

Figure No. 260
WINDSHIELD WIPER TRANSMISSION, LINKAGE AND
MOTOR ASSEMBLIES

OPERATION No. 20
WINDSHIELD GLASS REMOVAL (One Side)

In the replacement of a cracked windshield glass, it is imperative that the cause of the glass breakage (other than by accident) should be determined and corrected if possible before another glass be installed.

The reason some windshield glasses crack is that somewhere around the windshield opening tension of a garnish molding screw or an obstruction or high spot is binding on the glass. This strain becomes emphasized upon tightening the garnish molding screws or by wind pressure, extremes of temperatures, or the motion of the car. The following information on a procedure of replacing a cracked windshield may be found helpful:

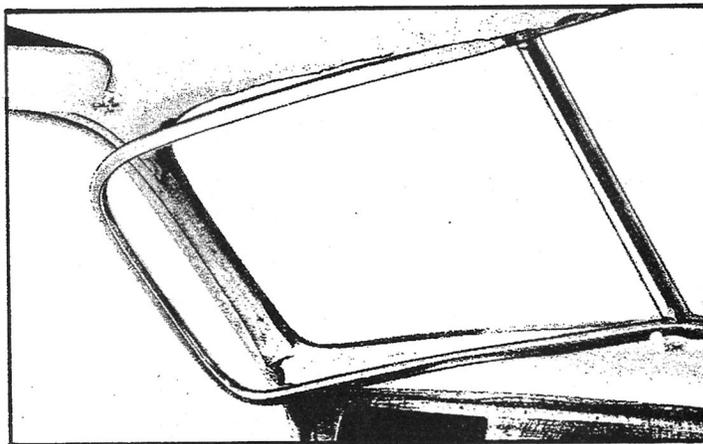


Figure No. 261
WINDSHIELD GLASS REMOVAL AND REPLACEMENT
Note: Method of taping instrument panel

1. On the inside of the body, apply painter's masking tape along the top edge of the instrument panel adjacent to the windshield garnish molding to prevent marring the finish.
2. Remove rear view mirror.
3. Remove center division moldings (outer and inner).
4. Using a No. 2 Phillips head screw driver, remove the windshield garnish molding screws. The garnish molding may now be removed by disconnecting the molding joint at the top of the windshield. By prying down and inward at this joint, the molding can gradually be removed.
5. Loosen the glass and the windshield rubber weatherstrip from the opening and push the glass toward inside of body.
6. Loosen and remove rubber channel from windshield and clean off all old sealing compound.

OPERATION NO. 65

To remove Windshield Glass (Buick):

1. Tape instrument panel with adhesive tape as shown in Figure No. 88 as precaution against scratching instrument panel.
2. Remove all garnish molding screws. Also screw in garnish molding escutcheon plate at the top of windshield. Remove garnish molding.

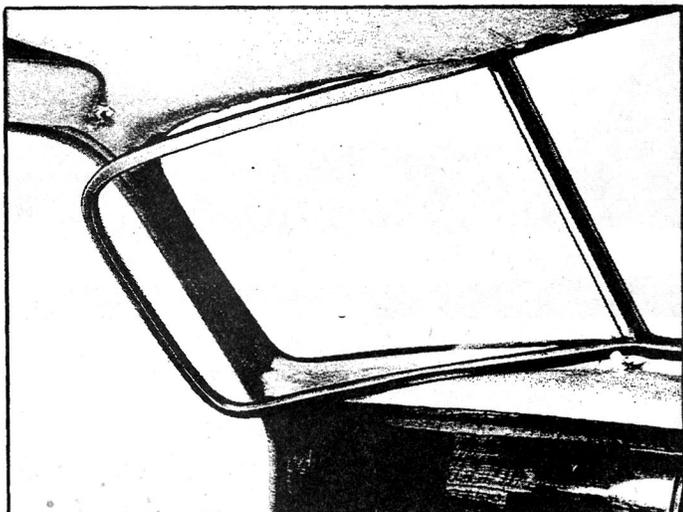


Figure No. 88
WINDSHIELD GLASS REMOVAL

3. Remove rear view mirror and one screw at bottom of inner division retainer molding.
4. Remove five screws from inner division molding. Loosen molding with putty knife and remove.
5. With putty knife, loosen all compound between windshield rubber and windshield opening.

