

- 1 - Boxed-In Roof Rail
- 2 - Cowl Ventilator
- 3 - Welded Stiffeners
- 4 - Additional Rubber Body Mounts
- 5 - New Door Hinges
- 6 - New Body Sealing
- 7 - Balanced Rear Deck Lid
- 8 - Enclosed Gasoline Tank Filler
- 9 - Self-Adjusting Rotary Door Latches
- 10 - Diagonal Back Braces
- 11 - Adjustable Rear Door Vent Wings
- 12 - Extruded Rubber Windlace and Retainer

55x30

Fig. 1—Basic Body Construction

Section XIV

BODY, BODY WIRING AND SHEET METAL INCLUDING TOWN AND COUNTRY WAGON

1. DESCRIPTION

Chrysler bodies for 1955 are rigidly braced, reinforced, and welded, as shown in Figure 1. To achieve stability and secure adequate chassis-to-body attachment, fourteen body bolts are used on the closed sedans, eighteen on the convertible coupe, sixteen on the Imperial, and eighteen on the Crown Imperials. These bolts are tightened to 18 foot-pounds torque.

To eliminate noise and vibration, roof, doors, cowl panels, fenders, floor pan, and trunk lids are covered with insulating materials.

2. BODY MAINTENANCE

Most body rattles are caused by a loose bolt, screw, door hinge, striker plate, or door latch. Foreign objects, such as nuts, bolts, or small pieces of body deadener in the door wells, pillars, and quarter panels are often the source of rattles.

Body bolt inspection and tightening should be performed regularly.

If tightening the bolts and screws located on such assemblies as the deck lid, doors, hood, radiator support, and front end does not eliminate the squeak or rattles, the trouble is probably caused by misalignment; in such cases, follow the alignment and adjustment procedures.

Anti-squeak material slipping out of position may also cause squeak and rattles. Relocating and cementing the material in position will eliminate this difficulty.

3. TESTING CAR FOR WATER OR DUST LEAKS

Figure 2 illustrates the various locations where sealers were used in the manufacture of the body.

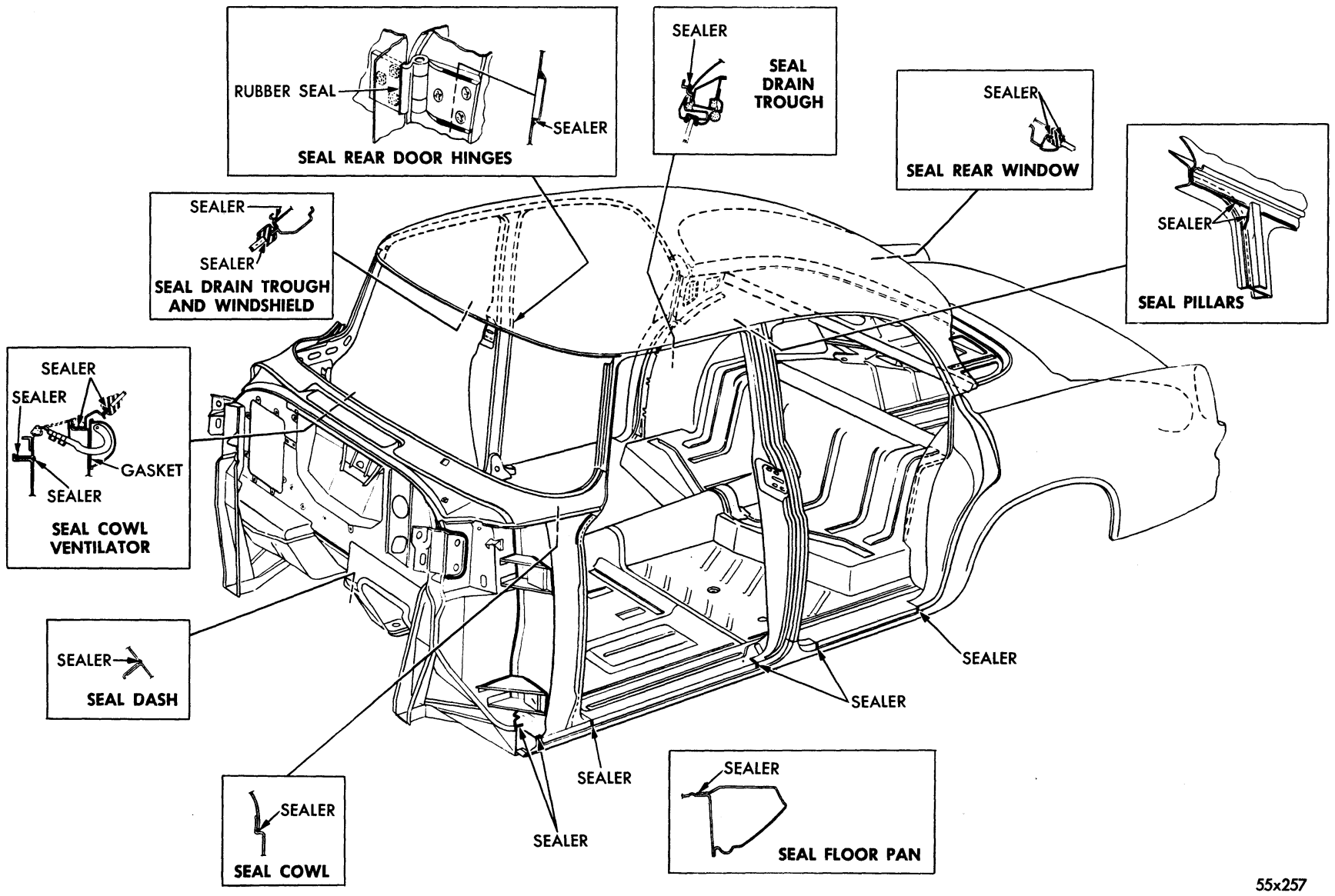
There are many factors to be considered when dealing with dust or water leaks, one of which is that the forward motion of the car creates a slight vacuum within the body, particularly if a window or vent is part-way open.

a. Dust Leaks

Checks for indications of a dust pattern around the lower part of cowl quarter panel, door opening and in the luggage compartment. Any unsealed crevice in the lower section of the body will permit air to be drawn into the body. If dust is present in the air, it will follow any path taken by the air from the point of entry into the passenger and luggage compartments. To eliminate dust leaks, the first step is to determine the exact point at which the dust enters. The location of point of entry may often be deceptive; the dust may enter at one point, then follow the passages to another point.

b. Water Leaks

Water testing a car should be done by sections. First, make a visual inspection in the locality where leaks are found. In many instances, the cause of the leakage may be obvious. A flashlight is very useful in locating the source of a leak, especially at a metal joint or where a moulding clip hole is suspected of leaking. If the source



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Fig. 2—Body Sealing Diagram

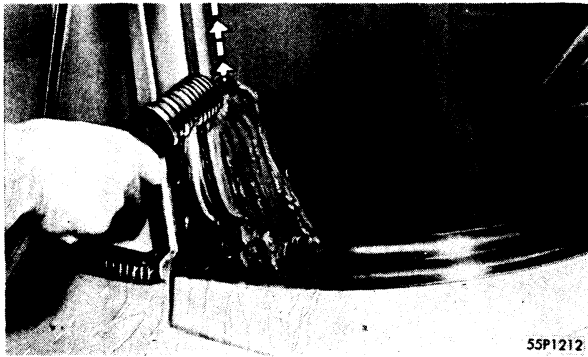


Fig. 3—Checking Windshield for Water Leaks

of a leak cannot be found through visual inspection or with a flashlight, a water test should be made to determine the exact location of the leak.

It is preferred that water be confined to a small area where the source of leaks are suspected. Water in a small stream or spray should be applied to the lowest point of the suspected area, then gradually move the water up slowly (Fig. 3) until the source of the leak is located. Water running down from the top of the car may run in at more than one point; by moving the water up from the bottom, each leak can be located and marked before moving on up to check for other possible points of leakage.

CAUTION

Never use high pressure in making a water test. Water can be forced through a perfectly good seal with high pressure, destroying the usefulness of a water test.

After a water test is made, it is essential that the area to be sealed be completely dried before any attempt is made to apply sealer. The use of compressed air will accelerate this drying.

Before water testing the deck lid, make certain that the deck lid is properly fitted. Start the water test at the bottom of the deck lid and work slowly toward the top, on each side. Then work across the top of the lid. If leakage occurs at the seam between the weatherstrip trough and the deck upper panel and rear quarter panel, pack the entire length of the underside of the welding seams with Permagum.

It is advisable, when checking the leaks in a car, to start with the cowl ventilator lid, then the windshield wiper pivots, windshield, vent wings,

doors, drip mouldings, and the remainder of the body.

Water test the tail and back-up light area and the belt moulding around the deck quarter for possible leakage into the luggage compartment. Water will also enter the trunk area if the rubber seal between the tail and back-up light housing and quarter panel opening is not positioned correctly.

4. SEALING COMPOUNDS

a. MOPAR Super Rubber Cement

This cement may be used where a strong bonding of rubber parts to painted or unpainted steel surfaces is desired. It can be used for such purposes as the attachment of weatherstripping at cowl ventilator, doors, and luggage compartment lid, or for the attachment of running board mats and felt pads.

b. MOPAR Windshield Rubber Sealer

This sealer, a light viscosity, colorless, rubber expander, can be used where rubber is confined between a glass and metal channel, such as the windshield and rear window glass assembled in one-piece type weatherstrips. When applied to the edge of the rubber, it will expand the rubber within 15 to 20 minutes. This sealer will not harm paint or chrome finish and can easily be removed with a cloth before it sets.

c. MOPAR Perfect Seal Sealing Compound

This sealer can be used for all types of threaded joints, gaskets, and machined joints. The compound never dries out—never sets hard. It is not soluble in gasoline, oil, anti-freeze solutions, or water. It prevents corrosion, protects against contraction without seepage or leaks, and can be applied with the brush supplied in the lid of container.

d. Body Seam Sealers (For External Sealing)

Sealers for this purpose are available through local sources. These commercial sealers can be used along welded joints, exterior roof rails, exterior belt lines, B-post welds, weatherstripping, and floor seams. It can also be used for caulking station wagons. Upon drying, this type of material forms a tough skin which can be painted with a touch-up brush.

e. Heavy Sealing Putty (For Interior Sealing)

This material, available at most hardware stores, should be a heavy, fibrous, putty-like compound, which can be formed or rolled into pellets or long string shapes. It is adaptable for covering large openings like moulding-clip holes. Other compounds, used for these purposes, are household caulking compounds which do not completely harden, Permagem, or body undercoating materials. However, these latter compounds cannot be painted.

Before sealing, always clean all surfaces to be cemented with unleaded gasoline. Do not use kerosene, as this liquid leaves a thin film of oil which will prevent adequate adhesion of the sealer.

5. BODY SEALING PROCEDURES

Surfaces to be sealed or cemented should be cleaned of all dirt, grease, and other compounds, preferably with clean unleaded gasoline or cleaner's naphtha.

a. Front Vent Wing Pivot Pins

Seal the openings around these pins with heavy sealing putty. It may be necessary to properly position the weatherstrip at the top of the front vent wing. To do this, insert a shim between the retainer and weatherstrip to obtain a better fit. Use liquid soap around the moulding to lubricate the weatherstrip. When reinstalling the weatherstrip, use a rubber mallet if necessary.

b. Windshield—One-Piece Type Weatherstrip

To remove strip, remove clips, then carefully insert a screwdriver blade between the weatherstrip and the moulding at the end of the moulding to get it started.

Seal the weatherstrip against the body opening by carefully working a thin coating of MO-PAR Windshield Rubber Sealer, or Body Seam Sealer, between the body edge and the rubber moulding. Or lift the lip of the rubber weatherstrip where it contacts the body metal, and use a nozzle-type applicator (sealer gun) to force the sealer deeply around the entire edge. It is rarely necessary to reseal between the glass and the weatherstrip, unless the glass has been replaced. If faulty sealing of the glass to the weatherstrip has caused a leak, remove the windshield garnish moulding and apply sealer as far down as possible between the inner weatherstrip and the

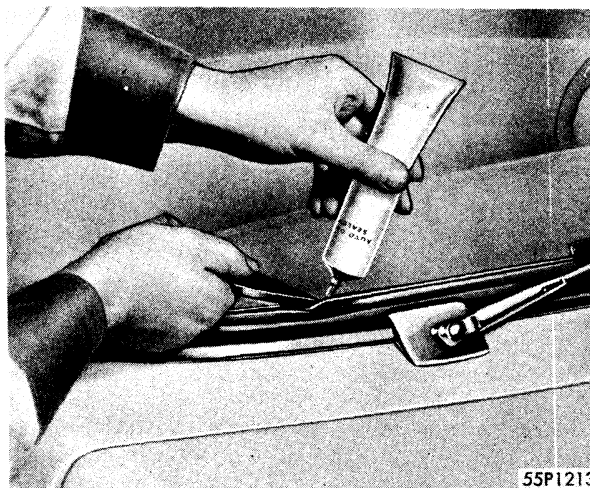


Fig. 4—Applying Sealer Between Weatherstrip and Glass

glass (Fig. 4) for a considerable distance on each side of the leakage point. Clean off excess sealer with a rag.

To reinstall the chrome moulding, thoroughly clean the edge of the moulding that fits into the weatherstrip groove. Coat the weatherstrip thoroughly with a liquid soap or soapy water (never use oil), and immediately press the moulding into place. Start at the lower outside corner and work up in the upper corner going around the full length of the moulding—top and bottom. If necessary, use a rubber mallet and tap the moulding lightly on the inside edges near the glass. With water, wash off all traces of soap that may have run on the car finish to avoid streaking and discoloration of the finish.

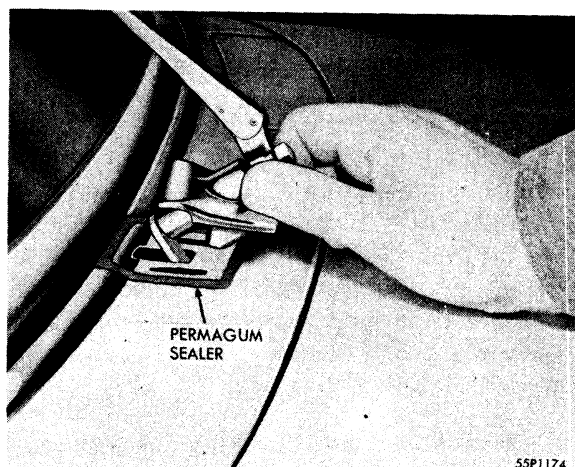


Fig. 5—Sealing Windshield Wiper Pivots

c. Windshield Wiper Pivots

Inspect the gasket between the windshield wiper pivot housing and cowl to see if it is out of position. If leakage is evident at that point under the cowl, remove the wiper housing (Fig. 5) and install a new gasket coated with windshield sealer.

d. Cowl Ventilator Lid

If the cowl ventilator lid does not seal properly against the weatherstrip, loosen the ventilator linkage and adjust. If the sponge rubber strip is loose in the slot, clean slot and reseal strip, using an approved cement. Close the ventilator lid tightly and allow ample time for cement to dry. Make sure the weatherstrip remains in position on the top of the cowl ventilator lid shaft tube, to avoid water tube and then into body at instrument panel. Cement weatherstrip seal to top of tube. Be sure and check the ventilator lid trough and drain tube for restrictions.

e. Deck Lid

Leakage around the lid is usually caused by a worn or misaligned weatherstrip or lack of sufficient cement between the rubber weatherstrip and the body channel. It may also be caused by insufficient contact between the deck lid and the weatherstrip, which may indicate the need for refitting the lid (see Paragraph 11 of this Section) or replacing the weatherstrip.

When a leak caused by insufficient sealer is found, pull the loose section of weatherstrip up, and clean the channel where possible with a suitable solvent. Apply a coat of MOPAR Super Rubber Cement, or its equivalent, to the weatherstrip and body channel. Replace the weatherstrip immediately and press firmly in place.

Care should be taken not to stretch the weatherstrip during replacement, especially at the corners.

When the replacement of the weatherstrip is necessary, remove the defective section of weatherstrip. Clean the metal surface with a suitable solvent, to remove all traces of old weatherstrip. Coat the channel and weatherstrip with a suitable cement. Install new weatherstrip and press firmly into place. Close the deck lid and allow to stand until weatherstrip is firmly attached. Then test for water leaks. If leaks occur at the welded joints of the rear trunk compartment weather-

strip channel, reseal joint from inside channel. On Imperial models check tail lamp for fit in body opening at lower base of lamp. Reseal around base of tail lamp if opening exists.

f. Drip Moulding

Check the entire length of this moulding for possible openings. Using a thin wooden paddle, or a nozzle-type applicator, seal such openings with body seal sealer. A caulking gun may also be used. Touch up the newly-sealed points with paint to match the color of the body.

g. B-Post Weld

This weld is below the center of the drip moulding. Apply body seal sealer along the welded seam. Low spots in the junction of the A and B post and the roof rail can cause leaks under the door flange weatherstrip. Fill in and reseal with seam sealer.

h. Cowl Panel Joint

Clean the seamed area thoroughly and apply heavy sealing putty or body seam sealer. Be sure to apply the sealer over the hood hinge bracket and along the seam to the rear end of the front fender.

i. Cowl Quarter and Hood Ledge Seam

Inspect the various openings in the cowl for possible leakage. Check for openings and cracks in seal along seam. Seal with heavy sealing putty as necessary.

j. Door Hinges and Door Panels

Check the sealer on the door hinges at the pillar post. The sealer should be filled flush with pillar post. This should be done after door fitting, as sealer may become cracked or loose. Check recess in door panel just below door glass vent window to insure that weatherstrip tapes are in position over recess. Replace and reseal as necessary.

k. Doors

If rear window glass has been replaced and is too high in the rear window opening, it may allow water to leak in on each side of the body. Use a heavy-bodied sealer between the rubber weatherstrip and the body fence to hold the weatherstrip up at these points.

l. Rear Outer Panel

The holes at each end and the center of the rear quarter panel, for attaching the rear window lower trim moulding, are elongated and should have sealer applied around the moulding clips. Apply heavy body sealer from the underside of the quarter panel and trunk compartment. If leaks occur at the dog leg of the front "A" post, they may be due to omitted or loose secondary seals. Install auxiliary weatherstrips (Part No. 1651734, Right and Left).

If leaks occur at the welded joints of the rear trunk compartment weatherstrip channel apply sealer from inside channel to close the openings.

m. Rear Wheel Housing

Check for buckles between the spot welds of the rear wheel housing. Apply a generous amount of heavy-bodied sealer at buckled points.

n. Rear Vent Windows

Make sure there is adequate pressure against the vent glass frame by the vent window weatherstrip. If not, remove door garnish moulding and pry down on weatherstrip retainer to give necessary pressure against the vent glass channel.

o. Rear Compartment

Water on the rear or trunk carpets could be due to water entering the rear window weatherstrip at the spot welds in the body fence or flange along the **top** of the window opening and then traveling inside the weatherstrip to the lower radius and spilling out. Leaks between the weatherstrip and fence should be sealed by removing the trim moulding and applying a tape sealer between the weatherstrip and fence. Press sealer in tightly so that it is forced up between the weatherstrip and fence.

