

SECTION 8C

INSTRUMENT PANEL, GAGES AND CONSOLE

CAUTION: This vehicle is equipped with Supplemental Inflatable Restraint (SIR). Refer to CAUTIONS in Section 9J under "ON-VEHICLE SERVICE" and the SIR Component and Wiring Location view in Section 9J before performing service on or around SIR components or wiring. Failure to follow CAUTIONS could result in possible air bag deployment, personal injury, or otherwise unneeded SIR system repair.

NOTICE: When fasteners are removed, always reinstall them at the same location from which they were removed. If a fastener needs to be replaced, use the correct part number fastener for that application. If the correct part number fastener is not available, a fastener of equal size and strength (or stronger) may be used. Fasteners that are not reused and those requiring thread locking compound will be called out. The correct torque value must be used when installing fasteners that require it. If the above conditions are not followed, parts or system damage could result.

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GENERAL DESCRIPTION

AUXILIARY FUSE BLOCK

The fuse block is a part of the body wiring harness assembly. It is attached by a bracket on the left front hinge pillar and is accessed through a removable panel on the instrument panel carrier.

For diagnosis, refer to SECTION 8A.

CONVENIENCE CENTER

The convenience center is part of the body wiring harness assembly. It is attached to a bracket located on the cowl below the instrument panel carrier to the left of the steering column assembly.

The audio alarm assembly, vehicle speed sensor (VSS) buffer, and hazard lamp flasher are attached to the convenience center. The turn signal lamp flasher is opposite the convenience center to the right of the steering column assembly and the knee bolster bracket.

For diagnosis of the convenience center and components, refer to SECTION 8A.

DAYTIME RUNNING LAMPS (DRL) (CANADIAN ONLY)

All Canadian vehicles are equipped with daytime running lamps. The daytime running lamp system includes a solid state control module assembly, a relay and an ambient light sensor assembly. The system lights the low-beam headlamps at a reduced intensity when the ignition switch is in the "RUN" position during daylight. The daytime running lamp system is designed to light the low-beam headlamps at full intensity, and the parking lamps and taillamps when low light conditions are present.

FRONT FLOOR CONSOLE ASSEMBLY

The console assembly fits over the tunnel in the floor of the vehicle and extends from under the center of the instrument panel assembly to the rear seat area. The console assembly consists of two major assemblies. The

lower console assembly forms the side and rear walls of the complete console structure, while the upper console assembly forms the top of the structure.

The upper console assembly has a cigarette lighter and an ashtray with a coinholder and mat, or a cassette holder. The upper console assembly also houses the transmission shift lever. For vehicles without the cassette holder in the upper console area, the cigarette lighter and ashtray are set just below the transmission shift lever in the center of the console assembly. The parking brake is in a recess in the right side of the console assembly.

Below the transmission shift lever, toward the rear of the vehicle, is a cupholder with a mat. In the rear of the console assembly is a storage compartment. The storage compartment contains a tray for cassette tapes or compact discs. The storage compartment has a padded door that serves as a front seat center armrest.

INSTRUMENT CLUSTER ASSEMBLY

The instrument cluster assembly is centered above the steering column assembly in the instrument panel and is removable from the rear of the panel (toward the steering wheel assembly). The instrument cluster assembly contains instruments that provide the driver with vehicle performance information.

The headlamp switch assembly, remote hatch release and the optional foglamp switch assembly are located on the left side of the cluster assembly.

Gages in the instrument cluster assembly include a fuel gage, an engine coolant temperature gage, and a voltmeter. A speedometer with an odometer and a trip odometer is included, along with a tachometer.

The instrument cluster assembly has indicator lamps for the headlamp high beam symbol, fasten seat belt assembly, turn signal directional arrows and five lamps for illumination.

The cluster assembly also contains warning indicator lamps for "ABS INOP," "AIR BAG," "ASR" (Acceleration Slip Regulation - Chevrolet V8 only), "BRAKE," "CHECK GAUGES," "LOW COOLANT"

(V8 only), "LOW OIL," "LOW TRAC" (with ASR or TCS systems), "SECURITY," "SERVICE ENGINE SOON," "SKIP SHIFT" (V8 manual only) and "TCS OFF" (Traction Control System – Pontiac V8 only).

Electric power is directed to the appropriate lamps and gages of the instrument cluster assembly by a flexible printed circuit attached to the back of the instrument cluster case. Two multiple connectors and the snap-in bulb sockets help to hold the printed circuit to the back of the instrument cluster assembly.

The instrument cluster assembly is non-serviceable, except as noted in this section, and must be replaced as a unit.

When an instrument cluster assembly is replaced, the law requires the odometer reading of the replacement unit to be set to register the same mileage as the prior odometer. If the same mileage cannot be set, the law requires the replacement odometer to be set at zero and a label be installed on the driver's door frame to show the previous odometer reading and the date of replacement. Refer to "Odometer Repair Notice Label" in this section.

Gages

Engine Coolant Temperature Gage

The coolant temperature sending unit is mounted to the engine at a point where it is exposed to the coolant being circulated through the engine cooling passages. The sending unit contains a temperature-sensitive variable resistor that senses and reacts to coolant temperature. Resistance decreases as temperature increases.

When electric power is supplied to the engine coolant temperature gage, a current flows through the gage to the variable resistor and then to a ground at the engine. The position of the gage pointer is determined by the strength of the current flowing through the gage. When the engine coolant is cold, resistance is high, the current flow is low, and the pointer indicates a cold reading. As coolant temperature increases, the resistance of the sending unit resistor decreases and the pointer moves toward the center of the gage. Prolonged driving or idling in very hot weather may cause the pointer to move beyond this point. An overheat condition exists if the pointer goes into the red zone at the upper limit of the scale.

Dial calibrations go far above the normal boiling point of water – 100°C (212°F) – because the cooling system is pressurized. The increase in pressure also increases the boiling temperature of the coolant, permitting it to reach temperatures above those possible with a non-pressurized system without boiling. The higher operating temperature of the cooling system that results gives greater cooling efficiency and other benefits.

Fuel Gage

The fuel gage sending unit is mounted on the top surface of the fuel tank. The fuel level sender itself consists of a float that rides on the surface of the fuel in the tank, and a variable resistor controlled by the float arm. When electric power is supplied to the fuel gage, current flows through the gage to the variable resistor and then to ground. The position of the gage pointer is determined by the strength of the current flowing through the gage.

If the tank is full, the resistance of the variable resistor is high (90 ohms) and the current flow through the gage is at a minimum. This causes the pointer to indicate the "F" mark on the gage dial.

If the fuel level is low, the resistance of the variable resistor is also low and current flow through the gage is high. This causes the pointer to show a low fuel level reading. Intermediate fuel levels cause the pointer to indicate the corresponding position between "F" and "E."

Oil Pressure Gage

The oil pressure gage indicates the pressure of the lubricating oil flow provided by the engine oil pump. The oil pressure gage sending unit is a variable resistor mounted to the engine block so it will sense the oil pressure in a main oil passage just downstream from the engine oil pump. When electric power is supplied to the gage, current flows through the gage to the resistor in the sending unit and then to ground at the engine block. The position of the oil pressure gage pointer is determined by the strength of the current flowing through the gage.

When oil pressure is low, the resistance of the sending unit also is low and current flow through the gage is high. This causes the gage indicator needle to show a low pressure reading. As oil pressure increases, the resistance of the sending unit resistor also increases and current flow through the gage is reduced. Under normal conditions, the oil pressure reading should be between 138 and 414 kPa (20 and 60 psi). Engine oil pressure never should fall below a reading of 28 kPa (4 psi), even at idle.

Speedometer

The electric speedometer does not have a speedometer cable. The source of speed information is a small permanent magnet alternating current generator called a vehicle speed sensor (VSS), mounted on the transmission assembly. The shaft of the VSS fits into rotor teeth on the transmission output shaft in the same manner as the speedometer cable of a mechanical speedometer system. The transmission output shaft rotates and turns the rotor teeth near a magnetic pick-up within the vehicle speed sensor. This generates an alternating current in the coil with a frequency that is proportional to the speed of the vehicle.

The alternating current from the VSS is sent to the Powertrain Control Module (PCM).

The PCM modifies the current to a series of direct current pulses at a frequency proportional to the speed of the vehicle. These pulses form a vehicle speed signal that is transmitted to the speedometer.

At the speedometer, a solid state circuit uses the speed signal to regulate the distribution of current from the fuse block to two electromagnetic coils at right angles to each other near the base of the speedometer pointer pivot. At the base of the speedometer pointer pivot is a magnet that is acted upon by the magnetic fields of the two coils. The relative strength of the two magnetic fields determines the position of the magnet and accordingly, the position of the speedometer pointer.

Pulses from the solid state circuit also are used to drive a small electric stepper motor. The stepper motor turns the numbered wheels of the odometer and the trip odometer. The numbered wheels are geared so when any

one wheel completes a revolution, the next wheel to the left is turned one-tenth of a revolution. Every tenth of a revolution advances the displayed number by one unit. The trip odometer can be reset to zero at any time so the driver can record the distance traveled from any selected starting point.

Tachometer

The tachometer signal comes from the PCM.

Voltmeter

The voltmeter is an instrument that shows the voltage of the vehicle electrical system and indicates the ability of the charging system to keep the storage battery assembly charged. The voltmeter is wired in parallel with other circuits in the vehicle.

When the engine is running, the voltmeter indicates charging system voltage. If the engine is not running and the ignition switch is in the "RUN" or "START" position, the voltmeter will show battery voltage. The voltmeter can be used as a first step in diagnosing many electrical problems. Battery voltage drop can be seen while the engine is cranking. After the engine is running, generator output voltage is indicated.

It is normal for the voltmeter to read between 11 and 13 volts during extended idle or just after starting. As the electrical load is increased, or in stop-and-go driving, the pointer may rotate temporarily to the bottom of the scale. A voltmeter reading continuously below 11 volts or above 16 volts indicates an electrical system problem.

INSTRUMENT PANEL

The instrument panel and related parts form a rigid structure that encloses and supports many components on or near the passenger compartment side of the cowl. The top of the instrument panel is attached to the cowl next to the base of the windshield near both outboard ends by bolts/screws, and at the center by a support bracket. The bottom of the instrument panel is attached to a stamped metal tie bar that adds to the rigidity of the structure. A sound insulator panel is attached to the support bracket and the cowl on the passenger side of the panel to conceal the components under the instrument panel and provide a finished appearance.

The steering column assembly is clamped in place at the left side of the instrument panel. Below and to both sides of the steering column assembly is an instrument panel driver knee bolster assembly. An impact-absorbing pad covers the top of the instrument panel. Trim covers and trim plates accent the appearance of the exposed rear face of the instrument panel.

The air conditioning module case is attached to the cowl. Air ducts connect the case outlets to floor outlets, windshield defroster outlets, side window defogger outlets and a high level outlet in the center of the instrument panel. A high level air outlet is provided at each end of the instrument panel. The air conditioning module and ducts are concealed within the instrument panel structure.

Canadian vehicles equipped with daytime running lamps have a headlamp automatic control ambient light sensor assembly installed flush with the top surface of the

instrument panel upper trim panel assembly under the windshield defroster nozzle grille assembly.

To the left of the steering column assembly, mounted on the cowl, is the convenience center with the hazard flasher unit, horn relay, audio alarm and turn signal flasher unit. Attached to the convenience center is the vehicle speed sensor buffer.

A headlamp switch with a thumbwheel dimmer control and an optional foglamp switch are mounted in the instrument panel to the left of the instrument cluster assembly. The headlamp switch controls headlamps, parking and sidemarker lamps, taillamps, interior lamps and instrument panel lamps. The dimmer control regulates the intensity of instrument panel illumination.

The instrument panel wiring harness assembly is installed within the instrument panel area.

INSTRUMENT PANEL SWITCHES

Headlamp and Instrument Panel Lamp Dimmer Switch Assembly

The headlamp and instrument panel lamp dimmer switch assembly may also contain a twilight sentinel switch and a headlamp switch indicator lamp, if the vehicle is equipped with a twilight sentinel option.

For more information, refer to SECTION 8B or SECTION 9C.

Lid Release Switch Assembly

The lid release switch assembly releases the rear lid of the vehicle automatically. The lid release switch assembly is located on the left-hand side of the instrument panel below the headlamp controls and foglamp switch assembly.

SENSORS

Daytime Running Lamp (DRL) Ambient Light Sensor (Canadian Only)

The headlamp automatic control ambient light (daylight) sensor assembly is located to the right of the heat and air conditioning duct in the center of the instrument panel.

As the intensity of light reaching the sensor assembly increases, the electrical resistance of the sensor assembly decreases. When the DRL control module assembly senses a low resistance in the sensor assembly, the module assembly allows voltage to be applied to the DRL diode assembly and then to the low-beam headlamps. Due to the voltage drop across the diode assembly, the low-beam headlamps are on a reduced intensity.

As the intensity of light reaching the sensor assembly decreases, the electrical resistance of the sensor assembly increases. When the DRL module assembly senses a high resistance in the sensor assembly, the module assembly closes an internal relay and allows the low-beam headlamps to come to full intensity.

CLUSTER WARNING/INDICATOR LAMPS

"FASTEN SAFETY BELTS" Indicator Lamp

The "FASTEN SAFETY BELTS" indicator lamp will always go on whenever the ignition switch is in

“RUN,” “BULB TEST,” or “START,” if the driver’s seat belt assembly is unbuckled. It will remain on until the driver’s seat belt assembly is buckled.

For more information, refer to “Warning/Reminder Chimes” in this section or SECTION 10-11.

