PART THREE

BODY

BODY

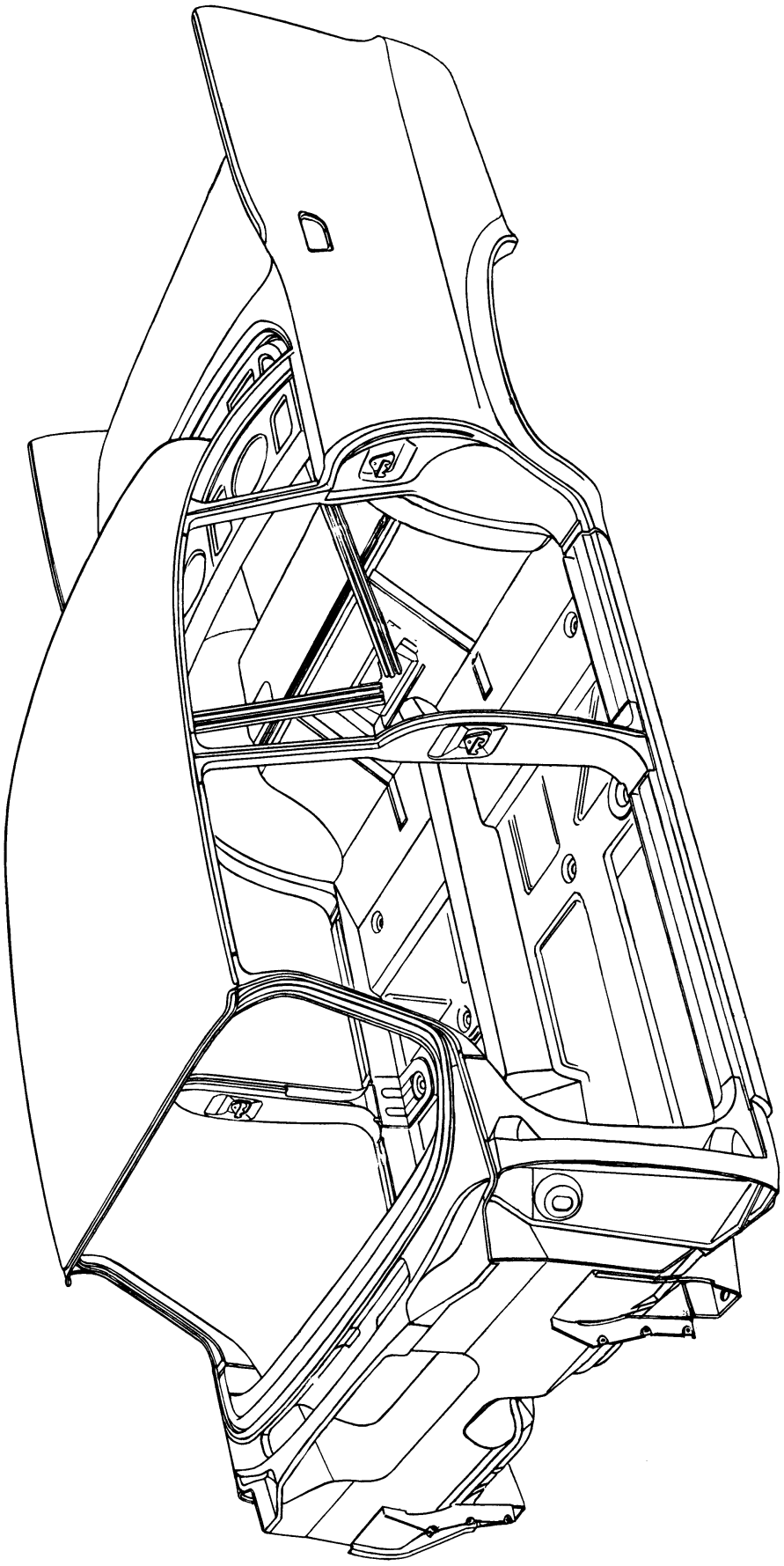
ACCESSORIES

AIR CONDITIONING

INSTRUMENTS—GAUGES

HORN—WINDSHIELD—WIPERS

LIGHTING SYSTEM



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Body Shell

PART THREE—BODY

SECTION 1—BODY

1. DOOR TRIM AND HARDWARE

INSIDE DOOR AND WINDOW REGULATOR HANDLES

The door and window regulator handles are attached with a spring type clip and can be removed with a special tool. Figure 1 gives the dimensions of the tool.

Turn window regulator handle down so that retainer clip is to the left. Place tool between washer and handle, as shown in Figure 2. Push tool from left to right and at the same time pull outward on handle.

Procedure is the same for removing inside door handles. When installing the handle make sure concave side of washer is out.

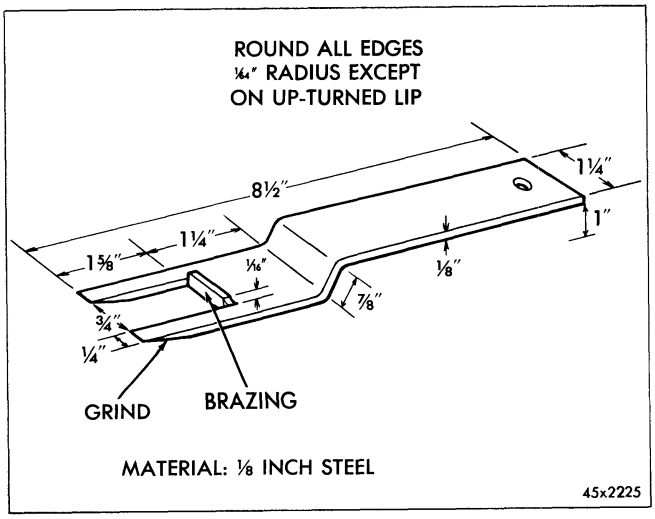

Figure 1—Inside Door and Window Regulator Removing Tool

OUTSIDE DOOR HANDLES

REPLACEMENT — Remove the garnish moulding, loosen rear half of trim panel, use short extension and socket to remove attaching nuts and remove handle. See Figure 3. Apply lubricant to actuator before installing.

> **NOTE**
>
> ***On front door handles it will be necessary to remove the adjusting screw from the adjusting link.***

Outside Handle Adjustment—The front door handles are adjustable. It will be necessary to remove the hole cover, Figure 4.

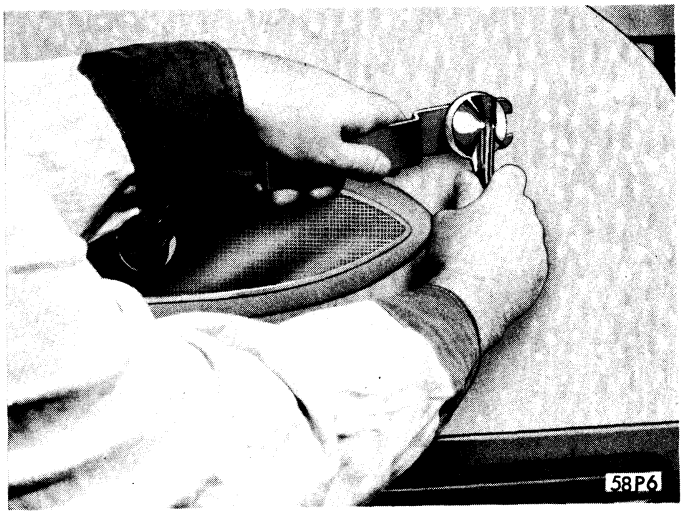

Figure 2—Removing Control Handle Using Tool

Figure 3—Removing Door Handle Attaching Nuts

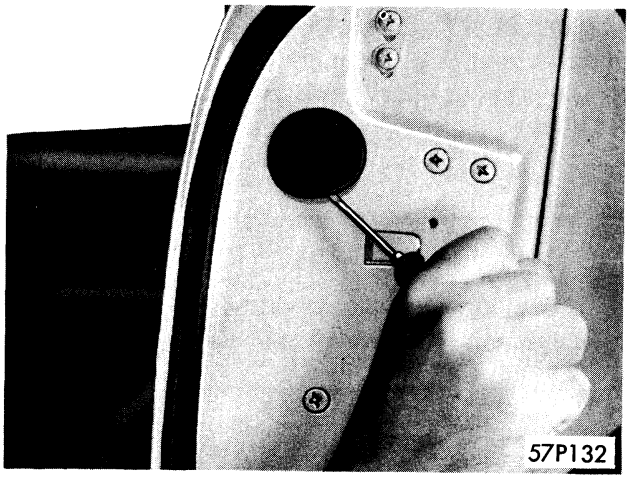

Figure 4—Removing Front Door Hole Cover

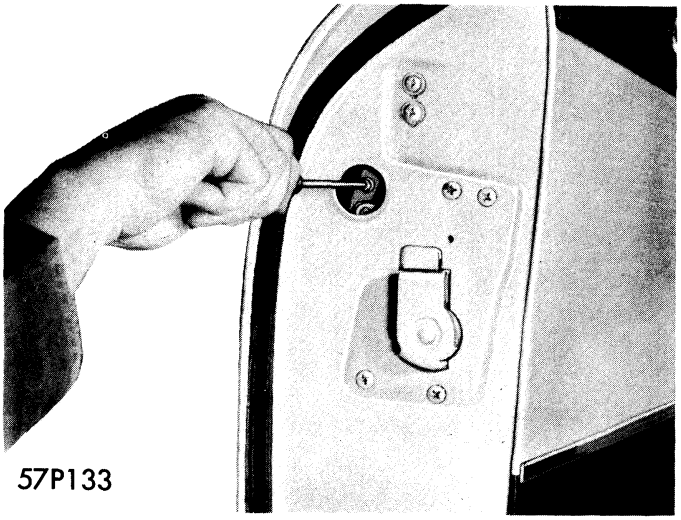

Figure 5—Adjusting Outside Door Handle

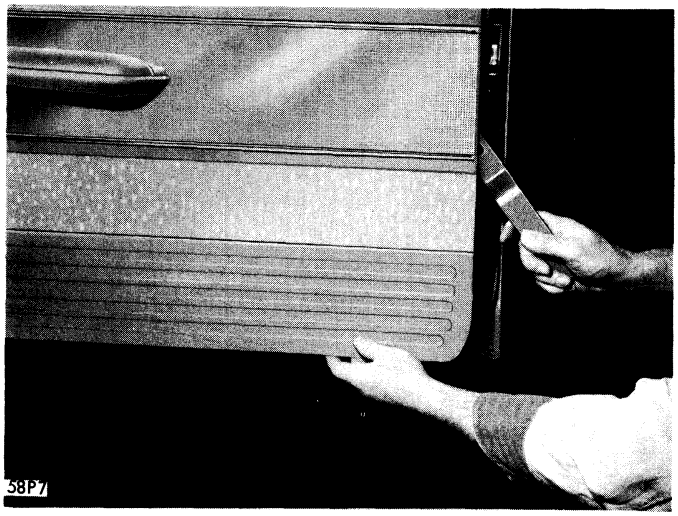

Figure 6—Removing Door Trim Panel

Loosen the screw on the adjusting links to remove excessive free travel, Figure 5.

DOOR TRIM PANEL

Remove the window control handle, door lock control handle and arm rest. Then, starting at the lower rear corner, work the panel away from the door. Keep tool close to fasteners to prevent pulling the fasteners out of the trim panel. See Figure 6.

FRONT DOOR GARNISH MOULDING

Remove the screws attaching the garnish moulding to the door. Unlock and open the vent wing. Pull the rear of the garnish moulding away from the door and remove the garnish moulding. See Figure 7.

To install the garnish moulding open the vent wing, insert front of moulding in place, then slide rear of moulding in place and install the screws.

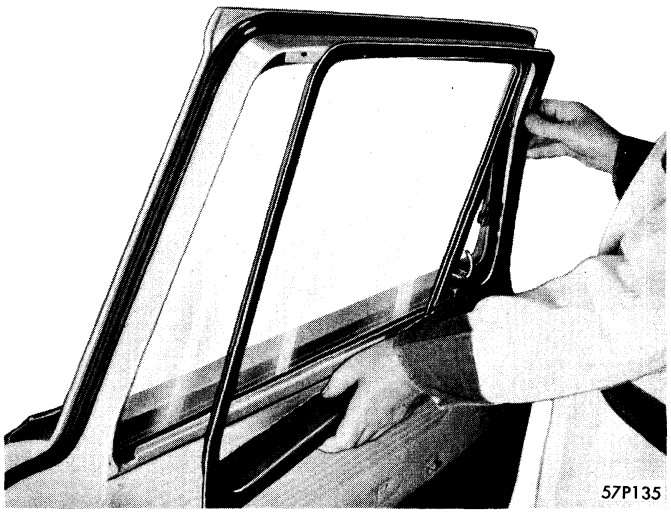

Figure 7—Removing or Installing Garnish Moulding

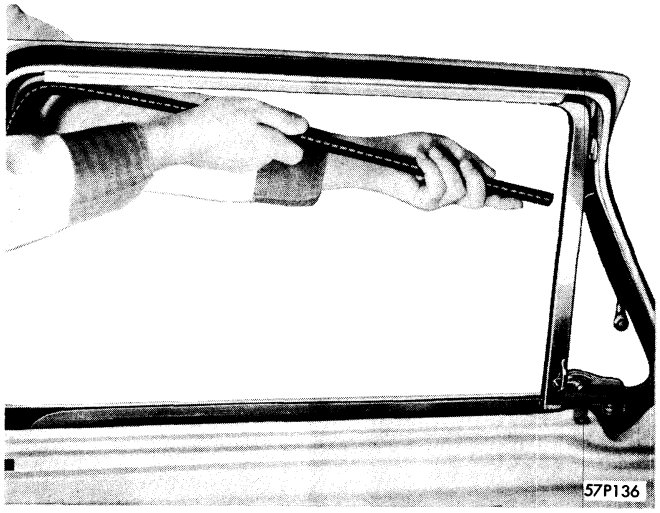

Figure 8—Removing or Installing Upper Portion of Glass Run Channel

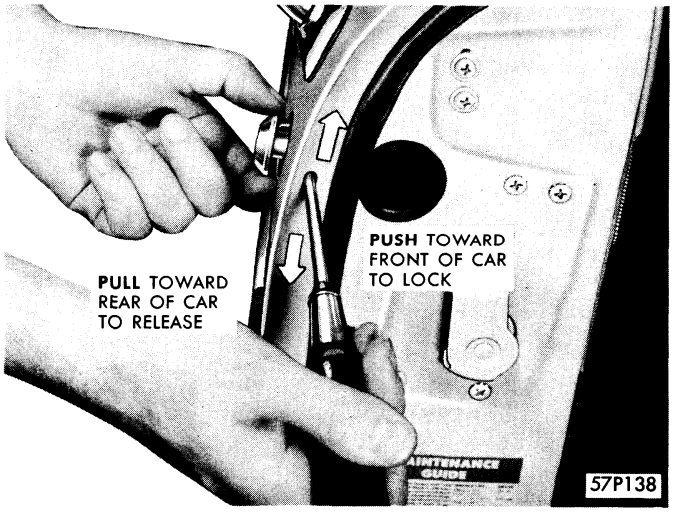

Figure 10—Sliding Latch Plate To Remove or Install Lock Cylinder

GLASS RUN CHANNEL

Remove the door inside hardware and trim panel. Lower the glass and pull the glass run free at the top. See Figure 8. Pull the glass run channel up until the upper and lower clips are disengaged. Remove the glass run channel from the door.

To install the glass run channel, first lower the glass. Slide the channel down and engage the upper and lower clips. See Figure 9. Push the channel down. Install the upper portion of the channel. Install trim panel and hardware.

DOOR LOCK CYLINDER

Bend the end of a screw driver to angle to 90 degrees. This tool can be used to slide the latch plate fore and aft. See Figure 10.

To remove the lock cylinder, insert the screw driver through the opening in the door and move the latch to the rear. Withdraw the lock cylinder.

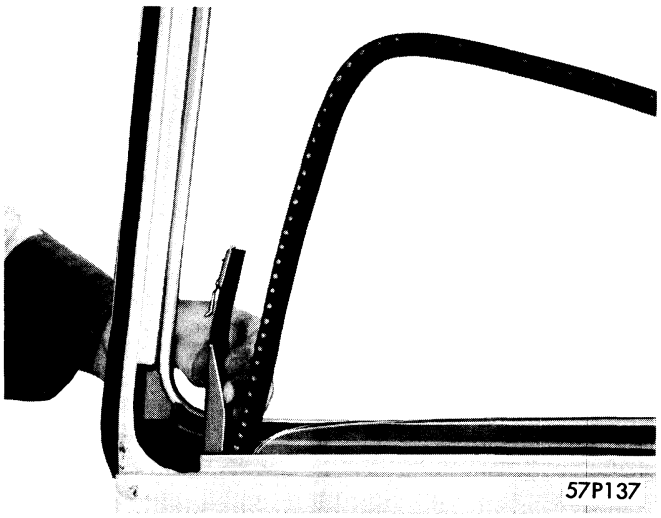

Figure 9—Removing or Installing Glass Run Upper Clip

To install lock cylinder, turn the key to the unlocked position. With the latch in the rear position, insert the lock cylinder in the square hole in the latch assembly.

With the cylinder in position, insert the bent screw driver into the opening in the door and push the latch plate forward. This will secure the cylinder in place.

To adjust the door lock cylinder bellcrank it will be necessary to loosen the door bellcrank attaching screws of the shut face of the door. See Figure 11.

Insert the key in the door lock cylinder and rotate the key to a position just short of one o'clock. Then tighten the mounting screws on the rear face of the door.

FRONT DOOR LOCK AND REMOTE CONTROL ASSEMBLY

Remove the door inside door hardware and trim panel. Disconnect the outside door handle adjusting

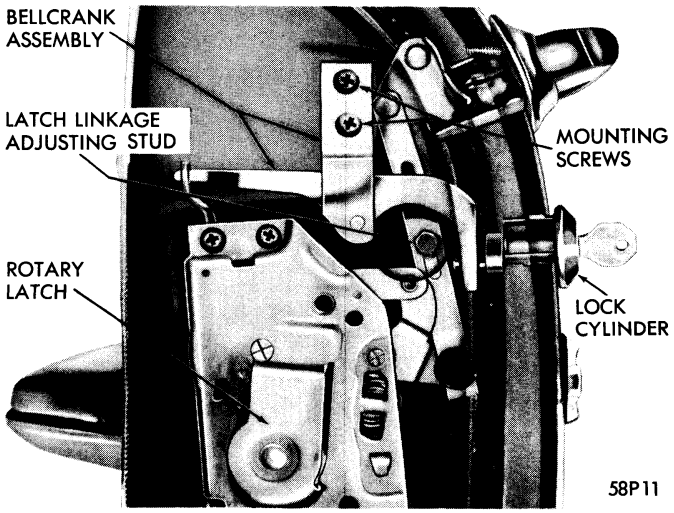

Figure 11—Bellcrank Mounting Screws

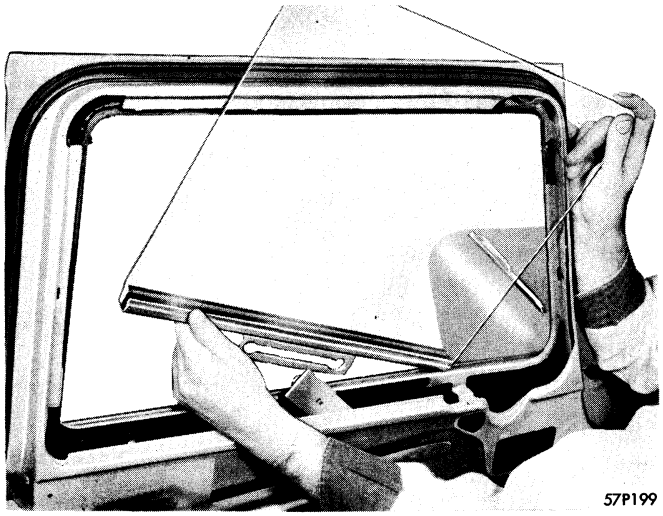

Figure 12—Removing or Installing Vertical Door Glass

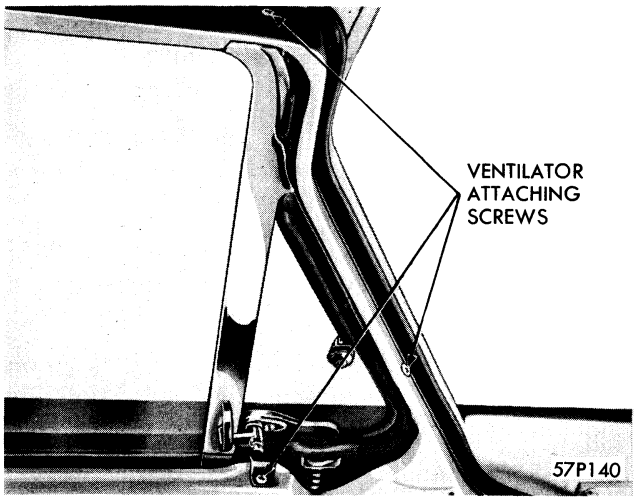

Figure 13—Ventilator Attaching Screws

link and remove the handle. Remove the door lock cylinder. Remove the ventilator attaching screws and remove the ventilator. Raise the door glass and remove glass from regulator. Remove glass run channel.

Remove the attaching screws holding the remote control to the door. Remove the door lock attaching screws. Rotate the lock and remove the control arm from the lock. Remove the lock through the large opening in the door.

Before installing a new door lock apply a small amount of lubricant to the lock mechanism. Install the door lock through door opening. Rotate the lock in order that the end of the remote control arm can be connected to the lock rivet. Install the door lock attaching screws and the remote control hose screws. Install the door link cylinder and outside door handle and adjusting link. Reassemble door trim panel and hardware.

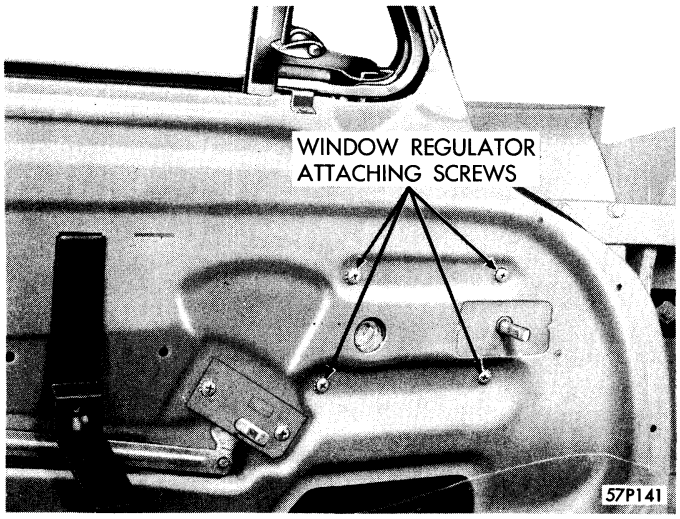

Figure 14—Window Regulator Attaching Screws

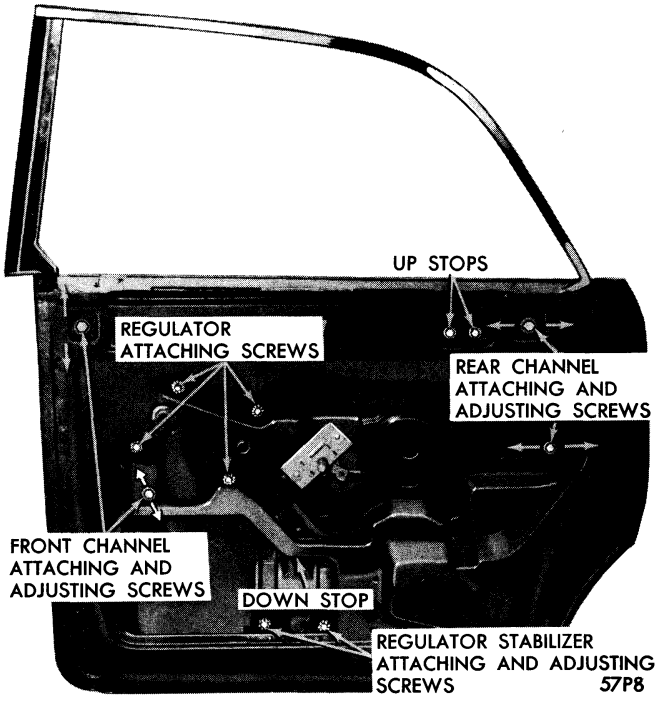

Figure 15—Rear Door Glass Adjusting and Attaching Screws

2. DOOR WINDOW AND REGULATORS

FRONT DOOR VERTICAL SLIDING GLASS

Remove the door control handle, window regulator handle, arm rest, garnish moulding and trim panel. Remove the ventilator attaching screws and remove the ventilator assembly. Raise the door glass and remove glass from regulator as shown in Figure 12.