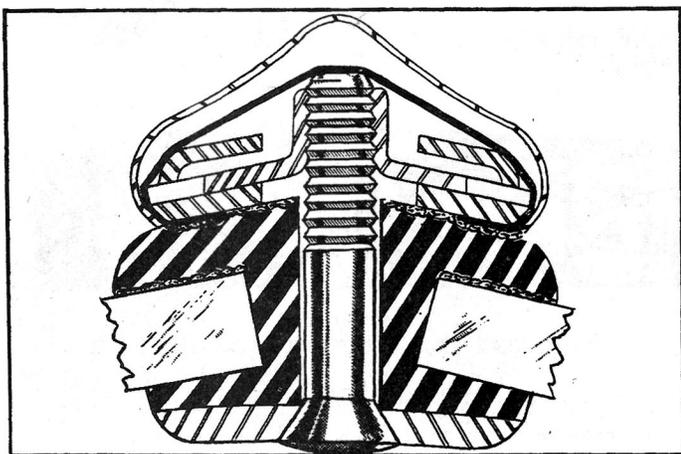


Figure No. 89
SECTION THROUGH CENTER DIVISION BAR

6. With putty knife loosen compound between windshield rubber and windshield outer reveal molding.
7. Put pressure on outside of glass with one hand and with the other hand, tap easily all around until glass is loose, then remove.

OPERATION NO. 66

To remove Windshield Center Division Chrome Cap:

To avoid marring paint, place masking tape on turret top

directly at top of chrome molding. With one hand, work a screw driver under the molding with a slight outward pressure. With the other hand, work a putty knife under the molding along the side, starting at the top of the glass at "A" in Figure No. 90, and continuing with putty knife all along one side only to the bottom of molding at "B" until the molding is loose. To install this molding seal it at both ends with F.S. No. 638. Fit it along one side and snap it on with the hand.

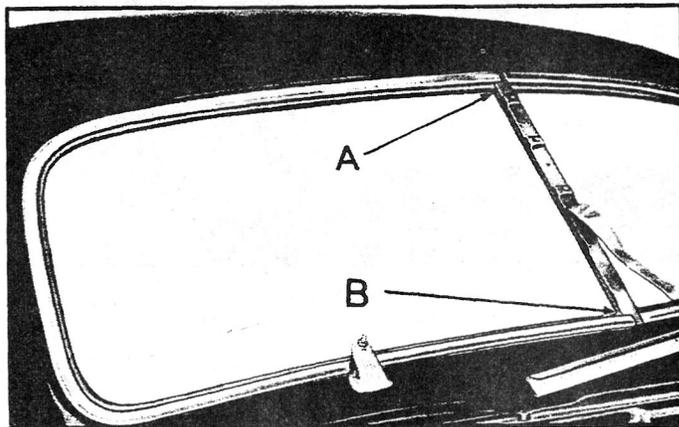


Figure No. 90
WINDSHIELD CENTER DIVISION CHROME MOLDING
REMOVAL

OPERATION NO. 67

To remove Windshield Reveal Molding:

1. Remove windshield glass. (See Operation No. 65.)
2. Carefully pry the reveal molding loose from the pinch welded flange of the windshield opening, starting at one end and following around the entire opening. Do not kink the molding if it is to be used again.

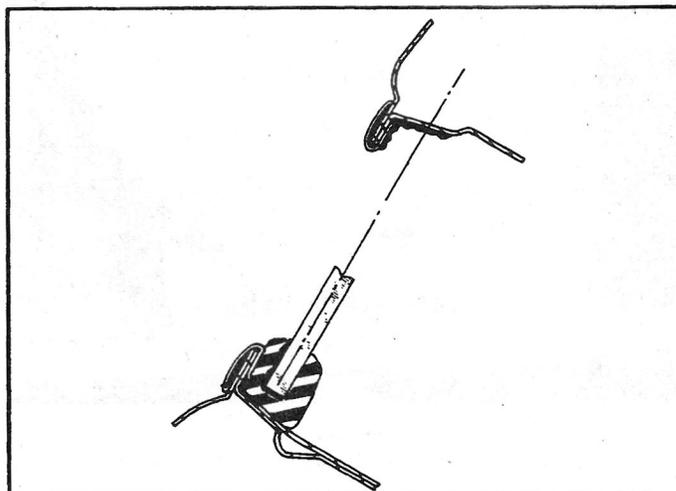


Figure No. 91
SECTION THROUGH WINDSHIELD SHOWING REVEAL
MOLDING INSTALLATION

3. Clean off all compound from the windshield flange, also inside of reveal molding.

NOTE: Before reinstalling, new Compound F.S. No. 638 should be inserted evenly all around the reveal molding after which the molding should be pressed over the flange of the windshield opening, as shown in Figure No. 91, allowing the compound to ooze out until the molding fits properly to place.