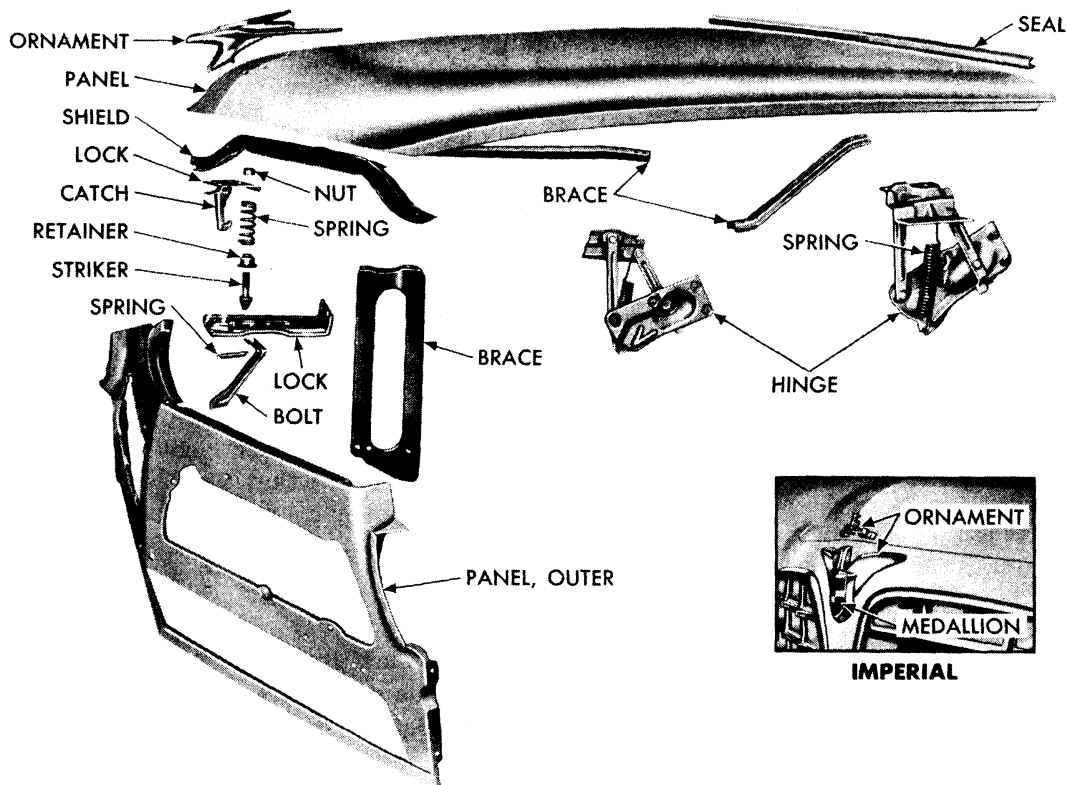


Fig. 6—Typical Hood (Disassembled View)

SERVICE PROCEDURES

6. REMOVAL, INSTALLATION, AND ADJUSTMENT OF HOOD

a. Removal

The method of hood attachment is shown in Figures 6, 7, and 8. Raise the hood and remove three of the four nuts and washers attaching hood to hinge on each side of hood. Mark outline of hinge on hood with chalk to facilitate aligning. Brace hood so that the hood will not slide to rear, damaging painted surfaces of cowl or fenders. With helper, remove the other two attaching nuts and washers and lift hood from car.

b. Installation

When installing, use helper to assist in mounting hood to hinges. Install attaching washers and nuts; align hinges with aligning marks. Tighten nuts a little more than finger tight. Close hood, align and, adjust as follows:

c. Adjustment

1. **Hood Fits Cowl Loosely**—If one side of the hood is raised at cowl and the other side is low, adjust hood strainers. Loosen the two diagonal

strainer bolts at rear strainer and adjust the nuts on each end of rear strainer. Equalizing the hood fit may result in the rear of the hood being higher than the cowl surface. If this happens, bend the diagonal strainers to obtain correct fit. To bend strainers, place an "S" hook over one of the strainers (Fig. 9). Slide a pry bar, about 30 inches long, through lower opening of "S" hook so that the end of the bar is hooked under the cowl. Pry gently on strainers and check hood to cowl fit. Pry down on diagonal strainer bending the rear lateral strainer which pulls down on the contour of the rear edge of the hood.

2. **Front of Hood is Too Close to One Fender**—Loosen the two fender-to-radiator support bolts. Install $\frac{1}{8}$ inch horseshoe-shaped shim between fender and radiator support (over top bolt) on side lacking sufficient clearance (Fig. 10). Lower the hood and check hood-to-fender spacing. If necessary, raise hood and insert another shim. Tighten bolts securely after correction is made.

3. **Hood Does Not Follow Contour of Fender**—Insert a small block of wood about 1 inch square between fender flange and hood opposite

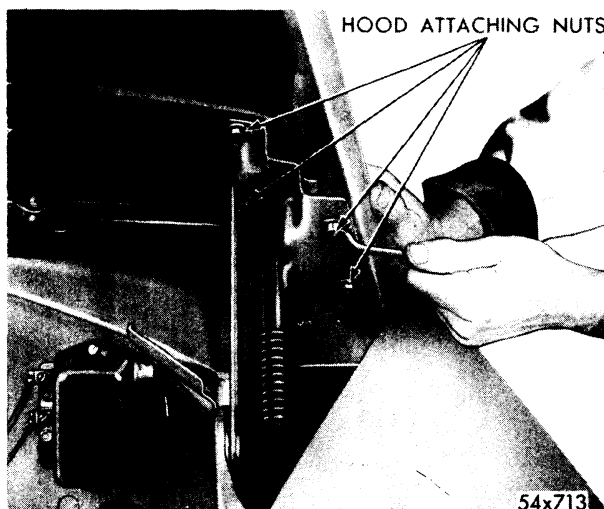


Fig. 7—Removal and Installation of Hood

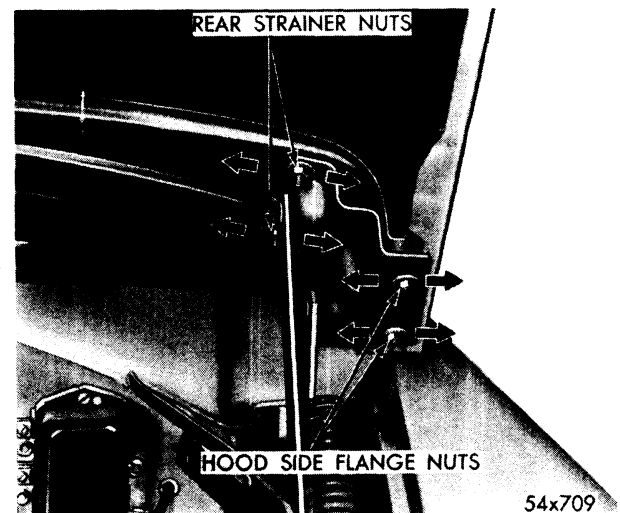


Fig. 8—Hood Adjustment



Fig. 9—Bending Diagonal Strainers

low spot on hood. Close hood slowly. With hands placed ahead of wood block, apply pressure gently to the hood. Repeat operation about every 6 inches until correct hood fit is obtained.

4. Hood Projects Beyond Front of Fender—This condition can be corrected by shifting fender forward with standard bumper jack with 10½ inch steel plate welded to base (Figs. 11 and 12).

To correct this condition, loosen bolts holding front fender to cowl side of panel. Place extension end of jack against hinge bracket on side of cowl

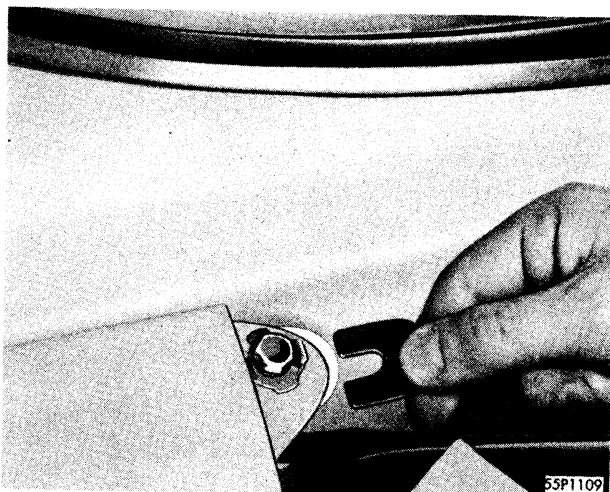


Fig. 10—Installing U-Shaped Washer

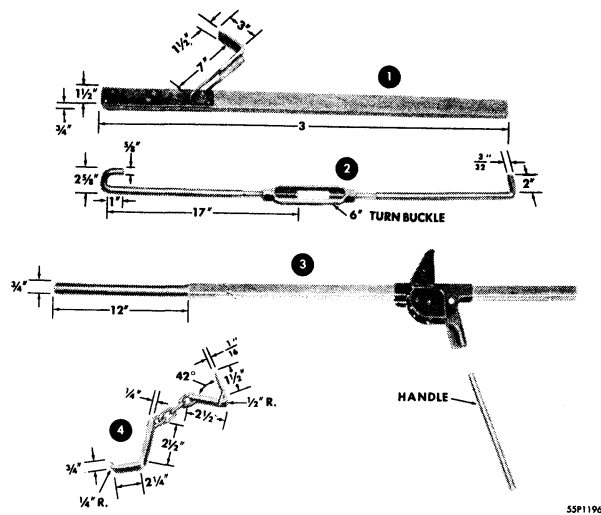


Fig. 11—Body Adjusting Tools

panel and the base of jack against upper section of radiator support (Fig. 12). Extend jack carefully while checking clearance between rear edge of fender and leading edge of front door. When correct hood to fender fit is obtained, tighten fender to cowl bolts securely. Remove jack.

5. Front of Hood is Higher Than Fenders—Check rear edge of hood to see if hood fits correctly at cowl. If fit at cowl is correct, check the hood striker and latch assembly. If striker plate is lowered, the front of hood will be drawn down. The front hood bumper on the grille panel should also be adjusted to compensate for the lowering of the hood.

6. Hood Low at Cowl Panel—Prop open the hood to relieve tension on hinge springs. Loosen

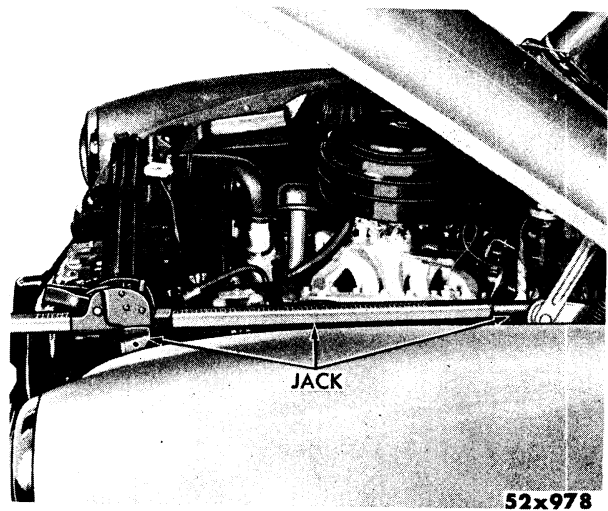


Fig. 12—Moving Fender Forward With Bumper Jack (Typical View)

nut at plate attaching hinge-to-cowl support bracket. Drive the front portion of the hinge downward and forward with a blunt drift (Fig. 13) until correct spacing is obtained between hood and cowl panel. Tighten hinge retaining nut securely.

7. Excessive Space Between Leading Edge of Front Door and Edge of Fender—To correct this condition, adjust as follows:

Loosen the fender-to-cowl bracket stud nuts and the fender-to-cowl side panel bolts.

Install drawbar by hooking one end of bar over the hood hinge support bracket on the cowl and the other end over the radiator support, as shown in Figure 14.

Tighten the turnbuckle until the fender-to-door spacing is correct at the front pillar. Also, check to see if the front of the fender is flush with the front of the hood. When the correct fitting has been obtained, tighten the bolts previously loosened and remove tool.

The turnbuckle drawbar, referred to above, can be constructed from two $\frac{5}{8}$ -inch sections of round steel stock, threaded at one end; on the other end, a 90 degree bend about $2\frac{1}{2}$ inches from the end. Be sure the over-all length of the drawbar is enough to reach from the hood hinge support bracket to the radiator support. Install the threaded ends in a turnbuckle. (Fig. 14.)

8. Adjustment of the Hood Striker and Lock Assembly—The hood striker is mounted on a plate which is attached to the hood by four bolts.

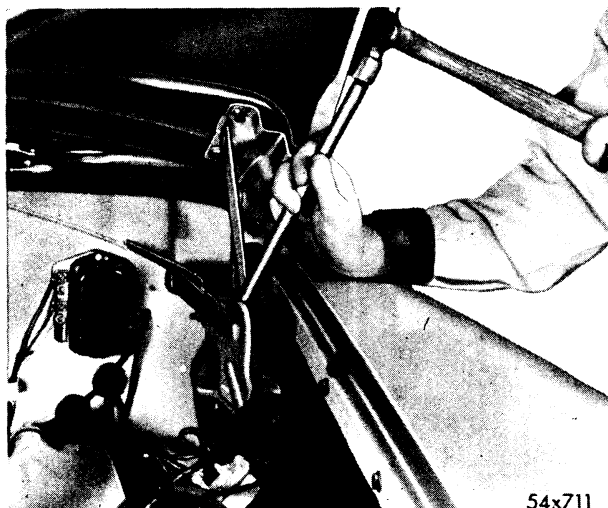


Fig. 13—Adjusting Hood (Forward)

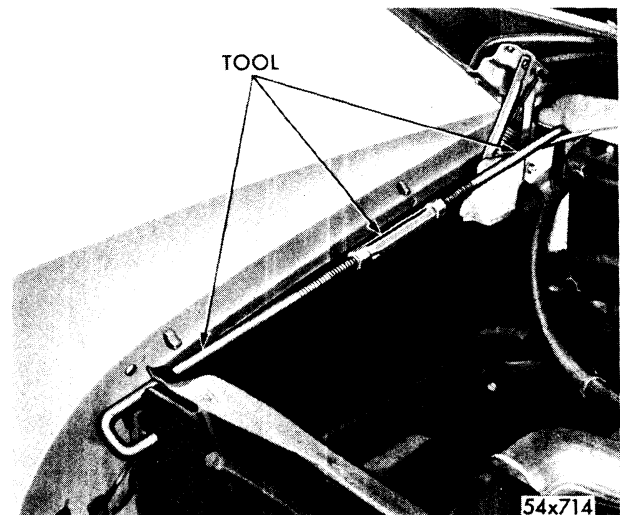


Fig. 14—Pulling Front Fender Into Position

The bolt holes in the plate are elongated to allow the striker to be adjusted fore-and-aft. The hood lock plate is fastened by five bolts, in slightly oversized holes, which will allow the lock plate to be shifted slightly in any direction. The striker stud is threaded into the lock plate and is secured by a lock nut.

To adjust the striker (to lengthen or shorten), loosen the lock nut and turn the striker in or out with a screwdriver until the correct adjustment has been obtained. After making any adjustment that requires a shifting of the hood or fender, always check the hood striker for proper length, and the lock plate assembly for alignment.

After hood has been centered in opening and hinge bolts have been tightened, check hood for ease of opening and closing. Move the striker plate in or out, up or down, as necessary, until the hood opens and closes easily, fitting snugly against the weatherstrip. Make sure the top face of the striker plate is parallel with the bottom face of the hood guide block. When the door has a slight lift as it is closed, the striker plate is properly positioned. This prevents hood rattles when car is in motion.

7. ADJUSTING FRONT DOORS

A properly fitted door has evenly spaced gaps on all sides. Before adjusting, inspect door fit carefully. Note how door guide block engages with striker plate. If door raises as guide block passes over plate, plate is too high and must be lowered. The striker plate (Fig. 15) can be moved in or out and controls the tightness of door against

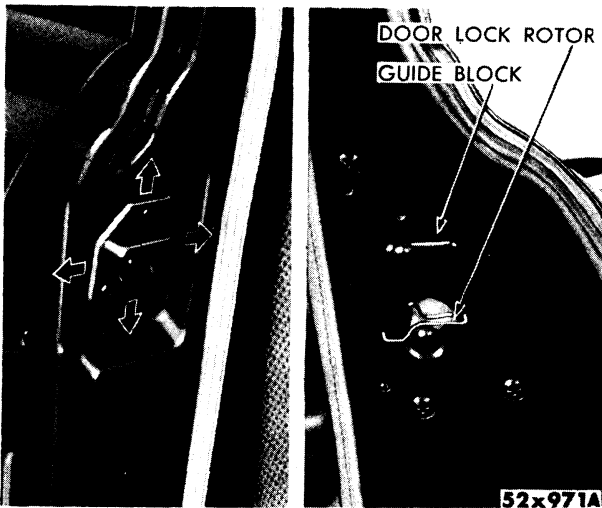


Fig. 15—Door Striker Plate Adjustment

body. The up and down adjustment will determine actual point of engagement between door lock rotor and striker plate. Make sure striker plate is properly located before fitting door. After door is correctly fitted in opening, adjust striker plate as needed.

- (1) Remove trim panel and place jack under door as near to hinge as possible. This will hold weight of door as hinge bolts are loosened.
- (2) Scribe line around upper and lower hinge strap and loosen bolts in both hinge straps. The amount of vertical movement of door is limited, but can be determined by the scribed lines. Raise or lower jack until desired clearance is obtained and tighten hinge bolts securely. Check scribed lines to make certain rear portion of door did not move forward or rearward during the above operation.
- (3) If front door is high at rear edge, check for excessive shims at Number Two body bolt. If there are no shims at this bolt, shims must be added at the Number One body bolt. Insert shims to center door vertically in opening as before. Door must open and close freely before the body bolts are tightened.

8. ADJUSTING REAR DOORS

To move door up or down in body opening, or to move door in or out to bring door panel flush with body, loosen the hinge attaching bolts at the "B" pillar post. Move door as required to

obtain proper fit and tighten hinge attaching bolts securely. To move door toward rear of car, install shims between the hinge and pillar or between hinge and door.

a. Moving Door Ahead or Back

To move upper portion of door ahead or back (trim panel removed), loosen upper hinge strap bolts and push or pull upper portion of door into desired position and complete operation, as described above.

b. Fitting Door Flush With Adjacent Panels

To correct the fit, loosen the four hinge strap screws on front doors or the three hinge strap screws on rear doors. When loosening the upper hinge and pulling out or pushing in on the front upper corner of the door, the lower corner of the door will be moved inward or outward also. When the operation is performed on the lower corner of the door, the same condition will result. This applies to both front and rear doors. (Figs. 16 and 17.)

If the hinge adjustment method is applied, as described above, and the upper portion of door is still too far out, open the door ventilating wing

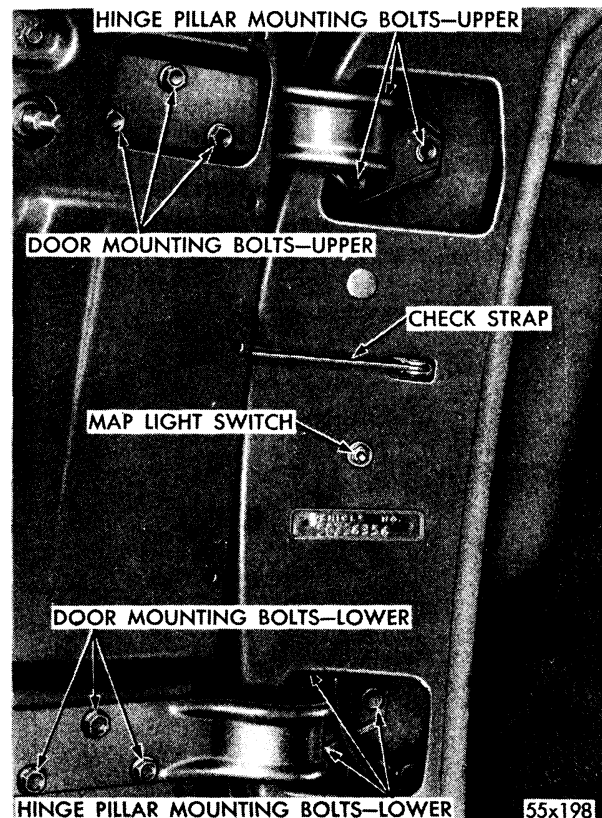


Fig. 16—Front Door Hinges

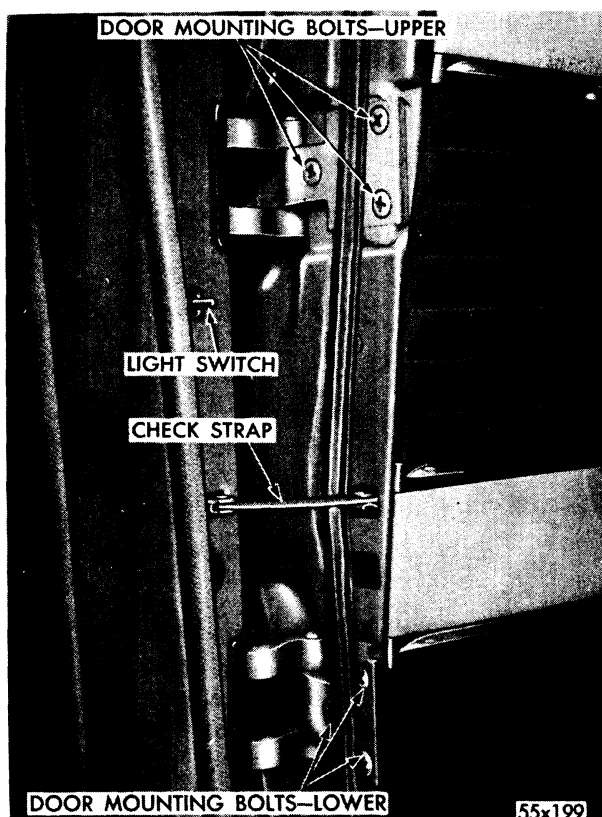


Fig. 17—Rear Door Hinges

and door glass. With tool, Model G Double Bar Unit, bend the door to its correct position. If door is sprung or bowed out at the center, mount tool, Model H Single Bar Unit, and tighten lower clamp to force door into original position. After using bar units, check door fit and ease of window operation.

c. Shimming the Body for Door Alignment

If adjustment of door hinges does not correct door misalignment, shim the body. To install shims between frame bracket and body at any body mounting bolt, loosen all body bolts on that side. Place a 2x4 or fiber block on a floor jack and raise the body slightly at the location to be shimmed. Add sufficient number of shims to correct misalignment. After inserting shim at any one body bolt, be sure the adjacent body bolts are shimmed to support body on a straight line contour. When shims are inserted, barely tighten down body bolts and check door alignment before tightening bolts to specified torque.

