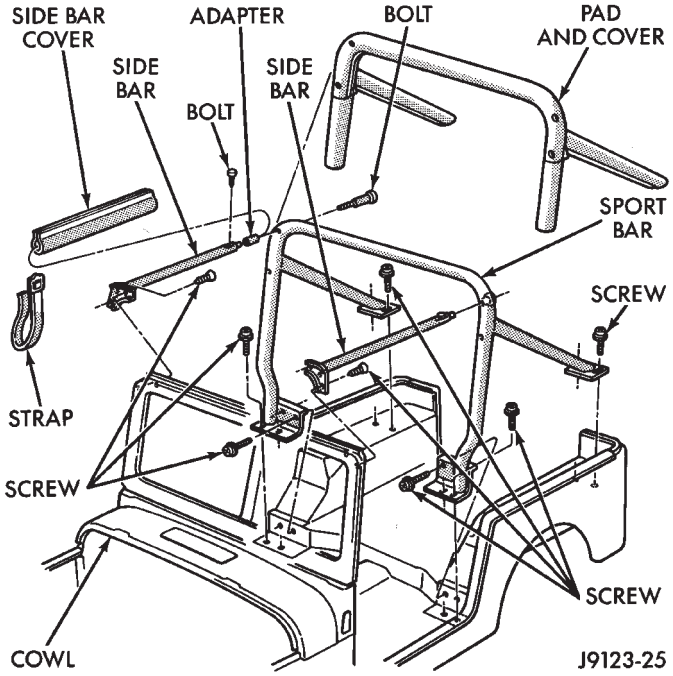

Fig. 119 Sport Bar

(2) Remove the retaining screws and bolts, and remove the side bars from the windshield frame and the sport bar (Figs. 119 and 120).

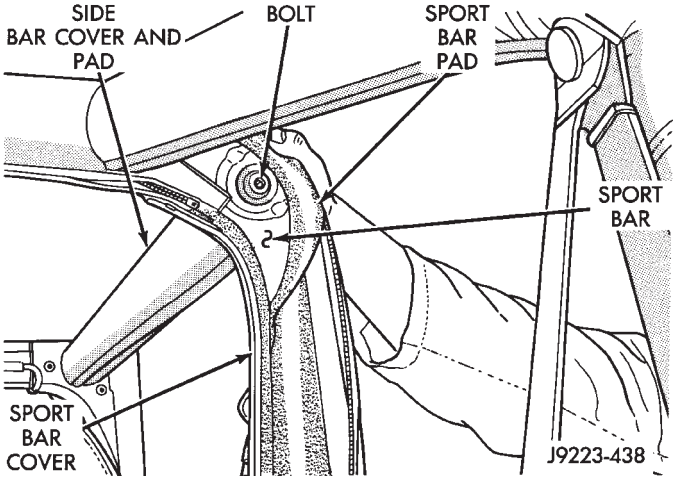

Fig. 120 Sport Bar-To-Side Bar Bolt

(3) Carefully lift the sport bar upward (Fig. 119) and remove it from the vehicle.

(4) If necessary, remove the pads and covers from the sport bar (Figs. 119 and 120)

INSTALLATION

(1) Clean the base plate contact surface areas on the floor and wheelhouse panels.

(2) Apply epoxy chromate primer to the attaching screw hole edges for protection against corrosion.

(3) Position the sport bar base plates on the floor and wheelhouse panels with the screw holes aligned (Fig. 119).

To prevent water seepage, apply 3M Drip-Chek Sealant (or an equivalent product) to the underside of all the screw heads before installation.

(4) Apply sealant to the underside of each base plate attaching screw head. Install and tighten the screws securely (Fig. 119).

(5) Position the side bars at the windshield frame and at the sport bar (Fig. 119). Install screws and bolts in the windshield frame and the sport bar (Fig. 120). Tighten the screws securely.

EXTERNAL SPARE/WHEEL TIRE CARRIER

REMOVAL

(1) Remove the spare tire and wheel from the wheel bracket (Fig. 121).

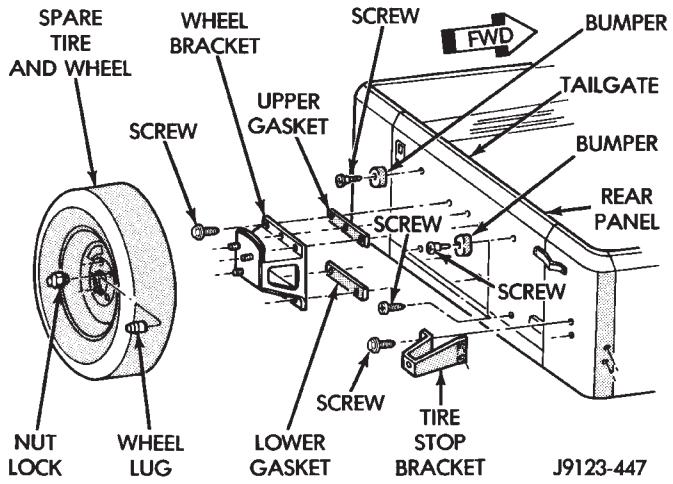

Fig. 121 External Spare Tire/Wheel Carrier

(2) Remove the screws that attach the wheel bracket to the tailgate (Fig. 121).

(3) Remove the bracket and the gaskets from the tailgate (Fig. 121).

(4) Remove the screws that attach the stop bracket to the rear panel and the bumpers to the tailgate (Fig. 121).

(5) Remove the stop bracket and the bumpers from the vehicle (Fig. 121).

(6) Clean the contact surface areas on the tailgate and the rear panel.

INSTALLATION

(1) Position the stop bracket and the bumpers on the vehicle (Fig. 121) and install screws. Tighten the screws to 11 N·m (95 in-lbs) torque.

(2) Position the gaskets and the wheel bracket on the tailgate and install the attaching screws (Fig. 121). Tighten the screws to 23 N·m (204 in-lbs) torque.

(3) Install the spare tire and wheel on the wheel bracket (Fig. 121). Tighten the wheel lug nuts and the nut lock to 68 N·m (50 ft-lbs) torque.

DOORS

INDEX

HALF-METAL SOFT TOP DOOR

REMOVAL/DISASSEMBLY

(1) Open the door.

(2) Disconnect the door restraint strap from the pin (Fig. 1).

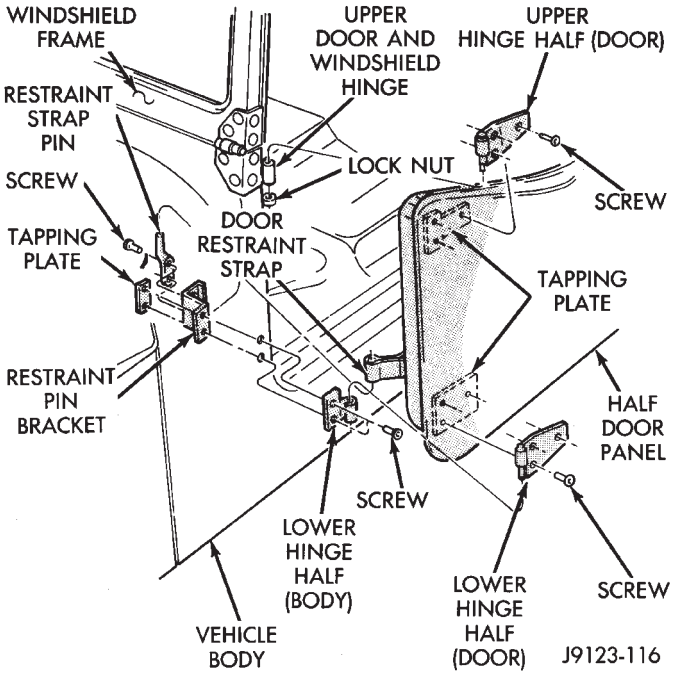

Fig. 1 Half-Metal Soft Top Door

(3) Turn the window retaining sleeves 1/4 turn to the left and pull them up and out of the door (Fig. 2).

(4) Remove the window from the door by detaching the soft top-to-door snap fasteners and pulling the window up and out of the door (Fig. 3).

(5) Remove the latch interior release handle (Fig. 4).

(6) Remove the assist handle (Fig. 4).

(7) Remove the trim panel by detaching the retainers around the perimeter of the trim panel (Fig. 4).

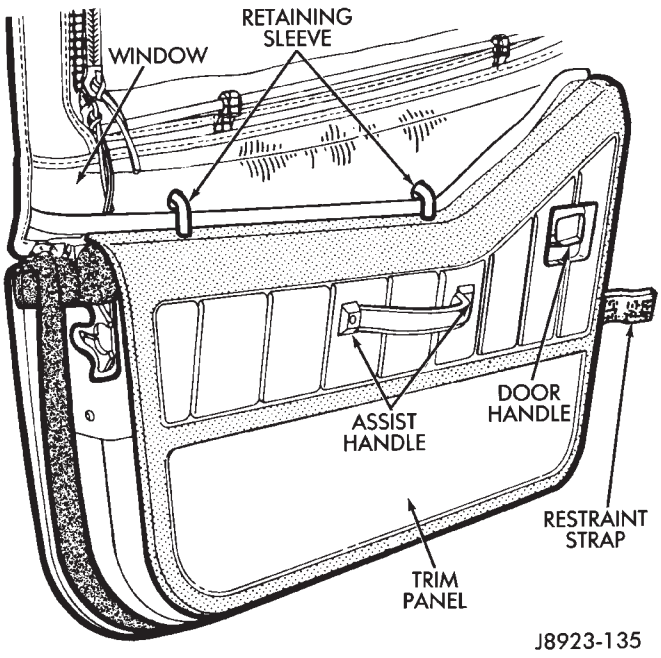

Fig. 2 Window Retaining Sleeves

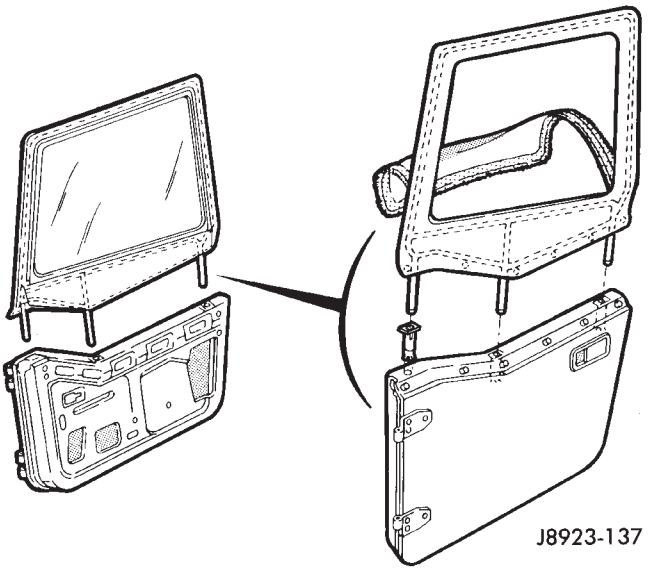

Fig. 3 Window Removal/Installation

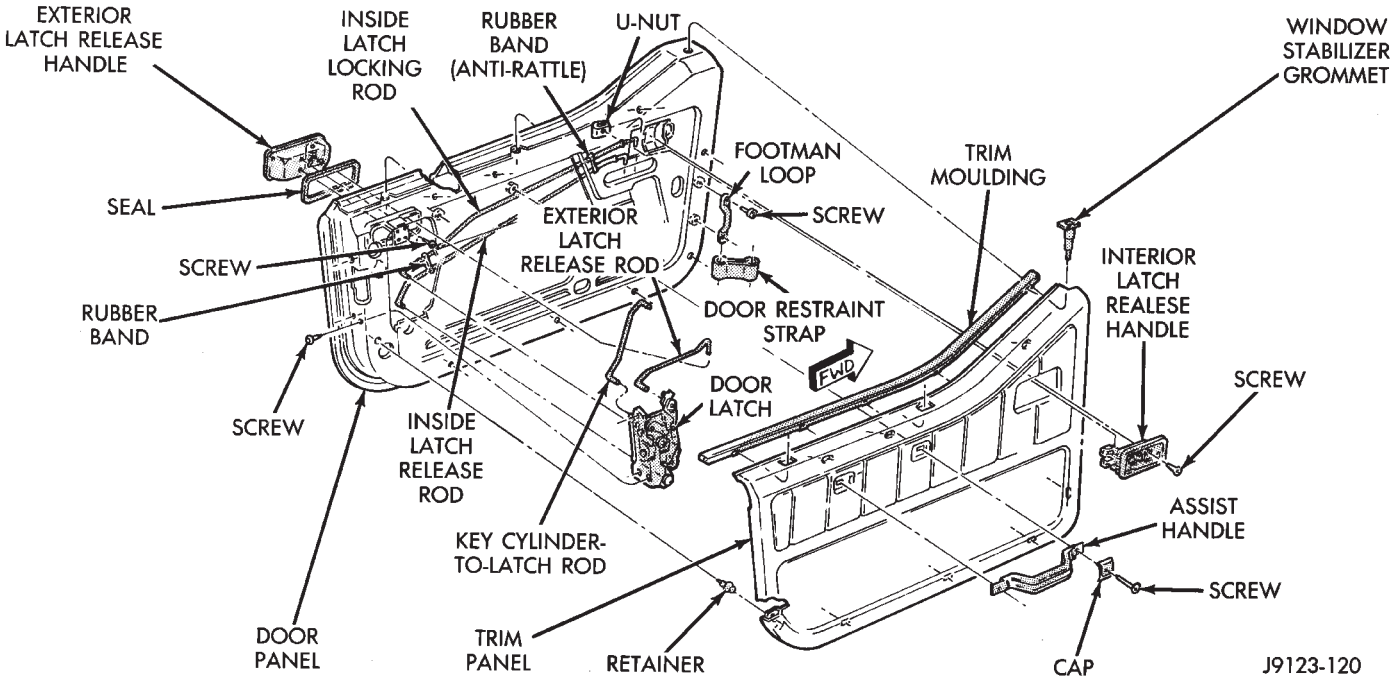

Fig. 4 Half-Metal Door Interior Trim Panel

(8) Remove the screws from the door latch handle, disconnect the latch release rod and remove the handle (Fig. 4).

(9) Remove the door latch screws (Fig. 4). Remove the door latch with the rods attached.

(10) Remove the weatherstrip seal screws and carefully remove the weatherstrip seal from door edge (Fig. 5).

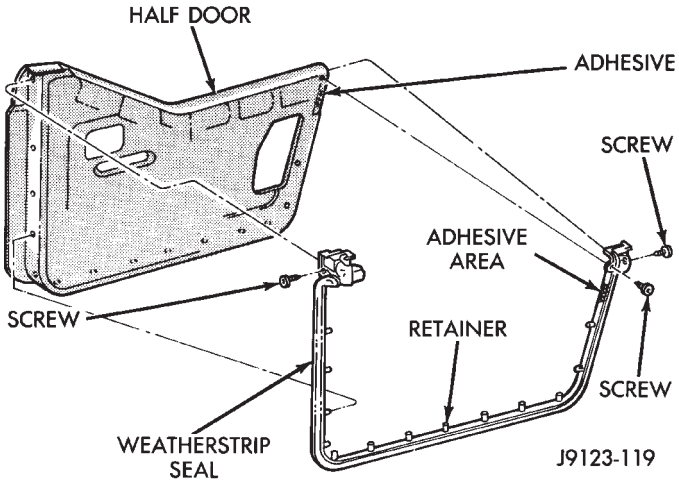

Fig. 5 Half-Metal Door Weatherstrip Seal

(11) Remove the retaining nuts from the door hinge pivots and remove the door from the body (Fig. 1).

(12) Remove the retaining screws and the hinges from the door.

ASSEMBLY/INSTALLATION

(1) Install the hinges and the retaining screws on the door. Tighten the screws securely.

(2) Position the door at the vehicle, insert the hinge pivots in the hinge receptacles and install the retaining nuts (Fig. 1). Tighten the nuts securely.

(3) Install the weatherstrip seal on the door edge and install the seal retaining screws (Fig. 5).

(4) Position the latch in the door and install the retaining screws (Fig. 4). Tighten the screws securely.

(5) Position the door latch external release handle and install the retaining screws (Fig. 4). Tighten the screws securely. Connect the latch release rod to the external release handle and the key lock-to-latch rod (Fig. 6).

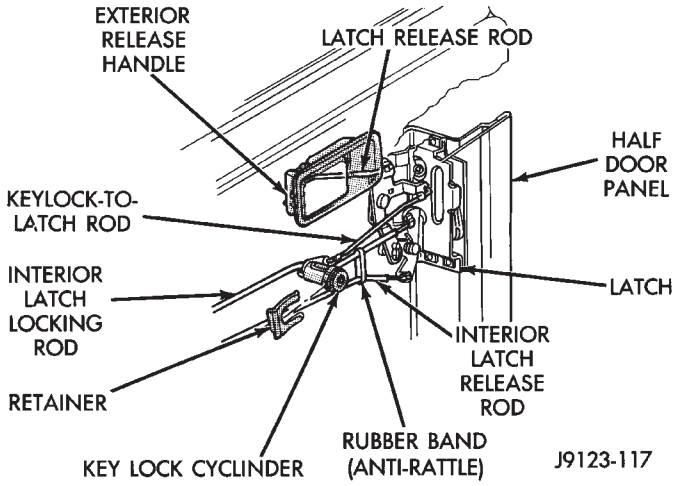

Fig. 6 Half-Metal Door Latch

(6) Install the interior trim panel (Fig. 4).
(7) Connect the latch release rod to the door latch interior release handle and install the handle (Fig. 4).
(8) Install the assist handle (Fig. 4).
(9) Install the window retaining sleeves (Fig. 2).
(10) Install the window (Fig. 1).
(11) Attach the restraint strap to the pin (Fig. 1).

HALF-METAL DOOR LATCH STRIKER

REPLACEMENT

(1) Remove the striker with a Torx bit (Fig. 7).

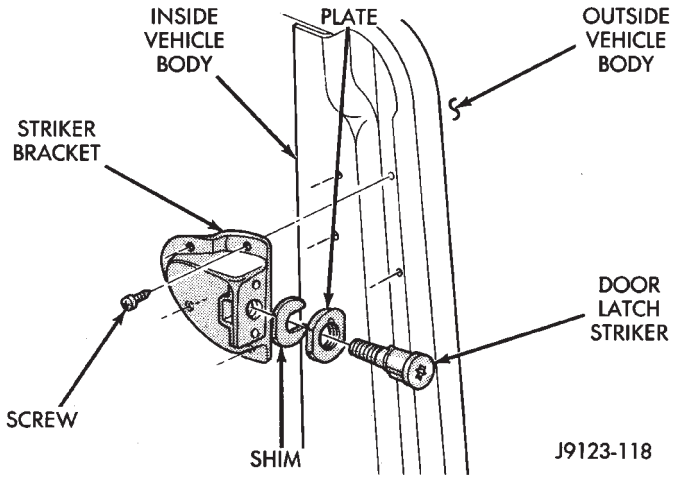

Fig. 7 Half-Metal Door Latch Striker

(2) Install the plate, shim and replacement striker with a Torx bit (Fig. 7).

FULL-METAL DOOR WINDOW GLASS REGULATOR HANDLE

REMOVAL/INSTALLATION

The window glass regulator handle is attached to the splined regulator shaft with an internal hex-head screw (Fig. 8).

(1) To remove the handle:
- remove the cover;
- remove the screw; and
- pull the handle straight out and off the shaft (Fig. 8).

(2) Install the handle with the knob positioned forward, the handle horizontal and the window glass closed.

FULL-METAL DOOR ASSIST HANDLE

REMOVAL

(1) Remove the screws that attach the door assist handle to the trim panel (Fig. 8).
(2) Remove the handle from the door (Fig. 8).

INSTALLATION

(1) Position the handle on the door.
(2) Install the attaching screws.
(3) Close the jaws on the latch.
(4) Push the lock-to-latch rod forward toward the inside release handle. Check to ensure the lock lever on the latch is in the unlocked position.
(5) Position the threaded end of the lock rod over the lever clip on the latch and push the rod into the lock lever clip (Fig. 9). The lock lever should have a full sweep of travel when activated by the inside control button. It should not bind or be stiff.
(7) Position the threaded end of the release lever rod over the release lever clip on the latch and push the rod into the release lever clip. The release lever on the latch should be resting against the stop with no preload after the rod is engaged in the retaining clip. Visual observation will reveal any preload. If preload is noted, disconnect the release lever rod and install it again to eliminate the preload.
(8) Pull up on the outside handle release rod to position it as far up as possible and push the rod into the release lever clip on the latch. The release lever on the latch should be resting against stop with no preload after the rod is engaged in the retaining clip.
(9) Close the latch jaws.
(10) Activate the inside lock control button. It should not bind or be stiff, if either condition exists, the latch should replaced.
(11) With the inside lock control button in the unlock position, pull the inside door handle to open the jaws on the latch and close the door.

FULL-METAL DOOR LATCH INSIDE RELEASE AND LOCK HANDLE

REMOVAL

(1) Remove the retaining screw (Fig. 8).
(2) Pull the handle outward and detach the lock and release rods from handle (Fig. 9).
(3) Remove the handle from the upper trim panel (Fig. 8).

INSTALLATION

(1) Position the handle adjacent to the rods in the upper trim panel opening and attach the rods to the handle (Fig. 9).
(2) Position the handle in the upper trim cover and install the retaining screw Fig. 8).

FULL-METAL DOOR TRIM PANEL

The door interior trim panels are covered with a vinyl material (Fig. 8). They are attached to the door inner panel rail retainer and with plastic clips inserted into holes in the door inner panel.

