

## SECTION 5 FRONT END

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## BODY VENTILATION

### DESCRIPTION—All Styles Except 16647, 26657, "E" & "F" Body Styles

The body ventilation system incorporates the use of a shroud air intake grille, which is either attached by screws or is an integral part of the shroud upper panel. The air entering the shroud air intake grille flows through a plenum chamber which guides the air into the body through the shroud side duct air outlet assembly. The door in the outlet assembly regulates the flow of air and is adjusted by the use of a control cable and knob.

Water entering the shroud air intake grille flows down the shroud side duct panel and is discharged through openings in the rocker panels.

### DESCRIPTION—16647, 26657, "E & F" Body Styles

The 16647, 26657, "E & F" Body Styles incorporate air exhaust outlets in the body ventilation system.

Figure 5-1 is a composite drawing of the air flow patterns on all the above styles. The actual exhaust ports used vary from style to style.

The exhausting air on the 16647, 26657, "E & F" body styles is directed under the rear seat and into the rear compartment through provisions in the

rear seat back foundation. The air leaves the rear compartment through exhaust outlets in the body lock pillars (Fig. 5-1).

On the Oldsmobile and Buick "E" styles air coming up from behind the rear seat back flows into the rear plenum chamber and out the exhaust grille located behind the rear window.

### SHROUD SIDE FINISHING PANEL— "B-C-E" Styles Except 26657

#### Removal and Installation

1. Remove sill plate.
2. Remove finishing panel to hinge pillar attaching screw (Fig. 5-2).
3. Remove screws securing the shroud side finishing panel to the air outlet duct assembly (Fig. 5-2).
4. Slide finishing panel rearward disengaging the panel from the front body hinge pillar pinch-weld flange and from under the windshield side garnish molding; remove panel.
5. To install, reverse removal procedure.

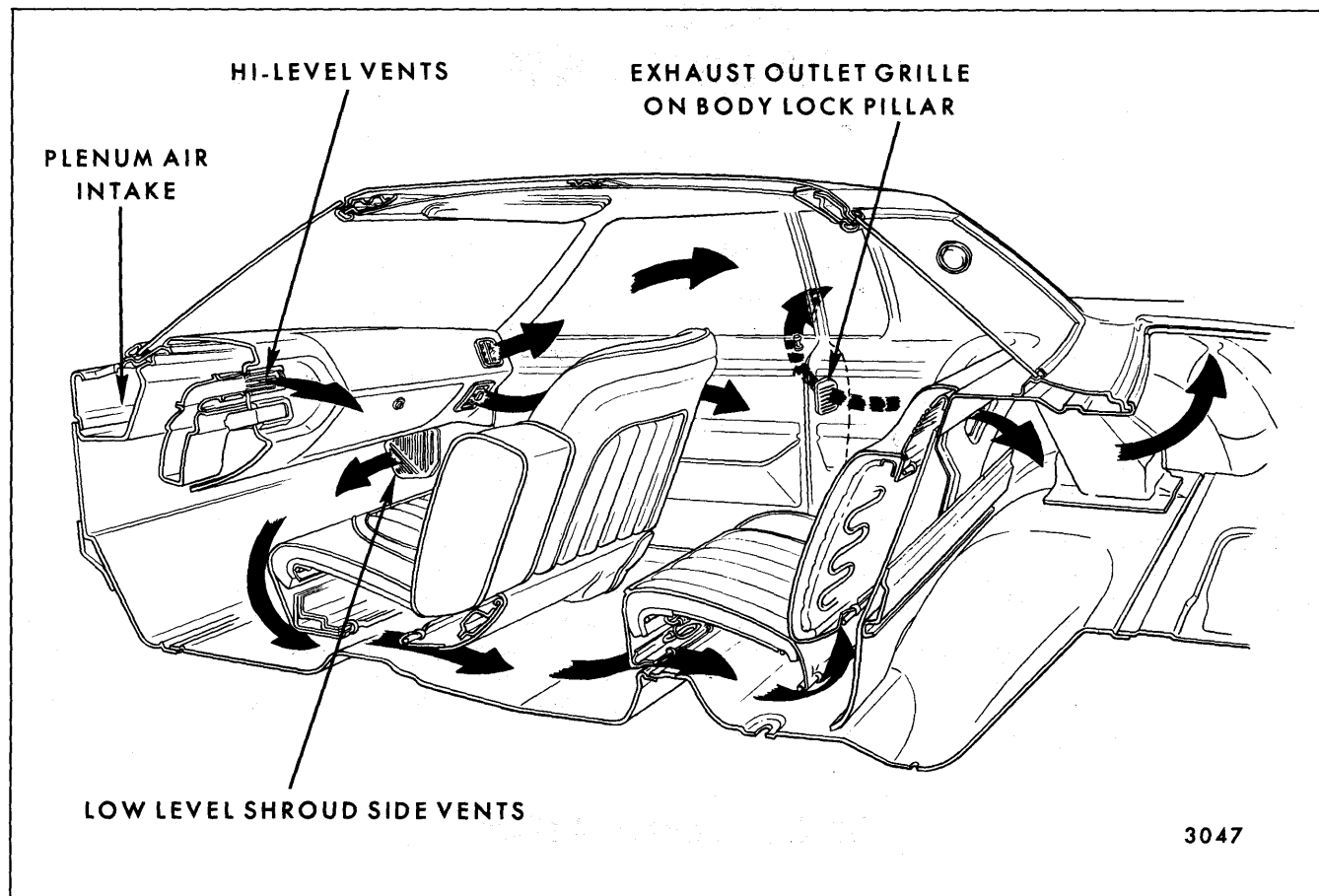


Fig. 5-1—Body Ventilation Flow Patterns - Cadillac "E" Body Shown, Pontiac 26657, Chevrolet "F", and 16647 Styles Similar