In some instances, shims may need to be removed to correct door misalignment. If front door is high at rear edge, remove shims from the Number Two body bolts. Excessive shims on the

Number Four body bolt will be indicated by the rear door binding at the bottom.

d. Body Mounting Bolts

The body mounting bolts (except the four at the rear) are accessible from under the car. The four at the rear are accessible from the luggage compartment. On Station Wagon models, pry out the plug in floor of rear compartment near tire well to reach bolt.

e. Body Mounting Bolt Torque Specifications

Tighten body mounting bolts on all models, except Convertibles, to 18 foot-pounds torque. Tighten front body mounting bolt on Convertible from 18 (minimum) to 20 foot-pounds torque. Rubber insulators should be compressed $\frac{1}{8}$ inch (visually) when body bolt is tightened.

f. Conditions Requiring Body Shimming

If rear door binds near top at lock pillar and spacing is correct at hinge pillar, shim at Number Four body bolts. Add shims until spacing between the lock pillar, and rear door is the same as between the door and hinge pillar. Check adjustment by opening and closing door to determine if interference is eliminated. If several shims are added, it may be necessary to add shims at the Number Three body bolt.

If rear door sags when opened, shim the Number Three body bolt, inserting enough shim to center door vertically in door opening. If front door sags when opened, shim the Number Two body bolt, inserting shims to center door vertically in door opening. Door must open and close freely before body bolts are tightened.

9. FRONT DOOR HINGE ADJUSTMENTS (FIG. 16)

The screw holes are slotted horizontally so that the door or hinge can be shifted in or out about $\frac{3}{8}$ inch. To make a vertical or fore-and-aft adjustment, remove the inside door hardware and trim panel. After adjustment is accomplished, hold the door in the adjusted position and secure the hinges by tightening the hinge screws.

10. REAR DOOR HINGE ADJUSTMENTS (FIG. 17)

Hinge mounting holes are oversize and slotted to allow for up and down or in and out movement

on the pillar post. If the hinge is mounted to the reinforcement panel inside the door, remove the door trim, loosen the hinge screws and adjust the position of door as necessary. Tighten the screws and replace the trim. Do not try to bend a hinge while it is on the car, otherwise the body pillar or mounting face may become damaged. Remove hinge from car and bend on an arbor press, if necessary.

If the hinge is mounted on the face of the door and the door is too close to the body pillar, the condition can be corrected by placing a shim between the hinge and the pillar.

If it is necessary to decrease the spacing between the door and pillar, a shim placed between the body pillar and hinge at the inner bolt hole only will move the pivot of the hinge forward to decrease the spacing.

11. SERVICING THE DECK LID, HINGES, AND LOCK

The weight of the deck lid is counterbalanced by the spring tension of two torsion bars (Fig. 18). Each bar is free at one end and is anchored to a support bracket at the other. A roller sleeve on the free end operates against a cam control on back face of hinge. As the deck lid is raised, the action of the rollers against the hinges causes the torsion bars to twist, exerting torsional spring resistance that balances the lid.

a. Adjustment and Replacement of Torsion Bars (Fig. 19)

Four slots are provided in each support plate.

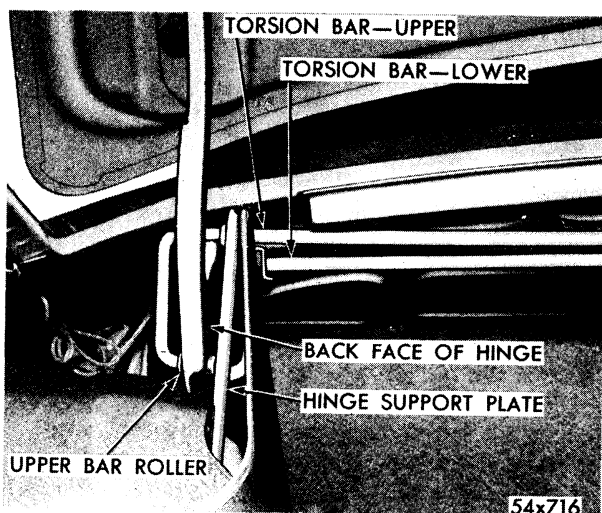


Fig. 18—Torsion Bar Suspension

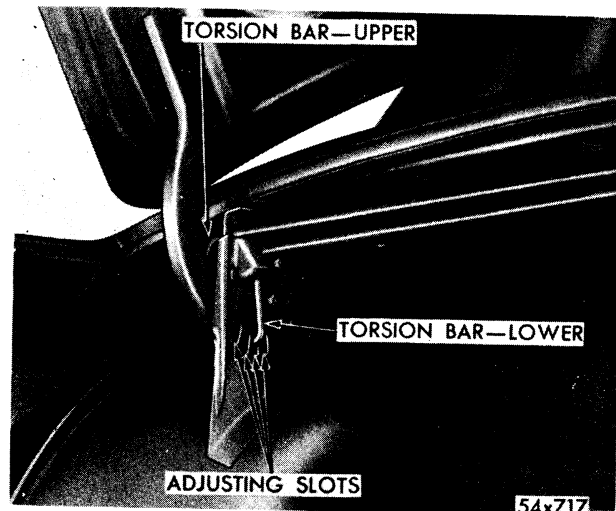


Fig. 19—Torsion Bar Adjusting Slots

Insert Tool C-3445 in slot behind lower rod and roll tool forward to disengage lower rod from bracket. Prop the deck lid in the wide open position before changing adjustment. This is important! Bend rod toward front of car to lessen tension and toward rear of car to increase tension. When lid is adjusted correctly, it should stay in any position when released.

Torsion bar roller ends are lubricated at the factory and should not require additional lubrication. If a new bar is installed, however, coat the inside of the roller sleeve with MOPAR Lubriplate.

To replace a torsion bar (Fig. 19), prop open the deck lid and disengage the bars from adjusting slots with Tool C-3445 (Fig. 20). Be extremely careful when removing torsion bars as the tension will cause them to unwind suddenly. Slide bars out of center support bracket and then in opposite direction to disengage roller from hinge. Disengage rod from support bracket and remove from car.

b. Checking For Correctly Fitted Deck Lid

Lid must be centered in opening and fit flush with body panels to allow lock to operate properly. Check for proper fitting and sealing with strips of paper about 1 inch wide inserted along edge of deck lid opening. Close the lid. If the strips of paper fit snugly along all edges, the lid seal is correct. But if the paper strips are loose along one side of lid, and tight along the other, the deck lid must be aligned for proper sealing.



Fig. 20—Adjusting Torsion Bar Tension

c. Removing and Installing Deck Lid

Raise deck lid and remove one of the bolts at each hinge attaching lid to hinge arm (Fig. 20). Leave the remaining bolts finger loose. Brace lid to hold it in position while the remaining bolts are removed. This will prevent lid from sliding down and damaging rear deck painted surface. Remove the lid. When installing lid, observe the precaution mentioned relative to damaging of painted surfaces. Position deck lid on hinges and install attaching bolts, but do not tighten. Lower lid, check line up and fit; adjust if necessary. Check adjustment of latch and striker plate and tighten bolts in hinges securely.

d. Removing and Installing Deck Lid Hinges

Raise lid and support corner where hinge is to be removed. Remove torsion bar on the side where hinge is to be removed and remove bolts holding lid to hinge arm. Remove bolts that are holding hinge pivot plate to support bracket and remove hinge. To install hinge, place hinge in position and install bolts, but do not tighten. Install bolts that are holding hinge to deck lid but do not tighten. Remove prop and lower lid to check fit. Adjust lid to center it in opening and check

adjustment of latch and striker plate. Prop lid open and install torsion bar.

12. BODY ALIGNMENT

When checking alignment of a body that is badly damaged, the frame should be inspected and the necessary repairs, if any, made to frame before taking measurements for squaring up of the body. The door and other glass should be removed to prevent breakage. Reinforcement brackets and other construction parts may have to be removed to permit restoration of outer shell and pillars to prevent excessive strain on the parts during and after repairs. If such parts must be removed to be straightened and aligned, they must be reinstalled and secured in place before attempting to align the body.

In cases where it may be necessary to use heat the part should be heated in the area of damage. Parts should never be heated more than a dull red. Any attempt to cold-straighten a severely bent part of bracket may cause ruptures of the part or welds (if any), and may also cause cracks in the bent part.

13. BODY PANEL REPLACEMENT

The rear fender is an integral part of the quarter panel and cannot be separated. This does not necessarily mean that part of the panel cannot be replaced. With proper equipment, an experienced body repair man can replace a quarter panel or any part thereof, by the following procedures. Refer to Figures 21, 22, 23, and 24.

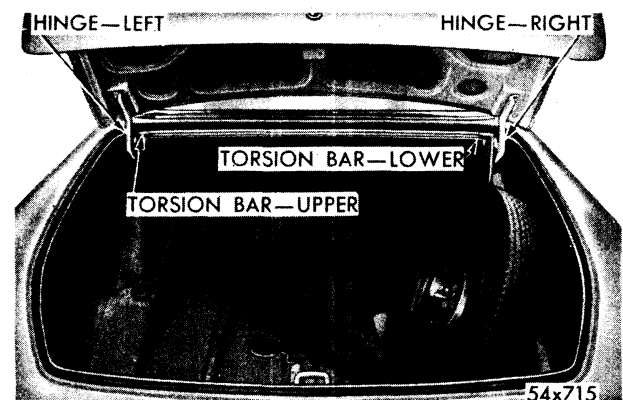
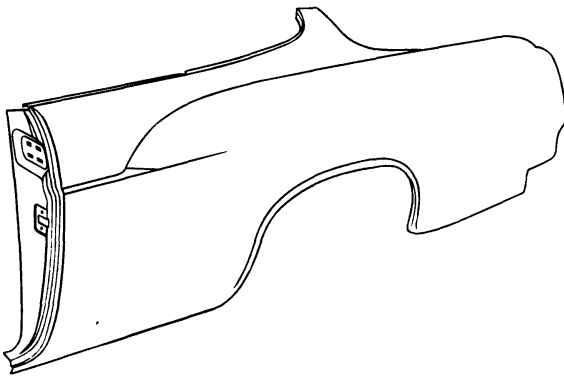
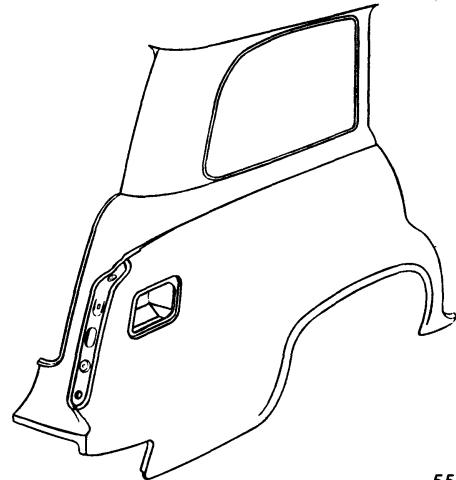


Fig. 21—Deck Lid Hinge Mechanism



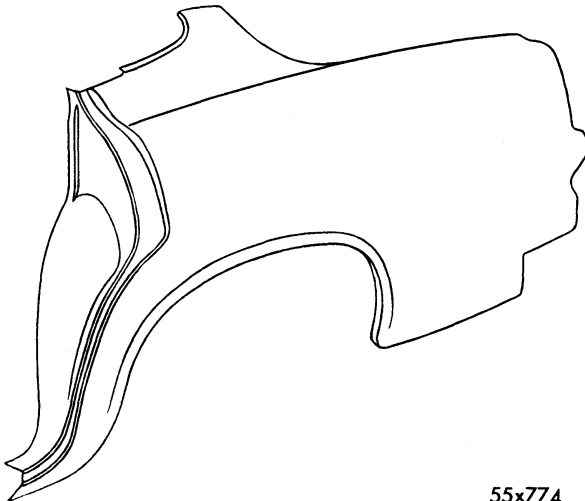
55x773

Fig. 22—Quarter Panel (Coupes)



55x775

Fig. 24—Quarter Panel (Town and Country Wagon)



55x774

Fig. 23—Quarter Panel (Sedans)

- (1) Rough out and reshape as much of the damaged area as is possible. Measure the piece of metal to be cut out. Measurements should be taken from a given point, such as a moulding, head, corner, or "A" post.
- (2) Make the corresponding measurements on the repair panel; for accuracy make sure the measurements are taken from the same points on each panel.
- (3) Scribe a line around the area to be cut from the repair panel and drill a $\frac{1}{4}$ inch hole at

each corner of the scribed line, as a starting point for cutting, and cut out the new piece along the scribed line.

- (4) Straighten out and finish the edge of the piece that was cut from repair panel and use as a template to scribe a line around the damaged area. After scribing line, drill $\frac{1}{4}$ inch hole and use a suitable tool to cut out damaged section.
- (5) Straighten out the cut edge of the panel, and fit the section cut from the repair panel into the body panel, making sure that the edge does not overlap. Tack-weld the section in spots, about 6 inches apart at a time (to prevent excessive distortion) then make a continuous weld around the repair section, until the section is completely welded into place.

Hammer the weld approximately $\frac{1}{8}$ inch below the contour of the original surface. Metal-finish the area; fill the area with solder, taking care that sufficient solder is applied so that final metal finish will compare with the original body, fender, or panel contour without indentations and prepare for painting.

The same procedure can be followed when replacing other sections of the body.

14. MOULDINGS AND METHODS OF ATTACHMENT

Sun Cap Windshield Visor consists of two sections (right and left sides). Assembled to

brackets which are held on to roof panel with screws. On the sides; attached with chrome screws located on front edge of visor and at pillar. A chrome cover joins the two sections of visor in center and is attached with screws.

Windshield Vertical Side Moulding on right and left sides of windshield are joined with sun cap visor and lower windshield mouldings. Plated attachment screws are used.

Lower Windshield Mouldings attached with screws and clips accessible from outside.

Drip Trough Chrome Mouldings are of the snap-over type. To install, start moulding over top edge of drip trough and push lower portion of moulding down and inward until it snaps into place.

Body Side Mouldings are attached with clips accessible from outside.

Sill Mouldings are attached with clips.

Belt Moulding is attached with screws and clips.

Rear Window Lower Moulding is attached with nuts and clips accessible from inside.

Rear Window Upper Moulding has lip which fits into rear glass weatherstrip, similar to those used on previous models.

Door Top Mouldings are attached with screws and nuts, accessible from inside door flange.

Headlight Bezels and Fender Top

Moulding fender top moulding is secured with screws and nuts, accessible on underside of fender. Headlight bezel is attached with screws and nuts, accessible from side of fender.

Plate-Roof Ornamentation

(Special Coupe) moulding is inserted under drain trough cover at front end and is secured with one screw. To remove screw, remove chrome drip trough moulding, notched to provide access for removal of screws, and remove either nameplate or ornament which is held on with blind hole fasteners.

Roof Plate (Four-Door Sedan) is inserted into spring clip at top of plate and under belt moulding at bottom and also under the rear window moulding at rear of plate.

15. REMOVAL AND INSTALLATION OF DOOR GARNISH MOULDINGS

Remove garnish moulding attaching screws and pull top of moulding out and away from top of door. Raise moulding up and slide it out of door opening. (Fig. 25). To install; position lower portion of moulding in door opening, slide top into place, and install attaching screws.

16. REMOVAL AND INSTALLATION OF INSIDE DOOR AND WINDOW REGULATOR HANDLES

The door and window regulator handles are at-

tached to regulator with spring type clip. Refer to Figure 26 and insert the pronged jaw of tool between handle and washer, with handle in down position. This will keep handle from cocking and binding on shaft. Squeeze handle of tool together after making sure tool is in proper position and remove handle.

When installing handle, make certain the concave side of washer is facing outward and handle is in downward position. Slide handle over shaft and press it on until clip engages locking groove on shaft.

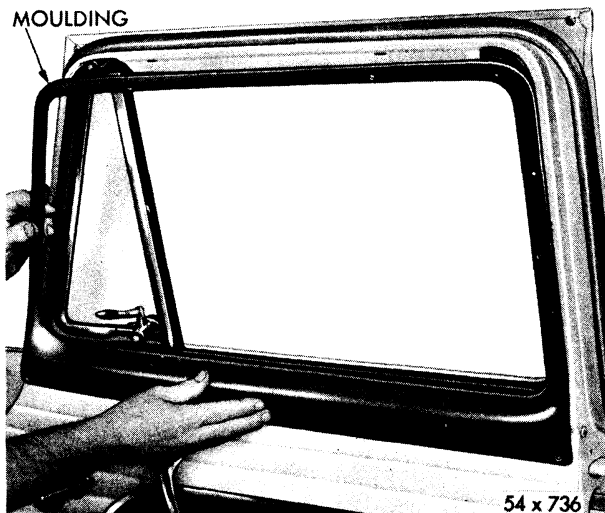


Fig. 25—Removal and Installation of Garnish Moulding

17. REMOVAL AND INSTALLATION OF DOOR TRIM PANEL

Remove door and window regulator handles, garnish moulding, and arm rest (if so equipped). Starting at lower corner of panel, work panel out from door (Fig. 27). Screwdriver can be used in the operation if necessary.

When installing panel, make sure all clips are secured in place and install panel in position on door. Force each clip into position with palm of hand. Install garnish moulding, arm rest and handles.

18. REMOVAL AND INSTALLATION OF FRONT DOOR WINDOW LIFT REGULATOR

Remove garnish moulding, remote control handles, arm rest, and door trim panel. Remove trim panel and weatherproof lining. (Fig. 27.) Avoid tearing weatherproof lining.

Remove door glass and window regulator attaching screws (Fig. 28) and slide regulator assembly out through large opening at bottom of door.

When installing new regulator assembly, be sure that the gear teeth and gear are liberally coated with MOPAR Lubriplate, and that the weatherproof lining is securely cemented to the door.

19. REPLACING GLASS RUN CHANNEL

Work lower portion of door trim panel away from door to facilitate disengaging lower end of channel from support. Lower door window and loosen

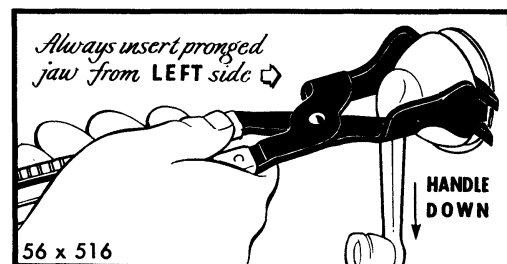
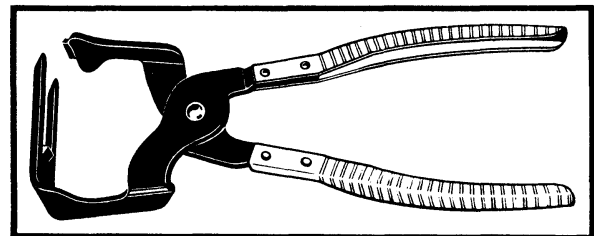
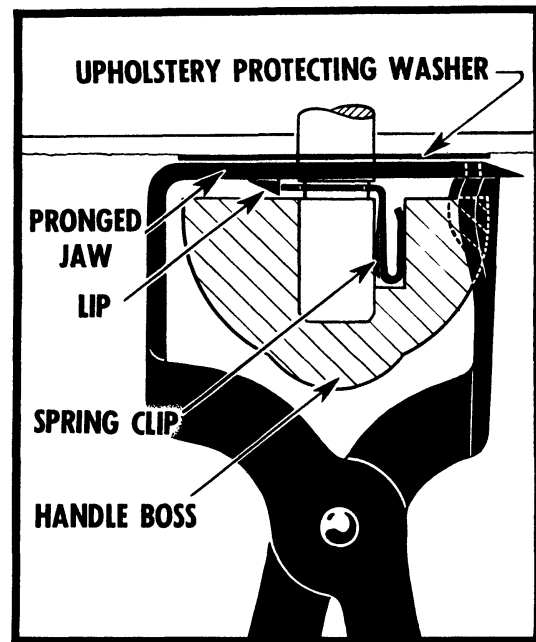


Fig. 26—Regulator Handle Removing Tool

garnish moulding screws and disengage upper section of channel (Fig. 29). Disengage end of glass run from ventilation window division bar, and pull the glass run channel down from the top. Pull remaining portion of run up and out of door (Fig. 30).

When installing new glass run channel, use old run as pattern for length and curved portion. Install by sliding vertical length into door to the curve (Fig. 30) and across the top. Engage with ventilator window division bar, raise door window glass, and engage lower end of run in channel. Tighten garnish moulding screws and reinstall trim panel.

