

# SECTION 15

## SEATS

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## FRONT AND REAR SEATS

### INTRODUCTION

All front seats incorporate a front seat back head restraint on the driver and passenger seat backs. All two-door front seats and station wagon folding second and third seat backs incorporate seat back locks. On standard front seats ("A, B, X & Z" Body Styles) the seat back lock is actuated by a control lever located at the lower rear of the seat back. On "C & E" Body Styles the control (push button) is located at the outer upper corner of the seat back. On "Strato" seats the seat back lock is actuated by a control button located at the upper center of the seat back. On Strato reclining seats the control button is located at the outer upper corner of the seat back.

Some Oldsmobile, Buick and Cadillac styles feature

60/40 seats consisting of an individually controlled drivers seat (40% of front seat width) and an individually controlled passenger seat (60% of front seat width).

### FRONT SEAT DEALER RE-LOCATION PROVISIONS—Forward or Rearward

Front seat assemblies can be repositioned forward or rearward to accomodate owners comfort on most styles. Refer below for specific dealer relocation provisions of conventional and strato bench seats - "B, C and E" Styles; bench seats - "A, F, X and Z" styles and bucket seats - all styles.

**CAUTION:** Under NO circumstances should seats be repositioned beyond the specifications outlined below.

TYPE OF SEAT	STYLE	TYPE OF ADJUSTER	DEALER RELOCATION PROVISION
(A) Conventional and Strato Bench Seats - "B, C and E" Styles	Chev. "B" and Canadian Pontiac 75-76000 Series (less 4-Speed Trans. and Station Wagon), Olds. and Buick "E" and Cadillac 68247-69	Manual	1" Rearward *
	Chev. and Pont. "B" Station Wagon; Chev. "B" and Canadian Pontiac 75-76000 Series 4-Speed transmission	Manual	None
	Chev. "B" and Canadian Pontiac 75-76000 Series, Olds. and Buick "E" and Cad. "C, D and E" (less 68069-169)	Electric Six-Way	1" Rearward * Not recommended on "D" Body
	Pont. "B" (less Station Wagon and Canadian 75-76000 Series and Olds. and Buick "B and C")	Manual	1" Forward *
	Pontiac "B" (less Canadian-75-76000 Series) Olds. and Buick "B and C" and Cad. 68069-169	Electric Six-Way	1" Forward *
	Olds and Buick "C" and Cadillac 68069-169	Electric Two-Way	1" Forward *
	Buick "B" and "C"	Electric Four-Way	1" Forward *
	Buick "E"	Electric Four-Way	1" Rearward *
(B) Bench Seats - "A, F, X, and Z" Styles	Cadillac "C, D and E" (less 68247, 68269, 68069 and 68169)	Electric Two-Way	1" Rearward *
	All "A"	Manual and Electric	None
	Chev. and Pont. "F"	Manual	3/4" Forward **

TYPE OF SEAT	STYLE	TYPE OF ADJUSTER	DEALER RELOCATION PROVISION
(B) Bench Seats "A, F, X, and Z" Styles (Cont'd.)	Chev. "X"	Manual	3/4" Rearward **
	Chev. "Z"	Manual	None
(C) Bucket Seats - All Styles	All "A"	Manual and Electric	None
	Chev. and Pont. "F"	Manual	3/4" Forward **
	Chev. "X and Z"	Manual	3/4" Rearward **
	Chev. "B" and Canadian Pontiac 75-76000 Series and Buick and Olds. "E"	Manual	1" Forward *
	Chev. "B" and Canadian Pontiac 75-76000 Series and Buick and Olds. and Cad. "E"	Electric Four-Way (Driver Only)	1" Rearward *
	Pont. (less Canadian 75-76000 Series) and Olds "B", and Buick "B" and "C"	Manual and Electric Four-Way	1" Forward *
	Buick "C"	Electric Two-Way	1" Forward *
	Cadillac "E"	Electric Two-Way	1" Rearward *
	Buick and Olds. "C"	Manual (Passenger Only)	None
	Buick and Olds "C" and Cadillac 68069-169	Electric Two and Six-Way (Driver Only)	1" Forward *
(D) 60/40 Seat - "C" Styles	Buick and Olds "C"	Electric Six-Way (Passenger Only)	None
	Cadillac 68347-49 & 67	Electric Two and Six-Way (Driver Only)	1" Rearward *
	Cadillac 68069-169	Manual and Electric Six-Way (Passenger Only)	1" Forward *
	Cadillac 68347-49 and 67	Manual and Electric Six-Way (Passenger Only)	1" Rearward *

\*Adjustment provision to move seat assembly forward or rearward at floor pan attachment.

\*\*Adjustment provision to move seat assembly forward or rearward on seat adjuster. Remove seat assembly and screw from front or rear of adjuster upper channel. Install screw at front or rear of channel. Screw is a cross recess screw which is installed in the upper channel of both adjusters on full width seats and in the outer adjuster only on bucket seats. When screw is removed from one end of adjuster upper channel the screw MUST be installed in opposite end of channel.



**NOTE:** After repositioning screw in adjuster upper channel, check if adjuster locking lever engages in the last locking notch for the new adjusted position. If lower channel does not travel sufficiently to engage in the last locking notch, tap lower channel with a rubber or fibre mallet until locking lever engages in last notch.

floor pan or seat adjuster and seat frame, on some styles, to allow for proper clearances between the floor pan, floor tunnel and, if so equipped, to the center console when seat assembly is adjusted to full length of travel in each position. Refer below for specific spacer usage.

## SEAT ADJUSTER SPACER USAGE

Spacers are used between the seat adjuster and

**CAUTION:** Under NO circumstances should seats be repositioned (Spacers removed or installed) beyond the specifications outlined below:

TYPE OF SEAT	USAGE	STYLES	COMMENTS
(A) Conventional Bench Seat	.25 Thick on Floor Front and Rear	Olds "39487" (Elec. 6-way)	Removal by dealer not Recommended Due to Carpet Clearance Condition.
	.25 Thick on Floor Rear Only	Cad. 69723 Elec. 2-Way Elec. 6-Way	Removal by Dealer not Recommended Due to Lack of Seat Back Clearance to Auxiliary Seat.
	.25 Thick Between Front of Adjuster and Seat Frame	Pont. "B" Police Seat	Removal not Permissible
	.25 Thick Between Front of Adjuster and Seat Frame	Chev. "B" Taxi	Removal not Permissible Without Chev. Division Authorization.
	.50 Thick on Floor Front and Rear	Cad. "C" Elec. 2-Way	Removal by Dealer Permissible to Obtain Increased Headroom - Only if Equal Shims are Removed from Both Front and Rear.
(B) 60/40 Seat	.38 Thick on Floor Front and Rear Passenger Outer Adjuster Only	Olds "C" Buick "C" Elec. 6-Way	Removal by Dealer not Permissible.
(C) Bucket Seats	.25 Thick on Floor Front and Rear Driver Inner	Olds & Cad. "E" Elec. 4-Way	Removal by Dealer not Permissible.
	.25 Thick Between Adjuster and Seat Frame Front Mtg. Point	Pont. "F" Manual - Driver and Passenger Elec. 4-Way Driver	Removal by Dealer not recommended.
	.25 Thick on Floor Front and Rear Driver and Passenger Outer	Buick "E" Manual Elec. 4-Way	Removal by Dealer not Permissible. Required by Design.

## SEAT TORQUE SPECIFICATIONS

The following torque specifications should be used when servicing seat assemblies:

<u>BOLT OR NUT LOCATION</u>	<u>TORQUE - FT. LBS.</u>
1. Seat Adjuster-to-Floor Pan Bolts . . . . .	10
2. Seat Adjuster-to-Floor Pan Nuts . . . . .	10
3. Seat Adjuster-to-Seat Frame Bolts . . . . .	10
4. Seat Back Frame-to- Cushion Frame Bolts . . . . .	14 - 18
5. Seat Back Hinge Bolts . . . . .	14 - 16

## MANUALLY OPERATED SEAT ADJUSTER CONTROL ARM KNOB— All Styles with Manually Operated Seat Adjusters

Manually operated seat adjuster control arm knobs

are a press fit on the adjuster control arm. When replacing a manually operated left seat adjuster it will be necessary to remove the control arm knob from the old adjuster and install it on the new adjuster or install a new control arm knob.

**NOTE:** Control arm knobs can generally be removed and reinstalled several times without losing adequate retention.

### Removal

Using a heavy body spoon, a long drift pin and a piece of wood as a fulcrum, as shown in Figure 15-1, carefully remove knob from adjuster control arm.

**NOTE:** Use Caution not to push drift pin down onto rocker panel sill plate.

### Installation Equipment

The following equipment is required to install seat adjuster control knob.

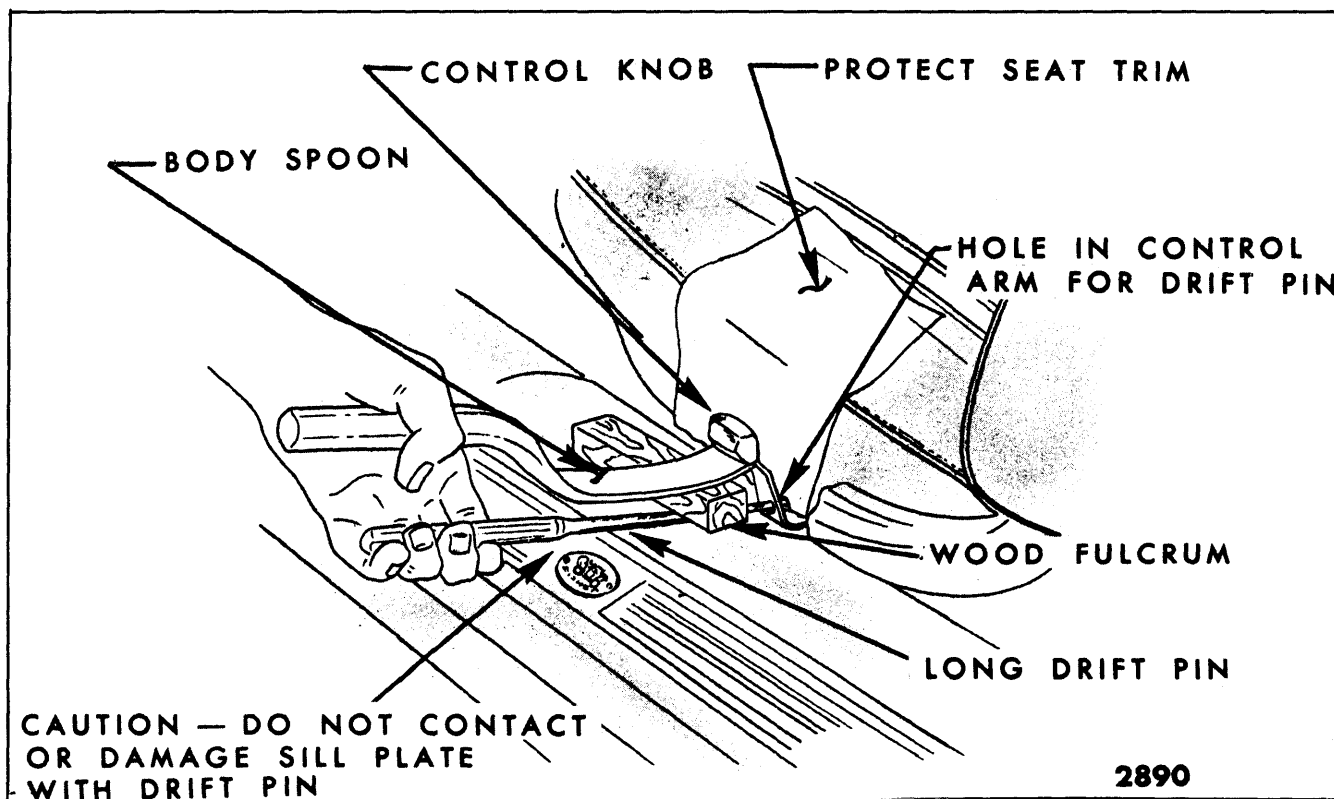


Fig. 15-1—Front Seat Adjuster Control Knob - Removal

1. One four inch "C" clamp.

**NOTE:** Swivel pad of "C" clamp should rotate freely. Where necessary add a drop or two of oil in swivel pad.

2. One round rubber plug (Part No. 4802102 or equivalent) to fit over "C" clamp swivel pad to help prevent swivel pad from slipping off control knob or damaging control knob.

3. One 1/8 inch diameter sheet metal screw approximately one inch long.

**NOTE:** Round off sharp point of screw to prevent possible damage to seat trim.

**NOTE:** Install knob so that "gate" mark (on one face of knob) is facing seat and is not visible.

### Installation Procedure

1. a. Place pencil mark on seat adjuster control arm, one inch down from top edge of arm as a guide for determining when knob is fully installed.  
b. Place seat adjuster control knob in position on control arm and start knob on by hand pressure making certain knob is started on straight.
2. Insert sheet metal screw in hole provided in adjuster control arm and place "C" clamp in position as shown in Figure 15-2. Use round rubber plug (Part No. 4802102 or equivalent) over swivel pad of "C" clamp to prevent damage to knob and to prevent "C" clamp swivel pad from slipping off knob.
- c. Place protective cover over seat trim side facing.

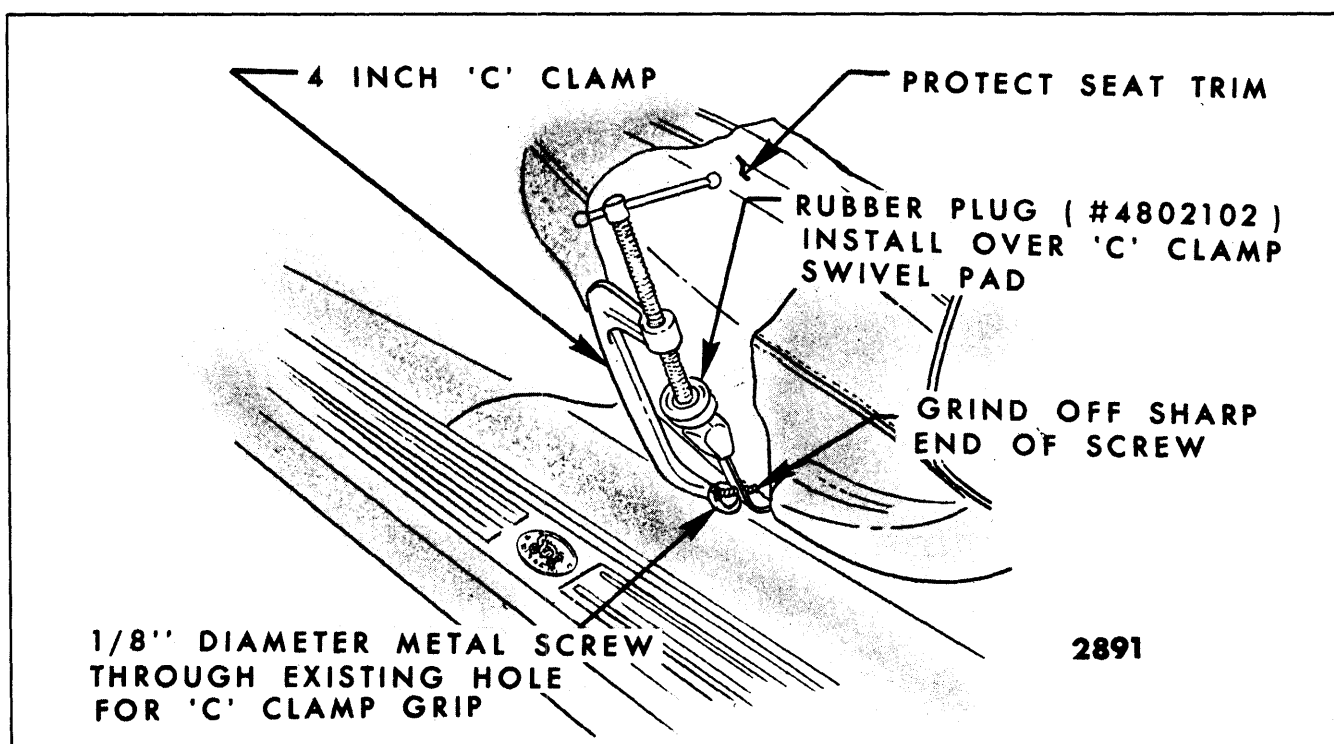


Fig. 15-2—Front Seat Adjuster Control Knob - Installation

3. Carefully press knob on control arm with "C" clamp until bottom edge of knob is down to mark (one inch below edge of arm).

## STANDARD FULL WIDTH AND 60-40 SEATS

### Description

All seat assemblies are secured to the floor pan by either nuts installed on floor pan anchor plate studs or bolts installed into anchor nuts in the floor pan (See Figures 15-3, 15-4, 15-6 and 15-7).

**NOTE:** All electrically operated seats have a ground wire secured to the seat frame and under

the seat adjuster rear attaching bolt or nut.

The new 60-40 seat, available on some Buick, Oldsmobile and Cadillac styles, consists of an individual passenger seat (60% of front seat width) and an individual driver seat (40% of front seat width).

**NOTE:** The 60-40 drivers power operated two-way seat incorporates seat adjusters which are similar to the Strato bucket power operated two-way seat adjusters - for service procedures refer to "Power Operated Horizontal Bucket Seat".

Power operated two-way seat adjusters are standard equipment on the drivers seat and manual seat

adjusters are standard on the passengers side. Six-way power operated seat adjusters are available as optional equipment on both drivers and passengers 60-40 seat.

### FRONT SEAT ASSEMBLY— Manually Operated—Full Width and 60-40 Passenger Seat

The full width manually operated seat assembly and 60-40 passenger seat incorporate manually operated seat adjusters to provide fore and aft movement of the seat. When the control lever is moved forward (rearward on "F" body styles and "Z" body styles with bucket seats), the seat adjusters unlock, permitting horizontal travel of the seat. When the seat is in the desired position and the locking lever is released the seat is locked.

### SEAT ASSEMBLY—Manually Operated Full Width and 60-40 Passenger Seat

#### Removal and Installation

1. Where the front inner seat belts go through the seat assembly, remove seat belt floor pan inner anchor plate attaching bolt.
2. Remove door sill plates and turn back floor mat or carpeting, where necessary, to expose

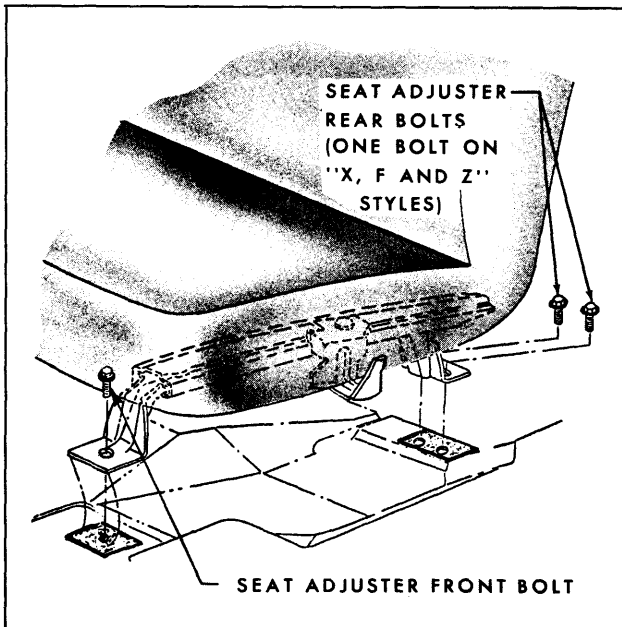


Fig. 15-3—Seat Adjuster Floor Pan Attachment - "A, F, X and Z" Body Full Width Seats

**NOTE:** For seat positioning on floor pan, spacer usage and torque specifications, see charts at beginning of Seat Section.

seat adjuster-to-floor pan attaching nuts or bolts.

3. Operate seat to full forward position.
4. At rear of adjusters, remove adjuster-to-floor pan rear attaching nuts or bolts (Figs. 15-3, 15-4 and 15-7).
5. Operate seat to full rearward position. Remove adjuster-to-floor pan front attaching bolts. On styles with seat back cigar lighter, tilt seat assembly rearward sufficiently to disconnect lighter feed wire. With air of a helper, remove seat assembly from body.
6. To install seat assembly, reverse removal procedure. Where seat adjuster-to-floor pan spacers were present, reinstall spacers in same position - See "Seat Adjuster Spacer Usage" at beginning of Seat Section. Check operation of seat assembly to full limits of travel.

### ADJUSTER ASSEMBLY—Manually Operated Full Width and 60-40 Passenger Seat

#### Removal and Installation

1. Remove front seat assembly with adjusters attached, as previously described, and place upside-down on a clean protected surface.
2. Remove seat adjuster assist spring from adjuster to be removed (Fig. 15-5).
3. Squeeze hooked end of seat adjuster locking wire together and slide retaining spring back over hump in locking wire and remove locking wire from adjuster.
4. Remove adjuster-to-seat bottom frame front and rear attaching bolts (Fig. 15-5) and remove seat adjuster from seat.
5. To install, reverse removal procedure. If left adjuster is being replaced, install new adjuster control knob as described under "Manually Operated Seat Adjuster Control Arm Knob".

**NOTE:** The right and left seat adjuster sliding mechanism should be in same relative position when attaching adjuster to seat bottom frame.

After installing adjuster to seat frame, check operation of adjusters. If adjusters do not lock or unlock satisfactorily when control handle on left

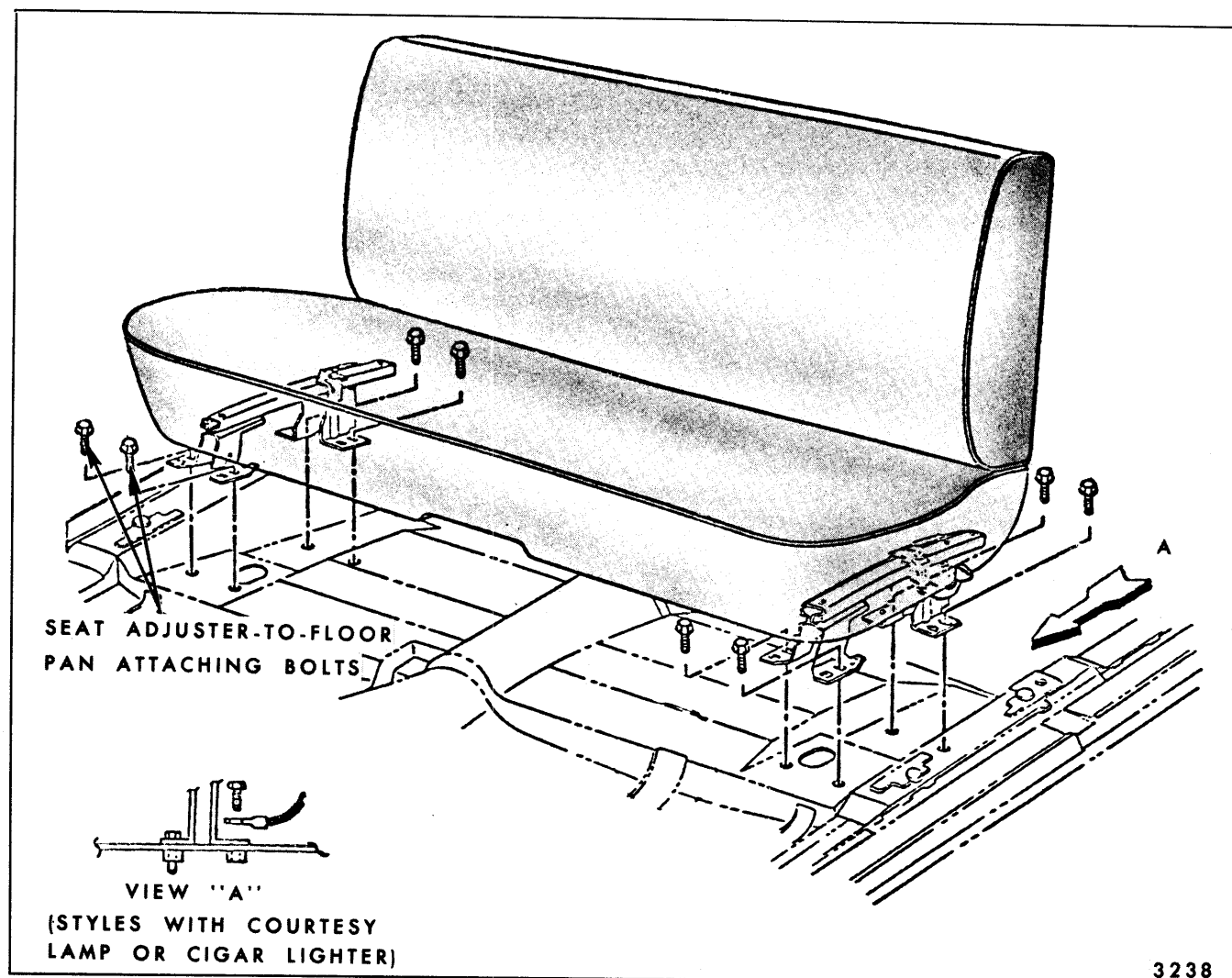


Fig. 15-4—Seat Adjuster Floor Pan Attachment (Standard Full Width Seats - Manual Adjusters)

NOTE: For seat positioning on floor pan, spacer usage and torque specifications, see charts at beginning of Seat Section.

adjuster is operated, disengage locking wire retainer from hole in seat bottom frame and engage retainer in one of adjacent holes to obtain proper tension in wire (Fig. 15-5).

### FRONT SEAT ASSEMBLY—Power Operated Two, Four or Six-Way Full Width and 60-40 Six-Way Seats

#### Description

The seat adjusters are actuated by a 12 volt, reversible, shunt wound motor with a built-in circuit breaker. The motor is energized by a toggle-type control switch installed in the left seat side panel or in the left door arm rest.

On four-way and six-way power operated seats the seat operating mechanism incorporates a transmission assembly which incorporates solenoids and drive cable to the seat adjusters. On the four-way seat one solenoid controls the horizontal movement of the seat while the second solenoid controls the vertical movement of the seat. On the six-way seat one solenoid controls the vertical movement of the front of the seat, the second solenoid controls the horizontal movement of the seat and the third solenoid controls the vertical movement of the rear of the seat. When the control switch is actuated, the motor and one of the solenoids are energized simultaneously. Then the solenoid plunger engages with the driving gear dog. The driving gear rotates the drive cables and operates both adjusters. When the adjusters reach their limit of travel, the drive cables stop their rotating action

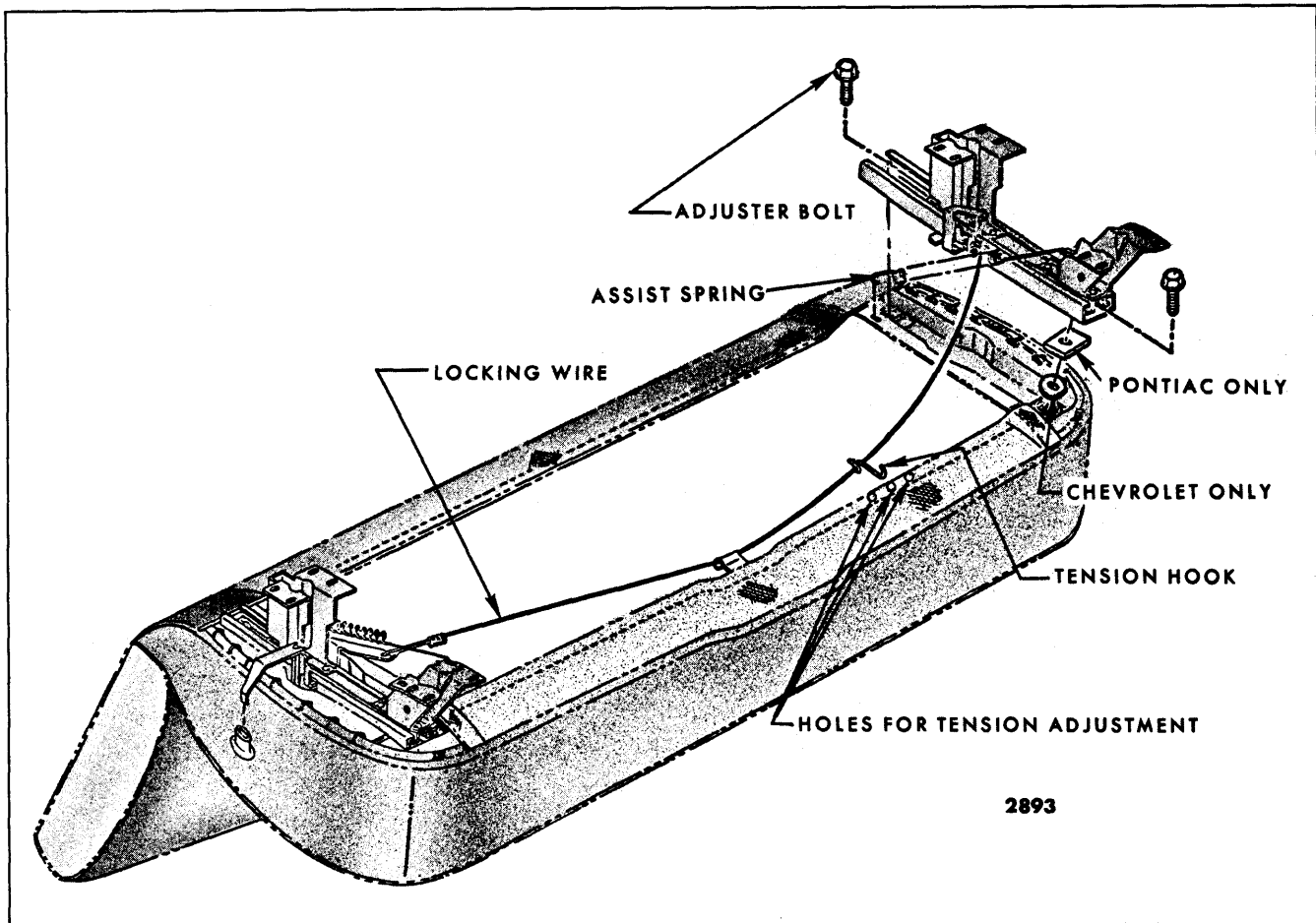


Fig. 15-5—Manual Seat Adjuster Installation - "B & C" Shown, "A, F, X & Z" Typical

NOTE: For seat positioning on floor pan, spacer usage and torque specifications, see charts at beginning of Seat Section.

and torque is absorbed by the rubber coupler connecting the motor and transmission. When the control switch is released, a return spring returns the solenoid plunger to its original position disengaging it from the driving gear dog.

## SEAT ASSEMBLY—Power Operated Two, Four or Six-Way Full Width and 60-40 Six-Way Seats

### Removal and Installation

1. Operate seat to full forward position. On four-way or six-way power seats, operate seats to full up position.
2. Where front inner seat belts go through the seat assembly, remove seat belt floor pan inner anchor plate attaching bolt.
3. Where necessary, remove sill plates and turn back floor mat or carpeting to expose seat adjuster-to-floor pan attaching nuts or bolts.
4. Remove seat adjuster-to-floor pan rear attaching bolts (Figs. 15-6 and 15-7).
5. Operate seat to full rearward position. Remove adjuster-to-floor pan front attaching bolts. Tilt seat assembly rearward sufficiently to disconnect seat harness feed connector and detach harness from clip on floor pan. On styles with seat back cigar lighter, seat back courtesy lamps or seat back vanity lamp, disconnect electrical feed wire or wires. With aid of a helper remove seat assembly from body.
6. To install seat assembly, reverse removal procedure. Where seat adjuster-to-floor pan spacers were present reinstall spacers in same position - See "Seat Adjuster Spacer Usage" at beginning of Seat Section. Make sure

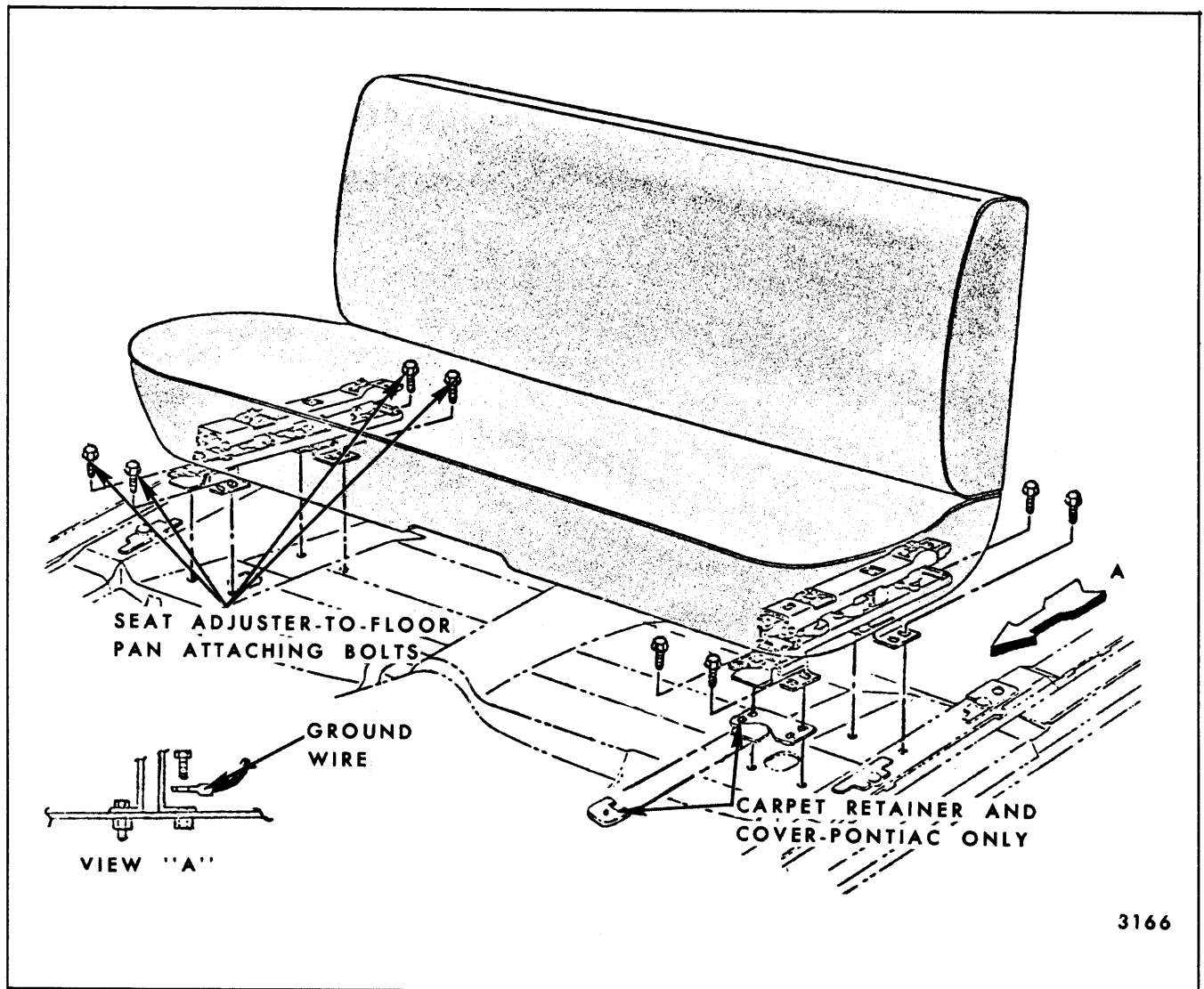


Fig. 15-6—Seat Adjuster Floor Pan Attachment - Full Width Standard Seats (Power Six-Way Shown - Two-Way and Four-Way Typical)

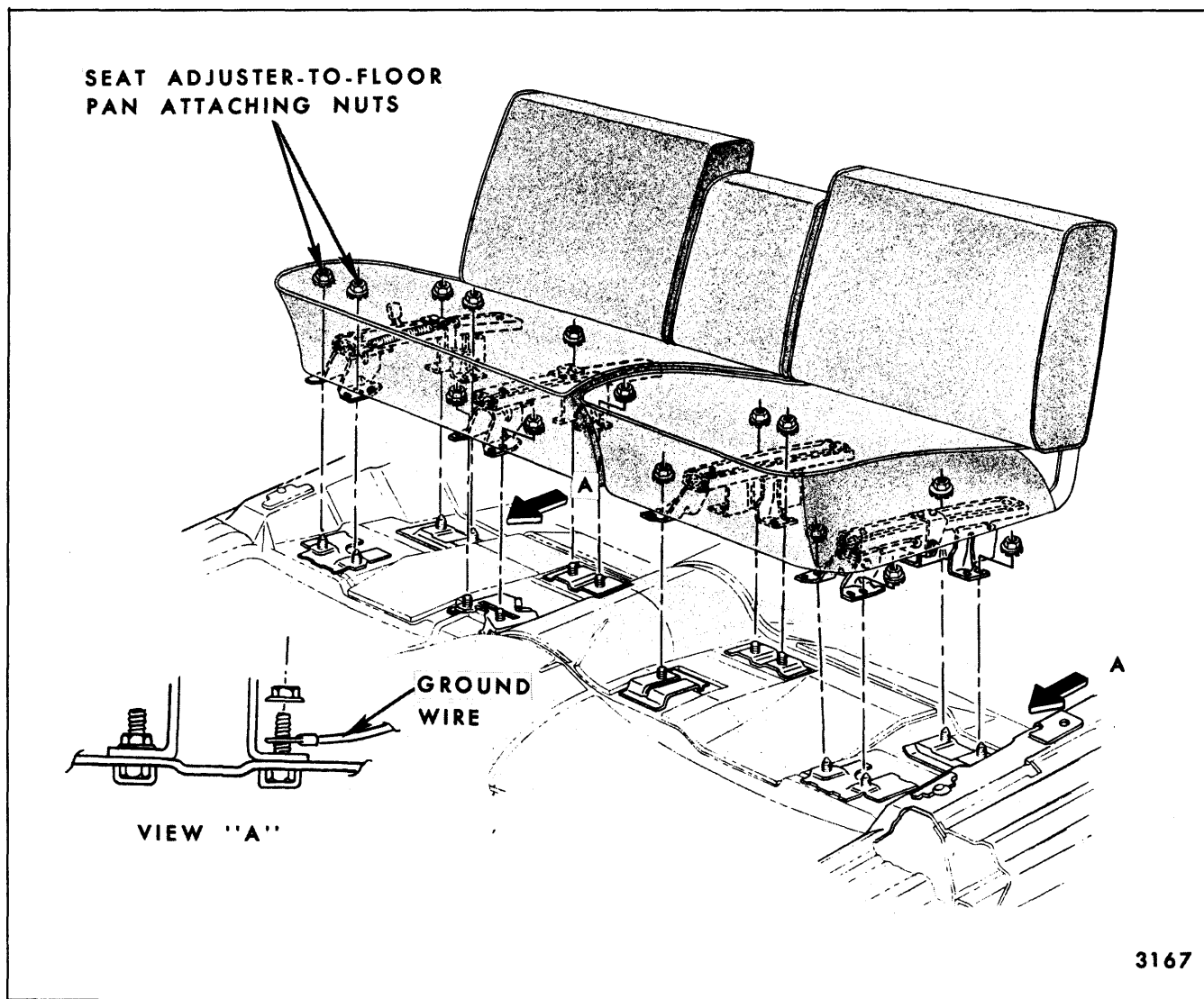
**NOTE:** For seat positioning on floor pan, spacer usage and torque specifications, see charts at beginning of Seat Section.

ground wire is securely attached under seat adjuster-to-floor pan rear attached bolt (See Figs. 15-6 and 15-7). Check for proper operation of seat adjusters to limits of travel.

**IMPORTANT:** When installing seat assembly in body, seat adjusters should be parallel and "in phase" with each other. In the event the adjusters are "out of phase" (this is, one adjuster reaches its maximum horizontal or vertical travel in a given direction before the other adjuster), proceed as follows:

a. Horizontal Travel - Operate seat control switch until one adjuster reaches full forward position. Detach horizontal drive cable from adjuster which has reached full forward position. Operate seat forward until other adjuster reaches full forward position; then, connect horizontal drive cable and check horizontal travel of seat.

b. Front or Rear Vertical Travel - Operate seat control switch until one adjuster has reached fully raised position at both front and rear vertical travel limits. Disconnect both front and rear vertical drive cables from adjuster which has reached the fully raised position. Operate seat control switch until other adjuster reaches the fully raised



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Fig. 15-7 60-40 Seat Adjuster Floor Pan Attachment - Cadillac, Buick and Oldsmobile

Adjusters: Driver-Two-Way Power Standard Passenger - Manual Standard Six-Way Power Option on Both Sides

NOTE: For seat positioning on floor pan, spacer usage and torque specifications, see charts at beginning of Seat Section.

position at both front and rear vertical travel limits; then, connect previously removed front and rear vertical drive cables. Check vertical travel by operating adjusters through one or two complete cycles. The above operation may be repeated on an "as required" basis if adjusters do not appear to be "in phase" after test cycle.

on four-way and six-way seats also operate seat to fully raised position.

## ADJUSTER ASSEMBLY—Power Operated Two, Four or Six-Way Full Width Seat

### Removal and Installation

1. Operate seat to a midway horizontal position;

2. Remove front seat assembly with adjusters attached, as previously described, and place upside down on a clean protected surface.
3. Detach power drive cables from gear nuts of adjuster to be removed (Figs. 15-8, 15-9, 15-10 and 15-11).
4. Remove adjuster-to-seat bottom frame front and rear attaching bolts and remove adjuster from seat assembly (Figs. 15-8, 15-9, 15-10 and 15-11).



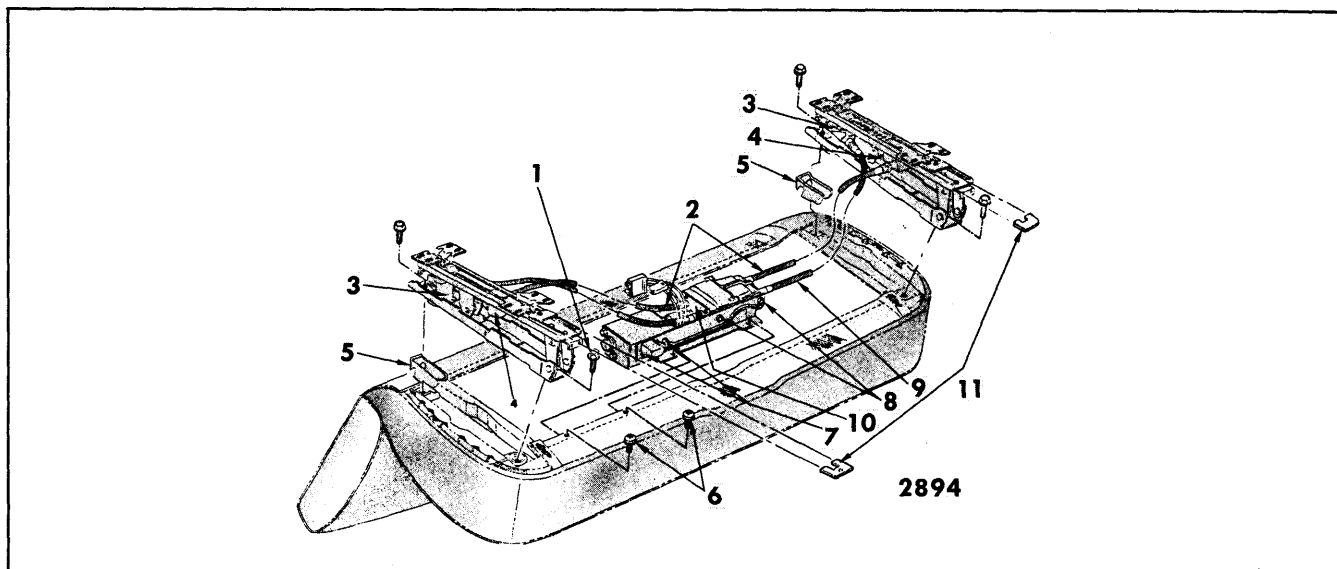


Fig. 15-8—Front Seat Assembly - Four-Way Tilt - Buick "B, C &amp; E" Styles

- |                                     |                                                    |                                  |
|-------------------------------------|----------------------------------------------------|----------------------------------|
| 1. Adjuster-to-Seat Attaching Bolts | 5. Track Cover                                     | 8. Transmission Attaching Screws |
| 2. Horizontal Cables - Black        | 6. Motor and Transmission Support Attaching Screws | 9. Rear Vertical Cables (Blue)   |
| 3. Vertical Gearnut                 | 7. Motor Attaching Screws                          | 10. Transmission End Plate       |
| 4. Horizontal Actuator              |                                                    | 11. Carpet Retainers             |

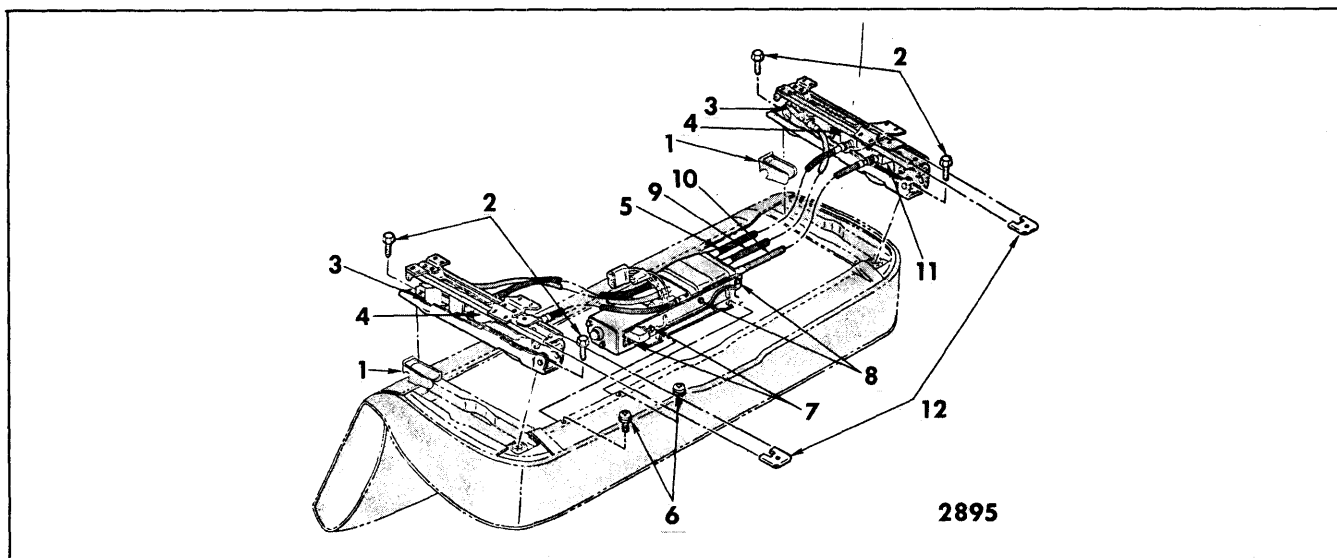


Fig. 15-9—Front Seat Assembly—Six-Way - "B &amp; C" Full Width Seat

- |                                     |                                  |                                    |
|-------------------------------------|----------------------------------|------------------------------------|
| 1. Track Cover                      | 5. Horizontal Cables - Black     | 9. Rear Vertical Cables - Blue     |
| 2. Adjuster-to-Seat Attaching Bolts | 6. Motor and Transmission Screws | 10. Front Vertical Cables - Yellow |
| 3. Rear Vertical Gearnut            | 7. Motor Attaching Screws        | 11. Front Vertical Gearnut         |
| 4. Horizontal Actuator              | 8. Transmission Attaching Screws | 12. Carpet Retainers               |

5. To install seat adjuster assembly, reverse removal procedure. On seats with adjuster upper track covers, make sure track covers are in stalled between adjuster and seat frame (Figs. 15-8, 15-9, 15-10 and 15-11). Check operation

of seat adjusters and make sure adjusters are "in phase" before installing assembly into body (See Step 6 under "Front Seat Assembly - Removal and Installation").

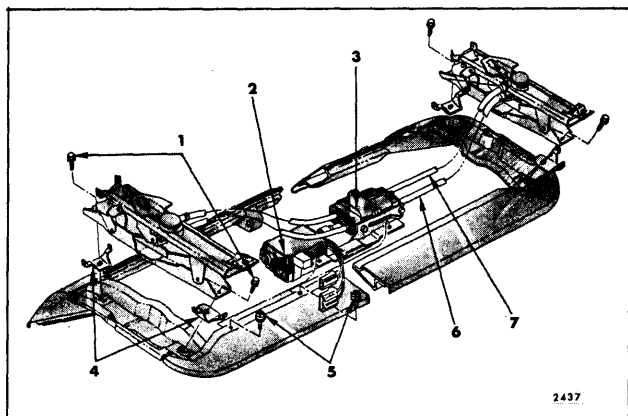


Fig. 15-10—Front Seat Adjuster, Motor and Transmission - "A" Styles - Four-Way Adjusters

- |                                           |                                                    |
|-------------------------------------------|----------------------------------------------------|
| 1. Adjuster to Seat Frame Attaching Bolts | 5. Motor and Transmission Support Attaching Screws |
| 2. Motor Assembly                         | 6. Vertical Cable (Yellow)                         |
| 3. Transmission Assembly                  | 7. Horizontal Cable (Black)                        |
| 4. Track Cover Supports                   |                                                    |

NOTE: For seat positioning on floor pan, spacer usage and torque specifications, see charts at beginning of Seat Section.