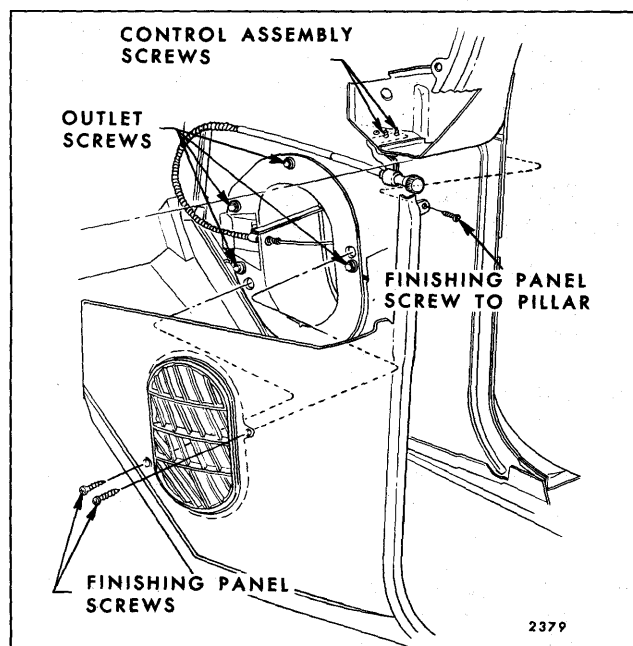


Fig. 5-2—Shroud Side Finishing Panel - "B, C & E" Except 26657

### SHROUD SIDE AIR OUTLET DUCT ASSEMBLY—"B-C-E" Body Styles Except 26657

#### Removal and Installation

1. Remove shroud side finishing panel.
2. Loosen cable attaching screw and clip and disengage control cable from outlet door (Fig. 5-3).
3. Remove screws securing outlet duct assembly to shroud ventilator duct side panel (Fig. 5-2) and remove assembly.
4. To install, apply a bead of medium-bodied sealer around the entire inner flange of outlet assembly (Fig. 5-4) and reverse removal procedure.

### SHROUD SIDE FINISHING PANEL AND AIR OUTLET DUCT ASSEMBLY—"A-F-X-Z" & 26657 Styles

#### Removal and Installation

1. On all styles, remove sill plate.

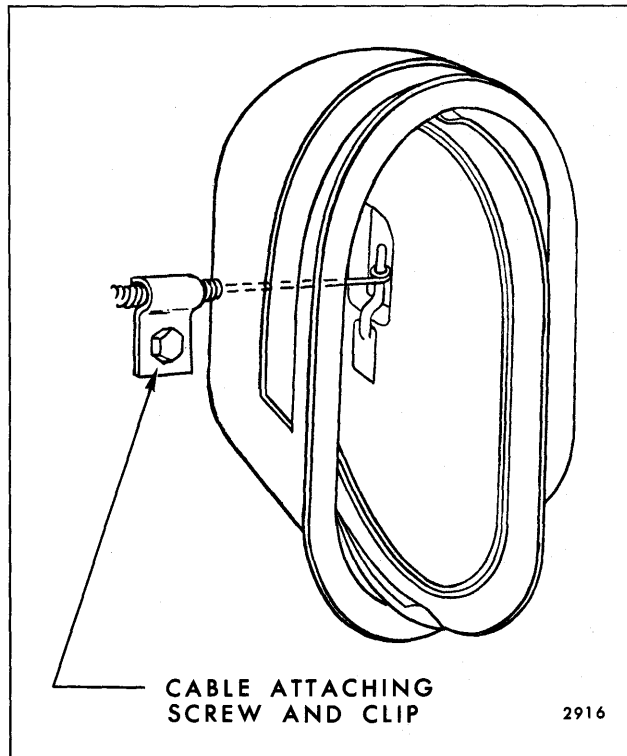


Fig. 5-3—Shroud Side Air Outlet Duct Assembly - "B, C & E" Except 26657 Body Styles

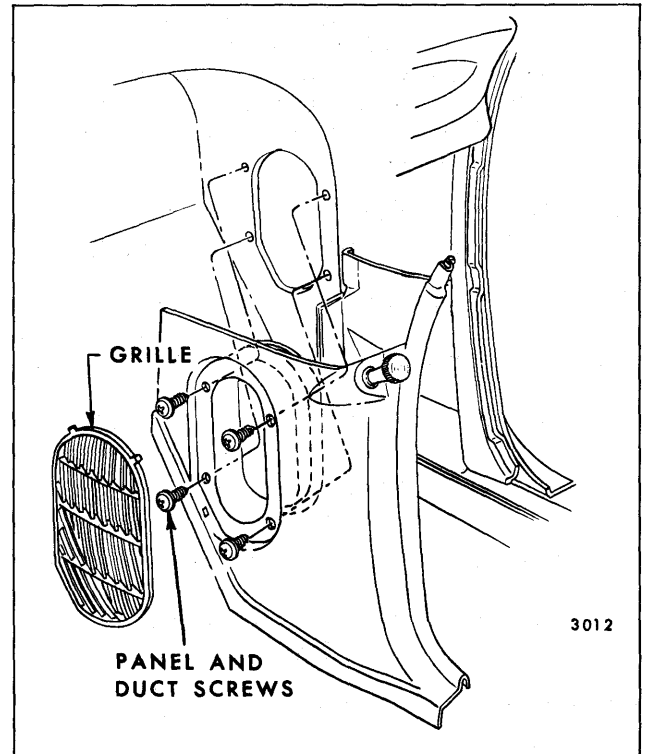


Fig. 5-5—Shroud Side Finishing Panel and Air Outlet Duct Assembly "A, F, X & Z" and 26657 Styles

