

SECTION 4

STATIONARY GLASS

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ADHESIVE CAULKING—GENERAL INFORMATION

All Styles

DESCRIPTION

This concept of glass installation incorporates a synthetic self-curing rubber adhesive caulking compound that adheres to both glass and window opening pinchweld flange in place of the rubber channel that was formerly used. Applied to the glass while in a soft state the material begins to cure soon after exposure to air. Due to this fast curing characteristic, installation of the glass into the body opening must quickly follow application of material to glass. This method of glass installation is used on stationary glass, such as windshield glass, back glass, station wagon quarter glass and skylights.

Adhesive caulking GM Kit Part #4226000, which is designed for a short method windshield installation, has some of the materials needed to remove and replace a stationary glass and can be obtained through regular service parts channels.

GM Kit Part #4226000 consists of:

- A. One tube of Adhesive Caulking Material
- B. One nozzle (cut for the short method)
- C. Steel music wire (.020 thickness)

D. Adhesive Caulking Primer (for priming old caulking material on pinchweld flanges).

The other materials that are needed to complete an installation are available as service parts or at local supply shops.

Additional materials required:

- A. Caulking gun (standard household type reworked as follows).
 - 1. Widen end-slot of caulking gun with a file to accept dispensing end of tube.
 - 2. Grind down plunger disc on rod so that disc will fit into large end of tube.
- B. Two pieces of wood for wire handles.
- C. Black weatherstrip adhesive.
- D. Paint Finish Primer - service part, used only on the extended method.
- E. Rubber glass spacers.

SERVICE PROCEDURES

This type of glass installation requires an entirely different removal and installation service procedure. There are two methods of removal and

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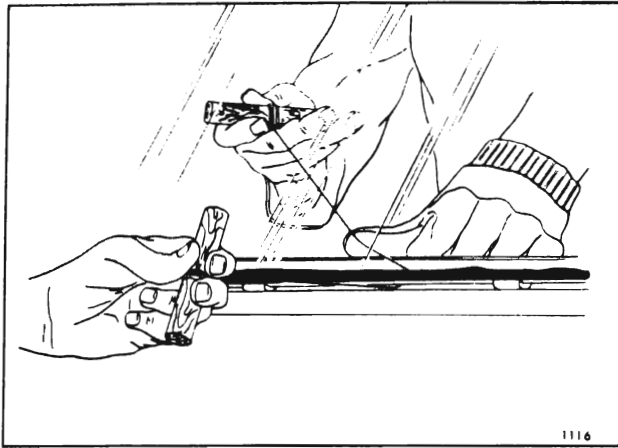


Fig 4-1—Cutting Adhesive Material

installation. They are called the short method and the extended method. The extended method requires the removal of all adhesive caulking material from the glass and the opening. The short method requires the removal of all adhesive caulking material from the glass only and the removal of a minimum of adhesive caulking material when cutting the glass from the body opening. No loose pieces of adhesive material or sealing strip material should be left around the opening. The short method installation is used on a windshield installation only.

IMPORTANT: When the glass is originally installed a sponge or rubber type filler sealing strip is applied to the inside surface of the glass prior to application of adhesive caulking material. For service replacements the sealing strips are not required and are not available as a service part. When replacing a glass, using the short method, the sealing strip must be trimmed from the adhesive material in the body opening for a good appearance.

Removal

The glass removal procedure will be the same for the extended or short method.

1. Place protective coverings around area of glass being removed.
2. Remove garnish moldings, escutcheons, reveal moldings, wiper arm assemblies, cowl air intake grille, rear view mirror support and instrument panel items (instrument panel cover) as required.

NOTE: Reveal molding removal is covered in Exterior Molding Section 17. Tools necessary

for molding removal are also described in the Exterior Molding Section.

3. Secure one end of steel music wire to a piece of wood (for handle) (Fig. 4-1). With the aid of a pair of long nose pliers insert the other end of wire through caulking material at lower inside corner of windshield along side of glass surface; then, secure that end of wire to another piece of wood (for handle).
4. With the aid of a helper, carefully cut (pull steel wire) through caulking material, up one side of glass across top, down opposite side and across bottom of glass (Fig. 4-1). Make sure inside wire is held close to plane of glass to prevent cutting an excessive amount of adhesive caulking material from the glass opening. This can be accomplished by holding the inside wire close to the plane of the glass with one hand while pulling the wire with the other hand. Keep tension on wire throughout cutting operation to prevent "kinks" in wire.
5. After cutting the adhesive material entire perimeter of glass, carefully remove glass.

Installation

NOTE: If the original glass is to be re-used, place it on a protected bench or holding fixture and remove old caulking material from glass with sharp scraper or razor blade. Remove all remaining traces with toluene or thinner dampened cloth.

IMPORTANT: Do not use oil base solvent. Any oil will prevent adhesion of new caulking material to glass.

1. Align glass to opening; mark glass to body with tape for proper alignment of glass to opening at time of installation.
2. Using a clean, lint-free cloth, briskly rub a generous amount of adhesive caulking primer over original adhesive caulking material that remains on pinchweld flange. Additional brisk application of primer on flat rubber spacers is necessary to insure a good bond of material to spacers.

CAUTION: Do not allow primer to drop on painted surfaces or trim parts.

NOTE: If the glass opening is freshly painted due to collision work, etc., apply paint finish primer to painted pinchweld flange. Paint finish primer is available as a service part.

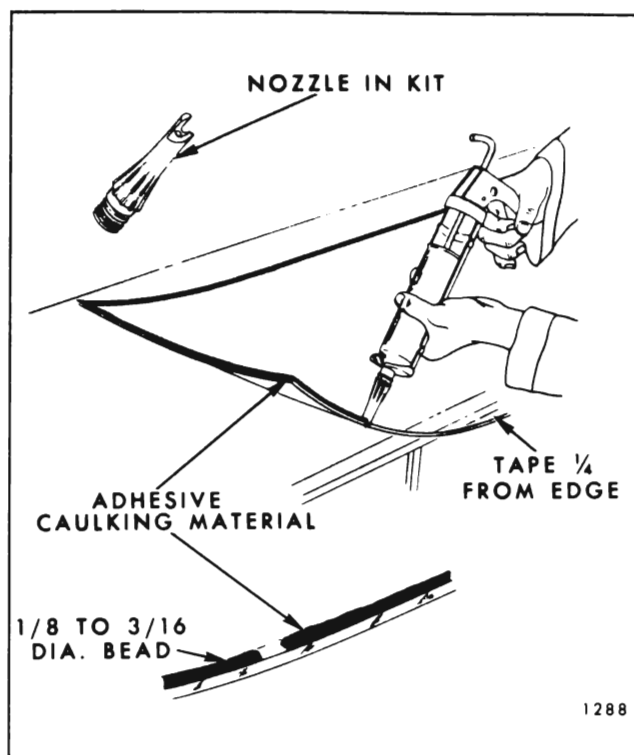


Fig. 4-2—Adhesive Glass Installation Short Method

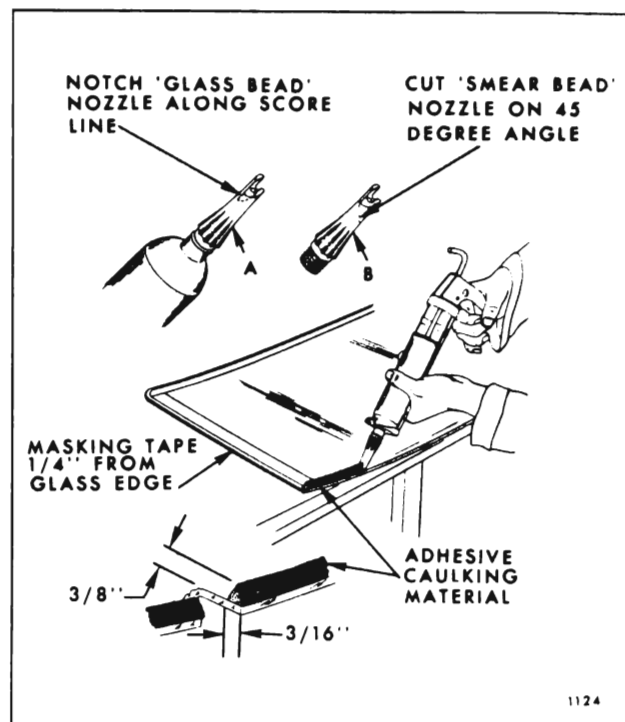


Fig. 4-3—Adhesive Glass Installation Extended Method

3. If short method installation is required, the nozzle furnished with the kit is pre-cut to dispense the proper size bead of caulking material (Fig. 4-2).
4. If extended method is required, cut off tip of one nozzle along score line (Fig. 4-3). This glass bead nozzle will be used to apply bead of adhesive caulking material to glass. Cut tip off other nozzle at 45° angle 1" below end of nozzle (Fig. 4-3). This nozzle will be used to apply "smear bead" of adhesive caulking material to pinchweld flange.
5. Wipe surface of glass to which bead of adhesive caulking material will be applied (between masking tape and edge of glass) with a clean, water-dampened cloth. Dry glass with a clean dry cloth.
6. Remove cap and protective end cover from one tube of adhesive caulking material and insert "glass bead" nozzle.
7. Positioning the gun and nozzle as shown in Figure 4-3, carefully apply a smooth continuous bead of caulking material 3/8" high by 3/16" wide at base completely around inside edge of glass. When material in first tube is dispensed, quickly insert second tube and continue application of bead. After application, check bead and fill all voids and air bubbles.

