

SECTION 10

CORVAIR 95 AND GREENBRIER— 1200 SERIES

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GENERAL INFORMATION

BODY NAME PLATE

A body name plate containing style, trim, body and paint identification numbers is attached to the left side of dash panel in front of the driver (see Section 1).

BODY LUBRICATION

The movable mechanical parts of the body are lubricated at the factory to insure proper and quiet operation. Because of the frequent use of some parts such

as door locks and door lock strikers, it is important that these readily accessible parts be lubricated at least four times a year. Other body parts should be lubricated whenever access to the parts is available.

Refer to "Section 2—Lubrication and General Maintenance" for complete body lubrication information.

BODY WIRING

Refer to "Section 8—Electrical Systems" for complete body wiring information.

BODY SHELL

GENERAL BODY CONSTRUCTION

The body design used on all "Light Duty—Forward Control" (L.D.F.C.) Corvaire 95 and Greenbrier series for 1961 is of an integral, all steel, welded and bolted together construction. Except pickup models, the new bodies are comprised of five basic sub-structures—the front end, the underbody, the left and right side pan-

els; and the roof panel (fig. 10-5a). On pickup models, a rear cab structure is added, using the area for spare tire storage. The pickup models also utilize a shorter roof top as shown in Figure 10-12a.

Four L.D.F.C. Corvaire 95 and Greenbrier series models shown in Figures 10-1a, 2a, 3a and 4a, having "Unitized" construction are available for 1961:



Fig. 10-1a—Greenbrier Passenger Station Wagon—Model—R-1206



Fig. 10-2a—Corvan Panel Delivery—Model—R-1205

- Greenbrier 6-passenger station wagon, model R-1206 (fig. 10-1a). Passengers gain access to the load compartment through double side doors on the right hand side. Left hand double side doors with windows, and an optional third seat to accommodate 9 passengers, is available as an R.P.O. Model R-1206 is surrounded with windows.
- Corvan panel delivery, model R-1205 (fig. 10-2a) has side panel assemblies with integral rear quarter panels and a roof panel assembly added to the front end and underbody assemblies. Double (panel) side doors are incorporated as part of the right hand body side panel assembly, and as a R.P.O. for the left hand body side panel assembly. The body structure is completed with front doors and double rear doors.
- Loadside pickup, model R-1244 (fig. 10-3a) incorporates a cab and pickup box. The cab lower rear panel is bolted and welded to the underbody at the jointure of the front and rear underbodies. The pickup box side assemblies are added to this sub-assembly, then the basic Corvair 95 series front end structure. The cab upper rear panel is comprised of an inner and outer panel which is bolted and welded

to the cab lower rear panel and pickup box side panels. The rear structure is joined to the front structure with door header rails, the roof panel is added completing the cab structure. The pickup box construction, assures graintight seal of tailgate.

- Rampside pickup, model R-1254 (fig. 10-4a) is identical to Loadside model except for a rampgate in the right hand pickup box side.

All four Corvair 95 series, models utilize forward controls, rear-mounted engine, dropped-center underbody, side and rear doors that open either 95° or a full 180° for easy access to loading areas.

FRONT END STRUCTURE

Common to all models, the front end structure consists of an inner panel, toe-board, hinge pillars, and instrument panel attached to an outer panel assembly connected at the top by windshield pillars and a windshield header panel. All components shown in Figures 10-6a and 10-7a are welded together. A plenum chamber for the intake of fresh air into the interior is incorporated in the front end structure.

The windshield wiper transmissions and links are

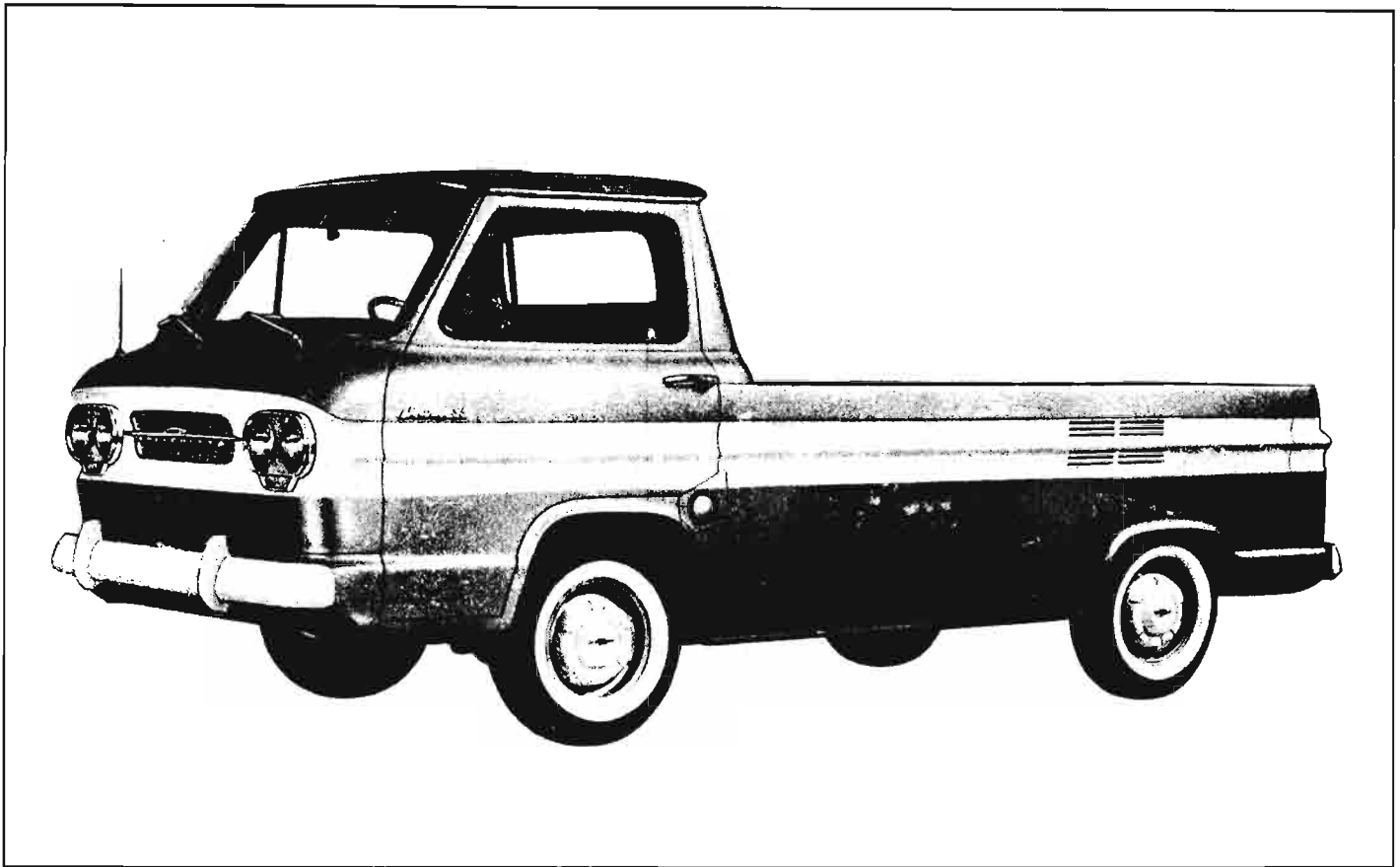


Fig. 10-3a—Loadside Pickup—Model—R-1244

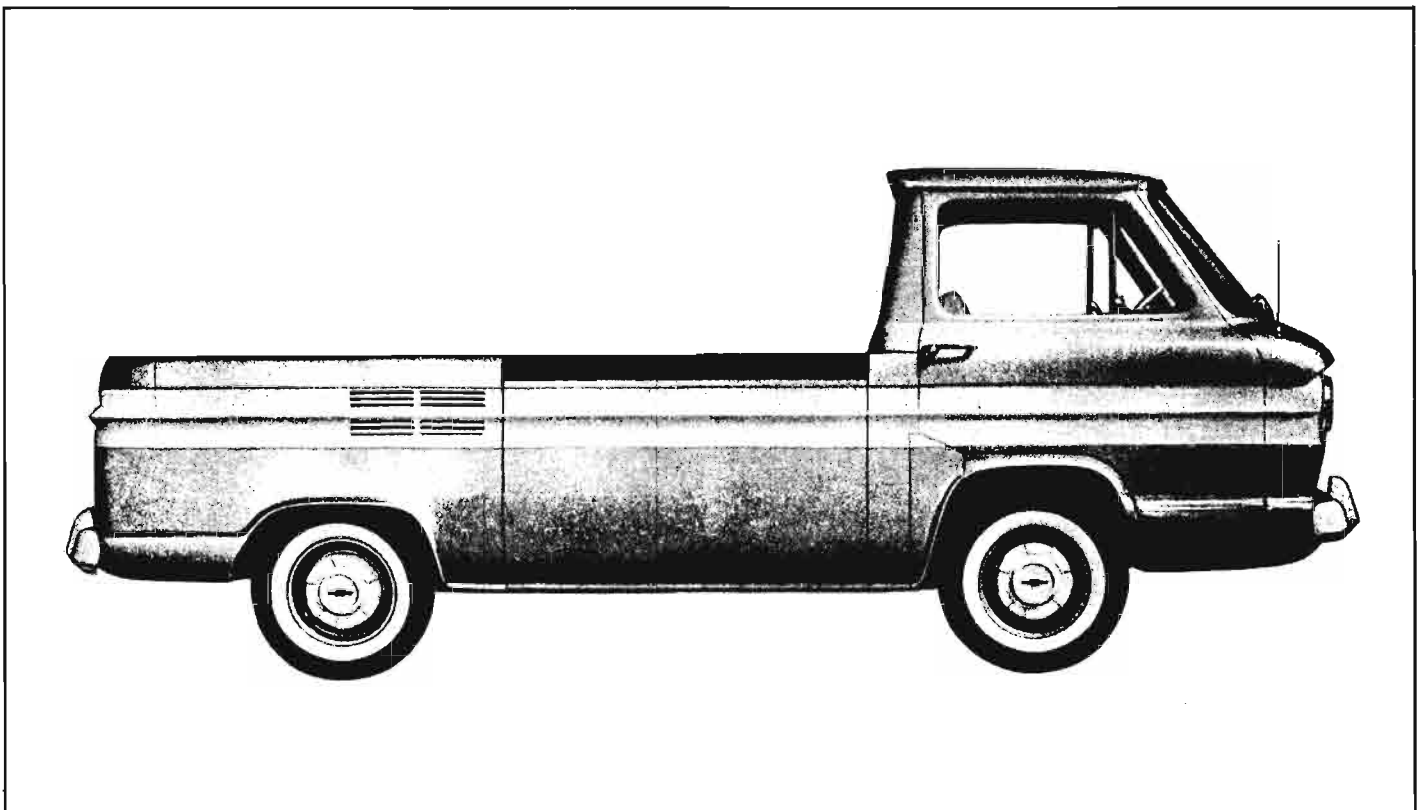


Fig. 10-4a—Rampside Pickup—Model—R-1254

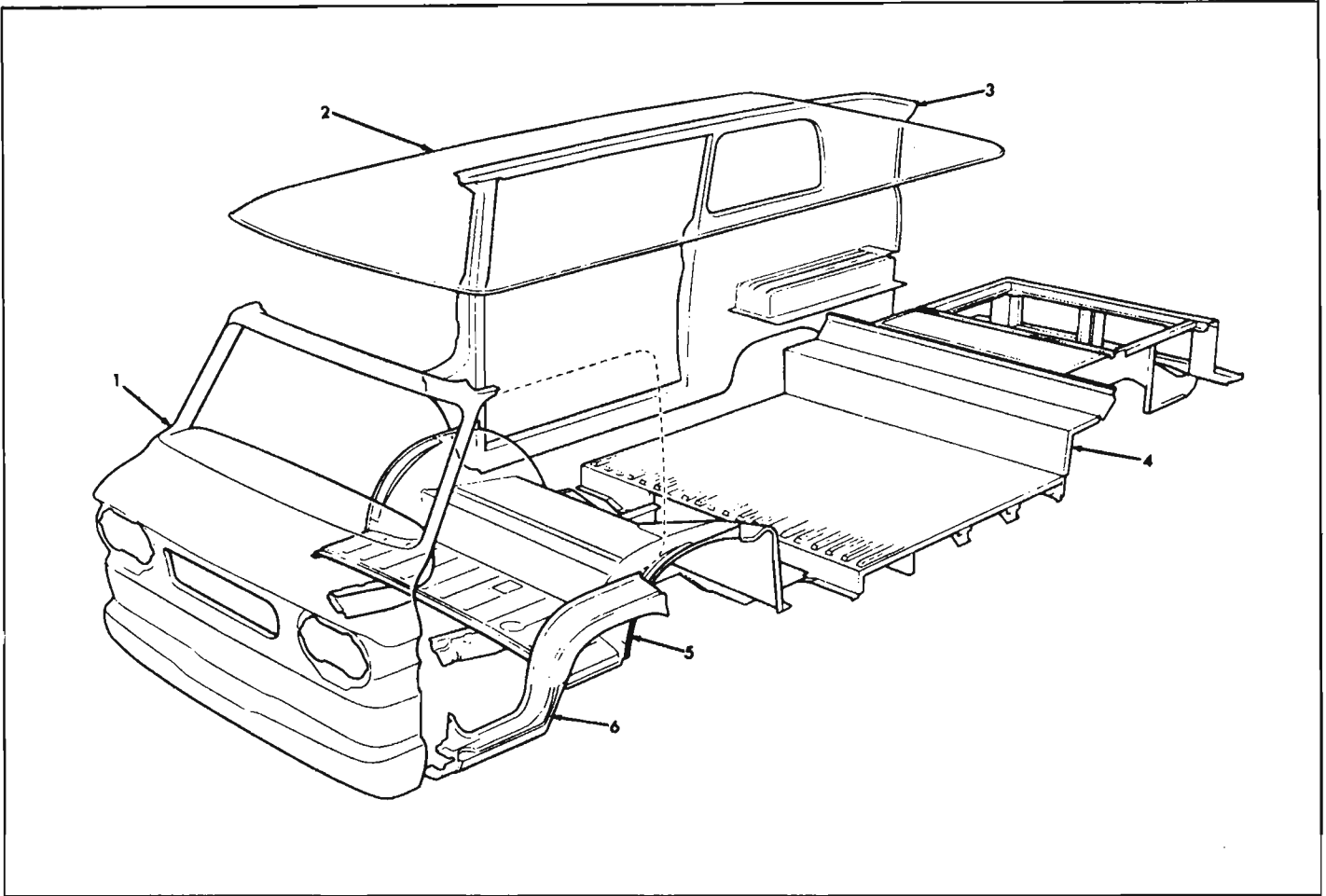


Fig. 10-5a—Body Sub-Structures

1. Front End
2. Roof

3. Right Side Panel
4. Underbody—Rear Half

5. Underbody—Front Half
6. Left Rocker Panel Assembly

housed entirely within the plenum chamber, mounted on the inner panel (fig. 10-6a). A body front outer panel extension ("7", fig. 10-6a) can be removed from the front end structure for repairs on the steering gear, brake and clutch pedals.

UNDERBODY

GENERAL SERVICE INFORMATION

Since each individual underbody component contributes directly to the over-all strength of the body, it is essential that proper welding, sealing and rust proofing techniques be observed during service operations. Underbody components should be rust-proofed whenever body repair operations which destroy or damage the original rust-proofing are completed. Particularly critical are the enclosed box areas. When rust-proofing critical underbody components, it is essential that a good quality corrosion-resistant zinc chromate or equivalent type of air dry primer be used on the entire underbody surface.

Enclosed areas of the underbody where moisture is liable to collect, such as the box-section portion of the rockers (figures 10-8a, 10-9a and 10-10a) and those areas enclosed with plates, are sprayed with a compound consisting of Aluminum particles suspended in a wax base. Also, after welding, all underbody flanges should be treated with a rust inhibiting compound.

UNDERBODY STRUCTURE

A unique "dropped-center" underbody consisting of front and rear underbody sub-assemblies welded and bolted together form a major assembly basic to all models, except rampgate models which incorporate a close out panel shown in Figure 10-14a.

The front underbody, or driver compartment (fig. 10-8a), is comprised of a slightly crowned floor panel and a seat riser flanked with wheelhouses; the rear underbody, or load compartment, is comprised of a straight floor panel and a raised floor panel on two levels as shown in Figures 10-8a and 10-9a.

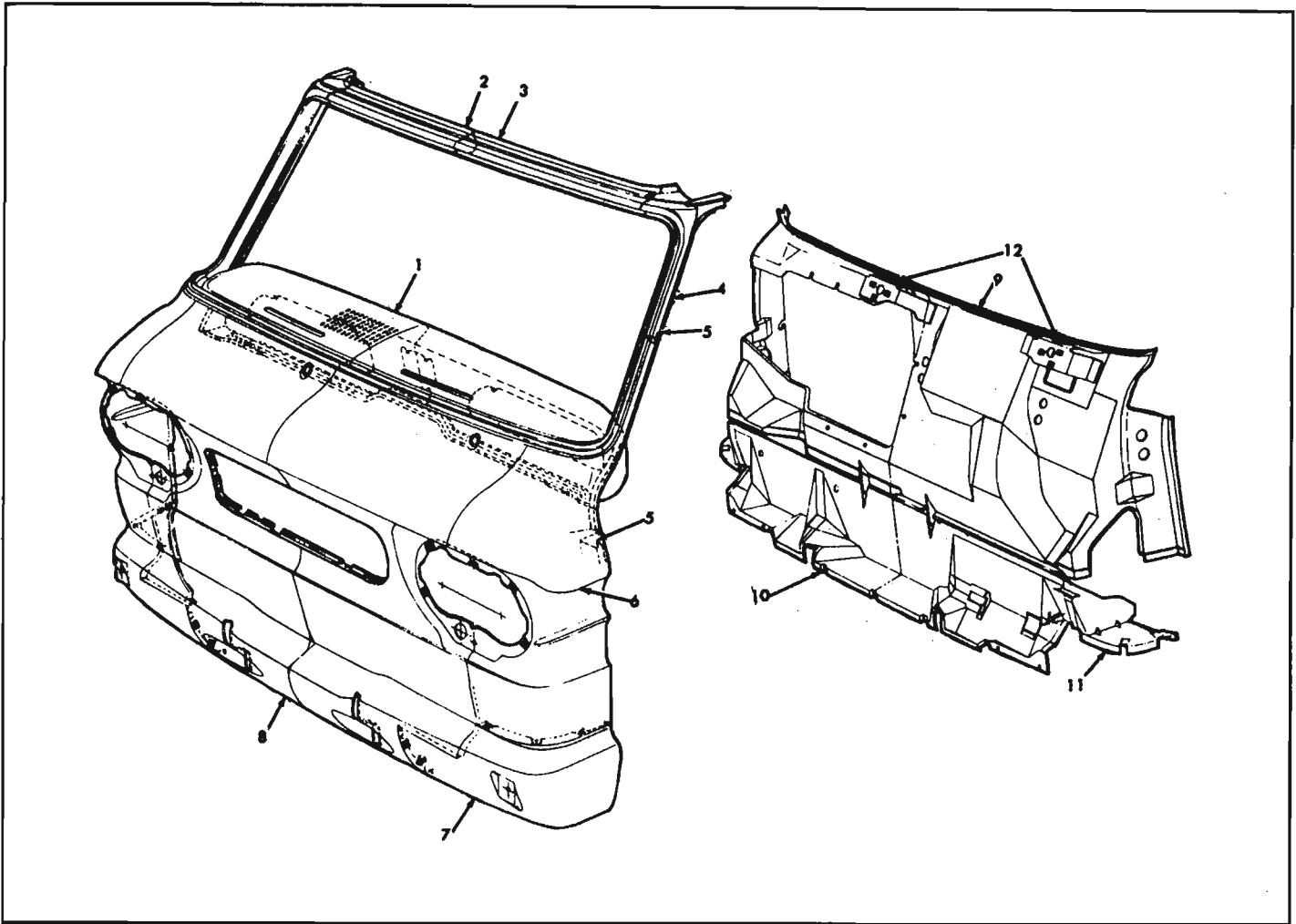


Fig. 10-6a—Front End Structure—3/4 Front View

- | | | |
|--|--|---|
| 1. Instrument Panel | 5. Front Door Hinge Pillar Reinforcement | 9. Dash Panel (Inner) |
| 2. Windshield Header Inner Panel | 6. Body Front Outer Panel | 10. Plenum Center Panel |
| 3. Windshield Header Outer Panel | 7. Body Front Outer Panel Extension | 11. Plenum Outer Panel |
| 4. Front Door Hinge Pillar Outer Panel | 8. Body Front Center Panel | 12. Windshield Wiper Transmission Mounting Location |

When the two underbody sub-assemblies are joined, the straight floor panel of the rear underbody becomes the "dropped-center" of the underbody assembly (fig. 10-10a). Panels forming the underbody area incorporate attachment provisions for the power train and the suspension system.

Principal supporting members of the underbody assembly are two full-length side rails, shown in Figure 10-10a.

The front underbody side rails are further inboard of the rocker panels than those of the rear underbody (Fig. 10-10a) which provide clearance for the front suspension assembly. Smaller rear suspension control arm inclination angles, eliminate the offset used at the front. The front and rear portions of the side rails, use box-section construction, while the central portions are of C channel section. See Figures 10-8a, 10-9a, and 10-10a.

Additional support is given the underbody structure with cross-member and outrigger sills of various section, the entire underbody sills are reinforced with braces, gussets, and plates. The flat plates from boxes with underbody sills which strengthen the offset jointure of the front and rear underbody side rails. A long plate (close out panel) is welded to the underbody of model R-1254 Rampside Pickup.

Left and right jacking pads on the foremost and rearmost outrigger sills, are provided for vehicle jacking (Fig. 10-10a).

Two holes are pierced in each front underbody side front rails for the front suspension assembly, and a total of five mounting points are provided for the rear suspension, transaxle, and engine (Fig. 10-10a).

Covering the underbody networks of sills are the floor panels (Fig. 10-9a). The front bulkhead of the engine compartment serves also as a structural cross-

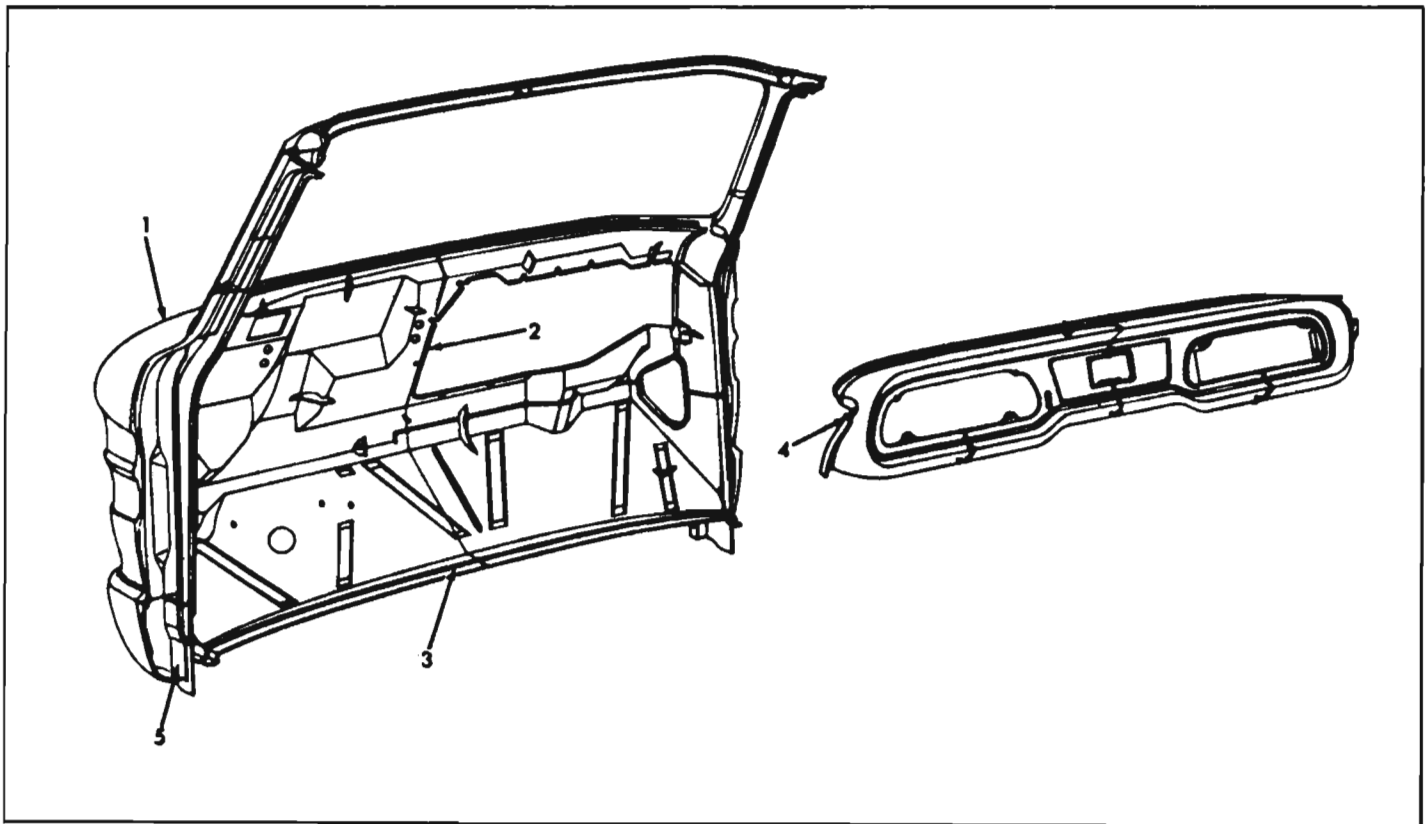


Fig. 10-7a—Front End Structure—Rear View

1. Body Front Outer Panel
2. Body Front Inner Panel

3. Toe Panel
4. Dash Panel

5. Hinge Pillar Reinforcement

member. The rearmost portion of the floor panel is removable for engine accessibility, and is insulated by a dual purpose sound and heat deadening material.

Greenbrier (Station Wagon) and Panel Body Structure

To the front end and underbody structures previously described, a roof panel, side panels, and various rocker panels and filler panels are added, forming the "Greenbrier" shell (with side windows), and panel body shell (without windows) see Figures 10-10a and 10-11a. The body is completed with addition of front doors (fig. 10-12a), double right hand side cargo doors (fig. 10-13a), double rear doors (fig. 10-12a), and an engine access door, and engine air outlet grille panel.

Side Panels

Both side panels are formed with integral rear quarter panels, and included in the assemblies are rear wheelhouses and the air intake of the air cooled engine. Side panels are reinforced with full-length vertical strainers and/or pillars. In station wagon panels, embossed inner panels are added to the panels, providing rigidity of the side panel structure.

The spare wheel and tire assembly is stowed vertically inside the body atop the rear right hand wheelhouse. Retention of the assembly is with a wing type bolt and spacer, the bolt enters a bracket welded to the rearmost side panel vertical strainer (fig. 10-87a).

The jack and jack handle wheel wrench are fastened behind the spare wheel and tire assembly upon slotted brackets bolted to the side panel.

Roof Panel

The roof panel is supported with seven supporting roof bows (fig. 10-11a) which are slightly crowned so they can butt tightly against the roof panel. Rubber friction pads are used between the roof bows and roof panel.

Pickup Body Structures

In the pickup, a cab lower embossed rear panel is bolted and welded to the underbody at the jointure of the front and rear underbodies, Figures 10-8a and 10-9a.

A circular depression is incorporated in the rear panel for storing the spare wheel and tire assembly inside the cab behind the seat (fig. 10-12a). Pickup box side assemblies are added to this sub-assembly, then

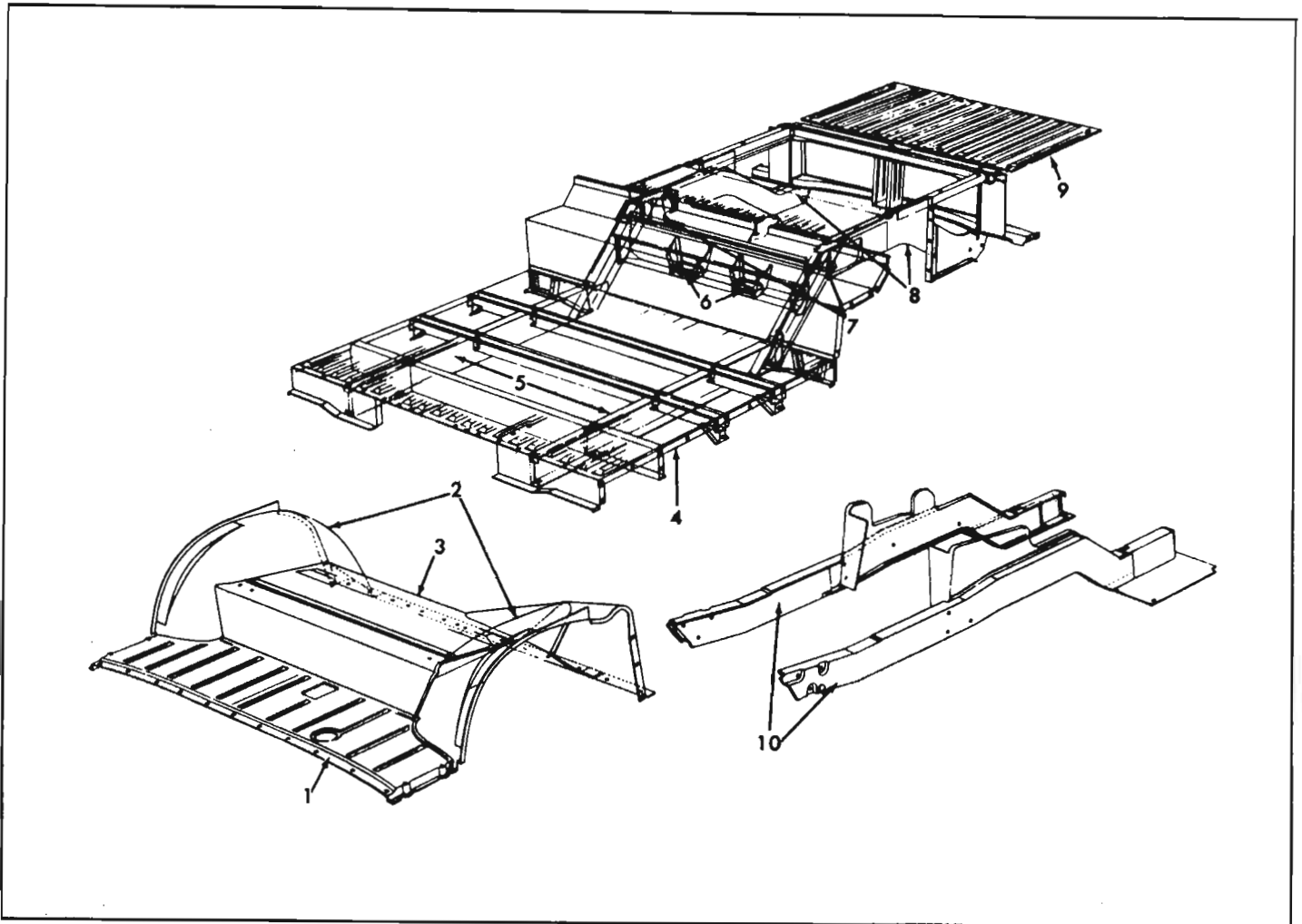


Fig. 10-8a—Underbody Supporting Members

- | | | |
|---------------------------------------|--|-----------------------------|
| 1. Underbody Front Half (Floor Panel) | 5. Left and Right Side Front Rails | 9. Engine Compartment Cover |
| 2. Front Wheel Houses | 6. Front Mounting Points—Rear Suspension | 10. Front Side Rails |
| 3. Seat Riser | 7. Rear Mounting Points—Rear Suspension | |
| 4. Underbody Rear Half | 8. Right and Left Side Rear Rails | |

the basic front end structure. The cab upper rear panel assembly, made from an inner and outer panel (fig. 10-12a) is bolted and welded to the cab lower rear panel and pickup box side panels. The rear cab structure is joined to the front end structure with door opening header rails, then the roof panel and windshield header, door opening headers, and the inner panel of the cab upper rear panel assembly.

The pickup structure is completed with front doors and a tailgate. Model R-1254, a rampgate is added to the right hand pickup box side panel.

Pickup box side assemblies are double-wall constructed in the lower section. Incorporated in the side assemblies is the same engine air induction system as used for other models. The upper section of the outer side panels have welded-on stake pockets, which also serve as vertical strainers (fig. 10-12a).

The tailgate is made up of an inner and outer panel,

the inner panel is ribbed longitudinally and the outer panel is formed for stiffness.

Rampgate

The rampgate is comprised of an inner and outer panel reinforced with internal transverse and longitudinal Strainers. Full-width embossed ribbing is incorporated on the inner panel. The gate is attached to the right hand side panel at the bottom with a full-width, concealed piano type hinge. Gate retention is by slam-type locks at the upper left and right hand corners of the inner panel. A full-length, hard rubber bumper caps the top edge of the gate (fig. 10-4a).