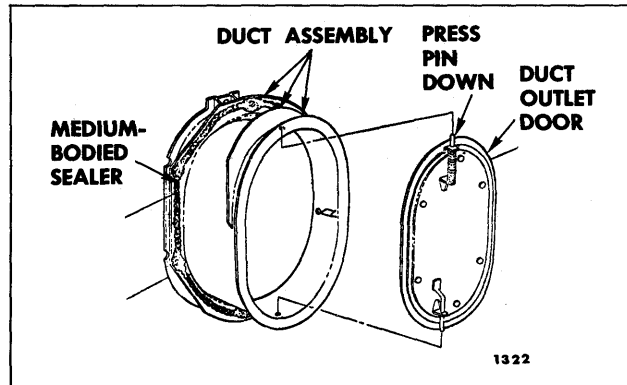


Fig. 5-4—Shroud Side Air Outlet Duct Assembly and Sealing

2. On "A, Z" and 26657 Styles pry the grille from the finishing panel with a flat-bladed tool (screwdriver or equivalent) as shown in Figure 5-5.
3. On all styles, remove screws attaching finishing panel and duct assembly to the shroud ventilator duct side panel (Fig. 5-5).
4. Slide finishing panel rearward disengaging panel from front body hinge pillar pinchweld flange and remove assembly.

5. To install, apply a generous bead of medium-bodied sealer to flange of finishing panel and duct assembly (Fig. 5-6) and reverse removal procedure.

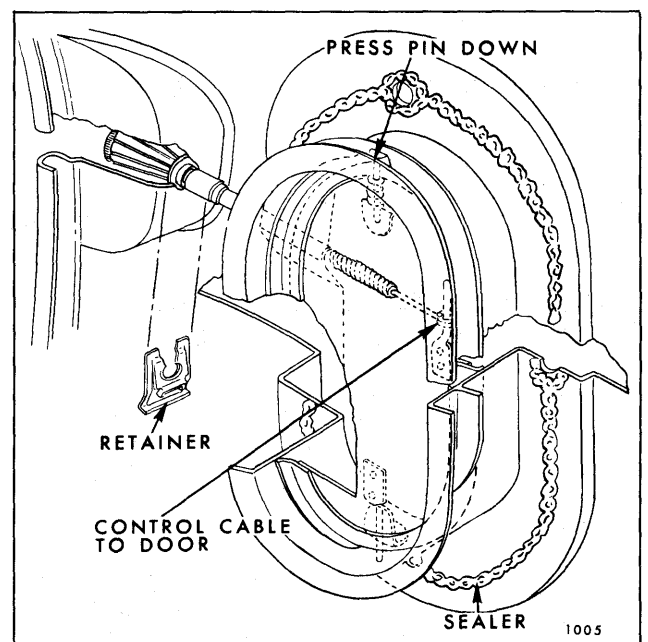


Fig. 5-6—Shroud Side Finishing Panel and Air Outlet - "A, F, X & Z" and 26657 Styles

**NOTE:** On "F" styles, when installing the right side finishing panel and air outlet duct assembly, insert the upper portion of the valve housing through the opening in the body at approximately a 45 degree angle and push the lower portion into place.

### SHROUD SIDE AIR OUTLET DUCT DOOR—"B-C-E" Styles, Except 26657

#### Removal and Installation

1. Remove shroud side air outlet duct assembly.
2. Depress upper pivot pin spring (Fig. 5-4) in door and remove door assembly.

**NOTE:** On "E" styles remove door retainer from slot in outlet before removing door.

3. To install, reverse removal procedure.

### SHROUD SIDE AIR OUTLET DUCT DOOR—"A-F-X-Z & 26657" Styles

#### Removal and Installation

1. Remove shroud side finishing panel and air outlet duct assembly.
2. Disconnect control cable from door (Fig. 5-6).

**NOTE:** On "F & X" styles, remove the push-on nut from the pin on door before disconnecting.

3. Depress upper pivot pin (Fig. 5-6) and remove door assembly.
4. To install, reverse removal procedure.

### SHROUD SIDE AIR OUTLET DUCT DOOR CONTROL CABLE—"B-C-E" Styles, Except 26657

#### Removal and Installation

1. Remove shroud side finishing panel.
2. Loosen attaching screw securing cable to shroud side air outlet duct assembly (Fig. 5-3).
3. Disconnect cable from door.
4. Remove screws securing control assembly to instrument panel (Fig. 5-2) and remove control assembly.
5. To install, reverse removal procedure.

### SHROUD AIR OUTLET DUCT DOOR CONTROL CABLE—"A-F-X-Z Styles & 26657"

#### Removal and Installation

1. Remove shroud side finishing panel and air outlet duct assembly.
2. Disconnect cable from door.

**NOTE:** On "F & X" Styles, remove the push-on nut from the pin on door before disconnecting.

3. Remove retaining clip securing control assembly to finishing panel (Fig. 5-6) and remove control assembly.
4. To install, reverse removal procedure.

## INSTRUMENT PANEL

### INSTRUMENT PANEL COMPARTMENT DOOR—Buick "A-B-C&E" Styles

#### Removal and Installation

The instrument panel compartment door hinges and stops are either an integral part of the door or are attached by screws depending upon the series.

To remove the door assembly, remove attaching screws securing the hinge to the instrument panel (Fig. 5-7) lift door, and rotate counter-clockwise to remove stop from opening in the instrument panel. To install, reverse removal procedure.

