

SECTION 01-11 Glass, Frames and Mechanisms

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VEHICLE APPLICATION

Capri.

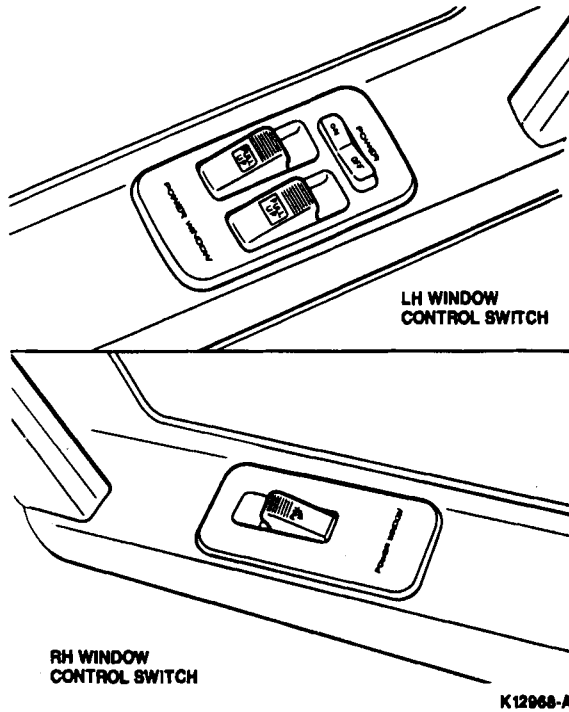
DESCRIPTION

Windshield

The front windshield on this vehicle meets or exceeds government safety standards. The glass is tinted to screen out the sun. The windshield is held in place with a urethane-type sealer.

DESCRIPTION (Continued)**Power Windows**

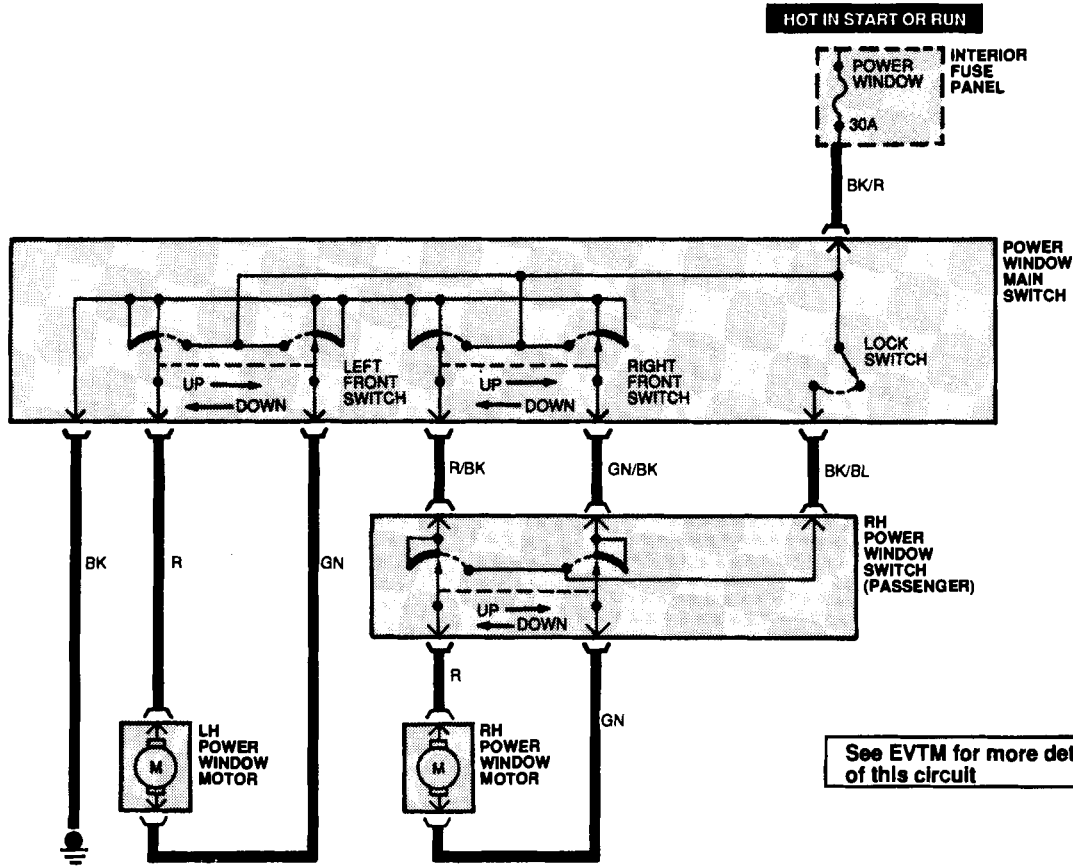
The power window switches are located on the door trim panels of the two doors. The master lockout switch is located on the LH door trim panel and can be used to deactivate both power window switches. A single power switch, located on the RH door trim panel will activate the RH window only.

**Rear Window Defroster**

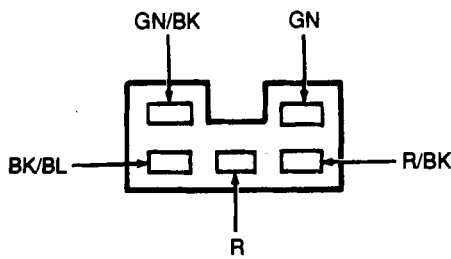
Refer to Section 12-00.

DIAGNOSIS AND TESTING

Electrical Schematic—Power Windows System

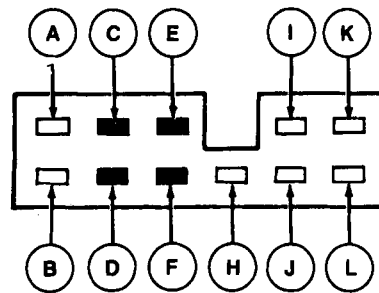


N9675-A



RH POWER WINDOW SWITCH

N9676-A



POWER WINDOW MAIN SWITCH

N9677-A

Pin Number	Wire Color	Circuit Function
A	BK/R	Power Supply
B	BK	Ground
C	—	Not Used
D	—	Not Used
E	—	Not Used

(Continued)

DIAGNOSIS AND TESTING (Continued)

Pin Number	Wire Color	Circuit Function
F	—	Not Used
H	BK/BL	Window Lock Switch
I	R/BK	RH Power Window Motor-Up

(Continued)

Pin Number	Wire Color	Circuit Function
J	GN/BK	RH Power Window Motor-Down
K	R	LH Power Window Motor-Up
L	GN	LH Power Window Motor-Down

System Inspection—Power Windows System

1. Visually inspect the components of the power windows system.

2. With the key in the RUN position, operate all the power window switches and listen to the motor for any mechanical concerns.
3. With the key in the RUN position, operate all the power window switches and verify the condition. Refer to the following condition chart.

VISUAL INSPECTION CHART

Mechanical	Electrical
<ul style="list-style-type: none"> ● Window Alignment ● Window Mounting (Regulator and Bracket) ● Window Frame Interference ● Noises While Operating 	<ul style="list-style-type: none"> ● Blown Fuse: <ul style="list-style-type: none"> ● 30 amp POWER WINDOW ● Damage to Wiring Harness ● Loose or Corroded Connections

CONDITION CHART—POWER WINDOWS SYSTEM

CONDITION	POSSIBLE SOURCE	ACTION
● Power Windows Not Working	<ul style="list-style-type: none"> ● Fuse. ● Power circuit. ● Ground circuit. ● Power window main switch. 	● Go to A1.
● Driver's Window Not Working	<ul style="list-style-type: none"> ● Power window motor. ● Power window motor circuit. ● Power window main switch. 	● Go to A7.
● Passenger Window Not Working	<ul style="list-style-type: none"> ● Power window motor. ● Power window passenger switch. ● Power window motor circuit. ● Power window passenger switch power circuit. 	● Go to A8.

PINPOINT TEST A—POWER WINDOWS SYSTEM

TEST STEP	RESULT	ACTION TO TAKE
A1 CHECK FUSE		
<ul style="list-style-type: none"> ● Locate the interior fuse panel. ● Key OFF. ● Remove and inspect 30 amp POWER WINDOW fuse. ● Is fuse OK? 	Yes	▶ GO to A5.
	No	▶ GO to A2.
A2 CHECK SYSTEM		
<ul style="list-style-type: none"> ● Replace 30 amp POWER WINDOW fuse. ● Key ON. ● Inspect fuse. ● Does the fuse fall again? 	Yes	▶ GO to A3.
	No	▶ GO to A4.
A3 CHECK POWER WINDOW OPERATION		
<ul style="list-style-type: none"> ● Key ON. ● Operate all power windows with switches one at a time. ● Are power windows operating properly? 	Yes	▶ Power window system OK.
	No	▶ GO to A5.