UNDERBODY ALIGNMENT CHECKING PROCEDURE

The underbody is a welded and bolted construction. The slightest misalignment in the underbody can affect

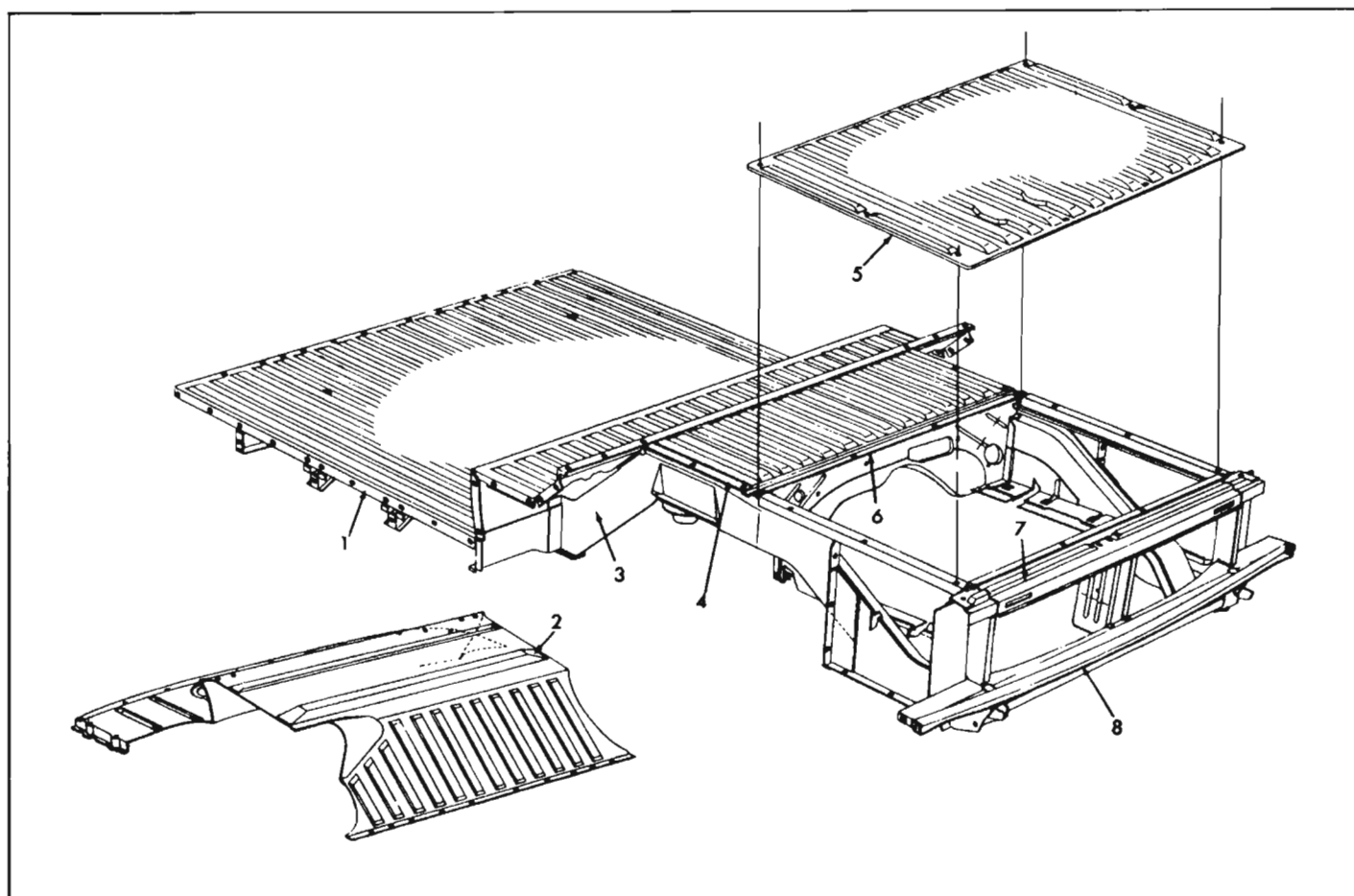


Fig. 10-9a—Underbody Floor Panels

- | | | |
|--------------------------------|---------------------------------------|----------------------------|
| 1. Dropped Floor Panel | 4. Rear Front Floor Panel | 7. Rear Upper Cross-Member |
| 2. Front Underbody Floor Panel | 5. Engine Compartment Floor Panel | 8. Rear Lower Cross-Member |
| 3. Left Rear Side Rail | 6. Engine Front Upper Shield Assembly | |

door opening fits. Most important, however, underbody misalignment can influence the suspension system, thereby causing many of the problems that arise from a suspension misalignment. It is essential, therefore, that underbody alignment be exact to within $\pm \frac{1}{16}$ " of the specified dimensions.

In the event of collision damage it is important that underbody alignment be thoroughly checked and, if necessary, realigned in order to accurately establish suspension, steering and engine mounting locations. There are many classifications of tools that may be employed to correct the average collision damage situation including frame straightening machines, lighter external pulling equipment and standard body jacks.

Frame tools are not considered as essential equipment for average Corvair 95 Series collision repair operations; however, there will be many situations with this unitized type of construction, as with other types of frame construction, where frame equipment will be required. There are also areas of repair where, even though not essential, frame equipment may prove beneficial.

To assist in checking alignment of the underbody components, repairing minor underbody damage or locating replacement parts, the following underbody dimension and alignment checking information is presented.

Body Tram Gage

An accurate method of determining the alignment of the underbody utilizes a measuring tram gage. The tram gage required to perform all recommended measuring checks properly must be capable of extending from a length of 8 inches to a length of 98 inches. At least one of the vertical pointers must be capable of a minimum reach of 17 inches. Dimensions "A" through "Z" (fig. 10-14a), are calculated on a horizontal plane; therefore, to make precise measurements, sufficient vertical reach is necessary at each end of the tram gage to allow the tram bar to remain on a horizontal plane (parallel to the underbody plane) during all measuring operations. A proper tramping tool is essential for analyzing and determining the extent of

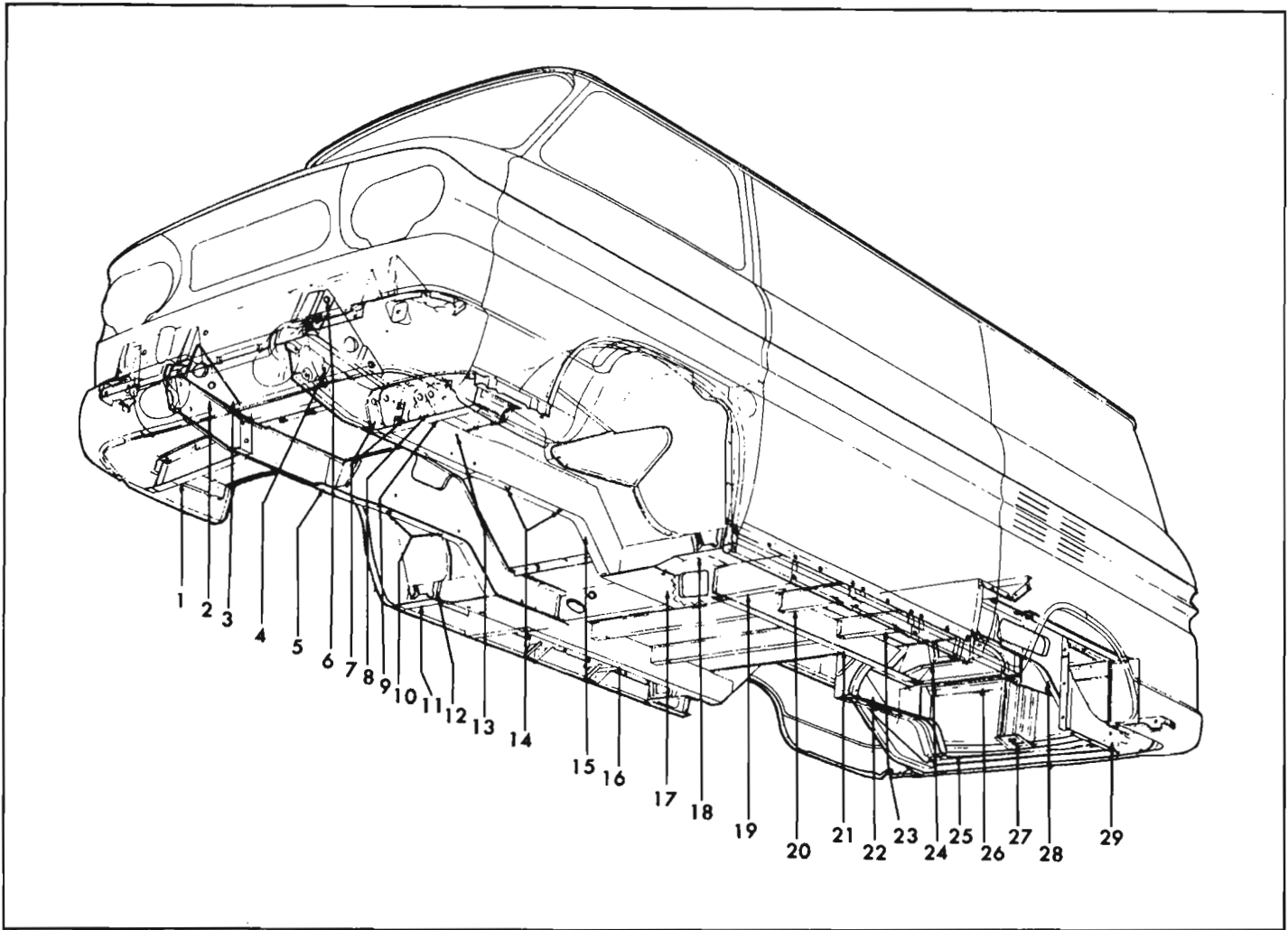


Fig. 10-10a—Underbody Assembly—Panel Body

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> 1. No. 1 Right Side Rail Outrigger 2. Right Side Bumper Support Mounting 3. Right Hand Toe Pan Support 4. Left Side Bumper Support Mounting 5. Front Side Rail Assembly 6. Left Hand Toe Pan Support and Steering Gear Mounting 7. Brake and Main Cylinder Bracket 8. Clutch Bracket 9. No. 1 Left Side Rail Outrigger 10. Right Side Rail, Front Suspension Mounting Holes | <ul style="list-style-type: none"> 11. No. 2 Right Side Rail Outrigger 12. Outrigger Jacking Brace 13. Left-Steering Idler Arm Mounting Holes 14. Left Side Rail, Front Suspension Mounting Holes 15. Front, Left Side Rail 16. Right Side Front Rear Rail 17. Underbody Front to Rear Closing Plates 18. No. 2 Left Side Rail Outrigger 19. No. 3 Left Side Rail Outrigger 20. Intermediate Cross-Member | <ul style="list-style-type: none"> 21. Left Side Front Rear Rail 22. Left Rear Side Rail 23. Rear Cross-Member Assembly 24. No. 4 Left Side Rail Outrigger 25. Engine Lower Cross-Member and Door Sill Assembly 26. Engine Upper Cross-Member 27. Engine Rear Mounting Brace 28. Rear Side Rail Assembly 29. Left Bumper Support Mounting Holes |
|--|---|--|

collision misalignment present in underbody construction.

To facilitate centering the tram gage pointers at the suspension locations, where special centering bolts may be required. Prepare as shown in Figure 10-13a. Use center of bolt thread diameter for centering drill point. Sizes required are $\frac{5}{16}$ -18, $\frac{7}{16}$ -14, and $\frac{5}{8}$ -11.

Underbody Alignment Reference Point Dimensions—Figure 10-14a

Dimensions to bolt or bolt hole locations are measured to the dead center of the thread diameter of the

bolt or bolt hole. Dimensions that include the body tie-down strap locations are calculated to the rear threaded hole at each body tie-down strap location. The dimensions and locations presented below are illustrated in Figure 10-14a.

ALIGNMENT REFERENCE POINTS

Shown in Figure 10-14a are inserts with heavy arrows, which indicate tramming points as follows:

No. 1—A point on the edge of the frame directly beneath the center of the center mounting hole for the front bumper support.

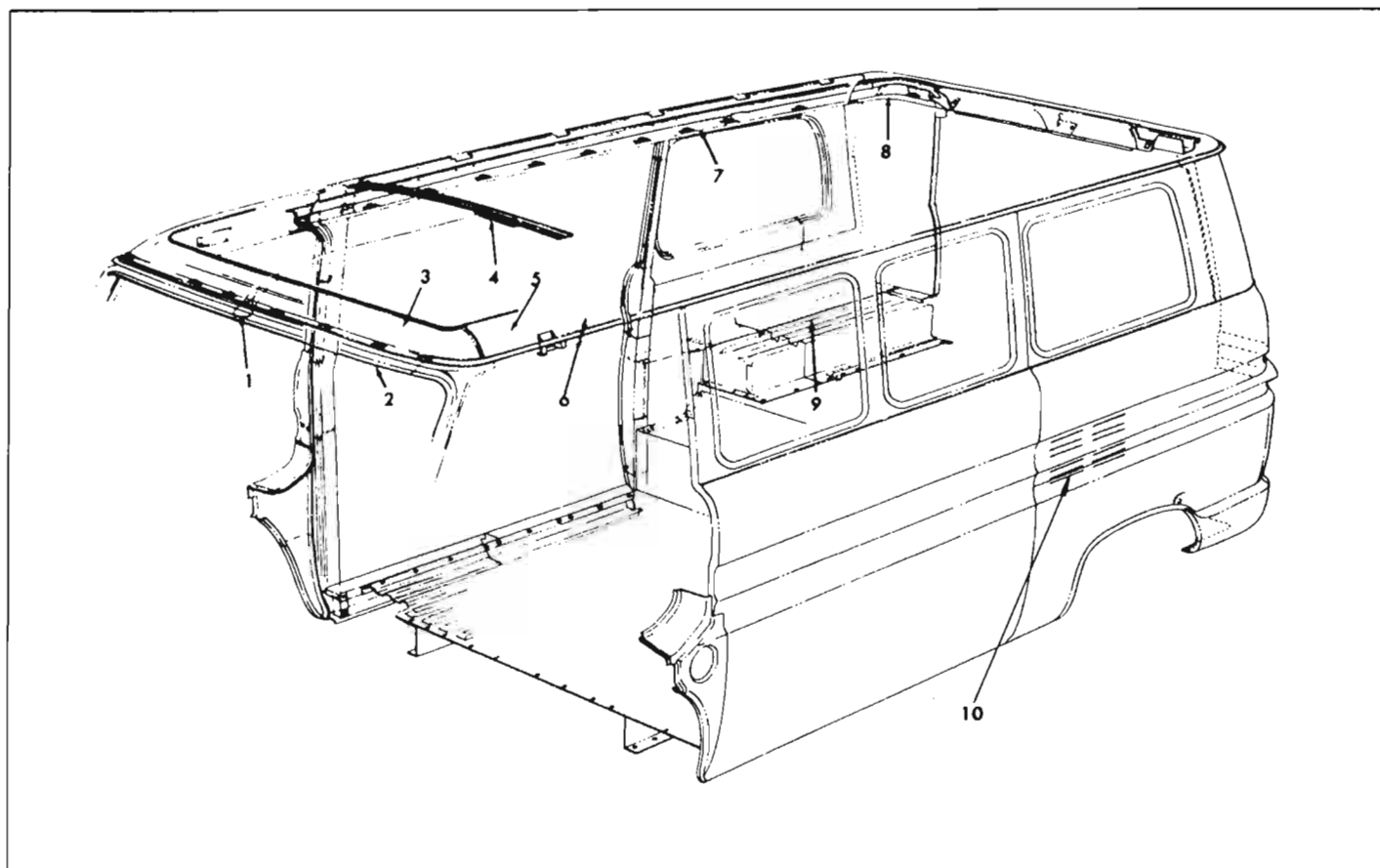


Fig. 10-11a—Greenbrier Body

1. Inner Roof Rail
2. Windshield Header
3. Front Trim Panel
4. Roof Bow Support

5. Side Trim Panel
6. Roof Panel
7. Inner Roof Rail
8. Rear Trim Panel

9. Right Side Wheelhouse (Spare
Wheel and Tire Location)
10. Engine Air Intake Openings
(Both Sides)

- No. 2—The support bracket to toe panel and steering gear mounting.
- No. 3—Steering relay, idler lever bracket.
- No. 4—Front Suspension, front and rear mounting holes.
- No. 8—Rear shipping threaded holes ($\frac{5}{8}$ -11).
- No. 9—Rear suspension inner mounting bolt.
- No. 10—Rear suspension outer mounting bolt.
- No. 11—Cross-member engine rear mounting bracket.
- No. 12—Engine air outer grille lower mounting bracket.

Principles of Trimming

In Figure 10-14a, diagonal dimensions D, E, L, N, P, Q, R, S, T and V are of equal distance to the same matching points on the opposite side of the body.

For example when performing a cross-check of the underbody area, dimension "S" should measure the same distance in both diagonal directions of the cross-check operation.

To measure the distance accurately between any two reference points on the underbody, two specifications are required.

- The horizontal dimension between the two points to be trammed.
- The vertical dimension from the datum line to the points to be trammed. As an example, Figure 10-14a indicates that the diagonal measurement (calculated on a horizontal plane) between reference points at "S" is $96\frac{1}{32}$ inches.

The specifications from the datum line indicates a vertical height difference of $21\frac{5}{32}$ inches between the forward location of dimension "S" (at vertical dimension 5*) and the rearward location of dimension "S" (at vertical dimension 10*)

The vertical pointer used at the rearward location should be positioned so as to extend $21\frac{5}{32}$ inches further from the tram bar than the pointer used at the forward location. With the proper settings the tram bar will be on a plane parallel to that of the body plane. The exception to this would be when one of the reference locations is included in the misaligned area; then, the parallel plane between the body and the

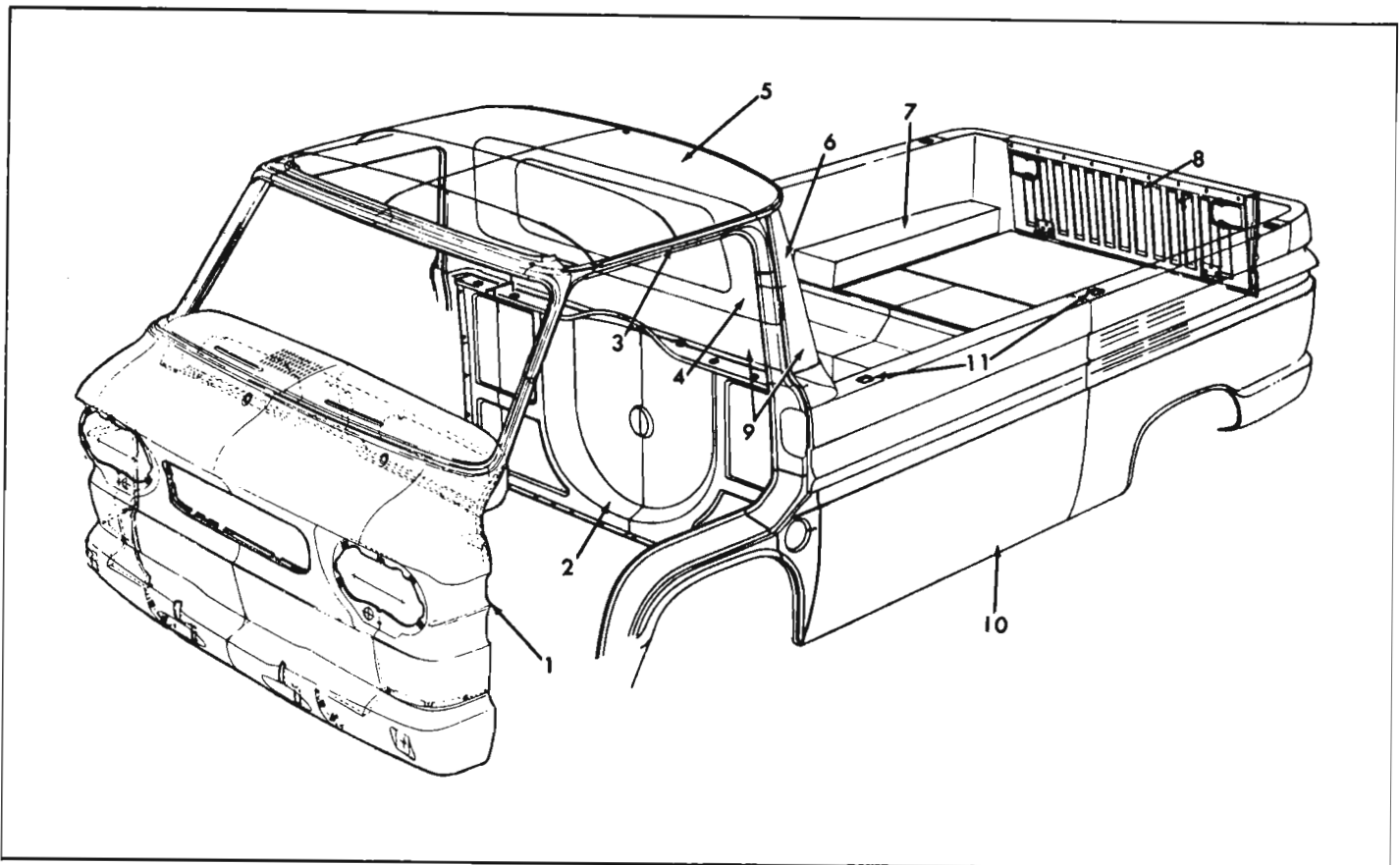


Fig. 10-12a—Pickup Body Structure Assembly

- 1. Front End Structure
- 2. Lower Rear Panel
- 3. Door Header Rail
- 4. Inner Upper Panel

- 5. Roof Panel
- 6. Outer Upper Panel
- 7. Right Hand Wheelhouse
- 8. Tailgate

- 9. Upper Rear Panel Assembly
- 10. Pickup Box Side Assembly
- 11. Stake Pockets

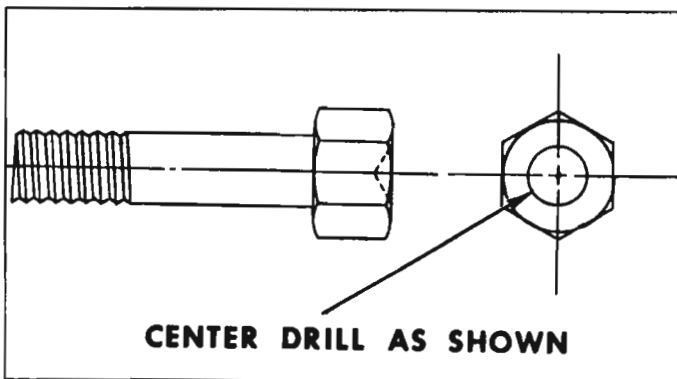


Fig. 10-13a—Tram Gage Centering Bolt

tram bar may not prevail. After completion of the repairs, the tram gage should be set at the specified dimension to check the accuracy of the repair operation.

Vehicle Preparation

Preparing the vehicle for the underbody alignment check involves the following:

1. Place the vehicle on a level surface.

2. The weight of the vehicle should be supported at the wheel locations.
3. A visual damage inspection should be made to eliminate needless measuring. Obviously damaged or misaligned areas can often be located by sight.

Tramming Sequence

The tramming sequence will vary depending upon the nature and location of the misaligned area. Basically there are eight key points that should be utilized when making underbody alignment checks. These locations are: Front and rear body tie-down strap attaching holes (4) Front suspension crossmember front attaching bolts (2) Rear suspension crossmember outer mounting bolts (2).

Prior to performing any tramming operation, the accuracy of reference points to be used must be determined. A measurement that originates from a reference point which is included in a damaged area will produce untrue results and confuse the evaluation of the underbody condition.

Unlike the conventional type of frame design, the unitized type of body construction seldom develops the two conditions of "twist" and "diamond" in the

HORIZONTAL DIMENSIONS

Dimension	Location
A. $37\frac{5}{16}$ "	Center of engine air outer grille bracket lower mounting bolt.
B. 19"	Center of engine air outer grille bracket lower mounting bolt to engine rear mounting bracket at center of mounting hole.
C. $18\frac{3}{8}$ "	
D. $38\frac{7}{32}$ "	Center of rear suspension outer mounting bolt to center of engine air outer grille bracket lower mounting bolt.
F. $52\frac{3}{8}$ "	
E. $42\frac{1}{16}$ "	Engine rear mounting bracket at center of hole to center of rear suspension outer mounting bolt.
G. $42\frac{7}{16}$ "	
H. $34\frac{5}{16}$ "	Center of rear suspension outer mounting bolts.
I. $12\frac{25}{32}$ "	Center of rear suspension outer mounting bolt to inner mounting bolt.
J. $24\frac{1}{32}$ "	
K. $26\frac{1}{16}$ "	
M. $14\frac{1}{16}$ "	
N. $15\frac{5}{16}$ "	Center of rear suspension outer mounting bolt to center of rear shipping bolt hole.
L. $38\frac{1}{16}$ "	
O. $36\frac{3}{16}$ "	Center of rear shipping bolt holes.
P. 77"	Center of rear shipping bolt hole to center of front suspension forward mounting bolt.
R. $82\frac{1}{4}$ "	
Q. $92\frac{1}{8}$ "	Center of rear suspension outer mounting bolt to center of front suspension forward mounting bolt.
S. $96\frac{3}{32}$ "	
T. $22\frac{23}{32}$ "	Center of front suspension fore and aft mounting bolts.
U. $24\frac{5}{16}$ "	
V. $10\frac{9}{32}$ "	
X. $10\frac{1}{4}$ "	Center of front suspension forward mounting bolt to a point on the edge of the frame directly under the center of the forward mounting bolt of bracket—steering relay and connecting rod arm.
Y. $25\frac{9}{16}$ "	
W. $24\frac{25}{32}$ "	Center of front suspension forward mounting bolt to a point on the edge of the frame directly under the center of the lower mounting bolt of lever assembly—steering idler.
Z. $8\frac{9}{32}$ "	
A-A. $28\frac{3}{8}$ "	Center of front suspension forward mounting bolt to a point on the edge of the support—toe panel directly under the rear mounting bolt of the gear box (steering gear assembly).
B-B. $38\frac{23}{32}$ "	
C-C. $40\frac{7}{32}$ "	Center of front suspension forward mounting bolt to a point on the edge of the frame directly beneath the center of the center mounting hole of the front bumper bracket.
E-E. $32\frac{31}{32}$ "	
D-D. $23\frac{5}{16}$ "	A point on the edge of the frame directly beneath the center of the center mounting hole of the front bumper bracket.

VERTICAL DIMENSIONS

Dimension	Location
1. $14\frac{1}{16}$ "	Lower surface of frame beneath the center of the center mounting hole for the front bumper bracket.
2. $16\frac{7}{8}$ "	Lower surface of support—toe panel directly beneath the rear steering gear assembly mounting hole.
3. $10\frac{5}{16}$ "	The farthest outboard surface of outrigger #1.
4. $12\frac{9}{16}$ "	Lower surface of frame directly beneath the center of the forward mounting hole of bracket steering relay and the forward mounting hole of lever assembly—steering idler.

VERTICAL DIMENSIONS Continued

Dimension	Location
5. 13 $\frac{1}{16}$ "	Lower edge of rail at front suspension attaching bolt holes.
5*. 12 $\frac{5}{32}$ "	Center of lower surface of front suspension crossmember attaching bolt heads.
6. 8 $\frac{5}{32}$ "	Lower surface of outrigger #2 directly beneath the brace used for jacking reinforcement.
6#. 8 $\frac{3}{32}$ "	Lower surface of the underbody panel in the area of the rear jack hole.
7. 8 $\frac{5}{32}$ "	Lower surface of outrigger #4 directly beneath the brace used for jacking reinforcement.
7#. 8 $\frac{3}{32}$ "	Lower surface of the underbody panel extension in the area of the front jack hole.
8. 7 $\frac{1}{2}$ "	Body rear tie down strap location, bottom surface of rail.
9. 13 $\frac{7}{32}$ "	Center of rear suspension inner mounting bolt holes.
9#. 9 $\frac{5}{32}$ "	Center of rear suspension inner mounting bolt head.
10. 16 $\frac{3}{4}$ "	Center of rear suspension outer mounting bolt holes.
10*. 14 $\frac{5}{16}$ "	Center of rear suspension outer mounting bolt heads.
11. 13 $\frac{29}{32}$ "	Engine rear mounting crossmember bracket at center of mounting hole.
12. 10 $\frac{3}{16}$ "	Center of engine air outer grille bracket mounting bolt head.

*Suspension installed.

#Underbody panel on the R. H. side of R-1254 used to complete box section under ramp door.

Tolerance for horizontal and vertical dimensions to be $\pm\frac{1}{16}$ ".

underbody area as a result of front or rear end collisions. Therefore, underbody alignment checking can usually originate from the body tie-down strap locations in the dropped floor area. If inspection indicates that these locations have been disturbed and are not suitable for measuring, one of the undamaged suspension locations should be used as a beginning reference point. If a rare situation should exist where all of the key locations are not suitable as reference points, repair operations should begin with the underbody area. All other components should be aligned progressively from this area.

REPAIRS

Rear Suspension Crossmember

Attaching Bolt Locations

The rear suspension crossmember assembly is attached to the body at two outer and inner mounting locations. At each outer mounting location one attaching bolt extends upward through the crossmember and attaches to a weld-nut in the suspension outer mounting assembly. The outer mounting assembly is an integral part of the engine compartment frame side rail.

The rear suspension crossmember inner mounting bolts extend upward through the crossmember into caged, tapped plates located inside the rear underbody intermediate cross sill.

When either the weld-nuts on the outer mountings

or the tapped plates on the inner mountings are damaged, repairs can be made as outlined below:

Outer Mounting Weld Nuts

Removal

1. Remove power train assembly from vehicle.
2. Remove rear suspension cross member from underbody.

NOTE: A welding and locating fixture can be made from C. R. steel. See Figure 10-14a for mounting dimensions.

3. With a grinder, remove welds at rear suspension outer mounting support (fig. 10-16a).
4. Remove support assembly cup and discard.
5. Smooth all attaching surfaces at rear underbody side rails.

NOTE: Rear suspension outer mounting supports are serviced as a unit including the retaining nut.

Installation

1. Using a tramming gage, center the rear support to correct location as shown in Figure 10-14a.

NOTE: A fixture can be used, as previously described. See Figure 10-16a.

2. Weld rear support into position using a suitable clamping fixture.

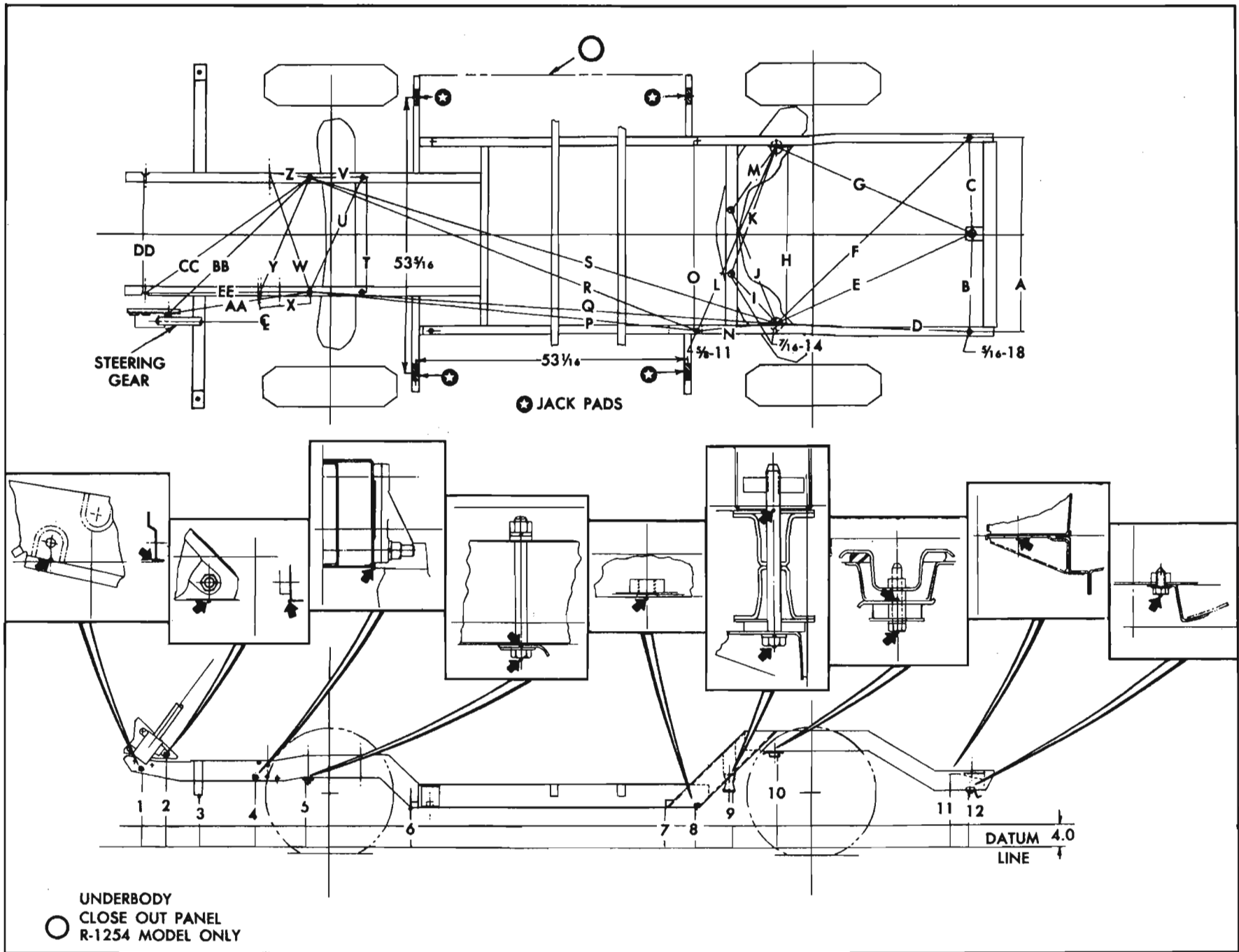


Fig. 10-14a—Point Dimensions

3. After welding, check rear support location.
4. Cover with a protective coating of rust preventative paint.

Inner Mounting Tapped Plates

1. Remove power train assembly and rear suspension assembly cross-member.
2. Working up through bottom of rear underbody intermediate cross sill (fig. 10-15a) drill and tap for a 7/16-14 N.C. heli-coil insert or equivalent.

NOTE: Inserts are commercially available for thread repairs at local jobbers and should be installed to prescribed methods furnished by the manufacturer.

NOTE: Tapped plates are approximately 13 1/4 inches apart. The right plate is located closer to the centerline of body (approximately 5 1/4 inches from centerline (as indicated in Figure 10-15a).