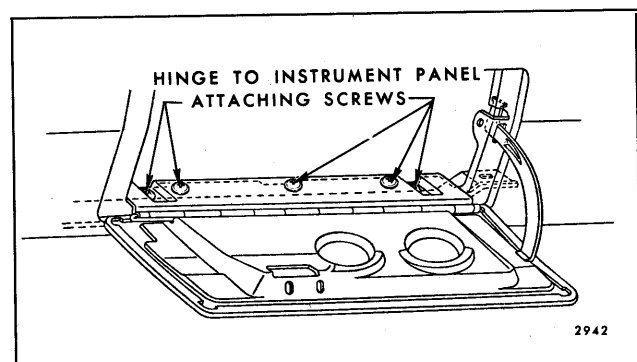


Fig. 5-7—Instrument Panel Compartment Door -  
"A" Styles

## Adjustments

1. On "B, C, & E" body styles, to move the door up or down, loosen the door-to-hinge screws and position door as desired (Fig. 5-8).
2. On all styles, to move the door in or out, loosen hinge to instrument panel screws and position door as desired (Figs. 5-7 and 5-8).
3. On all styles, to move the door right or left, loosen hinge to instrument panel screws and position door as desired (Figs. 5-7 and 5-8).
4. On all styles, strikers can be adjusted on the door by loosening the attaching screws and positioning the striker as desired (Fig. 5-8).

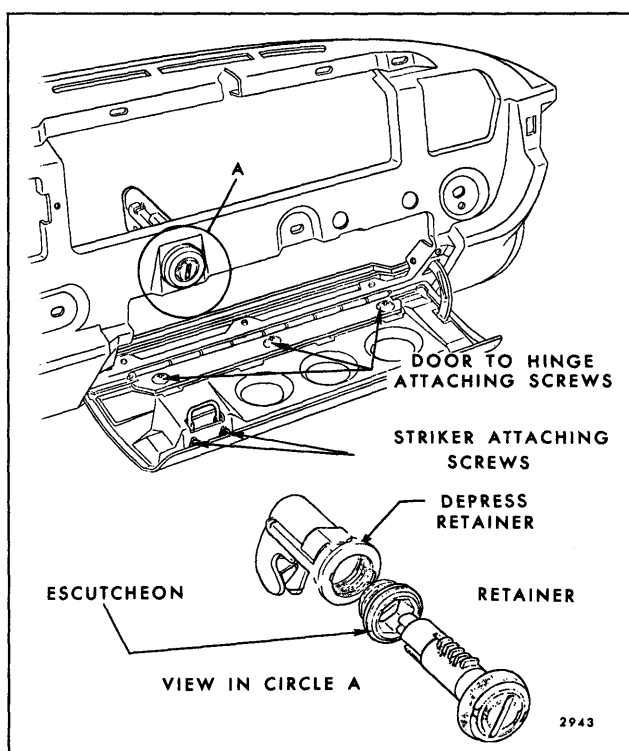


Fig. 5-8—Instrument Panel Compartment Door and Lock - "B-C" Styles

## INSTRUMENT PANEL COMPARTMENT DOOR LOCK—Buick "A-B-C&E" Body Styles

### Removal and Installation

1. With door open set fork bolt in closed position.
2. With key out, depress retainer thru access hole on side of lock casing (Fig. 5-8).
3. While retainer is depressed insert key into lock and remove lock cylinder.

4. Remove octagonal-head escutcheon (Fig. 5-8).
5. Remove lock cylinder casing.
6. To install lock cylinder casing, replace octagonal-head escutcheon.
7. To install the lock cylinder, hold fork bolt in closed position and insert lock cylinder into the lock casing.

**NOTE:** In order to obtain clearance for the lock cylinder to enter the casing, the tumblers and retainer must be in the down position. This is accomplished by inserting the key into the cylinder while depressing the retainer.

8. Actuate the lock.
9. Holding cylinder in position, remove key.

**NOTE:** Refer to the General Information Index for lock cylinder coding.

## INSTRUMENT PANEL COVERS—All Chevrolet Styles

The instrument panel cover is secured to the instrument panel by a combination of screws, stud

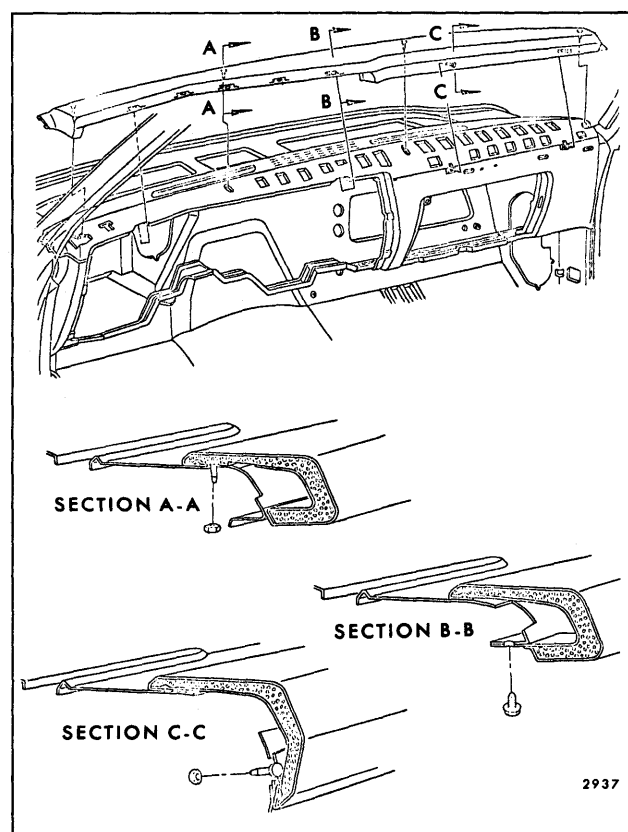


Fig. 5-9—Instrument Panel Cover - Chevrolet "A" Styles

and clip assemblies or stud and nut assemblies. The cover attachment locations are shown in illustrations, Figures 5-9, 5-10, 5-11, 5-12, and 5-13.