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST A — POWER WINDOWS SYSTEM (Continued)

TEST STEP		RESULT	ACTION TO TAKE
A4	CHECK FOR SHORT TO GROUND		
	<ul style="list-style-type: none"> ● Key OFF. ● Locate and disconnect interior fuse panel connector. ● Locate and disconnect power window main switch connector. ● Measure resistance between BK/R wire at interior fuse panel connector and ground. ● Is resistance greater than 10,000 ohms? 	Yes No	<ul style="list-style-type: none"> ▶ REPLACE power window main switch. ▶ SERVICE BK / R wire.
A5	CHECK POWER SUPPLY TO POWER WINDOW MAIN SWITCH		
	<ul style="list-style-type: none"> ● Locate and disconnect power window main switch connector. ● Key ON. ● Measure voltage on BK/R wire at power window main switch connector. ● Is voltage greater than 10 volts? 	Yes No	<ul style="list-style-type: none"> ▶ GO to A6. ▶ SERVICE BK / R wire between power window main switch and interior fuse panel.
A6	CHECK POWER WINDOW MAIN SWITCH GROUND		
	<ul style="list-style-type: none"> ● Key OFF. ● Disconnect power window main switch. ● Measure resistance between BK wire at power window main switch connector and ground. ● Is resistance less than 5 ohms? 	Yes No	<ul style="list-style-type: none"> ▶ GO to A7. ▶ SERVICE BK wire.
A7	CHECK POWER WINDOW MAIN SWITCH		
	<ul style="list-style-type: none"> ● Key ON. ● Locate power window main switch. ● Check voltages between the BK wire and the following wires shown in the chart while moving the power window main switch. ● Are all voltages correct? 	Yes No	<ul style="list-style-type: none"> ▶ Drivers window does not work. GO to A11. ▶ Passenger window does not work. GO to A8. ▶ REPLACE power window main switch.

		Wire Color				
		BK/BL	GN/BK	R/BK	GN	R
Drivers Side	Up				< 1V	> 10V
	Down				> 10V	< 1V

(Continued)

		Wire Color				
		BK/BL	GN/BK	R/BK	GN	R
Passenger Side	Up		< 1V	> 10V		
	Down		> 10V	< 1V		
ON/OFF Switch	ON	> 10V				
	OFF	< 1V				

TEST STEP		RESULT	ACTION TO TAKE
A8	CHECK WIRE TO PASSENGER SWITCH		
	<ul style="list-style-type: none"> ● Locate and disconnect power window passenger switch connector. ● Key ON. ● Push power switch on power window main switch to ON position. ● Measure voltage on BK/BL wire at passenger power window switch connector. ● Is voltage 10 volts or greater? 	Yes No	<ul style="list-style-type: none"> ▶ GO to A9. ▶ SERVICE BK / BL wire between power window main switch and passenger switch.
A9	CHECK PASSENGER SWITCH CIRCUIT CONTINUITY		
	<ul style="list-style-type: none"> ● Key OFF. ● Disconnect power window main switch. ● Disconnect power window passenger switch. ● Measure resistance of the GN/BK and R/BK wires between the power window main switch connector and the passenger switch connector. ● Is resistance less than 5 ohms? 	Yes No	<ul style="list-style-type: none"> ▶ GO to A10. ▶ SERVICE GN / BK and / or R / BK wire(s) between power window main switch and passenger switch.

DIAGNOSIS AND TESTING (Continued)

TEST STEP		RESULT	ACTION TO TAKE									
A10	CHECK POWER WINDOW PASSENGER SWITCH <ul style="list-style-type: none"> ● Key ON. ● Push power switch on the power window main switch to the ON position. ● Check voltages between the following wires and ground while moving the switch. <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th></th> <th>GN</th> <th>R</th> </tr> </thead> <tbody> <tr> <td>Up</td> <td>Less than 1 volt</td> <td>Greater than 10 volts</td> </tr> <tr> <td>Down</td> <td>Greater than 10 volts</td> <td>Less than 1 volt</td> </tr> </tbody> </table> <ul style="list-style-type: none"> ● Are voltages correct? 		GN	R	Up	Less than 1 volt	Greater than 10 volts	Down	Greater than 10 volts	Less than 1 volt	Yes No	<ul style="list-style-type: none"> ▶ GO to A11. ▶ REPLACE power window passenger switch.
	GN	R										
Up	Less than 1 volt	Greater than 10 volts										
Down	Greater than 10 volts	Less than 1 volt										
A11	CHECK POWER WINDOW MOTOR CIRCUIT CONTINUITY <ul style="list-style-type: none"> ● Key OFF. ● Disconnect power window main switch and power window passenger switch. ● Disconnect power window motors. ● Measure resistance of the R and GN wires between the power window switches and power window motors. ● Is resistance less than 5 ohms? 	Yes No	<ul style="list-style-type: none"> ▶ GO to A12. ▶ SERVICE wire(s) in question. 									
A12	CHECK POWER WINDOW MOTOR FUNCTION <ul style="list-style-type: none"> ● Key OFF. ● Disconnect power window motor(s). ● Apply 12 volts to one lead of the power window motor connector and ground the other lead. ● Reverse polarity for two seconds. ● Does power window motor operate in both directions? 	Yes No	<ul style="list-style-type: none"> ▶ RETURN to condition chart. ▶ REPLACE power window motor(s) in question. 									

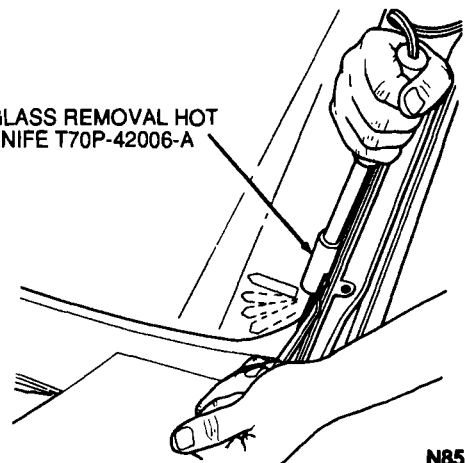
REMOVAL AND INSTALLATION

Windshield

Removal

1. Remove windshield wiper arms and blades. Refer to Section 01-16.
2. Remove windshield mouldings. Refer to Section 01-08.
3. Remove rear view mirror. Refer to Section 01-09.
 - a. Remove mirror bracket and screw.
 - b. Slide mirror assembly upward to remove from windshield retainer.
4. Insert blade of Glass Removal Hot Knife T70P-42006-A or equivalent (also available from Saf-Ti Glass Distributors, Troy, MI) into urethane seal.
5. With knife handle extended, pull knife blade through urethane seal and foam dam around entire edge of glass. Continue until all urethane is cut.
 NOTE: A long-bladed knife may be needed to cut urethane along bottom of windshield.
6. Remove windshield from vehicle.

GLASS REMOVAL HOT KNIFE T70P-42006-A



N8536-B

7. Remove any excess urethane from the flange with a utility knife or razor blade until surface is smooth and free of cuts. Use care not to smear urethane on component parts.
 NOTE: It is not necessary to remove all of the urethane from flange if it is cured. However, at no point should the existing urethane material exceed 2.5mm (0.10 inch) above the flange.

REMOVAL AND INSTALLATION (Continued)

8. Check flange seating area for damaged sheet metal or foreign objects which may have caused, or may cause, glass breakage. Service metal if necessary.

Installation

NOTE: Use Urethane Kit E0AZ-19562-A or equivalent for windshield installation.

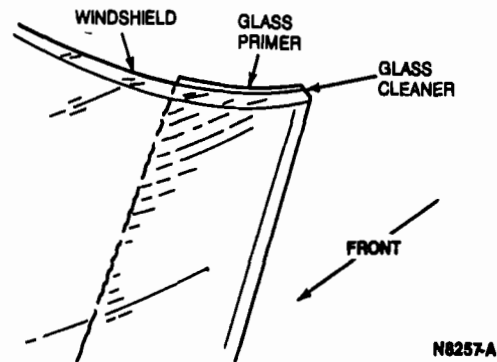
1. If existing urethane on metal flange has become contaminated, cut away contaminated urethane with a utility knife or razor blade.
2. If painted sheet metal has been exposed anywhere along the flange, apply Urethane Metal Primer ESB-M2G234-A or equivalent over the painted surface using a clean brush.

NOTE: A minimum of 30 minutes is required for primer to dry.