“TURN SIGNAL” Indicator Lamps

The left or right turn indicator lamp will illuminate when the multifunction lever on the left side of the steering column assembly is moved to signal a turn. The turn/hazard switch in the steering column assembly receives an on-and-off flashing current from the fuse block and the turn signal flasher unit in the convenience center when the ignition switch is in the “RUN,” “START” or “BULB TEST” position. The turn/hazard switch routes the current to circuits that feed the left or right front turn signal lamp, left or right rear tail/stop/turn signal lamps when the multifunction lever is moved. The circuit to the left or right front turn signal lamp, and cornering and sidemarker lamps has a branch that feeds the appropriate turn indicator lamp in the instrument cluster assembly, causing it to flash when the exterior lamps are indicating a turn.

When the hazard warning button on the right side of the steering column assembly is pressed in, the left and right front turn signal lamps, cornering and sidemarker lamps, and rear tail/stop/turn signal lamps all flash, and both turn signal indicator lamps in the instrument cluster flash. Power for the hazard warning system reaches the turn/hazard switch from the fuse block and the hazard flasher in the convenience center. Power is supplied with the ignition switch in any position. When the hazard warning system is flashing, the turn signal circuits are inoperative.

“AIR BAG” Indicator Lamp

The “AIR BAG” indicator lamp will light to warn the driver of a potential supplemental inflatable restraint (SIR) system problem that could prevent the proper deployment of the air bag in an accident. When the ignition switch is first turned on, the lamp will flash seven times to verify proper operation of the lamp circuit and the diagnostic/energy reserve module (DERM). A Scan Tool can be used to read diagnostic trouble codes (DTCs) in the DERM and to clear all DTCs after repair. For additional information, including service precautions, refer to SECTION 9J.

“SERVICE ENGINE SOON” Indicator Lamp

The “SERVICE ENGINE SOON” indicator lamp in the instrument cluster will come on when turning the ignition on or the engine off to serve as a bulb and system check. It should go off after the engine starts unless a problem has been detected by the system.

The powertrain control module (PCM) performs a continual self-diagnosis of certain control functions and causes the “SERVICE ENGINE SOON” lamp to remain on when the engine is running if a problem is detected. In any event, the PCM will store in memory a 2-digit trouble code if a problem is detected. When the data link connector (DLC) test connection is grounded, the PCM will enable most outputs with the engine operating and terminal “B” grounded at the DLC. When turning the ignition

on or the engine off, the “SERVICE ENGINE SOON” lamp will flash “FIELD SERVICE” which indicates an open/closed loop. The PCM will not flash DTCs. Tech 1 must be used to retrieve DTCs.

“LOW COOLANT” Indicator (V8 Only)

With a low coolant level, the circuit made by the low coolant probe has very high resistance (over 50,000 ohms). The low engine coolant indicator module assembly senses the voltage change at the low coolant level input and provides ground to the “LOW COOLANT” indicator and the indicator lights up. The “LOW COOLANT” indicator is grounded for 1.5 seconds when the ignition switch is initially turned “ON,” causing the “LOW COOLANT” indicator to light.

“LOW OIL” Indicator

The “LOW OIL” indicator ground is controlled by the engine oil level indicator control module assembly. To check for a low oil condition, the low oil module looks for a ground through the oil level switch after the ignition switch has been turned to “OFF” or “LOCK.”

The low oil module assembly checks for a low oil condition 32 minutes after the ignition switch is turned to “OFF” or “LOCK,” if the previous ignition cycle was less than 12 minutes. If the previous ignition cycle was longer than 12 minutes, the low oil module assembly checks for a low oil condition 3 minutes after the ignition switch is turned to “OFF” or “LOCK.”

When the low oil module assembly loses the ground through the oil level switch (oil level switch open indicating low oil level), the low oil assembly module grounds the “LOW OIL” indicator for the duration of the next ignition cycle.

When the low oil module assembly is grounded through the oil level switch, the low oil module assembly grounds the “LOW OIL” indicator for a bulb test when the ignition switch is turned to “RUN” during the next ignition cycle. The bulb test takes four to five seconds.

“BRAKE” Indicator Lamp

When the ignition switch is turned to “RUN,” the “BRAKE” indicator lamp will come on for approximately 3 seconds. If the parking brake is set, the lamp will remain on. The lamp may also be illuminated by information from the Electronic Brake Control Module (EBCM) or Electronic Brake/Traction Control Module (EBTCM).

Additionally, with the ignition switch turned to “RUN,” “BULB TEST,” or “START,” the lamp may be activated by the brake combo valve. For more information, refer to SECTION 8A-41 and SECTION 5E1.

“ABS INOP” Indicator Lamp

The “ABS INOP” indicator lamp is part of the anti-lock brake system. When the ignition switch is turned to the “RUN” position, the “ABS INOP” lamp will turn on for approximately 3 seconds and then turn off if no ABS malfunction is detected. If a malfunction is detected, the lamp will remain on.

If the “ABS INOP” indicator lamp comes on while driving, there is a malfunction in the antilock brake system. For more information, refer to SECTION 5E1.

"ASR" Indicator Lamp

Chevrolet V8 Only

The Accelerated Slip Regulation (ASR) system limits wheel spin if it senses that one or both of the rear wheels are beginning to lose traction. When this happens, the ASR system works the rear brakes and reduces engine power to limit wheel spin.

The "ASR" indicator lamp will come on if there is a system failure, if the system has been turned off by the driver, or momentarily when starting the engine.

When the ignition switch is turned to the crank position, the "ABS INOP," "ASR," and "TCS OFF" lamps will come on. They will remain on if the switch is held in the crank position.

"CHECK GAUGES" Indicator Lamp

The "CHECK GAUGES" indicator lamp alerts the driver to check instrument cluster gages when any of the following abnormalities are detected: coolant temperature too high, generator voltage too high or too low, oil pressure too low.

The indicator lamp also comes on for about one second after ignition "ON" as a bulb test.

"LOW TRAC" Indicator Lamp (with ASR or TCS Systems)

On vehicles equipped with Accelerated Slip Regulation (ASR) or Traction Control Systems (TCS), the "LOW TRAC" indicator lamp comes on to indicate that the system is active and is limiting wheel spin.

The "LOW TRAC" lamp will turn on during ABS initialization, an ABS stop or a TCS event. It will remain on for approximately 3 seconds and then turn off.

The "LOW TRAC" indicator lamp also comes on when the Antilock Brake System (ABS) is adjusting brake pressure to help avoid a skid.

"SECURITY" Indicator Lamp

The "SECURITY" indicator lamp is part of the theft deterrent system. It will come on when the theft deterrent module assembly is preventing the engine from starting, or if the theft deterrent module assembly is not properly programmed. It also comes on for about five seconds during "BULB TEST."

"SKIP SHIFT" Indicator Lamp (V8 Manual Only)

When the "SKIP SHIFT" indicator lamp is on, the manual transmission can only be shifted from first to fourth gear. For more information on skip shift, refer to SECTION 6E3-C8.

"TCS OFF" Indicator Lamp

Pontiac V8 Only

The Traction Control System (TCS), if equipped, limits wheel spin if it senses that one or both of the rear wheels are beginning to lose traction. When this happens, the TCS works the rear brakes and reduces engine power to limit wheel spin.

The "TCS OFF" indicator lamp will come on if there is a system failure, if the system has been turned off by the driver, or momentarily when starting the engine.

When the ignition switch is turned to the crank position, the "ABS INOP," "ASR," and "TCS OFF" lamps will come on. They will remain on if the switch is held in the crank position.

WARNING/REMINDER CHIMES

The audio alarm module sounds a chime to bring attention to one or more of several conditions. These conditions are: 1) the lights are on and the ignition switch is not in "RUN," "BULB TEST," or "START;" 2) the ignition key is in the ignition switch when the driver's door is open; 3) the seatbelt assembly is unbuckled when the ignition switch is in "RUN," "BULB TEST," or "START" and 4) the turn signal has been on for more than a half mile. Voltage is applied at all times through the fuse block to power the solid state audio alarm module.

Ignition Key Warning

Whenever the key is in the ignition switch and the driver's door is open, the module is grounded. This sounds the alarm.

Fasten Seat Belt Assembly Warning

With the ignition switch in "RUN," "BULB TEST," or "START," voltage is applied through the fuse block to the audio alarm module. With the driver's seat belt assembly unbuckled, the module is grounded through the seat belt switch and the alarm sounds. When the driver's seat belt assembly is buckled, the alarm shuts off. If the driver's seat belt assembly remains unbuckled, the alarm times out after 4 to 8 seconds.

Lights-On Warning

When the headlamp switch is in "HEAD" or "PARK," voltage is applied to the audio alarm module. When the ignition switch is in "RUN," "BULB TEST," or "START," voltage is applied through the fuse block to the module. These two voltages are sensed and the alarm assembly is not sounded.

When the ignition switch is not in "RUN," "BULB TEST" or "START," the module loses voltage. The audio alarm module senses change. If voltage is still available, it is applied to sound the alarm. The alarm can be turned off by turning the headlamp switch to "OFF." The module no longer senses voltage from the headlamp switch, so the alarm assembly does not sound.

DIAGNOSIS

For diagnosis of instrument panel, cluster, electrical system (including individual wire color information and applicable precautions for testing solid state electronic devices and systems), refer to SECTION 8A.

ON-VEHICLE SERVICE

It may be necessary to color coat some replacement components before installing them in the vehicle. For information regarding this procedure, refer to SECTION 10-1.

SERVICE PRECAUTIONS

CAUTION: When performing service on or around SIR components or SIR wiring, follow the procedures listed below to temporarily disable the SIR system. Failure to follow procedures could result in possible air bag deployment, personal injury, or otherwise unneeded SIR system repairs.

The DERM in all Driver-Passenger SIR systems can maintain sufficient voltage to cause a deployment for up to 2 minutes after the ignition switch is turned "OFF," the battery is disconnected, or the fuse powering the DERM is removed.

Disabling the SIR System

↔ Remove or Disconnect

1. Turn steering wheel assembly so vehicle's tire and wheel assemblies are pointing straight ahead.
2. Turn ignition switch to "LOCK."
3. "AIR BAG" fuse from fuse block.
4. Left-hand instrument panel sound insulator assembly, refer to "Sound Insulator Assembly" in this section.
5. Connector position assurance (CPA) and yellow two-way SIR harness connector at base of steering column assembly.
6. Instrument panel compartment door assembly, refer to "Instrument Panel Compartment" in this section.
7. Connector position assurance (CPA) and yellow two-way SIR connector located near yellow 24-way DERM connector on instrument panel wiring harness assembly.

! Important

- With "AIR BAG" fuse removed and ignition switch in "RUN," air bag indicator lamp on instrument panel cluster assembly will light. This is normal operation and does not indicate an SIR fault.

Enabling the SIR System

→ Install or Connect

1. Turn ignition switch to "LOCK."
2. Yellow two-way SIR harness connector and connector position assurance (CPA) located near yellow 24-way DERM connector on instrument panel wiring harness assembly.
3. Instrument panel compartment door assembly, refer to "Instrument Panel Compartment" in this section.
4. Yellow two-way SIR connector and connector position assurance (CPA) at base of steering column assembly.
5. Left-hand instrument panel sound insulator, refer to "Sound Insulator Assembly" in this section.
6. "AIR BAG" fuse to fuse block.

7. Turn ignition switch to "RUN" and verify air bag indicator flashes 7 times and then turns off. If indicator does not respond as stated, refer to SECTION 9J-A.

NOTICE: The instrument panel and cluster contain electrostatic discharge (ESD) sensitive parts. When handling an electronic part that is identified as being ESD sensitive, the service technician should follow the guidelines in SECTION 0A. Following these guidelines will reduce any possible electrostatic charge buildup on the service technician's body and the electronic part.

HANDLING ELECTROSTATIC DISCHARGE (ESD) SENSITIVE PARTS

NOTICE: When handling an electronic part that has an ESD-sensitive sticker, refer to SECTION 0A. Follow these guidelines to reduce any possible build-up of electrostatic charge:

- Do not open package until time when part is to be installed.
- Avoid touching electrical terminals of part.
- Before removing part from its package, ground package to known good ground on vehicle.
- Always touch known good ground before handling part. This should be repeated while handling part. Do it more often after sliding across seat, sitting down from standing position, or walking a distance.

Not all parts that can be damaged by ESD have an ESD label. Components that can be damaged by ESD are:

AM/FM stereo radio assembly/radio control
Antilock brake system EBCM assembly
Automatic day/night mirror
CalPak
Chime module
Cruise control module
Electronic automatic air conditioning control assembly
Electronic spark control module
MEM-CAL (memory and calibration unit)
PROM (programmable read only memory) calibrator
Supplemental inflatable restraint (SIR) DERM
Twilight sentinel amplifier

CONTROLS

AM/FM Stereo and Clock Radio Assembly

Chevrolet

Figures 1 and 2

↔ Remove or Disconnect

1. Driver knee bolster assembly. Refer to "Driver Knee Bolster Assembly and Deflector" in this section.
2. Trim plate assembly (15) and bolts/screws (16) from instrument panel assembly.

3. Bolts/screws (67) attaching brackets (68) to instrument panel carrier.
4. Brackets (68) and attached radio assembly (66) from instrument panel carrier.
5. Instrument panel wiring harness electrical connectors from radio assembly (66).
6. Bolts/screws (65) and nuts (64) attaching radio assembly (66) to brackets (68), if necessary.
7. Radio assembly (66) from brackets (68), if necessary.

Install or Connect

NOTICE: See "Notice" on page 8C-1 of this section.

1. Brackets (68) to radio assembly (66), if removed.
2. Bolts/screws (65) and nuts (64) attaching brackets (68) to radio assembly (66), if removed.

Tighten

- Nuts (64) to 2.8 N•m (25 lb. in.).
3. Instrument panel wiring harness electrical connectors to radio assembly (66).
 4. Brackets (68) and attached radio assembly (66) to instrument panel carrier.
 5. Bolts/screws (67) attaching brackets (68) to instrument panel carrier.