**NOTE:** Instrument panel covers for all other divisions are covered in the chassis service manuals.

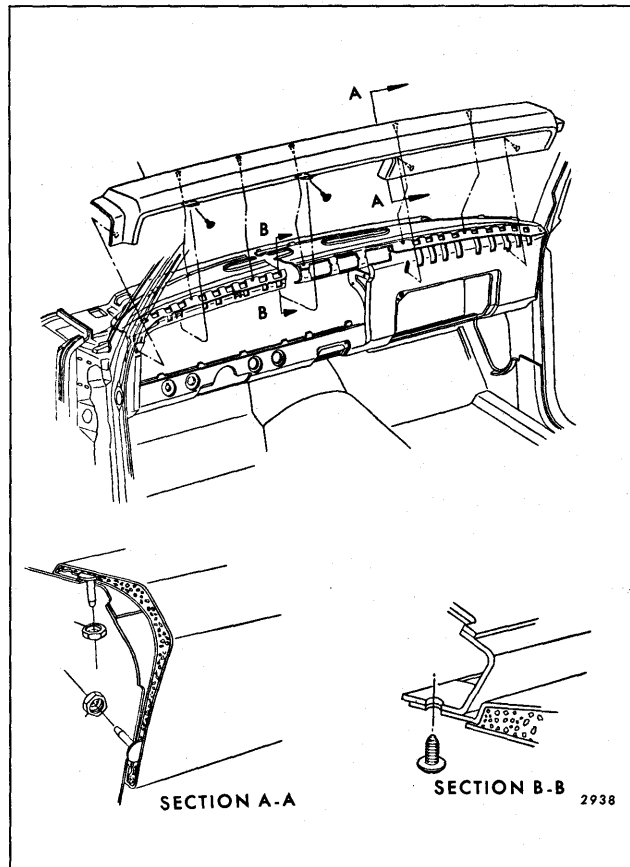


Fig. 5-10—Instrument Panel Cover Chevrolet "B" Styles

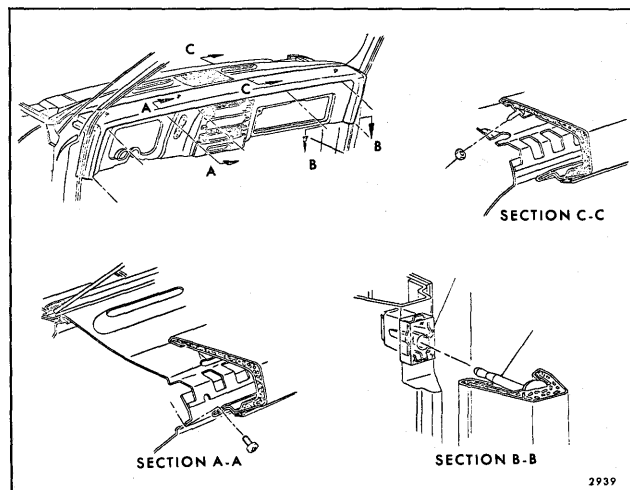


Fig. 5-11—Instrument Panel Cover - Chevrolet "F" Styles

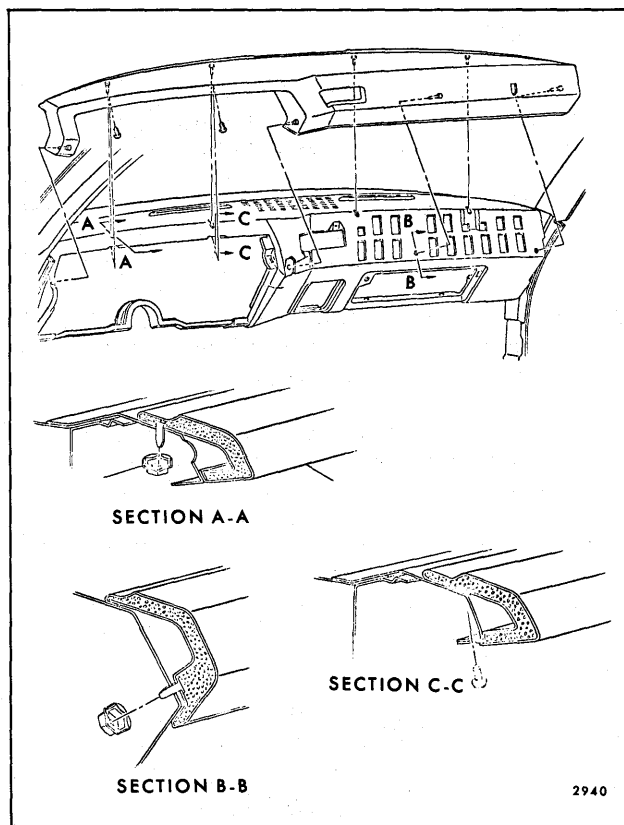


Fig. 5-12—Instrument Panel Cover - Chevrolet "X" Styles

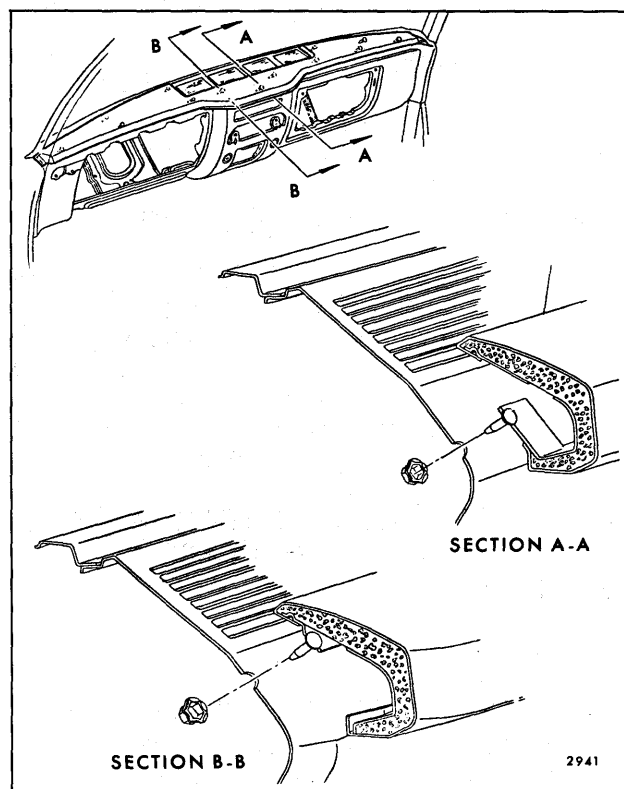


Fig. 5-13—Instrument Panel Cover - Chevrolet "Z" Styles

## FRONT COMPARTMENT—CORVAIR

### DESCRIPTION

Each front compartment lid hinge assembly employs the use of an individual torque rod which acts as a counterbalance and hold-open for the lid. Notches are provided in the torque rod retainer for adjustment of the rods.

The front compartment lid lock assembly consists of a side action snap-bolt mechanism equipped with a safety latch and is secured to a support on the front end panel. The end of the lock assembly acts as a guide by entering the striker when the lid is in a closed position.

A single section cement-on type front compartment weatherstrip is used on all styles.

### FRONT COMPARTMENT LID

#### Removal and Installation

1. Open lid and place a protective cover over surfaces adjacent to front compartment opening to prevent damage to painted areas.
2. Mark (pencil) location of hinge straps on inner panel.
3. With the aid of a helper, remove hinge to lid attaching bolts from each hinge and remove lid. (See Fig. 5-14.)

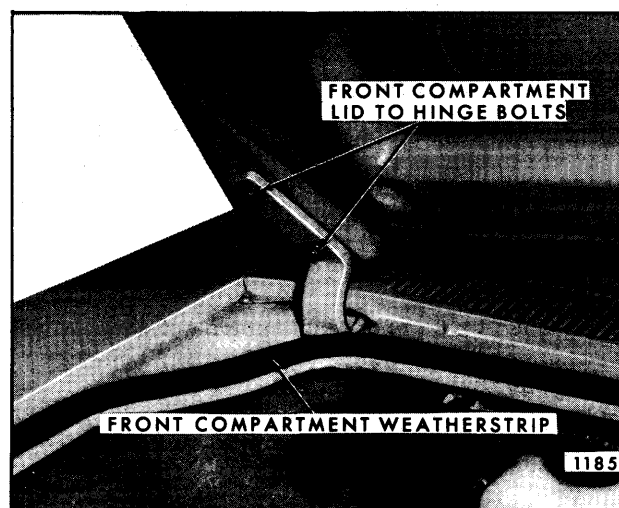


Fig. 5-14—Front Compartment Weatherstrip and Front Compartment Lid Attaching Bolts