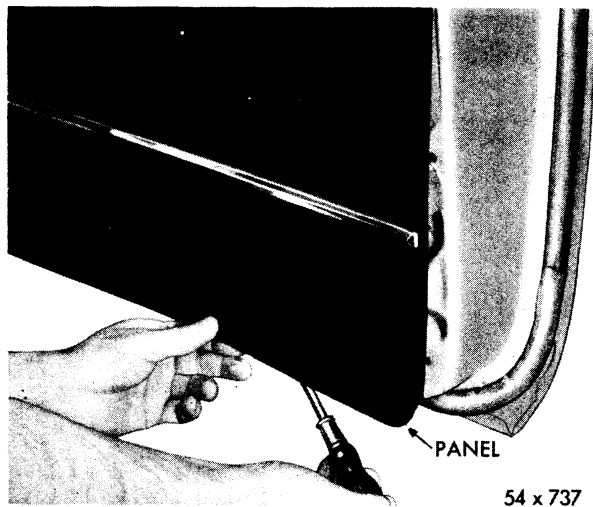


Fig. 27—Removing Door Trim Panel

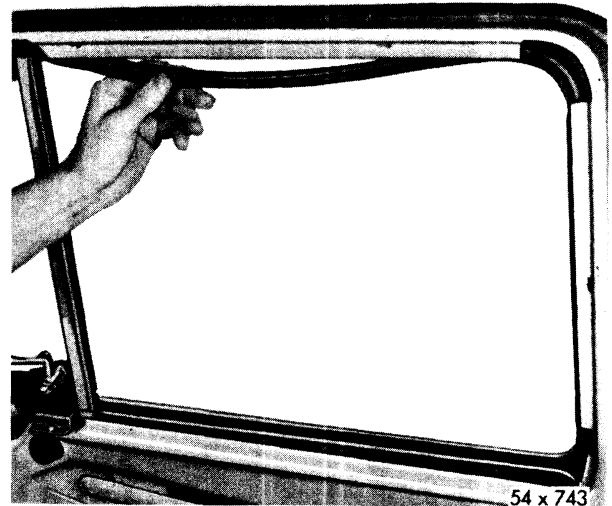


Fig. 29—Disengaging Upper Glass Run Channel

20. REMOVAL AND INSTALLATION OF DOOR VENTILATOR ASSEMBLY

Remove garnish moulding, remote control handles, arm rest (if so equipped), and door trim panel. Remove screws that attach ventilator window to door frame (Fig. 31). One screw is on front face of door. Remove bolt holding division bar (anchor) of ventilator window to inside door panel.

Lower front door window glass against its bottom stop. Slightly twist ventilator window and, at the same time, tilt it toward inside of car to disengage lowered door window glass from

division bar run. Slide ventilator window up and out of door panel (Fig. 32).

When installing ventilator window, engage door glass with division bar as outlined in the removal procedure. After installing ventilator assembly, check door window glass for operation and adjust as needed.

21. REMOVAL AND INSTALLATION OF DOOR GLASS

Remove garnish moulding, inside door handles, arm rest, and trim panel. Remove trim panel and weatherproof liner. (Fig. 27.) Avoid damaging the liner. Remove the glass run and the screws that hold lower window stop to door panel (Fig. 28) and remove stop.

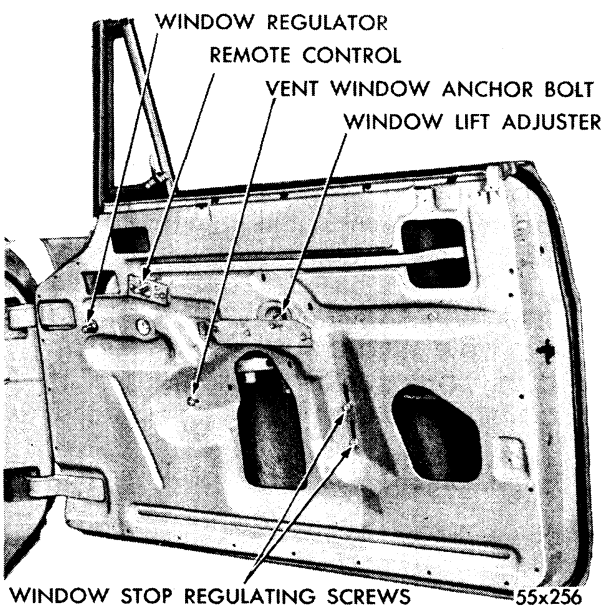


Fig. 28—Front Door Assembly

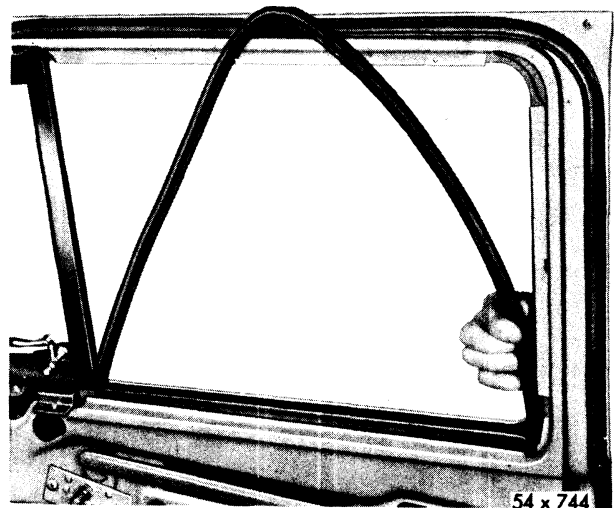


Fig. 30—Removing or Installing Glass Run Channel

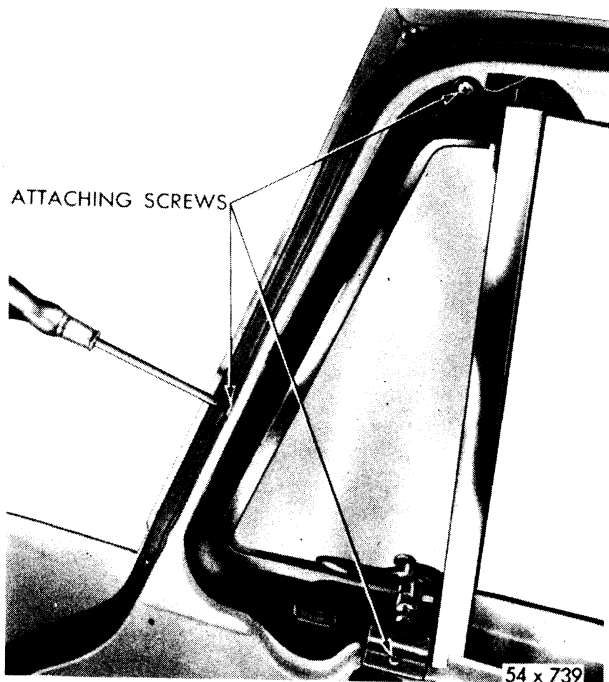


Fig. 31—Ventilator Window Attaching Screws

Lower the window far enough to facilitate disengagement of regulator arm pivot roller. Raise window and tilt glass inward until glass clears top of door (Fig. 33). Continue to raise window until the other regulator arm pivot roller clears door. Disengage pivot arm and remove the window glass.

When installing new window glass, be sure

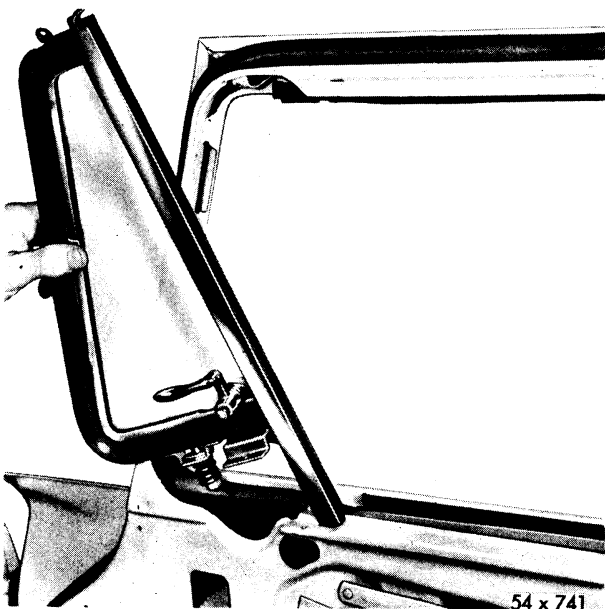


Fig. 32—Removing or Installing Vent Window

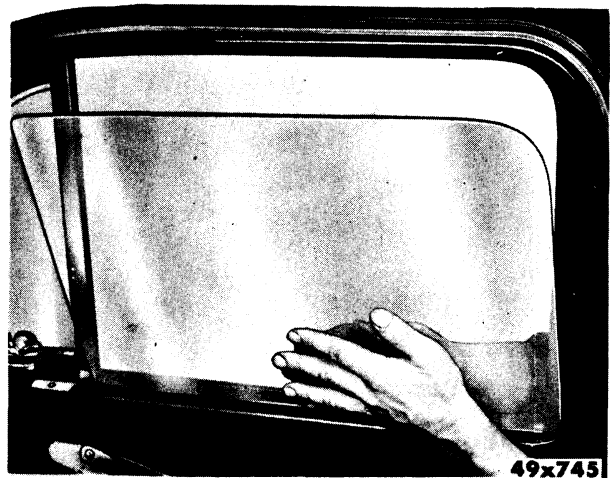


Fig. 33—Removing or Installing Door Glass

that the slots in bottom of channel frame are coated with MOPAR Lubriplate and that the pivot rollers are free. After installing window glass, adjust division bar so that the vertical sliding glass does not bind when window is raised or lowered.

22. REMOVAL AND INSTALLATION OF DOOR LATCH AND REMOTE CONTROL

Remove door handles (refer to Paragraph 16), garnish moulding, trim panel, and screws holding remote control base to door panel. Raise window and bend bottom catch of window felt run channel outward (toward center of door). Remove screws and work door latch and remote control assembly out through opening in door.

When installing, coat all parts with MOPAR Lubriplate. Install the assembly through opening in door and secure it with attaching screws. Bend bottom catch of window felt run channel inward and install screws holding remote control base to door panel. Install trim panel, garnish moulding, and door handles.

23. REMOVAL AND INSTALLATION OF REAR QUARTER WINDOW GLASS (SPECIAL CLUB COUPE AND CONVERTIBLE COUPE MODELS)

a. Special Club Coupe

Remove rear seat cushion, regulator handle, and trim panels. Lower the glass and remove Allen screw locking pivot arm pin. Pull the forward vertical section of felt run channel up and out of body opening. Carefully raise the glass and dis-

connect regulator arm from the quarter glass lower channel. Remove glass from opening. If the glass is to be replaced, drive the seal and channel off the glass with hardwood block and mallet.

When installing quarter window, slide seal and lower channel on the glass. Wind regulator arm up until the end protrudes above the window opening. Connect arm to lower channel. Guide the glass in the rear portion of the glass run channel and carefully lower the glass. Install the top and forward portion of the felt run channel. Make certain that the upper and lower side clips are engaged when front portion of felt run channel is installed. Refer to c. for adjustment of rear quarter window. Install trim panel and the other components that were removed.

b. Convertible Coupe

Lower the top, position quarter window, and remove the retainer and washer that holds regulator arm to lower glass channel. Remove pivot bracket hinge screws. (Fig. 34.) Work window assembly up and out of quarter panel. When installing quarter window, make sure regulator arm-to-lower glass channel is installed correctly and is secure. Complete the remainder of the installation operations.

c. Adjustment of Rear Quarter Window

The rear quarter window can be adjusted in or out by the use of four adjusting screws threaded into the pivot bracket. (Fig. 34.) The rear of the window can be adjusted in or out by adjustments

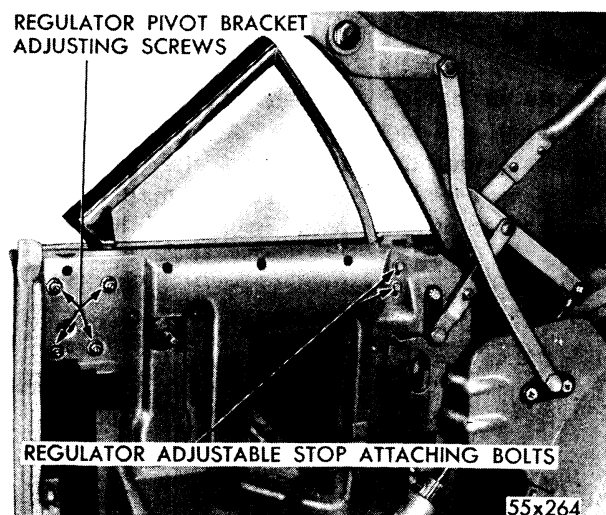


Fig. 34—Convertible Coupe Window Adjustment



Fig. 35—Removing Door Handle

located at top and bottom of guide track. Upward travel of window is controlled by an adjustable stop located at the rear of the window (Fig. 34.) Downward travel is controlled by a non-adjustable stop in the reinforcement of pillar post.

24. REMOVAL AND INSTALLATION OF OUTSIDE DOOR HANDLE

The combination push-pull type door handle is used on all models. The handle attaching screw is accessible on inside flange of door. (Fig. 35.) Remove attaching screw, lift door handle slightly, and slide handle from retaining clip.

Do not damage finish of handle when installing. Check body of handle for burrs on edges and use a copper or aluminum chafing pad to protect finish. Apply small amount of MOPAR Lubriplate to lock actuator, place slotted portion of pad on handle over spring clip, and carefully slide handle into place. Install attaching screw and check handle for proper operation. (Fig. 36.)

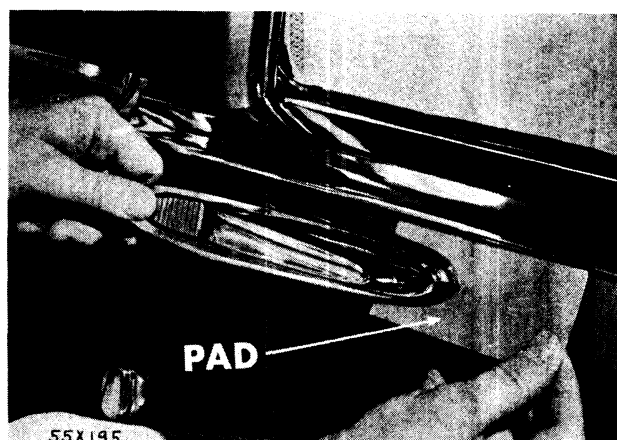


Fig. 36—Installing Door Handle

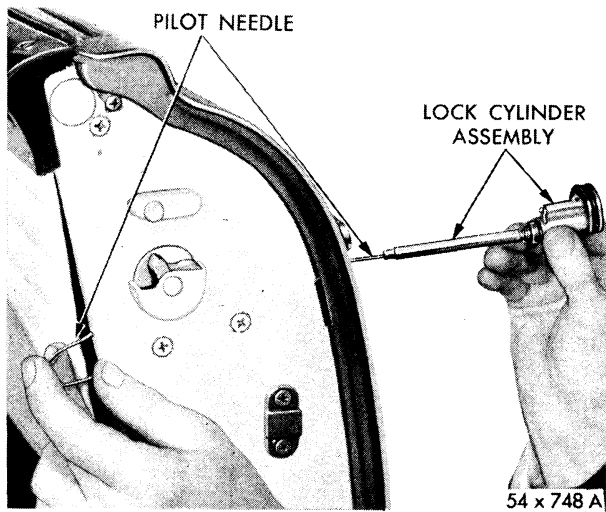


Fig. 37—Releasing Lock Cylinder (Typical View)

25. REMOVAL AND INSTALLATION OF DOOR LOCK CYLINDER

Bend the end of a screwdriver to an angle of 90 degrees. This tool will facilitate the sliding of the latch plate fore and aft to release the lock cylinder for removal. Insert the tool through the opening in the door and force the sliding latch to the rear position. (Fig. 37.) Remove the lock cylinder.

To insert lock cylinder, turn key in cylinder to the unlocked position. Insert screwdriver in square hole in door latch assembly and turn to fully unlocked position. This position can be determined by turning door handle. With sliding latch in rear position, insert long needle or wire through square hole in door latch assembly and through outside door panel. It will be necessary

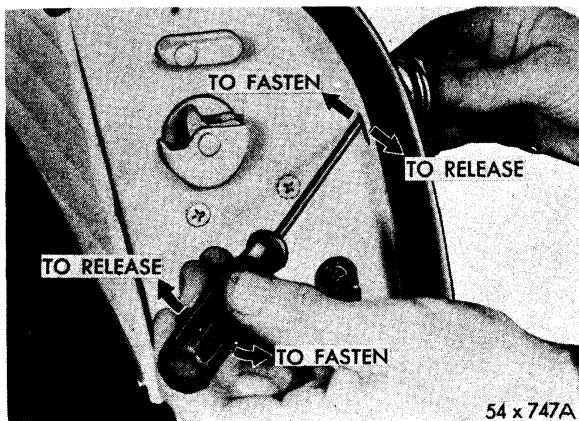


Fig. 38—Installing Lock Cylinder (Typical View)

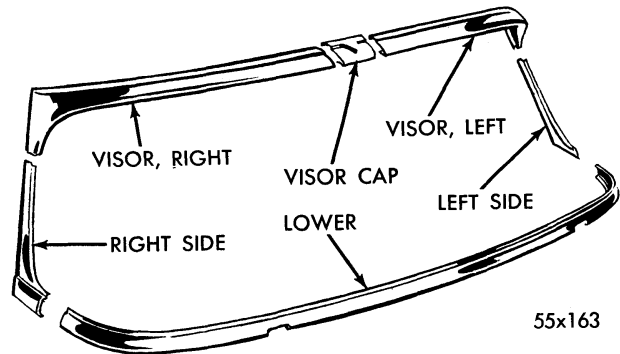


Fig. 39—Windshield Weatherstrip Mouldings

to pull back the door trim panel slightly to expose the square hole in door latch. Insert needle in end of lock cylinder shaft. Push shaft into position, and withdraw needle. (Fig. 38.)

With lock cylinder in position, insert screwdriver tool in slot in door and push latch forward to lock the cylinder in place.

26. REMOVAL AND INSTALLATION OF WINDSHIELD GLASS

NOTE

The following procedure also applies to Convertible Coupe models, except for removal and installation of inner garnish moulding and trim. When removing the glass on convertible models, raise top high enough to facilitate the operation. Remove upper right and left garnish moulding from "A" post. Remove windshield header trim and garnish moulding from weatherstrip.

a. Removing Mouldings (Models With Outside Visor)

Refer to Figure 39 and protect necessary components of car with covering. Remove visor center cap and moulding to "A" post attaching screws. Avoid damaging door-to-"A" post seal. Tap visor rearward with rubber mallet while lifting visor off roof panel brackets. (Fig. 40.)

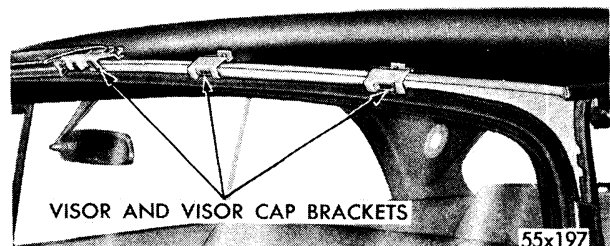


Fig. 40—Visor and Visor Cap Brackets

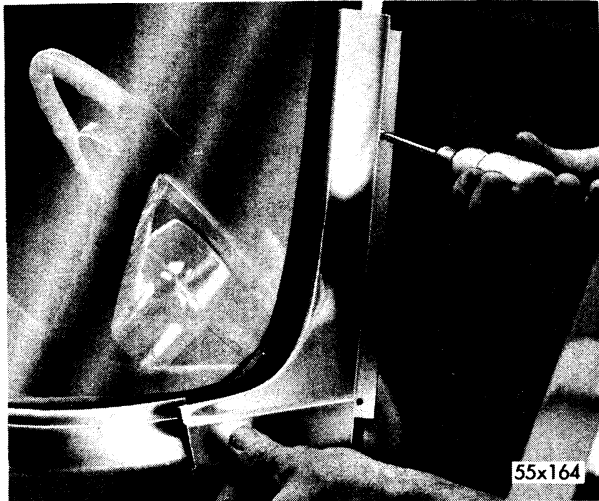


Fig. 41—Removing Side Mouldings

Remove side mouldings (Fig. 41) and lift upper horizontal moulding out of weatherstrip. Remove wiper blades and pivot bracket. Remove lower moulding (Fig. 42) and turn clips on cowl to a 90 degree angle to facilitate glass removal.

b. Removing Mouldings (Models Without Outside Visor)

Refer to Figure 43. Remove upper and lower attaching screws and pry off the side mouldings.

