SECTION 10-2

STATIONARY WINDOWS

CAUTION: When replacing stationary windows, urethane adhesive kit GM P/N 12346284, or equivalent, must be used to maintain original installation integrity. Failure to use the urethane adhesive kit will result in poor retention of the windshield which may allow unrestrained occupants to be ejected from the vehicle, resulting in personal injury.

CAUTION: When working with any type of glass, use approved safety glasses and gloves to reduce the chance of personal injury.

NOTICE: Always use the correct fastener in the proper location. When you replace a fastener, use ONLY the exact part number for that application. General Motors will call out those fasteners that require a replacement after removal. General Motors will also call out the fasteners that require thread lockers or thread sealant. UNLESS OTHERWISE SPECIFIED, do not use supplemental coatings (paints, greases, or other corrosion inhibitors) on threaded fasteners or fastener joint interfaces. Generally, such coatings adversely affect the fastener torque and joint clamping force, and may damage the fastener. When you install fasteners, use the correct sequence and tightening specifications. Following these instructions can help you avoid damage to parts and systems.

CONTENTS

General Description 10-2-1
Stationary Windows 10-2-1
Adhesive Service Kit 10-2-1
Reveal Moldings 10-2-2
On-Vehicle Service 10-2-2
Reveal Moldings 10-2-2
Windshield Reveal Molding 10-2-2
Quarter Window Reveal Molding 10-2-3
Rear Door Window Reveal Molding 10-2-3
Stationary Windows 10-2-5
Windshield 10-2-5
Quarter Window 10-2-10
Rear Door Window 10-2-12
Rear Window Defogger 10-2-14
Testing Grid Lines 10-2-14
Grid Line Repair 10-2-15
Bus Bar Lead Terminal Repair 10-2-16
Specifications 10-2-16
Fastener Tightening Specifications 10-2-16
Special Tools 10-2-16

GENERAL DESCRIPTION

The information contained in this section provides service procedures that apply to the stationary windows and the reveal moldings. Stationary windows are immovable within their frames. These include the windshield, quarter window and the rear door window. Also covered in this section is the rear window defogger system. For service procedures involving windows that are movable within their frames, namely all door windows and the outside rearview mirrors, refer to SECTION 10-6. Service procedures for the inside rearview mirror are located in SECTION 10-9.

STATIONARY WINDOWS

The windshield, quarter window and the rear door window are all installed from outside the body, by using a special type of urethane adhesive in conjunction with a primer. To replace any of these windows requires either partial or complete replacement of the adhesive. Partial replacement is known as the short method. Complete replacement of the adhesive is known as the extended method.

The short method can be used if, after window removal, the original adhesive left on the window opening pinch-weld flanges can serve as a base for the new window. This method applies in cases of cracked windshields or removal of windows that are still intact. The amount of adhesive left in the window opening can be controlled during window removal.

The extended method is used when, after window removal, the original adhesive left in the window opening pinch-weld flanges cannot serve as a base for the new window. This method is used in cases needing metal work or painting repair in the window opening. In such cases, the original adhesive is completely removed and is replaced with new adhesive during window replacement.

The window removal procedure is the same in both the short and extended methods, with three exceptions:

- If the short method is to be used, extra care is required during window cut-out to make certain that an even bead of adhesive remains on window opening to serve as a base for new window.
- Primer is used only for use with the extended method
- Amount of adhesive used

ADHESIVE SERVICE KIT

Adhesive caulking kit (urethane) GM P/N 12346284 contains four different primers, urethane adhesive with nozzle, daubers and

instructions with warnings. This adhesive caulking kit is designed to be used when replacing any urethane adhesive-installed window using the short method, or any adhesive-installed window using the extended method. An equivalent adhesive kit may be used.

Additional items required:

- Piano wire
- Two dowel rods or pieces of wood
- Solvent for cleaning edge of window (preferably alcohol).
- Household cartridge-type caulking gun.
- Commercial-type razor knife (for cutting around edge of window).
- Two new brushes for primer application.
- Spacers.
- Rubber suction grips.

Important

- Each adhesive has its own drying and setting time and must be handled and used according to specific procedures. Failure to follow these procedures could result in a poor window-to-body bond. Be sure to read the adhesive instructions and warnings very carefully and observe each step of the procedure very closely.

REVEAL MOLDINGS

The reveal moldings for the windshield, quarter windows and the rear door are a vinyl trim which fits between the edge of the window and the body. The reveal moldings are hand-pressed into place and retained with urethane adhesive. The windows do not need to be removed to replace the reveal moldings. Trimming the reveal molding may be necessary for certain reveal molding applications. Trimming may also be necessary to allow room for both the molding and urethane adhesive to fit in the cavity between the window and the body.

ON-VEHICLE SERVICE

REVEAL MOLDINGS

Windshield Reveal Molding

Figure 1

Remove or Disconnect

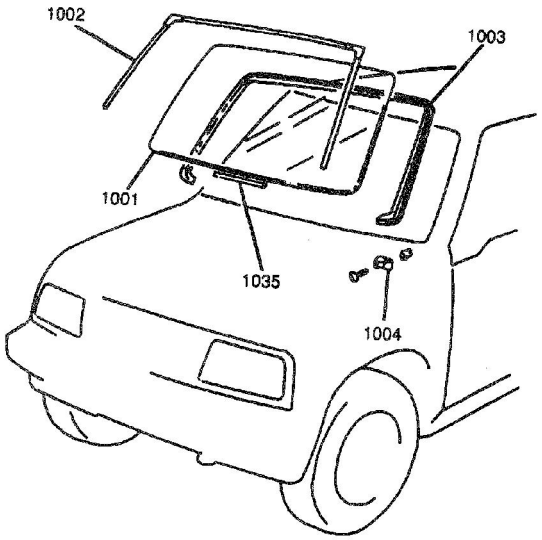
- Pull windshield reveal molding away from windshield and remove from vehicle.

Install or Connect

Important

- Trim reveal molding, as necessary, to fit in the cavity between the windshield and windshield pillar.

1. Apply a bead of urethane adhesive from urethane adhesive kit GM P/N 12346284 into cavity between the windshield and windshield pillar.
2. Windshield reveal molding to vehicle; press into place starting from the center of the molding.



1001 WINDSHIELD
1002 WINDSHIELD REVEAL MOLDING
1003 WINDSHIELD OPENING INNER TRIM
1004 WINDSHIELD STOPPER
1035 WINDSHIELD SPACER

EJS001102

Figure 1—Windshield and Reveal Moldings

Quarter Window Reveal Molding

Figure 2

Remove or Disconnect

- Pull quarter window reveal molding away from quarter window and remove from vehicle.

Install or Connect

Important

- Trim new reveal molding, as necessary, to fit in the cavity between the quarter window and body.
- Apply a bead of urethane adhesive from kit GM P/N 12346284 into cavity between the windshield and windshield pillar.
- Windshield reveal molding to vehicle; press into place starting from the center of the molding.

Rear Door Window Reveal Molding

Rear Door Window Upper Reveal Molding

Figure 3

Remove or Disconnect

1. Pull the upper reveal molding joints from the left and right sides of the rear door.
2. Pull the upper reveal molding from the rear door.

Install or Connect

Important

- Trim new upper reveal molding, as necessary, to fit in the cavity between body and window.

