



SERVICE NEWS

VOLUME 33

FEBRUARY, 1961

NUMBER 2

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CORVAIR SERVICE INFORMATION

The following information supersedes or supplements referenced material contained in the 1961 Corvair and Corvair 95 Shop Manual.

Page 2-6 "MANUAL TRANSMISSION—AXLE ASSEMBLIES

Recommended Lubricants

Use either SAE 80 "Multi Purpose" Gear Lubricant (or) SAE 80-90 Multi-Viscosity "Multi Purpose" Gear Lubricant.

The SAE 80-90 Multi-Viscosity "Multi Purpose" Lubricant is not to be considered as the preferred of the two lubricants recommended. The multi-viscosity lubricant is approved for use in these "trans-axles" as optional with the SAE 80 "Multi Purpose" Lubricant.

Some Oil Companies do not market the SAE 80-90 Multi-Viscosity "Multi Purpose" Gear Lubricant.

NOTE: Use of SAE 90 Viscosity lubricants is not recommended. (SAE 80-90 Multi-Viscosity "Multi Purpose" is not considered a SAE-90 viscosity lubricant).

Lubricant Additions—w/Manual Transmission

Information in the Shop Manual relative to maintaining the lubricant level at 1/2" below the

filler plug hole of the differential carrier housing and the requirement that the lubricant be at normal operating temperature when checked, is in error. The only requirement is that the lubricant be maintained at the level of the filler plug hole. Lubricant temperature should be disregarded when checking the lubricant level on these units.

P 3-5 "CORNERING WHEEL RELATIONSHIP"

Last sentence should read: "When the inner wheel is turned 20 degrees, the outer wheel should turn 18 degrees."

P 3-30 Add—"CORNERING WHEEL RELATIONSHIP"

When performing "cornering wheel relationship" or "toe-out on turns," as a means of checking steering arms, the inner wheel should be turned 23 degrees and should bring the outer wheel on the turn to 20 degrees.

P 4-2 "STEERING GEAR ADJUSTMENTS"

Delete Steps 2 thru 6—Adjustment procedure detailed therein required that steering gear worm bearing pre-load and sector lash be checked using a torque wrench on the steering shaft nut.

It is now recommended that steering gear worm bearing pre-load and sector lash on Corvair pas-

senger cars be checked, in the conventional manner, using J-5178 spring scale attached to the rim of the steering wheel.

Refer to procedures shown on Page 4-16 of the *Corvaire Shop Manual*, except set Corvaire passenger car steering gears to the following specifications:

Steering Gear Adjustment	Pull at rim of steering wheel (on J-5178 scale)
Worm bearing	7-11 ounces
Sector (after worm bearing adjustment)	18-24 ounces

P 5-15 "PUSH ROD TO MAIN CYLINDER PISTON CLEARANCE"

Step 2, should read: Begin adjustment by turning pivot bolt until the projection on bolt head is toward front of vehicle.

NOTE: Bolt positioning outlined in former step (2) and illustrated in Fig. 5-27 of the Shop Manual, is the mid-range position.

P 6C-12 "CORVAIR PINION MARKING FOR MOUNTING DEPTH"

Corvaire differential ring gear and hypoid drive pinion sets manufactured and selected for Chevrolet Parts stock beginning February 1, 1961, will not have the pinion stamped for mounting distance. As all Chevrolet pinions have date of manufacture stamped thereon, there should be no problem in identifying the sets of late manufacture.

All pinion and ring gear sets starting with date stamp 2-61, that are furnished as replacement parts, will be in the 14-15 range. Shim selection for all of these later pinion and ring gear sets should be determined using pinion code "14" shown under "Pinion Marking" in chart at top of page 6C-12 of the Shop Manual.

P 6D-19 "DISASSEMBLY OF TRANSMISSION"

Step 12, in part should read "... drive counter shaft rearward using $\frac{5}{8}$ " diameter dummy shaft..."