REMOVAL

(1) Remove the door assist handle (Fig. 8).

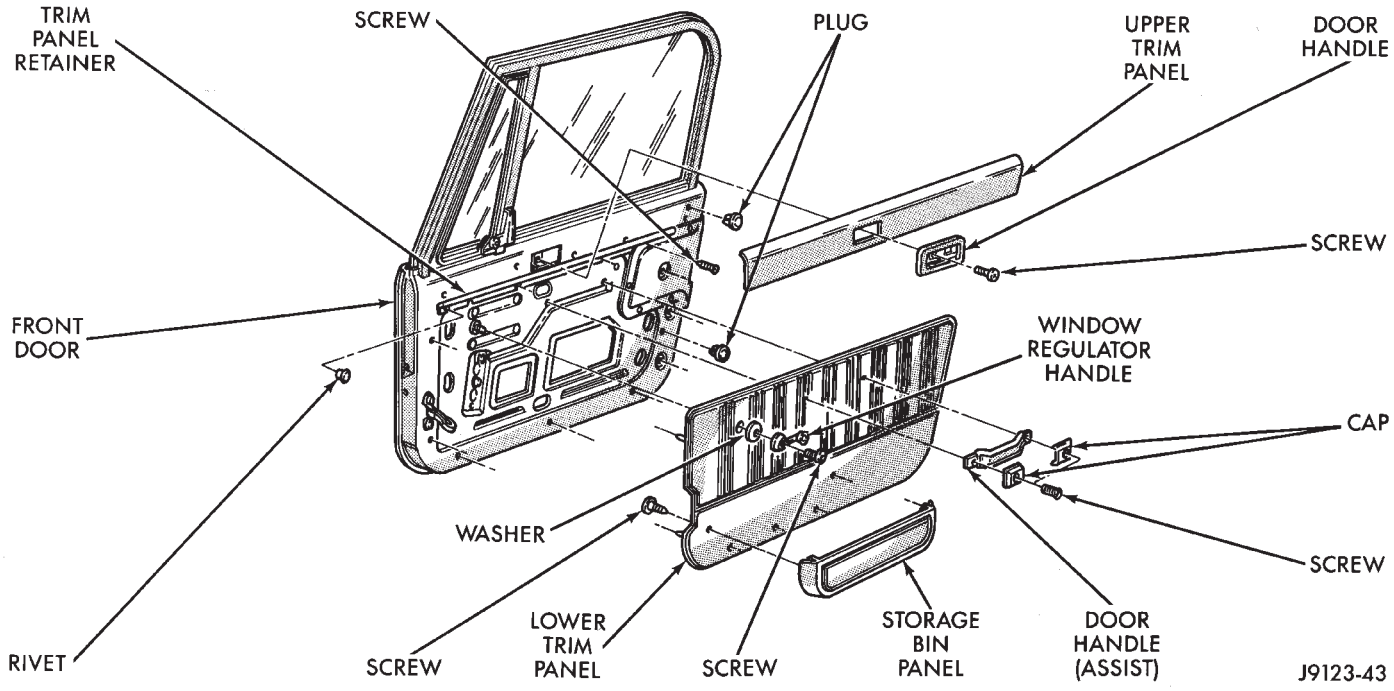

Fig. 8 Full Metal Door Trim Panels and External Components

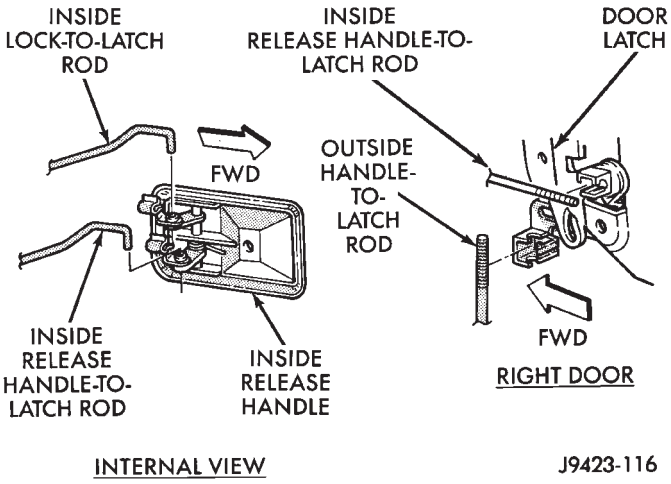

Fig. 9 Inside Door Handle and Rods

(2) Remove the window glass regulator handle (Fig. 8).

(3) Remove the door latch release handle and the upper trim panel (Figs. 8 and 9).

(4) Pry the lower trim panel-to-door retainers (located around the perimeter of the panel) outward and remove the panel (Fig. 8).

INSTALLATION

(1) Position the lower trim panel on the door inner panel and insert the retainers in the holes in the door inner panel (Fig. 8).

To prevent creasing the trim panel vinyl cover, do not hammer or exert excessive force on the retainers.

(2) Install the upper trim panel and the door handle (Figs. 8 and 9).

(3) Install the window glass regulator handle (Fig. 8).

(4) Install the door assist handle (Fig. 8).

FULL-METAL DOOR WATERDAM

The waterdam is attached to the door inner panel with adhesive and tape (Fig. 10).

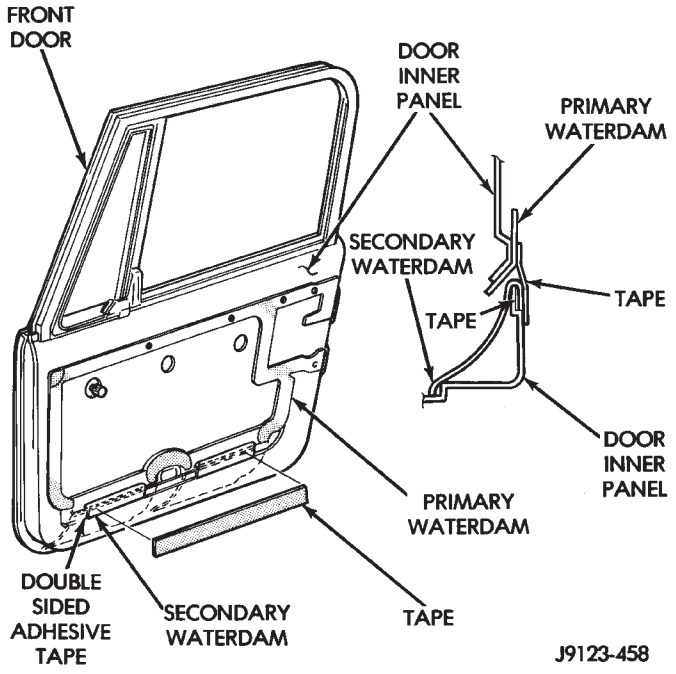

Fig. 10 Door Waterdam

REMOVAL/INSTALLATION

(1) To remove a waterdam, insert a putty knife between it and the door inner panel.

(2) When installing a waterdam, ensure that lower portion of waterdam is tucked inside the door panel at the access opening.

FULL-METAL DOOR VENT WINDOW GLASS

REMOVAL

(1) Remove the door trim panel and the waterdam (Figs. 8 and 9).

(2) Lower the door window glass to the "down-stop".

(3) Remove the division channel upper attaching screw and the lower adjustment screw (Fig. 11).

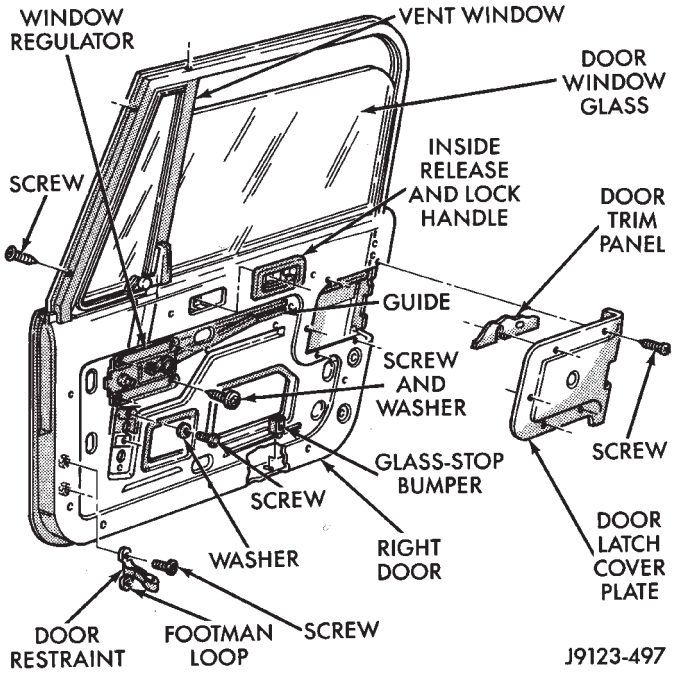

Fig. 11 Door Internal Components

(4) Detach the front three inches of weatherstrip seal from the door upper frame. Lower the division channel and tilt it toward the rear of the door.

(5) Remove the vent window glass from the door frame.

INSTALLATION

(1) Position the vent window glass in the door frame.

(2) Install the division channel in the door and position the channel on the window glass.

(3) Install the upper attaching screw and the lower adjustment screw.

(4) Attach the weatherstrip seal to the door upper frame.

(5) Water test the window and inspect for leaks.

(6) If water leakage is evident, apply windshield sealant to seal the area or re-align the weatherstrip seal.

(7) Test the operation and adjustment of the door window glass.

(8) Install the door waterdam and the trim panel (Figs. 8 and 10).

FULL-METAL DOOR WINDOW GLASS REGULATOR

REMOVAL

(1) Remove the door trim panel and the waterdam (Figs. 8 and 10).

(2) Lower the door window glass to expose the regulator arm guide retainer screws (Figs. 11 and 12). Remove the bushings, the nuts and the guide channel (Fig. 12).

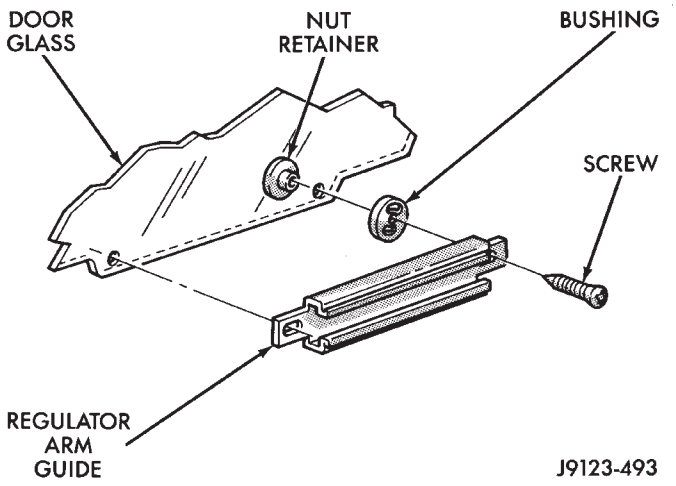

Fig. 12 Regulator Arm Guide

(3) Lift the window glass to the fully closed position and apply masking tape to the window glass and over the top of the window frame to retain it.

(4) Remove the division channel lower adjustment screw.

(5) Remove the window glass regulator attaching screws (Fig. 11).

(6) Push the division channel outward and remove the window glass regulator through the access hole in the door inner panel (Fig. 41).

INSTALLATION

(1) Position the window glass regulator within the door panels and install the attaching screws (Fig. 11).

(2) Remove the masking tape from the window glass and lower it.

(3) Slide the regulator arm guide onto the regulator arm and position the guide on the window glass (Fig. 12). Install the nuts, bushings and screws.

(4) Install the division channel lower adjustment screw.

(5) Test the window glass for proper operation.

(6) Install the door waterdam and the trim panel (Figs. 8 and 10).

FULL-METAL DOOR WINDOW GLASS

ADJUSTMENT

One adjustment location provides amount of effort required to raise and lower the door window glass. The door window glass division channel is adjustable fore and aft at the lower attaching location.

(1) Remove the door trim panel and the waterdam (Figs. 8 and 10).

(2) Loosen channel lower adjustment screw and move the division channel fore or aft to obtain the desired door window glass operation.

Movement of the division channel fore or aft will decrease or increase the free-play between the channels.

(3) Tighten the division channel lower adjustment screw.

(4) Install the door waterdam and the trim panel (Figs. 8 and 10).

REMOVAL

(1) Remove the door trim panel and the waterdam (Figs. 8 and 10).

(2) Remove the window glass down-stop bumper (Fig. 11).

(3) Remove the screws that attach the regulator arm guide to the window glass. Remove the screws, bushings, nuts and the guide from the glass (Fig. 11).

(4) Lower the window glass to the bottom of the door.

(5) Remove the division channel upper attaching screw and the lower adjustment screw. Detach the front 3 inches of window glass weatherstrip seal from the door upper frame.

(6) Separate the division channel from the front window glass rubber seal. Pull the division channel up and in toward the inside of vehicle.

(7) Raise and tilt the window glass toward the hinge side of the door and disengage it from the rear channel.

(8) Pull the window glass up and out of the door panel.

INSTALLATION

(1) Lower the window glass into the door, while inserting the window glass into the front and rear channels.

(2) Slide the window glass downward to the bottom of the door panel.

(3) Lower the division channel into the door and position the window glass securely in the channel.

(4) Install the weatherstrip seal in the upper door frame and install the upper attaching screw and the lower adjustment screw.

(5) Slide the guide onto the regulator arm and position the guide on the window glass. Install the retaining nuts, bushings and screws (Fig. 12).

(6) Install the window glass down-stop bumper (Fig. 11).

(7) Test the window operation for proper adjustment.

(8) Install the door waterdam and the trim panel (Fig. 8 and 10).

FULL-METAL DOOR KEY LOCK CYLINDER

REMOVAL

(1) Remove the door trim panel and the waterdam (Figs. 8 and 10).

(2) Remove the door latch cover screws and remove the cover (Fig. 11).

(3) Remove the retaining clip and remove lock cylinder-to-latch rod (Fig. 13).

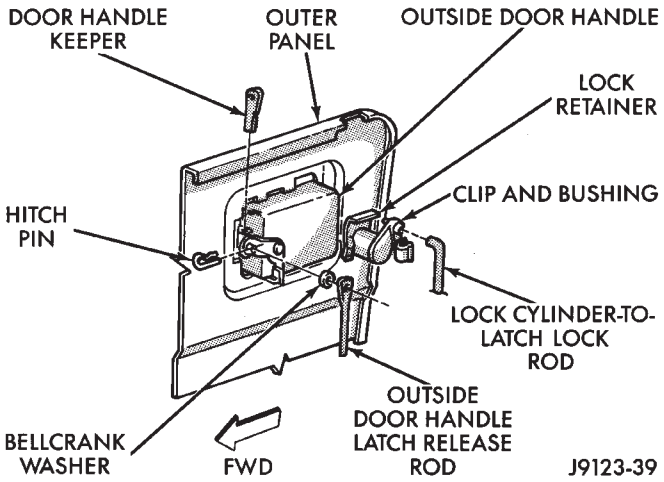

Fig. 13 Key Lock Cylinder and Door Handle

(4) Remove the lock cylinder retainer and the lock cylinder from the door panel (Figs. 13 and 14).

INSTALLATION

(1) Install the lock cylinder in the door panel (Fig. 14).

(2) Install the lock cylinder retainer, the lock cylinder-to-latch rod and the retaining clip (Fig. 13).

(3) Install the door latch cover and the cover screws (Fig. 11).

(4) Install the door waterdam and the trim panel (Figs. 8 and 10).

FULL-METAL DOOR LATCH EXTERNAL RELEASE HANDLE

REMOVAL

(1) Remove the door trim panel and the waterdam from the door inner panel (Figs. 8 and 10).

(2) Remove the door latch cover attaching screws (Fig. 11).

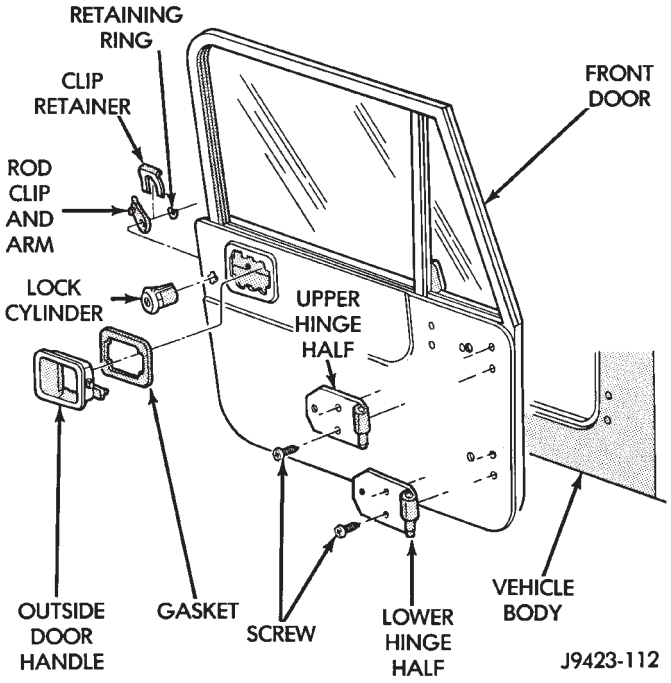

Fig. 14 Key Lock Cylinder and Door Handle Removal/Installation

(3) Remove the hitch pin and the latch release rod from the door external handle (Fig. 13).

(4) Close the window completely and tap the handle keepers upward (Fig. 13).

(5) Disconnect the window glass from the regulator arm guide (Fig. 12).

(6) Remove the division channel upper and lower attaching screws.

(7) Separate the division channel from the front window glass weatherstrip seal.

(8) Pull the division channel upward and remove the window glass from the door.

(9) Remove the keepers from the door handle with needlenose pliers and remove the handle and gasket from the door (Figs. 13 and 14).

INSTALLATION

(1) Install the gasket and the door external handle and slide the keepers into the door handle from the top (Figs. 13 and 14).

(2) Tap the retainers downward lightly to tighten the handle.

(3) Install the latch release rod and the hitch pin and attach the rod to the latch (Fig. 13).

(4) Position the window glass in the door and the channels.

(5) Install the division channel and the attaching screws.

(6) Attach the window glass to the regulator arm guide (Fig. 12).

(7) Install the door latch cover (Fig. 11).

(8) Install the door waterdam and the trim panel (Figs. 8 and 10).

FULL-METAL DOOR LATCH

REMOVAL

(1) Remove the trim panel and the waterdam from the door inner panel (Figs. 8 and 10) .

(2) Remove the door latch cover (Fig. 11).

(3) Disconnect the inside release handle-to-latch rod. Disconnect the lock cylinder-to-latch rod. Disconnect the inside lock-to-latch rod. Disconnect the external handle-to-latch rod from the door latch (Fig. 15).

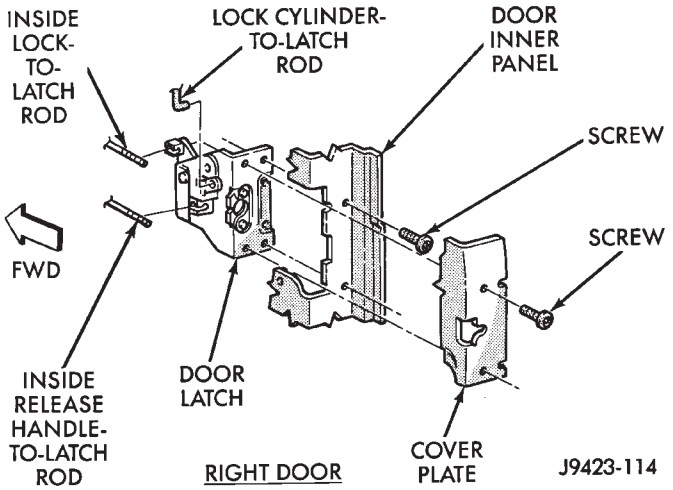

Fig. 15 Latch Removal/installation

(4) Remove the door latch attaching screws and remove the latch from the door (Fig. 15).

INSTALLATION

(1) Install the door latch with the attaching screws (Fig. 15).

(2) Connect the rods to the latch (Fig. 15).

(3) Install the latch cover with the cover screws (Fig. 11).

(4) Install the door waterdam and the trim panel (Fig. 8 and 10).

FULL-METAL DOOR HINGES

ADJUSTMENT

The doors are adjusted at the hinge attaching locations on either the body or the door. Enlarged holes are located in the body (lower hinge only) for fore, aft and tilt adjustments. Enlarged holes are also located in the door (upper and lower hinges) for up, down, fore, aft and tilt adjustments.

Prior to door adjustment or alignment, the door latch must be removed to allow the door to close freely and be properly aligned.

The door latch striker should be adjusted in or out to allow the door latch to be fully engaged. The door should be flush with the adjacent body panels.

REPLACEMENT

(1) Mark the outline of the existing hinge on the body and the door with a wax pencil for installation alignment reference.

When removing the door or hinge DO NOT discard the plastic shims or the hinge pin.

(2) Remove the hinge-to-body screws and the hinge-to-door screws (Fig. 16). Remove the hinge from the door and body.

