

SECTION 10

BODY

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CORVAIR 500, 700 and 900

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GENERAL DESCRIPTION

Throughout this section, the various body styles will be referred to by number. The following chart

Series Number			Description
500 6 Cyl	700 6 Cyl	900 6 Cyl	
	769	969	4 Dr. Sedan—6 Pass.
527	727		Club Coupe—5 Pass.
		927	Club Coupe—4 Pass.
	735		4 Dr. Sta. Wagon—2 Seat

lists these numbers and relates them to body descriptions. If service information refers only to one particular body style, or group of body styles, it will be so stated in the headings (large size type) preceding each service outline. Service procedures not covered herein may be performed as outlined in the 1961 shop manual.

Corvair bodies are basically unchanged for 1962 and 1963 and service procedures outlined in the 1961 Corvair Shop Manual apply, except for the items included in the following pages.

Provisions for rapid and easy front seat belt installation are standard equipment on all Corvair models.

SERVICE OPERATIONS

CLEANING SOFT TRIM

There are four general types of trim materials used in automotive bodies:

1. Fabrics that may be either plain fabrics (broadcloth, gabardine, etc.) or pattern fabrics which are manufactured with natural or synthetic (nylon, orlon, rayon, viscose, etc.) fabrics.
2. Genuine leather.
3. Coated fabrics (vinyl or mylar).
4. Polyurethane foam.

Dust and dirt particles that accumulate on the upholstery of a car should be removed every few weeks, or oftener if the car is given constant hard use. This is done with a whisk broom or vacuum cleaner.

CAUTION: Do not use a whisk broom on fabrics having raised tapestry patterns since damage to the fine threads may result. On polyurethane foam material use only a soft bristle brush—do not use a whisk broom or vacuum cleaner.

Before attempting to remove spots or stains from upholstery fabrics, determine as accurately as possible:

1. Nature and age of the spot or stain.
2. The effect of stain removing agents on the color structure and general appearance of the fabric.

For best results, stains should be removed from upholstery as soon as possible after they have been made. If they are allowed to stand for some time, they often become set, and removal becomes more difficult—frequently, impossible.

There are three basic types of acceptable cleaners available:

1. Volatile cleaners (colorless liquids).
2. Synthetic detergents.
3. Neutral soap (nonalkaline).

The volatile cleaners are recommended since they have great solvent powers for grease, oils and general road grime. Synthetic detergents generally loosen up stains satisfactorily, however, the use of improper type detergents involves risk of damage to the color or finish of fabrics.

PROCEDURE FOR CLEANING FABRICS WITH VOLATILE CLEANERS

Care should be taken not to use too much solvent and to apply it only with clean cloths. It is the solvent that does the work—so only a minimum of pressure should be applied.

1. Brush away all loose particles of dirt and soil.
2. Dampen a clean cloth (cheese cloth may be used) with the volatile cleaner. Open the cloth and allow a portion of the cleaner to evaporate so that the cloth is *just slightly damp*.
3. Using very light pressure and circular lifting motion, rub the stained area, starting at the outer edge and working toward the center until the entire area has been covered. Change to a clean portion of the cloth every few strokes.
4. Before proceeding, wait several minutes to allow most of the volatile cleaner to evaporate. This will avoid the danger of the cleaner penetrating to the padding under the upholstery. Certain cleaners will deteriorate sponge rubber which is often used as padding.
5. It may be necessary to repeat Steps No. 2, 3, and 4 several times before the stain has been satisfactorily removed. Each time a clean cloth should be used.
6. If a ring should form on the fabric when removing a stain, the entire area of the trim assembly should be cleaned as described in the preceding steps.

7. The cleaned upholstery should be allowed to dry completely before using.

Some volatile cleaners are toxic and harmful; therefore, the following safety precautions should be used:

1. Always use a well ventilated area. Car windows and garage doors must be open when such cleaners are used.
2. Avoid prolonged or repeated breathing of vapors from cleaner.
3. Avoid prolonged or repeated contact with the skin.
4. Keep away from eyes and mouth.
5. Some cleaners are flammable, and every precaution and care must be exercised in handling these cleaners.

PROCEDURE FOR CLEANING FABRICS WITH SYNTHETIC DETERGENTS

1. Make a solution of the synthetic detergent in lukewarm water, working up a thick, frothy suds.
2. With a clean cloth or sponge, dampened with lukewarm water, apply *suds only* to the surface of the upholstery using light to medium pressure, repeating several times, applying more suds with a clean portion of the cloth or sponge.
3. With a second clean cloth, dampened with lukewarm water, rub over the area with medium pressure to remove excess detergent and loose material.
4. With a clean dry cloth, wipe off all excess moisture. A vacuum cleaner may also be used.
5. Allow the upholstery to dry partially; then repeat the above treatment if necessary to remove stain.
6. When the upholstery is satisfactorily cleaned, allow to dry completely before using.

PRECAUTIONS FOR CLEANING FABRICS

1. Solutions containing water are not recommended for *general cleaning of broadcloths*. Water has great destructive powers on the high face or high gloss finish of broadcloths, causing the nap to curl and roughen to such an extent that the finish is destroyed or made very unsightly. However, in some cases where it is necessary to use a solution containing water to remove a stain, the resultant disturbance to the finish of the material may be preferable to the stain.
2. Do not use as a cleaning solvent any gasoline which is colored or which contains tetraethyl lead.
3. Do not use solvents such as acetone, lacquer thinners, enamel reducers and nail polish remover, as a cleaning solvent.
4. Do not use laundry soaps, bleaches or reducing agents, such as the following: chloride of lime, javelle water, hydrogen peroxide, sodium hydro-

sulphite, potassium permanganate, chlorine or chlorine water, sulphurous acid (sulphur dioxide), sodium thiosulphate (Photographers' hypo). The use of these agents tends to weaken fabric and to change its color.

5. Do not use too much cleaning fluid; some interior trim assemblies are padded with rubber, and volatile cleaners are generally solvents for rubber. The application of too much cleaner may destroy these rubber pads.

PROCEDURE FOR CLEANING GENUINE LEATHER AND COATED FABRICS

Care of genuine leather and coated fabrics (includes vinyl coated formed headlining) is a relatively simple but important matter. The surface should be wiped occasionally with a dry cloth, and whenever dirt accumulates, the following cleaning instructions should be used:

1. Lukewarm water and a neutral soap should be used. Apply a thick suds, worked up on a piece of gauze or cheesecloth, to the surface.
2. The operation should be repeated, using only a damp cloth and no soap.
3. The surface should then be wiped dry with a soft cloth.

Polishes and cleaners used for auto body finishes, volatile cleaners, furniture polishes, oils, varnishes or household cleansing and bleaching agents should never be used.

PROCEDURE FOR CLEANING POLYURETHANE FOAM MATERIAL

Normal soilage such as dirt and finger prints can be removed with a cleaning solution of approximately two (2) ounces of white detergent powder mixed in a gallon of water. Immerse a clean cellulose sponge in cleaning solution. Wring the sponge out thoroughly leaving suds only; then clean soiled area carefully. Rinse off the cleaned area with sponge and clean water—DO NOT soak the cleaned area.

Soilage such as cements, sealers, and grease can be removed by first cleaning the soiled area with a detergent solution as described above—DO NOT RINSE. Leaving suds on the soiled area, clean area with a clean cloth that has been dipped in a good volatile upholstery cleaner and thoroughly wrung out. Then clean soiled area with detergent suds and rinse as described above.

PROCEDURE FOR CLEANING VICODEC FOLDING TOP MATERIAL

The top should be washed frequently with neutral soap suds, lukewarm water and a brush with soft bristles. Rinse top with sufficient quantities of clear water to remove all traces of soap.

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If the top requires additional cleaning after using soap and water, a mild foaming cleanser can be used. Rinse the whole top with water; then apply a mild foaming type cleanser on an area of approximately two square feet. Scrub area with a small soft bristle hand brush, adding water as necessary until the cleanser foams to a soapy consistency. Remove the first accumulated soilage with a cloth or sponge before it can be ground into the top material. Apply additional cleanser to the area and scrub until the top is clean. Care must be exercised to keep the cleanser from running onto body finish as it may cause streaks if allowed to run down and dry. After the entire top has been cleaned, rinse the top generously with clear water to remove all traces of cleanser. If desired, the top can be supported from the underside during the scrubbing operations.

After cleaning always be sure the top is thoroughly dry before it is lowered. Lowering the top while it is still wet or damp may cause mildew and unsightly wrinkles.

Do not use volatile cleaners or household bleaching agents on the top material.

PROCEDURE FOR CLEANING FLOOR CARPETS

Thoroughly brush or vacuum the floor carpet. In many instances the floor carpet may require no further cleaning. If carpet is extremely soiled remove carpet from car and thoroughly vacuum to remove loose dirt; then with a foaming type upholstery cleaner, clean approximately one (1) square foot of carpet at a time. After each area is cleaned, remove as much of the cleaner as possible with a vacuum cleaner. After cleaning the carpet use an air hose to "fluff" the carpet pile, then dry the carpet. After the carpet is completely dried, use an air hose to again fluff the carpet pile.

NOTE: If the carpet is not extremely soiled, the carpet may be cleaned in the car by applying a sparing amount of foaming type upholstery cleaner with a brush.

If oil or grease spots are still present on the carpet they may be removed by using a volatile cleaner.

INSTRUCTIONS FOR THE REMOVAL OF SPECIFIED STAINS FROM AUTOMOTIVE UPHOLSTERY MATERIALS

Some types of stains and soilage, including blood, ink, chewing gum, etc., require special consideration for most satisfactory results. For these, and other stains, specific instructions are outlined in succeeding paragraphs. It must be expected, particularly where water treatment is specified, that discoloration and finish disturbance may occur. In some cases fabric disturbance may be considered preferable to the stain itself. By following the procedures outlined with nor-

mal care and caution, reasonably satisfactory results can be expected.

Battery Acids

Apply ordinary household ammonia water with a brush or cloth to the affected area, saturating it thoroughly. Permit the ammonia water to remain on the spot about a minute, so that it will have ample time to neutralize the acid. Then rinse the spot by rubbing with a clean cloth saturated with cold water.

This treatment will suffice for both old and new stains. However, no type of treatment will repair damage to fibers resulting from the action of the acids on the fibers—particularly after the spot has dried.

Blood

Do not use hot water or soap and water on blood stains since they will set the stain, thereby making its removal practically impossible.

Rub the stain with a clean cloth saturated with cold water until no more of the stain will come out. Care must be taken so that clean portions of cloth are used for rubbing the stain.

This treatment should remove all of the stain. If it does not, apply a small amount of household ammonia water to the stain with a cloth or brush. After a lapse of about one minute, continue to rub the stain with a clean cloth dipped in clear water.

If the stain remains after the use of water and ammonia, a thick paste of corn starch and cold water may be applied to the stained area. Allow the paste to remain until it has dried and absorbed the stain. Then pick off the dry starch. Brush the surface to remove starch particles that remain. For bad stains, several applications of starch paste may be necessary.

Candy

Candy stains, other than candy containing chocolate, can be removed by rubbing the affected area with a cloth soaked with very hot water. If the stain is not completely removed, rub area lightly (after drying) with a cloth wet with a volatile cleaner. This will usually remove the stain.

Candy stains resulting from cream and fruit-filled chocolates can be removed more easily by rubbing with a cloth soaked in lukewarm soap-suds (mild neutral soap) and scraping, while wet, with a dull knife. This treatment is followed with a rinsing by rubbing the spot with a cloth dipped in cold water.

Stains resulting from chocolate or milk chocolate can be removed by rubbing the stain with a cloth wet with lukewarm water. After the spot is dry, rub it lightly with a cloth dipped in a volatile cleaner.

Chewing Gum

Harden the gum with an ice cube, and scrape off particles with a dull knife. If gum cannot be removed completely by this method, moisten it with a volatile cleaner and work it from the fabric with a dull knife, while gum is still moist.

Fruit, Fruit Stains, Liquor and Wine

Practically all fruit stains can be removed by treatment with very hot water. Wet the stain well by applying hot water to the spot with a clean cloth. Scrape all excess pulp, if present, off the fabric with a dull knife; then rub vigorously with a cloth wet with very hot water. If the stain is very old or deep, it may be necessary to pour very hot water directly on the spot, following this treatment with the scraping and rubbing. Direct application of hot water to fabrics is not recommended for general use since discoloration usually results.

If the above treatments do not remove stain, allow fabric to dry thoroughly; then rub lightly with a clean cloth dipped in a volatile cleaner. This is the only further treatment recommended.

Soap and water are not recommended since they will probably set the stain and cause a permanent discoloration. Drying the fabric by means of heat (such as the use of an iron) is not recommended.

Grease and Oil

If grease has been spilled on the material, as much as possible should be removed by scraping with a dull knife or spatula before further treatment is attempted.

Grease and oil stains may be removed by rubbing lightly with a clean cloth saturated with a volatile cleaner. Be sure all motions are toward the center of the stained area to decrease the possibility of spreading the stain.

Ice Cream

The same procedure is recommended for the removal of ice cream stains as that used in removing fruit stains.

If the stain is persistent, rubbing the spot with a cloth wet with warm soap suds (mild neutral soap) may be used to some advantage after the initial treatment with hot water. This soap treatment should be followed with a rinsing, by rubbing with a clean cloth wet with cold water. After this dries, rubbing lightly with a cloth wet with volatile cleaner will clear up the last of the stain, by removing fatty or oily matter.

Nausea

Sponge with a clean cloth, dipped in clear cold water. After most of the stain has been removed in this way, wash lightly with soap (mild neutral), using a clean cloth and lukewarm water. Then rub with another clean cloth dipped in cold water. If any of the stain remains after this treatment, gently rub clean with a cloth moistened with a volatile cleaner.

Shoe Polish and Dressings

On types of shoe dressings which contain starch or dextrine or some water soluble vehicle, allow the polish to dry; then brush the spot vigorously with a brush. This will probably be all the treatment that is necessary. If further treatment is required moisten

the spot with cold water and after it has dried, repeat the brushing operation.

Paste or wax type shoe polishes may require using a volatile cleaner. Rub the stain gently with a cloth wet with a volatile cleaner until the polish is removed. Use a clean portion of the cloth for each rubbing operation and rub the stained area from outside to center.

Tar

Moisten the spot slightly with a volatile cleaner, and then remove as much of the tar as possible with a dull knife. Follow this operation by rubbing the spot lightly with a cloth wet with the cleaner until the stain is removed.

Urine

Sponge the stain with a clean cloth saturated with lukewarm soap suds (mild neutral soap) and then rinse well by rubbing the stain with a clean cloth dipped in cold water. Then saturate a clean cloth with a solution of one part household ammonia water and five parts water. Apply the cloth to the stain and allow solution to remain on affected area for one minute; then rinse by rubbing with a clean wet cloth.

Lipstick

The compositions of different brands of lipsticks vary, making the stains very difficult to remove. In some instances a volatile cleaner may remove the stain. If some stain remains after repeated applications of the volatile cleaner, it is best to leave it rather than try other measures.

DOORS

FRONT AND REAR DOORS

Front and Rear Door Arm Rests

All door arm rests are the applied type and are secured to the door inner panel by two (2) attaching screws. When a door arm rest is removed it may be necessary to reseal the attaching screw holes with body caulking compound prior to installation.

Removal and Installation

1. Remove screws securing arm rest assembly to door inner panel and remove assembly.
2. To install, reverse removal procedure.

Front and Rear Door Weatherstrip Assemblies "27" Style

On "27" style, a new type of door weatherstrip is used which eliminates the necessity of sealing plugs and wire retaining clips. This weatherstrip is of a vinyl construction and does not require lubrication. The new weatherstrip is retained by a series of hard-core integral sealing and retaining plugs which fit into pierced holes in the door panels.

Removal

1. With a flat-bladed tool, carefully break cement bond along door window frame assembly, at belt line and at lower front radius of door. Cement should extend for a minimum of eight (8) inches below belt line on door hinge pillar and one (1) inch below belt line on door lock pillar. Cement at lower front radius of door is used between weatherstrip retaining plugs (approximately four (4) inches).
2. After all cement bonds have been broken, carefully pry the weatherstrip retaining plugs loose with aid of a putty knife or other suitable flat-bladed tool.

Installation

1. Clean off old cement from door to insure a clean cementing surface. Mineral spirits or a volatile cleaner are recommended for this cleaning operation.
2. Check weatherstrip retaining plugs for proper contour. If a plug becomes damaged, trim off shoulders with a sharp knife or razor blade so that plug can be installed by hand and cement plug into its respective attaching hole with "Vinyl Weatherstrip Adhesive" or its equivalent. If a retaining plug is missing, run a bead of vinyl weatherstrip adhesive two (2) inches long on door panel—one (1) inch on either side of attaching hole, and firmly press weatherstrip into place. If an excessive number of weatherstrip carrots become damaged or are missing, replacement of the entire weatherstrip may be necessary.
3. With the new vinyl type door weatherstrips, a vinyl weatherstrip adhesive must be used. This cement will effectively adhere to the vinyl weatherstrip without attacking the paint finish. Prior to installation of weatherstrip, apply a continuous bead of vinyl weatherstrip adhesive along entire length of channel in door upper frame. Also apply a bead of vinyl weatherstrip adhesive for a minimum length of eight (8) inches on door hinge pillar (cove area, see view "C" fig. 1), and a minimum length of one (1) inch on door lock pillar (see view "D") and between carrots at lower front radius of door (see view "F").

NOTE: When applying weatherstrip cement, follow manufacturer's directions.

4. Using a putty knife, or other suitable flat-bladed tool, install door weatherstrip into door window frame assembly.
5. Beginning at either side of door, install weatherstrip retaining plugs into door weatherstrip piercings with tool J-9442 (view "A-A", fig. 1).

CAUTION: Tool J-9442 is specifically designed for installation of this weatherstrip. An attempt to install vinyl weatherstrip without this tool will probably result in damaged weatherstrips.

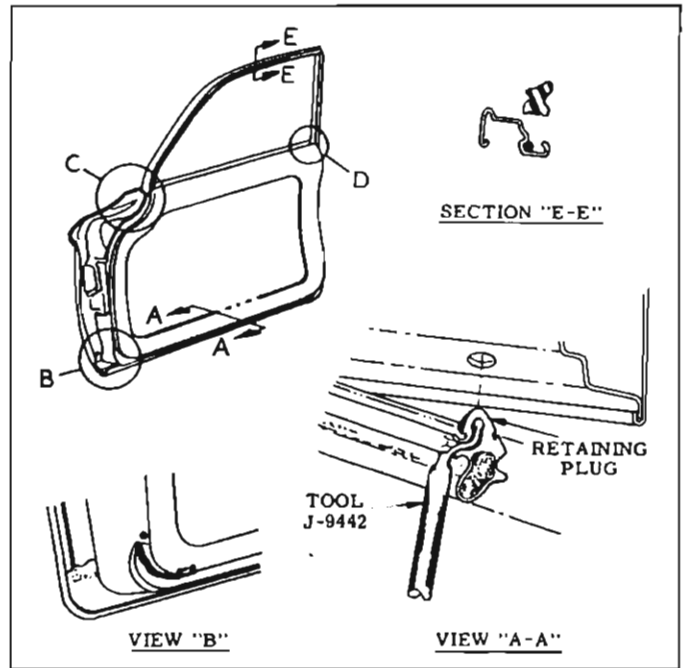


Fig. 10-1—Vinyl Weatherstrip Installation

NOTE: The door weatherstrip piercings are equally spaced every four (4) inches while the weatherstrip retaining plugs are equally spaced every 3 ¼ inches. This requires a ¼ inch stretching of the weatherstrip between each plug during installation. This stretching helps to effect a tight weatherstrip seal. The only exception to this weatherstrip plug spacing is in the cove area where an extra retaining plug has been added for more effective retention.

CAUTION: Any excess sealer should be cleaned off immediately to avoid paint damage.

Front and Rear Door Pinchweld Finishing Strips 927-969 Styles

On Monza styles, a one-piece strip assembly of a woven cotton and vinyl construction is used. This new pinchweld finishing strip is retained by two wires extending the length of the assembly.

Removal and Installation

1. Remove center pillar-to-roof rail finishing plate and door sill plate. Carefully pull strip assembly loose from pinchweld.
2. To install, begin at front edge of sill plate and press strip over pinchweld.

NOTE: The front end of the front door finishing strip is marked with red ink and the rear end of the rear door finishing strip is marked with yellow ink (see fig. 2).

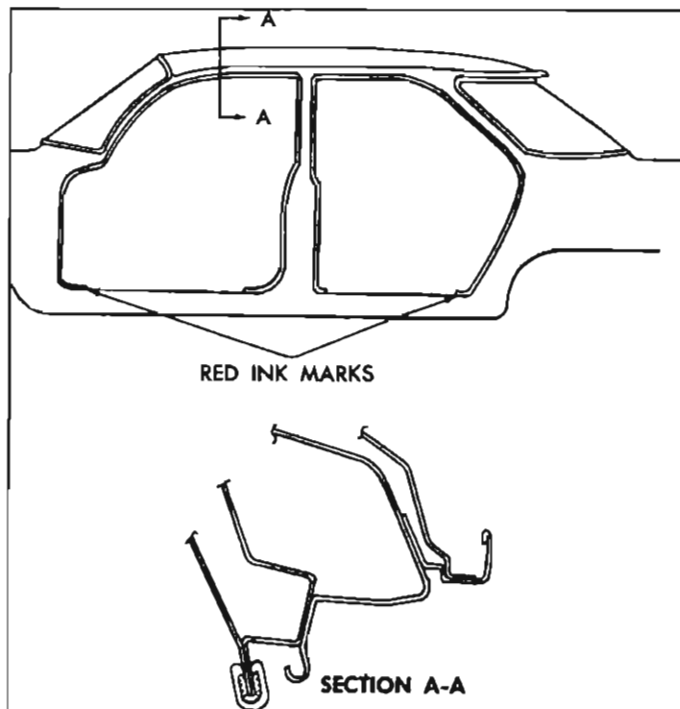


Fig. 10-2—Pinchweld Finishing Strips—Monza

Front and Rear Door Outside Handle Assembly

Removal and Installation

1. Raise door window, remove door trim assembly and detach upper rear corner of inner panel water deflector sufficiently to gain access to door outside handle attaching bolts (see fig. 3).
2. Remove two bolts (through large access hole) which secure handle to door outer panel.
3. Remove door lock handle and gaskets from outside of body.
4. To install, reverse removal procedure.

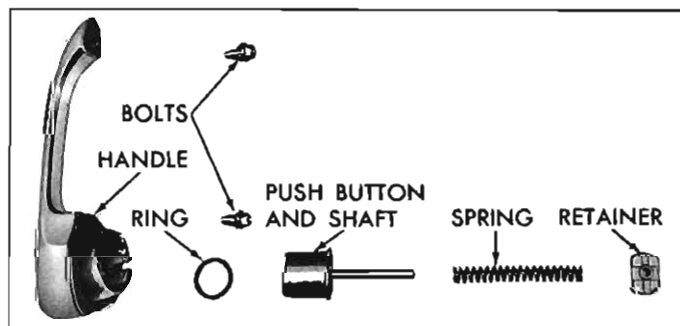


Fig. 10-3—Door Outside Handle

Front and Rear Door Window Glass Run Channel Inner and Outer Strip Assemblies

Glass run channel strip assemblies are used on all doors on all styles incorporating a dropping window and are designed to prevent cold air and water from

entering the body between the door window lower sash channel and door inner and outer panels. Strip assemblies are similar to those used on past models and are secured to the door inner and outer panels by a series of attaching clips.

Removal and Installation

1. Apply masking tape to door panel adjacent to strip assembly being removed to protect paint finish.
2. Insert a pointed hooked tool between strip assembly to be removed and door panel at clip locations and pull up to disengage clips from door panel and remove strip assembly (see fig. 4).
3. To install, position assembly and secure clips in slots in door panel. Remove protective tape.



Fig. 10-4—Glass Run Channel Strip (Outer shown)

FRONT DOORS

Front Door Window Inner Panel Cam "27" Style

On all two door models, a double arm window regulator is used to give more rigidity to door glass during its normal operating cycle. The balance arm of a double arm regulator operates within an inner panel cam. The inner panel cam must be removed when removing the window or regulator.

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. Remove two (2) bolts securing cam to inner panel; slide cam forward to disengage cam from balance arm roller and remove cam through large access hole.
3. To install, reverse removal procedure. Prior to installation, lubricate entire length of inner panel cam with 630AAW lubriplate or equivalent.

REAR QUARTER

TRIM AND HARDWARE

Rear Quarter Stationary Window 735 Style

Removal

1. Remove rear quarter belt finishing moldings and rear quarter trim panels.
2. Under lip of quarter window rubber channel remove screws securing quarter window assembly retainers (fig. 5).

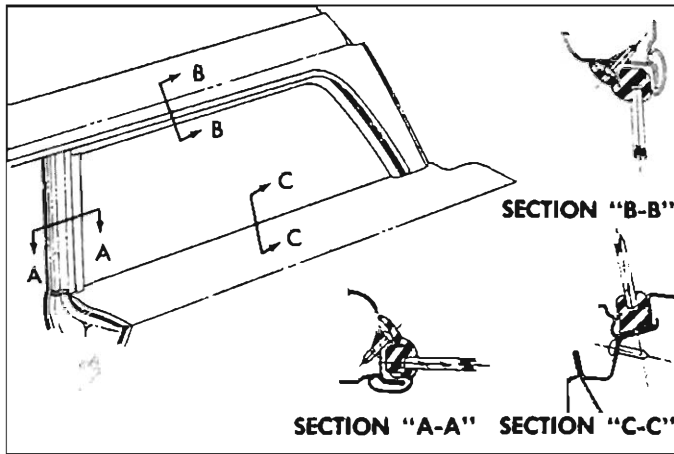


Fig. 10-5—Rear Quarter Stationary Window—735 Model

3. Carefully break seal between rubber channel and body opening. With the aid of a helper, carefully push glass and rubber channel assembly inboard and remove assembly from opening.

NOTE: Use care to make certain 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 insure a good smooth sealing surface.
2. Apply a continuous bead of body caulking compound completely around window opening (fig. 6).
3. Install rear quarter window and rubber channel assembly. Secure window in opening by installing window assembly retainers (fig. 5).
4. Using a pressure type applicator, apply an approved weatherstrip adhesive (black) between glass and outer lip of rubber channel completely around window. Clean off excess sealer.
5. Replace previously removed parts.