## TWO-WAY SEAT ADJUSTER MAJOR COMPONENTS—"C" Body Full Width Seat

The following service procedures cover replacement of the major component parts of the power operated two-way seat adjusters used on "C" body full width seats or the drivers 60-40 seat.

### ELECTRIC MOTOR—"C" Body Full Width Seat

#### Removal and Installation

1. Remove front seat assembly as previously described and place upside down on a clean protected surface.
2. Disconnect both power drive cables from actuator motor (Fig. 15-10).
3. Remove screws that secure actuator motor support bracket to seat bottom frame and remove actuator motor with attached support bracket from seat assembly (Fig. 15-10).
4. Disconnect feed wire harness from actuator motor.
5. Remove screws securing motor to motor support bracket.

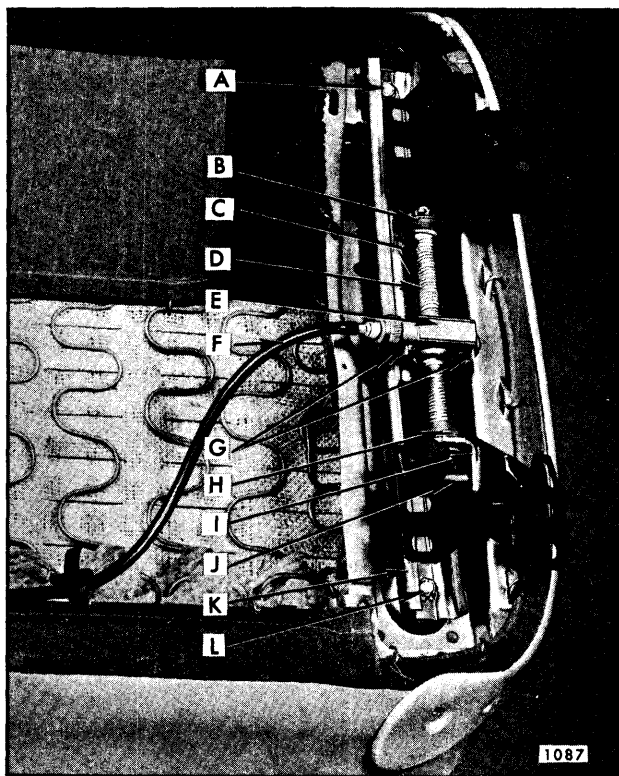


Fig. 15-11—Horizontal Power Adjuster - "C & E" Styles

- |                            |                            |
|----------------------------|----------------------------|
| a. Adjuster Attaching Bolt | g. Shoulder Bolts          |
| b. Rear Stop               | h. Front Stop              |
| c. Adjuster Lower Channel  | i. Stop Bracket            |
| d. Gearnut                 | j. Cross-Pin               |
| e. Jackscrew               | k. Adjuster Upper Channel  |
| f. Drive Cable             | l. Adjuster Attaching Bolt |

NOTE: For seat positioning on floor pan, spacer usage and torque specifications, see charts at beginning of Seat Section.

6. To install, reverse removal procedure. Check for proper seat operation to extreme limits of travel.

### HORIZONTAL GEARNUT ASSEMBLY—"C" Body Full Width Seat

#### Removal and Installation

1. Remove front seat assembly with adjusters attached and place upside down on a clean, protected surface.
2. Detach power drive cable from gearnut to be removed.
3. Using a "clutch" type screwdriver or other suitable tool, remove two shoulder bolts se-

curing gearnut to upper slide portion of seat adjuster (Fig. 15-11).

4. Rotate jackscrew assembly upward sufficiently to gain access to cotter pin at rear of jackscrew assembly.
5. Remove cotter pin, washer and rubber bumper from rear end of jackscrew; then, remove gearnut from jackscrew.
6. To install, reverse removal procedure. Prior to installing seat assembly in body, be sure adjusters are "in phase". See Step 6 under "Front Seat Assembly - Removal and Installation".

## **HORIZONTAL JACKSCREW— "C" Body Full Width Seat**

### **Removal and Installation**

1. Remove front seat assembly with adjusters attached and place upside down on a clean, protected surface.
2. Detach power drive cable from gearnut and jackscrew assembly to be removed.
3. Using a suitable tool (preferably a "clutch" type screwdriver) remove two shoulder bolts securing gearnut to upper slide portion of seat adjuster assembly (Fig. 15-11).
4. Remove retainer that secures stop bracket crosspin to adjuster front pedestal and remove crosspin (Fig. 15-11).
5. Remove jackscrew assembly from seat adjuster.
6. To install, reverse removal procedure.

**NOTE:** When replacing jackscrew assembly with new part, remove nut, washers, rubber bumper and stop bracket with inserted rubber grommet from front end of jackscrew, as well as gearnut and washers, rubber bumper and cotter pin from rear end of jackscrew and transfer to new jackscrew assembly.

## **PLASTIC SLIDES— "C" Body Full Width Seat**

### **Removal and Installation**

1. Remove front seat adjuster to be serviced from front seat assembly. (See: Front Seat Adjuster - Two-Way Electric - Removal and Installation procedures.)

2. Using a suitable tool (preferably a "clutch" type screwdriver), remove two shoulder bolts securing gearnut to upper channel to seat adjuster assembly (Fig. 15-11).
3. Slide lower track and support base portion of seat adjuster, with attached jackscrew and gearnut, forward until it disengages from upper channel assembly. The four plastic slides may now be disengaged from positioning slots on lower track.
4. To install, reverse removal procedure making sure that groove in plastic slide slips onto lower track with thinner section of slide protruding above surface of track.

## **FOUR-WAY SEAT ADJUSTER MAJOR COMPONENTS—"A" Body Full Width Seats**

The following service procedures cover replacement of the major component parts of the power operated four-way seat adjusters used on the "A" Body full width seats.

### **ELECTRIC MOTOR—"A" Body**

#### **Removal and Installation**

1. Remove front seat assembly as previously described and place upside down on a clean protected surface.
2. Disconnect wire harness from motor relay assembly.
3. Remove screws securing motor and transmission support to seat bottom frame (See Fig. 15-10).
4. Remove motor-to-motor support attaching screws and remove motor assembly from support.
5. To install, reverse removal procedure making sure rubber coupler is properly engaged at both motor and transmission ends. Check operation of seat to full limits of travel.

## **VERTICAL GEARNUIT—"A" Body**

### **Removal and Installation**

1. Operate seat assembly to fully raised and mid-way horizontal position.
2. Remove front seat assembly from body as previously described and place upside down on a clean protected surface.

3. Detach vertical gearnut drive cable from other adjuster.
4. Using a clutch type screwdriver or other suitable tool, remove shoulder screws securing linkage to vertical gearnut being replaced (Fig. 15-12).

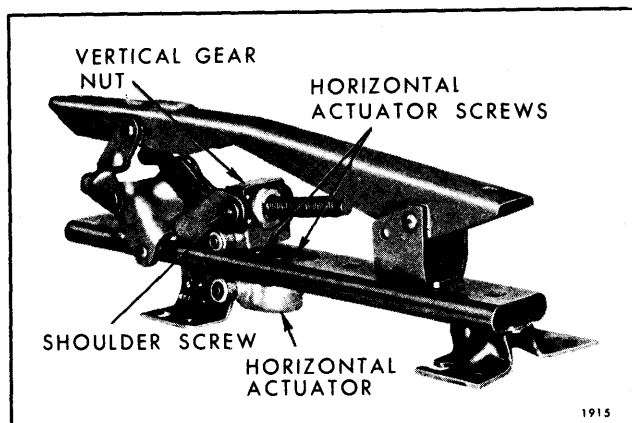


Fig. 15-12—Four-Way Seat Adjuster - "A" Styles

5. If right adjuster gearnut is being replaced, at front of jackscrew, remove double nut that acts as a jackscrew "down" stop.
6. Using a portable power source to energize the motor, actuate vertical gearnut until gearnut is disengaged from jackscrew.

**NOTE:** It may be necessary to manually raise or lower upper rear portion of adjuster to gain clearance for removal of gearnut.

7. Disconnect drive cable from gearnut.
8. To install, reverse removal procedure.

**NOTE:** Check operation of seat adjusters and make sure adjusters are "in phase". See Step 6 under "Front Seat Assembly - Removal and Installation".

## HORIZONTAL ACTUATOR—"A" Body

### Removal and Installation

1. Remove adjuster vertical gearnut as previously described.
2. Disconnect drive cable from horizontal actuator.
3. Remove screws securing horizontal actuator assembly to adjuster lower track; then remove actuator from adjuster assembly (Fig. 15-12).
4. To install, reverse removal procedure.

**NOTE:** When installing horizontal actuator, adjust actuator so that drive gear is fully engaged with teeth on lower channel. When horizontal actuator attaching screws are tightened, there should be no free motion between upper and lower channels. Readjust actuator "as required" until all free motion between channels has been removed. Check operation of seat adjusters and make sure adjusters are "in phase". See Step 6 under "Front Seat Assembly - Removal and Installation".

## JACKSCREW—"A" Body

### Removal and Installation

1. Remove adjuster vertical gearnut as previously described.
2. Remove seat adjuster-to-seat bottom frame front and rear attaching bolts on side affected (Fig. 15-10).
3. As a bench operation, remove jackscrew-to-adjuster linkage attaching rivet and remove jackscrew from adjuster assembly (Fig. 15-13).

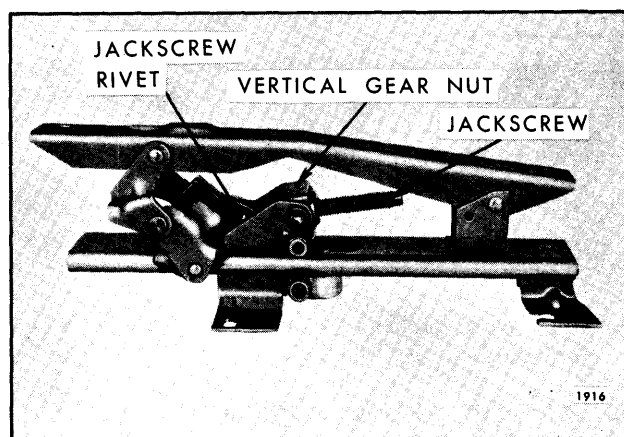


Fig. 15-13—Four-Way Seat Adjuster - "A" Styles

4. To install, reverse removal procedure. Check operation of seat adjusters and make sure adjusters are "in phase". See Step 6 under "Front Seat Assembly - Removal and Installation".

## HORIZONTAL AND VERTICAL DRIVE CABLES—"A" Body

### Removal and Installation

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.

2. Detach both horizontal and vertical cables from seat adjuster.
3. Remove screws securing horizontal and vertical cable end plate on side of transmission from which cables are being removed and remove cables from seat assembly (Fig. 15-8).
4. Disengage cable to be replaced from end plate.
5. To install cables, reverse removal procedure. Check operation of seat to full limits of travel.
3. Remove screws securing horizontal and vertical cable end plate on both sides of transmission and detach cables from transmission.
4. Remove transmission-to-support attaching bolts; then, disengage transmission from rubber coupler and remove transmission from seat assembly.
5. To install, reverse removal procedure.

## TRANSMISSION—"A" Body

### Removal and Installation

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.
2. Disconnect wire harness connector from transmission.

## DISASSEMBLY AND ASSEMBLY OF TRANSMISSION

1. Remove front seat adjuster transmission from seat assembly.
2. Remove screws securing gear and solenoid housings together; then, carefully separate housings and remove component parts of transmission assembly (Fig. 15-14).

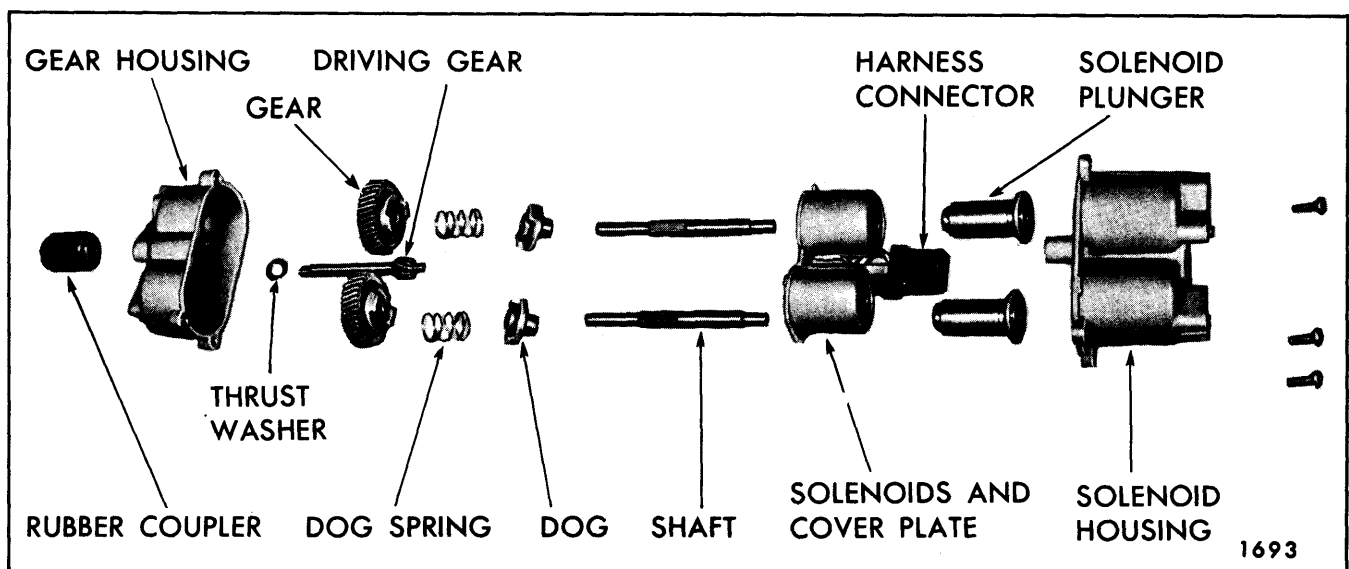


Fig. 15-14—Four-Way Seat Adjuster Transmission

3. To assemble transmission, reverse removal procedure.

**IMPORTANT:** Prior to or during installation, lubricate frictional surfaces of driving gear thrust washer, gears, dog washers, shaft and solenoid plungers with "Lubriplate" (630AAW) or equivalent.

## FOUR-WAY SEAT ADJUSTER MAJOR COMPONENTS—Buick "B-C&E" Full Width Four-Way Power Seat

The following service procedures cover replace-

ment of the major component parts of the power operated four-way seat adjusters used on the Buick "B-C & E" body full width seats.

## ELECTRIC MOTOR—Buick "B-C&E" Body

### Removal and Installation

1. Remove front seat assembly, and place upside down on a clean protected surface.
2. Disconnect wire harness from motor relay assembly.

3. Remove screws securing motor and transmission support to seat bottom frame (Fig. 15-15).

4. Remove motor-to-support attaching screws and remove motor assembly from support.

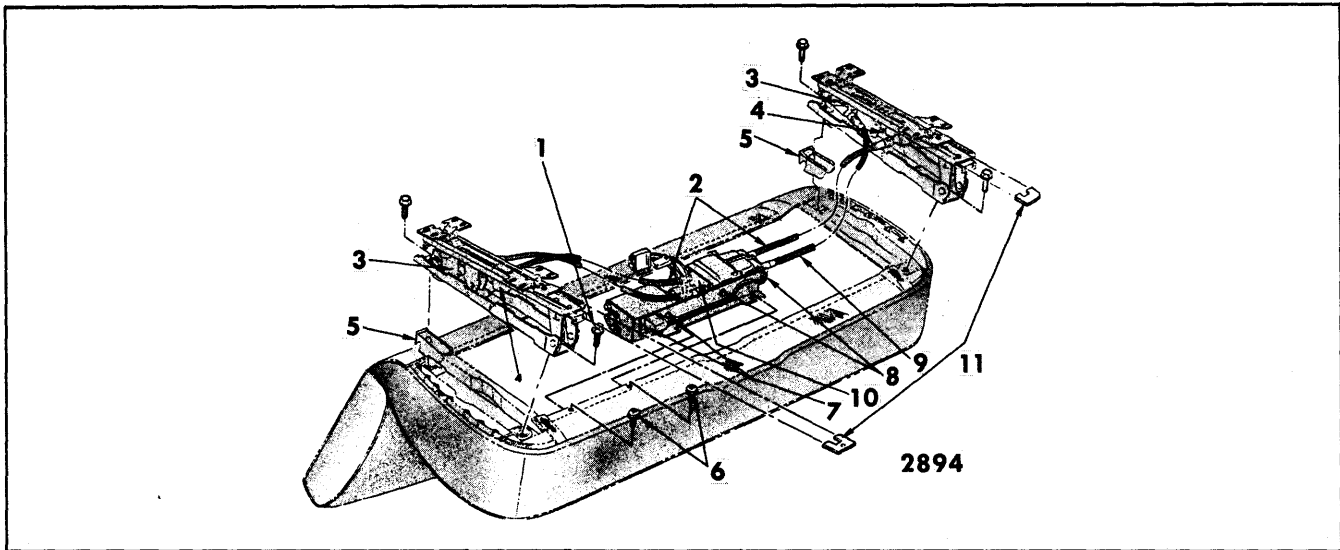


Fig. 15-15—Front Seat Assembly - Four-Way Tilt - Buick "B, C & E" Styles

1. Adjuster-to-Seat Attaching Bolts
2. Horizontal Cables - Black
3. Vertical Gearnut
4. Horizontal Actuator

5. Track Cover
6. Motor and Transmission Support Attaching Screws
7. Motor Attaching Screws

8. Transmission Attaching Screws
9. Rear Vertical Cables (Blue)
10. Transmission End Plate
11. Carpet Retainers

5. To install, reverse removal procedure making sure rubber coupler is properly engaged at both motor and transmission ends. Check that seat harness is properly secured to seat. Check operation of seat to full limits of travel.

## VERTICAL GEARNUT—Buick "B-C&E" Body

### Removal and Installation

1. Operate seat to full rearward position; then, remove front seat assembly from body and remove seat adjuster from seat.
2. Remove vertical gearnut attaching nut and gearnut tension spring (Fig. 15-16).
3. Lay adjuster on its side and remove screws securing vertical gearnut to adjuster lower track; then, remove gearnut from adjuster (Fig. 15-16).

**NOTE:** If seat was not in rearward position when removed from car it may be necessary to manually operate the horizontal actuator to gain access to vertical gearnut attaching screws on bottom of lower channel.

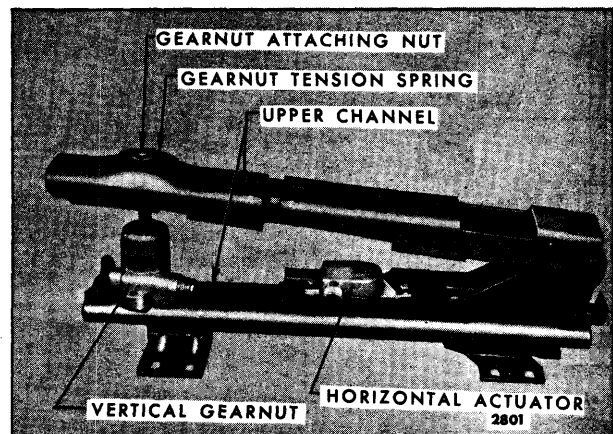


Fig. 15-16—Four-Way Seat Adjuster - Buick "B, C & E" Styles

4. To install, reverse removal procedure.

**NOTE:** Check operation of seat adjusters and make sure adjusters are "in phase". See step 6 under "Front Seat Assembly - Removal and Installation".

## HORIZONTAL ACTUATOR— Buick "B-C&E" Body

### Removal and Installation

1. Remove front seat assembly from body and remove adjuster (from which horizontal actuator is being removed) from seat.
2. Remove vertical gearnut attaching nut and gearnut tension spring.
3. Raise upper portion of upper channel. Remove screws securing horizontal actuator assembly to adjuster lower track; then, remove actuator from adjuster assembly (Fig. 15-17).

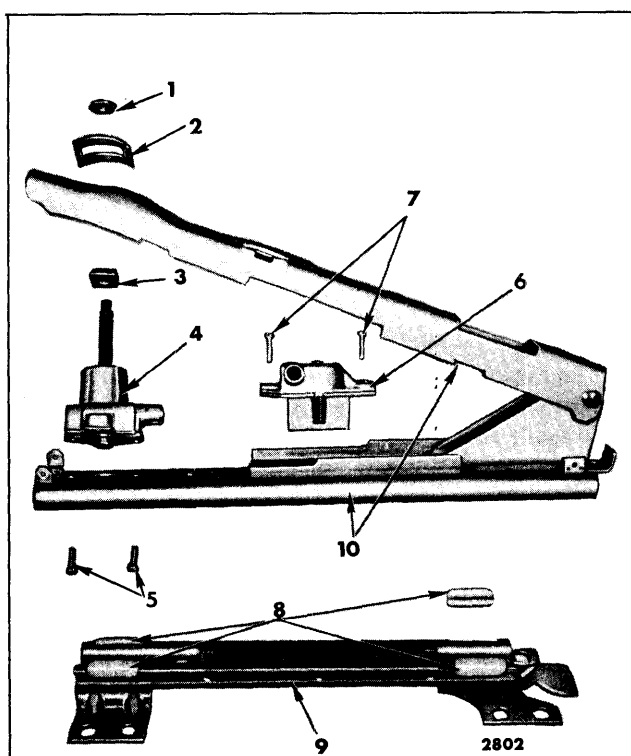


Fig. 15-17—Four-Way Seat Adjuster Components - Buick "B, C & E" Styles

- |                                           |                                         |
|-------------------------------------------|-----------------------------------------|
| 1. Upper Channel to Gearnut Attaching Nut | 5. Vertical Gearnut Attaching Screws    |
| 2. Vertical Gearnut Tension Spring        | 6. Horizontal Actuator Attaching Screws |
| 3. Vertical Gearnut Shoulder Nuts         | 7. Horizontal Actuator                  |
| 4. Vertical Gearnut                       | 8. Plastic Shoes                        |
|                                           | 9. Lower Channel                        |
|                                           | 10. Upper Channel                       |

**NOTE:** It may be necessary to manually actuate the horizontal actuator to gain access to attaching screws.

4. To install, reverse removal procedure. Make

sure horizontal actuator is properly adjusted (Fig. 15-16 and 15-17), so that drive gear is fully engaged with teeth on lower channel.

**NOTE:** When horizontal actuator attaching screws are tightened, there should be no free motion between upper and lower channels. Re-adjust actuator "as required" until all free motion between channels has been removed. Check operation of seat adjusters and make sure adjusters are "in phase". See Step 6 under "Front Seat Assembly - Removal and Installation".

## HORIZONTAL AND VERTICAL DRIVE CABLES—Buick "B-C&E" BODY

### Removal and Installation

1. Remove front seat assembly, as previously described, and place upside down on a clean protected surface.
2. Detach both horizontal and vertical cables from seat adjuster (See Fig. 15-8).
3. Remove screws securing horizontal and vertical cable end plate on side of transmission from which cables are being removed and remove cables from seat assembly.
4. Disengage cable to be replaced from end plate.
5. To install cables, reverse removal procedure. Check operation of seat to full limits of travel.

## TRANSMISSION—Buick "B-C&E" Body

### Removal and Installation

1. Remove front seat assembly from body and place upside down on a clean protected surface.
2. Disconnect wire harness connector from transmission.
3. Remove screws securing horizontal and vertical cable end plate on both sides of transmission and detach cables from transmission.
4. Remove transmission to support attaching bolts (Fig. 15-8); then, disengage transmission from rubber coupler and remove transmission from seat assembly.
5. To install, reverse removal procedure.

## DISASSEMBLY AND ASSEMBLY OF TRANSMISSION

1. Remove front seat adjuster transmission from seat assembly.

2. Remove screws securing gear and solenoid housings together; then, carefully separate housings and remove component parts of transmission assembly (Fig. 15-14).
3. To assemble transmission, reverse removal procedure.

**IMPORTANT:** Prior to or during installation, lubricate frictional surfaces of driving gear thrust washer, gears, dog washers, shaft and solenoid plungers with "Lubriplate" (630 AAW) or equivalent.

### SIX-WAY SEAT ADJUSTER MAJOR COMPONENTS—"B-C&E" Body Full Width Seats

The following service procedures cover replacement of the major component parts of the power operated six-way seat adjusters used on the "B, C & E" Body full width seats:

#### ELECTRIC MOTOR—"B-C & E" Body Full Width Seats

##### Removal and Installation

1. Remove front seat assembly, as previously described, and place upside down on a clean protected surface.
2. Disconnect motor feed wires from motor control relay.
3. Remove motor and transmission support-to-seat frame attaching bolts (Fig. 15-20).
4. Remove motor-to-support attaching bolts; then, move motor assembly outboard (away from transmission) sufficiently to disengage motor from rubber coupling.
5. To install, reverse removal procedure making sure rubber coupling is properly engaged at both motor and transmission. Check that seat harness is properly secured to seat. Check operation of seat to full limits of travel.

#### HORIZONTAL ACTUATOR—"B-C & E" Body Full Width Seats

##### Removal and Installation

1. Remove seat assembly from body, as previously described and place upside down on a clean protected surface.
2. Detach three power drive cables from adjuster to be removed.

3. Remove screws securing seat adjuster to seat bottom frame and remove adjuster from seat assembly.
4. At top of adjuster remove front and rear vertical gearnut attaching nuts and tension springs (Fig. 15-18).

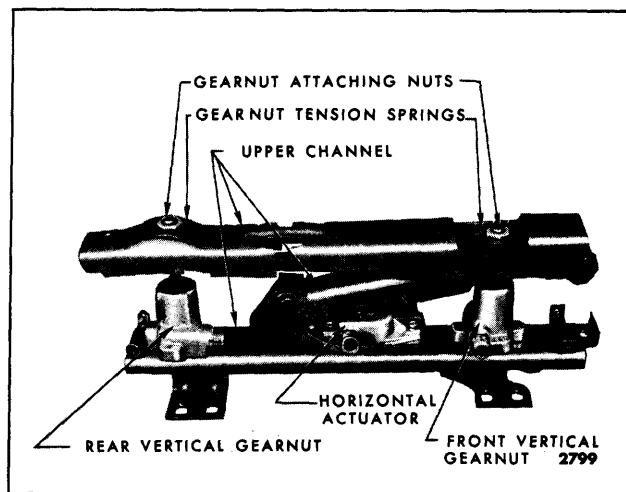


Fig. 15-18—Six-Way Seat Adjuster - "B, C & E" Styles

5. Lift front of adjuster upper channel upward; then remove screws securing horizontal actuator to adjuster upper channel assembly (Fig. 15-18) and remove actuator from adjuster.
6. To install, reverse removal procedure. When installing horizontal actuator, be sure actuator drive gear is fully engaged with teeth on lower channel. With actuator attaching screws tight, there should be no free motion between upper and lower adjusting channels. Re-adjust actuator "as required" until all free motion between channels has been removed. Be sure seat adjusters are "in phase", before installing seat assembly into body (See Step 6 under "Front Seat Assembly - Removal and Installation").

#### FRONT VERTICAL GEARNUT—"B-C & E" Body Full Width Seats

##### Removal and Installation

1. Operate seat to full forward position.
2. Remove front seat assembly from body as previously described and place upside down on a clean protected surface.
3. Detach three power drive cables from adjuster to be removed.
4. Remove screws securing seat adjuster to seat



bottom frame and remove adjuster from seat assembly.

5. At top of adjuster, remove both vertical gear-nut attaching nuts and tension springs (Fig. 15-19).

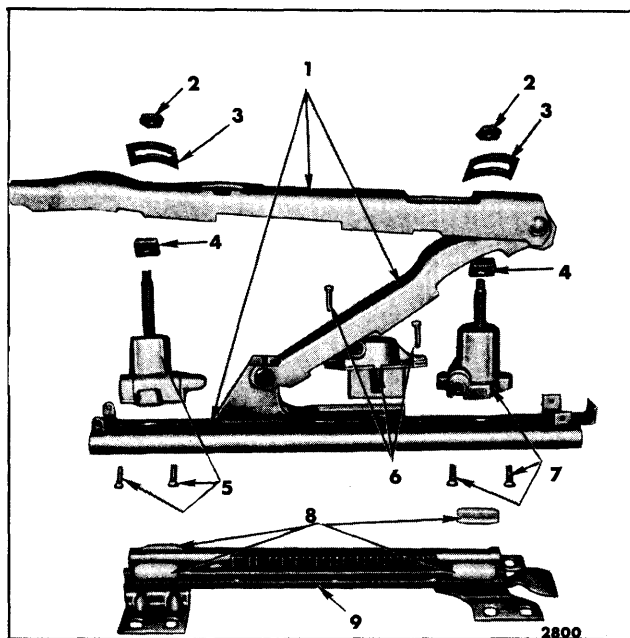


Fig. 15-19—Six-Way Seat Adjuster Components - "B, C & E" Styles

- |                                               |                                                |
|-----------------------------------------------|------------------------------------------------|
| 1. Upper Channel Assembly                     | 6. Horizontal Actuator and Attaching Screws    |
| 2. Upper Channel to Gearnut Attaching Bolts   | 7. Front Vertical Gearnut and Attaching Screws |
| 3. Gearnut Tension Springs                    | 8. Plastic Shoes                               |
| 4. Gearnut Shoulder Nuts                      | 9. Lower Channel                               |
| 5. Rear Vertical Gearnut and Attaching Screws |                                                |

6. Lay adjuster on its side and remove front vertical gearnut attaching screws (Fig. 15-19); then, remove gearnut from adjuster.

**NOTE:** If seat was not in forward position when removed from car, it may be necessary to manually operate the horizontal actuator to gain access to vertical gearnut attaching screws on bottom of lower channel.

7. If front vertical gearnut is being replaced with a new part, transfer gearnut shoulder nut and tension spring to new gearnut assembly (Fig. 15-19).
8. To install, reverse removal procedure. Be sure adjusters are "in phase" before installing seat assembly into body (See Step 6 under "Front Seat Assembly - Removal and Installation").

## LOWER OR UPPER CHANNEL AND PLASTIC SLIDES—"B-C & E" Body Full Width Seats

### Removal and Installation

1. Remove seat assembly from body and place upside down on a clean protected surface.
2. Detach three power drive cables from adjuster to be removed.
3. Remove screws securing seat adjuster to seat bottom frame and remove adjuster from seat assembly.
4. At top of adjuster, remove both vertical gear-nut attaching nuts and tension springs (Fig. 15-18). Lift front of adjuster upper channel upward; then, remove horizontal actuator attaching screws (Fig. 15-19) and remove horizontal actuator from adjuster.
5. Slide lower channel until it is completely disengaged from upper channel. Plastic slides may be removed from lower channel.
6. To install upper and lower channel, reverse removal procedure.
  - a. If replacing lower channel, transfer vertical slides to new lower channel.
  - b. If replacing upper channel, transfer vertical gearnuts to new upper channel.

**NOTE:** Make sure horizontal gear of lower channel and sliding surface of upper channel are properly lubricated with "Lubriplate" (630 AAW) or equivalent.

Make sure adjusters are "in phase" prior to installing seat assembly into body (See Step 6 under "Front Seat Assembly - Removal and Installation").

Check operation of seat to limits of both horizontal and vertical travel.

## HORIZONTAL AND VERTICAL DRIVE CABLES—"B-C & E" Body Full Width Seats

### Removal and Installation

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.
2. Detach both horizontal and vertical cables from seat adjuster.
3. Remove screws securing horizontal and vertical cable end plate on side of transmission from which cables are being removed (Fig. 15-20) and remove cables from seat assembly; then, disengage cables from end plate.

4. To install horizontal and vertical cables, reverse removal procedure. Make sure colored drive cables are installed to proper gearnuts

and horizontal actuator as shown in Figure 15-20).

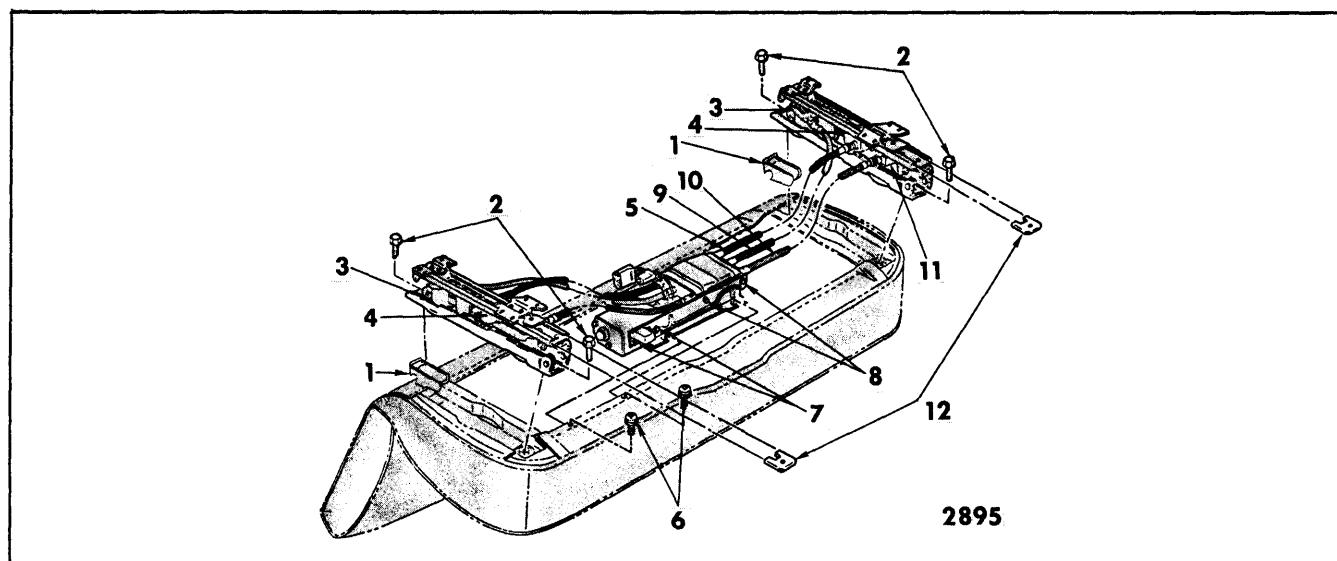


Fig. 15-20—Front Seat Assembly—Six-Way - "B & C" Full Width Seat

- |                                     |                                  |                                    |
|-------------------------------------|----------------------------------|------------------------------------|
| 1. Track Cover                      | 5. Horizontal Cables - Black     | 9. Rear Vertical Cables - Blue     |
| 2. Adjuster-to-Seat Attaching Bolts | 6. Motor and Transmission Screws | 10. Front Vertical Cables - Yellow |
| 3. Rear Vertical Gearnut            | 7. Motor Attaching Screws        | 11. Front Vertical Gearnut         |
| 4. Horizontal Actuator              | 8. Transmission Attaching Screws | 12. Carpet Retainers               |

## TRANSMISSION—"B-C&E" Body Full Width Seats

### Removal and Installation

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.
2. Disconnect wire harness connector from transmission.
3. Remove screws securing horizontal and vertical cable end plate on both sides of transmission and detach cables from transmission (Fig. 15-20).
4. Remove transmission to support attaching bolts (Fig. 15-20); then, disengage transmission from motor drive coupling and remove transmission from seat assembly.
5. To install, reverse removal procedure. Make sure seat wiring harness is properly secured to seat.

## DISASSEMBLY AND ASSEMBLY OF TRANSMISSION

1. Remove front seat adjuster transmission from seat assembly.

2. Remove screws securing rear gear housing to the solenoid housing; then, carefully separate housings and remove component parts of transmission assembly (Fig. 15-21).

3. To assemble transmission, reverse removal procedure.

**IMPORTANT:** Prior to or during installation, lubricate frictional surfaces of driving gear; thrust washer, large gears, dog washers, gear shafts and solenoid plungers with "Lubriplate" (630 AAW) or equivalent.

## SIX-WAY SEAT ADJUSTER MAJOR COMPONENTS—Buick, Oldsmobile and Cadillac 60-40 Seats

The following service procedures cover replacement of the major component parts of the power operated Six-Way seat adjusters used on the 60-40 seats.

## SIX-WAY ADJUSTER MOTOR—Buick, Oldsmobile and Cadillac 60-40 Seats

### Removal and Installation

1. If seat is operable, raise seat assembly to the full "up" position.

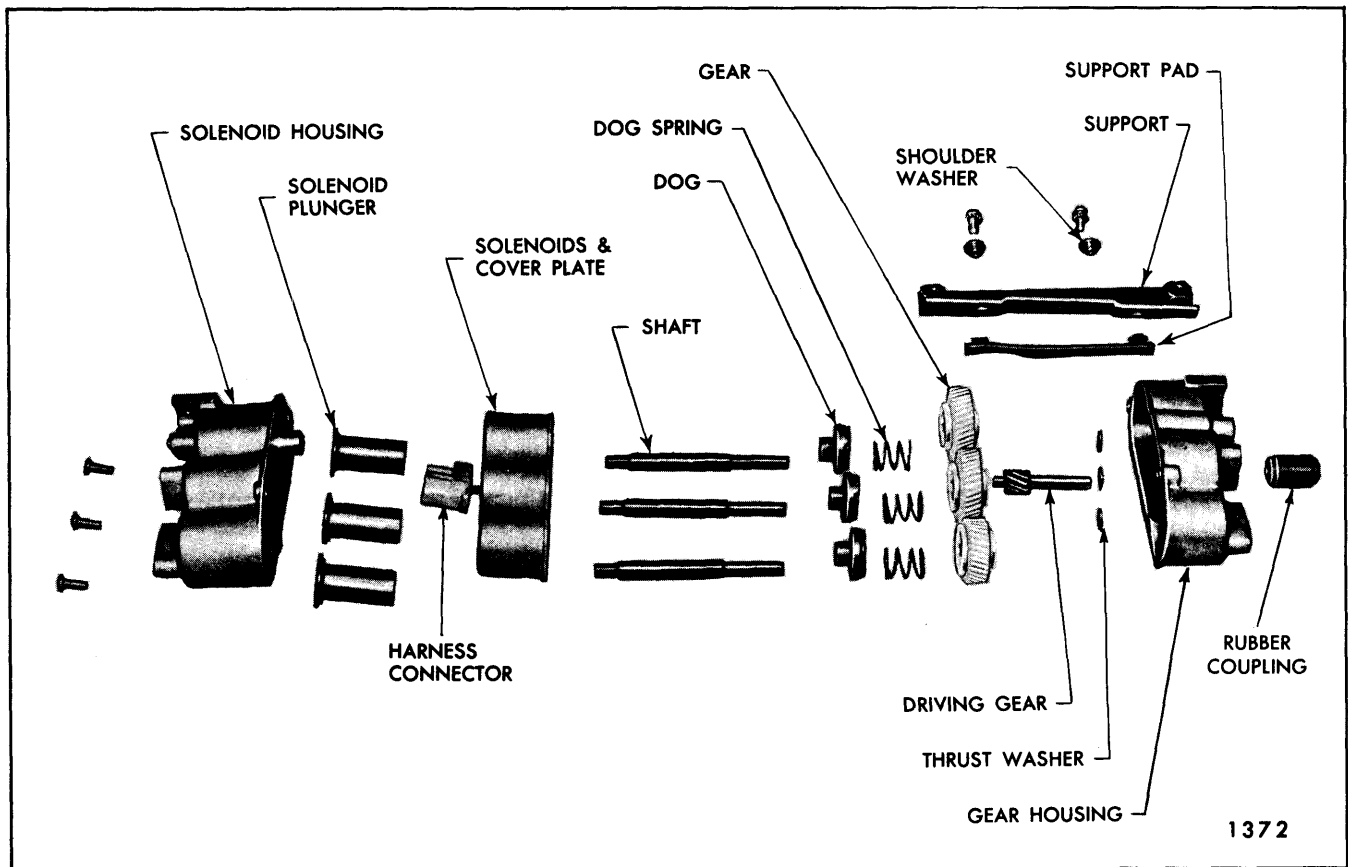


Fig. 15-21—Six-way Seat Adjuster Transmission - "B & C" Full Width Seat

2. Detach motor wire harness connectors from motor relay (Fig. 15-22).
3. From underside of motor and transmission support, remove two motor attaching screws; then, disengage motor from drive coupling and remove motor. If seat is inoperative in "down" position remove motor from under rear of seat.
4. To install, reverse removal procedure. Check operation of seat assembly to limits of horizontal and vertical travel.
3. From under front of seat, remove transmission cable end plate attaching screws (Fig. 15-23 and 15-24); then, slide end plate up cables sufficiently to disengage rear vertical cable from end plate.
4. To install rear vertical cable(s), reverse removal procedure. Check operation of seat assembly to limits of horizontal and vertical travel.

### SIX WAY SEAT ADJUSTER REAR VERTICAL DRIVE CABLE—Buick, Oldsmobile and Cadillac 60-40 Seats.

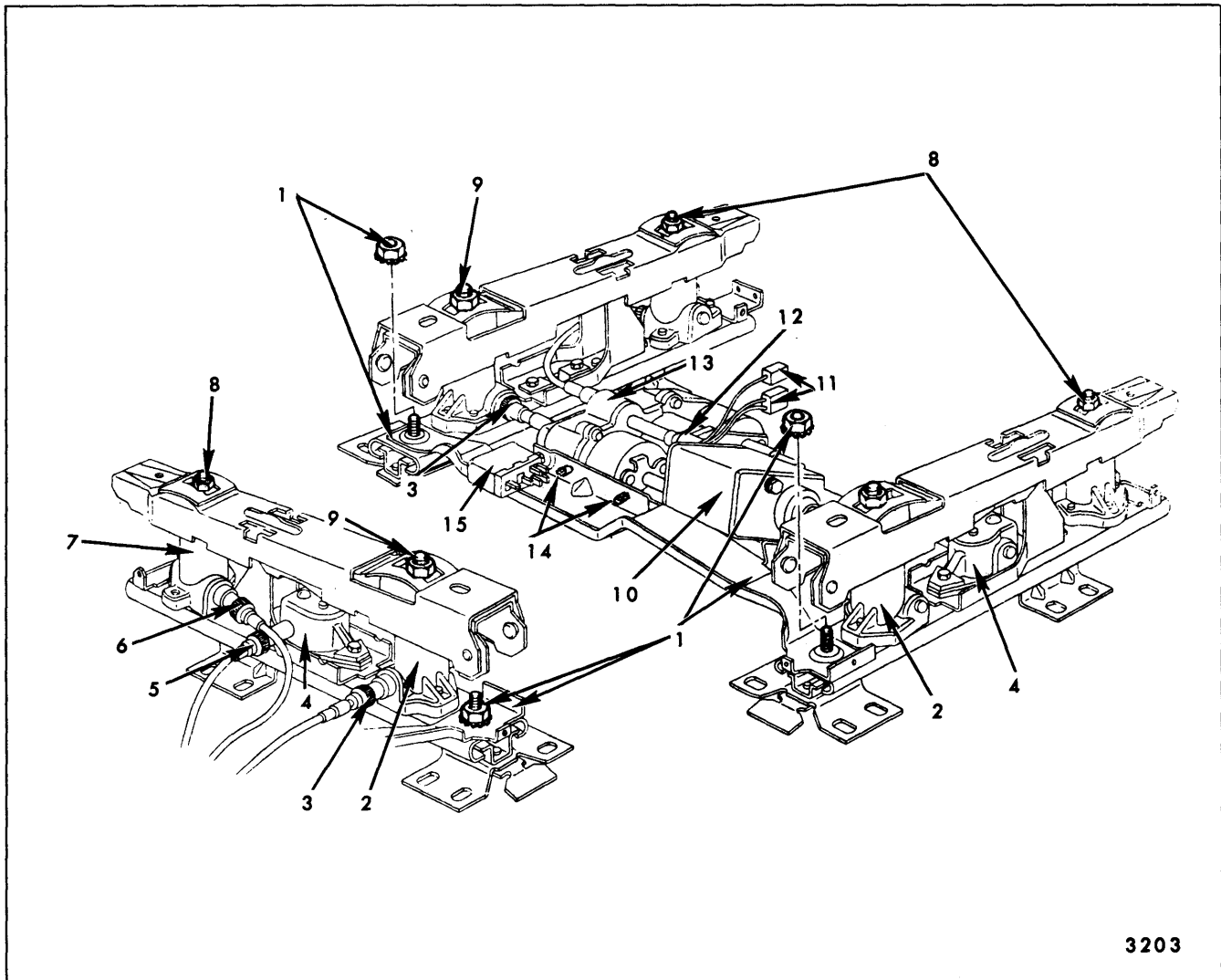
#### Removal and Installation

1. If seat is operable, raise seat assembly to the full "up" position.
2. Detach rear vertical cable from rear vertical gearnut at rear of adjuster.

### SIX-WAY SEAT ADJUSTER ASSEMBLY AND HORIZONTAL OR FRONT VERTICAL DRIVE CABLES—Buick, Oldsmobile and Cadillac 60-40 Seats

#### Removal and Installation

1. Remove seat assembly from body, as described under "Front Seat Assembly - Power Operated Two, Four or Six-Way Full Width and 60-40 Six-Way Seats - Removal and Installation". Place seat assembly upside down on a clean protected surface.
2. Detach drive cables from adjuster being removed (Fig. 15-22).



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Fig. 15-22—Six-Way Seat Adjuster, Motor, Transmission, Cable and Support Assemblies - Buick, Oldsmobile and Cadillac 60-40 Seats

- |                                                             |                                                                   |                                                   |
|-------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------|
| 1. Motor and Transmission Support-to-Adjuster Attaching Nut | 7. Rear Vertical Gearnut                                          | 11. Electric Motor-to-Relay Connectors            |
| 2. Front Vertical Gearnut                                   | 8. Adjuster Upper Channel-to-Front Vertical Gearnut Attaching Nut | 12. Electric Motor-to-Transmission Drive Coupling |
| 3. Front Vertical Drive Cable and Nut                       | 9. Adjuster Upper Channel-to-Front Vertical Gearnut Attaching Nut | 13. Transmission Assembly                         |
| 4. Horizontal Actuator                                      | 10. Electric Motor Assembly                                       | 14. Transmission Assembly Attaching Screws        |
| 5. Horizontal Drive Cable and Nut                           |                                                                   | 15. Motor and Transmission Relay                  |
| 6. Rear Vertical Drive Cable and Nut                        |                                                                   |                                                   |

3. At adjuster being removed, remove nut securing motor and transmission support at front of adjuster (Fig. 15-22). Remove seat adjuster to seat frame front and rear attaching bolts; then, remove adjuster from seat assembly.

4. To remove horizontal and/or front vertical cable(s), remove seat adjuster on side from which cable(s) is being removed. Remove transmission end plate attaching screws (Figs. 15-23 and 15-24); then, slide end plate up

cables sufficiently to disengage cable(s) from end plate.

5. To install seat adjuster assembly or horizontal and/or front vertical drive cable(s) reverse removal procedure. Make sure cables are properly engaged with transmission and adjuster before installing transmission end plate and seat adjuster.

Check operation of seat assembly to limits of horizontal and vertical travel.

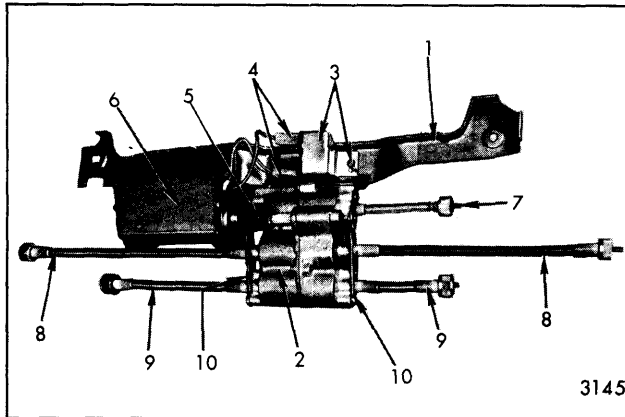


Fig. 15-23—Six-Way Seat Adjuster Motor, Transmission, Cable and Support Assembly

- |                                          |                                        |
|------------------------------------------|----------------------------------------|
| 1. Motor, Transmission and Cable Support | 7. Front Vertical Drive Cable (Orange) |
| 2. Transmission Assembly                 | 8. Rear Vertical Drive Cable (Blue)    |
| 3. Motor Relay and Attaching Screw       | 9. Horizontal Drive Cable (Black)      |
| 4. Motor-to-Relay Connectors             | 10. Transmission Cable End Plate       |
| 5. Motor-to-Transmission Coupling        |                                        |
| 6. Electric Motor                        |                                        |

## SIX-WAY SEAT ADJUSTER TRANSMISSION ASSEMBLY—Buick, Oldsmobile and Cadillac 60-40 Seats

### Removal and Installation

1. Remove seat assembly from car, place upside down on a clean protected surface and remove one seat adjuster assembly, as previously described.
2. At opposite adjuster, detach drive cables from adjuster and remove nut securing motor and transmission support at front of adjuster (Fig. 15-22).
3. Disengage and remove motor and transmission support from adjuster. As a bench operation, remove screws securing transmission assembly to support; then, disengage transmission from motor drive coupling and remove transmission.
4. To install transmission assembly, reverse removal procedure. Check operation of seat assembly to limits of horizontal and vertical travel.