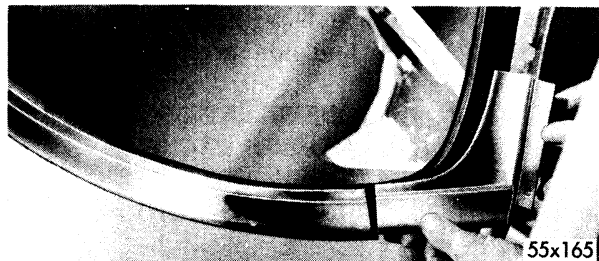


Fig. 42—Removing Lower Mouldings

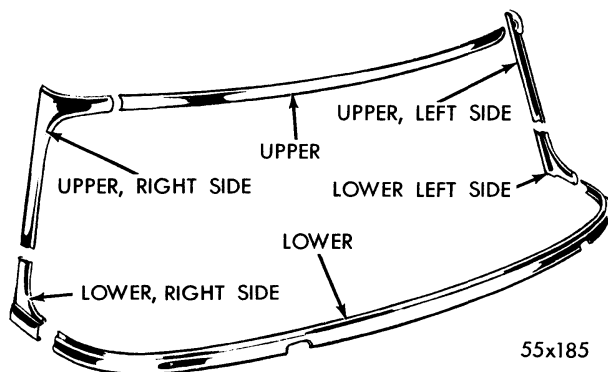


Fig. 43—Windshield Weatherstrip Mouldings

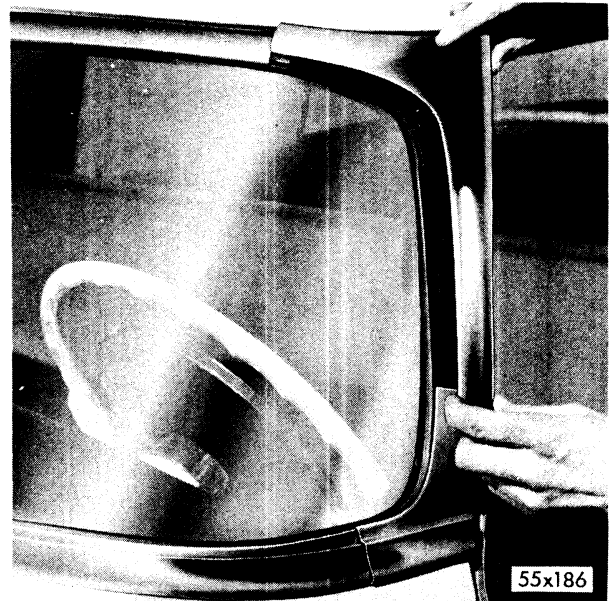


Fig. 44—Removing or Installing Side Mouldings

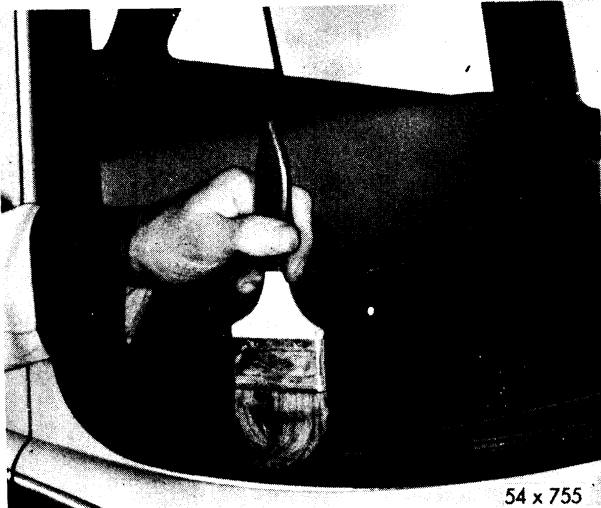
(Fig. 44). Avoid damaging door-to-“A” post seal. Raise ends of upper moulding and lift from weatherstrip groove. Remove lower moulding.

c. Removal and Installation of Windshield Glass

Unlock weatherstrip with wedge (Fig. 45) all around windshield. When removing glass from weatherstrip, it may be necessary to wear gloves to protect hands. With helper assisting on outside of car, remove glass from inside of car by exerting pressure at either corner to force glass out of the weatherstrip.



Fig. 45—Unlocking Weatherstrip



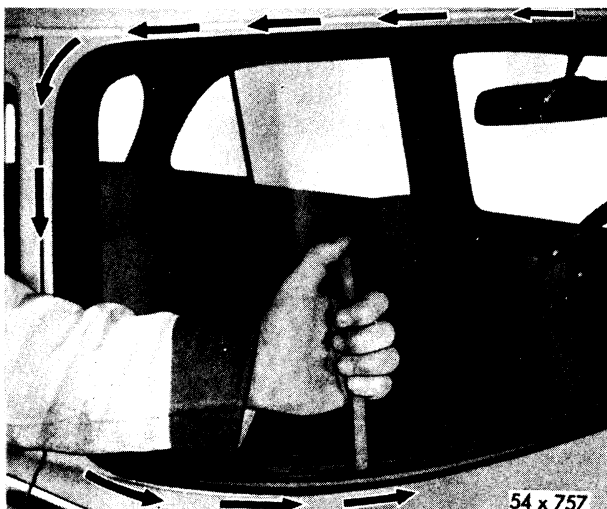
54 x 755

Fig. 46—Applying Soap Solution



54 x 756

Fig. 47—Stripping Glass in Weatherstrip



54 x 757

Fig. 48—Locking Glass in Weatherstrip

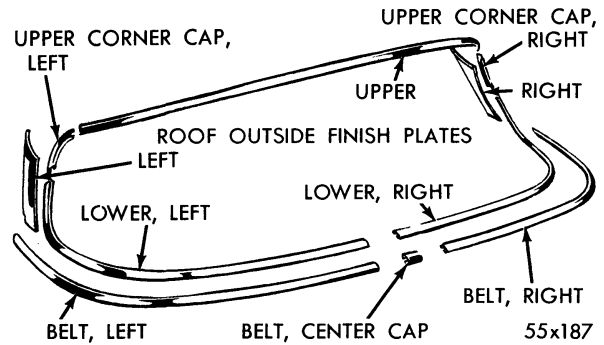


Fig. 49—Rear Window Glass Moulding

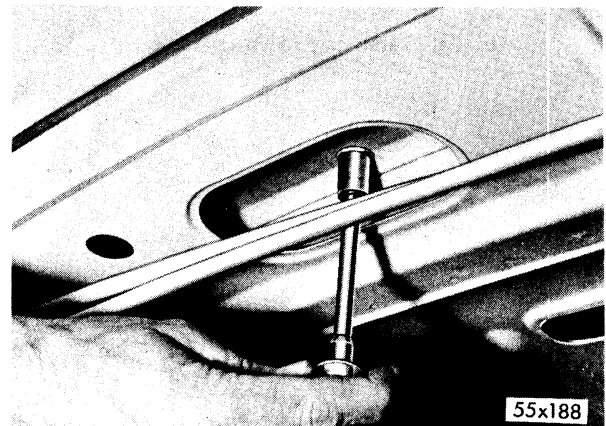
When installing glass, coat weatherstrip with soap solution, using 2-inch brush. (Fig. 46.) **Do not use a strong detergent.** Center and insert upper end of glass in weatherstrip. Hold glass in position and insert wedge in weatherstrip groove. (Fig. 47.) Strip glass into weatherstrip (Fig. 48). Pound glass into place with palm of hand. The weatherstrip will slip under lip of moulding with slight popping noise.

d. Installation of Mouldings

On models equipped with outside visor, move clips into position and install lower moulding.

Install pivot bracket and wiper blades. **Reseal pivot bracket to protect against water leaks.** Install horizontal moulding, side mouldings, visor, and visor cap. **On models without outside visor, install lower, upper, and side mouldings.**

27. REMOVAL AND INSTALLATION OF REAR WINDOW (ALL MODELS EXCEPT CONVERTIBLE COUPE AND TOWN AND COUNTRY WAGON)



55x188

Fig. 50—Removing or Installing Belt Moulding Attaching Nuts

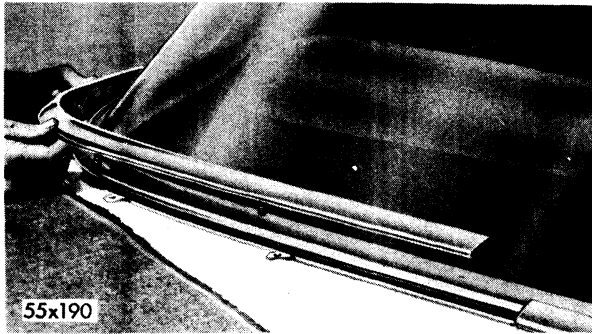


Fig. 51—Removing or Installing Belt Moulding

Cover rear deck fenders and other components to protect finish. (Fig. 49.) Pry up on ends of upper chrome mouldings to release them from corner mouldings and remove upper mouldings. Remove belt moulding center cap. From inside luggage compartment, remove nuts and washers from belt moulding studs (Fig. 50).

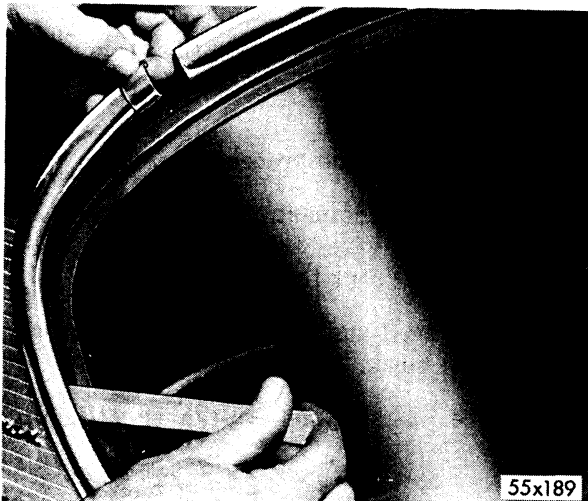


Fig. 52—Removing and Installing Corner Moulding

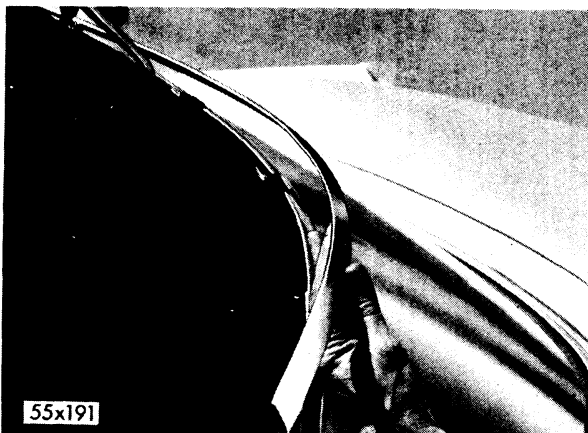


Fig. 53—Removing or Installing Upper Moulding

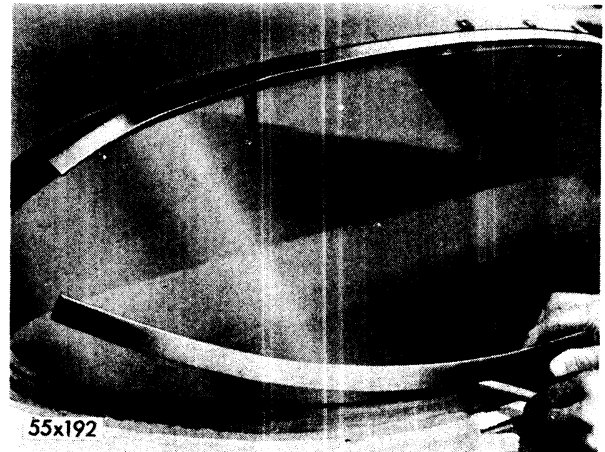


Fig. 54—Removing Upper and Lower Moulding

The belt moulding is attached to door lock pillar and rear deck panel with clips. Remove these clips before removing belt moulding. (Fig. 51.)

After removing belt moulding center cap and stud nuts, it may be possible to raise the moulding at the center opening and slide it out of rear lock pillar moulding at the center opening and slide it out of rear lock pillar moulding cap without loosening clip nut in passenger compartment. If this cannot be done, remove headlining at door pillar post so the rear lock pillar moulding clip nut can be removed.

Remove corner mouldings. (Fig. 52.) Remove upper and lower mouldings from weatherstrip. (Figs. 53 and 54.) Remove upper outside moulding clips to allow for removal of upper moulding.

Insert wedge tool in weatherstrip locking strip

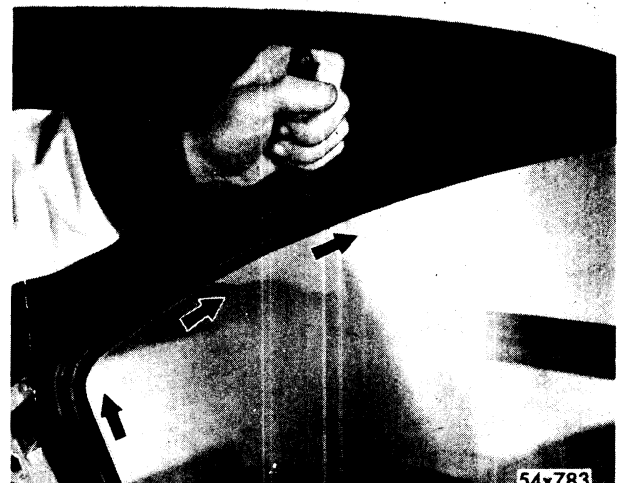


Fig. 55—Unlocking Weatherstrip

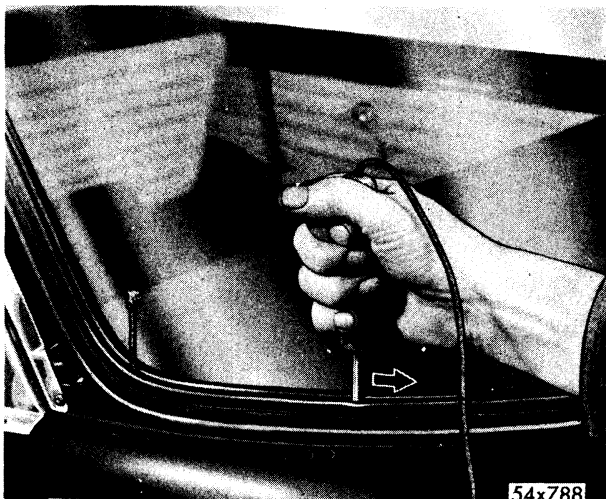


Fig. 56—Installing Pull Cord (Lower)

and twist it slightly while sliding it around weatherstrip to unlock it from glass opening. (Fig. 55.) Remove the glass.

When installing glass, coat glass channel in weatherstrip liberally with a soap solution, using 2-inch brush. Cover components to protect finish. Slide the right or left lower edge of glass into weatherstrip channel and allow the glass to settle. Seal glass in weatherstrip, using the wedge tool. Start at the inserted side and work across bottom, up the sides, and across the top.

(Refer to Figs. 56, 57, 58, and 59.) Install upper trim moulding with aid of pull cord inserted in moulding slot of weatherstrip. Coat moulding slot with soap solution before installing moulding. Install upper moulding, lower left and right



Fig. 57—Installing Pull Cord (Upper)

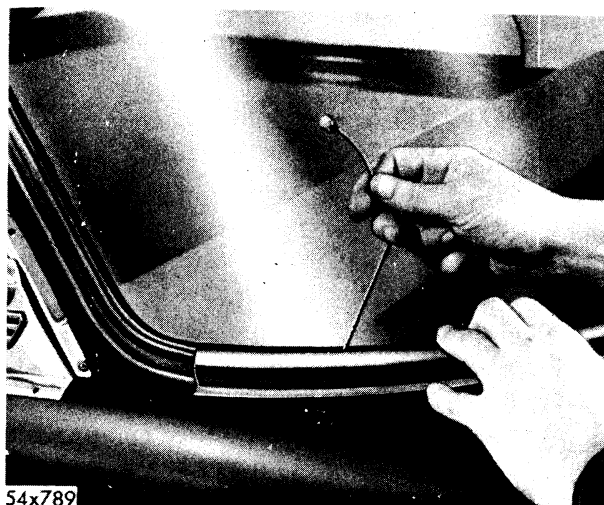


Fig. 58—Installing Lower Moulding

mouldings, and upper corner caps. Install belt moulding. On the Special Club Coupe models, install inside garnish mouldings.

28. FRONT FENDERS (ALL MODELS)

a. Removal

Refer to Figure 60 and proceed as follows:

- (1) From engine compartment unclip headlamp and parking wires from fender and fender shield (left front fender).
- (2) Remove head and parking lamp wires from terminal block.
- (3) Remove splash shield-to-fender attaching bolts.

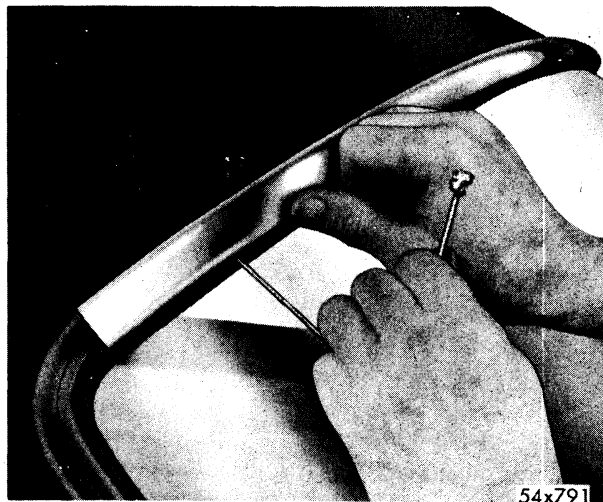
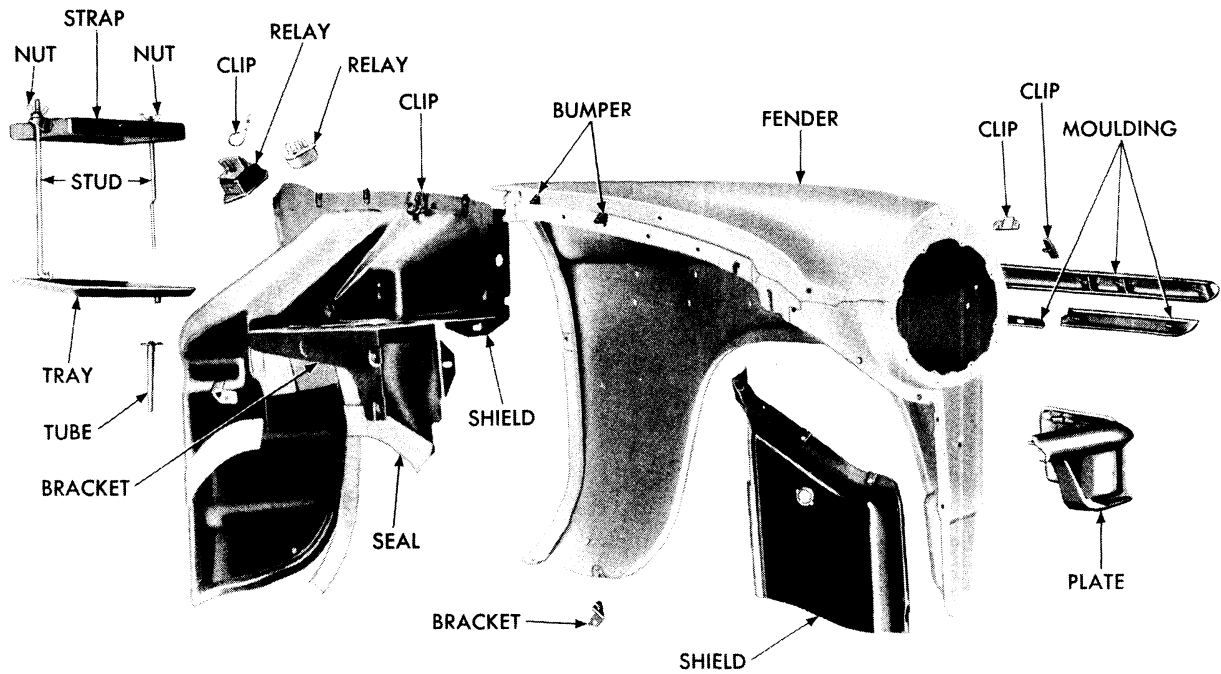


Fig. 59—Installing Upper Moulding



55x757

Fig. 60—Front Fender Assembly (Disassembled View)

- (4) Remove parking, headlamp, and radio antenna lead in wire.
- (5) Remove grille panel-to-fender attaching bolts.
- (6) Remove upper and lower splash shield and fender chrome moulding.

NOTE

On New Yorker and Imperial Models, remove lower chrome bar on fender.

- (7) Remove fender-to-body, front and rear splash shields, grille panel, and fender yoke attaching bolts.
- (8) From inside the passenger compartment, remove fender-to-cowl quarter attaching bolts. Disconnect radio antenna (if so equipped) and remove fender.

b. Installation

When installing fender, do not scratch dash panel and other finish.