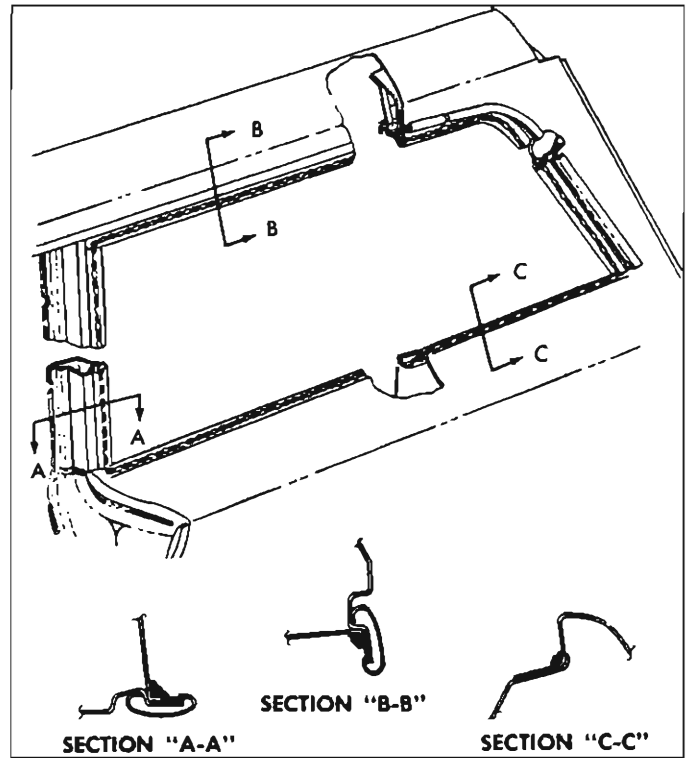


Fig. 10-6—Stationary Window Sealing

REAR END

Back Window Assembly "27" and "69" Styles

The glass used in the back window is solid tempered safety plate glass. It is retained in the body opening by a conventional rubber channel. All except the "500" series styles incorporate back window reveal moldings (fig. 7). The 769 and 969 style back window reveal moldings are retained in a cavity in the back window

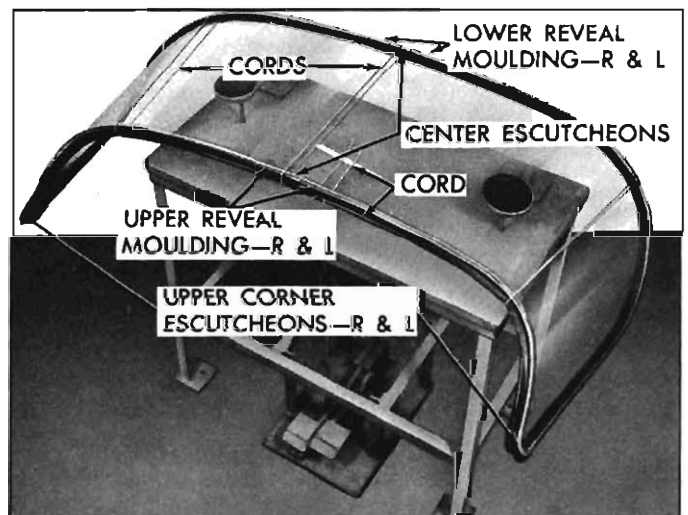


Fig. 10-7—Back Window Assembly

rubber channel requiring removal of the back window assembly to remove the moldings. The 727 and 927 style back window reveal moldings are secured by clips attached to the body opening pinchweld flange requiring removal of the moldings to remove the back window assembly.

Back Window Reveal Moldings "69" Style

The back window reveal moldings are retained in a cavity in the rubber channel by an "L" shaped flange on the moldings. To remove the back window reveal moldings it is necessary to remove the back window assembly. With the back window assembly removed the reveal moldings can be removed as a bench operation.

Back Window Assembly "69" Style

Removal

1. Place protective covering over painted surfaces, rear seat cushion and back and trim adjacent to back window.
2. From inside body, carefully break seal between lip of rubber channel and pinchweld flange completely around perimeter of glass.
3. Carefully push lower edge of window and rubber channel assembly rearward until lip of rubber channel is disengaged from retaining flange; then push upper edge until it is disengaged from pinchweld flange.
4. With aid of a helper, lift complete assembly from body opening and place on a protected surface. Remove back window reveal moldings and/or rubber channel from glass.

BACK DOOR 735 Style

Removal and Installation

1. Open back door and mark location of hinge strap on back door inner panel to facilitate installation in same location.
2. With the aid of a helper (to hold back door), remove hinge-to-back door attaching bolts (fig. 8) at both hinges and remove back door assembly.
3. To install back door assembly, first, as an anti-squeak precaution, apply a coat of heavy-bodied sealer to attaching surfaces of both hinges (fig. 9); then, reverse removal procedure. Align back door with previously made hinge marks.
4. Where required, adjust back door as described under "Back Door Adjustments."

Back Door Adjustments

1. To adjust the back door assembly "up or down" or "side-to-side" in the back body opening, remove

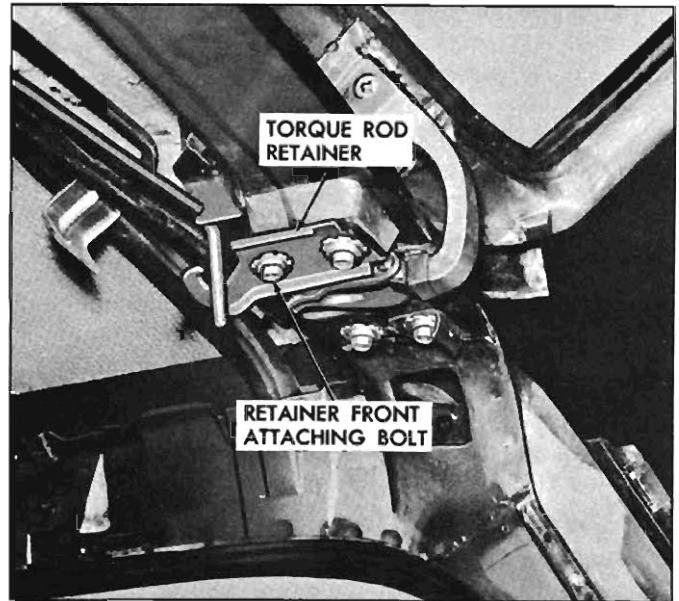


Fig. 10-8—Back Door Hinge and Torque Rod Retainer

back door lock striker and loosen both right and left hinge-to-back door attaching bolts. Shift door to desired position on hinges; then, tighten hinge attaching bolts and install back door lock striker.

2. To adjust the upper portion of the back door "in or out," proceed as follows:
 - a. Remove back door opening upper finishing panels.
 - b. Mark position of torque rod retainers (fig. 8) at both right and left hinges to facilitate repositioning of retainers in same fore and aft position.
 - c. Using a suitable length of pipe over end of torque rod, release tension of torque rod from retainer. While tension of torque rod is released from retainer, loosen retainer attaching bolts; then, release retainer. Loosen the two remaining hinge attaching bolts. Perform this operation at both right and left hinges.

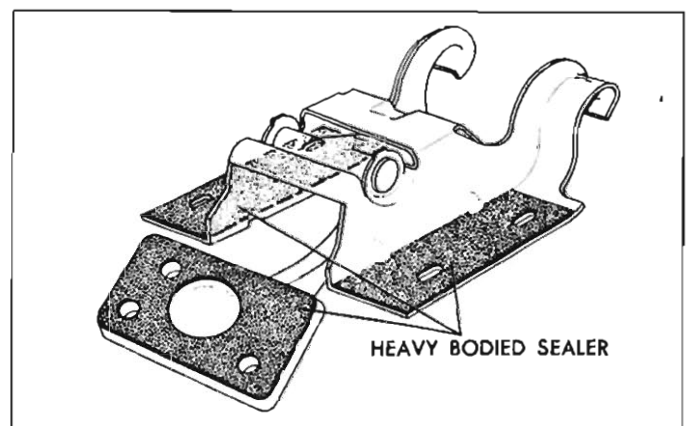


Fig. 10-9—Back Door Hinge Antisneak

- d. Shift the hinges and back door assembly to desired position; then, tighten hinge attaching bolts making sure torque rod retainers are aligned with previously made marks. Install back door opening upper finishing panels.
3. To adjust the lower portion of the door in or out, see "Back Door Lock Striker Adjustments."

Back Door Hinge Torque Rod and Back Door Hinge Assembly

Removal

1. Raise back door and remove both right and left back body opening upper finishing panels.
2. Prop the back door in the open position on the side from which hinge is being removed.

NOTE: If removing both hinges, remove the back door assembly from the hinges.

3. Mark position of torque rod retainer to facilitate installation in same fore and aft position.
4. Using a suitable length of pipe over end of torque rod, release tension of torque rod from retainer. While tension of torque rod is released from retainer, remove retainer front attaching bolt and loosen (no more than two (2) turns) retainer rear attaching bolt; then, swing front end of retainer towards outside of body and release torque rod (fig. 10).

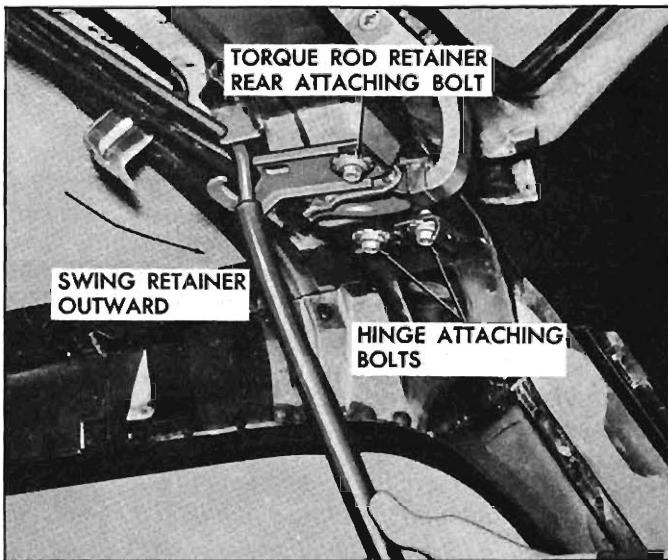


Fig. 10-10—Back Door Hinge and Torque Rod Removal

5. If removing left torque rod, remove clip securing torque rod to body upper panel. Loosen anti-rattle clip attached to both torque rods; then, disengage torque rod from hinge and remove torque rod.
6. Remove hinge to back door attaching bolts; then, remove hinge to body attaching bolts and remove torque rod retainer and hinge from body.

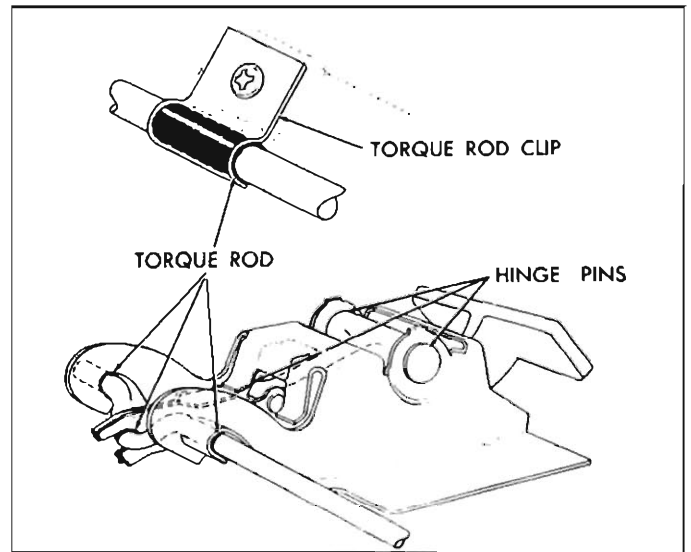


Fig. 10-11—Back Door Hinge and Torque Rod Lubrication

Installation

1. Lubricate both right and left hinge pivot pins with an approved dripless oil (fig. 11).
2. As an anti-squeak precaution, apply a coat of heavy-bodied sealer to surfaces of hinge which contact body and back door (fig. 9).
3. To install back door hinge assembly, reverse the "Removal" procedure.

NOTE: When installing hinge torque rod make certain torque rod is properly engaged with hinge (fig. 11) and align torque rod retainer with previously made marks.

4. After installation of torque rods, lubricate torque rod frictional surfaces on both right and left hinges and frictional surfaces of both torque rod clips with Lubriplate 630 AAW or equivalent (fig. 11).
5. Where required, adjust back door as described under "Back Door Adjustments."

Back Door Hinge Torque Rod Tension Adjustment

The amount of effort required to open and close the back door is determined by the forward and rearward position of the right and left torque rod retainers. If both torque rod retainers are adjusted to the full forward position, the amount of effort to raise the lid is the greatest and the amount of effort to close the lid is the least. If both torque retainers are adjusted to the full rearward position, the amount of effort to raise the lid is the least and the amount of effort to close the lid is the greatest.

NOTE: It is not necessary to adjust both right and left torque rod retainers at the same time or to the same final position.

Adjust torque rod retainers as follows:

1. Raise back door and remove both right and left back body opening upper finishing panels.
2. Securely prop back door in the open position.
3. Mark location of retainer to facilitate adjustment from original position.
4. Using a suitable length of pipe over end of torque rod remove tension of torque rod from retainer. While tension of torque rod is removed from retainer, loosen retainer attaching bolts (fig. 8), adjust retainer forward or rearward as required; then, tighten retainer attaching bolts.
5. Lubricate both right and left hinge pivot pins with an approved dripless oil (fig. 11). Lubricate torque rod frictional surfaces on both hinges and frictional surfaces of both torque rod clips with Lubri-plate 630 AAW or equivalent.
6. Install back body opening upper finishing panels.

Back Door Lock Assembly

Removal and Installation

1. Remove inner panel access hole cover.
2. Remove three back door lock attaching screws from face of lock pillar and remove lock through hole in door inner panel.
3. To install, reverse removal procedure. Check operation of lock.

Back Door Lock Striker Adjustments

1. To adjust the back door lock striker forward or rearward to obtain in or out adjustment of the lower portion of the door, or to adjust the striker sideways to obtain proper alignment with the back door lock rotary bolt, loosen striker attaching screws, shift striker to desired position and tighten screws.
2. Lock striker emergency spacer requirements:
 - a. The back door assembly should be properly aligned in the body opening prior to checking spacer requirements.
 - b. To determine if lock striker emergency spacers are required, apply modeling clay or body caulking compound in the lock striker notch where the lock extension engages; then, close the back door to form a measurable impression in the clay or caulking compound (fig. 12).
When dimension "A" from inside face of striker teeth is less than $\frac{3}{16}$ ", install one or more $\frac{1}{16}$ " emergency spacers (see Parts Book) to bring dimension "A" to the specified $\frac{3}{16}$ ". If two or three spacers are required, install $\frac{1}{8}$ " longer striker attaching screws. If three or four spacers are required, install $\frac{1}{4}$ " longer striker attaching screws.

NOTE: Dimension "B" from center of lock extension to inside face of striker should never be less than $\frac{1}{8}$ ".

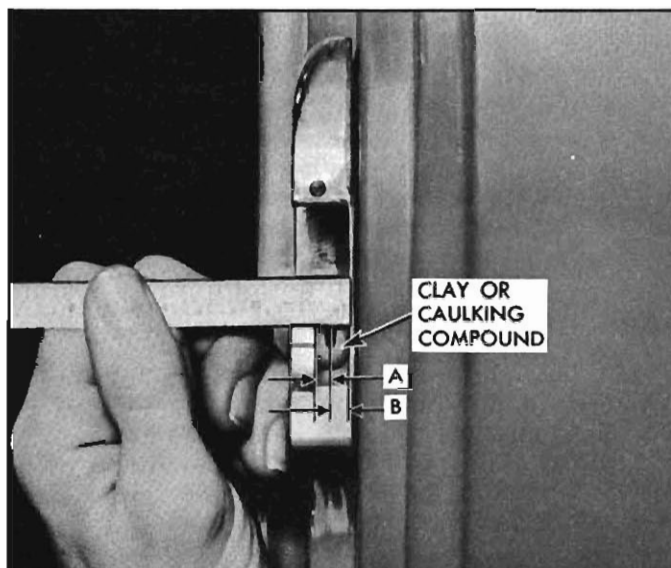


Fig. 10-12—Lock Striker Engagement Check

Back Door Outside Handle

Removal and Installation

1. Remove back door trim assembly as described under "Back Door Trim Assembly."
2. Remove two (2) screws securing outside handle (fig. 13) and remove handle and gaskets.
3. To install back door outside handle, first cement handle gaskets to handle with weatherstrip adhesive (black) and apply a coat of adhesive to surface of gaskets which contact door outer panel; then, reverse removal procedure.

Back Door Lock Cylinder Assembly

Removal and Installation

1. Remove back door trim assembly as described under "Back Door Trim Assembly."
2. Using a hooked tool or other suitable tool, through

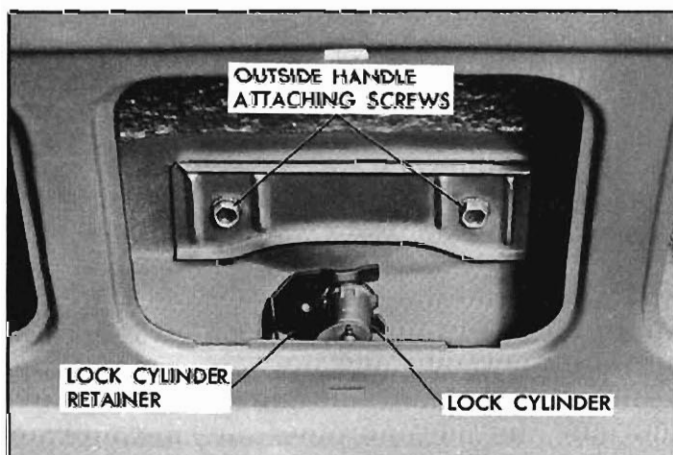


Fig. 10-13—Outside Handle and Lock Cylinder

access holes in door inner panel, pry out lock cylinder retaining clip (fig. 13) sufficiently to allow removal of lock cylinder and gasket from outer panel.

3. To install lock cylinder assembly, reverse removal procedure. Apply weatherstrip adhesive (black) on both contacting surfaces of lock cylinder gasket. Check operation of lock cylinder and lock before installing inside trim.

Back Door Weatherstrip

Removal

1. With a flat-bladed tool, carefully break cement bond securing butt ends of weatherstrip at bottom center of door and cement bond securing weatherstrip to door for a distance of approximately two (2) inches on both sides of butt joint.
2. Starting at bottom center of door, insert tip of weatherstrip clip inserting tool (J-5757) or other suitable tool at the first clip and carefully snap clip from retaining hole. Then, using a flat-bladed tool, carefully break cement bond securing weatherstrip in corner of rabbet to the next clip. Perform the alternate operations of snapping clip out of retaining hole, and breaking cement bond to the next clip completely around door; then, remove weatherstrip.

Installation

1. Clean off old cement from back door to provide a clean cementing surface.
2. Check weatherstrip clips for proper contour and reform clips, where required, using clip reforming tool J-5984 (fig. 14).
3. For a distance of two (2) inches on both sides of the butt joint location (bottom center of door), apply weatherstrip adhesive (neoprene type) to the

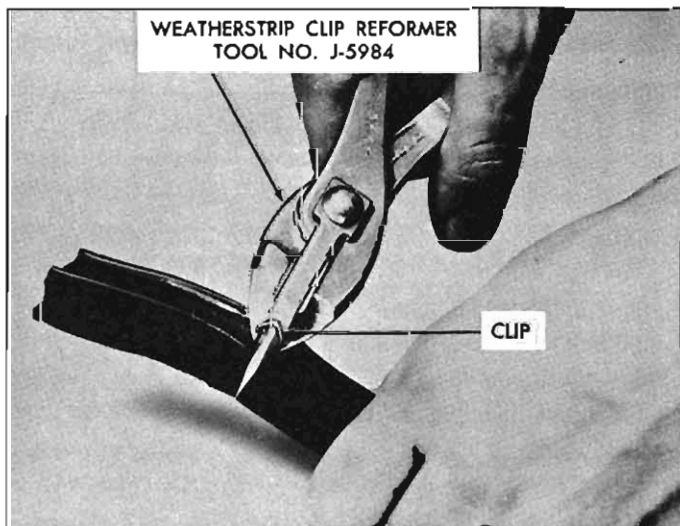


Fig. 10-14—Reforming Weatherstrip

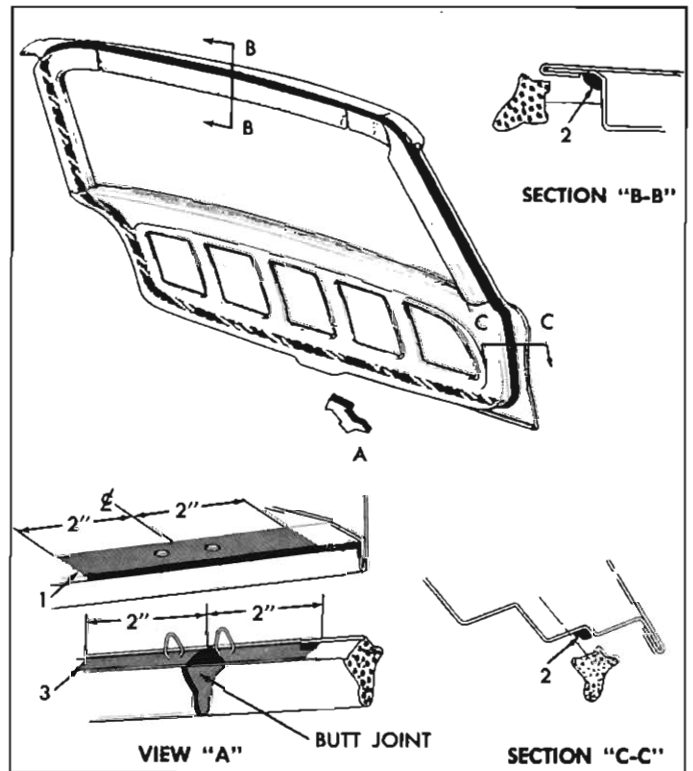


Fig. 10-15—Back Door Weatherstrip Installation

door panel surface contacted by the weatherstrip (See "1" in View "A," fig. 15).

4. Apply a band of weatherstrip adhesive (black) in the corner of the rabbet, ("2" in Sections "B-B" and "C-C" in fig. 15) completely around door.
5. For a distance of two (2) inches on both ends of weatherstrip, apply a coat of weatherstrip adhesive (neoprene type) to the weatherstrip surface which contacts the door panel ("3" in View "A" of fig. 15).
6. Starting with end of weatherstrip at bottom center of door install weatherstrip clips into retaining

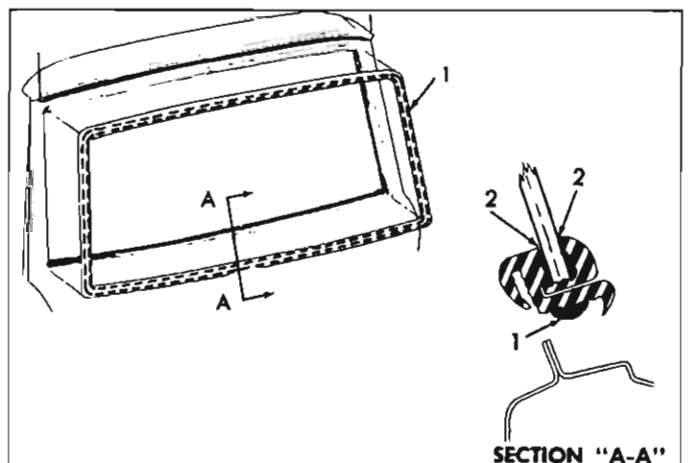


Fig. 10-16—Back Door Window Sealing

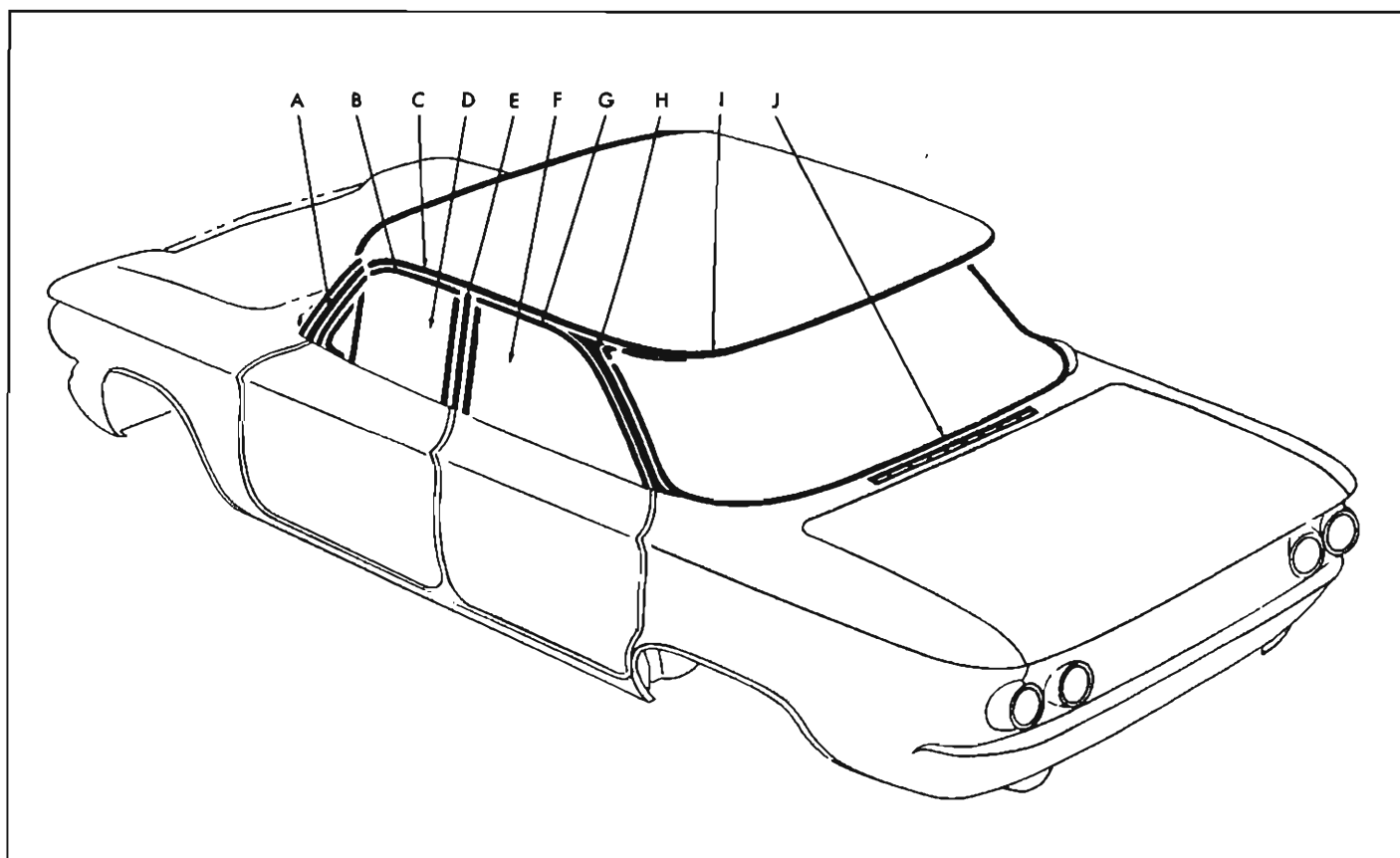


Fig. 10-17—Body Exterior Moldings—969 Model

- | | | | |
|--|--|---|---|
| A. Windshield Pillar Drip Molding | D. Front Door Frame Vertical Scalp Molding | G. Rear Door Window Frame Upper Scalp Molding | I. Roof Drip Molding Rear Scalp Molding |
| B. Front Door Window Frame Upper Scalp Molding | E. Center Pillar Scalp Molding | H. Rear Body Lock Pillar Scalp Molding | J. Rear Compartment Front Panel Ornament Grille |
| C. Roof Drip Molding Front Scalp | F. Rear Door Window Frame Vertical Scalp Molding | | |

holes completely around door using weatherstrip clip inserting tool J-5757. Press or roll weatherstrip completely around door to assure a good cement bond.