1. Apply a bead of urethane adhesive from kit GM P/N 12346284 into cavity between body and window.
2. Upper reveal molding to rear door; press into place starting from the center of the molding.
3. Press upper reveal molding joints into place.
   - Tape may be applied to retain reveal molding until urethane cures.
   - Allow adhesive to cure according to manufacturer's instructions.

Rear Door Window Lower Reveal Molding

Figure 3

Remove or Disconnect

1. Unsnap rear garnish from the lower, right side of the rear door.
2. Cut lower reveal molding and remove from rear door.
3. Lower reveal molding joint from the left side of the rear door.

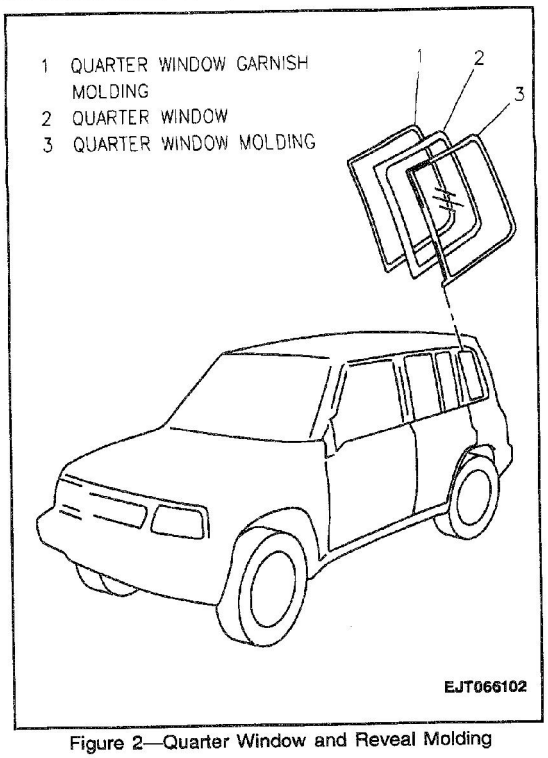


Figure 2—Quarter Window and Reveal Molding

Install or Connect

Important

- Trim lower reveal molding, as necessary, to fit in the cavity between body and window.

1. Apply a bead of urethane adhesive from kit GM P/N 12346284 into cavity between body and window.
2. Lower reveal molding to rear door; press into place starting from the center of the molding.
3. Lower reveal molding joint to the left side of the rear door; press into place.
   - Tape may be applied to retain reveal molding until urethane cures.
   - Allow adhesive to cure according to manufacturer's instructions.

Rear Door Window Right-Side Reveal Molding

Figure 3

Remove or Disconnect

1. Unsnap rear garnish from the lower, right side of the rear door.
2. Pull upper right-side reveal molding joint from rear door.
3. Pull right-side reveal molding from rear door.

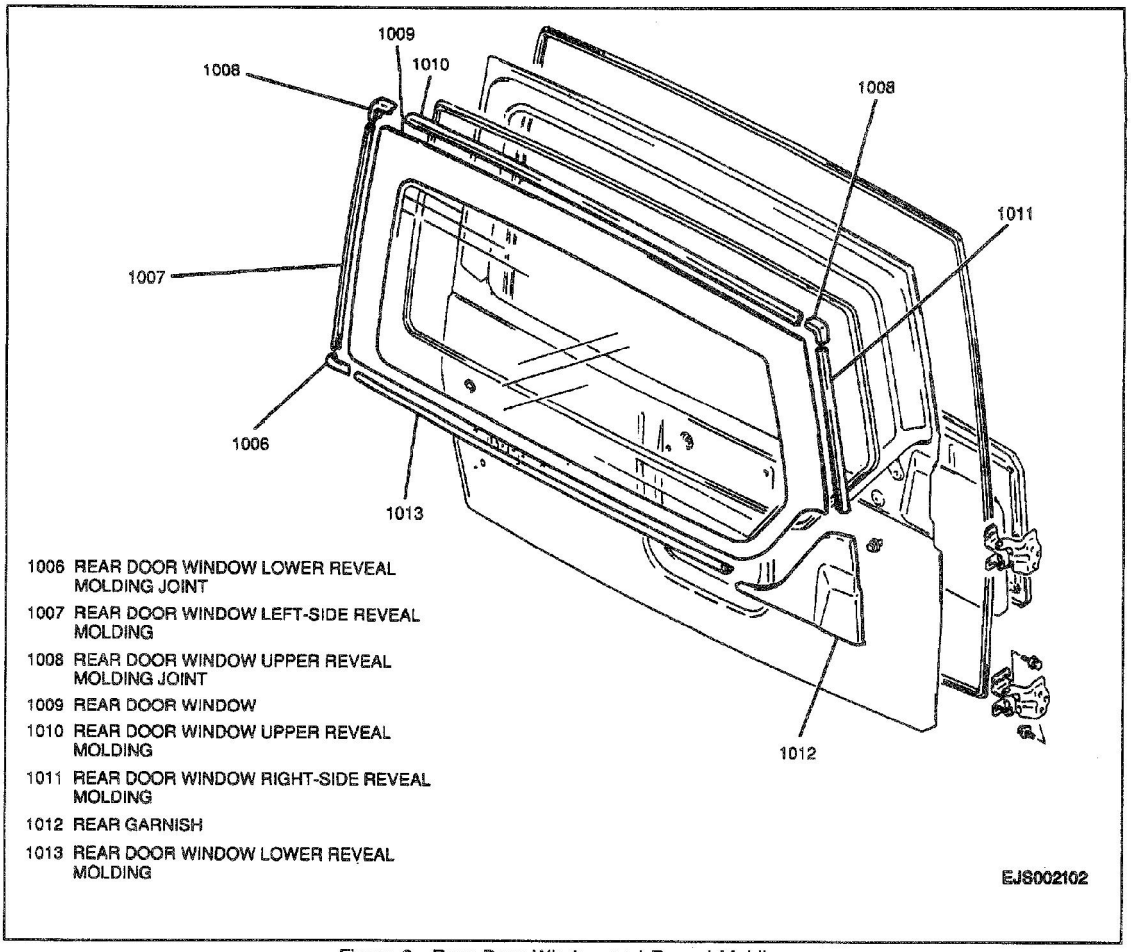


Figure 3—Rear Door Window and Reveal Molding

Install or Connect

Important

- Trim new right-side reveal molding, as necessary, to fit in the cavity between rear door and window.

1. Apply a bead of urethane adhesive from kit GM P/N 12346284 into cavity between body and window.
2. Right-side reveal molding to rear door; press into place starting from the center of the molding.
3. Press upper right-side reveal molding joint to rear door.
   - Tape may be applied to retain reveal molding until urethane cures.
   - Allow adhesive to cure according to manufacturer's instructions.
4. Rear garnish to lower, right side of rear door; snap into place.

Rear Door Window Left-Side Reveal Molding

Figure 3

Remove or Disconnect

1. Left-side upper and lower reveal molding joints from rear door.
2. Pull left-side reveal molding from rear door.

Install or Connect

Important

- Trim new left-side reveal molding, as necessary, to fit in the cavity between rear door and window.

1. Apply a bead of urethane adhesive from kit GM P/N 12346284 into cavity between body and window.
2. Left-side reveal molding to rear door; press into place starting from the center of the molding.