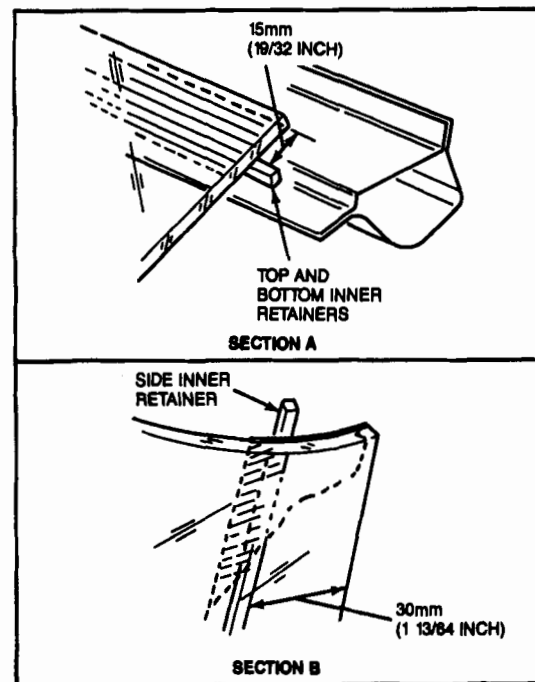
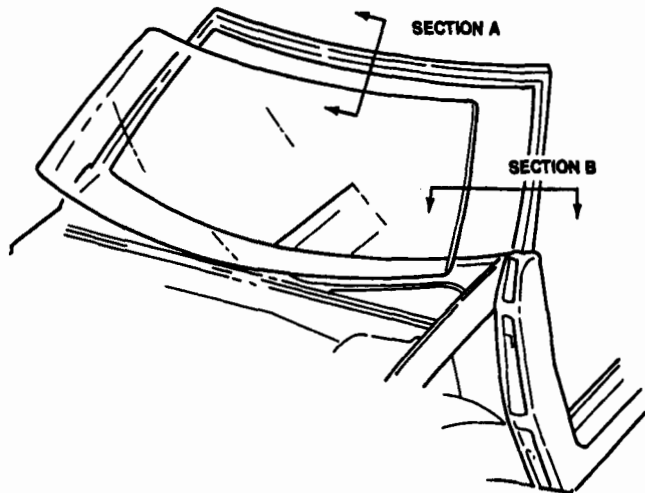
3. Place windshield on a low, stable work surface facing inside up.
4. Using a lint free cloth, wipe inside windshield periphery with Urethane Glass Cleaner ESB-M5B280-A or equivalent.

NOTE: Wipe off cleaner immediately after application because it flash dries.

5. Thoroughly shake and stir Urethane Glass Primer ESB-M2G224-A or equivalent to ensure uniform mixing.
6. Using a clean brush, apply primer to inside windshield periphery. Allow at least five minutes drying time.



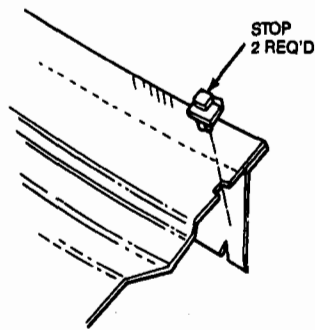
7. Install horizontal inner retainers 15mm (19/32 inch) in from the top and bottom of the inside of the windshield. Install vertical inner retainers 30mm (1-13/64 inch) from both sides of the inside of the windshield.



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REMOVAL AND INSTALLATION (Continued)

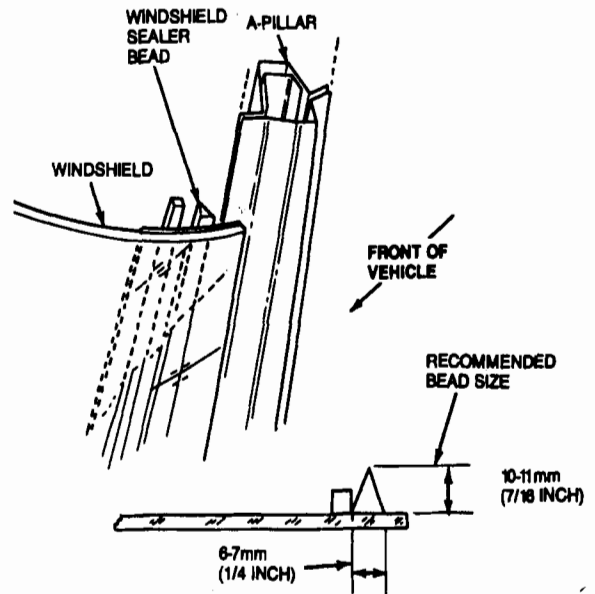
8. Install two new stops.



N8258-A

9. Install windshield into opening. Position glass in opening evenly between A-pillars. The difference from side-to-side must be less than 1.5mm (1/16 inch).
10. Using masking tape or crayon, make alignment marks at points on each of the four sides of both the glass and the window opening.
11. Remove glass from vehicle and place back on work table.
- NOTE: If all the urethane has been removed from the window opening down to the metal flange, the urethane bead should be applied to the periphery of the inside surface of the glass. The bead should be triangular in shape, 14.0mm (9/16 inch) high.
12. Apply an even bead of Urethane ESZ-M2G336-A or equivalent, on top of existing urethane around entire window opening or onto the inside periphery of the windshield. The bead should be large enough to seal windshield but not cause expulsion over retainers.

NOTE: The glass must be installed within 10 minutes of applying the urethane.



N8259-A

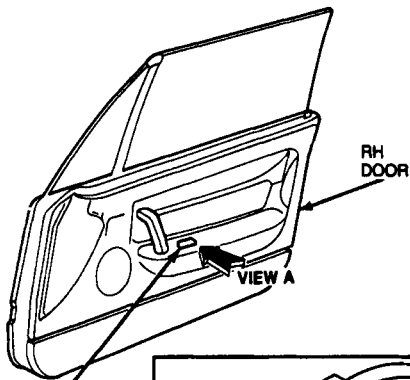
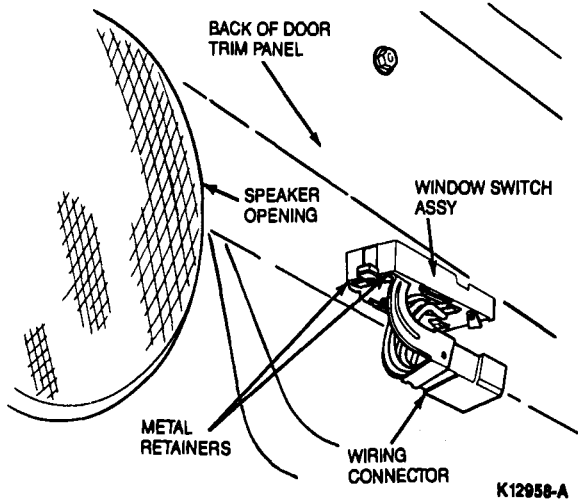
13. Install the glass assembly onto the vehicle, taking care to align marks on glass to those on window opening. Press glass into place around the entire perimeter to provide a complete seal.
14. After urethane has "skinned over" (approximately 20 minutes), test window for water leaks. If necessary, use Liquid Butyl Sealer C9AZ-19554-B (ESB-M4G 162-A) or equivalent to service leaks (fill gaps) in urethane seal.
15. Install windshield mouldings. Refer to Section 01-08.
16. Clean windshield and install rear view mirror. Refer to Section 01-09.

Door Window Switch**Removal and Installation**

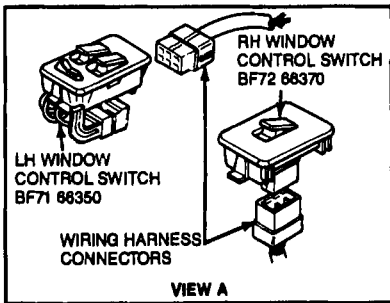
1. Remove door trim panel and watershield. Refer to Section 01-05.
2. Disconnect electrical connector at switch.
3. Depress metal retainers on bottom of switch, and push switch out of door trim panel.

REMOVAL AND INSTALLATION (Continued)

4. To install, reverse Removal procedure.



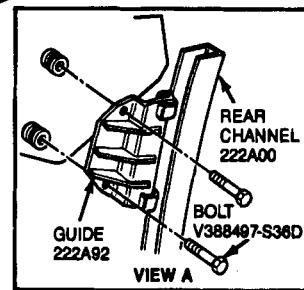
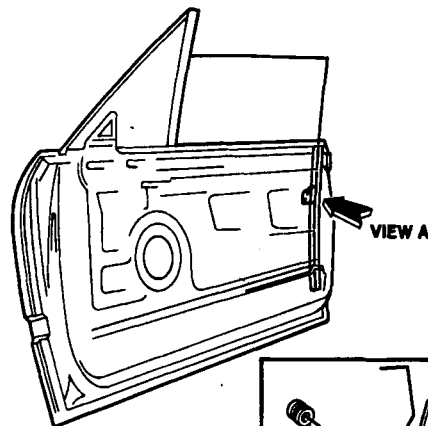
PUSH SWITCH UPWARD FROM INSIDE DOOR TRIM PANEL



Window Guide

Removal and Installation

1. Remove door trim panel and watershield. Refer to Section 01-05. Leave power window switch connected.
2. Position window to allow access to guide retaining bolts.
3. Remove bolts and slide guide out from channel.
4. To install, reverse Removal procedure.
5. Adjust as outlined.