- Apply weatherstrip adhesive (neoprene type) to butt ends of weatherstrip and cement ends together to form an even butt joint (See View "A," fig. 15).

Back Door Window

Removal

- From inside body, carefully break seal between inside lip of rubber channel and pinchweld flange completely around rubber channel.
- With aid of a helper, to support glass on outside of body, carefully push lower edge of glass and rubber channel assembly outward until lip of rubber channel is disengaged from pinchweld flange; then, disengage remainder of rubber channel from pinchweld flange and remove rubber channel and glass from back door window opening.
- Remove rubber channel and, where present, reveal moldings from glass.

Installation

IMPORTANT: Care should be exercised to make certain glass does not strike body metal during installation as edge chips can cause tempered plate glass to shatter. DO NOT attempt to grind glass.

- Clean off original sealer from rubber channel and back door window opening.
- Check back door window opening pinchweld flange for any irregularities and correct where required.
- Install rubber channel to glass.
- Apply a continuous ribbon of medium-bodied sealer (approximately 1/4 inch thick to base of rubber channel, as indicated at "1" in Section "A-A," fig. 16) completely around rubber channel.
- Insert a strong cord into pinchweld cavity of rubber channel so that ends of cord are at bottom center of glass. Tape ends of cord to inside surface of glass.

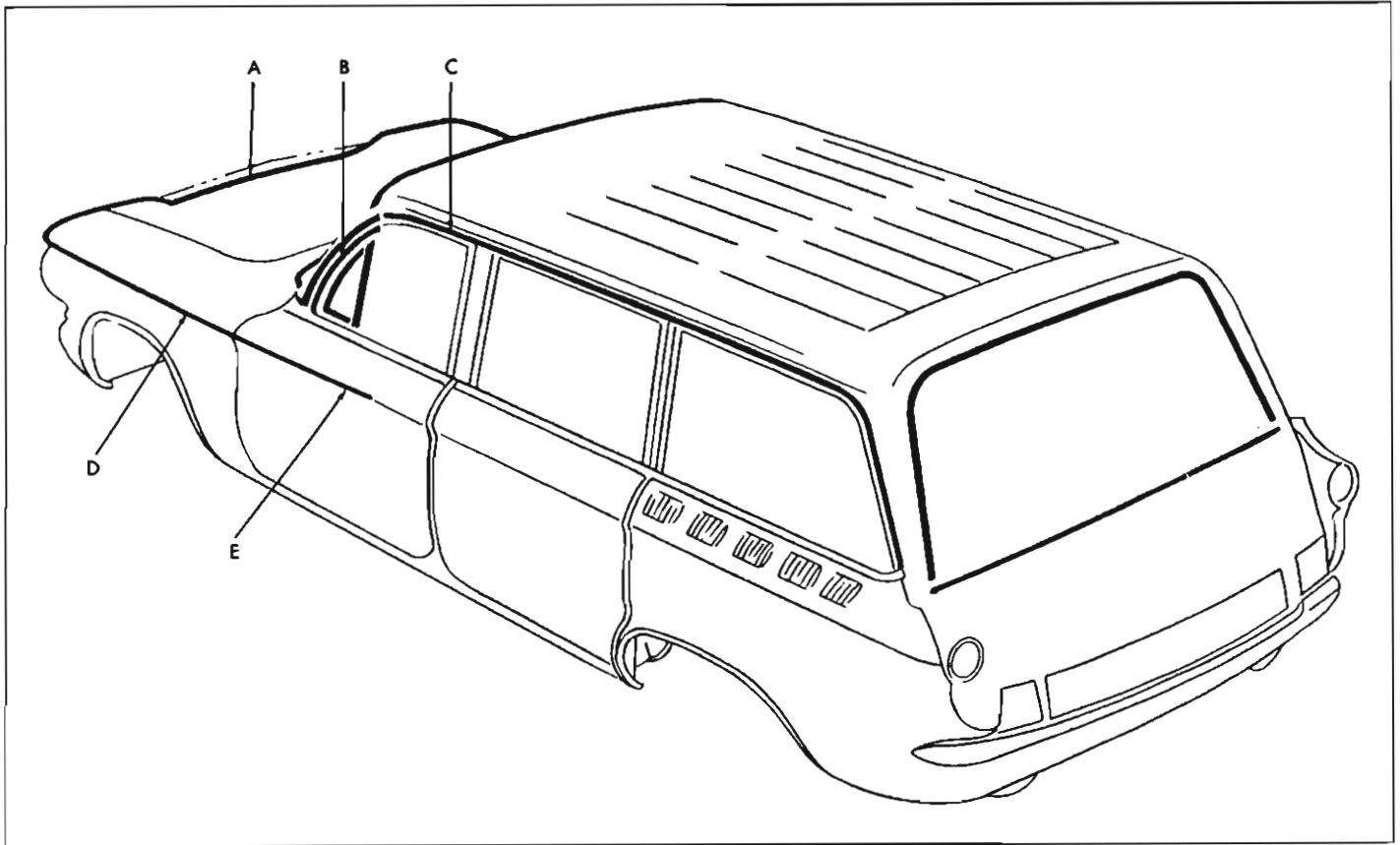


Fig. 10-18—Body Exterior Moldings—735 Model

A. Front Compartment Outer Panel Molding

B. Windshield Pillar Drip Molding
C. Roof Drip Scalp Molding

D. Front Fender Outer Panel Molding

E. Front Door Outer Panel Lower Molding

6. With aid of a helper, position glass and rubber channel assembly into door window opening. While a helper is applying hand pressure to outside surface of glass, use a hooked tool to seal lip of rubber channel over pinchweld flange at sides of window opening; then, pull cords in rubber channel to seat lip over flange across bottom and across top of window opening.
7. Using a pressure type applicator, apply weatherstrip adhesive (black) between rubber channel and glass on inside and outside of glass, ("2" in fig. 16) completely around glass and rubber channel. Application of adhesive should be continuous with no skips.
8. Clean off all excess sealer and adhesive.

EXTERIOR MOLDINGS

GENERAL INFORMATION

Body exterior moldings are illustrated in Figures 17 and 18 and are replaced as outlined in the 1961 Corvair Shop Manual, except as follows:

Front Door Outer Panel Lower Molding 700 Style

The molding is secured to the outer panel by bath-tub type snap-on clips and by a snap-in bolt and clip assembly (fig. 19), the clips being previously installed in the outer panel.

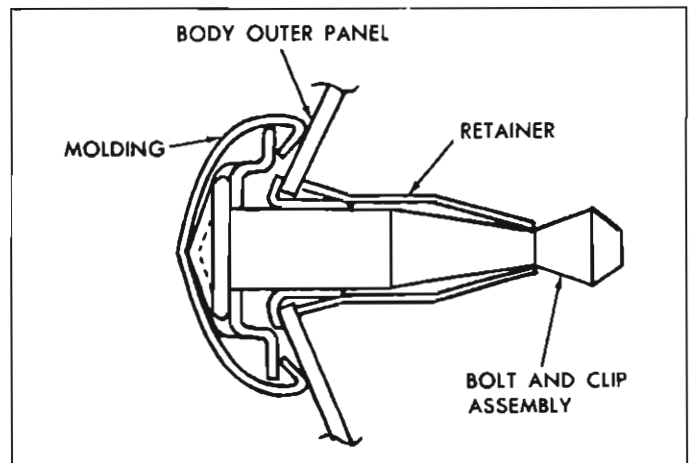


Fig. 10-19—Body Molding Bolt and Clip Assembly

To remove the molding: with a flat-bladed tool, carefully unsnap the molding from the door at each clip location. Start removal from front of door.

To install the molding: replace damaged clips and retainers as required. Position front of molding to front edge of door and align rear bolt and clip assembly with preinstalled rear retaining clip. With upper edge of molding engaged on the bathtub clip snap lower edge in place. Then snap the rear bolt into the clip.

Center Pillar Scalp Molding

The scalp is retained to the center pillar by retaining screws.

To remove the scalp: remove retaining screws.

To install the scalp: apply heavy-bodied sealer ($\frac{1}{8}$ " x $\frac{1}{4}$ " x $\frac{1}{4}$ ") at the top and bottom of the inner facing of the scalp. Position the scalp and secure with attaching screws.

Rear Body Lock Pillar Scalp

The scalp is retained to the lock pillar by retaining screws at the front and rear facing of the body lock pillar.

To remove the molding: remove the back glass (described in rear end back window assembly). Remove the attaching screws.

To install the molding: position the molding and attach sealing screws in the front and rear lock pillar facing. Replace back window.

Rear Compartment Front Panel Ornament Grille

The grille is secured to the rear compartment front panel by retaining screws.

To remove the grille: remove the attaching screws.

To install the grille: position the grille to depressed area and secure with proper sealing screws.

SEATS

BUCKET TYPE FRONT SEATS

Figure 20 is typical of bucket seat installation with driver and passenger seat assemblies equipped with manually operated seat adjusters.

All seat adjusters and stationary supports are bolted to the seat bottom frame; however, a combination of bolts and nuts are used to retain the adjusters or stationary supports to the floor pan assembly (fig. 20).

All adjusters are equipped with assist springs which are attached to the outboard adjuster.

Bucket Type Front Seat Assembly (Driver or Passenger-Manual)

Removal and Installation

1. Turn back floor carpeting sufficiently to expose seat adjuster-to-floor pan attaching nuts or bolts.

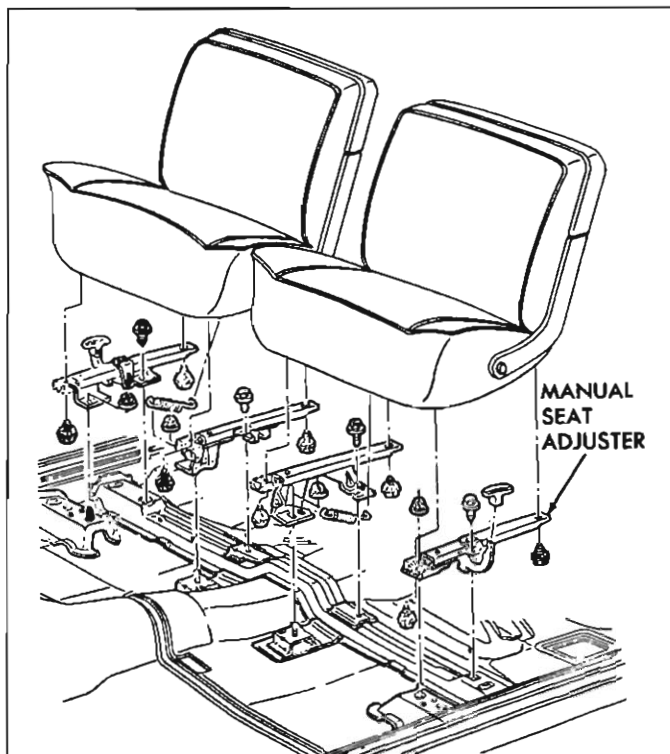


Fig. 10-20—Bucket Seat Assembly

2. Operate seat assembly to rearward position.
3. Loosen adjuster to floor pan attaching nuts or bolts.
4. Operate seat assembly to full forward position.
5. At rear of seat, remove adjuster to floor pan attaching nuts or bolts.
6. Carefully slide seat assembly rearward until front adjusters are removed from under front attaching nuts or bolts.
7. With aid of helper, remove seat assembly with attached adjusters from body.
8. To install, reverse removal procedure. Be sure adjusters are properly engaged under front attaching nuts or bolts prior to installing rear attaching bolts.

Front Seat Adjusters (Driver or Passenger—Manual)

Removal and Installation

1. Remove front seat assembly as previously described and place upside down on a clean, protected surface.
2. If adjuster to be replaced is equipped with an assist spring, remove spring from adjuster.
3. Operate adjuster so that both front and rear attaching bolts are accessible.
4. If power operated outboard adjuster is being replaced, disconnect power drive cable from adjuster gear nut.

BODY 10-16

- Remove adjuster-to-seat bottom frame front and rear attaching bolts and remove adjuster from seat assembly.
- To install, reverse removal procedure.

Front Seat Back Assembly

Removal and Installation

- Remove bolts securing back assembly to seat cushion frame assembly.
- On all styles, using a flat bladed tool, carefully remove retainer from outer hinge pin (fig. 21).
- On 927 and 969 styles, also remove retainer from inner hinge pin.
- Move entire seat back assembly inboard until in-

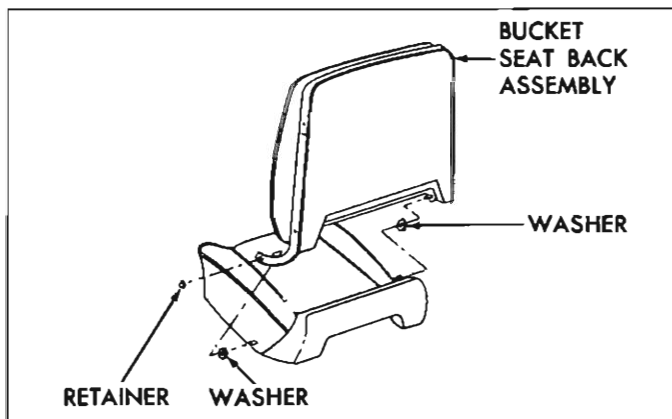


Fig. 10-21—Bucket Seat Back Removal

ner hinge pin is disengaged from retainer on seat assembly; then remove seat back from body.

- On 927 and 969 styles, carefully disengage inner and outer front seat back hinge arms from pins; then, remove seat back assembly from body.
- To install, reverse removal procedure. Prior to installation of back assembly, be sure inner and outer washers are installed over the hinge pins (fig. 21).

BODY SHELL

BODY ALIGNMENT

The following body alignment reference point dimensions reflect the changes made to the Corvair underbody. Before attempting to check body alignment, carefully read pages 10-2 through *Body Trim Gauge*, on page 10-6 of the 1961 Corvair Shop Manual. Also see page 10-9 of that book.

Underbody Alignment Reference Point Dimensions

Dimensions to gauge holes and other unthreaded holes are measured to dead center of the holes and flush to the adjacent surface metal. Dimensions to body front and rear tie down slots are measured to the front centerline edge of the slot. Dimensions to bolt or bolt hole locations are measured to the dead center of the thread diameter of the bolt or bolt hole.

The dimensions and locations presented below are illustrated in Figure 22, Figure 23, Figure 24, Figure 25, Figure 26, Figure 27 and Figure 28.

HORIZONTAL DIMENSIONS

Figure Reference	Dimension	Location
A	42 $\frac{5}{32}$ "	Center of bumper bracket lower attaching bolt holes.
B	35 $\frac{19}{32}$ "	Front suspension crossmember front attaching bolt and front compartment side rail inner lower corner at rear of bumper support bracket (See point "A", fig. 23 and fig. 24).
C	30 $\frac{5}{8}$ "	Lower inner surface of idler arm support lower bracket at a point directly below center of the attaching bolt hole (See fig. 24) and lower edge of steering gear reinforcement plate at a point directly below center of the rear attaching bolt hole (See fig. 23).
D	30 $\frac{31}{32}$ "	Lower inner surface of idler arm support lower bracket at a point directly below center of the attaching bolt hole (See fig. 24) and center of front crossmember front attaching bolt on left side rail.
E	29 $\frac{27}{32}$ "	Lower edge of steering gear reinforcement plate at a point directly below center of the rear attaching bolt hole (See fig. 23) and center of front crossmember front attaching bolt on right side rail.
F	27 $\frac{17}{32}$ "	Front suspension crossmember front attaching bolts.
G	29 $\frac{15}{32}$ "	Front of slot at body front tie-down strap location and front suspension crossmember front attaching bolts (See fig. 25).
H	42 $\frac{5}{32}$ "	
I	44 $\frac{5}{8}$ "	Front of slot at body front tie-down strap location and front compartment frame side rail inner lower corner at rear of bumper support bracket (See point "A" in fig. 23 and fig. 24).

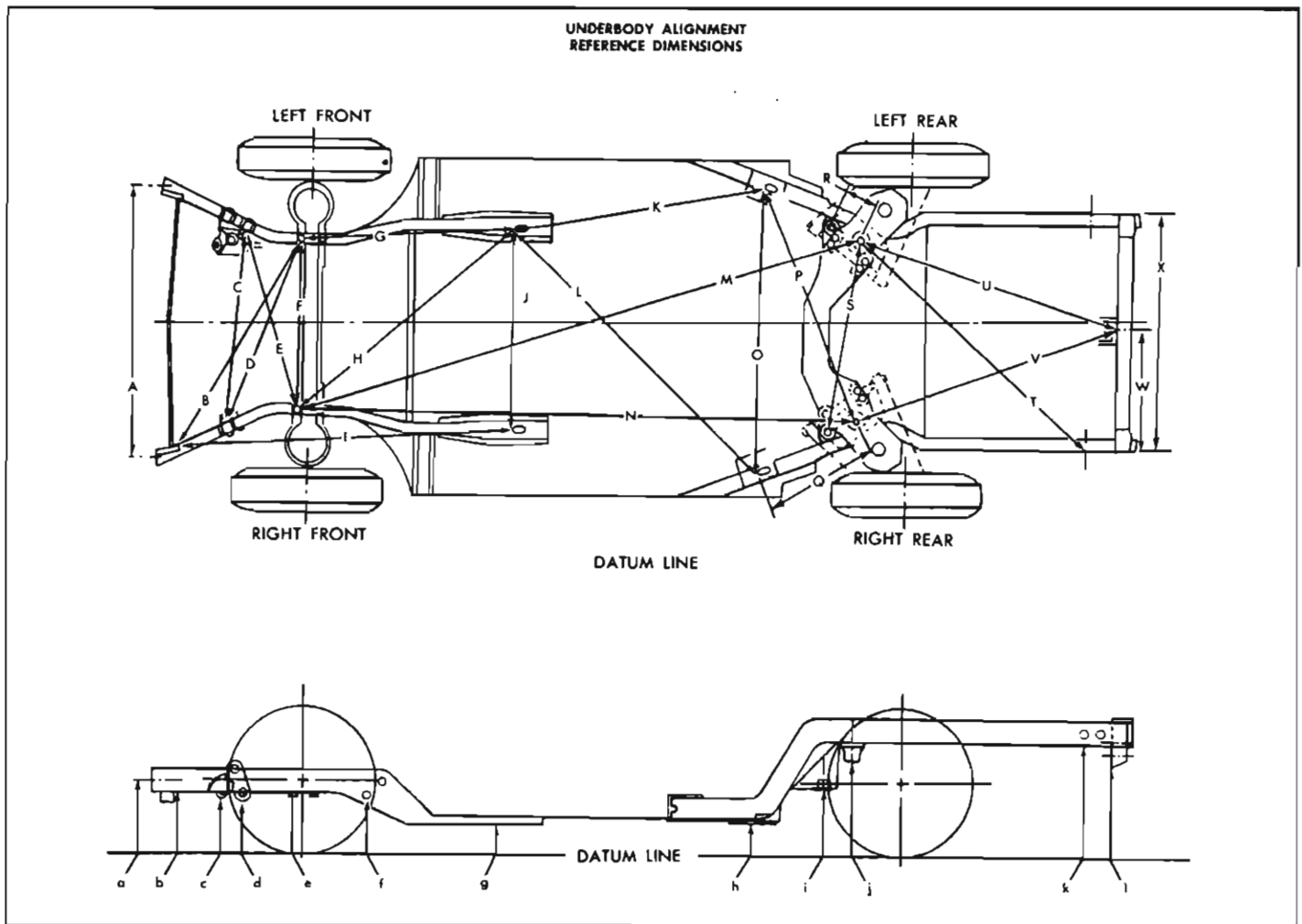


Fig. 10-22—Underbody Alignment Dimensions

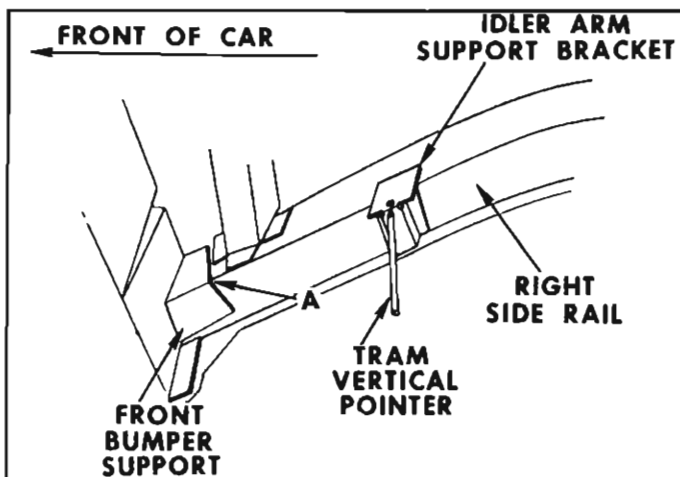


Fig. 10-23—Alignment Reference Points

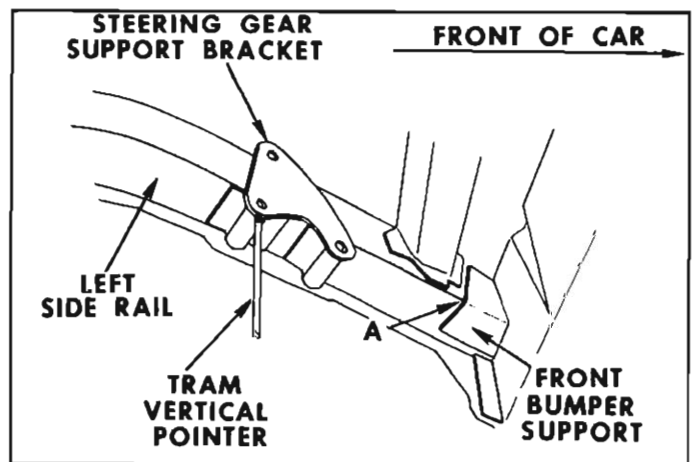


Fig. 10-24—Reference Points at Steering Gear

HORIZONTAL DIMENSIONS

Figure Reference	Dimension	Location
J	33 ¹ / ₁₆ "	Body front tie-down strap locations (Front of slot—See fig. 25).