3. Upper and lower left-side reveal molding joints to rear door; press into place.
   - Tape may be applied to retain reveal molding until urethane cures.
   - Allow adhesive to cure according to manufacturer's instructions.

STATIONARY WINDOWS

Windshield

Short Method

Figures 1, 4 through 10 and 12 through 14

CAUTION: When working with any type of glass, use approved safety glasses and gloves to reduce the chance of personal injury.

Remove or Disconnect

1. One nut from each wiper arm and wiper arms from vehicle.
2. Unclip washer hoses from cowl vent grilles.
3. Nine plastic retaining clips and cowl vent grilles from vehicle.
4. Tape body surface around window to prevent damage.
5. Pull inside rearview mirror trim bezel from mirror.
6. Two screws and inside rearview mirror from vehicle.
7. Pull reveal molding from windshield and remove from vehicle.
8. One screw from each windshield stopper and stoppers from vehicle (Figure 7).
9. Punch hole through adhesive with eyeleteer (Figure 4) and slip piano wire through hole.
10. Twist ends of wire around wood dowels.
11. Cut adhesive all around windshield with piano wire (two technicians required, Figures 5 and 6).

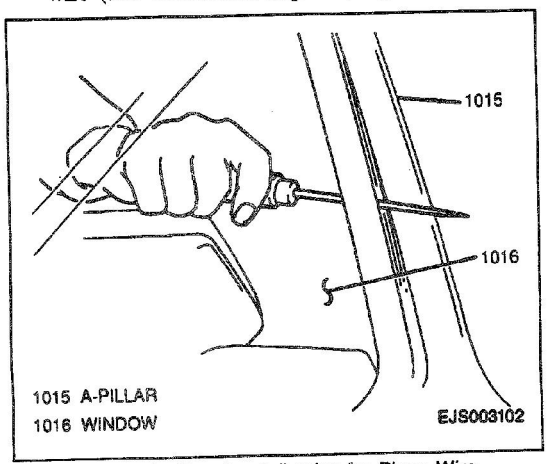


Figure 4—Opening Adhesive for Piano Wire

NOTICE: Keep piano wire as close to windshield as possible to avoid damage to body.

12. Windshield from vehicle.
13. Rubber dam from windshield opening.
14. Using a knife cleaned with alcohol or petroleum distillate (to remove any dirt or oil), trim remaining adhesive to a uniform thickness (Figure 8).

Clean

- Any loose material from windshield opening. If windshield will be reused, all urethane must be removed from it.

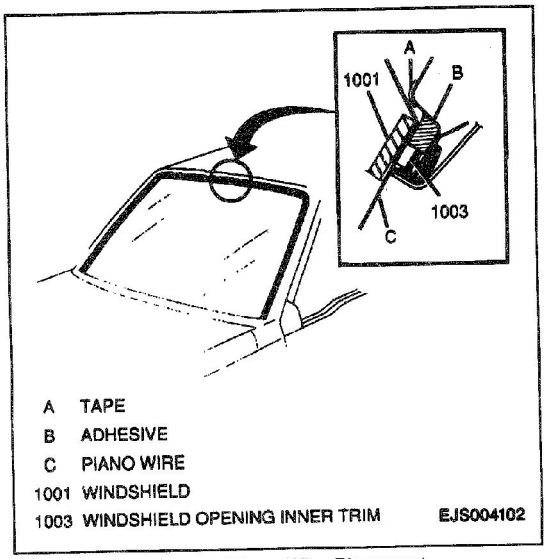


Figure 5—Piano Wire Placement

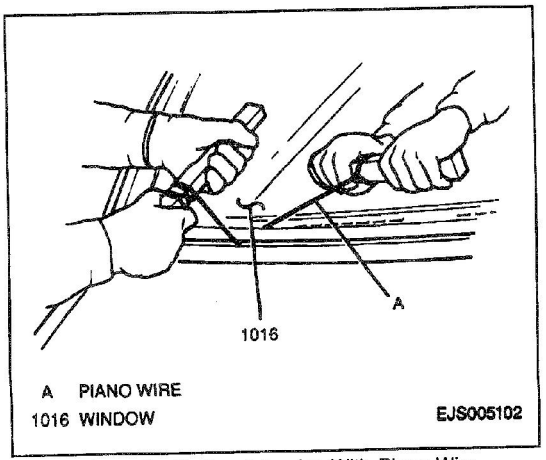


Figure 6—Cutting Adhesive With Piano Wire

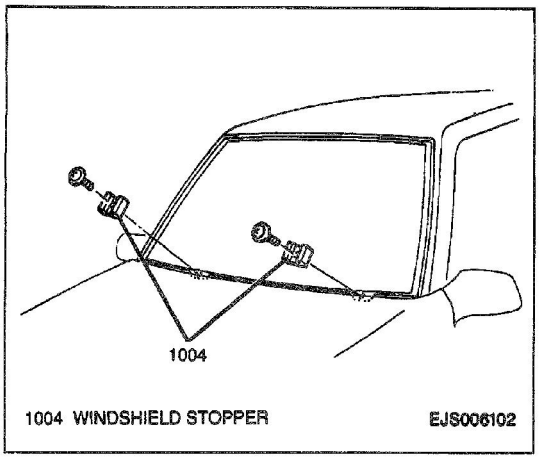


Figure 7—Windshield Stoppers

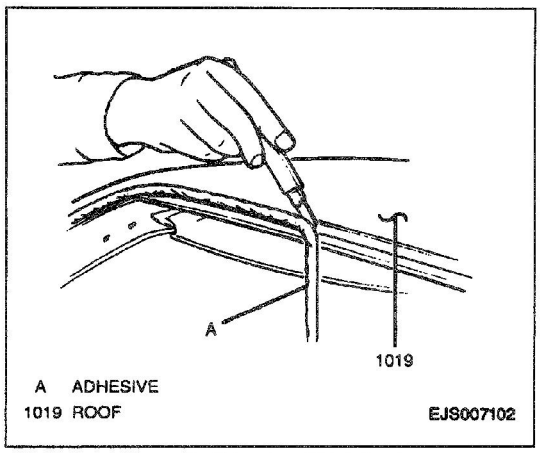


Figure 8—Trimming Old Adhesive

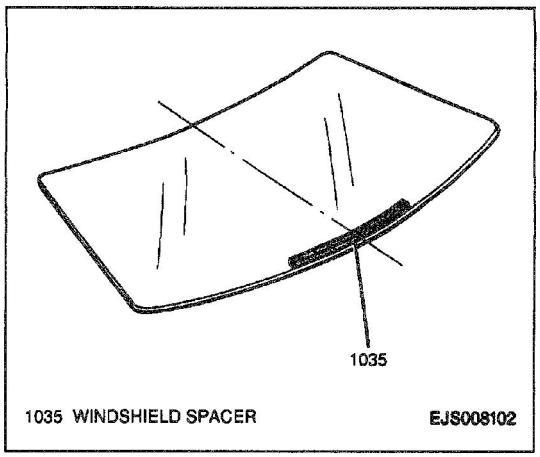


Figure 9—Windshield Spacer

Install or Connect

Clean

- Surface of window to which adhesive will be applied (around edge of inside surface) with a clean, alcohol-dampened cloth. Allow to air dry for at least ten minutes.