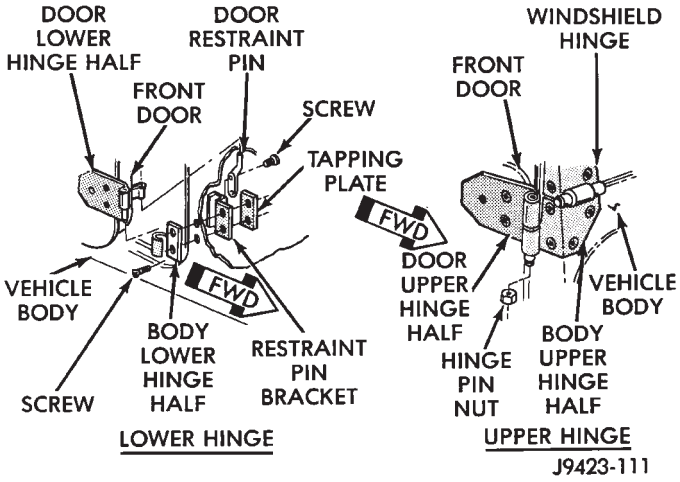

Fig. 16 Door Hinges

The upper hinge is also part of the windshield hinge (Fig. 16). When replacing it, support the windshield frame with an appropriate device prior to removal. Inspect the windshield alignment after hinge installation.

(3) Clean the replacement hinge with an appropriate solvent and dry it with compressed air.

(4) Color-coat the hinge to match the vehicle body with MOPAR exterior spray paint, or an equivalent product.

(5) Lubricate the hinge with spray lubricant.

(6) Position the hinge on the door, align carefully with the wax pencil installation alignment reference marks, and install the retaining screws (Fig. 16).

(7) Position the hinge on the vehicle body. Align the wax pencil marks installation alignment reference marks. Install the retaining screws (Fig. 16).

(8) Inspect the door alignment. Adjust, if necessary. Refer to Door Hinges—Adjustment.

FULL-METAL DOOR WEATHERSTRIP SEALS

SERVICE INFORMATION

The door weatherstrip seals are molded latex foam with a smooth rubber reinforcement layer on the outside (Fig. 17).

Plastic retainers are used to retain the seal on the door panel below the door beltline (Fig. 17). Above the beltline, the seal is retained in a channel formed in the door upper frame.

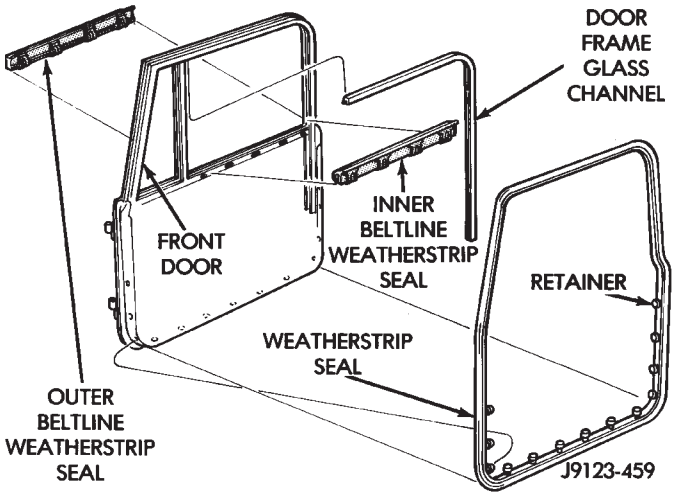

Fig. 17 Door Weatherstrip Seals

The beltline weatherstrip seals are retained within the door panels by spring-clip retainers (Fig. 17).

The door frame glass channel is retained within the door frame by the press-fit between it and the frame.

WEATHERSTRIP SEAL MAINTENANCE

Cold temperatures can cause rubber seals to harden and lose resiliency. This possibly will cause the door to loosen in the body opening and result in noise. When servicing, use a dampened cloth to clean the rubber seals. Remove the foreign material from all areas where the rubber seal contacts the body panels. Apply silicone lubricant to the seals after they are cleaned.

CAUTION: Do not apply graphite, brake fluid, or wax to rubber seals.

Replacement rubber weatherstrip seals are coated with powder to prevent adhesion to the container during storage. Before installation, remove all the powder with a cloth dampened with a general purpose adhesive removal solution.

DOOR WEATHERSTRIP SEAL REPLACEMENT

REMOVAL

(1) Carefully remove the weatherstrip seal from the door with a weatherstrip seal removal tool. Pry the seal outward to separate the plastic retainers from the door panel holes.

(2) Remove the upper portion of the seal from the door upper frame with your fingers or a wooden wand.

(3) Remove the dust and residual adhesive from the door panel and body panel.

INSTALLATION

(1) Apply adhesive to the front, rear and bottom edges of the door from the beltline downward.

(2) Install the upper front corner of the seal on the door first using your fingers or a wooden wand to position the seal in the channel. Place the inner shoulder of the seal in the channel-to-window frame above the beltline.

(3) Force the retainers, starting at the rear edge of the door, into the door panel holes.

(4) Ensure that the seal is completely seated around the door.

BELTLINE SEAL REPLACEMENT

REMOVAL

(1) Carefully remove the beltline weatherstrip seal (Fig. 17) from the door with a weatherstrip seal removal tool or similar pry tool.

(2) Pry the seal upward to remove it from within the glass and door panel.

INSTALLATION

(1) Position the seal between the door panel and the glass. Force the seal downward with your fingers to seat it against the glass and panel (Fig. 18).

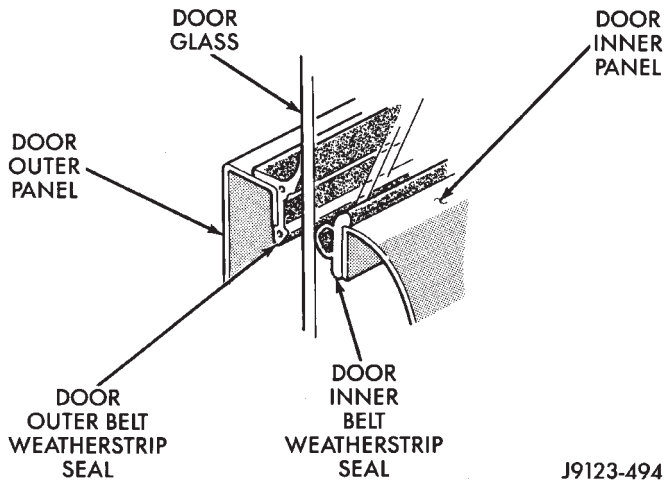

Fig. 18 Beltline Weatherstrip Seals

(2) Ensure that the seal is completely seated within the door (Fig. 18).

DOOR FRAME GLASS CHANNEL REPLACEMENT

REMOVAL

(1) Carefully remove the glass channel (Fig. 17) from the door with a pry tool.

(2) Pry the seal outward to remove it from the frame.

INSTALLATION

(1) Position the channel in the frame and force it inward with your fingers to seat it within the frame.

(2) Ensure that the seal is completely seated within the door frame.

FULL-METAL DOOR SERVICE

REMOVAL/DISASSEMBLY

(1) Open the door.

(2) Remove the door restraint strap from the pin.

(3) Remove the door latch inside release handle (Fig. 8).

(4) Remove the assist handle (Fig. 8).

(5) Remove the window glass regulator handle (Fig. 8).

(6) Remove the upper trim panel. Remove the lower trim panel by detaching the retainers around the perimeter of the trim panel (Fig. 8).

(7) Remove the waterdam from the door inner panel (Fig. 10).

(8) Remove the door latch cover plate from the door inner panel (Fig. 11).

(9) Remove the retaining screws and the door latch with the rods attached (Fig. 15).

(10) Remove the beltline weatherstrip seals from the door (Fig. 18).

(11) Remove the window glass from the regulator arm guide (Fig. 12).

(12) Carefully remove the window glass from the channel and the door.

(13) Remove the key lock cylinder from the door (Fig. 14).

(14) Remove the door outside handle keepers, disconnect the latch release rod and remove the handle from the door panel (Fig. 13).

(15) Carefully remove the weatherstrip seal from door edge (Fig. 18).

(16) Remove the retaining nuts from the door hinge pins and remove the door from the body (Fig. 16).

(17) Remove the retaining screws and the hinges from the door panel (Fig. 14).

ASSEMBLY/INSTALLATION

(1) Install the hinges on the door (Fig. 14).

(2) Position the door at the body opening, insert the hinge pins in the hinge receptacles and install the retaining nuts (Fig. 16). Tighten the nuts securely.

(3) Install the weatherstrip seal on the door edge (Fig. 18).

(4) Install the door outside handle and the keepers. Connect the latch release rod to the handle (Fig. 13).

(5) Install the key lock cylinder (Fig. 14).

(6) Position the window glass in the channel and the door.

(7) Attach the window glass to the regulator arm guide (Fig. 12).

(8) Install the beltline weatherstrip seals in the door (Fig. 18).

(9) Position the latch in the door and install the retaining screws (Fig. 15). Tighten the screws securely.

(10) Connect the latch rods (Fig. 19). Attach the inside release handle securely. Attach the rods to the latch making sure the lock position of the lock position of the latch toggle button are the same (Fig. 20).

The ends of the latch rods are threaded and the overall length of each rod is adjustable within the retainer clip. Adjust as necessary.

(11) Install the door latch cover plate on the door inner panel (Fig. 11).

(12) Install the waterdam on the door inner panel (Fig. 10).

(13) Install the interior trim panels (Fig. 8).

(14) Install the window regulator handle.

(15) Connect the handle-to-latch rod and the lock-to-latch rod to the door latch inside release handle and install the handle (Figs. 19 and 8).

(16) Install the assist handle.

(17) Attach the restraint strap to the pin.

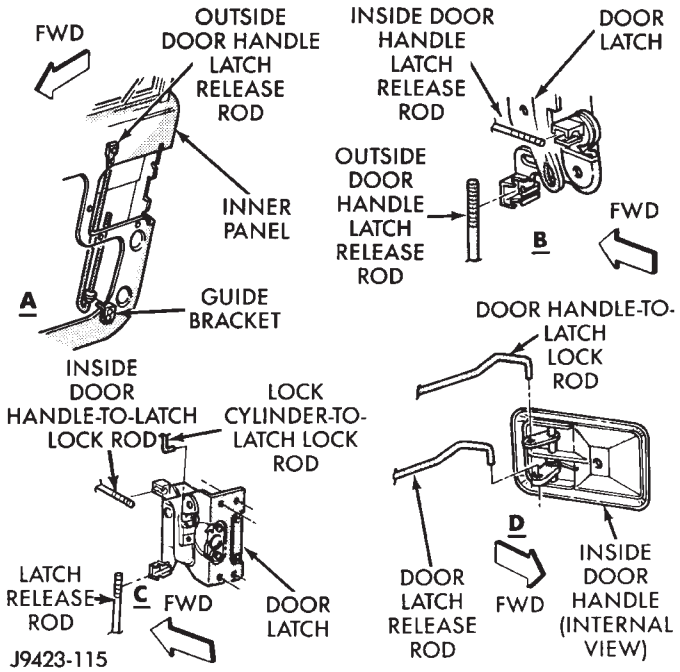

Fig. 19 Latch Rod Connections

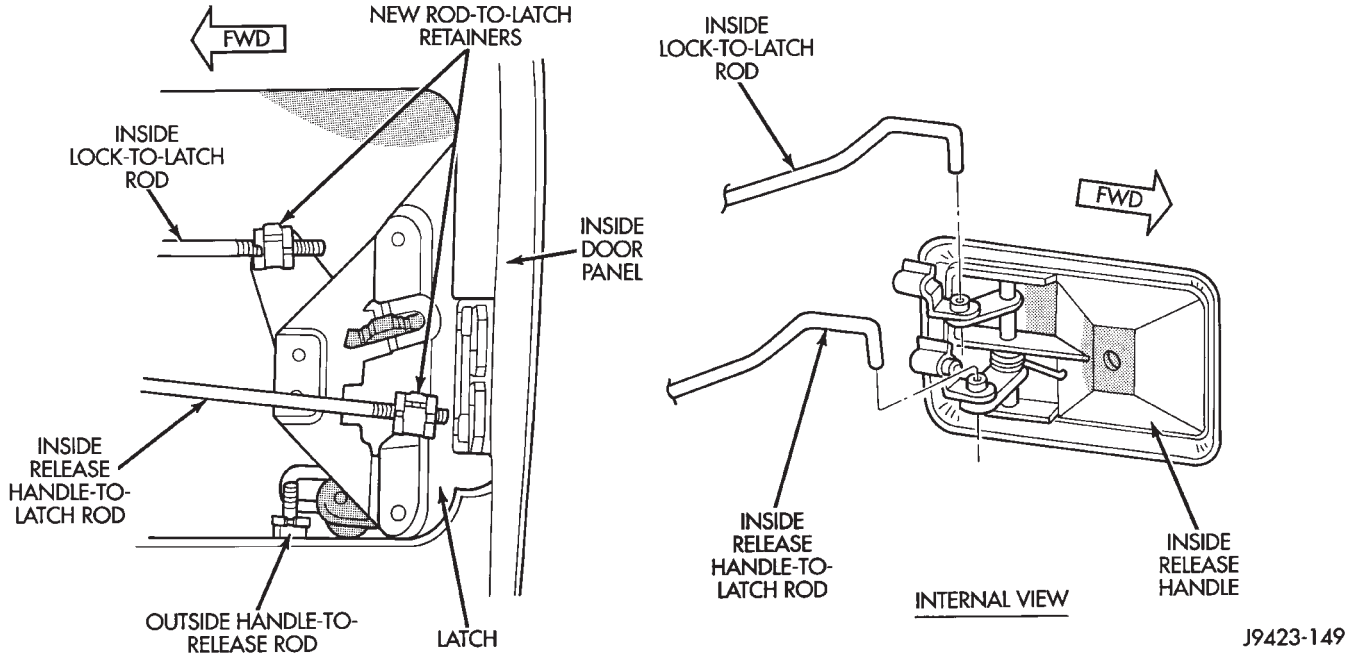

Fig. 20 Latch Rod Positions

FIXED WINDOW GLASS

INDEX

SERVICE INFORMATION

The following fixed window service information includes removal/installation procedures for the:

- windshield reveal moulding,
- rearview mirror,
- windshield frame,
- windshield frame weatherstrip seal,
- windshield glass (using both the short and the extended installation method), and
- hard top quarter (side) window glass.

WINDSHIELD REVEAL MOULDING

REMOVAL

(1) Disengage the reveal moulding around the perimeter of the windshield glass with an appropriate tool.

(2) Remove the mouldings from the windshield frame.

(3) Inspect the reveal moulding retainers. Replace the moulding if it has broken, distorted or ineffective retainers.

INSTALLATION

(1) Position the reveal mouldings on the windshield frame.

(2) Attach the mouldings to the frame by tapping each moulding with a rubber mallet to seat the retainers.

REARVIEW MIRROR

REMOVAL/INSTALLATION

(1) Loosen the mirror set screw and slide the mirror up and off the retaining bracket (Fig. 1).

(2) To install the mirror, slide the mirror onto the retaining bracket and install the set screw.

(3) Tighten the mirror setscrew to 1 N·m (9 in-lbs) torque.

CAUTION: Do not over-tighten the setscrew because glass chipping and/or breakage could result.

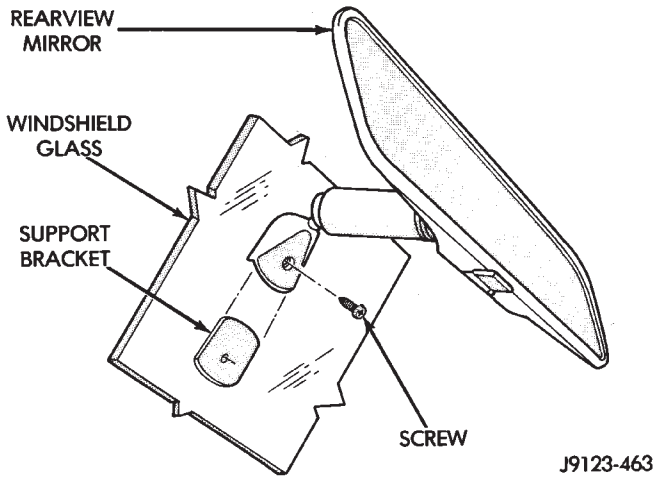

Fig. 1 Rearview Mirror Removal/Installation

REARVIEW MIRROR RETAINING BRACKET

REPLACEMENT

(1) Mark reference position lines for the mirror retaining bracket on the **outside** of the windshield glass with a wax pencil. Mark both horizontal and vertical reference lines for accurate bracket positioning.

(2) If the vinyl pad remained on the windshield glass, soften and remove it with a heat gun. Application of low heat will be sufficient to soften the pad.

(3) Thoroughly clean the bracket contact area on the glass. Use a mild abrasive cleaning powder on a cloth saturated with isopropyl (rubbing) alcohol. Final-clean the glass with a paper dampened with alcohol.

(4) Lightly sand the contact surface on the replacement bracket with fine grit sandpaper. Next, wipe the bracket contact surface clean with a paper towel and alcohol.

(5) Apply adhesive accelerator to the contact surface on the mirror bracket according to the following instructions:

- crush the vial in the plastic housing of the accelerator to saturate the felt applicator;
- remove the paper sleeve;
- apply a generous amount of accelerator to the contact surface on the mirror retaining bracket;

• do not touch the retaining bracket contact surface after the accelerator has been applied.
• allow the accelerator to dry for at least five minutes; and

(6) Apply accelerator to bracket contact surface on the windshield glass. Allow the accelerator to dry for one minute. Do not touch the glass contact surface after the accelerator has been applied.

(7) Install the mirror retaining bracket according to the following instructions:
• apply one drop of adhesive at the center of the retaining bracket contact surface on the windshield glass;
• immediately apply an even coat of adhesive to the contact surface on the retaining bracket;
• align the retaining bracket with the position reference lines on the windshield glass, then
• press and hold the retaining bracket in-place for at least one minute.

Ensure that the mirror retaining bracket is correctly aligned because the adhesive will cure rapidly.

(8) Allow the adhesive to cure for 8-10 minutes, then remove any residue adhesive with an alcohol dampened cloth.

(9) Allow the adhesive to cure for an additional 8-10 minutes before installing the mirror on the retaining bracket (Fig. 1).

WINDSHIELD FRAME

SERVICE INFORMATION

The windshield frame and glass can be removed as a unit for service access (Fig. 2). The windshield frame can also be tilted forward to a full horizontal position and retained in-place with the strap when complete removal is not necessary.

REMOVAL

(1) Remove the windshield wipers. Refer to the removal procedure.

(2) For vehicles equipped with a soft top, disconnect the fabric top from the windshield frame retainer rail. If necessary, refer to the soft top removal procedure.

(3) For vehicles equipped with a hard top, disconnect the top from the windshield frame. Loosen the retaining screws, tilt the top rearward and support the top away from the windshield frame (Fig. 3).

(4) Remove the retaining screws and the windshield/door hinges from the cowl (Fig. 2).

(5) Remove the holddown bracket retaining screws from the cowl (Fig. 2).

(6) Remove the windshield frame and glass from the cowl as a unit (Fig. 2).

(7) If necessary, remove the sunvisors.

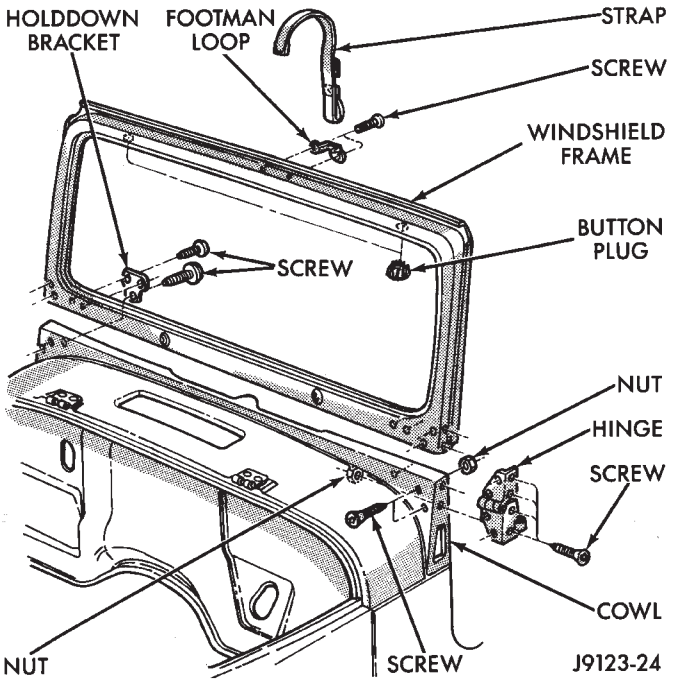

Fig. 2 Windshield Frame Removal/Installation

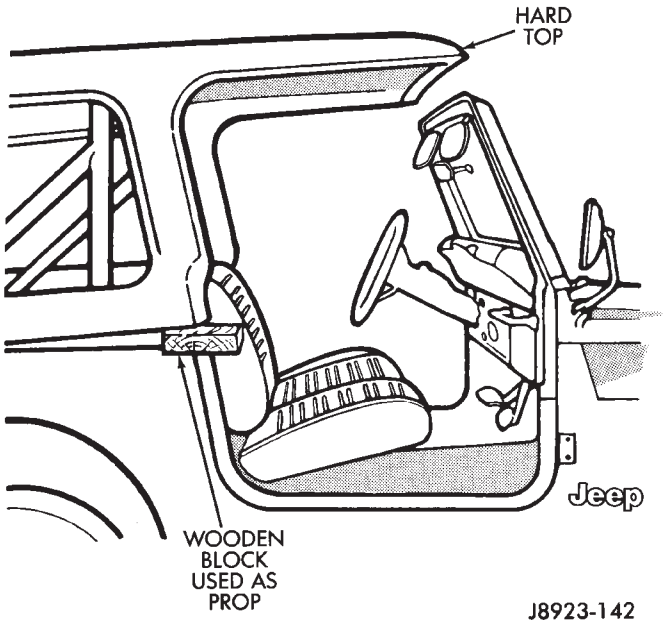

Fig. 3 Hard Top Detached From Windshield Frame

INSTALLATION

(1) Position the windshield frame on the cowl (Fig. 2).