Tighten

- Bolts/screws (67) to 1.8 N•m (16 lb. in.).
6. Bolts/screws (16) attaching trim plate assembly (15) to instrument panel assembly.

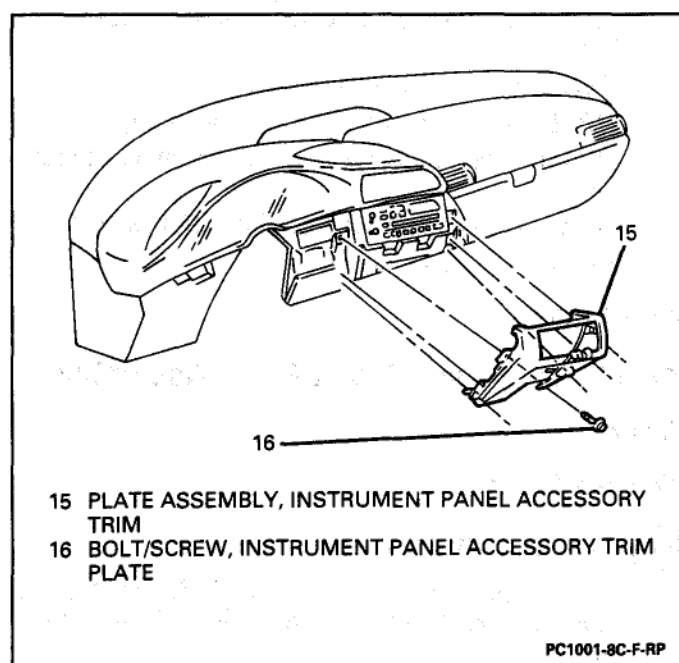


Figure 1 - Instrument Panel Accessory Trim Plate Assembly - (Chevrolet)

7. Driver knee bolster assembly. Refer to "Driver Knee Bolster Assembly and Deflector" in this section.

Pontiac

Figures 3 and 4

Remove or Disconnect

1. Driver knee bolster assembly. Refer to "Driver Knee Bolster Assembly and Deflector" in this section.
2. Trim plate assembly (15) from instrument panel assembly (40).
3. Bolt/screw (63) from instrument panel tie bar assembly, if necessary.
4. Retainer (62) and bolt/screw (65) from bracket (27).
5. Radio assembly (66).
6. Bolts/screws (67) attaching brackets (68) to instrument panel carrier.
7. Brackets (68) and attached radio assembly (66) from instrument panel carrier.
8. Instrument panel wiring harness electrical connectors from radio assembly (66).
9. Bolts/screws (65) and nuts (64) attaching radio assembly (66) to brackets (68), if necessary.
10. Radio assembly (66) from brackets (68), if necessary.

Install or Connect

NOTICE: See "Notice" on page 8C-1 of this section.

1. Brackets (68) to radio assembly (66), if removed.
2. Bolts/screws (65) and nuts (64) attaching brackets (68) to radio assembly (66), if removed.

Tighten

- Nuts (64) to 2.8 N•m (25 lb. in.).
3. Instrument panel wiring harness electrical connectors to radio assembly (66).
 4. Brackets (68) and attached radio assembly (66) to instrument panel carrier.
 5. Bolts/screws (67) attaching brackets (68) to instrument panel carrier.

Tighten

- Bolts/screws (67) to 1.8 N•m (16 lb. in.).
6. Radio assembly (66) to instrument panel assembly (40).
 7. Retainer (62) and bolt/screw (65) to bracket (27).
 8. Bolt/screw (63) to instrument panel tie bar assembly, if removed.

Tighten

- Bolt/screw (63) to 1.9 N•m (17 lb. in.).

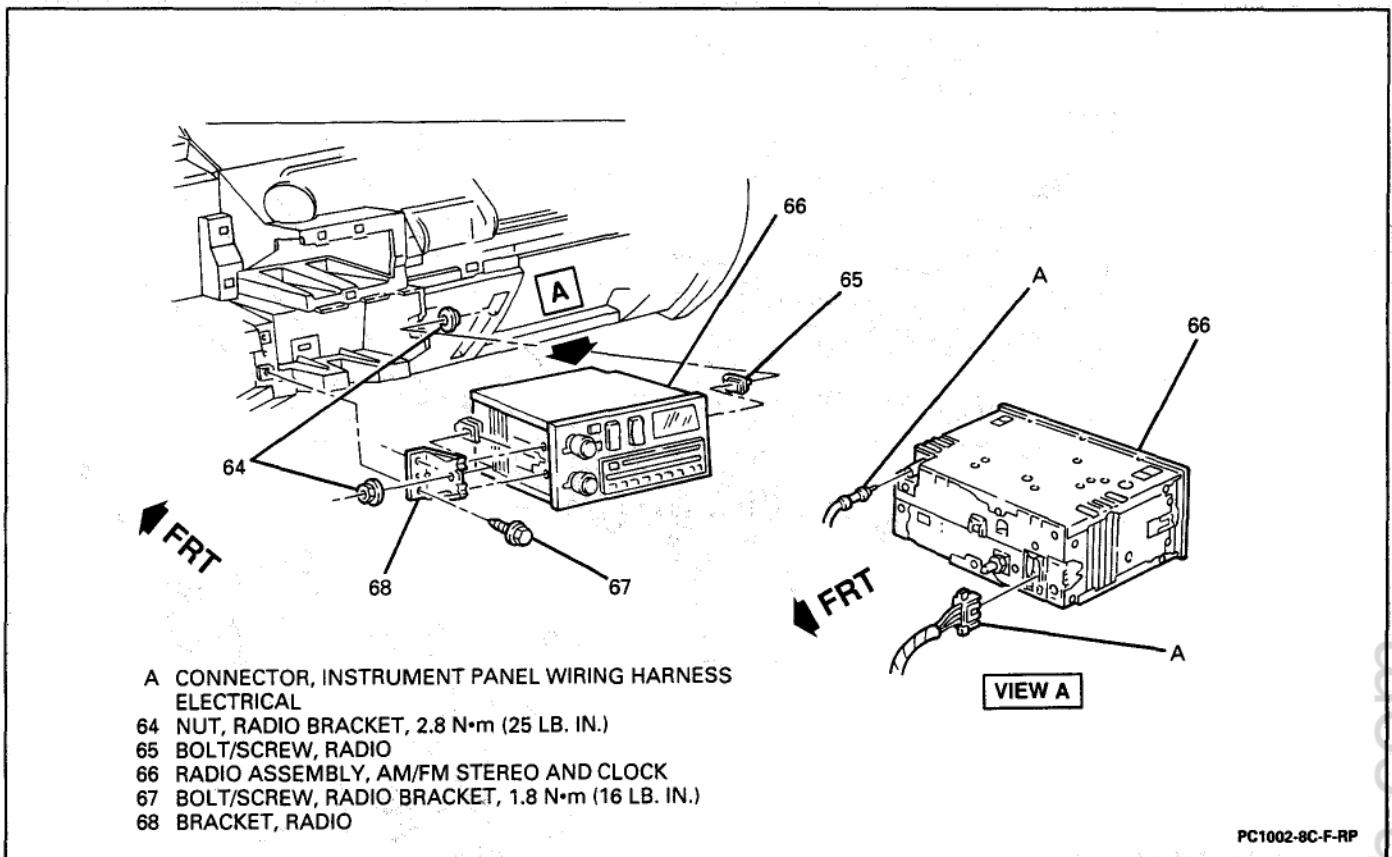


Figure 2 – AM/FM Stereo and Clock Radio Assembly – (Chevrolet)

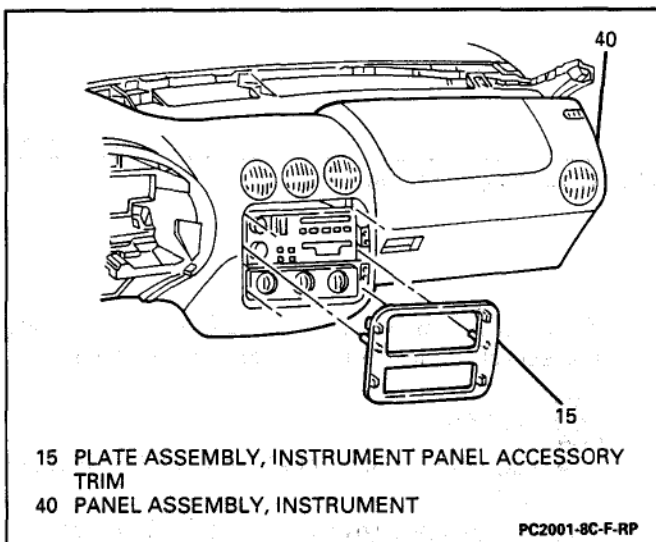


Figure 3 – Instrument Panel Accessory Trim Plate Assembly – (Pontiac)

Heater and Air Conditioning Control Assembly

Figure 5

Remove or Disconnect

1. Bezel assembly. Refer to "Instrument Panel Cluster Trim Plate Bezel Assembly" in this section.
2. Temperature control cable electrical connector and vacuum wiring harness electrical connector from over reinforcement (85).
3. Bolts/screws (81) attaching control assembly (82) to panel assembly (40).
4. Control assembly (82).

Install or Connect

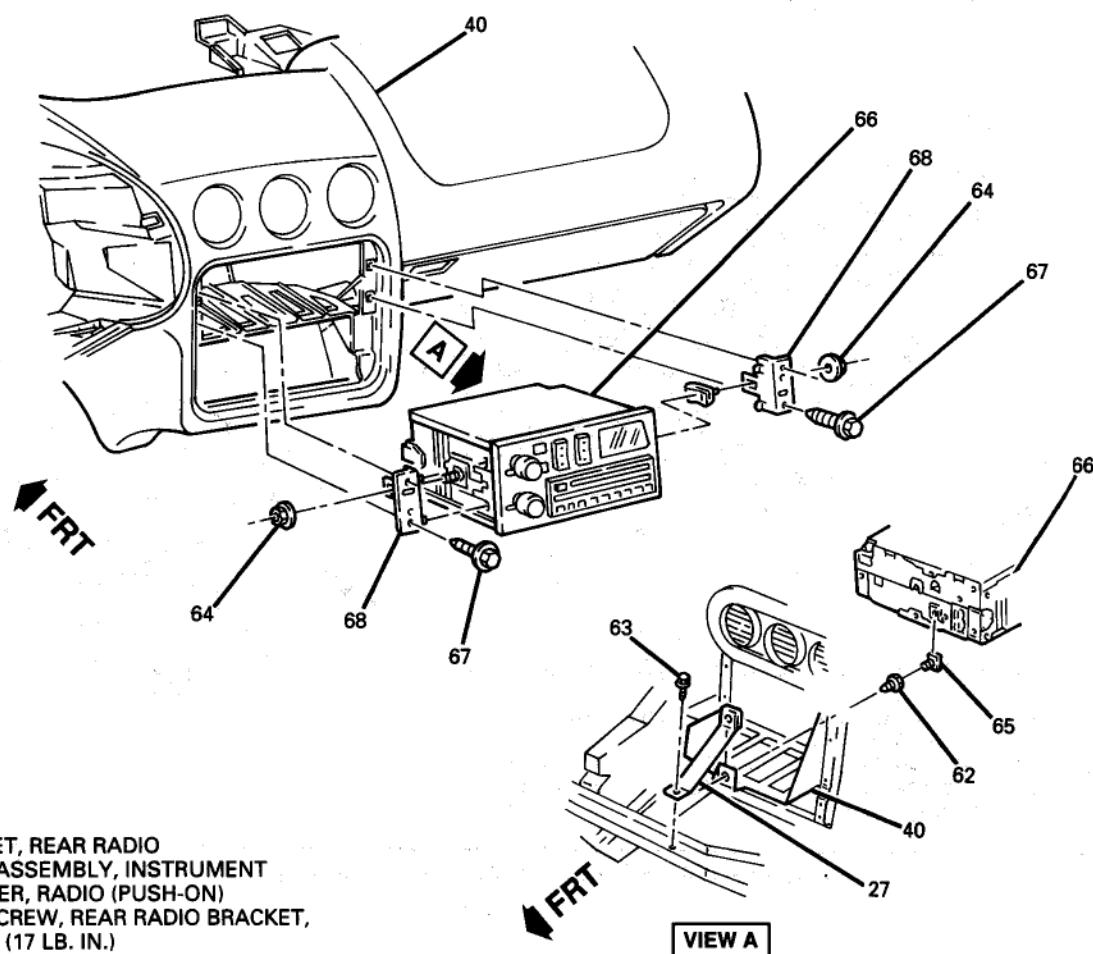
NOTICE: See "Notice" on page 8C-1 of this section.

1. Control assembly (82) to panel assembly (40).
2. Bolts/screws (81).

Tighten

- Bolts/screws (81) to 1.9 N•m (17 lb. in.).
3. Temperature control cable electrical connector and vacuum wiring harness electrical connector through hole in panel assembly (40) and over reinforcement (85).

9. Trim plate assembly (15) to instrument panel assembly (40).
10. Driver knee bolster assembly. Refer to "Driver Knee Bolster Assembly and Deflector" in this section.