If the glass is to be replaced, remove the door glass lower channel and seal from the glass by driving them off with a block of hardwood and a mallet.

On models with the two arm regulators it will be necessary to remove the lower stop and crank the window down to release it from the lower channel. Pull the glass up and out of the door.

When installing the channel on a new glass, make certain it is correctly positioned on the glass before driving the channel in place.

After installation of the glass is completed, test the sliding action.

REAR DOOR VERTICAL SLIDING GLASS (FOUR DOOR SEDAN AND FOUR DOOR SUBURBAN)

Remove the door inside hardware and trim panel. Roll the glass down and pull the glass run channel out at the top. Roll the glass up and disconnect the regulator and remove the glass. If the glass is to be replaced, drive the lower channel and seal off of the glass with a hardwood block and mallet.

Position seal and channel on the glass and drive them into place. Connect the regulator arm to glass channel. Roll the window part way down. Install the glass run channel. Test the sliding action of the glass. If the glass binds adjust the division bar anchor screw. Install the trim panel and door hardware.

DOOR VENTILATOR ASSEMBLY

Remove the door inside hardware and trim panel. Remove the center bar and adjusting screw. Remove the ventilator screws, Figure 13. Lower door glass and remove ventilator assembly.

FRONT DOOR WINDOW REGULATOR

Remove the door inside hardware and trim panel. Remove the ventilator attaching screws and remove the ventilator assembly. Raise the door glass and remove glass from regulator.

Remove the regulator attaching screws, Figure 14, and remove the regulator through the door opening.

After installing the regulator, turn the handle so that arm is in the raised position. Engage the regulator arm in the door glass lower channel and lower the glass. Install the ventilator assembly. Install the trim panel and inside door hardware.

FOUR DOOR SPORT SEDAN (REAR DOOR GLASS AND REGULATOR)

REMOVAL—Remove the door inside hardware and trim panel, roll the door glass to the half raised position. Remove the front channel attaching screws. See Figure 15. Remove the front channel from the door. Raise the door glass to the full raised position, disengage the glass from the regulator and rear channel and remove the glass.

NOTE

If car is equipped with electric window lifts, disconnect the negative or positive cable on the battery.

INSTALLATION

Install the door glass on the regulator and rear channel. Install the front channel and attaching screws. After installation of the glass is completed test the operation of the glass and make the necessary adjustments, as shown in Figure 15. Replace trim panel and hardware.

ADJUSTMENTS

The front channel can be moved up and down by loosening the adjusting screws located at the top and at the bottom of the channel. The rear channel has fore and aft adjusting screws at the top and at the bottom of the channel.

The front and rear channel also have an in out adjustment at the lower end of each channel which can be made through the openings in the lower part of the door panel. The regulator stabilizer has in and out adjustments in the lower part of the door panel.

3. WINDSHIELD GLASS

REMOVAL

Cover the instrument panel and cowl to prevent damage to the finish before the windshield glass is removed. Remove windshield wiper arms. When weatherstrip is to be removed, it will be necessary to remove garnish mouldings.

REMOVAL OF WINDSHIELD MOULDINGS—Remove the side moulding attaching screws located on the "A" post, as shown in Figure 16. Remove joint cover at each upper end by prying the top edge of the cap upward until it releases from the moulding.

Remove the attaching screws located under the joint cover. After the screws have been removed remove the side mouldings.

The upper moulding is retained at the center by a spring type clip. Remove the moulding by pulling the moulding forward at the center section. See Figure 17.

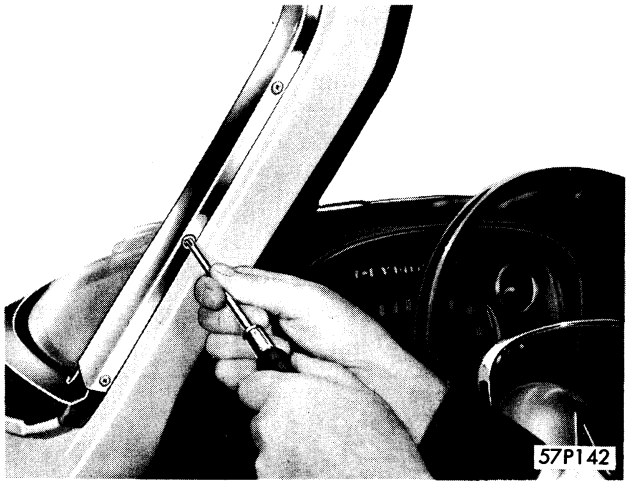

Figure 16—Removing Side Moulding Attaching Screws at "A" Post

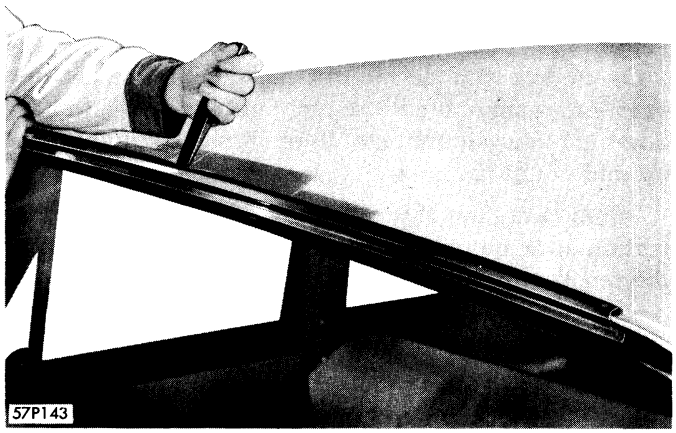

Figure 17—Removing Upper Windshield Moulding

The lower mouldings are retained at the outer ends at the "A" post by two screws. The outer mouldings are also retained by four attaching nuts located under the instrument panel.

The center section is retained by three nuts located inside the cowl vent opening. To remove the screen pry up on either end. Using care to prevent damage to the paint.

Insert a wedge shaped piece of hardwood or fiber in locking seam in weatherstrip and twist slightly to unlock, as shown in Figure 18. Then slide tool up and around to completely open the locking lip.

Releasing the locking lip will allow the windshield glass to be removed without disturbing the weatherstrip. Removal of the windshield glass will require two men —one inside of the car to push out on the glass and one outside to hold the glass.

Starting at the lower corner, either side, push the glass out of the weatherstrip. Work across the bottom and up the sides until the glass can be lifted from the weatherstrip. Use of gloves will protect hands against possible sharp edges.

CHECKING WINDSHIELD OPENING—If a glass has cracked for no apparent reason, it is always best to check the windshield opening before installing a new glass. A high or wavy fence can cause uneven pressure on the glass. Check for burrs or visible high spots and remove them with a grinder.

Check the windshield opening for proper alignment, this can be done by using six short pieces of weatherstrip three inches long on the fence, as shown in Figure 19. Install the glass in the six pieces of weatherstrip. Center the glass so it has equal clearance at both ends, then lock the weatherstrip sections on the glass.

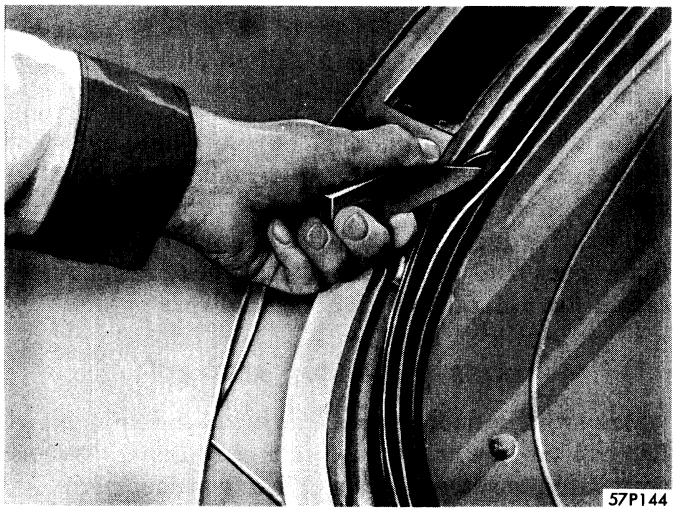

Figure 18—Unlocking Windshield Weatherstrip

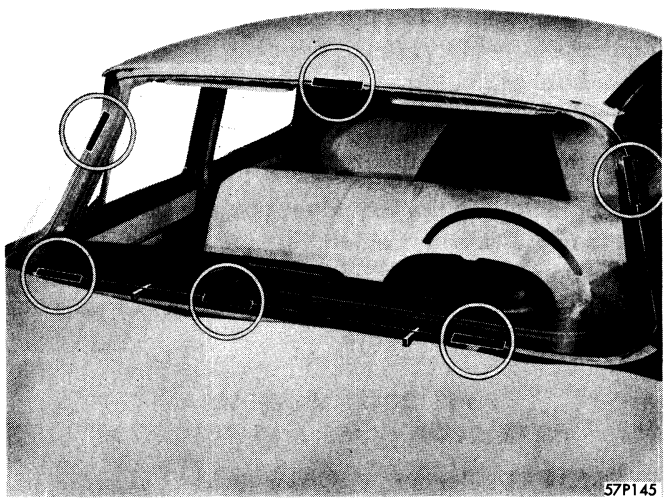

Figure 19—Checking Windshield Glass Opening

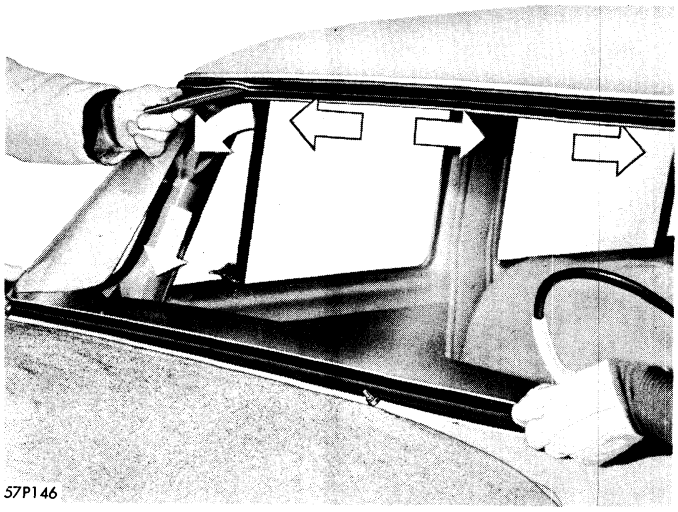

Figure 20—Positioning Windshield Glass in Weatherstrip

It may be necessary to shim the lower center section with wooden shims because the weight of the glass may give too much clearance at the top edge. When the glass is centered properly in the opening, there should be $\frac{5}{16}$ inches to $\frac{7}{16}$ inches clearance between the edge of the glass and outer edge of the fence. The inner surface of the glass should be within $\frac{1}{8}$ inch of the fence. Any variation from these clearances should be corrected by grinding the fence, or straightening.

INSTALLATION OF WEATHERSTRIP—Replacing the weatherstrip on the body fence will be greatly aided if a mild solution of soap is used for lubricant. Apply to fence groove using a small brush. Use a mild soap for the solution as same strong soaps may cause streaks in the paint finish.

Place a bead of sealer in the groove of the weatherstrip around its entire length. Install the weatherstrip on the fence with firm pressure to seat it in place but do not stretch it during installation.

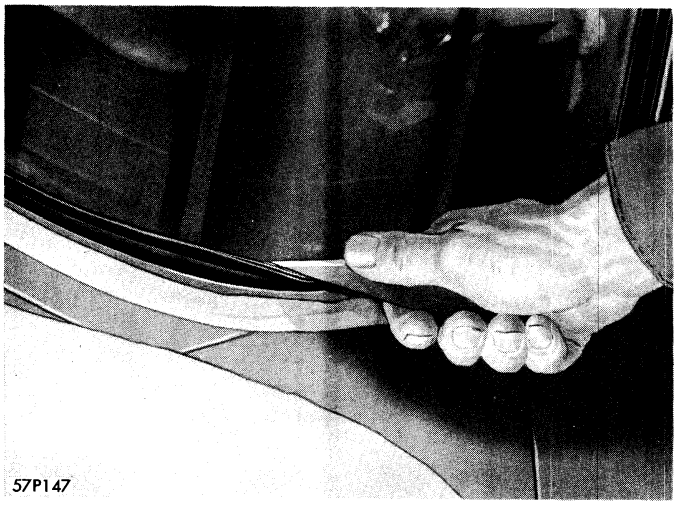

Figure 21—Working Windshield Glass into Weatherstrip

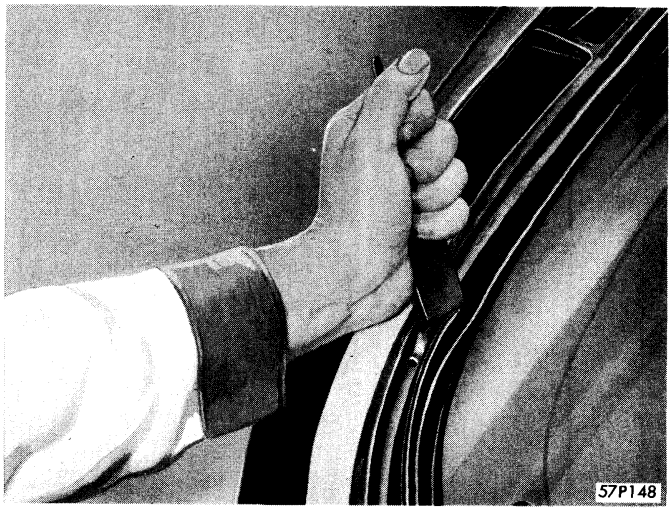

Figure 22—Locking in Windshield Glass in Weatherstrip

INSTALLATION

Insert the top of the glass into weatherstrip channel while holding the bottom of the glass against the weatherstrip. Do not attempt to push the glass into the corners at this time. See Figure 20.

NOTE

Make certain that the glass is properly centered in the opening.

Insert a wedge shaped piece of hardwood or fiber, approximately ½ inch wide between the front lip of the weatherstrip and glass. Start at either upper corner and work to the center. Work the glass into the weatherstrip groove, as shown in Figure 21.

Do not attempt to push the glass in too far at this time. After glass has completely engaged groove in weatherstrip, make sure it is properly seated by tapping glass with palm of hand. Do not use a rubber mallet when installing glass. Lay a bead of sealer in the glass groove around the entire weatherstrip.

Starting at the bottom, slide tool over locking lip with enough pressure to force the lip into the lock position, as shown in Figure 22.

MOULDING INSTALLATION—Install the lower center moulding and start the nuts, do not tighten nuts at this time. Install the right and left lower mouldings over the ends of the center moulding, install the retaining nuts and tighten. Tighten the nuts on the center section and install screen.

Snap the center clip on the upper moulding into place. Install the metal screws on each end but do

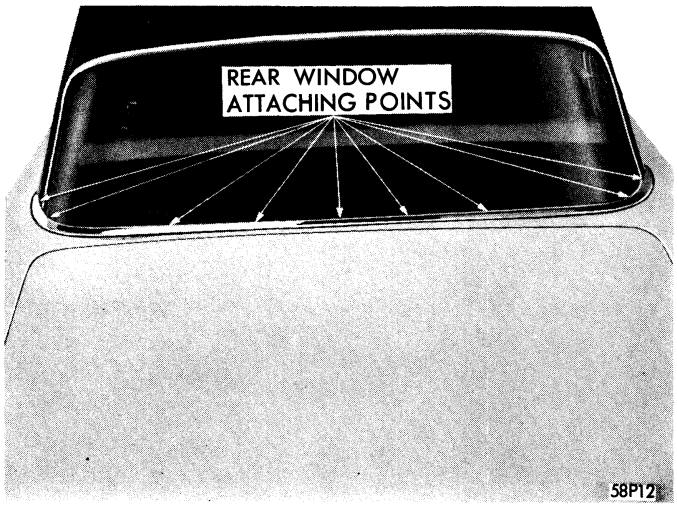

Figure 23—Rear Window Moulding Attaching Points

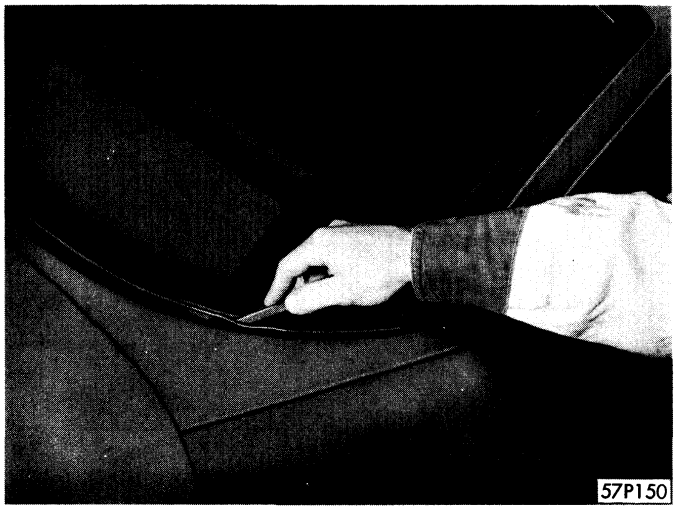

Figure 24—Unlocking Rear Window Weatherstrip

not tighten. Install the side pieces by sliding the ends of the mouldings under the ends of the upper moulding, start but do not tighten the attaching screws on the "A" posts.

Tighten the screws located under the joint covers and install the covers. Tighten the screws on the "A" posts, clean the windshield glass and install wiper arms and blades.

4. REAR WINDOW GLASS

REMOVAL

Cover the rear quarter panels and rear window areas. Remove lower trim moulding retaining nuts which are located in luggage compartment, as shown in Figure 23. Pull the side mouldings and upper moulding from the weatherstrip retaining grooves.

Use a fiber wedge to unlock weatherstrip then slide tool up completely opening the locking lip, as shown in Figure 24.

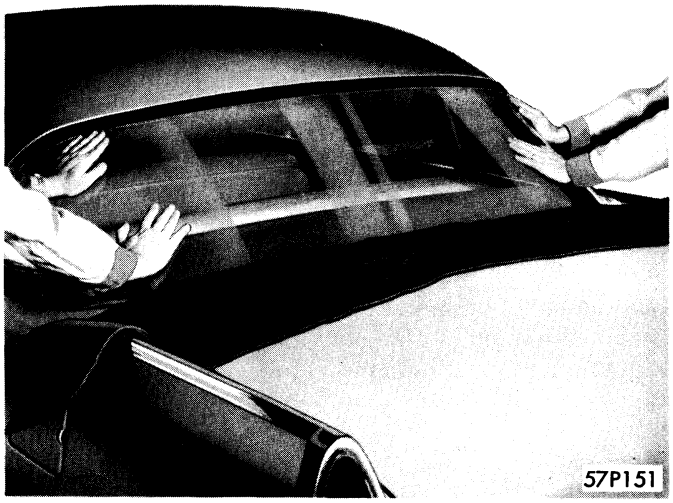

Figure 25—Positioning Rear Window in Weatherstrip

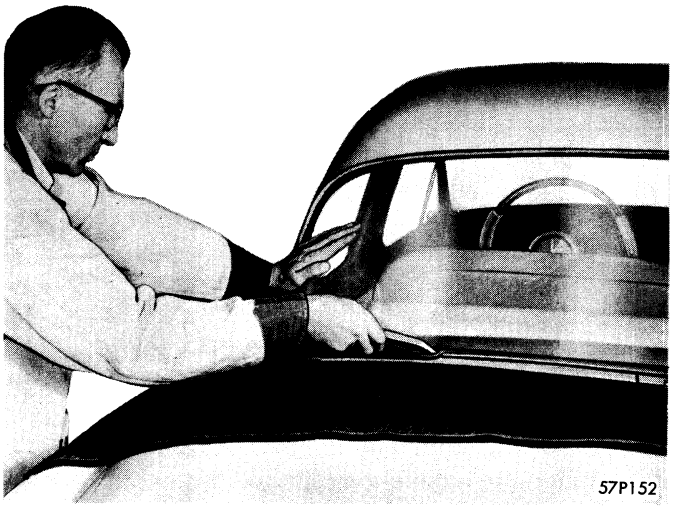

Figure 26—Working Rear Window Glass into Weatherstrip

Releasing the locking lip will allow the rear window glass to be removed without disturbing the weatherstrip. Remove the glass by pushing on the glass from the inside. Use of gloves will protect hands against possible sharp edges.

Use a mild soap solution to install the weatherstrip on the body fence. Apply the solution to fence groove using a small brush. Use a mild soap for the solution as some strong soaps may cause streaks in the paint finish. Place the weatherstrip on the fence with firm pressure to seat it in the proper place but do not stretch it during installation.

INSTALLATION

To install the rear window glass first lubricate the glass groove with the soap solution. Position the glass at the lower outside corners, as shown in Figure 25. Work the lip of the weatherstrip over the glass along the lower edge.

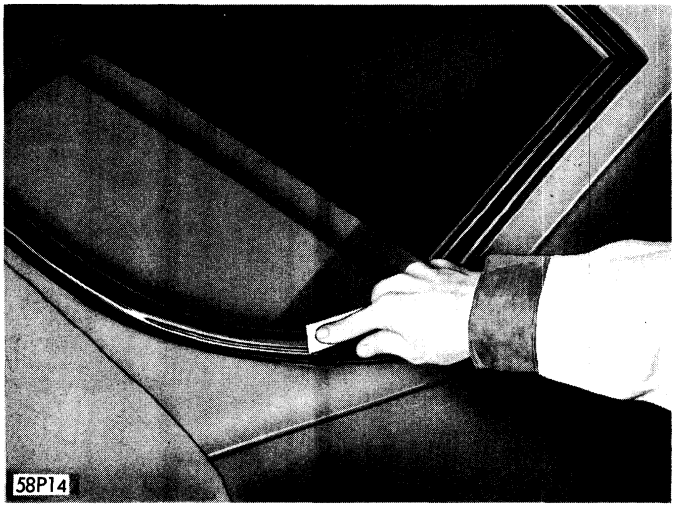

Figure 27—Locking Rear Window Glass in Weatherstrip

After the glass is entered along the top and the lower corners, work the lip of the weatherstrip over the lower edge of the glass, as shown in Figure 26.

Make sure the glass is properly seated by tapping the glass with palm of hand. Do not use a rubber mallet when installing rear window glass.

Lay a bead of sealer in the glass groove all around the rear window. Brush the soap solution on the locking strip.

Starting at the center of the upper edge, lock the top edge and the sides. Lock the lower edge last! See Figure 27.

Lubricate the upper groove in weatherstrip with the soap solution and install the upper moulding. Install the side mouldings. When installing the two lower mouldings, start at the front and place the front edge of the mouldings under the side mouldings first. Install the cover and tighten the lower moulding attaching nuts.