P 10-38 "HEADLINING"

Add—"Repairing Damaged Headlining"

On closed bodies where the headlining material has been cut due to sharp corners on the upper edges of the windshield side garnish molding, the condition may be corrected as follows:

1. Remove windshield side and upper garnish molding on side affected.
2. Remove side roof rail molding where present.

3. Loosen headlining from windshield and side roof rail sufficiently to gain access to damaged area of headlining.
4. Cut a patch of the proper size (in most cases this will be approximately one inch square) from selvage edge of headlining material.

NOTE: Patch material may also be obtained from under the dome lamp assembly.

5. Apply a light coat of neoprene type non-staining weatherstrip cement to patch, then install patch to back of headlining material over damaged area. Position the torn edges of the headlining in a neat flat position. Keep the gap spacings as small as possible without overlapping the original material.

CAUTION: Do not apply cement too heavily. Care must be exercised to prevent cement from being pushed through cloth headlining material.

6. Allow the repair patch to dry thoroughly; then trim excess material off of patch.
 7. Apply a light coat of neoprene type non-staining weatherstrip cement to headlining attaching surface at windshield opening. Also apply cement along side roof rail if headlining is not secured at side roof rail by a retainer.
 8. Refasten headlining to windshield header and side roof rail, stretching material sufficiently so that repair area will be concealed after side garnish molding is installed.
- NOTE: Headlining should be free of all wrinkles and draws after installation.*
9. Remove all hurrs and sharp edges from the windshield side garnish molding.
 10. Install all previously removed hardware parts.

P 10-43 & 60 "REAR SEAT COMPARTMENT TRIM"

A rear seat package compartment having the configuration and size of that described in the Shop Manual did not enter 1961 Production. Illustrations and procedures shown in the Shop Manual, covering removal and replacement of package compartment and wheelhouse foundation panels, insulation and soft-trim are not applicable to 1961 vehicles. Procedures necessary for replacement of the above package shelf trim items, on 1961 vehicles, should be evident on inspection of the area involved.

P 10-59 "TILTING REAR SEAT BACK"

Delete all references to "Tilting Rear Seat." Due to modification in the rear seat package

compartment prior to 1961 production, the 45 degree tilting seat back was not incorporated in these vehicles.

P 10-65 "STATION WAGON UNDERBODY"

Add the following underbody alignment check points which are peculiar to Station Wagon—(also refer to Figure 10-4 on Page 10-6 of Shop Manual.)

HORIZONTAL DIMENSIONS

Ref. Line	Dimension	Location
T	47-21/32"	Center of rear suspension cross-member outer mounting bolt to engine compartment side rail outer flange at a point directly under the 3/16 inch diameter gage hole in the side rail flange. See Figure 1.
X	39"	On Station Wagon Styles—below the 3/16 inch diameter gage holes in the side rail flanges.

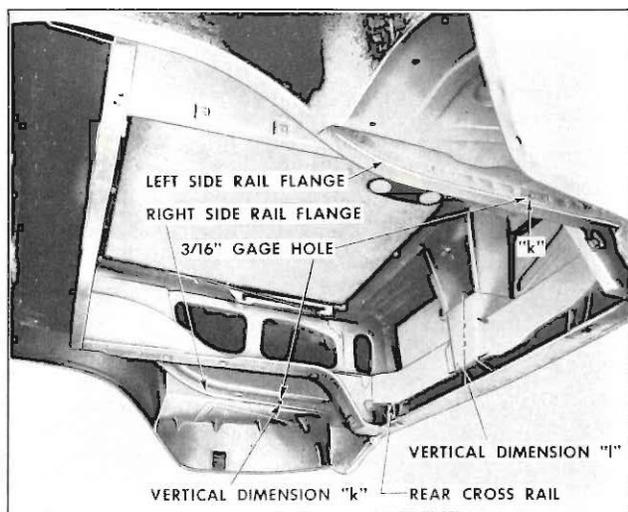


Fig. 1—Station Wagon Underbody

VERTICAL DIMENSIONS

Ref. Line	Dimension	Location
K	9-13/16"	From bottom of the 3/16 inch diameter gage hole in the side rail flange. See Figure 1.