- 27 BRACKET, REAR RADIO
 40 PANEL ASSEMBLY, INSTRUMENT
 62 RETAINER, RADIO (PUSH-ON)
 63 BOLT/SCREW, REAR RADIO BRACKET,
 1.9 N•m (17 LB. IN.)
 64 NUT, RADIO BRACKET, 2.8 N•m (25 LB. IN.)
 65 BOLT/SCREW, RADIO
 66 RADIO ASSEMBLY, AM/FM STEREO AND CLOCK
 67 BOLT/SCREW, RADIO BRACKET, 1.8 N•m (16 LB. IN.)
 68 BRACKET, RADIO

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Figure 4 - AM/FM Stereo and Clock Radio Assembly - (Pontiac)

4. Bezel assembly. Refer to "Instrument Panel Cluster Trim Plate Bezel Assembly" in this section.

DATA LINK CONNECTOR (DLC)

Figure 6

The data link connector (DLC) is part of the instrument panel wiring harness assembly. Refer to SECTION 8A.

Remove or Disconnect

- Two bolts/screws (61) attaching DLC to bracket (60).
- Three instrument panel bolts/screws attaching bracket (60) to instrument panel carrier, if necessary.

Install or Connect

NOTICE: See "Notice" on page 8C-1 of this section.

- Three instrument panel bolts/screws attaching bracket (60) to instrument panel carrier, if removed.



Tighten

- Instrument panel bolts/screws to 1.9 N•m (17 lb. in.).
- Two bolts/screws (61) attaching DLC to bracket (60).



Tighten

- Bolts/screws (61) to 1.5 N•m (13 lb. in.).

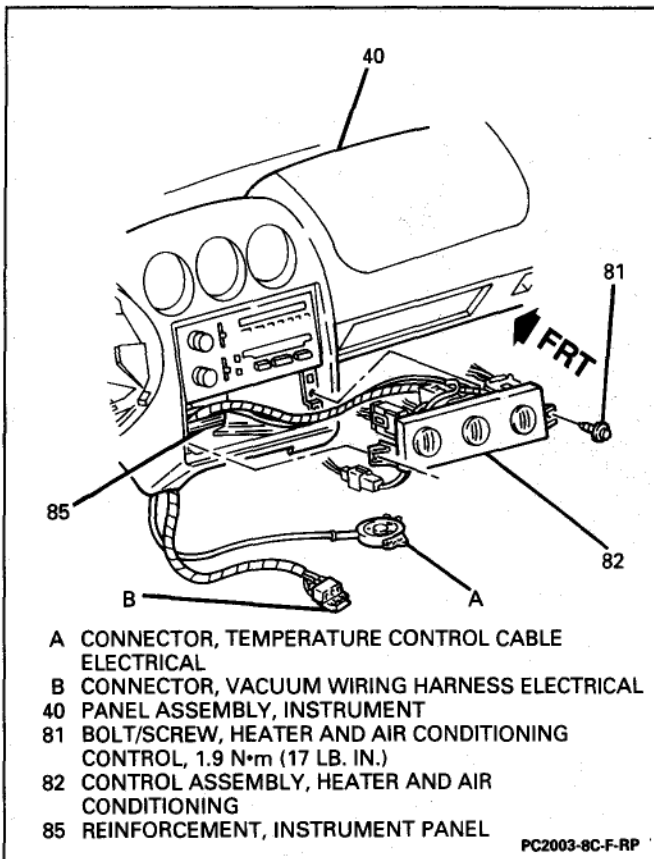


Figure 5 – Heater and Air Conditioning Control Assembly (Typical)

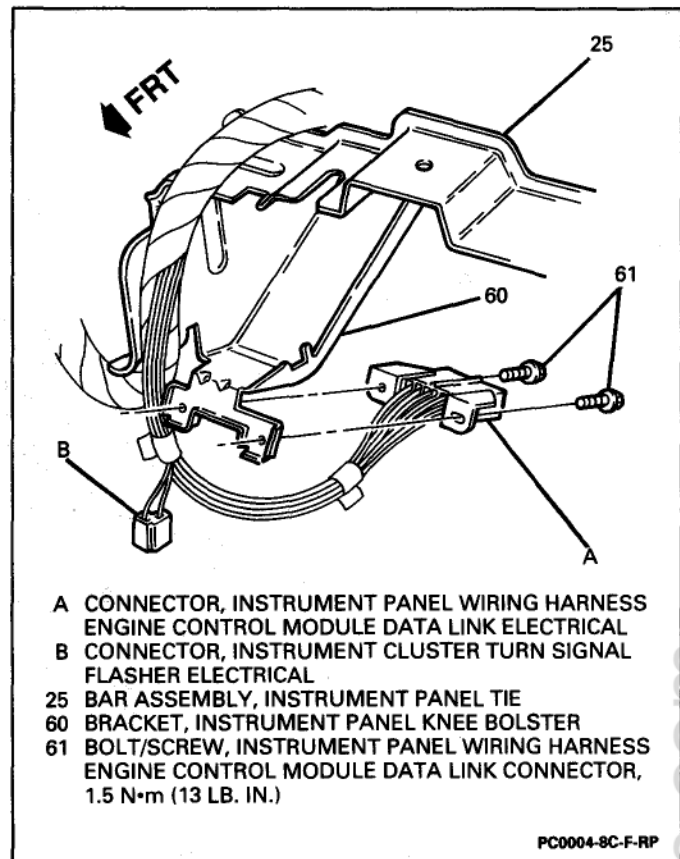


Figure 6 – Data Link Connector (DLC)

- Snap into place.

DAYTIME RUNNING LAMP (DRL) COMPONENTS (CANADIAN ONLY)

Daytime Running Lamp Ambient Light Sensor Assembly

Figure 7

Remove or Disconnect

1. Grille (70) from instrument panel upper trim panel assembly.
 - Gently unsnap grille (70).
2. Sensor assembly (88) from grille (70).
 - Twist counterclockwise.
3. Sensor assembly (88) from instrument panel wiring harness grille electrical connector.

Install or Connect

1. Sensor assembly (88) to instrument panel wiring harness grille electrical connector.
2. Sensor assembly (88) to grille (70).
 - Twist clockwise.
3. Grille (70) to instrument panel upper trim panel assembly.

Daytime Running Lamp Ambient Light Sensor Module Assembly

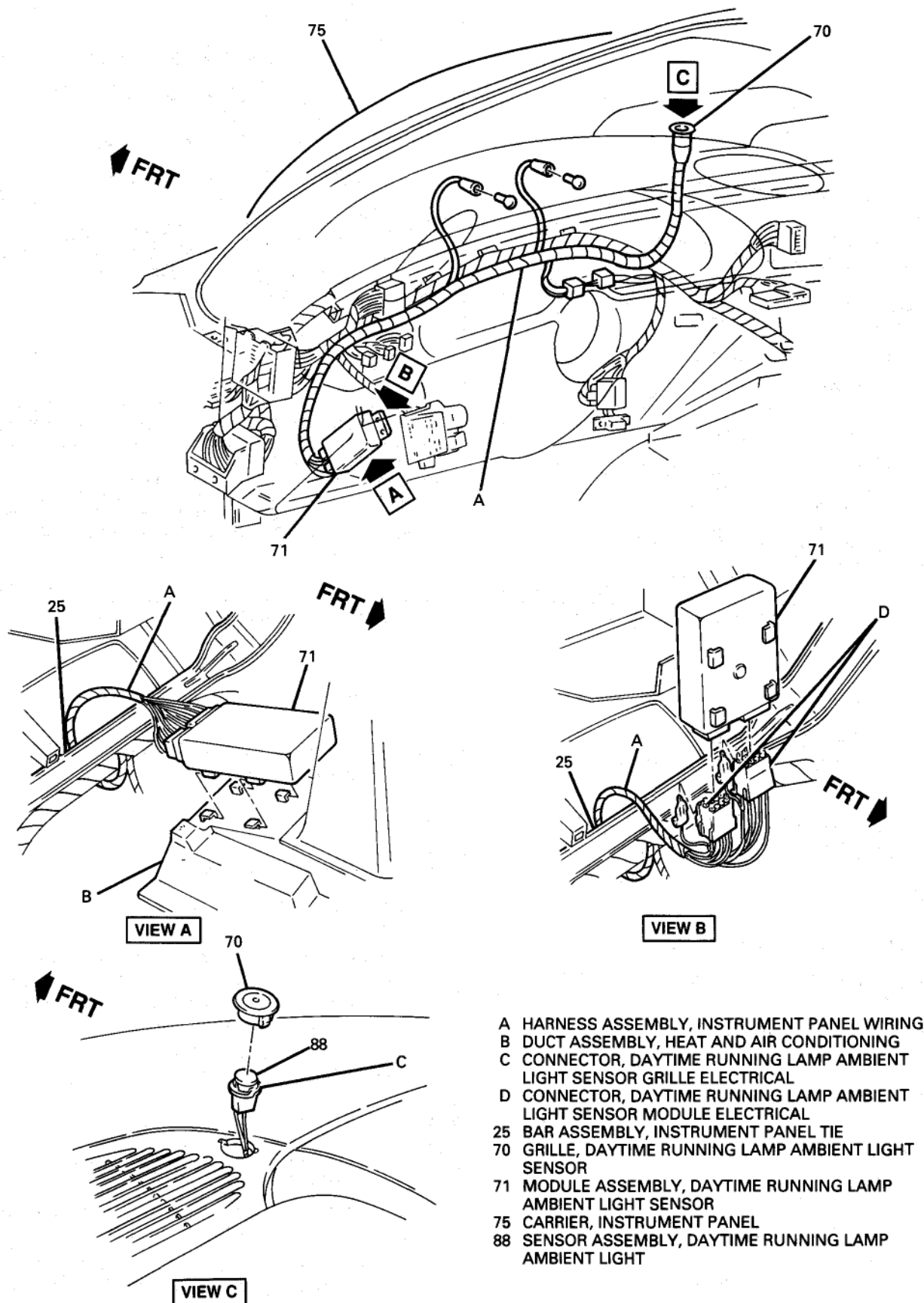
Figure 7

Remove or Disconnect

1. Module assembly (71) from heat and air conditioning duct assembly.
2. Instrument panel wiring harness electrical connectors from module assembly (71) by depressing lock retainers on daytime running lamp ambient light sensor module electrical connectors.
3. Instrument panel wiring harness assembly from under and behind bar assembly (25).

Install or Connect

1. Route instrument panel wiring harness assembly behind and under bar assembly (25).
2. Daytime running lamp ambient light sensor module electrical connectors to module assembly (71).
 - When connecting, push, click, then tug on daytime running lamp ambient light sensor electrical connector, not wire.
3. Slide module assembly (71) onto heat and air conditioning duct assembly.



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Figure 7 – Daytime Running Lamp Ambient Light Sensor Module Assembly

DRIVER KNEE BOLSTER ASSEMBLY AND DEFLECTOR

Chevrolet

Figure 8

Remove or Disconnect

1. Bolts/screws (4) from bolster assembly (3) at deflector (49) and instrument panel tie bar assembly.
2. Nuts (48) from studs (74).
3. Deflector (49) from studs (74).

Install or Connect

NOTICE: See "Notice" on page 8C-1 of this section.

1. Deflector (49) to studs (74).

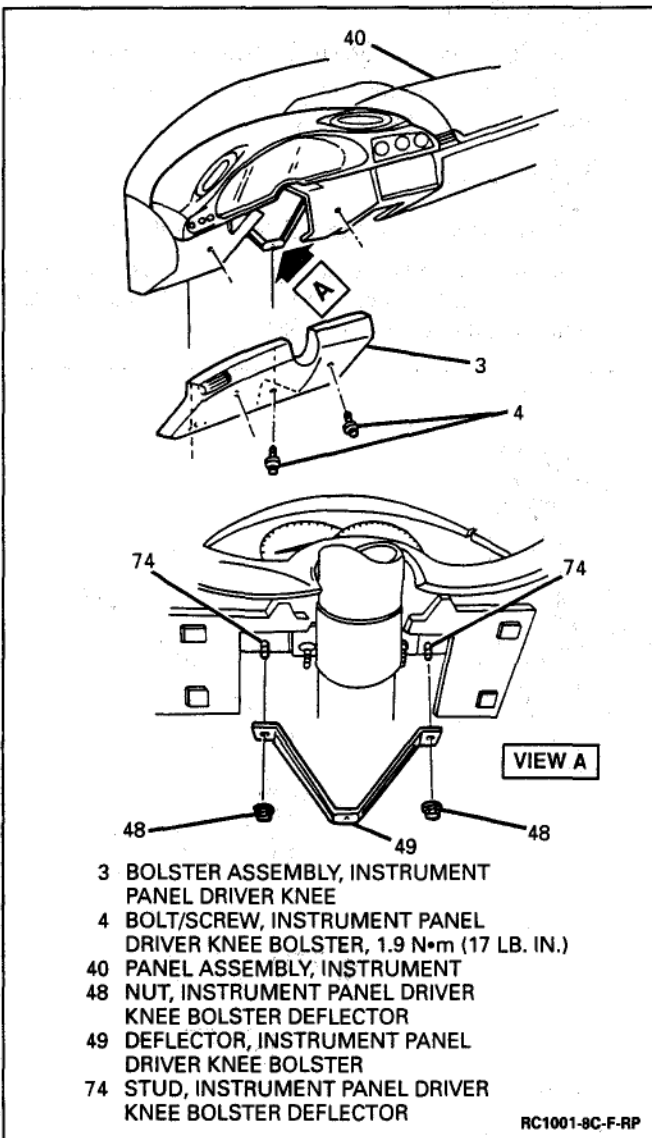


Figure 8 – Driver Knee Bolster Assembly and Deflector – (Chevrolet)

2. Nuts (48) to studs (74).
3. Bolts/screws (4) to bolster assembly (3) at deflector (49) and instrument panel tie bar assembly.



Tighten

- Bolts/screws (4) to 1.9 N·m (17 lb. in.).

Pontiac

Figure 9

Remove or Disconnect

1. Bolts/screws (4) from bolster assembly (3) at deflector (49) and instrument panel tie bar assembly.
2. Bolster assembly (3) from dual lock retainers on instrument panel carrier.
3. Nuts (48) from studs (74).
4. Deflector (49) from studs (74).