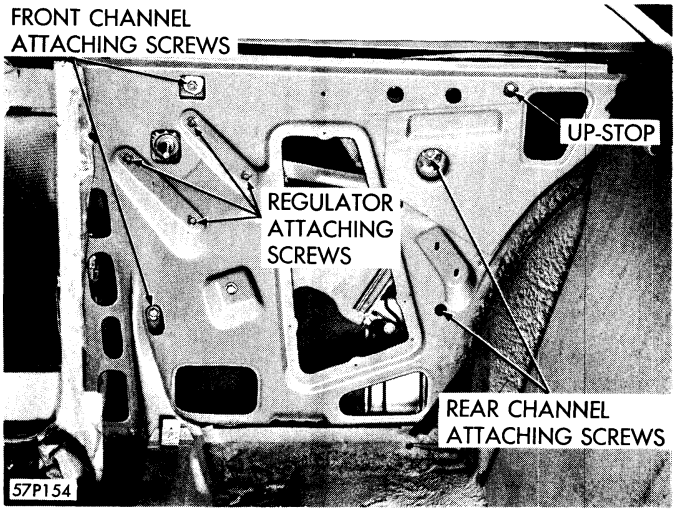

Figure 28—Rear Quarter Glass Adjusting and Attaching Screws

5. REAR QUARTER WINDOW GLASS
(SPORT COUPE AND CONVERTIBLE)

REMOVAL

Remove the rear seat cushion from the car. Then remove garnish moulding, regulator handle and trim panel. Roll the quarter window glass to the half raised position. Remove the front channel attaching screws, as shown in Figure 28.

NOTE

If the car is equipped with electric window lifts, disconnect the negative or positive cable on the battery.

Remove the quarter window down stop. Raise the quarter glass to the fully raised position, and disengage the glass from the regulator and rear channel and remove the glass.

INSTALLATION

Install the quarter glass in the regulator and rear channel. Install the front channel and adjusting screws and the down stop. After installation of the glass is completed, test the operation of the glass and make the necessary adjustments.

ADJUSTMENTS

The front channel can be moved up and down by loosening the adjusting screws located at the top and at the bottom of the channel. The rear channel has fore and aft adjusting screws at the top and at the bottom of the channel.

NOTE

To remove the window regulator it will be necessary to remove the rear glass.

QUARTER WINDOW
(CLUB AND FOUR DOOR SEDAN)

REMOVAL—Remove the garnish moulding. Push in on the window and remove the window, as shown in Figure 29.

INSTALLATION

If a new glass is installed, use sealer between the glass and the weatherstrip to prevent water leaks. Install garnish mouldings.

Figure 29—Rear Quarter Window, Club and Four Door Sedan

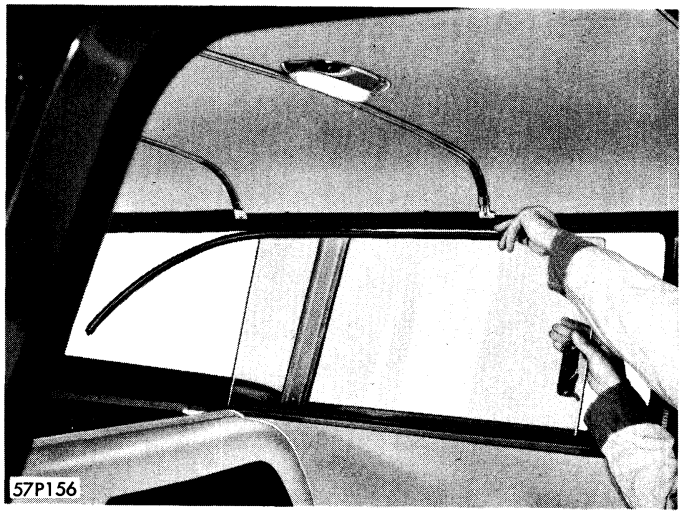

Figure 30—Removing Front Quarter Sliding Glass (Suburban)

6. SLIDING AND STATIONARY GLASS (SUBURBAN)

REMOVAL—Remove the upper and lower garnish mouldings. It will also be necessary to remove the end garnish mouldings. Remove the attaching screws from the upper glass run channel. Carefully pull the glass and the upper portion of the glass run channel out of the body opening and remove the sliding glass. See Figure 30.

If the stationary glass is to be removed it will be necessary to remove the sliding glass and channel, the rear upper and lower garnish mouldings. Exert pressure inward on the glass and carefully push the weatherstrip and glass from the body opening. Work the weatherstrip off the glass and remove the old sealer from the weatherstrip groove.

INSTALLATION—Apply a suitable sealing compound in the groove in the weatherstrip. Starting at the corner work the weatherstrip over the stationary glass. Apply sealing compound under the outer lip of the weatherstrip. Carefully place the assembly in the body opening. With the use of a fiber wedge carefully work the outer lip of the weatherstrip over the edge of the body opening. Wipe off excess cement around the edge of the glass and weatherstrip. Install the sliding glass and channel. Install the channel retaining screws. Make certain the heads of the screws are below the felt to prevent interference with the edge of the sliding glass. Test the sliding action of the glass. Then install the garnish mouldings.

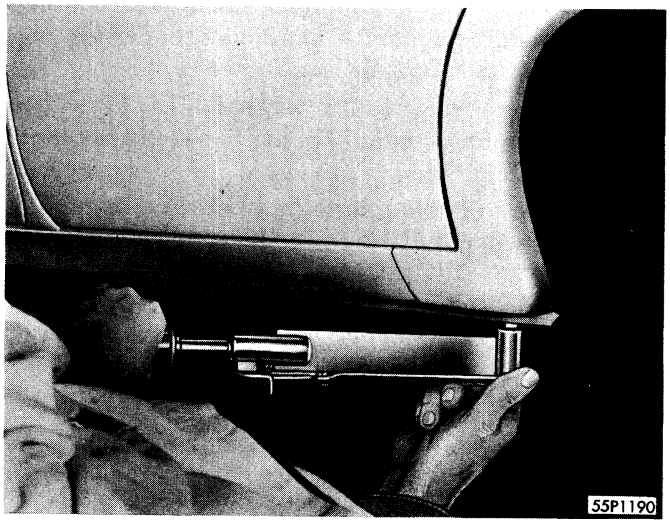

Figure 31—Tightening Body Bolts With Torque Wrench

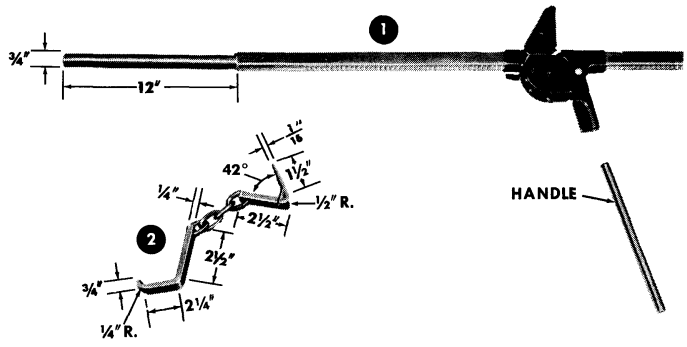

Figure 32—Body Adjusting Tools

7. BODY MOUNTING BOLTS

An important factor in the alignment of the hood, fenders, doors and deck lid is the mounting of the body to the frame. Unequal torquing of the body bolts will

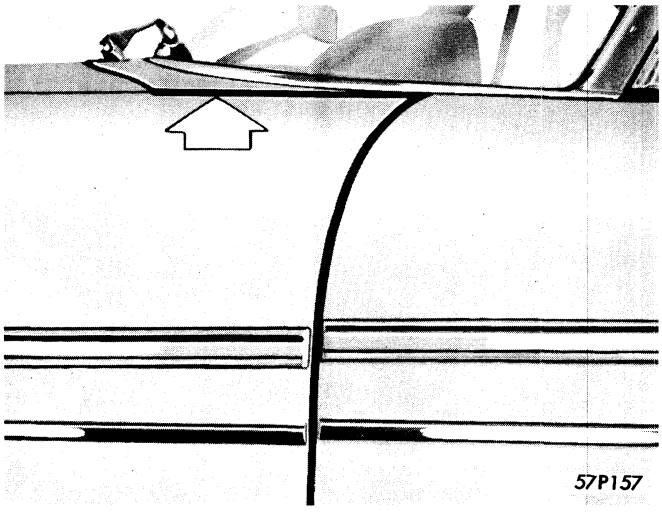

Figure 33—Top Rear Edge of Fender Lower Than Front Door

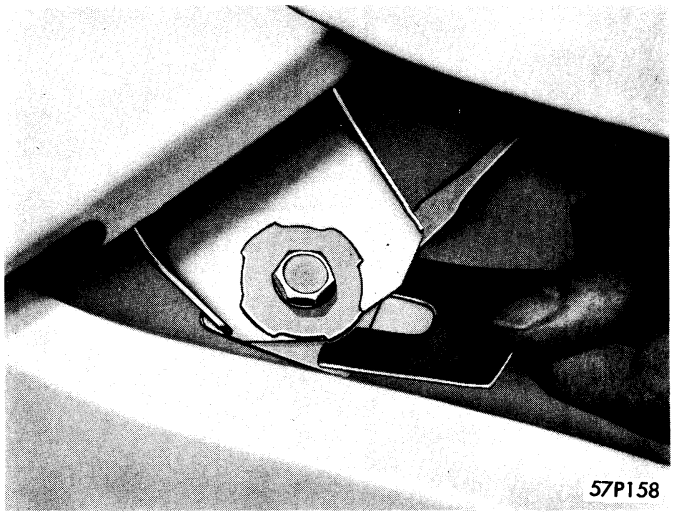

Figure 34—Installing U-Shaped Rubber Shim

result in enough body distortion to cause misalignment of the doors. Before any attempt is made to correct misalignment, the body mounting bolts should be checked for proper torque. Body mounting bolts should be tightened to a torque of 18 foot-pounds, as shown in Figure 31.

8. FENDER ALIGNMENT

Before adjusting fender make sure door is properly aligned. The rear edge of the fender must be even with contour of the front door. Following are corrections for some of the common causes for fender misalignment.

> **NOTE**
>
> ***The following tools will be very useful when making fender and deck lid adjustments. Front Fender Adjusting Tool—Bumper Jack with Extension—To make this tool braze a piece of ¾ inch pipe 12 inches long to the end of the bumper jack, as shown in Figure 32.***

TOP REAR EDGE OF FENDER TOO CLOSE TO COWL—Figure 33—Raise the hood and loosen the top fender bolt. Pry up the front end of the fender bracket with a screw driver and install a U-shaped rubber shim, as shown in Figure 34. Remove the screw driver and tighten fender bolt.

TOP REAR EDGE OF FENDER TOO CLOSE TO COWL—Loosen fender top bolts. Pry rear edge of fender away from cowl with a screw driver, as shown in Figure 35. Retighten fender bolts.

BOTTOM REAR EDGE OF FENDER LOWER THAN SILL PANEL—Install the bumper jack with extension between the radiator support and the fire wall, as shown

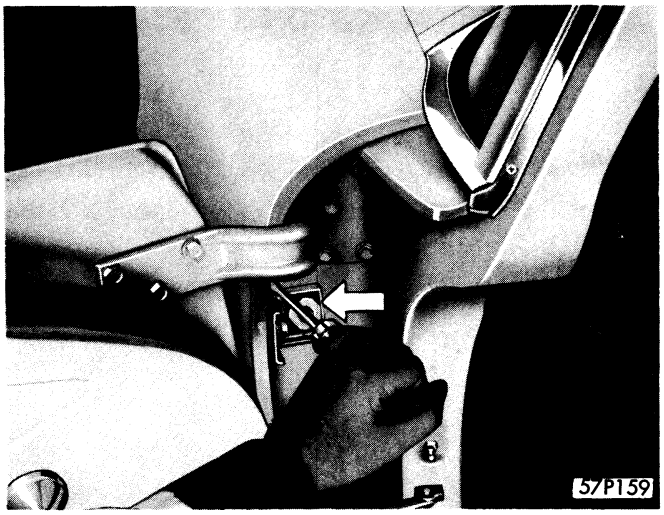

Figure 35—Moving Top of Fender Away from Cowl

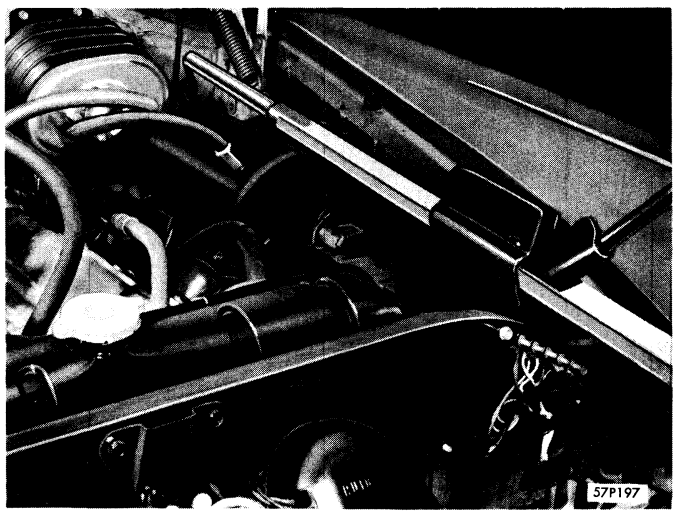

Figure 36—Jack With Extension Installed in Position

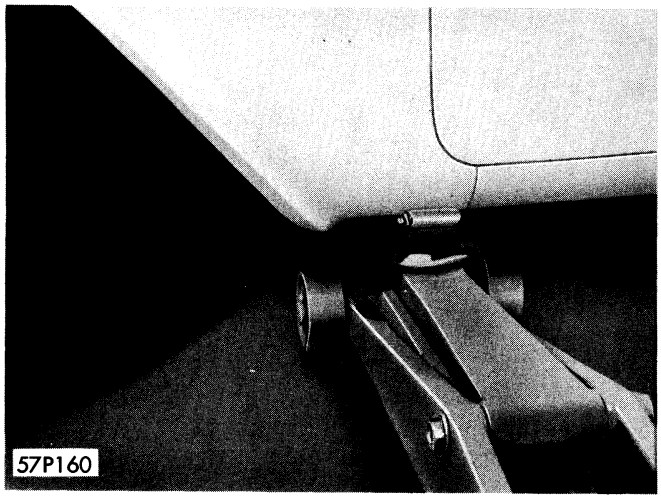

Figure 37—Floor Jack in Position to Raise Fender

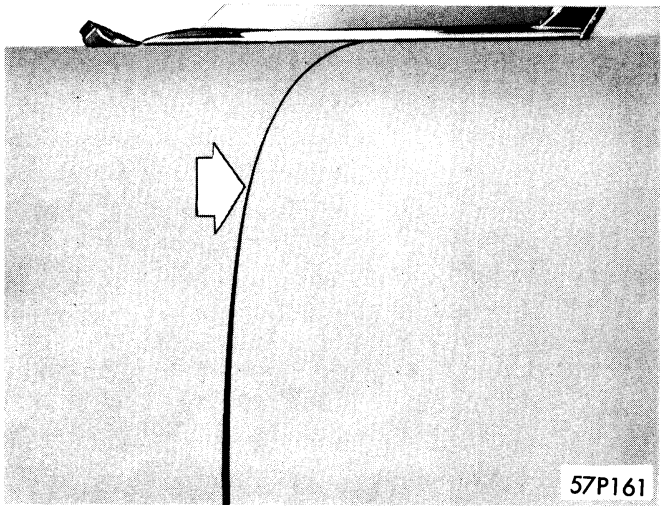

Figure 38—Rear Edge of Fender Extends Too Far Striking Door

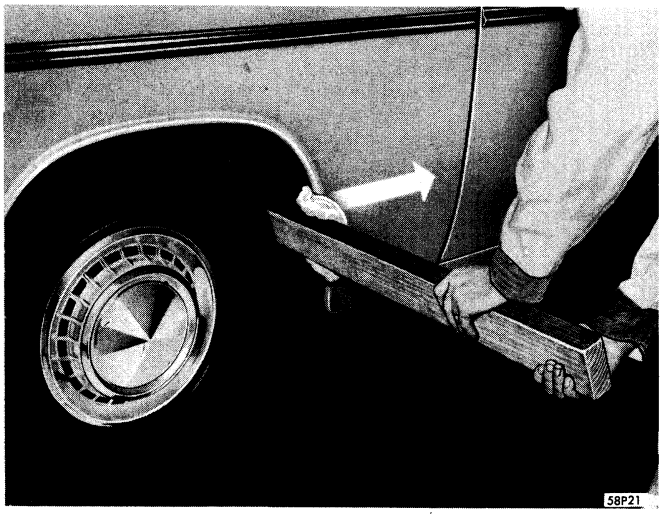

Figure 39—Closing Gap Between Fender and Sill Panel

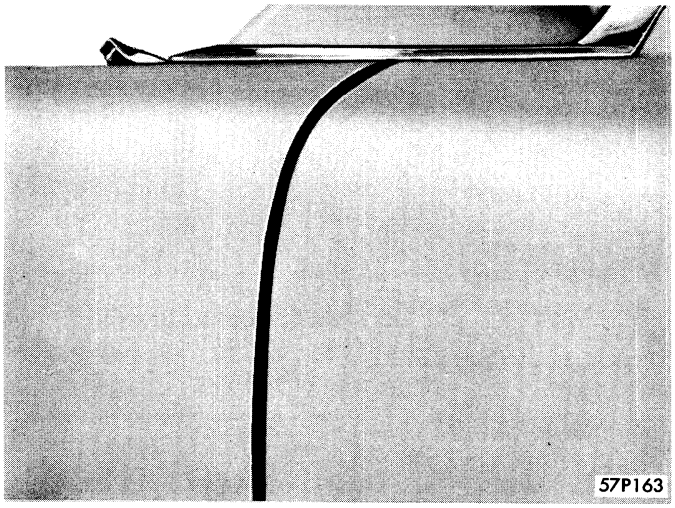

Figure 40—Fender Too Far Forward At Upper Door Opening

in Figure 36. Use only enough pressure to maintain the fore and aft position of the fender.

Loosen the fender-to-cowl attaching bolts. Then roll a floor jack into position under the bottom rear edge of the fender. Protect the fender edge with a cloth pad, as shown in Figure 37. Raise the jack until the bottom edge of the fender is in line with the bottom edge of the sill panel. Retighten the fender attaching bolts and remove jack.

REAR EDGE OF FENDER EXTENDS TOO FAR STRIKING DOOR AND FRONT EDGE OF FENDER SHORT OF HOOD—Figure 38. Install the bumper jack with the extension between the radiator support and the fire wall, as shown in Figure 36.

Loosen the fender-to-cowl attaching bolts then jack the fender forward until correct alignment of the fender is obtained, retighten the fender-to-cowl attaching bolts and remove the jack.

GAP BETWEEN REAR EDGE OF FENDER AND SILL PANEL—SPACING CORRECT AT UPPER SECTION—Loosen the bottom fender to cowl attaching bolts. Place a 2 x 4 board between the tire and the fender, as shown in Figure 39. Protect the edge of the fender with a cloth pad. Pry the fender back to close the gap then retighten the attaching bolts.

FENDER TOO FAR FORWARD AT UPPER DOOR OPENING—Figure 40. Loosen the fender-to-cowl attaching bolts. Apply pressure to the forward section of the fender until correct alignment is obtained. Then tighten the fender-to-cowl attaching bolts.

9. HOOD ALIGNMENT

To align hood, start with alignment of the rear hood edge at the cowl. Spacing should be close and uniform all the way across the cowl. There should be equal

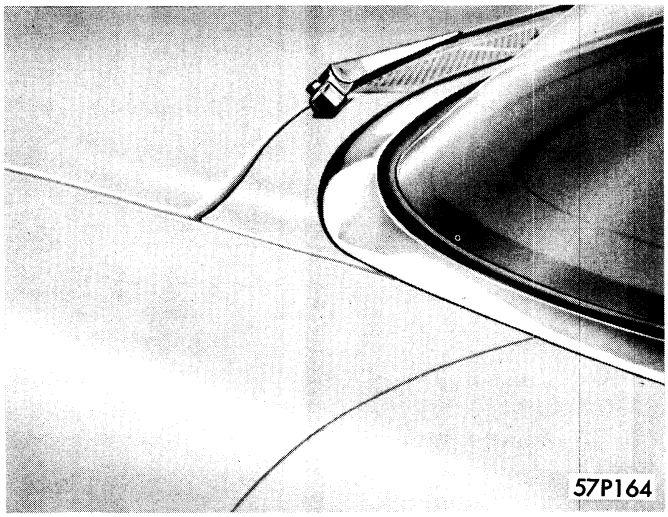

Figure 41—Rear Corner of Hood Too High At Cowl

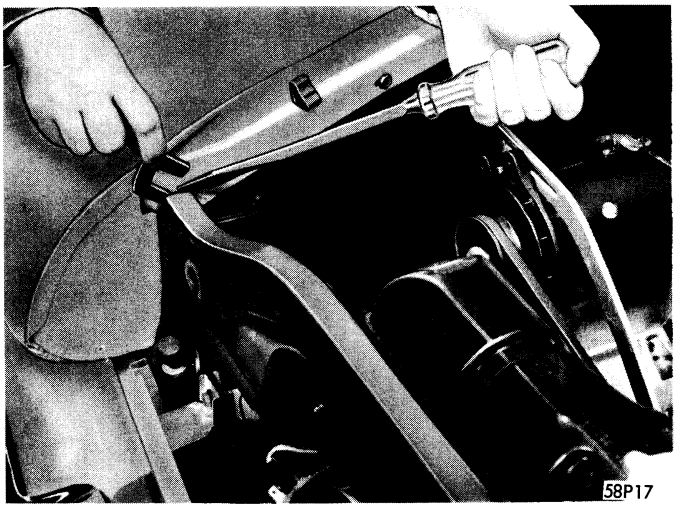

Figure 44—Inserting Shim Between Fender and Radiator Support

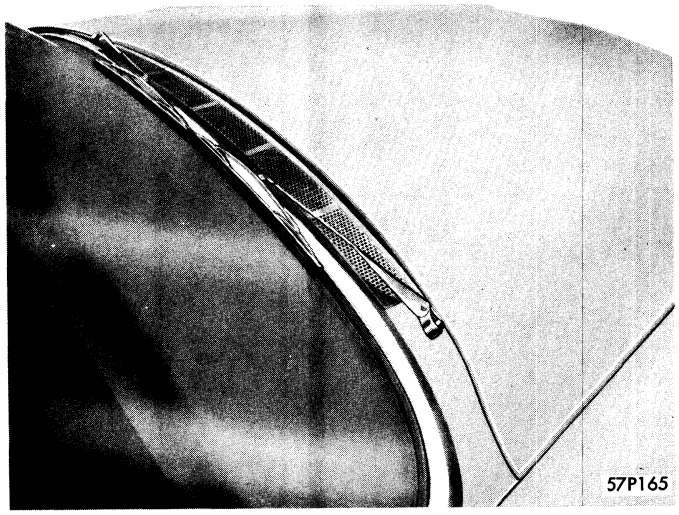

Figure 42—Hood Too High At Center of Cowl

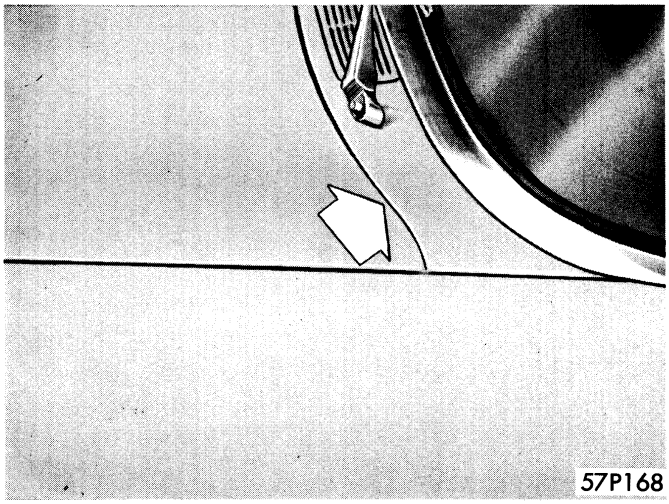

Figure 45—Rear Corner of Hood Too Close to Cowl

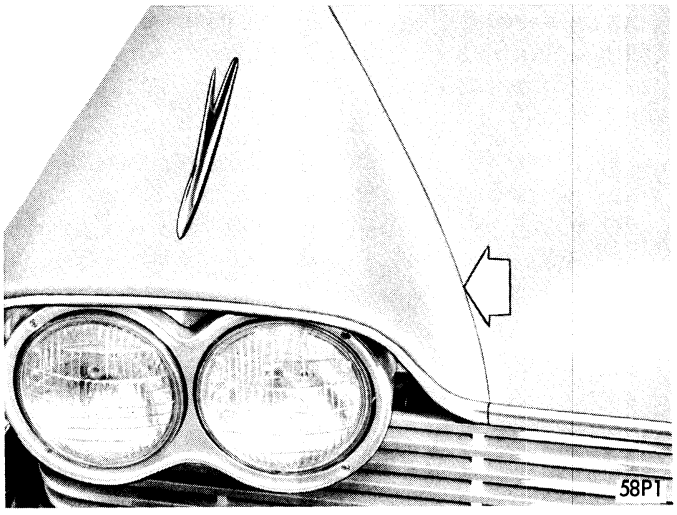

Figure 43—Front of Hood Too Close at Fender Spacing Correct at Cowl

spacing between the sides of the hood and fenders and the front of the hood should be even with the front fenders. Before any adjustment is made, scribe lines around the hood hinge so that hinge movement can be checked.