(2) Install the holddown bracket retaining screws in the cowl (Fig. 2).

(3) Install the windshield/door hinge retaining screws (Fig. 2).

(4) Connect the top to the windshield frame. If necessary, refer to the applicable top installation procedure.

(5) For vehicles equipped with a soft top, connect the fabric top to the windshield frame retainer rail. If necessary, refer to the soft top installation procedure.

(6) For vehicles equipped with a hard top, remove the supports, tighten the retaining screws, and connect the top to the windshield frame (Fig. 3).

(7) Install the windshield wipers. Refer to the installation procedure.

(8) If removed, install the sunvisors.

WINDSHIELD FRAME WEATHERSTRIP SEAL

REMOVAL

The windshield frame weatherstrip seal can be removed and installed with the frame tilted forward to the full horizontal position (Fig. 4).

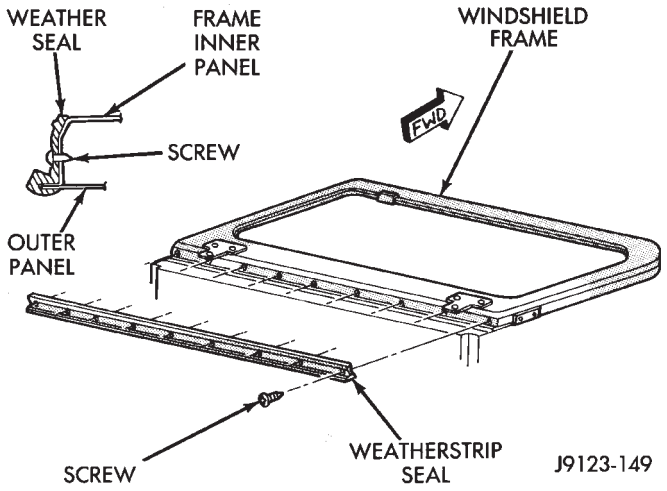

Fig. 4 Windshield Frame Weatherstrip Seal

(1) Disconnect the top from the windshield frame. If necessary, refer to the windshield frame removal procedure.

(2) Remove the holddown bracket retaining screws from the cowl (Fig. 2).

(3) Tilt the windshield frame forward to the full horizontal position (Fig. 94.

(4) Remove the retaining screws and the weatherstrip seal from the windshield frame (Fig. 4).

INSTALLATION

(1) Position the weatherstrip seal on the windshield frame (Fig. 4). Ensure that the frame outer panel flange is properly "seated" in the seal groove.

(2) Install the seal retaining screws in the windshield frame (Fig. 4).

(3) Tilt the windshield frame rearward to the full vertical position.

(4) Install the holddown bracket retaining screws in the cowl (Fig. 2).

(5) Connect the top to the windshield frame. If necessary, refer to the windshield frame installation procedure.

WINDSHIELD GLASS

SERVICE INFORMATION

URETHANE ADHESIVE BONDING

The one-piece windshield glass (Fig. 5) is comprised of two laminated sheets of glass. The glass is bonded to the windshield frame with urethane adhesive (Fig. 5). This method of windshield glass installation complies with the applicable Federal Motor Vehicle Safety Standards (FMVSS).

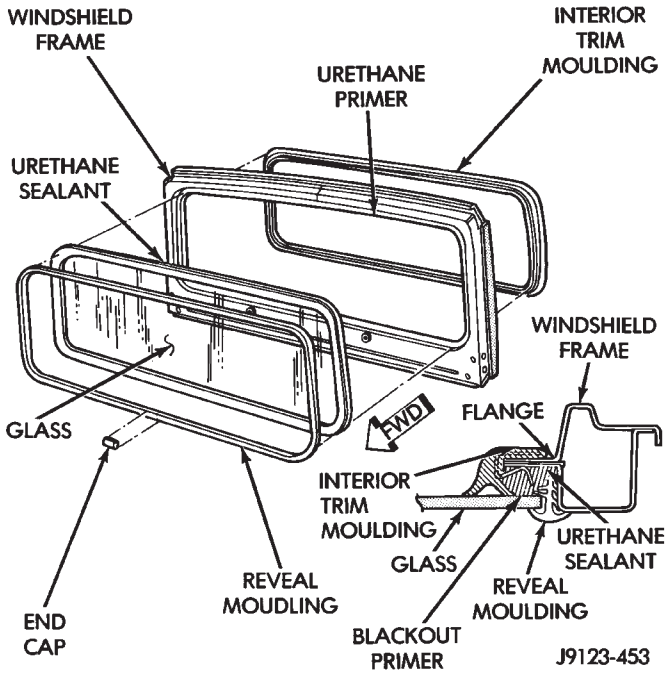

Fig. 5 Windshield Components

REMOVAL/INSTALLATION METHODS

For windshield glass removal use a razor knife or an electric hot knife to cut through the urethane. This removal method applies in all instances.

Depending on the circumstances, either one of two windshield glass installation methods can be used:

- the short method, and
- the extended method.

The short method is used when the windshield glass is removed intact and the windshield frame pinchweld flanges do not require repair.

The extended method must be used when a windshield frame and/or a pinchweld flange is damaged. The extended method must also be used when the urethane no longer adheres to either the windshield glass or the frame pinchweld flanges.

Remove windshield glass according to the procedure described below. Next, determine the condition of the adhesive bond and the windshield frame flanges, and then select the installation method required.

When the windshield glass short installation method is used, an even, uniform bead of urethane adhesive must remain on the frame pinchweld flanges. This adhesive bead is needed as a base for the replacement glass.

If the extended installation method is used, the original windshield interior trim moulding must be removed and discarded. The adhesive cannot be removed from the original moulding.

REMOVAL

(1) Cover body surface areas with protective covering to avoid paint damage and extra clean-up time.

(2) Remove the windshield wiper arms, the reveal moulding (Fig. 5) and the rearview mirror. If necessary, refer to the applicable removal procedures.

(3) Make a preliminary cut around the **perimeter** of the windshield glass along the glass edge with a razor knife.

CAUTION: When cutting through the urethane with a hot knife blade, do not allow the knife blade to remain stationary at any location.

(4) Cut the adhesive bead with a hot knife and a straight or hooked knife blade.

(5) Start the hot knife blade between the glass and the urethane. Next, cut the adhesive as close to the glass edge as possible. Allow as much adhesive to remain on the frame flange as possible. **For best cutting results, clean the knife blade frequently with steel wool while the blade is hot.**

(6) Remove the windshield glass from the frame (Fig. 5).

(7) After the hot knife blade has cooled, clean the hot knife blade with solvent and a cloth. Sharpen the blade with a fine-tooth file.

(8) If the extended windshield glass installation method will be used, remove and discard the interior trim moulding (Fig. 5).

INSTALLATION—SHORT METHOD

Normally, after a windshield is installed, the rearview mirror bracket also requires installation. If so, refer to the rearview mirror bracket replacement procedure. **Do not install bracket until after windshield installation is completed.**

(1) Inspect the windshield frame pinchweld flanges (Fig. 5) Prime any bare spots with urethane primer. Allow a minimum of 18 minutes for dry time.

(2) Inspect the urethane bead for high spots. Level the bead by shaving off high spots with a razor knife. This is necessary for a flush-fit of the windshield glass.

(3) Inspect the windshield moulding. Replace the moulding if it has broken, distorted or ineffective retainers.

(4) Clean the outer edge of the windshield glass with naphtha or a similar product.

(5) Prime the outer perimeter of the interior side of the glass 16 mm (5/8 inch) from the edge. Use a wipe-off type urethane primer and wipe the glass dry after primer application.

(6) Place the windshield glass in the frame on the pinchweld flanges and inspect for gaps in the urethane adhesive. Gaps in excess of 3 mm (1/8 inch) must be filled with additional urethane adhesive.

(7) Adjust windshield glass position until it is aligned with the flanges and the adhesive. Next, make alignment marks on glass and body with a grease pencil.

(8) Remove the windshield glass and position it on a flat surface.

(9) If the replacement windshield glass does not have blackout primer:

- attach a 25-mm (1-in) wide masking tape band around the interior side of the glass 16 mm (5/8 in) from the edge of the glass (Fig. 6);
- **attach the tape only to the interior side of the glass;**
- thoroughly mix and apply blackout primer to the 16 mm (5/8 in) surface area around the interior side of the glass (Fig. 6); then

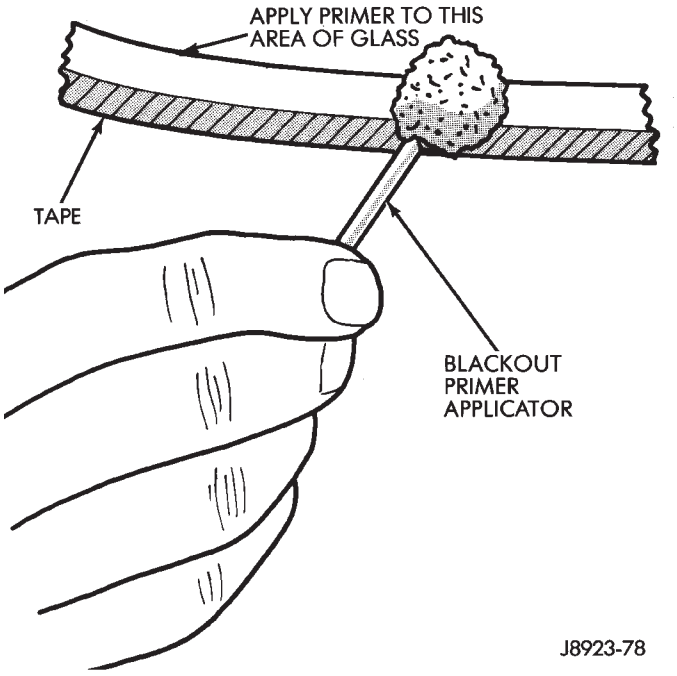

Fig. 6 Blackout Primer Application

- allow the primer to dry for at least 10-12 minutes.

(10) Cut the urethane adhesive applicator nozzle according to the instructions in Figure 7.

(11) Apply a 3-mm (1/8-in) diameter bead of urethane to the surface area.

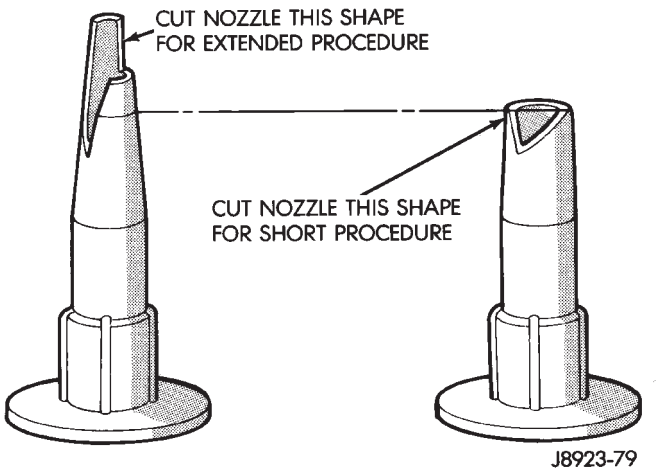

Fig. 7 Applicator Nozzle Preparation

CAUTION: Be prepared to install the windshield glass immediately after applying the adhesive. The adhesive begins to cure within 10-15 minutes.

(12) Align the windshield with the grease pencil marks (or the tape strips) and position windshield on frame flanges.

(13) Force the windshield glass inward just enough to wet-out and set urethane. Use care to avoid excessive squeeze-out of adhesive.

(14) Water test the windshield with a cold water spray after installation. Do not direct high pressure streams of water directly at the urethane. Use a moderate spray only. If any leaks are detected, apply urethane as necessary.

(15) Install the windshield reveal moulding and (if used) remove the masking tape from the inner surface of the glass.

(16) Install all removed components and clean the vehicle. If necessary, refer to the applicable installation procedures.

(17) Open windows and liftgate to prevent pressure build-up while the urethane is curing.

(18) Install the rearview mirror on the bracket and tighten the mirror setscrew with 2 N·m (15 in-lbs) torque.

INSTALLATION—EXTENDED METHOD

Normally, after a windshield is installed, the rearview mirror bracket also requires installation.**Do not install the bracket until after the windshield installation is completed.**

(1) Remove all of the original urethane from all the frame pinchweld flanges. Use an electric hot knife and a plow-type knife blade to remove the adhesive.

(2) Inspect and repair the windshield frame and the pinchweld flanges as necessary.

(3) Inspect and replace the reveal moulding if the retainers are damaged.

(4) Prime the frame pinchweld flanges with a urethane base primer. However, if the flange is topcoated with paint, prime the flanges with a paint finish primer. **This is important because urethane adhesive will not adhere to all top coat paints.**

(5) Install the replacement interior trim moulding (Fig. 5) on the frame pinchweld flanges (Fig. 5).

(6) Install and inspect the fit of the windshield glass on the pinchweld flanges according to the following instructions:

- position the windshield glass on the flanges and adjust the position until it is correctly aligned within the windshield frame;
- measure the gap between the frame and the glass around the entire perimeter of the glass and the flange;
- the gap should be at least 3 mm (1/8 in) but no more than 6 mm (1/4 in) at any point around the perimeter; and
- the flanges should in complete contact with the glass around the perimeter of the frame.

(7) If the pinchweld flanges require repair, remove the windshield glass and straighten, align, or repair the flange(s) as necessary.

(8) Position the windshield on the flanges and inspect the windshield fit again. If the fit is acceptable, mark windshield final position on the glass and the frame. The marks (or masking tape) will be used for installation alignment reference.

(9) If the replacement windshield glass does not have blackout primer:

- attach a 25-mm (1-in) wide masking tape band around the interior side of the glass 16 mm (5/8 in) from the edge of the glass (Fig. 6);
- **attach the tape only to the interior side of the glass;**
- thoroughly mix and apply blackout primer to the 16 mm (5/8 in) surface area around the interior side of the glass (Fig. 6); then
- allow the primer to dry for at least 10-12 minutes.

(10) Cut the urethane adhesive applicator nozzle according to the instructions in Figure 7.

(11) Apply a 3-mm (1/8-in) diameter bead of urethane to the surface area.

CAUTION: Be prepared to install the windshield glass immediately after applying the adhesive. The adhesive begins to cure within 10-15 minutes.

(12) Align windshield with reference marks (or the tape strips) and position it on the frame pinchweld flanges.

(13) Force the windshield glass inward just enough to wet-out and set urethane. Use care to avoid excessive squeeze-out of adhesive.

(14) Water test the windshield with a cold water spray after installation. Do not direct high pressure

streams of water directly at the urethane. Use a moderate spray only. If any leaks are detected, apply urethane as necessary.

(15) Install the windshield reveal moulding and (if used) remove the masking tape from the inner surface of the glass.

(16) Install all the other previously removed components and clean the vehicle. If necessary, refer to the applicable installation procedures.

(17) Open windows and liftgate to prevent pressure build-up while the urethane is curing.

(18) Install the rearview mirror on the bracket and tighten the mirror setscrew to 2 N·m (15 in-lbs) torque.

HARD TOP QUARTER WINDOW GLASS

REMOVAL

(1) Cover surface areas with protective covering to avoid paint damage and extra clean-up time.

(2) Remove the reveal moulding (Fig. 8).

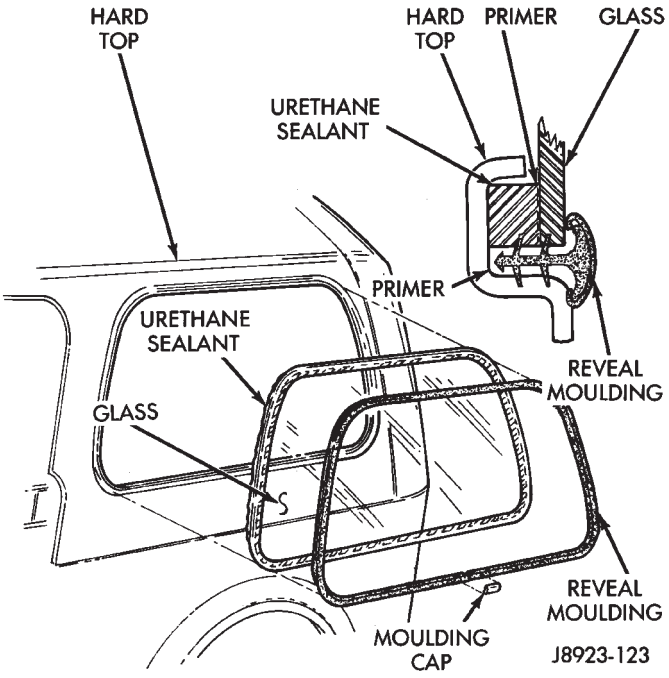

Fig. 8 Hard Top Quarter Window Glass

(3) Make a preliminary cut around the **perimeter** of the window glass along the glass edge with a razor knife.

CAUTION: When cutting through the urethane with a hot knife blade, do not allow the knife blade to remain stationary at any location.

(4) Cut the adhesive bead with a hot knife and a hooked knife blade.

(5) Start hot knife between glass and urethane. Next, cut the adhesive as close to the glass edge as possible. Allow as much adhesive to remain on the window opening flange as possible. **For best cutting results, clean the knife blade frequently with steel wool while the blade is hot.**

(6) Remove the window glass from the opening (Fig. 8).

(7) After the hot knife blade has cooled, clean the hot knife blade with solvent and a cloth. Sharpen the blade with a fine-tooth file.

INSTALLATION

(1) Inspect the window opening (Fig. 8) Prime any bare spots with urethane primer. Allow a minimum of 18 minutes for dry time.

(2) Inspect the urethane bead for high spots. Level the bead by shaving off high spots with a razor knife. This is necessary for a flush-fit of the window glass.

(3) Inspect the window moulding. Replace the moulding if damaged.

(4) Clean the outer edge of the window glass with naphtha or a similar product.

(5) Prime the outer perimeter of the interior side of the glass 16 mm (5/8 inch) from the edge. Use a wipe-off type urethane primer and wipe the glass dry after primer application.

(6) Place windshield in the opening and inspect for gaps in the urethane. Gaps in excess of 3 mm (1/8 inch) must be filled with urethane.

(7) Adjust window glass position until it is aligned with the opening and the adhesive.

(8) Remove the window glass and position it on a flat surface.

(9) If the replacement window glass does not have blackout primer:

- attach a 25-mm (1-in) wide masking tape band around the interior side of the glass 16 mm (5/8 in) from the edge of the glass;
- **attach the tape only to the interior side of the glass;**
- thoroughly mix and apply blackout primer to the 16 mm (5/8 in) surface area around the interior side of the glass; then
- allow the primer to dry for at least 10-12 minutes.

(10) Apply a 3-mm (1/8-in) diameter bead of urethane to the surface area with the blackout primer on the interior side of the glass.

CAUTION: Be prepared to install glass immediately after applying the adhesive. The adhesive begins to cure within 10-15 minutes.

(11) Align the window glass with the grease pencil alignment reference marks (or the tape strips) and position it in the window opening.

(12) Force glass inward just enough to wet-out and set urethane. Use care to avoid excessive squeeze-out of adhesive.

(13) Water test with a cold water spray after installation. Do not direct high pressure streams of wa-

ter directly at the urethane. Use a moderate spray only. If any leaks are detected, apply urethane as necessary.

(14) Install the window reveal moulding and (if used) remove the masking tape from the inner surface of the glass.

(15) Clean the vehicle.

(16) Open windows and liftgate to prevent pressure build-up while the urethane is curing.

FIXED GLASS WATER LEAK DETECTION AND REPAIR

The sources of water leaks around windshield/window glass can be sealed without removing the windshield/window glass. If the glass is firmly bonded and only has a small leak, seal areas with a liquid butyl sealant. However, if weatherstrip seal or urethane sealant has large breaks, a urethane sealant must be used.

LEAK TEST

Water test the windshield/window with a spray only. **Do not use hard streams of water.** Work from the bottom to the top of the windshield/window.

Water test the windshield/window with a spray only. **Do not use hard streams of water.** Work from the bottom to the top of the windshield/window glass.

If a water leak exists between the glass and weatherstrip seal (or between the seal and a body flange):

- push the glass outward at the leak area, and
- determine the extent of the gap.

Push the glass outward while a helper sprays the windshield/window glass with water.

SEALING MINOR LEAK AREAS

(1) Thoroughly clean and remove all foreign material from the leak area. Dry the area with compressed air.

(2) Seal the leak area with butyl sealant. Allow the sealant to cure for at least 1/2 hour. Next, water test the glass to ensure that the leak area is sealed.

SEALING MAJOR LEAK AREAS

(1) Thoroughly clean the leak area.

(2) As applicable, apply primer to either glass or weatherstrip seal leak area. Use blackout primer on the glass and urethane primer on the weatherstrip seal.

(3) Apply urethane to the leak area. Use an adhesive cartridge with a pointed nozzle.

(4) Water test glass immediately with cold water spray. Allow the water to spill over the edge of glass and weatherstrip seal.

(5) Apply additional adhesive, if necessary.

(6) Remove any excess adhesive.