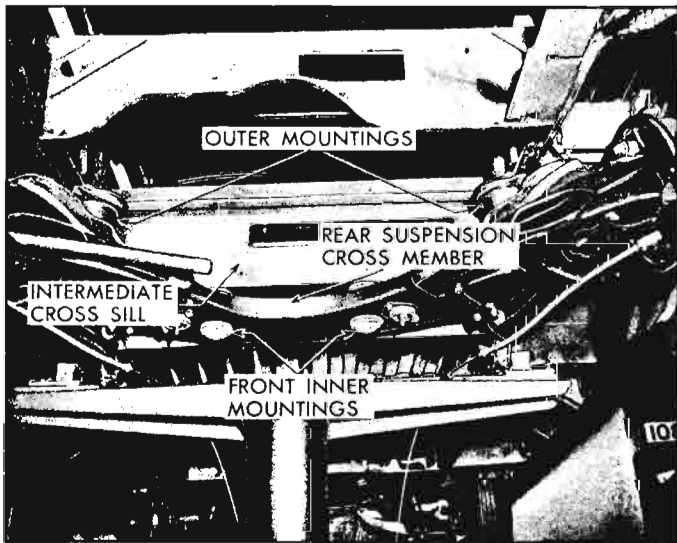


Fig. 10-15a—Locating Rear Suspension Mountings

3. Insert new bolts from bottom with mountings and washers in place on rear suspension cross-member. Tighten bolts to specified torque as outlined in Section 3

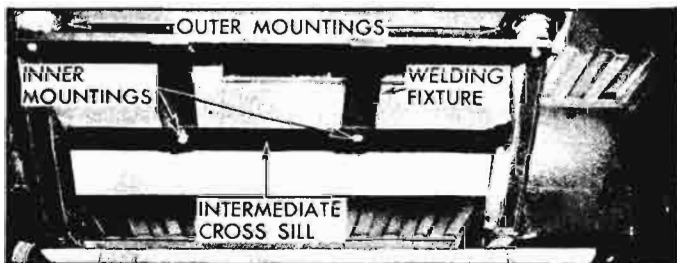


Fig. 10-16a—Rear Suspension Outer Mountings

WINDSHIELD

The windshield is a one-piece type and is retained in the windshield opening by a moulded rubber weatherstrip. This weatherstrip is sealed in the windshield opening and sealed to the windshield glass.

When replacing a cracked windshield glass, it is very important that the cause of the glass breakage be determined and the condition corrected before a new glass is installed. Otherwise, it is highly possible that a small obstruction or high spot somewhere around the windshield opening will continue to crack or break the newly installed windshield; especially when the strain on the glass caused by this obstruction is increased by such conditions as wind pressures, extremes of temperature, motion of the vehicle, etc.

The procedure for removal of the windshield applies to the complete windshield assembly.

Removal

1. Before removing the windshield, mark the location of the break on the windshield rubber channel and the body. Protect the paint finish inside and outside. Mask around the windshield opening and outside, lay a suitable covering across the front end structure and hold in place with tape.

NOTE: The windshield glass rubber weatherstrip is one piece. The glass is held in a channel within the weatherstrip (fig. 10-17a).

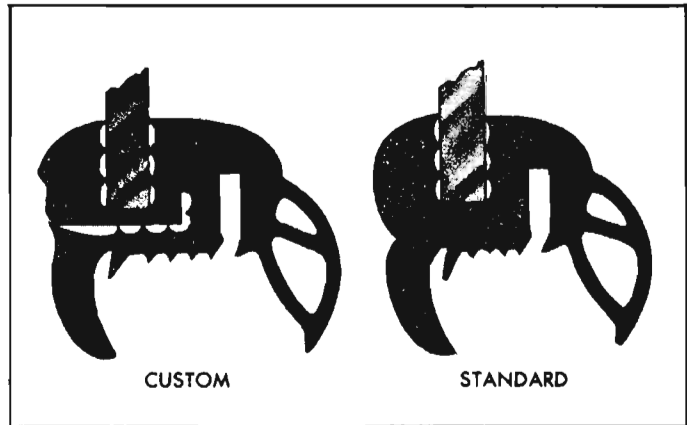


Fig. 10-17a—Cross Section—Windshield Weatherstrip

2. Remove the reveal moulding from the windshield on custom models.

NOTE: Move reveal moulding caps over to either moulding of two being covered by cap, to facilitate bending of rubber channel (fig. 10-17a) for windshield removal. Do not try to remove reveal mouldings while windshield is in the body opening.

3. To free windshield rubber channel of weatherstrip, loosen the lip of the windshield weatherstrip from the pinchweld flange along the top and

at the sides by applying pressure with palm of the hand to the edge of the glass. At the same time assist the lip of the rubber weatherstrip channel over the pinchweld flange with a flat bladed tool (fig. 10-18a).



Fig. 10-18a—Loosening Windshield Weatherstrip

NOTE: Always wear gloves when working with glass.

4. After freeing the rubber channel weatherstrip, with the aid of a helper, lift the windshield from the body and place it on a covered bench.

NOTE: On Custom Body Series, peel back outer lip of rubber channel to disengage "T" flange of reveal moulding, then remove reveal mouldings.

5. Using a scraper and oleum spirits, remove all old cement and dry thoroughly. Also clean rubber weatherstrip.
6. Inspect the contour of the windshield opening, especially at the point where the glass cracked, for any obstructions or irregularities. The cause, whatever it may be, of the windshield glass cracking should be corrected before a new glass is installed.

Windshield Checking

Due to the expanse and contour of the windshield, it is imperative in the event of a strain break that the windshield opening be thoroughly checked before installing a replacement windshield. The replacement glass is used as a template for checking the windshield opening.

1. Check for the following conditions at the previous marked point of fracture.
 - a. Chipped edges on glass.

- b. Irregularities in body opening.
- c. Irregularities in rubber channel weatherstrip.
2. Remove all sealer from flange and body around windshield opening.
3. Check flange area for solder, weld high spots, or hardened spot-weld sealer. Remove all high spots.
4. Check windshield glass to opening, by supporting glass with six spacers J-8372 (fig. 10-19a).

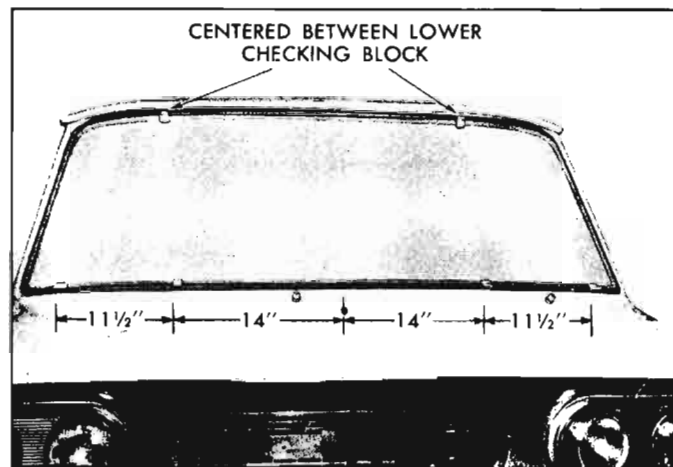


Fig. 10-19a—Windshield Body Opening Check

CAUTION: Do not strike glass against body metal. Chipped edges on the glass can lead to future breaks.

5. With the windshield supported and centered in its opening, check the relationship of the glass to the body opening flange around the entire perimeter of the glass.
6. Figure 10-20a is a cross section taken through the glass channel and body opening. Check the relationship of glass to opening as follows:
 - a. Inside edge of glass to body flange, at any point, dimension $\frac{3}{16}$ " to $\frac{1}{4}$ ".

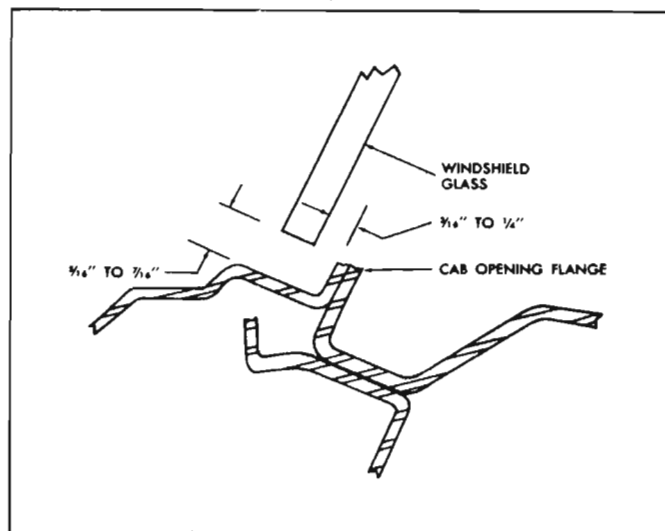


Fig. 10-20a—Windshield to Body Clearance

- b. Outer edge of glass to parallel body metal at any point, dimension $\frac{5}{16}$ " to $\frac{7}{16}$ ".
- 7. Mark areas of body metal or flange to be reformed, remove glass and correct as necessary.
- 8. Recheck windshield in its opening and if satisfactory, mark the glass and body so the glass can be accurately centered upon installation.

Installation

- 1. Assemble rubber channel weatherstrip to glass.

NOTE: On Custom Series install reveal mouldings in channel after installing weatherstrip channel to glass. Leave reveal moulding caps off junctions until weatherstrip and glass are installed. Mild soap will facilitate installation of reveal mouldings.

- 2. Insert cord into pinchweld cavity of channel around the entire windshield. Tie cord loosely and tape ends to inside surface of glass. Knot should be on bottom of windshield when cord is tied (fig. 10-21a).

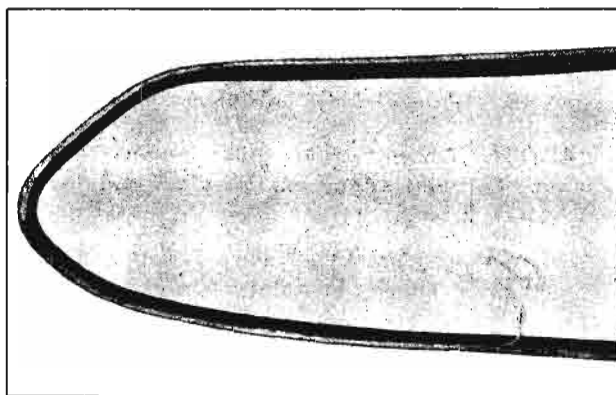


Fig. 10-21a—Cord in Pinchweld Cavity

- 3. Apply a minimum of $\frac{1}{32}$ " thickness of sealer between the glass and the outer wall of weatherstrip completely around the perimeter of glass.
- 4. Apply medium bodied sealer to the flat of the windshield opening rabbet along the entire length of the pillar side and extending for approximately 5 inches beyond the upper and lower corners.
- 5. Apply medium bodied sealer to the base of the weatherstrip rabbet channel along the entire perimeter of the weatherstrip.

NOTE: Do not cover the weep holes at each end of windshield channel with sealer.

- 6. With the aid of a helper, place and center the windshield in the body opening.
- 7. Press firmly on the outside surface of the glass and have the helper inside of the body, slowly pull the cord outward from the lower center toward each lower corner to seat the lip of the rubber channel over the flange (see Fig. 10-22a).

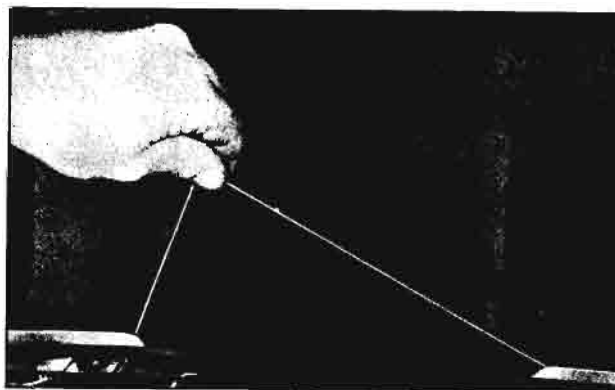


Fig. 10-22a—Installing Lip of Rubber

- 8. Seal the outside lip of the rubber channel to the glass with a minimum strip of $\frac{1}{32}$ " thickness weatherstrip adhesive between glass and lip around perimeter of glass.
- 9. Apply a $\frac{1}{8}$ " x $\frac{1}{4}$ " ribbon of medium bodied sealer to the flat of the windshield opening rabbet along the entire length of the pillar side and extending for approximately 6 inches beyond the upper and lower corners.
- 10. Remove all excess sealer and adhesive with mineral spirits.
- 11. Reinstall windshield wiper arm assemblies.

REAR WINDOW (Models R-1244, 1254)

The moulded rubber weatherstrip around the rear window of cabs, is one piece and has three channels or grooves. A cross section of this weatherstrip removed from the window as shown at ("A", fig. 10-23a).

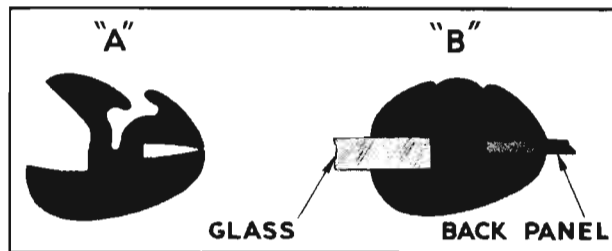


Fig. 10-23a—Cross Section—Cab Rear Window Weatherstrip

The channel outside of the weatherstrip fits over the edges of the body panel around the rear window opening. The inside channel fits the outer edge of the rear window glass. The third channel, which is at the rear, is for a special moulded rubber weatherstrip retainer of triangular cross section. This retainer is installed after the weatherstrip and glass have been assembled in the opening. ("B", fig. 10-23a) shows a cross section of the weatherstrip assembled.

No sealing compound or cement of any type is used at any point in the installation of a rear window glass, except in note below.

To replace a cab window, proceed as follows:

Replacement

1. Using a pointed tool, such as Tool J-7777, raise one end of the weatherstrip retainer until it is far enough out to take hold of by hand. Then pull retainer out of its channel all around the window.
2. From inside the cab, carefully push the window glass out through the rear of the opening.

NOTE: The weatherstrip may remain in the window opening during removal of glass. To remove weatherstrip, merely pull it off the edges of the body panels. On installation of new weatherstrip, clean panel opening edge thoroughly, then install with butt ends (lightly coated with weatherstrip adhesive) at top center of opening.

3. Inspect the cab inner and outer flange making sure they are true and that there are no irregularities around the opening. Any irregularities must be corrected.
4. Assemble the weatherstrip to the opening making sure the outer channel of weatherstrip is firmly seated on the edges of the panel all around the opening.
5. Start one end of the glass into its channel in the weatherstrip. Using a pointed tool, follow around the rear lip of the glass channel so it bears against the rear surface of the glass (fig. 10-24a).

NOTE: Care should be used in this operation not to chip the edge of the glass. A pointed wooden tool, if available should be used.



Fig. 10-24a—Installing Cab Rear Glass (Typical)

6. Feed one end of the weatherstrip retainer into the handle of Tool J-2189 (fig. 10-25a) and out through the end which spreads the weatherstrip channel.
7. Starting at the bottom center, insert the end of the tool and end of retainer in channel, tapered part of the retainer toward the glass.
8. While holding the tool firmly, with spreading end in channel, follow around the channel spreading



Fig. 10-25a—Weatherstrip Retainer Tool J-2189

it open and feeding retainer into the opening until the full length of the retainer has been fed into the channel (fig. 10-26a).

NOTE: Care should be used in this operation not to chip the edge of the glass. A pointed wooden tool, if available, should be used.

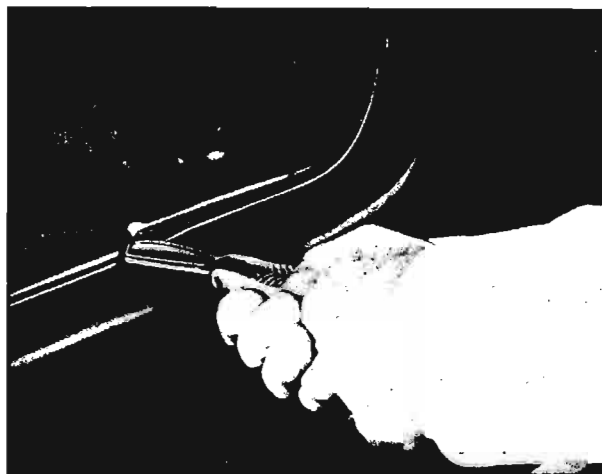


Fig. 10-26a—Installing Cab Rear Glass Weatherstrip Retainer

BODY FRONT VENTILATOR

The front ventilator grille (fig. 10-27a), a louvered opening, is located directly in the center of the front end structure (fig. 10-6a). The opening permits outside air to enter into a plenum chamber which distributes the air to both sides of the front interior. Air enters into the body through a grilled opening at right and left interior air vent panels near the floor.

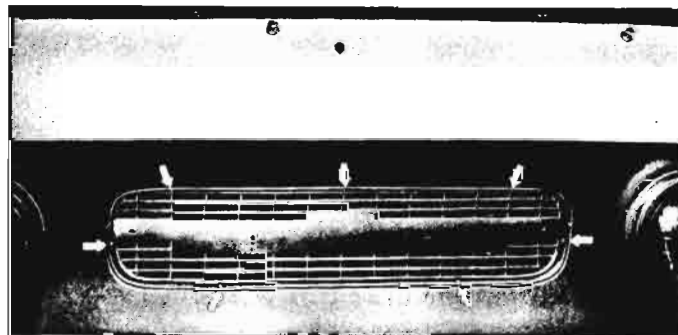


Fig. 10-27a—Body Front Ventilator Grille

Each opening is equipped with an air valve assembly which is manually operated by a push, pull control cable knob connected to the air vent valve (fig. 10-28a).

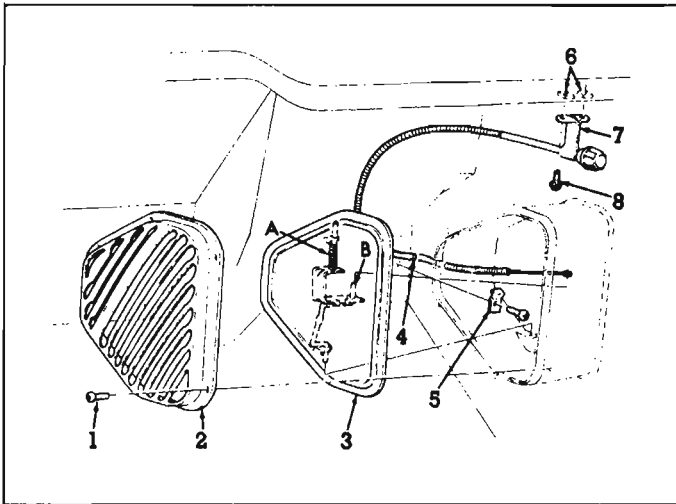


Fig. 10-28a—Air Vent and Controls

- | | |
|--------------------------|----------------------------------|
| 1. Grille Retainer Screw | 5. Control Cable Retaining Clamp |
| 2. Grille | 6. Weld Nuts Under Dash |
| 3. Valve Assembly | 7. Control Cable Support |
| 4. Seal at this Point | 8. Control Cable Retaining Bolts |

VENTILATOR GRILLE ORNAMENT

Removal and Installation

1. Remove seven retainer screws in front of ventilator grille assembly.
2. Remove ventilator grille and grille ornament assembly as a unit.
3. To remove ornament from ventilator grille; remove two inner and outer ventilator grille ornament retainer nuts.
4. Remove ornament from ventilator grille.
5. Install grille ornament to ventilator grille with two inner and two outer retainer, retaining nuts.
6. Install ventilator grille and ornament assembly to body opening with seven retaining screws.

AIR VENT VALVE

Replacement

Refer to Figure 10-28a

1. Remove air vent grille retaining screw and remove air vent grille.
2. Remove control cable retaining clamp and screw.
3. Unhook control cable end ("C", fig. 10-28a) from ventilator valve hinge pin ("B", fig. 10-28a).
4. Push pin ("A", fig. 10-28a) down against spring and remove valve.
5. To replace air vent valve reverse the steps above.

Adjustment

Full-open and completely closed position of each valve can be adjusted to correspond with position of control knob on dash as follows:

1. Loosen screw which retains cable clamp and cable to panel: Then reposition control cable toward or away from valve as necessary to obtain a fully closed air valve when control knob on dash is pressed completely in. Tighten clamp screw firmly ("5" fig. 10-28a).
2. If the valve seal overlaps so valve is hard to open, bend the front edge of the stop bracket at the end of the cable in the housing.

WINDSHIELD WIPERS

Windshield wiper units on all models are of the single-speed electric type. A single wiper motor unit, mounted off center in the plenum chamber, powers both wiper blades. The wiper blade operating link rods and pivot mountings on these models are located in the outside air inlet plenum chamber as shown in Figure 10-29a. Wiper motor is controlled by switch marked "wiper" on dash. As optional equipment, push button window washers incorporate a mechanical pump installed on the single speed wiper motor.

Arm Adjustment

To adjust sweep of blades to provide maximum visibility, turn on wipers, then note sweep of arms. If necessary, remove one or both arms as follows: Pull outer end of arm away from glass which will trip lock spring at base of arm and release spring from undercut of pivot shaft. While holding arm in this position, pull outward on cap section at base of arm to remove arm. Arm can be reinstalled in any one of several positions due to serration on pivot shaft and in arm cap (fig. 10-29a).

WIPER ARM PIVOT SHAFTS AND LINK ROD

Removal

Refer to Figure 10-29a

1. Remove windshield wiper arms from pivot shafts. Procedure for removing arms is explained previously under "Arm Adjustments."
2. Remove body front ventilator grille and ornament as a unit.
3. Remove retainer clip (13) which attaches each link rod to motor drive pin and arm (9) assembly. Disengage link rods and spacer (11) from drive link (9).

NOTE: Work through air ventilator grille opening, to obtain access to retainer clip.

4. To remove the left pivot shaft and link rod assembly, remove cover (2). Cover is retained with four screws (3) and four "J" nuts (1).
5. Remove three retaining bolts through access hole.
6. Remove pivot shaft and link rod assembly through air ventilator grille opening in front end body structure.

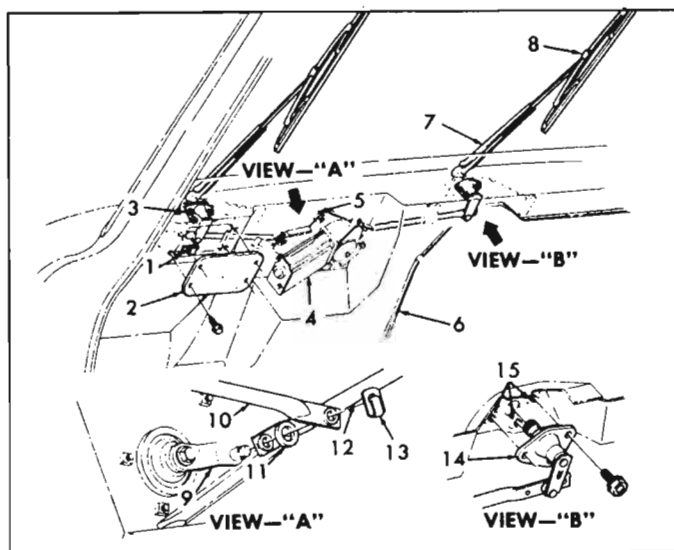


Fig. 10-29a—Windshield Wiper Linkage

- | | |
|---|--------------------------------------|
| 1. "J" Nut | 8. Blade Assembly |
| 2. Cover | 9. Drive Link |
| 3. Transmission Pivot Shaft and Link Assembly | 10. R. H. Link |
| 4. Wiper Motor Assembly | 11. Spacer |
| 5. Wiper Motor Mounting Screws | 12. L. H. Link |
| 6. Inner Panel Opening for Heater Unit | 13. Retainer |
| 7. Wiper Arm Cap | 14. Transmission Link Pivot Assembly |
| | 15. Weld Nuts |

- The right pivot shaft and link rod assembly may be removed by working somewhat blind to remove the 2 closer screws through the grille opening and removing the further third screw through an access hole in the heater cover with a magnetic socket.
- Remove three retaining bolts and remove right pivot shaft and link rod assembly.

Installation

- Place pivot and link arm assembly into position (view "B", fig. 10-29a). Secure assembly to plenum chamber weld nuts (15) with three retaining bolts.
- Attach end of left link rod (12) to drive link and install spacer (11).
- Attach end of right link rod (10) to drive link and secure with retainer clip (13).
- Install air ventilator grille and ornament assembly.
- Install cover (2) under dash if removed and access hole plug in heater cover, if removed.
- Before installing wiper arms, operate wiper motor momentarily which should rotate pivot shafts to park position. Install arms and shafts so that they are located in the park position. Again operate wipers and check wiper sweep pattern (fig. 10-30a). Reposition arms on pivot shafts if necessary.
- Install rod assembly with tip of blade approximately 1" above the daylight opening.

NOTE: Blades are not required to return to the 1" position if windshield is dry.

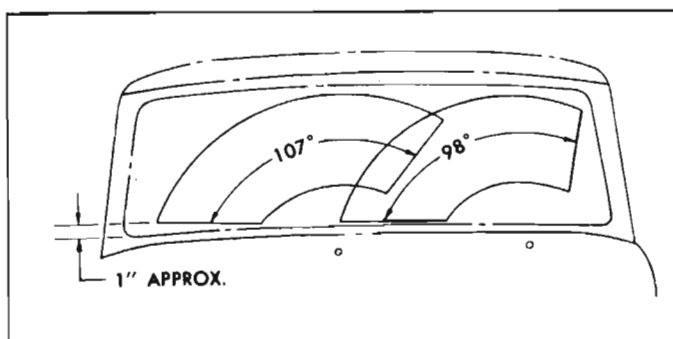


Fig. 10-30a—Windshield Wiper Pattern

WIPER MOTOR

Removal

- Remove front ventilator grille and ornament assembly.
- Remove retainer clip at drive link (fig. 10-29a) and disconnect both link rods from wiper motor.
- Inside of cab under dash disconnect electrical wiring at connector on motor drive unit. Refer to Section 8 "Electrical."
- If radio equipped, remove radio for access to mounting bolts.
- Disconnect window washer hoses and remove washer bag.
- Remove three mounting screws and ground strap, leave one mounting with screw in place for easier installation.
- Remove wiper motor unit and gasket.

Repairs

See Section 8 for diagnosis and repair information on the electric windshield wiper motor.

Installation

NOTE: "Park Position" centerline of drive link (motor crank) and centerline of arrow stamped on base must coincide within $\pm 5^\circ$ for installation.

- Using a new mounting gasket, position motor and drive unit to front end inner panel, slide wiper motor assembly onto rubber mounting left on removal operation.
- Install remaining three, rubber mounts and retaining screws. Secure ground strap under one of the mounting screws.
- Connect wire harness to unit. If washer equipped, install hoses and washer bag.
- If heater equipped, install heater assembly.
- Install left and right link rods and spacer. Secure link rods with retainer clip. See Figure 10-29a.
- Install seven retaining screws in air ventilator grille and ornament assembly.

BUMPERS

Front Bumpers

Removal and Installation

1. Remove bolt ("C", fig. 10-31a) at the left and right bumper outer brace.

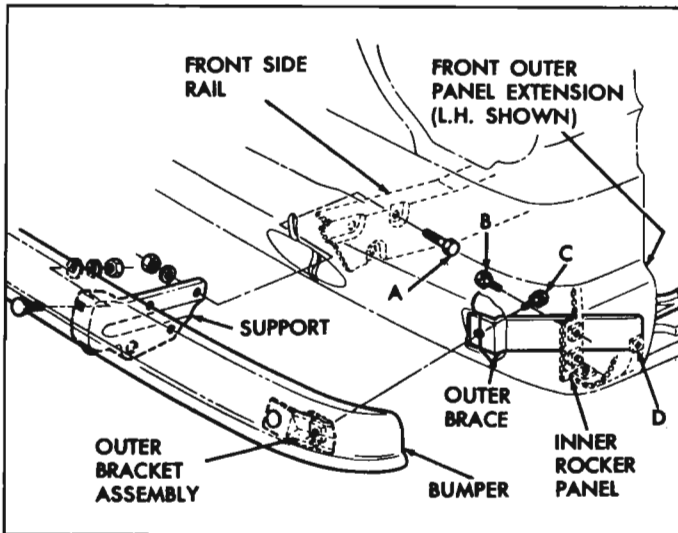


Fig. 10-31a—Front Bumper Installation

2. Remove three bolts, lockwashers and nuts ("A", fig. 10-31a), connecting left and right bumper supports to front side rails.
3. Remove bumper face with supports and outer bracket assembly.
4. To remove outer brace, remove two bolts ("B", fig. 10-31a) and one bolt at ("D", fig. 10-31a).
5. To install, reverse removal procedure.

Rear Bumper

Removal and Installation

1. Remove bolt ("C", fig. 10-32a) at left and right outer brackets.
2. Remove six retaining screws from engine air outlet grille. Remove grille.

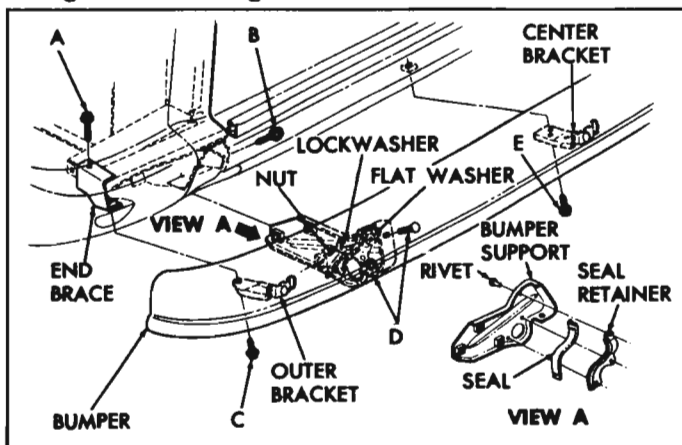


Fig. 10-32a—Rear Bumper

3. Remove two bolts ("E", fig. 10-32a) at center bracket.
4. Remove three bolts at ("B", fig. 10-32a) left and right bumper support, attached to rear side rails of the underbody.

NOTE: Rear left and right bumper supports incorporate dust seals. Dust seals are riveted between the bumper support and seal retainer.

5. Remove rear bumper.
6. To install rear bumper, reverse removal procedure.

FRONT OUTER PANEL EXTENSION (Left Side)

Removal

1. Remove outer brace to bumper retaining bolt.
2. Unhook clutch pedal return spring at bracket and remove two bolts at ("A", fig. 10-33a).
3. Remove two bolts at ("C", fig. 10-33a).
4. Remove three bolts at ("A", fig. 10-34a).
5. Remove bolt ("C", fig. 10-34a) and remove left, front outer panel extension.

Installation

1. Install required "J" nuts to outer extension panel (fig. 10-35a) and install to body opening.
2. Install bolt ("C", fig. 10-34a) and three bolts at ("A", fig. 10-34a).
3. Install two bolts at ("C", fig. 10-34a) and two bolts at ("A", fig. 10-33a) with clutch pedal spring return bracket (fig. 10-33a) on left outer panel extension.

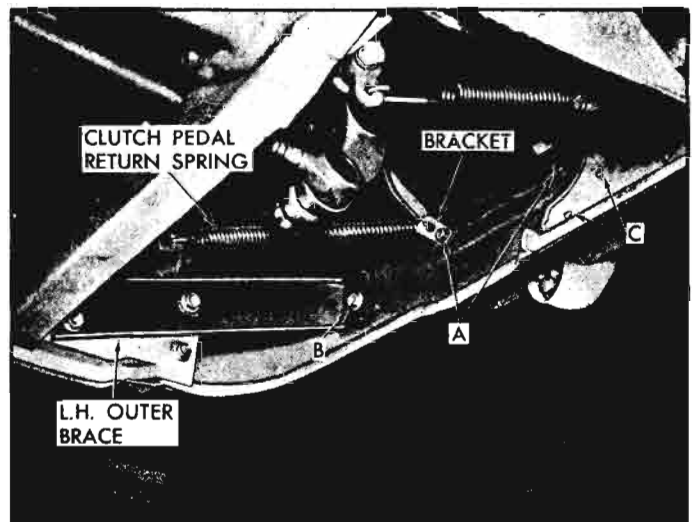


Fig. 10-33a—Installed Left, Front Outer Panel Extension

(Right Side)

All steps for removal and installation are the same as outlined for the left side, except step 2; the right side front outer panel extension has no clutch return spring bracket.

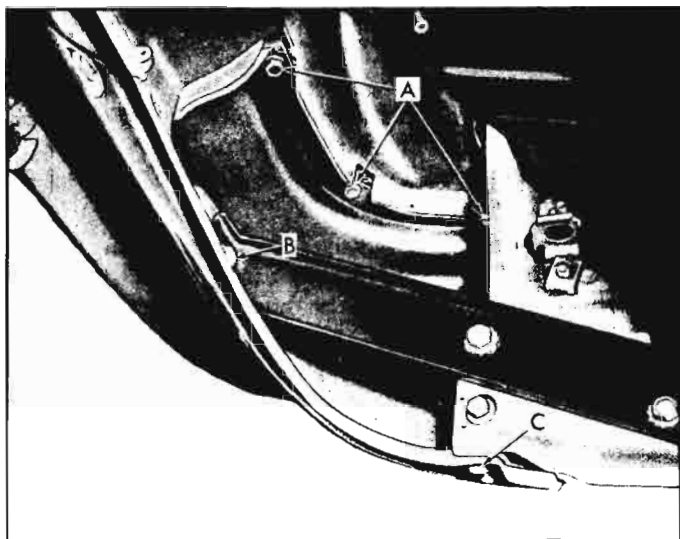


Fig. 10-34a—Installed Right, Front Outer Panel Extension

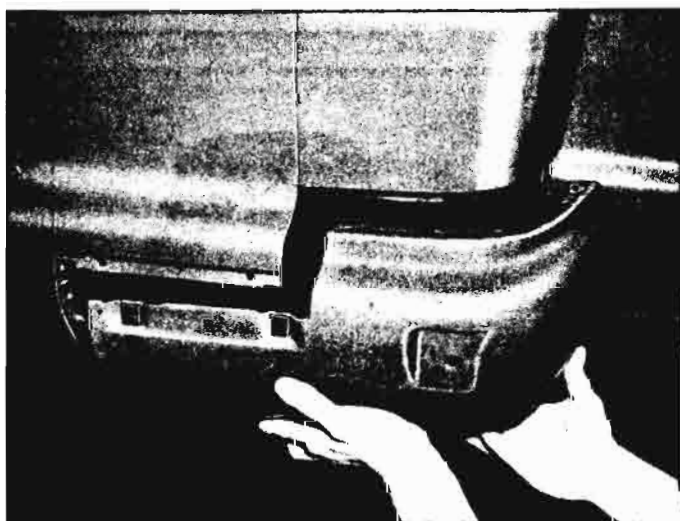


Fig. 10-35a—Installing Front Outer Panel Extension

LOCATING DUST AND WATER LEAKS

To determine the exact location of a dust leak, remove the following trim from inside the vehicle: Floor mats, dash and toe panel pad and kick pads.

Dust leaks will be evident when these pads and mats are removed. Leaks can be located sometimes by putting a bright light under the vehicle body, while checking the interior of the body at joints and weld lines. Light will show through where leaks exist.

Seal all leaks and road test the vehicle on a dusty road to make sure all leaks are sealed. Check for indications of a dust leak around doors.

All openings that allow dust leaks will also provide water leaks. When checking for water leaks, a helper should be used on the inside of the body to locate the entrance of water, while it is applied on the outside.