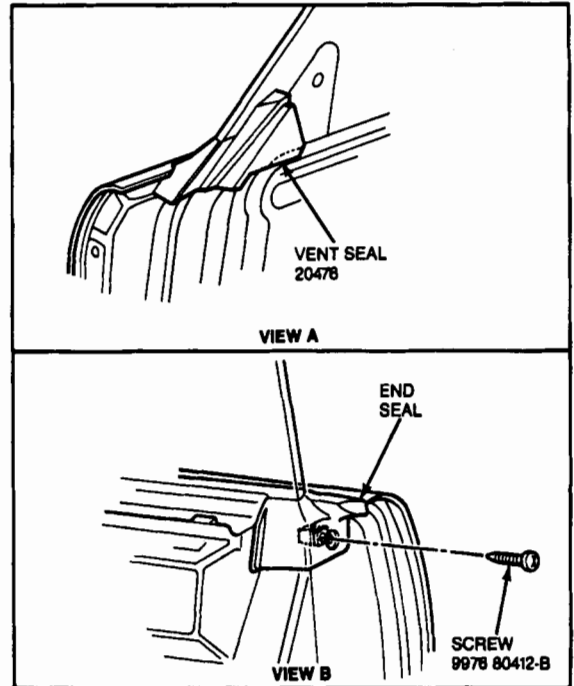
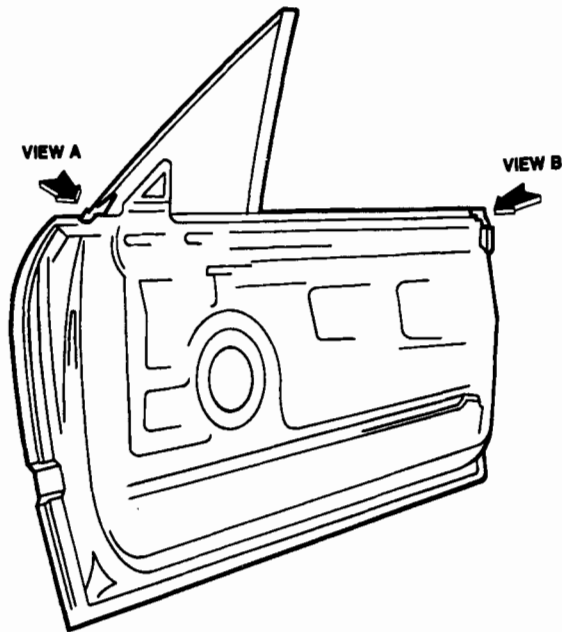
Window Glass

Removal and Installation

1. Remove door trim panel and watershield. Refer to Section 01-05. Leave power window switch connected.

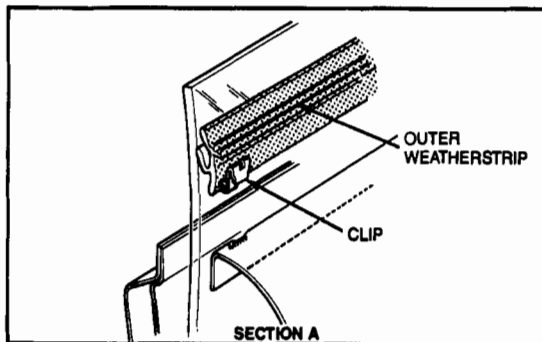
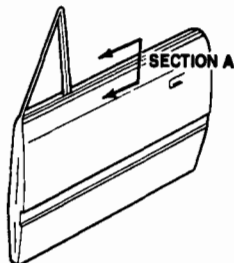
REMOVAL AND INSTALLATION (Continued)

2. Remove screw and end seal.



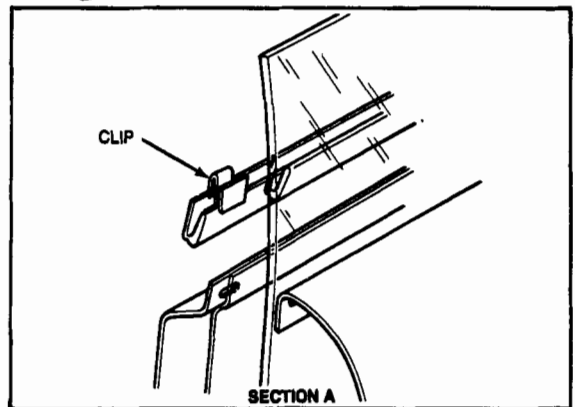
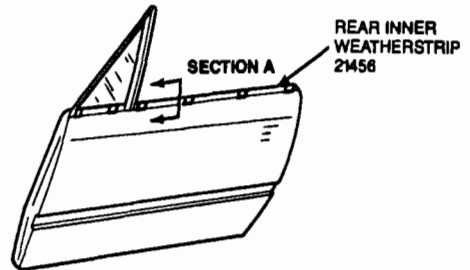
K14138-A

3. Remove outer weatherstrip.



K14139-A

4. Remove rear inner weatherstrip.

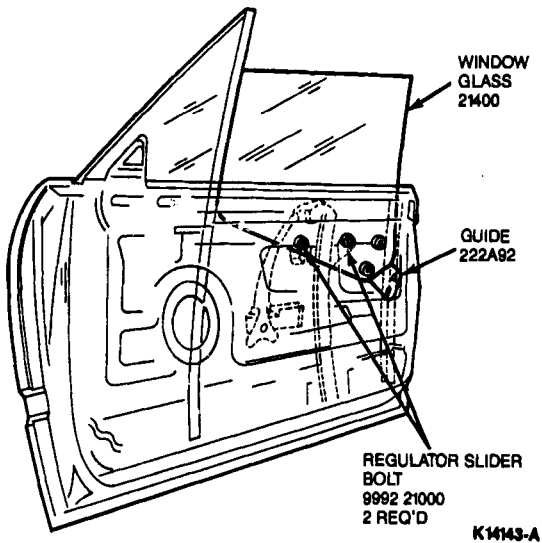


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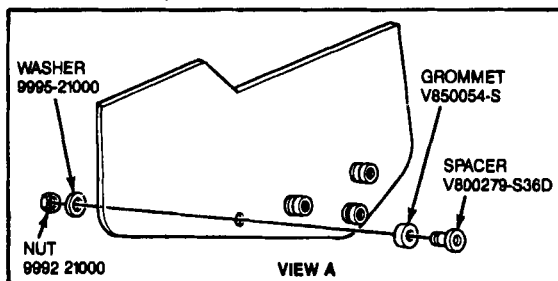
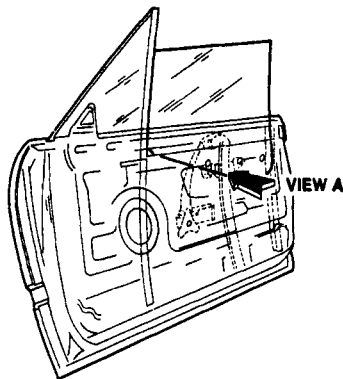
5. Remove guide bolts and allow guide to drop to the bottom of channel.