INTERIOR COMPONENTS

INDEX

INSTRUMENT PANEL

SERVICE INFORMATION

The instrument panel is constructed of sheet metal and is attached to cowl panel with screws. The instrument panel and defroster grille pad is attached to the instrument panel with screws.

INSTRUMENT CLUSTER AND GAUGE HOUSINGS

REMOVAL

(1) Remove the instrument cluster and gauge housing attaching screws (Figs. 1, 2 and 3).

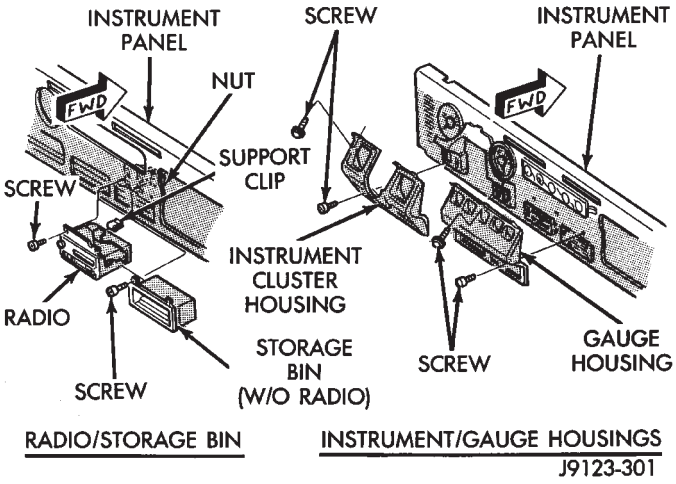

Fig. 1 Instrument Cluster/Gauge Housing and Radio

(2) Disconnect the switch illumination bulb socket from the instrument cluster housing (Fig. 4). Remove the housings from the instrument panel (Fig. 1).

INSTALLATION

(1) Position the instrument cluster and gauge housings on the instrument panel (Fig. 1). Connect the switch illumination bulb socket to the instrument cluster housing (Fig. 4).

(2) Install the attaching screws (Figs. 1, 2 and 3). Tighten the screws to 3 N·m (24 in-lbs) torque.

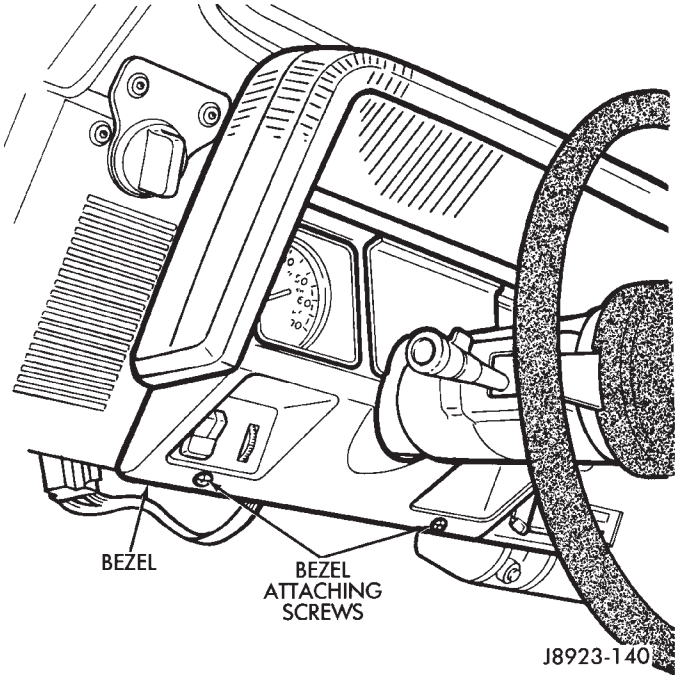

Fig. 2 Instrument Cluster Housing Lower Screws

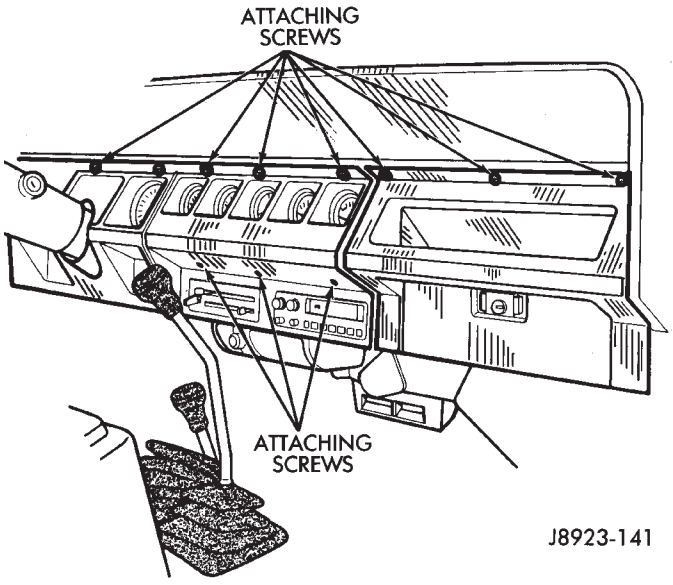

Fig. 3 Instrument Gauge Housing Screws

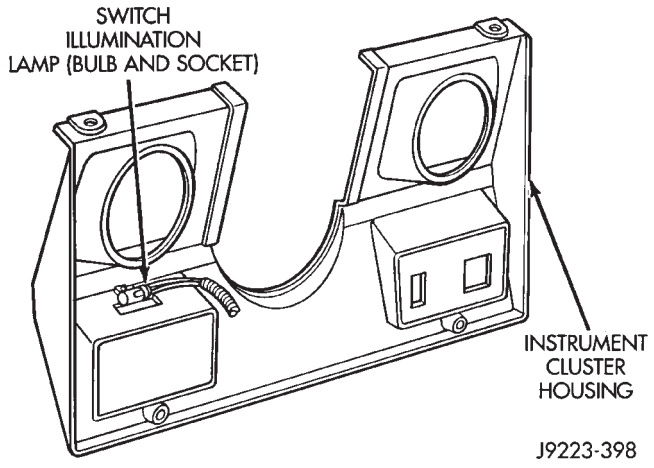

Fig. 4 Instrument Cluster Housing and Lamp

INSTRUMENT CLUSTER BEZEL

REMOVAL

(1) Remove the instrument cluster housing attaching screws (Figs. 1, 2 and 3).

(2) Disconnect the switch illumination bulb from instrument cluster (Fig. 4). Remove the housing from the instrument panel (Fig. 1).

(3) Remove the bezel retaining screws.

(4) Disconnect the accessory switch, warning indicator, rheostat and lamp wire harness connectors from the bezel (Fig. 5).

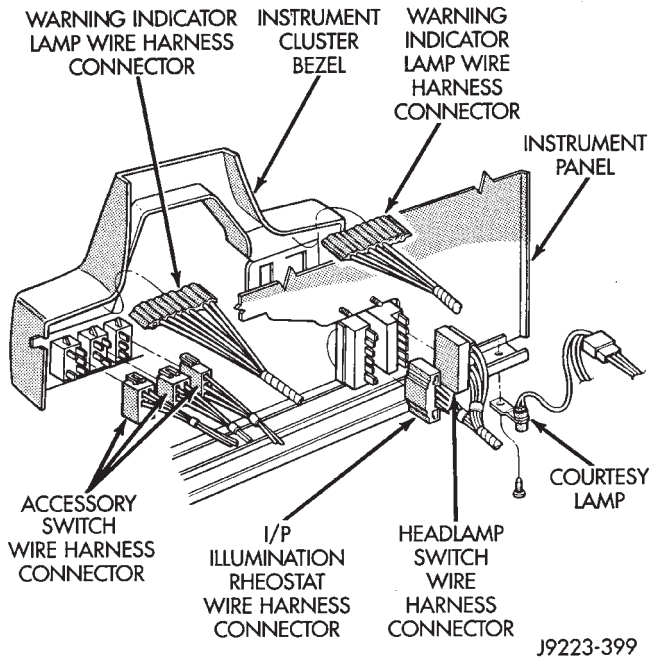

Fig. 5 Instrument Cluster Bezel

(5) Remove the bezel from the instrument panel (Fig. 6).

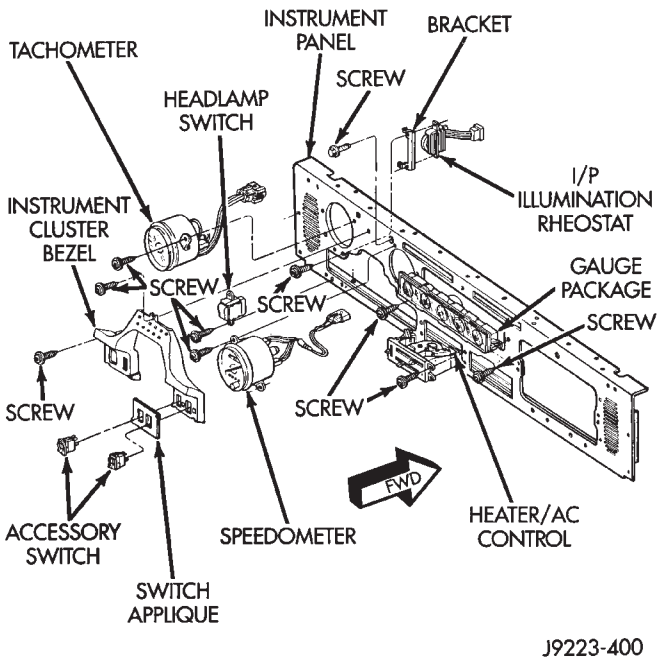

Fig. 6 Instrument Panel Components

INSTALLATION

(1) Position bezel at the instrument panel and connect accessory switch, warning indicator, rheostat and lamp wire harness to bezel.

(2) Install the bezel screws. Tighten the screws to 3 N·m (24 in-lbs) torque.

(3) Position the instrument cluster housing on the instrument panel (Fig. 1). Connect the switch illumination bulb socket to the instrument cluster housing (Fig. 4).

(4) Install the attaching screws (Figs. 1, 2 and 3). Tighten the screws to 3 N·m (24 in-lbs) torque.

INSTRUMENT PANEL COMPONENTS

REMOVAL

(1) Remove the instrument cluster and gauge housings from the instrument panel (Fig. 1). If applicable, remove the bezel from the instrument panel.

(2) Remove the screws, disconnect the wire harness connector(s) and remove the component from the instrument panel.

INSTALLATION

(1) Position the component at the instrument panel, connect the wire harness connector(s) and install screws. Tighten the screws to 3 N·m (24 in-lbs) torque.

(2) If removed, install the instrument cluster bezel on the instrument panel. Install the instrument cluster and gauge housings on the instrument panel (Fig. 1).

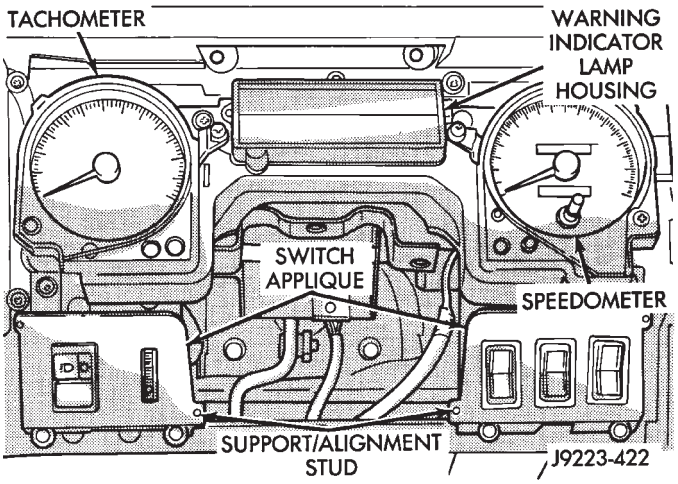

Fig. 7 Instrument Cluster

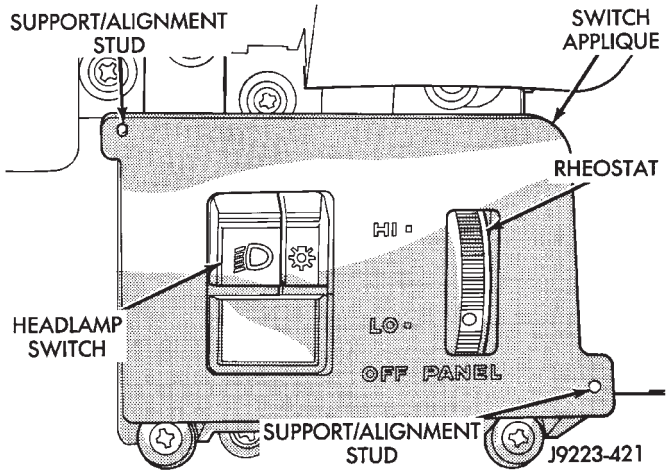

Fig. 8 Headlamp Switch, Rheostat and Applique

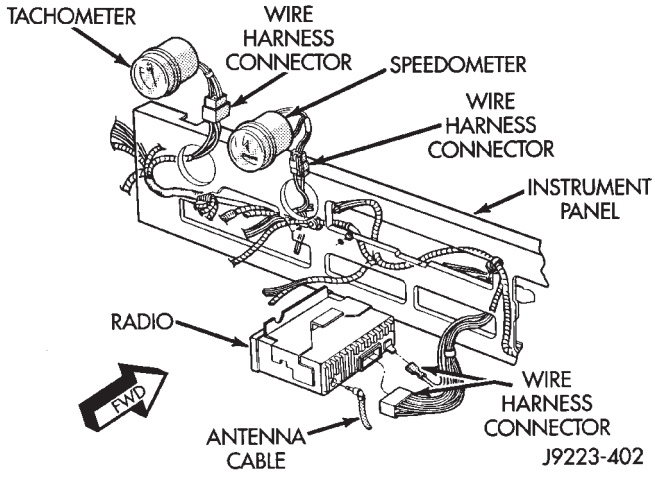

Fig. 9 Tachometer, Speedometer and Radio

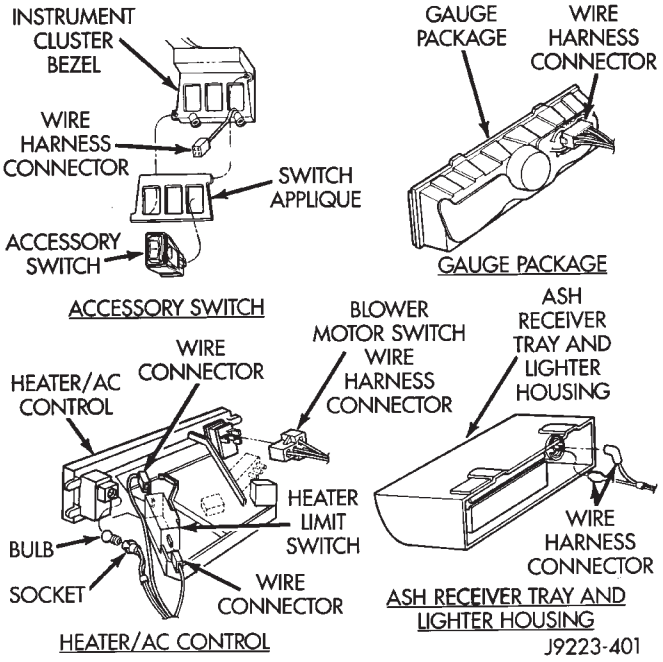

Fig. 10 Switch, Gauge Package, HEVAC Control and Ash Receiver

INSTRUMENT PANEL SERVICE

REMOVAL

(1) Disconnect the battery negative cable.

(2) For vehicles equipped with a soft top, disconnect the top from the windshield frame. If necessary, refer to the top removal procedure.

(3) For vehicles equipped with a hard top, disconnect the top from the windshield frame. Loosen screws, tilt the top rearward and support it away from the windshield frame (Fig. 11).

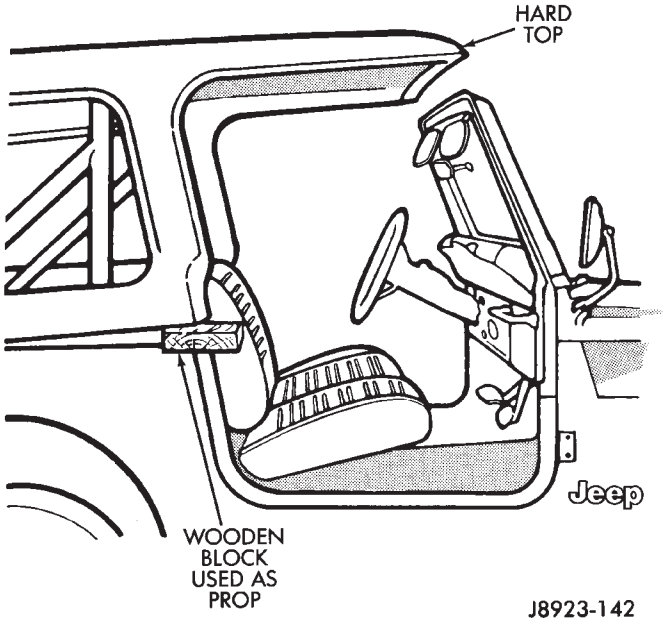

Fig. 11 Hard Top Detached From Windshield Frame

(4) Cover the hood surface area in front of the windshield.

(5) Remove the windshield-to-instrument panel retaining brackets (Fig. 12) and tilt the windshield forward onto the top of the hood.

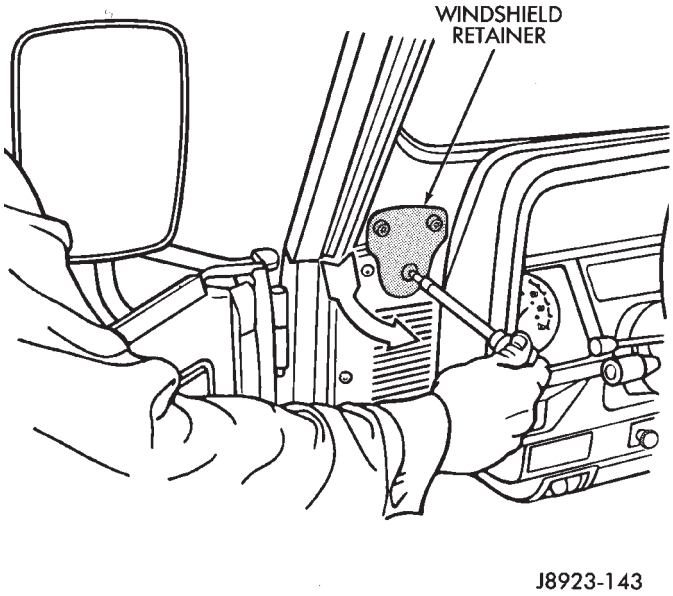

Fig. 12 Windshield Frame Retaining Bracket

(6) Remove the instrument cluster and gauge housings (Fig. 1) from the panel.

(7) For vehicles with air conditioning, remove the screws from evaporator to instrument panel. Lower the evaporator to the floor panel (Fig. 13).

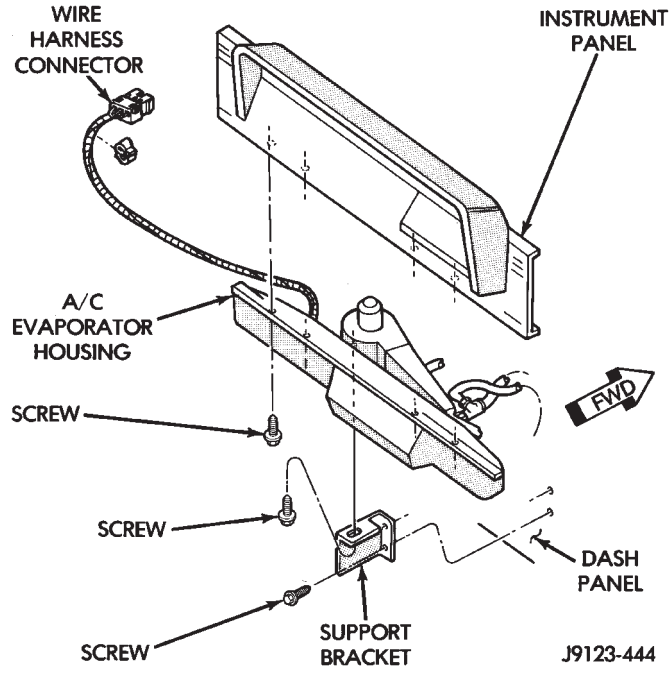

Fig. 13 Evaporator Removal/Installation

(8) Remove the assist handle and the glove box housing (Fig. 14).

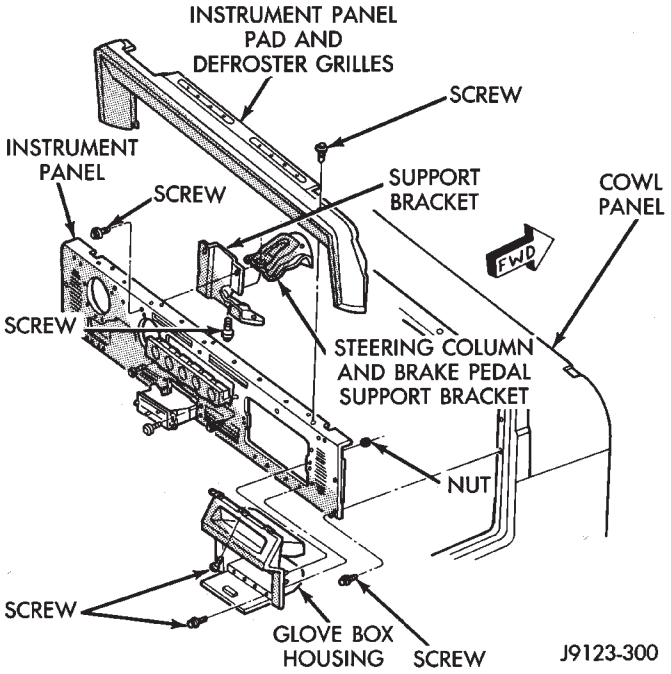

Fig. 14 Instrument Panel Removal/Installation

(9) Remove the screws that attach the pad to the instrument panel and remove the pad (Fig. 14).