NOTE: Water leaks do not always enter the body in the location where they show up, therefore, back-tracking the path of water will show the true entrance of the leak.

INSTRUMENT PANEL (Glove Box) COMPARTMENT

Replacement

1. Open door panel and remove four screws, one at each side and two at the ends of the top.
2. Loosen three hinges to instrument panel opening, retaining screws.
3. Loosen lock striker screws, and remove box, by sliding back and out.
4. Slide box into position. Install four retaining screws. Tighten all screws at hinge and striker.

Door Assembly

Removal and Installation

1. Remove three retaining screws at hinge assembly.
2. Unhook door check and remove door assembly.
3. To install, reverse removal procedure.

DOORS, DOOR LOCKS AND WINDOWS

The entire door section has been divided into the following parts:

- Service Operations which are the same for all "Corvair 95 Series", front side doors.
- Service Operations for all side double doors.
- Service Operations for all rear doors.

FRONT SIDE DOORS

FRONT SIDE DOOR ASSEMBLY

Removal

1. Remove groove pin from door check (fig. 10-36a).
2. Remove the door to upper hinge retaining bolts (fig. 10-37a).

NOTE: Scribe a line around hinge outline for a guide for installation.

NOTE: The right front door upper hinge bolts are accessible through a covered hole in the heater cover.

3. Remove the door to lower hinge retaining bolts and remove door.
4. If hinge is damaged, remove the hinge to pillar bolts, and remove the hinge (fig. 10-37a).

Installation

1. If a hinge has been removed, install the hinge in the pillar in approximately the same position as it was before removal.
2. Position the door and install the retaining bolts just snug until after making door adjustments as described below. Reinstall door check retaining pin.

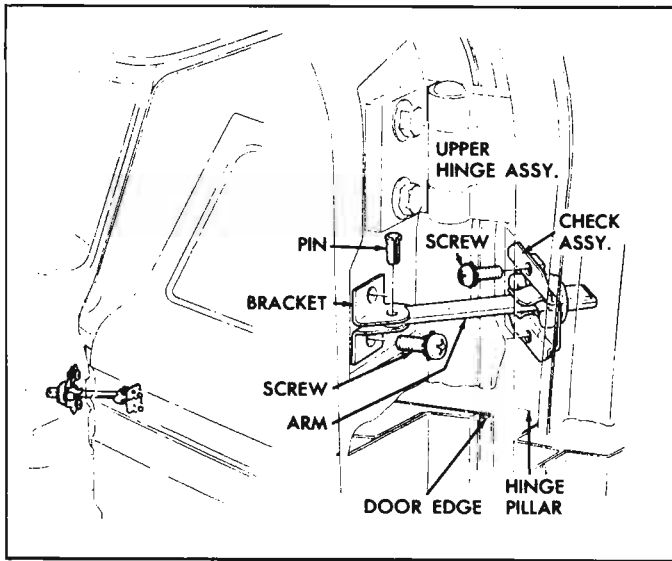


Fig. 10-36a—Front Side Door Check Assembly

Adjustment

Door adjustment may be accomplished at two; at the hinge cage to pillar. Before adjustment is made on any door, however, the striker plate should be loosened or removed. The door can be moved fore, aft, up and down at the hinge pillar ("A", fig. 10-37a) and the door can be moved in and out at the hinge to door panel

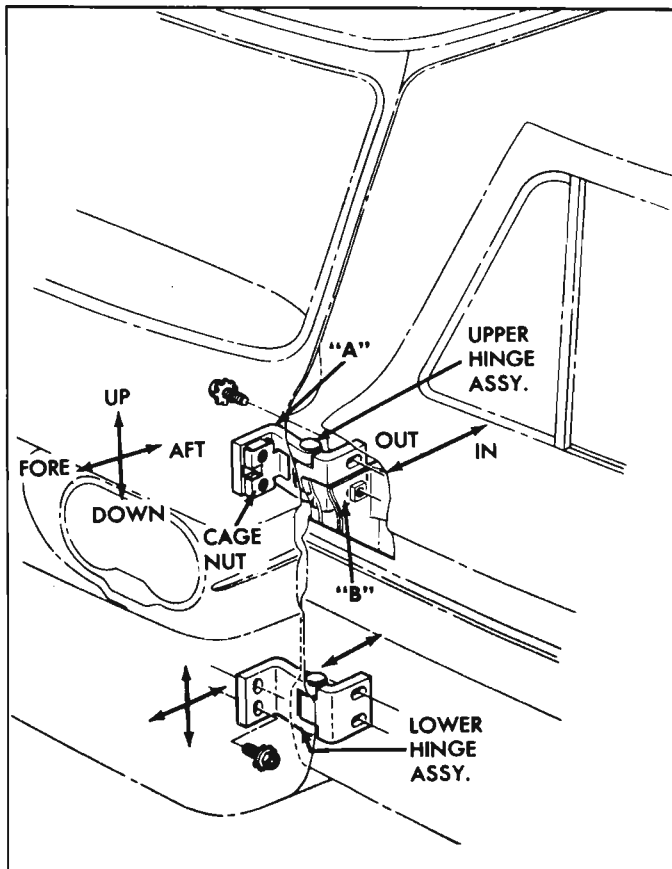


Fig. 10-37a—Front Side Door Hinges

("B", fig. 10-37a). Move door as required and tighten bolts.

The door should have a normal clearance of $\frac{3}{16}'' + \frac{1}{32}''$ or $-\frac{3}{32}''$ around the entire outer lip of door, except at the bottom. The bottom should be $\frac{1}{4}'' + \frac{1}{32}''$ or $-\frac{3}{32}''$ and front below the belt line $\frac{3}{16}'' + \frac{1}{32}''$ or $-\frac{3}{32}''$ (fig. 10-38a).

The door should be adjusted in the opening so the front portion ("X", fig. 10-38a) of the door edge is inside the outer surface of the body $\frac{7}{16}'' \pm \frac{1}{16}''$.

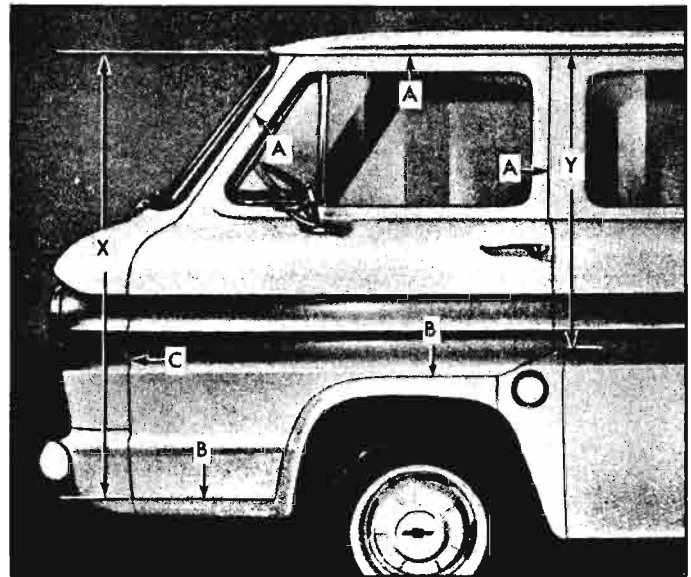


Fig. 10-38a—Door Clearances

A. $\frac{3}{16}'' + \frac{1}{32}''$
 $-\frac{3}{32}''$

B. $\frac{1}{4}'' + \frac{1}{32}''$
 $-\frac{3}{32}''$

C. $\frac{3}{16}'' + \frac{1}{32}''$
 $-\frac{3}{32}''$

The rear portion of the door ("Y", fig. 10-38a) should close within $\pm \frac{1}{16}''$ of flush with the body surface at lock pillar.

Tighten bolts 25-35 ft. lbs. after adjustment and replace and adjust the door striker plate as outlined under "Door Striker Plate".

Lock Striker

Slots in striker assembly rear face provide a location for the upper striker plate which, like the lower striker plate, has raised beads on both sides. Movable anchor plates in the pillar allow for "in and out" or "up and down" adjustment for a close fit of the door on the lock side.

Striker Adjustment

Position the door in the opening as previously outlined.

NOTE: Front door lock assembly installation is fixed in the door without provision for adjustment.

1. Position striker assembly on pillar so outer face of lock rotor swings into the striker assembly with .160 clearance to the striker inner face. This adjustment can be made by using the .060 and .120 spacers as required (fig. 10-39a).

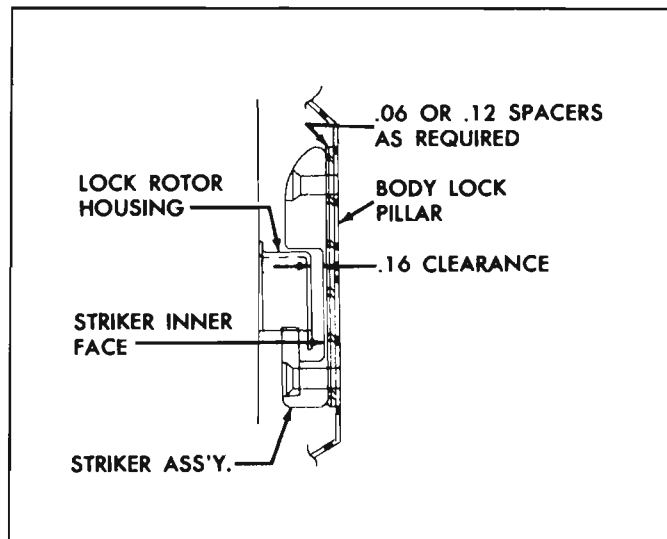


Fig. 10-39a—Striker Plate Spacer Installation

2. Place the upper and lower door lock striker plates between the striker or striker shims, if required, and the body lock pillar.
3. Position the upper plate so the two tabs project into the two slots in the rear face of the striker assembly. This prevents the plate from rotating during assembly. Also position the lower plate so the plate outline matches the depression on the striker assembly mounting face (fig. 10-40a).

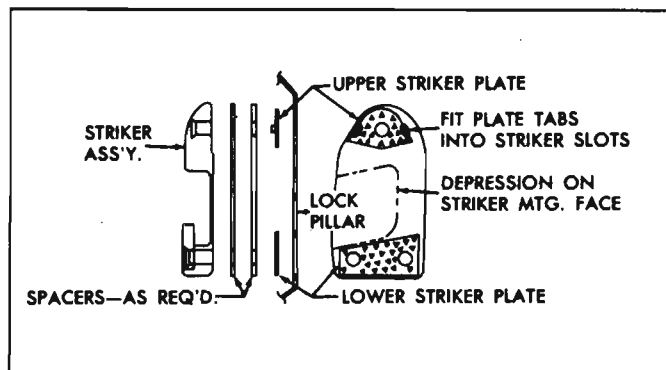


Fig. 10-40a—Location of Striker Plates

4. Attach striker with shims and adjusting plates to pillar and position as follows:
 - a. Lateral adjustment—position striker assembly laterally so that in the locked position the door outer surface is flush to the pillar surface within $\pm \frac{1}{16}$ " at door rear edge (fig. 10-41a).

NOTE: As an aid to striker adjustment, outline the striker in pencil or crayon for use as a base for adjustment.

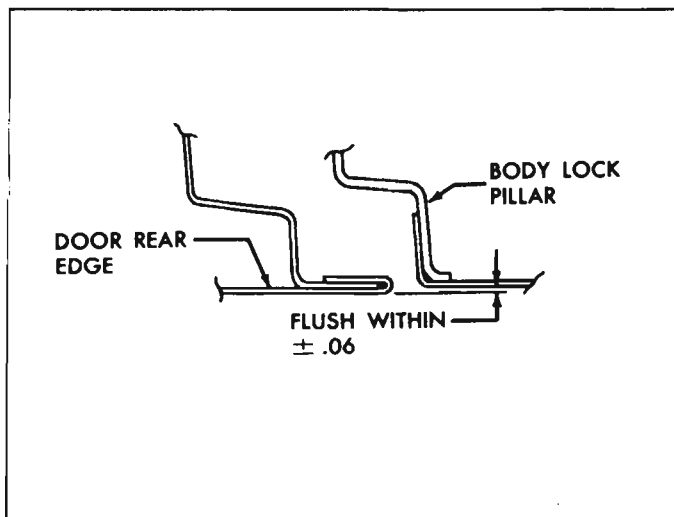


Fig. 10-41a—Door Rear Edge Surface Location

- b. Vertical adjustment—Position striker vertically so that the lock rotor and rotor housing swings smoothly into the opening between the striker gear teeth and the striker sliding wedge block (fig. 10-42a).

NOTE: The door assembly should not be raised as the teeth engage and the lock rotor housing must clear the striker housing as the lock enters the striker.

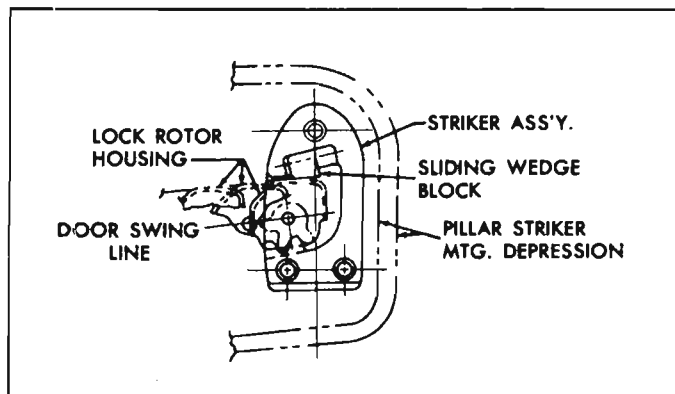


Fig. 10-42a—Lock Rotor Position in Striker

DOOR CHECK

The door check is mounted just below the upper hinge assembly and consists of two assemblies, the door check arm, which is mounted in the hinge pillar and the door check bracket which is mounted on the door (fig. 10-36a).

Removal and Installation

1. Remove pin from door check arm to bracket (fig. 10-36a).
2. Remove four headlamp door retaining screws and remove door.

3. Remove five headlamp assembly retaining screws and remove headlamp assembly (fig. 10-43a).
4. Remove two door check to hinge pillar retaining screws.
5. Remove door check assembly (fig. 10-43a) through access hole behind headlamp assembly.
6. To install, reverse the above removal procedure.

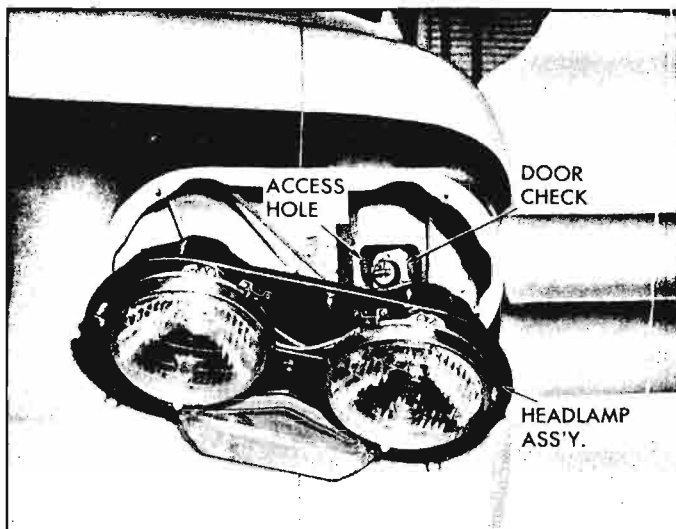


Fig. 10-43a—Removing Door Check

DOOR VENTILATOR ASSEMBLY

Ventilator, in forward portion of each door window, is a friction type with a positive position theft-resistance latch. The friction mechanism consists primarily of a coil spring mounted on the ventilator lower pivot, which exerts frictional force against mounting.

Adjustment

If friction spring on the ventilator pivot is adjusted too tight, it will be difficult to open and close ventilator. Too loose an adjustment will result in a fluttering ventilator or one having a tendency to close with wind pressure.

1. Remove seven retaining screws from trim panel to door (fig. 44a).
2. Through opening in door (fig. 10-45a) bend up tabs of adjustment nut lock (fig. 10-45a), then turn adjustment nut to obtain 5 to 7 lbs. torque while moving vent window from a ten degree open position to a full-open position. Use either a push or pull-type spring scale positioned at rear edge of vent glass.

NOTE: Turning adjustment nut clockwise increases operating tension. Turn nut counter-clockwise to decrease tension.

3. After making adjustment, bend tabs at adjusting nut down over flats of hex nut.

Removal

NOTE: Door division channel is part of door ventilator assembly and is removed with the assembly.

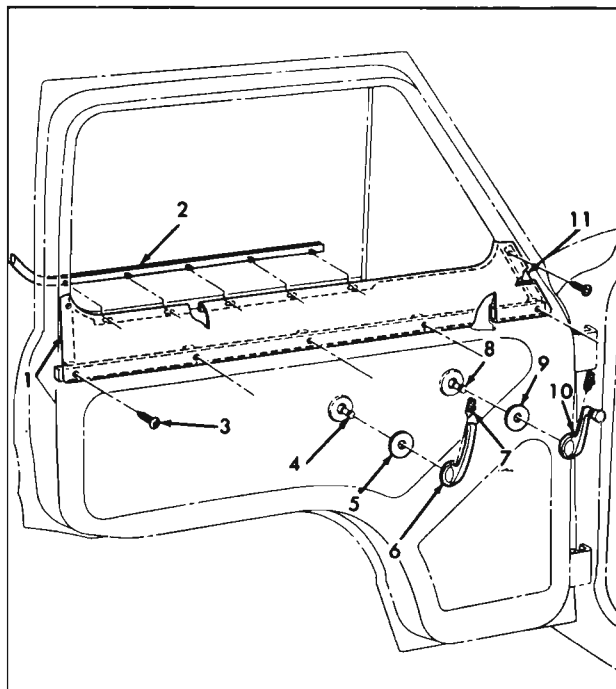


Fig. 10-44a—Trim Panel and Handles

- | | |
|-------------------------------|-----------------------------|
| 1. Trim Panel | 7. Set Screw |
| 2. Seal Assembly (R.H.) | 8. Window Regulator |
| 3. Trim Panel Retainer Screws | 9. Washer |
| 4. Remote Control | 10. Window Regulator Handle |
| 5. Washer | 11. Panel Trim Sealing Tape |
| 6. Remote Control Handle | 12. Rubber Seal |

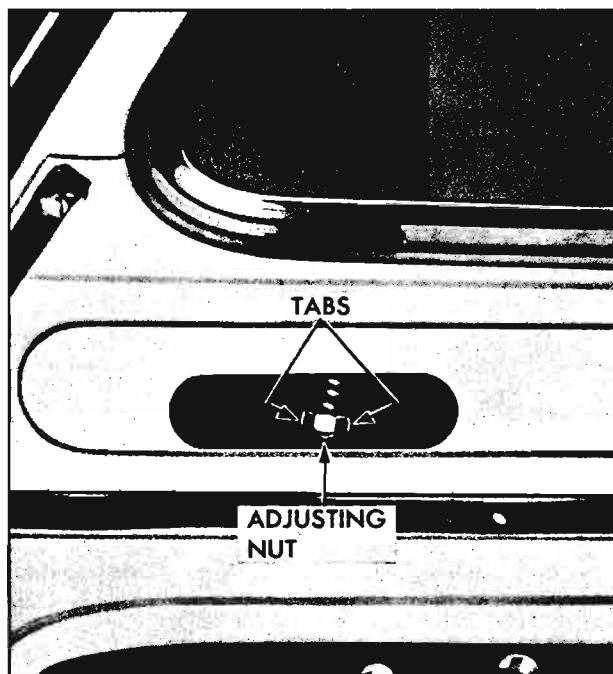


Fig. 10-45a—Door Vent Window Tension Adjustment

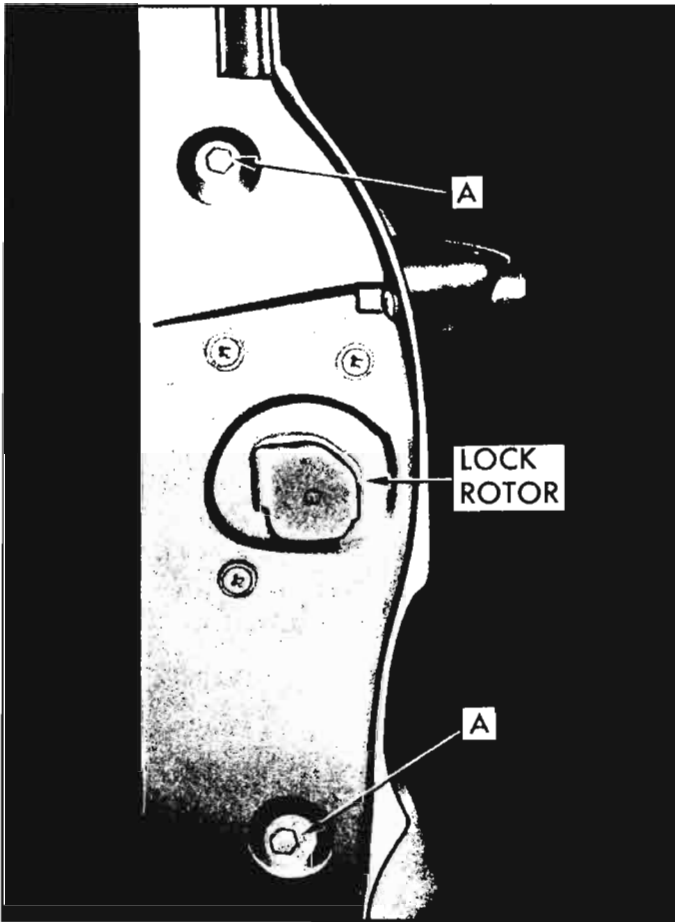


Fig. 10-46a—Window Sash Mounting Screws

1. Lower window in door and remove two sash vertical channel retainer screws ("A", fig. 10-46a).
2. Slide window assembly out and away from sash channel and channel attached to ventilator assembly.
3. Remove door ventilator assembly, three retaining screws around ventilator frame ("A", fig. 10-47a), and two screws at ("B", fig. 10-47a) attaching ventilator lower channel to door inner panel.
4. Remove two retaining screws at lower end of ventilator sash channel ("C", fig. 10-47a).
5. Rotate ventilator assembly approximately 180° so mounting bracket will clear door opening (fig. 10-48a).

Installation

1. Lower ventilator assembly into door frame and at same time install door window into ventilator guide channel and window sash vertical channel. Center ventilator assembly in door frame to equalize seal of rubber lip.
2. Install ventilator attaching screws loosely. Install two sash channel screws ("A", fig. 10-46a).
3. Hold ventilator forward and tighten ventilator

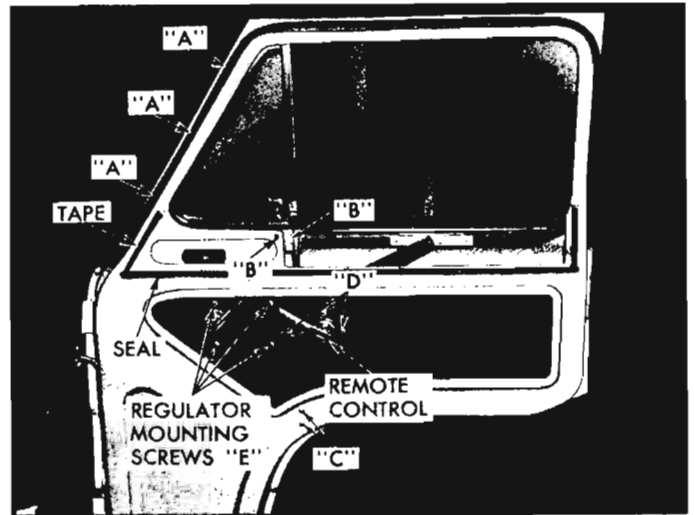


Fig. 10-47a—Door Window Regulator and Ventilator Mounting

screws ("A", fig. 10-47a). Tighten screws at ("B" and "C", fig. 10-47a).

4. Replace trim panel over sealing tape with seven retaining screws (fig. 10-44a).

VENTILATOR GLASS REPLACEMENT

1. Remove ventilator assembly and lay on a smooth surface.
2. Using an oil can or similar means, squirt gasoline

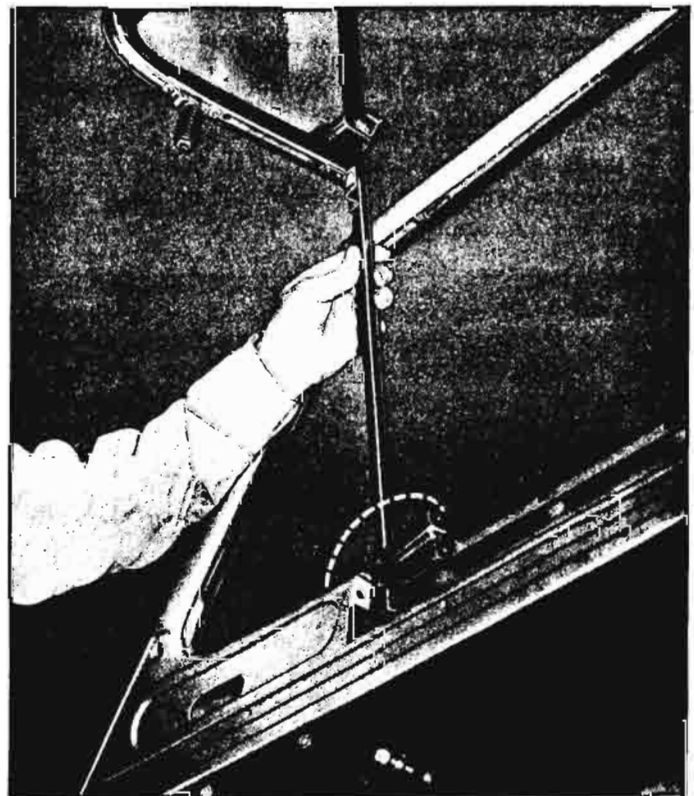


Fig. 10-48a—Removing Ventilator Assembly

on the glass filler all around the glass channel or frame to soften the old seal. When the seal has softened, remove the glass from the channel.

3. Thoroughly clean the inside of the glass channel with sandpaper, removing all rust, etc.
4. Using new glass channel filler, cut the piece to be installed two inches longer than necessary for the channel. Place this piece of filler (soapstoned side of filler away from glass) evenly over the edge of the glass which will fit in the channel. The extra filler extending beyond the rear edge of the glass should be pinched together to hold it in place during glass installation.

NOTE: One side of this filler (the outside of the roll) is soapstoned. This is the side which goes into the metal channel. This glass channel filler is serviced in two thicknesses—.032" and .047" to permit selection of the proper thickness so the glass may be installed without the use of special tools.

5. Brush the inside of the metal glass channel freely with ordinary SAE No. 10 engine oil. This will enable the glass and filler to slide freely into the channel. Push the glass with the filler around it into the channel until it is firmly seated. After the glass is firmly in place, the oil softens the filler, causing it to swell, thereby making a perfect watertight seal. Trim off the excess filler material around the channel and at the ends of the channel.

NOTE: Glass should be installed so that rear edge is parallel to the division post.

It takes 24 hours for the oil to fully affect the filler; therefore, water-leak tests should not be made before this period has elapsed.

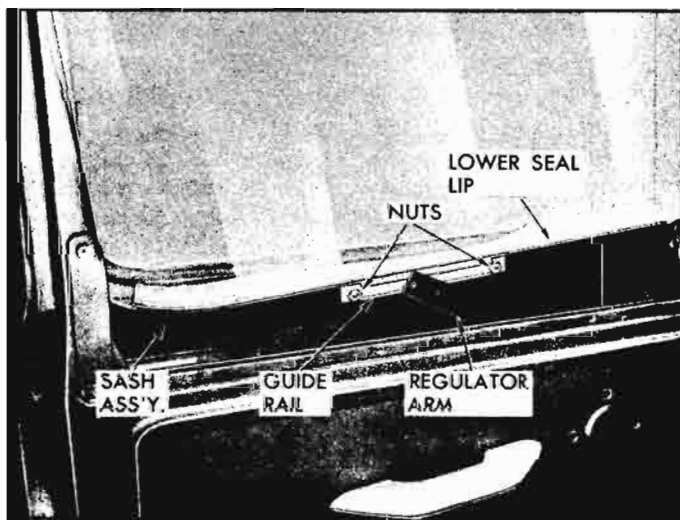


Fig. 10-49a—Sash Assembly and Window Guide Rail

WINDOW GLASS

Removal

1. Remove window regulator control handle. Handle is retained by a set screw (fig. 10-44a).
2. Remove trim panel from door. Trim panel is retained by seven screws (fig. 10-44a).
3. Remove door ventilator assembly.
4. Remove two vertical channel retaining screws (fig. 10-46a).
5. Install window regulator handle temporarily; then raise window to expose sash assembly and window regulator guide rail retaining nuts (fig. 10-49a).
6. Remove nuts and washers from guide rail while holding sash from dropping. Slide guide rail off of regulator arm as shown in Figure 10-50a.
7. Remove window sash and seal assembly.
8. Remove glass from sash. Rubber seal can be pulled from sash channel if necessary.

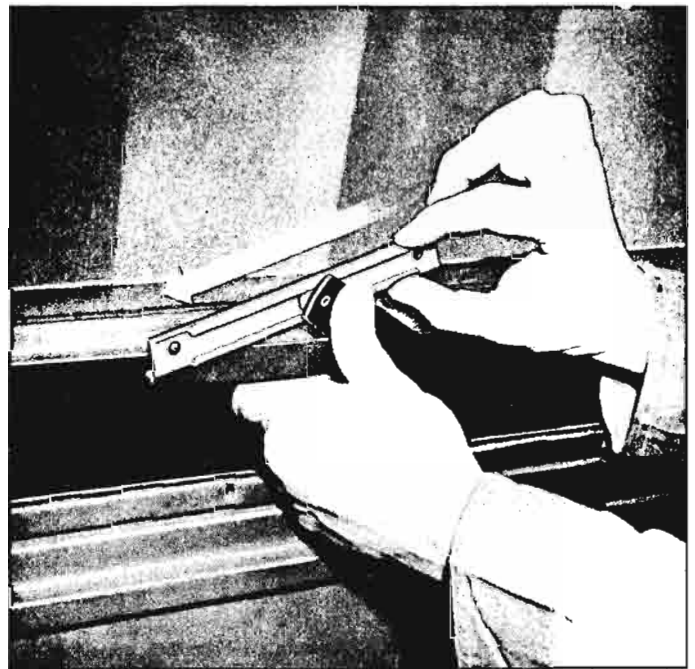


Fig. 10-50a—Removing Regulator Arm from Guide Rail

Installation

1. Brush inside of sash channel freely, removing all rust and foreign matter.
2. Install rubber seal with long lip towards outside (away from guide rail) shown in Figure 10-49a.
3. Install window glass in rubber seal and sash channel.
4. With one hand hold window assembly, then with the other install guide rail to regulator arm as shown in Figure 10-50a.

5. Install guide rail lockwashers and nuts securely.
6. Lower window and install ventilator assembly as previously outlined.
7. Install two retainer screws in vertical channel (fig. 10-46a).
8. Raise window to check operation and check seal for proper fit.
9. Install trim panel with seven retainer screws.

DOOR GLASS RUN CHANNEL REPLACEMENT

1. Lower window and remove trim panel.
2. Remove two retaining screws (fig. 10-46a) and pull the channel straight up to remove it from the door.

NOTE: The run channel is secured by a metal spring clip to the run channel guide.

3. Install the new run channel making sure the spring clip on the run channel engages the opening in the guide and the lip on the guide extends over the lower end of the run channel.
4. Slide run channel into position and install retaining screws.

WINDOW REGULATOR REPLACEMENT

1. Remove door glass and sash assembly.
2. Remove four screws ("E", fig. 10-47a) which attach window regulator mechanism to door inner panel; then remove regulator up through door opening.
3. Install regulator assembly through opening at door inner panel. Install four retaining screws "E", fig. 10-47a).
4. Install window assembly and engage regulator idler arm into arm guide rail (fig. 10-50a).
5. Install retainer nuts and lockwashers to guide rail.
6. Install channel retaining screws to channel (fig. 10-46a).

FRONT SIDE DOOR WEATHERSTRIP

Door Outer Weatherstrip Replacement

Front door sealing incorporates an inner and outer seal. The inner seal is mounted on the body opening welding flange (fig. 10-51a) and goes completely around the periphery of the opening, while the outer seal is mounted on the door upper half. The weatherstrip material is closed cell sponge and is cemented on as shown in Figures 10-51a and 10-52a.

1. Open door and remove door outer weatherstrip.
2. Remove used adhesive and door with adhesive or cement remover, and scrape off excess.
3. Apply adhesive to top of door area as shown in Figure 10-52a.
4. Install new weatherstrip starting at the belt line in front of door as shown in Figure 10-52a.

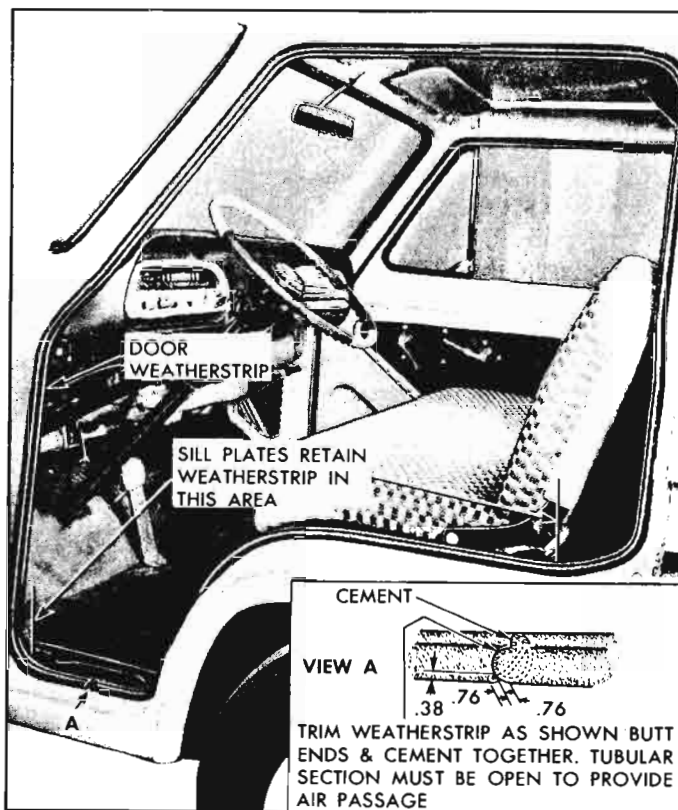


Fig. 10-51a—Door Opening Weatherstrip

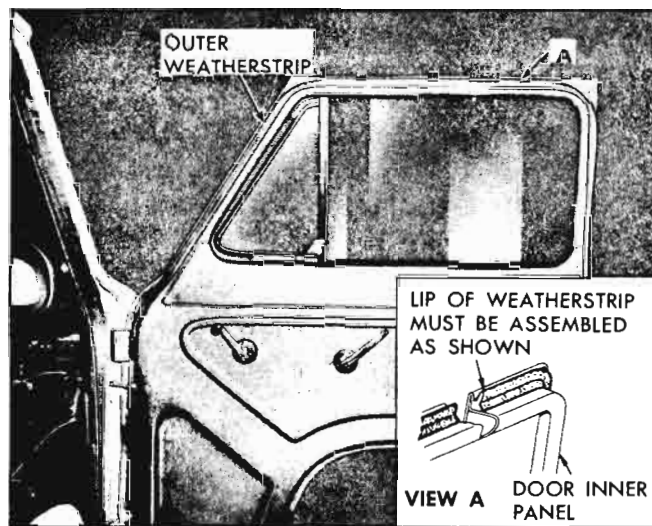


Fig. 10-52a—Door Outer Weatherstrip Installation

Door Inner Weatherstrip Replacement

1. Open door and block open.
2. Remove sill plate retaining screws and remove sill plates.
3. Remove door inner weatherstrip seal.
4. Remove used adhesive from door opening with adhesive or cement remover.
5. Apply adhesive to door opening.