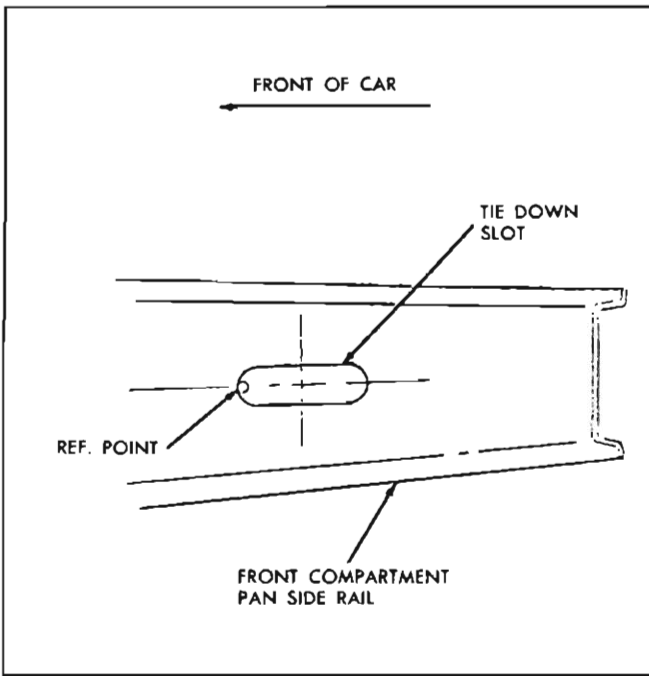


Fig. 10-25—Reference Point At Body Front Tie Down Slot

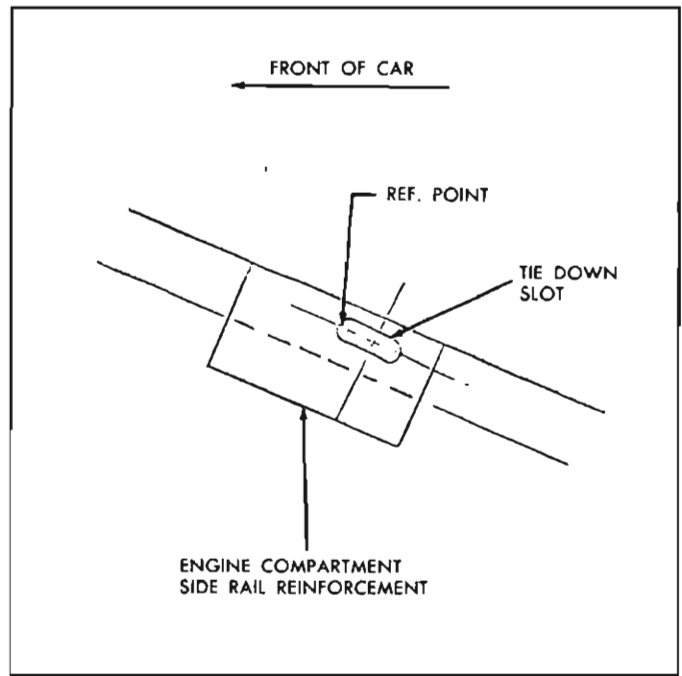


Fig. 10-26—Reference Point At Body Rear Tie Down Slot

HORIZONTAL DIMENSIONS

Figure Reference	Dimension	Location
K	59 ⁷ / ₃₂ "	Body front tie-down strap location and body rear tie-down strap location (Front of Slot —See fig. 26).
L	70 ²⁵ / ₃₂ "	
M	107 ¹ / ₂ "	Center of front suspension crossmember front attaching bolt and center of rear suspension crossmember rear mounting bolt.
N	103 ³ / ₈ "	
O	45 ¹ / ₂ "	Front of slot at body rear tie-down strap locations (See fig. 26).
P	41 ⁵ / ₁₆ "	Front of slot at body rear tie-down strap locations and center of rear suspension crossmember rear mounting bolt.
Q	16 ³ / ₄ "	
R	8 ⁵ / ₃₂ "	Center of rear suspension front mounting bolt hole to center of rear suspension rear mounting bolt hole on same side of car (engine and suspension system removed).
S	33 ⁵ / ₈ "	Center of rear suspension front mounting bolt to center of rear suspension rear mounting bolt on opposite side of car.
T	49 ¹⁵ / ₁₆ "	Center of rear suspension crossmember rear mounting bolt and engine compartment side rail outer flange at a point directly under the center of the rear bumper bracket front attaching bolt hole.
(Sedans and Coupes)		
	47 ²¹ / ₃₂ "	Center of rear suspension crossmember outer mounting bolt to engine compartment side rail outer flange at a point directly under the 3/16" diameter gauge hole in the side rail flange (See fig. 27).
(Station Wagons)		
U	43 ¹¹ / ₁₆ "	Center of rear suspension crossmember rear mounting bolt or bolt hole and front lower edge of rear crossrail.
V	43 ⁷ / ₁₆ "	
(Sedans and Coupes)		Front lower edge of motor mount lower support at a point directly below center of the lower attaching bolt for engine rear mounting bracket (See Point "L", fig. 28). Measure from this point to center of rear crossmember outer mounting bolt or bolt hole for Dimensions U and V.
(Station Wagons)		
W	19 ³ / ₁₆ "	Engine compartment right side rail outer flange and front lower edge of rear crossrail.
(Sedans and Coupes)		Measure from point "L" (fig. 28) to engine compartment right side rail outer flange.
(Station Wagons)		
X	39"	Engine compartment side rail outer flanges at rear bumper bracket forward attaching bolt holes.
(Sedans and Coupes)		Below the 3/16" diameter gauge holes in the side rail flanges (See fig. 27).
(Station Wagons)		

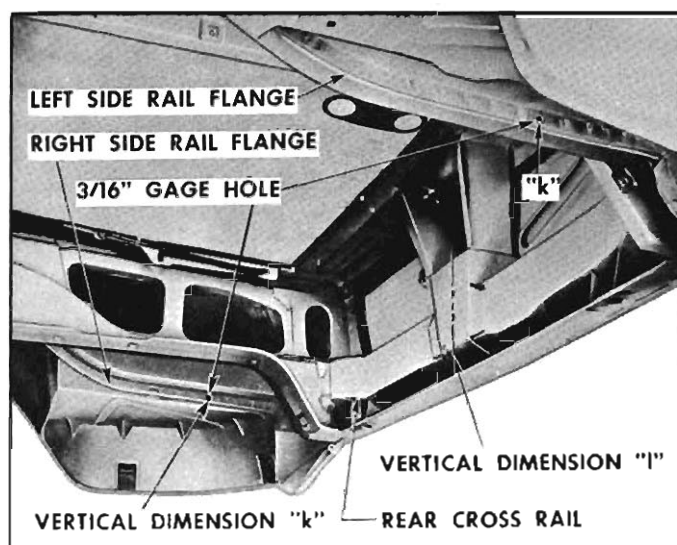


Fig. 10-27—Station Wagon Body Alignment

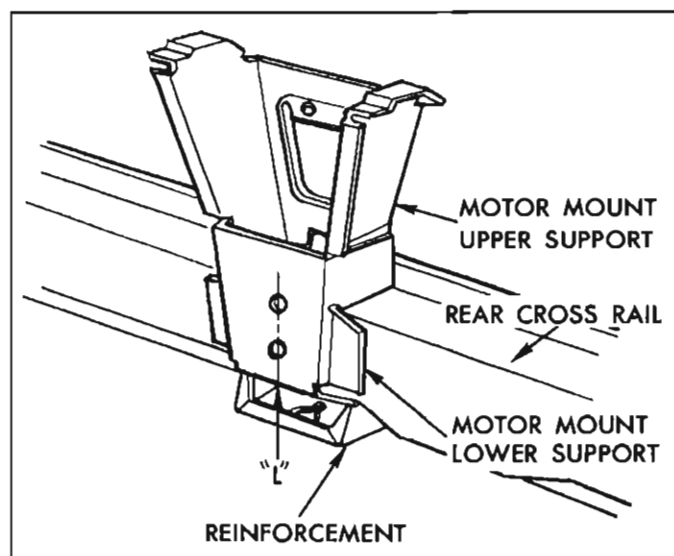


Fig. 10-28—Rear Engine Mount Reference Point—Station Wagons

VERTICAL DIMENSIONS

Figure Reference	Dimension	Location
A	13 ⁵ / ₃₂ "	Center of bumper bracket lower attaching bolt holes.
B	10 ⁹ / ₃₂ "	Front compartment side rail inner lower corner at rear of bumper support bracket (See point "A" in fig. 23 and fig. 24).
C	9 ¹⁷ / ₃₂ "	Lower inner surface of idler arm support lower bracket at a point directly below center of the attaching bolt hole (See fig. 23).
D	9 ¹³ / ₈₂ "	Lower edge of steering gear reinforcement plate at a point directly below center of the rear attaching bolt hole (See fig. 23).
E	10 ⁹ / ₃₂ "	Front compartment side rail at front suspension crossmember front attaching bolt hole.
*E	9 ²⁵ / ₃₂ "	Center of lower surface of front suspension crossmember front attaching bolt head.
F	9 ³ / ₁₆ "	Center of stabilizer support bracket lower attaching bolt.
G	4"	Body front tie-down strap location. Bottom surface of rail assembly.
H	5 ⁹ / ₃₂ "	Body rear tie-down strap location. Bottom surface of rail assembly.
I	9 ²³ / ₃₂ "	Lower surface of rear seat pan reinforcement panel at rear suspension front mounting location. For vertical check with engine and suspension system removed.
J	15 ¹ / ₄ "	Rear suspension crossmember rear mounting support at attaching bolt hole.
*J	13 ⁷ / ₁₆ "	Lower surface of rear suspension crossmember outer mounting attaching bolt head.
K	16 ¹ / ₃₂ "	Lower surface of engine compartment side rail outer flange at a point directly under the center of the rear bumper front attaching bolt hole.
(Sedans and Coupes)	9 ¹³ / ₁₆ "	From bottom of the 3/16" gauge holes in the side rail flanges (See fig. 27).
(Station Wagon)		
L	9 ¹ / ₂ "	Front lower edge of rear crossrail at a point directly below center of lower attaching bolt hole for engine rear mount bracket.
(Sedans)		
(Station Wagons)	9 ⁷ / ₁₆ "	Front lower edge of motor mount lower support at a point directly below center of lower attaching bolt hole for engine rear mount bracket (See Point "L", fig. 28).

* With Suspension Systems Installed.

BODY DRAIN LOCATIONS

Description:

All 1962 and 1963 Corvair styles include water drain

provisions. Drain slots are provided along the bottom facings of front and rear doors on all styles. In addition, drain holes with rubber dust covers are present in the rear quarter areas on "27" and "35" styles. See Sec-

BODY 10-20

tion "A-A" and View "B" in Figure 23. On "35" styles, drain hoses are used at each corner of the back body opening. See View "C" in Figure 29.

Clogged drains allow water to accumulate on inner or unexposed surfaces of body metal. To minimize

water damage to the body interior, body drains should be kept free of debris. Dust covers and drain hoses should be periodically lubricated with a silicone rubber lubricant to prevent them from sticking in a closed position. See Figure 29.

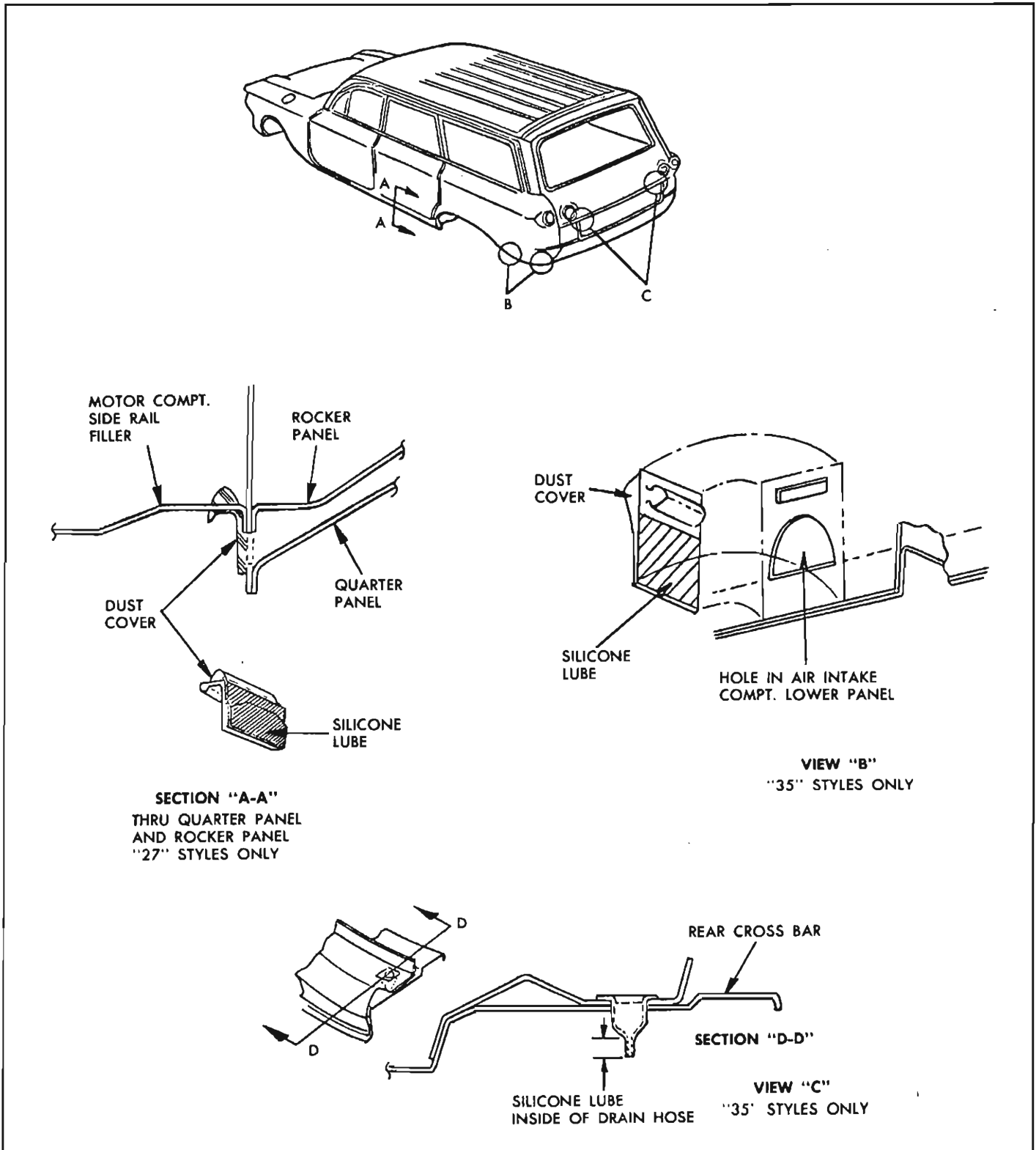


Fig. 10-29—Body Drain Locations

CORVAIR CONVERTIBLE

(MODEL 967)

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GENERAL DESCRIPTION

This section provides body information necessary for the proper servicing of the Corvair Monza Convertible (model 967). Service procedures required for adjustment and replacement of the Corvair Convertible top are covered in detail; also included are recommended procedures for removal and installation of the body hardware and trim assemblies that are peculiar to this convertible style.

The method of operating the folding top, as well as information on care and maintenance of the folding top material and plastic rear window is contained in booklets titled, "Operation and Care of the Folding Top." Chevrolet Assembly Plants place these owner instruction booklets in the glove compartment of all convertibles.

DOORS

A phantom view of a Corvair Convertible door, with hardware installed, is shown in Figure 30. The illustration also identifies the door hardware attachments and locates the various adjusting points.

DOOR VENTILATOR CASTING REPLACEMENT

1. Remove door trim pad and water deflector.
2. Remove ventilator casting to door hinge pillar attaching bolt and adjusting stud.
3. Remove three vent casting to vent frame screws. Remove casting from door.
4. To install, reverse removal procedure. Prior to installation, apply a ribbon of medium bodied sealer to vent casting as indicated in Section "A-A."
5. A slight in and out adjustment of the vent casting can be obtained at adjusting stud.

DOOR VENTILATOR ASSEMBLY REPLACEMENT

1. Remove vent division channel adjusting stud.
2. Remove door ventilator casting. Remove vent frame to inner panel screw.

3. Tilt ventilator assembly until vent division channel clears door window glass and remove ventilator assembly.

CAUTION: After ventilator assembly has been removed, door glass must be suitably retained in position to prevent damage.

4. To install, reverse removal procedure.

DOOR WINDOW REPLACEMENT

The door window is a solid tempered safety plate glass. The glass is pressed into a lower sash channel assembly which incorporates riveted front and rear lower sash channel cams. With this type of design, the door glass, lower sash channel and sash channel cams are removed from the door as a unit.

1. Remove door trim pad and detach inner panel water deflector.
2. Lower window approximately one-third of the way down.
3. Remove door inner panel window front and rear up-stops.
4. Remove door window lower sash channel guide plate.
5. Lower window and remove door window inner and outer strip assemblies.
6. Roll window up to high point and slide window rearward to disengage lower sash channel front and rear cams from regulator balance and lift arm rollers.
7. To install, reverse removal procedure. After installation, lubricate lower sash channel and inner panel cam.

Adjustments

1. To adjust the lower section of the vent division channel in or out or fore or aft, lower door window and loosen division channel adjusting stud nut. Turn adjusting stud in or out or position

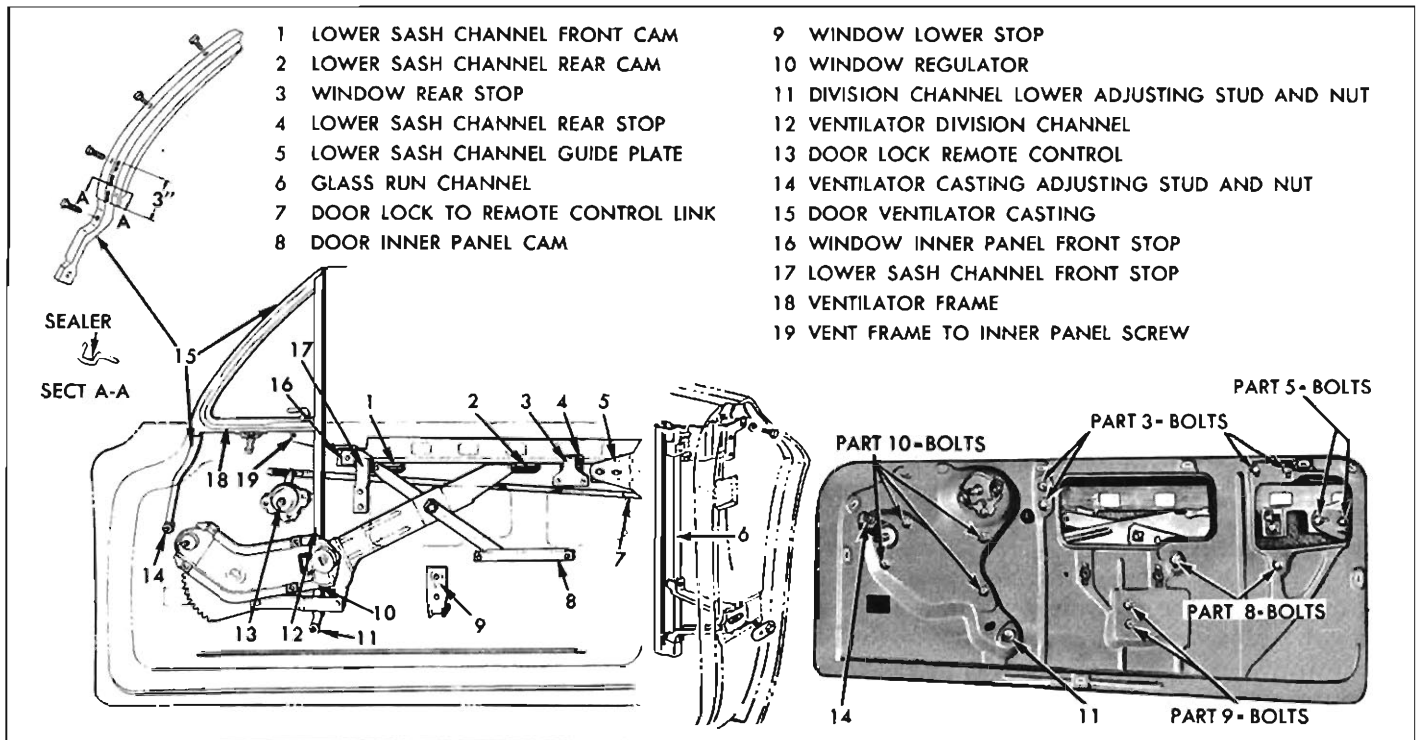


Fig. 30—Corvaire Convertible Door Hardware

lower end of channel fore or aft, as required, and tighten stud nut.

2. An up or down adjustment of the window assembly is available at the front and rear up-stops located on inner panel.
3. A rotated or cocked door window can be corrected by adjusting the inner panel cam if necessary by individual adjustments of the inner panel window up-stops.
4. A slight fore and aft adjustment of the glass is available at the door window lower sash channel guide plate.
5. Some in and out adjustment (at rear of glass) is available at the lower attaching bolt of the rear run channel.

DOOR WINDOW REGULATOR REPLACEMENT

1. Remove door window.
2. Remove ventilator assembly adjusting stud.
3. Remove inner panel cam. Remove regulator assembly.
4. To install, reverse removal procedure. Cycle window several times to insure proper operation.

DOOR REAR RUN CHANNEL REPLACEMENT

1. Remove trim pad and water deflector. Remove door window lower sash channel guide plate.
2. With glass in full up position, remove upper and

lower attaching bolts of rear run channel and remove assembly through door inner panel access hole. To install, reverse removal.

BODY REAR QUARTER

REAR QUARTER WINDOW REPLACEMENT

1. Lower folding top and operate rear quarter window to half down position. Remove rear quarter upper trim assembly, belt finishing molding, and inner panel access hole cover.
2. Remove window hinge pivot hole (fig. 31). Disengage window male hinge from female hinge plate; then raise window to disengage window lower sash channel cam from roller on window regulator lift arm and remove window.
3. Prior to window installation, lubricate pivot hinge and lower sash channel cam with lubriplate or its equivalent.

Adjustments

1. To adjust the limit of the rear quarter window up-travel, loosen the window guide upper attaching stud nuts; then adjust upper stop to desired position and tighten stud nuts.

NOTE: In order to perform any of the following adjustments it is necessary to remove the folding top compartment side trim panel assembly, rear quarter trim assembly, and belt finishing molding to gain access to the adjusting locations.



Fig. 31—Convertible Body—Rear Quarter

- a. "Up or Down" or "Fore or Aft" Adjustment—Loosen window male hinge attaching bolt and both adjusting stud nuts (fig. 2). Adjust window to desired position and tighten pivot bolt and stud nuts.
- b. "In or Out" Adjustment of Top of Window—Loosen lower adjusting stud nut and slightly loosen rear stud nut. Adjust lower stud "in or out" as required and tighten both stud nuts.
- c. "In or Out" Adjustment of Rear of Window—Loosen pivot hinge rear adjusting stud nut and slightly loosen lower adjusting stud nut. Loosen window guide attaching and adjusting stud nuts. Adjust hinge rear adjusting stud "in or out" as required and tighten both hinge adjusting stud nuts. Adjust window guide for proper alignment with window and tighten guide attaching and adjusting stud nuts.

NOTE: After performing any rear quarter window adjustments, seal all attaching screws which have been disturbed.

QUARTER WINDOW REGULATOR REPLACEMENT

1. Operate window to full down position. Remove rear quarter upper trim and inner panel access cover.
2. Remove regulator attaching screws (fig. 31). Disengage regulator lift arm roller from window lower sash channel and remove regulator assembly through access hole. To install regulator, reverse removal.

QUARTER WINDOW GUIDE REPLACEMENT

1. Operate rear quarter window to full up position. Remove rear quarter upper trim and inner panel access cover.
2. Remove window guide upper attaching stud nuts, and center and lower adjusting stud nuts.
3. Lower rear quarter window slightly to allow window upper stop on guide to clear stop on window; then remove window guide through access hole. To install, reverse removal procedure.

REAR QUARTER INNER PANEL SEALING

Whenever the seals in the rear quarter area have been disturbed, the location must be resealed before the rear quarter trim is installed. Rear quarter inner panel openings and hardware attaching locations that must be sealed to prevent water leakage and possible trim damage are shown in Figure 31.

BODY EXTERIOR MOLDINGS

REAR QUARTER PINCHWELD FINISHING MOLDING

The moldings are snapped onto the quarter pinchweld with clips installed on the pinchweld. A screw is used to retain the molding at the forward end, and the screw-on snap fasteners are utilized at the outer corner locations.

Removal

1. Remove the screws in the snap fasteners.
2. Remove the front attaching screws at the rear quarter windows, using an off-set screw driver.
3. Detach the front end of the folding top compartment bag from the rear seat back.
4. Remove the attaching screws from the three back curtain trim retainers and pull them away from the body pinchweld.
5. With a wood block and hammer, or with a flat-bladed tool, carefully disengage the moldings from the clips.
6. To remove the left molding, detach only a short section of the overlapping right molding.

Installation

1. Clean and seal the pinchweld flange.
2. Apply waterproof tape over the pinchweld flange to seal it completely.
3. Replace the damaged clips as required. Position and locate the left molding to the body and snap it into place.
4. Install the right molding.

WINDSHIELD PILLAR FINISHING MOLDING

The molding is secured to the windshield pillar by

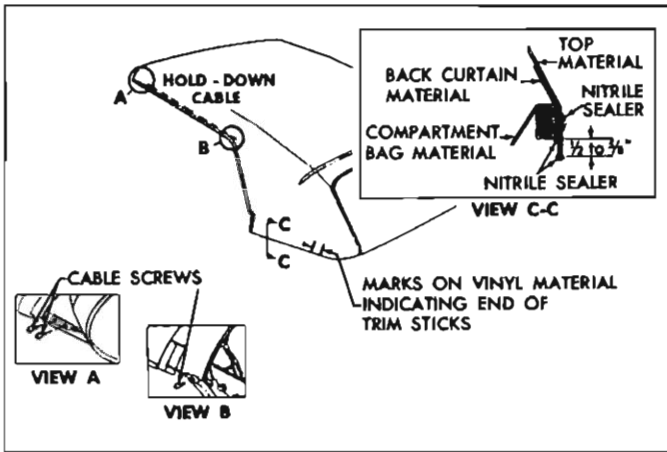


Fig. 32—Top Material Hold-Down Cable

the windshield pillar weatherstrip and retainer, the side lip of the windshield glass rubber channel, and a screw under the weatherstrip retainer.

To remove the molding: Remove the windshield pillar weatherstrip, weatherstrip retainer, and the attach-

ing screw. Pry the molding straight out from the windshield pillar starting at the lower end.

To install the molding: Position the molding to the windshield pillar, under the windshield glass rubber channel lip and header end cap. Install the attaching screw. Seal and install the previously removed parts.

FOLDING TOP

The folding top linkage consists of a front roof rail and hinged three-section right and left side roof rails interconnected by three roof bows. The top linkage is attached to the body at each rear quarter by a male hinge bolted to a folding top compartment brace. The front roof rail is fastened to the windshield header by two hook type locks which are operated by locking handles concealed above the side roof rails.