1. Two windshield stoppers to vehicle; secure each with one screw (Figure 7).
2. Peel paper from one side of new windshield spacer and attach to windshield (Figure 9).
3. Windshield to body. Position window so that the distance between the windshield and the body are even.
4. Using a wax pencil, mark mating points on windshield and body (Figure 10).
5. Remove windshield.

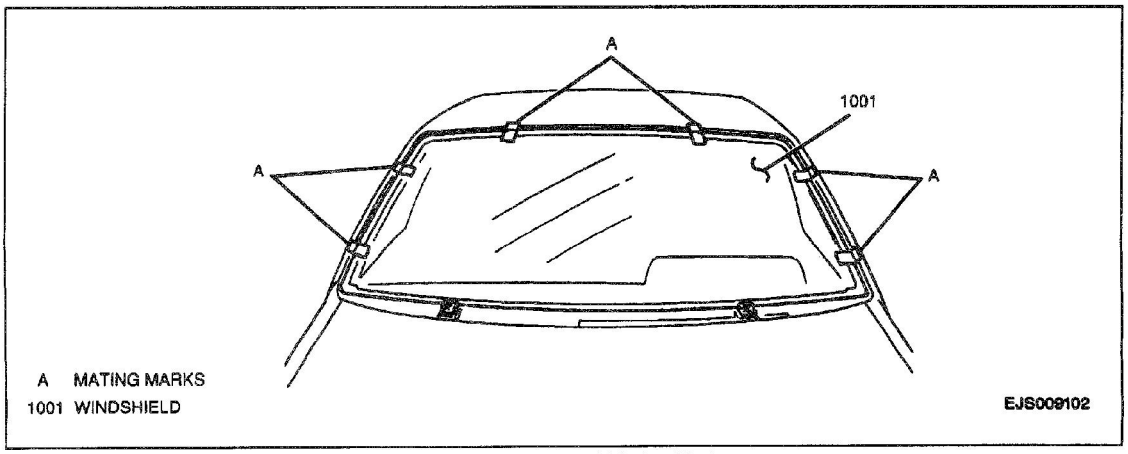


Figure 10—Windshield Mating Marks

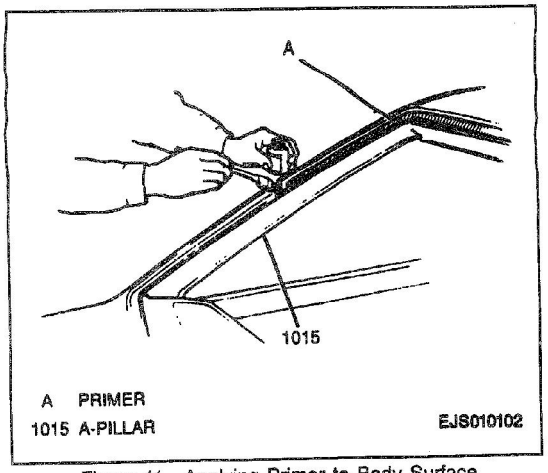


Figure 11—Applying Primer to Body Surface

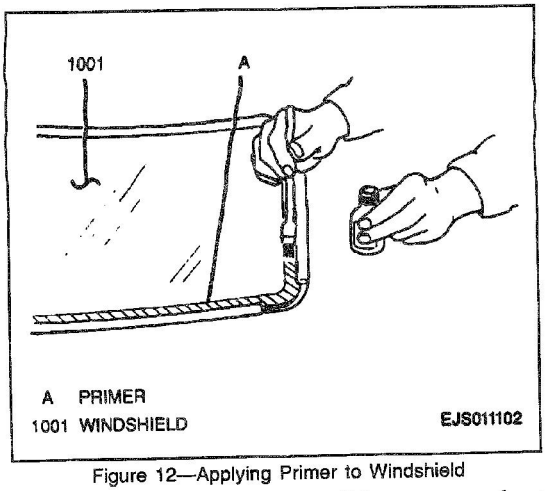


Figure 12—Applying Primer to Windshield

Important

- Refer to manufacturer's instructions and warnings for proper handling instructions and drying time.
- Do not touch primer-coated surface.
- Prior to opening a primer shake it vigorously to ensure proper mixing.

6. Using a new brush, apply primer #1 to edge and inner surface of windshield (Figure 12).
7. Using a new brush, apply primer #2 to edge and inner surface of windshield (Figure 12).
8. Using a cartridge-type caulking gun, apply a smooth continuous bead of urethane adhesive around edge of windshield (Figure 13).

Important

- Apply adhesive starting at bottom side of windshield.
- Be careful not to damage primer.