REAR CORNER OF HOOD TOO HIGH AT COWL—Figure 41. Loosen the two hood hinge-to-bracket rear stud nuts. These can be reached underneath the instrument panel. Loosen the hood hinge-to-bracket front stud and the rear of the hinge drops down. Then retighten all the stud nuts.

HOOD HIGH AT CENTER OF COWL—Figure 42. Adjust the hood hinges so that the contour of the hood will match the contour of the cowl.

FRONT OF HOOD TOO CLOSE AT FENDER, SPACING CORRECT AT COWL—Figure 43. Loosen the upper fender-to-radiator support bolt. With the use of a heavy screwdriver, pry the fender away from the radiator sup-

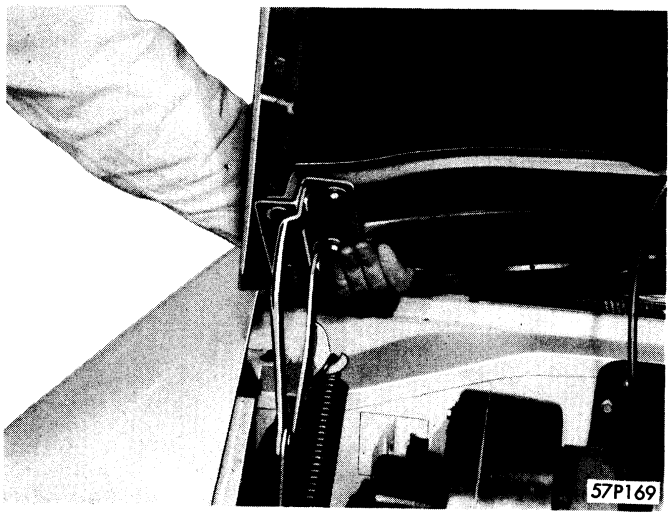

Figure 46—Moving Hood Forward to Obtain Clearance at Hood and Cowl

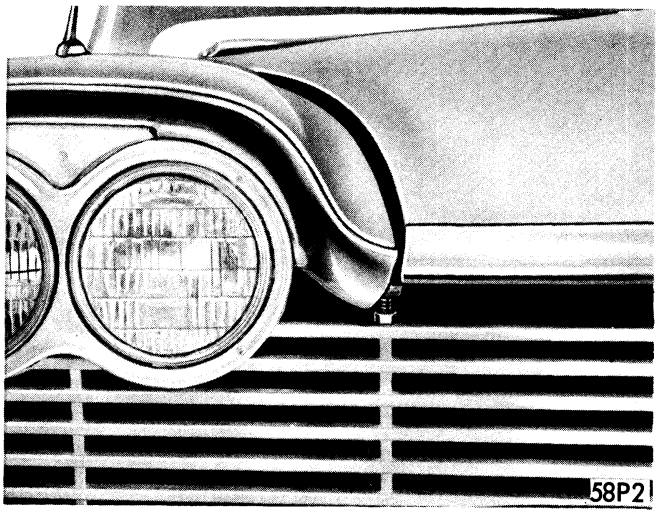

Figure 49—Front of Hood Too High to Line Up With Front Fender Moulding

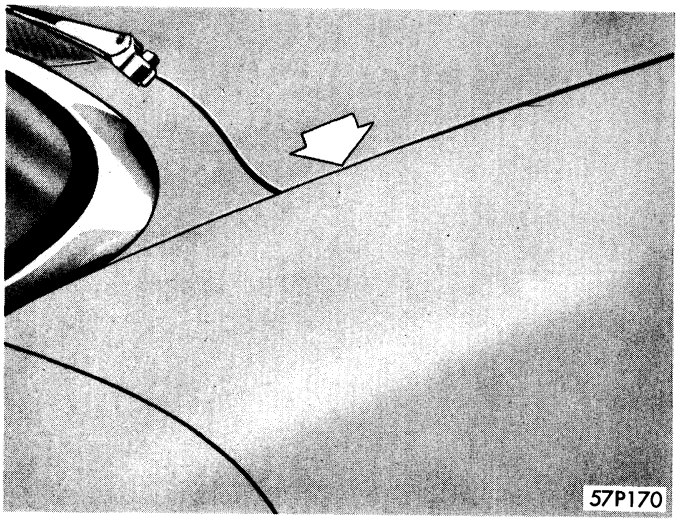

Figure 47—Rear Corner of Hood Binds on Fender

Figure 50—Adjusting Hood Striker

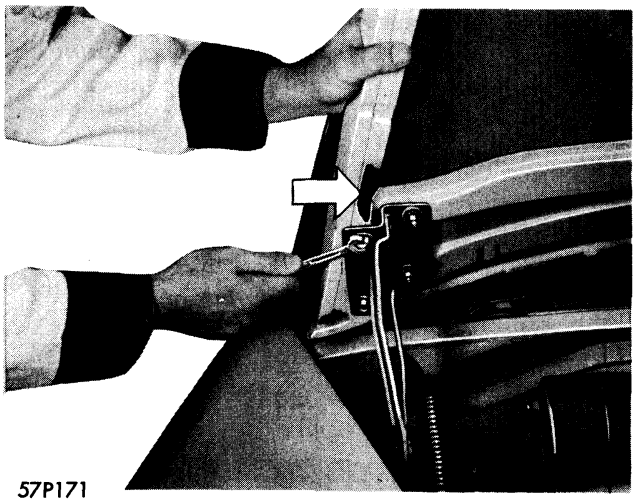

Figure 48—Repositioning Hood to Obtain Clearance at Fender

port, as shown in Figure 44. Then insert a metal shim between the fender and the support to obtain the necessary clearance between the fender and hood. Retighten the fender-to-radiator support bolt.

REAR CORNER OF HOOD TOO CLOSE TO COWL—Figure 45. Scribe a line on the hood flange so that the hood movement can be checked. Loosen the hood-to-hinge stud nuts and pull the hood forward until the proper spacing between the hood and cowl is obtained. See Figure 46. Then retighten the hinge-to-hood nuts.

REAR CORNER OF HOOD BINDS ON FENDER—Figure 47. Loosen the hood flange-to-hinge bolts and push the hood inward until the desired clearance between the hood side and fender is obtained. See Figure 48. Then retighten the attaching bolts.

FRONT OF HOOD TOO HIGH TO LINE UP WITH FRONT FENDER—Figure 49. Shorten the hood striker, as

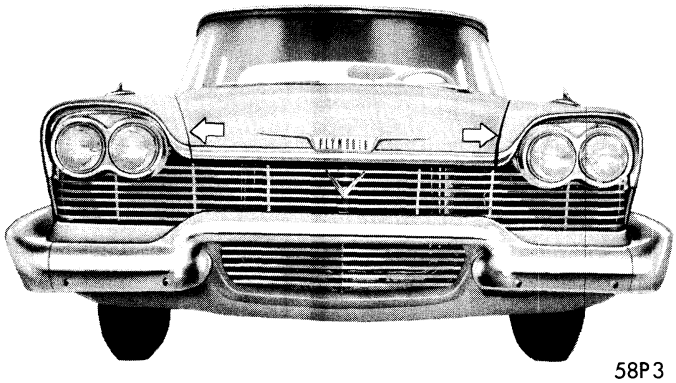

Figure 51—Front of Hood Binds at Fender On One Side, Excessive Clearance at Opposite Side

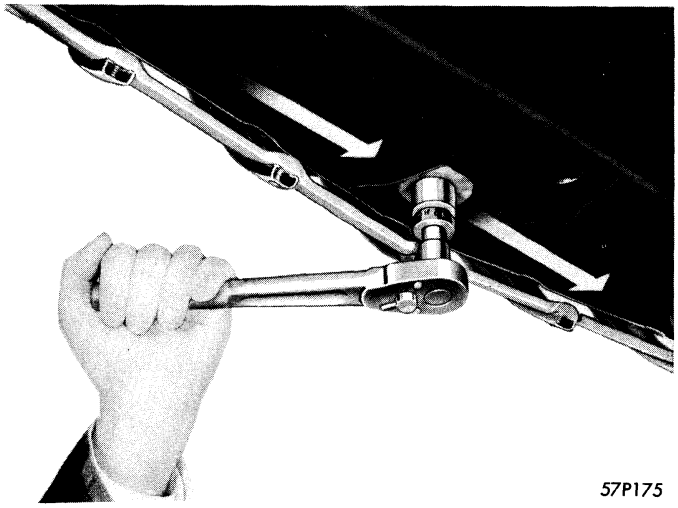

Figure 52—Moving Fenders and Grille Assembly to Equalize Spacing Between Fenders and Hood

shown in Figure 50, to draw the front of the hood down so that it will line up with the fender mouldings.

FRONT OF HOOD BINDS AT FENDER ON ONE SIDE, EXCESSIVE CLEARANCE AT OPPOSITE SIDE—Figure 51—Loosen the radiator support-to-frame mounting bolt. This can be reached underneath the car. Loosen the fender-to-bumper attaching bolts on both sides. Then, using a suitable pry bar, move the fenders and grille assembly to one side to equalize the spacing between the hood and fenders. See Figure 52. Retighten the mounting bolt. Tighten the fender-to-bumper attaching bolts.

10. DOOR ALIGNMENT

Door spacing and adjustment should always start at the parting line between the forward edge of the front flange and the line formed by the rear edge of the fender and cowl. After the front door is correctly positioned, align the rear door with the rear edge of the center-pillar post. Before loosening the door hinge screws, scribe a line around the hinge so that the amount of movement can be checked.

GAP BETWEEN REAR EDGE OF DOOR AND LEADING EDGE OF DOOR—Figure 53. Remove the inside door hardware and trim panel. Loosen the upper hinge screws Figure 54. Place a floor jack under the rear corner of the door. Protect the door edge with a cloth pad. Carefully raise the jack to move the top of the door forward. Then tighten the upper hinge screws and remove the jack. Loosen the lower hinge screws and pull down on the upper rear corner of the door in order to move the lower half of the door forward. See Figure 55. Tighten the hinge screws and install the trim panel and door hardware.

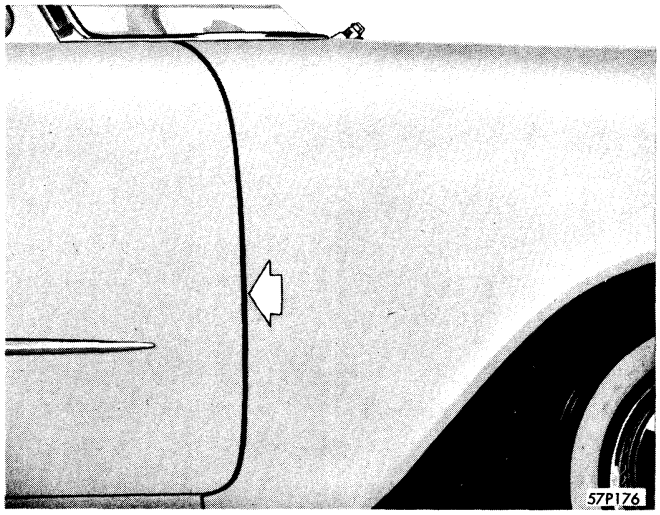

Figure 53—Gap Between Rear Edge of Fender and Leading Edge of Door

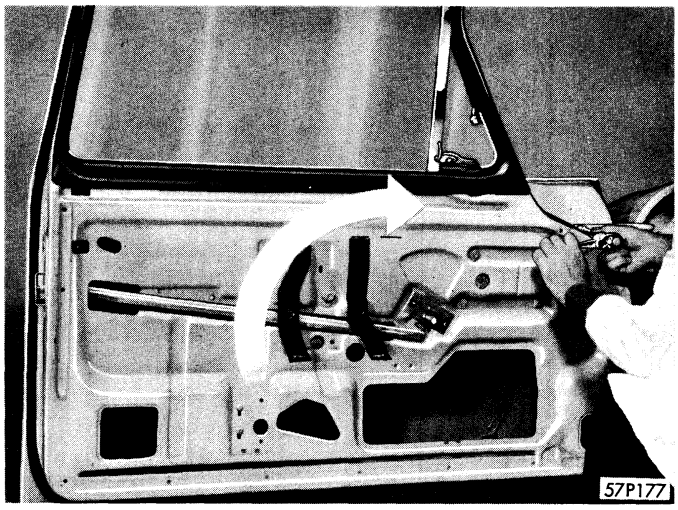

Figure 54—Moving Top of Door Forward

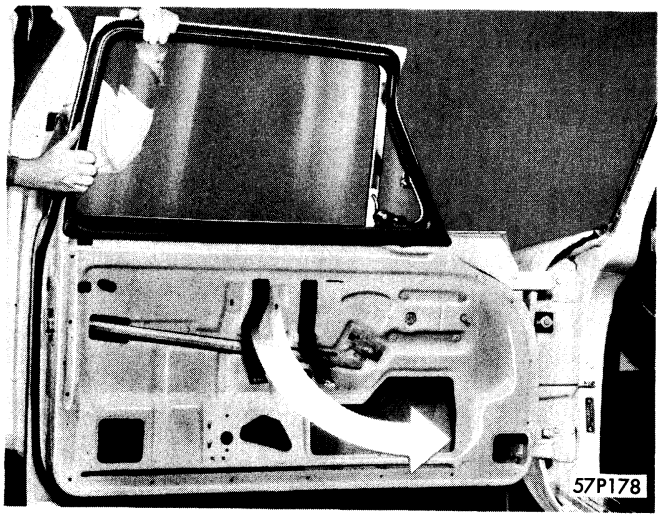

Figure 55—Moving Bottom of Door Forward

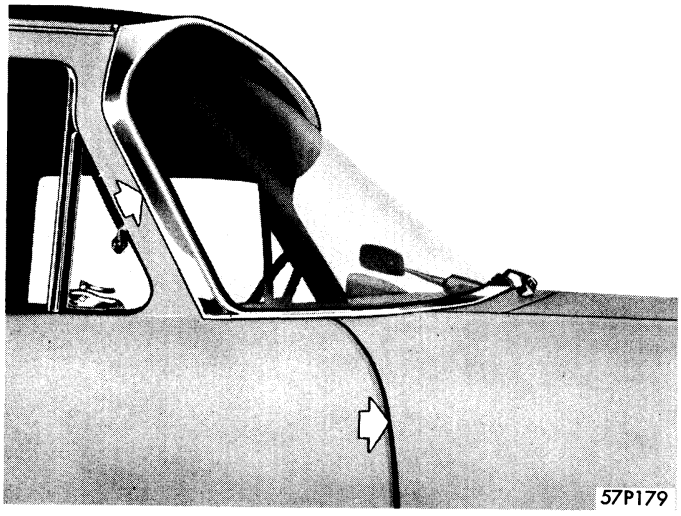

Figure 56—Front Edge of Upper Half of Door Tight at Hinge Pillar Gap at Bottom of Front Edge

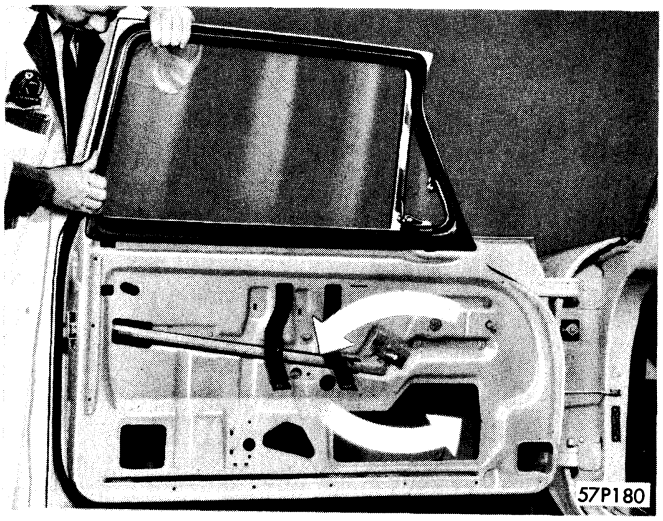

Figure 57—Moving Upper Half of Door Away from Pillar

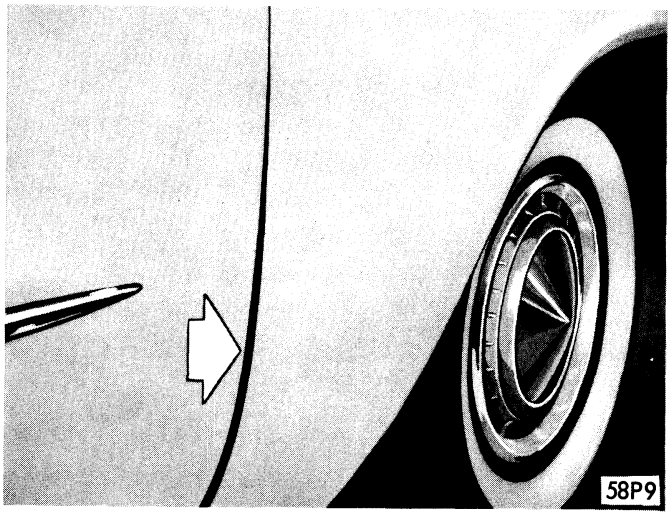

Figure 58—Lower Half of Door in Too Close to Body

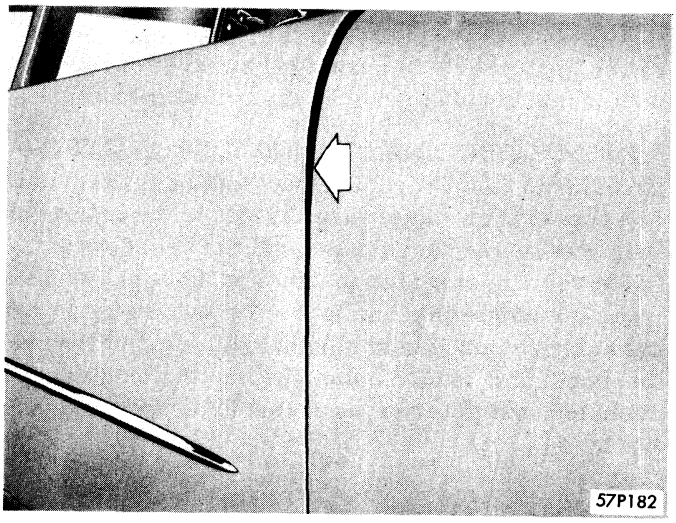

Figure 59—Upper Half of Door Out Too Far From Body

FRONT EDGE OF UPPER HALF OF DOOR TIGHT AT HINGE PILLAR—GAP AT BOTTOM OF FRONT EDGE—Figure 56. Remove the inside door hardware and trim panel. Loosen the upper hinge screws and pull down on the upper rear corner of the door to move the upper half of the door away from the pillar. See Figure 57. Then retighten the hinge screws. Loosen the lower hinge screws and pull down on the upper rear corner of the door to move the lower half of the door in toward the hinge pillar. Tighten the lower hinge screws and install the trim panel and inside door hardware.

With the door in the new position it will be necessary to readjust the striker plate. After the adjustment is made, test the weatherstrip compression by closing the door on a shipping tag. The weatherstrip should offer a reasonable amount of resistance when the tag is pulled out to insure a good seal.

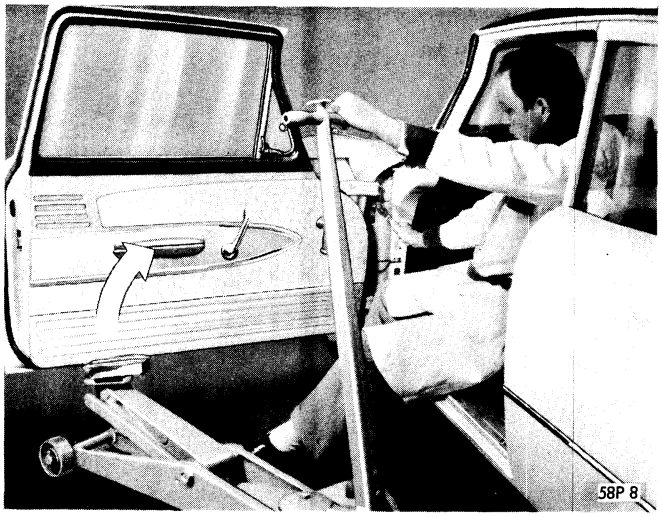

Figure 60—Moving Upper Half of Door In Toward Pillar

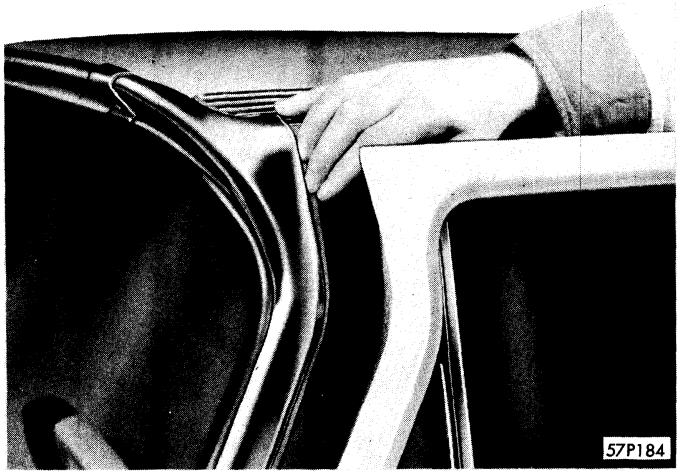

Figure 61—Leading Edge of Upper Half of Door Flange Rubs on Pillar

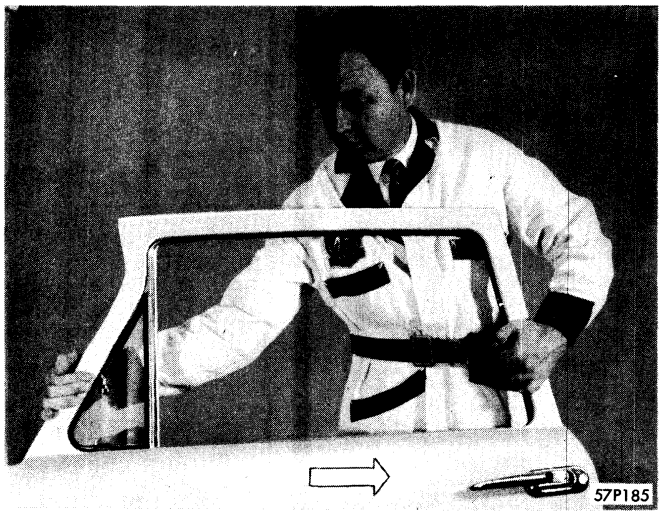

Figure 62—Moving Upper Half of Door Away From Body

Figure 63—Rear Door Too Low in Opening

LOWER HALF OF DOOR IN TOO CLOSE TO BODY —UPPER HALF OF DOOR OUT TOO FAR FROM BODY —Figures 58 and 59—Loosen the upper hinge screws at the pillar. Roll a floor jack under the rear bottom corner of the door. Protect the door edge with a cloth pad. See Figure 60. Raise the jack to move the upper half of the door in towards the pillar and retighten the hinge screws.