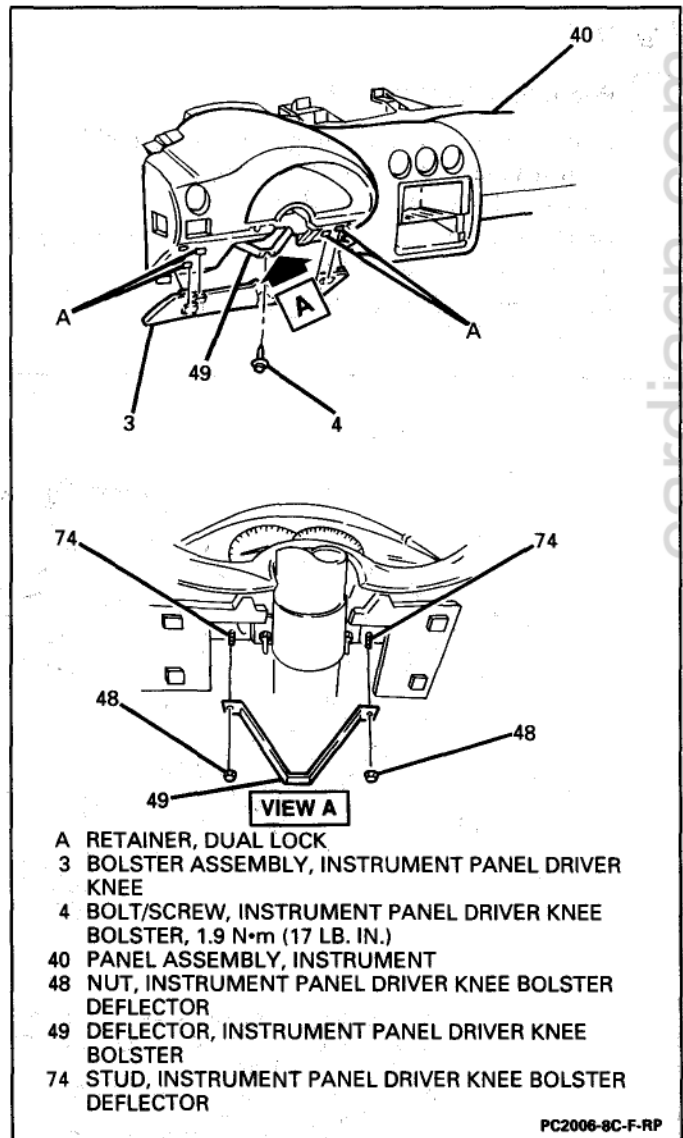


Figure 9 – Driver Knee Bolster Assembly and Deflector – (Pontiac)

Install or Connect

NOTICE: See "Notice" on page 8C-1 of this section.

1. Deflector (49) to studs (74).
2. Nuts (48) to studs (74).
3. Bolster assembly (3) to dual lock retainers on instrument panel carrier.
 - Position bolster assembly (3) for best fit and apply pressure on retainers to secure.
4. Bolts/screws (4) to bolster assembly (3) at deflector (49) and instrument panel tie bar assembly.

Tighten

- Bolts/screws (4) to 1.9 N•m (17 lb. in.).

FRONT FLOOR CONSOLE ASSEMBLY

Figure 10

Remove or Disconnect

1. Bolts/screws (34) attaching console assembly (33) to instrument panel center support bracket and manual floor console bracket.
2. Bolt/screw (35) attaching console assembly (33) to instrument panel assembly.
3. Bolts/screws (36) attaching console assembly (33) to bracket (37).

4. Console assembly (33).

Install or Connect

NOTICE: See "Notice" on page 8C-1 of this section.

1. Console assembly (33).
 - A. Route wiring connectors through appropriate openings.
 - B. Insert parking brake assembly through appropriate opening.
 - C. Locating pin on console assembly (33) into hole in shifter bracket drive.
 - D. Position console assembly (33) to floor of vehicle.
2. Bolts/screws (36) attaching console assembly (33) to bracket (37).

Tighten

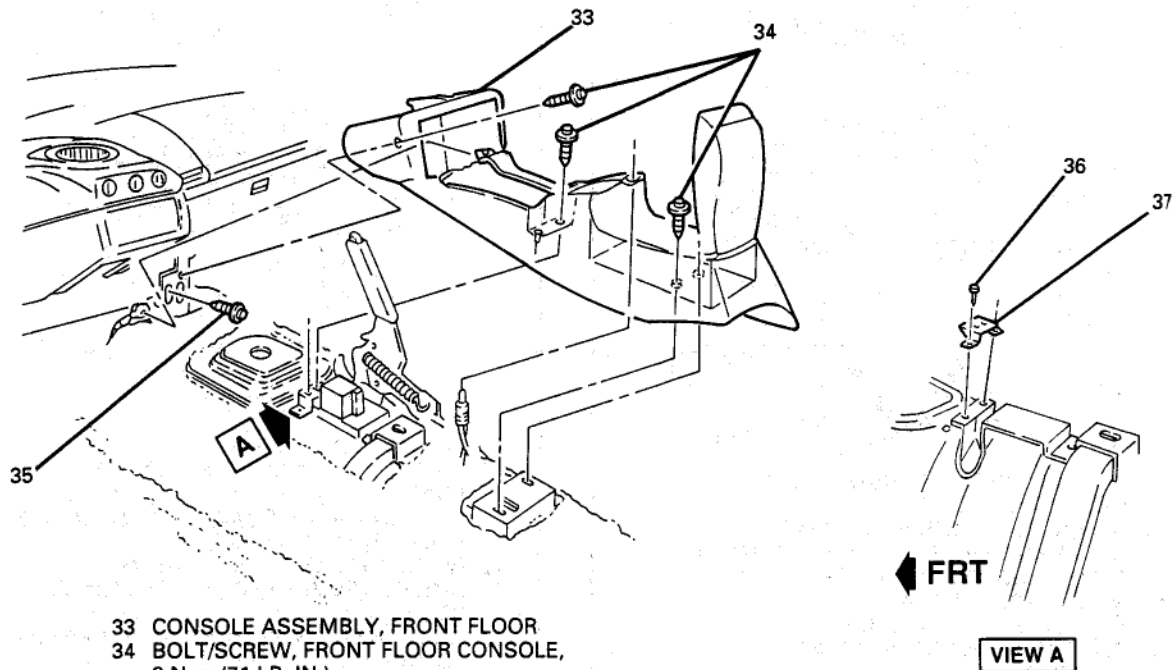
- Bolts/screws (36) to 8 N•m (71 lb. in.).

3. Bolt/screw (35) attaching console assembly (33) to instrument panel assembly.

Tighten

- Bolt/screw (35) to 5.5 N•m (49 lb. in.).

4. Bolts/screws (34) attaching console assembly (33) to instrument panel center support bracket and manual floor console bracket.



- 33 CONSOLE ASSEMBLY, FRONT FLOOR
 34 BOLT/SCREW, FRONT FLOOR CONSOLE,
 8 N•m (71 LB. IN.)
 35 BOLT/SCREW, INSTRUMENT PANEL,
 5.5 N•m (49 LB. IN.)
 36 BOLT/SCREW, FRONT FLOOR CONSOLE BRACKET,
 8 N•m (71 LB. IN.)
 37 BRACKET, FRONT FLOOR CONSOLE

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Figure 10 – Front Floor Console Assembly (Typical)

**Tighten**

- Bolts/screws (34) to 8 N•m (71 lb. in.).

Cigarette Lighter Assembly**Chevrolet (without Switches)****Figure 11****Remove or Disconnect**

1. Cigarette lighter assembly from console assembly (33).
2. Bezel assembly (32) from cigarette lighter bezel wiring harness electrical connector.

**Install or Connect**

1. Bezel assembly (32) to cigarette lighter bezel wiring harness electrical connector.
2. Cigarette lighter assembly to appropriate opening in console assembly (33).
 - Snap into place.

Chevrolet (with Switches)**Figure 11****Remove or Disconnect**

1. Switch assembly with cigarette lighter (98) from console assembly (33).
2. Wiring harness electrical connector from cigarette lighter assembly.
3. Cigarette lighter assembly from switch assembly with cigarette lighter (98).

**Install or Connect**

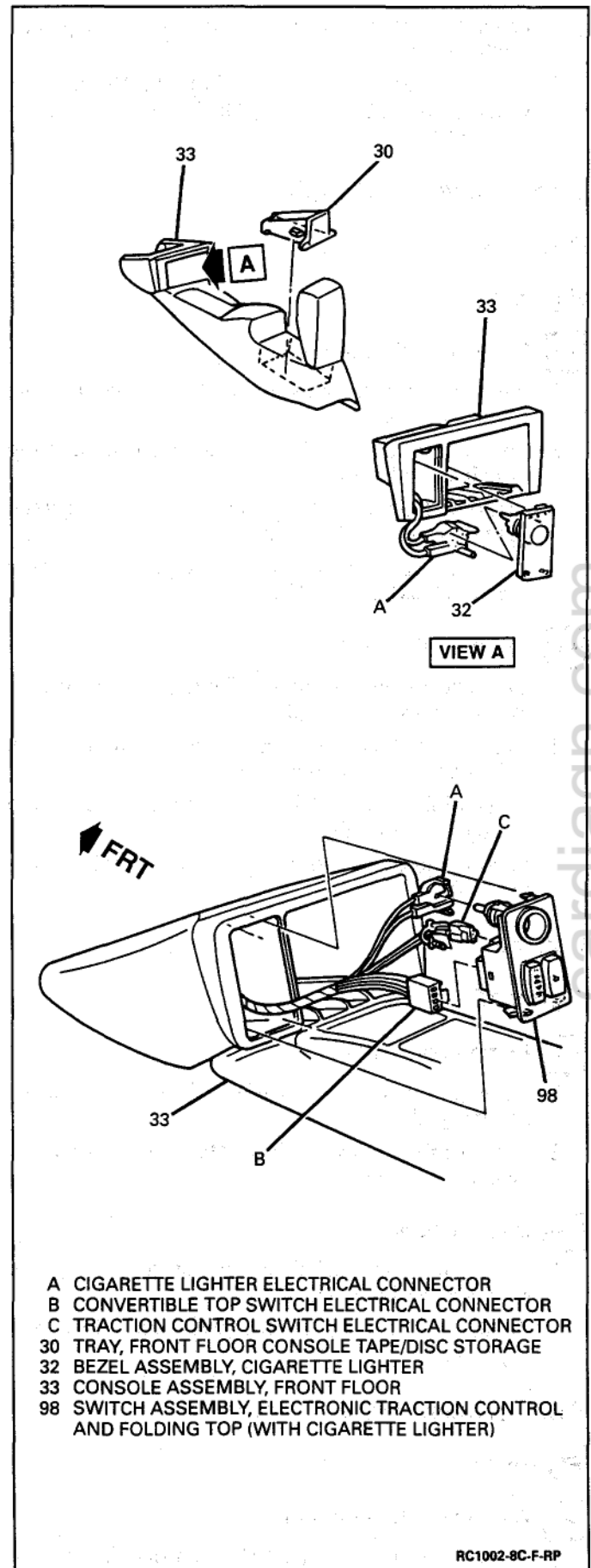
1. Cigarette lighter assembly to switch assembly with cigarette lighter (98).
2. Wiring harness electrical connector to cigarette lighter assembly.
3. Switch assembly with cigarette lighter (98) to console assembly (33).

Pontiac**Remove or Disconnect**

1. Front floor console assembly. Refer to "Front Floor Console Assembly" under "On-Vehicle Service" in this section.
2. Cigarette lighter electrical connector from cigarette lighter assembly.
3. Cigarette lighter assembly from front floor console assembly.

**Install or Connect**

1. Cigarette lighter assembly to front floor console assembly.

**Figure 11 – Cigarette Lighter, Traction Control Switch and Convertible Top Switch – (Chevrolet) (Typical)**

2. Cigarette lighter electrical connector to cigarette lighter assembly.
3. Front floor console assembly. Refer to "Front Floor Console Assembly" under "On-Vehicle Service" in this section.

Convertible Top Switch

Chevrolet

Figure 11

Remove or Disconnect

1. Folding top switch assembly (98) from console assembly (33).
2. Convertible top switch connector from folding top switch assembly (98).
3. Cigarette lighter electrical connector from cigarette lighter assembly, if equipped.
4. Cigarette lighter assembly, if equipped, to folding top switch assembly (98).

Install or Connect

1. Cigarette lighter assembly, if equipped, to folding top switch assembly (98).
2. Cigarette lighter electrical connector to cigarette lighter assembly, if equipped.
3. Convertible top switch connector to folding top switch assembly (98).
4. Folding top switch assembly (98) to console assembly (33).

Pontiac

Figure 12

Remove or Disconnect

1. Folding top switch assembly (99) from console assembly (33).
2. Convertible top switch connector from folding top switch assembly (99).