P 10-69 Add—"STATION WAGON REAR QUARTER STATIONARY WINDOW"

Removal

1. Remove rear quarter window belt finishing moldings.

2. At sides and top of window remove rubber channel retainers located under inner lip of rubber channel. Remove retainers at bottom of window.
3. Carefully push window and rubber channel inward and remove from body. Remove rubber channel from glass.

Installation

1. Check if seal over hole near rear end of quarter belt rail has been disturbed and, where necessary, seal hole with body caulking compound.
2. Install rubber channel to glass.
3. Using a pressure type applicator, apply a continuous ribbon (approximately 1/8" thick by 3/8" wide) of medium-bodied sealer to the vertical wall of the quarter window rabbet completely around opening to effect a seal between body and rubber channel.
4. Carefully position glass and rubber channel assembly into body opening and install rubber channel retainers. Do not tighten retainer screws at this time.
5. Using a pressure type applicator apply weather-strip adhesive (black) between outside lip of rubber channel and glass completely around glass.
6. Tighten all rubber channel retainer attaching screws. Clean up, as required, and install belt finish moldings.

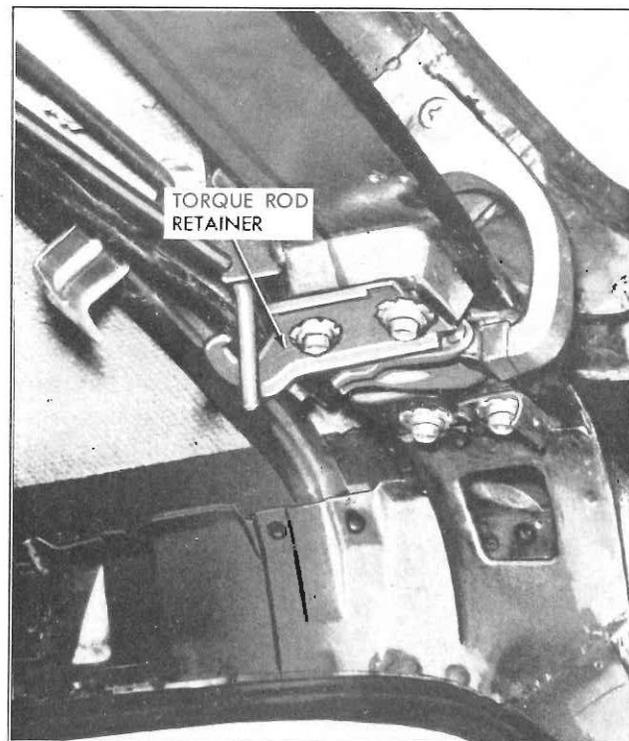


Fig. 2—Back Door Hinge and Torque Rod Retainer

P 10-69 Add—"STATION WAGON BACK DOOR"

Removal and Installation

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

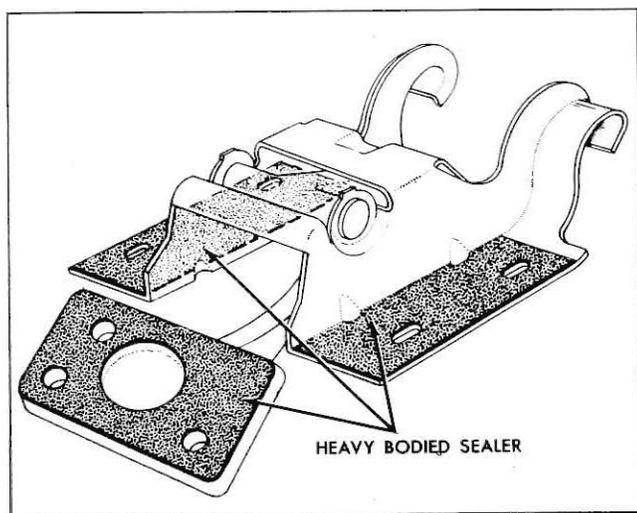


Fig. 3—Back Door Hinge Anti-Squeak

Door Alignment

1. To adjust the back door assembly up, down or side-to-side in the back body opening, remove back door lock striker and loosen both right and left hinge-to-back door attaching bolts. Shift door to desired position on hinges; then tighten hinge attaching bolts and install back door lock striker.
2. To adjust the upper portion of the back door in or out, proceed as follows:
 - a. Remove back door opening upper finishing panels.
 - b. Mark position of torque rod retainers (see Fig. 2) at both right and left hinges to facilitate repositioning of retainers in same fore-aft position.