The folding top manual lift assembly utilized as regular production incorporates a dual-action heavy duty spring which helps compensate for the weight of the folding top mechanism when the top is at or near

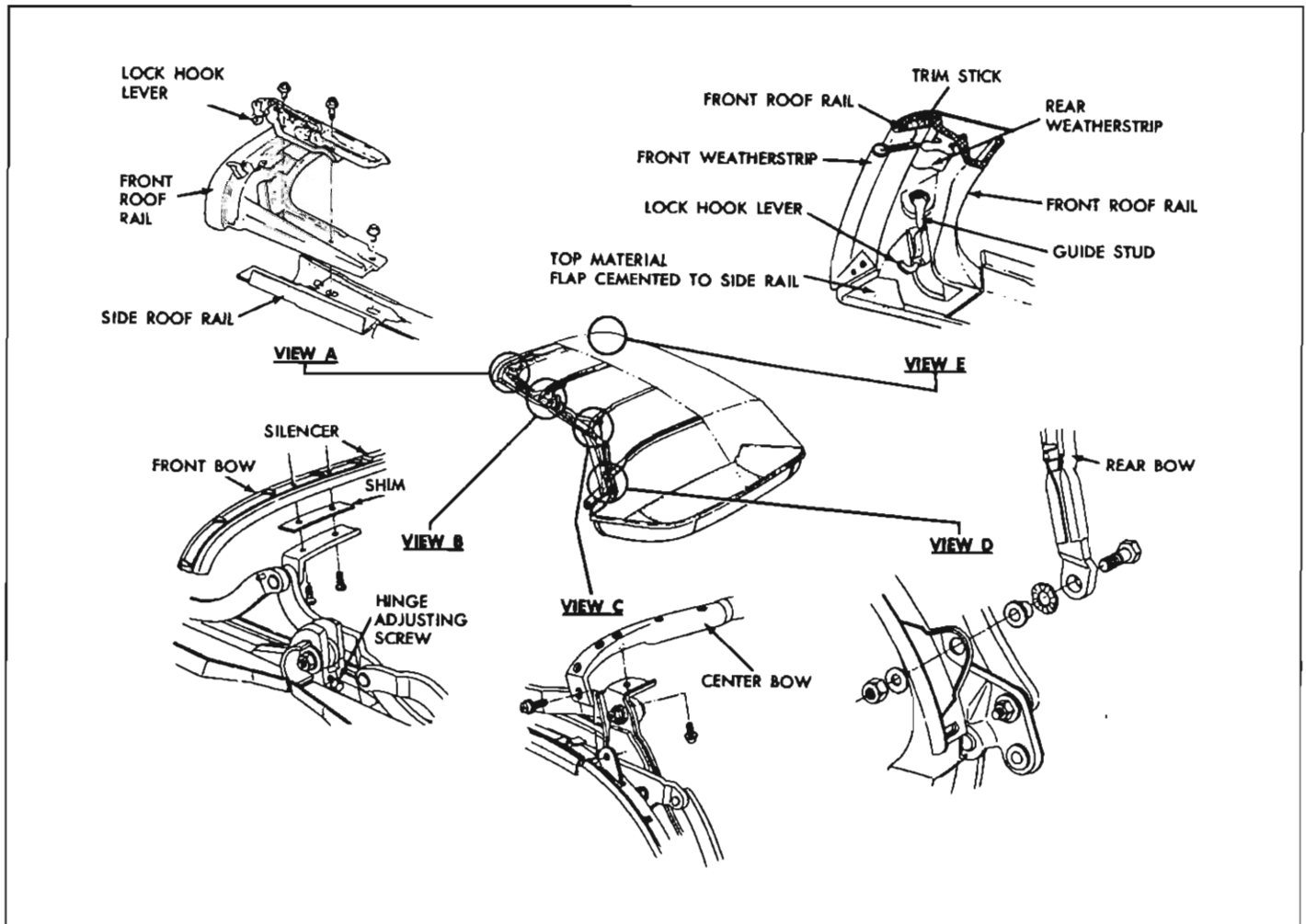


Fig. 33—Folding Top Linkage and Lock

the full "up" or full "down" positions. When the top is in the up position the spring is under compression; when it is in the folded or stacked position the spring is extended and under tension.

FOLDING TOP ADJUSTMENTS

To correct some top variations or linkage misalignment, only a single adjustment is required; other top variations require a combination of adjustments. In conjunction with adjustment of the folding top, it may be necessary to adjust the door, door glass, rear quarter glass, trim sticks or side roof rail weatherstrips.

The front roof rail is fabricated on a die cast metal. Because of this feature, the contour of the front roof rail assembly cannot be changed by bending or reforming as the rail assembly may crack or become permanently damaged.

The Corvair convertible incorporates a top material hold-down cable along the right and left side roof rails (fig. 32). The cables are installed through a retaining pocket in the top material and are fastened at the front and rear side rails by attaching screws. The cables are designed to hold the top material tight against the side roof rail stay pads, thus minimizing air leakage between the top material and the stay pads.

On the manually operated top, folding top catch clips snap over the folding top side roof center rails when the top is being lowered to the folded or stacked position. The catch clips prevent the spring-loaded manual lift arms from raising the top from this position. In order to raise the top, both catch clips must be disengaged from the side roof center rails. Each catch clip is attached to the top compartment side trim panel by two screws. Any adjustments made to change stack height of the folding top will require corresponding adjustments to the catch clips.

CAUTION: When operating a manually operated folding top, hands must be kept clear of side roof rail hinges and connecting linkage. Do not attempt to detach the manual top lift assembly when counterbalance spring is under tension or compression.

Front Roof Rail Lock Adjustment

If the locking action of top is unsatisfactory, the hook lever on the lock assembly may be adjusted as follows:

1. To tighten or increase locking action, turn lock hook lever clockwise.
2. To reduce or decrease locking action, turn lock hook lever counterclockwise.

NOTE: The hook lever may be adjusted with finger pressure, no tools are required.

Adjustment of Top at Front Roof Rail Guide Studs

If the front roof rail guide studs do not properly lead the striker assemblies; with the top in an "up" or raised position, the guide studs may be adjusted laterally as follows:

1. Raise top assembly to half open position.
2. Loosen guide sufficiently to permit adjustment (View E, Figure 33). Shift guide to desired position and retighten.

NOTE: The sunshade support and striker assembly is not adjustable. In addition, adjustment of guide is limited. If additional adjustment is required, particularly fore and aft movement of the front roof rail, it can be obtained by adjusting the front roof rail and/or folding top male hinge.

Adjustment of Top at Front Roof Rail

If the top, when in a raised position, is too far forward or does not move forward enough to allow the guide studs on the front roof rail to enter holes in the striker assemblies, proceed as follows:

1. Unlatch top and raise it above windshield header. Remove side roof rail weatherstrip front attaching screws.
 2. Loosen side roof front rail attaching bolts and adjust front roof rail fore or aft as required (View A, Figure 33). Repeat on opposite side if necessary.
- NOTE:** This adjustment is limited. If additional adjustment is required, it can be made at the folding top male hinge.
3. When front roof rail is properly adjusted, tighten attaching bolts. Check forward section of side roof rail front weatherstrip. Refit and recement as required; then install weatherstrip attaching screws.

Top Adjustment at Control Link Adjusting Plate

1. With top in up position, if joint between front and center side roof rail is too high or too low, proceed as follows:
 - a. Remove folding top compartment side trim panel and scribe location of control link adjusting plate on folding top compartment brace.
 - b. Loosen two bolts securing control link adjusting plate sufficiently to permit adjustment of plate (fig. 34).
 - c. Without changing fore and aft location of adjusting plate, adjust side roof rail up or down

FOLDING TOP MISALIGNMENT AND ITS CORRECTION

The following chart describes various types of folding top misalignment conditions, their causes and the recommended procedure for their correction. To correct some top variations, only a single adjustment is required; other top variations require a combination of adjustments.

Condition	Apparent Cause	Correction
A. Difficult locking action at front roof rail.	<ol style="list-style-type: none"> 1. Lock hook lever improperly adjusted. 2. Misaligned front roof rail front weatherstrip. 3. Front roof rail misaligned. 	<p>Adjust lock hook lever counterclockwise.</p> <p>Loosen, realign and retack front roof rail front weatherstrip.</p> <p>Adjust front roof rail.</p>
B. Top does not lock tight enough to windshield header.	<ol style="list-style-type: none"> 1. Lock hook lever improperly adjusted. 2. Misaligned front roof rail front weatherstrip. 3. Front roof rail misaligned. 	<p>Adjust lock hook lever clockwise.</p> <p>Loosen, realign and retack front roof rail front weatherstrip.</p> <p>Adjust front roof rail.</p>
C. Top travels too far forward.	<ol style="list-style-type: none"> 1. Front roof rail misaligned. 2. Male hinge assembly misaligned. 	<p>Adjust front roof rail rearward (View "A", fig. 33).</p> <p>Adjust male hinge assembly rearward (fig. 34).</p>
D. Top does not travel forward far enough.	<ol style="list-style-type: none"> 1. Front roof rail misaligned. 2. Male hinge assembly misaligned. 3. Improper spacing between rear trim stick and body metal. 	<p>Adjust front roof rail forward (View "A", fig. 33).</p> <p>Adjust male hinge assembly forward (fig. 34).</p> <p>Install an additional spacer between rear trim stick and body metal at each attaching bolt location.</p>
E. Side roof rail rear weatherstrip too tight against top of rear quarter window.	Male hinge assembly misaligned.	Adjust male hinge assembly rearward (fig. 34).
F. Gap between side roof rail rear weatherstrip and rear of rear quarter window.	Male hinge assembly misaligned.	Adjust male hinge assembly forward (fig. 34) and/or shim side roof rail rear weatherstrip forward as required.
G. Side roof rail rear weatherstrip too tight against top of rear quarter window.	Male hinge misaligned.	Adjust male hinge upward (fig. 34).
H. Gap between side roof rail rear weatherstrip and top of rear quarter window.	Male hinge misaligned.	Adjust male hinge downward and/or shim side roof rail rear weatherstrip downward as required.
I. Sag at front to center side roof rail joint.	<ol style="list-style-type: none"> 1. Control link adjusting plate misaligned. 2. Center side roof rail hinge adjusting screw improperly adjusted. 	<p>Adjust control link adjusting plate downward (fig. 34).</p> <p>Adjust screw counterclockwise. (See View "B" in Figure 33).</p>
J. Front and center side roof rails bow upward at hinge joint.	<ol style="list-style-type: none"> 1. Control link adjusting plate misaligned. 2. Center side roof rail hinge adjusting screw improperly adjusted. 	<p>Adjust control link adjusting plate upward (fig. 34).</p> <p>Adjust screw clockwise (See View "B" in Figure 33).</p>

Condition	Apparent Cause	Correction
K. Folding top dust boot is difficult to install.	<ol style="list-style-type: none"> 1. Improper stack height due to misaligned control link adjusting plate. 2. Misaligned folding top dust boot female fastener. 3. Rear seat back assembly is too far forward. 4. Excessive build-up of padding in side roof rail stay pads. 5. On manual tops, due to improperly adjusted catch clips. 	<p>Adjust control link plate rearward or forward as required (fig. 34).</p> <p>Where possible, align female with male fastener.</p> <p>Relocate rear seat back rearward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is $12\frac{5}{8}$" ($\pm\frac{1}{16}$"). The dimension is measured at approximate center line of body.</p> <p>Repair side stay pads as required.</p> <p>Adjust catch clips downward as required.</p>
L. Folding top dust boot fits too loosely.	<ol style="list-style-type: none"> 1. Improper stack height due to misaligned control link adjusting plate. 2. Rear seat back assembly is too far rearward. 3. On manual tops, due to improperly adjusted catch clips. 	<p>Adjust control link plate forward as required (fig. 34).</p> <p>Relocate rear seat back panel forward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is $12\frac{5}{8}$" ($\pm\frac{1}{16}$"). The dimension is measured at approximate centerline of body.</p> <p>Adjust catch clips upward as required.</p>
M. Top material is too low over windows or side roof rails.	<ol style="list-style-type: none"> 1. Front roof bow improperly shimmed. 2. Excessive width in top material. 	<p>*Install one or two $\frac{1}{8}$" shims from between front roof bow and slat iron. (See View "B" in Figure 33.)</p> <p>If top is too large, detach binding along affected area, trim off excessive material along side binding as required; then hand sew binding to top material.</p>
N. Top material is too high over windows or side roof rails.	<ol style="list-style-type: none"> 1. Front roof bow improperly shimmed. 2. Front roof bow felt silencer too high. 	<p>*Remove one or two $\frac{1}{8}$" shims from between front roof bow and slat iron. (See View "B" in Figure 33.)</p> <p>Trim silencer to within $\frac{1}{8}$" of top of front roof bow. (See View "B" in Figure 33.)</p>
O. Top material has wrinkles or draws.	<ol style="list-style-type: none"> 1. Rear quarter trim stick improperly adjusted. 2. Top material improperly installed to center of rear quarter trim stick. 	<p>Adjust rear quarter trim stick on side affected.</p> <p>Retack top materials as required.</p>
P. Wind whistle or water leak along front roof rail.	<ol style="list-style-type: none"> 1. Top does not lock tight enough to windshield header. 2. Misaligned front roof rail front weatherstrip. 	<p>Adjust lock hook lever clockwise.</p> <p>Retack front weatherstrip to front roof rail.</p>

*When no shims are required, use attaching screw part #4865935 ($\frac{1}{4}$ -28 x $\frac{1}{2}$ " #12 oval head with external tooth lock washer, type "T" thread cutting, chrome finish).

When one shim is required, use attaching screw part #4824789 ($\frac{1}{4}$ -28 x $\frac{5}{8}$ ").

When two shims are required, use attaching screw part #4837811 ($\frac{1}{4}$ -28 x $\frac{3}{4}$ ").

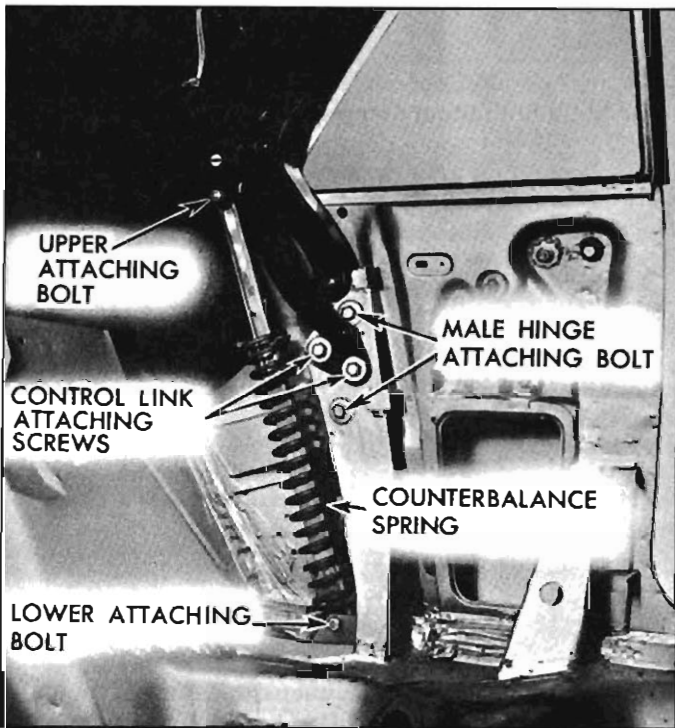


Fig. 34—Top Lift and Linkage Attachment at Rear Quarter

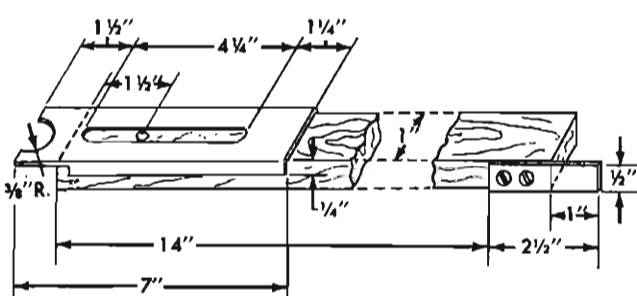
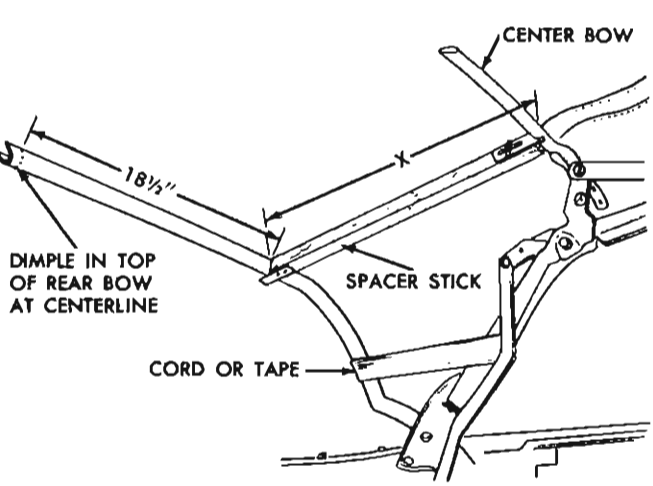
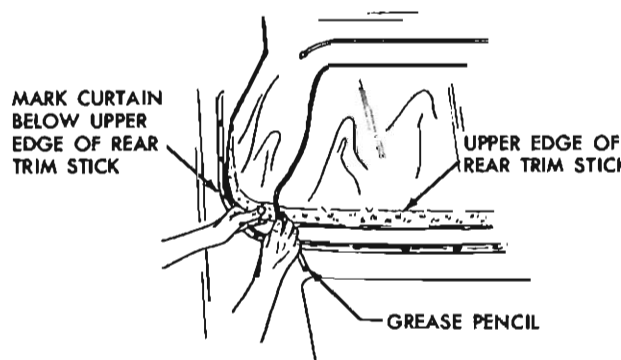
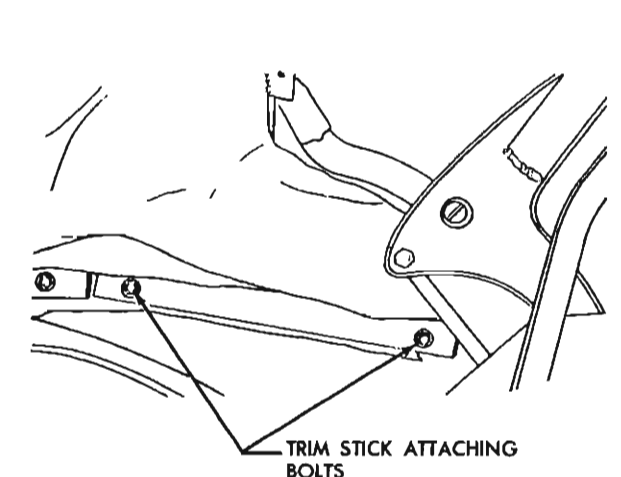
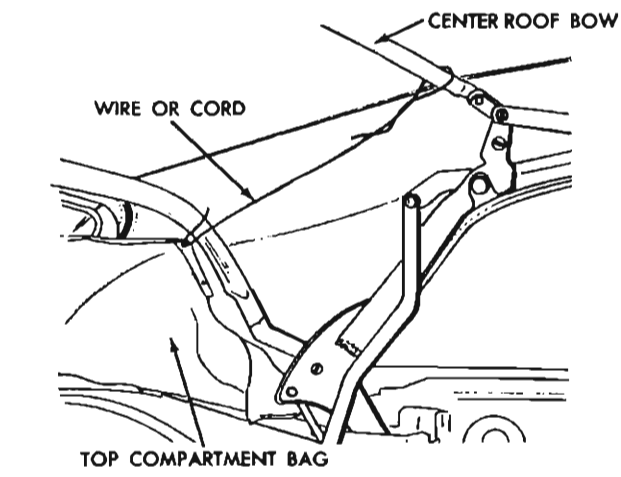
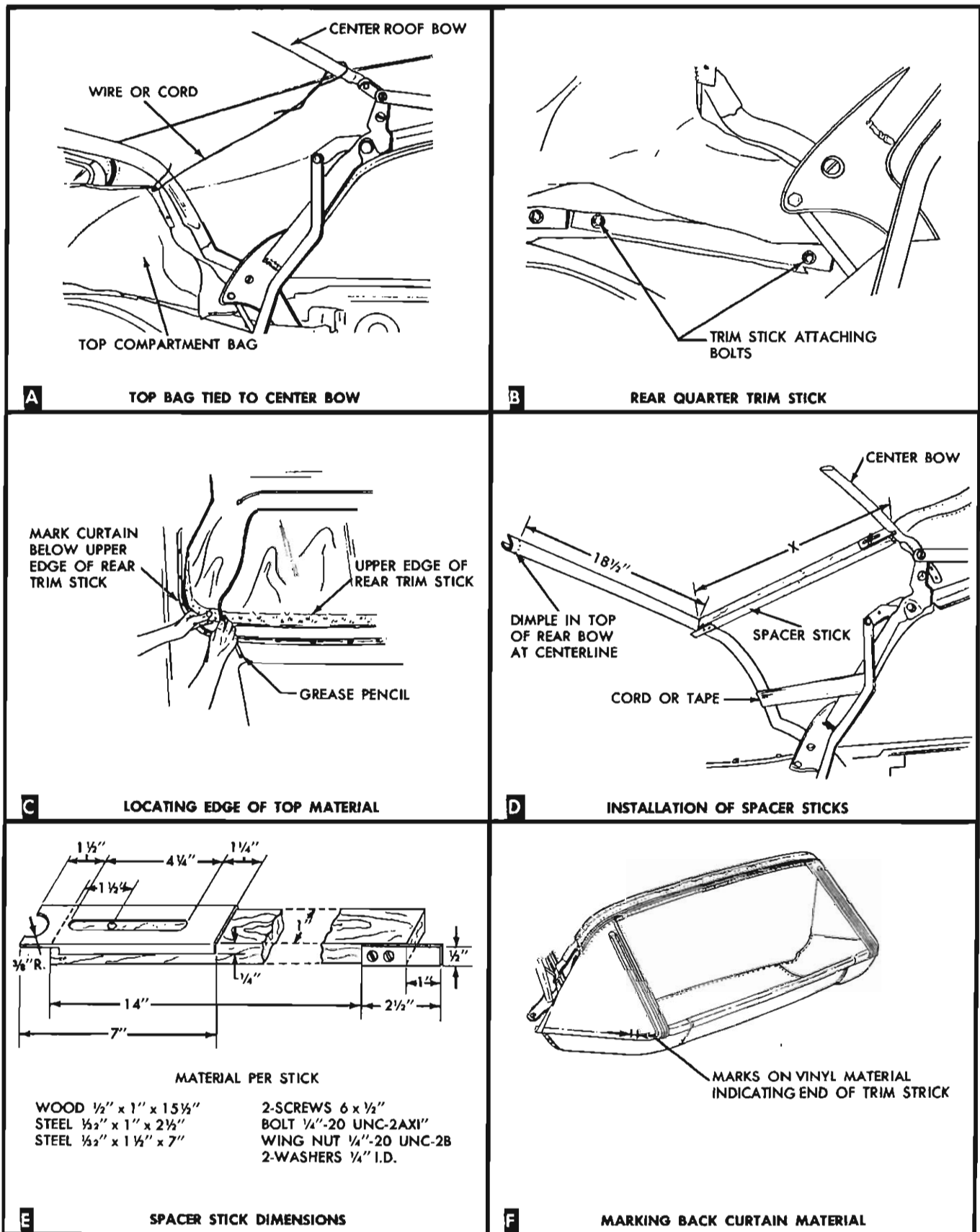
allowing adjusting plate to move up or down over serrations on support as required; then tighten bolts.

- d. On styles equipped with manually operated folding tops, readjust folding top coach clips as required.
2. If top assembly does not stack properly when top is in down position, proceed as follows:
 - a. Scribe location of control link adjusting plate on folding top compartment brace.
 - b. Loosen bolts securing control link adjusting plate sufficiently to permit adjustment of plate.
 - c. Without changing the up or down location of adjusting plate, move adjusting plate forward or rearward (horizontally) over serrations as required to obtain desired height; then tighten bolts.
 - d. On styles equipped with a manually operated folding top, readjust both folding top catch clips as required.

Top Adjustment at Male Hinge Support

Prior to making any adjustment of top linkage at male hinge, loosen two bolts securing folding top rear quarter trim stick to rear quarter panel. This will prevent any possible damage to top when it is raised after adjustment. After making an adjustment at male hinge, check folding top at rear quarter area for proper fit and, if necessary, adjust trim stick assembly.

1. If there is an excessive opening between side roof rail rear weatherstrip and rear of rear quarter window, or if front roof rail is too far forward or rearward, proceed as follows:
 - a. Scribe location of male hinge attaching bolt washers and control link assembly on folding top compartment brace.
 - b. Loosen male hinge assembly and control link attaching bolts (fig. 34).
 - c. Move hinge fore or aft as required to obtain proper alignment between side roof rail rear weatherstrip and rear quarter window; then tighten bolts.
 - d. Lock front roof rail to windshield, (where required, adjust front roof rail as previously described) and check fit of top material at rear quarter trim stick area. If necessary, adjust trim stick; then tighten trim stick attaching bolts.
 - e. Check top assembly for proper stack height. Where required, adjust control link adjusting plate as previously described (see step #2 under "Top Adjustment at Control Link Adjusting Plate").
 - f. On styles equipped with manually operated folding top readjust both folding top catch clips as necessary.
2. If side rail is too high or too low at rear quarter window area, proceed as follows:
 - a. Scribe location of male hinge attaching bolt washers and control link on folding top compartment brace.
 - b. Loosen male hinge assembly and control link attaching bolts (fig. 34).
 - c. Without changing fore and aft location of male hinge, (see step 1c for attaching bolt positioning) adjust male hinge up or down as required to obtain proper alignment between side roof rails and rear quarter windows.
 - d. Tighten attaching bolts, while maintaining proper alignment of scribe marks.
 - e. Check fit of top material at rear quarter trim stick area and, if necessary, adjust trim stick. If adjustment is not necessary, tighten trim stick attaching bolts.
 - f. Check top assembly for proper stack height. Where required, adjust control link adjusting plate as previously described (see step 2 under "Top Adjustment at Control Link Adjusting Plate").
 - g. On styles equipped with manually operated folding top, readjust folding top catch clips as necessary.