NOTE: Material begins to cure after 15 minutes exposure to air, therefore, perform following steps immediately and install glass in opening as soon as possible.

8. Remove "glass bead" nozzle and insert "smear bead" nozzle. Holding caulk gun at an angle so that angle-cut of nozzle rests flat on pinchweld flange, apply a thin (1/4" wide x 1/16" high) "smear bead" of adhesive caulking material completely around pinchweld flange.
9. Install glass in opening using tape marks as a guide.
10. Watertest windshield immediately using cold water spray. If any waterleaks are encountered, use flat-bladed tool or stick and work caulking material into leak point to correct leak. This operation is usually performed most effectively from outside the body.

CAUTION: Do not run a heavy stream of water directly on caulking material while the material is still soft.

11. Install previously removed hardware and trim parts.

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WATERLEAK CORRECTION OF ADHESIVE CAULKED GLASS

Adhesive caulked glass installation waterleaks can be corrected in the following manner without removing and reinstalling the glass.

NOTE: The following procedure is applicable only with the use of adhesive caulking material and primer furnished in Kit Part #4226000 or equivalent.

1. Remove reveal moldings in area of leak.
2. Mark location of leak(s).

IMPORTANT: If leak is between adhesive caulking material and body or between material and glass carefully push outward on glass in area of leak to determine extent of leak. This operation should be performed while water is being applied to leak area. Mark extent of leak area.

3. From outside body clean any dirt or foreign material from leak area with water; then dry area with air hose.
4. Using a sharp knife, trim off uneven edge of adhesive caulking material (see Operation "A" Fig. 4-4) at leak point and 3 to 4 inches on both sides of leak point or beyond limits of leak area.
5. Using a small brush, apply adhesive caulking material primer over trimmed edge of adhesive caulking material and over adjacent painted surface (see Operation "B" Fig. 4-4).
6. Apply adhesive caulking material, as shown in Operation "C" (Fig. 4-4), at leak point and 3 to 4 inches on both sides of leak point or beyond limits of leak area.

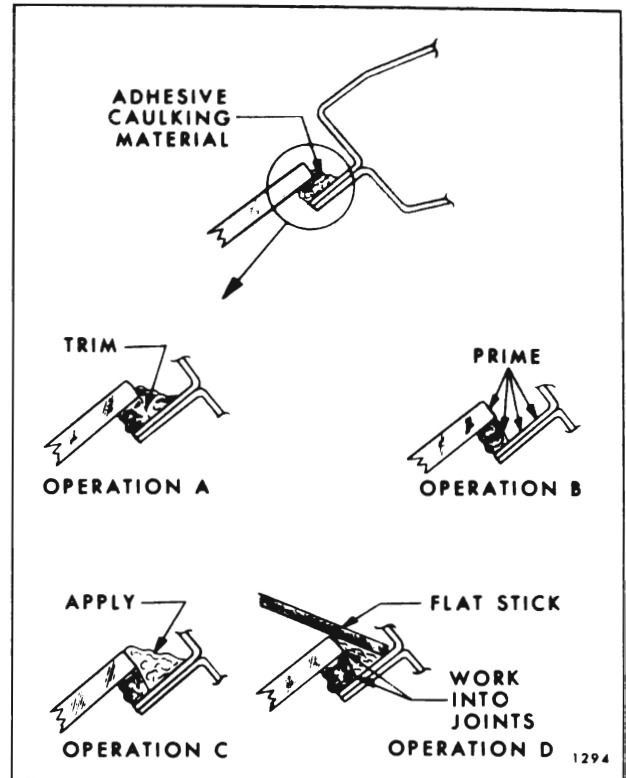


Fig. 4-4—Adhesive Glass Waterleak Correction

7. Immediately after performing step 6, use flat stick or other suitable flat-bladed tool to work adhesive caulking material well into leak point and into joint of original material and body to effect a watertight seal along entire length of material application (See Operation "D" Fig. 4-4).
8. Spray watertest to assure that leak has been corrected. DO NOT run a heavy stream of water directly on freshly applied adhesive caulking material.

WINDSHIELD GLASS—ADHESIVE CAULKED TYPE**DESCRIPTION**

The windshield glass is retained in the opening by adhesive caulked material. Procedures covering the removal and replacement of the glass including cutting out of material, necessary service parts, application of material, watertesting and waterleak repairing are described in the preceding section. Specific details applying to windshield removal and installation will be covered in this section.

WINDSHIELD GLASS INSTALLATION (SHORT METHOD)

1. Remove glass as outlined in the preceding section, "Adhesive Caulking-General Information."
2. Inspect reveal molding retaining clips for damage. If upper end of clip is bent away from

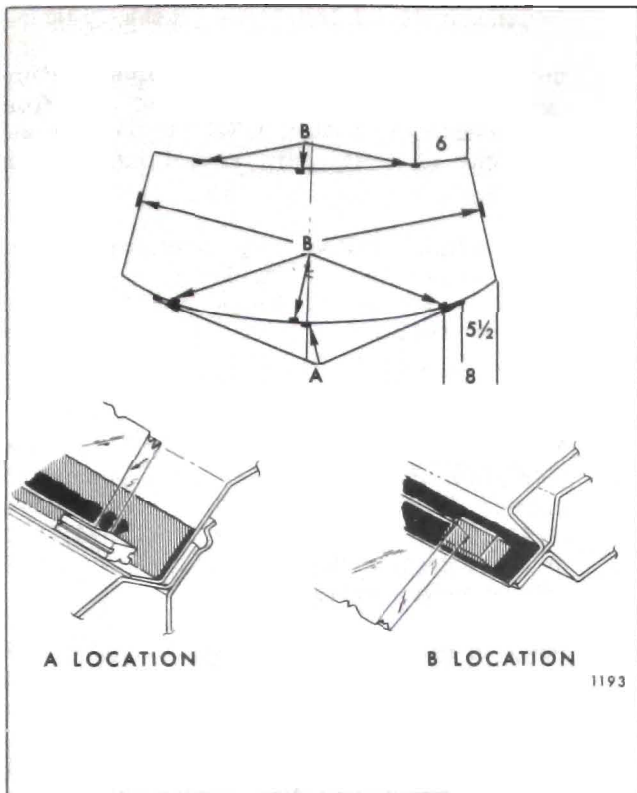


Fig. 4-5—Glass Spacers

body metal more than $1/32$ ", replace or re-form the clip. Be sure reveal molding clip screws are sealed.

3. If the original glass is to be re-used, remove all remaining traces of old caulking material with toluene or thinner dampened cloth.
4. Using black weatherstrip adhesive, cement three rubber spaces to lower windshield opening at location "A", Figure 4-5.
5. Place glass in opening, shim glass with spacers as necessary to properly align glass



Fig. 4-6—Glass Alignment

to opening. The glass should overlap the pinch-weld flange $3/8$ ". Mark glass to windshield pillars with tape to assist in proper alignment at time of installation (Fig. 4-6).

6. Apply 1" wide masking tape to inside of windshield glass $1/4$ " inboard from edge of glass, across the top and down each side, to facilitate cleanup after installation.
7. Using a clean, lint-free cloth, briskly rub a generous amount of adhesive caulking primer on the freshly cut material in the opening.

CAUTION: Do not allow primer to drop on painted surfaces or trim.

8. Wipe surface of glass to which bead of adhesive caulking material will be applied (between masking tape and edge of glass) with a clean, water dampened cloth. Dry glass with a clean dry cloth.
9. Apply a smooth continuous bead of adhesive caulking material to inside surface of glass next to edge completely around glass (Fig. 4-7). Material should be $1/8$ " to $3/16$ " in diameter.

IMPORTANT: The operation of installing glass into the opening should be completed within 15 minutes from start of application of material to glass.