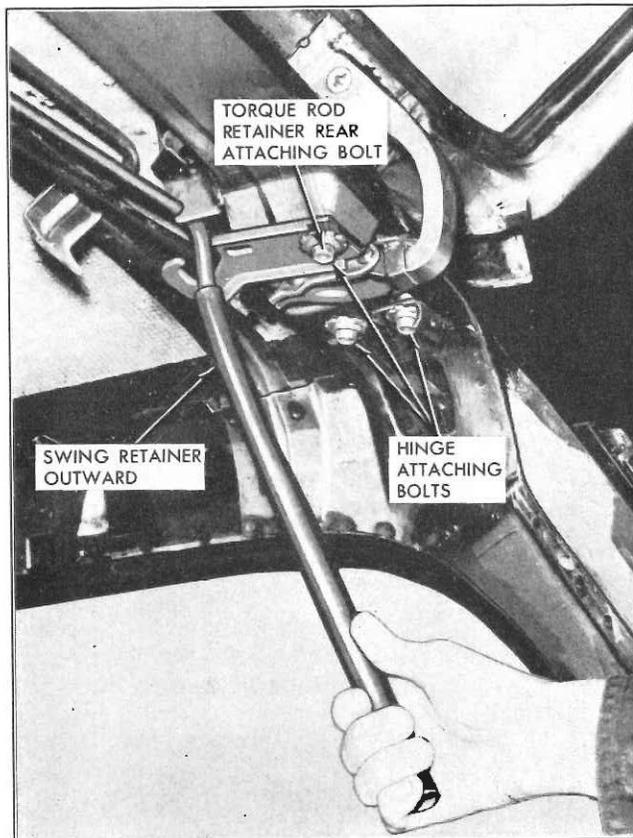


Fig. 4—Disengaging Torque Rod

- c. Using a suitable length of pipe over end of torque rod, release tension of torque rod from retainer (Fig. 4). While tension of torque rod is released from retainer, loosen retainer attaching bolts; then, release retainer. Loosen the two remaining hinge attaching bolts. Perform this operation at both right and left hinges.
 - d. Shift the hinges and back door assembly to desired position; then, tighten hinge attaching bolts making sure torque rod retainers are aligned with previously made marks. Install back door opening upper finishing panels.
3. To adjust the lower portion of the door in or out, move the lock striker either forward or rearward as necessary to provide correction.

Torque Rod Tension Adjustment

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

the amount of effort to raise the lid is the least and the amount of effort to close the lid is the greatest.

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

1. Raise back door and remove both right and left back body opening upper finishing panels.
2. Securely prop back door in the open position.
3. Mark location of retainer to facilitate adjustment from original position.
4. Using a suitable length of pipe over end of torque rod, remove tension of torque rod from retainer. While tension of torque rod is removed, loosen retainer attaching bolts (see Fig. 2), adjust retainer forward or rearward as required. Tighten retainer attaching bolts and engage torque rod in retainer.

Torque Rod and Door Hinge

Removal

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

NOTE: If removing both hinges, remove the back door assembly from the hinges. Mark position of torque rod retainer to facilitate installation in same fore and aft position.

3. Using a suitable length of pipe over end of torque rod, release tension of torque rod from retainer. While tension of torque rod is released from retainer, remove retainer front attaching bolt and loosen (no more than two turns) retainer rear attaching bolt; then, swing front end of retainer towards outside of body and release torque rod. (See Fig. 4).
4. If removing left torque rod, remove clip securing torque rod to body upper panel. Loosen anti-rattle clip attached to both torque rods; then, disengage torque rod from hinge and remove torque rod.
5. Remove hinge to back door attaching bolts; then, remove hinge to body attaching bolts and remove torque rod retainer and hinge from body.