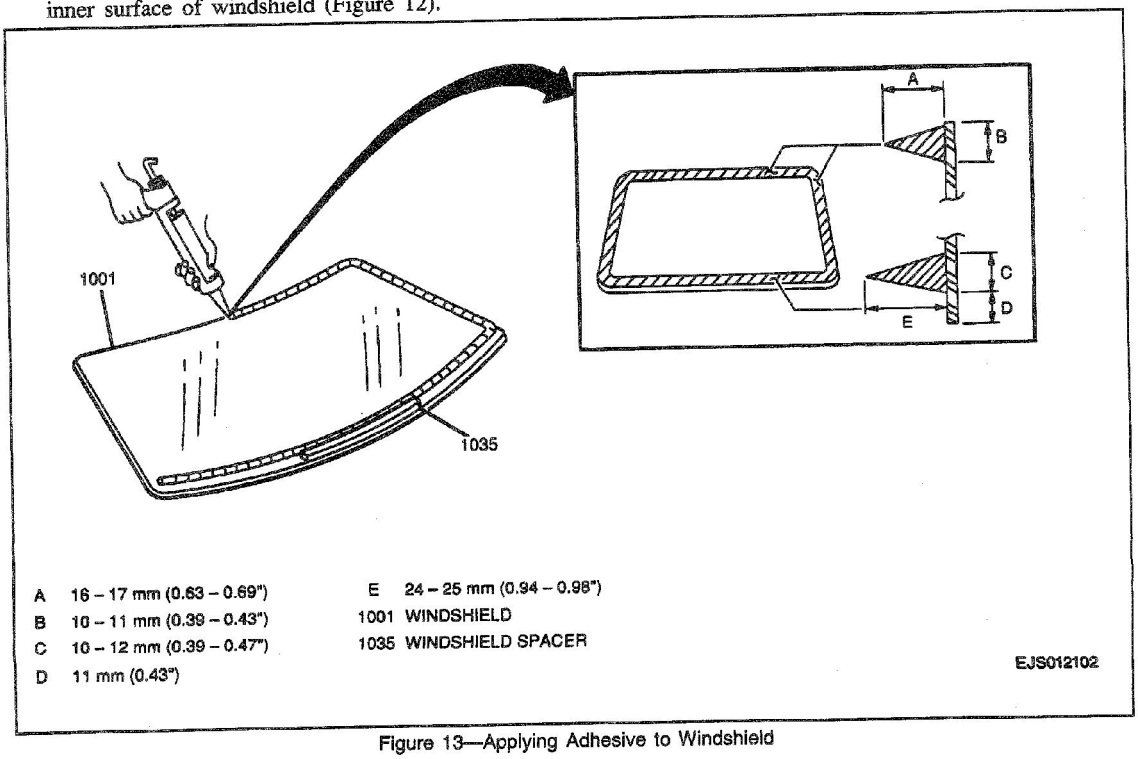


Figure 13—Applying Adhesive to Windshield

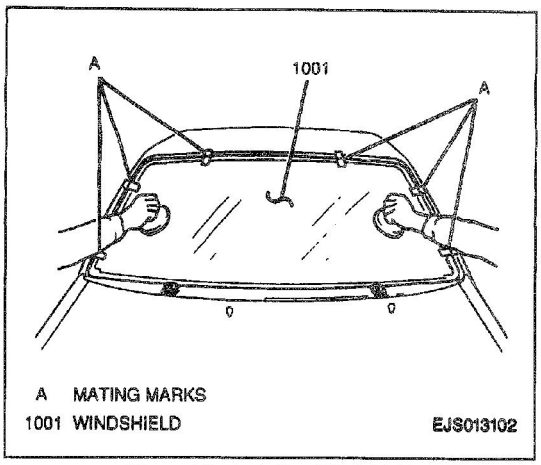


Figure 14—Installing Windshield

- Adhesive height for upper left and right sides of windshield should be 16 to 17 mm (0.63 to 0.69-inch). For the bottom of the windshield, adhesive height should be 24 to 25 mm (0.94 to 0.98-inch) (Figure 13).

9. Peel remaining paper from windshield spacer.
10. Using rubber suction cups, and with the assistance of another technician, install the windshield, aligning mating marks (Figures 10 and 14).
11. Press window firmly to set adhesive. Use care to avoid excessive adhesive squeezeout which would cause an appearance problem. Using a small disposable brush or flat-bladed tool, paddle material around edge of window to ensure a watertight seal. If necessary, apply more adhesive to underfilled parts. Wipe away excess adhesive, if any.

NOTICE: Until the new urethane has cured, air pressure from a closing door may cause the windshield to move. To prevent this, lower a window several inches before closing the door.

12. Fit new reveal molding onto windshield. Warming molding for 1/2 hour at 35° C (95° F) will facilitate molding installation.
13. Watertest the vehicle at once using soft spray. Use warm or hot water if available. Do not direct a hard stream of high-pressure water at fresh adhesive material. If any leaks are found, dry the window and paddle in extra adhesive at leak point using a plastic paddle, small disposable brush or flat-bladed tool. If leak persists, remove window and repeat entire procedure. Refer to SECTION 10-1 for watertest procedures.
14. Cowl vent grilles to vehicle; secure with nine plastic retaining clips.
15. Washer hoses to cowl vent grilles; clip into place.
16. Wiper arms to vehicle; secure each with one retaining nut.

Tighten

- Wiper arm retaining nuts to 20 N.m (15 lb. ft.).

17. Inside rearview mirror to vehicle; secure with two screws.
18. Inside rearview mirror trim bezel to mirror; snap into place.

Important

- Do not drive vehicle until adhesive is set.
- Water applied on top of urethane adhesive, either during watertest or as a separate operation, will speed the cure of the urethane.
- Do not use compressed air, heat or infrared light to accelerate drying time. Allow adhesive to dry normally.
- Slamming the vehicle doors before adhesive sets may cause the windshield to shift or become loose.

Extended Method

Figures 1, 4 through 14

The extended method is used when the old adhesive cannot act as a base for new window installation adhesive. When the vehicle undergoes body damage repair or repainting, the old adhesive must be completely removed from the body window opening. Tape body around windshield opening to help prevent paint damage. Use a sharp scraper or chisel to remove old adhesive.

CAUTION: When working with any type of glass, use approved safety glasses and gloves to reduce the chance of personal injury.

Remove or Disconnect

1. One nut from each wiper arm and wiper arms from vehicle.
2. Unclip washer hoses from cowl vent grilles.
3. Nine plastic retaining clips and cowl vent grilles from vehicle.
4. Tape body surface around window to prevent damage.
5. Pull inside rearview mirror trim bezel from mirror.
6. Two screws and inside rearview mirror from vehicle.
7. Pull reveal molding from windshield and remove from vehicle.
8. One screw from each windshield stopper and stoppers from vehicle (Figure 7).
9. Punch hole through adhesive with eyeleteer (Figure 4) and slip piano wire through hole.
10. Twist ends of wire around wood dowels.

11. Cut adhesive all around windshield with piano wire (two technicians required, Figures 5 and 6).

NOTICE: Keep piano wire as close to windshield as possible to avoid damage to body.

12. Windshield from vehicle.
13. Rubber dam from windshield opening.
14. Using a knife cleaned with alcohol or petroleum distillate (to remove any dirt or oil), trim remaining adhesive to a uniform thickness (Figure 8).

Clean

- Any loose material from windshield opening. If windshield will be reused, all urethane must be removed from it.

Install or Connect

Clean

- Surface of window to which adhesive will be applied (around edge of inside surface) with a clean, alcohol-dampened cloth. Allow to air dry for at least ten minutes.

1. Two windshield stoppers to vehicle; secure each with one screw (Figure 7).
2. Peel paper from one side of new windshield spacer and attach to windshield (Figure 9).
3. Windshield to body. Position window so that the distance between the windshield and the body are even.
4. Using a wax pencil, mark mating points on windshield and body (Figure 10).
5. Remove windshield.

NOTICE: If bare metal is present, apply an appropriate metal cleaner and conditioner prior to the application of primer #3 (black pinch-weld primer). Failure to follow prep area prior to the application of primer may cause insufficient bonding of adhesive.

Important

- Refer to manufacturer's instructions for proper handling instructions and drying time.
- Do not touch primer-coated surface.
- When installing the windshield, use primer #3 provided in the urethane adhesive kit. The black primer (#3) is used for pinch-weld areas. Once the primer is applied, it is important to wipe off excess immediately. This primer dries almost instantly and will stain the viewing area of the glass, so be sure to apply it evenly and keep it away from the viewing area. Do not apply clear primer over black primer.

Important

- Prior to opening a primer shake it vigorously to ensure proper mixing.

6. Using a new brush, apply primer #1 to edge and inner surface of windshield (Figure 12).
7. Using a new brush, apply primer #2 to edge and inner surface of windshield (Figure 12).

Important

- Refer to manufacturer's instructions for proper handling instructions and drying time.
- Do not touch primer-coated surface.

8. Using a new brush, apply primer #3 to edge of windshield opening where there is bare metal, pinch-welds and scratches **DO NOT** but primer #3 on top of old urethane (Figure 11).
9. Using a cartridge-type caulking gun, apply a smooth continuous bead of urethane adhesive around primed surface edge of windshield (Figure 13).

Important

- Apply adhesive starting at bottom side of windshield.
- Be careful not to damage primer.
- Adhesive height for upper left and right sides of windshield should be 16 to 17 mm (0.63 to 0.69-inch). For the bottom of the windshield, adhesive height should be 24 to 25 mm (0.94 to 0.98-inch) (Figure 13).