Install or Connect

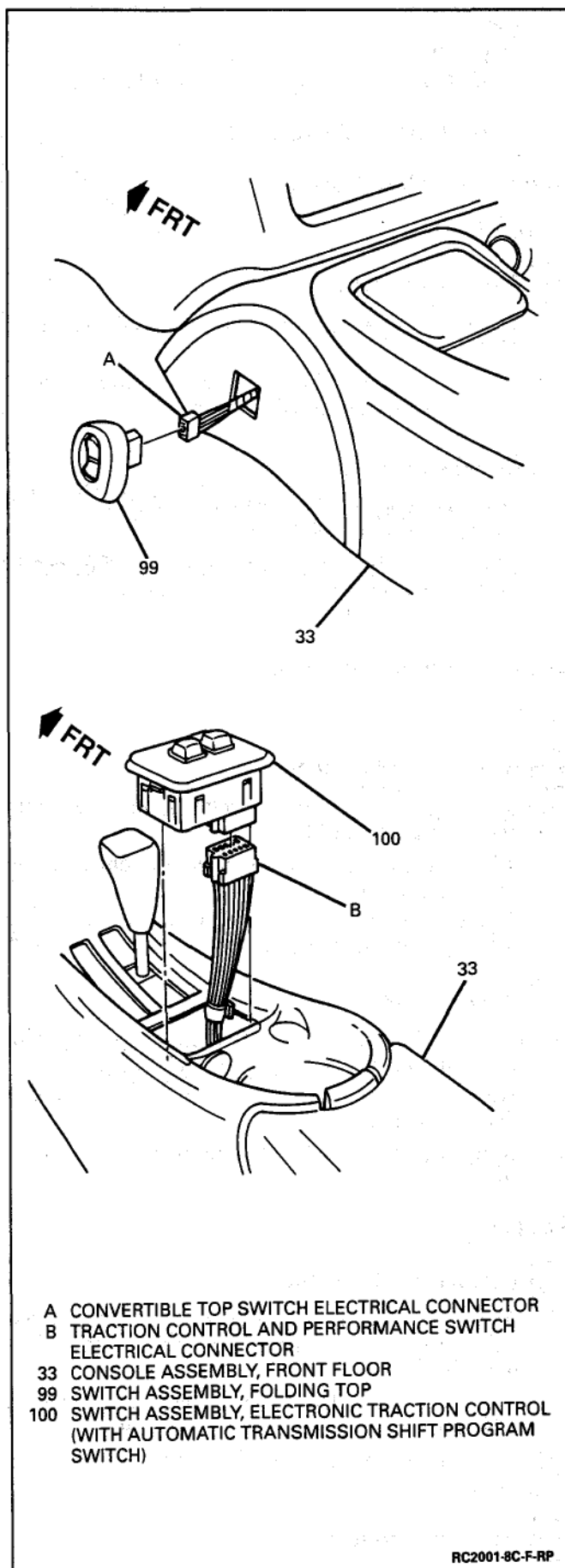
1. Convertible top switch connector to folding top switch assembly (99).
2. Folding top switch assembly (99) to console assembly (33).

Compartment Lamp Switch

Figure 13

Remove or Disconnect

1. Switch (93) and retainer (94) from opening in console assembly (33).
2. Retainer (94) from switch (93).



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Figure 12 – Convertible Top, Traction Control and Performance Switches – (Pontiac) (Typical)

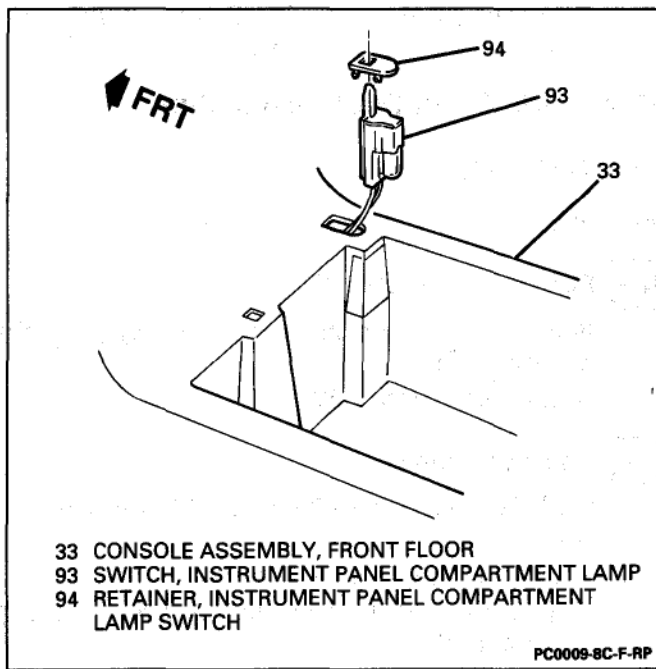


Figure 13 – Compartment Lamp Switch

Install or Connect

1. Retainer (94) to switch (93).
2. Switch (93) and retainer (94) down through opening in console assembly (33).
 - Be sure retainer (94) is seated in console assembly (33).

Performance Switch (V8 Automatic) Second Gear Start Switch (V6 Automatic)

Pontiac Only

Figure 12

Remove or Disconnect

1. Automatic transmission shift program switch (100) from console assembly (33).
2. Performance switch electrical connector from automatic transmission shift program switch (100).

Install or Connect

1. Performance switch electrical connector to automatic transmission shift program switch (100).
2. Automatic transmission shift program switch (100) to console assembly (33).

Traction Control Switches

ASR Switch – Chevrolet
TCS Switch – Pontiac

Figures 11 and 12

Remove or Disconnect

1. Electronic traction control switch assembly (98 or 99) from console assembly (33).
2. Traction control switch electrical connector from electronic traction control switch assembly (98 or 99).
3. Cigarette lighter electrical connector from cigarette lighter assembly, if equipped.
4. Cigarette lighter assembly, if equipped, from traction control switch assembly (98).

Install or Connect

1. Cigarette lighter assembly, if equipped, to traction control switch assembly (98).
2. Cigarette lighter electrical connector to cigarette lighter assembly, if equipped.
3. Traction control switch electrical connector to electronic traction control switch assembly (98 or 99).
4. Electronic traction control switch assembly (98 or 99) to console assembly (33).

Storage Tray

Figure 11

Remove or Disconnect

- Tray (30) from console storage area.
 - Depress dual lock fasteners on either side of tray (30).

Install or Connect

- Tray (30) into console storage area.
 - Apply pressure to secure dual lock fasteners.

Transmission Plate Assembly

Figure 14

Remove or Disconnect

1. Retainers attaching plate assembly (28 or 29) to console assembly (33).
2. Plate assembly (28 or 29).

Install or Connect

1. Plate assembly (28 or 29) to console assembly (33).
 - Position plate assembly (28 or 29) over shifter stem, initially inserting forward end of plate assembly (28 or 29) into console assembly (33).

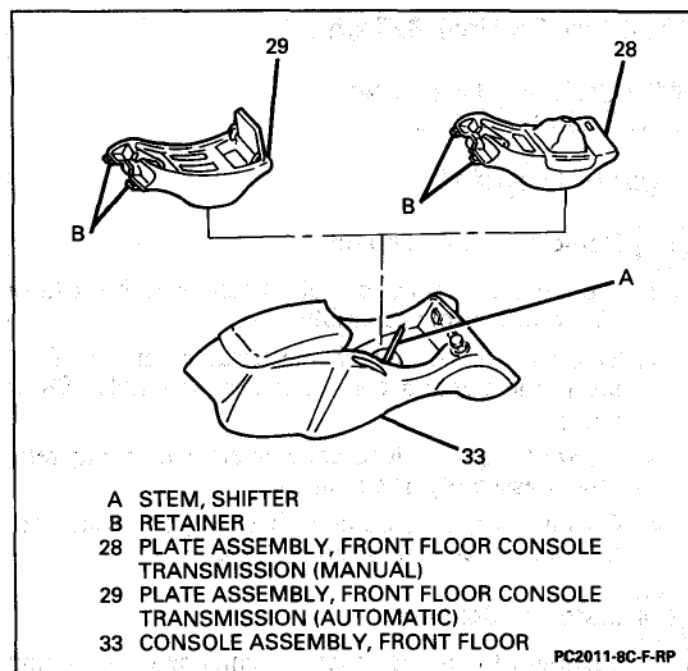


Figure 14 - Transmission Plate Assembly

2. Retainers attaching plate assembly (28 or 29) to console assembly (33).

- Apply pressure, snap into place and secure.

HEAT, VENTILATION AND AIR CONDITIONING DUCTS

Air Distributor Assembly

Figures 15 and 16

Remove or Disconnect

1. Instrument panel carrier. Refer to "Instrument Panel Carrier" in this section.
2. Bolts/screws (55) attaching distributor assembly (54) to carrier (75).
3. Distributor assembly (54) from carrier (75).

Install or Connect

NOTICE: See "NOTICE" on page 8C-1 of this section.

1. Distributor assembly (54) to carrier (75).
2. Route heater control cable assembly and vacuum wiring harness assembly over reinforcement in carrier (75).
 - Align cable and wire assemblies with depression in distributor assembly (54).
3. Bolts/screws (55) attaching distributor assembly (54) to carrier (75).

Tighten

- Bolts/screws (55) to 1.9 N•m (17 lb. in.).

4. Instrument panel carrier (75). Refer to "Instrument Panel Carrier" in this section.

Center Air Outlet Duct Assemblies

Chevrolet Only

Figure 15

Remove or Disconnect

1. Bolts/screws (57) attaching duct assembly (58 or 59) to carrier (75).
2. Duct assembly (58 or 59).

Install or Connect

NOTICE: See "Notice" on page 8C-1 of this section.

1. Duct assembly (58 or 59) to carrier (75).
2. Bolts/screws (57) attaching duct assembly (58 or 59) to carrier (75).

Tighten

- Bolts/screws (57) to 1.9 N•m (17 lb. in.).

Defogger Outlet Duct Assembly

Figures 15 and 16

Remove or Disconnect

1. Duct assembly (56) from distributor assembly (54).
2. Duct assembly (56) from carrier (75).

Install or Connect

NOTICE: See "Notice" on page 8C-1 of this section.

1. Duct assembly (56) to carrier (75).
2. Duct assembly (56) to distributor assembly (54).

Floor Air Outlet Duct Assembly

Figure 17

Remove or Disconnect

1. Bolts/screws (47) attaching duct assembly (46) to module assembly (45).
2. Duct assembly (46).

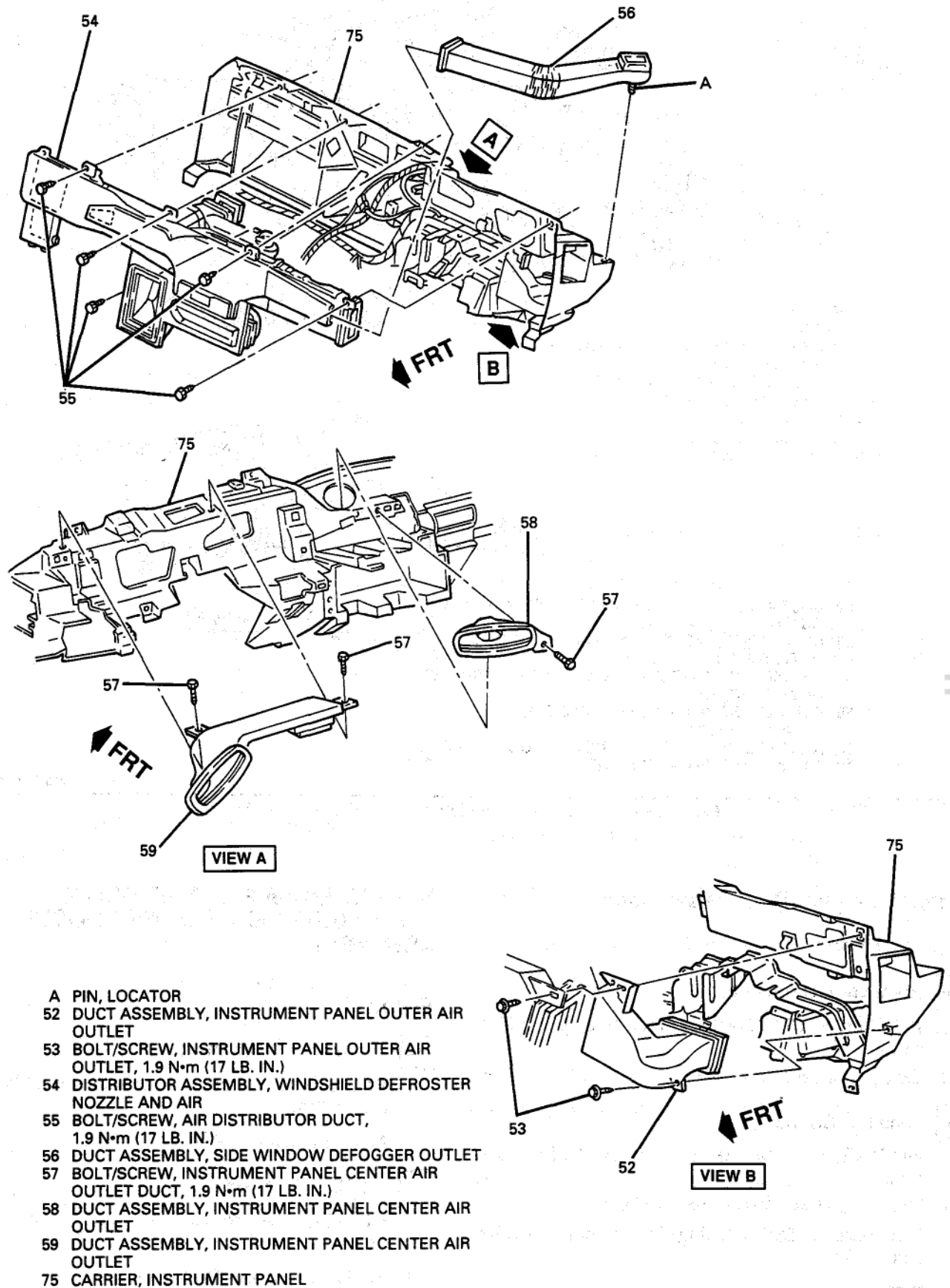
Install or Connect

NOTICE: See "Notice" on page 8C-1 of this section.

1. Duct assembly (46) to module assembly (45).
2. Bolts/screws (47) attaching duct assembly (46) to module assembly (45).