Installation

1. Lubricate both right and left hinge pivot pins with a dripless oil (see Fig. 5).
2. As an anti-squeak precaution, apply a coat of heavy-bodied sealer to surfaces of hinge which contact body and back door (see Fig. 2).

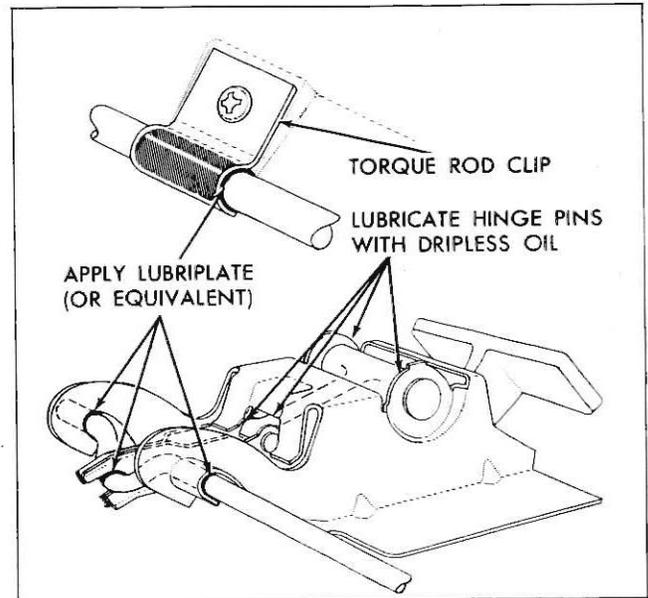


Fig. 5—Torque Rod & Hinge Lubrication

NOTE: When torque rods are re-installed, lubricate torque rod frictional surfaces on both right and left hinges and frictional surfaces of both torque rod clips with Lubriplate or equivalent (see Fig. 5).

Back Door Lock Assembly

Removal and Installation

1. Remove inner panel access hole cover.
2. Remove three back door lock attaching screws from face of lock pillar (see Fig. 6) and remove lock through hole in door inner panel.
3. To install, reverse removal procedure. Check operation of lock.

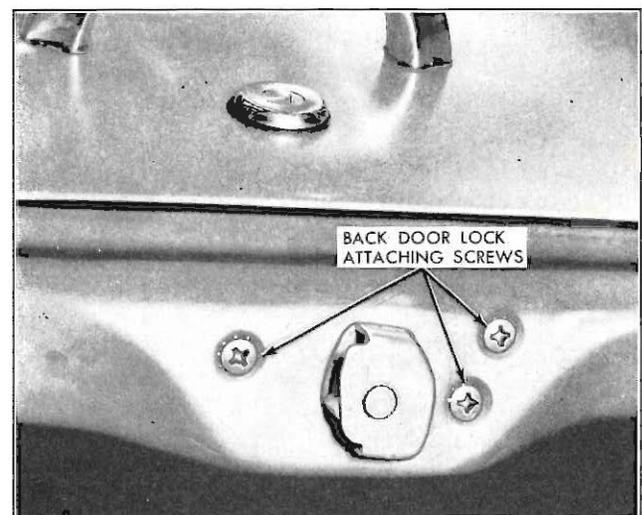


Fig. 6—Back Door Lock

Back Door Lock Striker Adjustment

- To adjust the back door lock striker forward or rearward to obtain in or out adjustment of the lower portion of the door, or to adjust the striker sideways to obtain proper alignment with the back door lock rotary bolt, loosen striker attaching screws, shift striker to desired position and tighten screws.
- Lock striker emergency spacer requirements:
 - The back door assembly should be properly aligned in the body opening prior to checking spacer requirements.
 - To determine if lock striker emergency spacers are required, apply modeling clay or body caulking compound in the lock striker notch where the lock extension engages; then, close the back door to form a measurable impression in the clay or caulking compound (Refer to Fig. 10-40 on page 10-23 of Shop Manual). When dimension "A" from inside face of striker teeth is less than $3/16$ ", install one or more $1/16$ " emergency spacers to bring dimension "A" to the specified $3/16$ ". If two or three spacers are required, install $1/8$ " longer striker attaching screws. If three or four spacers are required, install $1/4$ " longer striker attaching screws.