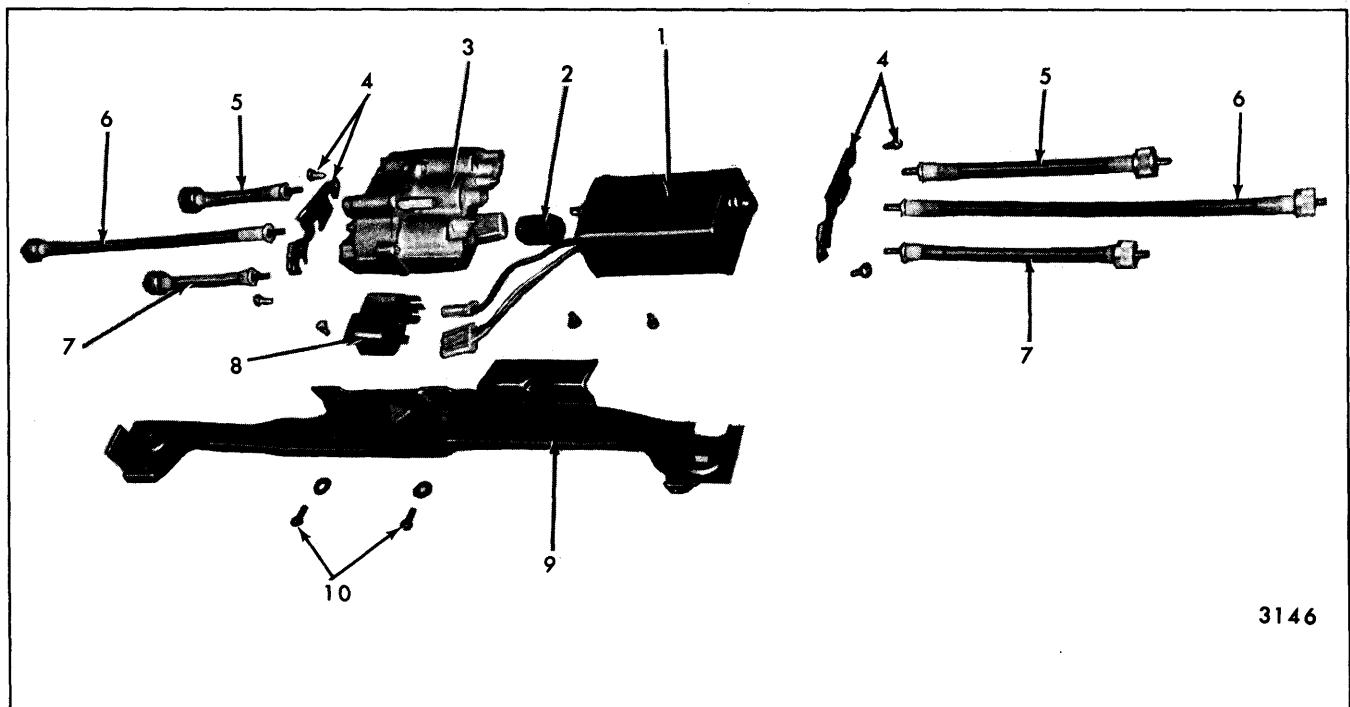


Fig. 15-24—Six-Way Seat Adjuster Motor, Transmission, Cable and Support - Disassembled - Buick, Oldsmobile and Cadillac 60-40 Seats

- |                                   |                                                |                               |                                    |
|-----------------------------------|------------------------------------------------|-------------------------------|------------------------------------|
| 1. Electric Motor                 | 3. Transmission Assembly                       | 5. Front Vertical Drive Cable | 8. Motor Relay and Attaching Screw |
| 2. Motor-to-Transmission Coupling | 4. Transmission End Plate and Attaching Screws | 6. Rear Vertical Drive Cable  | 9. Motor and Transmission Support  |
|                                   |                                                | 7. Horizontal Drive Cable     | 10. Transmission Attaching Screws  |

## SIX-WAY SEAT ADJUSTER TRANSMISSION ASSEMBLY—Buick, Oldsmobile and Cadillac 60-40 Seats

### Disassembly and Assembly

1. Remove seat adjuster transmission assembly, as previously described.
2. Remove screws securing solenoid housing to gear housing; then, carefully separate housings and remove component parts of transmission assembly (Fig. 15-25).
3. To assemble transmission, reverse removal procedure.

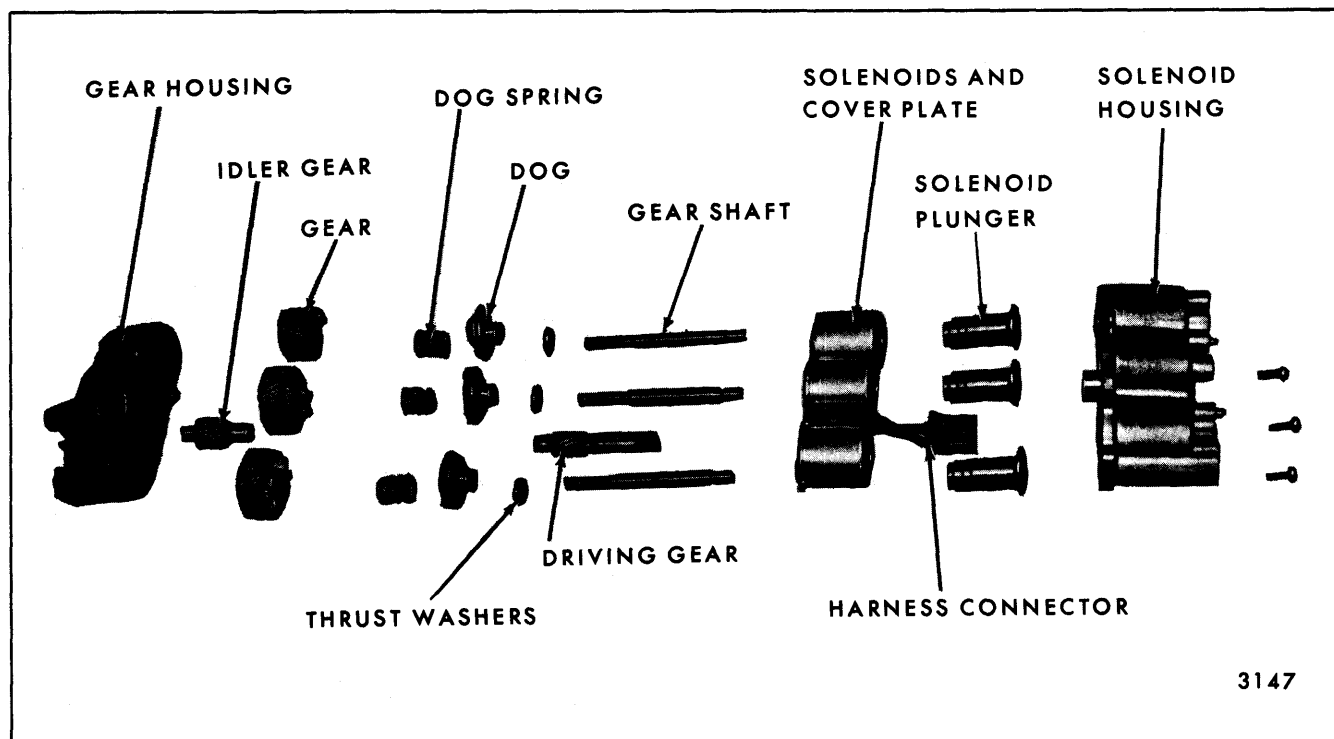


Fig. 15-25—Six-Way Seat Adjuster Transmission - Disassembled - Buick, Oldsmobile and Cadillac 60-40 Seats

**IMPORTANT:** Prior to or during installation, lubricate frictional surfaces of driving gear thrust washer, gears, dog washers, shaft and solenoid plungers with "Lubriplate" (630AAW) or equivalent.

## FRONT SEAT BACK ASSEMBLY— Four Door Style with Standard Full Width Seat

### Removal and Installation

1. Remove front seat assembly from body and place it upside down on a clean protected surface. Remove seat side panels, where present.
2. Remove hog rings securing lower edge of seat back trim to seat cushion springs.
3. On "A-X & Z" body full width front seats, raise lower edge of seat back trim; detach fiberboard breakover foundation and bend out tabs on seat back frame securing seat cushion

springs (Fig. 15-26). Disengage springs from tabs.

4. At each end of seat, remove hog rings securing lower edge of seat back trim to seat bottom frame. Raise or turn back seat back trim to

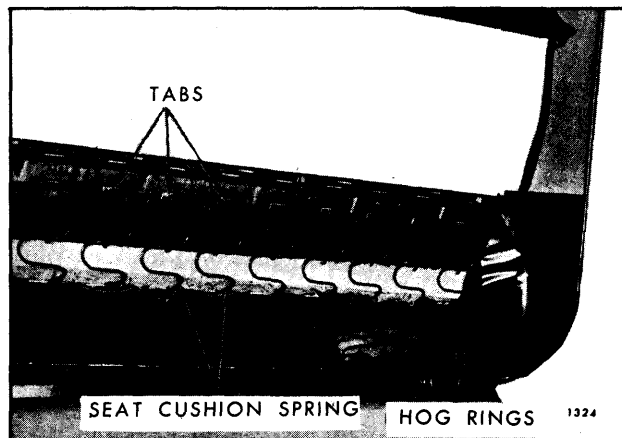


Fig. 15-26—Seat Cushion-to-Back Spring Attachment

expose bolts securing seat back frame to seat cushion frame (Fig. 15-27). Where seat back lighter or courtesy light is present, disconnect wire from seat cushion frame.

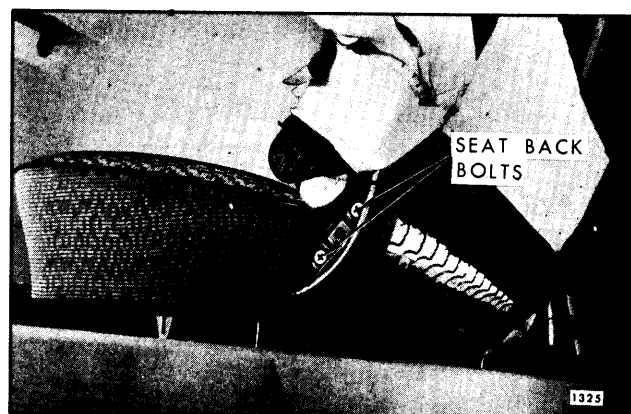


Fig. 15-27—Seat Back Attachment

5. Place seat assembly in upright position. Then with a helper holding seat back assembly, remove seat back attaching bolts on each side of seat and remove seat back assembly.
6. To install seat back assembly, reverse removal procedure.

### SEAT BACK ASSEMBLY—(Right or Left)—Two Door Style with Standard Full Width Seat or Notch Down Seat with Center Arm Rest

#### Removal and Installation

1. a. On seat with seat cushion side panel, remove side panel and detach seat cushion trim sufficiently to expose outer hinge pin and retainer (Fig. 15-28).
  - b. On seats with outer hinge arm cover, remove screw or detach fastener securing cover and remove cover (Fig. 15-28).
2. Using a flat-bladed tool carefully remove retainer, securing seat back outer arm to hinge pin (Fig. 15-28).
3. Carefully disengage seat back outer arm from hinge pin; then, tilt seat back forward and upward to disengage seat back inner arm from hinge pin and remove seat back from body.
4. To install seat back assembly, reverse removal procedure making sure washers are installed over hinge pins prior to installing seat back. If outer retainer is damaged, install new retainer.

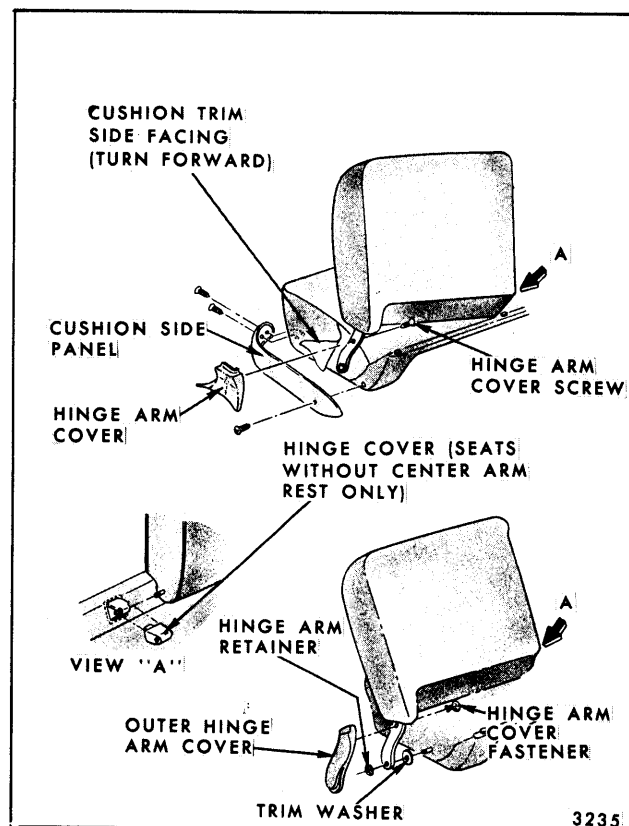


Fig. 15-28—Seat Back Removal - Two-Door Styles

### FRONT SEAT BACK ASSEMBLY—(Right or Left)—“39” Style Full Width Seat and Buick, Oldsmobile or Cadillac 60-40 Seat with Notch Down Center Arm Rest

#### Removal and Installation

1. Remove front seat assembly from body and place upside down on a clean protected surface. Remove seat cushion side panels.
2. Remove hog rings securing lower edge of seat cushion trim bottom facing to seat cushion springs and frame (Fig. 15-29).
3. Remove outer hinge arm cover (Fig. 15-29); then, using a flat bladed tool carefully remove retainer securing seat back outer arm to hinge pin (Fig. 15-29).
4. Turn back seat back trim to expose seat back attaching bolt access holes; then, through access holes remove seat back frame to seat cushion frame attaching bolts (Fig. 15-29).
5. Turn seat assembly right side up. Carefully disengage seat back outer arm from hinge pin;

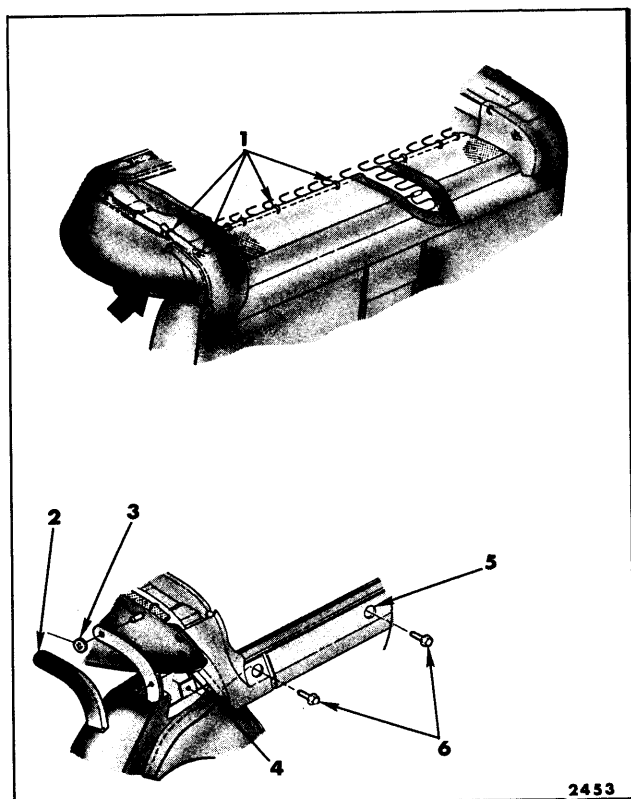


Fig. 15-29—Seat Back Removal (Right or Left) - Full Width Notch Down Seat Back

- |                                                |                                                          |
|------------------------------------------------|----------------------------------------------------------|
| 1. Hog Rings Securing Seat Cushion Trim Bottom | 4. Seat Back Outer Arm Cover Fastener                    |
| 2. Seat Back Outer Arm Cover                   | 5. Seat Back Attaching Bolt Access Hole                  |
| 3. Seat Back Outer Arm Retainer                | 6. Seat Back Frame to Seat Cushion Frame Attaching Bolts |

then, tilt seat back forward and upward to disengage seat back inner arm from hinge pin (Fig. 15-29) and remove seat back from body.

6. To install seat back assembly, reverse removal procedure. If seat back outer arm retainer is damaged, install new retainer.

### FRONT SEAT BACK LOCK—(Right or Left) "A-B-X & Z" Body Two-Door Styles with Standard Full Width Seats

#### Removal and Installation

1. Remove front seat back assembly from front seat assembly, as previously described.
2. Remove front seat back outer side panel and side panel lower support, where present.
3. Remove seat back lock handle knob, lock handle escutcheon and lock handle (Fig. 15-30).

4. Remove hog rings securing seat back front and rear trim facings at bottom of seat back; then, turn up trim sufficiently to gain access to lock attaching bolts (Fig. 15-30).

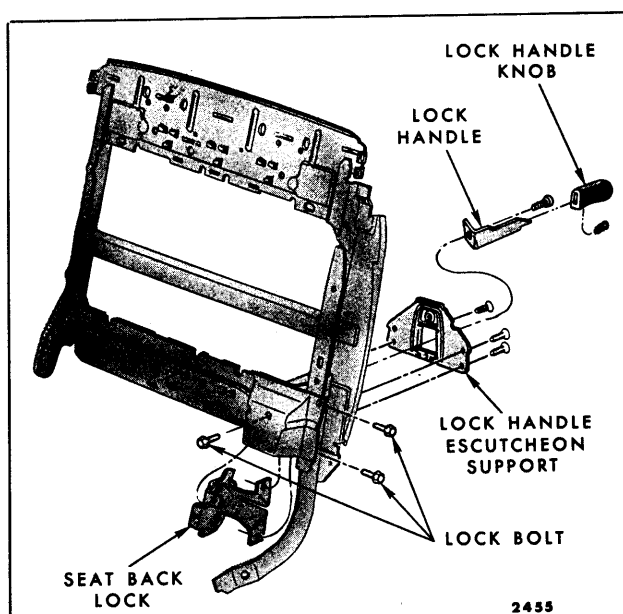


Fig. 15-30—Front Seat Back Lock "A, B & X" Two-Door Styles, Standard Full Width Seat

5. Remove seat back lock attaching bolts (Fig. 15-30); then, remove lock assembly from bottom of seat back.
6. To install, reverse removal procedure. Check for proper operation of seat back lock.

### FRONT SEAT BACK LOCK, LOCK CONTROL AND LOCK ROD—"C & E" Body Two-Door Styles With Standard Full Width or 60-40 Seats

#### Removal and Installation

1. Remove front seat back assembly, as previously described.
2. On styles with full seat back panel, remove seat back lock push button escutcheon and remove lock push button and ferrule; then, remove seat back panel (See View "B", in Fig. 15-31). On styles with seat side panel, remove seat side panel; then, remove lock push button and ferrule (See View "A", in Fig. 15-31).
3. Remove seat back outer panel. Remove hog rings securing seat back panel or seat back trim panel along bottom and sides of seat. If removing lock, turn back seat trim sufficiently



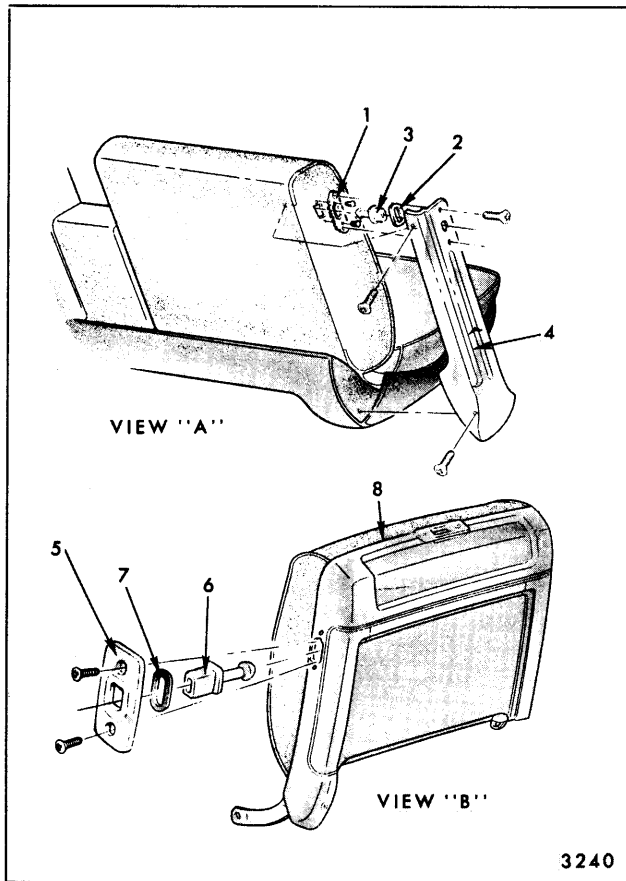


Fig. 15-31—Seat Back Lock Push Button - "C & E"  
Styles with Standard Full Width or 60-40 Seats

View "A" - Typical of Styles with Seat Back Side Panels

- |                  |                |
|------------------|----------------|
| 1. Trim Retainer | 3. Push Button |
| 2. Ferrule       | 4. Side Panel  |

View "B" - Typical of Styles with Seat Back Panel

- |                |                    |
|----------------|--------------------|
| 5. Escutcheon  | 7. Ferrule         |
| 6. Push Button | 8. Seat Back Panel |

to gain access to lock attaching bolts. If removing lock control or rod, turn up trim to gain access to lock control bolts (See Fig. 15-32).

4. a. To remove seat back lock, disengage lock rod clip at lock (Fig. 15-32) and detach rod from lock. Remove lock attaching bolts (Fig. 15-32) and remove lock from bottom of seat back.
- b. To remove seat back lock control, disengage lock rod clip at control (Fig. 15-32) and detach lock rod from control. Remove lock control attaching bolts (Fig. 15-32) and remove lock control from seat back.
- c. To remove lock rod, disengage lock rod clip at lock and at control (Fig. 15-32);

then, detach lock rod from control and lock and remove lock rod from seat back.

5. To install seat back lock, lock control or lock rod, reverse removal procedure. Make certain lock rod and clips are properly engaged and locked at lock lever and lock control lever. Check for proper operation of seat back lock.

## FRONT SEAT BACK PANEL ASSEMBLY— Cadillac Two or Four-Door Styles with Standard Seats

### Removal and Installation

1. On two-door styles with manually operated seat back lock, remove lock push button escutcheon, push button and ferrule (Fig. 15-33).
2. Remove seat back panel attaching screws (Figs. 15-33 and 15-34).
3. Carefully lift panel upward to disengage upper center of panel from hanger bracket (Fig. 15-33 and 15-34).
4. To remove seat back trim, remove hog rings securing trim and foundation to seat back side upper and lower frames (Fig. 15-33 and 15-34).

**NOTE:** On two-door styles with electric seat back lock, remove lock lever knob prior to removing seat back trim and foundation.

5. To install seat back trim and foundation and seat back panel, reverse removal procedure.

## ELECTRIC SEAT BACK LOCK— Cadillac Two-Door Styles with Standard Full Width Seats

Two-door Cadillacs equipped with electric door locks have electric seat back locks which unlock when either door is opened and lock when both doors are closed. Both seat backs can be unlocked manually by raising the lock lever located at the rear, lower outboard portion of the seat back.

## SEAT BACK LOCK AND ELECTRIC ACTUATOR ASSEMBLIES—Cadillac Two-Door Styles with Standard Full Width Seat

### Removal and Installation

1. Remove front seat back panel assembly and seat back trim and foundation, as previously described.

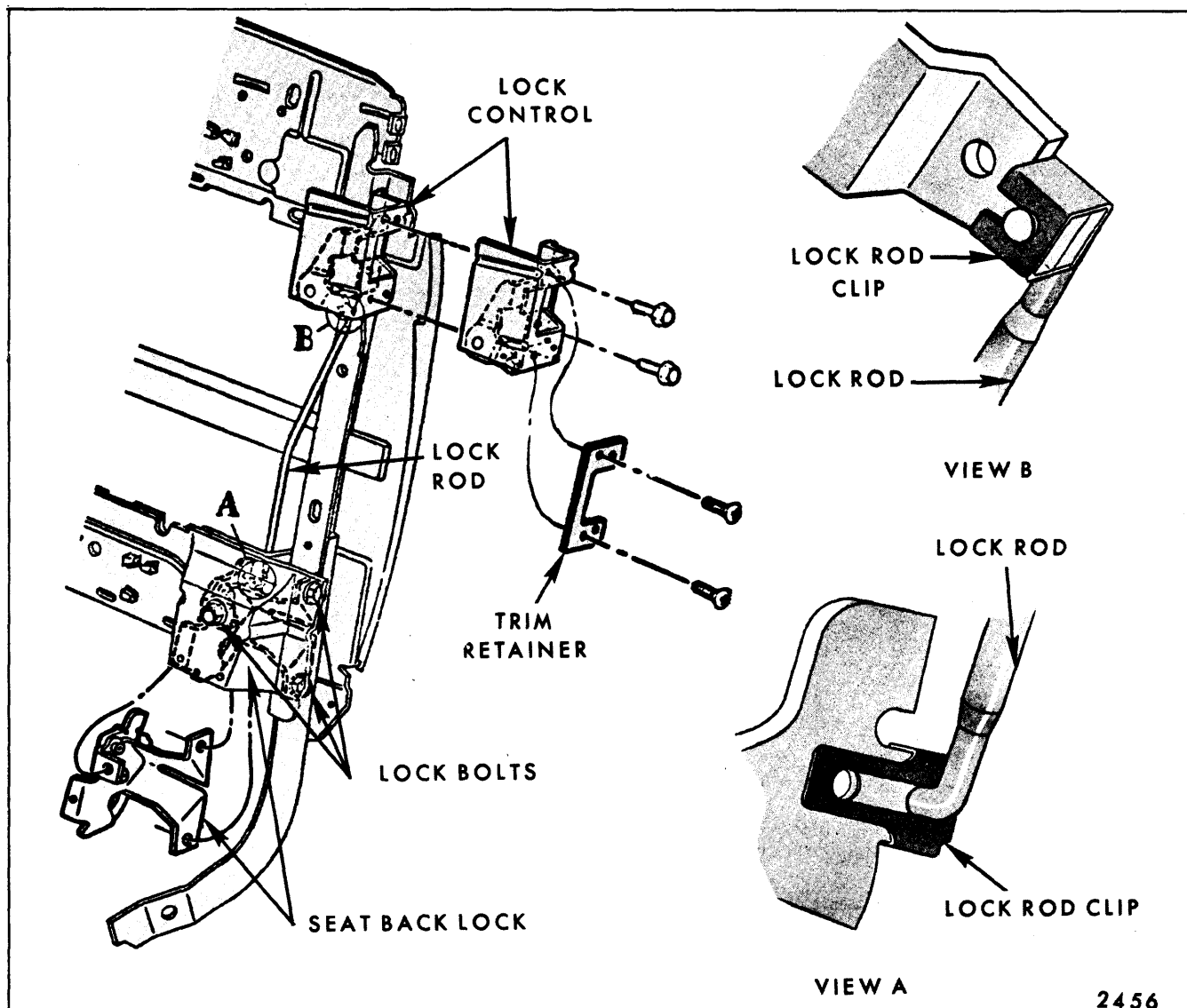


Fig. 15-32—Front Seat Back Lock - "C & E" Styles with Standard Full Width or 60-40 Seats

2. To remove seat back lock disconnect actuator feed wire connector, remove actuator attaching screws and disengage actuator rod at lock (Fig. 15-35).
3. To remove lock assembly, remove electric actuator assembly, as described in Step #2; then, remove lock attaching screws (Fig. 15-35) and remove lock assembly.
4. To install seat back lock or electric actuator, reverse removal procedure.

#### FRONT SEAT BACK HEAD RESTRAINT— Standard Full Width or 60-40 Seat (Drivers or Passengers Side)

Head restraints for the standard full width or

60-40 seat are single post type, which can be adjusted to two positions (low or high) or removed from the seat back by actuating (push forward) the lock lever located at the head restraint post escutcheon and lifting the head restraint out of the seat back.

#### FRONT SEAT BACK HEAD RESTRAINT RETAINER AND LOCK—Standard Full Width Seats, 60-40 Seats and "F" Type Seats

##### Removal and Installation

1. Remove head restraint by actuating (push forward) the lock lever at the post escutcheon and lifting the head restraint out of the seat back.

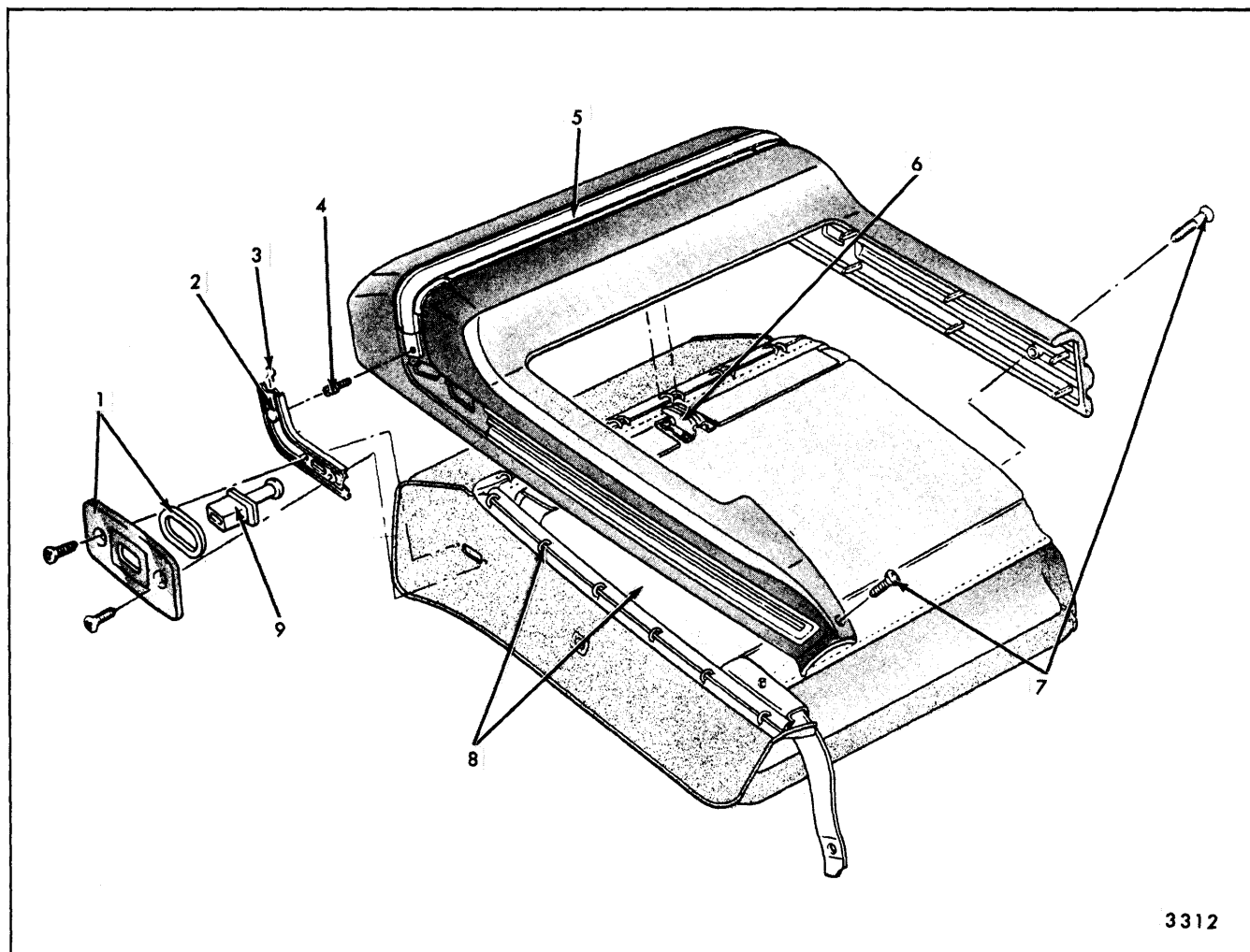


Fig. 15-33—Seat Back Panel and Assist Strap - Cadillac Two-Door Style Standard Seats

1. Push Button Escutcheon and Ferrule
2. Assist Strap Outer Escutcheon
3. Assist Strap Spring
4. Assist Strap Anchor Stud
5. Assist Strap

6. Panel Upper Bracket
7. Seat Back Panel Lower Screws
8. Seat Back Trim and Foundation  
(Hog-rings to Seat Frame)
9. Push Button

2. Remove escutcheon attaching screws and remove escutcheon (Fig. 15-36).
3. Remove retainer and lock attaching screws and remove assembly (Fig. 15-36).
4. To install, reverse removal procedure. Check operation of head restraint.

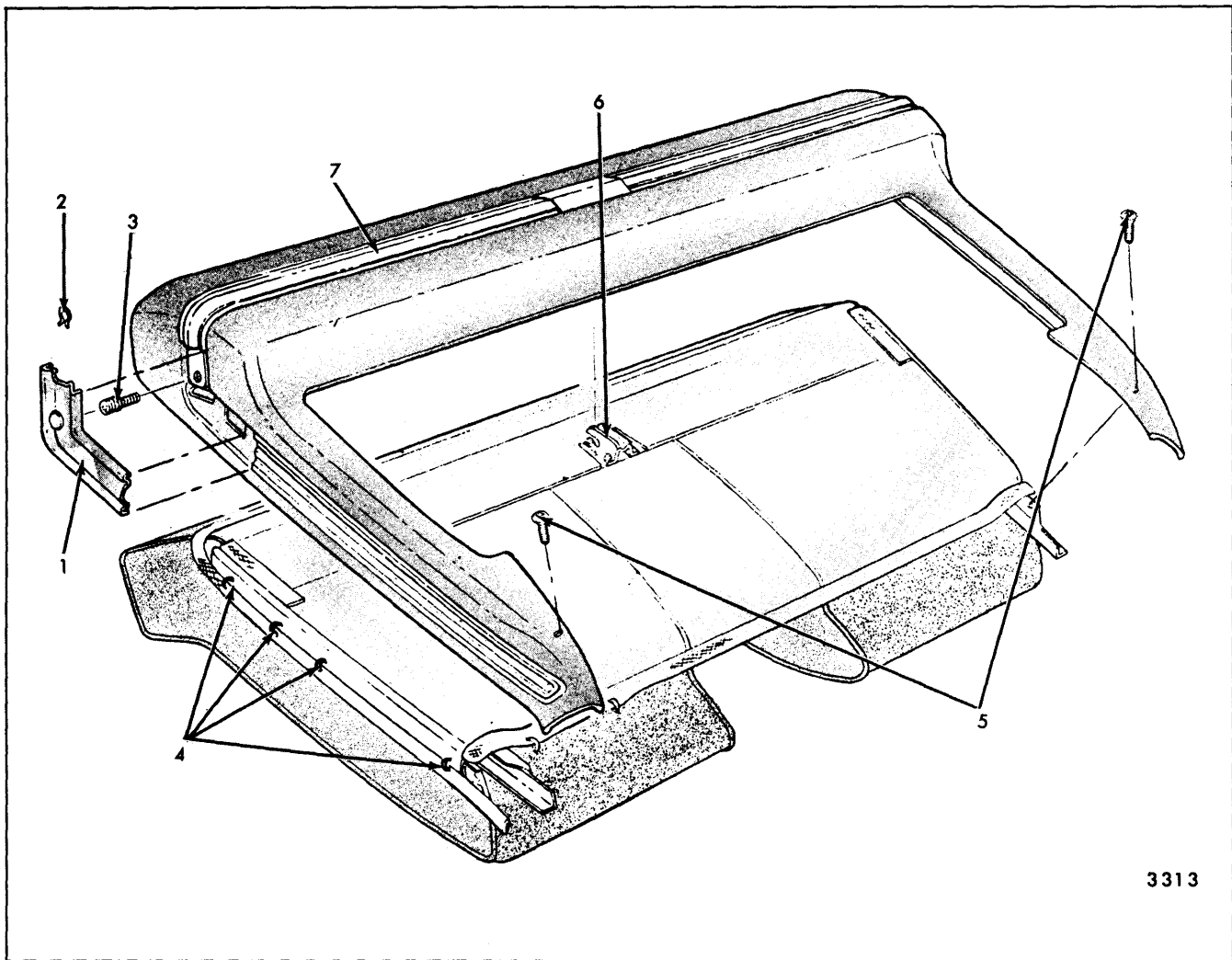
### FRONT SEAT BACK HEAD RESTRAINT GUIDE TUBE, GUIDE TUBE SUPPORT AND GUIDE ROLLER—Standard Full Width Seats, 60-40 Seats and "F" Type Seats

The front seat back head restraint guide tube is a

plastic tube inserted through the guide tube support assembly. The guide tube support assembly, which incorporates a riveted-on roller, is welded to the seat back frame on all styles except Cadillac styles, on which the assembly is attached by screws.

### Removal and Installation

1. Remove front seat back and head restraint retainer and lock as previously described.
2. Remove front seat back trim cover assembly.
3. Remove two screws securing guide tube (Fig. 15-37) and slide guide tube out of support.



3313

Fig. 15-34—Seat Back Panel and Assist Strap - Cadillac Four-Door Style Standard Seats

1. Assist Strap Outer Escutcheon
2. Assist Strap Spring
3. Assist Strap Anchor Stud

4. Seat Back Trim and Foundation  
(Hog-Ringed to Seat Frame)
5. Seat Back Panel Lower Screws

6. Panel Upper Bracket
7. Assist Strap

4. To remove guide tube support assembly, which includes roller on Cadillac styles, remove guide tube support attaching screws (Fig. 15-37) and remove support assembly.
5. To remove roller assembly on styles except Cadillac and "F" body type seats, carefully knock out two rivets securing roller assembly to support (Fig. 15-37) and remove roller assembly.
6. To install roller assembly, guide tube support assembly (Cadillac styles only) or guide tube, reverse removal procedure. Roller assembly may be installed with screws not longer than 3/8".

## FRONT SEAT CENTER ARM REST AND CURTAIN ASSEMBLY—Front Seat with Standard Full Width Seat Back

### Removal and Installation

1. Place center arm rest in down position.
2. At top of arm rest curtain, remove hog rings securing curtain to flange of support plate (Fig. 15-38) and pull curtain forward to expose screws securing arm rest to support linkage.
3. Remove arm rest-to-support linkage screws (Fig. 15-38) and remove arm rest and curtain from seat.
4. To install, reverse removal procedure.

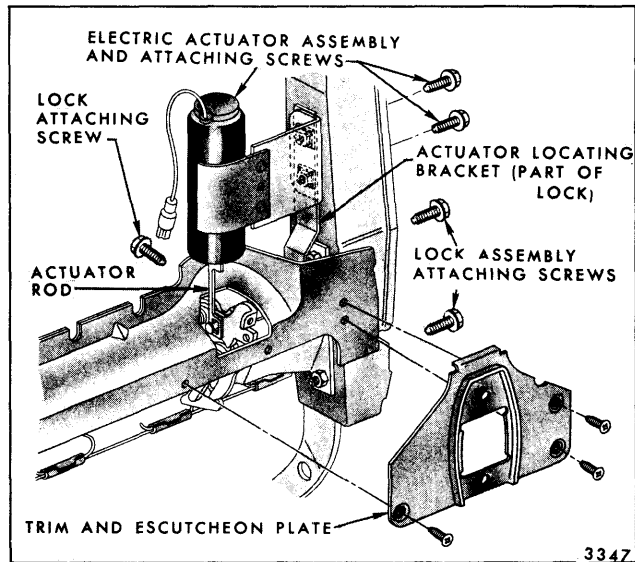


Fig. 15-35—Seat Back Lock and Electric Acuator Assemblies—Cadillac Two-Door Styles with Standard Full Width Seats

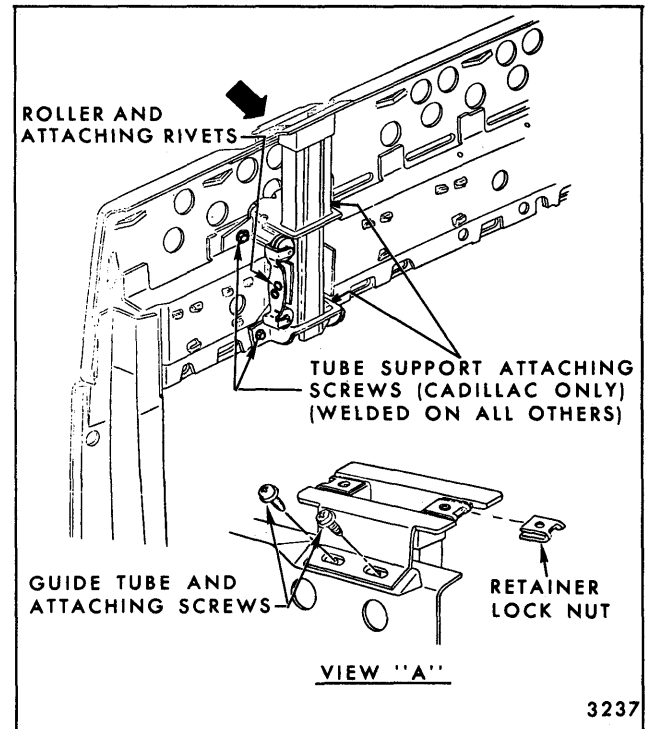


Fig. 15-37—Head Restraint Guide Tube and Roller Typical of All Standard Seats Except Cadillac

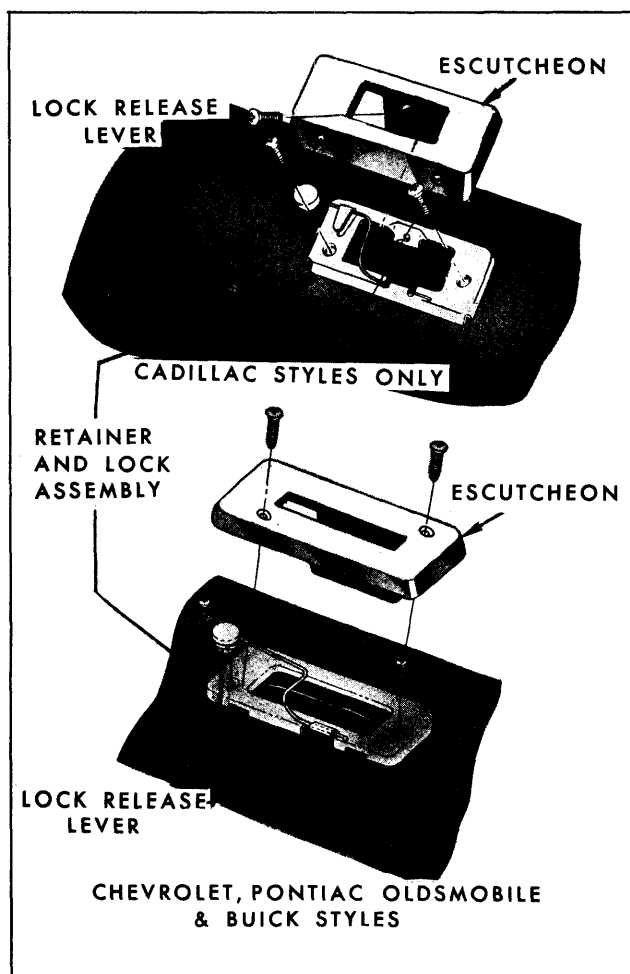


Fig. 15-36—Front Seat Back Head Restraint Retainer, Lock and Escutcheon - Standard Seats

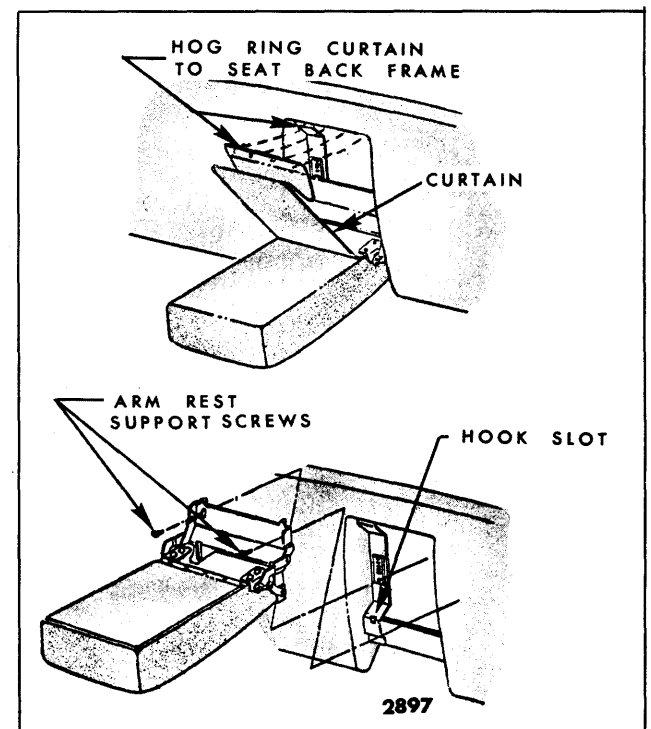


Fig. 15-38—Front Seat Back Center Arm Rest

## ARM REST AND SUPPORT ASSEMBLY— Front Seat with Standard Full Width Seat Back

### Removal and Installation

1. Place center arm rest in down position.
2. At top of arm rest curtain, remove hog rings securing curtain to flange of support plate (Fig. 15-38).
3. Remove two screws securing arm rest to supports on seat back (Fig. 15-38); then, carefully lift arm rest and linkage upward to disengage hooks of arm rest from slots in supports and remove assembly from seat.
4. To install, reverse removal procedure. Prior to installing curtain screws check alignment and operation of arm rest.

## FRONT SEAT CENTER ARM REST AND CURTAIN ASSEMBLY—Front Seat with Notch Down Seat Back and Strato Front Seat

### Removal and Installation

1. Lower arm rest to within approximately 2 inches of full down position.
2. Carefully pull curtain back sufficiently to remove screws securing center arm rest to linkage and loosen outer screws securing curtain lower retainer to arm rest (Fig. 15-39).

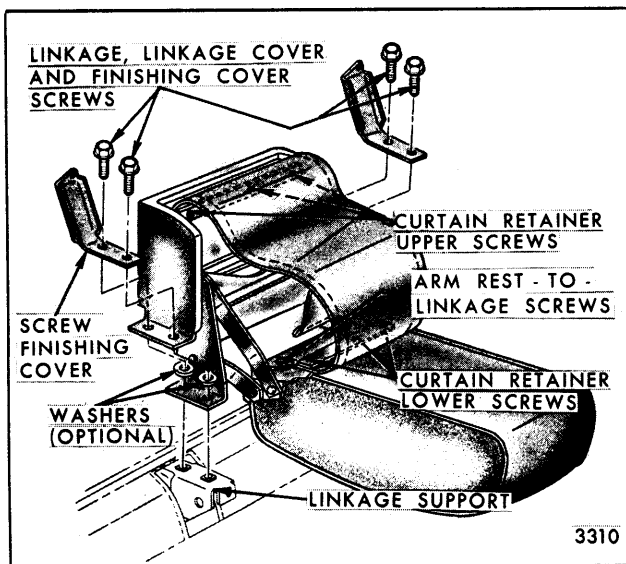


Fig. 15-39—Front Seat Center Arm Rest (Full Width Seat with Notch Down Seat Back)

3. Disengage arm rest from support linkage and turn arm rest upside down on trim panel finishing cover. Remove arm rest curtain upper retainer screws (Fig. 15-39); then, remove arm rest and curtain from seat.

4. To install, reverse removal procedure.

## FRONT SEAT CENTER ARM REST ASSEMBLY—Front Seat with Notch Down Seat Back and Strato Front Seat

### Removal and Installation

1. Place arm rest in up position.
2. Working between arm rest and seat back, remove fastener at both sides of arm rest securing front end of screw finishing covers (Fig. 15-39).
3. On two-door styles, push one seat back to full forward position. Carefully pull up front of screw finishing cover sufficiently to expose arm rest linkage and linkage cover attaching screws; then, remove screws (Fig. 15-39). Repeat this operation on opposite side of arm rest; then, carefully remove arm rest linkage cover and linkage assembly from seat.

**NOTE:** If washers are present between arm rest linkage and linkage supports on seat (Fig. 15-39), note location and number of washers used to facilitate installation in same position. Washer(s) are used to align arm rest to front seat back(s).

4. To install, reverse removal procedure. Prior to bending down screw finishing covers, check alignment and operation of arm rest. Where necessary to align arm rest with seat back(s) install washer(s), as required, between arm rest support and support on seat (Fig. 15-39).

## FOOT REST ASSEMBLY— Cadillac 68169 Styles

The folding foot rest assemblies shown in Figure 15-40, are secured to the seat back by hinges. To remove foot rest assembly, remove hinge-to-seat back attaching screws from both sides of foot rest (Fig. 15-40) and remove foot rest assembly from seat back. To remove trimmed foot rest board remove hinge-to-board attaching screws (Fig. 15-40) and remove hinges from foot rest board. To install, reverse removal procedure. When installing foot rest hinge-to-seat back attaching screws, install machine thread screws in upper attaching hole at each hinge.