4. To install, align lid to hinges within locating marks and reverse removal procedure.

#### Adjustments

1. Adjustments to the front compartment lid may be made forward or rearward and side to side in body opening by loosening hinge to upper shroud attaching bolts at each hinge. Adjust hinge as required and secure bolts (See Fig. 5-15).

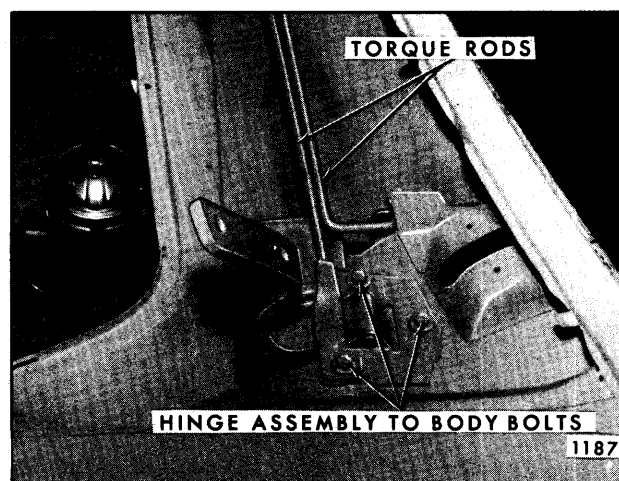


Fig. 5-15—Front Compartment Lid Hinge Removal

2. To adjust the lid up or down at one or both sides, install shims between the hinge strap and lid as follows:
  - a. To raise rear edge of lid at hinge area, place shim between hinge strap and lid inner panel at rear attaching bolt (Fig. 5-14).
  - b. To lower rear edge of lid at hinge area, place shim between hinge strap and lid inner panel at front attaching bolt (Fig. 5-14).
3. Check front compartment lid lock to insure proper engagement with striker.

### FRONT COMPARTMENT LID TORQUE RODS

Tool J 21928 is designed to remove, install or re-set tension for one or both rods without removal of the front compartment lid. The tool has a different design on each end for use on either the right or left side of the body.

## Removal and Installation

1. Install protective covering over compartment lid and lower part of windshield.
2. Open compartment lid and prop same in a full open position.
3. Remove windshield wiper arms.
4. Remove shroud top air intake grille.
5. Remove torque rod clamp to shroud, located to right of center of shroud (Fig. 5-16).
6. Install tool J 21928 (Fig. 5-16) to lid torque rod on right side of body. Securely grasp tool and move it toward windshield to disengage rod from retaining notch. Carefully disengage tool from rod.