- MATERIAL PER STICK**
- | | |
|--------------------------|-------------------------|
| WOOD 1/2" x 1" x 15 1/2" | 2-SCREWS 6 x 1/2" |
| STEEL 1/2" x 1" x 2 1/2" | BOLT 1/4"-20 UNC-2AXI" |
| STEEL 1/2" x 1 1/2" x 7" | WING NUT 1/4"-20 UNC-2B |
| | 2-WASHERS 1/4" I.D. |

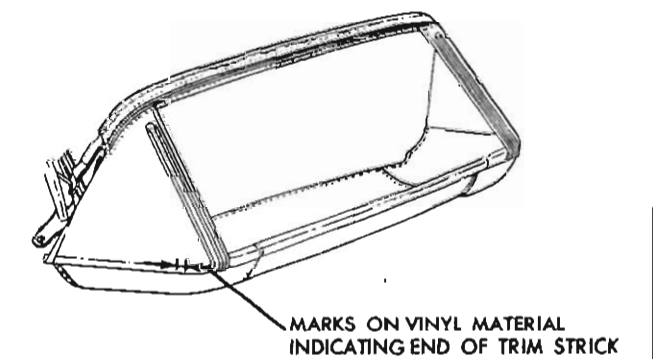


Fig. 35—Removing Folding Top Trim for Replacement

FRONT ROOF RAIL LOCK REPLACEMENT

1. Unlock top from windshield header.
2. With top in a half open position, remove lock attaching screws; then remove lock assembly from front roof rail (see View "A" in Figure 33).
3. To install, reverse removal procedure.

REPLACEMENT OF MANUAL TOP COUNTERBALANCE LIFT ASSEMBLY

1. Remove rear seat cushion and back and folding top compartment side trim panel assembly.
2. Move top to midway position to relieve the manual lift springs. If both lift assemblies are to be serviced, have helper support folding top or place supporting props under front roof rail.
3. Remove upper and lower attaching bolts; then remove lift assembly from body (fig. 5).
4. To install manual lift assembly, reverse removal procedure. Operate top assembly several times through its complete cycle to insure proper operation.

FOLDING TOP TRIM REPLACEMENT

The folding top trim is one continuous piece of material and not two sections attached at the rear roof bow. The materials which are required for performing convertible top sealing operations are a neoprene-type weatherstrip adhesive for cementing vinyl surfaces and convertible top sealer (nitrile type) for sealing the cloth inner lining of the top material. The latter material may be obtained through Chevrolet Parts channels.

Removal of Folding Top and Back Curtain

Trim Assembly

1. Place protective covers on all exposed panels which may be contacted during trim removal.
2. Remove following trim and hardware items:
 - a. Rear seat cushion and back.
 - b. Folding top compartment side trim panel assemblies.
 - c. Side roof rail rear weatherstrips; then loosen folding top quarter flaps from rails.
3. At front of body, raise front roof rail and remove front weatherstrips; then detach top material from front roof rail (View E, Figure 33).
4. Loosen front end of each side roof rail front weatherstrip sufficiently to detach top material flaps which are cemented to rails.
5. At right and left side roof front and rear rails, remove hold-down cable front and rear attaching screws (Views "A" and "B" in Figure 32).
6. At each side roof rear rail, pull hold-down cable rearward until cable is completely removed from top material retaining pocket.

7. Detach folding top compartment bag from rear seat back panel, thus exposing rear quarter and rear trim stick attaching bolts. Forward end of top compartment bag may be tied or wired to center roof bow to provide ready access to attaching bolts (fig. 35, A).
8. At each rear quarter area remove attaching bolts securing rear quarter trim stick assembly to rear quarter inner panel (fig. 35, B).
9. Remove rear trim stick attaching bolts; then lift trim assembly with attached quarter and rear trim sticks on top of rear compartment front panel.
10. To establish relationship of right and left inner vertical edge of old top material to back curtain assembly at rear trim stick location, mark back curtain vinyl at both locations with a grease pencil (fig. 35, C). Reference marks should be transferred to new back curtain when step 8 of installation procedure is performed.

NOTE: Reference marks must be made below upper edge of rear trim stick.

11. To establish relationship of old top material to its position on rear trim sticks, cut selvage end of top material off flush with lower edge of trim sticks.

CAUTION: When cutting top material, be careful not to cut lower selvage edge of back curtain assembly.

12. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material (fig. 32). Reference marks for trim sticks should be transferred to new top material when step 29 of installation procedure is performed.
13. Remove screw securing escutcheon clip at each end of wire-on binding on rear bow. Remove wire-on binding from rear bow. Detach top material from rear roof bow and from trim sticks, then remove top cover assembly.
14. Lock top to windshield header. Install radius end of each adjustable spacer stick to fit against center roof bow. Install opposite end of spacer stick so that metal plate fits under rear roof bow (fig. 35, D). Spacer sticks should be installed along inboard edge of side stay pad or approximately 18½" outboard from centerline dimple of rear roof bow. While exerting rearward pressure on rear bow to draw side stay pads taut, extend spaced sticks until they fit snugly between center bow and rear roof bow, then tighten wing nuts.

NOTE: Spacer sticks may be made as shown in Figure 35, E.

15. Temporarily tie or tape rear bow to rear side roof rails (fig. 35, D). Detach side stay pads and back curtain assembly from rear bow.
16. Remove rear trim stick with attached back curtain assembly and top compartment bag from body and place on clean, protected surface.

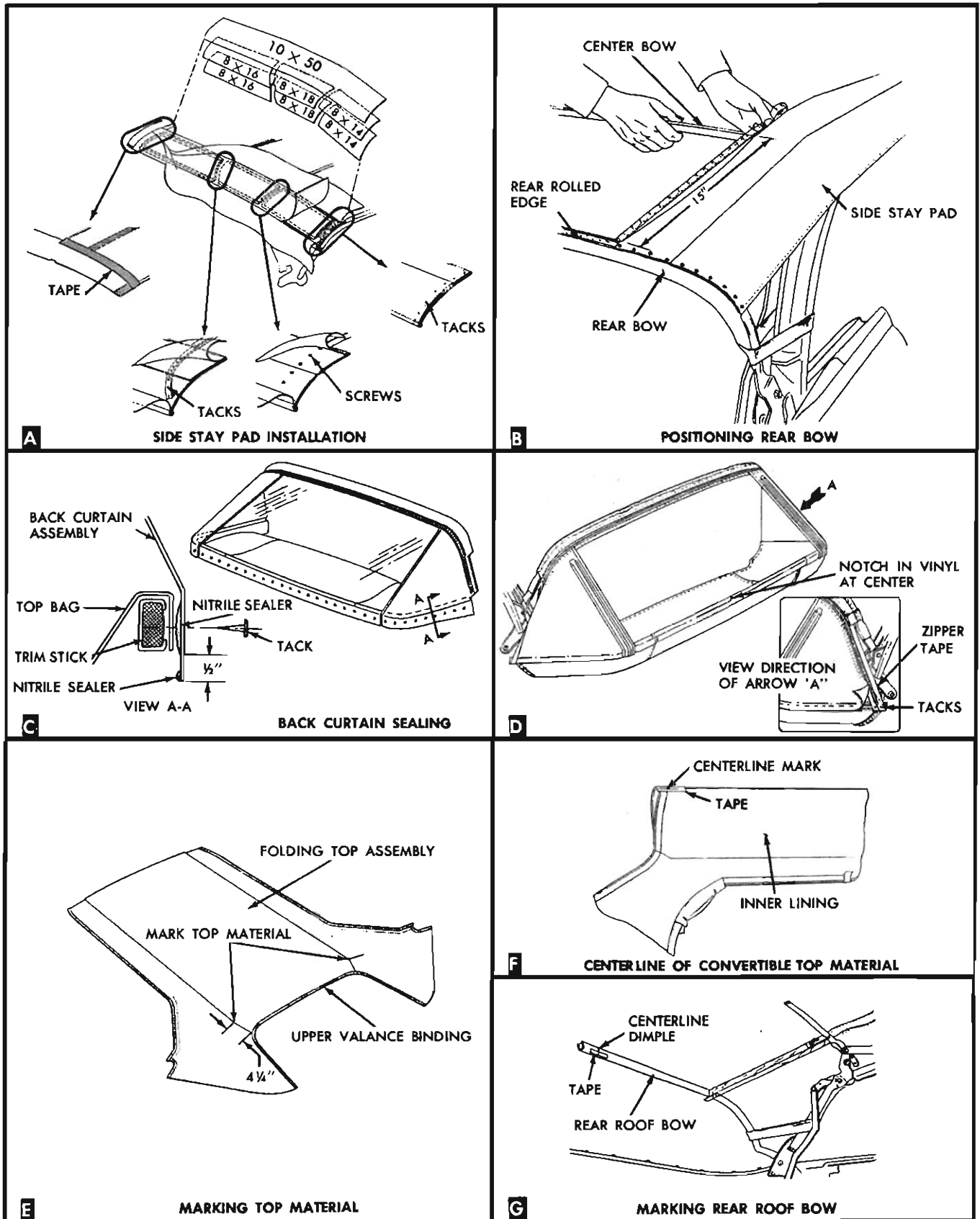


Fig. 36—Installing New Folding Top Trim Material

17. Using chalk, or other suitable material, mark ends of rear and rear quarter trim sticks on vinyl surface of back curtain material (fig. 35, F). Reference marks for trim sticks should be transferred to new back curtain material when step 8 of installation procedure is performed.
18. Remove back curtain assembly from rear and rear quarter trim sticks.
19. Remove side stay pads. Stay pads are attached to front roof rail and front and rear bows with tacks; to center bow with screws.

Installation of Folding Top and Back Curtain

Trim Assembly

1. If a new top is being installed, but it was impossible to perform step 14 of removal procedure, preset spacer sticks to shortest length and install between center and rear roof bow (fig. 35, D). Adjust sticks so that dimension "X" (measured along spacer stick from front upper rolled edge of rear roof bow to center of center bow) is 15" ($\pm 1/4$ "). Tie or tape rear bow to rear side roof rails.
2. In all cases, dimension "X", previously described, must be between 14 $3/4$ " and 15 $1/4$ " and equal on both sides. The dimension may be changed slightly within tolerances to correspond with new top after tryout.
3. Tack side stay pads in conventional manner to rear roof bow and stay tack pads to front roof rail. Make sure inboard edge of pad is properly aligned within depressions in bow and rail. Stay tack pads to front bow. Inboard edge of pad should be located within 1/4" of outboard edge of front bow felt silencer. Install pad to center bow with screws. Make sure inboard edge of pad is properly aligned within depression in bow. Install stay pad wadding (fig. 36, A) in conventional manner using an approved trim cement.
4. Trim selvage end of side stay pads just forward of rear rolled edge of rear roof bow (fig. 36, B).
5. Distance from center of center bow to roller forward upper edge of rear bow is 15" ($\pm 1/4$ "). Re-adjust spacer sticks and side roof rail pads as required if rear bow does not come within this position range.
6. Place back curtain window assembly on a clean covered work bench with exterior (vinyl) surface of back window valance facing down. (The large pliable back window must be handled carefully to avoid possible damage due to scratches, abrasions, etc.). Apply a bead of convertible top sealer (nitrile) along lower edge of back curtain material in area which will be tacked to rear and rear quarter trim stick (View "A-A" in Figure 36, C).
7. Apply a bead of convertible top sealer (nitrile) along lower selvage edge of back curtain (fig. 36, C).

8. After sealer has dried, carefully lay removed back curtain assembly over new back curtain assembly. Using a grease pencil, mark vinyl surface of new back curtain, using marked edge of old curtain as a guide (see steps 10 and 17 of removal procedure). In addition, mark trim stick bolt hole locations on new back curtain assembly.

CAUTION: *Where a grease pencil or similar material is used for marking back curtain vinyl, marks must be below trim stick so that they will not show after curtain is installed in body.*

9. Center and position back curtain assembly to rear trim stick over attached compartment bag.

NOTE: *Notch in back curtain vinyl at lower edge indicates centerline of back curtain assembly (fig. 36, D). In addition, back curtain lower edge should extend 1/2" below lower edge of sticks as shown in View "A-A", Figure 36, C.*

10. Tack curtain to rear and rear quarter trim sticks. On right side, tack zipper tape to forward edge of rear quarter trim stick. (See View "A" in Figure 36, D).
Zipper stop should be above upper edge of rear quarter trim stick. Zipper tape should not be pulled taut after back curtain has been installed to rear roof bow as zipper assembly may show through top material after top has been properly installed.
11. Tack remainder of back curtain material to rear quarter trim stick.
12. Tacks securing back curtain assembly to trim sticks should be placed close to each side of every bolt hole in trim sticks. Then pierce or punch back curtain assembly for each trim stick bolt.
13. Inspect rubber trim stick fillers cemented in body quarter drain gutter, below pinchweld. Recement if necessary.
14. Install rear trim stick with attached back curtain assembly into body. Make sure that all trim stick bolts are driven completely in to represent a finished condition.
15. Hold back curtain valance with one tack in center of rear bow, thereby preventing damage to plastic window.
16. Working from body center progressively outboard to right and left sides, tack back curtain upper valance to rear bow. Make sure all fullness has been drawn from back curtain assembly. Fold excess back curtain upper valance material rearward and tack to rear bow.
CAUTION: *Do not cut off excess upper valance material, as material may unravel.*
17. Check contour of back curtain assembly at rear roof bow and at pinchweld molding.

18. Where required, place reference chalk mark on outer surface of back curtain along pinchweld finishing molding. Readjust back curtain assembly as required.
19. Where required, adjust side stay pads; then tack side stay pads to front roof rail and front bow. Attach side stay pads to center bow with screws. Trim selvage end of side stay pads at front roof rail. Install stay pad covering material in conventional manner using an approved trim cement.
20. Detach rear trim stick with attached back curtain assembly from body.
21. Apply convertible top sealer (nitrile) around each tack head used to secure back curtain material to rear and/or rear quarter trim sticks. It is not necessary to seal tacks which secure back curtain vinyl to rear trim stick.
22. Lay out new top material on a clean protected surface with outer layer of material exposed.
23. Using a pencil, mark top material (mark should be approximately $\frac{1}{2}$ " in length) at deck seam $4\frac{1}{4}$ " from edge of top material upper valance binding (fig. 36, E).
24. Fold new top material in half so that inner lining of top material is exposed (fig. 36, F). Install a 6" piece of tape on inner surface at centerline fold of new top material. Using a pencil, mark the approximate centerline of new top material along entire length of tape. Be sure back will be visible inside of body after new top is installed on convertible top framework.
25. Along forward surface of rear roof bow install a 1" piece of tape at centerline dimple of rear roof bow. Using a pencil, mark centerline of rear bow on tape (fig. 36, G).
26. Remove rear bow spacer sticks and positioning tape or cord.
27. Check position of rear roof bow in relation to new folding top trim assembly by placing new top trim over folding top framework. With quarter flaps properly folded over rear side roof rails (edge of rails should match stitch lines of quarter flap seams), marks on deck seam should be in center of rear roof bow.

NOTE: The deck seam mark will vary slightly ($\pm \frac{1}{4}$ ") depending upon position of rear roof bow. Also check centerline mark on inner lining of top material. Mark should correspond to centerline mark on rear roof bow.

28. Remove top trim material.
29. Carefully lay removed top, which was marked at lower edge of trim stick prior to removal, over new top. Align old top with new top. Using a pencil, mark vinyl surface of new top using marked edge of old top as a guide. Also mark edges of trim sticks on vinyl surface of new top material (see steps 11 and 12 of removal procedure).
30. Apply a bead of convertible top sealer (nitrile) to inner lining of top material along front roof rail. Sealer bead should be roughly parallel with forward edge of top material and located so that sealer will be completely concealed by front roof rail when top is installed.
31. After sealer has dried, position top trim on framework and center assembly both fore and aft and side to side.
32. On right side of top material, at rear of hold-down cable pocket, install cable through pocket in top assembly.

Welding rod or similar material may be bent at one end to form a hook. Then at front of hold-down pocket slip hooked end of rod into pocket. Push rod through pocket until hooked end of rod is exposed at rear of pocket. Install forward end of cable attaching bracket over hooked portion of rod; then pull cable through pocket. When cable attaching bracket is exposed at front end of hold-down pocket, disengage hooked portion of rod from cable attaching bracket. Repeat above operation on opposite side of top assembly.

33. After cables have been filtered or pulled through hold-down pockets in top material, fasten cable attaching brackets to side roof front and rear rails (fig. 32). Cables should be reasonably loose after installation is made at side roof rails. Do not adjust cables to desired tension until top material has been completely installed (see step 54 of installation procedure).

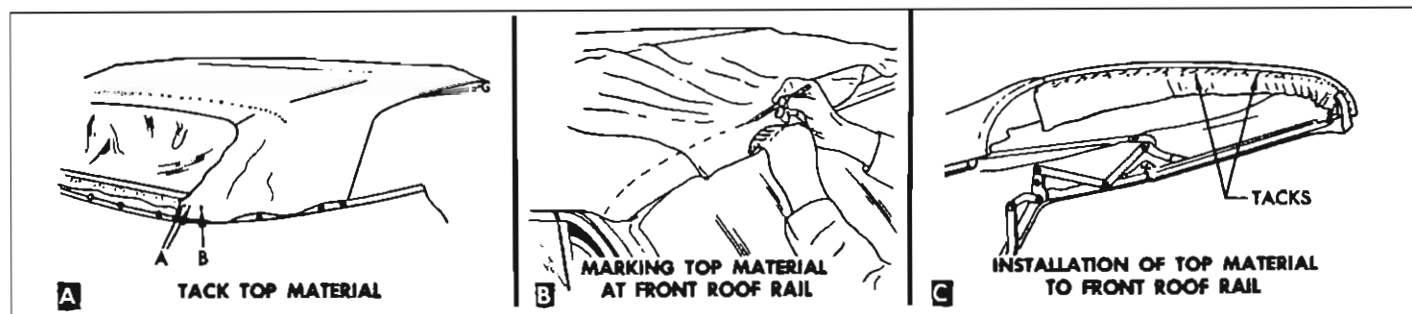


Fig. 37—Fitting the Replacement Top

34. Check position of top trim at rear roof bow and at side roof rear rails. With quarter flaps properly folded over rear side roof rails (edge of rails should match stitch lines of quarter flap seams), marks on deck seam should be in center of rear roof bow.

NOTE: The deck seam mark will vary slightly ($\pm 1/4$ ") depending upon position of rear roof bow. Also check centerline mark on inner lining of top material. Mark should correspond to centerline mark on rear roof bow (fig. 36, G).

35. Using a neoprene-type weatherstrip adhesive, fasten rear quarter flaps to side roof rear rails. Make sure that quarter flap seam breaks at forward edge of side roof rear rail.

Material may have to be stretched from side to side to insure proper fit of top material flaps to side roof rear rails and to remove wrinkles from top material along rear roof bow.

36. Cut or pierce flaps for side roof rail rear weatherstrip attaching bolts. Install side roof rail rear weatherstrip to help maintain position of quarter flaps while adhesive is drying.
37. Using previously marked lines (ends of trim stick) as locating reference, tack top material to rear and rear quarter trim sticks. "A" in Figure 37, A shows top material installed to rear trim stick at inboard edge.
38. Cut or punch hole in top material for each trim stick attaching bolt.
39. Install top material into body. Make sure rear and rear quarter trim stick attaching bolts are completely driven in to represent finished condition.
40. Check fit of top material. Rear quarter trim sticks may be adjusted downward to remove minor wrinkles in top material in rear quarter area.
41. Where required, remark top material; then make necessary adjustments to top material by repositioning rear quarter trim sticks and/or by re-tacking top material to rear and/or rear quarter trim sticks.

NOTE: In extreme cases, adjustment of top material at rear or rear quarter trim sticks may have to be performed several times before desired fit of top material is obtained.

42. Remove trim sticks with attached top material from top compartment well. Back curtain should extend $1/2$ " below trim sticks (see step 9 of installation procedure). In addition, top material must extend $1/2$ " to $5/8$ " below trim sticks to minimize water wicking on inner lining of back curtain material. (View "C-C" in Figure 32.) Trim top material as required.

43. Apply convertible top sealer (nitrile) onto all trimmed edges, around each tack head and around each trim stick attaching bolt hole. (View "C-C" in Figure 32.)

CAUTION: All painted surfaces adjacent to belt finishing molding should be adequately covered to prevent possible sealer damage.

44. Install trim sticks with attached top material into top compartment well and tighten side and rear trim stick attaching bolts.
45. Recheck side roof rail flaps. Make sure mark at deck seams is in center of rear bow. Also recheck centerline mark on inner surface of top material at rear bow.
46. Where required, remove side roof rail rear weatherstrips. Readjust top material at side roof rails and reinstall weatherstrips.
47. While pulling top material slightly rearward, stay tack top material along rear roof bow.

CAUTION: Tacks must be installed along a straight line in center of rear bow. Tacks out-board of deck seams should be restricted to distance not to exceed six inches, which is length wire-on binding extends past seam.

48. At front roof rail, pull top trim material forward to desired tension. While maintaining tension on top trim, place a pencil mark on outer surface of trim material along forward edge of front roof rail (fig. 37, B).
49. Unhook top from windshield header and apply neoprene-type weatherstrip adhesive to tacking area of front roof rail. Pull top trim material slightly forward so that pencil marks are forward of front edge of front roof rail. Fasten top trim to cemented area and stay tack trim to rail (fig. 37, C).
50. Apply neoprene-type weatherstrip adhesive to front flaps and to corresponding areas on side roof front rails. Fasten flaps to side of roof front rail (View E, Figure 33).
51. Lock top to windshield header. Check appearance of top trim as well as operation and locking action of top. (If additional tension is desired in top trim, unlock top from header and reposition top trim by pulling trim further forward. Stay tack and recheck top appearance.)
52. Complete tacking of top trim to front roof rail and trim off excess material.
53. Permanently tack top material to rear roof bow. Apply a bead of neoprene-type weatherstrip adhesive around each tack head, and into two holes pierced into top material for wire-on binding clip escutcheons.
54. Unlock top from windshield header. Prop-up top assembly approximately 12 inches above windshield header. Loosen top material hold-down

cable front attaching screws (View "A", Figure 32). Adjust cable by pulling cable taut and tighten attaching screws. Lock top to windshield header. Cables should be adjusted sufficiently to hold top material tightly against side roof rail stay pads. However, cables should not be adjusted so tight as to restrict proper locking action of the front roof rail assembly to the windshield header. Where necessary, readjust cables as required to obtain desired tension.

55. When completed, folding top should be free from wrinkles and draws. Install all previously removed trim and hardware and clean any soilage from top material, back curtain or pads.

Replacement of Back Curtain Trim—Only

Extra care in positioning new curtain at some location on trim stick as old curtain, and aligning of trim stick attaching bolt holes in top material with holes in trim stick, will allow reinstallation of top material to its original position with a minimum of refitting.

Removal

1. Perform steps 1, 2, 7, 8, 9, 10 and 12 described in "Removal of Folding Top and Back Curtain Trim Assembly."
2. Remove wire-on binding and escutcheons from rear roof bow.
3. Detach folding top trim from rear roof bow and from rear and rear quarter trim sticks.
4. Carefully slide top trim forward exposing tacked edge of back curtain at rear roof bow.
5. Detach back curtain from rear roof bow; then remove back curtain assembly with attached trim sticks and top compartment bag from body and place on a clean, protected surface.
6. Perform steps 17 and 18 as described in "Removal of Folding Top and Back Curtain Trim Assembly."

Installation

1. Install spacer sticks as described in steps 1 and 2 of "Installation of Folding Top and Back Curtain Trim Assembly."
2. Seal and install back curtain assembly as described in steps 7 through 21 of "Installation of Folding Top and Back Curtain Trim Assembly."

Replacement of Folding Top Trim—Only

1. Remove folding top trim as described in steps 1 through 13 of "Removal of Folding Top and Back Curtain Trim Assembly."
2. Prior to installation of new trim material, check contour of back curtain and side stay pad assemblies. Where required, adjust back curtain and/or side stay pads.

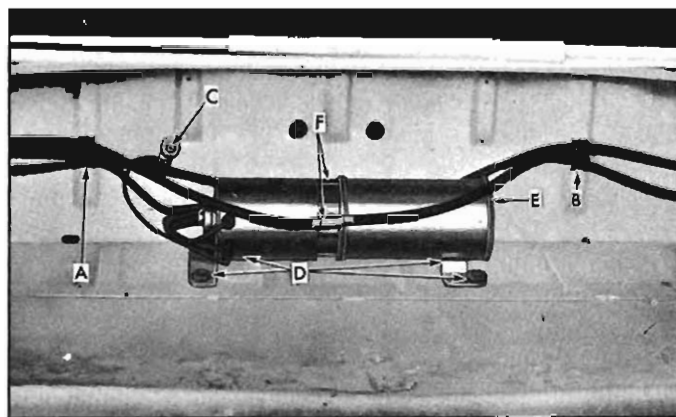


Fig. 10-38—Hydro-Lectric Motor and Pump Assembly

3. Install new folding top trim as described in steps 22 through 25 and 27 through 55 of "Installation of Folding Top and Back Curtain Trim Assembly."

HYDRO-LECTRIC SYSTEM

The high pressure hydro-lectric unit used in the convertible bodies, consists of a 12 volt reversible type motor, a rotor-type pump, two hydraulic lift cylinders, and an upper and lower hydraulic hose assembly. The unit is installed in the body directly behind rear seat back (fig. 38).

Figure 39 illustrates and identifies the individual parts of the motor and pump assembly.

NOTE: When servicing the motor assembly or pump end plate assembly, it is extremely important that the small motor shaft "O" ring seal is properly installed over the motor armature shaft and into the pump end plate assembly prior to installing the pump rotors or the motor shaft drive ball.