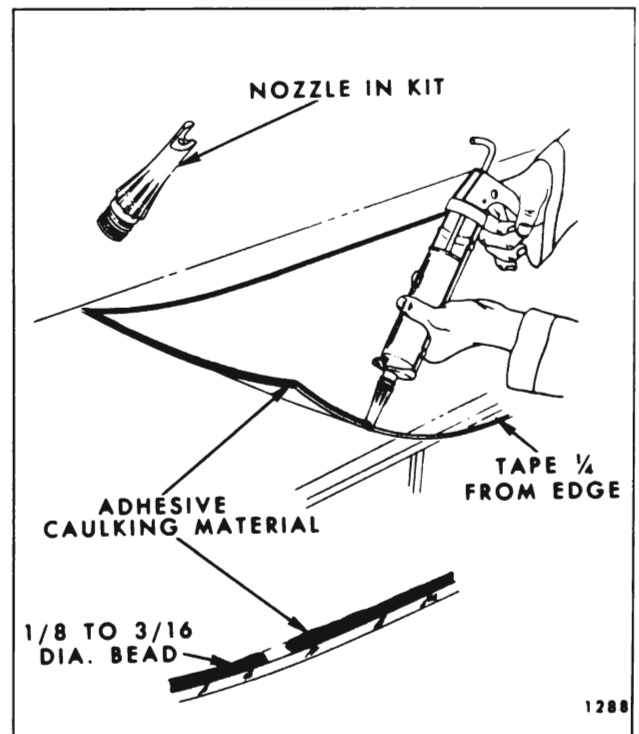


Fig. 4-7 — Adhesive Caulking Material Application - Short Method

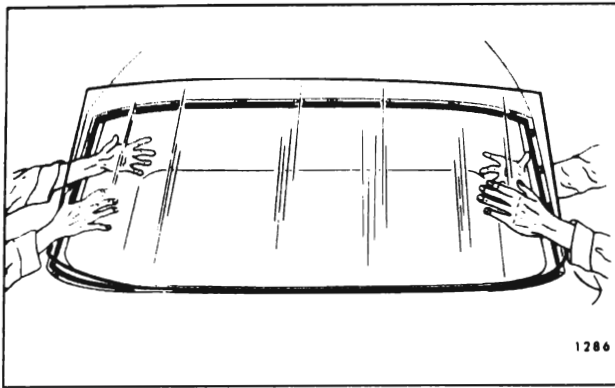


Fig. 4-8—Windshield Installation

10. With aid of helper, lift glass with one hand on outside of glass and one hand on inside of glass. Carefully move glass up to windshield opening maintaining glass in a horizontal position. While one man holds glass in this position, the second man can reach around the windshield pillar and hold glass; then, first man can reach around windshield pillar (Fig. 4-8). Carefully position glass into opening, making certain that glass is properly centered in opening and positioned on lower spacers. Use tape previously applied on windshield pillar to properly align glass (Fig. 4-6).
11. Press glass firmly to set caulking material. Use caution to avoid excessive squeeze-out of material.

NOTE: Glass handling suction cups may be used when removing or installing the windshield glass.
12. Inspect installation for proper seal between new caulking material and original material. If a gap is encountered, apply sufficient caulking material to fill the void. On inside of body run a flat stick around the pinchweld flanges to push excess caulking material back into opening between glass and flanges. Remove any excess squeeze-out of material.
13. Watertest windshield immediately using cold water spray.
14. Remove masking tape from inside of glass.
15. Install reveal moldings, inside garnish moldings and previously removed parts.

WINDSHIELD GLASS INSTALLATION (EXTENDED METHOD)

1. Remove glass as outlined in General Information Section, remove major portion of adhesive

caulking material from body pinchweld flange.

2. Inspect reveal molding retaining clips for damage. If upper end of clip is bent away from body metal more than $1/32$ ", replace or reform the clip. Be sure reveal molding clip screws are sealed.
3. Using black weatherstrip adhesive cement three rubber spacers (#4459429 or equivalent) to upper windshield flange and two rubber spacers (#4459429 or equivalent) to windshield pillars at rabbet (View "B", Fig. 3-8). Cement three rubber spacers (#4459429 or equivalent) to lower windshield flange (View "B", Fig. 3-8). Cement three rubber spacers (#4871330 or equivalent) to lower windshield opening (View "A", Fig. 3-8). Both thinner (#4404196 or equivalent) and thicker (#4534314 or equivalent) rectangular spacers are available as service parts.
4. Position replacement windshield glass in body opening. Carefully check relationship of glass to body opening. The distance between the inside surface of the glass and body should not be less than $3/16$ ". The glass should have $3/8$ " overlap around the entire opening. Where necessary to obtain proper spacing, use shim spacers as required. Mark position of glass on glass and windshield pillars with masking tape, for proper alignment of glass to opening at time of installation (Fig. 4-6). Remove glass and place on a protected bench or holding fixture.
5. If original glass is to be installed, remove old caulking material from glass with sharp scraper or razor blade. Remove remaining traces with toluene or thinner dampened cloth.

NOTE: Do not use oil base solvent. Any oil will prevent adhesion of new caulking material to glass.
6. Apply 1" wide masking tape to inside of windshield glass $1/4$ " inboard from edge of glass, across the top and down each side, to facilitate cleanup after installation.
7. Using a clean, lint-free cloth, briskly rub a generous amount of adhesive caulking primer over original adhesive caulking material that remains on pinchweld flange. Additional brisk application of primer on flat rubber spacers is necessary to insure a good bond of material to spacers.

CAUTION: Do not allow primer to drop on painted surfaces or trim parts.

NOTE: If the windshield opening is freshly

painted due to collision work, etc., apply paint finish primer to painted pinchweld flange. Paint finish primer is available as a service part.

8. Cut off tip of one nozzle along score line (Fig. 4-9). This "glass bead" nozzle will be used to apply bead of adhesive caulking material to glass. Cut tip off other nozzle at 45° angle 1" below end of nozzle (Fig. 4-9). This nozzle will be used to apply "smear bead" of adhesive caulking material to pinchweld flange.
9. Wipe surface of glass to which bead of adhesive caulking material will be applied (between masking tape and edge of glass) with a clean, water-dampened cloth. Dry glass with a clean dry cloth.
10. Remove cap and protective end cover from one tube of adhesive caulking material and insert "glass bead" nozzle.
11. Positioning the gun and nozzle as shown in Figure 4-9 carefully apply a smooth continuous bead of caulking material 3/8" high by 3/16" wide at base completely around inside edge of glass. When material in first tube is dispensed, quickly insert second tube and continue application of bead. After application, check bead and fill all voids and air bubbles.

NOTE: Material begins to cure after 15 minutes exposure to air, therefore, perform following steps immediately and install glass in opening as soon as possible.

12. Remove "glass bead" nozzle and insert "smear bead" nozzle (nozzle cut on 45° angle

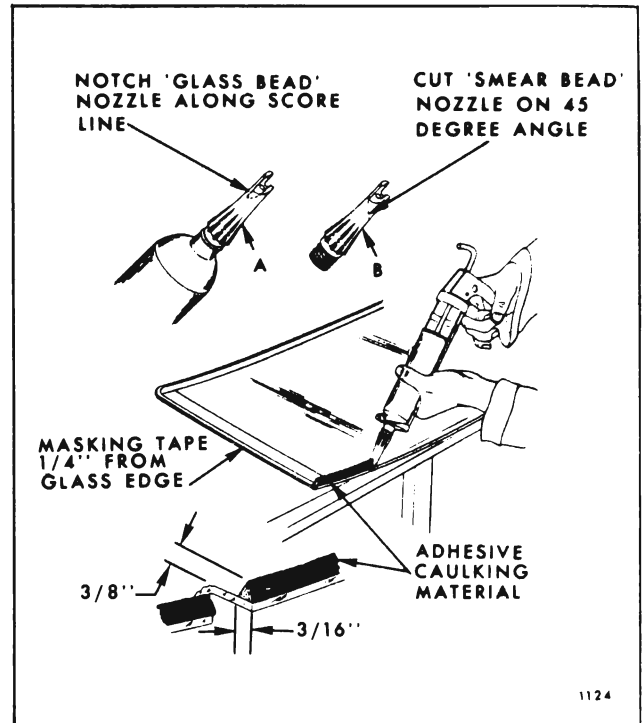


Fig. 4-9—Adhesive Caulking Installation - Extended Method

in step #8). Holding caulking gun at an angle so that angle-cut of nozzle rests flat on pinchweld flange, apply a thin (1/4" wide x 1/16" high) "smear bead" of adhesive caulking material completely around pinchweld flange.

13. Install glass as outlined in steps 10 through 15 of short method installation.

WINDSHIELD GLASS—RUBBER CHANNEL—ALL X STYLES

REMOVAL

1. Place protective covering over hood, front fenders, instrument panel and front seat assembly.
2. Remove rear view mirror support.
3. Remove windshield wiper arm assembly.
4. On inside of body loosen lip of rubber channel from pinchweld flange along top and sides of windshield as follows: With palm of hand, apply pressure to glass near edge (Fig. 4-10). At the same time use a blunt putty knife or other suitable tool and carefully assist rubber channel over pinchweld flange.

5. After windshield rubber channel is free from pinchweld flange, with aid of helper, carefully lift windshield assembly from body opening and place it on a protected bench.

NOTE: The windshield reveal moldings are installed in the rubber channel and are to be removed prior to removing rubber channel from the glass.

INSTALLATION

It is important that the body windshield opening be checked thoroughly before installation of the replacement windshield glass. The procedure below outlines the method which may be used to check the windshield opening.