(10) Disconnect the parking brake lever bracket from the dash panel.

(11) Disconnect the speedometer cable and the instrument cluster wire harness connectors.

(12) Disconnect HEVAC control cables from the damper door levers.

(13) Remove screws and separate the steering column support brackets (Fig. 15).

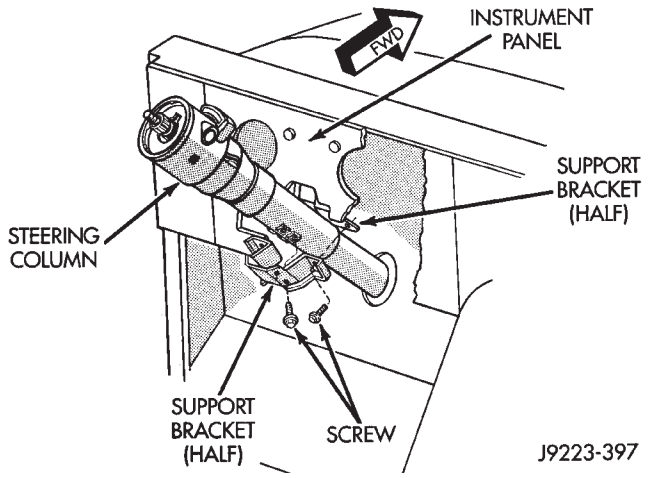

Fig. 15 Steering Column Bracket Separation

(14) Remove steering column from vehicle.

(15) Remove the instrument panel-to-cowl panel attaching screws (Fig. 14) and remove the instrument panel from the vehicle.

(16) If necessary, remove the defroster duct outlet from the dash panel (Fig. 16).

(17) If necessary, remove the ash receiver tray/

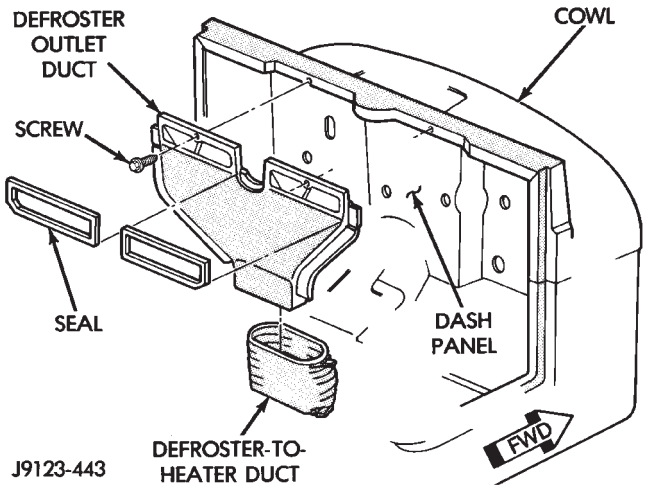

Fig. 16 Defroster Duct Outlet Removal/Installation

housing and the radio speaker from the instrument panel (Fig. 17).

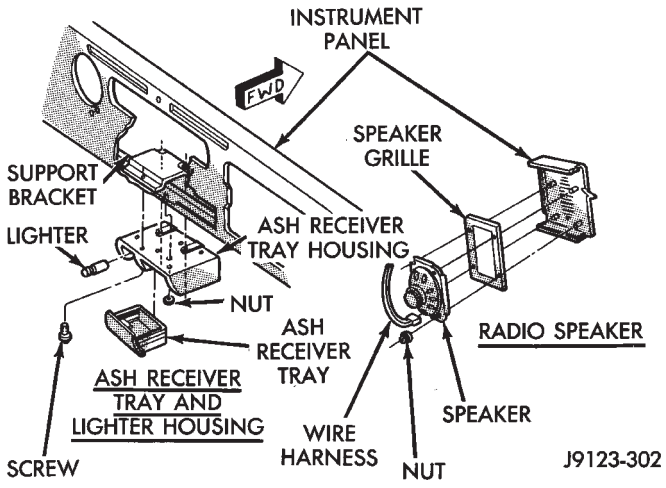

Fig. 17 Ash Receiver and Radio Speaker Removal/ Installation

INSTALLATION

(1) As necessary, install the components that were removed from the instrument panel (Fig. 17).

(2) If removed, install the defroster duct outlet on the dash panel (Fig. 16).

(3) Position the instrument panel on the dash panel and install the attaching screws (Figs. 18 and 14).

(4) Install steering column in vehicle.

(5) Join the steering column support brackets and install screws (Fig. 15). Tighten the screws to 27 N·m (20 ft-lbs) torque.

(6) Install the pad on the instrument panel (Fig. 14).

(7) Connect the speedometer cable and the instrument cluster wire harness connectors.

(8) Install the instrument cluster and gauge housings (Fig. 1).

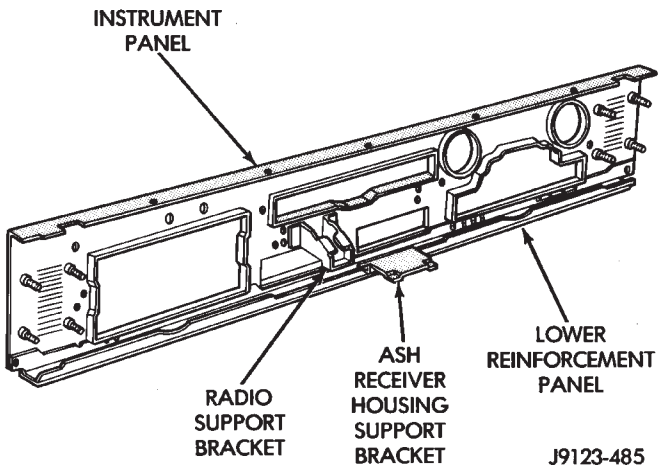

Fig. 18 Instrument Panel

(9) If equipped, raise and install the A/C evaporator on the instrument panel (Fig. 13). Tighten the screws to 3 N·m (30 in-lbs) torque.

(10) Install the HEVAC control cables.

(11) Install the parking brake lever bracket.

(12) Install the glove box housing (Fig. 14).

(13) Move the windshield to the upright position and install the windshield retaining brackets (Fig. 12).

(14) For hard top equipped vehicles, remove the supports. Correctly position the top on the windshield and the body, and install screws securely.

(15) For soft top equipped vehicles, attach the top to the windshield and side retainers.

(16) Connect the battery negative cable.

GLOVE BOX

HOUSING REMOVAL

(1) Remove the glove box-to-instrument panel retaining screws (Fig. 14).

(2) Pull the glove box housing out of the instrument panel opening (Fig. 14).

HOUSING INSTALLATION

(1) Position the glove box housing in the instrument panel opening (Fig. 14).

(2) Install the glove box-to-instrument panel screws (Fig. 14). Tighten the screws securely.

DOOR AND HINGE

The glove box door hinge attaching screw holes are elongated for adjustment. The hinge screws can be loosened and the door moved in direction for the best fit within the door opening.

REMOVAL

(1) Remove the hinge-to-glove box housing retaining screws.

(2) Remove the door and the hinge from the glove box housing.

(3) If necessary, remove the retaining screws and the hinge from the glove box door.

INSTALLATION

(1) If removed, install the hinge on the glove box door with screws. Tighten the screws securely.

(2) Position the glove box door and hinge on the glove box housing.

(3) Install the hinge-to-glove box housing screws and adjust the door for proper fit within the opening. Tighten the screws securely.

DOOR LATCH STRIKER ADJUSTMENT

The glove box door lock cylinder latch striker is attached to the glove box housing opening with screws. The striker can be moved in or out for adjustment.

SEATS

Bucket-type front seats (Fig. 19) are standard on YJ vehicles. The rear passenger seat is a forward pivoting/folding, bench-type seat (Fig. 20).

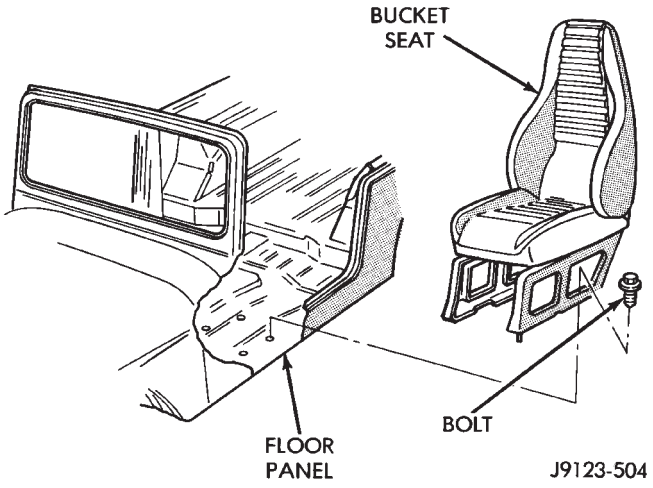

Fig. 19 Bucket Front Seat

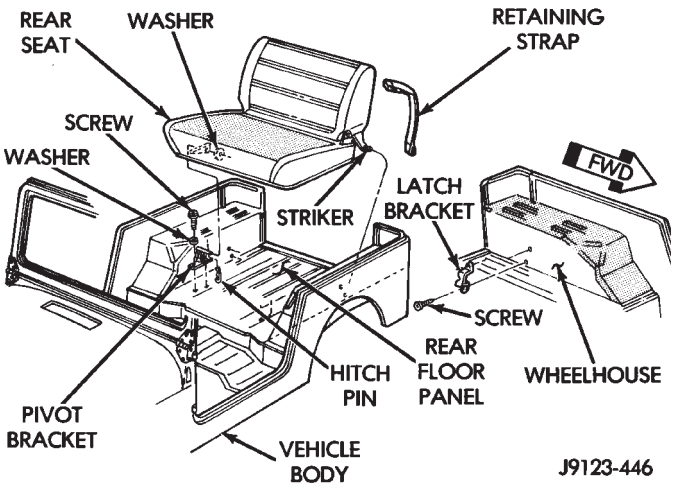

Fig. 20 Pivoting/Folding, Bench-Type Rear Seat

The passenger-side (RH), front bucket seat frame is the tilt-type (Fig. 21). The driver-side (LH) seat is fixed in-place.

Both the passenger-side (RH) seat and the driver-side (LH) seat have fore-and-aft track adjustment.

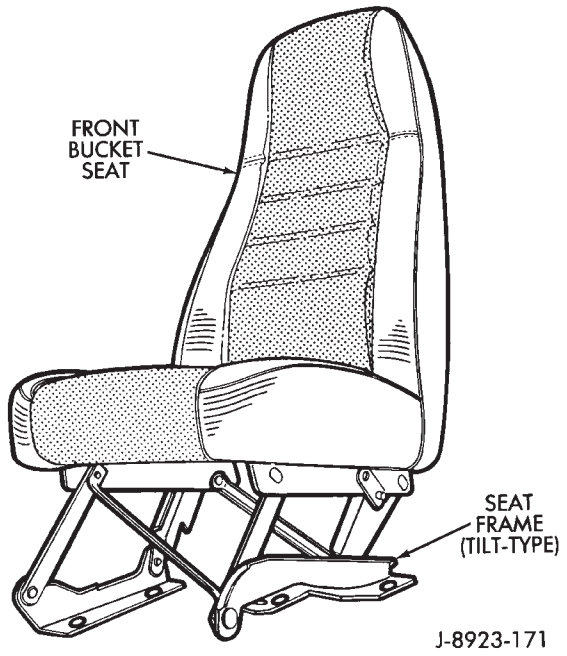

Fig. 21 Passenger-Side Bucket Front Seat

BUCKET SEATS

REMOVAL/INSTALLATION

The front seat frames/platforms are attached to the floor panel.

REAR BENCH SEAT

The rear bench seat pivot brackets are attached to the floor panel with screws. The front of the seat is attached to the pivot brackets with washers and hitch pins.

REMOVAL

(1) Disengage the strikers from the latches (Fig. 20).

(2) Remove the hitch pin, disengage the seat frame from the pivots and remove the seat from the vehicle (Fig. 20).

INSTALLATION

(1) Position the seat on the rear floor panel and engage the seat frame with the pivots (Fig. 20).

(2) Install the hitch pin (Fig. 20).

(3) Pivot the seat rearward and engage the strikers with the latch brackets (Fig. 20).

FRONT SHOULDER BELTS

REMOVAL

(1) Remove the cover and the shoulder belt buckle anchor bolt from the floor panel (Fig. 22).

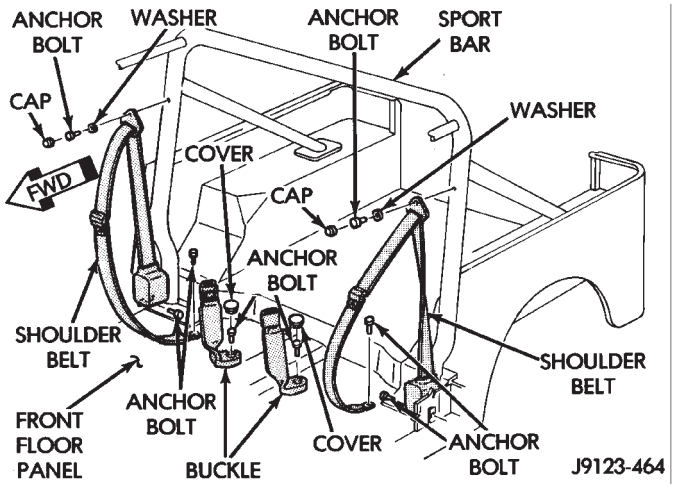

Fig. 22 Front Shoulder Belts

(2) Remove the shoulder belt buckle from the floor panel (Fig. 22).

(3) Remove the cap, shoulder belt upper anchor bolt, washer and guide from the sport bar (Fig. 22).

(4) Remove the retractor anchor bolt from the door sill (Fig. 22).

(5) Remove the anchor bolt that attaches the lower part of the shoulder belt to the floor panel (Fig. 22).

(6) Remove the shoulder belt from the vehicle.

(7) Inspect the shoulder belt for evidence of wear, cuts and fraying. Replace any belt that is damaged.

INSTALLATION

(1) Position the end of the shoulder belt at the floor panel and the retractor at the door sill (Fig. 22).

(2) Install the anchor bolts (Fig. 22). Tighten the bolts to 41 N·m (30 ft-lbs) torque.

(3) Position the shoulder belt guide on the sport bar and install the anchor bolt (Fig. 22). Tighten the bolt to 41 N·m (30 ft-lbs) torque.

(4) Install the cap on the anchor bolt (Fig. 22).

(5) Install the shoulder belt buckle at the floor panel with the anchor bolt. Tighten the bolt to 41 N·m (30 ft-lbs) torque.

(6) Install the cover on the anchor bolt (Fig. 22).

REAR SHOULDER BELTS

REMOVAL

(1) Remove the shoulder belt buckle anchor bolt from the rear floor panel.

(2) Remove the shoulder belt buckle from the rear floor panel.

(3) Remove the shoulder belt upper anchor bolt, washer and support/guide from the sport bar (Fig. 23).

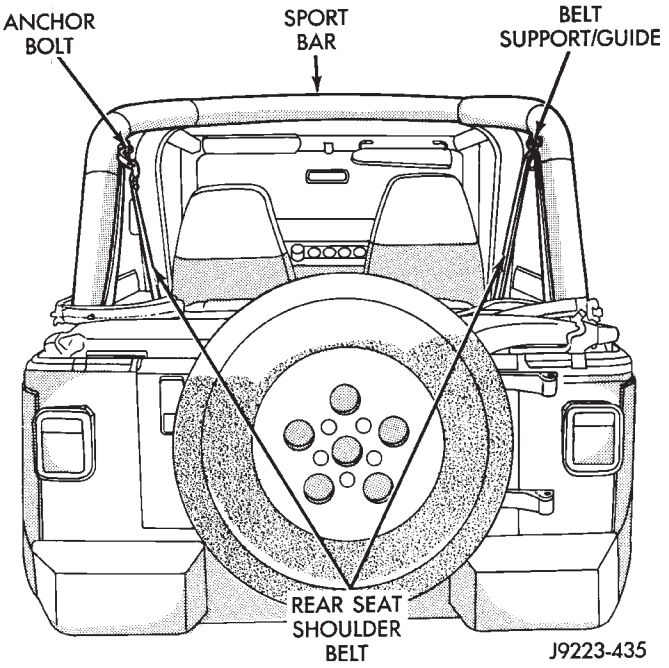

Fig. 23 Rear Shoulder Belts

(4) Remove the retractor anchor bolt from the quarter panel.

(5) Remove the anchor bolt that attaches the lower part of the shoulder belt to the floor panel.

(6) Remove the shoulder belt from the vehicle.

INSTALLATION

(1) Position the lower end of the shoulder belt at the floor panel and the retractor at the quarter panel.

(2) Install the anchor bolts. Tighten the bolts to 41 N·m (30 ft-lbs) torque.

(3) Position the shoulder belt support/guide on the sport bar and install the anchor bolt (Fig. 24). Tighten the bolt to 41 N·m (30 ft-lbs) torque.

(4) Install the shoulder belt buckle at the floor panel with the anchor bolt. Tighten the bolt to 41 N·m (30 ft-lbs) torque.

SUNVISORS

REMOVAL

(1) Remove the screws that attach the sunvisor arm support brackets to the windshield frame (Fig. 25).

(2) Remove the sunvisor from the windshield frame (Fig. 25).

(3) Remove the sunvisor from the vehicle.

INSTALLATION

(1) If applicable, replace the labels (Fig. 25).

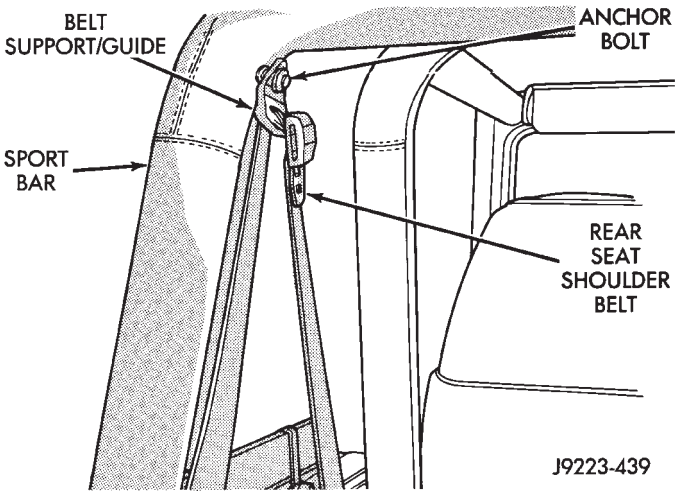

Fig. 24 Rear Shoulder Belt

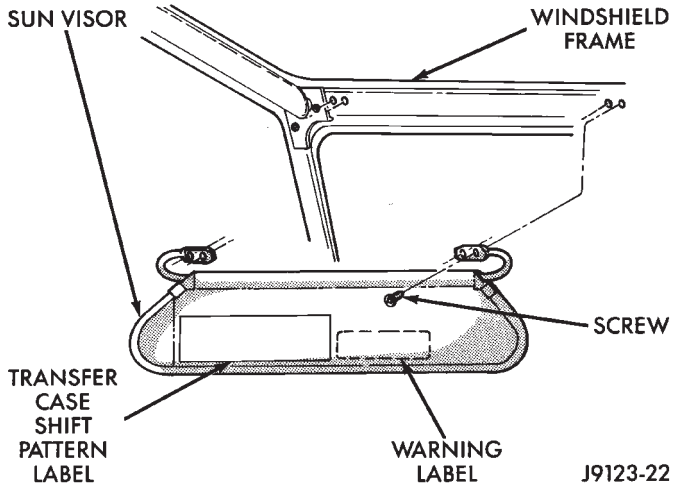

Fig. 25 Sunvisor Removal/Installation

(2) Position the sunvisor on the windshield frame and align the arm support bracket holes with the frame (Fig. 25).

(3) Install the screws that attach the sunvisor arm support brackets to the frame (Fig. 25). Tighten the screws securely.

FLOOR CONSOLES

Floor consoles (Figs. 26 and 27) are fabricated from molded plastic material. The console covers have a locking top and provisions for beverage containers.

REMOVAL

(1) Open the console cover (Figs. 26 and 27).

(2) Remove the screws that attach the console to the floor panel (Figs. 26 and 27).

(3) Remove the console from the vehicle.

INSTALLATION

(1) Position the console in the vehicle.

(2) Align the console screw holes with the holes in the floor panel and install the attaching screws (Figs. 26 and 27).