NOTE

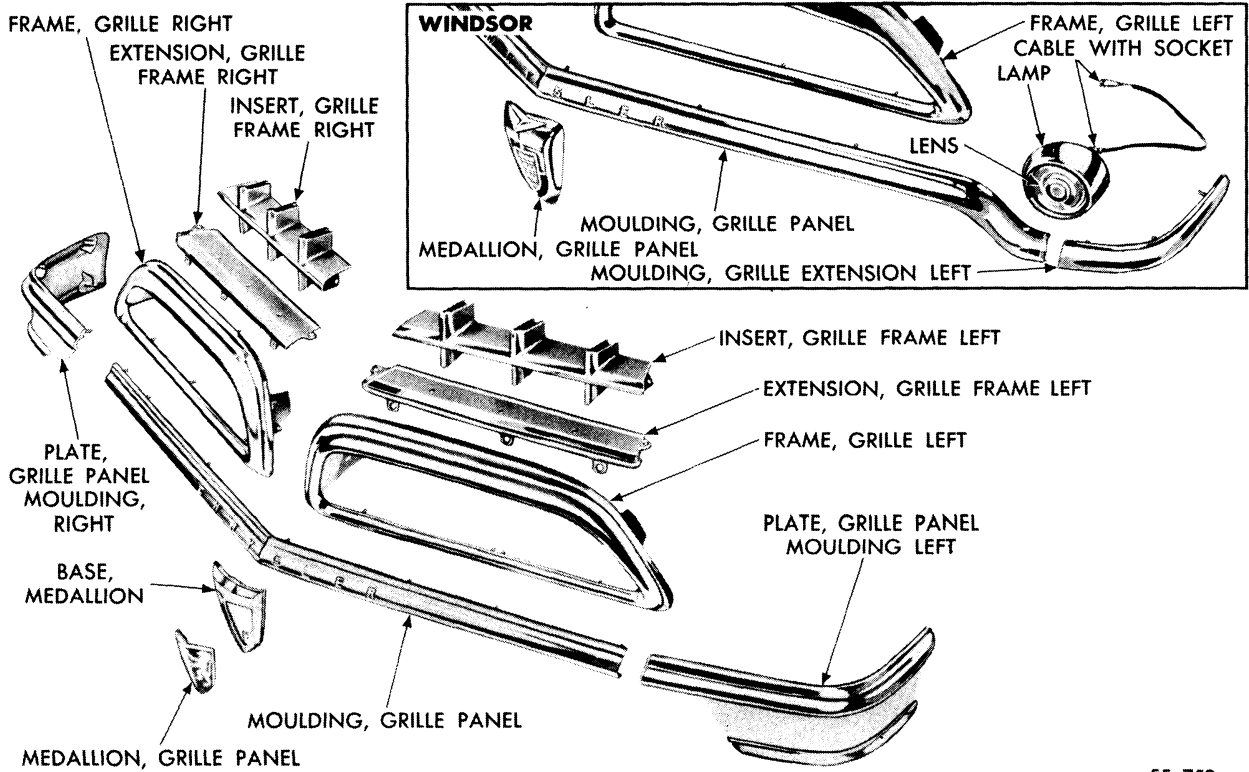
Fender must be assembled to dash body attaching stud. Hang fender loosely in position until cowl and splash shield seals are properly lined up with fender and cowl before starting and tightening attaching bolts.

The fender should be assembled in position and lined up with the hood and grille panel before the headlight is installed. Check hood and fender alignment.

29. REMOVAL AND INSTALLATION OF FENDER SPLASH SHIELD (ALL MODELS)

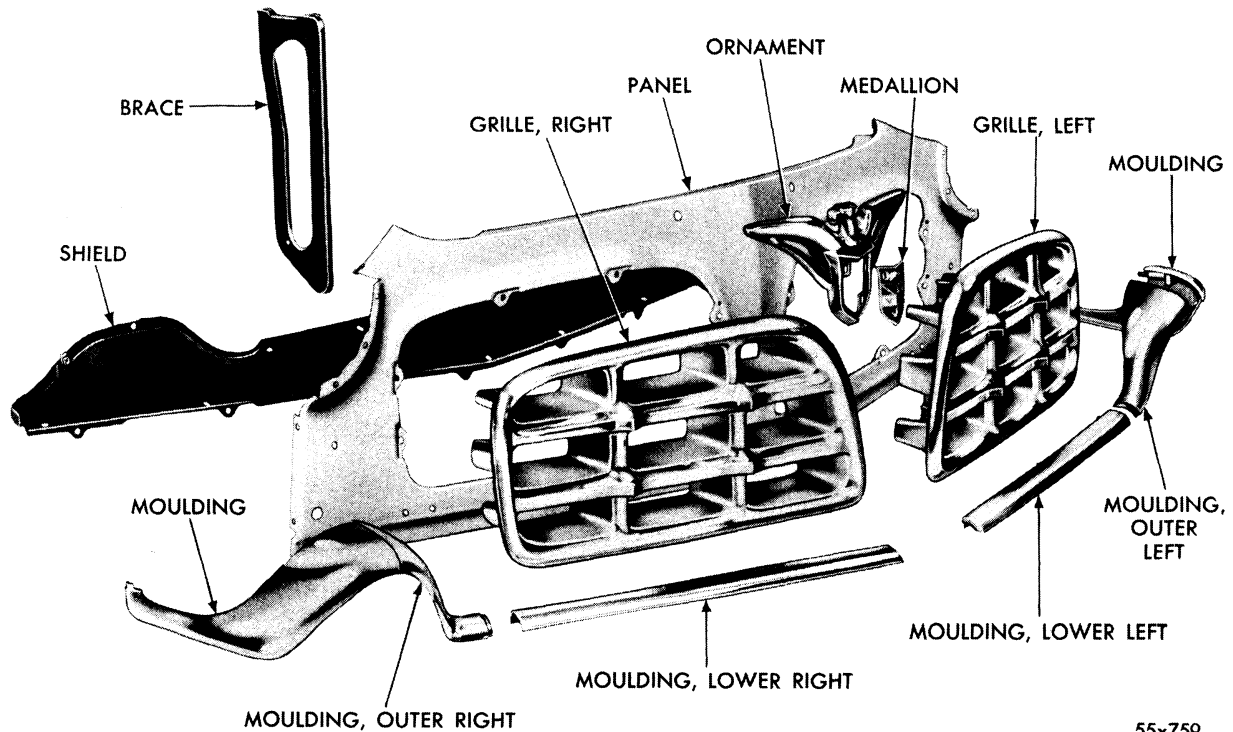
Refer to Figures 60 and 61 and disengage splash shield at rear lower fender bracket, radiator support, and fender. If removing left-hand splash shield, remove battery, unclip the wire harness and remove lead wires that connect starting motor solenoid. Disengage splash shield support bracket at radiator support and remove bracket.

Remove fender-to-cowl and rear splash shield attaching bolts, lift rear of fender slightly, and



55x758

Fig. 61—Radiator Grille Assembly



55x759

Fig. 62—Radiator Grille Assembly

pull shield approximately 6 inches away from body. Support fender in this position, and pull splash shield out at rear, pushing down and back and sliding out from under car.

To install splash shield, slide it under car and up into position. Install attaching bolts, but do not tighten. Push fender back toward body, lift shield slightly, and slide shield into position. Install attaching bolts and screws, but do not tighten. Check hood-to-fender alignment and tighten all attaching bolts, nuts, and screws securely. Install and connect the battery, clip wire harness to shield, and install lead wires to starting motor solenoid (if left-hand splash shield was removed).

30. REMOVAL AND INSTALLATION OF RADIATOR GRILLE (ALL MODELS)

The radiator grilles are assembled as separate units within the grille panel and can be removed separately without interfering with the other

components. Remove grille-to-grille panel attaching bolts and remove grille.

Refer to Figures 61 and 62 and proceed as follows:

Remove lower half hood lock assembly and brace. Remove head and parking lamp terminals from terminal block. Remove both head and parking lamps. Remove grille moulding and extension; loosen front fender to radiator yoke bolt. Remove panel-to-fender and splash shield attaching bolts.

Disengage outer panel and pull panel out and away from fender openings.

If installation necessitates removal of lower stone deflector, remove the front bumper and remove attaching nuts and bolts and remove stone deflector.

When installing the outer grille panel, leave the radiator yoke-to-fender and fender-to-splash shield loose until proper hood alignment is obtained.

CONVERTIBLE COUPE TOP

31. OPERATING THE CONVERTIBLE COUPE TOP (FIG. 63)

The switch lever, to lower and raise the top of the Convertible Coupe, is located on the left side of the instrument panel. **To lower top**, unlock the top by turning the lever at the center of the header panel over windshield to the left. This will release the top. **Never lower the top when it is wet.**

Unzip rear curtain at the sides and top and lay it neatly on floor of the top well. Move top control lever to the left and hold in this position until top is completely lowered into well. The top cover should be placed in the top cover bag and stored in the luggage compartment. **Never store top cover in top well compartment.**

WARNING

Never attempt to raise or lower the top while the car is in motion. It is advisable to raise and lower the top at least once a month to keep the top operating mechanism in working condition.

To raise top, remove well compartment cover, move top control switch to the right, and hold it in this position until top is completely raised. Install rear curtain and engage the zipper. Pull top down firmly on top header and turn locking handle clockwise to lock top securely in position. **The locking handle should be placed all the way to the second detent to completely lock the windshield header in place.**

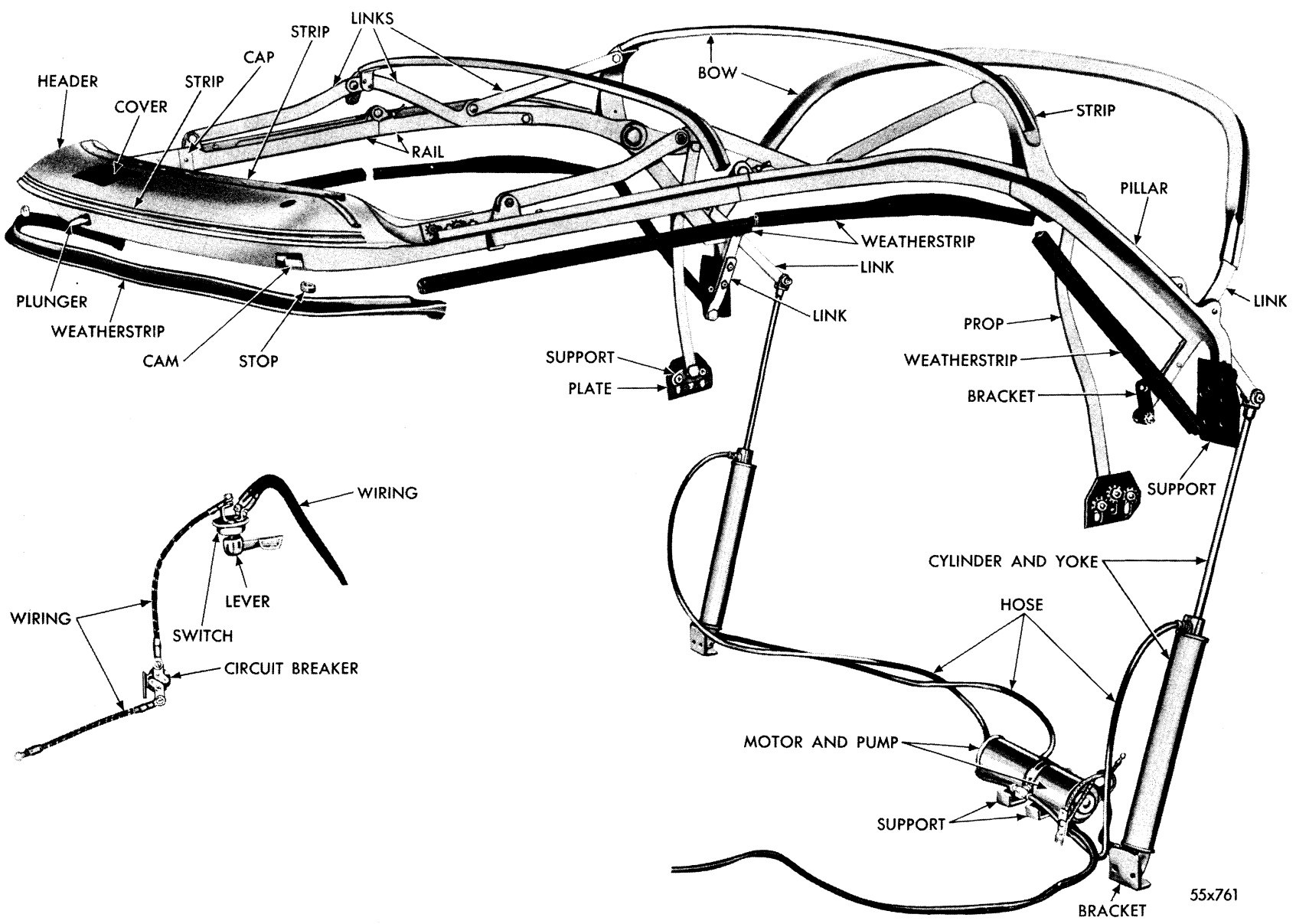


Fig. 63—Convertible Top Assembly

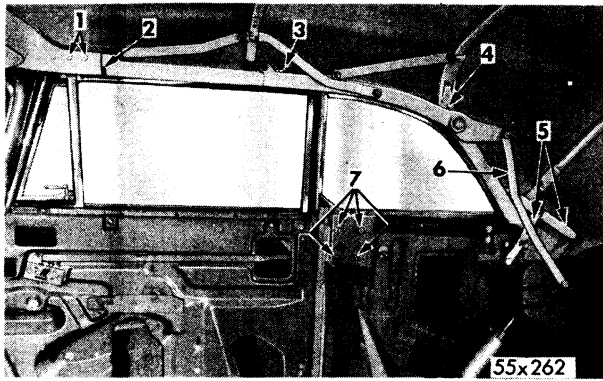


Fig. 64—Convertible Top Adjustments

32. ADJUSTING THE TOP

There are six adjustments on each side of the roof rail to control the alignment of the top with the windshield header, doors, roof rail, and quarter windows.

Refer to Figure 64 and proceed as follows:

a. Body Adjustment

Before making any adjustments of the top header panel, roof side rails, or power link, tighten body bolts to a torque of 18 foot-pounds. **Shimming the body to obtain proper top alignment should only be done in extreme cases where there is doubt as to proper frame-to-body alignment. If the body must be shimmed, refer to Figure 65 for correct body shimming methods.**

CAUTION

To avoid stripping adjusting screw threads, loosen the Allen set screws locking the adjusting screws in hinge and rail brackets (Fig. 64) before attempting to adjust the locking screws.

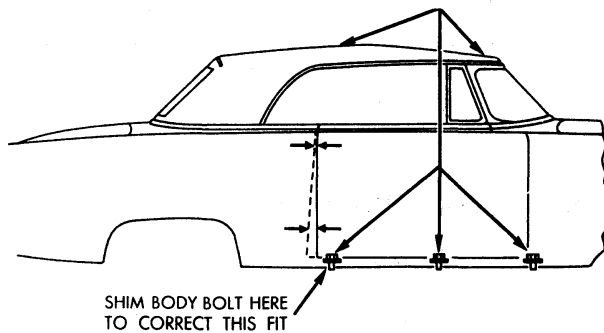


Fig. 65—Shimming Body (Typical View)

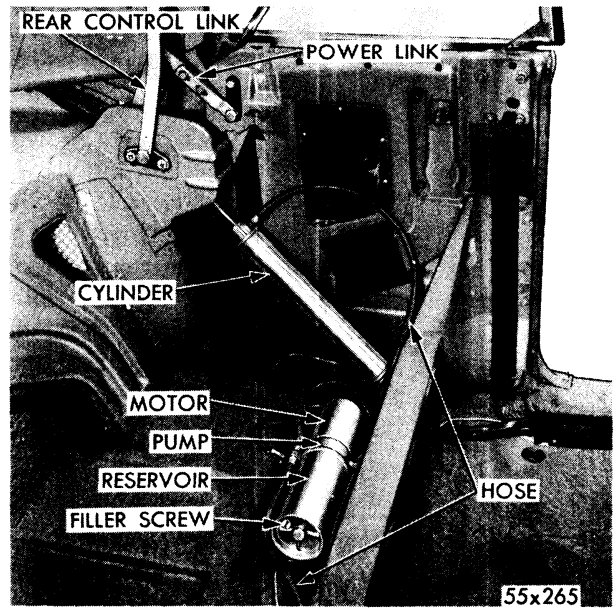


Fig. 66—Hydraulic Top Folding Mechanism

b. Power Link Adjustment

With the top and all door and quarter window glasses in raised position, carefully inspect door and quarter window glasses for correct fit at side rail and vertical seals. Adjustment for proper alignment of the quarter window glass-to-roof rail weatherstrip is made at the power link adjustment (Fig. 66) with the top in the partially raised position. Refer to Figure 67 for door glass-to-roof rail weatherstrip clearance.

To decrease or increase the clearance between the quarter window glass and the roof rail weatherstrip, loosen the power link adjustment

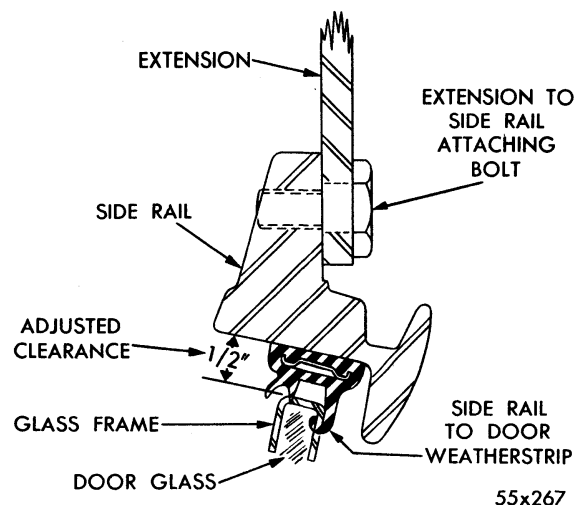


Fig. 67—Convertible Side Rail Weatherstrip

bolts (Fig. 66) and spread or shorten the link as the case may require to obtain the desired clearance.

c. Roof Side Rail Alignment

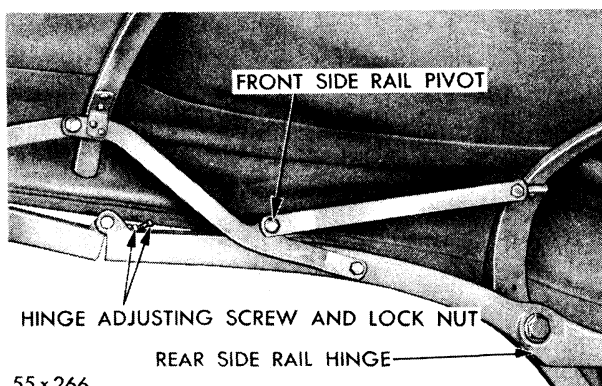
The adjustment of the center side rail and the header panel to the windshield locking plunger cam and stops is controlled by the rear control link which is fastened to the quarter panel compartment (Fig. 66). Also affecting the side rail weatherstrip sealing at the top of the door glasses are the front side rail hinge adjusting screws and the rear side rail hinge adjusting screws (Fig. 68).

If the front side rail joints are fully open when the top is fully raised, turn the front side rail hinge adjusting screws counter-clockwise until the joints are closed. If, after making this adjustment, the clearance between the door glass and side rail is increased or decreased, adjust the center rail adjusting screw to obtain the desired clearance.

Leveling of the top can be accomplished by lowering or raising the rear control link bracket. When adjusting the rear control link, care should be taken to adjust both sides equally to maintain parallelism between the header panel and the windshield frame, and also to maintain lateral alignment of the header panel stops in relation to the windshield plunger. Before making this adjustment, loosen the top header at the windshield to remove tension from the linkage.

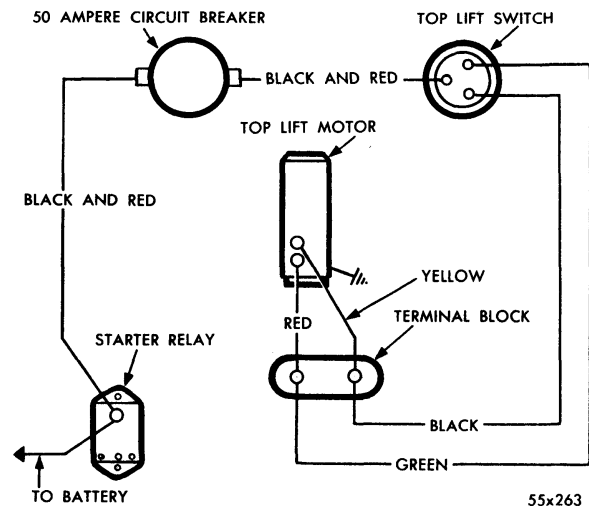
d. Top Header Panel Adjustment

If the header panel does not close easily on the locking stops, loosen the header panel-to-side rail screws and shift header panel forward or backward as required. If this is not possible, it will be



55x266

Fig. 68—Convertible Top Side Rail Adjustment



55x263

Fig. 69—Folding Mechanism Wiring Diagram

necessary to adjust the power link to obtain the desired clearance (Fig. 66).