Motor and Pump Assembly

Removal

1. Operate folding top to full "up" position.
2. Disconnect positive battery cable.
3. Place protective covering over rear seat cushion and back.
4. Working inside body, detach front edge of folding top compartment bag from rear seat back panel.
5. Working on inside of body over rear seat back, remove pump and motor shield attaching screws and remove shield.
6. Remove clips securing wire harness and hydraulic hose to rear seat back panel. See "A" and "B" in Figure 38.
7. Disconnect motor leads from wire harness and ground attaching screw. See "C" in Figure 38.
8. To facilitate removal apply a rubber lubricant to

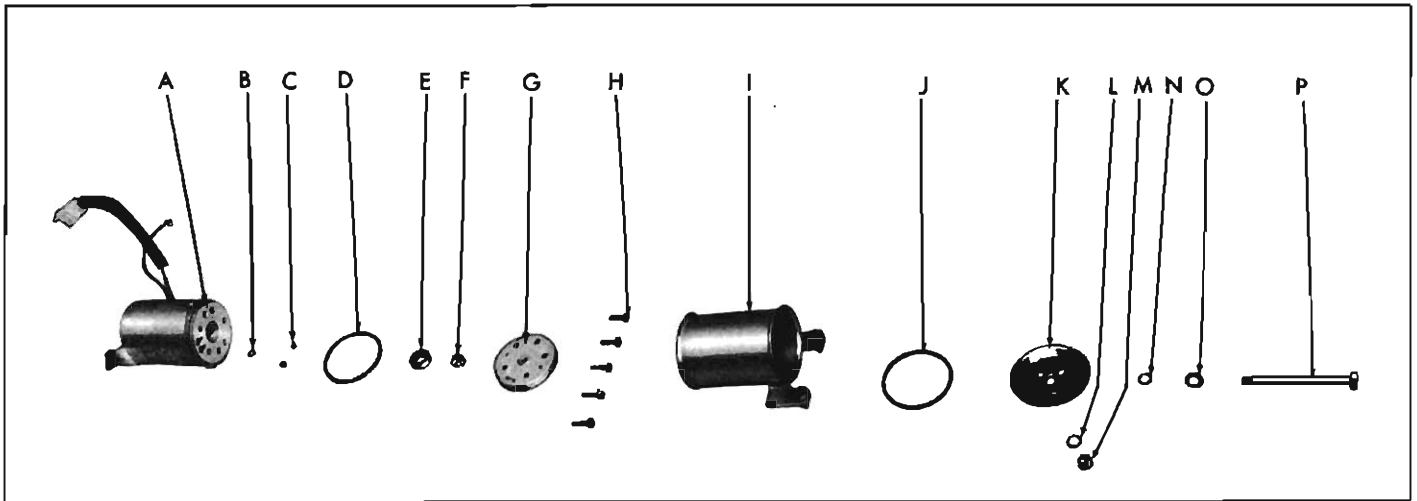


Fig. 10-39—Hydro-Lectric Motor and Pump Disassembled

- A. Motor Assembly
- B. Motor Shaft "O" Ring Seal
- C. Fluid Control Valve Balls
- D. Reservoir Seal
- E. Outer Pump Rotor
- F. Inner Pump Rotor
- G. Pump Cover Plate Assembly
- H. Pump Cover Attaching Screws

- I. Reservoir Tube and Bracket Assembly
- J. Reservoir Seal
- K. Reservoir End Plate
- L. Reservoir Filler Plug "O" Ring Seal
- M. Reservoir Filler Plug
- N. Reservoir End Plate Attaching Bolt "O" Ring Seal
- O. Reservoir End Plate Attaching Bolt Washer
- P. Reservoir End Plate Attaching Bolt

pump attaching grommets; then carefully disengage grommets from floor pan. See "D" in Figure 38.

9. Place absorbent rags below hose connections and end of reservoir.
10. With a straight-bladed screwdriver, vent reservoir by removing filler plug; then reinstall plug. See "E" in Figure 38.

NOTE: Venting reservoir is necessary in this "sealed-in" unit to equalize air pressure in reservoir to that of the atmosphere. This operation prevents the possibility of hydraulic fluid being forced under pressure from disconnected lines and causing damage to trim or body finish.

11. Disconnect hydraulic lines and cap open fittings to prevent leakage of fluid. See "F" in Figure 38. Use a cloth to absorb any leaking fluid, then remove unit from rear compartment.

Installation

1. If a replacement unit is being installed, fill reservoir unit with specified Delco No. 11 Hydraulic Fluid (G. M. Hydraulic Brake Fluid Super No. 11 or its equivalent). See "Filling of Hydro-Lectric Reservoir."
2. Connect hydraulic hoses, engage attaching grommets in panel and connect wiring.
3. Connect battery and operate top through its up and down cycles until all air has been "bled" from hydraulic circuit. See "Filling of Hydro-Lectric Reservoir."

4. Check connections for leaks and recheck fluid level in reservoir.
5. Install previously removed parts.

Reservoir Tube

Disassembly from Motor and Pump Assembly

1. Remove motor and pump assembly from body.
2. Scribe a line across pump end plate, reservoir tube and reservoir tube end plate to insure a correct assembly of parts. See Figure 40.
3. With a straight-bladed screwdriver, remove reservoir filler plug. Note sealing ring around plug.
4. Drain fluid from reservoir into a clean container.
5. With suitable tool remove bolt from end of assembly and remove reservoir end plate and tube. Note sealing rings around bolt, reservoir end plate, and between end of reservoir tube and pump cover plate assembly.

Assembly to Motor and Pump Assembly

1. Position sealing ring on pump and assemble reservoir tube to pump according to scribe marks.
NOTE: Bracket assembly on tube should be located at outer end when tube is assembled to pump.
2. Position sealing ring on tube end plate and position end plate on reservoir tube, according to scribe marks. Install and tighten attaching bolt.
3. Place unit in horizontal position and fill with fluid until fluid level is within ¼ inch of lower edge of filler plug hole.

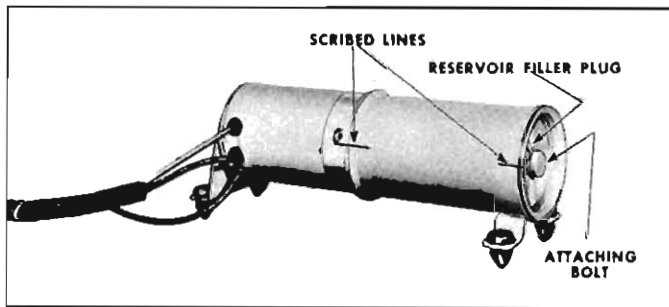


Fig. 10-40—Hydro-Lectric Motor and Pump Assembly

4. Make sure that sealing ring is on filler plug before installing filler plug.

Operation of Folding Top

When the control switch is actuated to the "up" position, the battery feed wire is connected to the red motor lead and the motor and pump assembly operate to force the hydraulic fluid through the hoses to the lower ends of the double-acting cylinders. The fluid forces the piston rods in the cylinders upward, thus raising the top. The fluid in the top of the cylinders returns to the pump for recirculation to the bottom of the cylinders. When the control switch knob is actuated to the "down" position, the feed wire is connected to the dark green motor lead and the motor and pump assembly operate in a reversed direction to force the hydraulic fluid through the hoses to the top of the cylinders. The fluid forces the piston rods in the cylinders downward, thus lowering the top. The fluid in the bottom of the cylinders returns to the pump for recirculation to the top of the cylinders.

Operation of Pump Assembly

The motor-type pump assembly is designed to deliver a maximum pressure in the range of 340 psi to 380 psi. The operation of the pump assembly when raising the top is as follows:

1. Raising the Top. When the red motor lead is energized the motor drive shaft turns the rotors clockwise as indicated by the large arrow in Fig. 41. The action of the pump rotors forces the fluid under pressure to the bottom of each cylinder forcing the piston upward. This action causes the fluid above the piston in each cylinder to be forced into the pump, which recirculates the fluid to the bottom of the cylinders. The additional fluid required to fill the cylinder due to piston rod displacement is drawn from the reservoir.
2. Lowering the Top. When the green motor lead is energized the motor drive shaft turns the rotors counterclockwise as indicated by the large arrow in Fig. 42. The action of the pump rotors forces the fluid under pressure to the top of each cylinder. This action causes the fluid below the piston in each

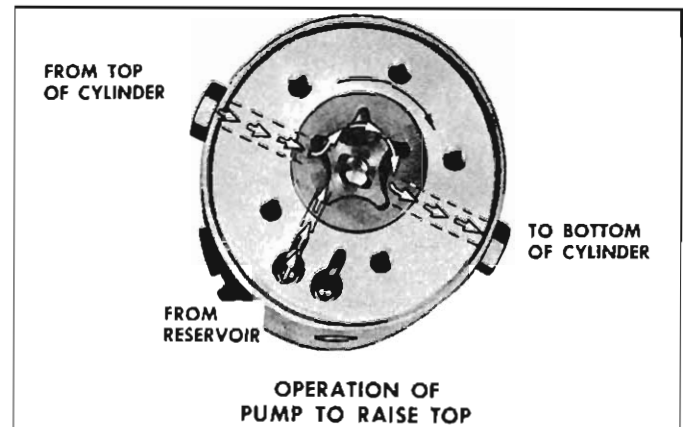


Fig. 10-41—Operation of Pump to Raise Top

cylinder to be forced into the pump which recirculates the fluid to the top of each cylinder. The surplus hydraulic fluid due to piston rod displacement flows into the reservoir.

Fluid Control Valve

The fluid control valve consists of a rocker arm installed in the pump cover plate, and two steel balls. Fig. 43 shows the top surface of the pump cover plate. The dotted lines indicate the cavities on the bottom side of the cover plate. The cavities are designed to permit fluid flow between pump rotors and the reservoir.

Figures 44 and 45 illustrate the operation of the fluid control valve.

Mechanical Checking Procedure

If there is a failure in the hydro-lectric system and the cause is not evident, the mechanical operation of the top should first be checked. If the folding top assembly appears to have a binding action, disconnect the top lift cylinder piston rods from the top linkage and then manually raise and lower the top. The top should travel through its up and down cycle without

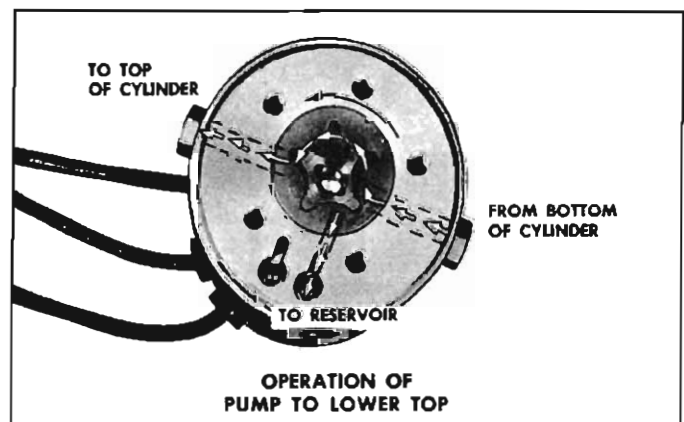


Fig. 10-42—Operation of Pump to Lower Top

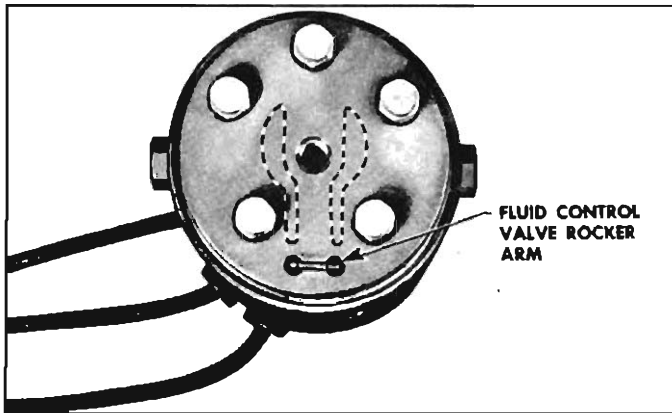


Fig. 10-43—Pump Cover Plate

any evidence of a binding action. If a binding action is noted when the top is being locked at the header, check the alignment of the door windows, ventilators and rear quarter windows with relation to the side roof rail weatherstrips. Make all necessary adjustments for correct top alignment. See "Folding Top Adjustments". If a failure continues to exist after a check for mechanical failure has been completed, the hydro-lectric system should then be checked for electrical or hydraulic failures.

Electrical Checking Procedure

If a failure in the hydro-lectric system continues to exist after the mechanical operation has been checked, the electrical system should then be checked. A failure in the electrical system may be caused by a low battery, breaks in wiring, faulty connections, mechanical failure of an electrical component, or wires or components shorting to one another or to body metal. Before beginning checking procedures, check battery according to recommended procedure.

1. Checking for Current at Folding Top Control Switch.

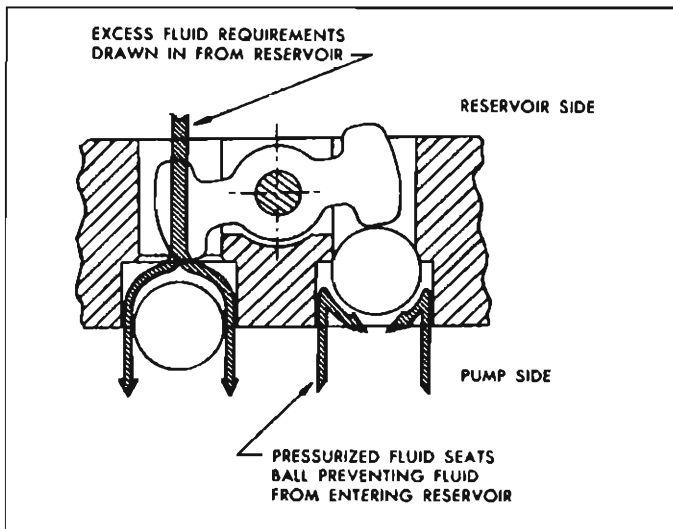


Fig. 10-44—Fluid Control Valve

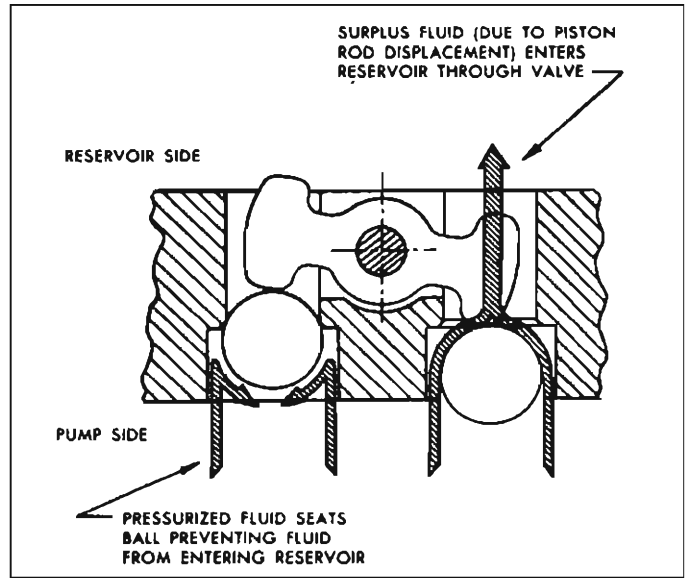


Fig. 10-45—Fluid Control Valve

- a. Disengage terminal block from rear of switch.
 - b. Connect light tester to central feed terminal of switch terminal block.
 - c. Ground light tester ground lead to body metal.
 - d. If light tester does not light, there is an open or short circuit between power source and switch.
2. Check the Folding Top Control Switch.

If there is current at the feed wire terminal of the terminal block, operation of switch can be checked as follows:

- a. Place a No. 12 jumper wire on switch terminal block between center terminal (feed) and one motor wire terminal. If motor operates with jumper wire but did not operate with switch, switch is defective.

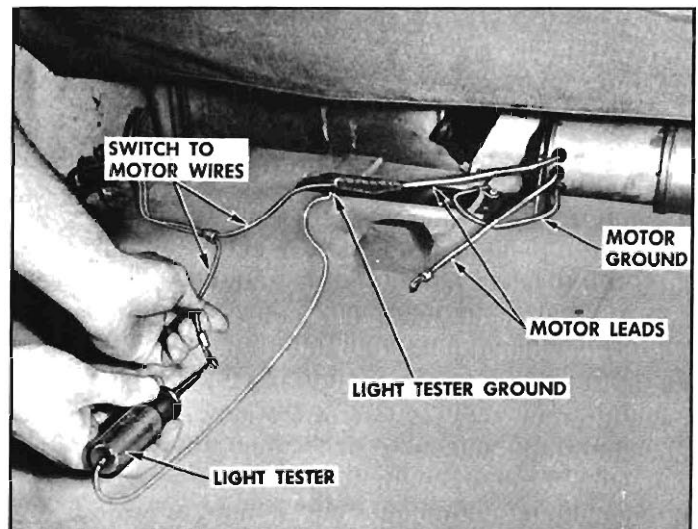


Fig. 10-46—Checking Motor Wiring

- b. Connect jumper wire between center terminal and other motor wire terminal on switch terminal block. If motor operates with jumper wire, but did not operate with switch, switch is defective.
3. Checking Switch to Motor Lead Wires.
If switch is found to be operating properly, the switch to motor lead wires can be checked as follows: See Fig. 46.
 - a. Disconnect green switch-to-motor wire from motor lead in rear compartment.
 - b. Connect a light tester to green switch-to-motor wire terminal.
 - c. Ground light tester ground lead to body metal.
 - d. Actuate switch to "down" position. If tester does not light, there is an open or short circuit in wire.
 - e. Disconnect red switch-to-motor wire from motor lead.
 - f. Connect light tester to red switch-to-motor wire terminal.
 - g. Actuate switch control knob to "up" position. If tester does not light, there is an open or short circuit in wire.
 4. Checking the Motor Unit.

If a light tester indicates current at the motor lead terminals of the switch-to-motor wires, but motor unit does not operate from switch, a final check of the motor unit can be made as follows:

- a. Check connection of motor ground wire to body metal. See "C" in Fig. 38.
- b. Connect a No. 12 jumper wire from battery positive pole to motor lead terminal that connects to green switch-to-motor wire. The motor should operate to lower top.
- c. Connect jumper wire to motor lead terminal that connects to red switch-to-motor wire. The motor should operate to raise top.
- d. If motor fails to operate on either or both of these checks, it should be repaired or replaced.
- e. If motor operates with jumper wire but will not operate from switch-to-motor wires, the trouble may be caused by reduced current resulting from damaged wiring or poor connections.

Hydraulic Checking Procedure

Failures in the hydraulic system can be caused by lack of hydraulic fluid, leaks in hydraulic system, obstructions or kinks in hydraulic hoses or faulty operation of a cylinder or pump.

1. Checking Hydraulic Fluid Level in Reservoir.
 - a. Operate top to raised position.

- b. At rear compartment, remove pump and motor shield.
 - c. Place absorbent rags below reservoir at filler plug.
 - d. With a straight-bladed screwdriver, remove filler plug. Fluid level should be within $\frac{1}{4}$ inch of lower edge of filler plug hole.
 - e. If fluid is low, add Delco No. 11 Hydraulic Fluid (G.M. Hydraulic Brake Fluid Super No. 11 or its equivalent) to bring to specified level. See "Filling of Hydro-Lectric Reservoir".
 - f. Reinstall filler plug and pump and motor shield.
2. Checking Operation of Lift Cylinders.
 - a. Remove rear seat cushion and folding top compartment side panel assemblies.
 - b. Operate folding top control switch and observe lift cylinders during "up" and "down" cycles for these conditions:
 - (1) If movement of cylinder is not coordinated or sluggish when the motor is actuated, check hydraulic hoses from motor and pump to cylinder for kinks.
 - (2) If one cylinder rod moves slower than the other, cylinder having slower moving rod is defective and should be replaced.
 - (3) If both cylinder rods move slowly or do not move at all, check the pressure of the pump. See "Checking the Pressure of the Pump".

NOTE: To insure proper operation of the lift cylinders, the top lift cylinder rods should be cleaned and lubricated at least twice a year. To perform these operations, raise top to "up" position and wipe exposed portion of each top lift cylinder piston rod with a cloth dampened with brake fluid to remove any oxidation and/or accumulated grime. With another clean cloth apply a light film of brake fluid to the piston rods to act as a lubricant.

CAUTION: Exercise care so that brake fluid does not come in contact with any painted or trimmed parts of the body.

3. Checking Pressure at the Pump.
 - a. Remove motor and pump assembly from rear compartment.
 - b. Install plug in one port, and pressure gauge in port to be checked. See Fig. 47.
 - c. Actuate motor with applied terminal voltage within range of 9.5 volts to 11.0 volts. Pressure

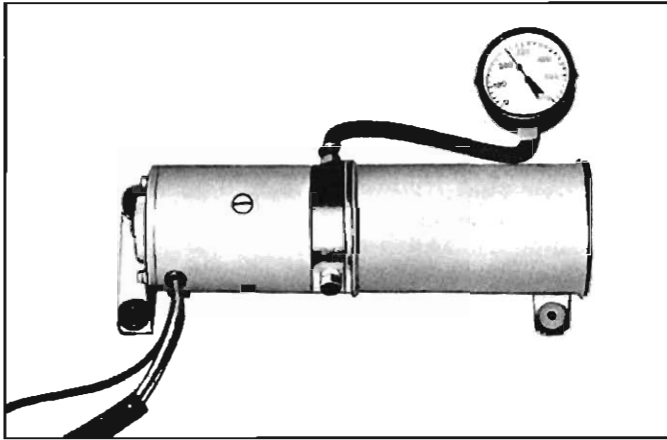


Fig. 10-47—Checking Pump Pressure

gauge should show a pressure between 340 psi and 380 psi.

- d. Check pressure in other port.

NOTE: A difference in pressure readings may exist between the pressure port for top of cylinders and pressure port for bottom of cylinders. This condition is acceptable if both readings are within the limit of 340 and 380 psi.

- e. If the pressure is not within specified limits, unit is defective and should be repaired or replaced, as required.

Folding Top Lift Cylinder Replacement

1. Remove rear seat cushion and seat back.
2. Remove folding top compartment side trim panel assemblies.
3. With top in raised position, remove attaching nut, bolt, bushing and washer from upper end of cylinder.
4. Remove cotter pin, spacers and clevis pin securing lower end of cylinder to lift cylinder lower support.
5. Move cylinder to gain access to lower hydraulic hose connection.
6. Disconnect and cap hydraulic connections on cylinder and on each hose; remove cylinder.

CAUTION: Before disconnecting hydraulic connections, place suitable wiping rags under connections to absorb any drippage of hydraulic fluid. Also, disconnect battery cable to prevent accidental operation of motor and pump while hydraulic hoses are disconnected.

7. To install cylinder, reverse removal procedure with following exceptions: To aid in connection of cylin-

der piston rod to folding top linkage, use power to raise piston rod to extended position. Operate top down and up several times, then check and correct level of hydraulic fluid in reservoir. See "Filling of Hydro-Lectric Reservoir".

Filling Hydro-Lectric Reservoir

This procedure virtually eliminates discharge or spillage of hydraulic fluid and possible trim damage while filling and bleeding system.

1. Filler Plug Adapter

- a. Drill $\frac{1}{4}$ inch diameter hole through center of spare reservoir filler plug.
- b. Install two inch length of metal tubing ($\frac{1}{4}$ " O.D. x $\frac{3}{16}$ " I.D.) into center of filler plug and solder tubing on both sides of filler plug to form air tight connection. See Fig. 48.

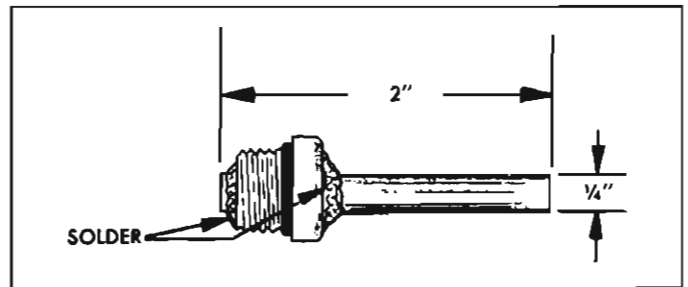


Fig. 10-48—Reservoir Filler Plug Adapter

2. Filling and Bleeding Reservoir

- a. With top in raised position, remove folding top compartment bag material from rear seat back panel. Remove pump and motor shield.
- b. Place absorbent rags below reservoir at filler plug. Using a straight-bladed screwdriver, slowly remove filler plug from reservoir.

IMPORTANT: When installing new or overhauled motor and pump assembly, as a bench operation, fill reservoir to specified level with hydraulic fluid. This operation is necessary as pump must be primed prior to operation to avoid drawing excessive amount of air into hydraulic system.

- c. Install filler plug adapter to reservoir and attach four or five foot length of $\frac{3}{16}$ inch I.D. rubber tubing or hose to filler plug tubing.
- d. Install opposite end of hose into a container of G.M. Hydraulic Brake Fluid Super No. 11 or equivalent. See Figure 49.

NOTE: Container should be placed in rear compartment area of body, below level of fluid in the reservoir. In addition, sufficient

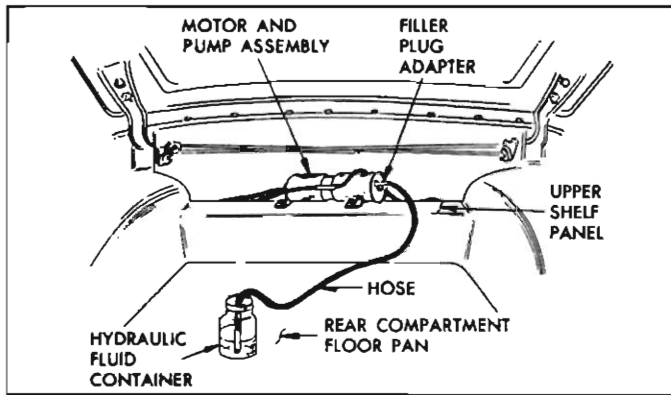


Fig. 10-49—Filling Hydraulic System

fluid must be available in container to avoid drawing air into hydraulic system.

- e. Operate top to down or stacked position. After top is fully lowered continue to operate motor and pump assembly (approximately 15 to 20 seconds), or until noise level of pump is noticeably reduced. Reduction in pump noise level indicates that hydraulic system is filling with fluid.
- f. Operate top several times or until operation of top is consistently smooth in both up and and down cycles.
- g. Remove hose from filler plug tubing and remove filler plug adapter from reservoir.
- h. Check level of fluid in reservoir and re-install original filler hole plug.

NOTE: Fluid level should be within $\frac{1}{4}$ inch of lower edge of filler plug hole.

CORVAIR 95 AND GREENBRIER 1200 SERIES

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GENERAL DESCRIPTION

The 1962 and 1963 Corvaair 95 and Greenbrier remain basically unchanged from the 1961 design except for the side double door locks, soft trim appearance

and the availability of an optional right hand folding seat for the Corvan models.

All components not covered herein may be serviced as outlined in the 1961 Corvaair Shop Manual.

MAINTENANCE AND ADJUSTMENTS

SIDE DOUBLE DOORS (FIG. 50)

Striker Plate Adjustment

Striker plates must be adjusted so that upper and lower slam bolts engage either at the same time (preferred) or with the lower slam bolt leading slightly in cases where difficulty is found in obtaining engagement at the lower plate.