Loosen the lower hinge screws at the pillar and raise the jack to move the lower half of the door out from the body. Then retighten the lower hinge screws and remove the jack.

LEADING EDGE OF UPPER HALF OF DOOR FLANGE RUBS ON PILLAR WHEN CLOSING—Figure 61. Loosen the upper hinge screws at the pillar and move the door outward, away from the body, see Figure 62. Then retighten the hinge screws.

REAR DOOR TOO LOW IN OPENING—Figure 63. Place a floor jack under the center of the door. Protect the bottom edge of the door with a cloth pad. Loosen the upper and lower hinge screws at the door just enough to permit movement of the door, as shown in Figure 64. Raise the jack carefully to move the door upward until it is properly centered in the opening. Then retighten the hinge screws and remove jack.

LEADING EDGE OF LOWER HALF OF REAR DOOR IN TOO CLOSE TO BODY—Figure 65—Loosen the lower hinge screws at the door. Place a floor jack under the bottom rear corner of the door. Protect the door edge with a cloth pad. Raise the jack to move the bottom of the door outward from the body. Then retighten the hinge screws and remove the jack. Loosen the striker plate and adjust it to the new door position.

REAR DOOR BINDS AT LOWER REAR CORNER—Figure 66. Remove the pillar trim. Place a floor jack

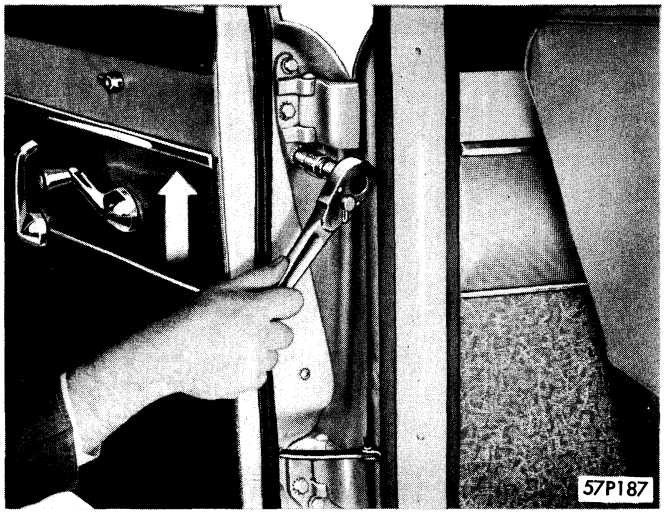

Figure 64—Moving Door Up

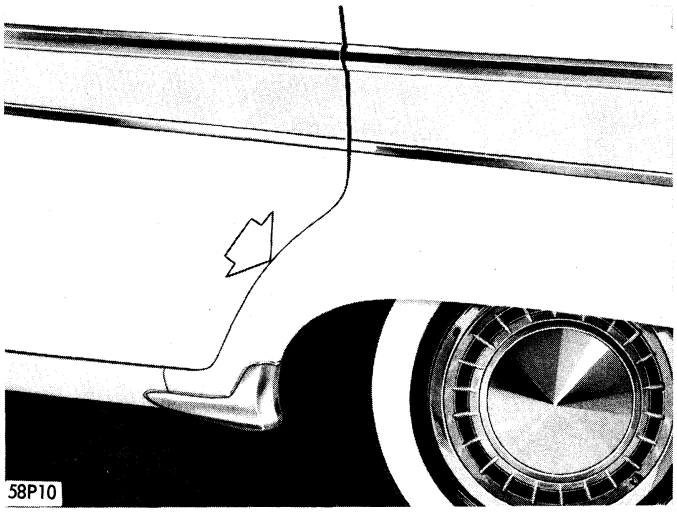

Figure 66—Rear Corner Binds at Lower Rear Corner

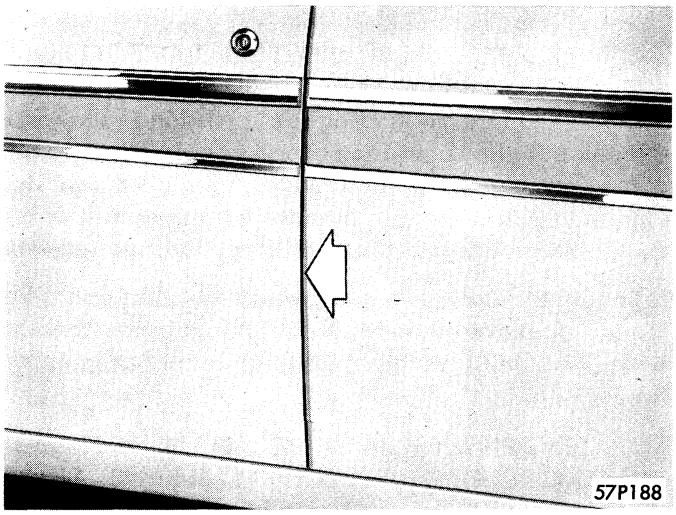

Figure 65—Leading Edge of Lower Half of Rear Door In Too Close to Body

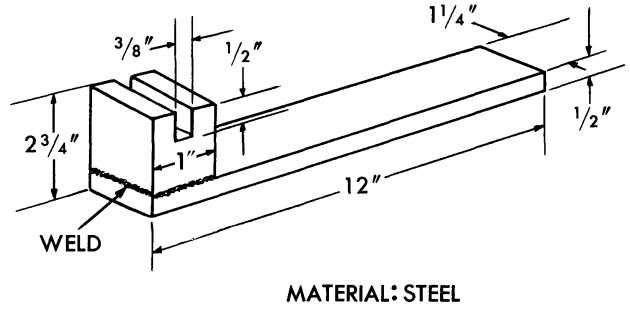

Figure 67—Torsion Bar Tool Dimensions

under the bottom rear corner of the door. Loosen the upper pillar hinge screws and raise the jack to move the door forward. Retighten the hinge screws, install pillar trim and remove the jack.

If this procedure does not entirely correct the condition it will be necessary to loosen the number four body bolts and remove the shim from between the body and frame. This will give additional clearance at the lower rear corner of the door. Retighten the body bolts to 18 ft. lbs. torque.

11. REAR DECK LID

The torsion bar hinge mechanism applies lifting force to the hinge arms. Moving the torsion bar to the rear holes increases the force applied and provides greater assistance in lifting of deck lid. A tool to perform this operation can be made as shown in Figure 67.

The torsion bar tension can be adjusted by placing the end of the bar in one of the three slots in the mounting bracket. The upward travel of the deck lid is limited by a stop on the bracket which contacts the hinge arms.

The torsion bar ends are lubricated at the factory and should not require lubrication; however, if the torsion bar is replaced or should squeak, the inside roller at the torsion bar end should be coated with lubricant.

REMOVAL AND INSTALLATION

Support rear deck lid with a prop, then disengage torsion bars from the adjusting slot in bracket, as shown in Figure 68.

CAUTION

Use extreme care when removing torsion bars. Due to the tension required to make the bars effective, the bars will unwind.

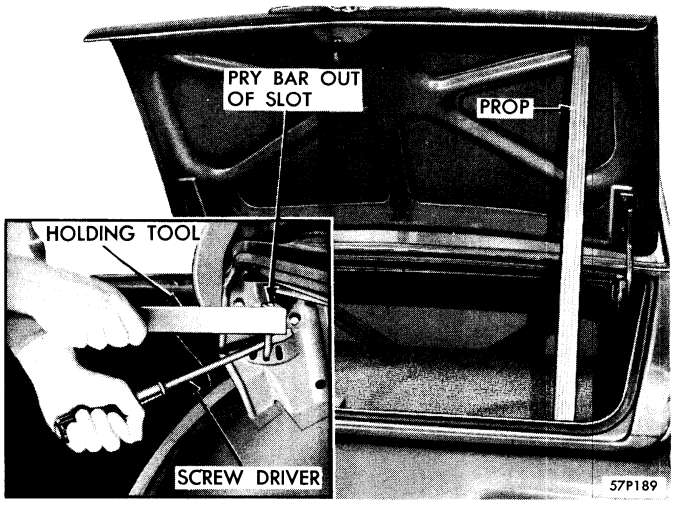

Figure 68—Removing or Installing Torsion Bars

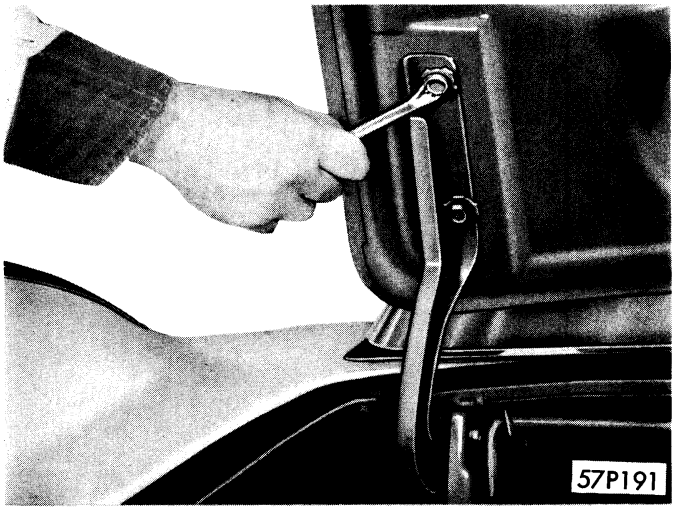

Figure 70—Loosen Deck Lid-to-Hinge Attaching Screws

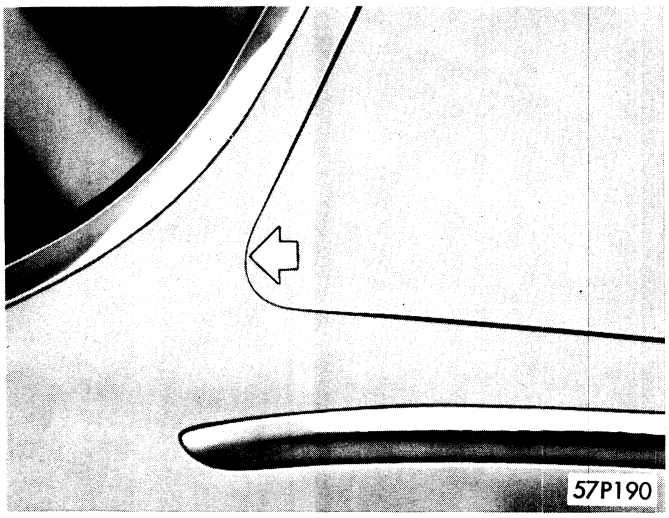

Figure 69—Upper Corner of Deck Lid Binding At Deck Lid Opening

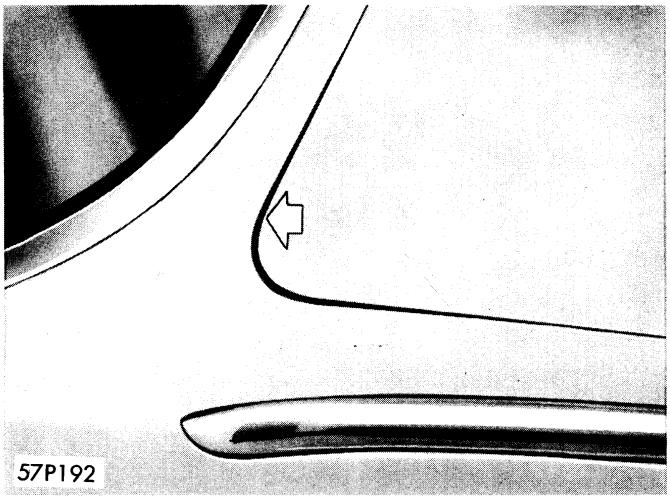

Figure 71—Upper Corner of Deck Lid Too Low

Remove bars from center support bracket, slide bar in opposite direction to disengage cam roller from hinge. Remove bars by unwinding from support bracket.

To install, engage cam roller on the back surface of the hinge. Install torsion bars in center support bracket, wind bars and install bars in adjusting slots. Make sure bars engage adjusting slots by tapping with a hammer.

DECK LID ALIGNMENT

All deck lid adjustments should be started at the parting line between the deck lid opening upper panel and the upper flange of the deck lid. Spacing should be close and uniform at this line. The contour of the deck lid should conform with the contour of the deck lid opening upper panel. Following are some common causes of deck lid misalignment.

UPPER CORNER OF DECK LID BINDING AT UPPER PANEL—Figure 69. Loosen the hinge-to-deck lid attaching screws, as shown in Figure 70. Shift the deck lid toward the rear to obtain the necessary clearance.

UPPER CORNER OF DECK LID TOO LOW—Figure 71. Loosen the deck lid hinge-to-bracket mounting bolts. Pull the deck lid up until correct height is obtained and retighten bolts, as shown in Figure 72.

CONTOUR OF DECK LID TOO HIGH—Figure 73. Connect the deck lid adjusting tool at the deck lid strainer and at the quarter panel under the drain ledge. See Figure 74. Lift the corner of the deck lid to correct the contour. Check the weatherstrip seal with a shipping tag.

GAP BETWEEN DECK LID AND REAR OF QUARTER PANEL—Figure 75. It will be necessary to adjust the deck lid to the opening. It may be necessary to remove the deck lid and elongate the holes at the deck lid to hinge attaching holes.

Figure 72—Raising Deck Lid Hinge

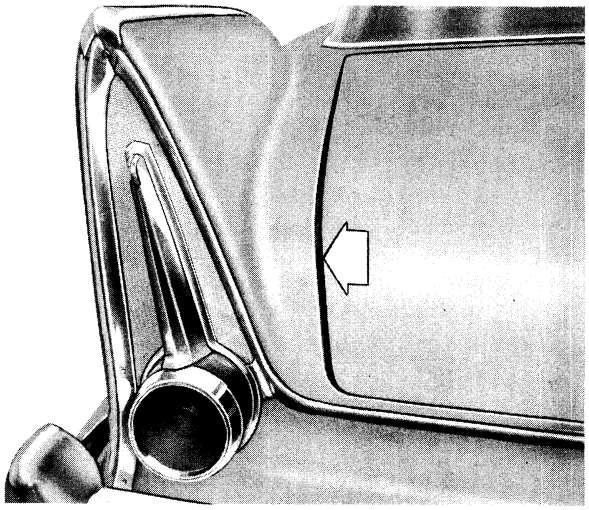

Figure 75—Gap Between Deck Lid and Rear Quarter Panel

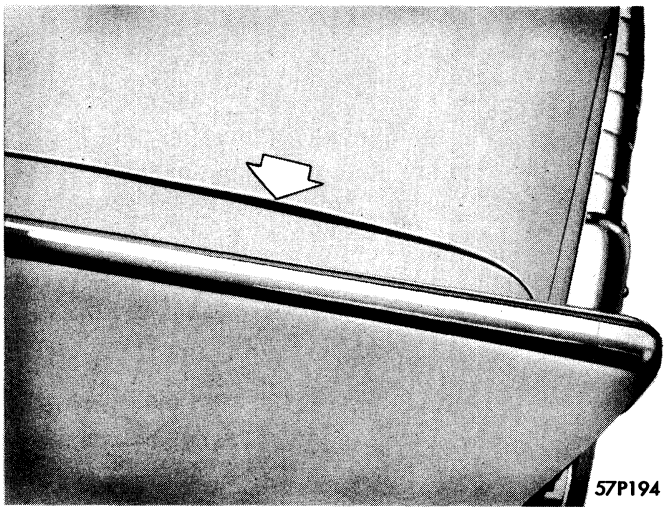

Figure 73—Contour of Deck Lid Too High

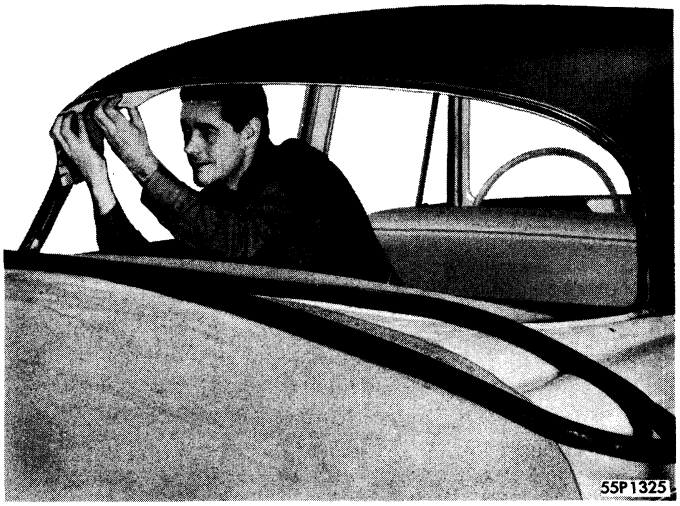

Figure 76—Removing Headlining At Rear Window Opening

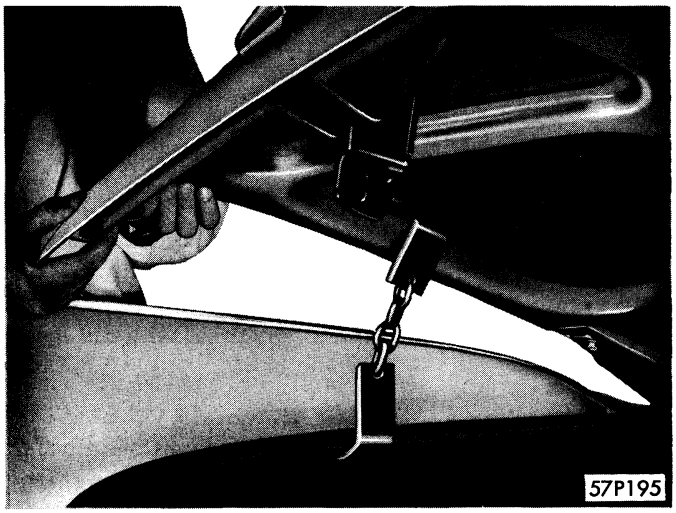

Figure 74—Deck Lid Adjusting Tool Installed

If rear quarter panel has been damaged, it may be necessary to shim body bolts at quarter panel.

12. HEADLINING

REMOVAL

On Club Sedan and Four Door Sedan it will be necessary to remove the rear window. Remove the dome light assembly and rear seat cushion assembly as well as the sun visor and upper windshield garnish moulding. On Club Sedan models it will be necessary to remove quarter window garnish mouldings.

After rear glass has been removed pull rear window weatherstrip out at the top and down the sides of the rear window opening, as shown in Figure 76.

Pull the headlining from under the rear package shelf and away from the rear quarter panel and wheel housing. With a screwdriver pry the headlining retainer

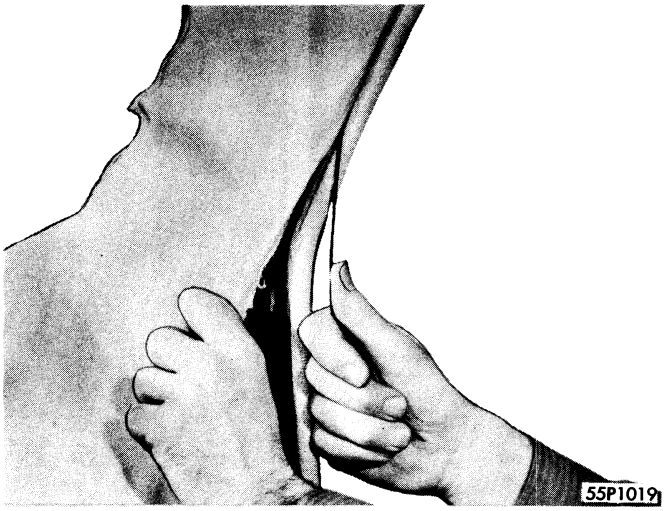

Figure 77—Using Stiff Wire to Remove Headlining From Retainer

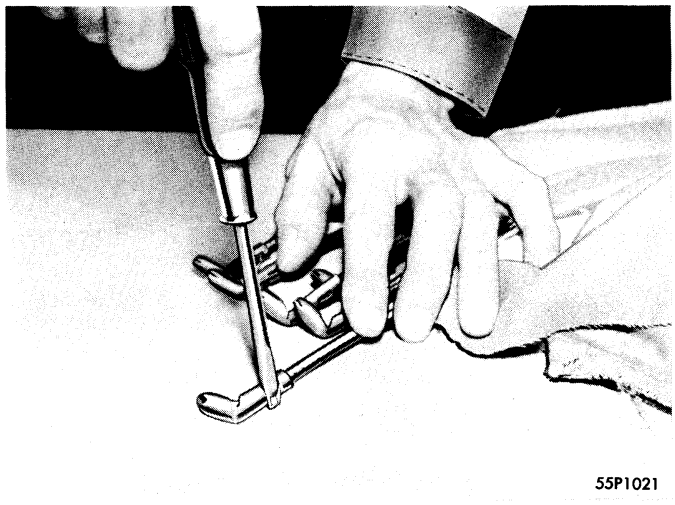

Figure 79—Bending Locking Tab Up To Remove Clip From Bow End

strip away from the roof rail above the doors. Insert a piece of stiff wire, about eight inches long, between the retainer strip and headlining to lift the headlining off the retaining barbs, as shown in Figure 77. Pull the headlining off the barbs at the windshield header bar.

The rear headlining bow on all models using a cloth headlining are held in position at the center by a retaining clip. Bend the clip to free the bow, spring the bow and remove the end from the clip hole in the roof rail. Two holes are provided in the roof rails. As the bows are removed, mark the clip hole that is used, as shown in Figure 78.

After the headlining and bows are removed from the car, inspect the roof pad silencer, if loose, cement as necessary.

If a new headlining is to be installed, the clips must be removed from the bow ends, as shown in Figure 79, to permit removal of the bow from the listing. Bend the clip locking tab up and remove the clip.

Starting at the rear of the headlining, remove each bow from the old listing and install it in position in the new headlining. This procedure assures correct installation of the bows. Before installing the bows in the new headlining, trim the excess listing even with the edges of the headlining, as shown in Figure 80.

INSTALLATION

When installing the headlining, begin at the rear of the car. Install the rear bow in the holes previously marked in the roof rail. Cut a small hole in the middle of the listing for the rear headlining-bow-support-clip, as shown in Figure 82. This will prevent the headlining from wrinkling. Bend the retainer clip around the rear bow.