6. Install inner weatherstrip starting at the center of the rocker panel door opening, view A (fig. 10-51a).
7. Trim inner weatherstrip with a notch as shown in Figure 10-51a, and butt ends together.
8. Reinstall sill plates (two pieces) and sill plate retaining screws.

DOOR TRIM PANEL SEALING TAPE AND RUBBER SEAL

Replacement

1. Remove trim panel retaining screws and remove trim panel (fig. 10-44a).
2. Remove trim panel sealing tape and rubber seal and remove used adhesive with adhesive remover.
3. Apply adhesive to door and install sealing tape and rubber seal (fig. 10-47a).
4. Install trim panel and retaining screws.

DOOR HANDLES AND LOCKS

All models are equipped with stationary type door handles with a push button type latch control in each handle. The outside key lock is in both the right and left handles.

OUTSIDE HANDLE REPLACEMENT

1. Open the door.
2. Raise the window and remove trim panel (fig. 10-44a).
3. Remove screw (11, fig. 10-53a) from edge of door and screw (10, fig. 10-53a) from inside of door.
4. Remove door handle and lock assembly.
5. To install, place handle with push button latch control and front and rear gaskets (1 and 9, fig.

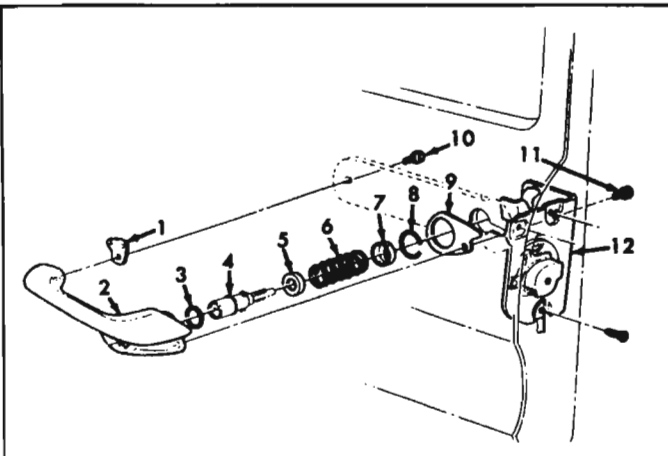


Fig. 10-53a—Door Lock and Handle Assembly

- | | |
|-------------------------|-------------------|
| 1. Front Gasket | 7. Stop |
| 2. Handle | 8. Lockwire |
| 3. Seal Ring | 9. Rear Gasket |
| 4. Safety Lock Assembly | 10. Screw |
| 5. Seat | 11. Screw |
| 6. Spring | 12. Lock Assembly |

10-53a) in position; then install attaching screws and reverse steps 4 through 2.

LOCK CYLINDER REPLACEMENT

(Refer to Figure 10-53a.)

1. Remove the door outside handle.
2. Remove the lock retaining snap ring, then remove stop washer, spring and spring seat, noting relative positions of the stop washer and spring seat.
3. Remove the lock cylinder and push button shaft assembly.
4. Remove the handle sealing ring (3) (fig. 10-53a).
5. If necessary, the lock cylinder, lock cylinder housing and push button shaft may be disassembled as follows:
 - a. Bend the ears of the push button cap sufficiently to disengage cap from cylinder housing. Disassemble cap, cylinder housing and lock cylinder. Figure 10-54a shows the lock disassembled.
 - b. Repair or replace the lock cylinder.
 - c. Assemble lock cylinder into housing and replace the push button cap, rebending ears to original position.

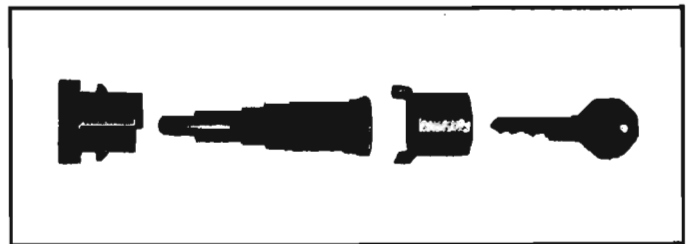


Fig. 10-54a—Door Push Button Shaft and Lock Assembly

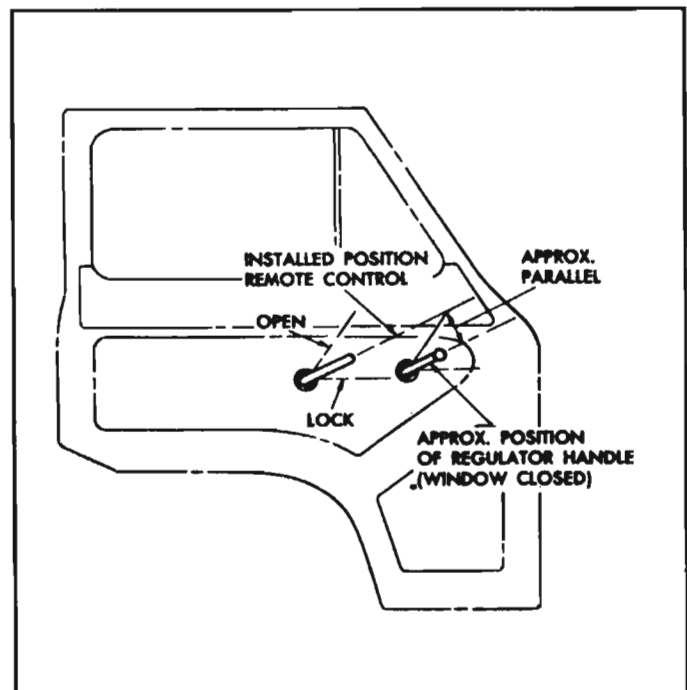


Fig. 10-55a—Door Lock Position

6. Install handle sealing ring, lock cylinder and push button shaft assembly, spring seat, spring, stop washer and retainer.
7. Assemble door outside handle to door.

LOCK ASSEMBLY REPLACEMENT

1. Remove door inside remote control handle and door trim panel. Handle is retained by a set screw (fig. 10-44a).
2. Temporarily reinstall door remote control handle to shaft and position handle forward, placing mechanism into locked position, which will permit the removal of remote control unit mounting attaching screws. Remove three screws which attach lock unit (fig. 10-53a) to edge of door. Loosen two guide channel mounting screws (fig. 10-46a) and pull channel toward front of door. Push lock rotor housing into door. Lower lock to wide part of door and remove lock by turning lock around glass guide channel.

3. To install mount remote control of lock mechanism to door with three screws ("D", fig. 10-47a). Tighten attaching screws (fig. 10-53a) at door lock unit firmly. Referring to Figure 10-47a, tighten remote control unit to door panel attaching screws after adjusting position of remote control unit as follows:

Temporarily install door control handles and place handle forward to locked position (fig. 10-55a). In this position the lock unit on door edge should also be in locked position.

SIDE DOUBLE DOORS

The side double doors are two different units; the front half is called the side intermediate door and the rear half is called the side rear door. The side double doors feature two-position checks (fig. 10-62a) which permit the doors to open at 95° (fig. 10-56a) and fully open (fig. 10-57a) which is reached by pushing the door check in while giving the desired door a slight

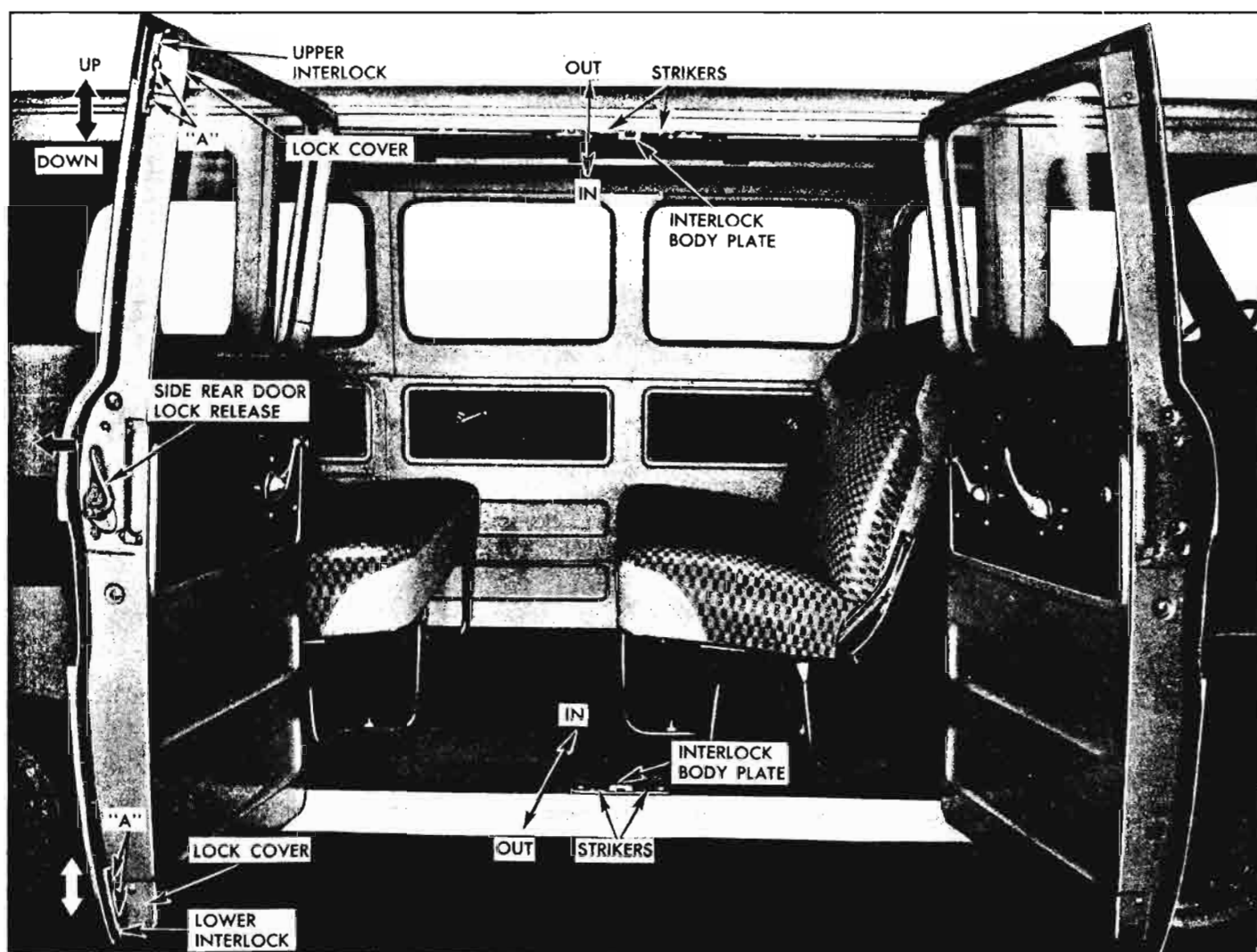


Fig. 10-56a—Side Double Doors—95° Position

inward then outward motion.

Side double door service procedures are the same for all models, except for Greenbrier Models which incorporate windows with regulators.

Removal

(Side Intermediate and Side Rear Doors)

1. Remove plastic plugs from hinge assembly ("A", fig. 10-57a) and remove the door to lower hinge retaining bolts.
2. With the aid of an assistant to support weight of door, remove the door to upper hinge retaining bolts and slide door off of hinges and grommet (fig. 10-57a).

NOTE: Doors can be removed for other reasons than door replacement by removing hinge pins shown in Figure 10-58a. Pins have serrated shanks below the head. Pins with damaged serrations should be replaced.

NOTE: When removing door from hinge assemblies be careful not to damage nylon bushings.

3. If hinge is damaged, remove the hinge to pillar bolts. On the side intermediate door, remove plastic plugs at ("C" and "D", fig. 10-57a) and remove retaining bolts.

NOTE: On the side rear door, hinge bolts for the upper hinge are located behind the body side rear inner front upper panel assembly (fig. 10-59a).

4. Remove body side rear inner front upper panel assembly and remove side rear door upper hinge retaining bolts (fig. 10-59a).
5. With the aid of an assistant to support the weight of the side rear door, remove the lower hinge retaining bolts (access under right wheelhouse) and remove door.

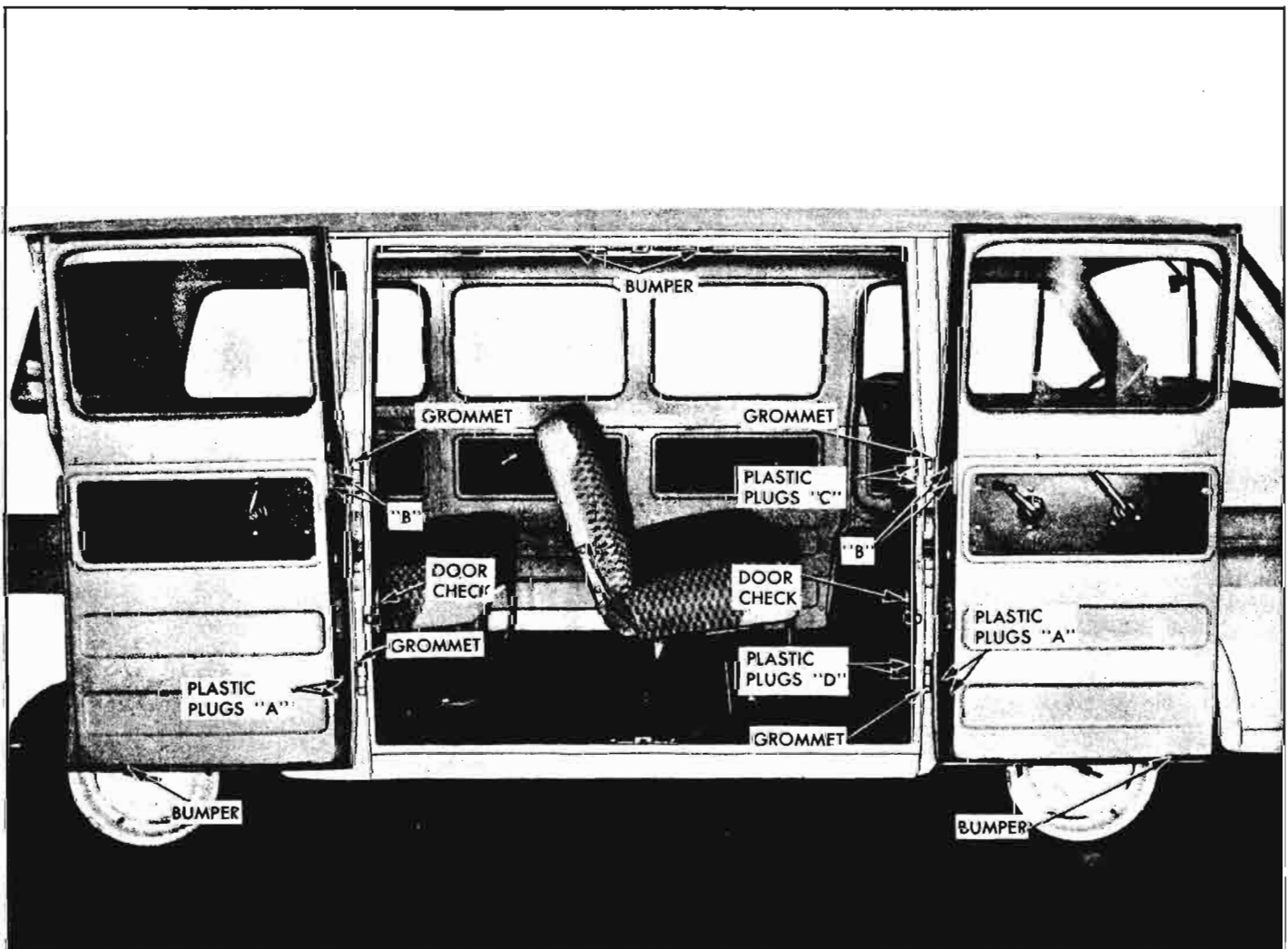


Fig. 10-57a—Side Double Doors—Fully Open

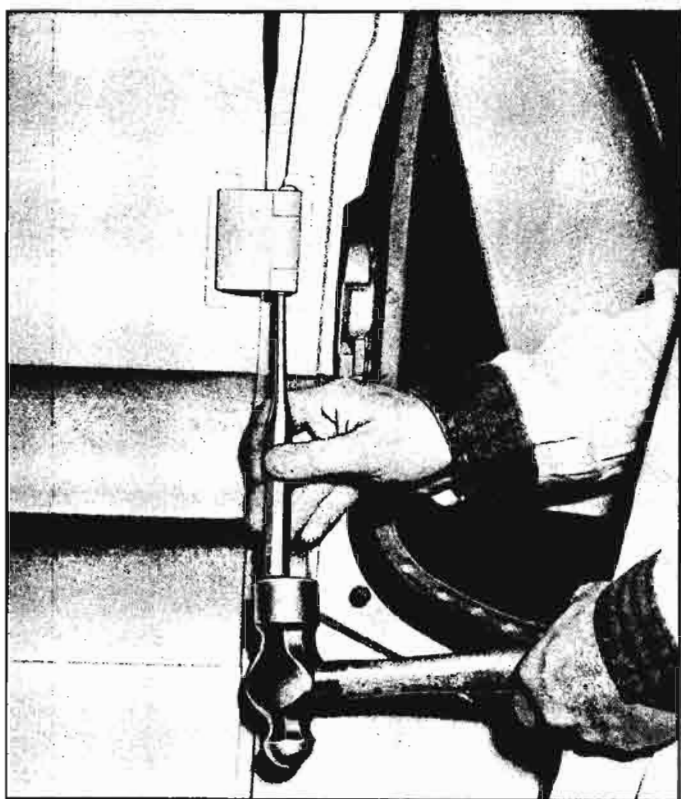


Fig. 10-58a—Removing Hinge Pins

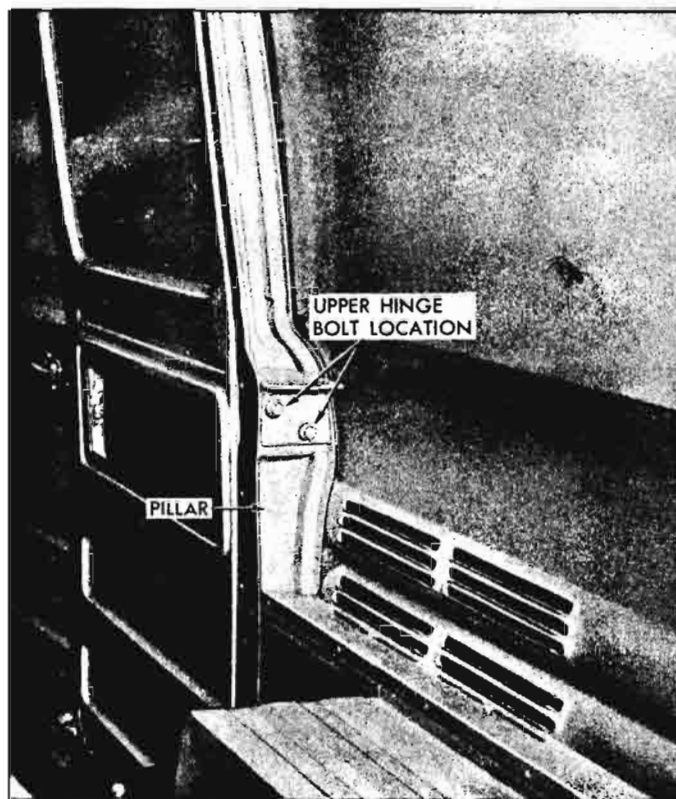


Fig. 10-59a—Side Rear Door Hinge Pillar

Installation

1. If a hinge has been removed, install the hinge in the pillar in approximately the same position as previously installed. Assemble grommet to door before inserting hinge in door and bolting.
2. Position the door and install the retaining bolts for each door just snug until after making door adjustments as described below.

Door Clearance Adjustment

Door adjustment may be accomplished at two places; at the hinge straps to door panel and at the hinge cage to pillar (fig. 10-60a).

Before adjustment is made on any door, however, the striker plates should be loosened and adjusted after door is located. The door can be moved in and out at the hinge pillar ("A", fig. 10-60a) and the door can be moved up and down at the hinge to door panel ("B", fig. 10-60a). Move door as required and tighten bolts. Install plastic plugs in all hinge bolt access holes that are required.

Normal surface of door outer panels and body outer panels must align from flush to $\pm .060''$ of being flush.

The doors should be flush or within $\frac{3}{16}''$ of being flush at the vertical lips of the doors (fig. 10-61a). There should be $\frac{3}{16}''$ at the top and sides of each door. There should be $\frac{1}{4}''$ clearance between the vertical centers and the bottom with both doors closed.

Interlock Adjustment

1. Loosen bolts ("A", fig. 10-56a) at upper and lower interlock attached to the side rear door assembly.
2. Loosen the upper and lower interlock plates attached to the body (fig. 10-56a).

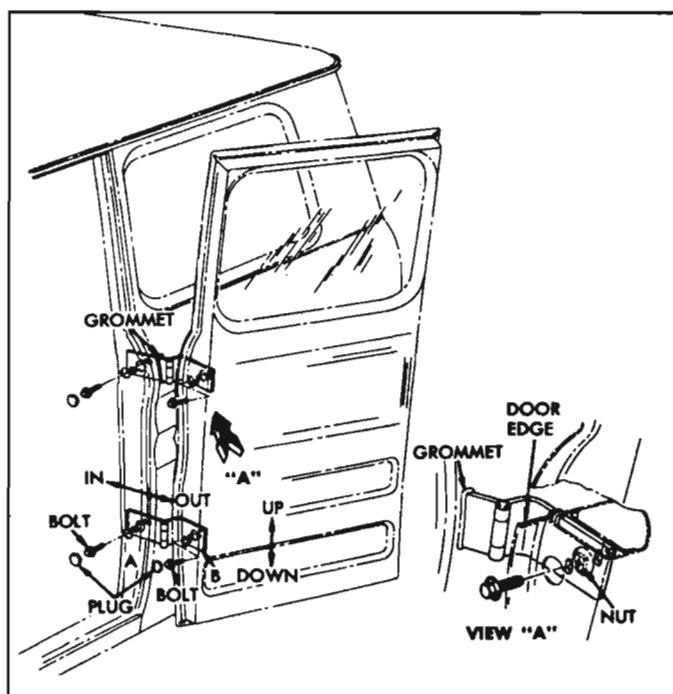


Fig. 10-60a—Hinge Adjustment

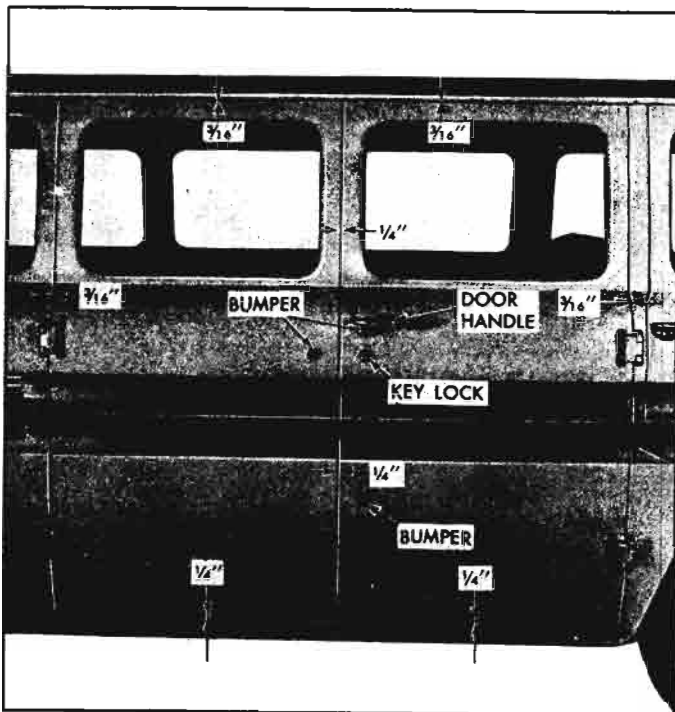


Fig. 10-61a—Side Double Door Clearance

3. Close the side rear door until the outer lip is flush with the body.

NOTE: Rubber bumpers shown in Figure 10-57a should touch the doors snugly at the top and the bumpers on the bottom of the doors should touch body opening snugly. Spacers can be used as necessary for this adjustment.

4. With interlocks in the body interlock plates, tighten retaining bolts ("A", fig. 10-56a) and tighten interlock body plate screws.

Striker Plate Adjustment

1. Striker plate adjustment should be performed before the interlock adjustment.
2. Striker plates can be moved in or out (fig. 10-56a) for adjustment.
3. With striker plates loose and doors closed, mark or scribe around striker plate with a pencil. Open doors and locate striker plates to previously scribed marks then tighten retaining bolts.

To Improve Latch To Striker Engagements

Shim between the striker plate and striker with one or more shim spacers.

To Eliminate Door Movement:

Shim between door bumpers and door to assure contact to the body.

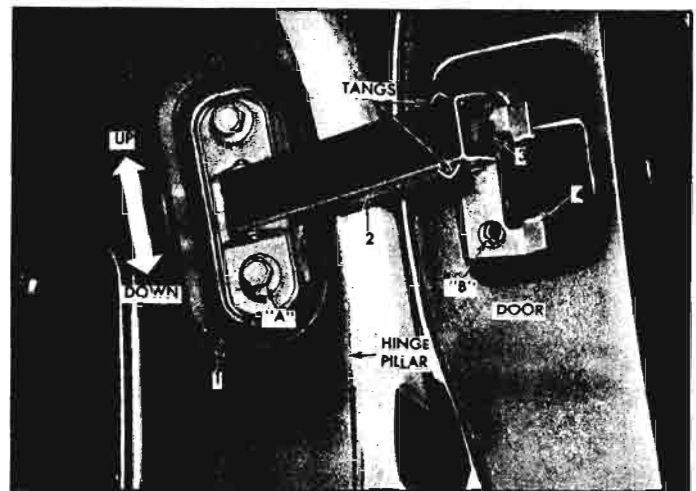


Fig. 10-62a—Side Door Check Assembly

- | | |
|-------------------|----------------------|
| 1. Dust Seal | 3. Rubber Guide Roll |
| 2. Check Assembly | 4. Retainer Plate |

SIDE DOUBLE DOOR CHECK REPLACEMENT

1. Open side double doors and remove retaining bolts at ("A", fig. 10-62a) and remove check assembly and retainer plate and dust seal.
2. To remove check plate from door, remove two retaining screws and remove check plate.
3. Install door check plate to door and check assembly with retainer and dust seal. (Dust seal keeps dust out of vehicle.)

NOTE: Door check assembly can be adjusted up and down as shown in Figure 10-62a.

SIDE DOUBLE DOOR WEATHERSTRIP

Side double door sealing incorporates weatherstrip sealing three fourths around the side rear door, and completely around the side intermediate door as shown in Figure 10-63a.

The weatherstrip material is closed cell sponge and is cemented and is retained at the corners on the side rear door (fig. 10-63a) by screws and clips.

Replacement

1. Open doors and on the side rear door remove retaining screws at "A," (fig. 10-63a).
2. Remove used weatherstrip from doors and adhesive with a scraper and adhesive or cement remover.
3. Apply adhesive to door. Apply weatherstrip as shown in Figure 10-63a.

NOTE: Weatherstrip must be square at corners A and B (fig. 10-63a).

4. Install weatherstrip retainer screws at door edge as shown in Figure 10-63a. Allow ample time for drying as indicated on the adhesive label.

SIDE DOUBLE DOOR WINDOW

Removal

1. Raise window with window regulator.
2. Remove door trim panel (fig. 10-64a) retaining screws and remove trim panel.
3. Remove guide rail retaining screws, and remove guide rail from window regulator arm (fig. 10-65a). Remove window regulator.
4. Remove front and rear channel assembly retaining screws ("A," fig. 10-66a).
5. Push channels away from the window sash assembly.
6. Lower window sash to bottom then lift out.
7. Remove glass from sash. If necessary, rubber seal can be pulled from sash channel.

Installation

1. Brush inside of sash channel removing all rust and foreign matter.

2. Install rubber seal with long tip towards outside (away from guide rail).
3. Install window glass in rubber seal and sash channel.
4. Hold window assembly with one hand, then with the other, install window assembly into channels. Install retaining screws in each channel assembly ("A", fig. 10-66a) with glass in up position.
5. Install guide rail (4, fig. 10-65a) and regulator arm to guide rail. Install retaining screws (5, fig. 10-65a) to guide rail.
6. Raise window several times to check operation.
7. Install trim panel and retaining screws (fig. 10-64a).

NOTE: Window regulators are left and right and are not interchangeable in each side door.

DOOR GLASS RUN CHANNEL REPLACEMENT

1. Lower window and remove trim panel.
2. Remove retaining screws ("A", fig. 10-66a) and pull channel straight up to remove it from window and door.

NOTE: Run channel is secured by metal spring clips to the run channel guide.