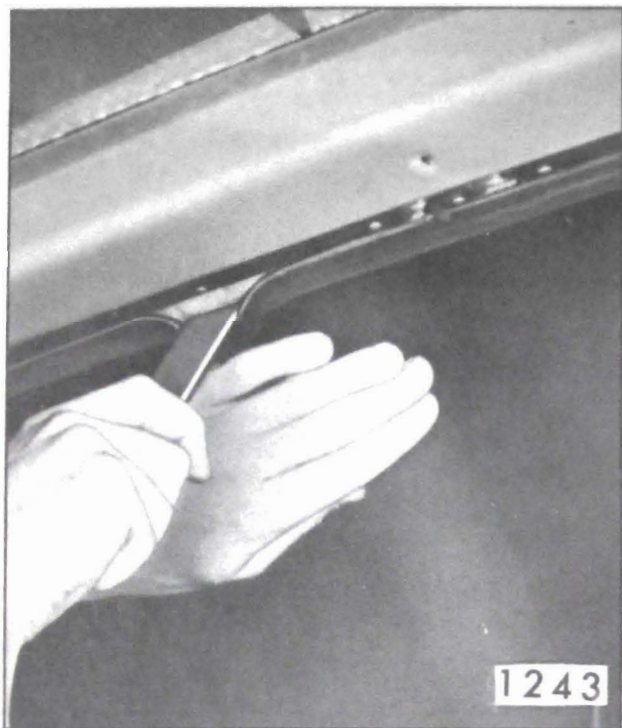


Fig. 4-10—Windshield Glass Removal

1. Check windshield rubber channel for any irregularities.
2. Clean off old sealer around windshield opening and check entire body opening flange for any irregularities.
3. Install five windshield checking blocks J-8942 or equivalent (Fig. 4-11) to pinchweld flange at the following locations. Position one block over lower pinchweld flange on each side of body approximately twelve inches inboard from the lower outer corner of the opening. Position one block in center on lower pinchweld flange. Position final blocks on upper pinchweld flange midway between center block and each outboard block on lower retaining flange.

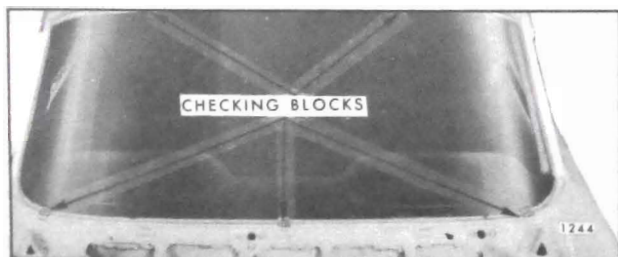


Fig. 4-11—Windshield Glass Checking Blocks

4. With aid of helper carefully position replacement glass on blocks in windshield opening.

CAUTION: Care should be exercised to make certain glass does not strike body metal during installation. Edge chips can lead to future breaks.

5. With windshield glass supported and centered in body opening by checking blocks, check relationship of glass to body opening around entire perimeter of glass. Figure 4-12 shows a typical section taken through the glass channel and body opening. Check glass to body relationships as follows:
 - a. The inside surface of the glass should be a uniform distance from pinchweld flange. The dimension should be from 1/4" to 5/16".
 - b. The outer edge of glass should be a uniform distance from body metal, measured in the plane of the glass. This dimension should be from 5/16" to 3/8".
6. Mark any sections of body to be re-formed, remove glass and re-form opening as required.
7. Re-check windshield opening as outlined above. Then **MARK THE CENTER LINE ON THE GLASS AND BODY** so that glass can be accurately centered in opening when installed.
8. Install windshield.
 - a. Clean out old sealer in glass cavity of windshield rubber channel and around base of rubber channel.
 - b. Install rubber channel to glass and install reveal moldings in rubber channel.

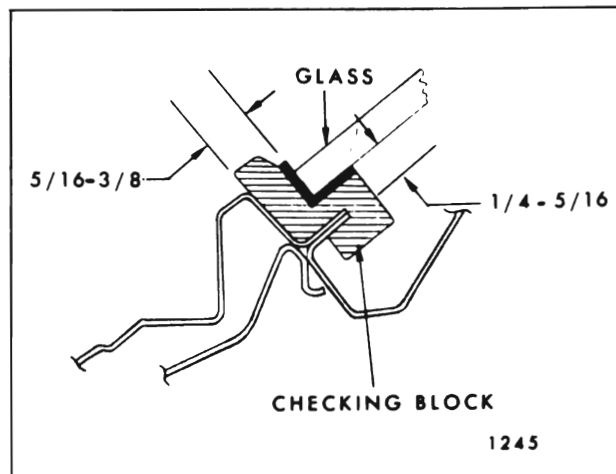


Fig. 4-12—Correct Position Of Checking Blocks

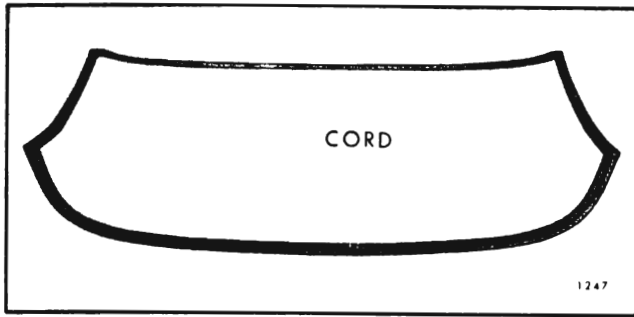


Fig. 4-13—Windshield Installation

- c. Insert a strong cord in pinchweld cavity of rubber channel completely around windshield. Tie ends of cord and tape to inside surface of glass at bottom center of glass (Fig. 4-13).
- d. Apply a ribbon of medium-bodied sealer completely around base of rubber channel as indicated in Figure 4-14, Item #1.
- e. Apply a bead of medium-bodied sealer, approximately 1/4" in diameter to corner of windshield opening rabbet around each side of windshield for distance indicated in Figure 4-14, Item #3.
- f. With aid of helper, carefully position and center windshield assembly in windshield opening.

CAUTION: Do not position glass by tapping or hammering at any time.

- g. When the glass and channel are properly positioned in opening, slowly pull ends of cord, starting at lower center of windshield, to seat lip of rubber channel over pinchweld flange. Cord should be pulled first across bottom of windshield, then up each side and finally across top of windshield.
- h. Using a pressure type applicator, seal inner and outer lips of rubber channel to glass with an approved weatherstrip adhesive as indicated in Figure 4-14, Item #2. Seals are to extend completely around rubber channel.
- i. Clean off excess sealer from windshield glass with mineral spirits.

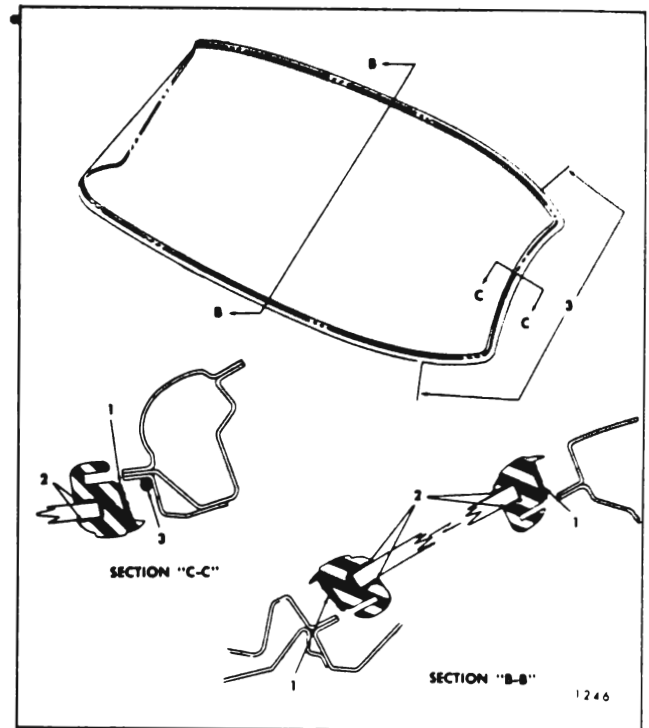


Fig. 4-14—Sealing Of Windshield Glass And Channel

- j. Reinstall all previously removed parts and remove protective coverings.

WATERLEAK CORRECTION

In many instances minor waterleaks around the windshield may be corrected by performing the following operations.

1. Leaks between rubber channel and glass.
 - a. Using a pressure applicator (plews oiler or equivalent) with a narrow tip, apply an approved weatherstrip adhesive (black) between glass and rubber channel on the outside of the glass completely around perimeter of glass.
2. Leaks between rubber channel and body.
 - a. Use a pressure applicator with a narrow tip. Working from outside of body, apply medium-bodied sealer under outer lip of rubber channel around entire perimeter of body opening.

FRONT AND SIDE SKYLIGHT WINDOWS "55" AND "65" STYLES

DESCRIPTION

The front and side skylight window glass are re-

tained in the body opening by adhesive caulked material. The extended method is to be used when replacing a skylight window glass. Procedures

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covering the removal and replacement of adhesive caulked glass including cutting out of material, necessary service parts, application of material, watertesting and waterleak repairing are described in the "Adhesive Caulking-General Information" Section. Specific details applying to skylight window glass removal and installation, will be covered in this section.