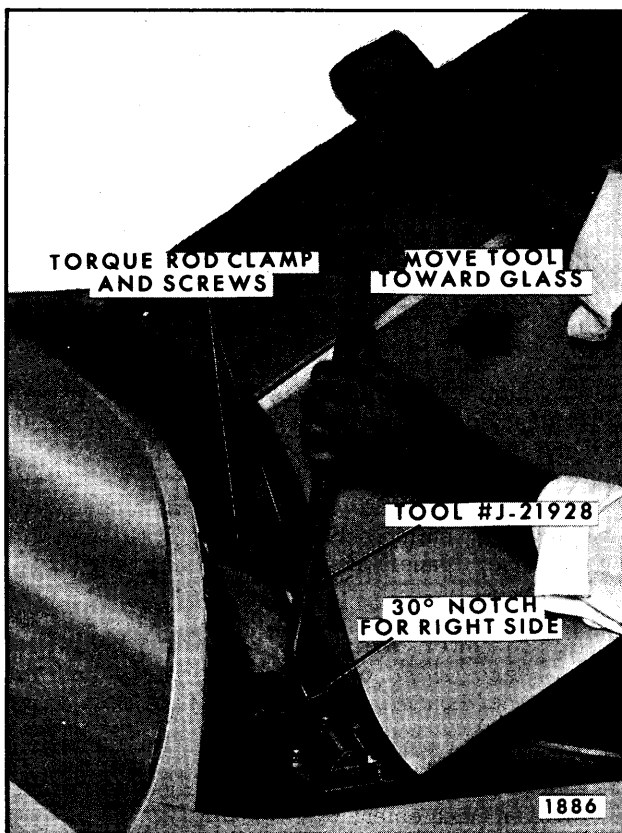


Fig. 5-16—Torque Rod Removal - Right Side

7. In like manner remove rod on left side of body (Fig. 5-17).

**NOTE:** It is necessary to remove torque rods prior to removal of front compartment lid hinge assemblies.

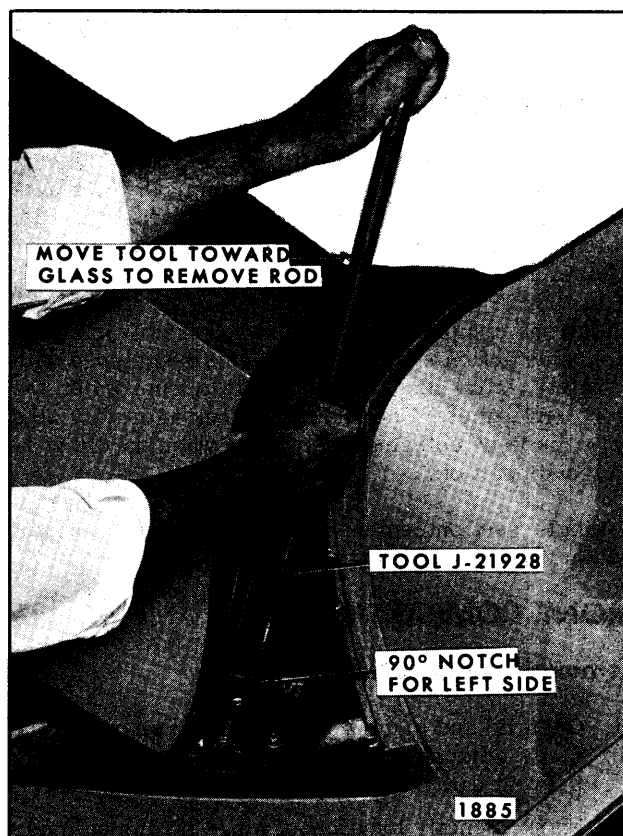


Fig. 5-17—Torque Rod Removal - Left Side

8. To install, apply an approved lubricant to torque rod ends which contact hinge roller. Reverse removal procedure, placing torque rods in the same retainer notch as they were prior to removal. Check operating effort of compartment lid. Should operating effort be increased or decreased, relocate torque rods for proper operation.

## FRONT COMPARTMENT LID LOCK CYLINDER ASSEMBLY

The front compartment lid lock cylinder is attached to the front end panel molding which is secured to the front end panel by studs and nuts. (See Fig. 5-18.)

### Removal and Installation

1. Remove front end panel molding assembly as explained in the "Exterior Molding" section of this manual (See Index).
2. Remove lock cylinder retainer and remove lock cylinder from molding.
3. To install, reverse removal procedure. Make certain that molding is properly sealed to front end panel.



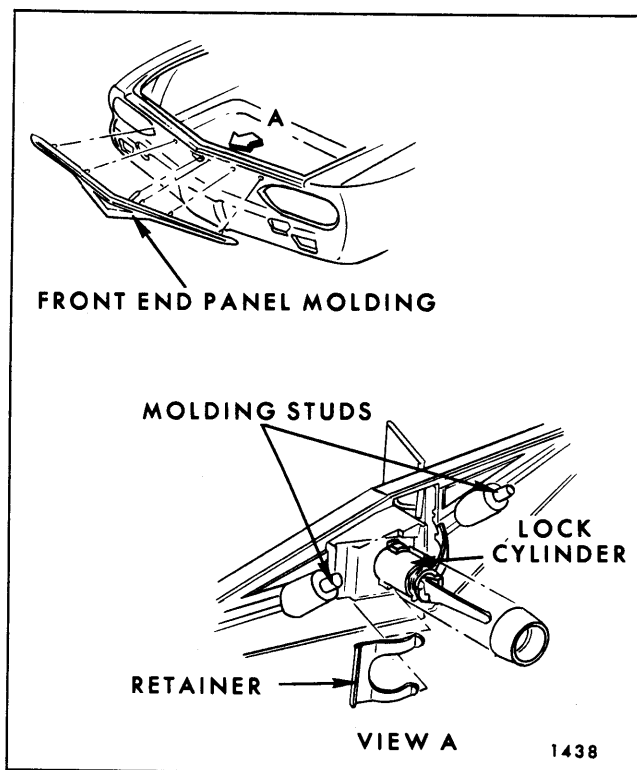


Fig. 5-18—Front Compartment Lid Lock Removal

## FRONT COMPARTMENT LID LOCK ASSEMBLY

### Removal and Installation

1. Remove front end panel molding and lid lock cylinder assembly.
2. Remove screws (Fig. 5-19) securing lock to lid lock support and remove lock assembly.
3. To install, reverse removal procedure.