10. Peel remaining paper from windshield spacer.
11. Using rubber suction cups, and with the assistance of another technician, install the windshield, aligning mating marks (Figures 10 and 14).
12. Press window firmly to set adhesive. Use care to avoid excessive adhesive squeezeout which would cause an appearance problem. Using a small disposable brush or flat-bladed tool, paddle material around edge of window to ensure a watertight seal. If necessary, apply more adhesive to underfilled parts. Wipe away excess adhesive, if any.

NOTICE: Until the new urethane has cured, air pressure from a closing door may cause the windshield to move. To prevent this, lower a window several inches before closing the door.

13. Fit new reveal molding onto windshield. Warming molding for 1/2 hour at 35° C (95° F) will facilitate molding installation.
14. Watertest the vehicle at once using soft spray. Use warm or hot water if available. Do not direct a hard stream of high-pressure water at fresh adhesive material. If any leaks are found, dry the window and paddle in extra adhesive at leak point using a plastic paddle, small disposable brush or

flat-bladed tool. If leak persists, remove window and repeat entire procedure. Refer to SECTION 10-1 for watertest procedures.

15. Cowl vent grilles to vehicle; secure with nine plastic retaining clips.
16. Washer hoses to cowl vent grilles; clip into place.
17. Wiper arms to vehicle; secure each with one retaining nut.

Tighten

- Wiper arm retaining nuts to 20 N·m (15 lb. ft.).

18. Inside rearview mirror to vehicle; secure with two screws.
19. Inside rearview mirror trim bezel to mirror; snap into place.

Important

- Do not drive vehicle until adhesive is set.
- Water applied on top of urethane adhesive, either during watertest or as a separate operation, will speed the cure of the urethane.
- Do not use compressed air, heat or infrared light to accelerate drying time. Allow adhesive to dry normally.
- Slamming the vehicle doors before adhesive sets may cause the windshield to shift or become loose.

Quarter Window

Figures 2, 15 through 23

The extended method is used when the old adhesive cannot act as a base for new window installation adhesive. When the vehicle undergoes body damage repair or repainting, the old adhesive must be completely removed from the body window opening. Tape body around window opening to help prevent paint damage. Use a sharp scraper or chisel to remove old adhesive.

With the exception of the use of primers and the amount of adhesive applied during installation, the short method is identical to the extended method.

CAUTION: When working with any type of glass, use approved safety glasses and gloves to reduce the chance of personal injury.

Remove or Disconnect

1. Quarter window garnish and ventilator outlet.

Important

- When removing ventilator outlet is removed, the two ventilator outlet retaining clips will be destroyed when it is removed.

2. Tape body surface around quarter glass.

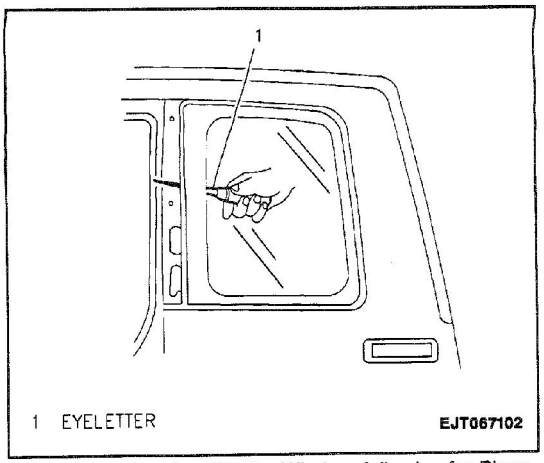


Figure 15—Opening Quarter Window Adhesive for Piano Wire

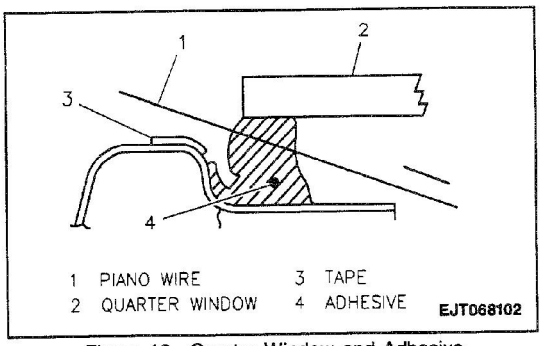


Figure 16—Quarter Window and Adhesive

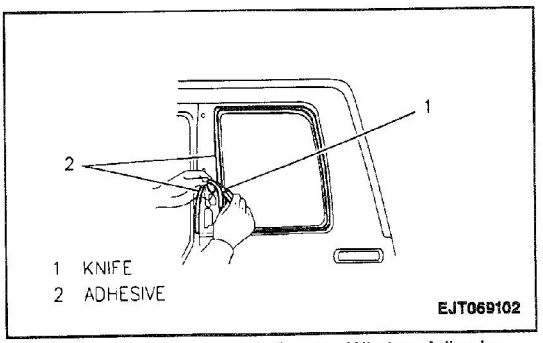


Figure 17—Trimming Old Quarter Window Adhesive

3. Cut and remove quarter window molding.
4. Punch hole through adhesive with eyeleteer (Figure 15) and slip piano wire through adhesive.
5. Twist ends of piano wire around wood dowels.
6. Cut adhesive all around quarter window with piano wire (Figures 16).

NOTICE: Keep piano wire as close to quarter window as possible to avoid damage to vehicle body.

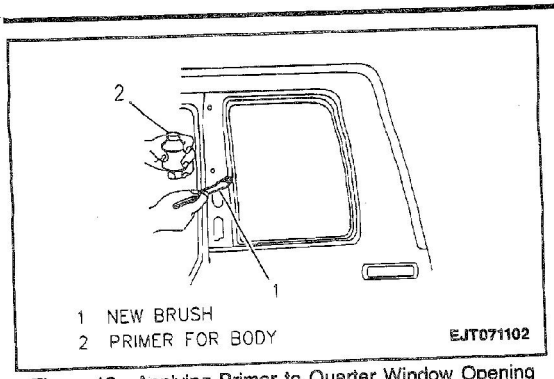


Figure 18—Applying Primer to Quarter Window Opening

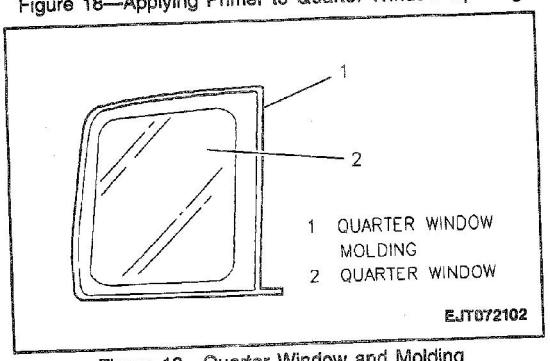


Figure 19—Quarter Window and Molding

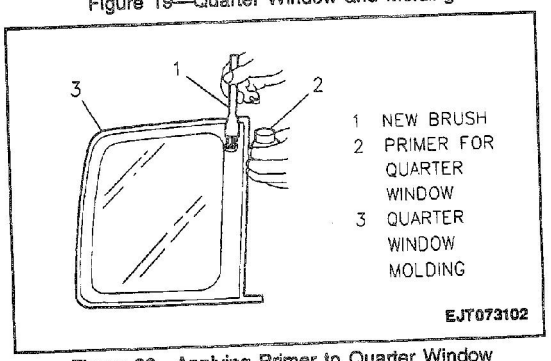


Figure 20—Applying Primer to Quarter Window

7. Quarter window from vehicle.
8. Using a knife cleaned with alcohol or petroleum distillate (to remove any dirt or oil), trim remaining adhesive to a uniform thickness.