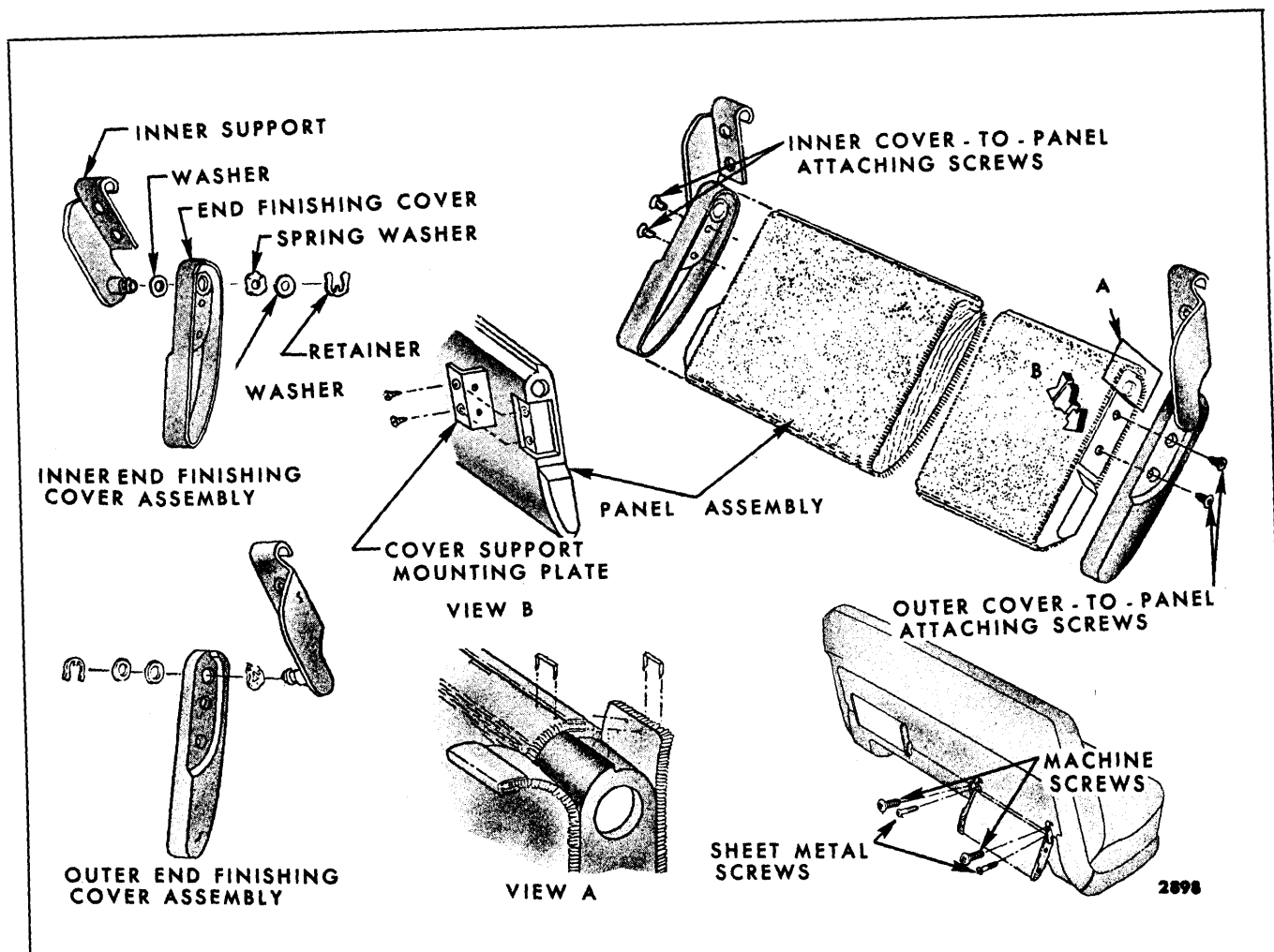


Fig. 15-40—Foot Rest Assembly - Cadillac 68169 Styles

## STRATO FRONT SEATS

### STRATO FULL-WIDTH, STRATO BUCKET AND STANDARD BUCKET SEATS

#### Description

Strato seats are available on Chevrolet "A, B & X", Pontiac, Oldsmobile, Buick and Cadillac styles. Chevrolet "F & Z" and Pontiac "F" body styles have a standard bucket seat. All two-door style strato full-width or bucket seats and standard bucket seats incorporate seat back locks on both the driver's and passenger's seat back. On Chevrolet "F & Z" standard bucket seats the seat back lock is actuated by a control lever located at the lower outboard corner on the rear of the front seat back. On the standard strato seats (two-door styles) the seat back lock is actuated by a control button located at the rear upper center of the seat back, except on styles equipped with passenger reclining

seat back. On styles with passenger reclining seat back, the seat back lock control button is located at the upper outer side of the seat back.

Head restraints for the strato full-width or bucket seats are a dual post type, which can be adjusted to two positions (low or high) or removed from the seat back by actuating (push forward) the lock levers located at the head restraint post excutcheons and lifting the head restraint from the seat back.

On Pontiac, Oldsmobile, Buick and Cadillac "E" styles, a reclining seat back is available on the passengers side. The reclining seat back is operated by a control lever located at the right side of the seat cushion. When the control lever is pulled upward the seat back can be reclined to any desired position within approximately 30° from normal position.

## STRATO FULL-WIDTH FRONT SEAT ASSEMBLY

### Removal and Installation

The removal and installation procedures for the strato full width seat assembly, seat adjuster and seat adjuster components are the same as for the standard full width front seat assembly - Refer to the appropriate section under "Front Seat Assembly - Full Width".

## MANUALLY OPERATED BUCKET SEAT ASSEMBLY

### Removal and Installation

1. Operate seat to full rearward position.
2. Turn back floor carpeting sufficiently to expose seat adjuster-to-floor pan attaching nuts or bolts (Fig. 15-41 and 15-42).

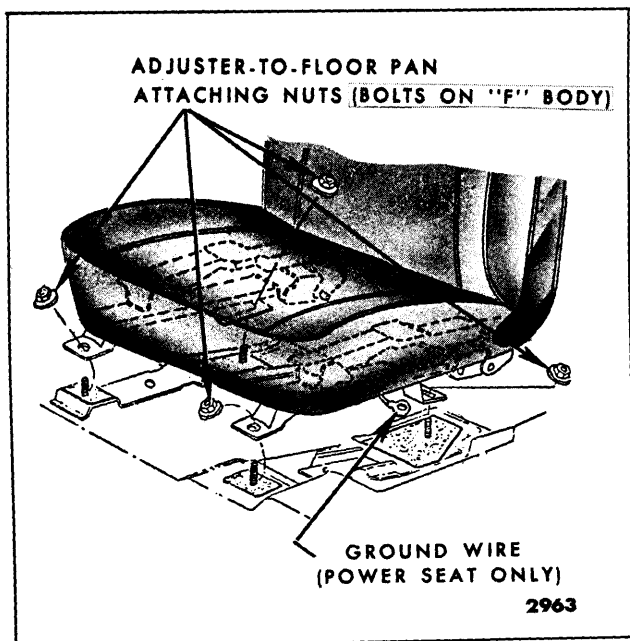


Fig. 15-41—Bucket Seat Floor Pan Attachment - "A, F, X & Z" Styles—Bucket Seat

NOTE: For Seat Positioning, Spacer Usage and Torque Specifications, see charts at beginning of Seat Section.

3. Operate seat to full rearward position. Remove adjuster-to-floor pan front attaching bolts or nuts (Figs. 15-41 and 15-42). Operate seat to full forward position. Remove adjuster-to-floor pan rear attaching bolts or nuts and remove seat assembly from body.
4. To install, reverse removal procedure. Check

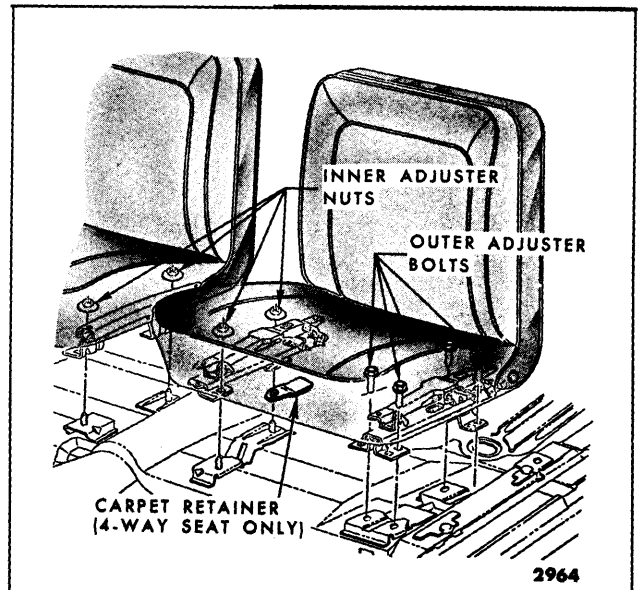


Fig. 15-42—Bucket Seat Floor Pan Attachment - "B, C & E" Styles - Bucket Seats

NOTE: For seat positioning, spacer usage and torque specifications, see charts at beginning of Seat Section.

operation of seat adjusters to full limits of travel.

## POWER OPERATED HORIZONTAL OR FOUR-WAY BUCKET SEAT ASSEMBLY

The two-way and four-way (tilt) seat adjusters are actuated by a 12 volt, reversible shunt wound motor with a built-in circuit breaker.

The four-way seat adjuster operating mechanism incorporates a transmission assembly which includes two solenoids and two drive cables leading to the seat adjusters. One solenoid controls the vertical movement of the seat while the other solenoid controls the horizontal movement of the seat. When the control switch is actuated, the motor drives the transmission by means of a belt and one of the transmission solenoids is energized simultaneously. The solenoid plunger then engages with the drive cables and operates both adjusters. When the adjusters reach their limit of travel, the drive cables stop their rotating action and torque is absorbed by the rubber belt connecting the motor and transmission. When the switch contacts are opened, a return spring returns the solenoid plunger to its original position disengaging it from the driver gear dog.

### Removal and Installation

1. Operate seat to full forward position. On four-way power seats operate seat to full up position. Remove seat cushion side panels, where



present. Where seat adjuster track covers are present, carefully pry out track cover snap-on retainers with a flat-bladed tool and remove track covers.

2. Where necessary, remove sill plates and turn back floor carpeting to expose seat adjuster-to-floor pan attaching nuts and bolts.
3. Remove seat adjuster-to-floor pan rear attaching bolts (Figs. 15-41 and 15-42).
4. Operate seat to full rearward position. Remove seat adjuster-to-floor pan front attaching bolts (Figs. 15-41 and 15-42). Tilt seat rearward sufficiently to disconnect seat harness feed connector and detach harness from clip on floor pan; then, remove seat assembly from body.
5. To install, reverse removal procedure. Make sure ground wire is secured under adjuster inboard rear attaching nut or bolt. Check operation of seat adjusters to full limits of travel. On "A" Body Styles make sure floor carpet is properly positioned around rear supports of adjuster prior to installing carpet retainer on adjuster stud and adjuster rear attaching nuts.

## MANUALLY OPERATED BUCKET SEAT ADJUSTER

### Removal and Installation

1. Remove bucket seat assembly, as previously described, and place seat upside down on a protected surface.
2. If replacing inboard adjuster, remove assist spring (Fig. 15-43).
3. Operate adjuster so that both front and rear adjuster-to-seat frame attaching bolts (Fig. 15-43) are accessible; then, remove attaching bolts and remove adjuster from seat assembly.
4. To install, reverse removal procedure. If left adjuster is being replaced, install new adjuster control knob. Refer to "Manually Operated Seat Adjuster Control Arm Knob".

## POWER OPERATED HORIZONTAL BUCKET SEAT ADJUSTER

### Removal and Installation

1. Operate seat to a midway horizontal position. Remove bucket seat assembly, as previously described, and place seat upside down on a clean protected surface.

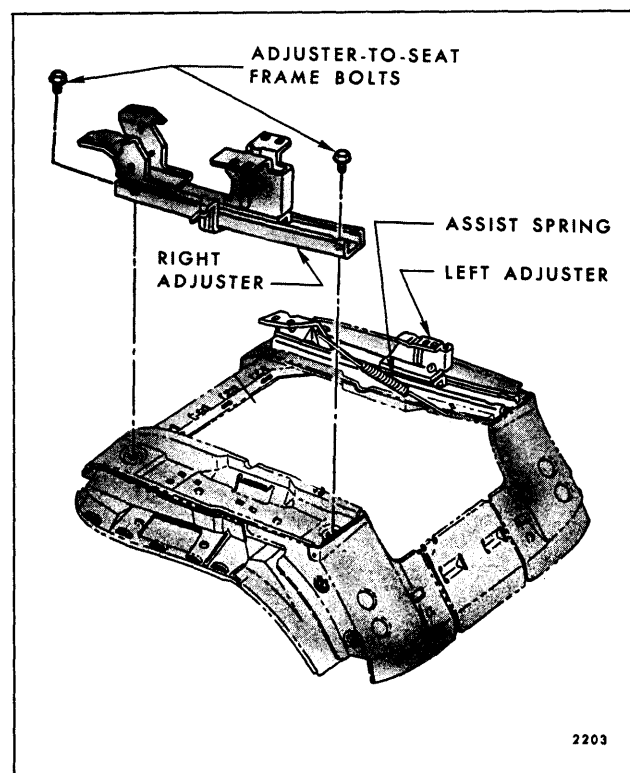


Fig. 15-43—Manual Bucket Seat Adjuster Removal

NOTE: For seat positioning on floor pan, spacer usage and torque specifications, see charts at beginning of Seat Section.

2. Disconnect power drive cable from adjuster gearnut (Fig. 15-44).
3. Remove adjuster-to-seat bottom frame front and rear attaching bolts (Fig. 15-44) and remove adjuster from seat assembly.
4. To install, reverse removal procedure. Where spacers were installed between seat adjuster and floor pan or seat adjuster and seat frame make certain spacers are reinstalled. Check for proper operation of seat to full limits of travel.

## POWER OPERATED FOUR-WAY BUCKET SEAT ADJUSTER

### Removal and Installation

1. Operate seat assembly to fully raised and midway horizontal positions.
2. Remove front seat assembly from body with attached adjusters, motor and transmission, as previously described, and place upside down on a clean protected surface.

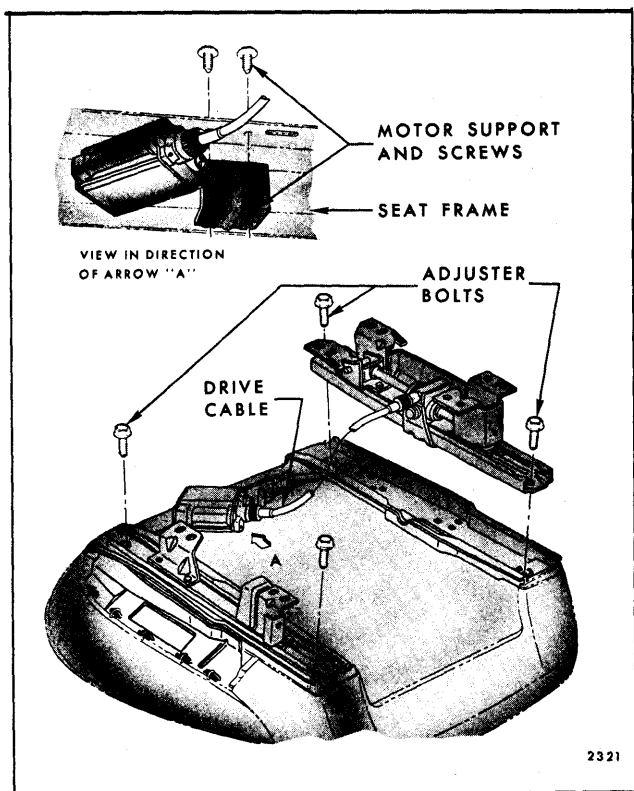


Fig. 15-44—Power Horizontal Bucket Seat Adjuster Removal

NOTE: For seat positioning on floor pan, spacer usage and torque specifications, see charts at beginning of Seat Section.

3. If outboard adjuster is being removed, disconnect both, horizontal and vertical, drive cables from vertical gearnut and horizontal actuator (Fig. 15-45).
4. Remove nuts securing motor and transmission support to adjuster being removed (Fig. 15-46).
5. Remove adjuster-to-seat bottom frame front and rear attaching bolts securing adjuster to be removed (Fig. 15-45).
6. Carefully disengage adjuster from support, and torque tube; then, remove adjuster from seat.
7. To install power operated four-way bucket seat adjuster assembly, reverse removal procedure. Check for proper operation of seat adjusters to limits of travel.

### POWER OPERATED FOUR-WAY BUCKET SEAT ADJUSTER MAJOR COMPONENTS

The following service procedures cover replacement of the major component parts of the power operated four-way seat adjuster used on bucket seats.

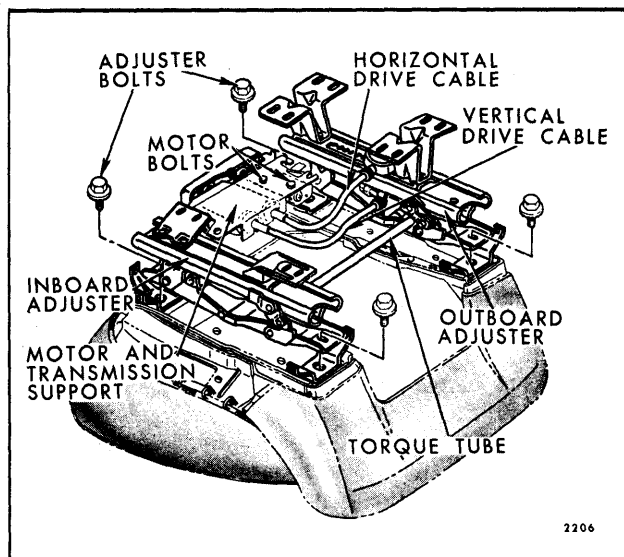


Fig. 15-45—Four-Way Bucket Seat Assembly

NOTE: For seat positioning on floor pan, spacer usage and torque specifications, see charts at beginning of Seat Section.

### MOTOR AND TRANSMISSION DRIVE BELT AND PULLEYS

#### Removal and Installation

1. At front of seat remove motor and transmission drive belt cover attaching screws (Fig. 15-46) and remove cover.
2. Remove drive belt (Fig. 15-46) from both motor and transmission drive pulleys. Pulleys may be removed from either motor or transmission by pulling pulleys off their respective shafts.
3. To install drive belt, reverse removal procedure. Check for proper operation of seats to full limits of travel.

### MOTOR ASSEMBLY

#### Removal and Installation

1. If motor can be operated, operate seat assembly to full "up" position. Disconnect wire harness connector from motor relay.
2. Remove motor-to-transmission drive belt cover and drive belt, as previously described.
3. From under motor and transmission support remove two cap screws securing motor to motor-and-transmission support and remove motor assembly from under seat.

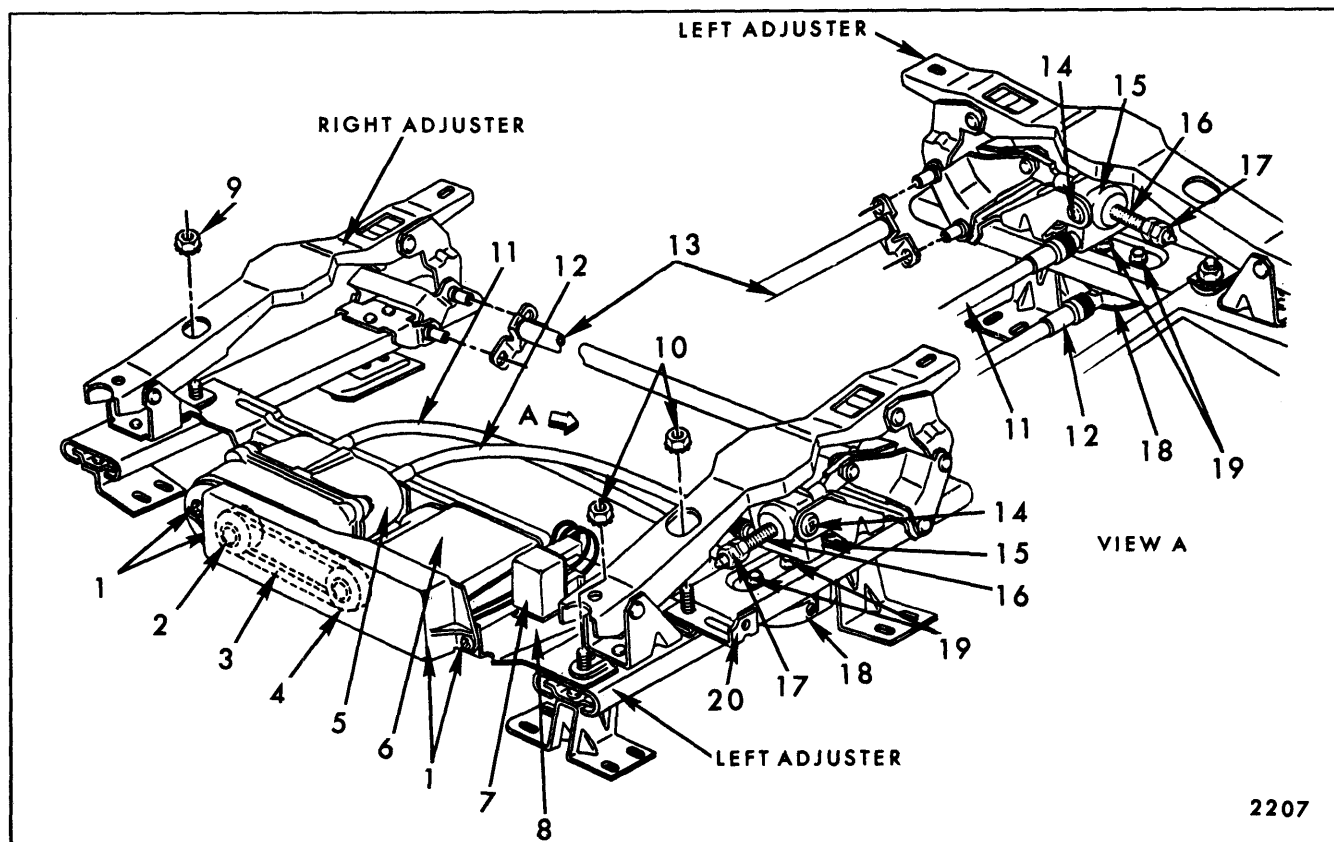


Fig. 15-46—Four-Way Bucket Seat Adjusters

- |                                                                 |                                                                   |                                                   |
|-----------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------|
| 1. Motor and Transmission Drive Belt Cover and Attaching Screws | 9. Motor and Transmission Support-to-Right Adjuster Attaching Nut | 15. Adjuster Vertical Gearnut Assembly            |
| 2. Transmission Drive Pulley                                    | 10. Motor and Transmission Support-to-Left Adjuster Attaching Nut | 16. Adjuster Vertical Jackscrew                   |
| 3. Transmission and Motor Drive Belt                            | 11. Adjuster Horizontal Drive Cable                               | 17. Adjuster Vertical Jackscrew Stop Nuts         |
| 4. Motor Drive Pulley                                           | 12. Adjuster Vertical Drive Cable                                 | 18. Adjuster Horizontal Actuator Assembly         |
| 5. Transmission Assembly                                        | 13. Adjuster Torque Tube                                          | 19. Adjuster Horizontal Actuator Attaching Screws |
| 6. Electric Motor Assembly                                      | 14. Adjuster Vertical Gearnut Shoulder Screw                      | 20. Seat Side Panel Support                       |
| 7. Electric Motor Relay                                         |                                                                   |                                                   |
| 8. Motor and Transmission Support                               |                                                                   |                                                   |

- To install, reverse removal procedure. Check for proper operation of seat to full limits of travel.

## TRANSMISSION ASSEMBLY AND HORIZONTAL AND VERTICAL DRIVE CABLES

### Removal and Installation

- Remove front seat assembly from body with attached adjusters, motor and transmission, as previously described, and place upside down on a protected surface.
- Disconnect wire harness connector from transmission.

- Remove motor and transmission drive belt cover and remove drive belt (Fig. 15-46).
- Remove two screws securing transmission assembly to motor and transmission support; then, move transmission forward to disengage from drive cables and remove transmission from seat.

**NOTE:** To remove horizontal or vertical drive cables, detach drive cable from adjuster and remove cable.

### Disassembly and Assembly of Transmission

- Remove front seat adjuster transmission from seat assembly.

2. Remove screws securing rear and solenoid housings together; then, carefully separate housings and remove component parts of transmission assembly.
3. To assemble transmission, reverse removal procedure.

**IMPORTANT:** Prior to or during installation, lubricate frictional surfaces of driving gear thrust washer, gears, dog washers, shaft and solenoid plungers with "Lubriplate" (630AAW) or equivalent.

4. To install transmission assembly, reverse removal procedure. Make certain drive cables are properly engaged in transmission and properly retained in cut out notches of motor and transmission support prior to installing transmission attaching screws.
5. Check for proper operation of seat to full limits of travel.

## ADJUSTER VERTICAL GEARNUT

### Removal and Installation

1. Operate seat assembly to full raised and mid-way horizontal position.
2. Remove front seat assembly from body and place upside down on a clean protected surface.
3. Using a clutch type screwdriver or other suitable tool, remove shoulder screws securing linkage to vertical gearnut (Fig. 15-46).
4. Remove jackscrew "down" stop from jackscrew (Fig. 15-46).
5. Using a portable power source to energize the motor, actuate vertical gearnut until gearnut is disengaged from jackscrew.

**NOTE:** It may be necessary to manually raise or lower upper rear portion of adjuster to gain clearance for removal of gearnut.

6. Disconnect drive cable from gearnut.
7. To install, reverse removal procedure. Check seat adjusters for proper operation.

## ADJUSTER JACKSCREW

### Removal and Installation

1. Remove adjuster gearnut as previously described.

2. Remove seat adjuster-to-seat bottom frame front and rear attaching bolts.

3. As a bench operation, remove jackscrew-to-adjuster linkage attaching rivet and remove jackscrew from adjuster assembly (Fig. 15-46).

**NOTE:** It may be necessary to manually raise or lower upper rear portion of adjuster to gain access to jackscrew attaching rivet.

4. To install, reverse removal procedure. Use new rivet to attach jackscrew-to-adjuster linkage. Check seat adjusters for proper operation.

## ADJUSTER HORIZONTAL ACTUATOR ASSEMBLY

### Removal and Installation

1. Remove front seat assembly from body as previously described and place upside down on a clean protected surface.
2. Using a clutch type screwdriver or other suitable tool, remove shoulder screws securing linkage to vertical gearnut (Fig. 15-46).
3. Using a portable power source, actuate vertical gearnut until gearnut is against "down" stop on jackscrew assembly.
4. Disconnect drive cable from horizontal actuator assembly.
5. Remove screws securing horizontal actuator assembly to adjuster lower track; then, remove actuator from adjuster assembly (Fig. 15-46).
6. To install, reverse removal procedure.

**NOTE:** When installing horizontal actuator, adjust actuator so that drive gear is fully engaged with teeth on lower channel. When horizontal actuator attaching screws are tightened, there should be no free motion between upper and lower channels. Re-adjust actuator "as required" until all free motion between channels has been removed. Check seat adjusters for proper operation.

## TORQUE TUBE ASSEMBLY

### Removal and Installation

1. Remove inboard seat adjuster assembly, as previously described.
2. Disengage torque tube from outboard adjuster

(Fig. 15-45 and 15-46) and remove torque tube assembly.

3. To install torque tube assembly, reverse removal procedure. Check for proper operation of seat to full limits of travel.

### PASSENGER'S FRONT BUCKET SEAT BACK STOP CABLE—Chevrolet "F & Z" Styles with Bucket Seats

#### Removal and Installation

1. Using a flat-bladed tool inserted between passenger's seat back inner hinge arm cover and hinge arm, carefully disengage upper portion of cover from fastener and remove cover from inner hinge arm (Fig. 15-47).

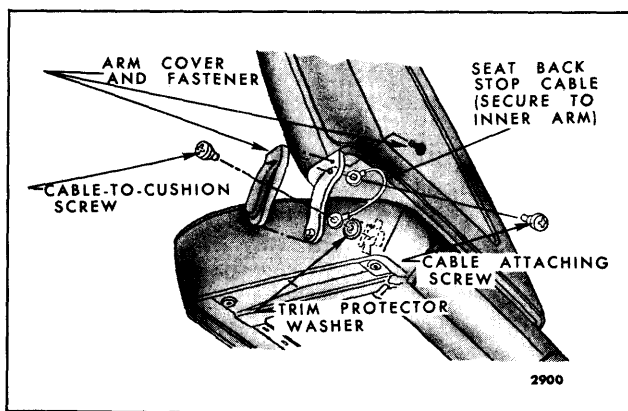


Fig. 15-47—Bucket Seat Back Stop Cable—"F & Z" Styles

2. At inner side of passenger's bucket seat cushion, remove screw securing seat back stop cable and trim protector washer to seat cushion frame (Fig. 15-47).
3. Remove bolt securing seat back stop cable to seat back inner hinge arm (Fig. 15-47) and remove cable from seat.
4. To install seat back stop cable, reverse removal procedure.

### FRONT BUCKET SEAT BACK ASSEMBLY (Right or Left)—Standard Bucket Seat—"F & Z" Styles

#### Removal and Installation

1. Remove front seat assembly as previously described.
2. Using a flat-bladed tool inserted between seat back hinge arm and hinge arm cover, carefully disengage upper portion of cover from fastener

and remove cover from both inner and outer hinge arms (See Fig. 15-47). If removing passenger's seat back on Chevrolet "F & Z" styles, remove screw securing seat back stop cable and trim protector washer to seat cushion frame (Fig. 15-47).

3. Carefully disengage and remove retainer securing both inner and outer hinge arms to seat cushion hinge pins (Fig. 15-47).
4. Pull seat back hinge arms outward sufficiently to disengage hinge arm from hinge pin and remove seat back from seat cushion.
5. To install, reverse removal procedure.

### FRONT SEAT BACK LOCK (Right or Left)—"F & Z" Body Standard Bucket Seats

#### Removal and Installation

1. Remove front seat back assembly, as previously described.
2. Remove seat back lock handle knob (See Fig. 15-48).

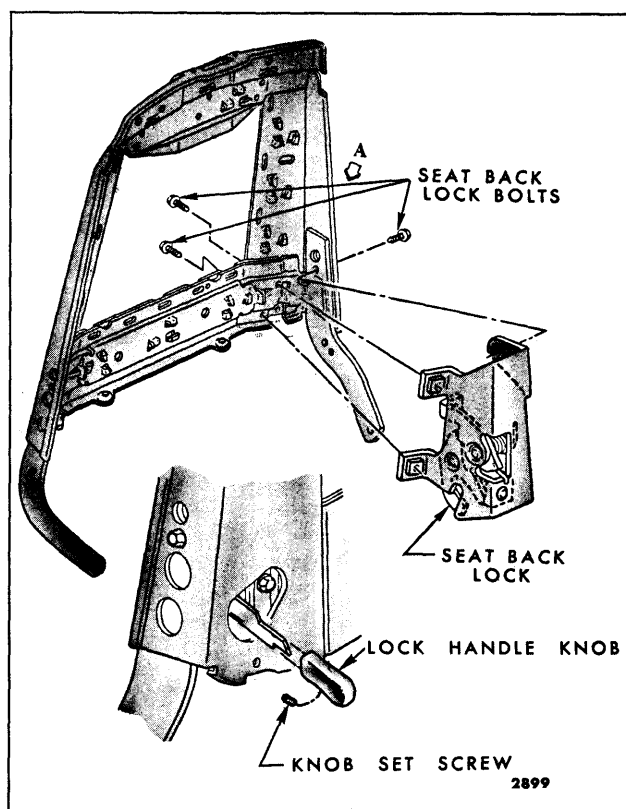


Fig. 15-48—Front Seat Back Lock - "F & Z" Standard Bucket Seats

3. Remove seat back panel and detach seat back trim outer side facing sufficiently to gain access to lock attaching bolts (Fig. 15-48).
4. Remove seat back lock attaching bolts (Fig. 15-48) and remove seat back lock from seat back.
5. To install, reverse removal procedure. Check for proper operation of seat back lock.

**STRATO FRONT SEAT BACK ASSEMBLY—  
(Right or Left)—Full Width Seat with  
Stationary Seat Backs—All Styles  
(Except 16639 Style)**

**Removal and Installation**

1. Remove front seat assembly as described un-

der, "Full Width Front Seat Assembly - Removal and Installation".

2. At side of seat from which seat back is being removed, remove hog rings securing cushion side trim at rear of seat and fold trim forward sufficiently to expose two seat back outer attaching bolts (Fig. 15-49).
3. At inboard side of seat back, remove screw securing inner attaching bolt cover plate and remove cover plate.
4. Remove seat back inner attaching bolts; then, remove outer attaching bolts and remove seat back assembly from seat.
5. To install seat back assembly, reverse removal procedure. Make certain seat side panel support (Fig. 15-49) is secured under seat back outer attaching bolts.

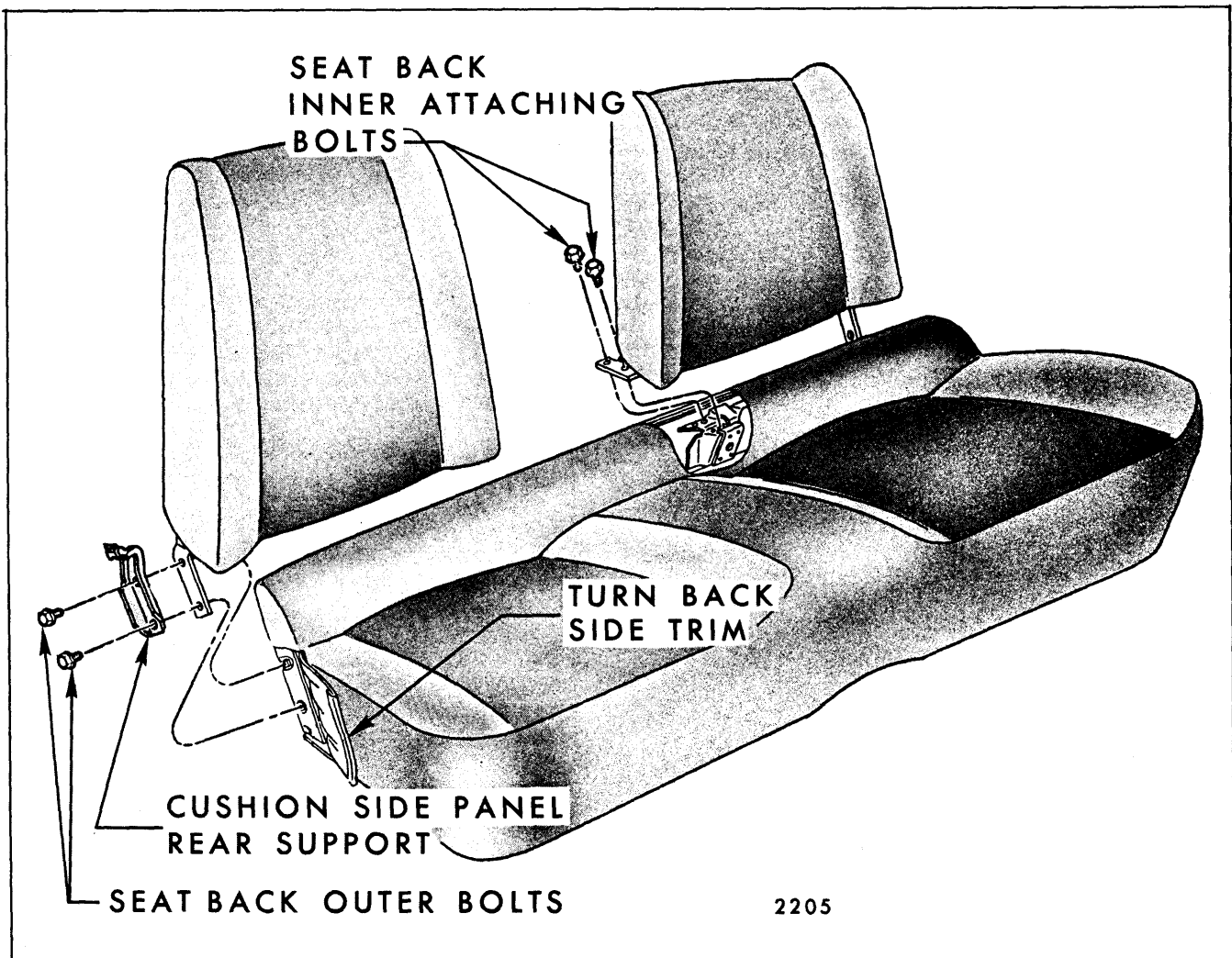


Fig. 15-49—Strato Full Width Seat Back Attachment

## STRATO FRONT SEAT BACK ASSEMBLY (Right or Left)—Full Width Seat— 16639 Style

### Removal and Installation

1. Remove seat assembly from body, as previously described, and place seat right side up on a clean surface.
2. Remove seat side panel on side from which seat back is being removed. Remove hog rings securing seat cushion trim side facing at rear of seat and turn side facing forward sufficiently to expose seat back outer arm attaching bolts (Fig. 15-49).
3. Using a suitable open end wrench between seat

back and seat cushion, at location "A", remove nut locking seat back to inner hinge (See View "A", Fig. 15-50).

4. Remove seat back outer arm attaching bolts (Fig. 15-49).
5. Carefully tilt seat back forward. Remove inner hinge bolt cover plate. Remove inner hinge bolts (Fig. 15-50) and carefully remove seat back from seat assembly.
6. To install, reverse removal procedure.

**NOTE:** It is important that removal procedure is reversed step by step when installing seat back assembly.

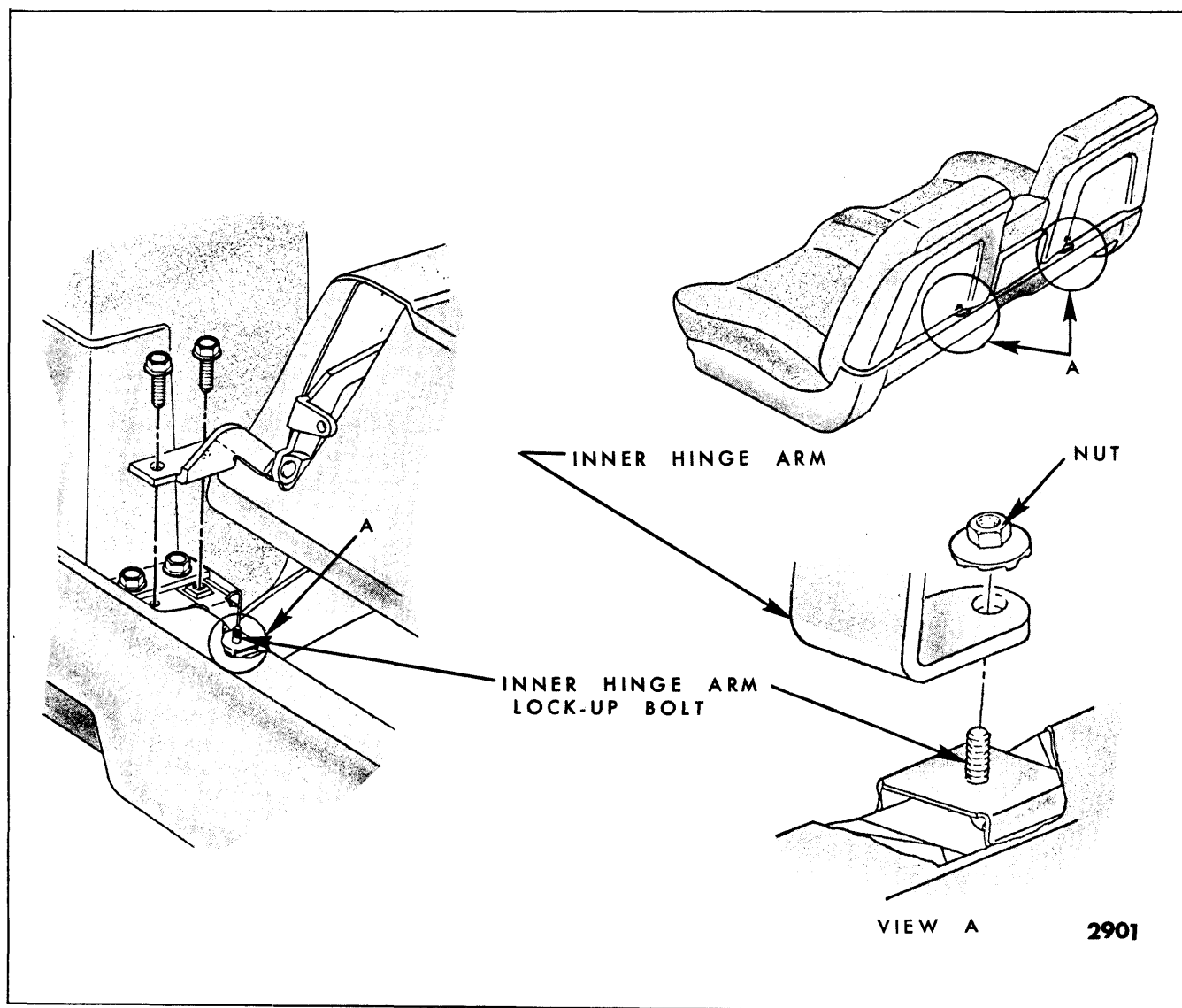


Fig. 15-50—Strato Front Seat Back Assembly (Right or Left) Full Width Seat - 16639 Styles

## STRATO FRONT SEAT BACK PANEL— Four-Door Styles with Non-Folding Seat Back

### Removal and Installation

1. Remove front seat back assembly as previously described.
2. Remove three screws securing bottom of seat back panel to seat back frame.
3. Pull bottom of seat back panel outward and lift panel upward to disengage panel from upper retainers; then, remove panel from seat back.
4. To install seat back panel, reverse removal procedure.

## STRATO FRONT SEAT BACK PANEL— Two-Door Styles Except Styles with Passengers Reclining Seat Back

### Removal and Installation

1. Remove head restraint from seat back.
2. Using a flat-bladed tool, carefully snap off seat back lock push button and escutcheon assembly and remove two screws securing seat back panel to lock assembly (Fig. 15-51).

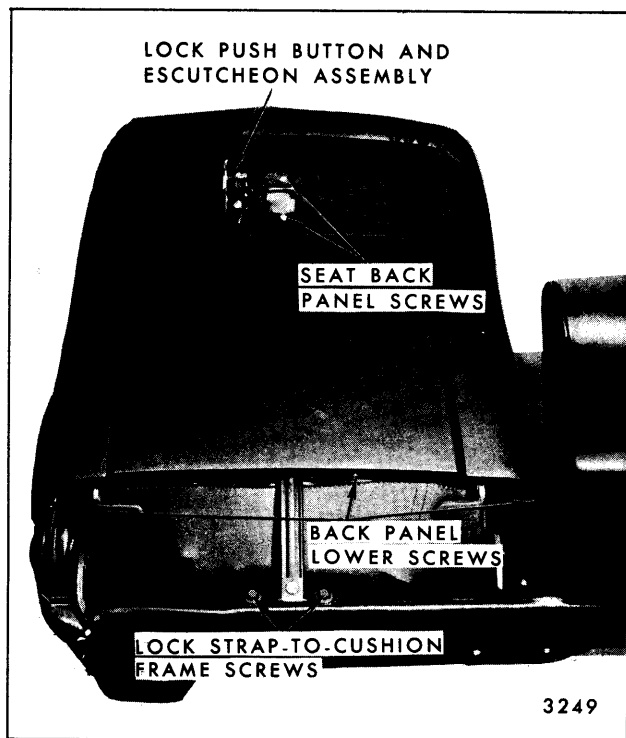


Fig. 15-51—Strato Back Panel Removal - Strato Folding Seats (Except Reclining Seat)

3. Tilt seat back forward and remove three screws securing bottom of seat back panel to seat back frame (Fig. 15-51).
4. Pull bottom of seat back panel outward and lift panel upward to disengage panel from upper retainers; then, remove panel from seat back.
5. To install seat back panel, reverse removal procedure. When snapping on seat back lock push button and escutcheon assembly, make sure assembly is installed right side up with contour of side flanges matching contour of seat back panel.

## STRATO FRONT SEAT BACK PANEL— Two-Door Styles Equipped with Reclining Front Passenger Seat Back

### Removal and Installation

1. Remove head restraint from seat back.
2. Remove seat back lock push button escutcheon attaching screws and remove push button escutcheon, push button and ferrule.
3. Tilt seat back forward and remove two screws securing bottom of seat back panel to seat back frame.
4. Pull bottom of seat back panel outward and lift panel upward to disengage panel from upper retainers; then, remove panel from seat back.
5. To install seat back panel, reverse removal procedure.

## STRATO FRONT SEAT BACK HEAD RESTRAINTS

### Operation and Removal

Front seat back head restraints are standard factory installed equipment for the driver and right front passenger. They can be adjusted to two heights (low or high) or removed by moving the locking lever, at the head restraint post escutcheons, forward and adjusting the head restraint "up" or "down" or removing the head restraint from the seat.

## STRATO SEAT BACK HEAD RESTRAINT RETAINER AND GUIDE TUBE

### Removal and Installation

1. Remove head restraint from seat back. Remove escutcheon attaching screws and remove escutcheon (Fig. 15-52)



2. Remove two screws securing retainer to seat back (Fig. 15-52).

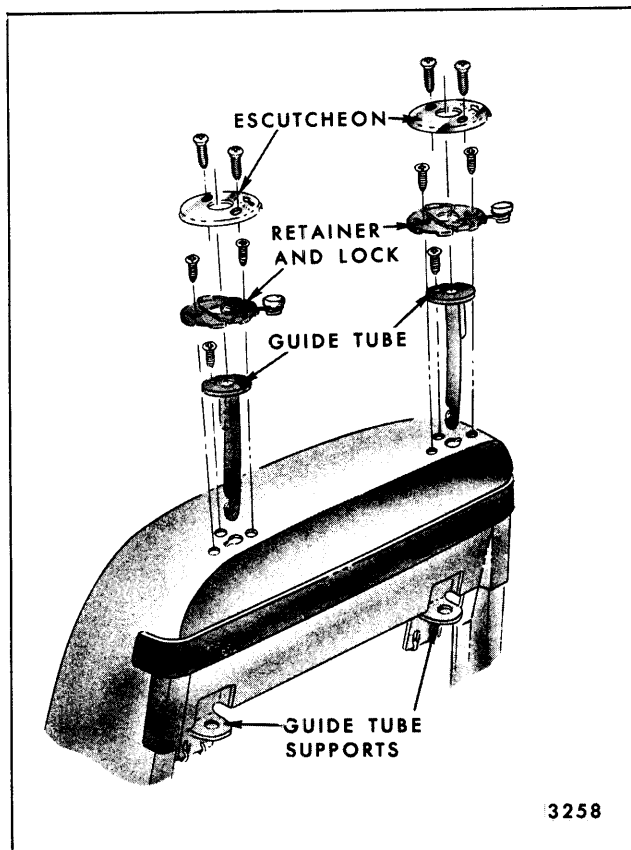


Fig. 15-52—Head Restraint - Strato Seats

3. Remove seat back panel, as previously described.
4. Detach seat back trim cover sufficiently to expose upper end of guide tube.
5. Remove screw securing upper flange of guide tube to seat back frame (Fig. 15-52); then, pull tube out of supports.
6. To install guide tube and retainer, reverse removal procedure.

### STRATO FRONT SEAT BACK LOCK ASSEMBLY—Two-Door Full Width Strato Seat and Strato Bucket Seats (Except Styles with Reclining Seat Back)

#### Removal and Installation

1. Remove front seat back panel, as previously described.
2. **IMPORTANT:** If removing and reinstalling

same lock assembly, install lock-up screw (8-32 x 1/2" screw) at location shown in Figure 15-53.

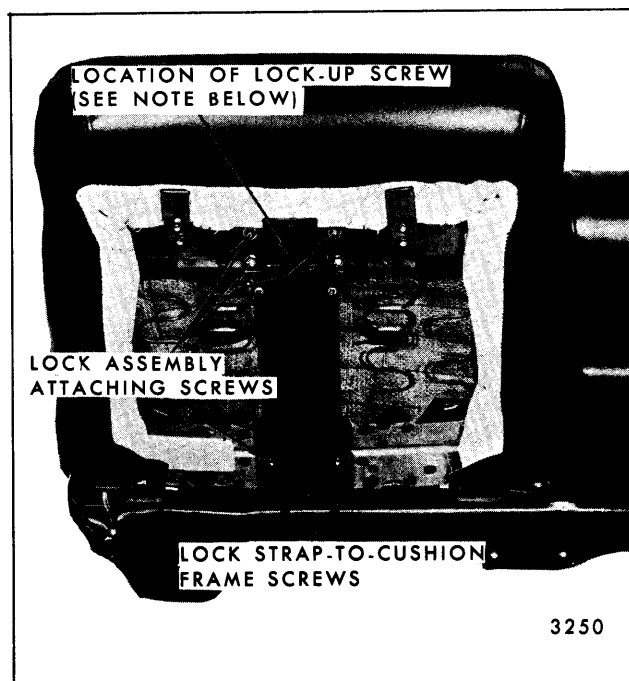


Fig. 15-53—Strato Seat Back Lock Assembly

3. Remove lock strap-to-cushion frame attaching screws (Fig. 15-53).
4. Remove lock assembly attaching screws (Fig. 15-53) and remove lock assembly from seat back.
5. To install seat back lock assembly, reverse removal procedure.