REMOVAL

1. Remove glass as outlined in "Adhesive Caulking-General Information" Section. If the original glass is to be reused, place it on a protected bench or holding fixture and remove old caulking material from glass with sharp scraper or razor blade. Remove all remaining traces with toluene or thinner dampened cloth.

NOTE: Do not use an oil base solvent. Any traces of oil will prevent adhesion of new caulking material to glass.

2. Using a sharp scraper or chisel, remove major portion of old caulking material from pinch-weld flange around glass opening. It is not

necessary that all material be removed, but there should not be any loose pieces left in the opening.

INSTALLATION

1. Check all reveal molding retaining clips. If upper end of clip is bent away from body metal more than 1/16 of an inch, either reform or replace clip. Check all clip screws and tighten as required. Place protective covering over interior trim below window opening.
2. Using black weatherstrip adhesive, cement flat rubber spacers #4459429 or equivalent (.20 x .63 x 1.0) to window opening pinchweld flanges at "X" locations as shown in Circle "A" in Figure 4-15.

NOTE: Use sufficient adhesive to obtain a watertight seal beneath spacer, however, do not allow excessive squeeze-out. Weatherstrip adhesive is not compatible with the replacement adhesive material and waterleaks may develop at locations where these two materials are used together to form a seal.

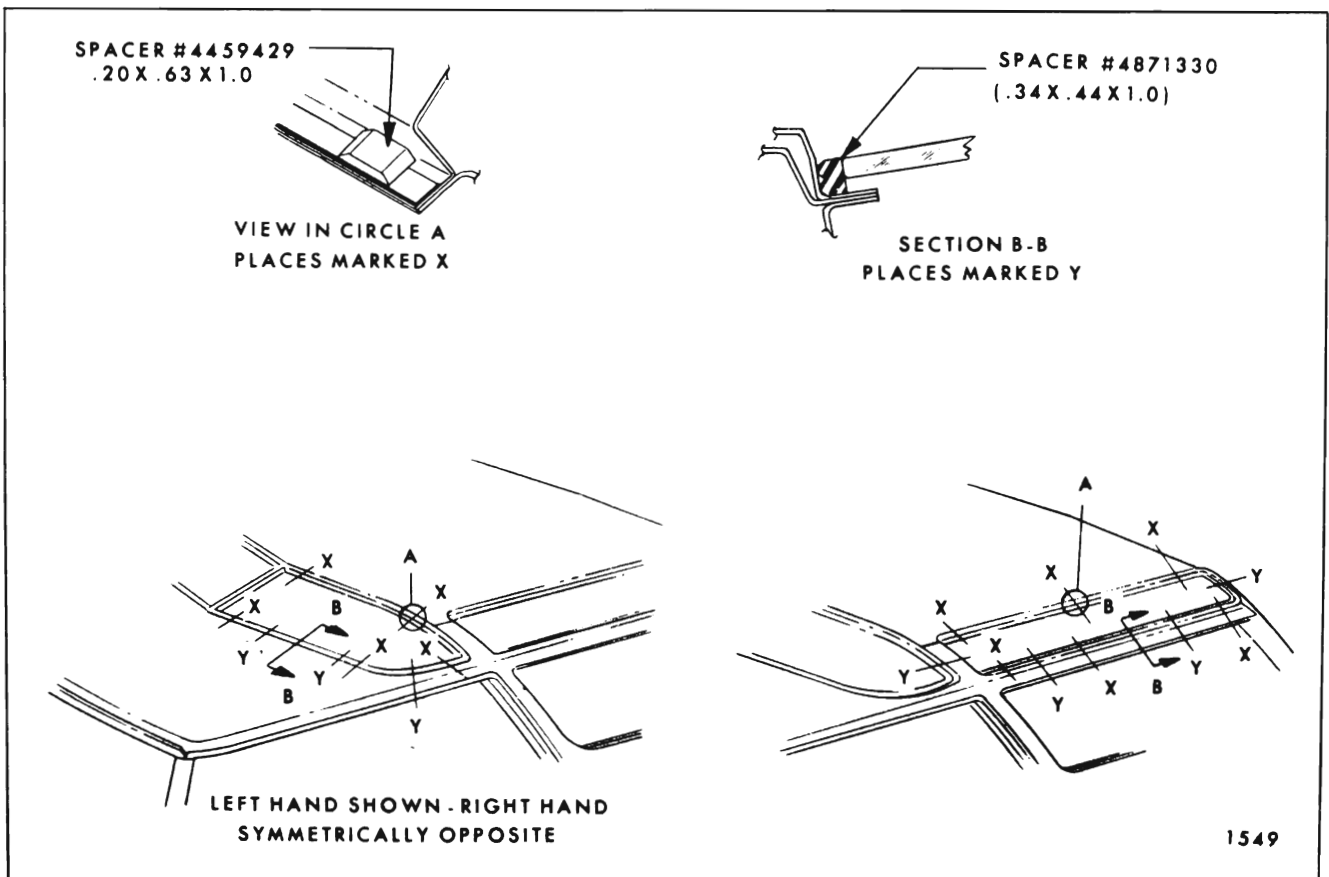


Fig. 4-15—Front and Side Skylight Rubber Spacer Installation

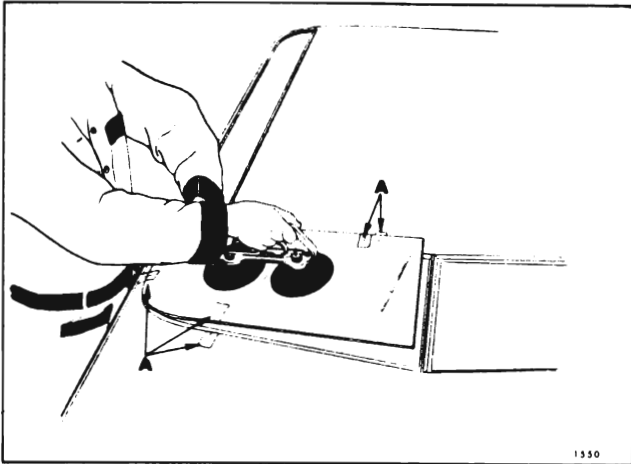


Fig. 4-16—Glass Suction Cup Usage

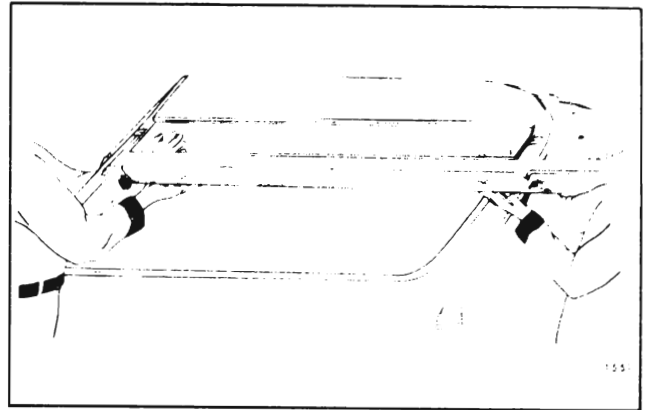


Fig. 4-17—Side Skylight Window Installation

3. Using black weatherstrip adhesive, cement rectangular spacers #4871330 or equivalent (.34 x .44 x 1.0) to window opening rabbet at "Y" locations shown in Section "B-B" in Figure 4-15.

4. If the front skylight is being installed, attach glass handling suction cups to outer surface of glass and position glass in body opening (See Figure 4-16).

If side skylight is being installed, carry glass to body with aid of a helper as shown in Figure 4-17.

Supporting glass with one hand, extend other arm into body and back through window opening as shown in Figure 4-18 and lower glass into position.

5. Check relationship of glass to pinchweld flange around entire perimeter. Overlap of pinchweld flange should be equal with a minimum overlap of 3/16". Overlap across top may be varied by changing lower glass support spacers. Both thinner (#4404196 or equivalent) and thicker (#4534314 or equivalent) rectangular spacers are available as service parts.

6. Check relationship of glass contour to body opening. Gap space between glass and pinchweld flange should be no less than 1/8" nor more than 1/4". If difficulty is encountered staying between these limits, correction can be made by any one of the following methods:

- Reposition flat spacers.
- Apply more caulking material than is specified at excessive gap areas. Material can be applied to pinchweld flange or by allowing bead on glass to exceed 3/8" height at gap areas.

c. Change glasses - another glass may fit opening better.

d. Rework pinchweld flange.

7. After final adjustments have been made and glass is in proper position, apply pieces of masking tape over edges of glass and body (see View "A" in Fig. 4-16 or 4-18 depending on window being installed). Tape on glass can be aligned with tape on body to guide glass into opening during installation.

8. Apply one inch masking tape completely around inner surface of glass 1/4" inboard from outer edge (see Fig. 4-19). Removal of tape after glass installation will aid in clean-up and give a smooth even edge to adhesive material.