Clean

- Any loose material from quarter window opening. If quarter window will be reused, all urethane must be removed from it.

Install or Connect

1. New quarter window reveal molding to quarter window.

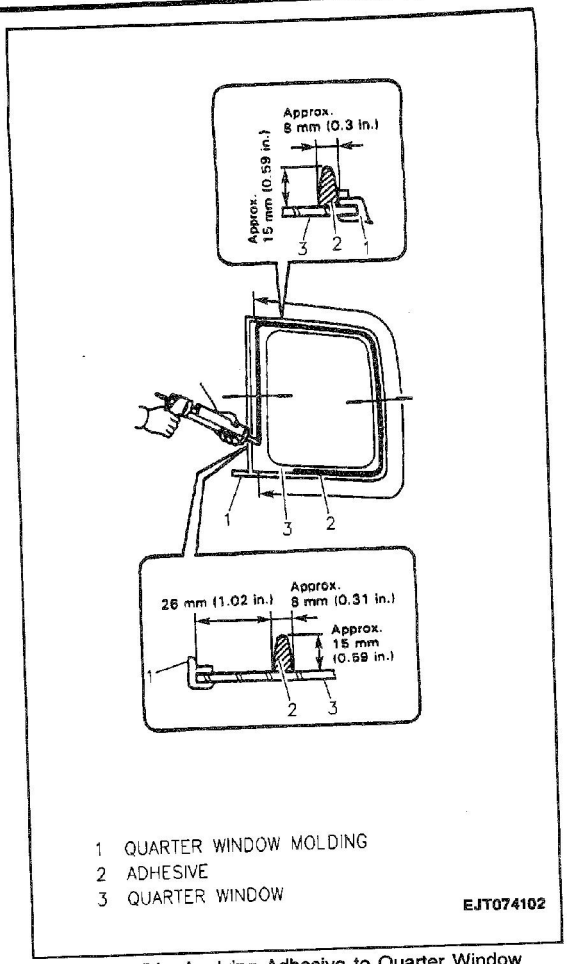


Figure 21—Applying Adhesive to Quarter Window

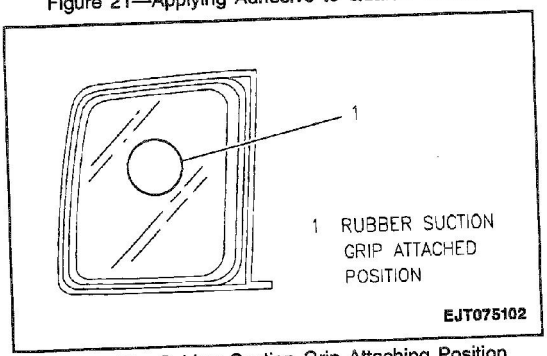


Figure 22—Rubber Suction Grip Attaching Position

Clean

- Surface of window to which adhesive will be applied (around edge of inside surface) with a clean, alcohol-dampened cloth. Allow to air dry for at least ten minutes.

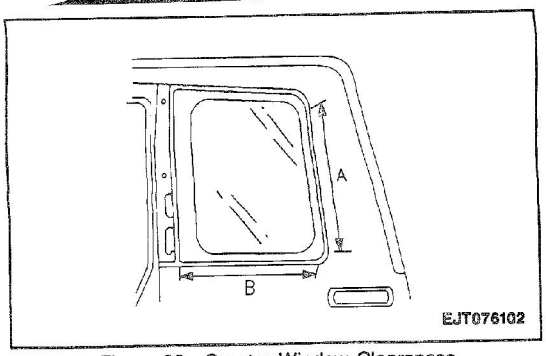


Figure 23—Quarter Window Clearances

NOTICE: If bare metal is present, apply an appropriate metal cleaner and conditioner prior to the application of primer #3 (black pinch-weld primer). Failure to follow prep area prior to the application of primer may cause insufficient bonding of adhesive.

Important

- Refer to manufacturer's instructions and warnings for proper handling instructions and drying time.
- Do not touch primer-coated surface.
- When installing the quarter window, use primer #3 provided in the urethane adhesive kit. The black primer (#3) is used for pinch-weld areas. Once the primer is applied, it is important to wipe off excess immediately. This primer dries almost instantly and will stain the viewing area of the glass, so be sure to apply it evenly and keep it away from the viewing area. Do not apply clear primer over black primer.

Important

- Prior to opening a primer shake it vigorously to ensure proper mixing.

2. Using a new brush, apply primer #1 to edge and inner surface of quarter window (Figure 20).
3. Using a new brush, apply primer #2 to edge and inner surface of quarter window (Figure 20).
4. Using a cartridge-type caulking gun, apply a smooth continuous bead of urethane adhesive around primed surface edge of quarter window (Figure 21).

Important

- Apply adhesive starting at bottom side of quarter window.
- Be careful not to damage primer.
- Adhesive height for quarter window should be 15 mm (0.59-inch). (Figure 21).

5. Using rubber suction cups, install the quarter window, aligning mating marks (Figures 22 and 23).
6. Press window firmly to set adhesive. Use care to avoid excessive adhesive squeezeout which would cause an appearance problem. Using a small disposable brush or flat-bladed tool, paddle material around edge of window to ensure a watertight seal. If necessary, apply more adhesive to underfilled parts. Wipe away excess adhesive, if any.

NOTICE: Until the new urethane has cured, air pressure from a closing door may cause the quarter window to move. To prevent this, lower a window several inches before closing the door.

7. Quarter window garnish and ventilator outlet.
8. Watertest the vehicle at once using soft spray. Use warm or hot water if available. Do not direct a hard stream of high-pressure water at fresh adhesive material. If any leaks are found, dry the window and paddle in extra adhesive at leak point using a plastic paddle, small disposable brush or flat-bladed tool. If leak persists, remove window and repeat entire procedure. Refer to SECTION 10-1 for watertest procedures.

Important

- Do not drive vehicle until adhesive is set.
- Water applied on top of urethane adhesive, either during watertest or as a separate operation, will speed the cure of the urethane.
- Do not use compressed air, heat or infrared light to accelerate drying time. Allow adhesive to dry normally.
- Slamming the vehicle doors before adhesive sets may cause the quarter window to shift or become loose.

Rear Door Window

Figures 3, 4, 6 and 8

The extended method is used when the old adhesive cannot act as a base for new window installation adhesive. When the vehicle undergoes body damage repair or repainting, the old adhesive must be completely removed from the body window opening. Tape body around window opening to help prevent paint damage. Use a sharp scraper or chisel to remove old adhesive.

With the exception of the use of primers and the amount of adhesive applied during installation, the short method is identical to the extended method.

CAUTION: When working with any type of glass, use approved safety glasses and gloves to reduce the chance of personal injury.