REMOVAL AND INSTALLATION (Continued)

6. Support window and remove both regulator slider retaining bolts.

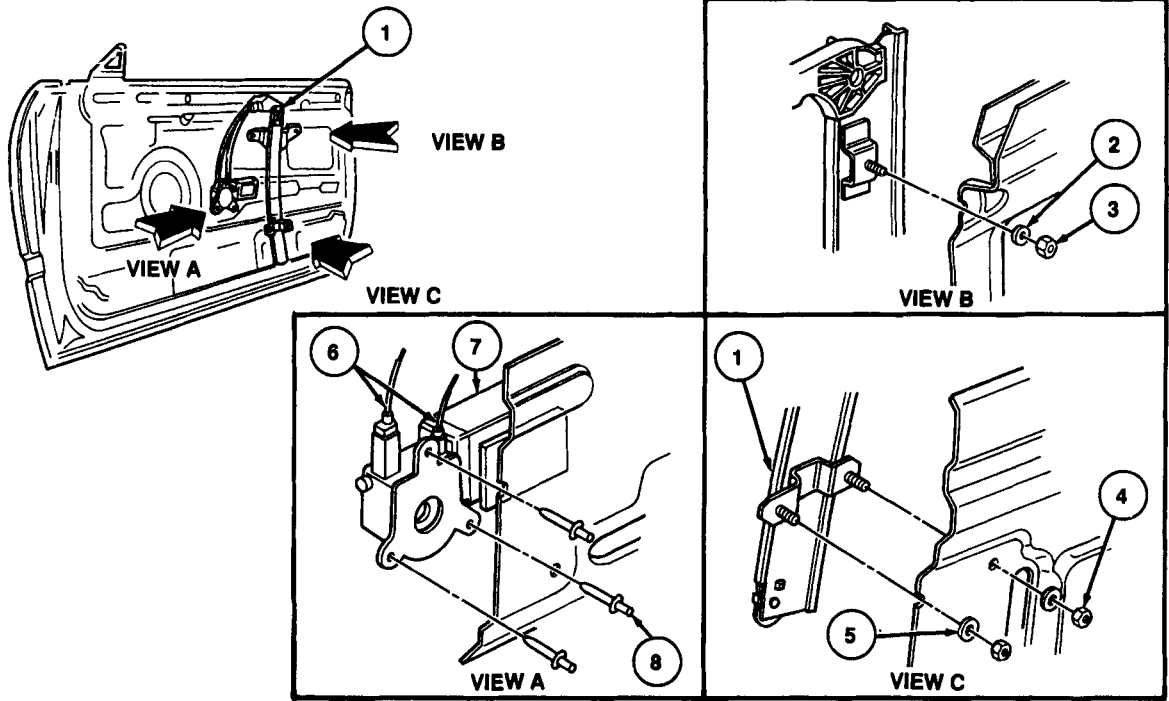


7. Remove window glass from door.
8. Remove nut, washer, grommet, and spacer as required.
9. To install, reverse Removal procedure. Adjust stops and channels as outlined.

**Motor, Regulator Assembly****Removal**

1. Raise the window and support in the full-up position. If the glass cannot be raised and is in a partially down or full-down position, it must be supported so that it will not fall into the door during removal of the motor.
2. Remove door trim panel and watershield. Refer to Section 01-05.
3. Disconnect window motor electrical connector.
4. Remove three window motor retaining rivets.
5. Remove the three nuts securing window slide track to door frame.

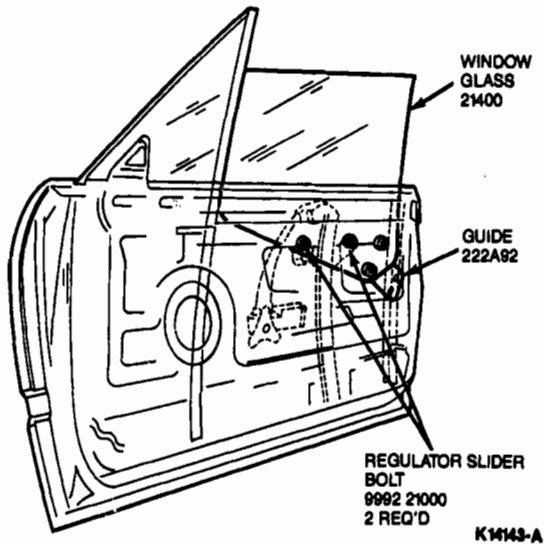
REMOVAL AND INSTALLATION (Continued)



Item	Part Number	Description
1	23200	Window Regulator Assy
2	—	Washer
3	—	Securing Nut
4	9994-00600	Securing Nut
5	E830104-S36D	Washer
6	—	Cables
7	—	Motor
8	V840066-S	Rivet (3 Req'd)

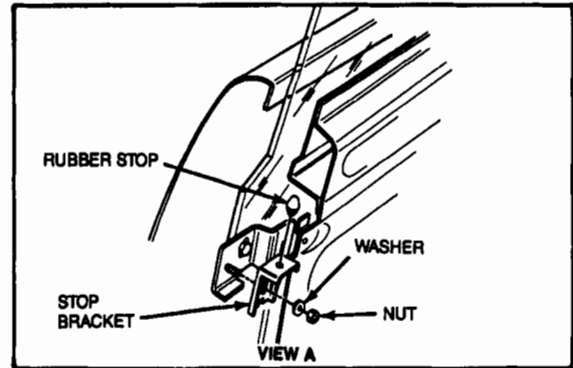
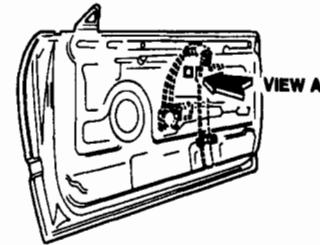
REMOVAL AND INSTALLATION (Continued)

- 6. Remove two bolts retaining regulator slider to window.



- 7. Remove motor, regulator cables and slide track as a unit.
- 8. Remove stop bracket if necessary.

- 9. To install, reverse Removal procedure. Adjust door glass as outlined.

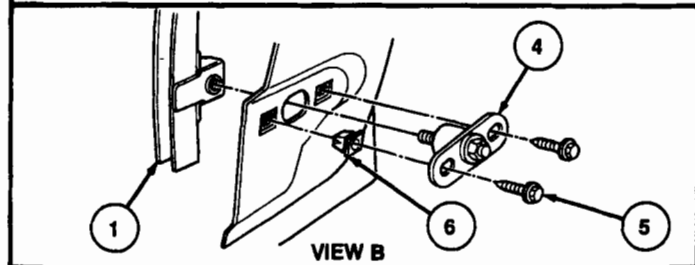
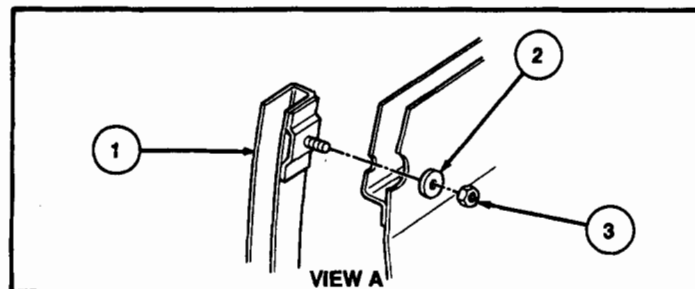
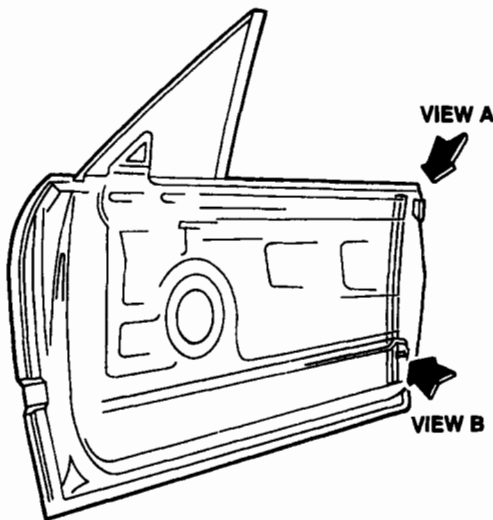


Window Channel, Rear

Removal and Installation

- 1. Remove door trim panel and watershield. Refer to Section 01-05.
- 2. Remove window glass as outlined.

- 3. Remove upper nut and washer.
- 4. Remove two screws connecting adjuster assembly.
- 5. Remove rear channel assembly.
- 6. To install, reverse Removal procedure. Adjust door glass as outlined.



K14145-B

REMOVAL AND INSTALLATION (Continued)

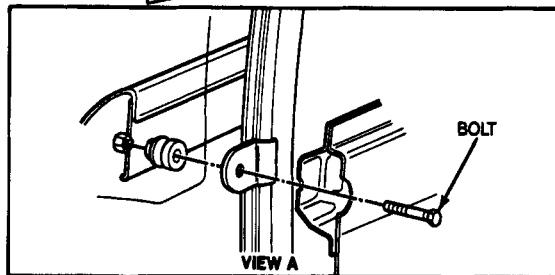
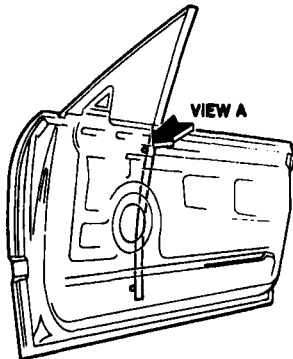
Item	Part Number	Description
1	222A10	Rear Channel
2	9995-20600	Washer
3	9994-00600	Nut
4	23210	Adjuster
5	V810073-S36D	Screw
6	9991-00601	Pushnut

Door Quarter Window

NOTE: The front window channel is part of the quarter window assembly.