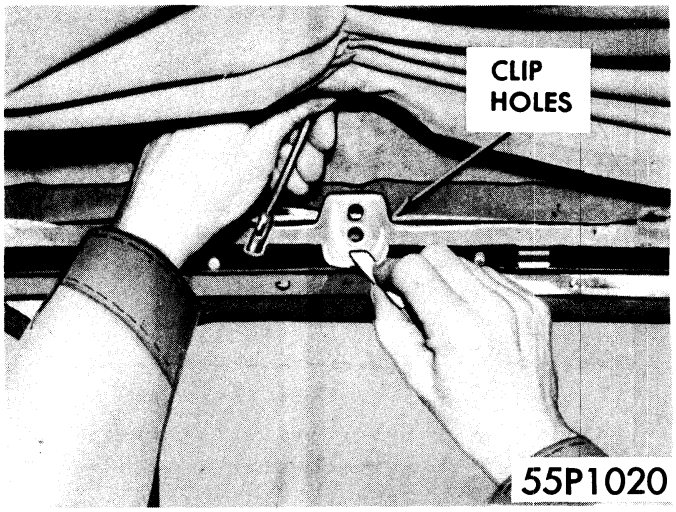

Figure 78—Mark Clip Hole When Removing Bow From Roof Rail

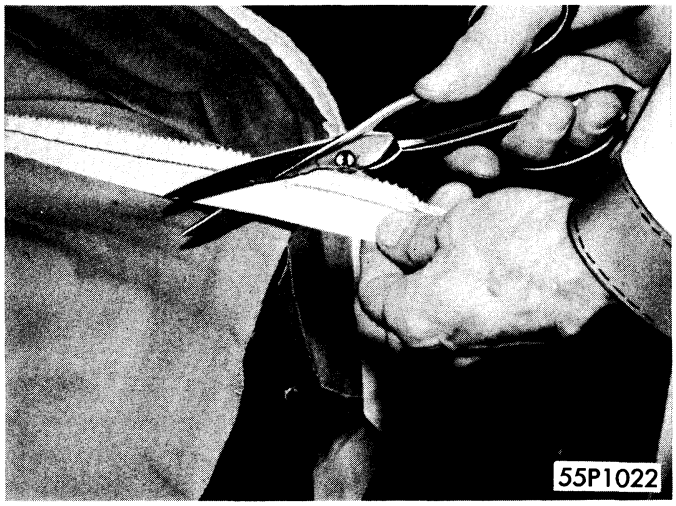

Figure 80—Trimming Excess Listing Even With Edges of Headlining

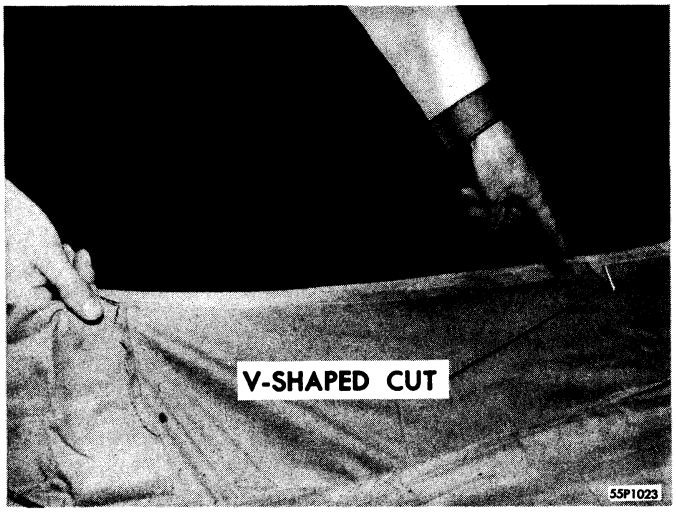

Figure 81—Marking Center Of Each End With Small V-Shaped Cuts

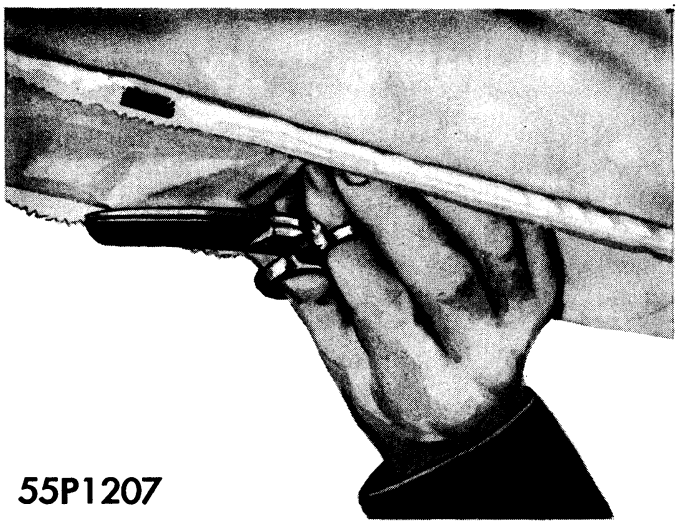

Figure 82—Cutting Hole In Listing For Support Clip

Figure 83—Trimming Excess Material At Wind Cord

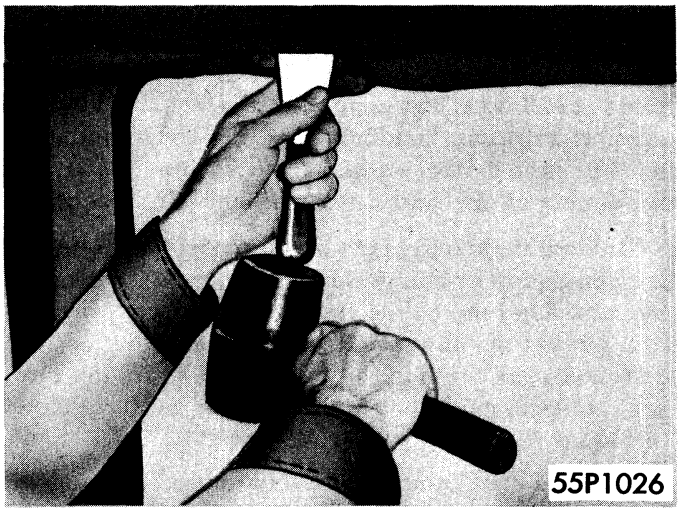

Figure 84—Tucking Headlining Between Retainer and Roof Rail

Install the remaining bows, making sure to stretch the headlining evenly so that approximately the same amount of material hangs down both sides.

Apply cement to the windshield header bar. Wait until it becomes tacky. Then stretch the headlining forward and over the cemented area, and onto the barbs on the windshield header. Make sure the first seam of the headlining is straight.

Cut holes in the headlining for the visor retaining screws and pivot. Install visors before tucking in the corners of the headlining at the top of the windshield posts to prevent tearing the headlining when tightening the screws. Install garnish mouldings.

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.

After listings are cut, start at the front and trim the headlining so that only ½ to 1 inch of material hangs down below the door windcord. See Figure 83.

Use a dull putty knife to tuck the first and second seam between the roof side rail and retainer, as shown in Figure 84. Tuck the remaining material in place.

When one man is performing the installation, alternate from one side to the other completing one section at a time; make certain the seams are straight. As the work progresses, the material should be kept free of wrinkles until all of the headlining is tucked in place between the roof rail and the retainer.

CAUTION

Use care to prevent cutting the listing too far up the bow and ruining the fit of the headlining.

CLUB SEDAN—Apply headlining cement to the underside of the roof rails from the door openings to the rear

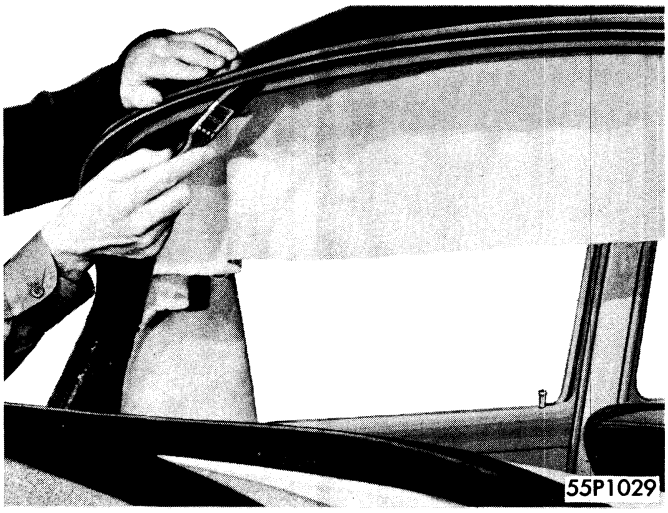

Figure 85—Applying Cement to Rear Window Opening

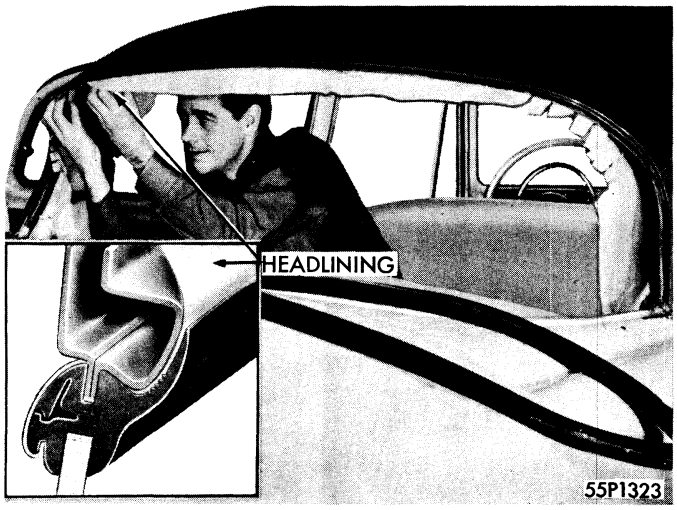

Figure 86—Pressing Material to Cemented Surface

of the quarter window. When the cement is tacky, press the material in place on the cemented surface.

To properly install the headlining at the rear window, apply a light coat of cement to the surface of the opening. Use cement sparingly. While the cement is allowed to become tacky, apply cement at the quarter panel where the material is to be cemented, as shown in Figure 85.

Measure the amount of material required around the rear opening and turn any excess. Cut a series of short slits in the headlining to prevent wrinkling when the material is pressed into place.

Starting at the center, press the headlining onto the cemented surface, as shown in Figure 86.

Install the material across the top and to a point about six inches from the lower corners of the windows. Press the material in place at the quarter panel where it is to be cemented.

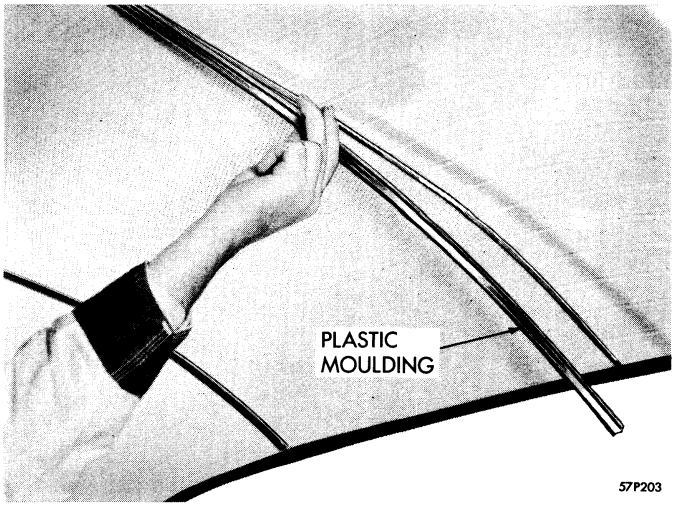

Figure 87—Removing Plastic Moulding From Retainer

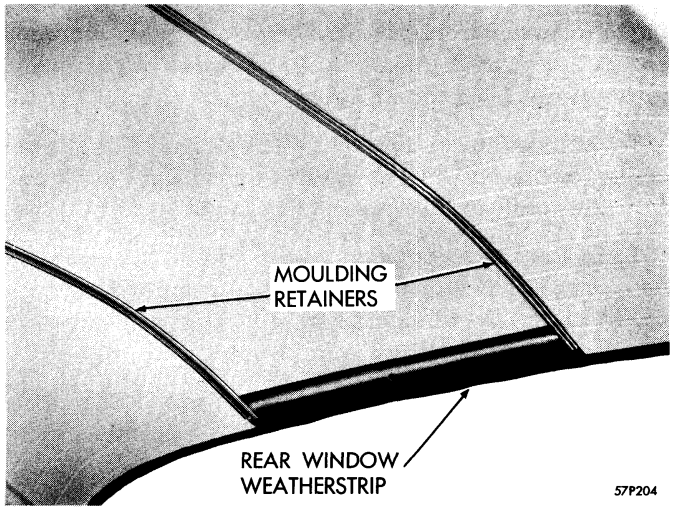

Figure 88—Plastic Mouldings Removed From Retainers

Install the remaining portion of the headlining at the rear window. Work out any wrinkles which may form, and tuck in the remaining portion at the forward edge of the quarter panel.

Locate the center of the dome lamp bracket. Cut a small hole in the headlining at this point and pull the wires through the opening. Install wires in housing, apply a small amount of cement to the inner edge of dome light bracket and install dome light. Install the rear window, rear seats and coat hanger hooks.

SPORT SEDAN AND SPORT COUPE MODELS—If either of the outer sections are to be replaced it is only necessary to remove one plastic moulding, see Figure 87. If the center section is to be replaced it will be necessary to remove both plastic mouldings from the retainers, as shown in Figure 88.

Remove the front and rear window garnish mouldings. Starting at either end, pry the plastic moulding off of retainer, using a screwdriver. Pull down on the mould-

Figure 89—Removing Window Lift Switch

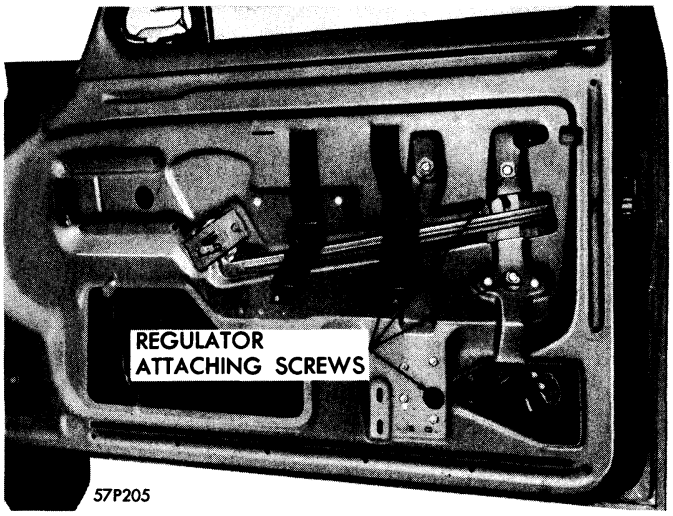

Figure 90—Window Regulator Attaching Screws

ing to release it from the retainer. Remove the damaged section by pulling downward on the damaged section to release it from the retainer.

To remove the headlining at the side pull towards the center of the car and this will release the headlining from the small spring type clips at the outer edges.

To install the side pieces of the headlining push the headlining onto the small retainers at the sides of the car. Push the headlining up at the center and properly center the moulding and snap it into place.

If the center section is to be installed push it into place on the retainers and snap the mouldings onto the retainers and install the garnish mouldings.

SUBURBAN MODELS—The headlining removal is the same except the headlining runs from side-to-side and it is only necessary to remove the garnish mouldings when the front or rear section of the headlining is being replaced.

13. POWER OPERATED WINDOWS

WINDOW LIFT SWITCHES

The chrome bezel of each switch is held in place by spring type retainers. To release the bezel, depress springs through notches on the side of the switch with a pointed tool, as shown in Figure 89.

Work with care when connecting the wire terminals to the switch; make sure they are positioned away from each other. This precaution will avoid incorrect operation of windows.

WINDOW LIFT MOTOR

REMOVAL—Remove the door handle, arm rest and trim panel. Disconnect the wires from motor. Remove the attaching nuts that hold the motor to the gear box, pull motor down and away from drive shaft.

INSTALLATION—Place motor in position and push motor up onto shaft and install attaching nuts. Connect wires to the motor, check motor for proper operation before installing trim panel.

WINDOW LIFT REGULATOR

REMOVAL—Lower the window, disconnect battery, remove trim panel and arm rest. Remove window control switch. Disconnect the wires at terminal block, remove clips from window lift guide pins. Remove leather washer from behind the clips and slip the window pivot pins out of the glass channel. Raise window manually and prop glass. Turn the gear box drive coupling manually until the window lift is in the half raised position.

Remove the four regulator attaching screws, shown in Figure 90. Work the window lift mechanism towards the rear of the door until it releases from the pivot guide track, remove the motor and regulator assembly.

CAUTION

Should the window lift mechanism be removed for replacement or inspection of the gear box, remove the counter balance spring before removing. Use a large pair of pliers to remove the counter balance spring.

INSTALLATION

Place the motor and regulator assembly through opening in door. Insert window lift pivot into guide track. Install the four regulator attaching screws finger tight. Remove window prop, lower glass and insert con-

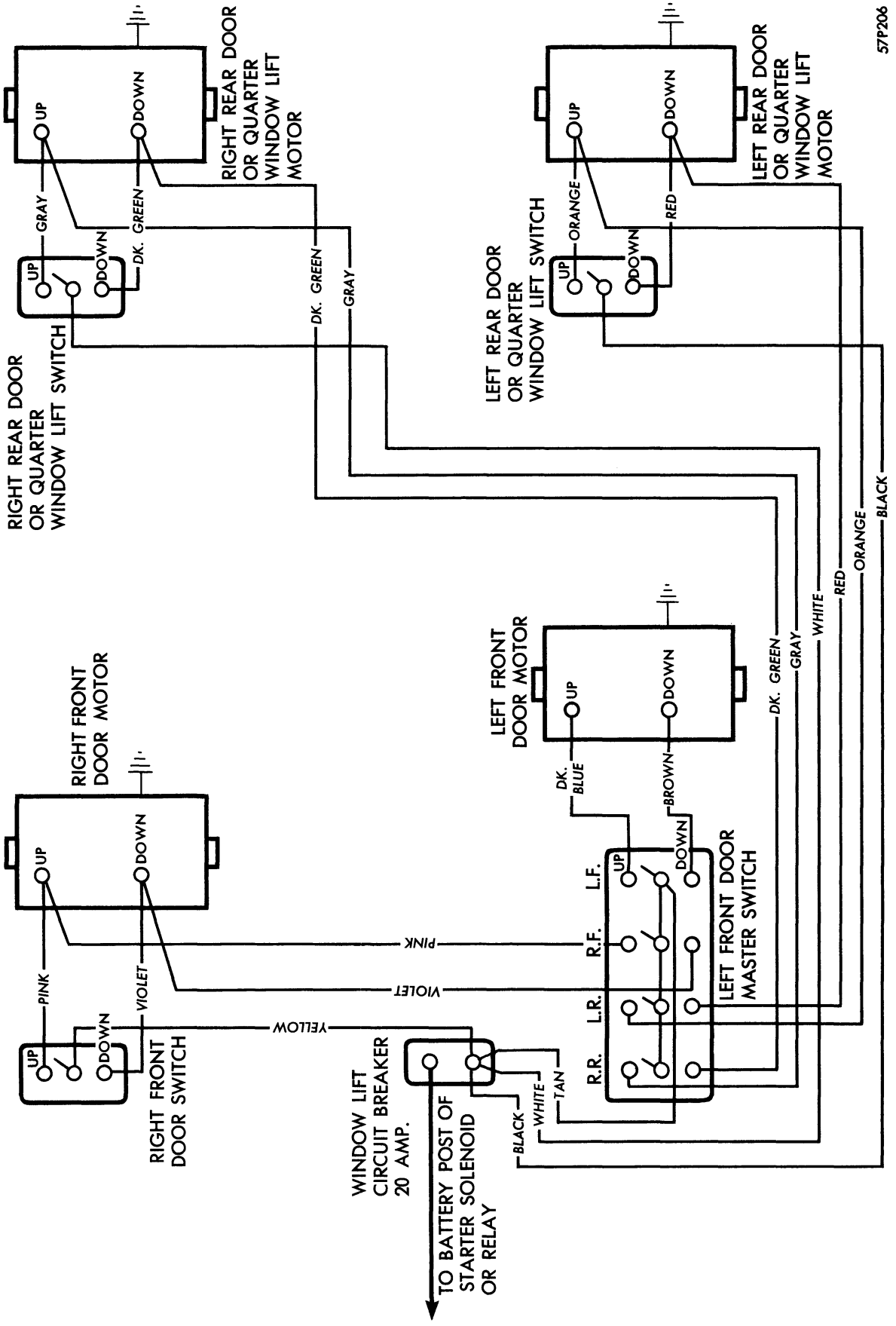

Figure 91—Electric Window Wiring Diagram All Models

trol arms into glass channel, with leather washers on guide pin and secure with clip. Control arms can be inserted into glass channel only when the glass is in the lowered position. Install trim panel, connect wires and install switch and door handle.

CAUTION

Make sure the window lift pivot is in guide track. If the pivot is not in place, extensive damage can result.

WINDOW LIFT WIRING

The windows equipped with electric lifts can be operated from a master switch located on left front door or through the individual switches located on each door. Wiring diagram, shown in Figure 91. Check out of the system for shorts or open circuits should be carried out in the same manner as checking out any electrical system with a test lamp or voltmeter and ammeter.

14. CONVERTIBLE COUPE (TOP OPERATING MECHANISM)

The electric-hydraulic top folding mechanism, Figure 92, 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. See Figure 93. The electric motor is the reversible type. The pump is a two-direction, reversing motor type and is connected with the cylinders by flexible lines. A valve and port assembly in the reservoir directs the flow of the fluid in the system.

The motor, pump and reservoir assembly can be replaced as a unit or an electric motor can be replaced separately. The cylinders are sealed units which must be replaced as assemblies.

FLUID LEVEL—Insufficient fluid, or air in the system, may cause the top to raise slowly or the pump and motor may be noisy during the operation. Check the fluid level in the reservoir. If low, check for a leak due to a broken line or loose connection. If either condition exists, replace the line or tighten the connection. Then fill reservoir until fluid runs out of filler hole. Use only Heavy Duty Brake Fluid.

IMPORTANT

After filling the reservoir, raise and lower the top several times to force out air that may be trapped in the system. Always check the fluid level when top is lowered.

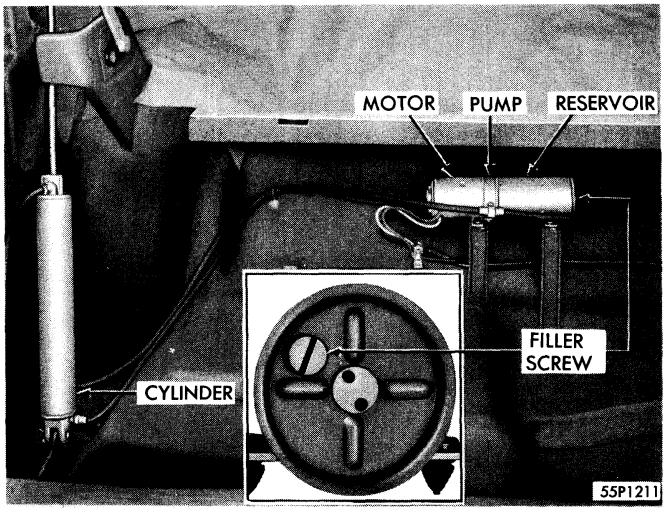

Figure 92—Electric Hydraulic Top Folding Mechanism

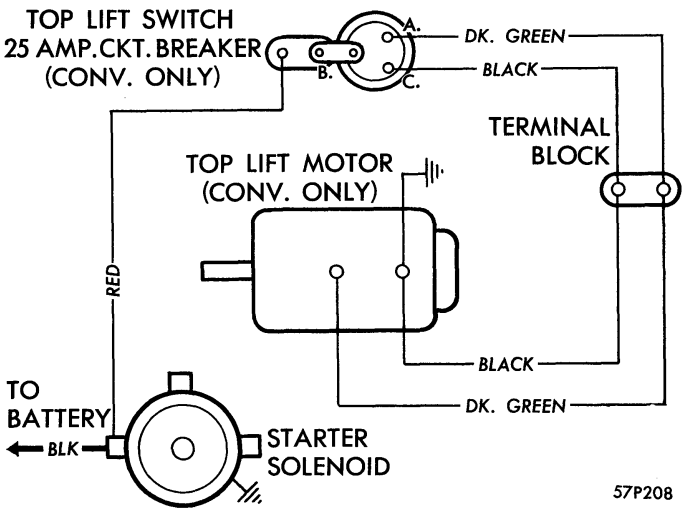

Figure 93—Wiring Diagram Electric Hydraulic Top

If difficulty is encountered in raising or lowering the top with the motor running, and sufficient fluid in the reservoir, and the pivot points are not binding, the cause is probably due to improper linkage alignment and adjustment. See Figure 95.