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

Back Door Lock Cylinder

Removal and Installation

- Remove back door inner panel access hole cover.
- Using a hooked tool or other suitable tool, through access holes in door inner panel, pry out lock cylinder retaining clip (see Fig. 7) sufficiently to allow removal of lock cylinder and gasket from outer panel.
- To install lock cylinder assembly, reverse removal procedure. Apply weatherstrip adhesive (black) on both contacting surfaces of lock cylinder gasket. Check operation of lock cylinder and lock before installing inside trim.

Back Door Outside Handle

Removal and Installation

- Remove back door inner panel access hole cover.
- Remove two (2) screws securing outside handle (see Fig. 7) and remove handle and gaskets.

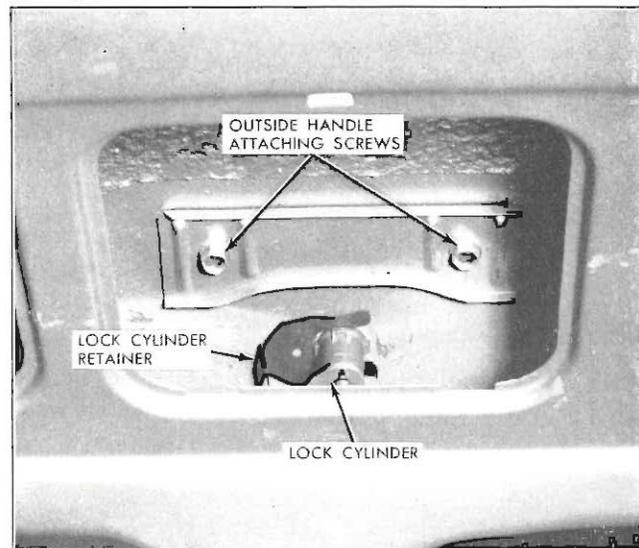


Fig. 7—Back Door Outside Handle and Lock Cylinder

- To install back door outside handle, first cement handle gaskets to handle with weatherstrip adhesive (black) and apply a coat of adhesive to surface of gaskets which contact door outer panel (see Fig. 7); then, reverse removal procedure.

Back Door Weatherstrip

Removal

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

Installation

- Clean off old cement from back door to provide a clean cementing surface.
- Check weatherstrip clips for proper contour and reform clips, where required, using clip reforming tool J-5984 (Fig. 10-46 in Shop Manual).
- For a distance of two (2) inches on both sides of the butt joint location (bottom center of door), apply weatherstrip adhesive (neoprene

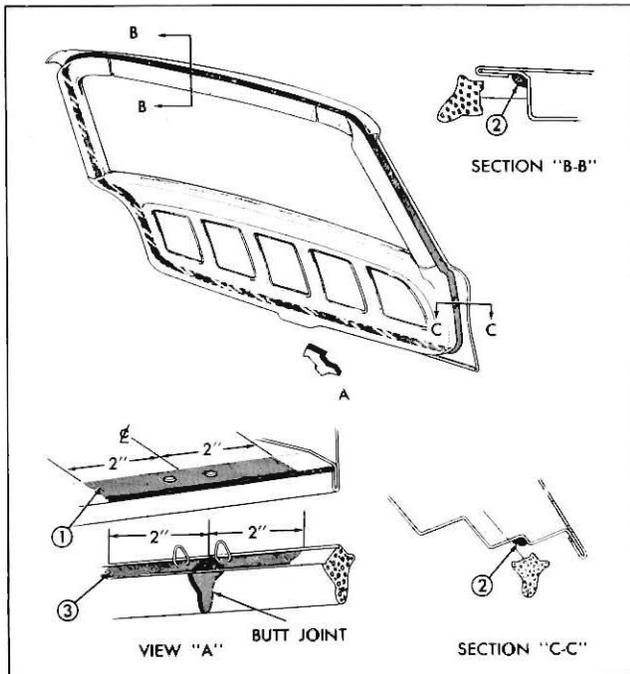


Fig. 8—Back Door Weatherstrip Installation

type) to the door panel surface contacted by the weatherstrip (see "1" in view "A", Fig. 8).