IMPORTANT: After cleaning out all the old sealing compound from the opening, examine the opening at the point where the glass cracked and remove or correct any obstruction that may be found. This can be done by using a template, calking tool and hammer. Place the new glass in the opening and see that it does not tilt or rock, but lies on a flat plane against the windshield opening flange. Or, better still, use a hardwood flat template made to the shape of the glass, as shown in Figure No. 262. This template must lie flush, or on a flat plane, against the windshield opening. Use a feeler gauge, as shown in the same illustration, to determine if the opening is in correct alignment. It may be necessary to peen the windshield flange at several points to make it conform to the template. Where a chromium plated or stainless steel windshield reveal molding is used over the windshield flange, a $\frac{1}{4}$ " calking tool may be used against the inside edge to hammer a low spot out but do not use the calking tool against the outside of the chrome reveal molding to hammer a high spot in, as this will damage the reveal molding. The cause, whatever it may be, of the windshield glass cracking, should be removed before a new glass is installed even if the reveal molding has to be removed from around the windshield opening to straighten the flange.

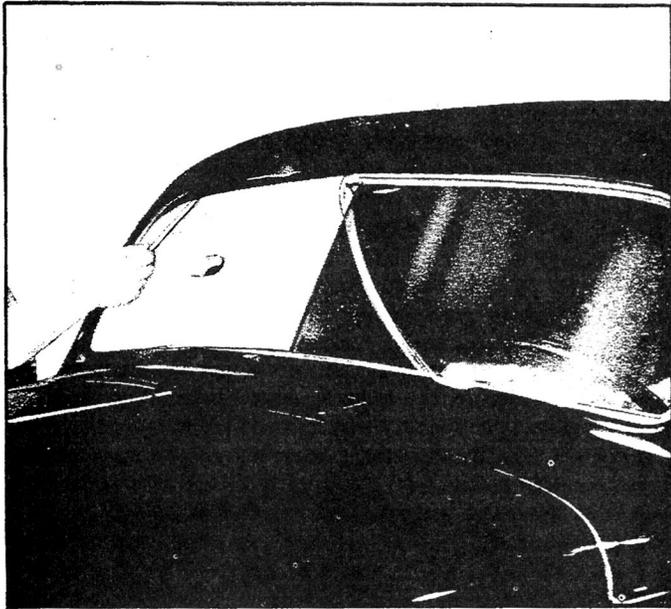


Figure No. 262
CHECKING WINDSHIELD OPENING WITH
TEMPLATE AND FEELER GAUGE

WINDSHIELD GLASS REPLACEMENT

1. Starting at the bottom of the center division channel, insert the new glass into the windshield rubber weatherstrip and work the rubber onto the bottom of the glass. Follow this procedure all around the glass until the rubber surrounds it. Now push the assembly into the windshield opening up to within $\frac{1}{4}$ " space of the flange.
2. With a putty knife or calking gun with $\frac{3}{16}$ " nozzle, apply a $\frac{3}{16}$ " ribbon of F.S. No. 638 sealing compound all around the windshield opening flange in this $\frac{1}{4}$ " space evenly. Then press the windshield assembly firmly from the inside allowing the surplus compound to ooze slowly into all spaces and out at the front.

NOTE: See that the sealing compound, F.S. No. 638 is evenly distributed around the windshield openings, especially

at the upper and lower corner of the windshield, also at the center division channel so as to seal all possible entrances of water. (On cars having no windshield reveal molding, see that the channel outer lip is pulled out over the windshield reveal all the way around the glass. By placing a stout cord under the lip on the rubber channel, with two ends of the cord loose at the center division, the assembly can be slipped into place. By holding the glass in position and pulling one end of the cord carefully, the lip of the windshield rubber channel can be brought out over the edge of the windshield opening reveal.)



Figure No. 263
SEALING WINDSHIELD AFTER INSTALLATION

3. Reinstall windshield garnish molding by starting at the lower corners of the molding and following up the side, pressing firmly to position. Finish installing the garnish molding at the top center by engaging the ends of the molding together and press it into position. If one end of the molding overlaps the other end, insert a scratch awl or prick punch at the end and pry the ends apart until they can be snapped into position.
4. Replace the center division molding (inner) and set the screws. Seal the threads on the outside. Fill the ends and edges of the chrome outer cap with F.S. No. 638, then fit one edge of it to place and with the hand snap it to place.
5. Seal between the outside of the glass and the lip of the rubber weatherstrip around the windshield glass. Use F.S. No. 621 and the gun No. B-182 or apply the compound with a putty knife if no gun is available.
6. Remove masking tape and clean up parts with oleum spirits or kerosene.

WINDSHIELD REVEAL FINISHING MOLDING

The chrome reveal finishing moldings, shown in Figure No. 373 at "A," are "U" shaped metal moldings used for finishing purposes. They are filled with sealing compound F.S. No. 638, then slipped down over the windshield flange and pressed to place by hand. No rolls or mechanical pressure are needed for this purpose.