9. Using a clean lint-free cloth liberally dampened with Adhesive Caulking Primer or equivalent (supplied in kit #4226000), briskly rub primer over original adhesive material remaining on pinchweld flange. Perform the following steps while allowing primer to dry for 5 to 10 minutes.

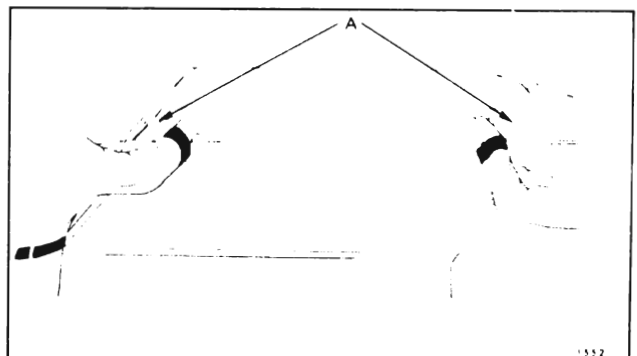


Fig. 4-18—Side Skylight Window Installation

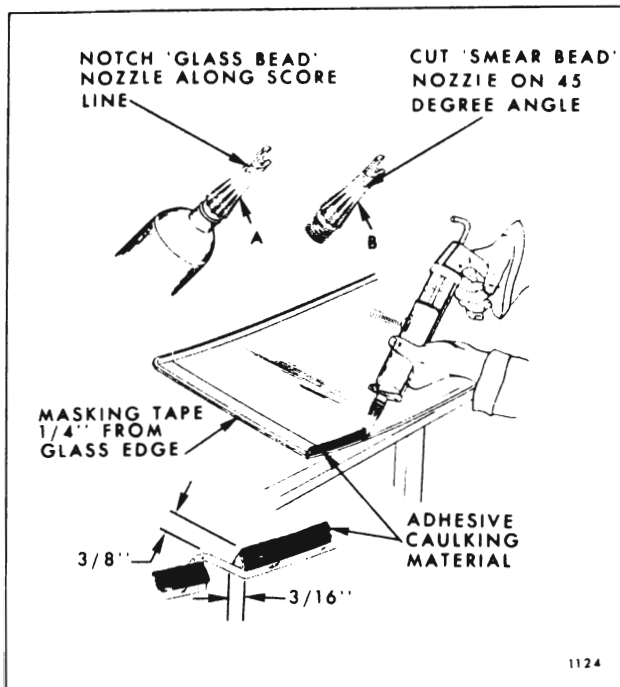


Fig. 4-19—Adhesive Caulking Material Application - Extended Method

NOTE: If the pinchweld flange has been repainted, prime pinchweld flange with Paint Surface Primer (or equivalent). Paint Surface Primer is available as a service part.

CAUTION: Use extreme care to avoid spilling any primer solution on trim or painted surfaces. Wipe any spills immediately as primers will etch trim or interior paint finishes on contact.

10. Wipe surface of glass to which bead of adhesive material will be applied (between applied masking tape and edge of glass) with a clean water-dampened cloth. Dry glass with a clean cloth.

11. Positioning gun and nozzle as shown in Figure 4-19, carefully apply a smooth continuous bead of caulking material $\frac{3}{8}$ " high by $\frac{3}{16}$ " wide at base completely around edge of glass.

NOTE: Adhesive caulking material begins to cure after 15 minutes exposure to air; therefore, perform the following steps immediately and install glass in opening as quickly as possible.

12. Install glass in opening, focus attention on tape guides previously applied to obtain proper positioning.

NOTE: When installing front skylight, position outer lower corner first as shown in Figure 4-16, and lower glass into opening.

13. Press glass firmly to set caulking material. Use caution to avoid excessive squeeze-out of material.

NOTE: Glass handling suction cups may be used when removing or installing the skylight glass.

14. Inspect installation for proper seal between new caulking material and original material. If a gap is encountered, apply sufficient caulking material to fill the void. On inside of body run a flat stick around the pinchweld flanges to push excess caulking material back into opening between glass and flanges. Remove any excess squeeze-out of material.
15. Watertest installation immediately using cold water spray.
16. Remove masking tape from inside of glass.
17. Install reveal moldings, inside garnish moldings and previously removed parts.

REAR QUARTER STATIONARY WINDOW GLASS

"A & B" STATION WAGONS

DESCRIPTION

The rear quarter window glass is retained in the body opening by adhesive caulked material. The extended method is to be used when replacing a rear quarter window glass. Procedures covering the removal and replacement of adhesive caulked glass including cutting out of material, necessary service parts, application of material, watertesting

and waterleak repairing are described in the "Adhesive Caulking-General Information" Section. Specific details applying to rear quarter window glass removal and installation will be covered in this section.

REMOVAL

1. Remove glass as outlined in "Adhesive Caulk-

ing-General Information" Section. If the original glass is to be re-used, place it on a protected bench or holding fixture and remove old caulking material from glass with sharp scraper or razor blade. Remove all remaining traces with toluene or thinner dampened cloth.

NOTE: Do not use an oil base solvent. Any trace of oil will prevent adhesion of new caulking material to glass.

- Using a sharp scraper or chisel, remove major portion of old caulking material from pinchweld flange around rear quarter window opening. It is not necessary that all material be removed, but there should not be any loose pieces left in the opening.

INSTALLATION

- Check all reveal molding retainer clips. If upper end of a clip is bent away from body metal more than 1/32 of an inch, replace or reform clip to insure adequate molding retention.

NOTE: Check all clip attaching screws and tighten as required.

- With black weatherstrip adhesive cement four flat spacers (.20 x .63 x 1.0 - Part No. 4459429 or equivalent) to pinchweld flange; two at top and two at bottom (see Fig. 4-20).
- With black weatherstrip adhesive cement four rectangular spacers (.34 x .44 x 1.0 - Part No. 4871330 or equivalent) to rear quarter window opening rabbet; two at sides and two at bottom (see Fig. 4-20). Both side spacers should be cemented in the approximate position indicated in Figure 4-20. Both thinner (#4404196 or equivalent) and thicker (#4534314 or equivalent) rectangular spacers are available as service parts.
- Position glass in opening by making contact along upper edge first and then swing in lower edge (see Fig. 4-21 and 4-22).
- Check relationship of glass to pinchweld flange around entire perimeter. Overlap of pinchweld flange by glass should be equal with a minimum overlap of 3/16". Inadequate overlap across top may be corrected by replacing two rectangular glass support spacers across bottom with thicker spacers.
- Check relationship of glass contour to body opening. Gap space between glass and pinchweld flange should be no less than 1/8" nor more than 1/4". If difficulty is encountered

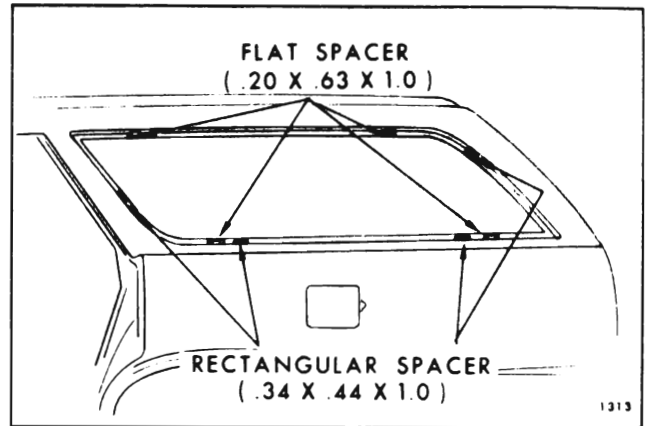


Fig. 4-20—Rear Quarter Window Spacer Installation

staying between these limits, correction can be made by any one of the following methods:

- Position another glass in opening to determine if a better fit can be obtained.
 - Rework pinchweld flange.
 - Apply more caulking material than is specified at excessive gap areas. Material can be applied to pinchweld flange or by allowing bead on glass to exceed specified 3/8" height at gap areas.
- After final adjustments have been made and glass is in proper position, apply a piece of masking tape horizontally over front and rear edges of glass and body pillars (Fig. 4-22), so that tape on glass can be aligned with tape on body and act as a guide when glass is installed.
 - Apply one inch masking tape completely around edge of glass inner surface 1/4" inboard from outer edge (see Fig. 4-23).
 - From inside of body, apply masking tape around window opening to protect painted and trimmed surfaces.