To obtain the desired spacing shown in Figure 51, striker plates may be moved inboard or outboard by loosening retaining bolts and moving plates within limits of slotted holes.

Door Interlock Adjustment (fig. 50)

After correct door-to-body spacing is obtained, door interlocks should be adjusted to freely enter interlock casting.

Loosen interlock retaining screws and move interlock up or down as required. Do not bend interlock to accomplish adjustment.

Pull Rod Adjustment (fig. 52)

1. If working on intermediate door of 1205 model, rod trunnions may be reached by removing access plate located on inner surface of door. All other models will require removal of the trim panel shown in Figure 53.
2. If rods and trunnions are disassembled, screw rods into trunnions until a pre-set dimension of 1 $\frac{3}{8}$ " is obtained as shown in Figure 33.
3. Remove slack from linkage by pulling the rods toward lock levers (do not pull hard enough to move latch bolt). Note that latch bolt must be in locked position.
4. Adjust trunnions to be one turn short of entering holes in lock levers. Insert trunnions in levers.
5. Install spring clips and trim or access panel.

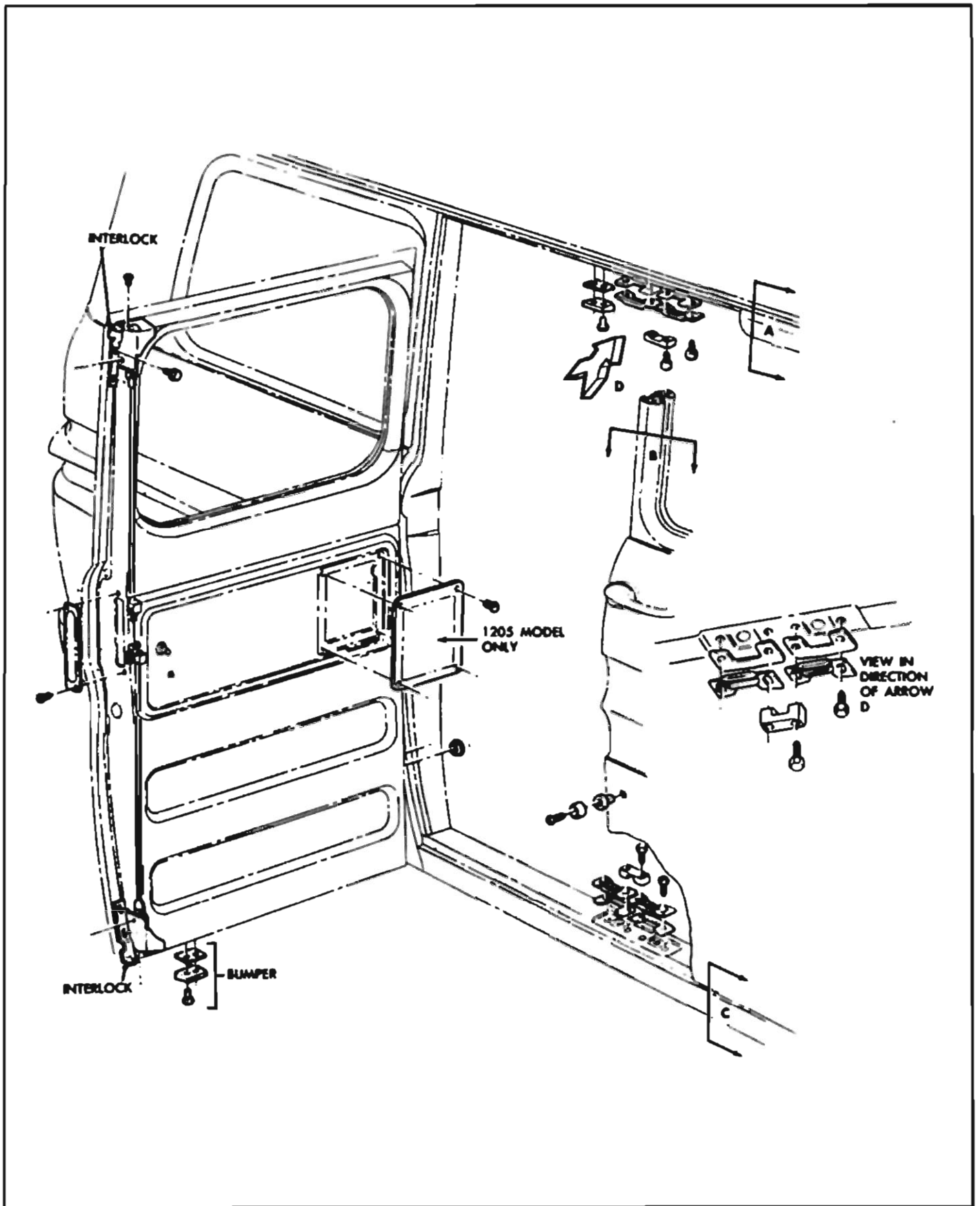


Fig. 10-50—Side Door Details

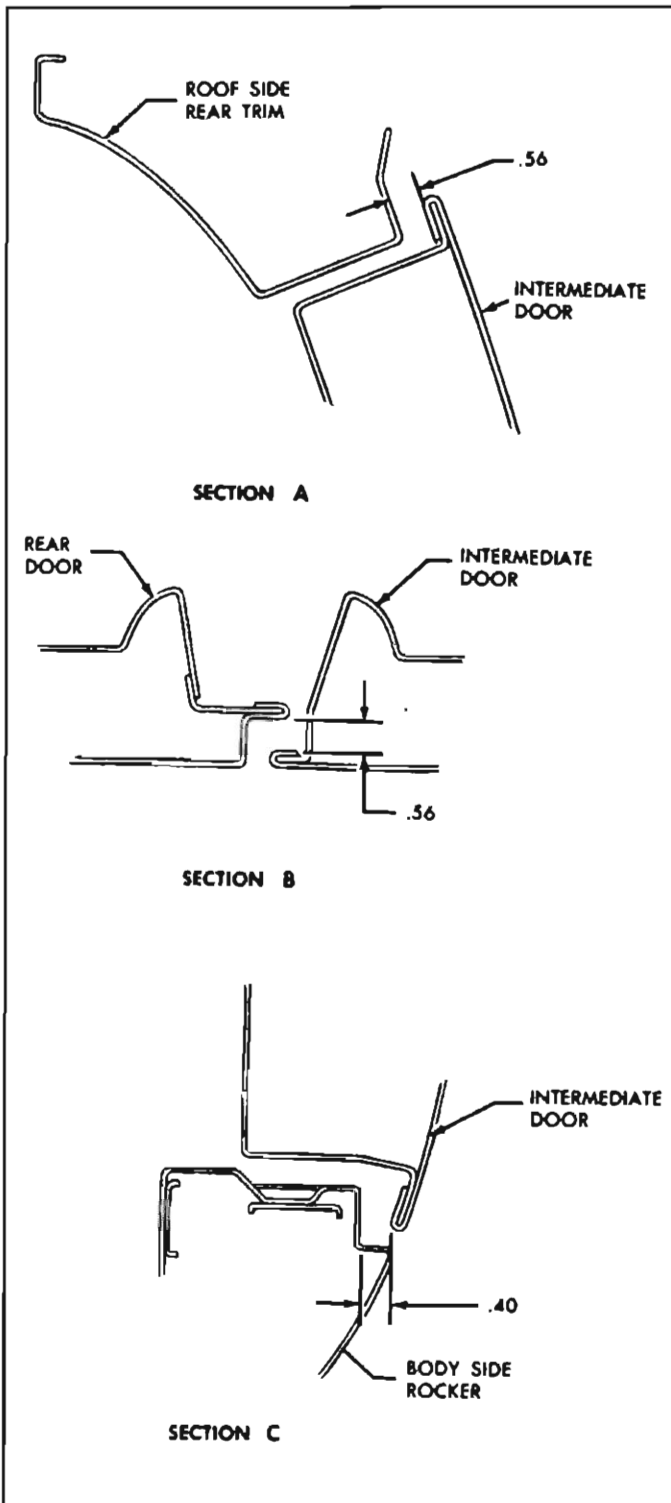


Fig. 10-51—Sectional Views of Figure 31

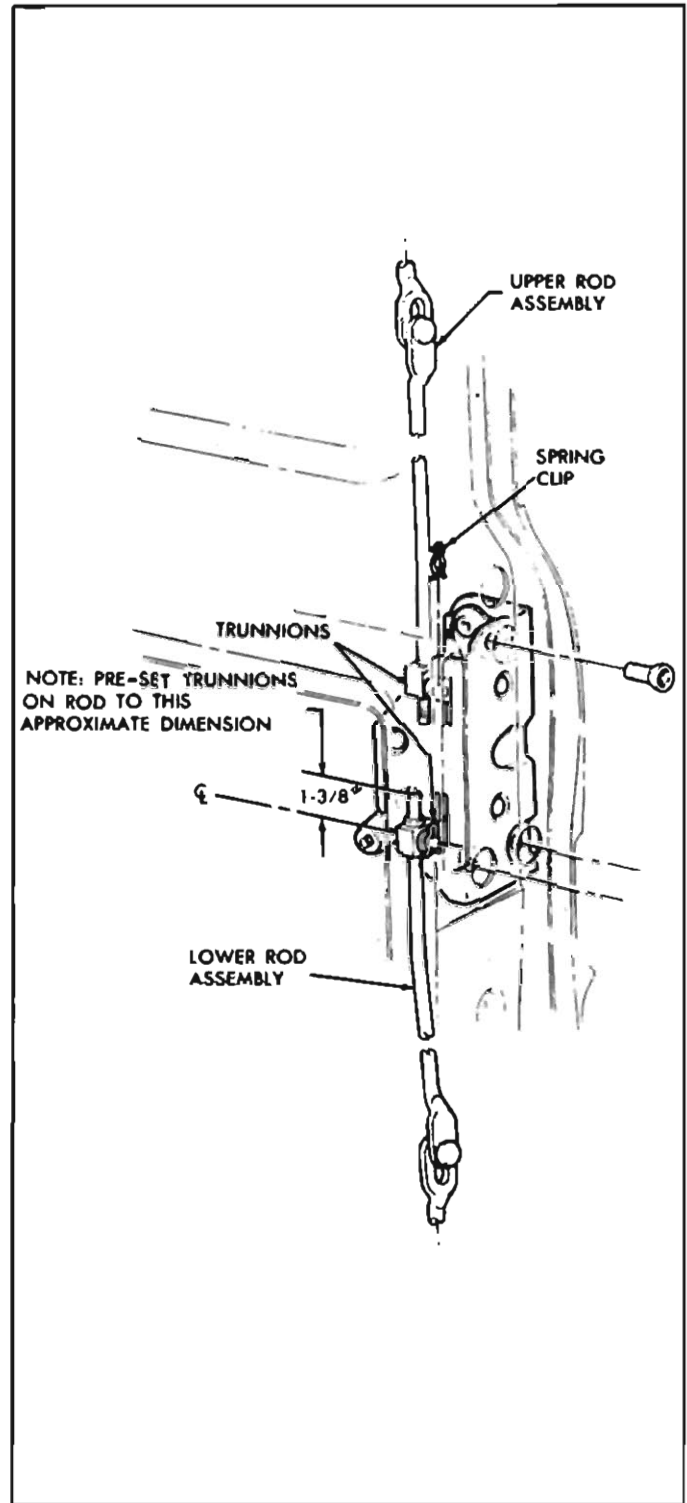


Fig. 10-52—Pull Rod Adjustment

SERVICE OPERATIONS

SIDE DOUBLE DOORS

The locking knob on the inner panel of the side intermediate door has been removed and replaced with

the conventional plunger-type push button lock found on the rear doors of 500, 700 and 900 Series vehicles. The "squeeze" type door release has been replaced by a conventional door handle placed on the inside

surface of the side rear door. Other changes of note are the elimination of the key lock formerly located in side intermediate door and the modification of the door lock striker plates which now have a "two stage" catch groove, providing added safety.

Side Intermediate Door Lock

The side intermediate door lock is serviced in much the same manner as is 1961, except that all 1961 references to door lock cylinder and inside locking knob mechanism should be disregarded. Figure 54 illustrates the outer door handle assembly.

The plunger-type push button lock remote control and its linkage is shown in Figure 36. Remove and install lock remote control as follows:

Removal

1. Remove plunger knob from push rod by turning knob to the left as viewed from the top.
2. Remove access panel on 1205 models; trim panel on all others (see fig. 53).
3. Remove lever assembly from panel by removing two retaining screws.
4. Remove connecting rod from lock assembly by removing special clip.

Installation

Install remote control assembly by following removal procedure in reverse order.

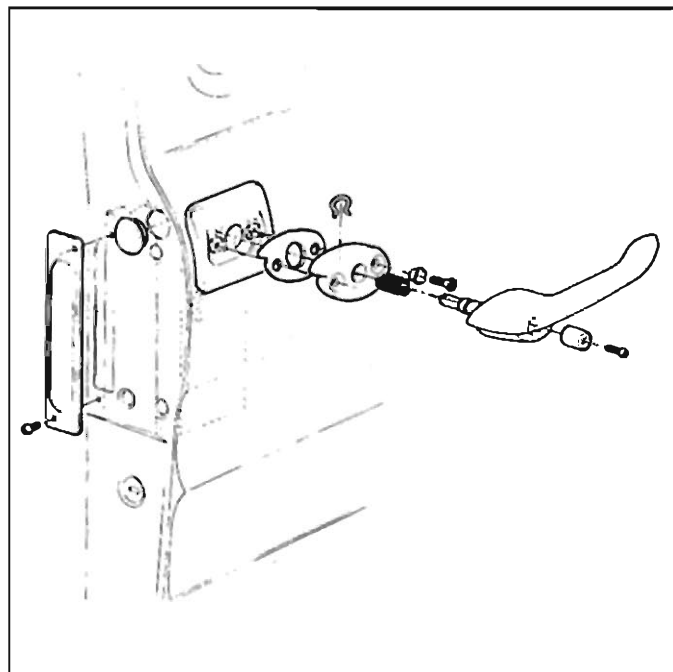


Fig. 10-54—Side Intermediate Door Outer Handle

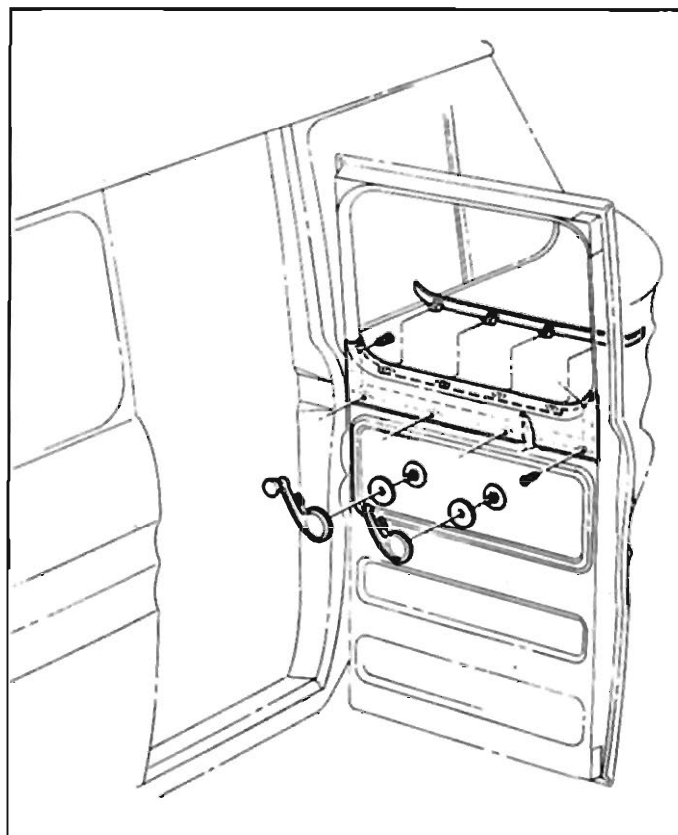


Fig. 10-53—Trim Panel and Door Handle Assembly

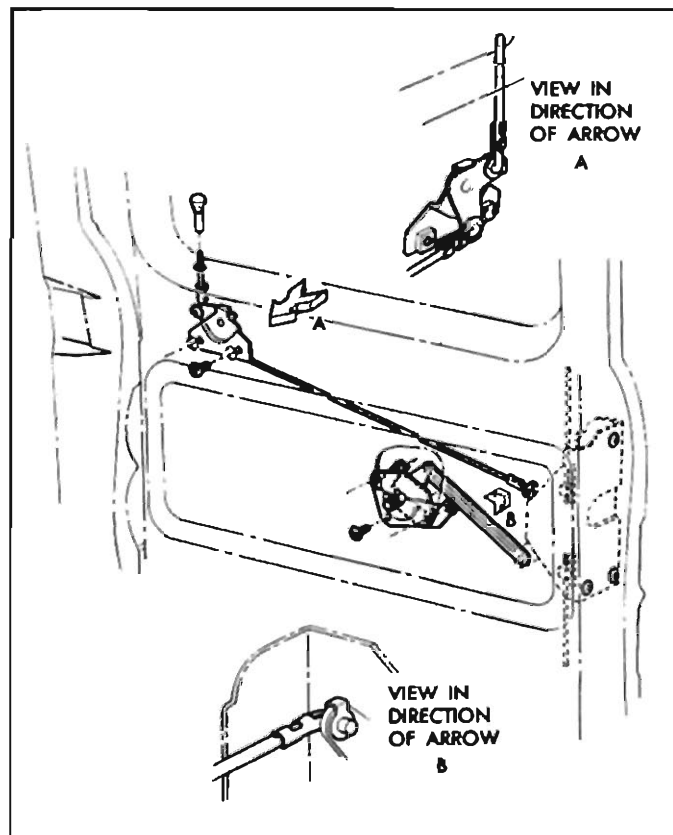


Fig. 10-55—Door Lock Remote Control

Side Rear Door Lock (fig. 56)

Removal

1. To gain access to lock assembly: 1205 Models—remove access cover, 1206 Models—remove trim panel. On both models remove handle retaining screw and remove inside handle.
2. Remove spring clips from pull rod trunnions and remove trunnions from lock levers.
3. Remove lock retaining screws and remove lock assembly from vehicle.

Installation

1. Position lock assembly on door inner panel. Align and install retaining screws.
2. Adjust pull rod trunnions as outlined in this section under Side Doors—Adjustments.
3. Replace access panel, trim panel and/or soft trim.
4. Install side door handle as shown in Figure 57.

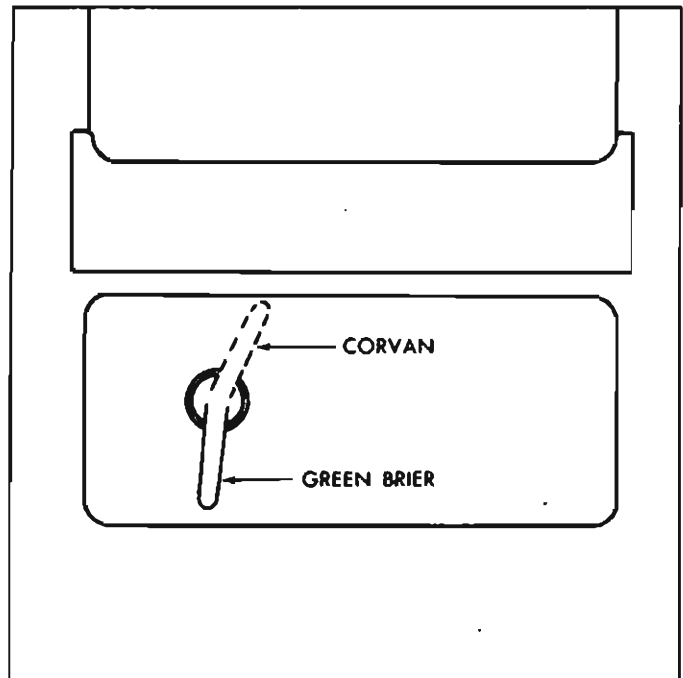


Fig. 10-57—Side Rear Door Inside Handle Installation

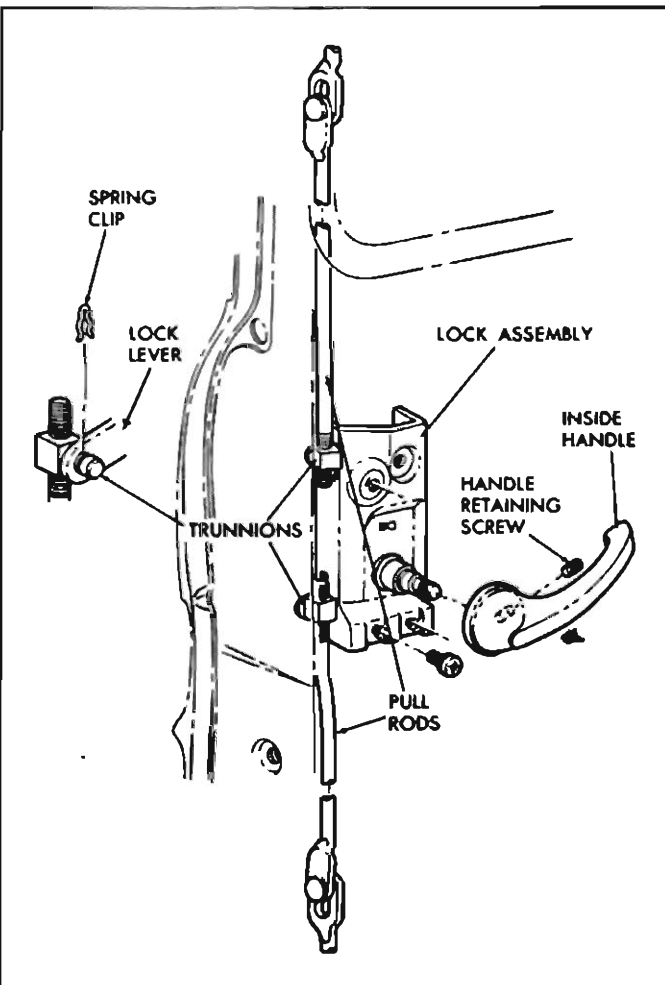


Fig. 10-56—Side Rear Door Lock

SEATS

AUXILIARY RIGHT HAND FRONT FOLDING SEAT—1205 MODELS

An optional folding seat is offered for use in the 1205 Corvaire Models. This seat folds compactly for easy access to the cargo area of the van. Figure 58 shows installation details. Service of the seat proper, exclusive of the mounting brackets, may be performed as outlined in the 1961 Corvaire Shop Manual, Page 10-120.

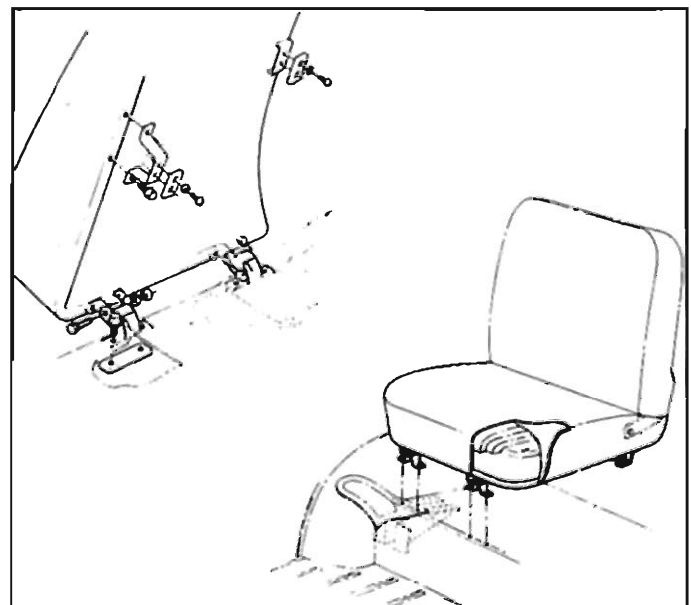


Fig. 10-58—Auxiliary Seat Mounting

SPECIAL TOOLS

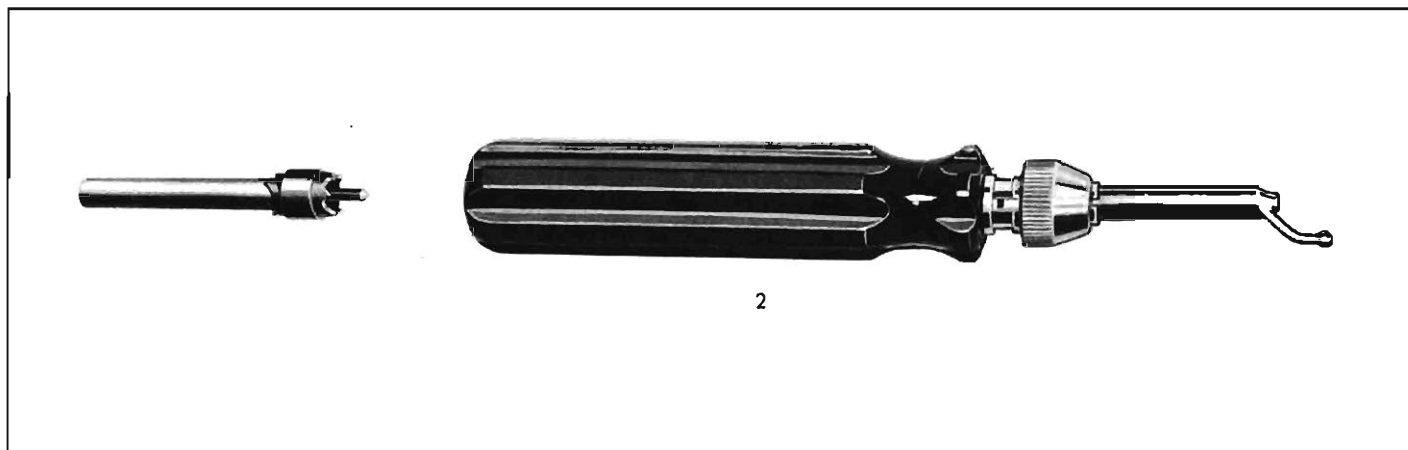


Fig. 10-59—Special Tools

1. J-8943—Spotweld Cutter

2. J-9442—Weather Strip Installing Tool