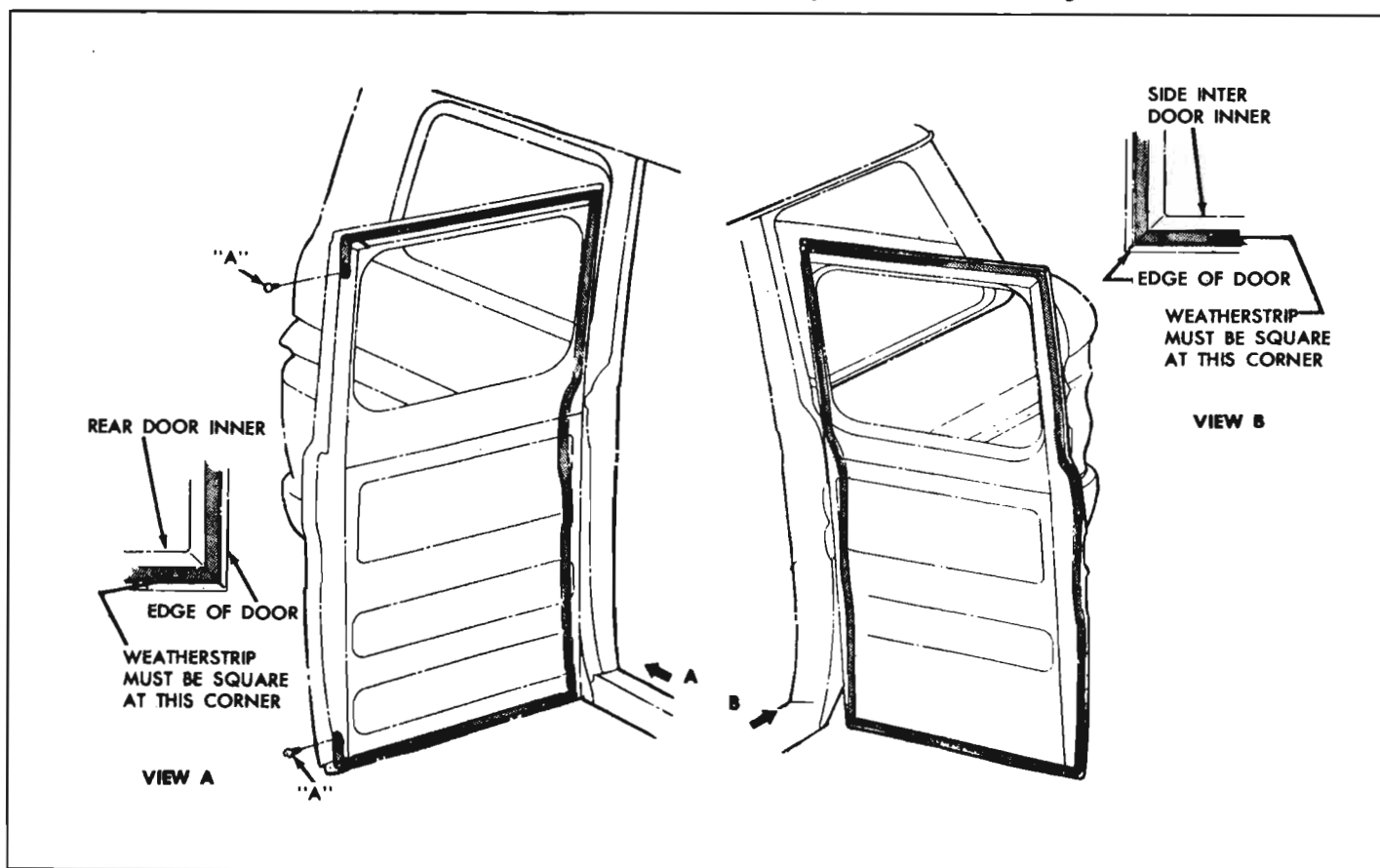


Fig. 10-63a—Side Double Door Weatherstrip Installation

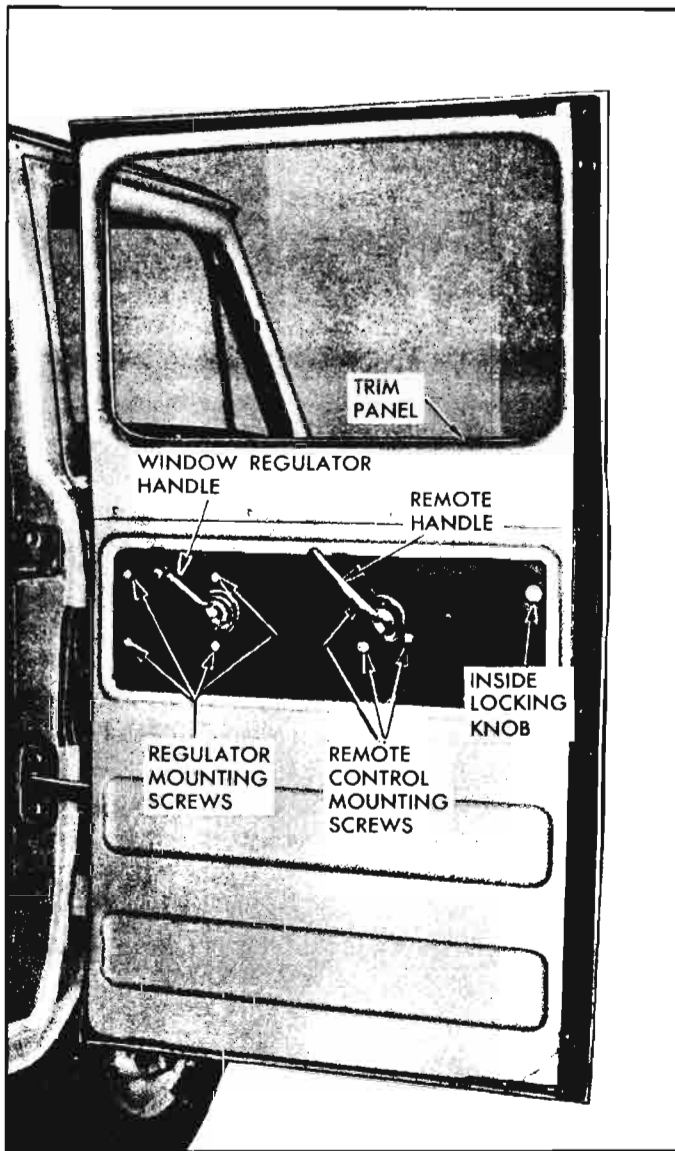


Fig. 10-64a—Side Door Window Regulator and Trim Panel

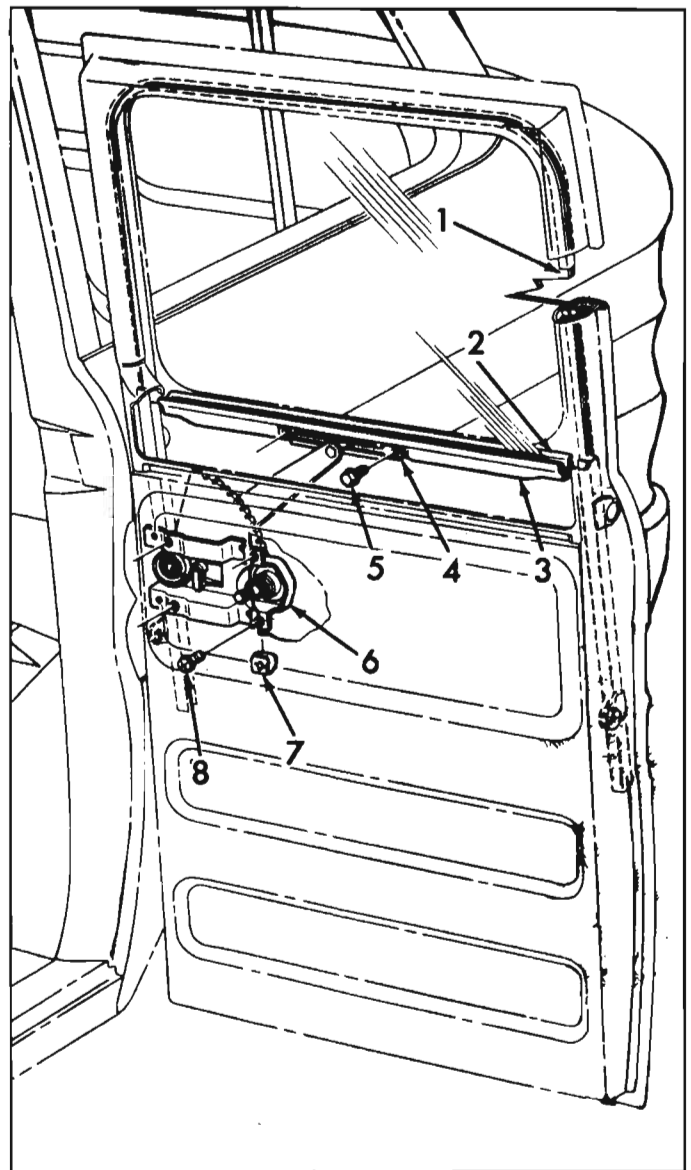


Fig. 10-65a—Window Regulator and Glass

3. Install run channel to the channel guide making sure clips are secured in channel.
4. Slide run channel assembly into position in door and install retaining screws ("A", fig. 10-66a).

WINDOW REGULATOR REPLACEMENT

1. Remove trim panel.
2. Remove door glass and sash assembly. Remove window regulator handle.
3. Remove four regulator mounting screws (fig. 10-64a) from door inner panel and remove regulator assembly.
4. Install regulator assembly through opening at door inner panel. Install four retaining screws (figs. 10-64a and 10-65a).

- | | |
|------------------|-----------------------|
| 1. Glass | 5. Screw |
| 2. Lower Seal | 6. Regulator Assembly |
| 3. Sash Assembly | 7. "J"-Nuts |
| 4. Guide Rail | 8. Screw |

5. Install window assembly and engage regulator idler arm into guide rail (fig. 10-65a).
6. Install retaining screws in guide rail to sash assembly.
7. Install channel retaining screws to channels ("A", fig. 10-66a).
8. Install trim panel and retaining screws (fig. 10-64a).

SIDE DOUBLE DOOR HANDLE AND LOCKS

Both doors are retained positively with spring-loaded, slam-type bolt locks located at the top and

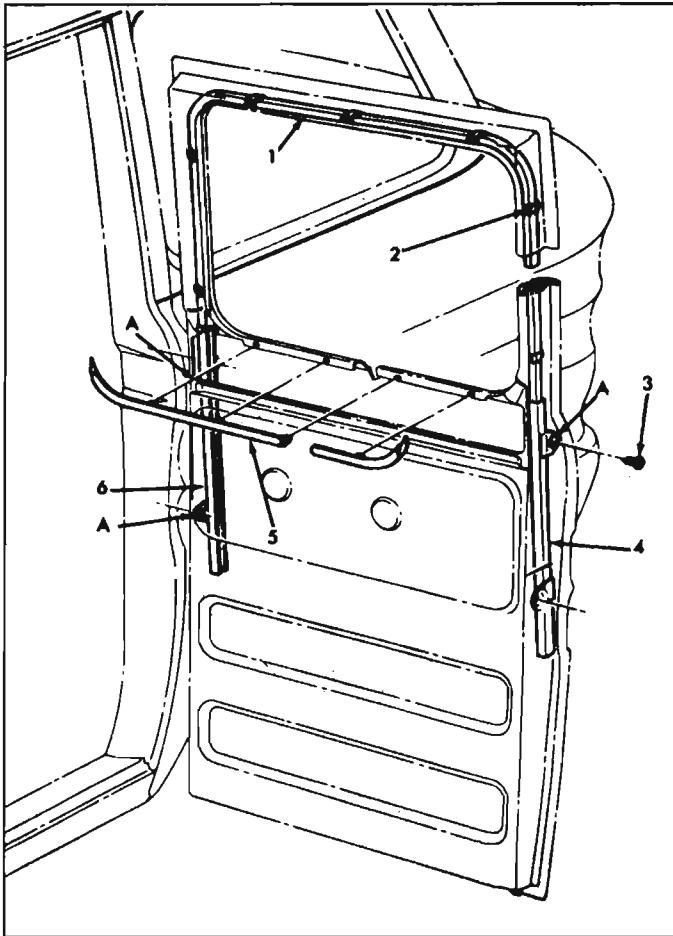


Fig. 10-66a—Channel and Run Assembly

- | | |
|-----------------|-----------------------------|
| 1. Run Assembly | 4. Channel Assembly (Rear) |
| 2. Clip | 5. Door Seal |
| 3. Screw | 6. Channel Assembly (Front) |

bottom of each door. The locking mechanisms are contained entirely within the door structures. A measure of safety in the event of a collision is provided with interlocks at the top and bottom of the rear side door.

Both an inside and outside release handle is provided for the side intermediate door. The inside release handle is identical to that used for the front doors (fig. 10-64a), while the outside release (fig. 10-61a) is a 2-position lever-type handle. In the "closed-door" position, the handle is horizontal; to open the door, the handle is turned downward 45 degrees; after the door is opened, the handle automatically moves upward to the horizontal position, setting the lock bolts so the door can be closed. A rubber bumper integral with the side intermediate door handle eliminates interference with the body when the door is fully opened; another rubber bumper on the side rear door outer panel serves the same purpose (fig. 10-61a).

The side rear door release handle, located on the door inner side face, is of the lever-type (fig. 10-56a).

A separate key lock (fig. 10-61a) below the inter-

mediate side door handle locks both side doors since the side intermediate door laps over the side rear door. Both doors can be locked from the inside with a locking knob (the locking knob has a notch on the face of the knob. When notch is up, door is locked. When knob is turned to the left, the door is unlocked) (fig. 10-64a) located on the inner panel of the front side door. Should the doors be locked from the outside, they cannot be unlocked from the inside since the inside and outside locks operate independently of each other. See Figure 10-70a exploded view of the side intermediate door lock mechanism.

SIDE INTERMEDIATE DOOR HANDLE

Removal and Installation (Refer to Figure 10-67a)

1. Open doors.
2. On panel doors, remove lock assembly access cover retainer screws and remove cover (fig. 10-68a). On doors equipped with windows, remove trim panel (fig. 10-64a).
3. Remove retainer ring (1, fig. 10-67a) from escutcheon (3, fig. 10-67a). Access to retainer ring is through opening in panel door (fig. 10-69a) or through opening when trim panel is removed for doors with windows.

NOTE: Removal of lock assembly is not necessary for handle removal. An access hole is

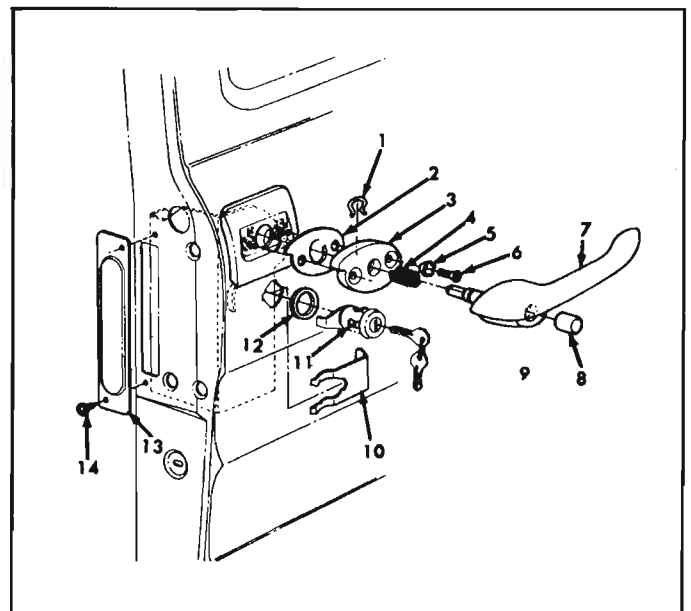


Fig. 10-67a—Side Intermediate Door Handle Assembly

- | | |
|--------------------|----------------------------|
| 1. Spring Retainer | 9. Cement (as req'd) |
| 2. Gasket | 10. Lock Cylinder Retainer |
| 3. Escutcheon | 11. Lock Cylinder |
| 4. Spring | 12. Cover Ring |
| 5. Lockwasher | 13. Cover |
| 6. Screw | 14. Screw |
| 7. Handle | 15. Reinforcement Assembly |
| 8. Rubber Bumper | |

located at the door edge for removal of retainer ring.

4. Remove handle.

NOTE: While handle is removed, the escutcheon and gasket can be removed.

5. Install gasket and escutcheon to door panel with retaining screws (fig. 10-67a).
6. Install handle and rubber bumper assembly to door and snap retainer ring (1, fig. 10-67a) in place through access hole or trim panel opening.

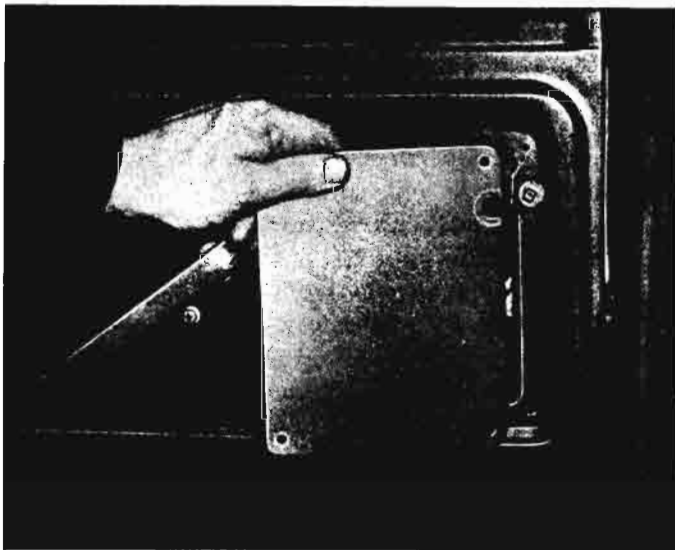


Fig. 10-68a—Side Door (Inter.) Lock Access Cover

SIDE INTERMEDIATE DOOR LOCK CYLINDER

Removal and Installation

1. Remove trim panel on doors equipped with windows, and on panel doors remove access cover (fig. 10-68a).
2. Reach behind lock and pull lock cylinder retainer from lock cylinder (fig. 10-69a).
3. To install, reverse the removal procedure.

SIDE INTERMEDIATE DOOR REMOTE CONTROL

Removal

1. On panel door models, remove access cover shown in Figure 10-68a. On doors with windows, remove trim panel retaining screws (fig. 10-64a) and remove trim panel.
2. Remove remote control handle set screw (18, fig. 10-70a) and remove remote control handle and gasket washer.
3. Remove three remote control retaining screws (fig.

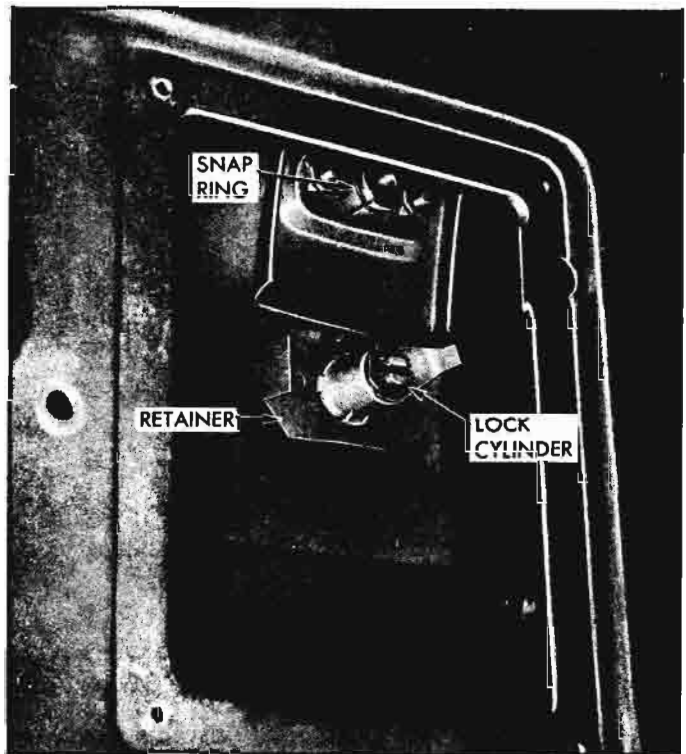


Fig. 10-69a—Side Intermediate Handle and Lock Cylinder Retainer

10-64a) while holding plate and nut assembly (fig. 10-72a).

NOTE: On panel models, reach through access hole and unhook remote control arm from lock actuating arm (fig. 10-71a). On models with windows, reach through trim panel opening and remove remote control arm from lock actuating arm.

4. Remove remote control assembly.

Installation

NOTE: Work through trim panel on models equipped with windows or through access hole on panel doors.

1. Hook remote control arm on lock actuating arm (fig. 10-71a).

NOTE: Be sure anti-rattle spring washer (fig. 10-71a) is in place.

2. Install remote control assembly mounting screws (fig. 10-64a) while holding plate nut assembly behind control.

NOTE: Insert corner screw to plate assembly; then rotate plate assembly into place and install remaining screws.

3. Install control handle and gasket. Lock handle in position with set screw.

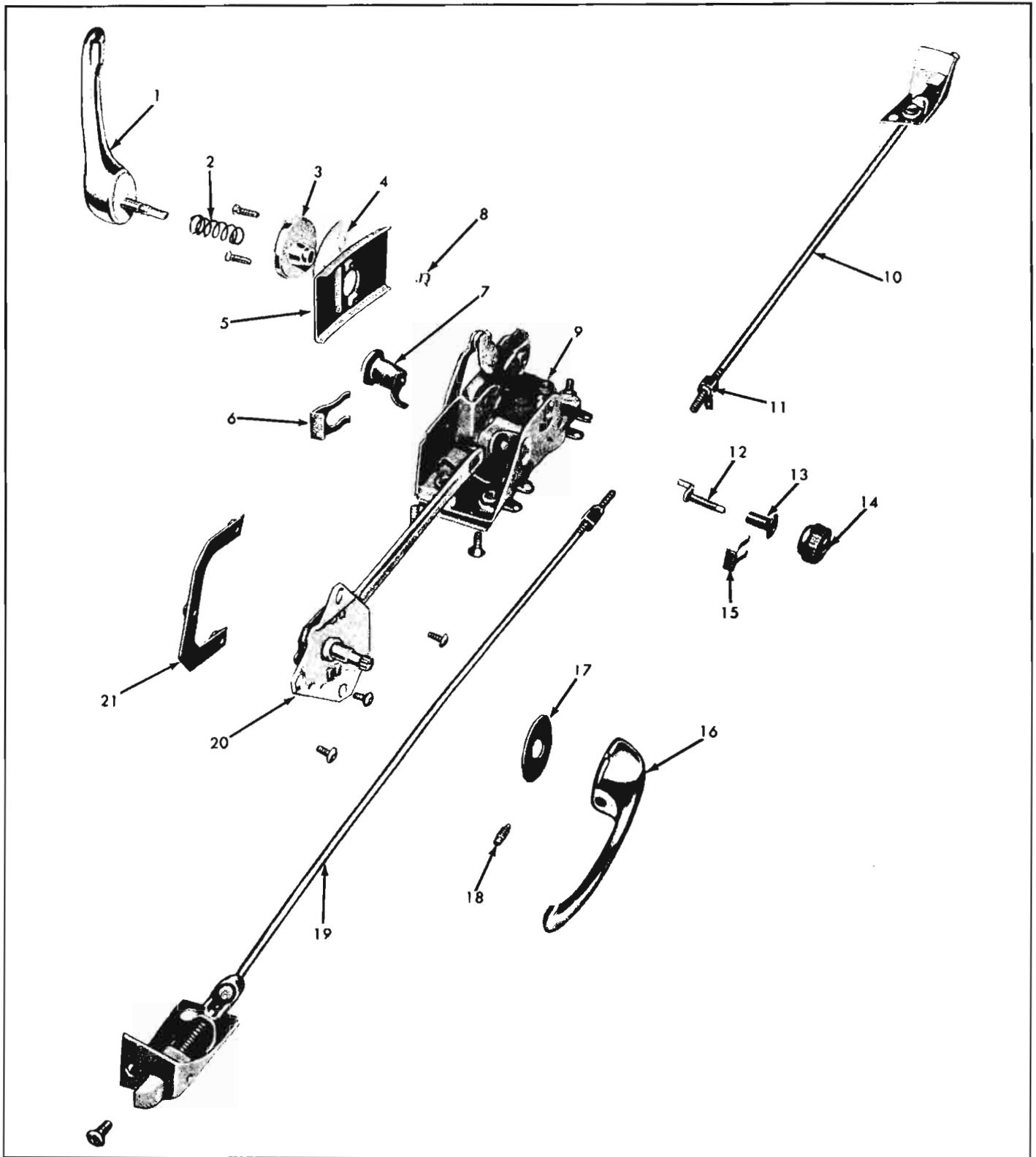


Fig. 10-70a—Exploded View—Side Intermediate Door Lock Mechanism

- | | | | |
|------------------------|----------------------------------|-------------------------------------|----------------------------------|
| 1. Handle | 6. Retainer (Lock Cylinder) | 11. Trunnions | 16. Remote Control Handle |
| 2. Spring | 7. Lock Cylinder | 12. Lever Assembly (Inside Locking) | 17. Gasket |
| 3. Escutcheon | 8. Handle Retainer | 13. Escutcheon | 18. Set Screw |
| 4. Gasket | 9. Lock Assembly | 14. Locking Knob (Inside) | 19. Lower Rod and Latch Assembly |
| 5. Panel Reinforcement | 10. Upper Rod and Latch Assembly | 15. Retainer | 20. Remote Control Assembly |
| | | | 21. "J" Nuts |

4. On models so equipped, install trim panel or access cover, Figures 10-64a and 10-68a.

SIDE INTERMEDIATE DOOR LOCK OPERATING LEVER

Removal and Installation (Refer to Figure 10-72a)

1. Remove lever knob retaining screw and remove knob.
2. Remove trim panel on models equipped with windows and access cover on panel models.
3. Remove escutcheon retainer (8, fig. 10-72a) and remove escutcheon and lock operating lever.
4. To install, reverse the above removal procedure.

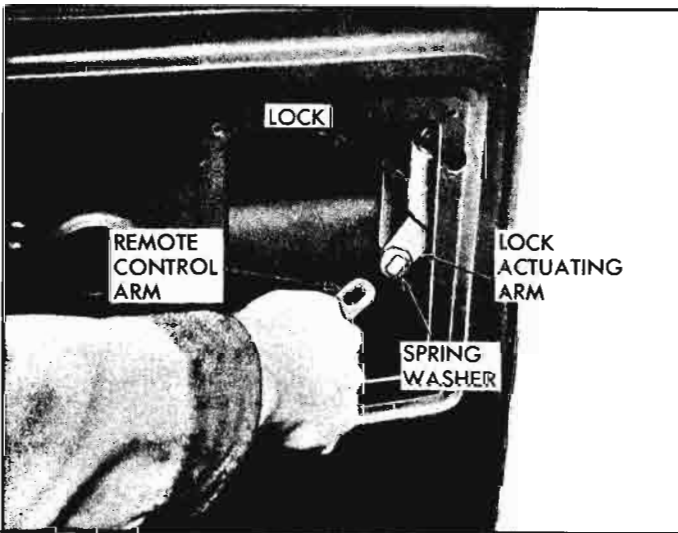


Fig. 10-71a—Removing Remote Control Arm

SIDE INTERMEDIATE DOOR LOCK ASSEMBLY

Removal

1. Remove trim panel on models so equipped and access cover on panel models.
2. Disconnect remote control arm from lock actuating arm (fig. 10-71a).
3. Remove door outer handle.
4. Remove locking lever from lock mechanism.
5. Remove trunnion access cover retainer screws and remove access cover.
6. Remove trunnion to lock retainer springs ("A", fig. 10-73a). Remove trunnion from each lock lever.
7. Remove three lock assembly to door retaining screws ("B", fig. 10-73a) and remove lock assembly.

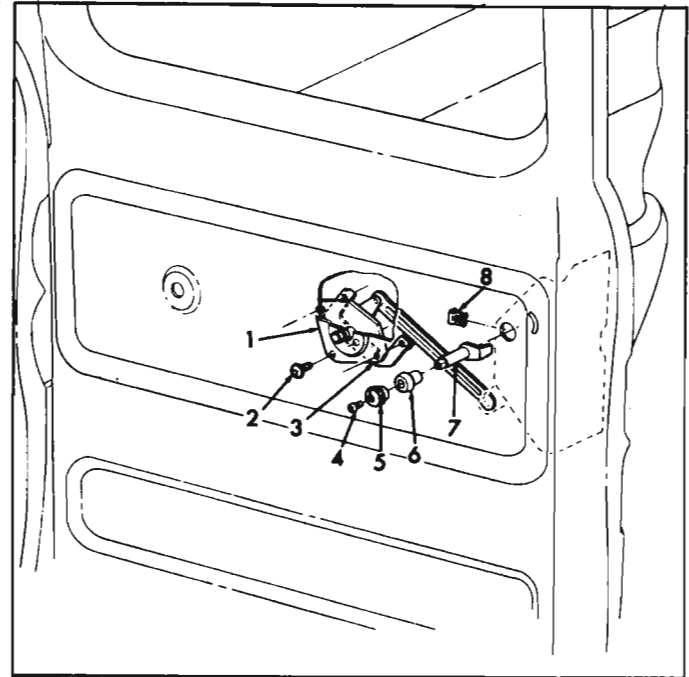


Fig. 10-72a—Side Intermediate Door Lock Operating Lever

- | | |
|---------------------------|-------------------------|
| 1. Remote Control | 5. Control Knob |
| 2. Screw | 6. Escutcheon |
| 3. Plate and Nut Assembly | 7. Lock Operating Lever |
| 4. Screw | 8. Escutcheon Retainer |

Installation

NOTE: Adjust rods so that all slack is removed. Position trunnion to lock assembly lever (fig. 10-73a) in locked position—(top lever up and bottom lever down).

1. Install lock assembly retaining screws ("B", fig. 10-73a).
2. Install upper and lower rod assemblies after adjusting trunnions so they enter lock levers freely when levers are in the locked position. Install retainer ring on each trunnion.
3. Install locking lever to locking mechanism as previously described.
4. Install remote control arm assembly. Install trim panel on models required and access cover on models required.
5. Install trunnion access hole cover.

SIDE INTERMEDIATE DOOR UPPER AND LOWER ROD ASSEMBLY

Removal and Installation (Refer to Figure 10-73a)

1. Remove retaining screws ("C" and "D", fig. 10-73a) at each door lock cover.
2. Remove trunnion access hole cover and remove trunnion retainer springs.

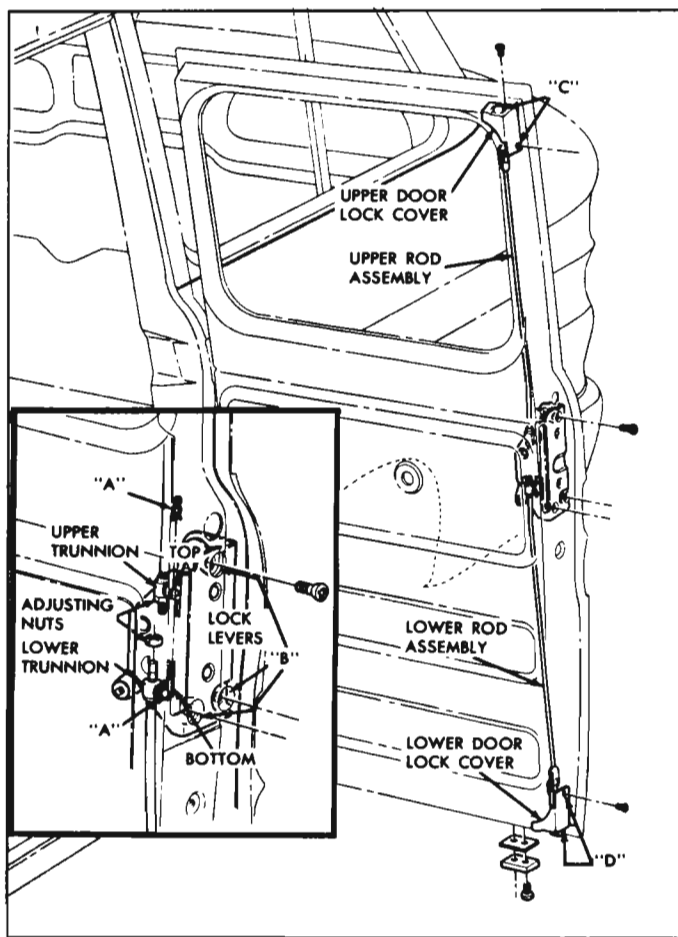


Fig. 10-73a—Side Intermediate Door Lock and Rod Assembly

3. Remove trunnion from lock lever and remove rod assembly.

4. To install, reverse the above removal procedure.

NOTE: Lock latch upper and lower rod assemblies are adjustable at the trunnion with locking adjusting nuts.

SIDE REAR DOOR LOCK ASSEMBLY

Removal and Installation

1. Remove trunnion access cover retaining screws and remove cover.
2. Remove lock release handle screw and remove handle.
3. Remove retainer spring at each trunnion (fig. 10-74a) and unhook trunnions from lock lever.
4. On panel doors remove access cover on inner panel. On doors with windows, remove trim panel.
5. Remove three lock assembly retaining screws and remove lock assembly.
6. Remove two screws at each rod assembly lock cover (fig. 10-56a).

7. Remove upper and lower locking rod assemblies.

NOTE: Locking latch upper and lower rod assemblies are adjustable at the trunnions (fig. 10-74a).

Adjust rods so that all slack is removed. Position trunnion to each lock assembly lever in the locked position—(top lever up and bottom lever down).

8. To install, reverse the above removal procedure.

SIDE REAR DOOR WINDOW ASSEMBLY

Removal and Installation

Refer to Side Intermediate Door Window Assembly—Removal and Installation.

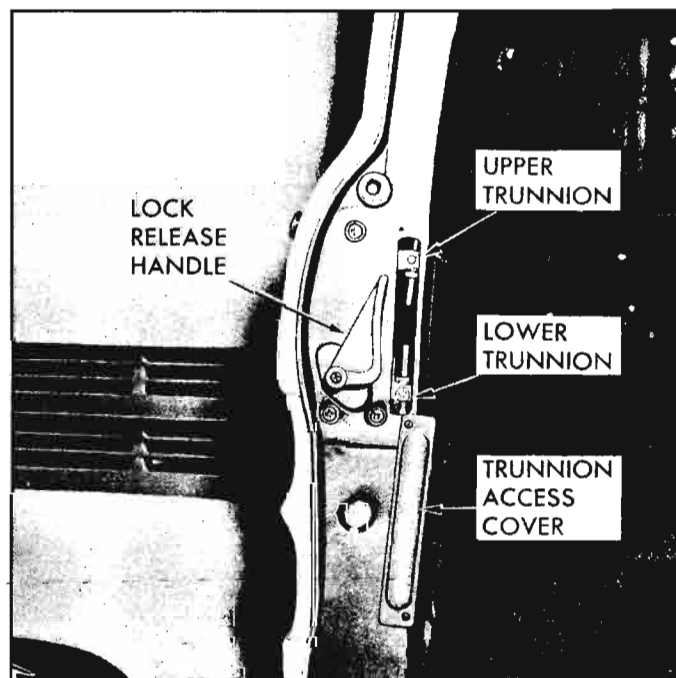


Fig. 10-74a—Side Rear Door Lock

REAR DOORS

Rear doors are of the double side hinge type utilizing strap-type hinges. Rubber grommets around the hinge slots in the body pillars prevent entry of dust into the body interior. Two-position checks permit the doors to open at 95° (fig. 10-75a) and wide open (fig. 10-76a). In the wide open position, rubber bumpers on the body panels prevent interference of the doors with the body. The wide open position is reached by holding door check away from striker while giving the door a slight inward, then outward motion. With both doors fully opened to their full extent (at right angles to the body sides), the rear can be backed right up to a loading dock.

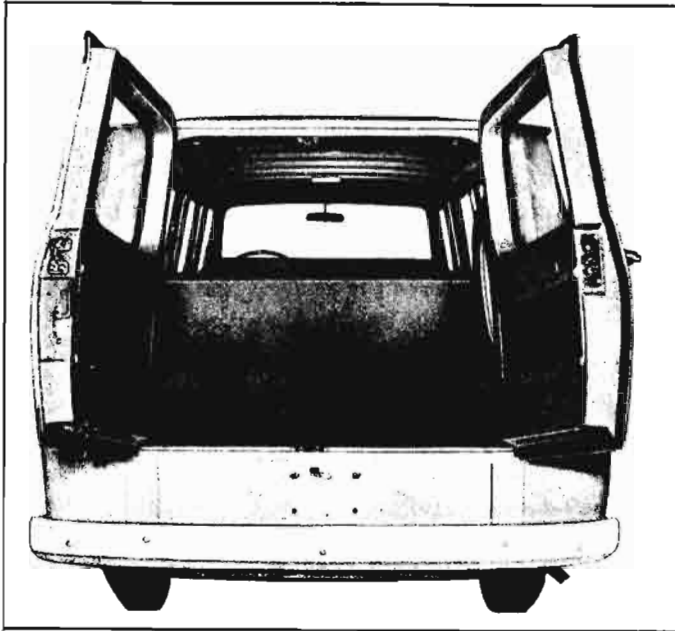


Fig. 10-75a—Rear Doors—95° Position



Fig. 10-77a—Rear Left Door Lock

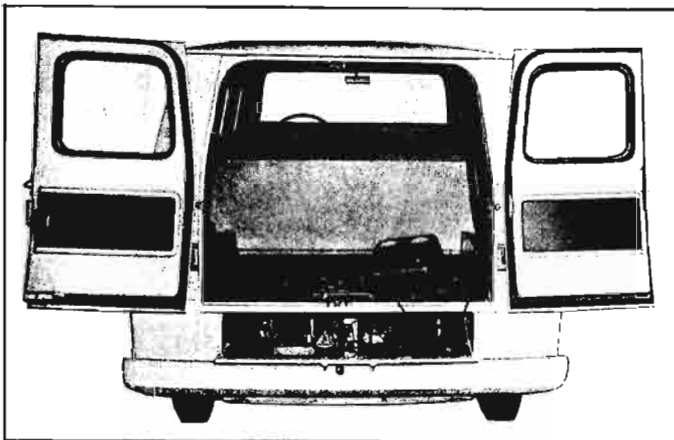


Fig. 10-76a—Hinge Position—Fully Open

REAR DOOR LOCK

The rear left door lock is equipped with an inside door handle which is squeezed in the direction of pull to open the door (fig. 10-77a).

Lock rods extend from the lock which is supported in a bracket welded within the door at one end and supported on the other end with an outer plate (fig. 10-80a).