**IMPORTANT:** After all lock assembly attaching screws, including lock strap-to-cushion frame screws, have been tightened, remove lock-up screw at location shown in Figure 15-53.

### STRATO FRONT SEAT BACK ELECTRIC ACTUATOR ASSEMBLY—Cadillac Two-Door Styles Equipped with Electrically Operated Strato Front Seat Back Locks

#### Removal and Installation

1. Remove front seat back panel, as previously described.
2. Disconnect actuator feed wire connector (Fig. 15-54).

3. Remove seat back lock, as described under "Strato Front Seat Back Lock Assembly - Steps 2 through 5".
4. To remove electric actuator assembly, disengage lock connecting rod-to-actuator clip (Fig. 15-54) and disengage rod from actuator.

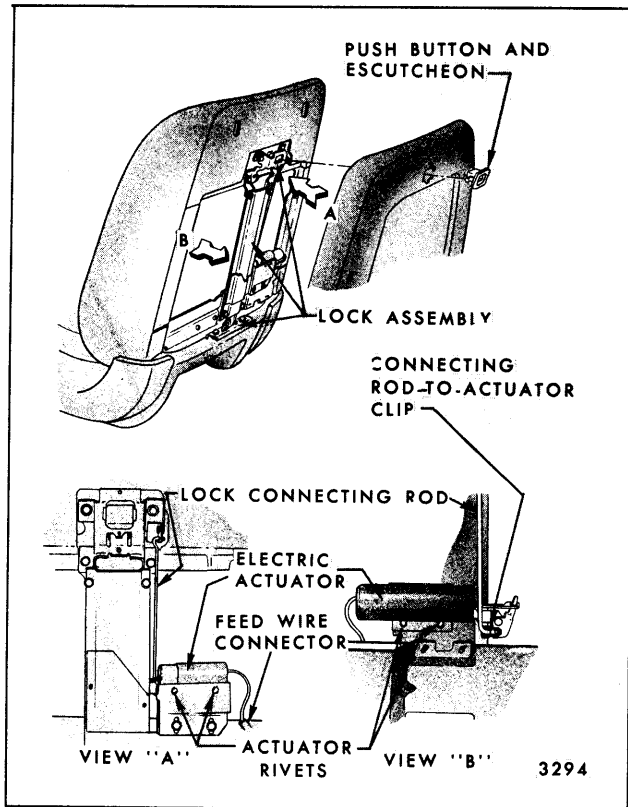


Fig. 15-54—Strato Seat Back Electric Lock and Lock Actuator - Cadillac

5. Remove lock actuator attaching rivets and remove actuator assembly.
6. To install seat back lock or electric actuator assemblies, reverse removal procedure. Install actuator assembly with rivets or nuts and bolts. Prior to installing seat back panel, check operation of seat back lock several times to assure proper operation.

**IMPORTANT:** With lock actuator energized, check amperage draw at feed connector - amperage should not exceed .6 Amps. If current draw is more than .6 Amps., reposition actuator (usually downward) to obtain a holding current of not over .6 Amps. If nuts and bolts are used in conjunction with slotted attaching holes, drill and install a screw to lock actuator in position.

## STRATO BUCKET SEAT BACK ASSEMBLY — All Except "F&Z" Body Styles and Strato Reclining Seat Back

### Removal and Installation

1. Remove seat assembly from body, as previously described, and place on a clean protected surface.
2. On Cadillac styles with electric actuated seat back locks remove seat back panel, as previously described. Disconnect electric actuator feed wire connector (See Fig. 15-54) and pull feed wire out of seat back.
3. With seat side panels removed, remove hog rings securing seat cushion trim at rear of seat and along bottom of seat and turn back trim sufficiently to expose seat back hinge-to-seat cushion frame attaching bolts (Fig. 15-55).

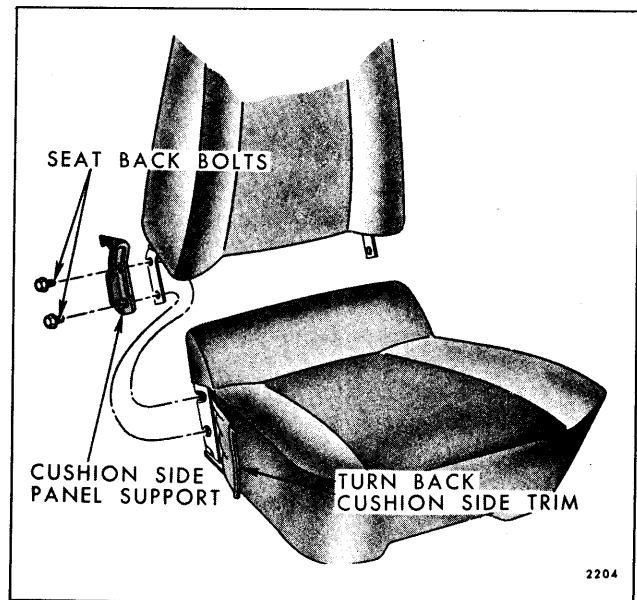


Fig. 15-55—Bucket Seat Back Removal (Without Reclining Seat Back) - All Except Corvair

4. Remove seat back hinge-to-seat cushion frame attaching bolts (Fig. 15-55) from both sides of seat and remove seat back assembly from seat cushion.
5. To install seat back assembly, reverse removal procedure. Check for proper operation of seat back lock.

## RECLINING FRONT SEAT BACK

### Description

The reclining seat back which is available on the passenger seat of the Strato design front seats can

be reclined approximately 30 degrees from the normal seat back position. The reclining unit is a friction operation mechanism and is actuated by a control handle and cable at the right side of the seat.

When the control handle is pulled upward the control cable unlocks the reclining positioning unit in the seat back allowing the seat back to be reclined, by means of rearward pressure on the seat back, to a maximum of approximately 30 degrees or until the control handle is released. When the control handle is released the reclining positioning unit is locked and will not allow the seat back to be reclined further. When the control handle is pulled up and there is no rearward pressure on the seat back, the assist spring in the reclining positioning unit will return the seat to the normal position or to a position at which the handle is released. The friction mechanism of the positioning unit will allow the seat back to be moved forward to the normal position with approximately four pounds manual forward push at the top of the seat back. This "dress-up" feature allows the driver or passenger to return a reclined seat back to its normal position without having to operate the control handle.

## RECLINING SEAT BACK ASSEMBLY

### Removal and Installation

1. Remove seat assembly from body, as previously described, and place on a clean protected surface.
2. On right side of seat with seat side panel removed, remove hog rings securing cushion trim at rear of seat and along bottom of seat and turn back trim sufficiently to expose seat back attaching bolts and reclining control cable attachment at handle control lever (Fig. 15-56).
3. Detach reclining positioning unit control cable from handle control lever; then, pull control cable through cable guide and through grommet in cushion trim (Fig. 15-56).
4. a. On reclining bucket seat remove hog rings securing cushion side trim facing on inboard side of seat and turn trim forward sufficiently to expose seat back attaching bolts. Then remove seat back attaching bolts from both sides of seat and remove seat back assembly from seat.
- b. On reclining full width seat, remove screw at inboard side of seat back attaching bolt cover plate and remove cover plate. Remove seat back inner attaching bolts; then, remove seat back outer attaching bolts and remove seat back assembly from seat.
5. To install seat back assembly, reverse removal procedure. Make certain side panel support (Fig. 15-56) is secured under seat back outer attaching bolts.

## RECLINING SEAT BACK POSITIONING UNIT

### Removal and Installation

1. Remove seat assembly from body, as previously described, and place on a clean protected surface.
2. On right side of seat with seat cushion side panel removed, remove hog rings securing cushion trim at rear of seat and along bottom of seat and turn back trim sufficiently to expose reclining control cable attachment at handle control lever (Fig. 15-56).
3. Remove seat back panel as described under "Strato Front Seat Back Panel - Removal and Installation".
4. Remove hog rings securing right side of seat back trim to seat back frame and turn trim forward sufficiently to expose positioning unit (Fig. 15-56).
5. Detach reclining positioning unit control cable from handle control lever; then, pull control cable through cable guide and through grommet in cushion trim (Fig. 15-56).
6. Using a suitable size drift punch, carefully drive out roll pins securing positioning unit to support on seat back frame and to seat back hinge (Fig. 15-56); then remove positioning unit from seat back.

**IMPORTANT:** If roll pins do not drive out easily use a suitable back up to prevent possible damage or breakage of the positioning unit or mounting brackets.

## RECLINING SEAT BACK LOCK STRIKER, AND SEAT BACK LOCK—Strato Full Width or Bucket Seat

### Removal and Installation

1. Remove front seat assembly, reclining seat back and seat back panel as previously described.
2. At seat back inner hinge assembly remove hog rings and detach seat back trim sufficiently to gain access to seat back lock and lock striker attaching bolts (Fig. 15-57).

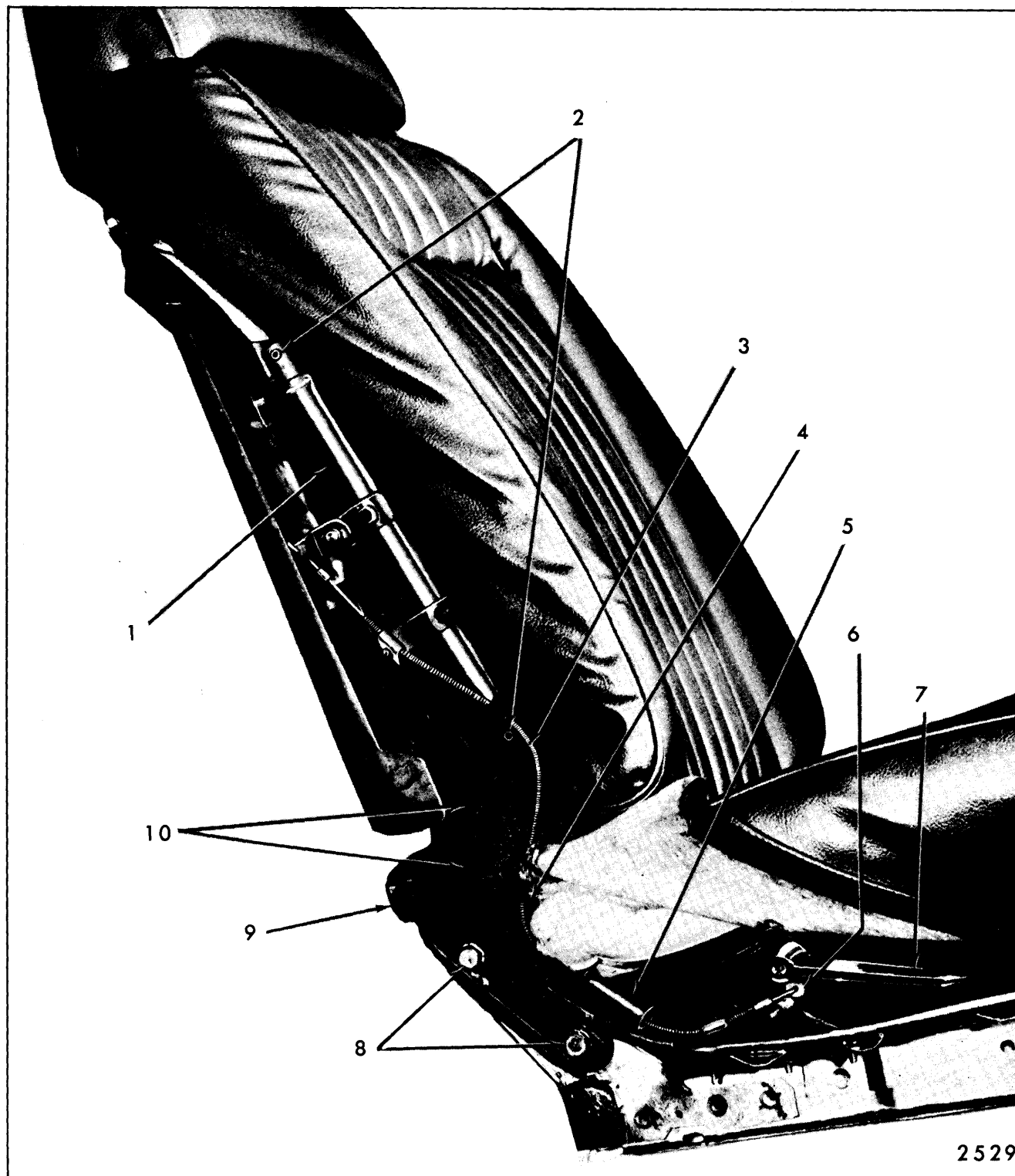


Fig. 15-56—Reclining Seat Back and Positioning Unit

- |                                          |                                         |
|------------------------------------------|-----------------------------------------|
| 1. Reclining Positioning Unit            | 6. Handle Control Lever                 |
| 2. Positioning Unit Attaching Roll Pins  | 7. Control Handle                       |
| 3. Positioning Unit Control Cable        | 8. Seat Back Hinge Attaching Bolts      |
| 4. Control Cable Grommet in Cushion Trim | 9. Seat Cushion Side Panel Rear Support |
| 5. Control Cable Guide                   | 10. Seat Back Hinge                     |

3. Remove seat back lock striker attaching bolts (Fig. 15-57) and remove striker.
4. Disengage clip securing lock rod to lock as shown in View "B", Fig. 15-57 and detach rod from lock.
5. Remove lock-to-hinge attaching bolts (Fig. 15-57) and remove lock assembly from seat back hinge.
6. To install seat back lock assembly, reverse removal procedure. Make certain lock rod and clip are properly engaged at lock lever. Check for proper operation of seat back lock.

### RECLINING SEAT BACK LOCK CONTROL SUPPORT—Strato Full-Width or Bucket Seat

#### Removal and Installation

1. Remove front seat assembly, reclining seat back and seat back panel, as previously described.
2. At right side of seat back remove hog rings and detach seat back trim sufficiently to gain access to seat back lock control support (Fig. 15-57).
3. Remove control support attaching screws (Fig. 15-57) and remove support.
4. To install lock control support, reverse removal procedure. Check for proper operation of seat back lock.

### RECLINING SEAT BACK LOCK CONTROL ASSEMBLY—Strato Full-Width or Bucket Seat

#### Removal and Installation

1. Remove front seat assembly, reclining seat back and seat back panel, as previously described.
2. Remove hog rings securing seat back trim cover and padding to seat back frame and remove seat back trim cover and padding.

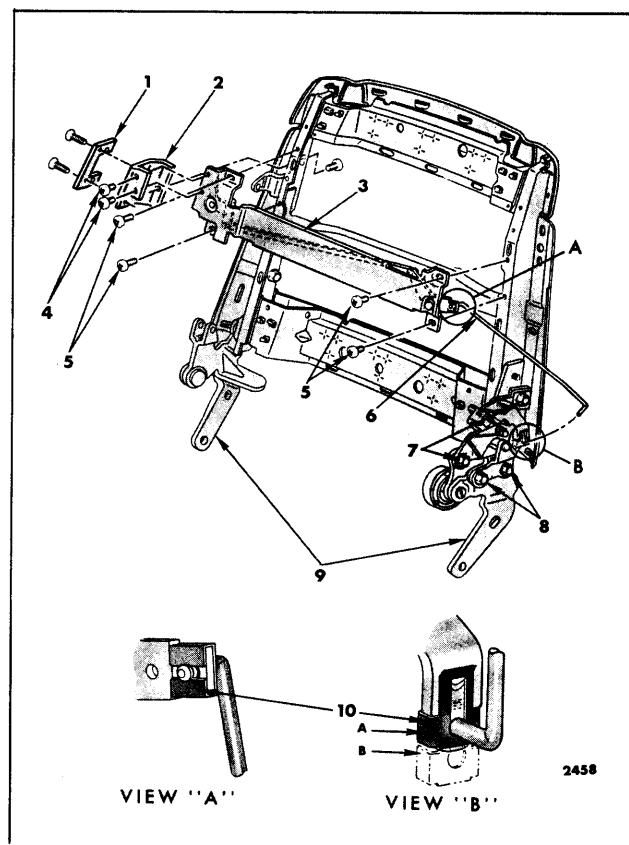


Fig. 15-57—Strato Reclining Seat Back Lock

- |                           |                                 |
|---------------------------|---------------------------------|
| 1. Trim Retainer          | 8. Seat Back Lock Striker Bolts |
| 2. Control Support        | 9. Reclining Seat Back Hinges   |
| 3. Control Assembly       | 10. Lock Rod Clip -             |
| 4. Control Support Screws | a. Engaged Position             |
| 5. Control Screws         | b. Disengaged Position          |
| 6. Lock Rod               |                                 |
| 7. Seat Back Lock Bolts   |                                 |
3. Disengage clip securing lock rod to control assembly (View "A", Fig. 15-57) and detach rod from control assembly.
  4. Remove control support and control assembly attaching screws (Fig. 15-57); then, remove control assembly from seat back.
  5. To install, reverse removal procedure. Prior to installing seat assembly in body, check for proper operation of seat back lock.

## REAR SEATS

### REAR SEAT CUSHION—All Styles (Except "A-65" Styles)

#### Removal

1. Push lower forward edge of seat cushion rearward; then, lift upward and pull forward on seat cushion frame to disengage cushion frame wires from retainers on rear seat pan (Fig. 15-58).

**NOTE:** If difficulty is experienced in disengaging the front edge of the rear seat cushion from retainers on rear seat pan it may be necessary to kneel (on four-door styles) or stoop (on two-door styles) on the rear floor pan. Grasp lower edge of seat cushion at location of retainer on one side of seat; then, lean forward (towards seat cushion) using leg pressure against hands or arms, exert sufficient rearward pressure to disengage seat from retainers (Fig. 15-58).

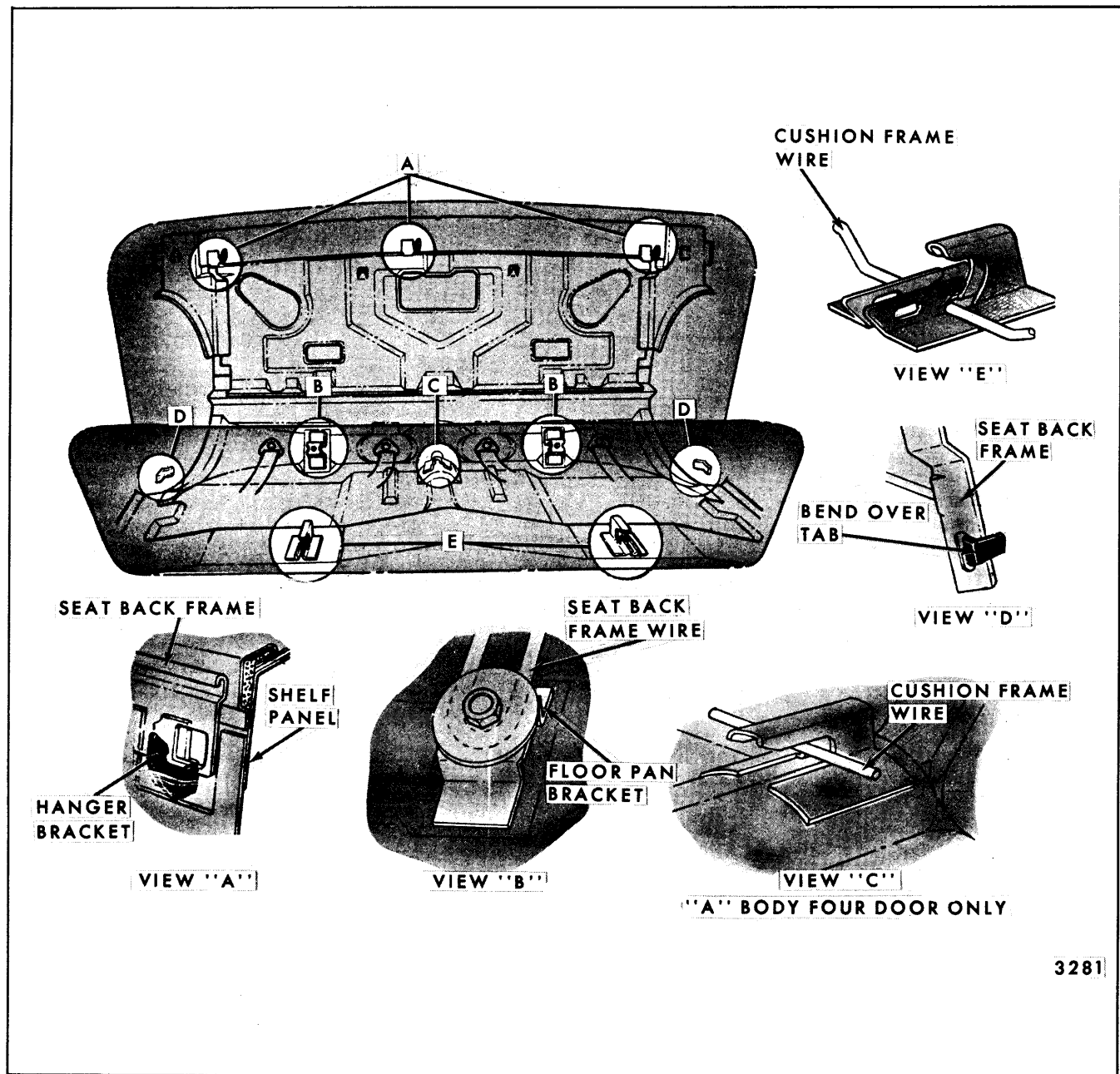


Fig. 15-58—Rear Seat Cushion and Back Installation - All Styles Except Station Wagons and Cadillac Limousine

## Installation

1. Carefully lift cushion into body using caution not to damage adjacent trim.
2. Position rear edge of cushion under rear seat back assembly. On "A" Body four-door styles make certain rear portion of seat cushion frame is engaged with retainer on rear seat pan.
3. Align wire protrusions on front of seat cushion frame with retainers on floor pan. Push seat cushion assembly rearward until protrusions engage in retainers; then, press down and pull cushion forward to fully engage in retainers.

**NOTE:** If difficulty is experienced in engaging front of cushion in retainers, use the same method described under step 1 of "Removal", to engage cushion in retainers.

**IMPORTANT:** If seat cushion frame protrusions are not properly centered in relation to retainers on seat pan, proper engagement and placement of cushion will be extremely difficult.

## REAR SEAT BACK ASSEMBLY— All Styles Except Station Wagons and "F&Z" Body with Folding Rear Seat Back

### Removal and Installation

1. Remove rear seat cushion assembly.
2. At bottom of seat back bend out tabs and where present, remove screws securing the lower portion of the seat back to floor panel. On convertible styles, remove screw from rear side of seat back panel support securing upper corners of seat back to panel.

**NOTE:** If screws are used to secure center of rear side to seat back panel it will be necessary to work from inside rear compartment to remove screws.

3. Pull seat back assembly out at the bottom until seat back clears body tabs; then, on all styles except "E" styles, raise seat back upward until disengaged from hangers on the seat back panel support. On "E" styles push seat back downward until wire protrusions at top of seat back are disengaged from slots in seat back panel support.
4. Remove seat back assembly from body.
5. To install, reverse removal procedure, making certain that all attaching body tabs and hangers

have industrial body tape applied to them to act as an anti-squeak.

## FOLDING REAR SEAT BACK— "F" Body Styles

### Removal and Installation

1. Remove rear seat cushion and lower folding rear seat back.
2. At both right and left seat back link, remove stud nut securing seat back link to anchor plate on floor pan (Fig. 15-59).

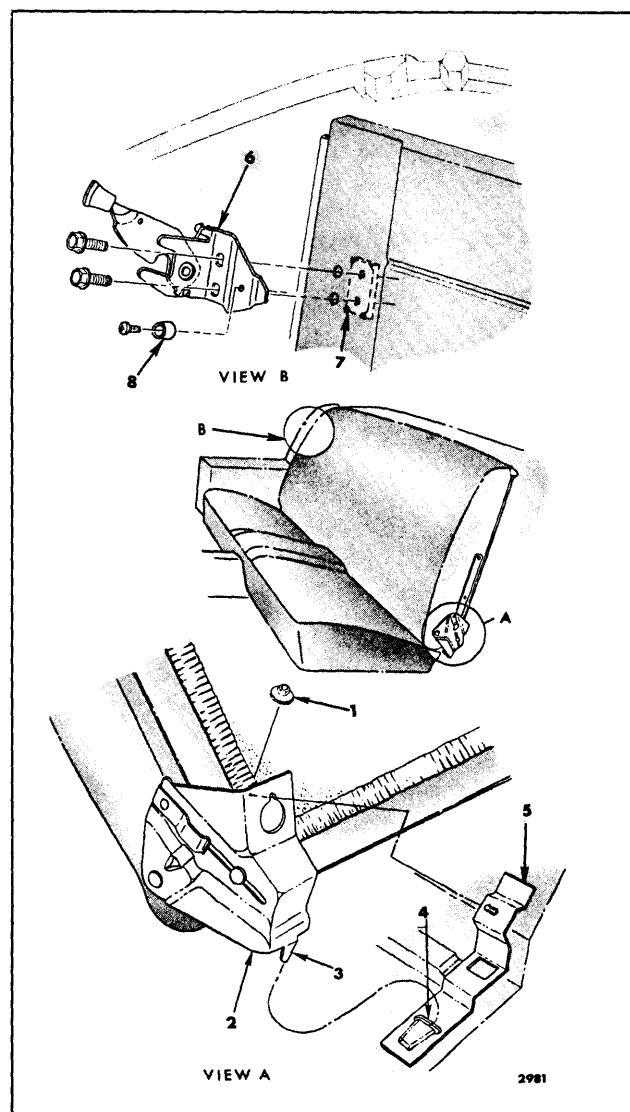


Fig. 15-59—Folding Rear Seat Back Assembly - "F" Body Styles

- |                                    |                                                       |
|------------------------------------|-------------------------------------------------------|
| 1. Link-to-Actuator Plate Stud Nut | 5. Folding Seat Back Link Anchor Plate (on floor pan) |
| 2. Folding Seat Back Link          | 6. Back Lock Assembly                                 |
| 3. Link Tab                        | 7. Lock Anchor Plate                                  |
| 4. Anchor Plate Slot               | 8. Rubber Bumper                                      |

3. Lift seat back assembly upward to disengage tab of link from slot in anchor plate (Fig. 15-59) and remove seat back assembly from body.
4. To install folding seat back assembly, reverse removal procedure.

### **FOLDING REAR SEAT BACK LOCK— “F” Body Styles**

All “F” bodies equipped with a folding rear seat incorporate a positive rear seat back lock located at the right side of the seat back. When the seat back is raised to the “up” position, a lock striker secured to the right side of the seat back frame engages with the lock which is secured to the seat back support. To lower the seat back, raise the lock release lever at the right side of the seat back and lower the seat back.

#### **Removal and Installation**

1. Lower the folding rear seat back.
2. Remove rubber bumper (Fig. 15-59) and remove compartment front trim foundation.
3. Mark location of seat back lock on seat back support panel.
4. While holding the lock anchor plate on the back side of the seat back support, remove lock attaching screws (Fig. 15-59, View “B”) and remove lock and anchor plate.
5. To install rear seat back lock assembly, reverse removal procedure aligning lock with previously made marks.

Check for proper operation of lock and, if necessary, adjust lock up or down for proper operation.

### **FOLDING REAR SEAT BACK— “Z” Body Styles**

#### **Removal and Installation**

1. Remove rear seat back cushion, as previously described.
2. Lower folding seat back; then, remove three screws from both sides of seat back securing seat back to folding linkage (Fig. 15-60).
3. Carefully disengage seat back from linkage and remove folding seat back from body.
4. To install, reverse removal procedure.

### **FOLDING REAR SEAT BACK LINKAGE— “Z” Body Styles**

#### **Removal and Installation**

1. Remove rear seat cushion and folding seat back, as previously described.
2. Mark position of linkage on floor pan. Remove bolts securing folding seat back linkage to floor pan (Fig. 15-60) and remove linkage.
3. To install, reverse removal procedure. Align linkage on floor pan with previously made alignment marks.

### **FOLDING REAR SEAT BACK LOCK— “Z” Body Styles**

#### **Removal and Installation**

1. Lower the folding rear seat back. Mark position of rear seat back lock to facilitate installation in same position.
2. Remove lock attaching screws (Fig. 15-60) and remove lock assembly from rear compartment front panel.
3. To install rear seat back lock assembly, reverse removal procedure aligning lock with previously made marks.

Check for proper operation of lock and, if necessary, adjust lock up or down for proper operation.

### **REAR SEAT BACK CENTER ARM REST AND CURTAIN**

#### **Removal and Installation**

1. Lower rear seat back arm rest. On all styles except 68069 carefully pull upper portion of arm rest curtain out of slot in hanger plate and fold curtain forward. On 68069 styles, fold arm rest flipper forward.
2. Remove four screws securing arm rest to hanger plate linkage then, remove arm rest from seat back.
3. To install, reverse removal procedure.

### **REAR SEAT BACK CENTER ARM REST HANGER PLATE AND LINKAGE**

#### **Removal and Installation**

1. Remove rear seat back center arm rest; then, remove two screws securing arm rest hanger



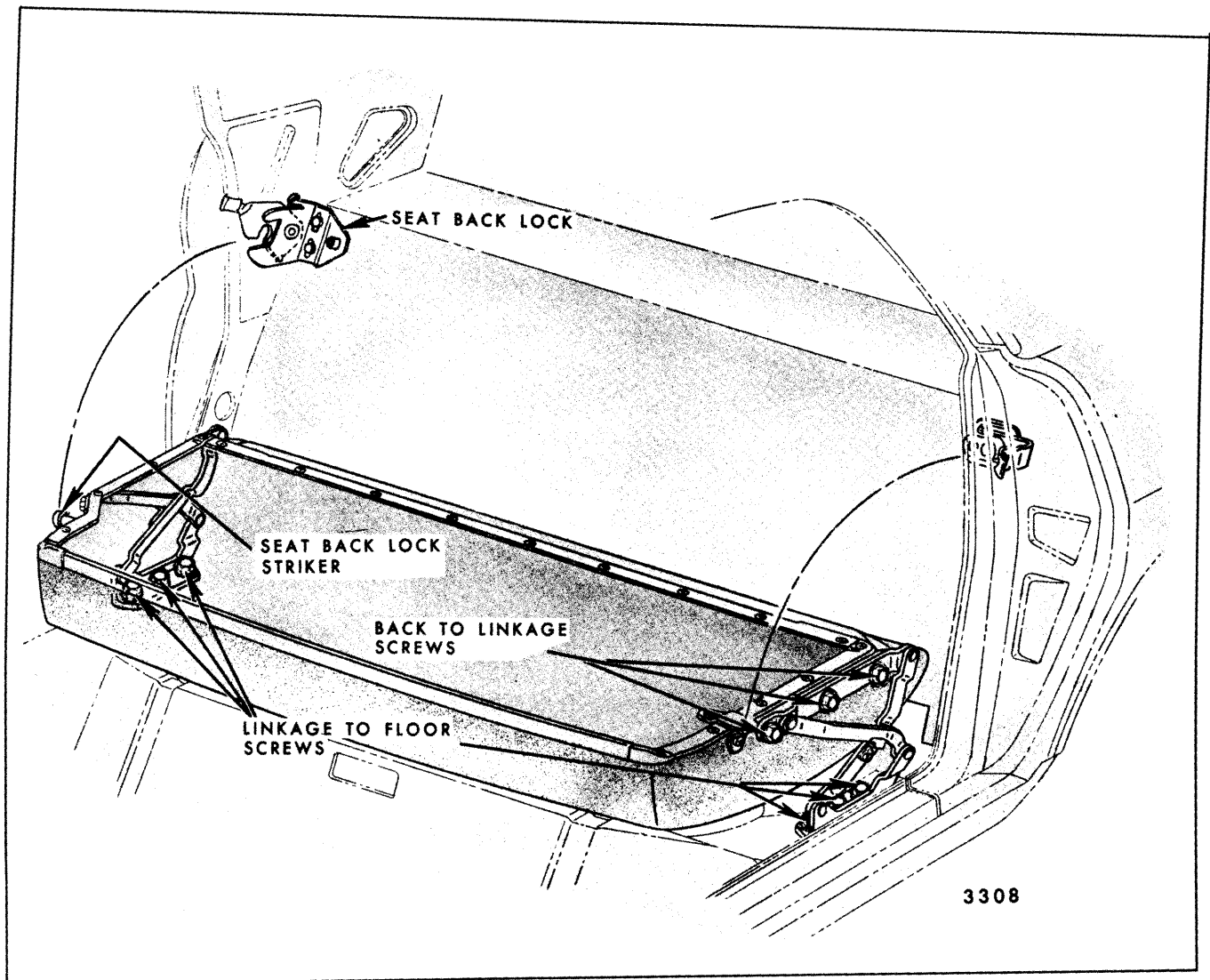


Fig. 15-60—Folding Rear Seat Back and Lock - Corvair

plate to body seat back support brace. Remove rear seat back.

2. On back side of rear seat back, remove four screws securing arm rest hanger plate to seat back supports; then, carefully remove arm rest and hanger plate assembly from seat back (Fig. 15-61).
3. To install, reverse removal procedure. Prior to tightening hanger plate screws move arm rest assembly upward until top is snug against top of opening in seat back.

### AUXILIARY SEAT ASSEMBLY— Cadillac Limousine Styles

#### Removal and Installation

1. Place auxiliary seat in the folded forward position.

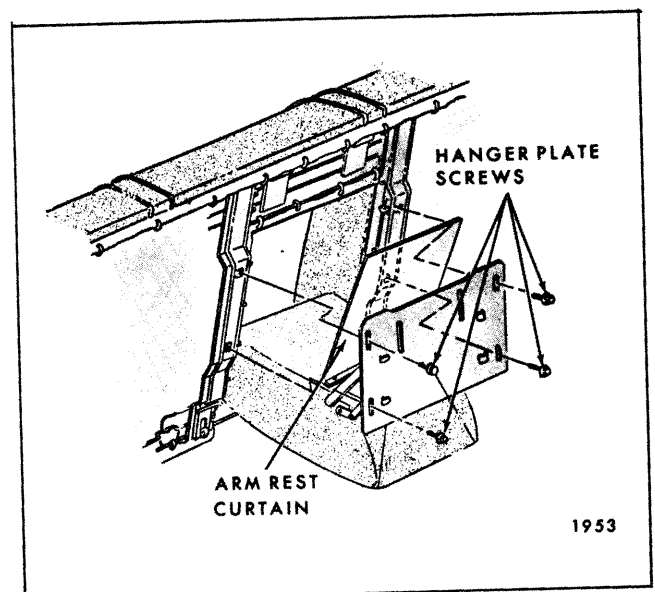


Fig. 15-61—Rear Seat Back Arm Rest and Hanger Plate

2. Move rear seat foot rest rearward; then, un-snap carpet flap. Move foot rest forward and carefully pull carpet flat from under foot rest, as shown in Figure 15-62.

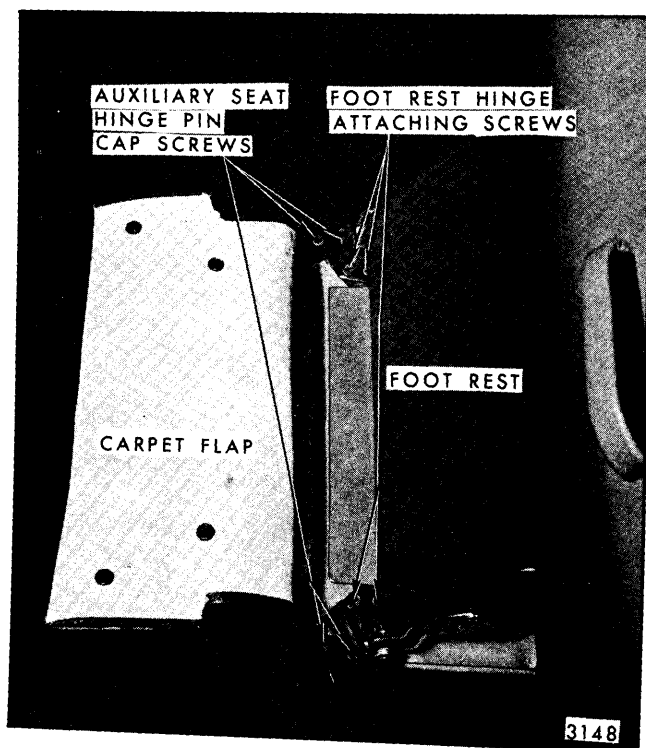


Fig. 15-62—Auxiliary Seat Assembly - Removal and Installation - Cadillac Limousine Styles

3. Remove foot rest hinge attaching screws (Fig. 15-62) and remove foot rest assembly.
4. Remove auxiliary seat hinge pin cap screws (Fig. 15-62); then remove cap and auxiliary seat assembly.
5. To install auxiliary seat assembly, reverse removal procedure.

### AUXILIARY SEAT ADJUSTMENT— Cadillac Limousine Styles

The auxiliary seats in Cadillac Limousine Styles can be adjusted to provide additional leg room for auxiliary seat passengers.

The following procedure describes and illustrates how to adjust the auxiliary seat.

1. Place auxiliary seat in the upright, sitting position.
2. On the front side of the auxiliary seat heel board, turn back foot well carpet flap to expose the auxiliary seat lower outboard and inboard support assemblies (See Fig. 15-63).

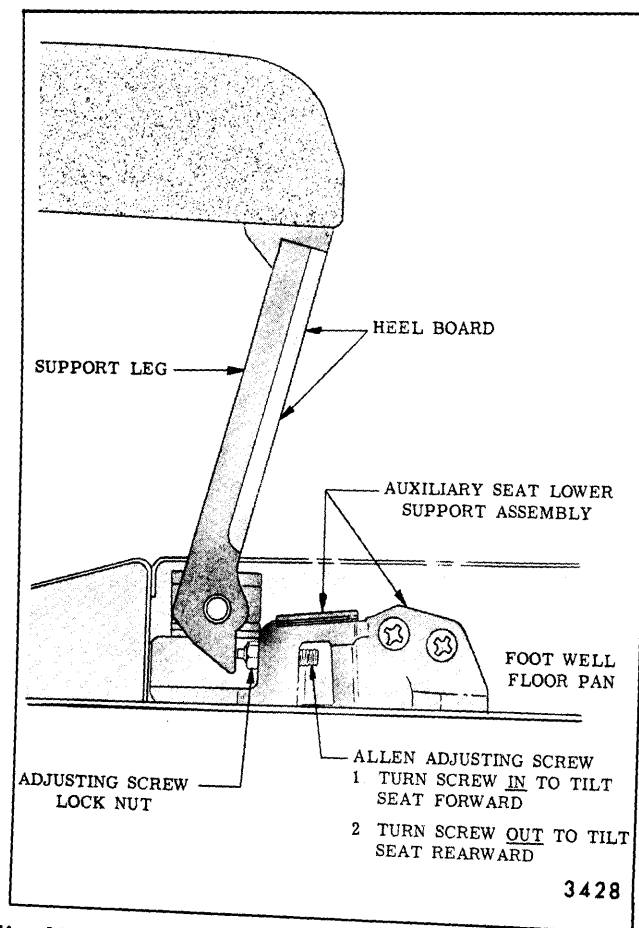


Fig. 15-63—Auxiliary Seat Adjustment - Cadillac Limousine Styles

3. Loosen the allen adjusting screw lock nut at both inboard and outboard supports (See Fig. 15-63).
4. Carefully turn the adjusting screw (See Fig. 15-63) at both supports the same amount to allow the seat to pivot rearward further; thereby, providing additional leg room for the aux-

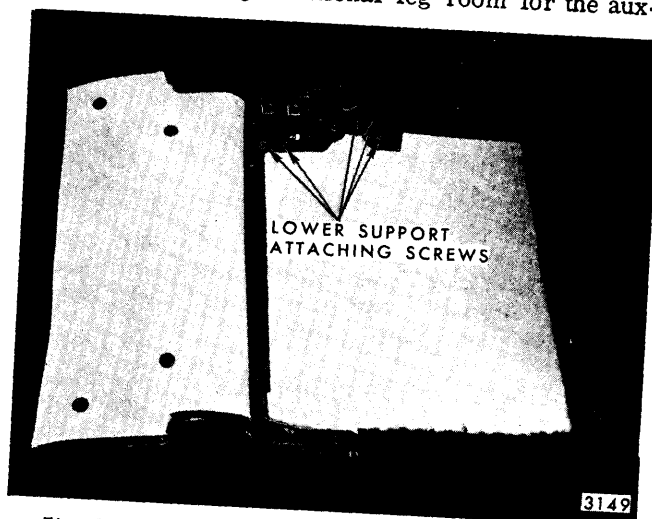
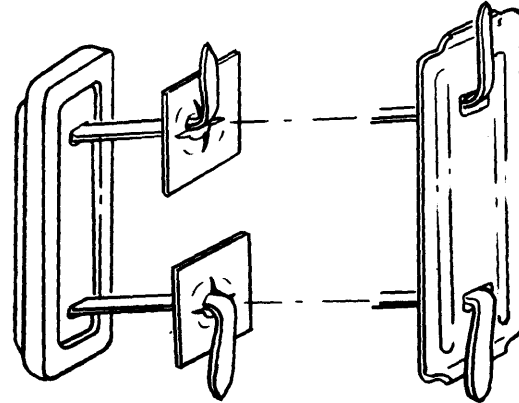
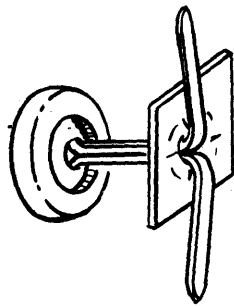
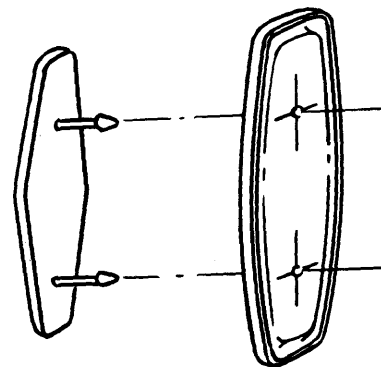
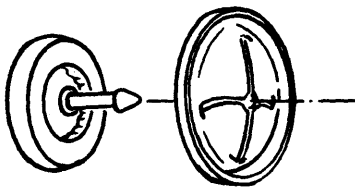


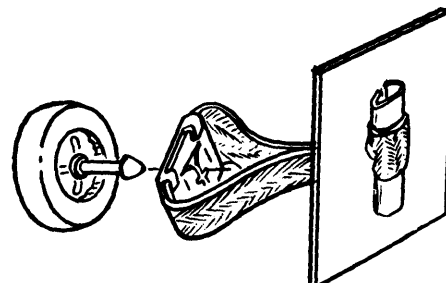
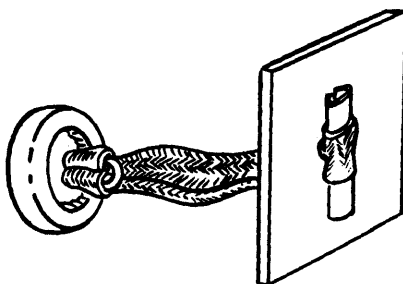
Fig. 15-64—Auxiliary Seat Lower Support - Cadillac Limousine Styles



SINGLE AND DOUBLE LONG PRONG BUTTONS WITH  
SPRING RETAINERS OR FULL DOUBLE RETAINER



SINGLE AND DOUBLE STUD BUTTONS WITH SHELL RETAINER



EYELET JIFFY LOOP BUTTON  
WITH BOARD RETAINER

STUD JIFFY LOOP BUTTON  
WITH BOARD RETAINER

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iliary seat passenger. Tighten the adjusting screw lock nut at both supports.

When making this adjustment maintain a minimum distance of at least 6 1/4 inches from rear seat cushion to auxiliary seat.

### AUXILIARY SEAT LOWER SUPPORT ASSEMBLY—Cadillac Limousine Styles

#### Removal and Installation

1. Remove auxiliary seat assembly, as previously described.

2. Remove lower support assembly attaching screws, shown in Figure 15-64, and remove support assembly.

3. To install auxiliary seat lower support assembly, reverse removal procedure.

### SEAT TRIM BUTTONS

Figure 15-65 illustrates the basic types of seat trim buttons used on 1969 Styles and their method of retention.

## STATION WAGON FOLDING REAR SEATS AND FLOOR PANELS—All Station Wagon Styles Except "55-56-65-66" Styles

All station wagon second and third seat backs incorporate seat back locks located on the upper right side of the seat backs. On split second seat option, a seat back lock is located at the upper

outer side of each seat back.

The following views are typical of the station wagon folding seats and rear compartment floor panels.

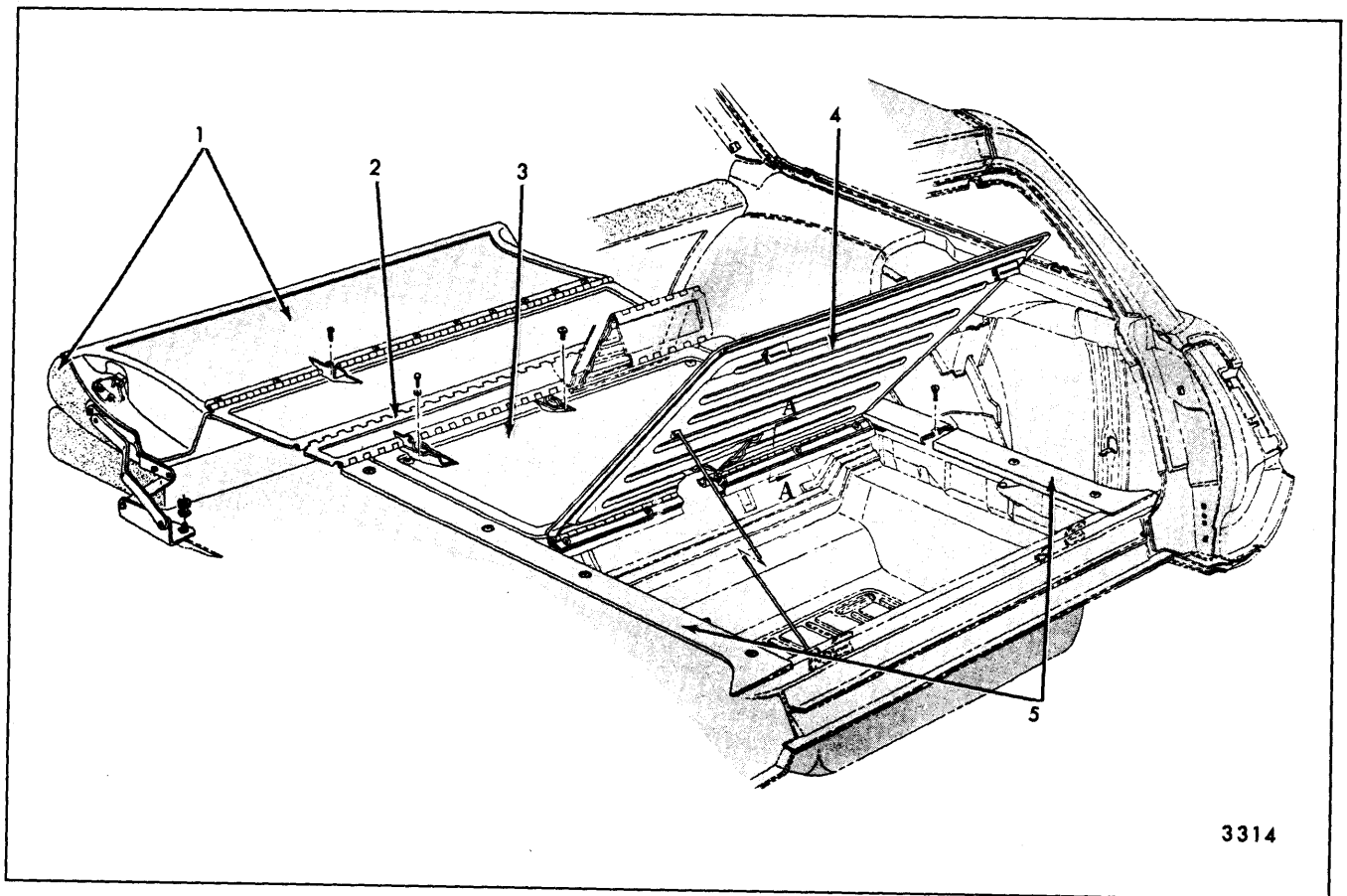
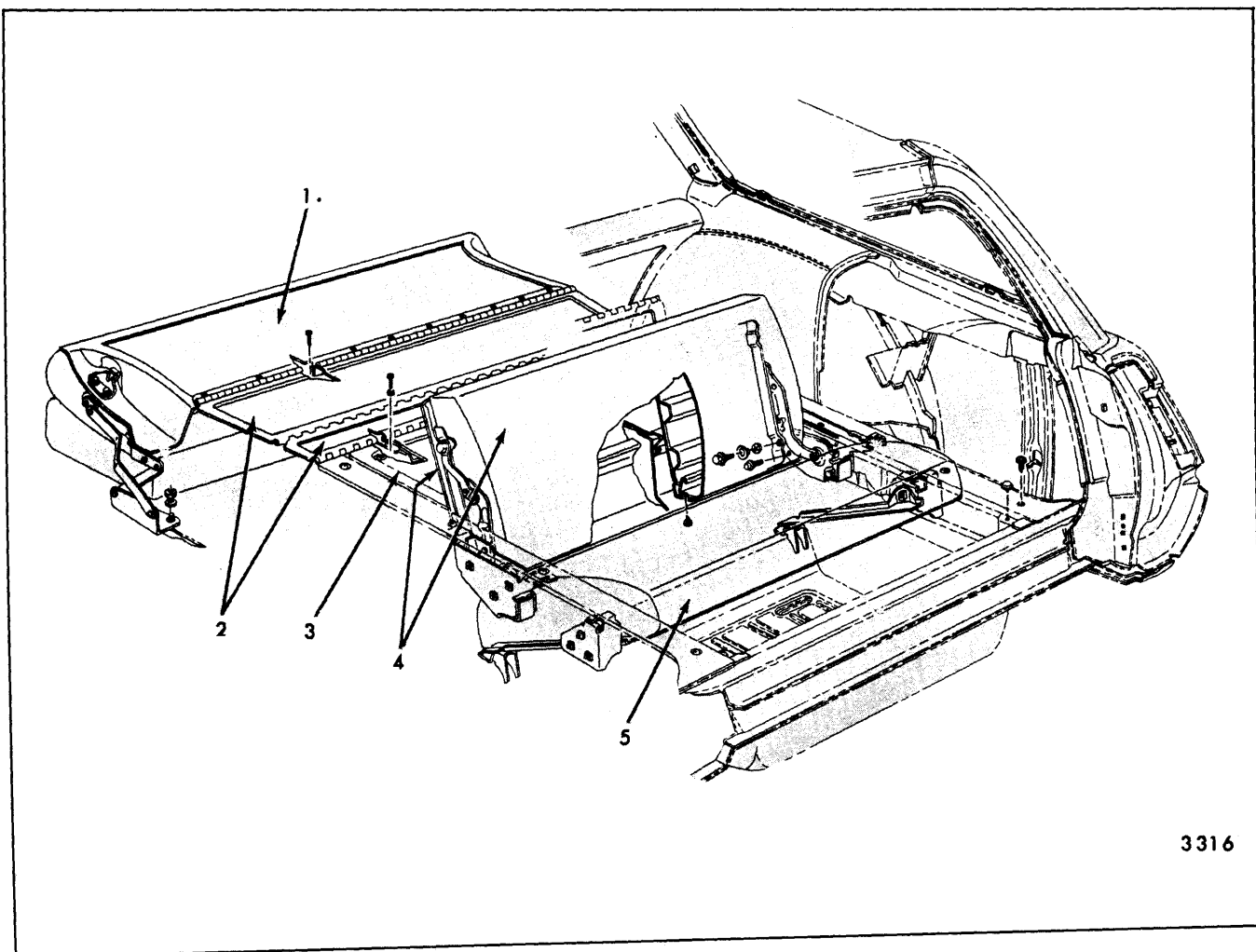


Fig. 15-66—Folding Seats and Load Floor Panels - "A & B" Body Two-Seat Styles

1. Folding Second Seat Back and Seat Back Panel
2. Rear Floor Filler Panel

3. Rear Compartment Floor Panel (At Kick-Up)
4. Luggage Compartment Cover Panel

5. Rear Floor Side Filler Panels - Left and Right



3316

Fig. 15-67—Folding Seats and Load Floor Panels - "A" Body Three-Seat Styles

- |                                              |                                         |
|----------------------------------------------|-----------------------------------------|
| 1. Folding Second Seat Back and Back Panel   | 4. Folding Third Seat Back and Panel    |
| 2. Rear Floor Filler Panel                   | 5. Folding Third Seat Cushion and Panel |
| 3. Rear Compartment Floor Panel (at Kick-Up) |                                         |

These illustrations identify the component panels of the rear compartment area and their relationship to adjacent panels.