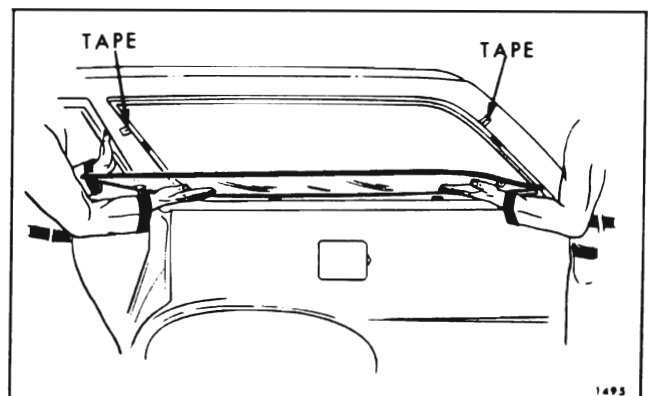


Fig. 4-21—Stationary Quarter Window Installation

4-14 STATIONARY GLASS

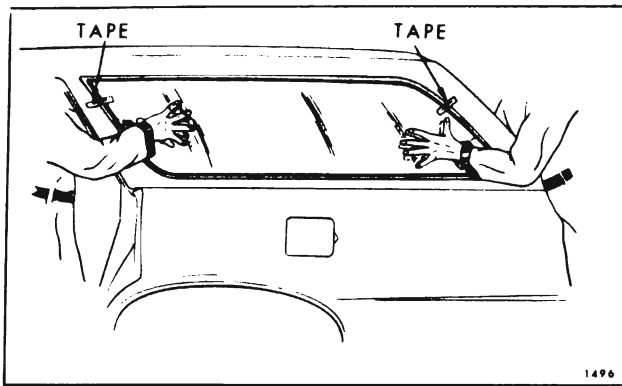


Fig. 4-22—Stationary Quarter Window Installation

10. Using a clean, lint free cloth, liberally dampened with Adhesive Caulking Primer, briskly rub primer over and into original adhesive caulking material that remains on pinchweld flange. If the pinchweld flange has been re-painted, prime flange with Paint Primer, or equivalent.
11. Wipe surface of glass to which bead of adhesive caulking material will be applied (between masking tape and edge of glass) with a clean water-dampened rag. Dry glass thoroughly with a clean dry rag.
12. With caulking gun and nozzle positioned as illustrated in Figure 4-23, carefully apply a smooth continuous bead of caulking material 3/8" high by 3/16" wide at base completely around inside edge of glass.

NOTE: When material in first tube is dispensed, quickly insert second tube and continue application of bead. This material begins to cure after fifteen (15) minutes exposure to air; therefore, perform the following steps immediately and install glass in the opening as quickly as possible.

13. Remove "glass bead" nozzle and insert "smear bead" nozzle. Holding caulking gun at an angle so that opening of nozzle rests flat on pinchweld flange, apply a thin (1/4" wide x 1/16" high) "smear bead" of adhesive caulking material completely around pinchweld flange.
14. Install glass (see Fig. 4-21 and Fig. 4-22). Make certain that glass sets properly on spacers and does not have to be shifted after material contacts pinchweld flange. Align tape on glass with tape on body to guide window into opening.

NOTE: When setting glass in opening, make contact with upper edge of glass first and then swing in lower edge.

15. Press glass firmly to set caulking material. Use caution to avoid excessive squeeze-out of material.

NOTE: Glass handling suction cups may be used when removing or installing the rear quarter glass.

16. Inspect installation for proper seal between new caulking material and original material. If a gap is encountered, apply sufficient caulking material to fill the void. On inside of body run a flat stick around the pinchweld flanges to push excess caulking material back into opening between glass and flanges. Remove any excess squeeze-out of material.
17. Watertest installation immediately using cold water spray.
18. Remove masking tape from inside of glass.
19. Install reveal moldings, inside garnish moldings and previously removed parts.

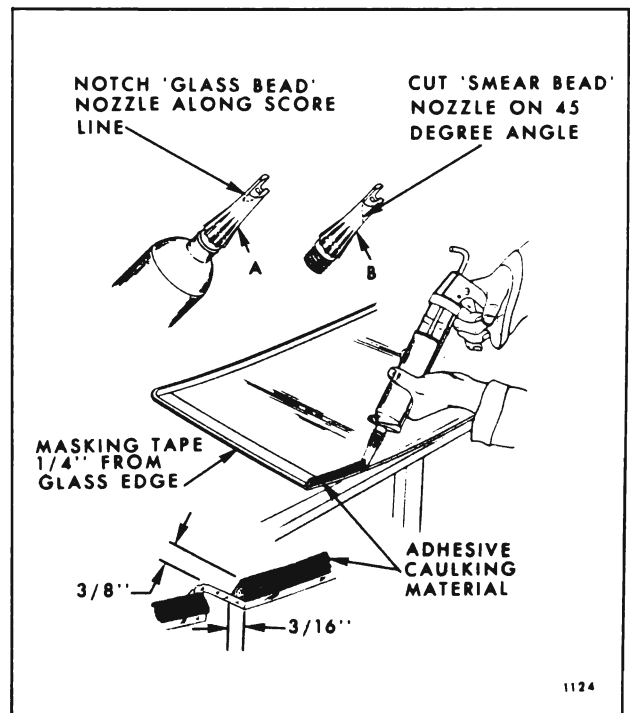


Fig. 4-23—Adhesive Caulking Material Application - Extended Method

REAR QUARTER STATIONARY WINDOW "X" STATION WAGON

REMOVAL

1. Remove rear quarter garnish moldings and rear quarter reveal moldings (see Molding Section 17 of Body Service Manual).
2. Remove quarter window upper and lower retainer and belt finishing molding supports.
3. Using a suitable tool, carefully break seal between window rubber channel and body opening. With the aid of a helper, carefully push glass and rubber channel assembly inboard and remove assembly from opening.

CAUTION: Use care so that glass does not strike body metal. Edge chips can cause solid tempered safety plate glass to shatter. Do not attempt to grind glass.

INSTALLATION

1. Clean off old sealer from rubber channel and

body opening to assure a smooth sealing surface.

2. Apply a bead of black weatherstrip adhesive into glass cavity in rubber channel and install rubber channel to glass.
3. Apply a ribbon of medium-bodied sealer completely around window opening.
4. Insert window assembly into opening and install upper and lower window retainers.
5. Using a pressure type applicator, apply weatherstrip adhesive (black) between glass and lip of rubber channel completely around outside of window.
6. Clean off excess sealer and replace previously removed parts.

BACK WINDOW GLASS Removal and Installation All Styles Except Station Wagons and Convertibles

DESCRIPTION

The back window glass is retained in the body opening by adhesive caulked material. The extended method is to be used when replacing a back window glass. Procedures covering the removal and replacement of adhesive caulked glass including cutting out of material, necessary service parts, application of material, watertesting and waterleak repairing are described in the "Adhesive Caulking-General Information" Section. Specific details applying to back window glass removal and installation, will be covered in this section.

portion of old caulking material from pinch-weld flange around back window opening. It is not necessary that all material be removed, but there should not be any loose pieces left in the opening.

REMOVAL

1. Removal glass is outlined in "Adhesive Caulking-General Information" Section. If the original glass is to be re-used, place it on a protected bench or holding fixture and remove old caulking material from glass with sharp scraper or razor blade. Remove all remaining traces with toluene or thinner dampened cloth.

NOTE: Do not use an oil base solvent. Any trace of oil will prevent adhesion of new caulking material to glass.

2. Using a sharp scraper or chisel, remove major

INSTALLATION

1. Check all reveal molding retaining clips. If upper end of a clip is bent away from body metal more than $1/32$ of an inch, replace or reform clip to insure adequate molding retention. Tighten all loose clip screws.
2. With black weatherstrip adhesive cement two flat spacers (.20 x .63 x 1.0 Part #4459429 or equivalent) to pinchweld flange at top, approximately fifteen inches each side of centerline of opening (Fig. 4-24).
3. With black weatherstrip adhesive, cement four rectangular spacers (.34 x .44 x 1.0 Part #4871330 or equivalent) to back window opening rabbet - one in center of each side and two at bottom, approximately nineteen inches from centerline of opening (Fig. 4-24).

NOTE: A thicker (Part #4534314) or thinner

4-16 STATIONARY GLASS

(Part #4404196) spacer can be used in an emergency in lieu of spacer listed in step 3.

4. Cement (with black weatherstrip adhesive) three flat spacers (.20x.63x1.0 Part #4459429 or equivalent) at bottom, one in center and one each approximately 22 inches from centerline.

NOTE: The rectangular spacers across the bottom support the weight of the glass, therefore, make certain that they are well positioned so they will not rock or slide out.

5. Position glass in opening and check relationship of glass to pinchweld flange around entire perimeter. Overlap of pinchweld flange by glass should be equal with a minimum overlap of 3/16". Inadequate overlap across top may be corrected by replacing two rectangular glass support spacers across bottom with thicker spacers.
6. Check relationship of glass contour to back

window opening. Gap space between glass and pinchweld flange should be no less than 1/8" nor more than 1/4". If difficulty is encountered staying between these limits, corrections can be made by any one of the following methods.

- a. Substitute another glass to determine if it will fit opening better.
 - b. Rework pinchweld flange.
 - c. Apply more caulking material than is specified at excessive gap areas. Material can be applied to pinchweld flange by allowing bead on glass to exceed specified 3/8" height at gap areas.
7. After final adjustments have been made and glass is in proper position in opening, apply a piece of masking tape horizontally over each side edge of glass and rear quarter extension (Fig. 4-25), so that when glass is being installed, tape on glass can be aligned with tape on body and serve as a guide.