The lock rods are adjustable to allow for wear in the upper and lower catches (2, figs. 10-80a and 10-81a).

RIGHT REAR DOOR HANDLE AND LOCK ASSEMBLY

Removal and Installation

(Refer to Figure 10-78a)

1. Remove plastic plug from door inner panel for

access to door handle outer retainer screw (fig. 10-78a).

2. Remove handle retaining screw at door edge and remove handle and lock cylinder assembly.
3. Install rear and front gaskets between handle and door panel.
4. Install handle and lock assembly retaining screws, one at the door edge and the other through the door inner panel.
5. Replace plastic plug in door inner panel.

LOCK CYLINDER REPLACEMENT

(Refer to Figure 10-78a)

1. Remove outside door handle assembly.
2. Remove the lock retaining snap ring (Lockwire), then remove stop washer, spring and spring seat, noting relative positions of the stop washer and spring seat.
3. Remove the lock cylinder and push button shaft assembly.
4. Remove the handle sealing ring (6) (fig. 10-78a).
5. If necessary, the lock cylinder, lock cylinder housing and push button shaft may be disassembled as follows:
 - a. Bend the ears of the push button cap sufficiently to disengage cap from cylinder housing. Disassemble cap, cylinder housing and lock cylinder. Figure 10-54a shows the lock disassembled.
 - b. Repair or replace the lock cylinder.
 - c. Assemble lock cylinder into housing and replace the push button cap, rebending ears to original position.

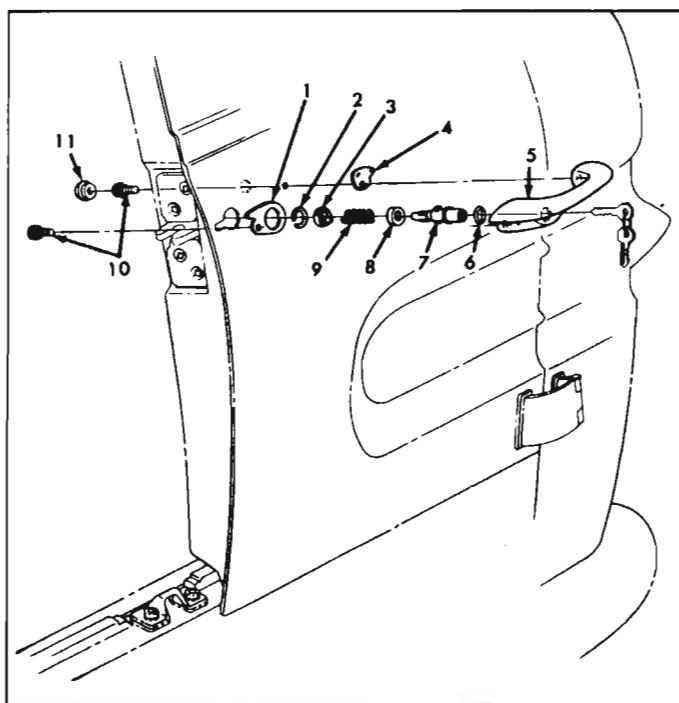


Fig. 10-78a—Rear Door Lock and Handle Assembly

- | | |
|-------------------|------------------|
| 1. Gasket (Rear) | 7. Lock Cylinder |
| 2. Lockwire | 8. Seat |
| 3. Stop | 9. Spring |
| 4. Gasket (Front) | 10. Screws |
| 5. Handle | 11. Plastic Plug |
| 6. Seal | |

6. Install handle sealing ring, lock cylinder and push button shaft assembly, spring seat, spring, stop washer and retainer.
7. Assemble door handle and lock assembly to door.

RIGHT REAR DOOR LOCK

Replacement

1. Remove lock to door retaining screws (fig. 10-79a).
2. Install lock assembly so that lock actuating lever contacts lock cylinder plunger.
3. Install four retaining screws securely.

LEFT REAR DOOR LOCK

Removal

1. Remove cover plate (7, fig. 10-80a).
2. Loosen set screws in trunnions of door lock lever and shaft assembly.
3. At point ("A", figs. 10-80a and 10-81a), remove the upper and lower lock control rods with a screwdriver.
4. Remove retaining screws from top lock assembly ("A", fig. 10-80a) and remove top lock assembly.

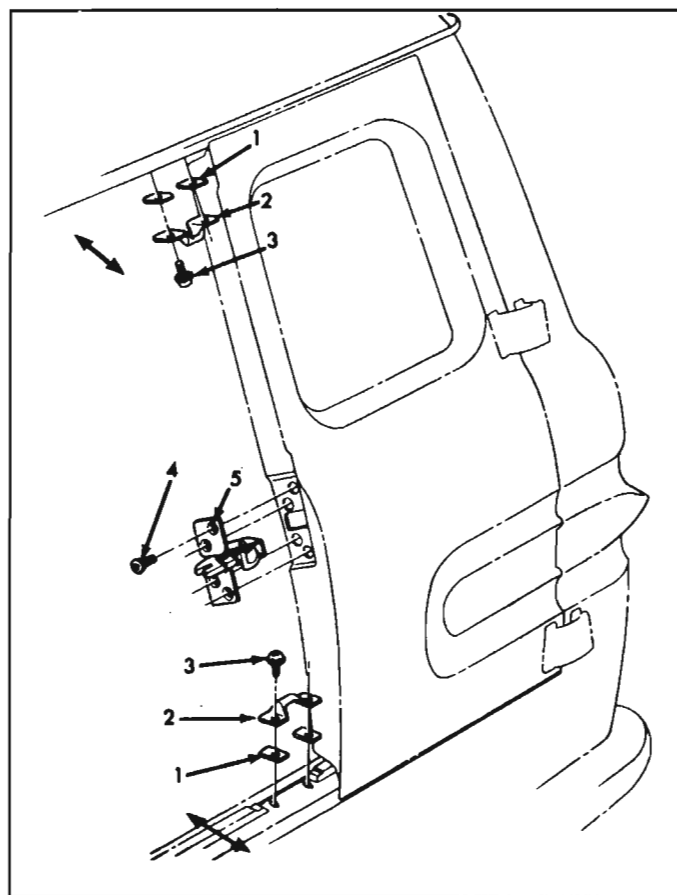


Fig. 10-79a—Rear Door-Lock Assembly

- | | |
|-----------------------|------------------|
| 1. Spacer (as req'd.) | 4. Screw (Lock) |
| 2. Striker | 5. Lock Assembly |
| 3. Screw (Striker) | |

5. Remove lower lock assembly retaining screws ("A", fig. 10-81a) and remove lock assembly.
6. Remove left door handle retaining screw and remove handle (fig. 10-82a).
7. Remove outer support assembly (fig. 10-82a) and remove lock lever and shaft assembly.

Installation

1. Install lock lever and shaft assembly in door bracket and retain with outer support assembly (fig. 10-82a).
2. Install handle and retainer screw.
3. Install top and bottom lock assemblies ("A", figs. 10-80a and 10-81a) and install retaining screws.
4. Insert upper and lower lock control rods through upper and lower lock assemblies and screw into lock and lever shaft assembly (fig. 10-81a).
5. Adjust as outlined under adjustment procedure.

Adjustment

Rear door lock upper and lower catch adjustment is accomplished as follows:

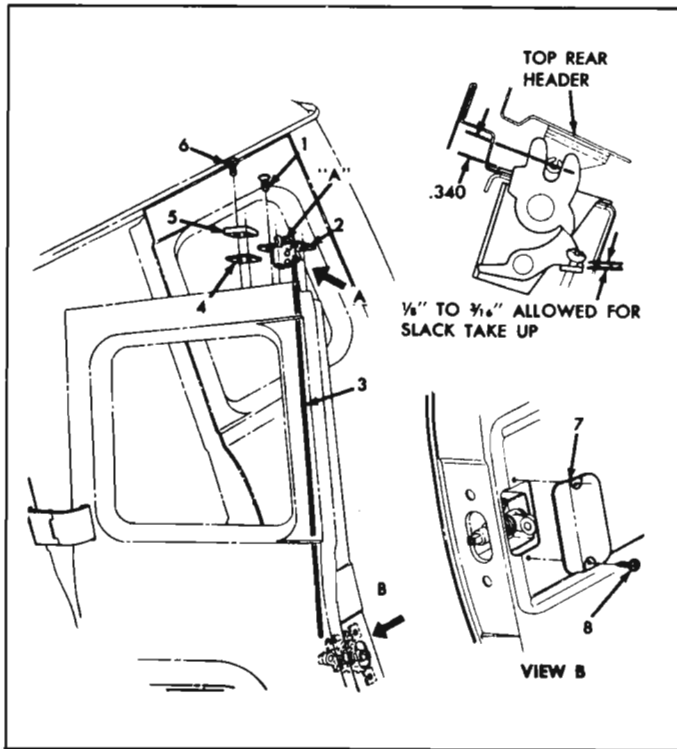


Fig. 10-80a—Rear Door Upper Lock Assembly

- | | |
|-----------------------|----------------|
| 1. Screw | 5. Bumper |
| 2. Upper Lock | 6. Screw |
| 3. Upper Rod | 7. Cover Plate |
| 4. Spacer (as req'd.) | 8. Screw |

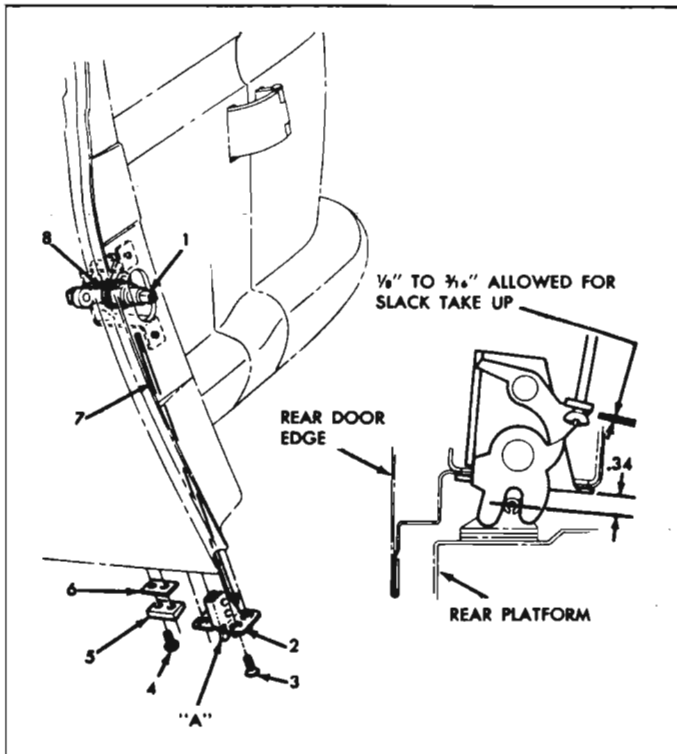


Fig. 10-81a—Rear Door Lock Lever and Shaft Assembly

- | | |
|----------------------------------|----------------------|
| 1. Lock Lever and Shaft Assembly | 5. Bumper |
| 2. Lock Assembly (Lower) | 6. Spacer |
| 3. Screw | 7. Lower Rod |
| 4. Screw | 8. Lock Lever Spring |

1. Remove door lock cover (7, fig. 10-80a).
2. Loosen set screws in trunnions of door lock lever and shaft assembly (fig. 10-81a).
3. Use a screwdriver to adjust door lock rods which have screwdriver heads on exposed ends at upper and lower catch assemblies.

NOTE: Rods are adjusted so that the upper and lower catches will clear the strikers a minimum of 1/8 inch when the door handle is fully opened. Slack allowance is shown in Figures 10-80a and 10-81a, views A and B.

4. After desired adjustment is made, tighten set screws on lock lever and shaft assembly.

REAR DOOR STRIKER ADJUSTMENT

To adjust upper or lower strikers, loosen screws which are attached through slotted holes in top rear rail and platform rear panel and move striker in or out as desired and then tighten screws securely.

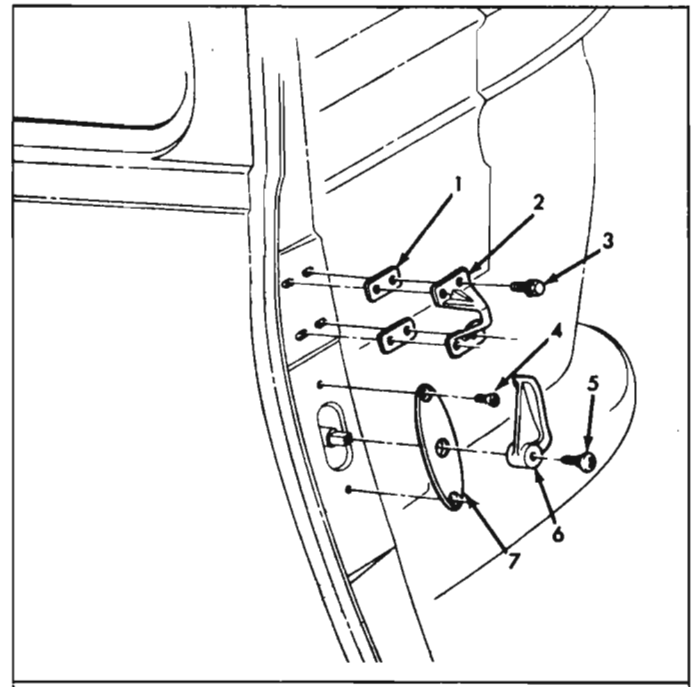


Fig. 10-82a—Rear Door Handle, Support and Right Door Striker

- | | |
|-------------------------|------------------------|
| 1. Spacer (as required) | 5. Screw |
| 2. Striker (R. H.) | 6. Handle |
| 3. Screw | 7. Outer Support Plate |
| 4. Screw | |

To Eliminate Door Movement:

Shim between door bumpers and door to assure contact to the body.

To Improve Latch to Striker Engagement:

Shim between the striker plate and striker with one or more shim spacers (fig. 10-79a). Dimension from center line of striker to base of opening in lock cam should be approximately .34".

To Aid in Tie-in Between the Right and Left Rear Doors:

Shim between the striker plate and door panel using one or more spacers on the left rear door (fig. 10-79a).

REAR DOOR CHECK REPLACEMENT

1. Open rear doors and remove retaining bolts at ("A", fig. 10-83a) and remove check assembly and retainer plate and dust seal.
2. To remove check plate from door, remove two retaining screws and remove check plate.
3. Install door check plate to door and check assembly with retainer and dust seal. (Dust seal keeps dust out of door assembly.)

NOTE: Door check assembly can be adjusted up and down as shown in Figure 10-83a.

NOTE: Door checks on rear door are not interchangeable with side doors.

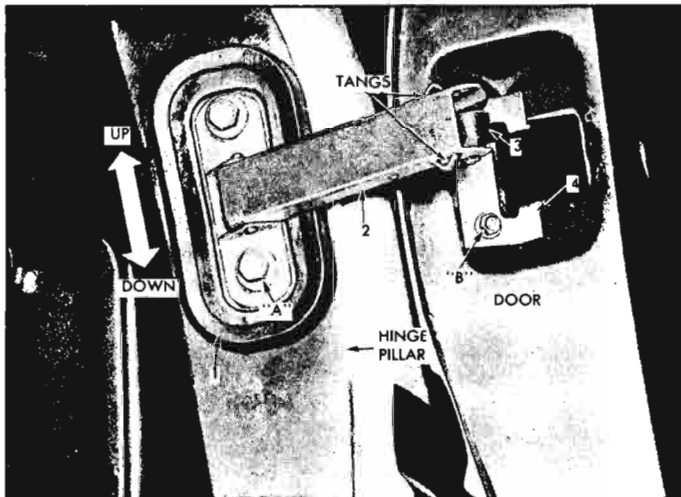


Fig. 10-83a—Rear Door Check Assembly

- | | |
|-------------------|----------------------|
| 1. Dust Seal | 3. Rubber Guide Roll |
| 2. Check Assembly | 4. Retainer Plate |

REAR DOOR ASSEMBLY

Removal

1. Open door and unhook door check.
2. Remove plastic plugs from hinge assembly (fig. 10-84a) and remove the door to upper hinge retaining bolts.
3. With the aid of an assistant to support weight of door, then remove the door to lower hinge retaining bolts and slide door off of hinge and grommet (fig. 10-84a).

NOTE: Doors can be removed for other reasons than door replacement by removing hinge pins shown in Figure 10-84a.

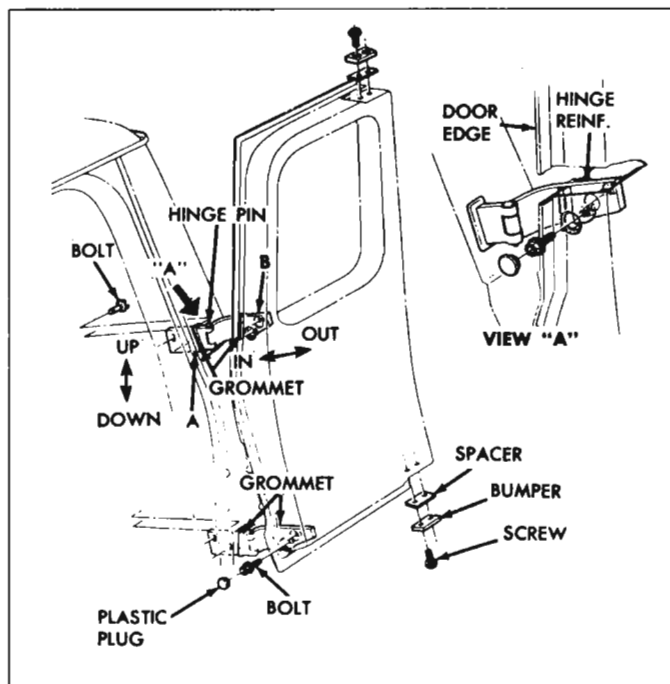


Fig. 10-84a—Rear Door Hinge Assembly

4. If hinge is damaged, remove the hinge to pillar bolts, and remove the hinge (fig. 10-84a).

Installation

1. If a hinge has been removed, install the hinge in the pillar in approximately the same position as previously installed. Assemble grommet to door before inserting hinge in door and bolting.
2. Position door and install the retaining bolts just snug until after making door adjustments as described below.

Adjustment

Door adjustment may be accomplished at two places; at the hinge straps to door panel and at the hinge cage to pillar (fig. 10-84a).

Before adjustment is made on any door, however, the striker plates should be loosened and adjusted after door is located. The door can be moved up and down at the hinge pillar ("A", fig. 10-84a) and the door can be moved in and out at the hinge to door panel ("B", fig. 10-84a).

Move door as required and tighten bolts. Install plastic plugs in all hinge bolt access holes (fig. 10-84a).

Normal surface of door outer panels and body outer panels must align from flush to $\pm .060''$ of being flush.

The doors should be flush or within $\frac{3}{16}''$ of being flush at the vertical lip of the door (fig. 10-85a). There should be $\frac{3}{16}''$ at the top and sides of each door. There should be $\frac{1}{4}''$ clearance between the vertical center and bottom with both doors closed.

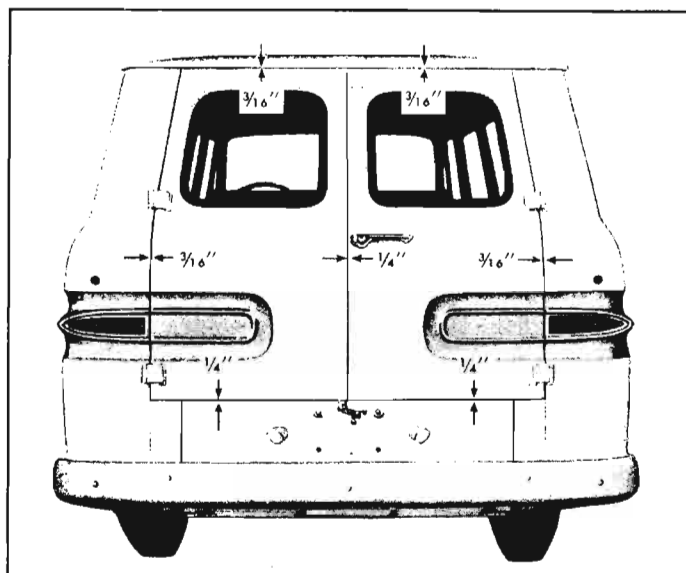


Fig. 10-85a—Rear Door Clearances

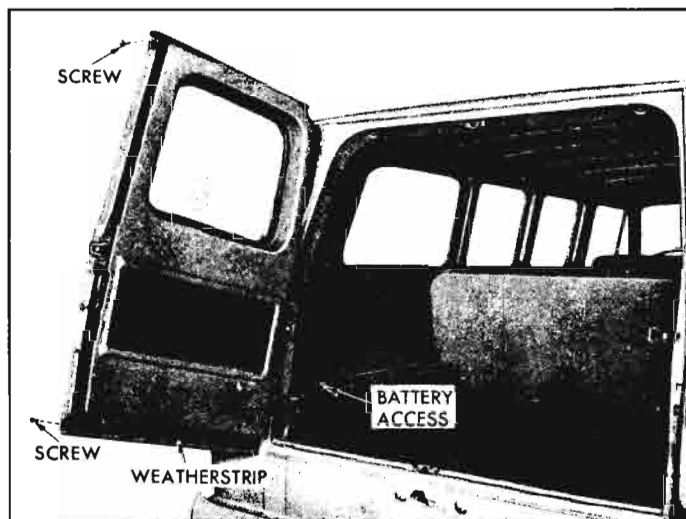


Fig. 10-86a—Rear Left Door Weatherstrip, Battery and Engine Access Door

REAR DOOR WEATHERSTRIP

Rear door sealing incorporates weatherstrip sealing three fourths around the left door, and completely around the right door as shown in Figures 10-86a and 10-87a.

The weatherstrip material is closed cell sponge and is cemented and retained on the corners with screws and clips on the rear left door.

Replacement

1. Open doors and remove retaining screws on rear left door.
2. Remove used weatherstrip and adhesive with a scraper and adhesive or cement remover.
3. Apply adhesive to door and attach weatherstrip as shown in Figures 10-86a and 10-87a.

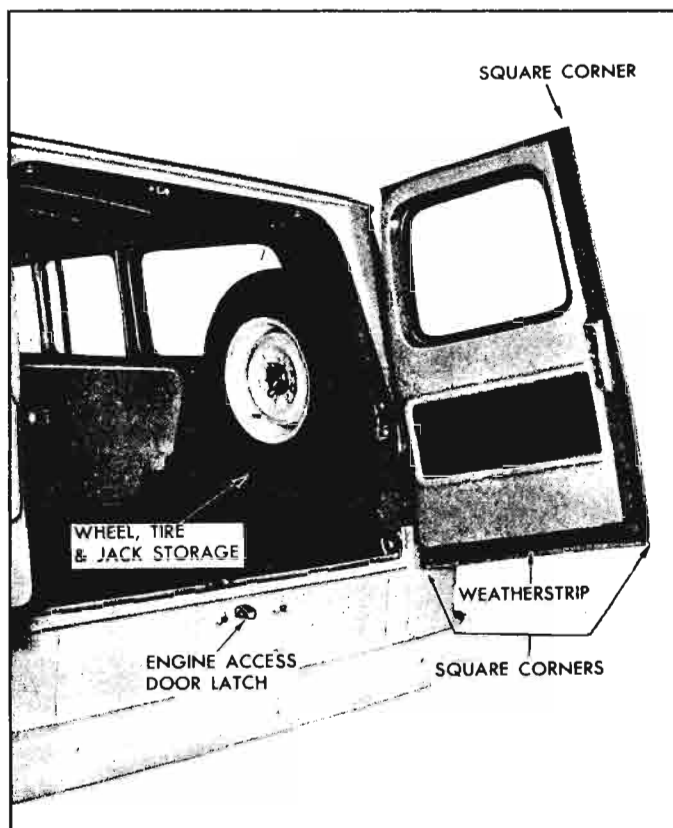


Fig. 10-87a—Rear Right Door Weatherstrip, Spare Tire, Wheel and Jack Storage

REAR DOOR WINDOW

The moulded rubber weatherstrip around the rear window is one piece and has three channels or grooves. A cross section of this weatherstrip removed from the window is shown at ("A", fig. 10-88a).

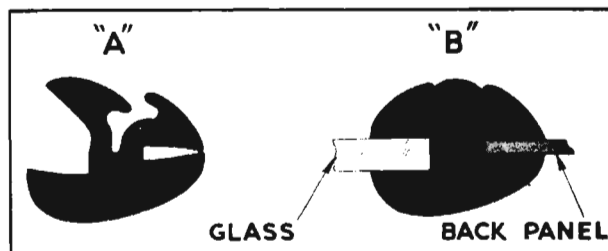


Fig. 10-88a—Cross Section—Rear Door Window Weatherstrip

The channel outside of the weatherstrip fits over the edges of the body panel around the rear window opening. The inside channel fits the outer edge of the rear door window glass. The third channel, which is at the rear, is for a special moulded rubber weatherstrip retainer of triangular cross section. This retainer is installed after the weatherstrip and glass have been assembled in the opening. ("B", fig. 10-88a) shows a cross section of the weatherstrip assembled.

No sealing compound or cement of any type is used at any point in the installation of a rear window glass, except in note below.

To replace a rear door window, proceed as follows:

Replacement

1. Using a pointed tool, raise one end of the weatherstrip retainer until it is far enough out to take hold of by hand. Then pull retainer out of its channel all around the window.
2. From inside the door, carefully push the window glass out through the rear of the opening.

NOTE: The weatherstrip may remain in the window opening during removal of glass. To remove weatherstrip, merely pull it off the edges of the door panels. On installation of new weatherstrip, clean opening edge thoroughly, then install with butt ends (lightly coated with weatherstrip adhesive) at top center of opening.

3. Inspect the door inner and outer flanges making sure they are true and that there are no irregularities around the opening. Any irregularities must be corrected.
4. Assemble the weatherstrip to the opening making sure the outer channel of weatherstrip is firmly seated on the edges of the door panel all around the opening.
5. Start one end of the glass into its channel in the weatherstrip. Using a pointed tool, follow around the rear lip of the glass channel so it bears against the rear surface of the glass.

NOTE: Care should be used in this operation not to chip the edge of the glass. A pointed wooden tool, if available, should be used.

6. Feed one end of the weatherstrip retainer into the handle of Tool J-2189 (fig. 10-89a) and out through the end which spreads the weatherstrip channel.

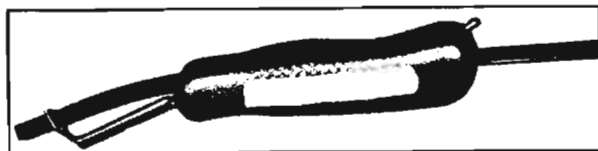


Fig. 10-89a—Weatherstrip Retainer Tool J-2189

7. Starting at the bottom center, insert the end of the tool and end of retainer in channel, tapered part of the retainer toward the glass.
8. While holding the tool firmly, with spreading end in channel, follow around the channel spreading it open and feeding retainer into the opening until the full length of the retainer has been fed into the channel (fig. 10-90a). The ends of the retainer should join at the bottom center.

NOTE: Care should be used in this operation not to chip the edge of the glass. A pointed wooden tool, if available, should be used.

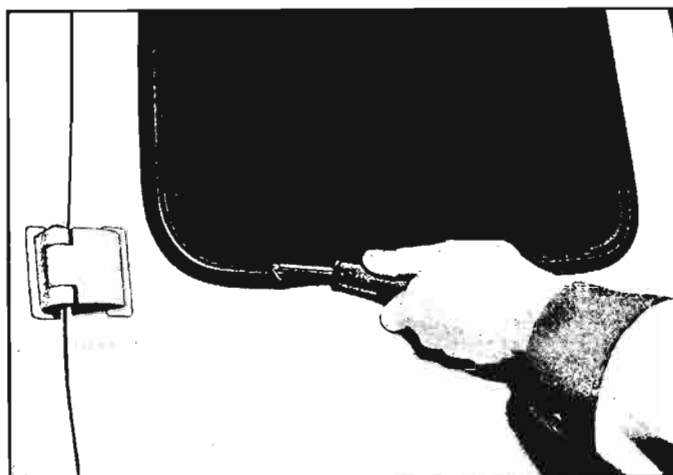


Fig. 10-90a—Installing Rear Door Glass Weatherstrip Retainer

REAR QUARTER WINDOW REPLACEMENT

1. Raise window weatherstrip edge and remove four retainer strips, two at the bottom and one at each side (fig. 10-91a).

NOTE: Retainer strips are centered behind tabs on window opening.

2. Remove window and weatherstrip by tipping the bottom edge into the vehicle compartment.

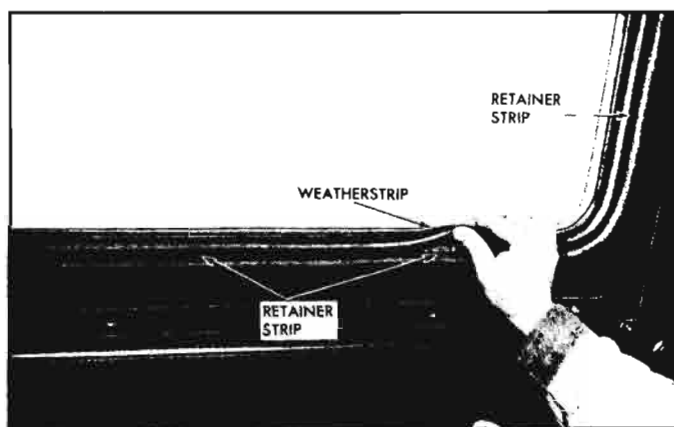


Fig. 10-91a—Removing Retainer Strips and Weatherstrip

3. Install weatherstrip to glass and butt ends of weatherstrip with adhesive.

NOTE: Butt joint is installed at top center of window.

4. Install a retainer strip at each side of window opening, positioned behind tabs.
5. Install weatherstrip and window assembly. With the aid of a helper holding window in place, guide outside lip of weatherstrip in place with Tool J-2189 (fig. 10-92a).
6. Install two retainer strips under weatherstrip against the tabs (fig. 10-91a). A wood punch and



Fig. 10-92a—Installing Rear Quarter Window Weatherstrip

mallet will enable easier installation of retainer strips.

BODY SIDE FRONT AND REAR WINDOW

Removal

1. Remove window regulator handle set screws and remove both handles and washers (fig. 10-95a).
2. Remove 23 trim panel retaining screws and remove trim panel (fig. 10-93a).
3. Remove two retaining screws at window regulator arm guide rail (fig. 10-94a).
4. Remove guide rail from sash assembly.
5. Remove upper weatherstrip seal from window opening (fig. 10-95a).
6. Remove screws ("A" and "B", fig. 10-94a) from run channels. Remove channels from window assembly and remove window and sash assembly out through window opening.
7. Remove glass and lower seal from sash channel.

Installation

1. Brush inside of sash channel, removing all rust and foreign matter.
2. Install rubber seal with lip of lower seal towards outside as shown in Figure 10-95a.
3. Install window glass in rubber seal and sash channel.
4. Hold window assembly with one hand, then with the other, install window assembly into run chan-



Fig. 10-93a—Body Side Front and Rear Window Trim Panel

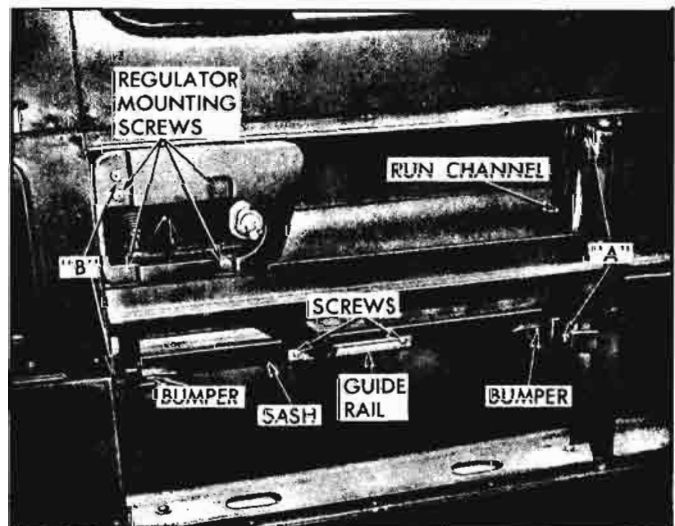


Fig. 10-94a—Body Side Front and Rear Window Regulator Assembly

- nels. Install retaining screws in each run channel (fig. 10-94a).
5. Install window upper weatherstrip in window opening (weatherstrip has clips attached for installation).
6. Install guide rail to regulator arm (fig. 10-94a) and retain with retainer screws.
7. Install regulator handle to check operation. Remove handle and install trim panel with retaining screws.
8. Install both regulator handles and fasten securely with set screws.

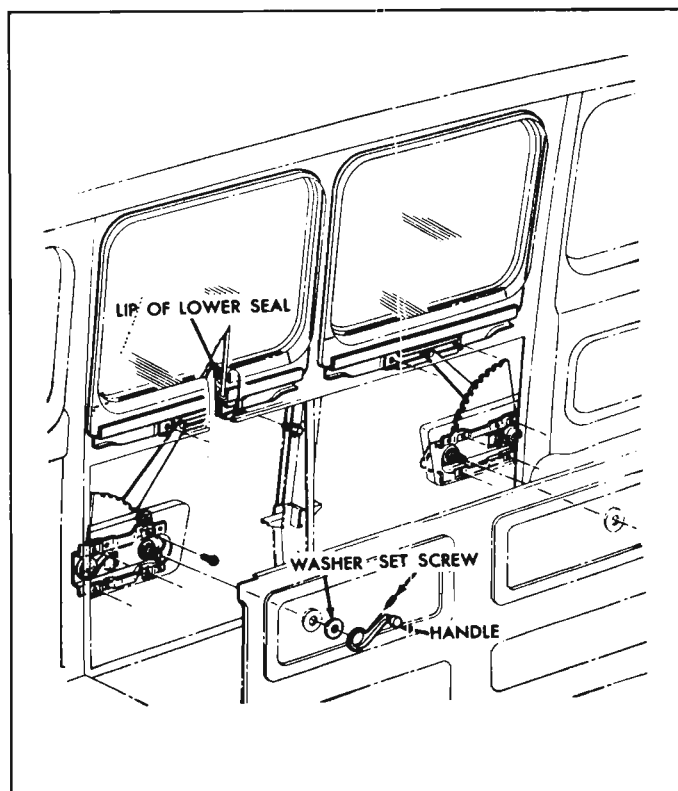


Fig. 10-95a—Window Seal, Weatherstrip and Regulator

BODY SIDE FRONT AND REAR GLASS RUN CHANNEL REPLACEMENT

1. Lower window and remove both regulator handles. Remove trim panel.
2. Remove retaining screws ("A" and "B" fig. 10-94a) and remove run channels from sash assembly.
3. Remove run channel from run channel guide assembly.
4. Install run channel to channel guide (run channel is retained by clips).
5. Slide run channel assembly into position and install retaining screws (fig. 10-94a).
6. Install trim panel with retaining screws. Install handles and washers and retain with set screws (fig. 10-95a).