4. Apply a continuous bead of weatherstrip adhesive (black) in the corner of the rabbet around the inner panel, as shown at "2" in Sections "B-B" and "C-C" of Fig. 8.
5. For a distance of two (2) inches on both ends of weatherstrip, apply a coat of weatherstrip adhesive (neoprene type) to the weatherstrip surface which contacts the door panel as indicated at "3" in view "A" of Fig. 8.
6. Starting with end of weatherstrip at bottom center of door, install weatherstrip clips into retaining holes completely around door using weatherstrip clip inserting tool J-5757. Press or roll weatherstrip completely around door to assure a good cement bond.
7. Apply weatherstrip adhesive (neoprene type) to butt ends of weatherstrip and cement ends together to form an even butt joint (see view "A", Fig. 8).

P 10-69 Add—"BACK DOOR WINDOW"

Removal

1. From inside body, carefully break seal between inside lip of rubber channel and pinchweld flange completely around rubber channel.
2. With aid of a helper, to support glass on outside of body, carefully push lower edge of glass and rubber channel assembly outward until lip

of rubber channel is disengaged from pinchweld flange; then, disengage remainder of rubber channel from pinchweld flange and remove rubber channel and glass from back door window opening.

3. Remove rubber channel and, where present, reveal moldings from glass.

Installation

1. Clean off original sealer from rubber channel and back door window opening.
2. Check back door window opening pinchweld flange for any irregularities and correct where required.
3. Install rubber channel to glass.
4. For full length of weatherstrip, apply a continuous ribbon of medium-bodied sealer (approximately $\frac{1}{4}$ inch thick to base of rubber channel, as indicated at "1" in Section "A-A", of Fig. 9.

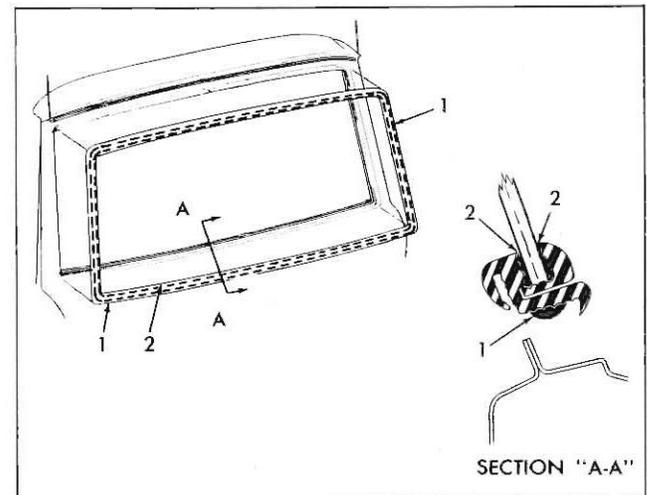


Fig. 9—Back Door Window Sealing

5. Insert a strong cord into pinchweld cavity of rubber channel so that ends of cord are at bottom center of glass. Tape ends of cord to inside surface of glass.
6. With aid of a helper, position glass and rubber channel assembly into door window opening. While a helper is applying hand pressure to outside surface of glass, use a hooked tool to seat lip of rubber channel over pinchweld flange at sides of window opening; then, pull cords in rubber channel to seat lip over flange across bottom and across top of window opening.
7. Using a pressure type applicator, apply weatherstrip adhesive (black) between rubber channel and glass on inside and outside of glass, as indicated at "2" in Fig. 9. Application

of adhesive should extend full length of weatherstrip and be continuous with no skips.