Remove or Disconnect

1. Center high-mounted stoplamp.
2. Spare tire lock, two wheel nuts and remove spare tire from vehicle.
3. One retaining nut and rear wiper arm from vehicle (if equipped).
4. Unclip rear garnish and remove from lower, right side of rear door.
5. Pull two upper and one lower reveal molding joints from rear door.
6. Cut lower reveal molding and remove from rear door.
7. Pull the right and left-side reveal moldings from rear door.
8. Pull the upper reveal molding from the rear door.
9. Rear defogger electrical connectors (if equipped).
10. Cover body surface around rear door window with tape to prevent damage.
11. Punch hole through adhesive with eyeleteer (Figure 4) and slip piano wire through adhesive.
12. Twist ends of piano wire around wood dowels.
13. Cut adhesive all around window with piano wire (Figures 6).

NOTICE: Keep piano wire as close to window as possible to avoid damage to vehicle body.

14. Back door window from vehicle.
15. Rubber dam from rear door window opening.
16. Using a knife cleaned with alcohol or petroleum distillate (to remove any dirt or oil), trim remaining adhesive to a uniform thickness (Figure 8).

Clean

- Any loose material from rear door window opening. If rear door window will be reused, all urethane must be removed from it.

Install or Connect

Clean

- Surface of rear door window to which adhesive will be applied (around edge of inside surface) with a clean, alcohol-dampened cloth. Allow to air dry for at least ten minutes.

Important

- Refer to primer manufacturer's instructions and warnings for proper handling instructions and drying time.

NOTICE: If bare metal is present, apply an appropriate metal cleaner and conditioner prior to the application of primer #3 (black pinch-weld primer). Failure to follow prep area prior to the application of primer may cause insufficient bonding of adhesive.

Important

- Refer to manufacturer's instructions and warnings for proper handling instructions and drying time.
- Do not touch primer-coated surface.
- When installing the quarter window, use primer #3 provided in the urethane adhesive kit. The black primer (#3) is used for pinch-weld areas. Once the primer is applied, it is important to wipe off excess immediately. This primer dries almost instantly and will stain the viewing area of the glass, so be sure to apply it evenly and keep it away from the viewing area. Do not apply clear primer over black primer.

Important

- Prior to opening a primer shake it vigorously to ensure proper mixing.

17. Using a new brush, apply primer #1 to edge and inner surface of rear door window.
18. Using a new brush, apply primer #2 to edge and inner surface of rear door window.
19. Using a cartridge-type caulking gun, apply bead of urethane adhesive around primed surface edge of rear door window using the following appropriate heights:
    ADHESIVE BEAD HEIGHT:
    Extended Method—8 to 10 mm (0.3 to 0.4 inch).
    ADHESIVE BEAD HEIGHT:
    Short Method—3.5 to 5 mm (0.14 to 0.2 inch).
20. Lower reveal molding to rear door window.
21. With help from an assistant, and using rubber suction grips, install rear door window onto rear door.
22. Press rear door window firmly to set adhesive. Use care to avoid excessive adhesive squeezeout which would cause an appearance problem. Using a small, disposable brush or flat-bladed tool, paddle material around edge of rear door window to ensure a watertight seal. If necessary, apply more adhesive to underfilled parts. Wipe away excess adhesive, if any.
23. Upper reveal molding to rear door; press into place starting from the center of the molding.
24. Right-and left-side reveal moldings to rear door; press into place starting from the center of the molding.

Inspect

- Grid line repair area. If the repair appears discolored, apply a coating of tincture of iodine to repair area using a pipe cleaner or fine brush. Allow iodine to dry for about 30 seconds and carefully wipe off excess with lint-free cloth.

8. Connect negative (-) battery cable.

Tighten

- Negative (-) battery cable-to-negative (-) battery terminal retainer to 15 N.m (11 lb. ft.).

9. Test defogger operation to verify grid line repair.

NOTICE: At least 24 hours are required for complete curing of repair material. The repair area should not be physically disturbed until after that time.

Bus Bar Lead Terminal Repair

The rear defogger bus bar lead terminals can be reattached by resoldering, using a solder containing 3% silver and a rosin flux paste.

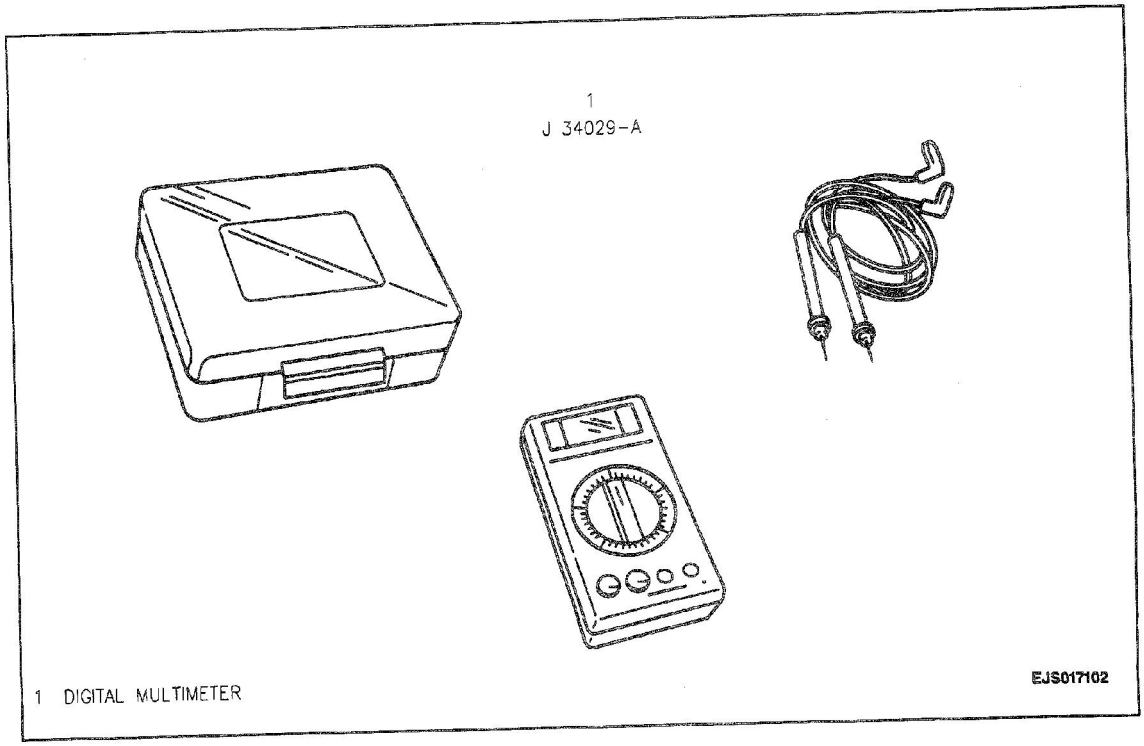
1. Before soldering the bus bar lead terminal, repair area should be buffed with fine steel wool.
2. Apply the paste-type rosin flux in small quantities to the bus bar lead terminal repair area using a brush.
3. The soldering iron tip should be coated with solder beforehand. Use only enough heat to melt the solder and only enough solder to ensure a complete repair.
4. Do not overheat the terminal when resoldering.

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

Wiper Arm Retaining Nuts	20 N.m (15 lb. ft.)
Spare Tire Wheel Nuts	54 N.m (40 lb. ft.)
Negative (-) Battery Cable-to-Negative (-) Battery Terminal Retainer	15 N.m (11 lb. ft.)

SPECIAL TOOLS



1 DIGITAL MULTIMETER

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