33. SERVICING THE TOP FOLDING MECHANISM

The electric-hydraulic top folding mechanism (Fig. 66) consists of two cylinders, a piping system, an electric motor, a pump and reservoir assembly, and a double-throw rotary switch. The wiring and motor are protected by a separate circuit breaker (Fig. 69).

The pump is a two-direction, reversing motor type and is connected to the cylinders by flexible lines and tubing. A valve and port assembly in the reservoir directs the flow of fluid in the system. The motor, pump, and reservoir assembly can be replaced as a unit, or the electric motor can be replaced separately. The cylinders are sealed units and must be replaced as assemblies.

If difficulty is encountered in raising or lowering the top with the motor running, with sufficient fluid in the reservoir, and with pivot points operating freely without binding, the cause is probably improper linkage alignment and adjustment.

34. CHECKING FLUID LEVEL IN RESERVOIR

Insufficient fluid in the system may cause the top to raise slowly or cause noise in the pump and motor during the operation. Check fluid level in the reservoir. If it is low, check for a leak due to a broken line or loose connection. Replace line or tighten connection as necessary. Fill the reser-

voir until fluid runs out of the filler hole. Use MOPAR Heavy Duty Brake Fluid. After filling reservoir, raise and lower the top several times to force out air that may be trapped in the system. Always check fluid level when the top is lowered.

35. TOP WILL NOT RAISE OR LOWER

Disconnect starter relay-to-control switch wire (black and red) at the control switch. Hook one wire of a test lamp to a good ground and the other wire of the test lamp to the disconnected terminal of the wire at the control switch end. The test lamp should light. If the test lamp does not light, test on each side of the circuit breaker, and replace faulty wire or circuit breaker, as necessary.

36. TESTING THE TOP CONTROL SWITCH

Disconnect the black wire at the top control switch and hold it firmly against the black and red wire terminal on the control switch. The top (if raised) should start to lower. Repeat this test with the green wire. The top (in the lowered position) should start to rise. If the top operates during these tests, but fails to operate when the control switch lever is moved to the right or left, the switch is at fault and should be replaced. But, if the top fails to operate during these tests, follow the procedure outlined in the next paragraph.

37. TESTING WIRES BETWEEN CONTROL SWITCH AND PUMP MOTOR

This test can be made from the luggage compartment. Check the pump motor ground wire (black wire between pump motor and ground) to make certain it has a good, clean ground connection. Hook one wire of a test lamp to the black wire terminal on the pump motor and ground the other wire of the test lamp. Move the top control lever to the right. The test lamp should light.

If the test lamp does not light, the black wire between the pump motor and the control switch is defective and should be replaced. Repeat this test at the green wire terminal, moving the

top control lever to the left. The test lamp should light.

If the test lamp does not light, the green wire from the control switch to the pump motor is at fault and should be replaced.

If the test lamp lights in both cases, but the pump motor fails to operate, replace the pump motor.

38. REAR WINDOW (CONVERTIBLE COUPE)

The rear window is made from flexible vinyl plastic material and special attention should be given to the cleaning and storage of the window.

To clean the window, rinse with cold water spray to remove grit and dirt. Lather the surface with suds of a mild soap such as Castile, using the palm of the hand. Rinse thoroughly and allow to air dry. Do not use towel, sponge, or chamois to apply the suds or to dry the window. Otherwise, the surface may become scratched.

If this procedure does not clean the window thoroughly, a solution of 40 per cent rubbing alcohol and 60 per cent clean water should be used. Apply with palm of hand and rub surface of window with circular motion. Use solution generously.

39. CARE OF THE TOP

The worn fabric top material can be waterproofed with Windshield Rubber Sealer, Part Number 1316220. Clean the top thoroughly before applying sealer. Remove spots with an art gum eraser and brush off dust and road dirt with a whisk broom. Using a sponge or brush, wash the top thoroughly with warm water and mild soap. Scrub the top with soap suds, starting in the center and gradually working toward the edges. When top is clean, wipe off excess suds with a clean, wet cloth. Allow top to dry and apply the sealer evenly with a brush.

NOTE

Before lowering the top, make sure the fabric is completely dry. Dampness may cause formation of mildew and damage to the fabric will result.

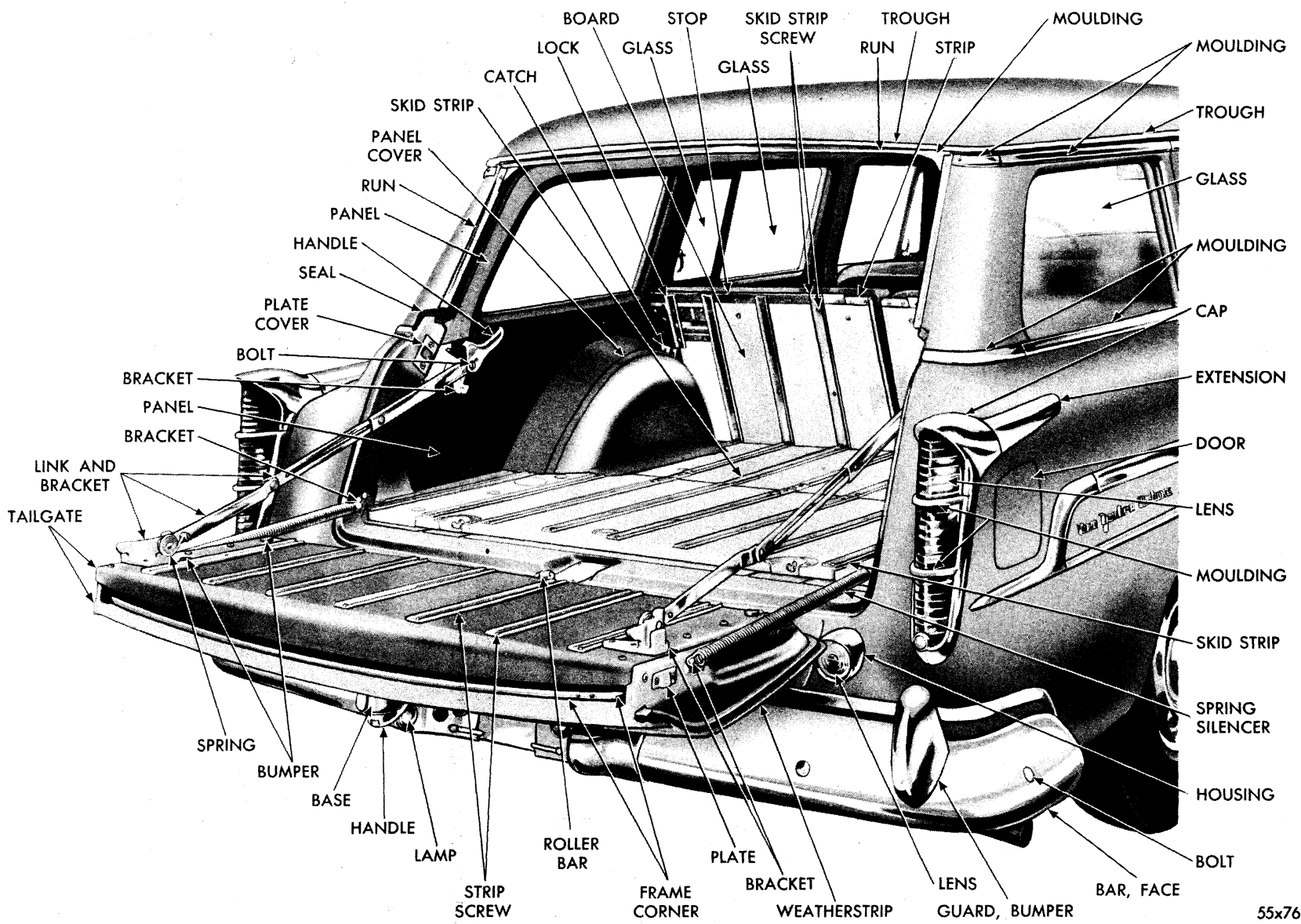


Fig. 70—Tail Gate In Lowered Position

55x762

SERVICING THE TOWN AND COUNTRY WAGON

For information relative to servicing of the Town and Country Wagon engine, transmission and axle components other than the tail gate, rear quarter panel and windows, refer to the Section

covering these items in this Manual. To service the tail gate and rear quarter window, refer to Figure 70 and proceed as follows:

SERVICE PROCEDURES

40. TAIL GATE

a. Removal

Lower the rear window glass, unlock and open the tail gate part way. Disengage tail gate assist springs, lower the tail gate to the fully opened position, and remove the prop brackets from the tail gate. Close the tail gate, remove hinges, and remove the tail gate.

b. Installation

To install, place tail gate in closed position on body. Install hinges and screws, but do not tighten securely. Open the tail gate part-way and engage the assist springs. Lower the tail gate to fully opened position and install the tail gate prop brackets. Align and adjust position of tail gate in body opening. Refer to c below. After tail gate is adjusted in opening, tighten hinge screws securely.

c. Alignment of Tail Gate

The adjustments provided for proper alignment of tail gate with body opening follow:

The prop brackets on inside of body are provided with enlarged bolt holes so that the brackets can be moved fore and aft. Enlarged holes in tail gate hinges and movable tapped back-up hinge plates in the tail gate panel provides for up and down and side-to-side adjustment of tail gate. Also, the lower tail gate hinges can be shimmed, if necessary, to align tail gate with body.

41. REMOVAL OF TAIL GATE REGULATOR HANDLE

(Refer to Fig. 71). Lower the rear window glass. Remove the regulator handle attaching screws, lower tail gate to open position and reverse regulator handle.

42. REMOVAL OF TAIL GATE GLASS RUN CHANNELS

(Refer to Fig. 72.) Lower the rear window glass, unlock tail gate, and pull down the tail gate to the fully opened position. Remove the tail gate prop brackets and inner panel, close tail gate halfway, and remove tail gate assist spring.

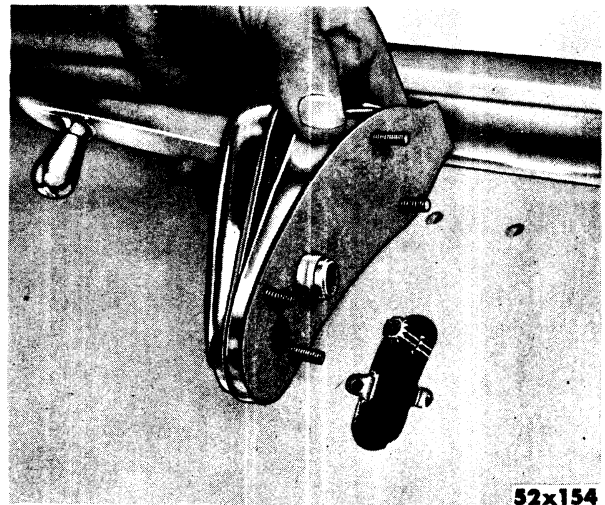


Fig. 71—Removal and Installation of Tail Gate Regulator Handle



Fig. 72—Adjusting Glass Run Channel

Remove the retainer washer from each window regulator arm (Fig. 73). Raise glass to facilitate removal, remove regulator arm lock retainer slip control arms from the glass panel slots and remove the glass.

(Refer to Fig. 74.) Remove the attaching screws from the lower glass run channel. Tail gate upper glass run channel screws located in the upper corners of the tail gate are also used to adjust the channel and glass assembly, in or out, to align the glass with the upper glass run channel (Fig. 73).

To remove the tail gate upper glass run channel, remove the tail gate inside garnish moulding. Remove the glass run channel attaching screws and remove glass run channel.

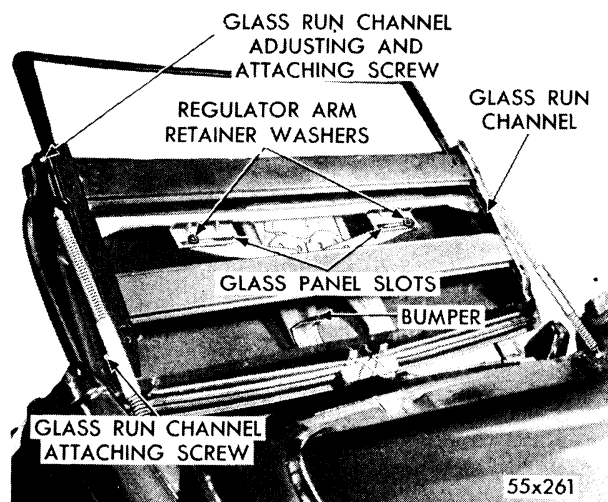


Fig. 73—Removal and Installation of Rear Window Glass

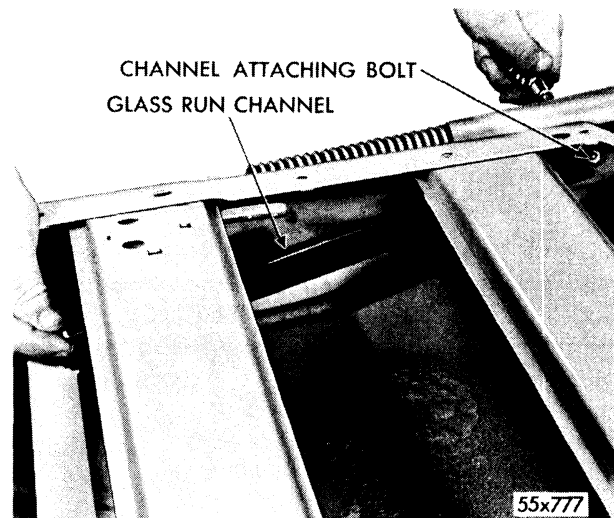


Fig. 74—Removal and Installation of Lower Glass Run Channel

43. INSTALLATION OF TAIL GATE LOWER GLASS RUN CHANNEL, REAR WINDOW REGULATOR, AND REAR WINDOW GLASS

(Refer to Fig. 74.) Install lower glass run channel and tighten screws securely. Install rear window regulator and rear window glass. Slip the regulator control arms into the glass panel slots and install the retaining washers (Fig. 73) and lower tail gate glass. Install tail gate inner panel, prop brackets, and assist springs. With the rear window glass in the fully lowered position, close the tail gate. Check the operation of rear window regulator and the fit of the rear window glass in upper glass run channel by raising and lowering the rear window glass.

NOTE

Tail gate glass should not bind when glass is raised. If glass binds upper and lower glass run channel should be aligned. An adjusting screw is located in each of the upper corners of the tail gate (Fig. 73). Adjust the lower glass run channel so that glass will be in alignment with the upper glass run channel when tail gate glass is fully raised.

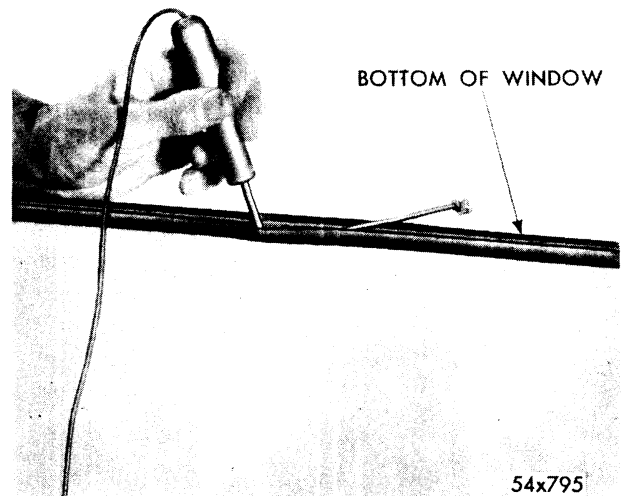
44. REMOVAL AND INSTALLATION OF REAR QUARTER WINDOW

Remove the rear quarter window garnish moulding attaching screws. Remove the garnish moulding by tilting it out at the top and lifting it away from the window (Fig. 75). On the outside of



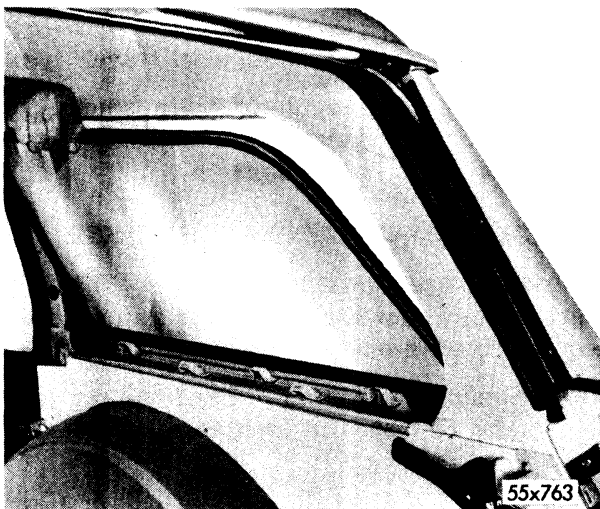
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Fig. 75—Removing Garnish Moulding



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Fig. 78—Installing Pull Cord In Weatherstrip



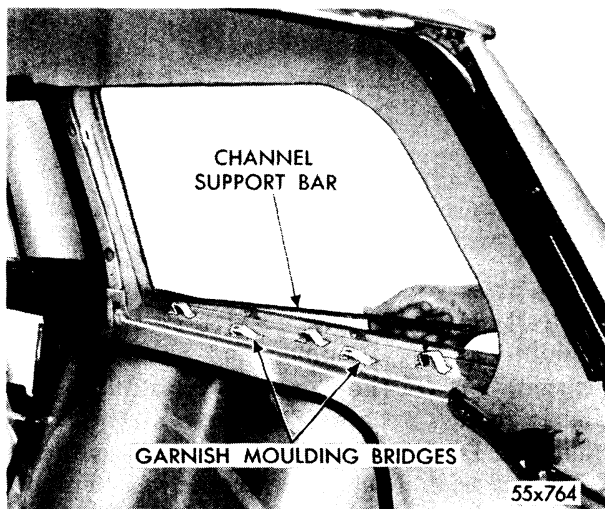
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Fig. 76—Removing Rear Quarter Glass

the Town and Country Wagon, exert pressure on the glass and force it out of the opening (Fig. 76).

Before installing the rear quarter window glass, remove the old sealer from the weatherstrip and window frame. Apply a bead of new sealer all around the window opening. Install the rear quarter window glass channel support bar (Fig. 77). Install the glass in the weatherstrip and insert pull cord in sealing lip slot (Fig. 78). The pull cord should be installed so that the ends of the cord are on the bottom and outside the vehicle.

Slide window glass and weatherstrip into position in window opening. Press glass firmly to compress the sealing bead. Install garnish moulding and attaching screws. Do not tighten the



55x764

Fig. 77—Installing Glass Channel Support Bar



54x797

Fig. 79—Removing Pull Cord from Weatherstrip



Fig. 80—Positioning Lip of Weatherstrip in With Wedge

screws. Pull the cord and position the sealing lip over the edge of the window reveal (Fig. 79). If pull cord is not available, a wood or fiber wedge can be used to position lip of weatherstrip (Fig. 80). Tighten garnish moulding attaching screws securely.

45. REMOVAL AND INSTALLATION OF TAIL GATE REGULATOR

The tail gate regulator is bolted to the tail gate stress brackets by attaching bolts. Remove the attaching bolts and remove regulator. The attaching bolt holes are elongated for proper align-

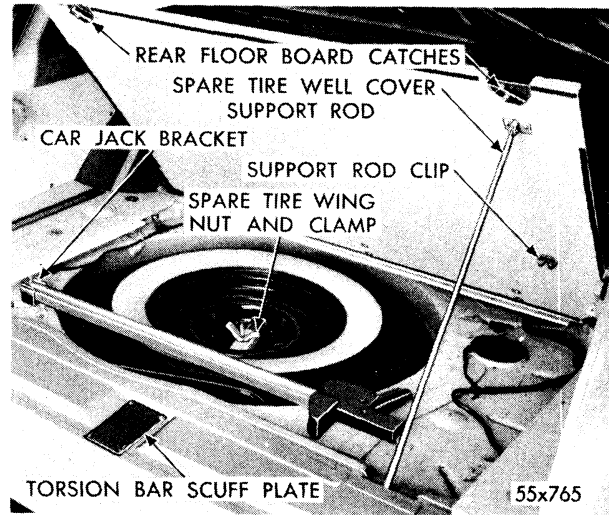


Fig. 81—Town and Country Wagon Rear Compartment

ing of regulator in relation to glass travel.

When installing regulator, care should be taken to see that regulator is installed to permit total travel in both directions.