8. Clean off all excess sealer and adhesive.

Corvair Heater Operation

This article furnishes simplified operating instructions for the Corvair Direct Air Heater. It is suggested that dealership Sales Personnel give new Corvair owners a pre-delivery demonstration of heater operation, thereby assuring that the owner will obtain maximum comfort and efficiency from the heater.

CONTROL LEVER POSITIONING

MINIMUM HEAT—During Spring and Fall in the areas where climatic conditions are not severe, operate only the Air lever—depress as required.

MEDIUM HEAT—Depress the Air lever all the way down, then depress the Heat lever as required. The Heat lever will be used to vary the percentage of hot air being blended with the warm air, thereby controlling the temperature of the air entering the passenger compartment.

MAXIMUM HEAT—Depress the Heat and Air levers to the extreme “down” position. If heat becomes excessive, pull up Heat lever to obtain the desired temperature.

1961 Corvair Carburetors

To improve 1961 Corvair engine performance early production carburetors 7019100 and 7019101 were both superseded by production carburetor 7019111. Production carburetor 7019107 was superseded by production carburetor 7019117.

Production Carburetor No. Used on Engine	7019111	7019117
	Turbo-Air (80 H.P.)	Super Turbo-Air. (98 H. P.)
With Transmissions	ALL	ALL
Throttle Bore.....	1 1/4"	1 1/4"
Main Venturi.....	1"	1"
Radial Venturi.....	.050	.050
Idle Needle Orifice.....	.046	.046
Idle Tube Restriction.....	.032	.030
Main Metering Jets.....	.050	.051
Main Well Vents.....	.045	.045
Cluster Top Bleed.....	.040	.040
Cluster Side Bleed.....	.040	.040
Pump Jets.....	.022	.022
Siphon Bleed.....	.059	.059
Cluster Channel Restriction.....	.033	.033
Main Well Insert.....	Yes	Yes
Adjustments		
Float Level.....	1 13/64"	1 13/64"
Float Drop.....	1 3/4"	1 3/4"

“4GC” Carburetor Changes

Rochester “4GC” carburetors No. 7019004 and No. 7015010 will be superseded in Production by carburetors No. 7019014 and No. 7019010 respectively.

Changes incorporated in both later Production carburetors include a trumpet type primary cluster, revised off-idle drilling, main well inserts and a secondary transient system. The 7019014 and 7019010 carburetors provide better fuel atomization and a smoother transition from idle to high speed system operation. The result is smoother acceleration and improved wide open throttle torque.

The following chart lists specifications for the 7019014 and 7019010 carburetors.

Carburetor Model Production Carburetor No.	Rochester 4GC 7019014	
Used on Engine	*7019010 W/Air Cond. Passenger 283 cu. in. V-8	
With Transmissions	Powerglide (or Turboglide)	
	Primary	Secondary
Float Level.....	1 33/64"	1 37/64"
Float Drop.....	2 1/4"	2 1/4"
Pump Rod.....	1 1/16"	—
Idle Vent.....	3 1/32"	—
Automatic Choke.....	Index	—
Intermediate Choke Rod Gage.....	(Flush to 1/32")	
Choke Rod.....	.043	—
Unloader.....	.235	—
Secondary Lockout.....	.015"	—
Secondary Contour.....	.015"	—
Secondary Lock Spring.....	—	—
Throttle Bore.....	1 5/16"	1 5/16"
Main Venturi.....	1"	1 1/16"
Small Venturi.....	1/4"	1/4"
Idle Needle Orifice.....	.052	—
Idle Tube Restrictions.....	.026	—
Main Metering Jets.....	.049	.053
Nozzle Clearance.....	0	0
Main Well Vents.....	.040	.026
Cluster Top Bleed.....	.042	.034
Cluster Side Bleed.....	.034	—
Cluster Channel Restriction.....	.043	—
Lower Idle Bleed.....	.033	—
Idle Lower.....	.030	.043
Discharge Holes	(7/16" from top)	
Middle.....	.030	—
Upper.....	.030	—
Power Restrictions.....	.030	—
Pump Jets.....	.026	—

* Incorporates rich idle compensator assembly.