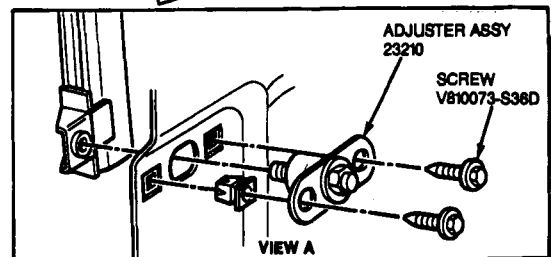
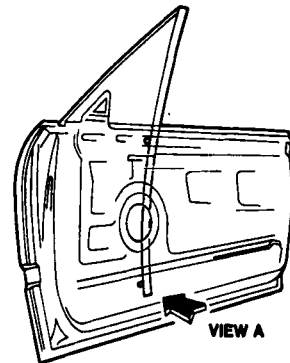
Removal and Installation

1. Remove door trim panel and watershield. Refer to Section 01-05.
2. Remove side view mirror. Refer to Section 01-09.
3. Remove door window glass as outlined.
4. Remove bolt retaining front window channel to door frame.



K1416-A

5. Remove two adjuster assembly retaining screws.

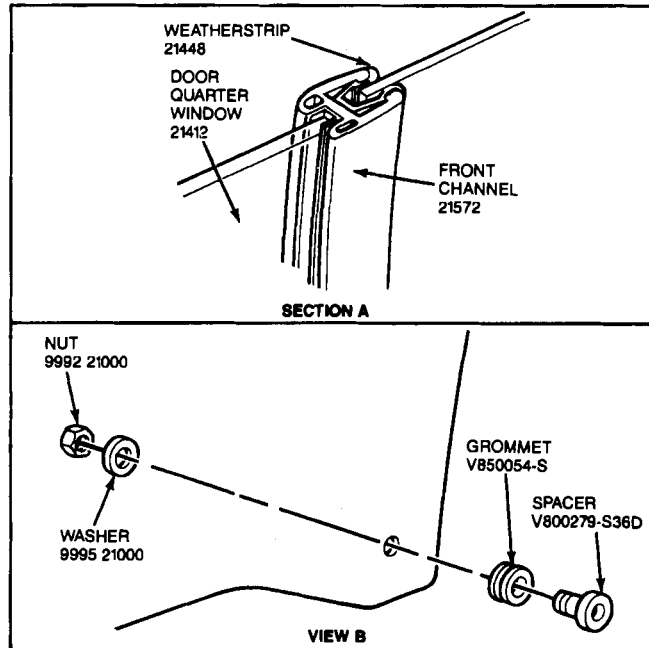
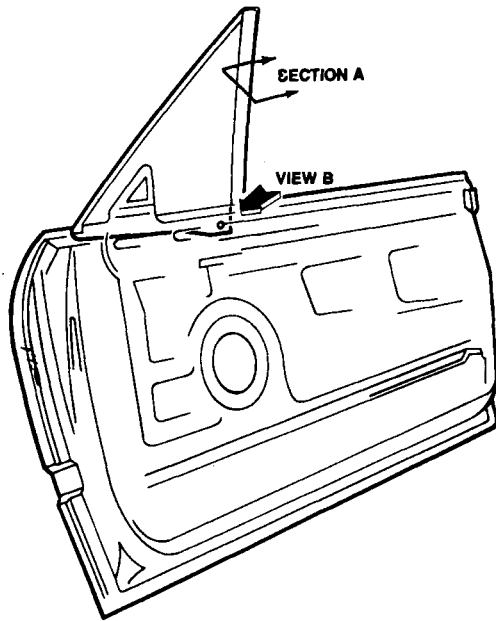


K1417A

6. Lift up on lower front edge of window and pull out of track.
7. Remove quarter window and front channel.
8. Remove nut, washer, grommet and spacer if required.
9. Remove weatherstrip from front channel if required.

REMOVAL AND INSTALLATION (Continued)

10. To install, reverse Removal procedure. Adjust door quarter window as outlined.



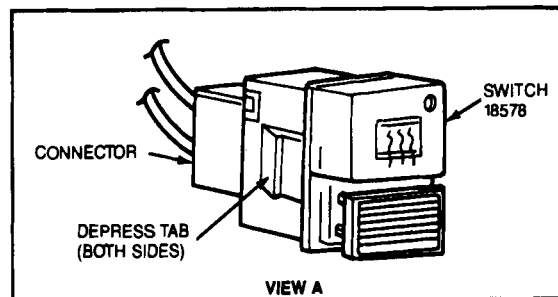
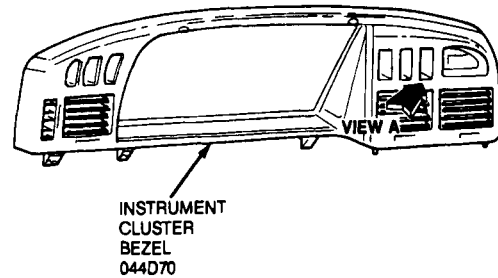
K14148-A

ON/OFF Switch, Rear Window Defroster

NOTE: For diagnosis and testing of rear window defrost circuit, refer to Section 12-00 Climate Control System Service.

Removal and Installation

1. Disconnect negative battery cable.
2. Remove instrument cluster bezel. Refer to Section 01-12.
3. Disconnect electrical connector from switch.
4. Depress tangs on both sides of switch and remove from bezel.
5. To install, reverse Removal procedure.

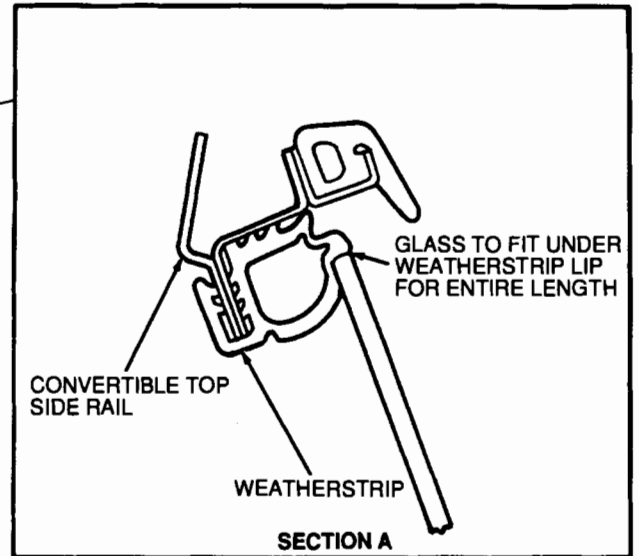
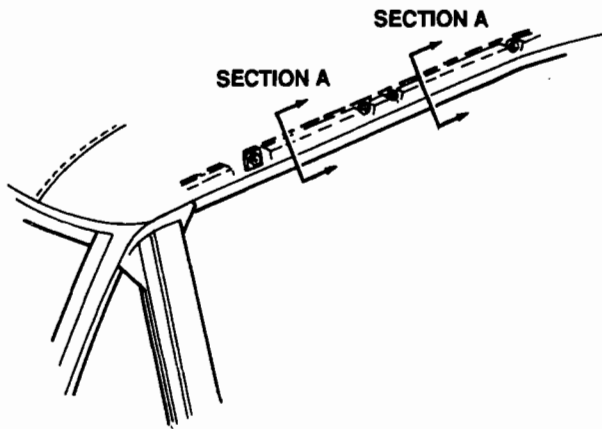


K13736-A

ADJUSTMENTS

Door Glass Lateral Adjustment

1. Make sure upper edge of door glass is seated under lip of weatherstrip when glass is fully raised. If adjustment is required, proceed to Step 2.