**NOTE:** If lock does not properly engage in striker opening, the lock may be adjusted forward by installing emergency spacer(s) between lock and support.

## FRONT COMPARTMENT LID LOCK STRIKER

### Removal and Installation

1. Mark (pencil) location of front compartment lid lock striker on striker support.
2. Remove striker retainer plate attaching bolts and remove retainer plate and striker (Fig. 5-20).

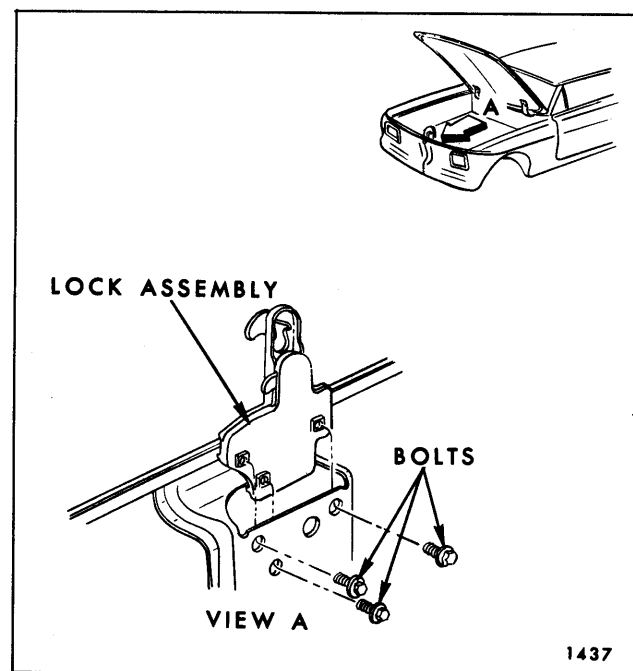


Fig. 5-19—Front Compartment Lid Lock

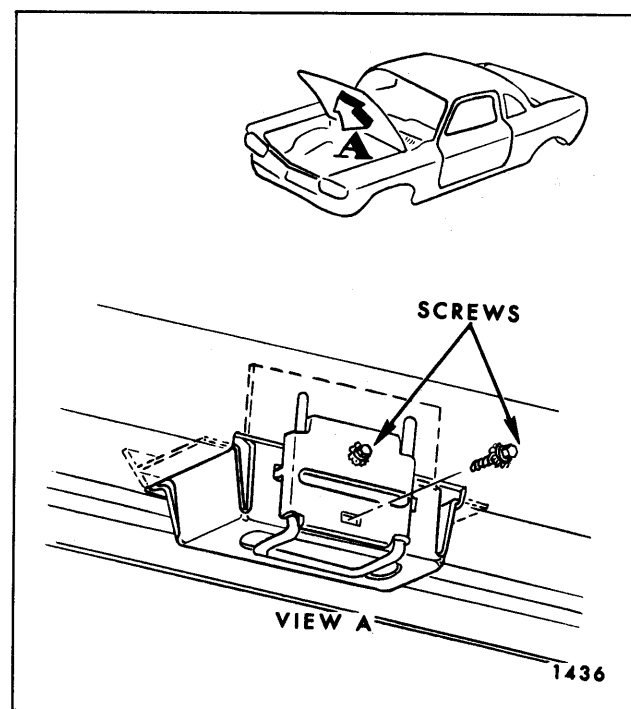


Fig. 5-20—Front Compartment Lid Lock Striker

3. To install, position striker within scribe marks and reverse removal procedure. Insure proper engagement of striker to lock.

### Adjustments

1. To adjust striker up, down, right or left, loosen retainer plate attaching bolts (while holding plate in position). Adjust striker as required and tighten bolts.

**NOTE:** Since the upper end of the lid lock acts as a guide by entering the striker when the lid is closed, align the front compartment lid properly in the body opening prior to making any striker adjustments.

## FRONT COMPARTMENT LID GUTTER WEATHERSTRIP

### Removal

1. Separate "butt" ends of weatherstrip at front of compartment opening.
2. With a flat-bladed tool, carefully disengage weatherstrip from its cemented foundation in gutter around entire perimeter of front compartment and remove weatherstrip.

### Installation

1. Remove excess cement from gutter around entire front compartment opening to insure a smooth cementing surface.

2. Using a brush, apply approved sealer along the base and around the entire perimeter of gutter.

**NOTE:** Apply a sufficient amount of weatherstrip cement along lower inboard corner of gutter so that after installation of weatherstrip, cement will spread and fill complete area.

3. Center weatherstrip at area between lid hinges using color or tape identification mark at center of weatherstrip as guide.
4. Using a flat-bladed tool, such as a putty knife with rounded corners, insert weatherstrip into gutter across top, down sides and across top front of compartment opening in that order. Roll or press weatherstrip to insure a good seal and proper retention of weatherstrip.
5. When a new weatherstrip is required, trim the ends to form a "butt" joint at front of opening. Using a brush, apply weatherstrip cement on both ends of new weatherstrip and secure ends together to form a matching joint.
6. Allow sufficient time for cement to set before closing front compartment lid.