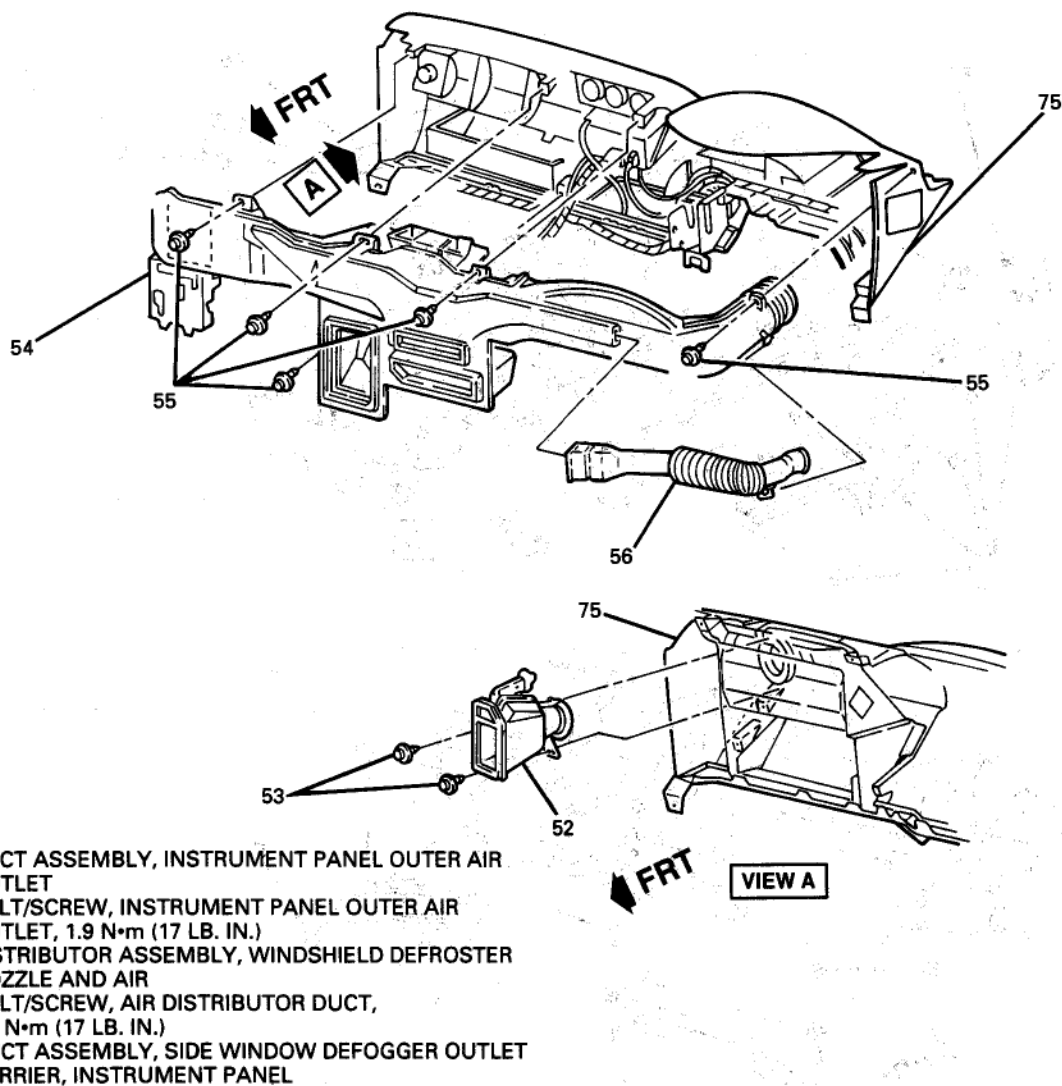
Tighten

- Bolts/screws (47) to 1.9 N•m (17 lb. in.).



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Figure 15 – Heat, Ventilation and Air Conditioning Ducts – (Chevrolet)



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Figure 16 – Heat, Ventilation and Air Conditioning Ducts – (Pontiac)

Outer Air Outlet Duct Assemblies

Figures 16 and 18

↔ Remove or Disconnect

1. Bolts/screws (53) attaching duct assembly (52) to carrier (75).
2. Duct assembly (52).

→ Install or Connect

NOTICE: See “Notice” on page 8C-1 of this section.

1. Duct assembly (52) to carrier (75).
2. Bolts/screws (53) attaching duct assembly (52) to carrier (75).



Tighten

- Bolts/screws (53) to 1.9 N•m (17 lb. in.).

HEATER AND AIR CONDITIONING EVAPORATOR AND BLOWER MODULE ASSEMBLY

Figure 17

↔ Remove or Disconnect

1. Bolts/screws (44) attaching module assembly (45) to carrier (75).
2. Module assembly (45).

→ Install or Connect

NOTICE: See “Notice” on page 8C-1 of this section.

1. Module assembly (45) to carrier (75).
2. Bolts/screws (44) attaching module assembly (45) to carrier (75).

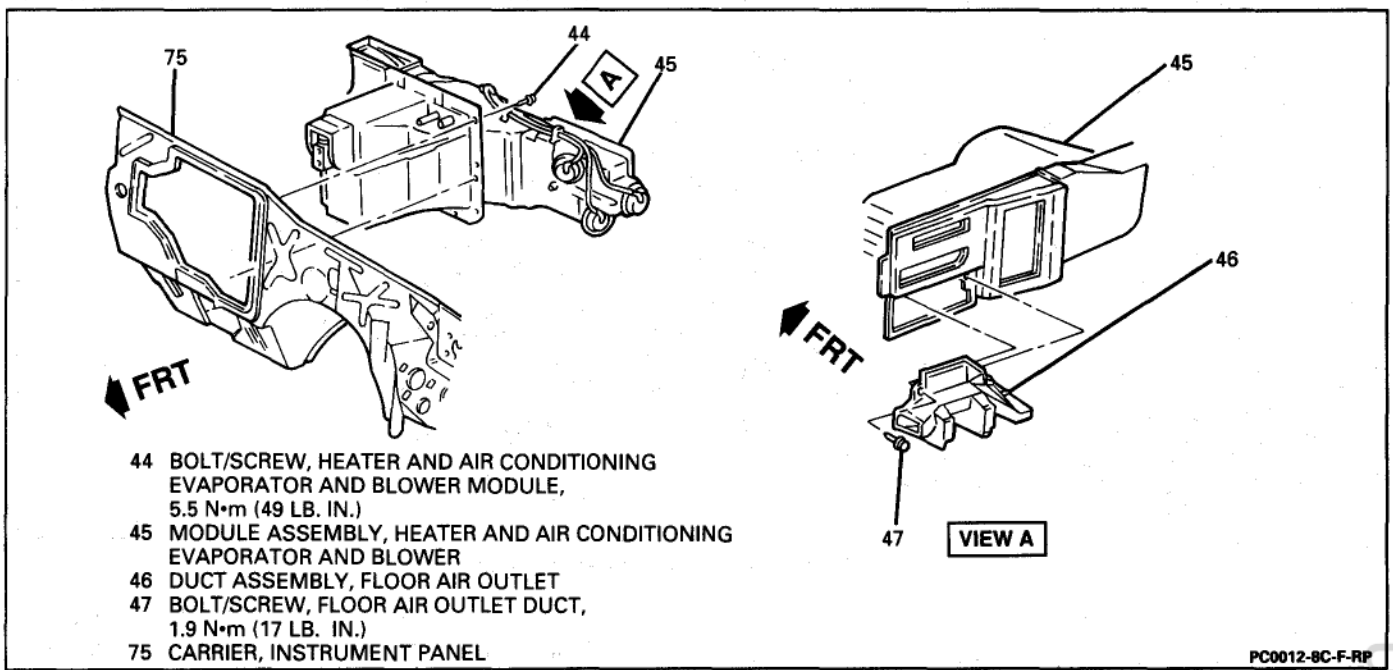


Figure 17 – Heater and Air Conditioning Evaporator and Blower Module Assembly

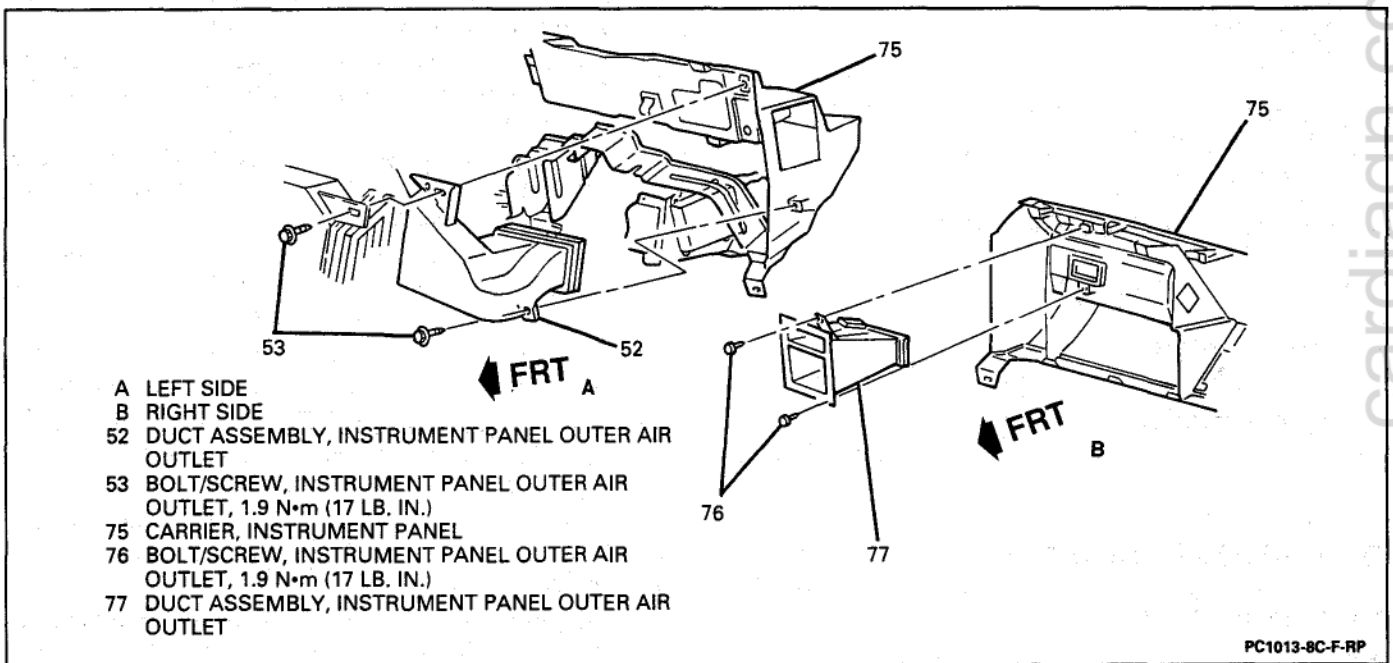


Figure 18 – Outer Air Outlet Duct Assemblies – (Chevrolet)

**Tighten**

- Bolts/screws (44) to 5.5 N·m (49 lb. in.).

INSTRUMENT CLUSTER ASSEMBLY**Figure 19****Remove or Disconnect**

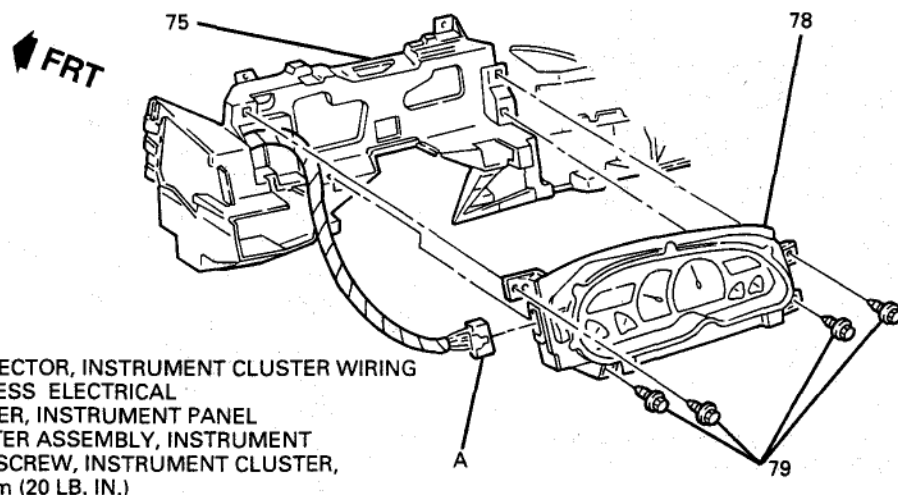
1. Instrument panel upper trim panel assembly. Refer to "Instrument Panel Upper Trim Panel Assembly" in this section.

**Install or Connect**

NOTICE: See "Notice" on page 8C-1 of this section.

1. Instrument cluster wiring harness electrical connector to cluster assembly (78).
 - When connecting, push, click, then tug on electrical connector, not wire.

2. Bolts/screws (79) attaching cluster assembly (78) to carrier (75).
3. Cluster assembly (78) from carrier (75).
4. Instrument cluster wiring harness electrical connector from cluster assembly (78).



- A CONNECTOR, INSTRUMENT CLUSTER WIRING HARNESS ELECTRICAL
 75 CARRIER, INSTRUMENT PANEL
 78 CLUSTER ASSEMBLY, INSTRUMENT
 79 BOLT/SCREW, INSTRUMENT CLUSTER, 2.2 N•m (20 LB. IN.)

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Figure 19 – Instrument Cluster Assembly (Typical)

2. Cluster assembly (78) to carrier (75).
3. Bolts/screws (79) attaching cluster assembly (78) to carrier (75).

**Tighten**

- Bolts/screws (79) to 2.2 N•m (20 lb. in.).
4. Instrument panel upper trim panel assembly. Refer to "Instrument Panel Upper Trim Panel Assembly" in this section.