CARE OF TOP

WATER-PROOFING THE TOP—Worn fabric top material can be waterproofed with the use of windshield Rubber Sealer.

Before applying the sealer, clean the top thoroughly. Remove any spots with an art-gum eraser and brush off any dust and road dirt with a whisk broom. Use a sponge or brush, and wash the top thoroughly with lukewarm water and mild soap. Scrub the top with soap suds, starting in the center, and gradually work toward the edges.

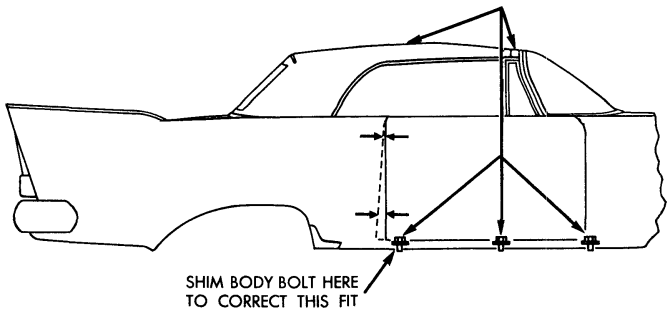

Figure 94—Body and Door Opening Adjustment

When the top is scrubbed clean, wipe off the excess suds with a clean wet cloth. Allow the top to dry and apply the sealer evenly with a brush.

TOP AND REAR WINDOW PANEL

CARE OF THE TOP FABRIC—The top fabric should be brushed occasionally to remove dust and road dirt. An art-gum eraser will help in the removal of certain spots and stains. The top material can be washed with a sponge or brush. Use lukewarm water and mild soap suds.

CAUTION

Before top is lowered, make sure the top fabric is completely dry after cleaning. Dampness may cause formation of mildew and damage the closely-folded fabric.

CARE OF REAR WINDOW PANEL—To clean the panel, flush it with plenty of cool water to rinse off abrasive dust. "Dry washing" with a wet or dry cloth is not recommended. Lather surface of panel with mild soap suds, using the palm of hand. Thoroughly rinse off all traces of soap and allow panel to air dry.

CAUTION

This panel is made of flexible vinyl plastic. It should never be cleaned with commercial solvents such as gasoline, naphtha, or carbon tetrachloride.

15. CONVERTIBLE TOP ADJUSTMENTS

BODY ALIGNMENT — An important factor in the proper alignment of the doors and convertible top is the attachment of the body to the frame of the car. Uneven tightening of body bolts, the use of too many or not enough shims, or overtightening of body bolts may result in distortion of the body sill and cause misalignment of the doors and top fit at the header.

Therefore, before any adjustments are performed to correct door or top misalignment, be sure that all body bolts are tightened to a torque of 18 foot-pounds. In some cases it may be advisable to loosen the body bolts and drive the car a short distance to permit the body to settle evenly on the frame. Then tighten the bolts to the specified torque. If body shimming is necessary to obtain proper door alignment, this should be done before attempting to make adjustments of the top fabric.

Figure 94, illustrates how to correct a door fit which is tight at the top and open at the bottom. If the door fit were open at the top and close at the bottom, it would be necessary to add shims at the body mounting near the front and rear of the door. In some instances, it might be necessary to add shims at the body brackets on the right side of the car and remove them on the left side or vice versa. However, the important thing to keep in mind is that shimming of the body as illustrated changes the fitting of the top header panel at the top of the windshield frame.

POWER LINK ADJUSTMENT—With the top and all door and quarter glasses in the raised position, carefully inspect both door glasses and quarter glasses for proper fit to the top side rail seals and vertical seals. Adjustments for proper sealing of the quarter glass to the roof rail weatherstrip is made at the power link adjustment bracket with the top in the partially raised position. See (E) in the inset of Figure 95.

To decrease clearance between the quarter glass and roof rail weatherstrip, move the bracket forward. The adjustment should be the same on both sides.

ROOF SIDE RAIL ALIGNMENT — PROP LINK ADJUSTMENT—The adjustment for proper sealing of the roof side rail seals above the door glass and of the header panel to the windshield locking dowels is mainly controlled by the vertical prop links which are fastened in the quarter panel pockets. See (E) in inset of Figure 95.

Two additional adjustments also affect the folding top side rail seals at the top of the door glass. They are the front side rail hinge stop screws and the rear side rail hinge stop screws. See insets (C) and (D) of Figure 95.

If the front side rail hinge joints above the door glass are jackknifed open when the top is in the raised position, correct leveling of the side rails can be effected by lowering the prop link bracket. However, when adjusting one vertical prop link, the same or practically

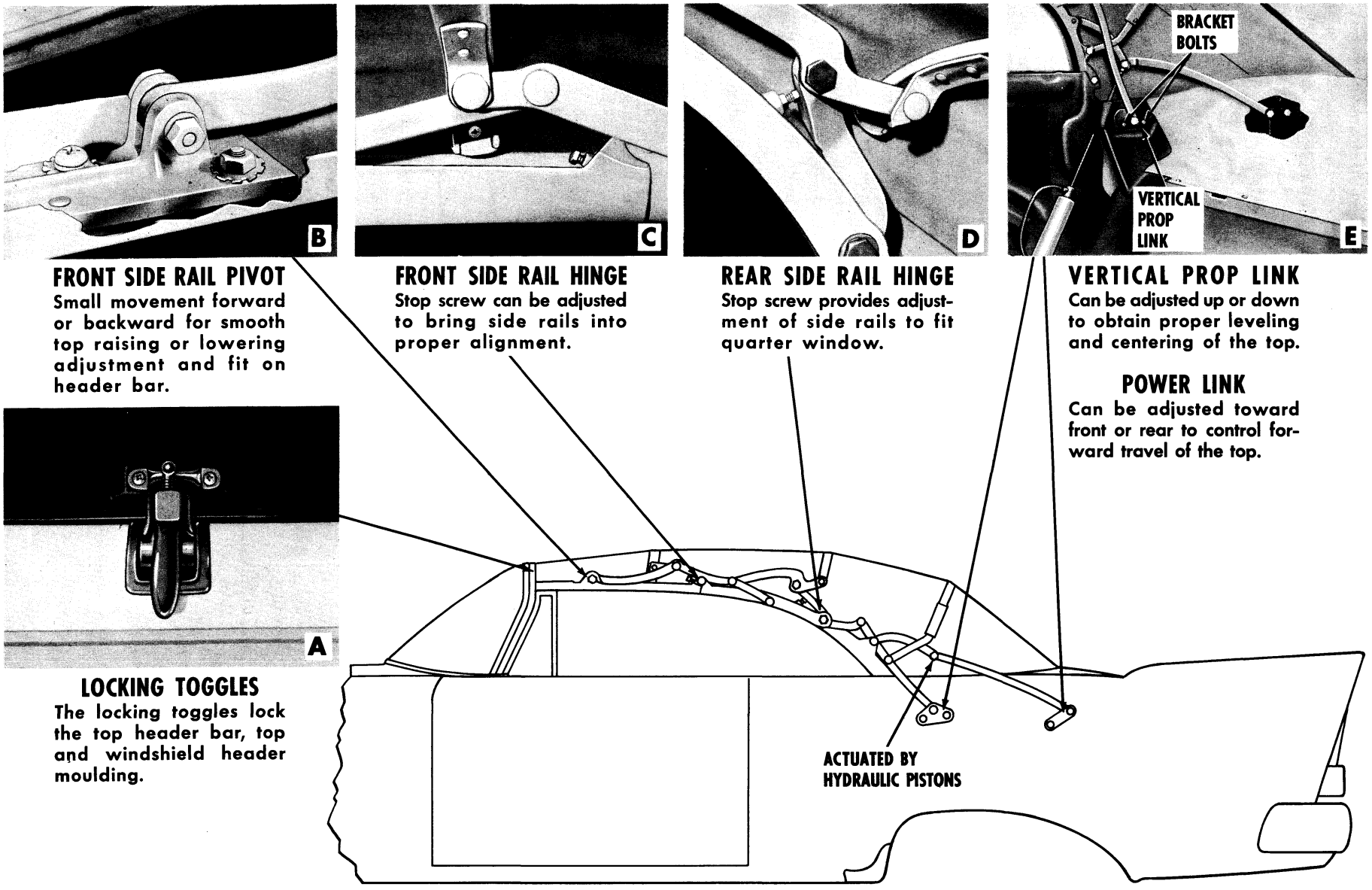

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Figure 95—Top Alignment and Linkage Adjustment

the same adjustment should be made to the opposite vertical prop link. This is necessary in order to maintain parallelism between the header panel and windshield frame, and in addition to maintain lateral alignment of the header panel stops with relation to the windshield plunger. Before making this adjustment loosen the top header at the windshield to remove tension from the linkage.

If the front side rail hinge joint is jackknifed closed, turn the front side rail adjustment screws clockwise until satisfactory alignment is obtained. See inset (C) of Figure 95.

If there is a necessity to adjust the side rail screws to obtain side rail alignment, turn both the front and rear screws sufficiently tight to remove any slack in the linkage. Then tighten the locking nut.

TOP HEADER PANEL ADJUSTMENT—After the previous adjustments have been performed and the header panel does not close easily on the header dowels, further adjustment is provided to move the header panel forward or backward. Loosen the header panel to side rail screws and shift the header panel forward or backward as required. See inset (B) of Figure 95.

If further adjustment is required, it will be necessary to add or remove shims at number 1 and 2 body mountings. Adding shims at the number 1 body mountings and removing shims at the number 2 body mountings will tilt the windshield forward. After shimming the body adjust doors if necessary.

If there is seepage across the header between the top and tacking strip, seal the cloth to the tacking strip. Do not use an oil base sealer, as it may stain the top.

VENT WING ADJUSTMENT—The vent wing and door glass can be adjusted in several directions. Remove the door garnish moulding and door trim. The vent wing can be tipped forward or backward by adjusting the lock nuts at the vent wing brace. See Figure 96.

To tip the vent wing forward, loosen the upper lock nut and tighten the lower lock nut. To tip the vent backward, loosen the lower lock nut and tighten the upper one. The vent wing can be tipped in or out by adjusting the front door glass run channel. The lower end of this channel is held in place by cap screws. Loosen the cap screws to shift the channel in the elongated hole in the attaching bracket.

DOOR GLASS ADJUSTMENT—When the vent is adjusted to fit tight against the side-rail weatherstrip, the upper front corner of the door glass will also fit tight against the weatherstrip. The upper rear corner of the door glass can be made to fit against the weatherstrip by adjusting the rear run channel. To do this, loosen the cap screws at the lower end of the run channel. Then hold the rear corner of the door glass tight against the side rail weatherstrip and tighten the cap screw. This adjustment should be made whenever the front run channel position is changed. See Figure 96.

REAR QUARTER WINDOW ADJUSTMENT—Remove the rear seat cushion and seat back. Remove the garnish moulding, regulator handle and trim panel. The front channel can be moved up and down by loosening the mounting bolts located at the top and the bottom of the front channel. See Figure 96. The rear channel can be moved forward or backward by loosening the mounting bolts at the top and the bottom of the rear channel.

The glass can be tilted in or out by adjusting the mounting bolts on the center support channel support bracket. See Figure 96. The down stop is located on the center support bracket.

The upward and forward travel can be adjusted to control the forward travel of the window by means of a stop. See Figure 96.

16. BODY SEALING PROCEDURES

When sealing the exterior of the body, use a non-bleeding type of sealer. The newly sealed portion should be painted the same color as the section that has been sealed. At points where weatherstripping is used, it may be necessary to refit, shim and cement the weatherstrip.

DRAIN TROUGH

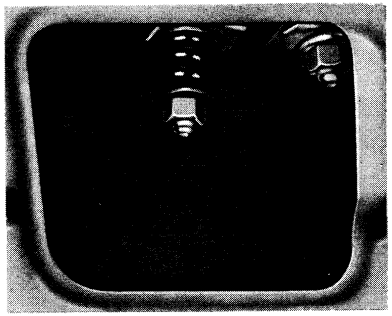
A water leak at the drip rail will show up on the headlining, around the body pillar, on the floor or possibly in the luggage compartment. The drain trough is sealed on the top of the roof panel, on the underside at the roof rail and at the inner edge of the roof rail, see Figure 97. Inspect the entire length of the trough for possible openings, especially at the circled areas shown in Figure 97. Using a thin wooden paddle, or a nozzle type gun, seal any openings with Body Seam Sealer. Touch-up the newly sealed points.

COACH JOINTS

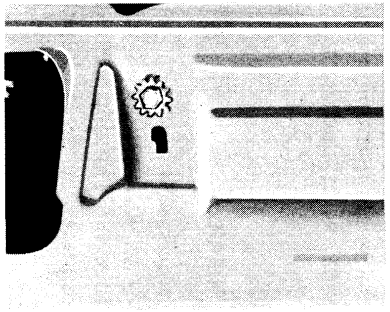
The coach joints should be sealed with a hand type sealer that can be painted over to match the body.

WINDSHIELD

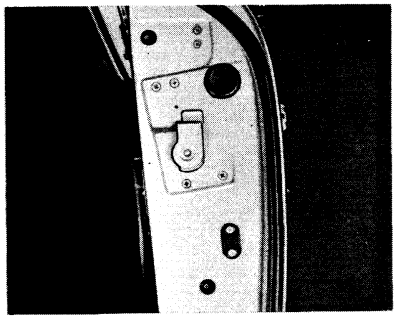
Water leakage at the windshield can occur at two places; between the weatherstrip and the fence and



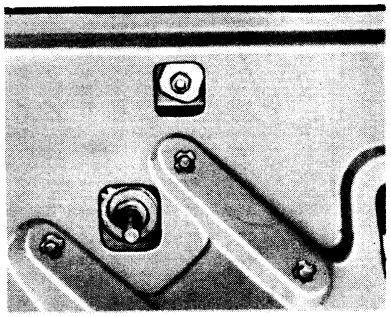
1. VENT WING BRACE. Adjust lock nuts to tip vent wing toward or away from windshield post.



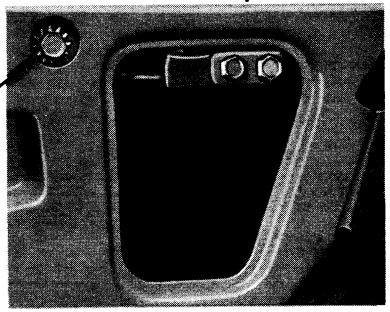
2. DOOR GLASS UPPER STOPS. Adjust to limit travel of glass in raised position.



3. CHANNEL BRACKET ATTACHING SCREWS. Adjust attaching screws to obtain proper alignment of door glass and channels.



4. FRONT CHANNEL ATTACHING SCREWS. Adjust attaching screws to move channel up or down.



5. QUARTER WINDOW UPPER STOP. Adjust screw to limit forward travel of glass.

6. CENTER CHANNEL SUPPORT BRACKET. Adjust attaching screws to tilt quarter window in or out.

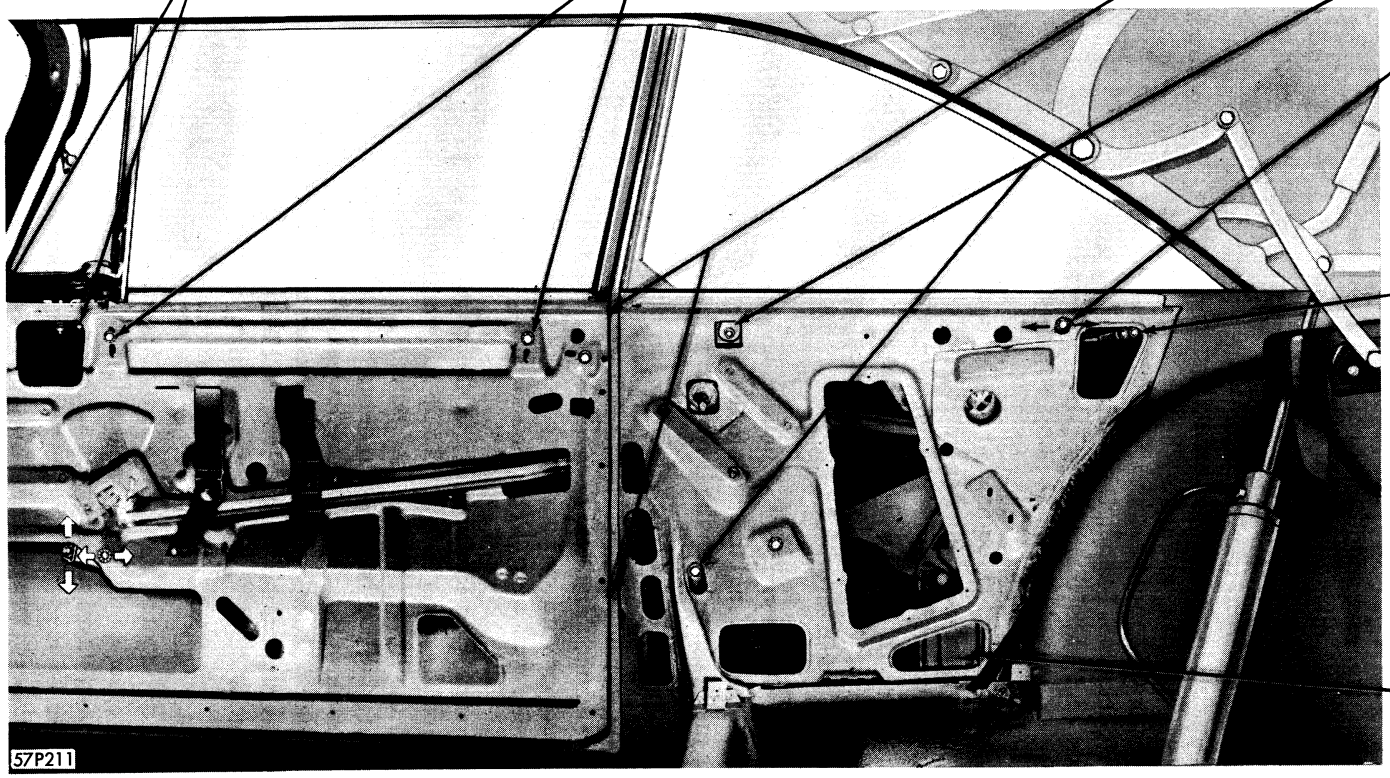


Figure 96—Convertible Coupe Window Adjustment

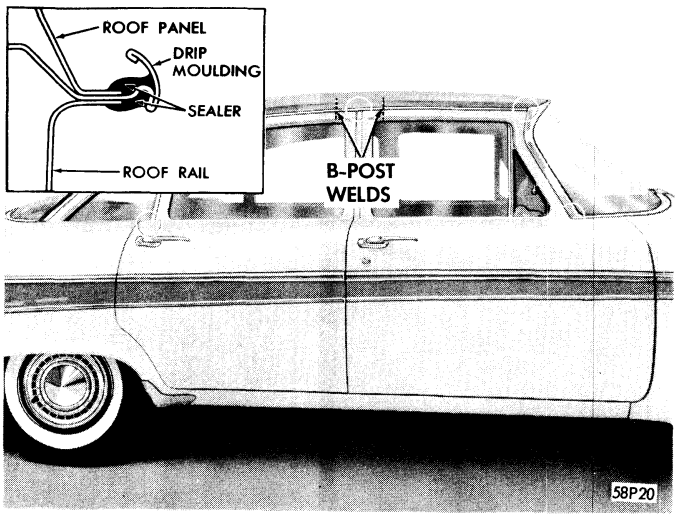


Figure 97—Sealing Drip Mouldings and Pillar Post Welds

between the weatherstrip and the glass. To locate the source of leak perform the following test:

Start at one lower corner and work across the bottom to the other side. Another service man inside the car can mark the points of leakage with chalk. Continue from the lower corner up the side, and across the top to the center, see Figure 98. Complete the test by starting at the other lower corner and working up the side and across the top to the center.

If the leak is between the weatherstrip and glass, pry weatherstrip away and apply sealer in between the glass and weatherstrip, as shown in Figure 99.

WINDSHIELD WIPER PIVOTS

If a water test indicates leakage around the windshield wiper pivots, check the attaching nuts as they may be loose. If the nuts are tight it may be necessary to replace the gaskets.

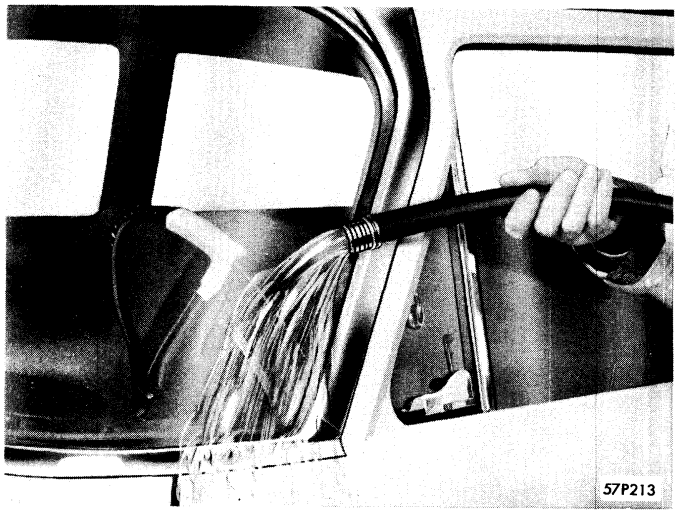


Figure 98—Checking Windshield for Water Leaks

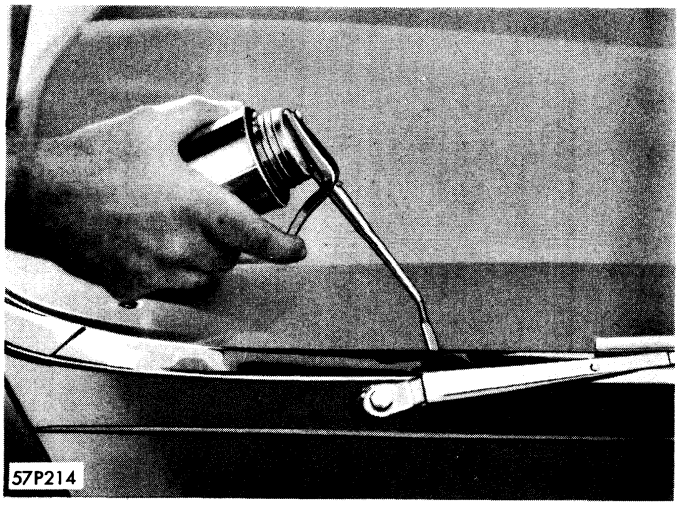


Figure 99—Apply Sealer Between Weatherstrip and Windshield

FRESH AIR INTAKE

Openings in the seals or seams in the fresh air intake chamber will allow the water that normally passes through the vent to enter the front compartment.

To seal the vent chamber, carefully remove the intake grille. Seal both end seams and seam at the rear of the intake, see Figure 100. Use rope type sealer or semi-fluid sealer. Seal the support struts that the grille snaps onto. The struts should be sealed at the rear from the underside.

COWL AREA

All welded seams should be sealed with a heavy caulking compound. In addition all pad fastening openings, attaching bolt openings and grommet openings should be sealed to prevent water and dust leakage. See points 1, 12, 13, 14 and 15 in Figure 101.