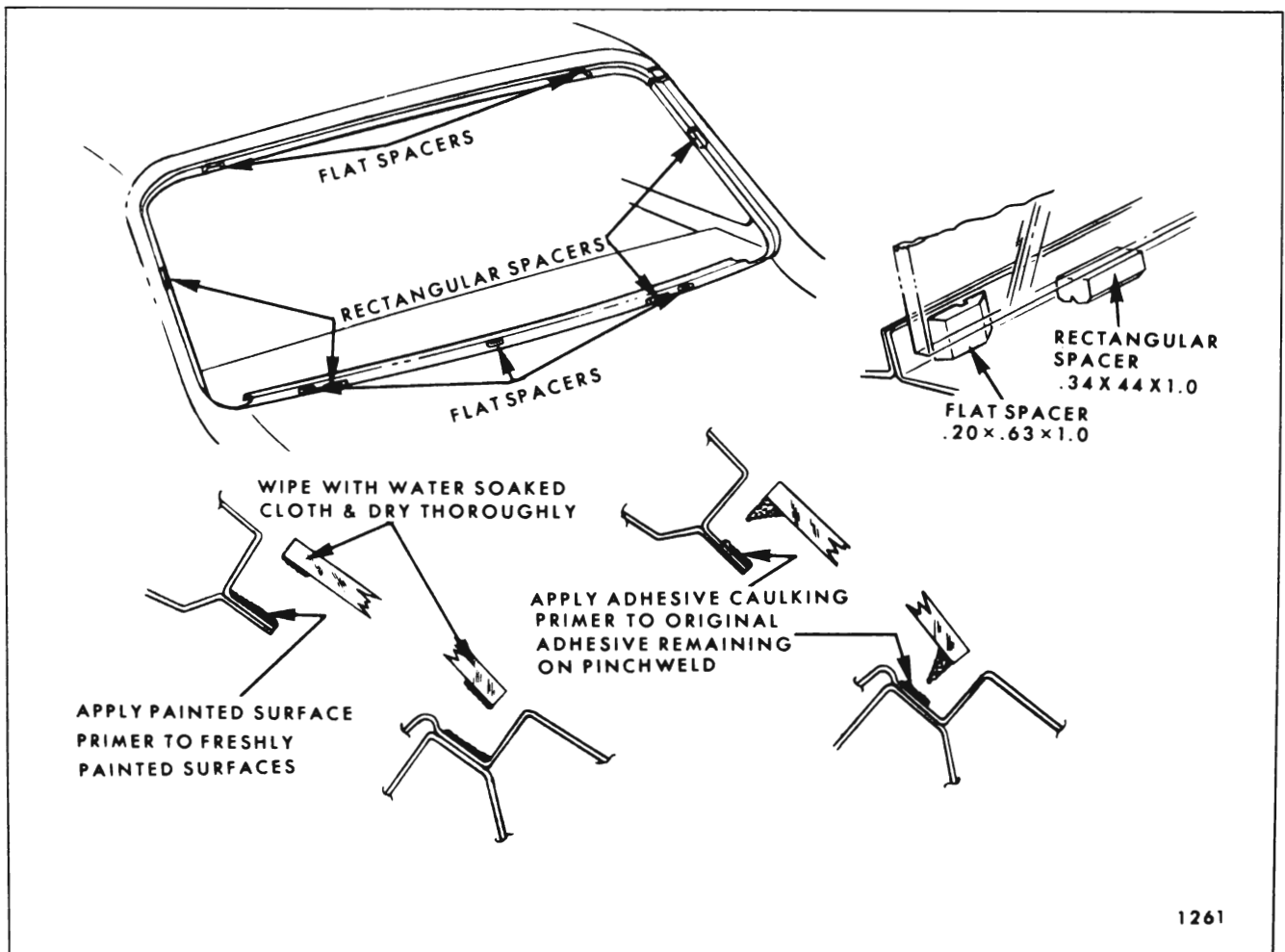


Fig. 4-24—Back Window Adhesive Caulked Installation

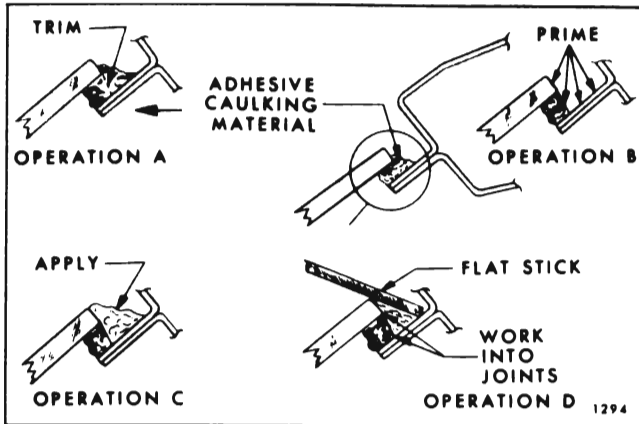


Fig. 4-25—Back Window Installation

8. Apply one inch masking tape to inner surface of glass $\frac{1}{4}$ " inboard from outer edge up both sides and across top. Do not apply tape to bottom edge of glass. Instead, apply masking tape over painted feature strip below back window opening. (See Fig. 4-26.)
9. Using a clean, lint-free cloth liberally dampen with Adhesive Caulking Primer, briskly

rub primer over original adhesive caulking compound remaining on pinchweld flange.

NOTE: If the pinchweld flange has been repainted, prime flange with Paint Surface Primer, or equivalent.

10. Wipe surface of glass to which bead of adhesive caulking material will be applied (between masking tape and edge of glass) with a clean, water-dampened rag. Dry glass thoroughly with a clean, dry rag.
11. With caulking gun and nozzle positioned as illustrated in Figure 4-26 carefully apply a smooth continuous bead of caulking material $\frac{3}{8}$ " high by $\frac{3}{16}$ " wide at base completely around inside edge of glass.

NOTE: When material in first tube is dispensed, quickly insert second tube and continue application of bead. This material begins to cure after fifteen minutes exposure to air, therefore, perform the following steps immediately and install glass in the opening as quickly as possible.

12. Remove "glass-bead" nozzle and insert "smear-bead" nozzle. Holding caulking gun at an angle so that angle-cut of nozzle rests flat on pinchweld flange, apply a thin ($\frac{1}{4}$ " wide x $\frac{1}{16}$ " high) "smear-bead" of adhesive caulking material completely around pinchweld flange.
13. Install glass in body opening making certain that glass sets properly on spacers and does not have to be shifted after material contacts pinchweld flange. Align tape on glass with tape on body to guide window into opening. (See Fig. 4-25).

NOTE: When setting glass into opening, it should be in the same plane as opening so that all edges of glass contact pinchweld flange at approximately the same time.

14. Press glass firmly to set caulking material. Use caution to avoid excessive squeeze-out of material.

NOTE: Glass handling suction cups may be used when removing or installing the glass.

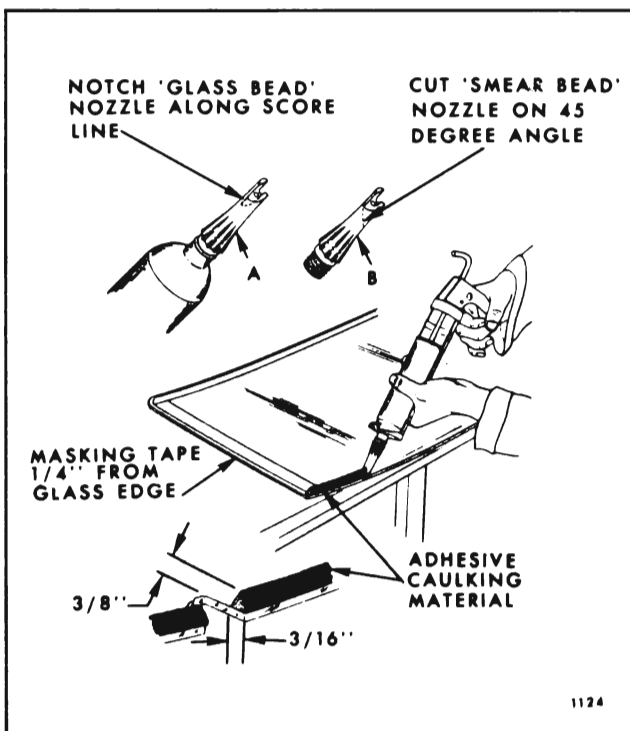


Fig. 4-26—Adhesive Caulking Installation - Extended Method

15. Inspect installation for proper seal between new caulking material and original material. If a gap is encountered, apply sufficient caulking material to fill the void. On inside of body run a flat stick around the pinchweld flanges to push excess caulking material back into opening between glass and flanges. Remove any excess squeeze-out of material.
16. Watertest installation immediately using cold water spray.
17. Remove masking tape from inside of glass.
18. Install reveal moldings, inside garnish moldings and previously removed parts.