Figure 15-66 is typical of all "A-35 and 36 Series and Chevrolet and Pontiac "B-36" Series two-seat Station Wagons.

Figure 15-67 is typical of Chevrolet "A-45 & 46" Series Three-Seat Station Wagons.

Figure 15-68 is typical of Chevrolet and Pontiac "B-46" Series Three-Seat Station Wagons.

Figure 15-69 is typical of Pontiac "B-36" Series Two-Seat (Split Second Seat Option) Station Wagon.

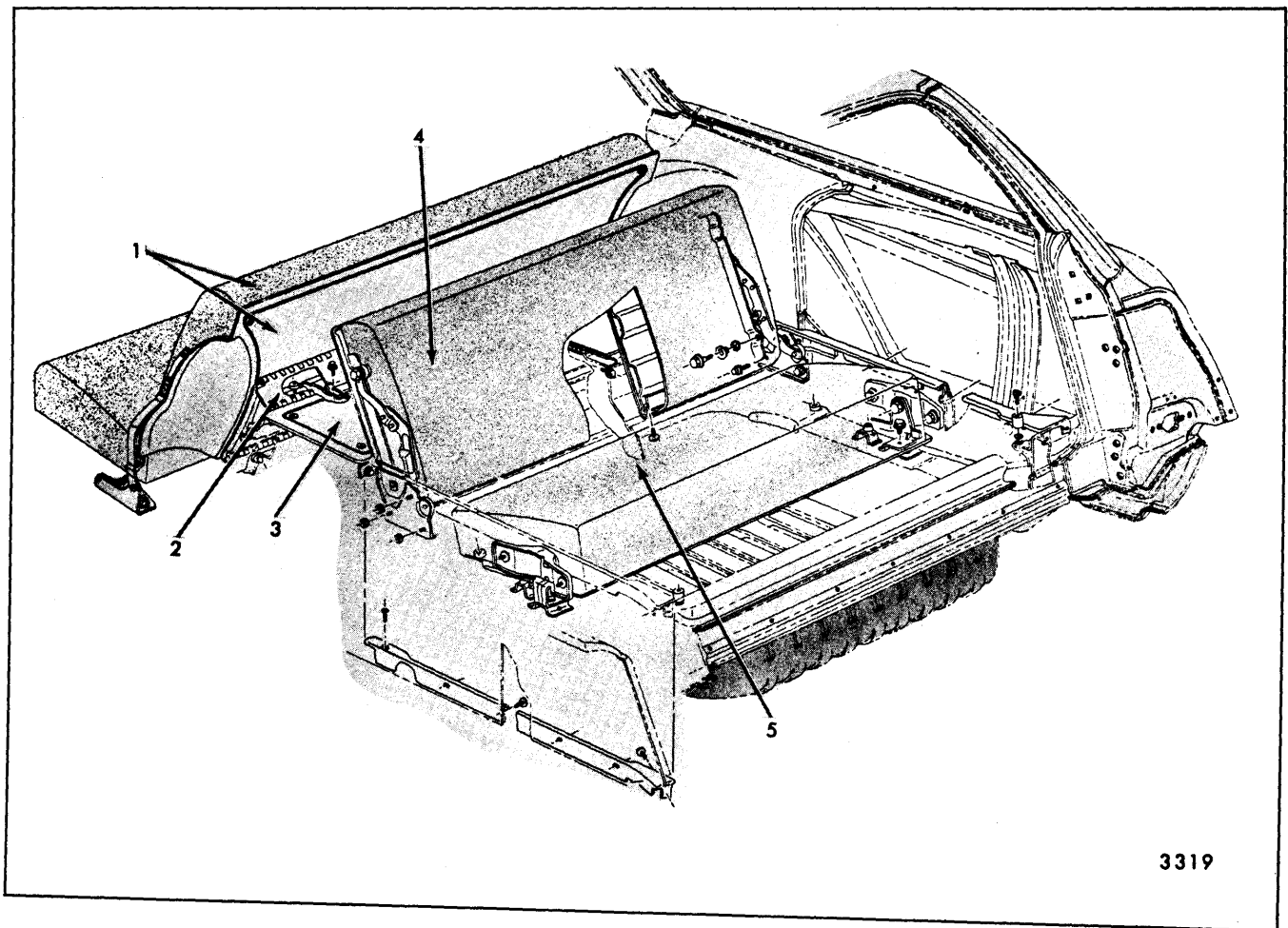
## REAR FLOOR-TO-TAIL GATE FILLER PANEL ASSEMBLY

Refer to "Tail Gate" Section for Removal and Installation procedures.

## COMPARTMENT PAN SIDE FILLER PANEL (Right or Left Side) "B" Body Two-Seat and Three Seat Styles

### Removal and Installation

1. On "35" Styles, use handle and fold rear luggage compartment panel forward until it is resting entirely on front luggage compartment panel (Fig. 15-70).



3319

Fig. 15-68—Folding Seats and Load Floor Panels - "B" Body Three-Seat Styles

- |                                              |                                         |
|----------------------------------------------|-----------------------------------------|
| 1. Folding Second Seat Back and Panel        | 4. Folding Third Seat Back and Panel    |
| 2. Rear Floor Filler Panel                   | 5. Folding Third Seat Cushion and Panel |
| 3. Rear Compartment Floor Panel (At Kick-Up) |                                         |

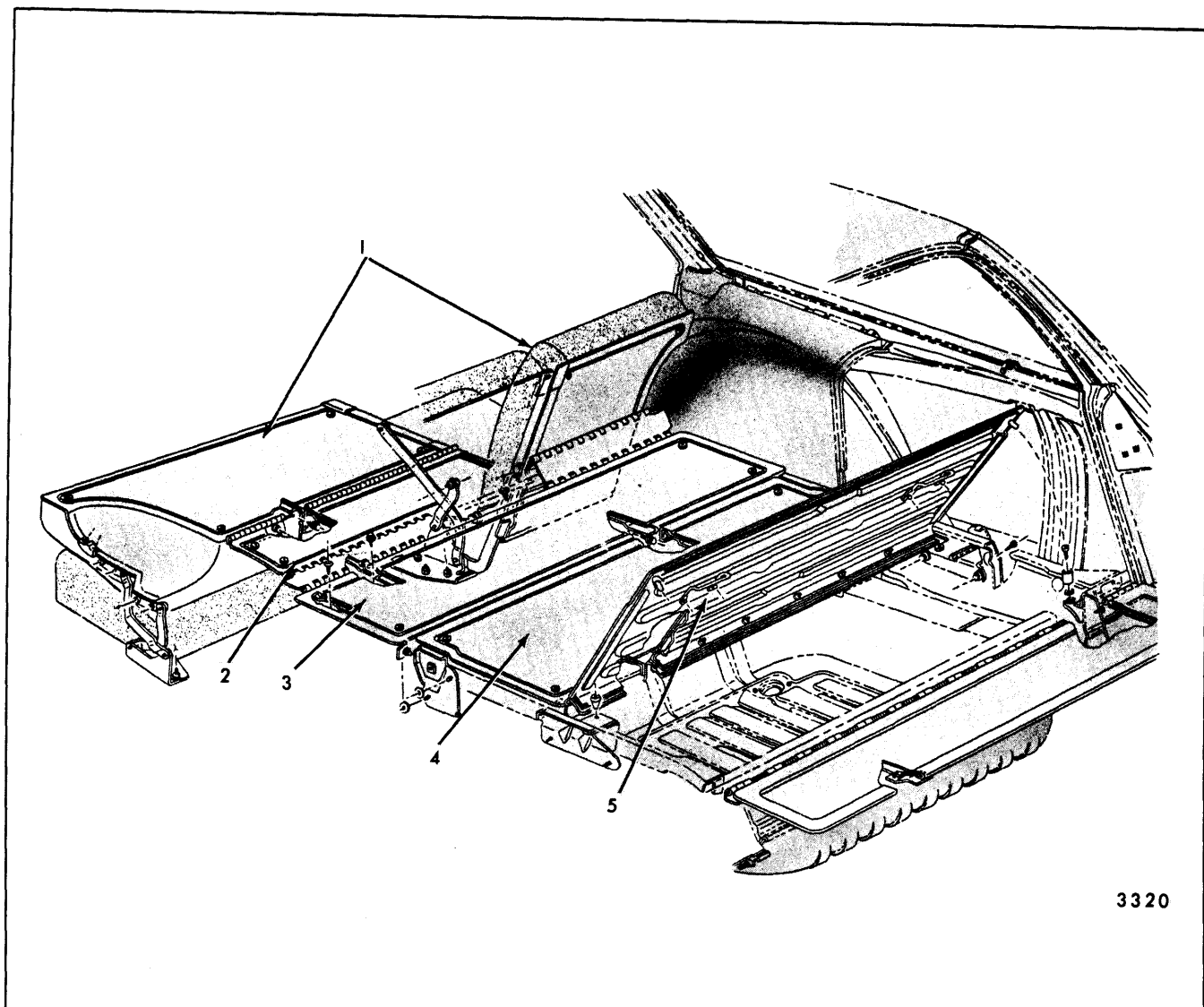
2. On "45" Styles, raise folding 3rd seat back assembly to up position; then raise 3rd seat bottom cushion assembly to up or "sitting" position.
3. For right floor side panel, remove spare tire cover panel.
4. On left side, remove screw which secures floor side panel to panel support.
5. Along inboard and outboard side facing of right and/or left panel, remove screws which secure panel to panel supports (Fig. 15-70) and remove panel(s) from body.
6. To install, reverse removal procedure. If installing new filler panel, apply cloth body tape

over all screw attaching holes. (See Fig. 15-70).

## LUGGAGE COMPARTMENT FRONT AND REAR PANEL ASSEMBLIES— Two-Seat Styles

### Removal and Installation

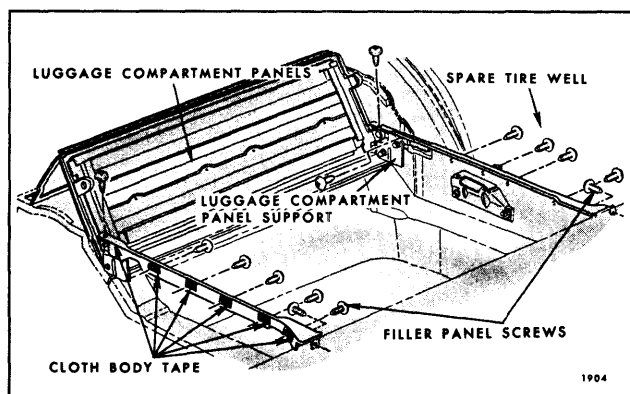
1. Using handle, fold rear luggage compartment panel forward until it is resting entirely on front luggage compartment panel.
2. Fold combined front and rear luggage compartment panels to "up" or half open position. (See Fig. 15-70).



3320

Fig. 15-69—Folding Seats and Load Floor Panels - "B" Body Two-Seat Styles with Split Second Seat Option

- |                                                                      |                                                 |                                             |
|----------------------------------------------------------------------|-------------------------------------------------|---------------------------------------------|
| 1. Folding Second Seat Back<br>(Split Seat Option) and Back<br>Panel | 2. Rear Floor Filler Panel                      | 4. Luggage Compartment Front<br>Cover Panel |
|                                                                      | 3. Rear Compartment Floor Panel<br>(At Kick-Up) | 5. Luggage Compartment Rear<br>Cover Panel  |



1904

Fig. 15-70—Rear Compartment Pan Side Filler Panels

3. Remove bolt (Fig. 15-71) at both sides of front panel securing front and rear panel assemblies to supports; then remove assembly from body.
4. To install, reverse removal procedure. Make sure bushing and spring washer are properly installed (Fig. 15-71).

**NOTE:** When replacing front luggage compartment panel with new part, transfer rear luggage compartment panel with attached hinge to new part.

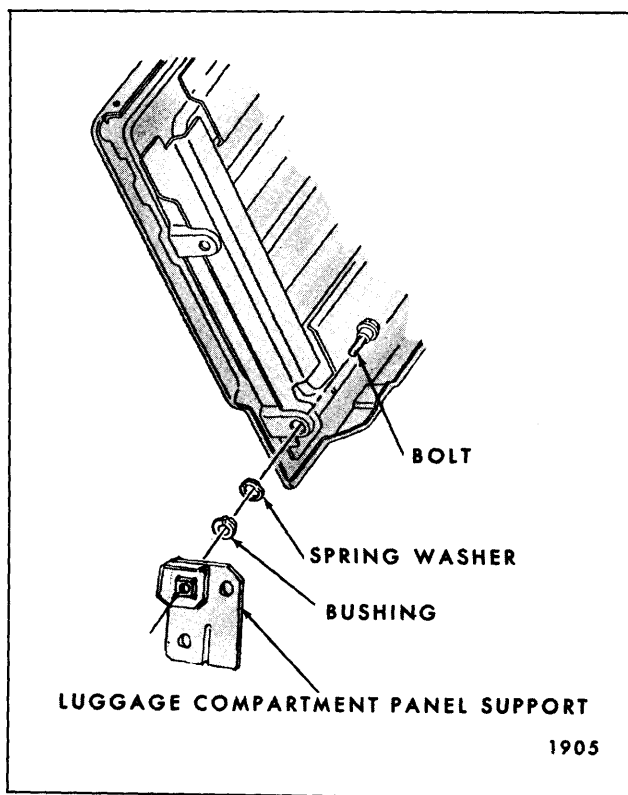


Fig. 15-71—Luggage Compartment Panel Attachment to Body

### LUGGAGE COMPARTMENT REAR PANEL ASSEMBLY—Two Seat Styles (See Figs. 15-66 and 15-69)

#### Removal and Installation

1. Using handle, fold rear luggage compartment panel forward until it is resting entirely on front luggage compartment panel.
2. Remove screws securing hinge assembly to rear luggage compartment panel and remove panel assembly from body.
3. To install, reverse removal procedure.

### LUGGAGE COMPARTMENT FRONT AND REAR PANEL HINGE ASSEMBLY—Two-Seat Styles (See Fig. 15-66 and 15-69)

#### Removal and Installation

1. Using handle, fold rear luggage compartment panel forward until it is resting entirely on front luggage compartment panel.
2. Remove screws securing hinge assembly to both front and rear panels and remove hinge from body.

3. To install, reverse removal procedure.

### FOLDING THIRD SEAT CUSHION—Three-Seat Styles

#### Removal and Installation

1. Lift third seat cushion to half raised position or approximately vertical to floor pan (Fig. 15-72).
2. Remove four seat cushion screws from rearward edge of cushion (Fig. 15-72).

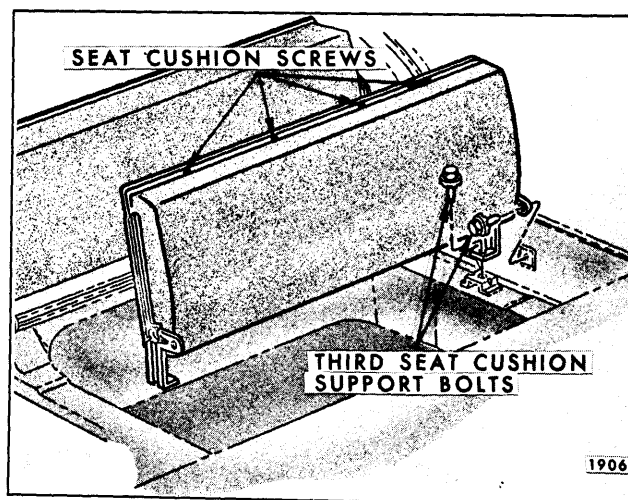


Fig. 15-72—Folding Third Seat Cushion

3. Pull rear edge of cushion away from flange of cushion panel then lift cushion upward to disengage cushion border wire from four tabs on panel. Remove cushion from body and place on a clean protected surface.
4. To install, reverse removal procedure. Make sure cushion border wire is engaged with all four panel tabs prior to installing cushion attaching screws.

### FOLDING THIRD SEAT CUSHION PANEL ASSEMBLY AND SUPPORT—Three-Seat Styles

#### Removal and Installation

1. Lift third seat cushion to a half raised position or approximately vertical to floor pan. (See Fig. 15-72).
2. Remove two bolts at each side of seat securing supports to body (Fig. 15-72), then, remove seat cushion, panel assembly and supports from body and place on a clean protected surface.



To remove support, remove cushion from panel assembly; then remove bolt securing support to cushion (Fig. 15-73).

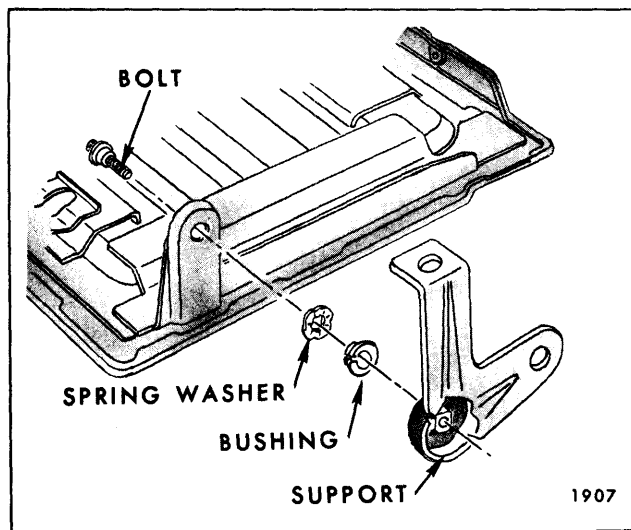


Fig. 15-73—Third Seat Cushion Panel and Support

3. To install, reverse removal procedure. If support was removed from seat cushion panel, make sure bushing and spring washer are properly installed. (See Fig. 15-73).

### FOLDING THIRD SEAT BACK TRIM ASSEMBLY—Three-Seat Styles

#### Removal and Installation

1. Raise third seat back assembly - leave cushion assembly in down position.
2. Remove four screws securing lower edge of seat back trim to seat back panel. (See Fig. 15-74).

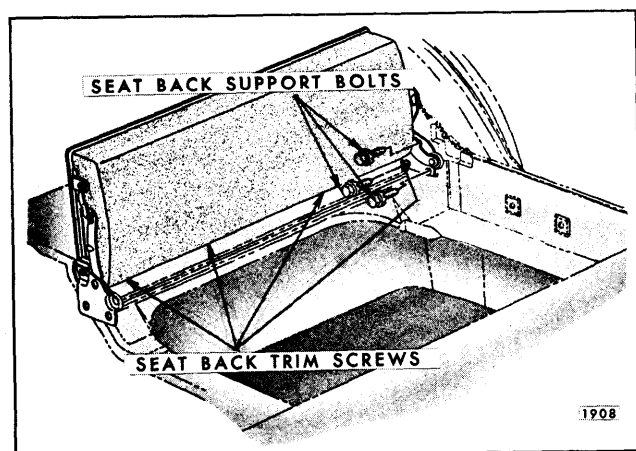


Fig. 15-74—Folding Third Seat Back

3. Pull lower edge of seat back trim slightly rearward; then, lift trim assembly upward to disengage trim border wire from four tabs on upper portion of panel. Remove trim assembly from body and place on a clean protected surface.
4. To install, reverse removal procedure. Make sure seat back trim border wire is engaged with all four panel tabs at upper portion of panel prior to installing seat back trim attaching screws.

### FOLDING THIRD SEAT BACK PANEL ASSEMBLY—Three-Seat Styles

#### Removal and Installation

1. Remove third seat back trim assembly.
2. At both sides of third seat back panel remove seat back linkage bolt (Fig. 15-75) and bolt securing seat back panel to support (Fig. 15-75), then remove seat back panel assembly from body.

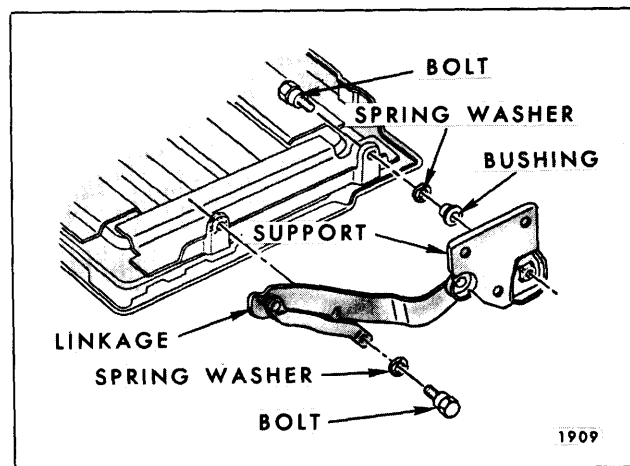


Fig. 15-75—Third Seat Back Panel and Linkage

3. To install, reverse removal procedure.

### FOLDING THIRD SEAT BACK LOCK—All "A&B" Body "45 & 46" Styles

#### Removal and Installation

1. Raise third seat back. At seat back right linkage carefully snap off lock bolt plastic cover.
2. Remove shoulder bolt securing lock latch and

spring to seat back frame (Fig. 15-76) and remove latch, spring and washer.

five screws securing panel to floor pan; then, remove compartment floor panel from body.

5. To install, reverse removal procedure.

## REAR FLOOR FILLER PANEL—All Styles (See Figs. 15-66 15-67 15-68 and 15-69)

### Removal and Installation

1. Remove compartment floor panel assembly (at kick-up) as previously described.
2. Along rear edge of filler panel, remove screws which secure panel to floor pan.
3. Fold filler panel forward sufficiently to remove screws which secure panel to folding 2nd seat back assembly and remove filler panel from body.
4. To install, reverse removal procedure.

## SECOND SEAT CUSHION—(Full Width or Split Seat)—All Styles

### Removal and Installation

1. Push lower forward edge of seat cushion rearward; then, lift upward and pull forward on seat cushion to disengage cushion frame wires from retainers on floor pan. (See Fig. 15-58 which is typical of station wagon two-seat styles).
2. To install, reverse removal procedure. Make certain wires on seat bottom frame are fully engaged in retainers on floor pan.

## FOLDING SECOND SEAT BACK TRIM AND SPRING ASSEMBLY (Full Width or Split Seat)—All Styles

### Removal and Installation

1. Raise folding second seat back and remove second seat cushion.
2. On underside of second seat back panel, remove screws securing seat back trim assembly to seat back panel (See Fig. 15-77).

**NOTE:** Do not remove screws securing rear floor filler panel hinge to second seat back panel.

3. Pull lower edge of seat back trim slightly forward; then lift trim assembly upward to disengage trim border wire from tabs on upper portion of panel. Remove trim assembly from body and place on a clean protected surface.

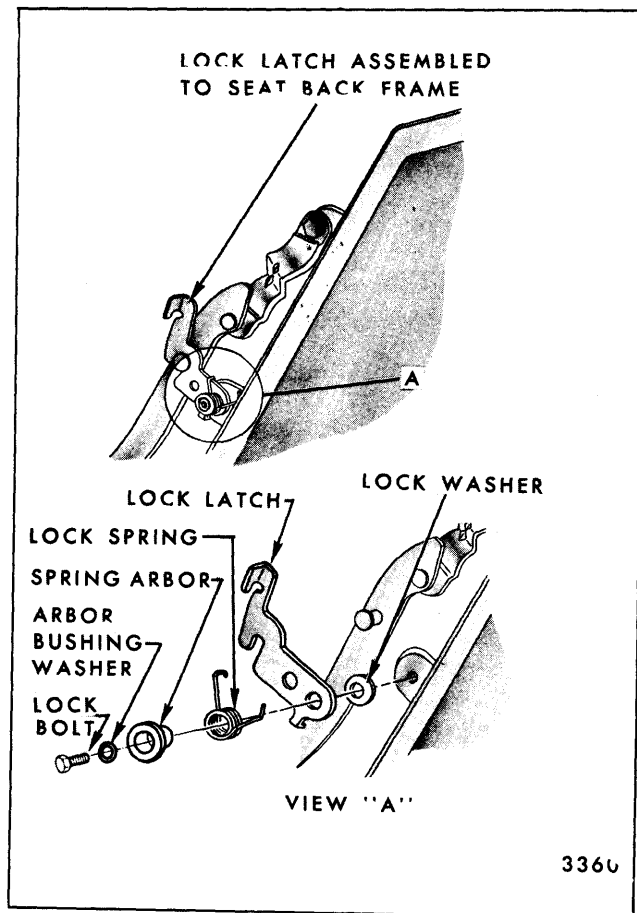


Fig. 15-76—Third Seat Back Lock - "A & B" Body Three-Seat Station Wagons

3. To install seat back lock, reverse removal procedure. Check operation of third seat back to assure proper operation of lock.

## COMPARTMENT FLOOR PANEL ASSEMBLY (At Kick-Up)—All Styles (See Figs. 15-66 15-67 15-68 and 15-69)

### Removal and Installation

1. On three-seat Styles, remove folding 3rd seat back assembly as previously described.
2. On two-seat Styles, remove luggage compartment front and rear panel assemblies (complete) as previously described.
3. Directly under rear edge of compartment floor panel remove four screws securing panel to floor pan.
4. At front of compartment floor panel remove

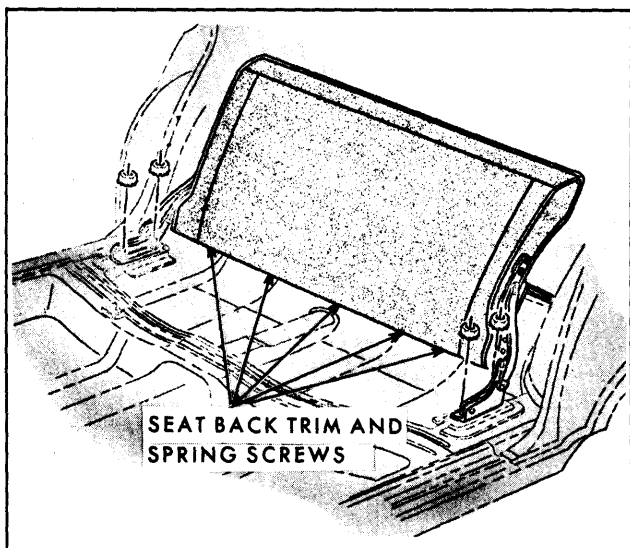


Fig. 15-77—Second Seat Back Trim and Spring Assembly

4. To install, reverse removal procedure. Make sure seat back trim border wire is engaged with panel tabs at upper portion of seat back panel prior to installing seat back trim attaching screws.

## FOLDING SECOND SEAT BACK TRIM, PANEL AND LINKAGE ASSEMBLY (Full Width or Split Seat)—All Styles

### Removal and Installation

1. Raise folding second seat back and remove second seat cushion.

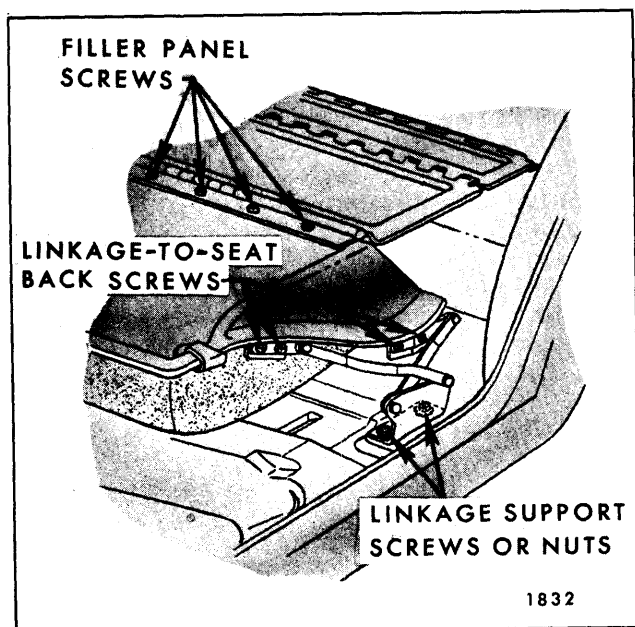


Fig. 15-78—Folding Second Seat Back Linkage and Filler Panel

2. On underside of folding second seat back remove screws securing rear floor filler panel hinge to seat back panel.

**NOTE:** Do not remove screws securing seat back trim assembly to seat back panel.

3. Mark position of folding second seat back linkage supports on floor pan. Remove nuts from both sides of seat back securing linkage supports to floor pan (See Figure 15-78 for full width seat, Fig. 15-79 for split seat).

Lift seat back assembly with attached linkage from body and place on a clean protected surface.

4. To remove linkage from folding second seat back remove linkage-to-seat back panel attaching bolts and remove linkage - See (Fig. 15-78 for full width seat, Fig. 15-79 for split seat).

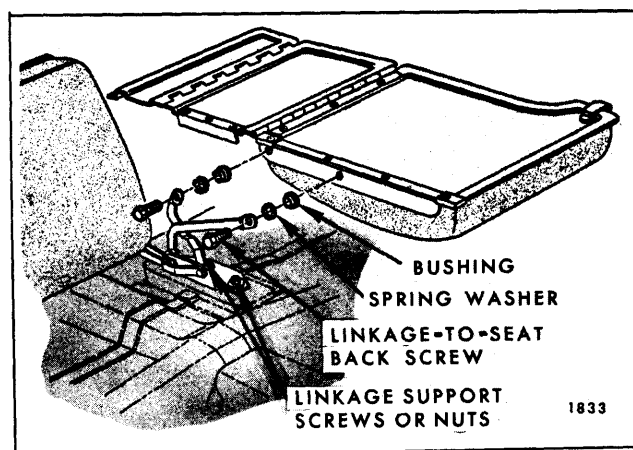


Fig. 15-79—Split Second Seat Inner Linkage

5. To install, reverse removal procedure. If linkage was removed from split seat back, make sure bushings and spring washers are properly installed prior to installing linkage attaching bolts. (See Fig. 15-79).

## FOLDING SECOND SEAT BACK LINKAGE ASSEMBLY—(Full Width Seat—Right or Left Side Split Seat—Outer Linkage Only)

If both right and left linkage assemblies are to be removed on full width second seat, remove second seat back trim, back panel and linkage assembly and remove linkage from seat back panel as described under "Folding Second Seat Back Trim, Panel and Linkage Assembly - Removal and Installation".

If one linkage assembly (right or left side) is to be removed proceed as follows:

### Removal and Installation

1. Remove second seat cushion.
2. Move folding second seat back forward just sufficiently to remove two lower linkage-to-seat back panel attaching screws. (See Fig. 15-78).
3. Carefully return seat back to full up position; then, place a support under seat back assembly to support seat back in this position.
4. Remove two upper linkage-to-seat back panel attaching screws. (See Fig. 15-78).
5. Remove nuts securing linkage support to floor pan (See Fig. 15-78), then carefully remove linkage assembly from seat back and floor pan.
6. To install, reverse removal procedure.

## FOLDING SECOND SPLIT SEAT BACK INNER LINKAGE ASSEMBLY

### Removal and Installation

1. Remove left second seat cushion and place left seat back in full up position. Place a support under right side of left seat back to support seat back in this position.
2. Place right seat back in partially down position (resting on seat cushion).
3. Remove nuts securing inner linkage assembly to floor pan (See Fig. 15-79).
4. Remove inner linkage-to-seat back bolts from both right and left seats (See Fig. 15-79); then carefully disengage inner linkage from seat backs and floor pan studs and remove linkage assembly.
5. To install, reverse removal procedure. Make sure bushings and spring washers are properly installed prior to installing linkage attaching bolts to both right and left seat back panels. (See Fig. 15-79).

## LUGGAGE COMPARTMENT LOCK CYLINDER—15-16000 Two-Seat Styles

### Removal and Installation

1. Open luggage compartment rear panel.
2. On underside of luggage compartment rear panel remove catch retainer and catch from lock cylinder case (Fig. 15-80), then turn lock

cylinder with key until cylinder can be removed from case.

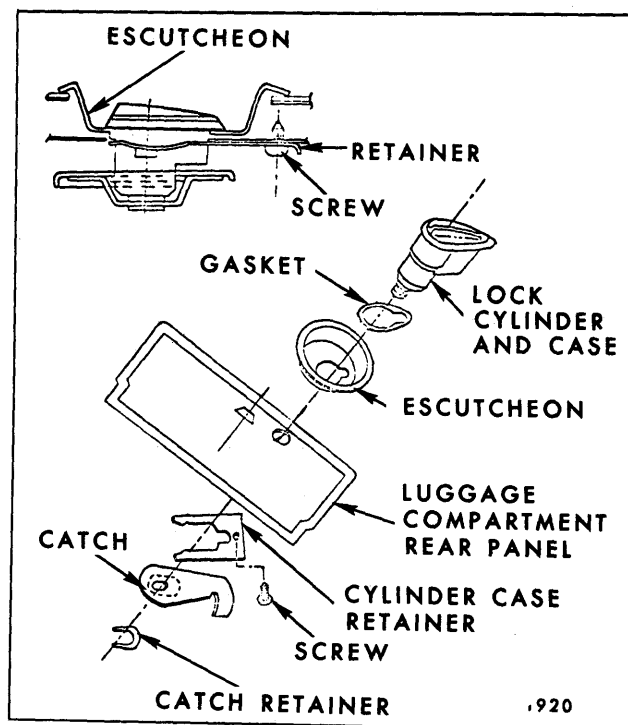


Fig. 15-80—Luggage Compartment Lock - Chevrolet "B" Styles

3. To install, reverse removal procedure.

## LUGGAGE COMPARTMENT Two-Seat Styles

### Removal and Installation

1. Open luggage compartment rear panel.
2. On underside of luggage compartment rear panel, remove catch retainer and catch (Fig. 15-80).
3. Remove lock cylinder case retainer screw and retainer (Fig. 15-80); then, remove lock cylinder and case, gasket and escutcheon from panel (Fig. 15-80).
4. To install, reverse removal procedure.

## FOLDING SECOND SEAT BACK LOCK (Full Width or Split Seat)—All "A&B" Styles (Except "A-55-56 and 65-66" Styles)

### Description

The station wagon full width folding second seat

incorporates a seat back lock located on the upper right side of the seat back. On split second seat option a seat back lock is located at the upper outer side of each seat back. The folding second seats can be folded down by actuating the lock handle forward and pulling the seat back down.

### FOLDING SECOND SEAT BACK LOCK (Full Width or Split Seat—All "A&B" Styles (Except "A-55-56 Styles with Split Second Seat Option and 65-66" Styles)

#### Removal and Installation

1. Remove folding second seat back trim and spring assembly, as previously described.
2. Remove seat back lock handle attaching screw (Fig. 15-81) and remove lock handle.

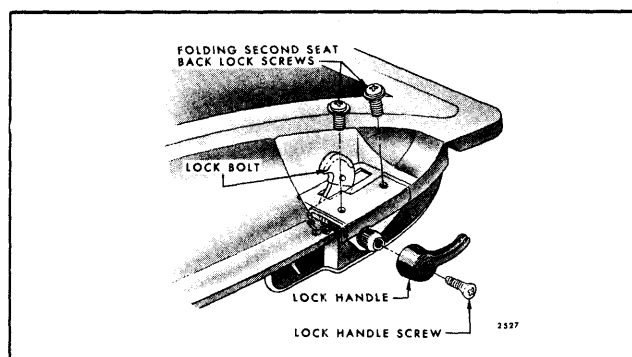


Fig. 15-81—Folding Second Seat Back Lock Installation - All "A & B" Station Wagons (Except Vista Cruiser and Sport Wagon Styles)

3. Remove seat back lock attaching screws (Fig. 15-81) and remove seat back lock from seat back panel.
4. To install seat back lock assembly, reverse removal procedure. A small amount of lock adjustment is available to obtain proper engagement of lock bolt with lock striker on wheelhouse as shown in Fig. 15-82.

### STATION WAGON FOLDING SEATS AND FLOOR PANELS "55-56-65-66" Styles

#### Description

The Vista Cruiser and Sport Wagon "55 & 56" Style Skylight station wagons have a full width folding second seat on which the seat back folds flush with the floor panels. A luggage compartment is provided under the luggage compartment floor panel.

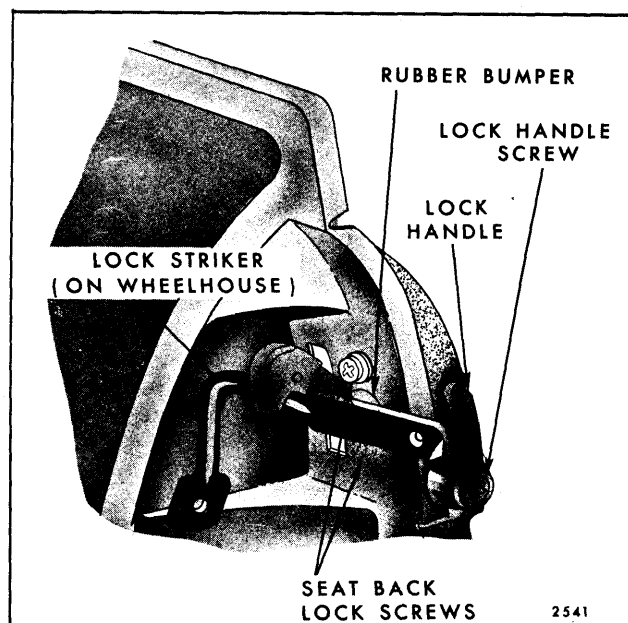


Fig. 15-82—Folding Second Seat Back Lock and Striker - All "A & B" Station Wagons (Except Vista Cruiser and Sport Wagon Styles)

A split folding second seat - 1/3 (left side), 2/3 (right side) is available as an option on the "55 & 56" Style Skylight station wagon. Figure 15-83 identifies the major folding seats and load floor panels on the "55 & 56" station wagon with split second seat option.

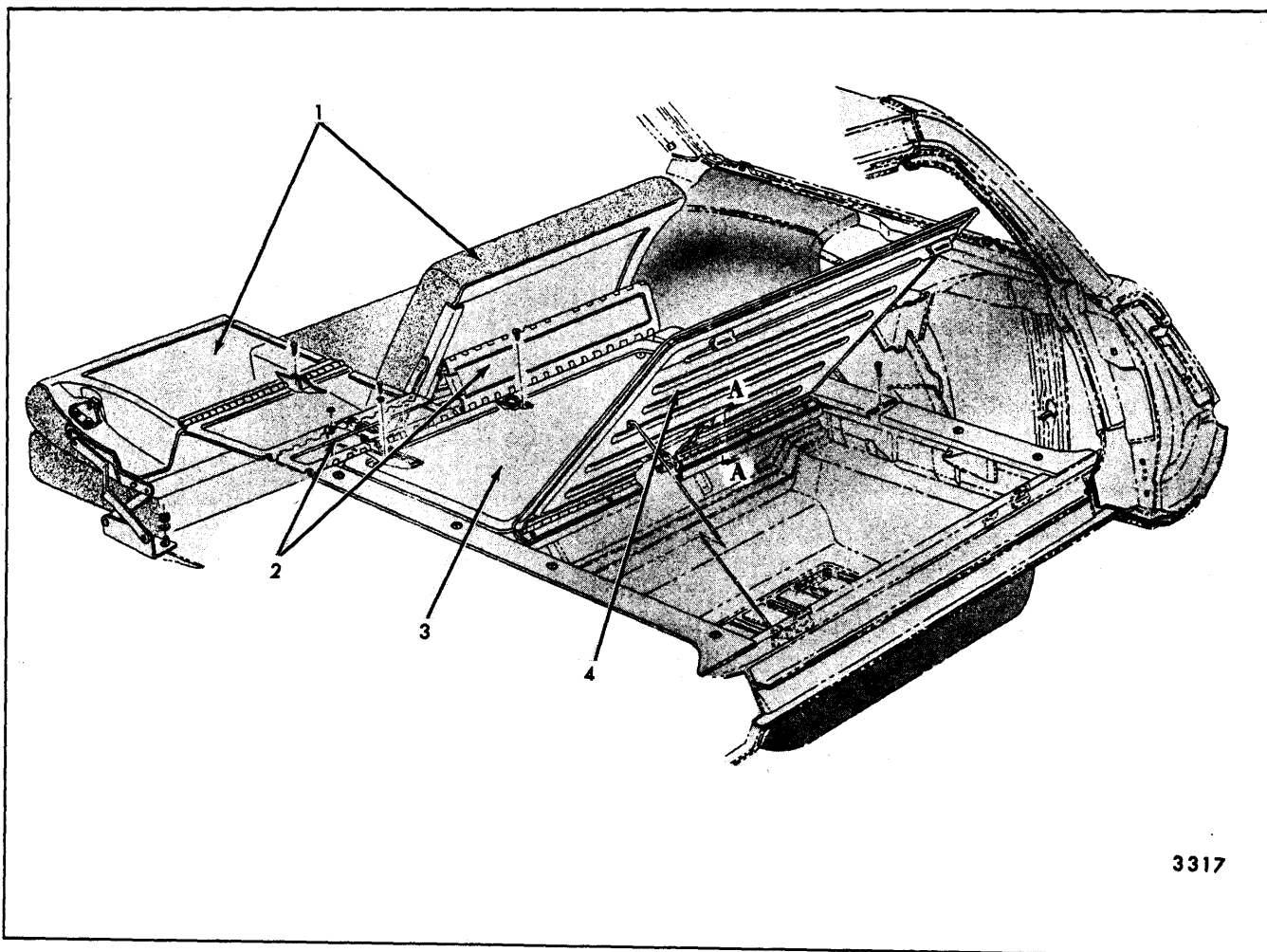
The service procedures for the "55" Style station wagon full width folding second seat are the same as for the "B-36" Style station wagon folding second seat.

The "65 & 66" Style station wagons have a full folding split second seat - 1/3 (right side), 2/3 (left side).

Both sections of the folding second seat are hinged to the floor pan and can be folded forward to provide entrance room into the third seat area. Also both sections of the folding second seat back can be folded flush with the floor panels. A seat back lock located at the outer linkage of both right and left folding second seat backs, locks the seat backs in the up position and must be released to fold the seats.

The full 3/4 width folding third seat is provided with a positive acting lock at the right side linkage.

The lock handle is depressed to lock the seat in the up position and pulled upward to release the lock and allow the seat to be folded.



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Fig. 15-83—Folding Seats and Load Floor Panels - "A" Body Vista Cruiser and Sport Wagon Two-Seat Styles with Split Second Seat Option

- |                                                                       |                                                 |                                       |
|-----------------------------------------------------------------------|-------------------------------------------------|---------------------------------------|
| 1. Folding Second Seat Back<br>(Split Seat Option) and Back<br>Panels | 2. Rear Floor Filler Panel                      | 4. Luggage Compartment Cover<br>Panel |
|                                                                       | 3. Rear Compartment Floor Panel<br>(At Kick-Up) |                                       |

Figure 15-84 identifies the major folding seats and load floor panels on the "65 & 66" Style Skylight station wagon.

## FOLDING SECOND SEAT ASSEMBLY— Right or Left Seat—"55-56-65-66" Styles

### Removal and Installation

1. Remove rear door sill plate and turn back floor carpeting sufficiently to gain access to nuts securing folding seat front and rear linkage to floor pan (Figs. 15-85 and 15-86).
2. Mark position of seat front and rear linkage supports on floor pan to facilitate installation of seat in same position.

3. Remove nut and washer assemblies securing front and rear linkage to floor pan (Figs. 15-85 and 15-86); then, remove seat assembly from body.

4. To install seat assembly, reverse removal procedure. Align linkage floor pan supports with previously made marks prior to tightening nuts.