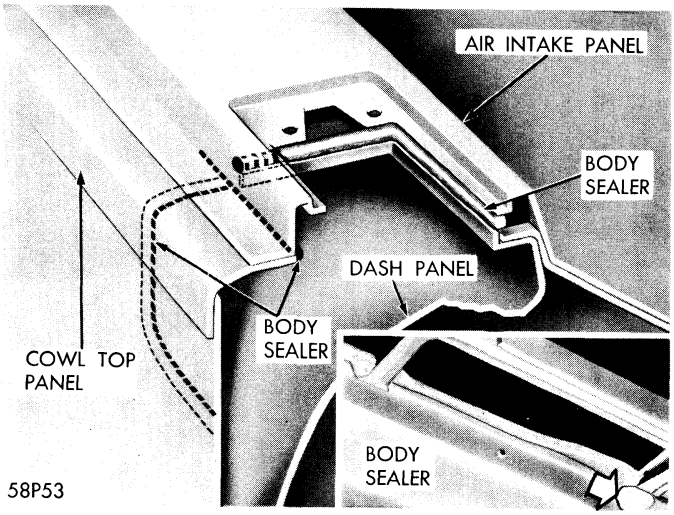


Figure 100—Sealing Fresh Air Intake Seams

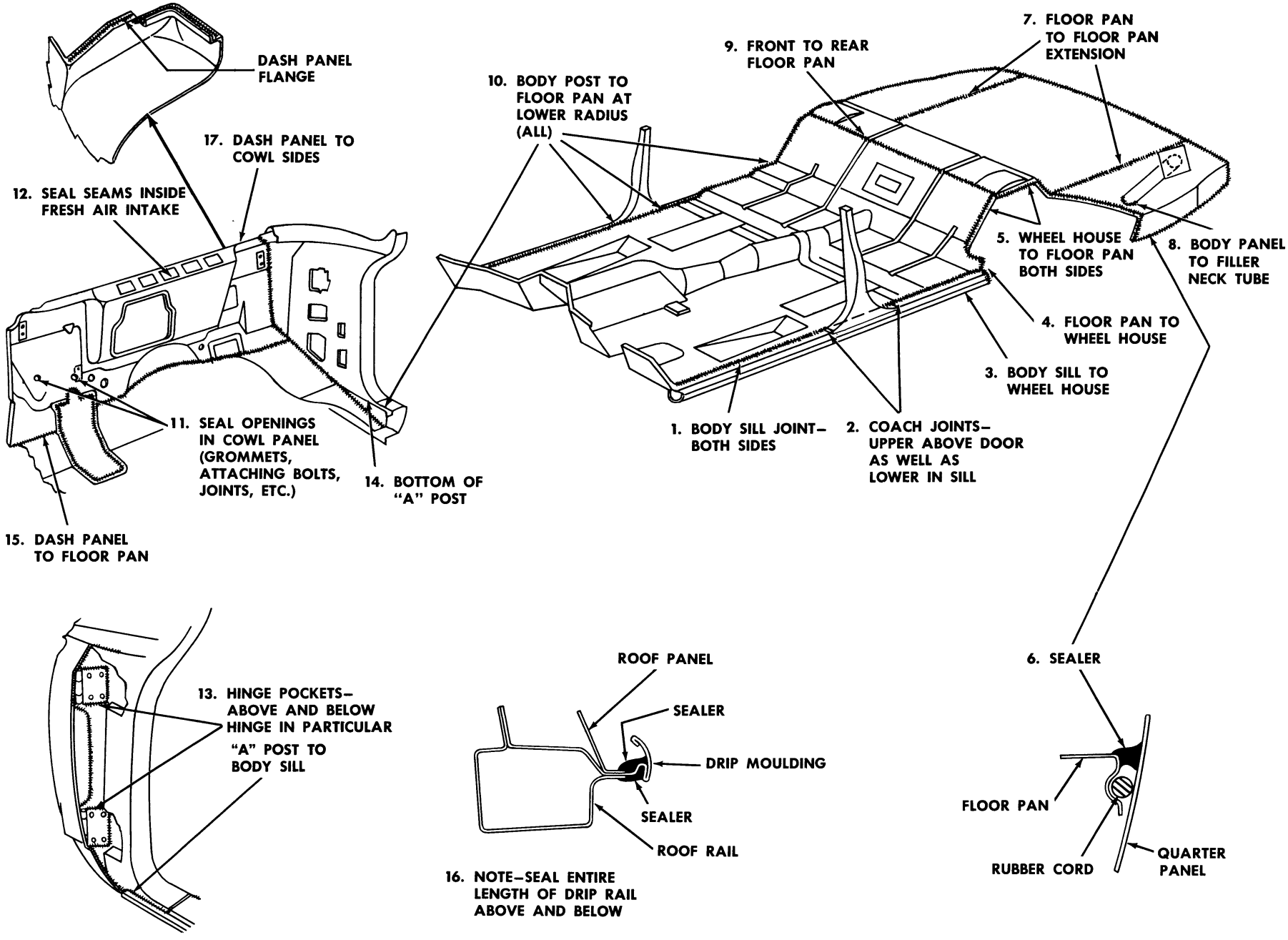


Figure 101—Body, Cowl and Floor Pan Sealing Chart

HOOD SEAL

Make sure that the hood seal is properly installed in its retainer so that it will seal properly.

HOOD HINGE BRACKET

Seal the hood hinge bracket to cowl panel stud holes with a heavy caulking compound. Also, apply a ribbon of sealer around the top and the sides of the hinge bracket, as shown in Figure 102.

DOOR GLASS

A door glass that is too loose in the glass run channel may allow water to enter around the glass. To correct this condition, install strips of body elastic tape behind the glass run channel, as shown in Figure 103. To do this it will be necessary to remove the garnish moulding and loosen the glass run at the top.

DOORS

Before checking doors and door glass for leakage make certain that all doors and windows are adjusted properly. If the doors fit properly and do not provide a good seal after a water test is made, use a bulb filled with powder pumped around the door weatherstrip with the door in the closed position.

When the door is opened any gaps in the weatherstrip will allow traces of the powder to enter inside the door opening. The weatherstrip can also be tested with a shipping tag. If the seal is poor at only one point the weatherstrip can be shimmed outward by putting a strip of body elastic tape on the door and using weatherstrip cement. To replace the entire weatherstrip, free the old weatherstrip from the door with solvent and clean the door thoroughly of old cement. Coat the door and weatherstrip with cement and let dry at least twenty minutes before applying the weatherstrip to the door. After pressing weatherstrip into place leave the door open for at least two hours before closing. Closing the door too soon after applying the weatherstrip will pull the weatherstrip out of place before the cement has completely dried.

DOOR VENT WING

Water leaks around, or through, the front vent wings may be due to improperly adjusted wing assemblies, resulting in distortion of the weatherstrip. If excessive clearance is found between the vent wing and the weatherstrip, or between the glass and window opening, the garnish moulding should be removed and the vent adjusted to the opening. On Club Sedan and Four Door Sedans the vent wings can be shimmed inward at the upper pivot to provide a better seal.

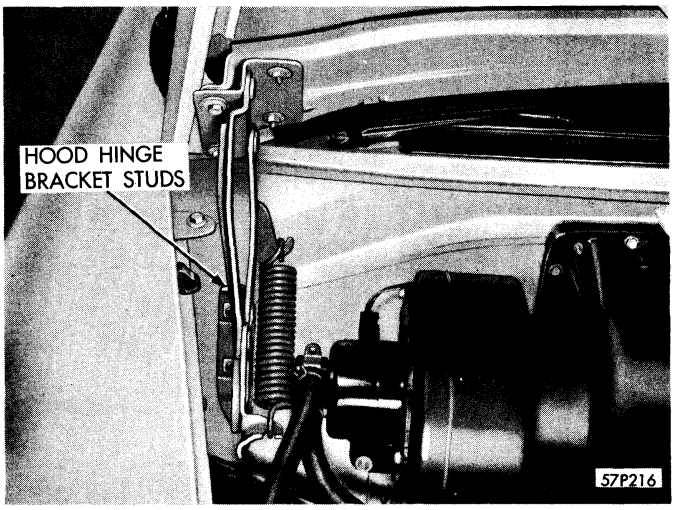


Figure 102—Sealing Hood Hinge Bracket to Cowl Studs

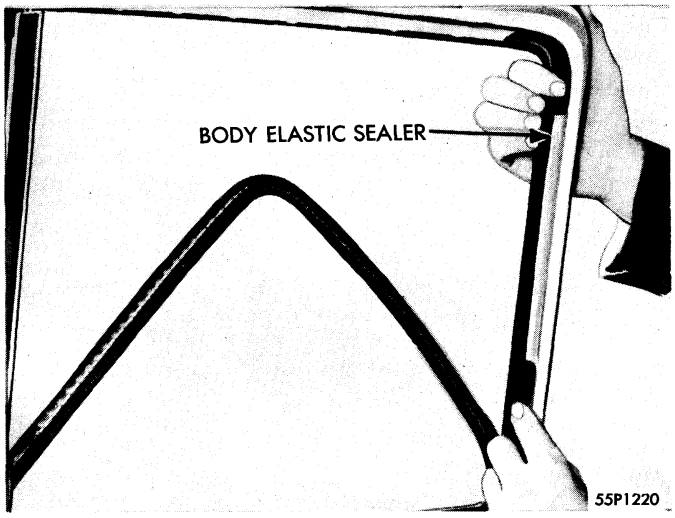


Figure 103—Shimming Door Glass Run Channel

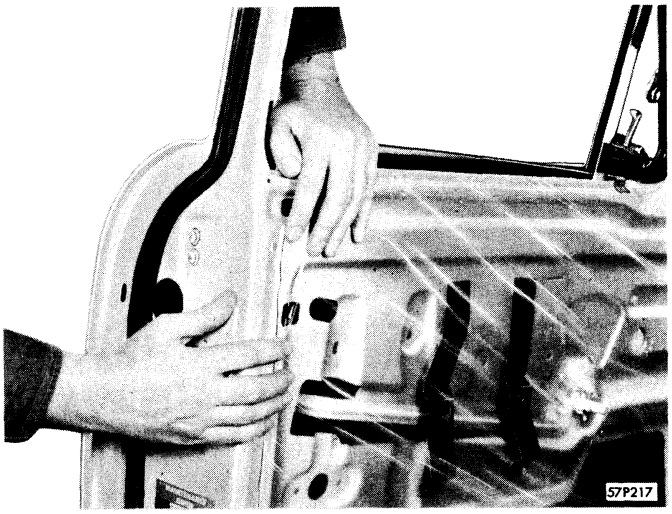


Figure 104—Cementing Water Shield Over Door Openings

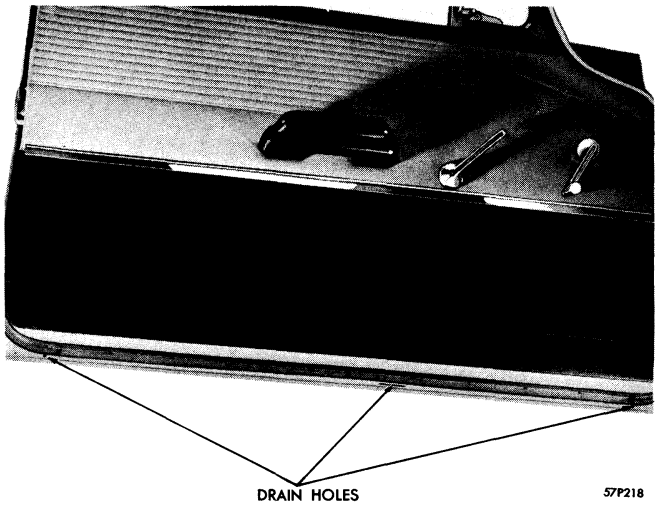


Figure 105—Clean all Drain Holes in Door Frame

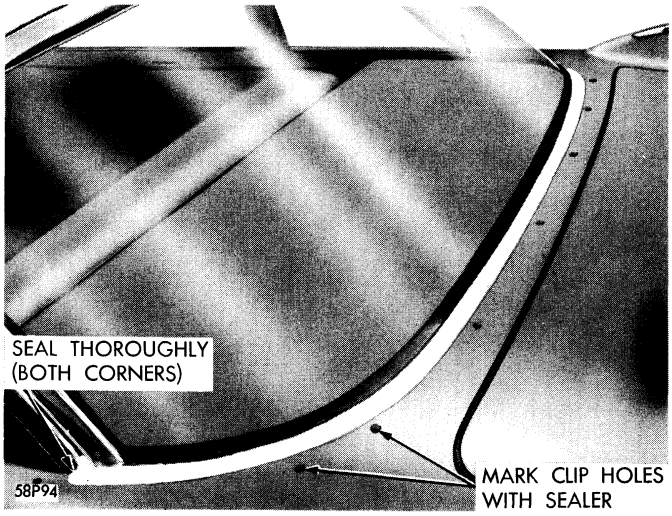


Figure 106—Sealing Rear Window Trough

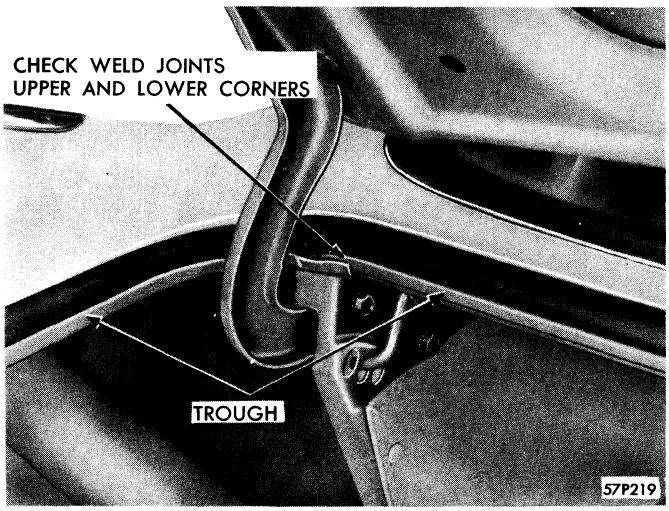


Figure 107—Sealing Deck Lid Weatherstrip Trough

WATER SHIELD

The water shield over the door openings should be cemented in place and free of wrinkles, see Figure 104. Inspect the drain holes at the bottom of the door frame to be sure they are not plugged, see Figure 105.

REAR WINDOW

If water enters the luggage compartment under the package shelf. Remove the rear window lower trim moulding and clean out the old sealer from the trough below the weatherstrip. Apply semi-fluid sealer or rope type sealer along the entire length of the trough. Seal the trough at both lower corners of the window, as shown in Figure 106.

To aid in the installation of the moulding, mark the clip holes by placing balls of sealer to the rear of each moulding hole. This helps align the trim moulding retaining studs with the holes and avoids the possibility of moving the sealer or damaging the paint. Remove balls of sealer when moulding is installed.

REAR DECK LID

Before water testing the deck lid make certain that the deck lid is properly fitted. Start the water test at the bottom and work slowly toward the top of each side. Then work across the top of the lid. Check the two upper and lower welded joints for proper sealing, see Figure 107.

If leakage occurs at the seam between the weatherstrip trough and the deck upper panel and quarter panel, fill any openings with rope type sealer and paint sealer body color if necessary.

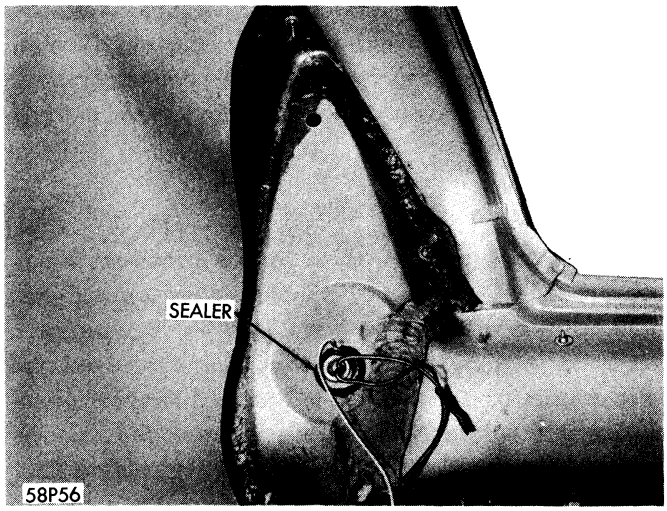


Figure 108—Sealing Tail Light Assembly

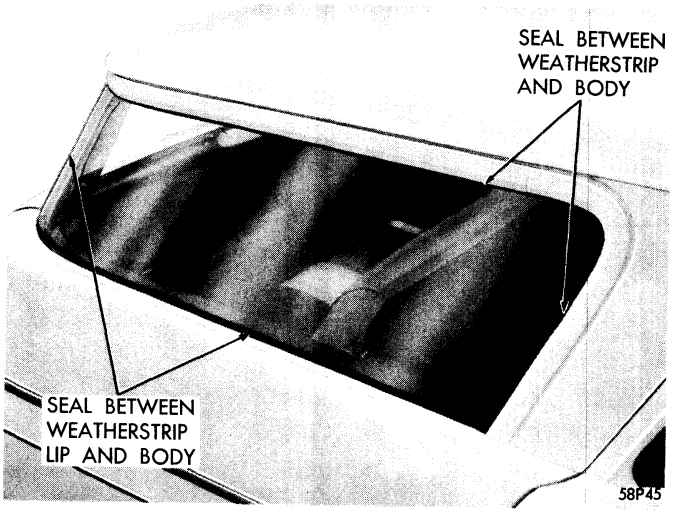


Figure 109—Sealing Suburban Stationary Glass

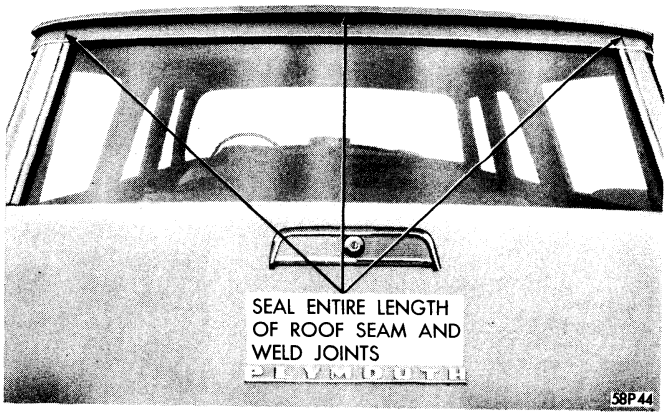


Figure 110—Sealing Tail Gate Area

TAIL LAMPS

Water test the tail lamp area for possible leakage into the luggage compartment. Water will enter the trunk area between the tail lamp housing and quarter panel openings, see Figure 108. To secure a good seal use a hand type caulking compound and seal the opening from inside the luggage compartment.

SUBURBAN QUARTER WINDOW

Water leaking between the glass and the weatherstrip or between the weatherstrip and the body will wet the floor mats below the quarter windows. These areas can be sealed by applying semi-fluid sealer between the weatherstrip and the body, as shown in Figure 109. Remove excess sealer.

The tail gate weatherstrip around the lower half of the tail gate should be checked to make sure it is properly cemented to the body to prevent water or dust leaks.

SUBURBAN TAIL GATE

Check the seal between the roof panel and the roof rail above the tail gate. See Figure 110. Use rope type or semi-fluid sealer and touch-up as necessary. Water entering at this location passes over the inside garnish mouldings and down the trim panels.

1957 EXTERIOR COLORS

Color Name	Acme Fleet-X Enamel	Acme Pro-Flex Lacquer	Ditzler Quick Set Enamel	Ditzler Automotive Lacquer
Jet Black	206	1724-L	DQE-9000	DAL-9000
Satin Grey (Light)	22-7972*	7972	DQE-31324*	DAL-31324
Canary Yellow	22-8015*	8015	DQE-80787*	DAL-80787
Marine Blue (Dark Met.)	22-8296	8296	DQE-11533	DAL-11533
Sky Blue (Light)	22-8297	8297	DQE-11513	DAL-11513
Jade Green (Dark Met.)	22-8298	8298	DQE-42009	DAL-42009
Meadow Green (Light)	22-8299	8299	DQE-41964	DAL-41964
Silver Charcoal (Met.)	22-8300*	8300	DQE-31226*	DAL-31226
Sand Dune White	22-8301	8301	DQE-80624	DAL-80624
Ginger	22-8302	8302	DQE-21340	DAL-21340
Carnival Red	22-8304	8304	DQE-70699	DAL-70699
Dusty Coral	22-8305	8305	DQE-60244	DAL-60244
Burgundy (Met.)	22-8306	8306	DQE-50446	DAL-50446
Desert Gold (Met.)	22-8307	8307	DQE-21321	DAL-21321
*On Los Angeles built cars the following colors will be substituted				
Satin Grey	22-8269	8269	DQE-31390	DAL-31390
Canary Yellow	22-8292	8292	DQE-80905	DAL-80905
Silver Charcoal	22-8270	8270	DQE-31387	DAL-31387

INTERIOR COLORS

Seat Frames

Color Name	Berry Bros. Number	Ditzler Number
Jet Black	224-D-83	DL-9000
Bingo Blue	224-B-63	DL-11609
Desert Gold	224-N-97	DL-21321
Bali Brown	224-N-96	DL-21362
Howe Green	224-G-81	DL-42063
Clear Topcoat	118-C-18	DX-1550

Steering Column

Color Name	Ditzler Number
Marine Blue	DAL-11626
Desert Gold	DAL-21365
Jade Green	DAL-42065

Garnish Mouldings and Instrument Panels

Color Name	Berry Bros. Number	Ditzler Number
Jet Black	179-D-14	DL-9000
Marine Blue	179-B-30	DL-11533
Desert Gold	179-N-219A	DL-21321
Ginger	179-N-220	DL-21340
Jade Green	179-G-49	DL-42009
Clear Topcoat	181-C-19	DX-1550

Center Pillar

Color Name	Ditzler Number
Jet Black	DAL-9000
Bailey Blue	DAL-11542
Toffee Tan	DAL-21286
Alton Beige	DAL-21298
Meadow Green	DAL-41964
Wheatstone Yellow	DAL-80064
Sand Dune White	DAL-80624

1958 EXTERIOR COLORS

Color Name	Plymouth Code	Acme			Ditzler	
		Fleet-X Enamel	Pro-Flex Lacquer	Super Fleet -X Enamel	Quick Set Enamel	Automotive Lacquer
Jet Black	AAA	206	1724-L		DQE-9000	DAL-9000
Bluebonnet Blue (Light)	BBB	22-8460	8460	11-8460	DQE-11684	DAL-11684
Stardust Blue (Med. Met.)	CCC	22-8473	8473	11-8473	DQE-11596	DAL-11596
Midnight Blue (Dark)	DDD	22-8459	8459	11-8459	DQE-11679	DAL-11679
Misty Green (Light)	EEE	22-8461	8461	11-8461	DQE-42176	DAL-42176
Ivy Green (Med. Met.)	FFF	22-8463	8463	11-8463	DQE-42128	DAL-42128
Arctic Turquoise (Met.)	JJJ	22-8478	8478	11-8478	DQE-42099	DAL-42099
Metallic Suede (Med. Met.)	LLL	22-8474	8474	11-8474	DQE-31437	DAL-31437
Buckskin Beige	MMM	22-8480	8480	11-8480	DQE-21501	DAL-21501
Copper Glow (Met.)	NNN	22-8479	8479	11-8479	DQE-21446	DAL-21446
Toreador Red (Light)	OOO	22-8477	8477	11-8477	DQE-70773	DAL-70773
Royal Red (Dark)	PPP	22-8462	8462	11-8462	DQE-70791	DAL-70791
Metallic Coral	SSS	22-8476	8476	11-8476	DQE-21435	DAL-21435
Sunflower Yellow	UUU	22-8475	8475	11-8475	DQE-80951	DAL-80951
Iceberg White	XXX	22-8291	8291	11-8291	DQE-8131	DAL-8131
Canyon Gold	ZZZ	22-8642	8642	11-8642	DQE-21549	DAL-21549

INTERIOR COLORS

Garnish Mouldings and Center Pillars

	Ditzler Number
Shamrock Green	DL-42183
Jet Black	DL-9000
Comet Blue	DL-11596
Reef Coral	DL-21506
Fury Brown	DL-21493

Instrument Panel Scotch Grain

	Ditzler Number
Shamrock Green	DUL-42212
Comet Blue	DUL-11473
Reef Coral	DUL-21510
Jet Black	DUL-9000
Fury Brown	DUL-21509