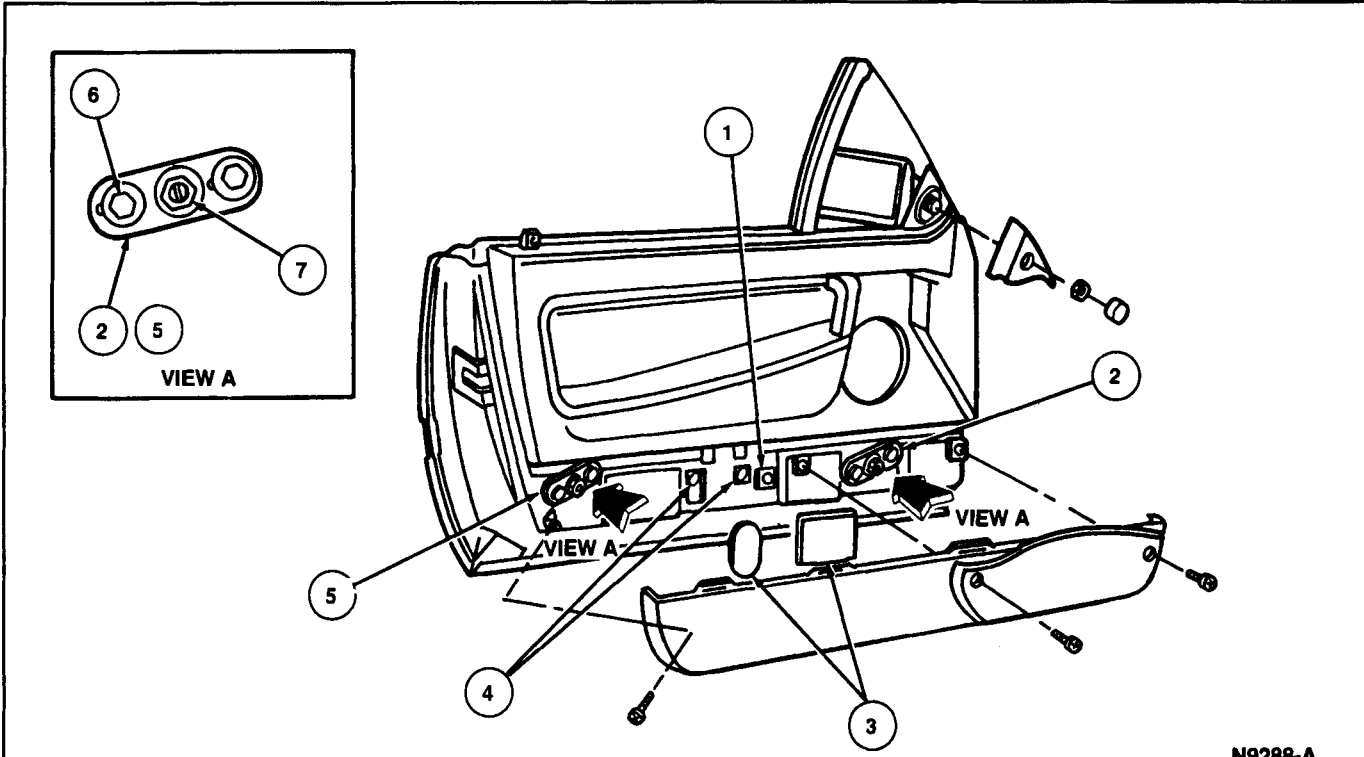


N9349-A

2. Leave door glass in raised position.
3. Remove lower door trim panel. Refer to Section 01-05.
4. Loosen adjuster locknut at lower end of front door glass channel.

5. Turn adjuster screw in or out to obtain correct positioning of glass under weatherstrip.
6. Tighten adjuster locknut to 5-7 N·m (45-61 lb-in).

ADJUSTMENTS (Continued)



N9288-A

Item	Part Number	Description
1	—	Height Stop Screw
2	—	Front Channel Adjuster
3	—	Door Watershields
4	—	Regulator-to-Glass Bolts
5	—	Rear Channel Adjuster
6	—	Longitudinal Adjustment Bolts
7	—	Lateral Adjustment Bolts

- 7. Raise and lower door glass to ensure glass is correctly adjusted.
- 8. Install lower door trim panel. Refer to Section 01-05.

- 5. Tighten regulator-to-glass bolts to 5-7 N·m (45-61 lb-in).
- 6. Lower and raise door glass several times to make sure alignment is correct.
- 7. Install watershields and lower door trim panel. Refer to Section 01-05.

- Door Glass Longitudinal Adjustment**
- 1. Make sure full length of door glass is seated under lip of weatherstrip when door glass is fully raised. Refer to illustration under Door Glass Lateral Adjustment, Step 1. If adjustment is required, proceed to Step 2.
 - 2. Remove lower door trim panel and watershields.
 - 3. Working through openings in door, loosen two regulator-to-glass bolts. Refer to illustration under Door Glass Lateral Adjustment, Step 6.
 - 4. Align door glass so it contacts weatherstrip evenly front-to-back and is fully seated in weatherstrip.

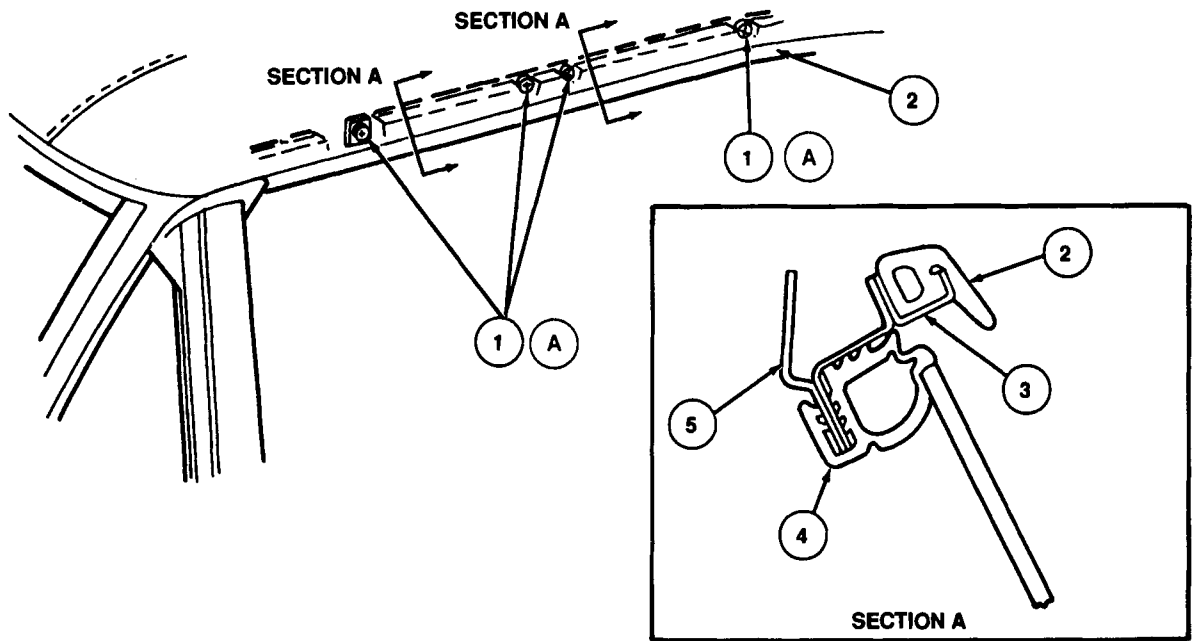
- Door Glass Height Stop Adjustment**
- 1. Lower window.
 - 2. Remove lower door trim panel. Refer to Section 01-05.
 - 3. Loosen height stop bracket retaining screw. Refer to illustration under Door Glass Lateral Adjustment, Step 6.
 - 4. Raise door glass until it is seated correctly in weatherstrip.
 - 5. Tighten height stop bracket to 7-10 N·m (62-88 lb-in).

ADJUSTMENTS (Continued)

- | | |
|---|--|
| <p>6. Lower and raise door glass to make sure alignment is correct.</p> | <p>7. Install lower door trim panel. Refer to Section 01-05.</p> |
|---|--|

- Door Glass Rear Channel Adjustment**
- NOTE: The rear channel adjustment must be correct to ensure that door glass moves freely up and down.
- | | |
|---|--|
| <p>1. Lower door glass.</p> <p>2. Remove lower door trim panel. Refer to Section 01-05.</p> <p>3. Loosen two longitudinal adjustment bolts on rear channel adjuster. Refer to illustration under Door Glass Lateral Adjustment, Step 6.</p> | <p>4. Raise and lower door glass, then tighten adjustment bolts to 2.7-3.2 N·m (24-28 lb-in).</p> <p>5. Loosen lateral adjuster screw locknut and turn adjuster screw in or out to relieve any tension on door glass channel. Tighten locknut to 5-7 N·m (44-61 lb-in).</p> <p>6. Raise and lower door glass to ensure it moves freely up and down.</p> <p>7. Install lower door trim panel. Refer to Section 01-05.</p> |
|---|--|

- Shingle Weatherstrip Adjustment**
- | | |
|--|---|
| <p>1. Loosen four weatherstrip retaining screws.</p> | <p>2. Position weatherstrip so metal frame is even with lower edge of convertible top side rail.</p> <p>3. Tighten retaining screws to 2.5-3.2 N·m (23-28 lb-in).</p> |
|--|---|



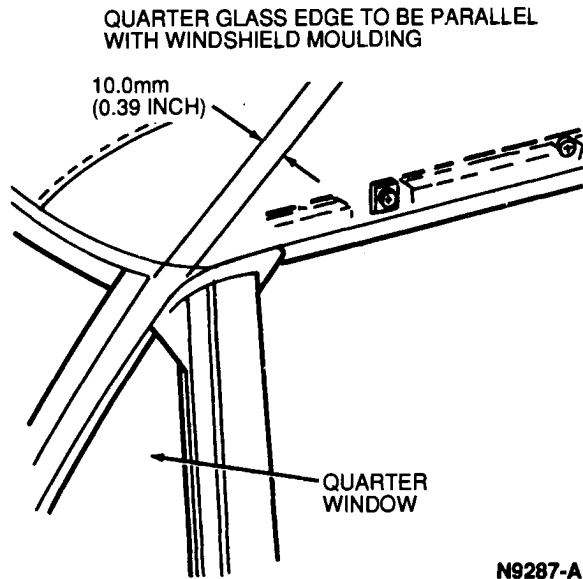
N9451-A

Item	Description
1A	Shingle Weatherstrip Adjustment Screws
2	Shingle Weatherstrip
3	Shingle Metal Frame
4	Weatherstrip
5	Convertible Top Side Rail
A	Tighten to 2.5-3.2 N·m (23-28 Lb-In)

ADJUSTMENTS (Continued)

Quarter Glass Fore and Aft Adjustment

1. With door closed and correctly aligned, check leading edge of quarter window glass to make sure it is parallel to A-pillar windshield moulding. If adjustment is needed, proceed to Step 2.