The seat used in the Corvair 95 series is of the straight back type. In some models a single type driver's seat is used. All seats incorporate new design spring elements and polyurethane foam pads as shown in Figure 10-97a. Seat backs use coil springs and cotton pads. Front seat backs are adjustable and incorporate a retention clamp (fig. 10-99a).

CLEANING OF UPHOLSTERY

Care of the upholstery is a relatively simple but

BODY SIDE FRONT AND REAR WINDOW REGULATOR REPLACEMENT

1. Remove window regulator handles. Remove trim panel retaining screws and remove trim panel (fig. 10-95a).
2. Remove guide rail retaining screws and remove guide rail from regulator arm and sash assembly.
3. Remove three of the four regulator mounting screws. Hold window and sash assembly up while removing the fourth regulator mounting screw and regulator assembly.
4. Hold window assembly up in the raised position and install window regulator and one mounting screw.
5. Install the remaining mounting screws.
NOTE: Spring "J" nuts must be attached to window regulator before installation.
6. Install guide rail to regulator arm and install retaining screws.
7. Raise window assembly up and down a few times to check the operation.
8. Install trim panel and regulator handles.

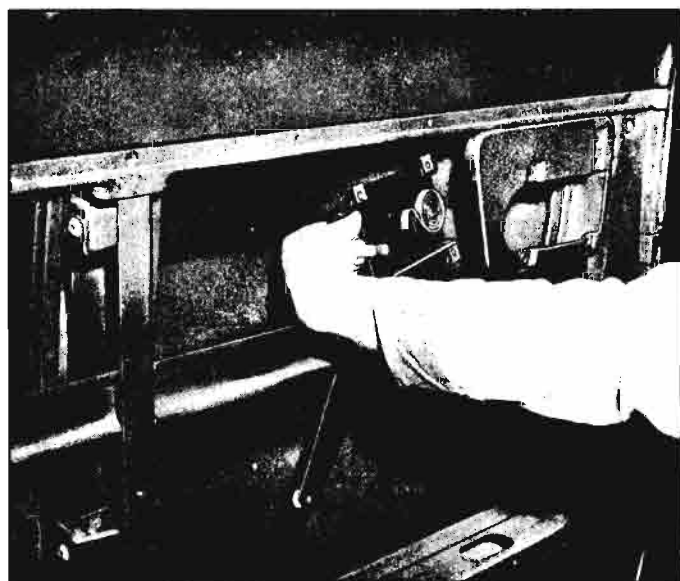


Fig. 10-96a—Removing Window Regulator

SEATS

important matter. Accumulation of dirt on the surface eventually turns into a hard, gritty substance which cuts into the surface of the upholstery.

WOVEN FABRIC

Soap and water, regardless of the basic type of soap, is not recommended for cleaning flat cloths, particularly broadcloths.

NOTE: Do not use furniture polishes, oils, varnishes or ammonia.

1. Carefully brush all loose particles of dirt and soil.
2. Immerse small cloth in volatile type cleaning solution, wring out thoroughly, open cloth and allow medium evaporation.

Do not use too much cleaning fluid; some interior trim assemblies are padded with rubber, and volatile cleaners are generally solvents for rubber. The application of too much cleaner may destroy these rubber pads or cause the rubber itself to penetrate the upholstery fabric and soil it.

3. Place cloth on soiled spot, do not rub, apply slight tapping pressure, several times. This will pick up particles which are too embedded to be removed in the brushing operation. This operation should be repeated several times—in each instance using a clean area of cloth.
4. Immerse a new cloth in cleaner, wring out thoroughly, open and allow to evaporate until barely damp. Apply increased pressure and rub soiled area in a backward and forward motion. The cleaning cloth should be reversed several times in this operation.
5. Immerse third cloth, wring out, allow evaporation and apply to both the soiled and the area surrounding same, using a light, brisk motion.
6. Repeat brushing operation.
7. If a cleaning ring should form, the entire area of the assembly which is being cleaned should be

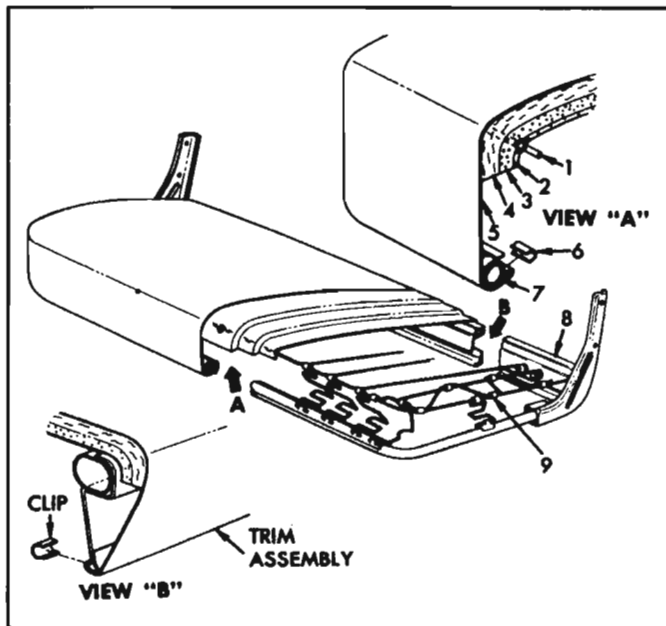


Fig. 10-97a—Seat Cushion Assembly

- | | |
|--------------------------|-----------------------|
| 1. Border Wire | 6. Trim Retainer Clip |
| 2. Spring Cover | 7. Seat Frame |
| 3. Polyurethane Foam Pad | 8. Seat Frame |
| 4. Cotton Batt | 9. Spring Element |
| 5. Trim Assembly | |

thoroughly brushed and gone over lightly with the solvent.

FRONT SEAT ASSEMBLY

(Single Type Driver's Seat)

Seat Back Replacement

1. Remove one special cap screw ("A", fig. 10-98a) and washer which attach each side of seat back frame to seat frame. Lift seat back from seat.
2. Position seat back to seat place washer (fig. 10-99a) in sequence between seat and each seat back frame end; then insert special shoulder-type cap screw (fig. 10-98a) through end frame, washers and thread into tapped hole in seat frame; tighten cap screws firmly.

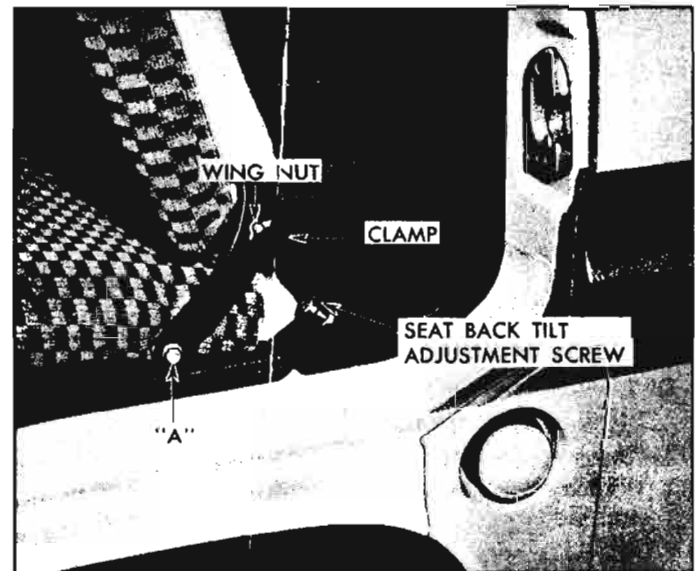


Fig. 10-98a—Seat Back Mounting and Adjustment

Seat Replacement

NOTE: Seat with slide adjusters and seat back can be removed as a unit.

1. Remove two cap screws and washers from each seat adjuster ("A", fig. 10-100a).
2. Tilt seat forward; then lift seat assembly from seat adjustment front support retainers (fig. 10-100a).
3. Seat adjuster can be removed from seat after disengaging end of seat return spring. Remove four screws and washers attaching adjusters to seat (fig. 10-99a).
4. Install seat adjusters to seat, finger tight, with eight attaching cap screws and washers.
5. Engage one end of seat return spring in left side adjuster and other to rear of seat frame. Position

seat assembly in vehicle; inserting seat adjuster in the front support retainers (fig. 10-100a). Install two cap screws and washers in each seat adjuster support ("A", fig. 10-100a), tighten these cap screws firmly.

Adjustment

Front seats are provided with two adjustments (fig. 10-101a). A lever at the front center for positioning the seat "Fore" or "Aft". Pull up on lever to disengage seat position lock. An adjusting screw is provided at each side of the seat back for tilting seat back to the position desired (fig. 10-98a). After making tilt adjustment, lock adjusting screws in place by tightening screw lock nut.

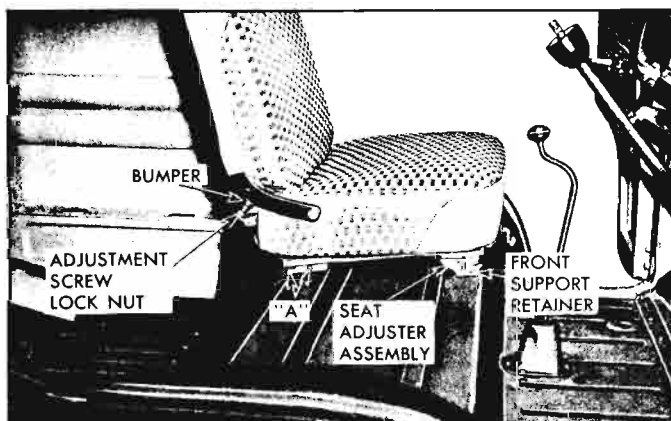


Fig. 10-100a—Seat and Adjuster Installation

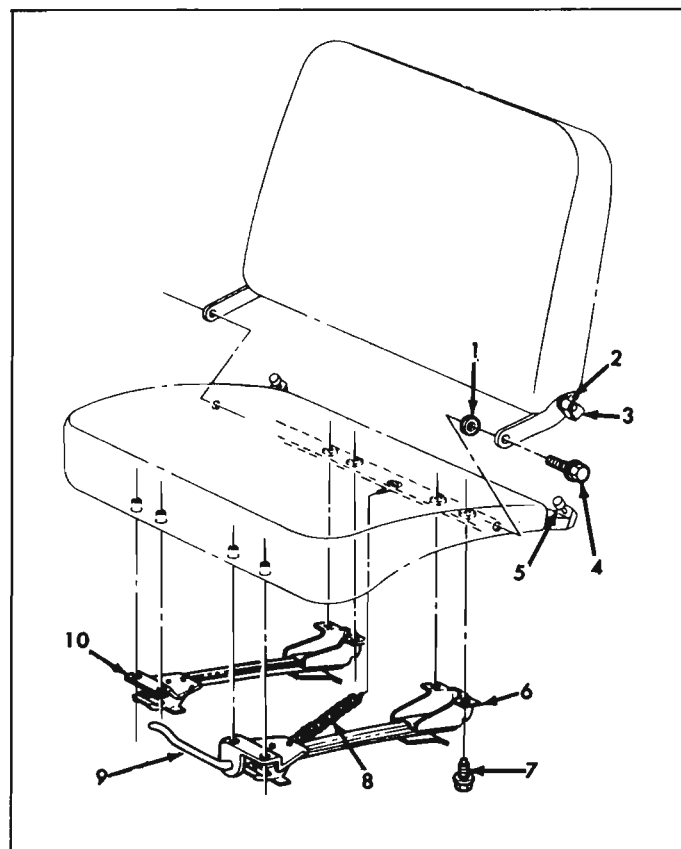


Fig. 10-99a—Front Seat Assembly (Single Type Shown)

- | | |
|-------------------------------|---------------------------|
| 1. Washer | 6. Seat Adjuster (Left) |
| 2. Wing Nut | 7. Cap Screw |
| 3. Retention Clamp | 8. Return Spring |
| 4. Shoulder Type Cap Screw | 9. Release Lever |
| 5. Bumper and Adjusting Screw | 10. Seat Adjuster (Right) |

FULL FRONT SEAT

The seat cushion, seat back and seat adjuster assembly uses the same construction as used in the Single Type drivers seat, except for width. Refer to "Front Seat Assembly".

REAR AND CENTER SEAT ASSEMBLY

In addition to the full-width front seat, Greenbrier models are equipped with a full-width rear compart-

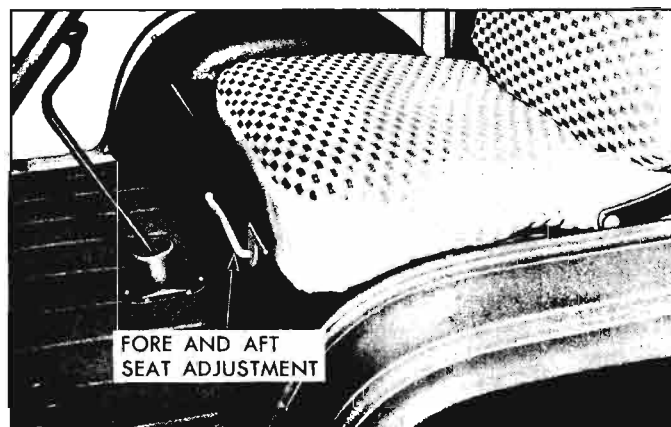


Fig. 10-101a—Seat Adjuster

ment seat, which is mounted at the factory in the third seat position facing forward. In this position, the rear leg assembly is folded under the seat with the rear portion of the seat resting on the first rise of the rear underbody. Tangs at the rear of the seat frame fit into loop-type right and left hand brackets, securing the rear of the seat to the underbody. The right and left hand front leg assemblies are secured to the underbody with bolts which fit into slotted anchor plates. Wing-type nuts permit easy and rapid removal and installation of the seat ("B" and "C", fig. 10-102a).

A feature of the rear compartment seat is that it can be mounted in the second seat position facing either forward or rearward. The optional positioning of the seat is accomplished easily: knock-out plugs in the floor mat are removed to reveal the anchor plates; the rear leg assembly is unfolded to a vertical position; the seat then is secured to the anchor plates with bolts and wing-type nuts.

Replacement

1. Remove wing-type nuts ("C", fig. 10-102a) and remove rear seat assembly.
2. Remove wing-type nuts ("B", fig. 10-102a) and remove center seat.

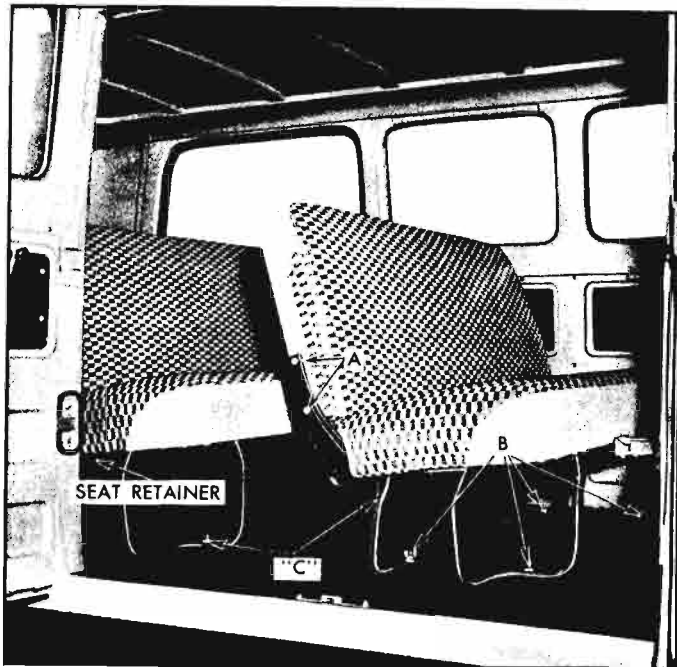


Fig. 10-102a—Rear and Center Seat Installation

3. Position rear seat frame ends in rear seat retainers and secure other ends to floor.
4. Install center seat in position with bolts, washers and wing nuts ("B", fig. 10-102a).

SEAT BACK

Removal and Installation

1. Remove four retaining screws ("A", fig. 10-102a), two at each end of seat back brace.
2. Remove seat back assembly.
3. Install seat back assembly and install retaining bolts.

ENGINE ACCESS DOOR

Removal

1. Open engine access door and disconnect license lamp wire connector (fig. 10-103a).
2. Remove retaining screw, washer, spring washer and spacer from each door check ("A", fig. 10-103a).
3. Remove five rolled hinge retaining screws and remove engine access door.

Installation

1. Install a new weatherstrip around engine access door opening if needed.

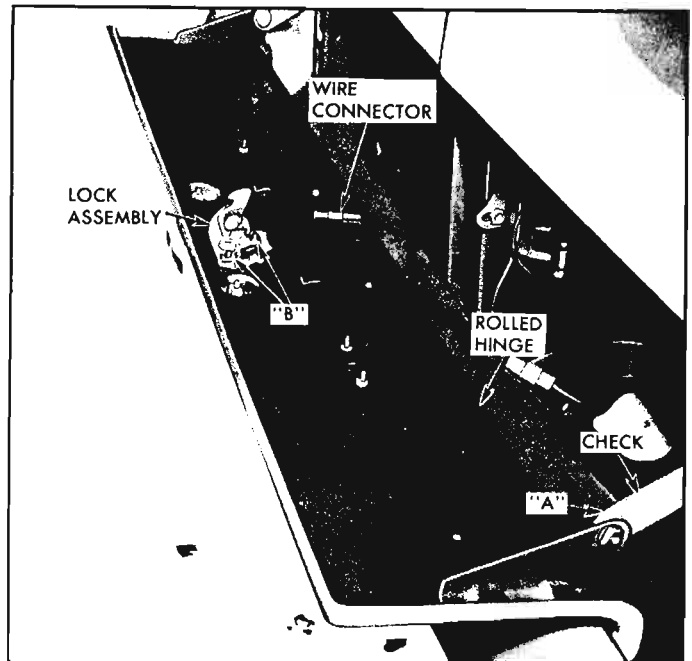


Fig. 10-103a—Engine Access Door

2. Position engine access door rolled hinge and install five retaining screws.
3. Install each check spacer, spring washer, washer and retaining screw.
4. Connect wire connector for license lamps (fig. 10-103a).

ENGINE ACCESS DOOR LOCK

Lock striker should be adjusted so that lock catch holds engine access door tightly against weatherstrip seal.

ENGINE AIR OUTLET GRILLE REPLACEMENT

The engine air outlet grille is retained by six large head diameter screws. The grille can only be installed one way.

BATTERY ACCESS DOOR

The battery access door is retained by a combination handle and latch (fig. 10-86a). The door is sealed at the body opening to prevent dust entry. Remove four retaining screws at hinge to remove battery access door.

PICKUP AND RAMPSIDE MODELS

Body operations on Pickup and Rampside models may be accomplished in the same manner that service operations were performed on other bodies previously outlined in this section, with the exception of the end gate and the side ramp door.

END GATE ASSEMBLY

Removal and Installation

1. Lower end gate to wide open position and support so outer panel is not damaged on removal.
2. Remove support arm retainer ring (7, fig. 10-104a) and disconnect support arms from end gate.
3. Remove three retaining bolts from each hinge to end gate and remove end gate.
4. Reverse the above removal procedure for installation.

Adjustment

Adjust striker in or out so that handle and lock assembly latch is retained with the end gate outer panel flush to $\frac{1}{16}$ " with the pickup box end panels.

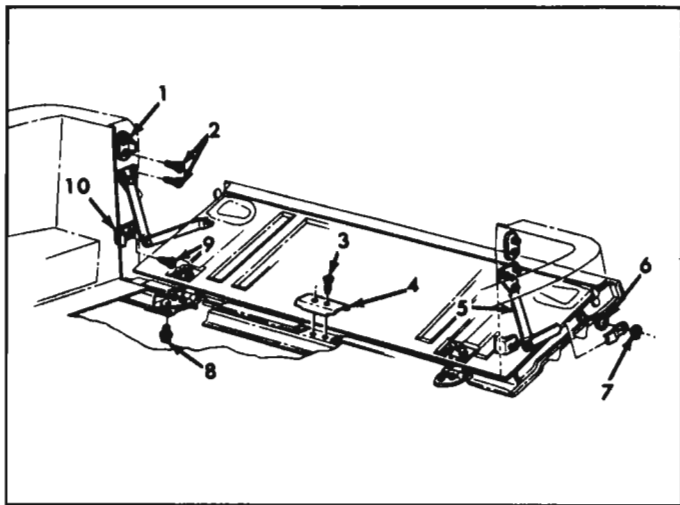


Fig. 10-104a—End Gate Support Assembly

- | | |
|---------------------|------------------|
| 1. Striker | 6. Washer |
| 2. Screw | 7. Retainer Ring |
| 3. Screw | 8. Screw (Hinge) |
| 4. Filler | 9. Screw |
| 5. Support Assembly | 10. Bumper |

END GATE HANDLE AND LOCK ASSEMBLY

Removal and Installation

1. Open end gate to wide open position.
2. Remove two retaining bolts ("A", fig. 10-105a) from handle and lock assembly to end gate inner panel.
3. Remove two bolts (2, fig. 10-105a) which retain lock guide and interlock.
4. Remove handle and lock assembly from end gate.
5. To install, reverse the above removal procedure.

END GATE HINGE

Removal and Installation

1. Open end gate and support assembly to prevent damage to end gate outer panel.

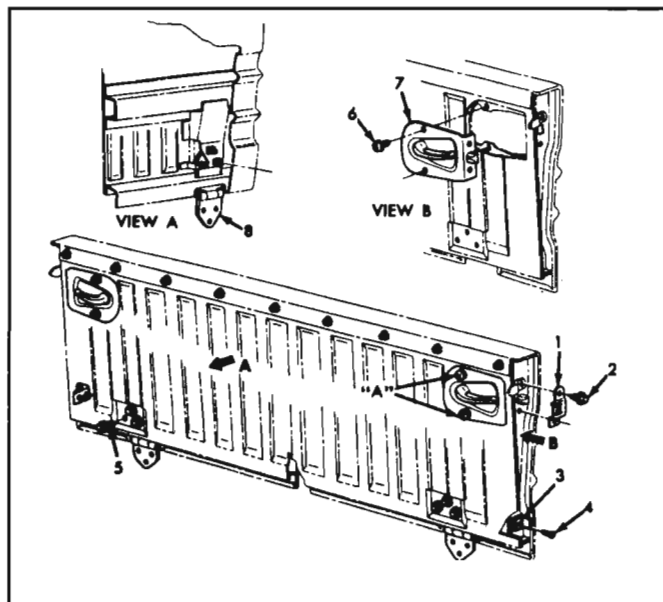


Fig. 10-105a—End Gate Hinge, Handle and Lock

- | | |
|-----------|-----------------------------|
| 1. Guide | 5. Bolt (Hinge) |
| 2. Screw | 6. Screw |
| 3. Bumper | 7. Handle and Lock Assembly |
| 4. Screw | 8. Hinge Assembly |

2. Remove three retaining bolts at hinge to end gate assembly.
3. Open engine access door and remove three retaining bolts at hinge to engine upper cross member (8, fig. 10-104a).
4. Remove hinge assembly.
5. To install, reverse the above removal procedure.

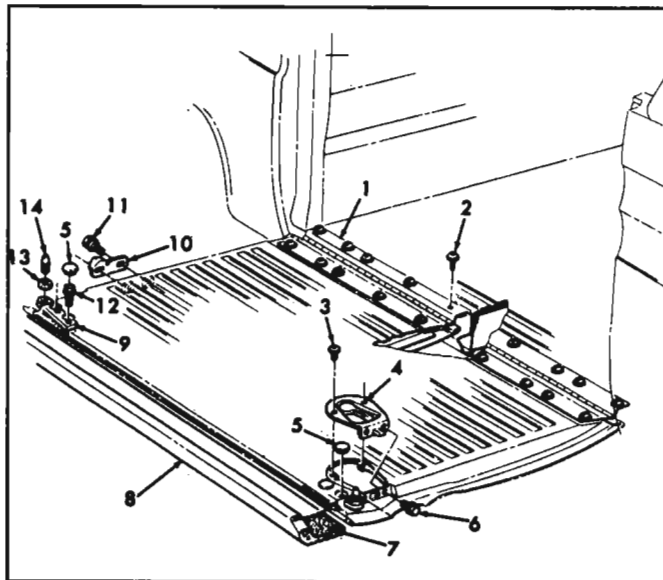


Fig. 10-106a—Side Cargo Ramp Door Hinge and Lock Assembly

- | | |
|-----------------------------|--------------------------|
| 1. Hinge Assembly | 8. Scuff Pad |
| 2. Screw | 9. Guide Plate |
| 3. Screw | 10. Safety Catch Striker |
| 4. Handle and Lock Assembly | 11. Screw |
| 5. Plug | 12. Screw |
| 6. Screw | 13. Lock Nut |
| 7. Adhesive | 14. Guide Pin |

SIDE CARGO RAMP DOOR ASSEMBLY

Removal and Installation

1. Unlock ramp door to wide open position and support so outer panel is not damaged on removal.
2. Remove retaining screws from hinge assembly to door, and remove door assembly.
3. To install, reverse the above removal procedure. Adjust as outlined below.

Adjustment

1. Adjust striker in or out to engage with handle and lock latch to maintain a flush to $\pm \frac{1}{16}$ " with ramp door outer panel to pickup side panel.
2. Adjust safety catch striker so that safety catch fits snugly onto striker catch.
3. Loosen pin guide retaining lock nuts (13, fig. 10-106a) and turn guide pin so that it enters guide firmly to prevent door chocking (7, fig. 10-107a). Tighten lock nuts after adjustment.

2. Remove four retaining screws from handle and lock assembly (fig. 10-106a).
3. To install, reverse the removal procedure and adjust striker as outlined under adjustment.

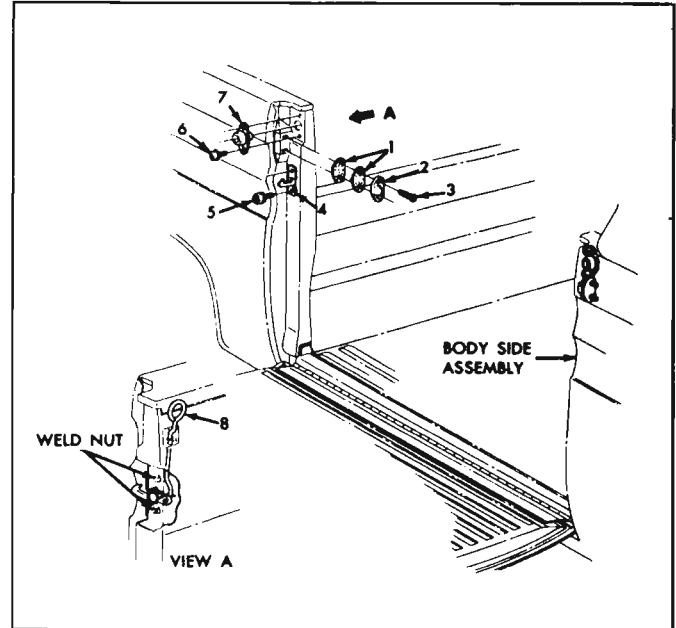


Fig. 10-107a—Side Cargo Ramp Door Attachment

SIDE CARGO RAMP DOOR HANDLE AND LOCK

Removal and Installation

1. Release safety catch and open ramp door.

- | | |
|-----------------|-------------------------------|
| 1. Spacer | 5. Screw and Lock Assembly |
| 2. Striker | 6. Screw and Lock Assembly |
| 3. Screw | 7. Guide |
| 4. Safety Catch | 8. Safety Catch Lever Release |

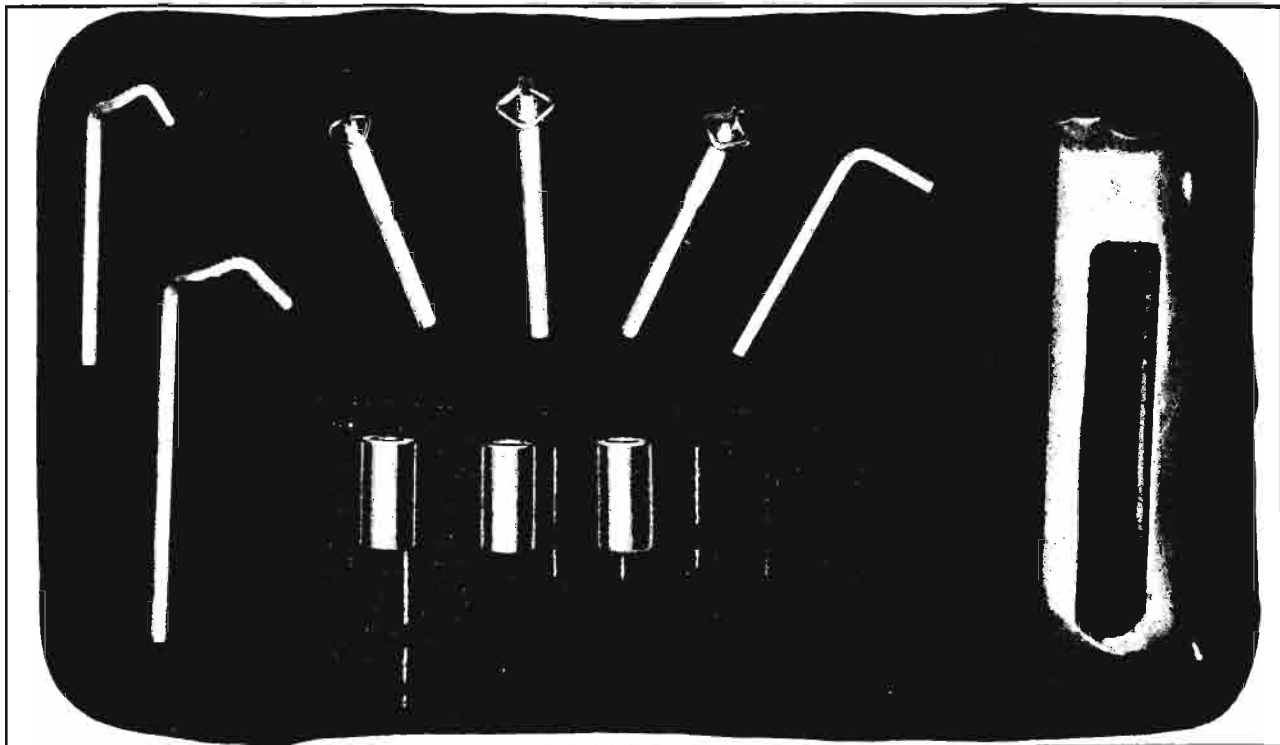


Fig. 10-108a—Body Weatherstripping Tool Set (J-2189)

SPECIAL BODY TOOLS

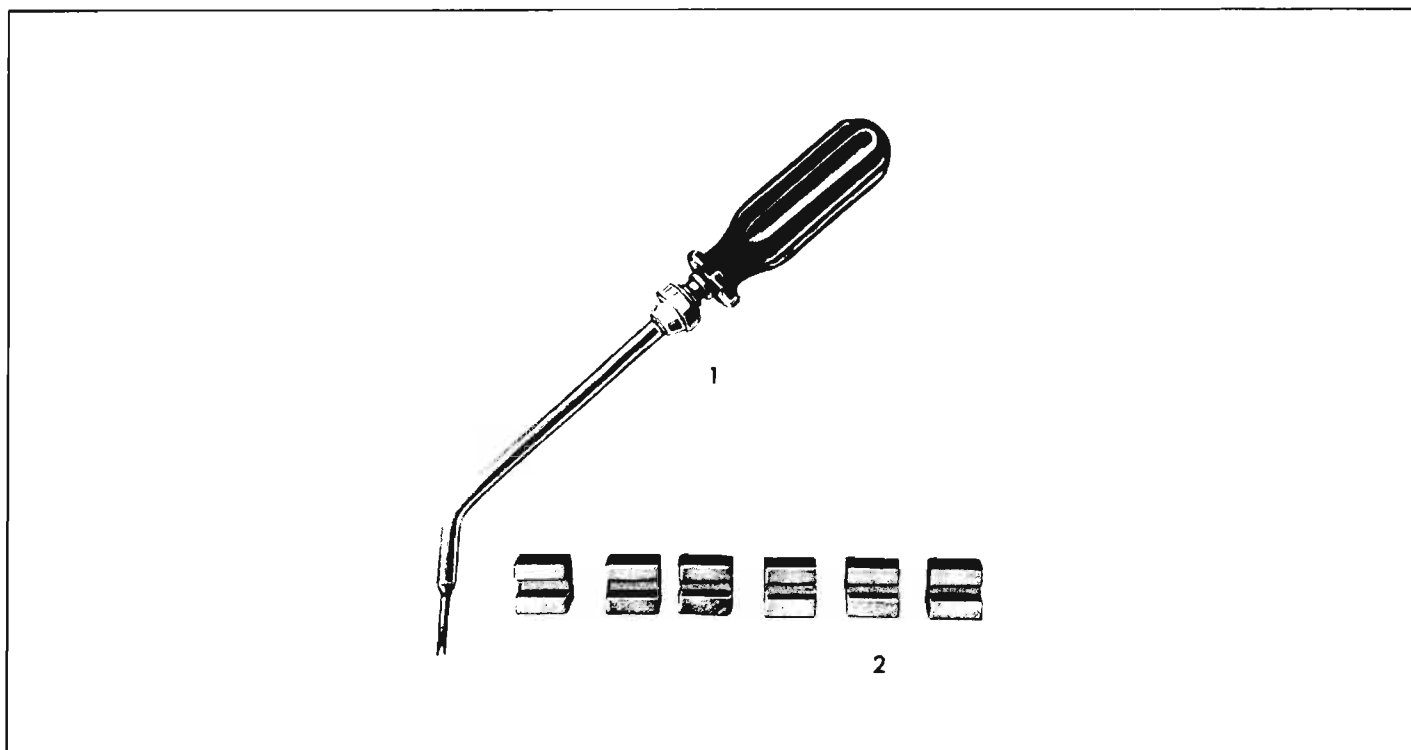


Fig. 10-109a—Body Tools

Tool Number	Description
1. J-5757	Weatherstrip Installer
2. J-8372	Windshield Spacer Blocks