## FOLDING SECOND SEAT CUSHION ASSEMBLY—Right or Left Side— "55-56-65-66" Styles

### Removal and Installation

1. Remove folding second seat assembly from

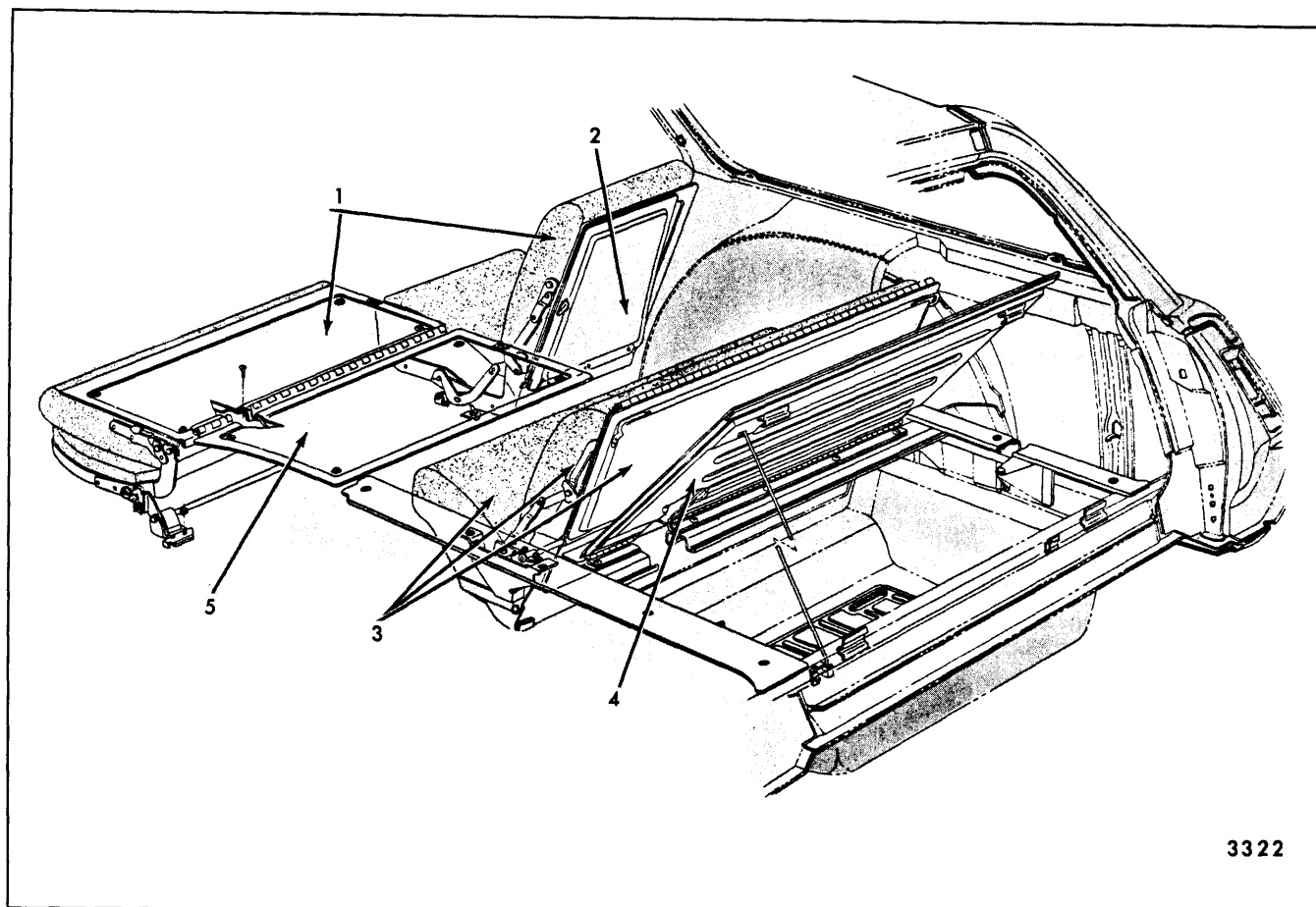


Fig. 15-84—Folding Seats and Load Floor Panels - "A" Body Vista Cruiser and Sport Wagon Three-Seat Styles

- |                                                        |                                                    |                            |
|--------------------------------------------------------|----------------------------------------------------|----------------------------|
| 1. Folding Second Seat Back and Panel - Left and Right | 3. Folding Third Seat Cushion, Back and Back Panel | 5. Rear Floor Filler Panel |
| 2. Rear Floor Filler Panel - Right and Left            | 4. Luggage Compartment Cover Panel                 |                            |

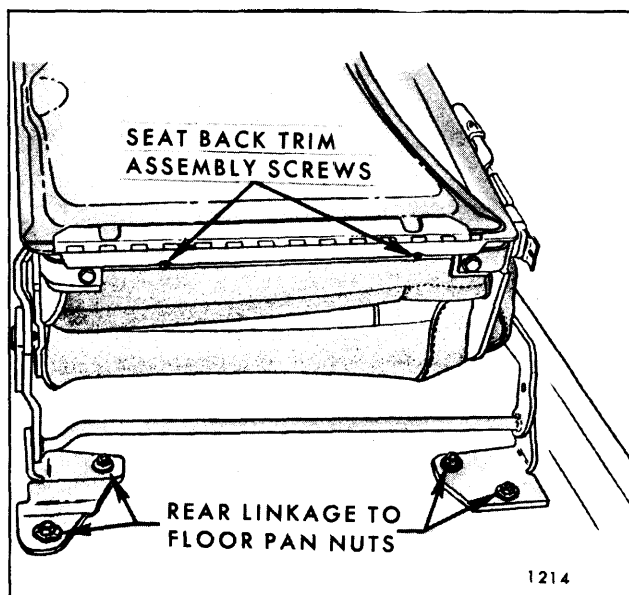


Fig. 15-85—Folding Second Seat Rear Linkage

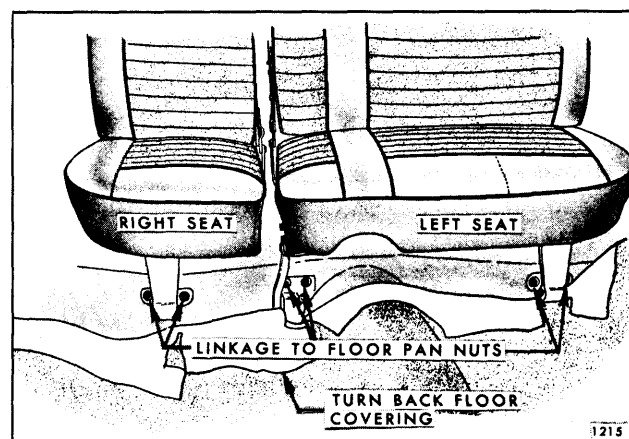


Fig. 15-86—Folding Second Seat Front Linkage (Vista Cruiser and Sport Wagon Styles)

car, as previously described and place on a clean surface.

2. Remove hog rings and detach outboard rear

portion of trim sufficiently to remove three screws securing seat outer link to cushion frame. (Fig. 15-87).

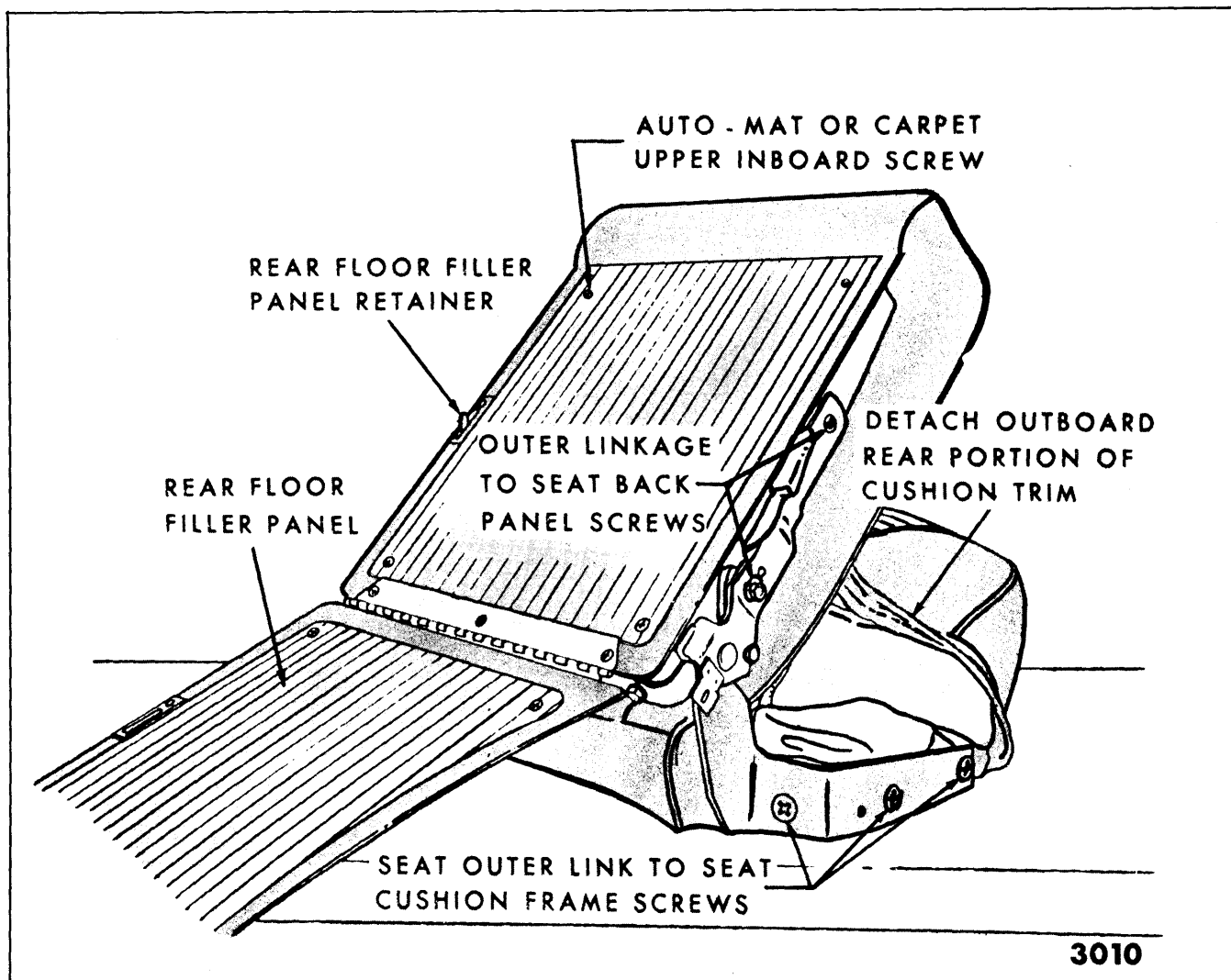


Fig. 15-87—Folding Second Seat Cushion Assembly (Right or Left Side) - Vista Cruiser and Sport Wagon Styles

3. Remove three screws securing seat inner link to cushion frame (Fig. 15-88); then remove seat cushion and frame assembly from linkage. If required, remove cushion front and rear floor pan linkage.

4. To install, reverse removal procedure.

### FOLDING SECOND SEAT BACK TRIM AND SPRING ASSEMBLY—Right or Left Seat—"55-56-65-66" Styles

#### Removal and Installation

1. Fold second seat back forward.
2. Remove seat back trim assembly attaching screws. (See Fig. 15-85).

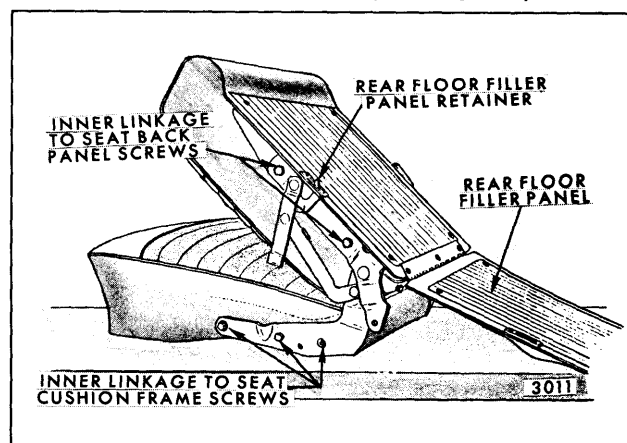


Fig. 15-88—Folding Second Seat Cushion Assembly (Right or Left Side) - Vista Cruiser and Sport Wagon Styles



3. Raise seat back; then, pull seat back trim assembly upward to disengage wire loops at top of seat back trim from slots in seat back panel.

**NOTE:** If seat back trim does not readily disengage from seat back panel, fold rear floor filler panel down and remove upper inboard screw securing automat or carpet (Fig. 15-87). Then remove seat back trim assembly.

4. To install seat back trim assembly, reverse removal procedure.

### FOLDING SECOND SEAT FRONT FLOOR PAN LINKAGE—Right or Left Seat— “55-56-65-66” Styles

#### Removal and Installation

1. Place seat in an up position. Turn back floor carpet sufficiently to gain access to front linkage floor pan attaching nuts.
2. Mark location of front linkage support on floor pan to facilitate installation in same position. Support front of seat. Remove bolts securing linkage to seat and nuts securing linkage to floor pan studs (See Fig. 15-86); then, remove front linkage.
3. To install, reverse removal procedure making sure linkage support on floor pan is aligned with previously made alignment mark.

### FOLDING SECOND SEAT REAR FLOOR PAN LINKAGE—Right or Left Seat— “55-56-65-66” Styles

#### Removal and Installation

1. Remove folding second seat assembly from car as previously described and place on a clean surface.
2. Remove screws securing rear floor pan linkage to each side of seat cushion frame (Fig. 15-89); then, remove linkage assembly from seat.
3. To install, reverse removal procedure. Inserts in Figure 15-89 show relationship of linkage, bushings and attaching screws.

### FOLDING SECOND SEAT SIDE INNER LINKAGE—Right or Left Seat— “55-56-65-66” Styles

#### Removal and Installation

1. Remove folding second seat assembly from car as previously described and place on a clean surface.

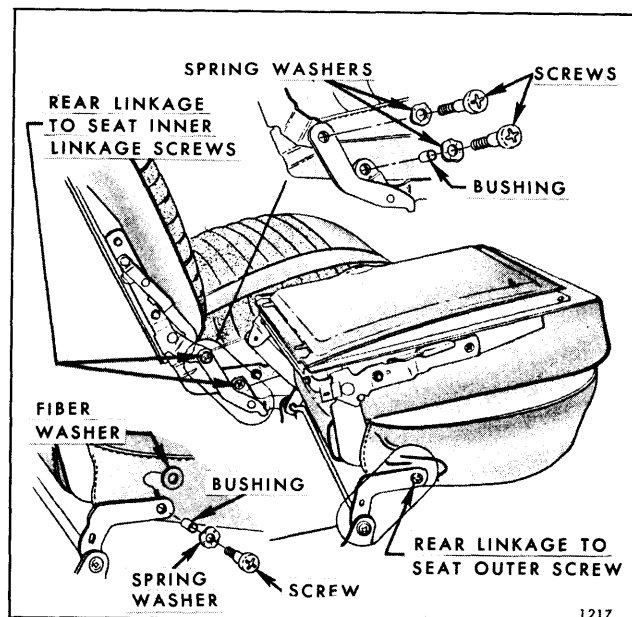


Fig. 15-89—Floor Pan Rear Linkage (Vista Cruiser and Sport Wagon Styles)

2. Remove floor pan rear linkage-to-seat inner linkage attaching screws (Fig. 15-89).
3. Remove seat inner linkage-to-seat back panel and seat cushion frame attaching screws (See Fig. 15-88); then, disengage and remove side linkage from seat.
4. To install, reverse removal procedure. Make sure rear floor filler panel retainer is inserted through slot in seat back panel prior to installing inner linkage-to-seat back panel attaching screws.

### FOLDING SECOND SEAT SIDE OUTER LINKAGE—Right or Left Seat— “55-56-65-66” Styles

#### Removal and Installation

1. Remove folding second seat assembly from car as previously described and place on a clean surface.
2. Remove outer linkage cover. Remove rear floor pan linkage to seat outer attaching screw (Fig. 15-89).
3. Remove hog rings and detach rear portion of trim sufficiently to remove three screws securing outer linkage to seat cushion frame. (See Fig. 15-87).
4. Remove outer linkage-to-seat back panel attaching screws (See Fig. 15-87); then, remove linkage and seat back catch from seat.

5. To install, reverse removal procedure. Install seat back lock and spring as described under "Folding Second Seat Back Lock - Removal and Installation".

## FOLDING SECOND SEAT BACK LOCK— Right or Left Seat—"55-56-65-66" Styles

### Removal

1. Remove seat back trim assembly, as previously described. Remove outer linkage cover.
2. Remove outer linkage-to-seat back panel attaching screws (See Fig. 15-87).
3. Remove lock handle, spring and bushing from linkage.

### Installation

1. Position bushing and spring on lock handle.
2. Install lock handle, bushing and spring into position between seat back panel and outer linkage making sure end of spring is engaged in hole in outer link (Fig. 15-90).

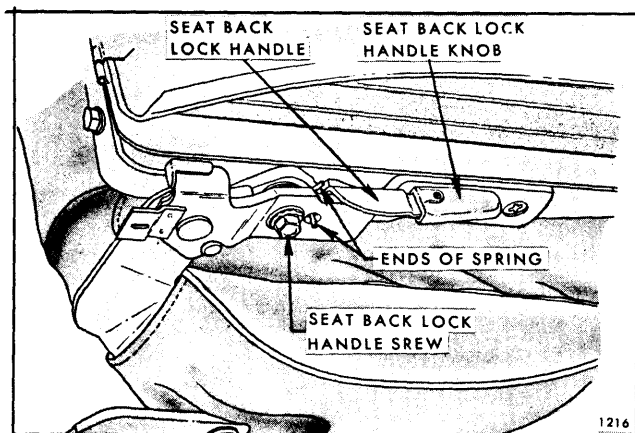


Fig. 15-90—Seat Back Lock (Vista Cruiser and Sport Wagon Styles)

3. Install lock handle attaching screw; then, install outer linkage to seat back panel attaching screws (Fig. 15-87).
4. Install seat back trim assembly and outer linkage cover.

## FOLDING SECOND SEAT BACK PANEL AND FILLER PANEL—Right or Left Seat— "55-56-65-66" Styles

### Removal and Installation

1. Remove seat back trim assembly, as previously described. Remove outer linkage cover.

2. Remove outer and inner linkage to seat back attaching screws (Fig. 15-91). Remove seat back lock handle, spring and bushing from between outer linkage and seat back panel; then, remove seat back panel and rear floor filler panel from linkage.

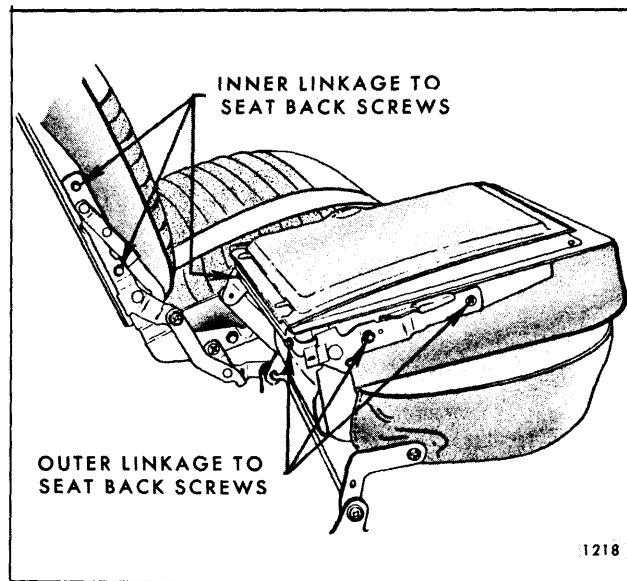


Fig. 15-91—Seat Inner and Outer Linkage (Vista Cruiser and Sport Wagon Styles)

3. To install, reverse removal procedure. To install seat back lock refer to "Folding Second Seat Back Lock - Installation".

## FOLDING THIRD SEAT AND FLOOR PANEL ASSEMBLY—"65-66" Styles

### Removal and Installation

1. Raise folding third seat. Remove rear compartment left side panel (See Fig. 15-84).
2. Remove seat back linkage-to-compartment side pan attaching bolt (Fig. 15-92) at both right and left sides of seat.
3. At left side of seat remove seat back hinge pin retainer (Fig. 15-92).
4. Carefully move seat back assembly to the left sufficiently to disengage right seat back hinge pin from hinge pin retainer; then, remove folding third seat assembly from body and place on a clean surface.
5. To install folding third seat and floor panel assembly, reverse removal procedure. Make sure a seat back hinge pin bushing is installed over both hinge pins. Also install flat washer

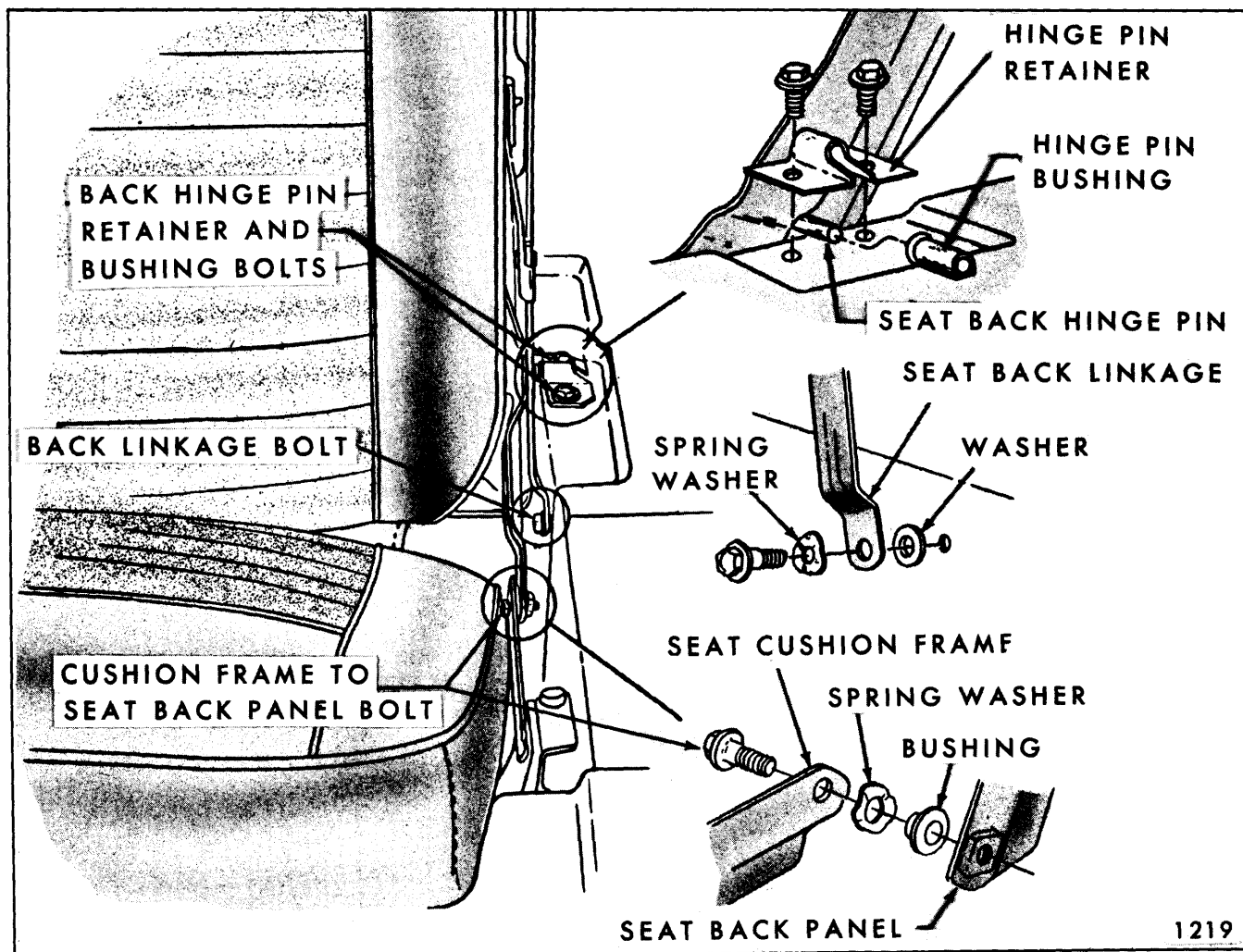


Fig. 15-92—Folding Third Seat (Vista Cruiser and Sport Wagon Styles)

between seat back linkage and compartment side pan and spring washer between linkage and bolt head (Fig. 15-92).

### FOLDING THIRD SEAT CUSHION TRIM ASSEMBLY—"65-66" Styles

#### Removal and Installation

1. Raise folding third seat. Raise front of third seat cushion and prop in up position.
2. Remove hog rings securing seat back trim flap to bottom of seat cushion (Fig. 15-93).
3. Remove seat cushion frame-to-seat back panel attaching bolt (Fig. 15-92) from both sides of seat; then, remove seat cushion assembly and place on a clean surface.
4. As a bench operation remove hex-head screws securing seat cushion trim to seat cushion

frame (Fig. 15-93) and three screws securing rear edge of seat cushion trim to seat cushion frame; then, remove cushion trim assembly from cushion frame.

5. To install, reverse removal procedure. When installing seat cushion frame-to-seat back panel attaching bolts install bolt bushing and spring washer, as shown in insert of Figure 15-92.

### FOLDING THIRD SEAT BACK TRIM ASSEMBLY OR SEAT BACK PANEL ASSEMBLY—"65-66" Styles

#### Removal and Installation

1. Remove folding third seat and floor panel assembly, as previously described, and place on a clean surface.

2. Remove hog rings securing seat back trim flap to bottom of seat cushion (Fig. 15-93).

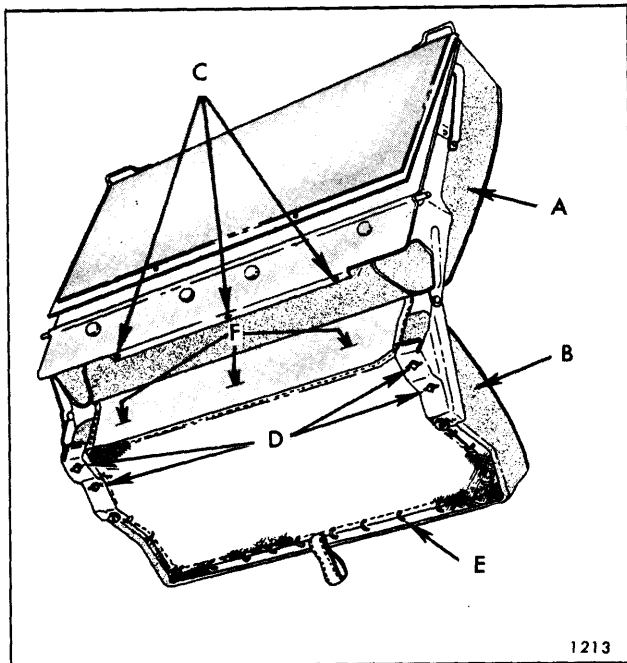


Fig. 15-93—Folding Third Seat Assembly

- |                                                       |                                                                                 |
|-------------------------------------------------------|---------------------------------------------------------------------------------|
| A. Third Seat Back                                    | E. Hog Rings Securing Seat Back Trim Flap                                       |
| B. Third Seat Cushion                                 | F. Location of Cushion Trim to Cushion Frame Attaching Screws (Under Trim Flap) |
| C. Seat Back Trim to Seat Back Panel Attaching Screws |                                                                                 |
| D. Cushion Trim to Cushion Frame Attaching Screws     |                                                                                 |

3. To remove seat back trim assembly remove seat back trim-to-seat back panel attaching screws (Fig. 15-93); then, lift trim assembly upward to disengage wire loops on seat back trim from slots in seat back panel and remove trim assembly.
4. To remove seat back panel assembly, remove seat cushion frame-to-seat back panel attach-

ing bolt (Fig. 15-92); then, remove seat back panel with attached rear floor filler (at kick-up) panel from seat cushion.

5. To install, reverse removal procedure. Refer to inserts in Figure 15-92 for correct installation of linkage bolts, bushings and spring washers.

## FOLDING THIRD SEAT BACK LOCK— “65-66” Styles

### Removal and Installation

1. Raise folding third seat back sufficiently to gain access to seat back lock at right side of seat.
2. Remove lock attaching bolt finishing cap.
3. Remove shoulder bolt securing lock to rear seat compartment side panel and remove lock latch, spring and washer.
4. To install seat back lock latch, spring and washer, reverse removal procedure. Check operation of third seat back to assure proper operation of lock.

## LUGGAGE COMPARTMENT COVER PANEL AND FILLER PANEL— “55-56-65-66” Styles

### Removal and Installation

1. Raise luggage compartment cover panel and support cover panel in up position.
2. Remove five hex-head screws securing cover panel to cross bar; then remove luggage compartment cover panel and filler panel.
3. To install, reverse removal procedure.

## SEAT BELTS AND SHOULDER STRAPS General Information—All Styles

Front and rear seat belts and front seat shoulder straps, except convertible shoulder straps, are installed on all cars as standard equipment. Convertible style front seat shoulder straps and rear seat shoulder straps, including station wagon second and third seat shoulder straps, are available as factory optional equipment or as a dealer installed accessory.

Before servicing or replacing seat belts and shoulder straps, refer to the following precautionary items:

1. Seat belts must be serviced in matched sets.
  - a. DO NOT replace one-half of seat belt or shoulder strap set.

- b. DO NOT intermix standard and deluxe seat belts or shoulder straps on front or rear seats.
2. Keep sharp edges and damaging objects away from seat belts or shoulder straps.
3. Exercise caution to avoid bending or damaging any portion of the belt buckle or latch.
4. Do not bleach or re-dye belt or strap webbing (clean with a mild soap solution and water).
5. When installing seat belt or shoulder strap anchor bolt, start bolt by hand to assure that bolt is threaded straight.
6. DO NOT attempt repairs on seat belt retractor mechanisms. Replace defective part with new service replacement parts.
7. Tighten seat belt or shoulder strap floor pan anchor bolts to specified torque - 24 to 45 ft. lbs. Tighten shoulder strap roof rail, quarter panel or shelf panel bolts - 12 to 18 ft. lbs.

**IMPORTANT:** Specified 1/2 inch - 13 UNC - 2A bolts must be used for all seat belt and shoulder strap floor pan anchorages. Shoulder strap roof rail, quarter panel and shelf panel anchorages use specified 5/16 inch - 18 UNC 2A bolts.

### STANDARD FRONT SEAT BELT RETRACTOR—FLOOR MOUNT (Includes "X" Bodies Non-Swivel Retractor)

To disengage standard seat belt retractor cover, carefully exert pressure in direction of arrows, Figure 15-94, to disengage the cover from tabs on the retractor. Lift cover to expose seat belt retractor anchor bolt and remove bolt.

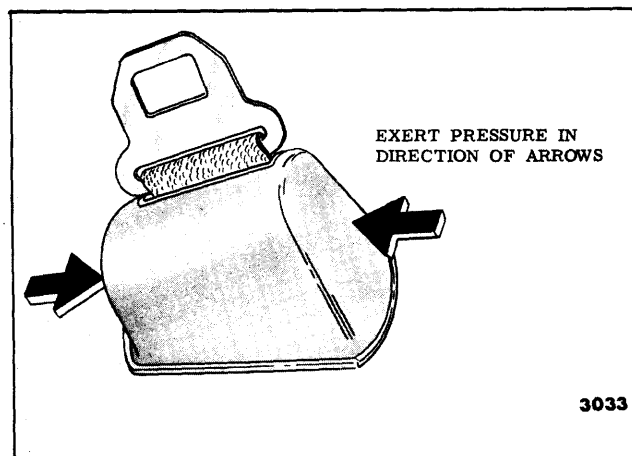


Fig. 15-94—Front Seat Standard Belt Retractor

### STANDARD FRONT SEAT BELT RETRACTOR (Swivel Type—"X" Body Coupes)

To disengage seat belt retractor cover, place finger under outboard rear corner of cover and pull outward while pulling cover "up" with other hand. Lift up cover to expose retractor anchor bolt and remove bolt.

### DELUXE FRONT SEAT BELT RETRACTOR—FLOOR MOUNT

With belt fully extended, insert screwdriver through belt opening in cover, as shown in Figure 15-95,

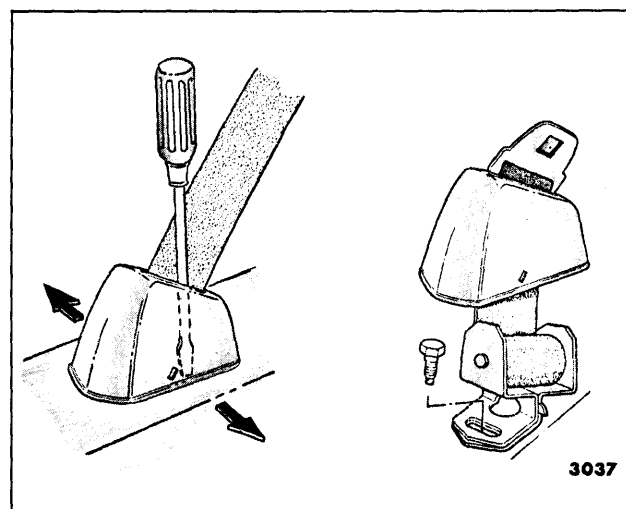


Fig. 15-95—Front Seat Deluxe Belt Retractor

apply just enough outward pressure to inside of cover adjacent to metal tabs to disengage cover from tabs. Lift up cover to expose seat belt retractor anchor bolt.

### SELF LOCKING FRONT SEAT BELT RETRACTORS

#### Removal

1. Position front seat assembly to full forward and up positions.
2. Insert the blade of a 2-1/2" or 4" flat bladed screw driver up under the retractor cover and engage blade of screw driver over top of retaining spring, as shown in Figure 15-96. Press retaining spring downward; then, pull retractor and cover assembly rearward and upward to disengage retractor and cover from anchor plate assembly.
3. Remove anchor plate attaching bolt and remove anchor plate assembly.

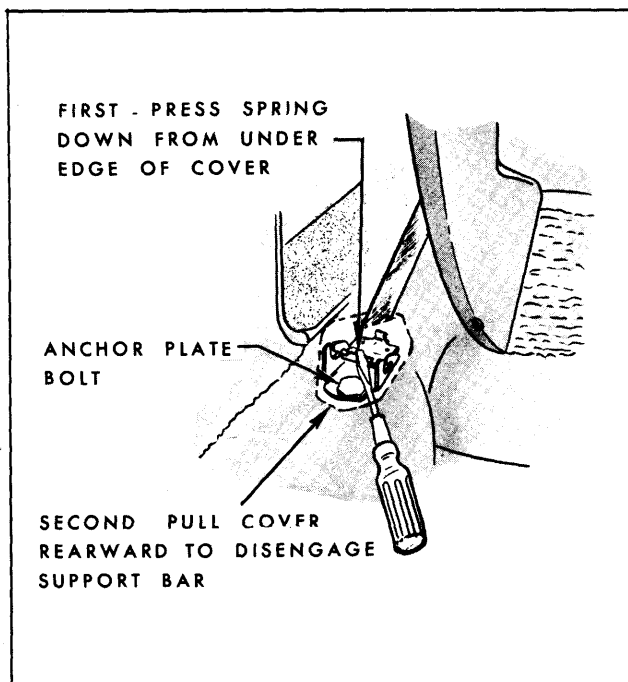


Fig. 15-96—Front Seat Belt Self-Locking Retractor - Removal

### Installation

1. Properly position anchor plate assembly on floor pan and start attaching bolt by hand. Tighten anchor plate attaching bolt to specified torque (24 to 45 ft. lbs.).
2. Position retractor and cover assembly over anchor plate assembly so that bar in retractor is aligned with slots in anchor plate (See Figure 15-97). Push rear of retractor assembly down and then forward to lock retractor to anchor plate.

**NOTE:** An audible snap will be heard when retaining spring on anchor plate locks retractor bar into position.

3. Check operation of seat belt retractor and locking release knob several times to assure proper operation.

**IMPORTANT:** DO NOT attempt any repairs on either the retractor and cover mechanism or the anchor plate assembly. In addition seat belts must be serviced in matched sets (retractor and cover assembly, anchor plate assembly and buckle end of belt) - DO NOT replace only one part of seat belt set.

### REAR SEAT BELT BAIL TYPE RETRACTOR

As an option, seat belts are available with bail type seat belt retractors on the outboard rear seat belt only.

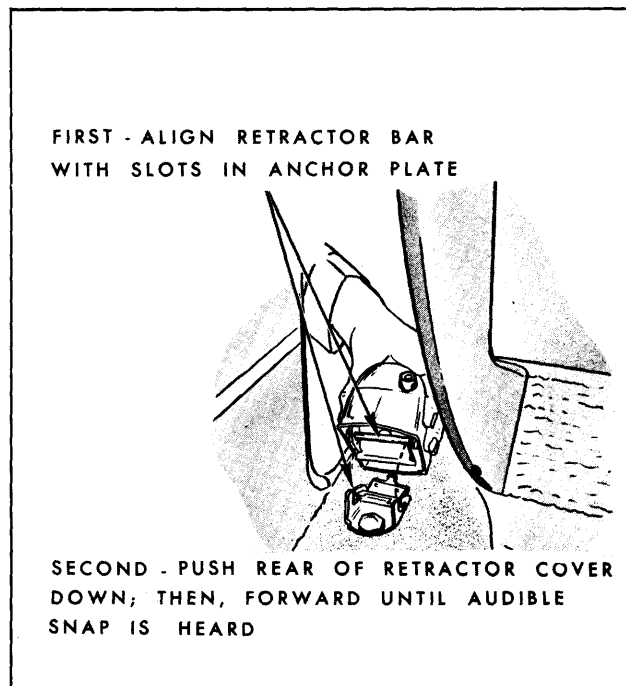


Fig. 15-97—Front Seat Belt Self-Locking Retractor - Installation

### Removal

1. Extend outboard seat belt to full length.
2. Insert a piece of stiff wire such as a paper clip in slot in roller drum to maintain spring tension of retractor (See Fig. 15-98).



Fig. 15-98—Removal of Bail Type Retractor From Seat Belt

**IMPORTANT:** Keep wire in slot until retractor is reinstalled. In the event that spring tension is lost, drum on retractor can be

turned 8 revolutions by hand to regain spring tension.

3. Using a flat-bladed tool pry open tabs that secure belt webbing on drum and remove retractor from belt (See Fig. 15-98).

### Installation

1. With seat belt fully extended, insert belt under tabs on retractor (tabs of retractor should be on inboard side of belt webbing and bail pointing forward) and position retractor at center of belt webbing.
2. Using pliers, lightly bend down tabs to secure retractor in correct position on belt webbing.
3. Remove wire from slot in drum (when installing a new retractor, remove retaining clip on retractor drum to release spring tension) and allow belt to roll up on retractor.

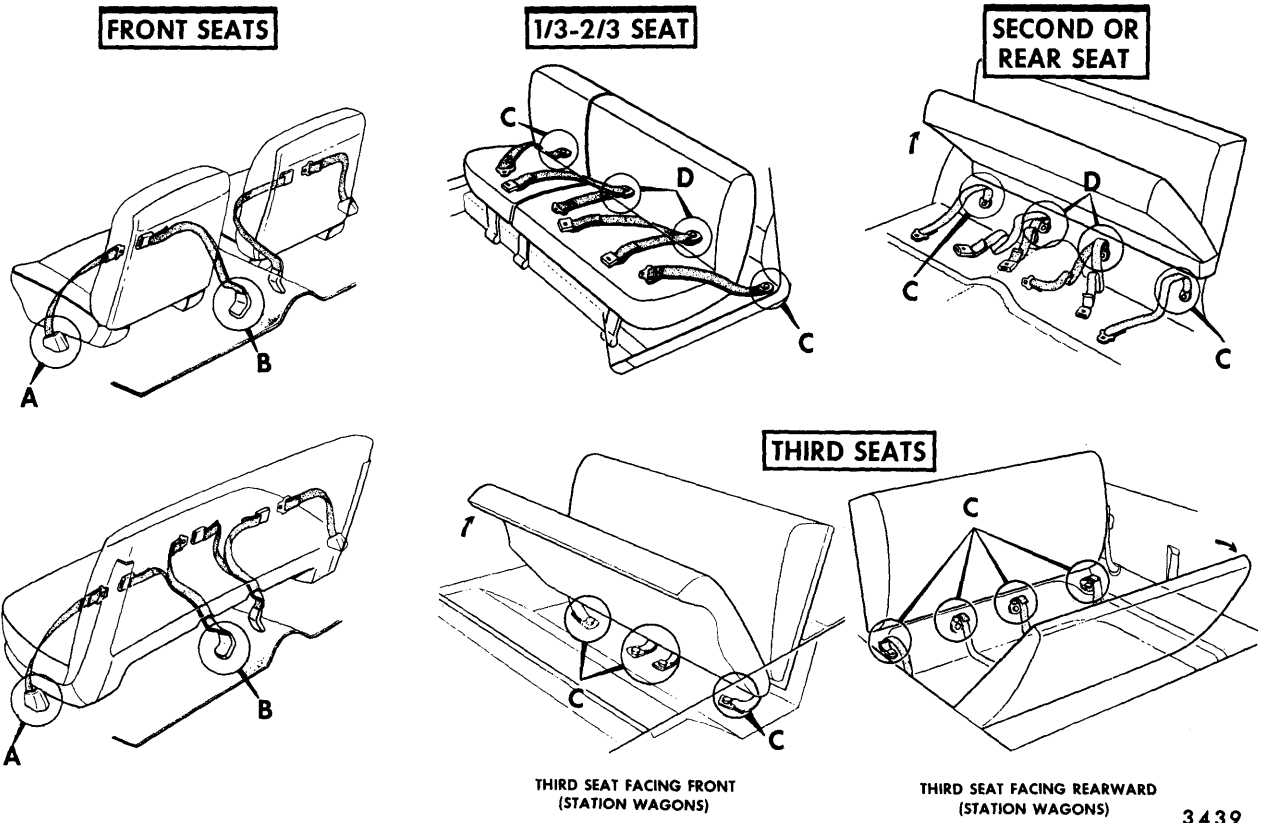
## SEAT BELTS AND SHOULDER STRAPS

### Removal and Installation

Refer to figures 15-99 through 15-114 and select the appropriate illustration for removing and installing seat belts and shoulder straps.

**NOTE:** Check position of factory installed belt and shoulder strap anchors and reinstall anchor plates in same position. Care must be exercised when making installation that all anchor plates inter-lock, as shown in illustrations.

**NOTE:** To remove full width seat inner seat belt(s) from seat, remove plastic trim protector at rear of seat and carefully pull floor anchor end of belt through seat. When installing belts tighten anchor bolts 24 to 45 lbs. On two-door styles, it is important that seat belt webbing is routed over seat back outer hinge arm and not under arm.



3439

Fig. 15-99—Front and Rear Seat Belts (Including Station Wagon Second and Third Seats)



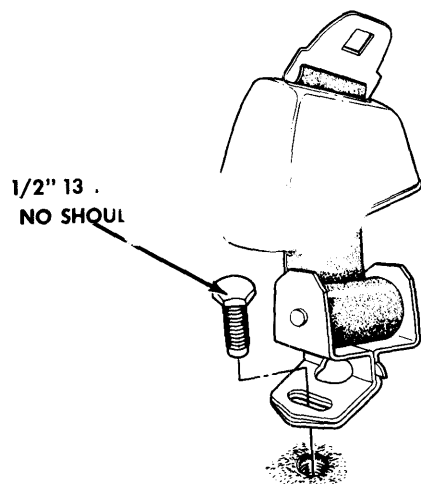
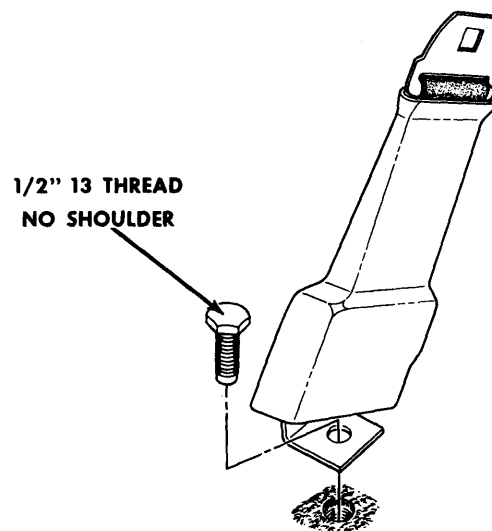
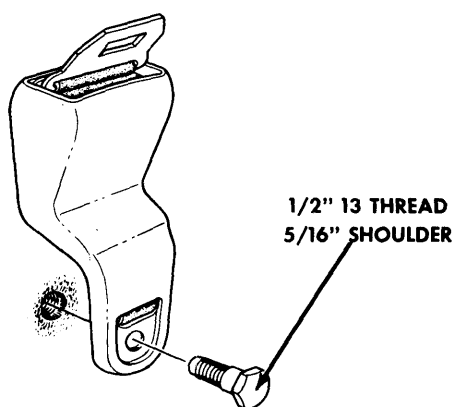
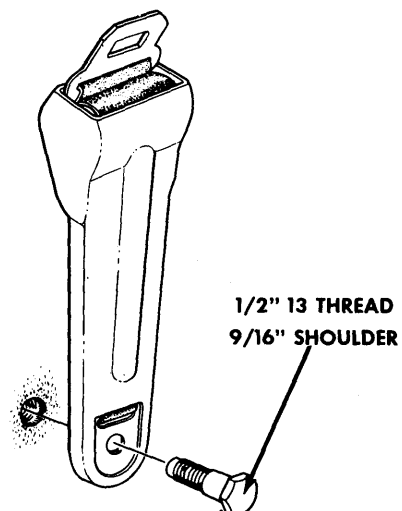
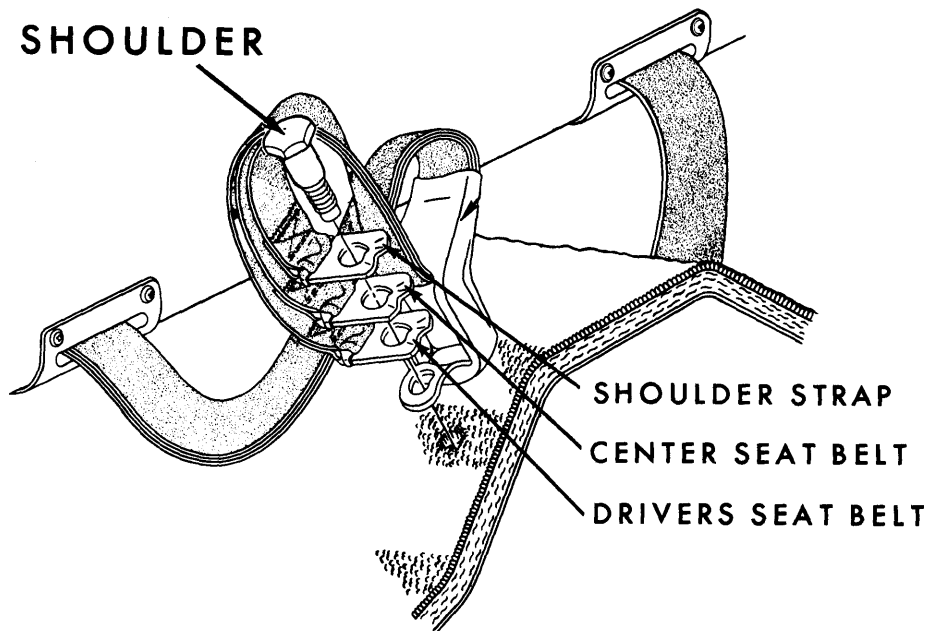
**ALL EXCEPT CHEVY II,  
CAMERO, FIREBIRD &  
CORVAIR****CHEVY II  
COUPES & CONVERTIBLES  
- SWIVEL RETRACTOR -****CAMERO & FIREBIRD****CORVAIR****VIEW A****3440**

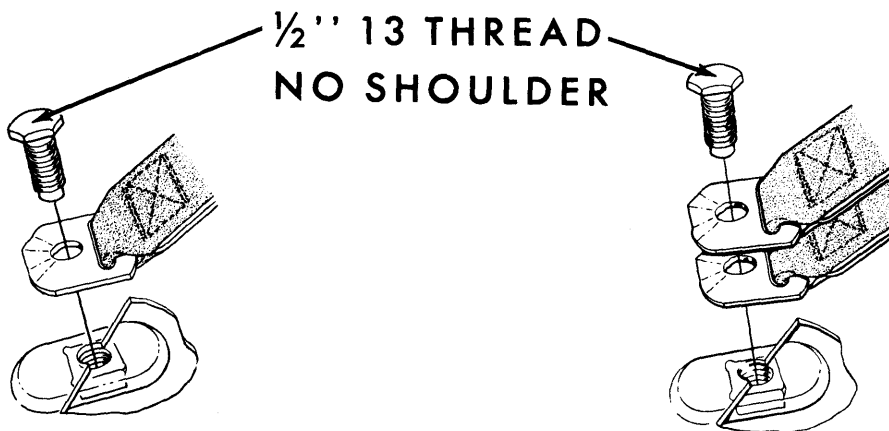
Fig. 15-100—Front and Rear Seat Belt Floor Anchorage (Refer to Fig. 15-99)

$\frac{1}{2}$ " 13 THREAD  
13/16" SHOULDER



VIEW B

$\frac{1}{2}$ " 13 THREAD  
NO SHOULDER

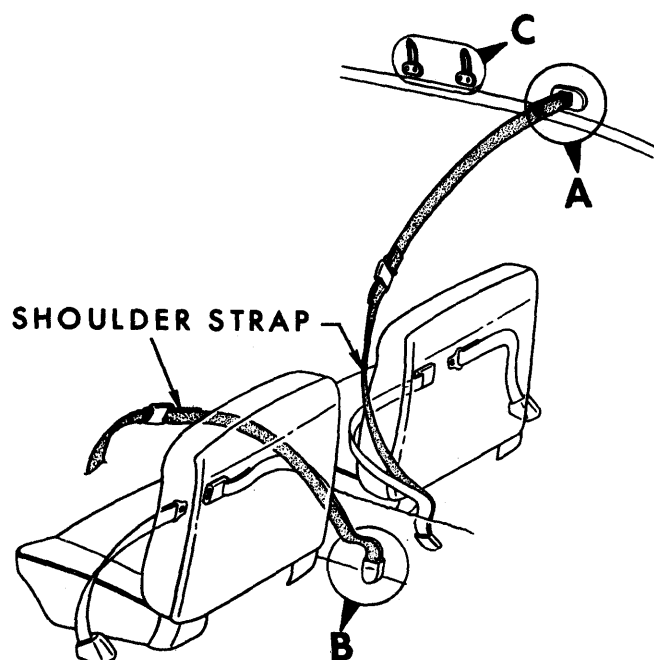
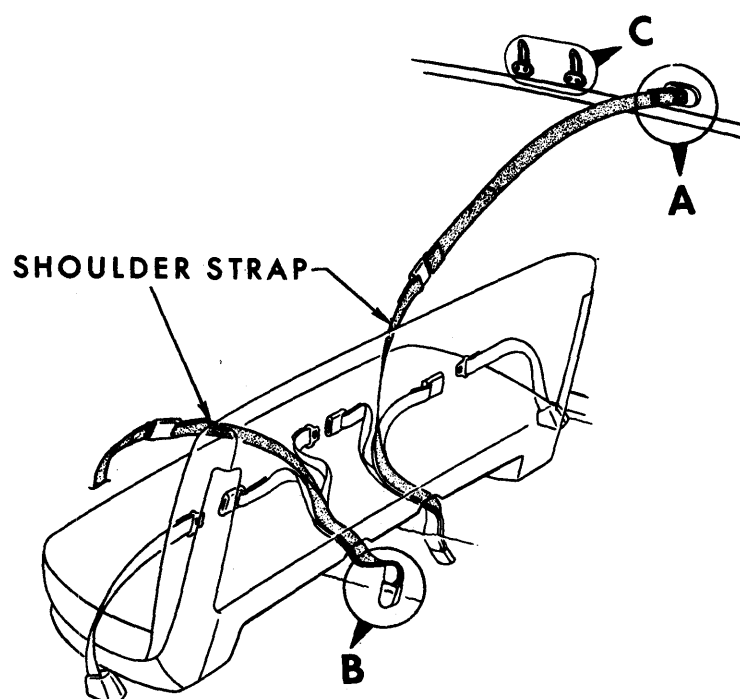