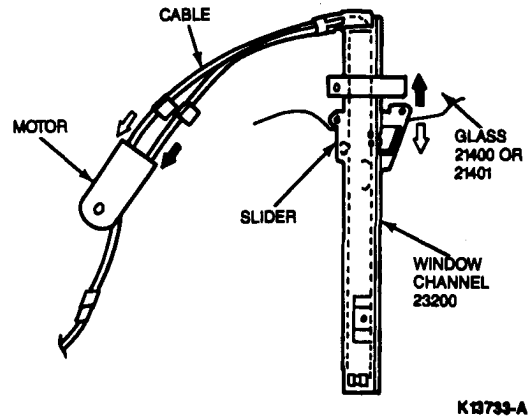


2. Remove lower door trim panel. Refer to Section 01-05.
3. Remove mirror bezel and loosen mirror retaining nut.
4. Loosen two screws on front window channel adjuster. Refer to illustration under Door Glass Lateral Adjustment, Step 6.
5. Align quarter glass as required. Tighten adjuster plate bolts to 2.7-3.2 N·m (24-28 lb-in).
6. Tighten mirror retaining nut to 3.5-4.5 N·m (31-39 lb-in).
7. Install mirror bezel.
8. Install lower door trim panel. Refer to Section 01-05.

LUBRICATION

The front door windows are operated by two encased cables. The cables are attached from the motor to the regulator's slider bracket. The cables are secured by nylon fasteners inside the door. Lubrication of the cables is not necessary.

The door window mechanism should be well-lubricated to provide ease of operation. The mechanism should be lubricated whenever the glass channel or window regulator is removed or when excessive effort is required to operate the windows. To lubricate the door window mechanism, apply an even coating of Multi-Purpose Grease, DOAZ-19584-A (ESR-M1C159-A and ESB-M1C106-B) or equivalent to the window regulator guides and entire length of channel.



MAJOR SERVICE OPERATIONS

Grid Wire Service, Rear Window Defroster

Any break in the grid longer than 25mm (1 inch) cannot be serviced. The rear window must be replaced. For breaks less than 25mm (1 inch) use the following procedures:

NOTE: If the first layer of the heated rear window grid is damaged or missing, it will be necessary to apply brown acrylic touch-up paint, Part No. AL81-5477-B or equivalent, on the glass prior to applying Rear Window Defroster Repair Kit D8AZ-19562-A (ESB-M4J58-A), or equivalent.

Inoperative grid wires on heated rear windows should be serviced by using Rear Window Defroster Repair Kit D8AZ-19562-A (ESB-M4J58-A) or equivalent.

Surface Preparation

1. The vehicle should be brought inside and brought to room temperature.
2. Clean the entire grid line repair area with Ultra-Clear Spray Glass Cleaner E4AZ-19C507-AA (ESR-M14P5-A) or equivalent, or other suitable cleaning solvent to remove all dirt, wax, grease, oil or other foreign matter. It is important that the area being serviced be clean and dry.

CAUTION: Do not use scrapers, sharp instruments, or abrasive cleaners on the interior surface of the rear window, as this may cause damage to the grid lines.

MAJOR SERVICE OPERATIONS (Continued)

Mixing

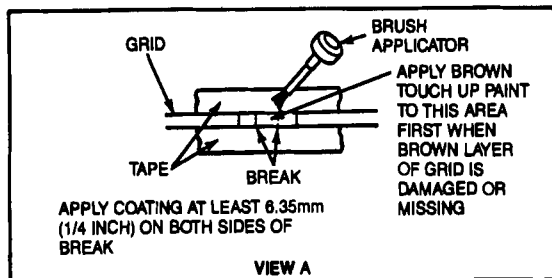
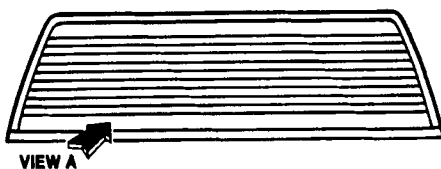
The bottle of Rear Window Defroster Repair D8AZ-19562-A (ESB-M4J58-A) or equivalent and touch-up paint (if needed) must be at room temperature. Shake bottle for at least one minute for thorough mixing. Shake frequently during use.

Application

1. Mark the location of the break on the outside of the window.
2. Using cellulose tape, mask off the area directly above and below the grid break. The break area should be at the center of the mask and the tape gap must be no wider than the existing grid line.
3. If both brown and silver layers of the grid are broken or missing, apply a coating of the brown touch-up paint across the break area first. Two coats may be necessary to obtain the proper color. Allow the touch-up paint to dry.
4. Apply the grid repair compound in several smooth continuous strokes (allowing three to five minutes drying time between coats) across the break area using the brush applicator in the cap. Extend the service coating at least 6.35mm (1/4 inch) on both sides of the break area.
5. Allow to dry for five minutes, then remove the mask.
6. Check the outside appearance of the grid area being serviced. If the silver grid repair compound is visible above or below the grid, remove the excess.

This can be done by placing a single-edge razor blade on the glass parallel to the grid and scraping gently toward the grid.

CAUTION: Be careful not to damage the grid line with the razor blade.



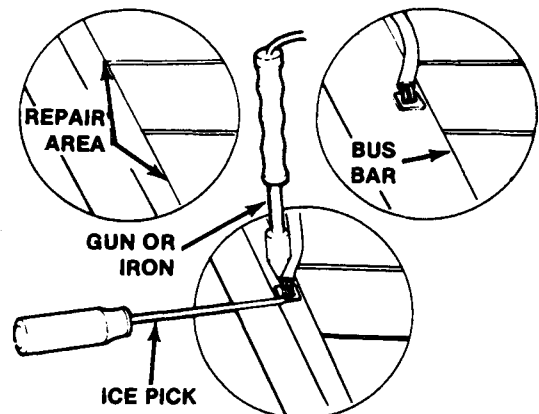
K13737-A

Curing

The grid repair compound will air dry in about one minute and can be energized within three minutes. Optimum hardness and adhesion occurs after approximately 24 hours. At that time, the area being serviced may be cleaned with a mild window cleaner.

Bus Bar Terminal Service

1. Allow the rear window to warm up to room temperature for a half hour to an hour.
2. Clean the bus bar in the area to be serviced using fine steel wool (3/0 to 4/0 grade).
3. Restore the area where the bus bar terminal was originally attached by applying three coats of Rear Window Defroster Repair D8AZ-19562-A (ESB-M4J58-A) or equivalent. Allow approximately 10 minutes drying time between coats.
4. Working as quickly as possible to avoid overheating the glass, tin the bus bar with solder in the area where the terminal will be attached.
5. Prior to soldering the terminal on, use a heat gun or heat lamp to pre-heat the glass in the solder area to 49-65°C (120-150°F).
6. Position the terminal on the bus bar in the area that was tinned and hold it in place with an ice pick or screwdriver.



K7741-A

7. Apply soldering heat to the pad of the terminal until the solder flows.

CAUTION: To avoid damaging the bus bar, remove the soldering gun or iron as soon as the solder flows.
8. Start the vehicle. Turn the rear window defroster ON and leave it on for five minutes. Inspect the terminal and apply Rear Window Defroster Repair D8AZ-19562-A (ESB-M4J58-A) or equivalent grid repair compound to the required area.

SPECIFICATIONS

TORQUE SPECIFICATIONS		
Description	N-m	Lb-in
Door Glass Channel Adjuster Lock Nut	5-7	45-61
Door Glass Channel Adjuster Bolts	2.7-3.2	24-28
Regulator-to-Glass Bolts	5-7	45-61
Height Stop Adjustment Bracket	7-10	62-88
Shingle Weatherstrip Screws	2.5-3.2	23-26

SPECIAL SERVICE TOOLS

Tool Number	Description
T70P-42008-A	Glass Removal Hot Knife