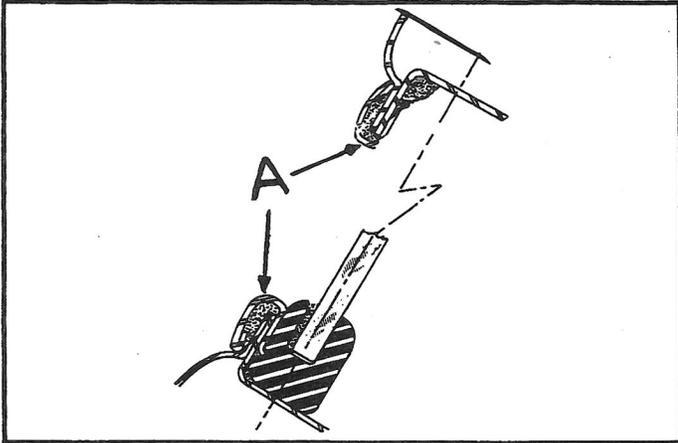


Figure No. 373
CROSS SECTION OF WINDSHIELD SHOWING WINDSHIELD REVEAL FINISHING MOLDING

If necessary to seal some portion of the molding use compound F.S. No. 621 in sealing gun B-182-A, or compound F.S. No. 638 applied with a putty knife may likewise be used. In extreme cases it may be necessary to remove the reveal molding and clean all the old compound out of it, then reset it in place again using compound F.S. No. 638.

WINDSHIELD FLANGE ALIGNMENT

Whenever a windshield glass has to be changed because of a cracked glass, the alignment of the flange that forms the windshield opening should be checked with a flat template to see if there is a bent portion or a lump spot that could cause a distortion or twisting of the glass causing it to break. These uneven places must be leveled before another glass is installed, or the pressure of the garnish moldings will cause the glass to break again.

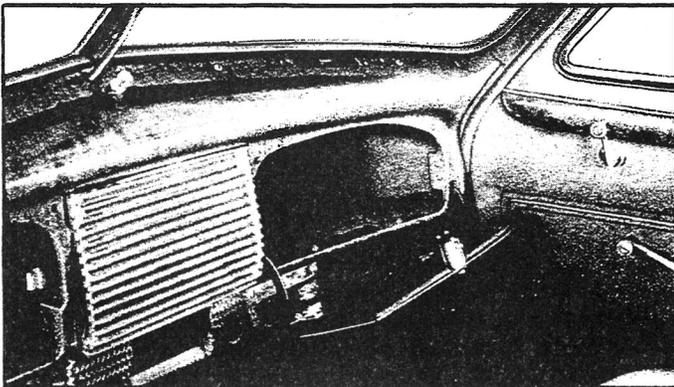


Figure No. 374
THE INSTRUMENT PANEL WITH GARNISH MOLDING REMOVED

NOISES AT INSTRUMENT PANEL

The instrument panel may develop a noise if its anchoring screws become loose. Usually any ticking or chafing noises heard about the instrument panel are due to lack of insulating material between the instruments themselves and

the panel to which they are attached. It may be necessary to loosen the instruments or clusters from their location and install insulating material between them and the instrument panel.

SPRING HAMMERING DOOR FLANGES

The edges of doors, coupe deck lids and trunk lids are designed to fit flush or nearly so with the adjacent body panels but oftentimes the flange of the lid or door is too full or "high" to fit flush. If the door or lid be set in closer to the body by resetting the hinges or striker plate some other part of the door flange would be too close and cause a binding of the door.



Figure No. 375
SPRING HAMMERING OF DOOR FLANGE

Sometimes fullness of the flange may be lowered or brought in closer to the body panel by spring hammering it. This is done by using a smooth, broad, flat body spoon or a spring leaf prepared for that purpose as shown in Figure No. 375. Lay this smooth spoon flat lengthwise of the door flange and with the hammer strike the spoon moving it along and gradually bend the flange in, but of course, avoiding any hammer marks or kinks. Oiling the painted surface of the flange and making sure the spoon is smooth, flat, and polished will avoid marring the paint on the flange. A few trials will show what can be done with care.

REVEAL MOLDINGS AND CLIPS—STANDARD AND SPECIAL BODY STYLES

The chromium plated window and windshield reveal moldings used as special appointments on high priced models in 1939 were made standard or optional equipment on most 1940 models. The window reveal moldings as shown in Figure No. 376 are applied by means of metal spring clips inserted through holes in the reveals of the body and door panels. Those at the rear quarter windows should be sealed at the clip holes with F.S. No. 638 to prevent water from entering the body, as this water would collect at the floor and do damage to the upholstery parts. There are two types of these window reveal moldings: The extruded brass which requires one type of clip, Part No. 4090964, and the formed sheet brass type which requires another type clip, Part No. 4103219.