VIEW C

VIEW D

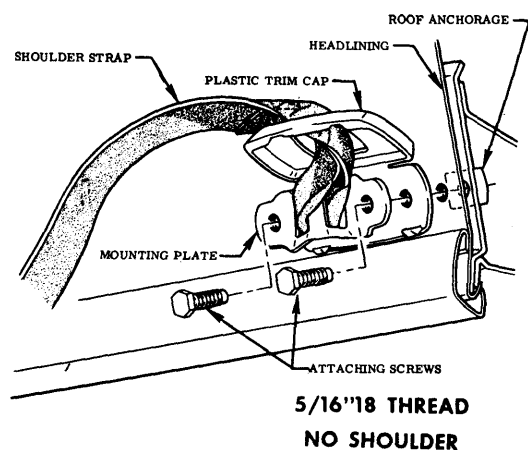
3441

Fig. 15-101—Front and Rear Seat Belt Floor Anchorage (Refer to Fig. 15-99)

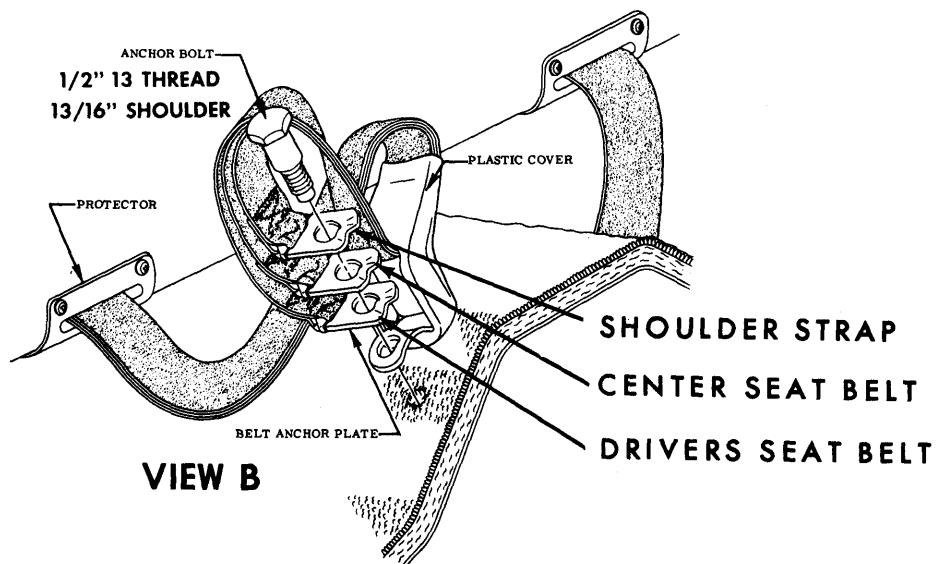


3442

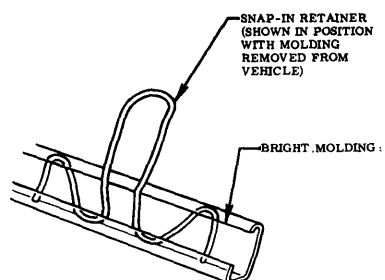
Fig. 15-102—Front Seat Shoulder Strap - All Styles Except Convertibles, "A-80" and "D" Styles



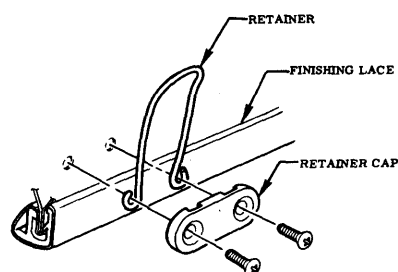
**VIEW A**



**VIEW B**



**SNAP-IN**



**SCREW-ON**

**VIEW C**

3443

Fig. 15-103—Front Seat Shoulder Strap - All Styles Except Convertibles, "A-80" and "D" Styles (Refer to Fig. 15-102)

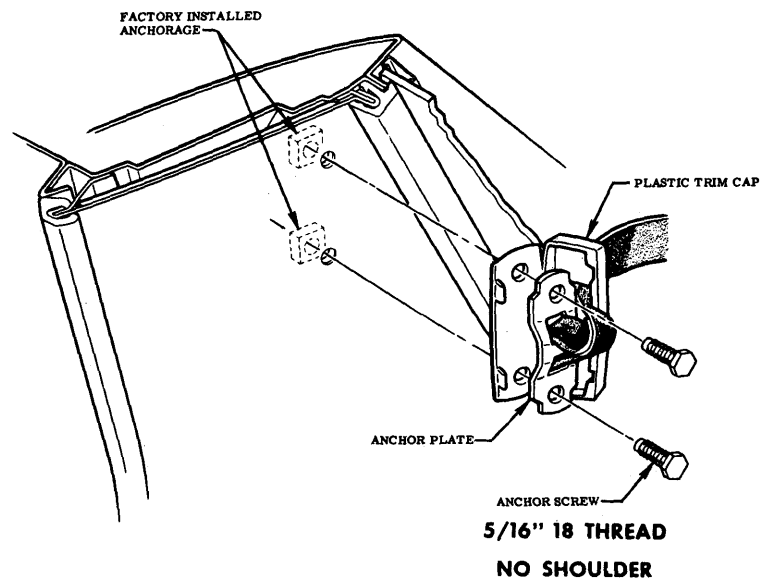
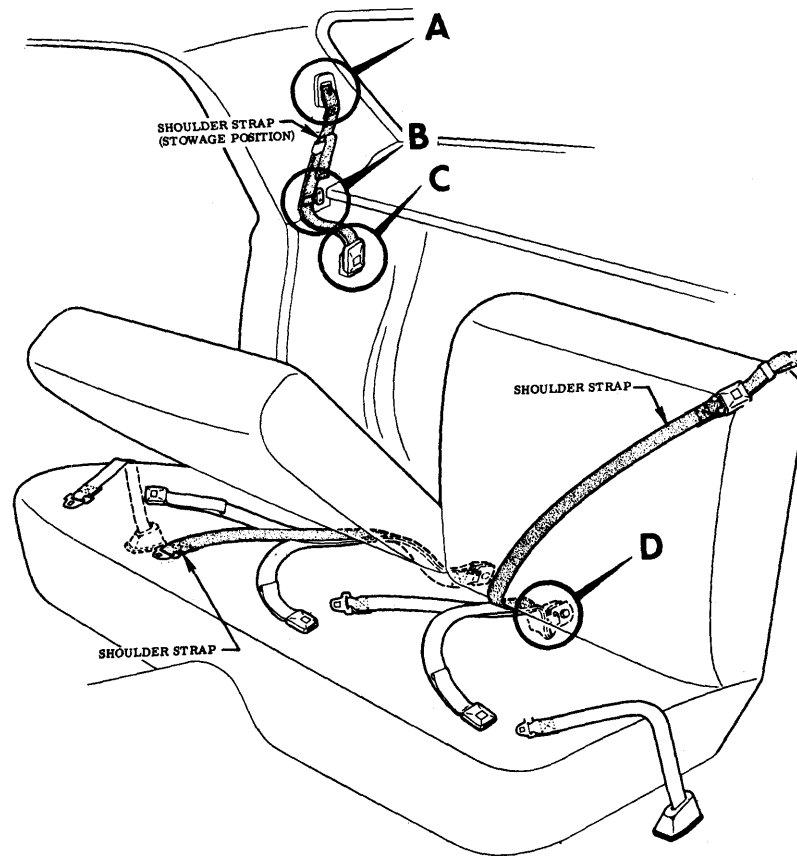
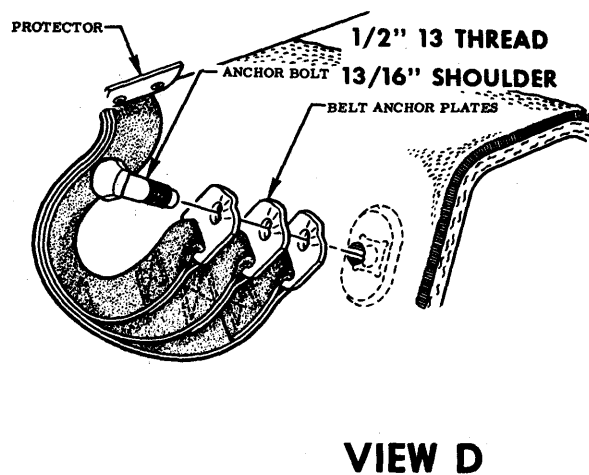
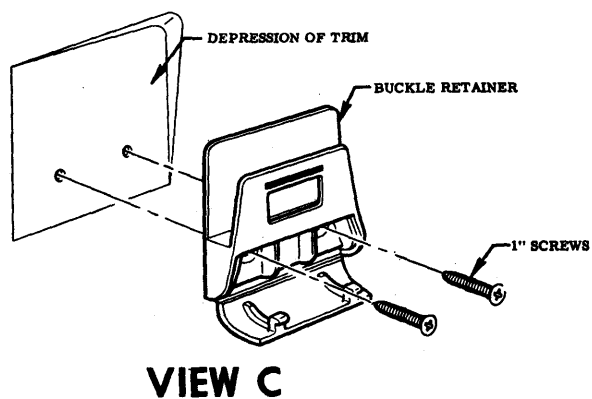
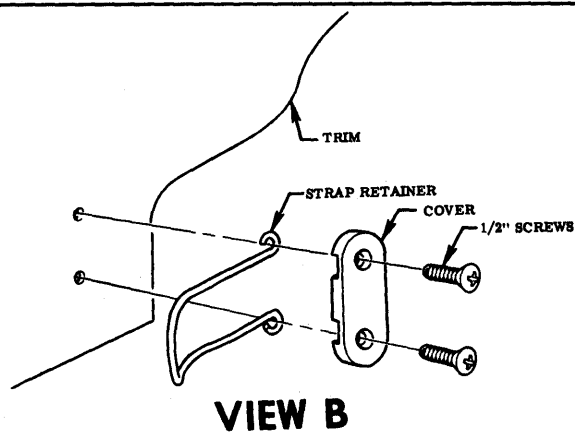
**VIEW A****3444**

Fig. 15-104—Front Seat Shoulder Strap - "A-80" Styles



3445

Fig. 15-105—Front Seat Shoulder Strap - "A-80" Styles (Refer to Fig. 15-104)

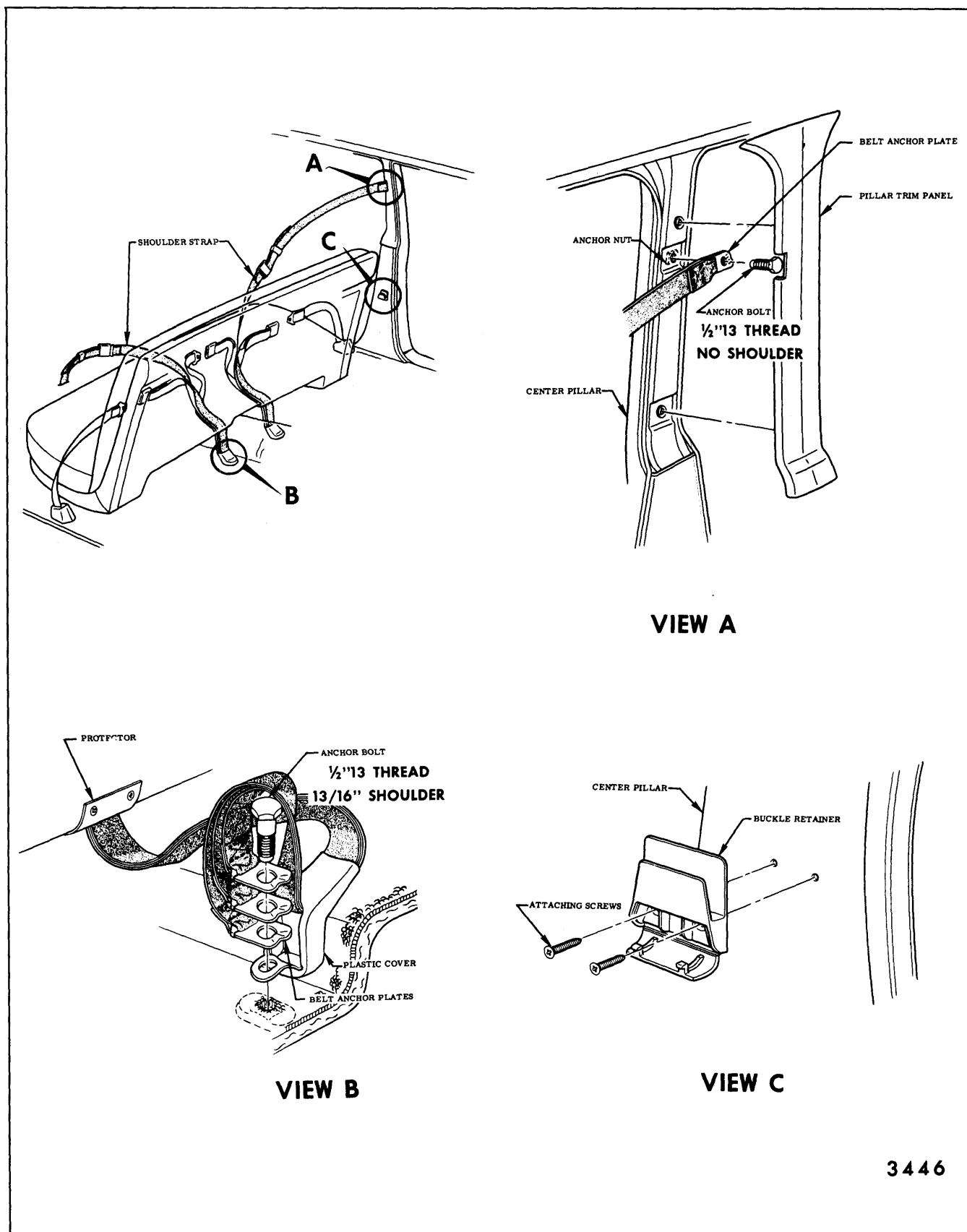
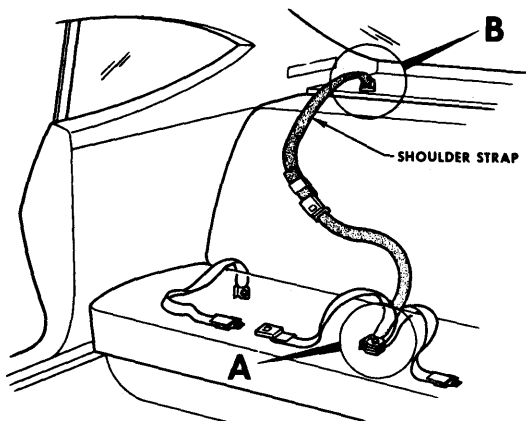
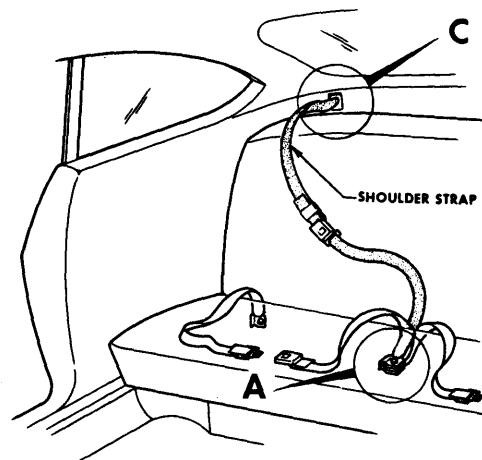


Fig. 15-106—Front Seat Shoulder Straps - "D" Styles

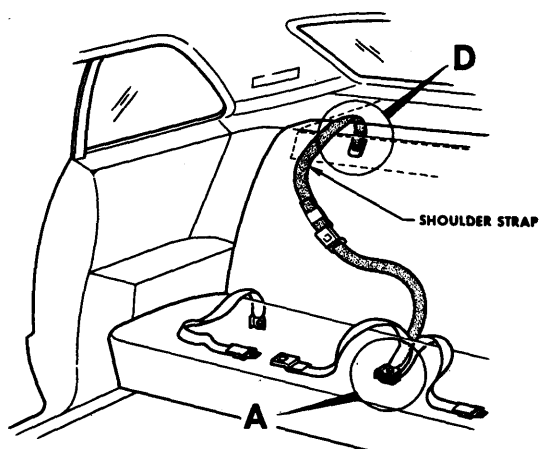
**ALL STYLES EXCEPT CONVERTIBLE,  
STATION WAGON, CORVAIR 2 DOOR HARDTOP,  
OLDSMOBILE TORONADO, BUICK RIVIERA  
& CAD. ELDORADO**



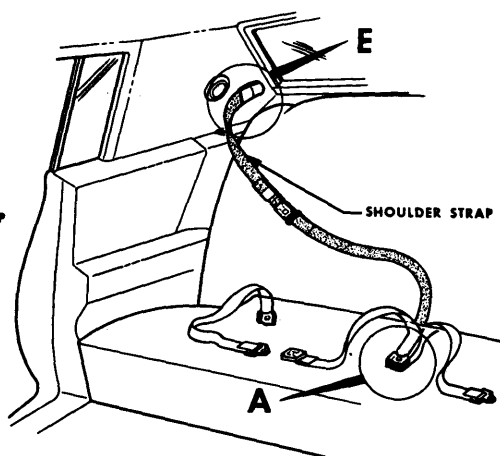
**CORVAIR  
2 DOOR HARDTOP**



**OLDSMOBILE TORONADO  
& BUICK RIVIERA**



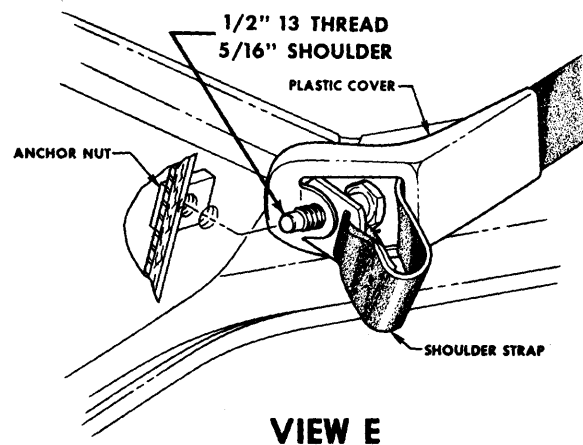
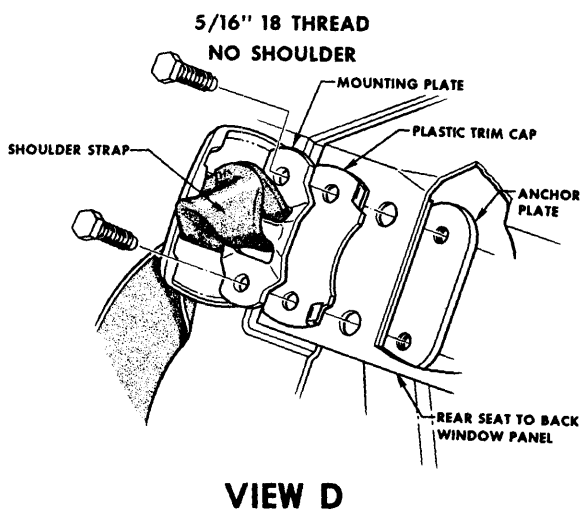
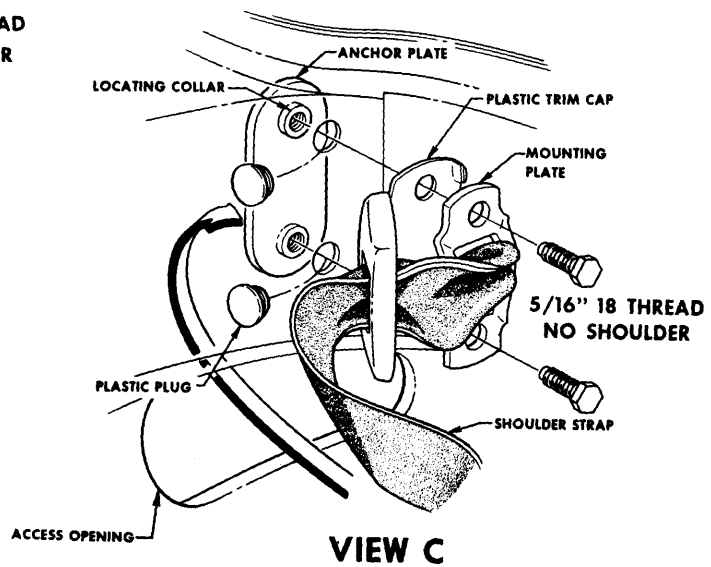
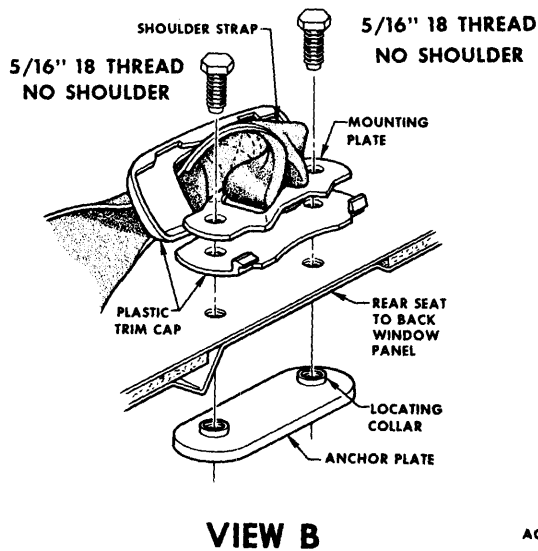
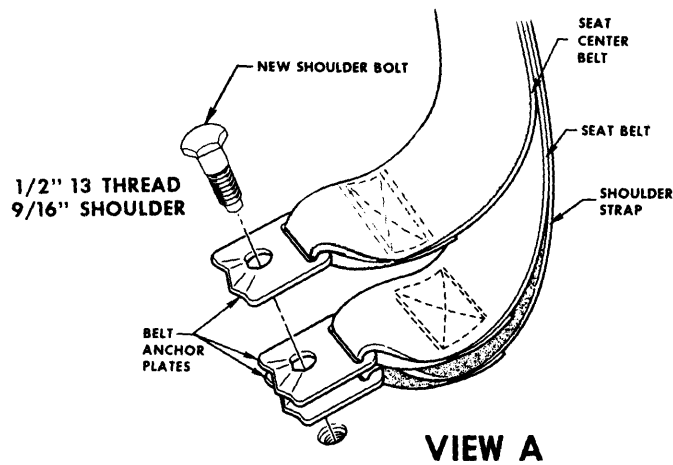
**CADILLAC ELDORADO**



3462

Fig. 15-107—Rear Seat Shoulder Strap - All Styles Except Station Wagons and Convertibles





3463

Fig. 15-108—Rear Seat Shoulder Straps - All Styles Except Station Wagons and Convertibles (Refer to Fig. 15-107)

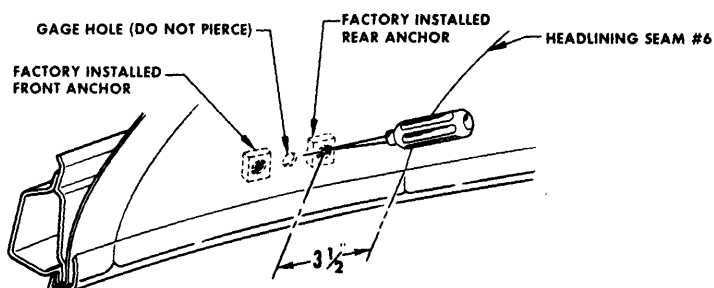
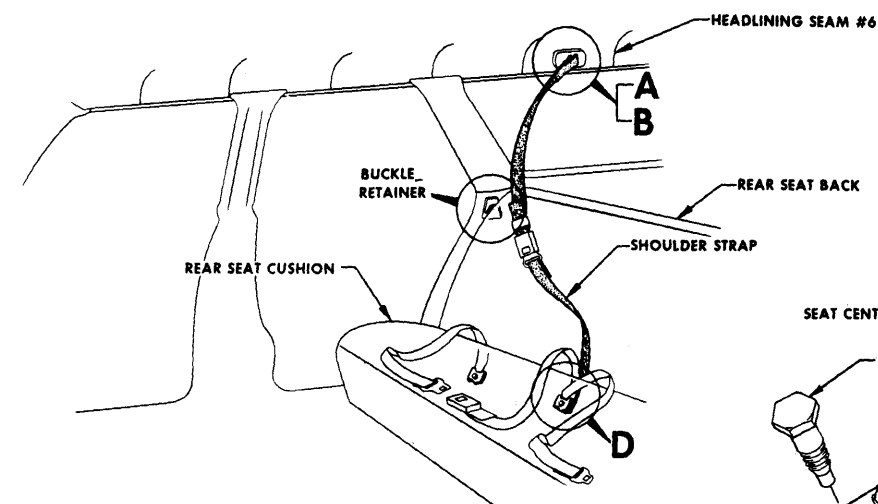
## SECOND SEAT

### CHEVROLET

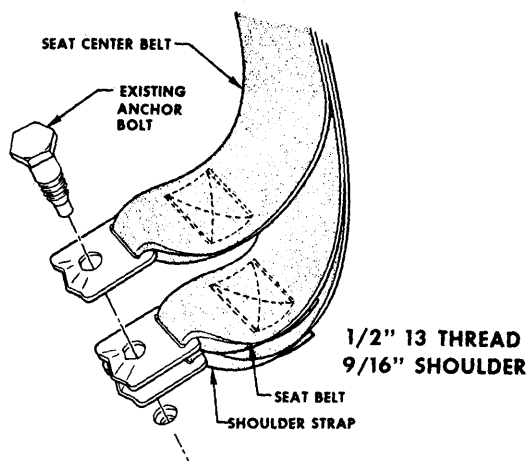
BISCAYNE - BEL AIR - IMPALA & CAPRICE

### PONTIAC

CATALINA - STARCHIEF EXECUTIVE SAFARI & BONNEVILLE

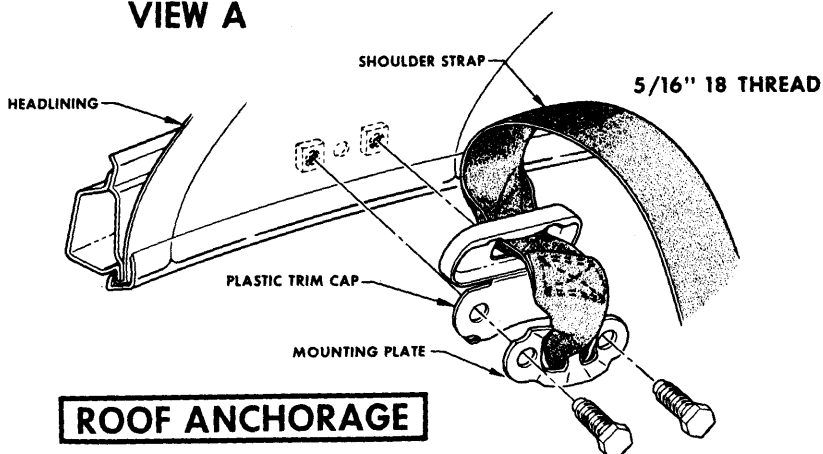


VIEW A



FLOOR ANCHORAGE

VIEW D



ROOF ANCHORAGE

VIEW B

3516

Fig. 15-109—Second Seat Shoulder Strap - "B" Station Wagon Styles

## SECOND SEAT

### CHEVROLET

CHEVELLE NOMAD - NOMAD CUSTOM & CONCOURS

### PONTIAC

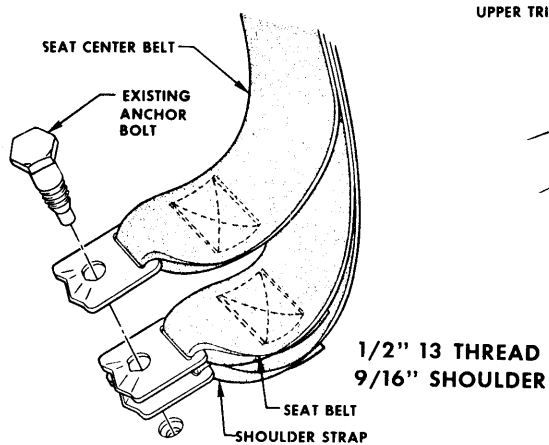
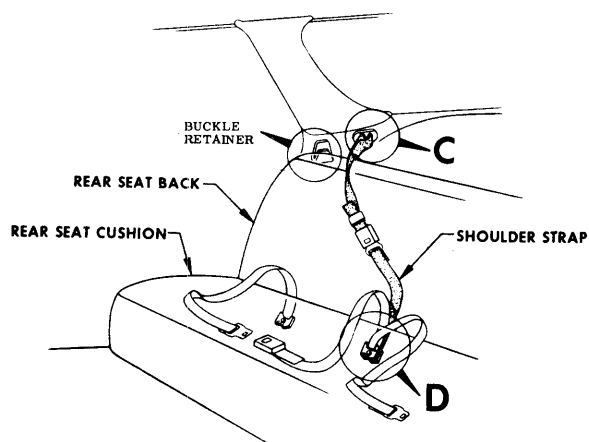
TEMPEST CUSTOM & SAFARI

### OLDSMOBILE

CUTLASS "S" & VISTA - CRUISER

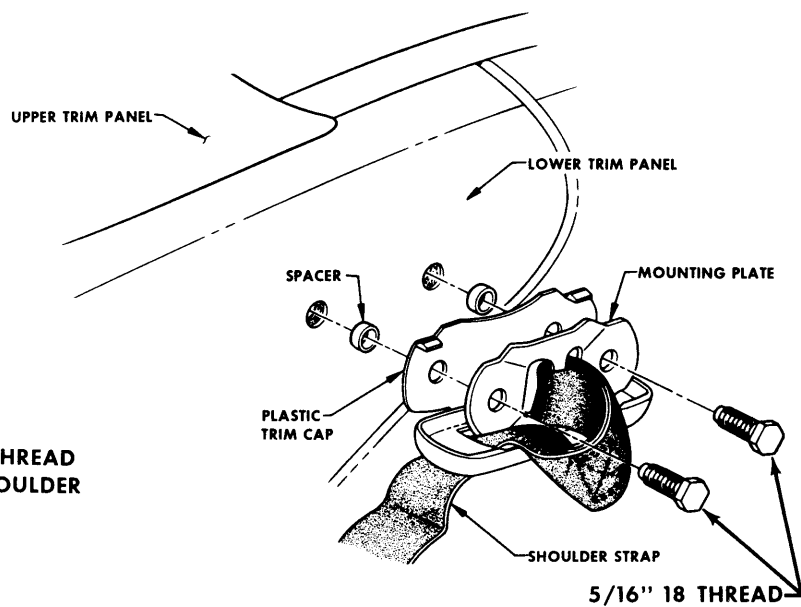
### BUICK

SPECIAL DELUXE & SPORT WAGON



VIEW D

**FLOOR ANCHORAGE**



VIEW C

**QUARTER ANCHORAGE**

3517

Fig. 15-110—Third Seat Shoulder Strap - "A" Station Wagon Styles

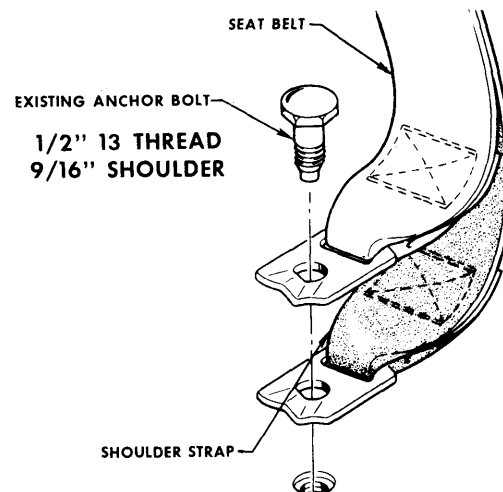
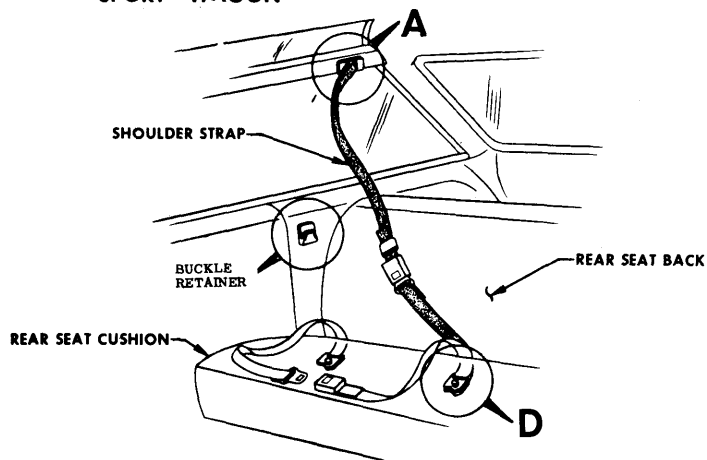
## THIRD SEAT

OLDSMOBILE

VISTA CRUISER

BUICK

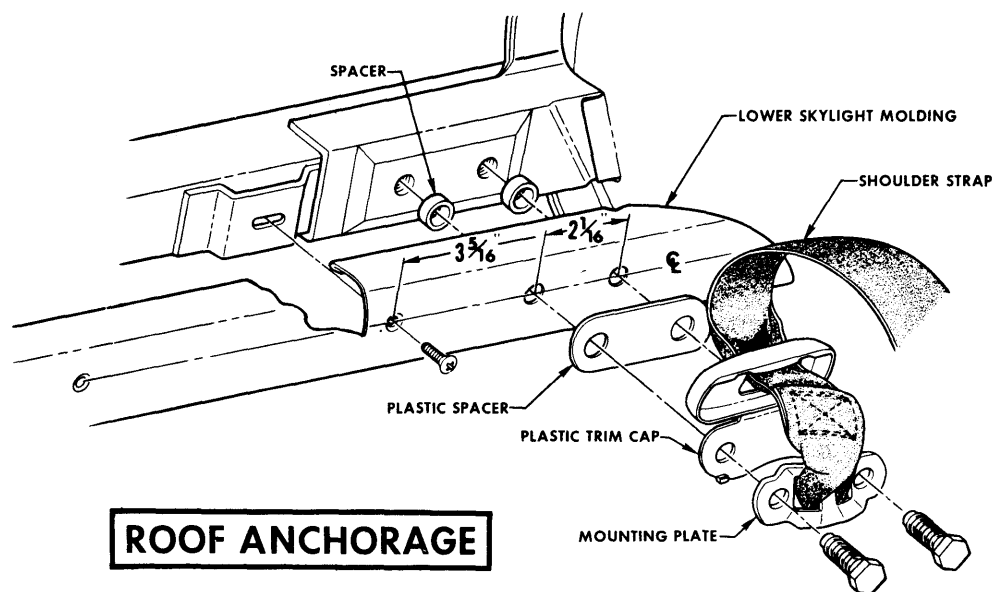
SPORT WAGON



## FLOOR ANCHORAGE

THIRD SEAT

VIEW D

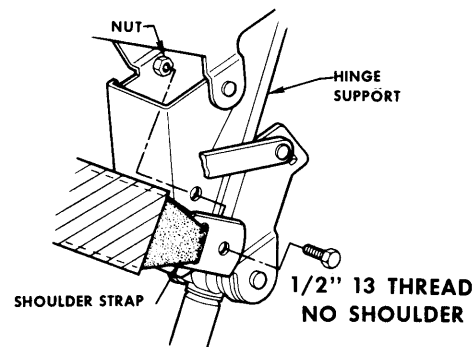
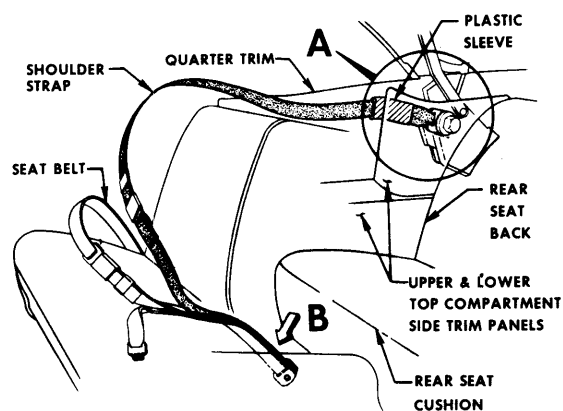


## ROOF ANCHORAGE

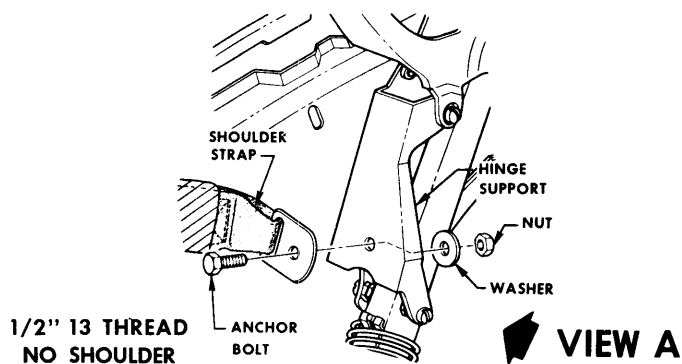
VIEW A

3518

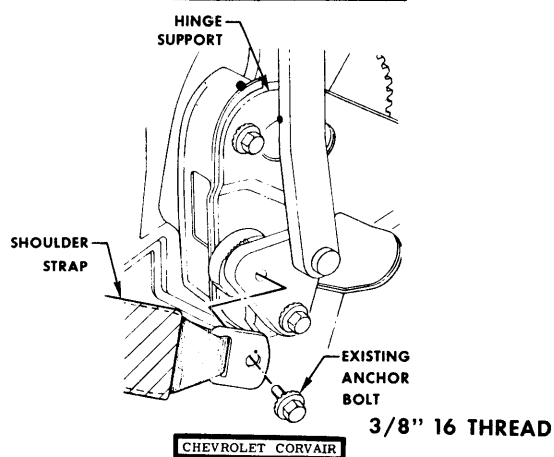
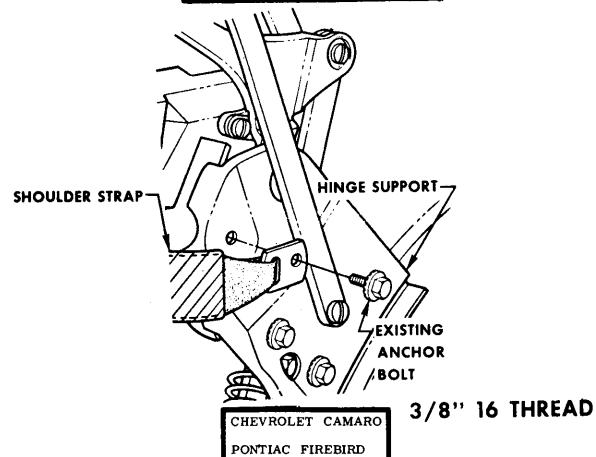
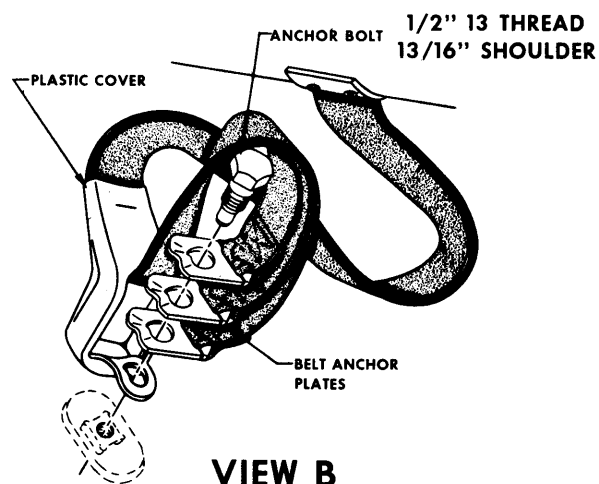
Fig. 15-111—Third Seat Shoulder Strap - "A" 65 & 66 Station Wagon Styles

**QUARTER ANCHORAGE**

CHEVROLET IMPALA  
PONTIAC CATALINA, GRAND PRIX  
& BONNEVILLE  
OLDSMOBILE EIGHTY EIGHT &  
NINETY EIGHT  
BUICK LA SABRE, WILDCAT, &  
ELECTRA "225"  
CADILLAC DE VILLE



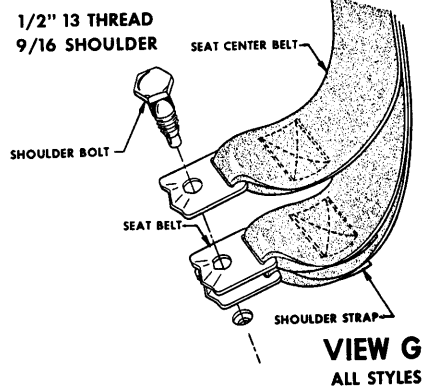
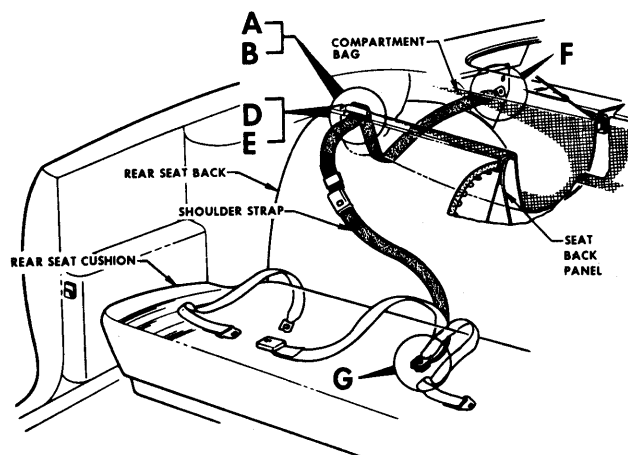
CHEVROLET CHEVELLE  
PONTIAC TEMPEST, LEMANS  
& GTO  
OLDSMOBILE F85, CUTLASS &  
442  
BUICK SKYLARK & GRAN SPORT

**VIEW A****VIEW A****VIEW B****FLOOR ANCHORAGE**

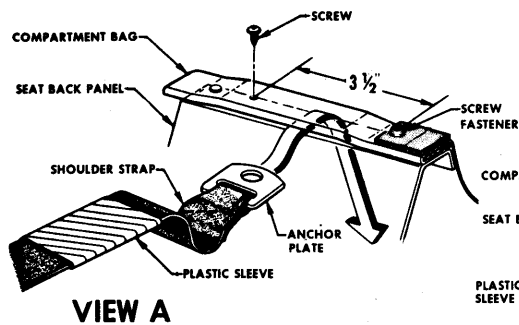
3519

Fig. 15-112—Front Seat Shoulder Strap - All Convertibles

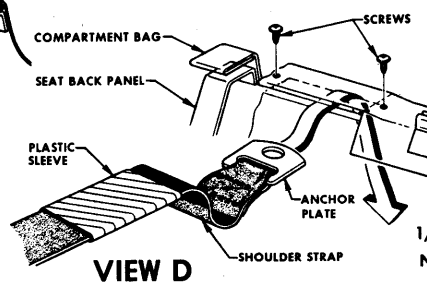
# ALL STYLES EXCEPT CORVAIR



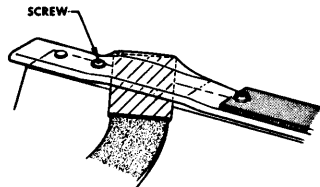
## FLOOR ANCHORAGE



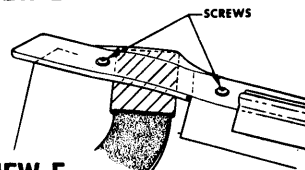
VIEW A



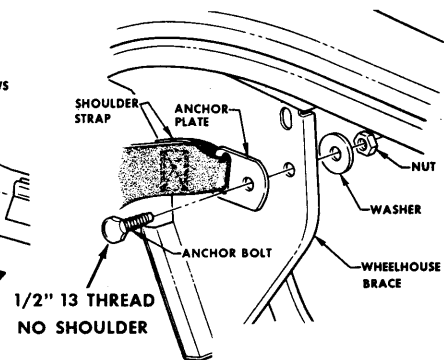
VIEW D



VIEW B



VIEW E

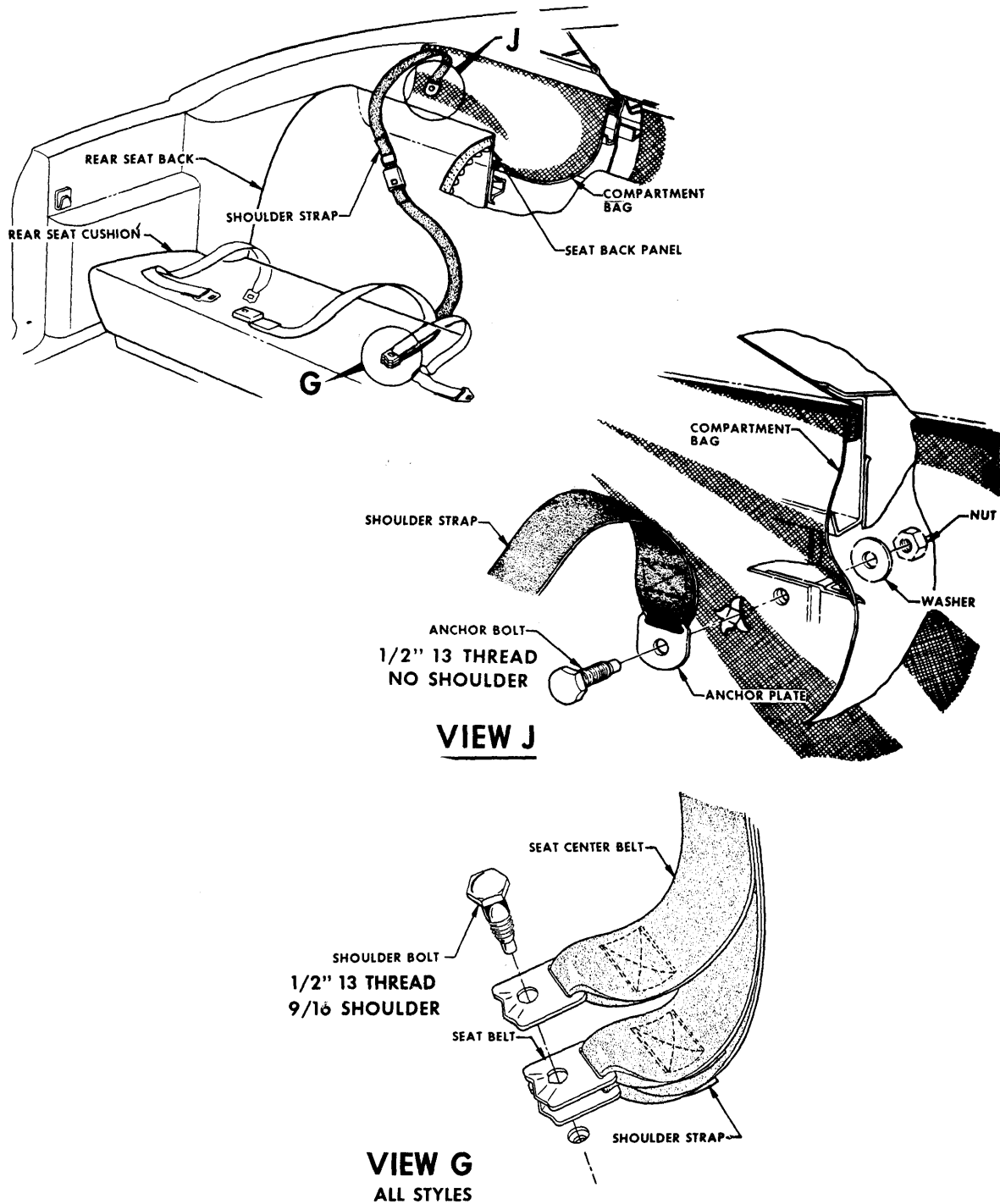


VIEW F  
ALL STYLES EXCEPT CORVAIR

## QUARTER ANCHORAGE

3520

Fig. 15-113—Rear Seat Shoulder Strap - All Convertibles Except Corvaire

**CORVAIR STYLES****FLOOR ANCHORAGE**

3521

Fig. 15-114—Front Seat Shoulder Strap - Corvaire Convertible