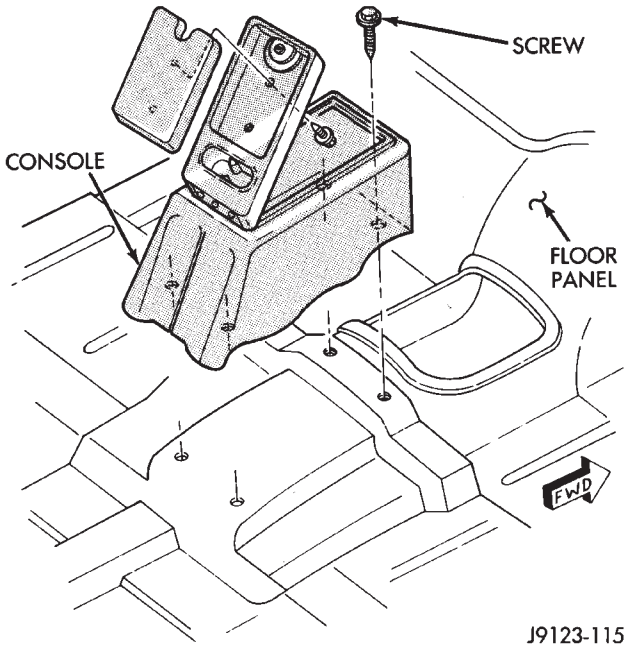

Fig. 26 Deluxe Floor Console

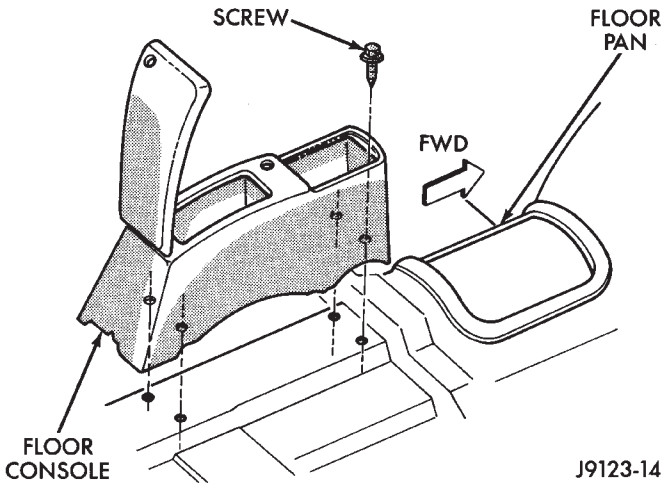

Fig. 27 Standard Floor Console

(3) Close and the console cover.

COVER AND SEAL REPLACEMENT

Console cover replacement involves removing the hinge screws from the console, and components (Fig. 28). The seal can be replaced with the cover in the open position.

COVER LOCK REPLACEMENT

(1) Open the console cover.

(2) Remove the screw that attaches the retainer to the lock and then remove the retainer from the lock (Fig. 29).

(3) Remove the lock, cylinder and key as a unit from the console cover (Fig. 29).

(4) Manually position the lock latch to simulate a closed cover position.

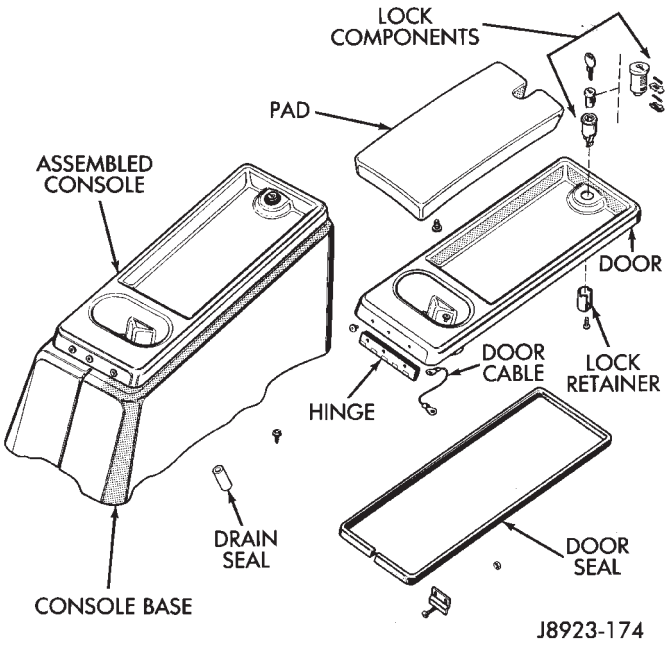

Fig. 28 Console Cover and Seal

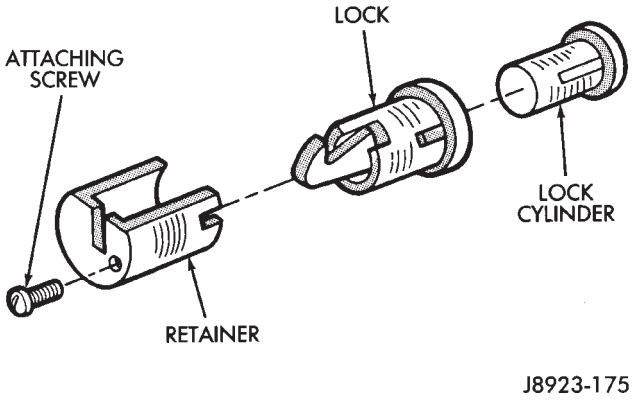

Fig. 29 Console Cover Lock Removal/Installation

(5) Insert the key and cylinder into the lock and turn clockwise. Release the lock latch and remove the key.

(6) Insert the assembled lock in the console cover hole (Fig. 28) and install the retainer with the attaching screw.

CARPET/FLOOR MATS

SERVICE INFORMATION

FRONT FLOOR REAR CARPET

The front floor rear carpet (Fig. 30) is retained in place by the:

- front seats,
- floor console,
- shoulder belt buckle anchors, and
- door sill carpets.

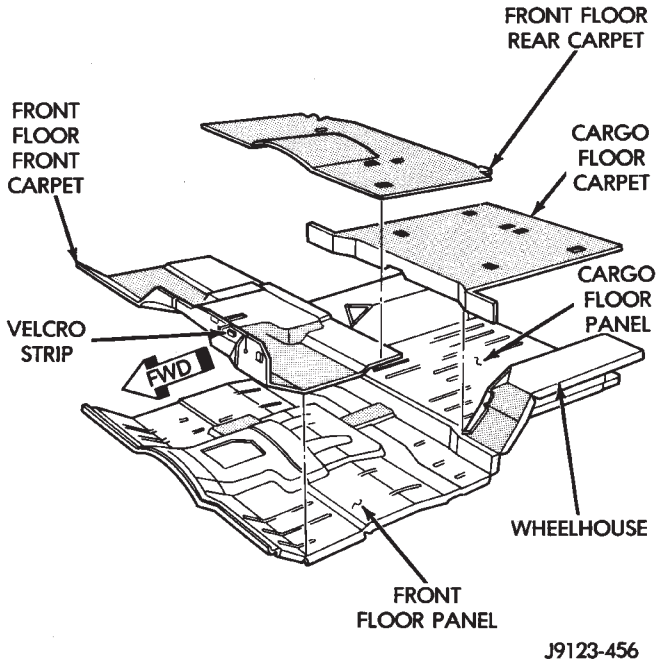

Fig. 30 Floor Carpets

To remove and then install a front floor rear carpet (Fig. 30), it is necessary to remove and then install the front seats and the floor console.

FRONT FLOOR FRONT CARPET

The front floor front carpet (Fig. 30) is retained in place by the:

- transmission/transfer case shift lever boots (Fig. 31),
- rear carpet, and
- Velcro strips.

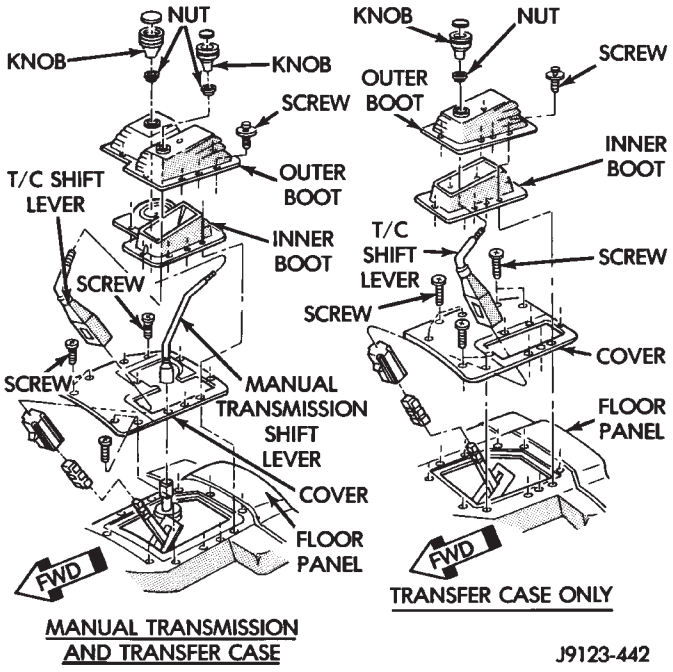

Fig. 31 Shift Lever Boots

To remove and install a front floor front carpet (Fig. 30), it is necessary to remove and then install the shift lever boots (Fig. 31).

When replacing a front carpet, position and cut openings in carpet with a razor knife for shift levers and boots (Fig. 31).

CARGO FLOOR CARPET

The cargo floor carpet (Fig. 30) is retained in place by the:

- rear seat,
- shoulder belt buckle anchors, and
- wheelhouse carpets.

To remove and then install a cargo floor carpet (Fig. 30), it is necessary to remove and then install the rear seat.

WHEELHOUSE, DOOR SILL AND TAILGATE CARPETS

The wheelhouse, door sill and tailgate carpets (Fig. 32) are retained in place with:

- adhesive,
- velcro strips, and
- screws.

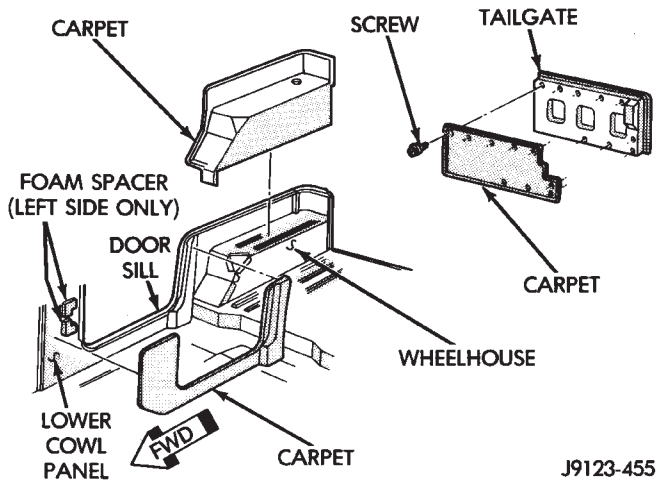

Fig. 32 Wheelhouse, Door Sill and Tailgate Carpets

A replacement carpet for any of the three possibly will require some modifications to accommodate the attached components.

ADD-A-TRUNK

REMOVAL

1. Remove the nylon thumb screws (Fig. 33).
2. Remove the trunk.

INSTALLATION

1. Position the trunk in the cargo space and insert the nylon thumbscrews with washers through the predrilled holes and into the well nuts.
2. Tighten the thumb screws.

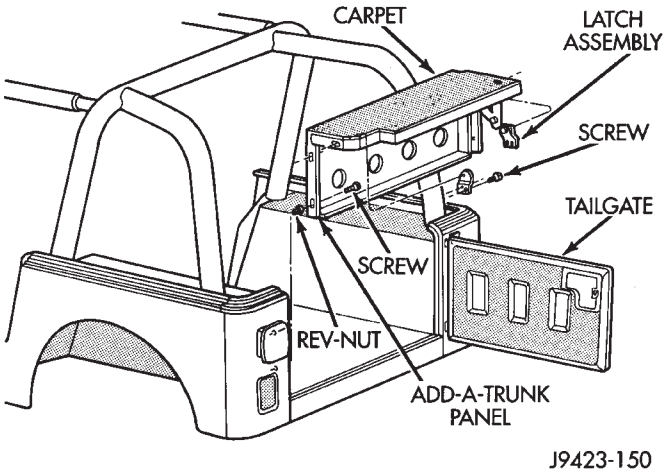

Fig. 32 Add-A-Trunk Assembly

BODY COMPONENTS—REFINISHING

CONTENTS

SERVICE INFORMATION

SAFETY PRECAUTIONS

Protective eye shields, masks, respirators, should be used.

For maximum protection from paint solvent vapor, use a fresh-air type, compressor-powered respirator.

PREPARATION

Do not allow any type of open flame or other source of vapor ignition in the painting area. Paint vapor is highly flammable when it is concentrated.

- Paint only in a well ventilated area.
- Use a good quality, high capacity respirator.
- Use protective goggles and clothing.
- Use rubber or latex gloves when mixing paint and other, similar liquid products.
- When not in use, keep paint containers in a protective cabinet or locker.
- Keep the paint storage area well ventilated.

TECHNICAL TERMS

SINGLE COAT

A single-coat spray pattern is applied from left-to-right. Then, the returning right-to-left spray pattern is applied so that it overlaps the lower one-half of the initial spray pattern. This process is repeated until a complete, single-coat coverage of a body panel is obtained.

DOUBLE COAT

A double-coat spray pattern is applied from left-to-right. Then, the returning right-to-left spray pattern is applied.

DRYING

Drying and hardening of paint film involves three stages of evaporation.

The first stage is referred to as dust-free stage.

The second stage is referred to as tack-free stage.

The third and final stage is referred to as hard-dry0 stage.

DE-GREASE/DE-WAX

De-greasing/de-waxing involves cleaning a panel surface with either 3M All purpose cleaner, or a similar product. This removes the surface grease, or wax.

FEATHEREDGING

Tapering and blending the edges of repaired areas is referred to as featheredging.

FERROUS AND NON-FERROUS METAL

Iron and steel are ferrous metals. Non-ferrous metal includes aluminum, brass, copper, magnesium and several types of alloy metal.

FLASH TIME

The time required for most of the solvent to evaporate from an applied primer/paint coat.

MIST COAT

A mist coat is frequently used as the final color coat. Mist coats are over-thinned paint that is sprayed wet.

SURFACE PRIMER COAT

A surface primer coat must be applied over repaired as well as bare metal substrate. The primer provides a bond between the metal and the color (base) coat. Various types of surface primers and primer/sealants are available. Surface primers are available in either sandable or non-sandable form.

Glazing or spot putty can be applied to primer covered surfaces. The putty is used to fill the small imperfections that a standard primer will not to cover.

REDUCERS/THINNERS

Enamel reducers and lacquer thinners are mixtures of volatile liquids and are used to reduce surface primers and color-coat paints. Use only the type of reducer/thinner that is specified by the paint manufacturer. **Do not intermix different types of reducer/thinner.**

TACK RAG

Tack rags are used to wipe dust from a body panel surface prior to primer/paint application. Dust particles will adhere to the tacky surface of the rag when it is moved over a panel surface.

PAINT APPLICATION

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SURFACE PREPARATION

Proper surface preparation is the key to top-quality body panel refinishing. The bare metal must be cleaned, de-greased, de-waxed and treated with phosphate.

Always clean the panel surface with a wax and grease removal solution, and then wipe the surface with a tack rag before applying primer or paint. Cleaning will also remove any residual silicone from the painted surface.

Body putty that is procured from a major supplier is highly recommended. If a synthetic body filler is to be used, it should also be a quality product.

STONE CHIP PROTECTION

When applicable, the stone chip protection coat (Fig. 1) must be applied before the primer coat. The coating extends downward from the character line to the bottom flanges. Then horizontally to the wheelhouse opening flanges.

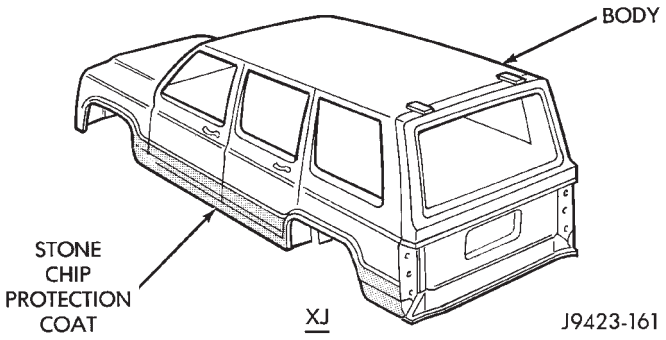

Fig. 1 Stone Chip Protection Coat—Typical

PRIMER

The type of primer to be used is dependent on the condition of the panel surface. Bare metal should be primed with an epoxy-base. A sealant is recommended when applying a second color coat over an existing color coat. With certain colors, sealants are also important in preventing color bleed-through.

BASE/COLOR COAT

Base/color coat paint finishes must be applied in an clean environment. Top-loader guns are recommended for applying the base/color coat paint.

Base/color coat paint (Figs. 2, 3, and 4) should be reduced/thinned and applied according to the manufacturers recommendations. Refer to the suppliers instructions.

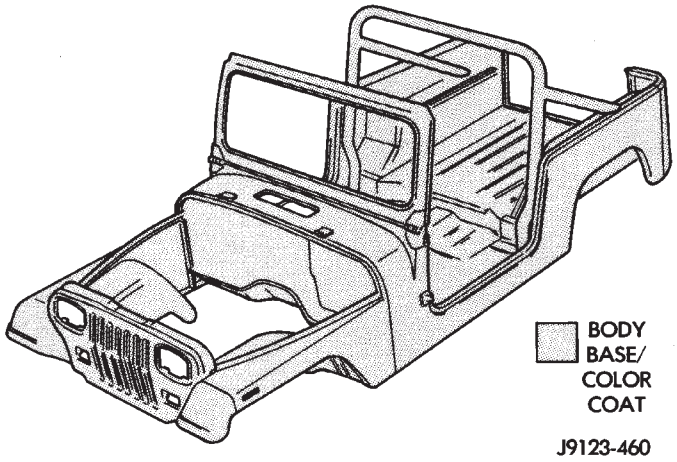

Fig. 2 Body Base/Color Coat Paint Finish—YJ Vehicles

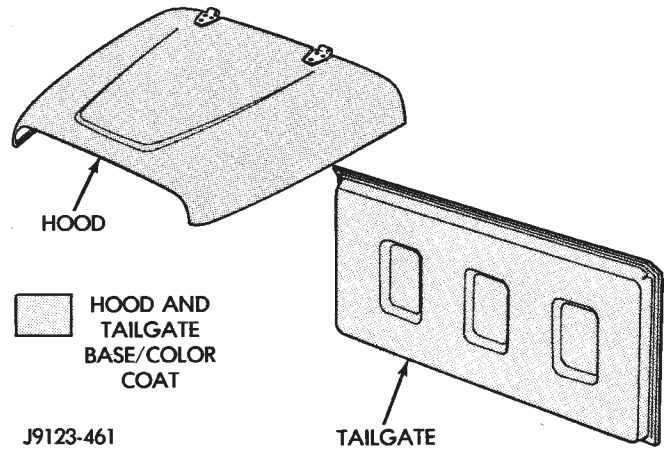

Fig. 3 Hood and Tailgate Base/Color Coat Paint Finish—YJ Vehicles

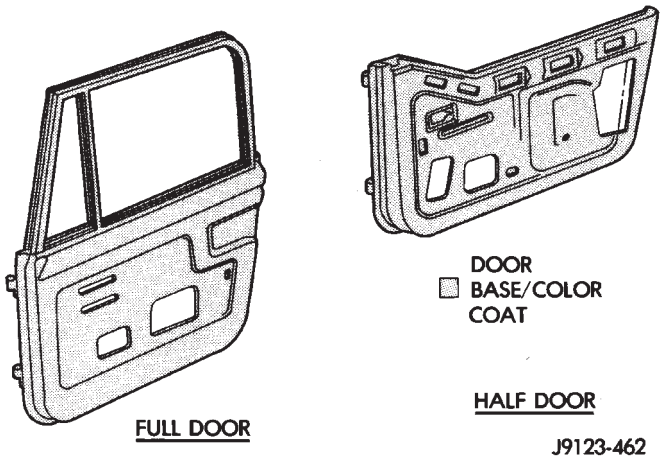

Fig. 4 Door Base/Color Coat Paint Finish—YJ Vehicles

BASECOAT/CLEARCOAT

Basecoat/clearcoat paint finishes must be applied in a very clean environment. Top-loader guns are recommended for applying the basecoat paint and the clearcoat paint.

Basecoat/clearcoat application is a two-stage process. The basecoat is applied over the final primer coat. The clearcoat is then applied over the basecoat. The clearcoat provides the paint finish with a high gloss and increased durability.

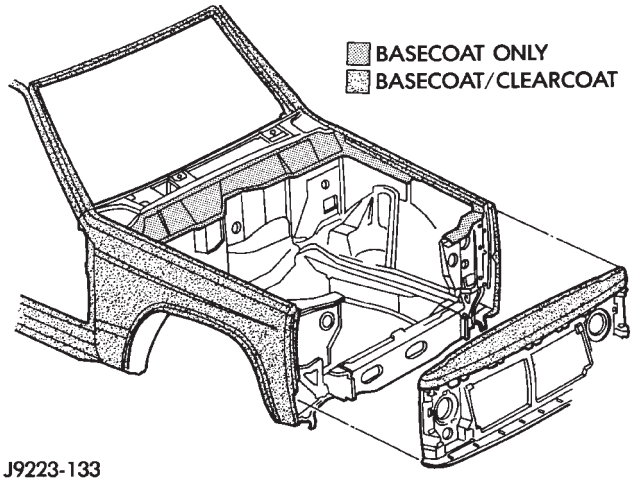

Fig. 5 Front Body Basecoat/Clearcoat Paint Finish—XJ Vehicles

The work area should be well ventilated for application of basecoat and clearcoat paints; especially when applying the clearcoat paint.

ACCENT PAINT

When applicable, argent accent paint (Fig. 9) is applied to the grille opening panel, sill crossmember and radiator baffles. The argent paint coating covers the rocker panel and extends upward 25 mm (1 in) from the door panel lower edge.