46. REAR COMPARTMENT ADJUSTMENTS

The rear compartment locking clips (Fig. 81), spare tire, hold-down wing nut, and clamp should be properly positioned and tightened at all times.

The compartment prop rod and the car jack should also be placed in position so as to avoid squeak and rattles.

MAINTENANCE

47. HEADLINING

a. Removal

To remove the headlining on all models, except Convertible Coupe and Station Wagon, remove dome light assembly, rear seat cushion, sun visors, and side and upper windshield garnish mouldings. On Special Club Coupe, remove "flip-

per" quarter window weatherstrip retainer and roof rail cover. Remove quarter glass garnish moulding and front pillar and roof side rail weatherstrip. On the New Yorker and Imperial Models remove rear window glass and garnish moulding. On the Windsor Models remove rear window glass and pull rear window weatherstrip out at the top and down the sides of the window opening (Fig. 82).



Fig. 82—Removing Headlining

Pull headlining from under the rear package shelf and away from rear quarter panel and wheel housing. With screwdriver, pry headlining retainer strip (four-door sedan models only) away from roof rail above the doors. Insert a piece of stiff wire, about 8 inches long, between retainer strip and headlining to lift the headlining off the retaining barbs (Fig. 83). Pull headlining off the retaining barbs at windshield header.

On all models, retaining brackets hold the rear headlining bow in position at the center. Pull the bow from the brackets, spring the bow, and remove the end from the holes in the roof rail. Two sets of holes are provided in the roof rails. Mark the set of holes used (Fig. 84).

NOTE

On Imperial Limousine the front seat partition

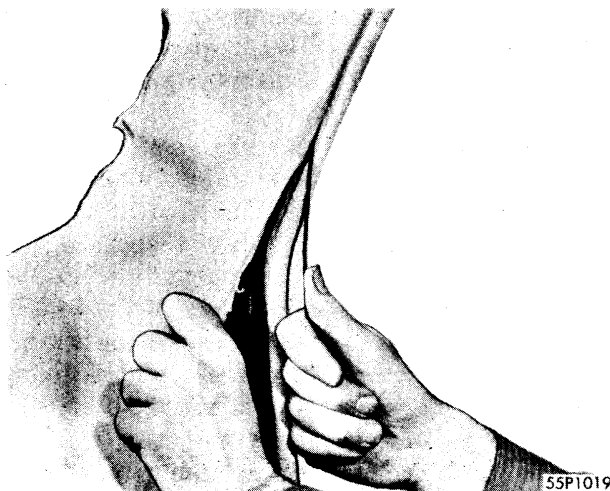


Fig. 83—Removing Headlining With Stiff Wire

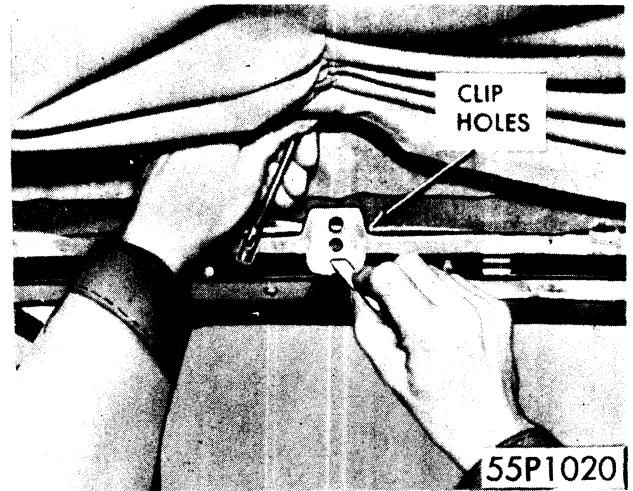


Fig. 84—Marking Holes

must be removed when installing headlining.

Inspect roof pad silencer and cement silencer in place if necessary. **On Special Club Coupe Models**, remove the body front pillar and roof side rail weatherstrip and the drive nails at the ends of the headlining seams. Use a dull putty knife to separate the headlining from the roof rail. Carefully remove the material from the cemented surfaces on Special Club Coupe.

If new headlining is to be installed, remove the clips from the bow ends (Fig. 85) to permit removal of bow from the listing. Bend up locking tab of clip and remove clip. Starting at the rear of the headlining, remove each bow from the old listing and install bow in position in the new headlining. This will assure correct installation of bows. Before installing bows in the new head-

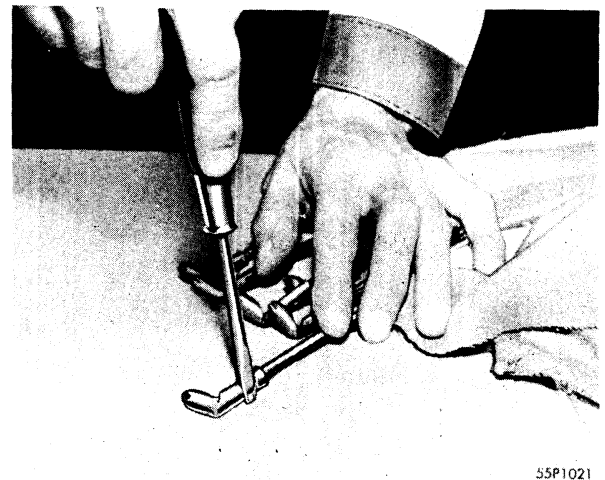


Fig. 85—Bending Locking Tab to Remove Clip From Bow

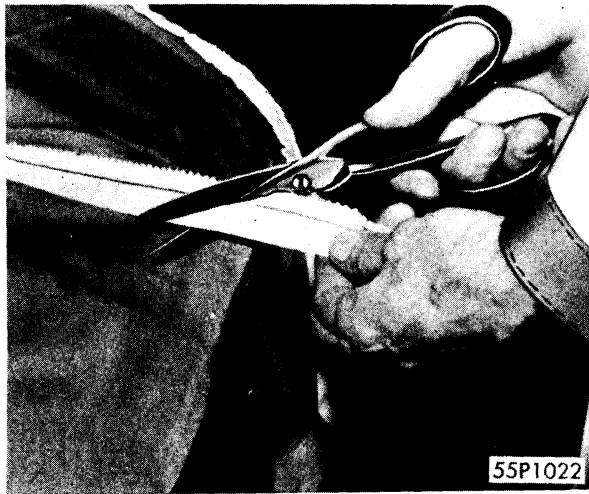


Fig. 86—Trimming Excess Listings Even With Edges of Headlining



Fig. 89—Trimming Excess Material From Windcord

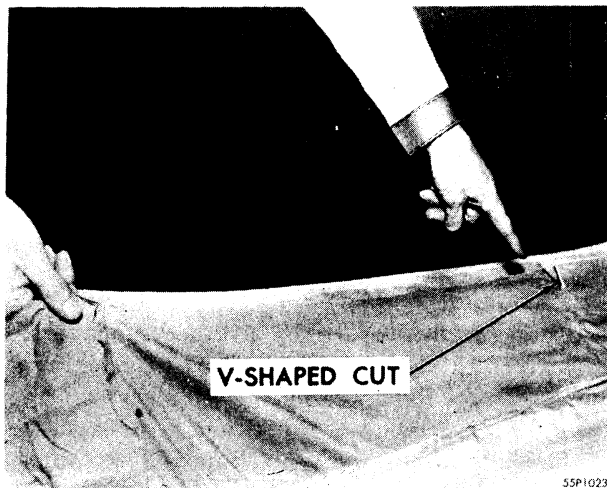


Fig. 87—Marking Center of Each End of Headlining With Small V-Shaped Cuts

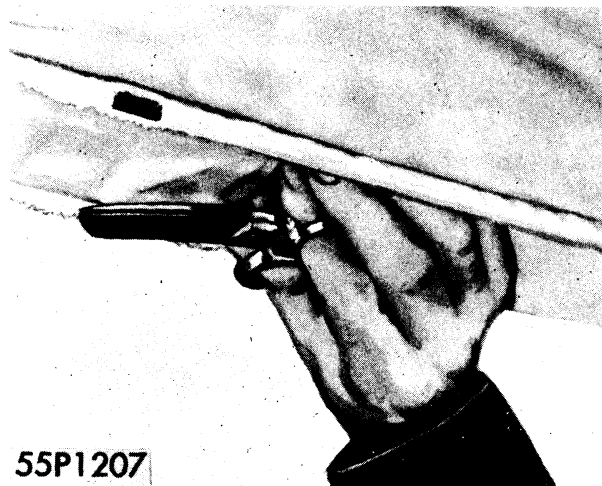


Fig. 88—Cutting Holes in Listing for Support Clip

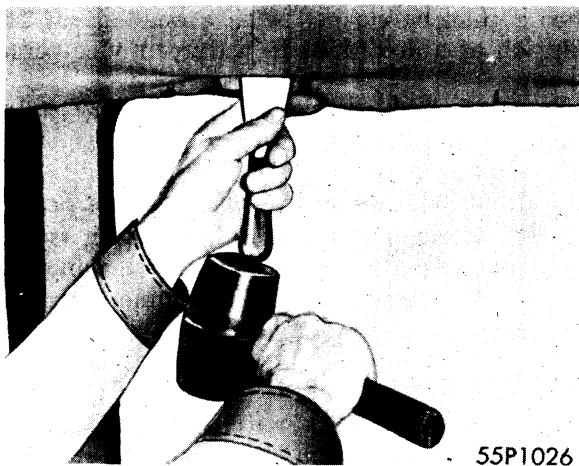
lining, trim the excess listing even with the edges of the headlining (Fig. 86).

Notch the headlining at the front and rear ends by making small V-shaped cuts to indicate the center of the material (Fig. 87). Use these marks as guides to properly center the headlining.

b. Installation

Begin the headlining installation at the rear of the car. Install rear bow in the holes previously marked in roof rail. (On Crown Imperial Limousine install on end of bows.) Cut small hole in middle of the listing for the rear headlining bow support clip (Fig. 88). This will prevent headlining from wrinkling. Bend the retainer clip around the rear bow.

Install the remaining bow, stretching the headlining evenly so that approximately the same amount of material hangs down at both sides. Apply cement to the windshield header bar. On Crown Imperial and Limousine, cement to quarter panel and tack listings and seams to quarter panel opening. When cement is tacky, stretch the headlining forward and over the cemented area and onto the barbs on windshield header. Make sure the first seam of the headlining is straight. In most cases, the listing is longer than necessary. Cut the material at the ends to prevent wrinkling at the seams when it is tucked or cemented in place. Cut the listing from the end up to the clip. Do not cut the listing too far up the bow. Otherwise, the headlining will not fit properly. After listings are cut, start at the front



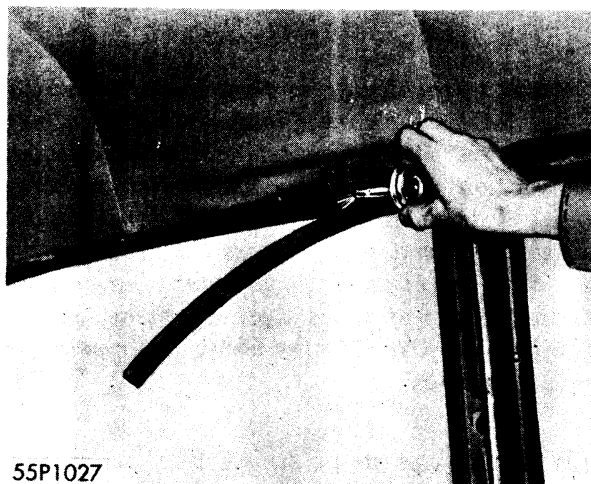
55P1026

Fig. 90—Tucking Headlining Between Roof Rail and Retainer

and trim the headlining so that only 1/2 to 1 inch of material hangs down below the door windcord on all models, except Special Club Coupe (Fig. 89). Tuck in the first and second seams between the roof side rail and retainer with a dull putty knife (Fig. 90). Tuck the remaining material in place.

When one man is performing the installation, work alternately from one side to the other and complete one section at a time. Make certain that the seams are straight. Keep the material free from wrinkles until all of the headlining is tucked in place between roof rail and retainer.

On Special Club Coupe Models, apply cement to the outside surface of the roof rail (Fig. 91). Press headlining into position after cement is



55P1027

Fig. 91—Cementing Material to Underside of Side Rails at Quarter Window



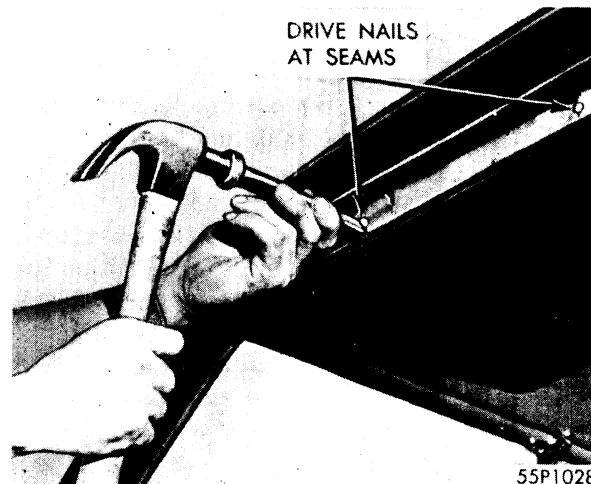
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Fig. 92—Securing Material to Side Rails On Special Club Coupe

tacky. Make sure material is free from wrinkles. To prevent headlining from pulling loose, use drive nails to fasten the material at the seams to the outside surface of the rail (Fig. 92).

To secure headlining at the rear windows (all models except Town and Country Wagon), apply a light coating of cement to the surface of the opening. (Fig. 93.) Use cement sparingly. While allowing the cement to become tacky, apply cement at the quarter panel where material is to be cemented.

Starting at the center, press the headlining onto the cemented surface (Fig. 94). Install the material across the top and to a point about 6 inches from the lower corners of the windows. Press the material in place at the quarter panel.



55P1028

Fig. 93—Applying Cement to Rear Window Opening Typical View

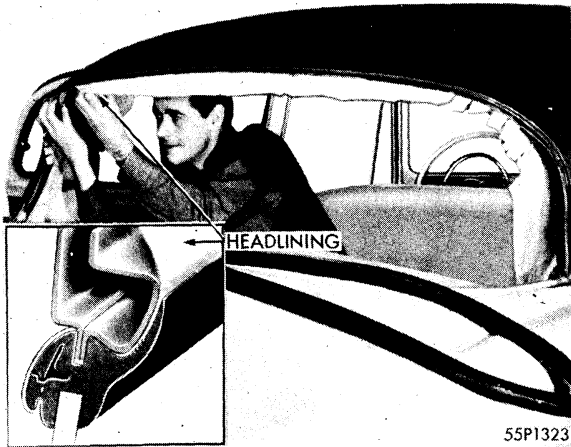


Fig. 94—Pressing Material Onto Cemented Surfaces

Install the remaining portion of the headlining at the rear window and work out the wrinkles, if any form. Tuck in the remaining portion at the forward edge of the quarter panel. Locate the center of the dome light bracket. Cut a small hole in the headlining at this point and pull the wires through the opening. Install the wires in the housing, apply a small amount of cement to the inner edge of the dome light bracket and install the dome light. Install the rear window, rear seat cushion, visors, dome light, windshield mouldings, and garnish moulding lights.

48. CLEANING OF INTERIOR UPHOLSTERY

The interior and exterior of the body should be frequently cleaned during the life of the car to guard against deterioration. Frequent washing and polishing of body exterior and chrome parts will protect the finish.

Most stains can be removed quite easily from fabrics while they are fresh and have not hardened and set into the fabric. An exception is mud or clay, which should be allowed to dry so that most of it can be brushed off. It is also very helpful, though often not possible, to know the nature of the staining matter so that the proper solvent may be used. Most common stains can be removed either with a dry cleaning solvent, such as MOPAR Fabric Cleaner or carbon tetrachloride cleaning fluid, or with a water solution containing one-half of 1% of a non-alkaline detergent, such as Vel, Breeze, or Dreft. Thus, if the nature of the staining matter can only be guessed at and a dry cleaning fluid does not remove the stain, it

should then be cleaned with a one-half of 1% solution of a detergent in water, or vice-versa.

Some of the more common upholstery stains can be removed as follows:

- (1) Candy, chocolate or ice cream stains. Scrape off as much of the staining matter as possible with a dull knife. Clean with a one-half of 1% solution of a non-alkaline detergent in warm water.

General Instructions: Use a piece of clean cotton cheesecloth approximately 3" x 3". Squeeze most of the liquid from the fabric and it is less likely to leave a ring. Wipe the soiled fabric very lightly with a lifting motion. Always work from the outside toward the center of the spot. Turn the cheesecloth over as soon as one side becomes stained to prevent working the staining matter back into the cleaned portion of the fabric. Use a new piece of cheesecloth as soon as both sides become stained.

- (2) Grease, oil, or tar stains. Scrape off as much of the staining matter as possible with a dull knife. Clean with MOPAR Fabric Cleaner, Part No. 680183 (pint cans), or Part No. 680184 (gallon cans). Follow General Instructions as listed in (1).

If grease, oil, or tar stains cannot be removed satisfactorily with MOPAR Fabric Cleaner on a certain type of fabric, use carbon tetrachloride cleaning fluid. The same procedure can be followed as with MOPAR Fabric Cleaner.

CAUTION

Carbon tetrachloride is very toxic to breathe. Since MOPAR Fabric Cleaner contains a large proportion of carbon tetrachloride, adequate ventilation must be provided when either of these cleaning fluids are used. A fan should be set up to blow directly across the area in which the cleaning is done. To prevent skin cracking from the use of these cleaning fluids, apply a lanolin type cream to the hands after using the cleaning fluids.

- (3) Lipstick or rouge stains. First work white vaseline into the staining matter to loosen it. Clean with MOPAR Fabric Cleaner or carbon tetrachloride as recommended in (2).

- (4) Mud or clay. Allow the mud or clay to dry completely. Then, brush it off with a soft bristled brush. Clean with a one-half of 1% solution of detergent in water as recommended in (1).

When cleaning by any of the methods outlined above, never squeeze the liquid from the cleaning cloth back into the container of the cleaning fluid, and never dip the cleaning cloth back into the container of cleaning fluid after the cloth has contacted the stain. Be sure that the cleaning fluid has no impurities and is not discolored before using it. If particles of the staining matter become locked between the fibers of the fabric, it may be necessary to use a clean soft bristled brush instead of the cheesecloth with the cleaning fluid.

a. Cleaning of Vinyl Interior Trim

The following are recommendations for cleaning plastic trim:

- (1) Grease, oil, or tar stains. These stains should be cleaned as soon as possible or they will migrate into the plastic and leave a permanent discoloration on the plastic surface. These stains should be cleaned with either the MOPAR Fabric Cleaner or carbon tetrachloride, as recommended above.
- (2) Grained vinyl should be cleaned as soon as it appears to be getting dirty. Otherwise the dirt particles will get rubbed into the small grain crevices and be almost impossible to remove. The dirty vinyl trim should be cleaned with a piece of clean cotton cheesecloth dipped in a sudsy solution of a non-alkaline detergent in water, such as Vel, Breeze, or Dreft. If the vinyl plastic trim still does not clean up, a clean brush with many fairly stiff bristles should be used in place of the cheesecloth.

b. Removal of Dirt from Ivory Plastic Trim Panels

The ivory plastic trim should be cleaned in the same manner as other vinyl interior trim; however, if the dirt has been rubbed into the grain so that it is not possible to remove the detergent solution, a cleaner, such as Bab-O or Ajax, may be used.

A cleaner, such as suggested above, should not be used to clean any trim materials other than this particular ivory plastic trim. Use of this type of cleanser is not recommended for other trim materials because its abrasive action is harmful to such materials and it will remove the finish from plastic.

49. PAINT FINISH CONDITIONS

a. Dark Spots Appearing On Paint (Polychromatic)

This condition can be caused by foreign particles that are carried through the air and settle on the flat surfaces of the paint.

If any of this foreign substance, containing acid-like particles, is allowed to remain on the paint for any length of time, it may result in a spotting condition. This spotting condition is caused by the reaction of such particles with the aluminum, used in all polychromatic paints, causing the aluminum flakes to disappear, leaving the base color. These same acid-like particles can also attack a non-metallic paint, but it will usually result in an etched condition rather than a discoloration.

In view of the foregoing, it is advisable to wash cars frequently to prevent the possibility of such conditions occurring.

b. Foreign Material in Paint

In some instances where minute particles of foreign material have embedded themselves in the horizontal surfaces of the paint, they are quite likely abrasives, such as metal particles, that have been carried through the air.

If the particles are allowed to remain on the paint surface for any length of time in the presence of moisture, a chemical reaction will take place, resulting in the metal particles eating into the paint surface. Early removal of this material by a thorough washing will prevent this from happening.

When the above described condition is encountered in the field, it is often mistakenly diagnosed as rust coming up from the metal below the paint.