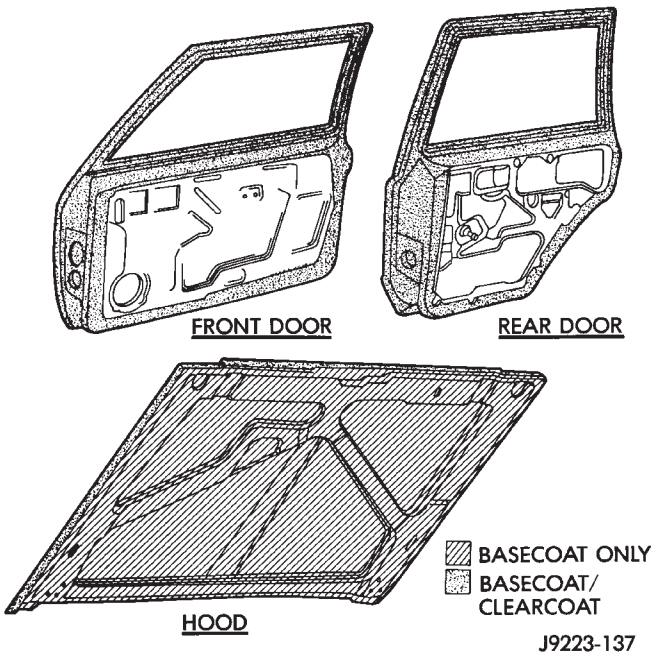

Fig. 6 Hood and Doors Basecoat/Clearcoat Paint Finish—XJ Vehicles

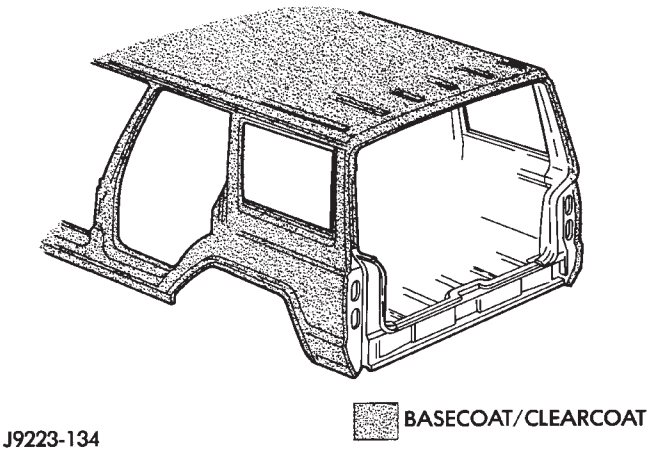

Fig. 7 Rear Body Basecoat/Clearcoat Paint Finish—XJ Vehicles

PAINT REPAIR ON GALVANIZED METALS

Many body panels are made from galvanized sheet metal. Proper surface preparation of galvanized panels is important in regard to rust protection and the finish coat.

Repaired surface areas on galvanized panels should be sanded, cleaned and re-coated with Galva Prep or a similar product.

Use only those primers recommended for use on galvanized panels. Consult the paint suppliers product and application instructions. Do not apply a base/colorcoat directly on galvanized panel.

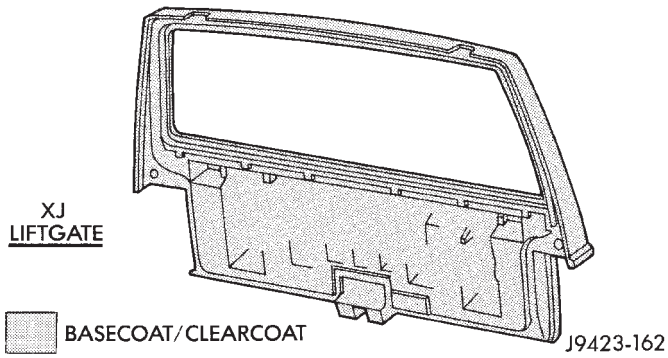

Fig. 8 Liftgate Basecoat/Clearcoat Paint Finish—XJ Vehicles

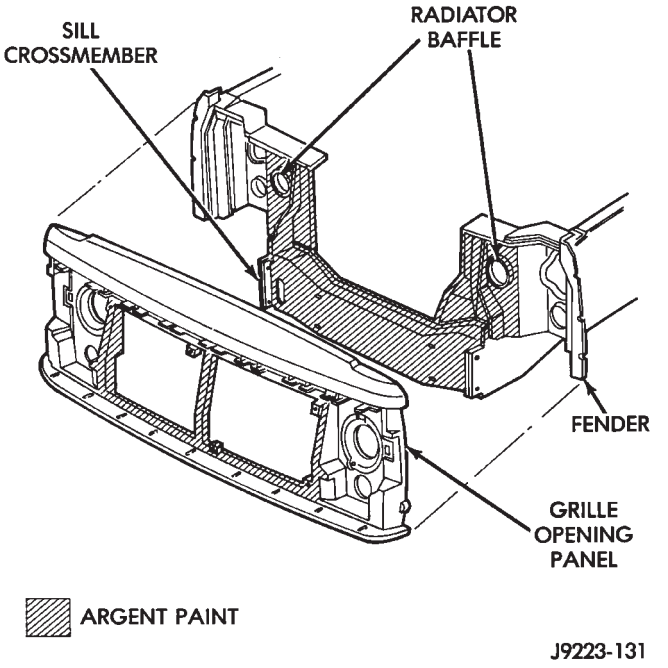

Fig. 9 Grille Opening Panel, Crossmember and Baffle Argent Accent Paint

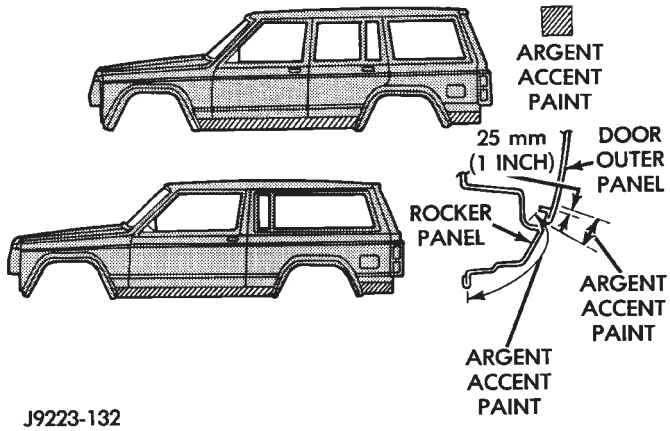

Fig. 10 Body Side Argent Accent Paint Finish

BUFFING AND POLISHING

Minor paint defects in a base/colorcoat can frequently be removed by light sanding, buffing and polishing. Wet sand the defect with 600 grit paper soaked in mineral spirits.

Buff the surface area with a fine grade buffing compound. Finish the repair with a quality polishing compound to blend and restore the gloss.

BODY UNDERCOAT

Undercoat is applied to the exterior side of wheelhouses and underbody panels.

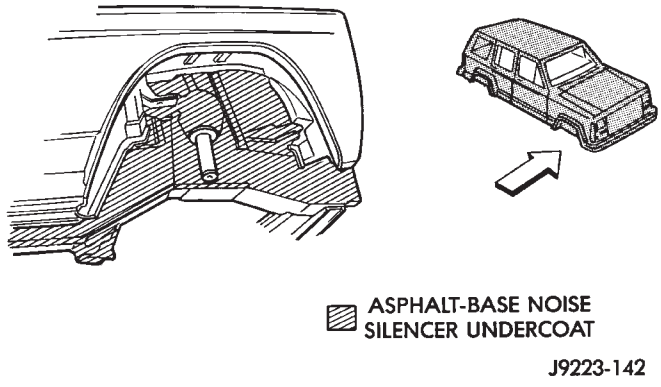

Fig. 11 Front Wheelhouse Undercoat—XJ Vehicles

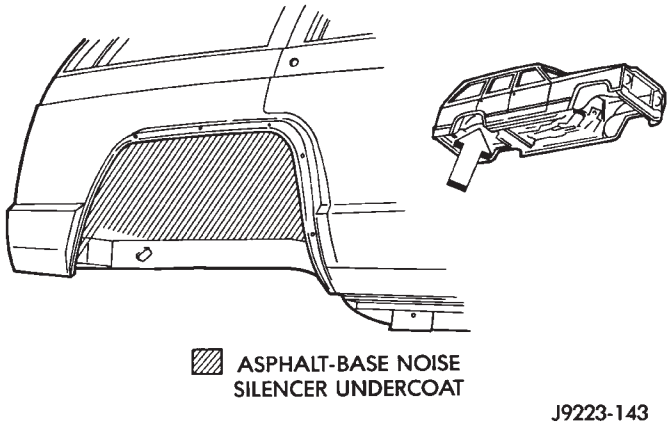

Fig. 12 Rear Wheelhouse Undercoat—XJ Vehicles

PLASTIC COMPONENTS

Plastic components are molded from three different types of plastic compounds. The three compounds are: ABS (acrylo-nitrile, butadiene, styrene); polypropylene and vinyl. Minor cracks in any of the three types can be repaired with 3M 8101 structural adhesive, or an equivalent product.

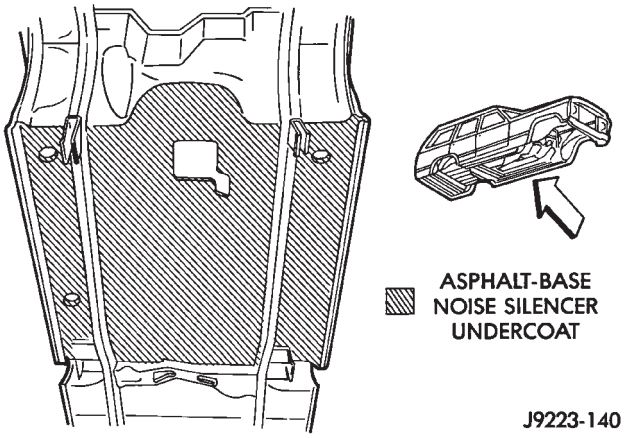

Fig. 13 Underbody Center Section Undercoat—XJ Vehicles

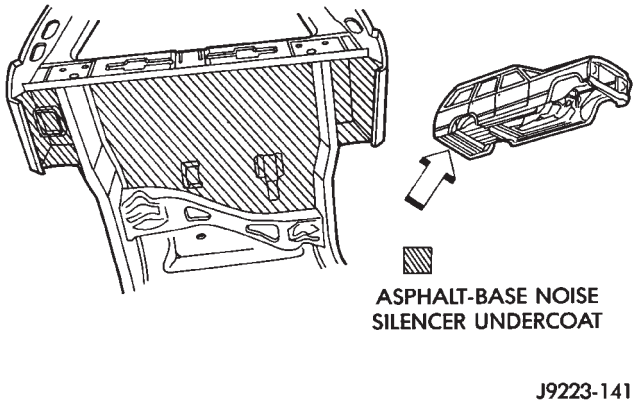

Fig. 14 Underbody Rear Section (Above Fuel Tank) Undercoat—XJ Vehicles

The three compounds can be identified with a flame test (Fig. 15). To perform the test, first cut a small sample of the material from a non-visible portion of the plastic. Then apply an open flame to the sample and observe the smoke or flame color.

ABS and polypropylene only require an open flame for testing. However, vinyl must be burned in combination with copper.

To test vinyl, heat a length of solid copper wire until it is red hot. Immediately apply the hot wire to the plastic sample until some of the material adheres to the copper. Then expose the copper wire and sample to an open flame (Fig. 15).

- ABS material will produce black smoke when burned.
- Polypropylene will produce little or no smoke.
- Vinyl will produce a blue green flame when burned in combination with copper.

EXTERIOR BODY COLORS

Exterior vehicle body colors are identified on the Vehicle Code plate. The plate is located on the left side of the dash panel in the engine compartment. The color code location is described in the Introduction of this manual.

OEM paint colors are generally available from all of the major paint suppliers. They are supplied in the form of either mixing formulas or factory packaged (pre-mixed) paint.

The exterior body and interior trim colors and corresponding Jeep™ paint codes are listed in the following charts.

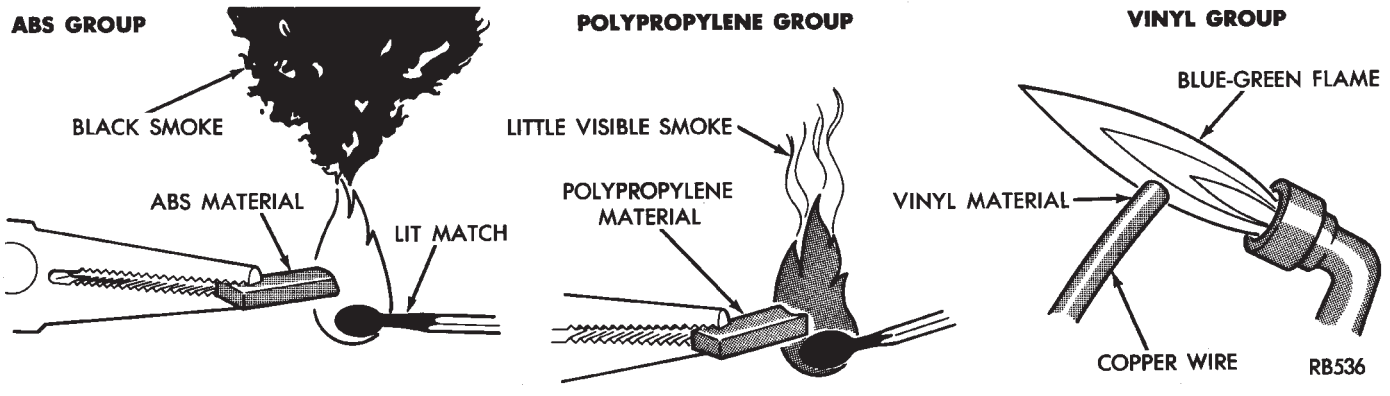

Fig. 15 Plastic Flame Tests

XJ EXTERIOR PAINT CODES

COLOR NAME	CHRY.[1] CODE	PPG	BASF	DuPONT	S-W ACME M-S	AKZO/ SIKKENS
Poppy Red C.C.	PR4	4679	23043	B9326	46916	CHA93:PR4
Lt. Champagne Met. C.C.	KV4	4320	21086	B9148	44429	CHA91:KV4
Glamour Tourquoise Met. C.C.	KQ2	4272	21073	B9133	44044	CHA91:KQ2
Hunter Green Met. C.C.	JG5	4329	21089	B9165	44900	CHA92:JG5
Jewel Blue P.C.	MC9	4449	22109	B9241	45868	CHA92:MC9
Black C.C.	DX8	9700	15214	99	34858	CHA85:DX8
Dk. Silver Met. C.C.	KS7	4272	21077	B9137	44046	CHA91:KS7
Bright White C.C.	GW7	4037	18238	B8833	37298	CHA88:GW7

[1]Standox and Spies Hecker use the Chrysler paint code as listed on the Vehicle Code Plate.

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XJ INTERIOR PAINT CODES

COLOR NAME	CHRY. CODE	PPG	BASF	DuPONT	S-W ACME M-S
Charcoal (HS1/HA8)	SA	34427/ 2-1312 34466/ 2-1323	18825 18826	C8823 C8824	38500/ 38501
Dk. Sand	Y6	26375/ 2-1358	19139	C8914	40079

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YJ EXTERIOR PAINT CODES

COLOR NAME	CHRY.[1] CODE	PPG	BASF	DuPONT	S-W ACME M-S	AKZO/ SIKKENS
Poppy Red C.C.	PR4	4679	23043	B9326	46916	CHA93:PR4
Lt. Champagne Met. C.C.	KV4	4320	21086	B9148	44429	CHA91:KV4
Glamour Tourquoise Met. C.C.	KQ2	4272	21073	B9133	44044	CHA91:KQ2
Hunter Green Met. C.C.	JG5	4329	21089	B9165	44900	CHA91:JG5
Jewel Blue P.C.	MC9	4449	22109	B9241	45868	CHA92:MC9
Black C.C.	DX8	9700	15214	99	34858 M-S 90-5950	CHA85:DX8
Dk. Silver Met. C.C.	KS7	4272	21077	B9137	44046	CHA91:KS7
Bright White C.C.	GW7	4037	18238	B8833	37298	CHA88:GW7

[1]Standox and Spies Hecker use the Chrysler paint code as listed on the Vehicle Code Plate.

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YJ INTERIOR PAINT CODES

COLOR NAME	CHRY. CODE	PPG	BASF	DuPONT	S-W ACME M-S
Cinder/Lt. Charcoal (HXA/HS1)	XS	35215/2-1445 34427/2-1312	18825 21009	C9127 C8823	44567 38500
Cinder/Radiant Red (HXA/KRC)	RX	35215/2-1445 73473/2-1427	21099 21096	C9127 C9118	44567 44569
Cinder/Dk. Green (HXA/LG8)	XG	35215/2-1445 47091/2-1464	21099 22138	C9127 C9272	44567 45995
Spice	TB	27240/2-1466	22142	C9253	45996

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TORQUE SPECIFICATIONS—XJ VEHICLES

Component	Service Set-To Torque	Service Recheck Torque
Hood Hinge-to-Hood Screws	31 N•m (23 ft-lbs)	24-37 N•m (18-27 ft-lbs)
Hood Hinge-to-Cowl Nuts	31 N•m (23 ft-lbs)	24-37 N•m (18-27 ft-lbs)
Hood Lock Assembly Attaching Screws	16 N•m (138 in-lbs)	14-27 N•m (125-235 in-lbs)
Hood Lock Striker-to-Hood Screws	16 N•m (138 in-lbs)	14-27 N•m (125-235 in-lbs)
Inside Hood Release Handle-to-Instrument Panel	8 N•m (78 in-lbs)	7-11 N•m (65-95 in-lbs)
Door Hinge Screws	35 N•m (26 ft-lbs)	30-40 N•m (22-30 ft-lbs)
Door Latch Screw	9 N•m (7 ft-lbs)	7-11 N•m (5-9 ft-lbs)
Exterior Door Handle Nut	5 N•m (4 ft-lbs)	4-6 N•m (3-5 ft-lbs)
Vent Window-to-Door Screw	1 N•m (1 ft-lb)	0.7-21 N•m (.5-1.5 ft-lb)
Door Check-to-A-pillar Screw	9 N•m (7 ft-lbs)	7-11 N•m (5-9 ft-lbs)
Door Check-to-Front Door Screw	10 N•m (7 ft-lbs)	10-11 N•m (7.4-8.1 ft-lbs)
Glass Channel Bottom Screw	9 N•m (7 ft-lbs)	7-11 N•m (5-8 ft-lbs)
Vent Window Upper Screws	1.2 N•m (1 ft-lb)	0.7-1 N•m (.5-1.5 ft-lbs)
Door Glass Stud Nut	6 N•m (4 ft-lbs)	5-7 N•m (4-6 ft-lbs)
Glass Panel Bottom Screw	9 N•m (7 ft-lbs)	7-11 N•m (5-8 ft-lbs)
Vent Window Upper Screws	1.2 N•m (1 ft-lb)	0.7-2 N•m (.5-1.5 ft-lbs)
Door Latch Screws	9 N•m (7 ft-lbs)	7-11 N•m (5-9 ft-lbs)
Exterior Door Handle Nut	5 N•m (4 ft-lbs)	4-6 N•m (3-5 ft-lbs)
Liftgate Hinge Screw	9 N•m (7 ft-lbs)	5-7 N•m (4-5 ft-lbs)
Liftgate Hinge Nut	9 N•m (7 ft-lbs)	5-7 N•m (4-5 ft-lbs)
Support Ball Stud	7 N•m (5 ft-lbs)	4-7 N•m (3-5 ft-lbs)
Liftgate Latch Screw	9 N•m (7 ft-lbs)	5-7 N•m (4-5 ft-lbs)
Striker Screw	30 N•m (22 ft-lbs)	18-26 N•m (13-18 ft-lbs)

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TORQUE SPECIFICATIONS—ACCESSORIES

COMPONENT	SERVICE SET-TO TORQUE	SERVICE RECHECK TORQUE
Towing tube-to-reinforcement bolt	50 N•m (37 ft-lbs)	40-60 N•m (30-44 ft-lbs)
T-bolt nut (M12 x 1.75)	85 N•m (63 ft-lbs)	75-95 N•m (56-70 ft-lbs)
Draw bar-to-towing tube bolt/nut (M12 x 1.75)	85 N•m (63 ft-lbs)	75-95 N•m (56-70 ft-lbs)
Rear crossmember-to-plate bracket bolt	52 N•m (40 ft-lbs)	42-62 N•m (34-46 ft-lbs)
Hitch ball-to-draw bar nut	217 N•m (160 ft-lbs)	—
Draw bar-to-draw bar bumper bracket bolt (M12 X 1.75)	85 N•m (63 ft-lbs)	75-95 N•m (56-70 ft-lbs)
Rear bumper-to-rear bumper reinforcement plate torx head bolt	20 N•m (15 ft-lbs)	15-25 N•m (11-18 ft-lbs)
Draw bar support bracket bolt (M12 x 1.75)	85 N•m (63 ft-lbs)	75-95 N•m (56-70 ft-lbs)
Trailer Hitch Bolts (Model 15)		
1/2 inch	102 N•m (75 ft-lbs)	—
5/8 inch	203 N•m (150 ft-lbs)	—
Luggage Rack Support Screws	3 N•m (28 in-lbs)	2-5 N•m (15-40 in-lbs)

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