INSTRUMENT PANEL CARRIER**Figure 20****Remove or Disconnect**

CAUTION: See "Caution" on page 8C-1 of this section.

1. Sound insulator assembly from both sides of vehicle. Refer to "Sound Insulator Assembly" in this section.
 2. Removable top assembly. Refer to SECTION 10-9.
 3. Window rail trim panel assembly. Refer to SECTION 10-6.
 4. Knee bolster assembly and deflector. Refer to "Driver Knee Bolster Assembly and Deflector" in this section.
 5. Disable SIR. Refer to "Disabling the SIR System" in this section.
- NOTICE:** Remove stoplamp switch before fully lowering the steering column assembly. Failure to do so may cause the stoplamp switch to become damaged or thrown out of adjustment resulting in a malfunctioning stoplamp switch or premature brake wear.
6. Stoplamp switch. Refer to SECTION 5.
 7. Steering column assembly. Refer to SECTION 3F.
 - Gently lower steering column assembly.
 8. Trim panel assembly. Refer to "Instrument Panel Upper Trim Panel Assembly" in this section.

9. Trim plate assembly. Refer to "AM/FM Stereo and Clock Radio Assembly" under "On-Vehicle Service" in this section.
10. Bezel assembly. Refer to "Instrument Panel Cluster Trim Plate Bezel Assembly" in this section.
11. Instrument cluster assembly. Refer to "Instrument Cluster Assembly" under "On-Vehicle Service" in this section.
12. Radio assembly. Refer to "AM/FM Stereo and Clock Radio Assembly" under "On-Vehicle Service" in this section.
13. Temperature control assembly. Refer to "Heater and Air Conditioning Control Assembly" under "On-Vehicle Service" in this section.
14. Left side duct assemblies. Refer to "Heat, Ventilation, and Air Conditioning Ducts" in this section.
15. Transmission gear shift knob, cover and console assemblies. Refer to "Front Floor Console Assembly" under "On-Vehicle Service" in this section.
16. Fuse block. Refer to "Auxiliary Fuse Block" under "Instrument Panel Wiring Harness Assembly" in this section.
17. Assembly line data link connector. Refer to "Instrument Panel Wiring Harness Assembly" in this section.
18. Hazard and chime assembly. Refer to "Warning/Reminder Chimes" under "On-Vehicle Service" in this section.
19. Upper bolts/screws (9).
20. Lower nuts (8).
21. Reposition carrier (75).
22. Air duct assembly. Refer to "Heat, Ventilation and Air Conditioning Ducts" in this section.
23. Audio alarm assembly. Refer to "Alarm Assembly" in this section.
24. Wiring harness assembly from carrier (75). Refer to "Instrument Panel Wiring Harness Assembly" in this section.

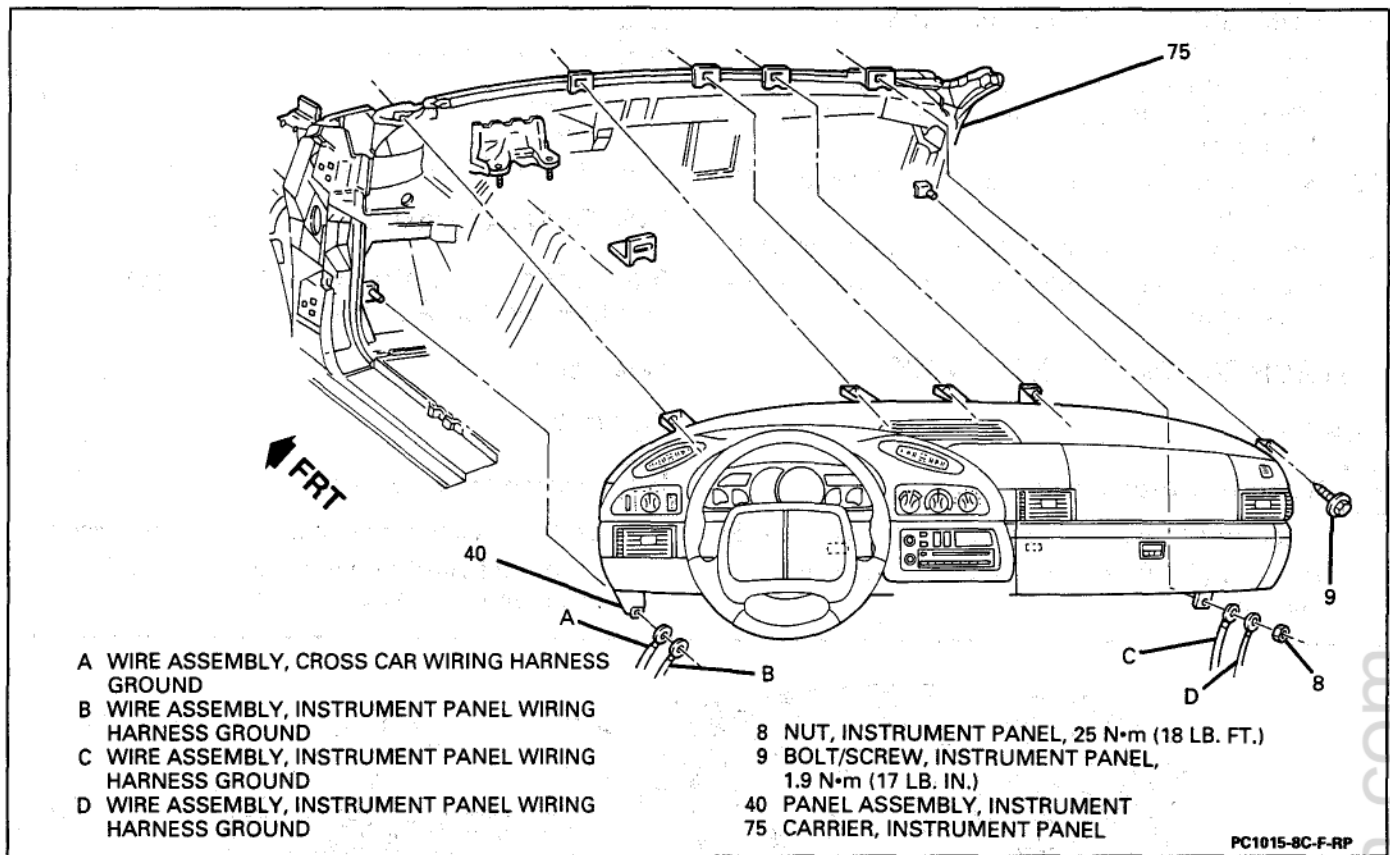


Figure 20 – Instrument Panel Assembly Mounting (Typical)

25. Carrier (75).

Install or Connect

NOTICE: See “Notice” on page 8C-1 of this section.

1. Carrier (75).
2. Wiring harness assembly to carrier (75). Refer to “Instrument Panel Wiring Harness Assembly” in this section.
3. Audio alarm assembly. Refer to “Alarm Assembly” in this section.
4. Air duct assembly. Refer to “Heat, Ventilation and Air Conditioning Ducts” in this section.
5. Position carrier (75)
6. Lower nuts (8).

Tighten

- Lower nuts (8) to 25 N·m (18 lb. ft.).

7. Upper bolts/screws (9).

Tighten

- Upper bolts/screws (9) to 1.9 N·m (17 lb. in.).

8. Hazard and chime assembly. Refer to “Warning/Reminder Chimes” under “On-Vehicle Service” in this section.
9. Assembly line data link connector. Refer to “Instrument Panel Wiring Harness Assembly” in this section.

10. Fuse block. Refer to “Auxiliary Fuse Block” under “Instrument Panel Wiring Harness Assembly” in this section.
11. Transmission gear shift knob, cover and console assemblies. Refer to “Front Floor Console Assembly” under “On-Vehicle Service” in this section.
12. Left side duct assemblies. Refer to “Heat, Ventilation and Air Conditioning Ducts” in this section.
13. Temperature control assembly. Refer to “Heater and Air Conditioning Control Assembly” under “On-Vehicle Service” in this section.
14. Radio assembly. Refer to “AM/FM Stereo and Clock Radio Assembly” under “On-Vehicle Service” in this section.
15. Instrument cluster assembly. Refer to “Instrument Cluster Assembly” under “On-Vehicle Service” in this section.
16. Bezel assembly. Refer to “Instrument Panel Cluster Trim Plate Bezel Assembly” in this section.
17. Trim plate assembly. Refer to “AM/FM Stereo and Clock Radio Assembly” under “On-Vehicle Service” in this section.
18. Trim panel assembly. Refer to “Instrument Panel Upper Trim Panel Assembly” in this section.
19. Steering column assembly. Refer to SECTION 3F.
 - Gently raise steering column assembly into place.
20. Stoplamp switch. Refer to SECTION 5.

CAUTION: Refer to “Caution” on page 8C-1 of this section.

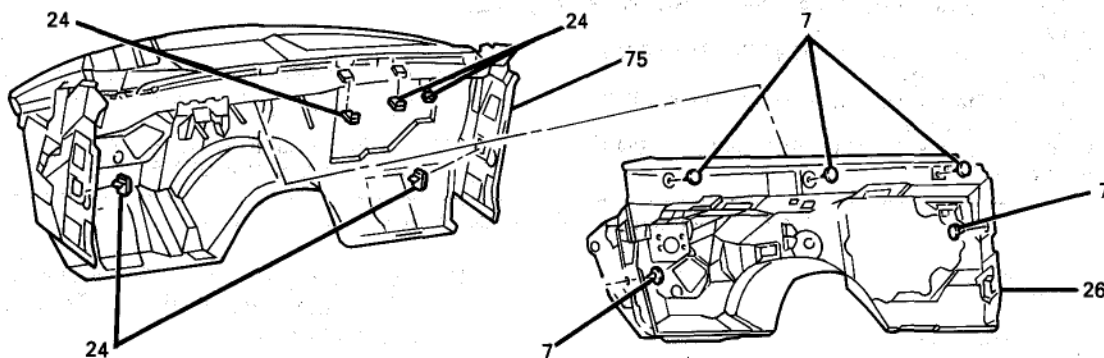
21. Enable SIR. Refer to "Enabling the SIR System" in this section.
22. Knee bolster assembly and deflector. Refer to "Driver Knee Bolster Assembly and Deflector" in this section.
23. Window rail trim panel assembly. Refer to SECTION 10-6.
24. Removable top assembly. Refer to SECTION 10-9.
25. Sound insulator assembly. Refer to "Sound Insulator Assembly" in this section.

INSTRUMENT PANEL INSULATOR

Figure 21

Remove or Disconnect

1. Retainers (7) attaching insulator (26) to carrier (75).
2. Insulator (26) from tape (24) that is attached to carrier (75).



- 7 RETAINER, INSTRUMENT PANEL INSULATOR
24 TAPE, INSTRUMENT PANEL INSULATOR FASTENER
26 INSULATOR, INSTRUMENT PANEL
75 CARRIER, INSTRUMENT PANEL

PC0016-8C-F-RP

Figure 21 – Instrument Panel Insulator

Install or Connect

1. Insulator (26) to tape (24) that is attached to carrier (75).
2. Retainers (7) attaching insulator (26) to carrier (75).

INSTRUMENT PANEL SWITCHES

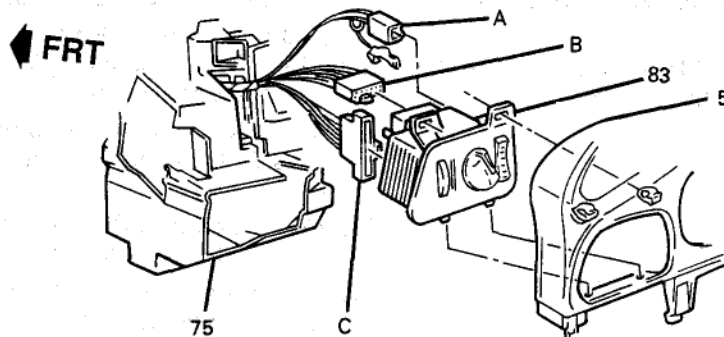
Headlamp and Instrument Panel Lamp Dimmer Switch Assembly

Chevrolet

Figure 22

Remove or Disconnect

1. Switch assembly (83) from bezel assembly (5).
2. Instrument panel wiring harness electrical connectors from switch assembly (83).



- A CONNECTOR, INSTRUMENT PANEL WIRING HARNESS FOG LAMP ELECTRICAL
B CONNECTOR, INSTRUMENT PANEL WIRING HARNESS ELECTRICAL
C CONNECTOR, INSTRUMENT PANEL WIRING HARNESS DIMMER SWITCH ELECTRICAL

- 5 BEZEL ASSEMBLY, INSTRUMENT PANEL CLUSTER TRIM PLATE
75 CARRIER, INSTRUMENT PANEL
83 SWITCH ASSEMBLY, HEADLAMP AND INSTRUMENT PANEL LAMP DIMMER

PC1017-8C-F-RP

Figure 22 – Headlamp and Instrument Panel Lamp Dimmer Switch Assembly – (Chevrolet)

Install or Connect

NOTICE: When installing switch assembly, do not put pressure on switch knob or dimmer thumbwheel. Failure to follow these instructions may result in damage to the switch assembly.

1. Switch assembly (83) to instrument panel wiring harness electrical connectors.
2. Switch assembly (83) to bezel assembly (5).

Pontiac

Figure 23

Remove or Disconnect

1. Switch assembly (83) from carrier (75).
2. Instrument panel wiring harness electrical connectors from switch assembly (83).

Install or Connect

NOTICE: When installing switch assembly, do not put pressure on switch knob or dimmer thumbwheel. Failure to follow these instructions may result in damage to the switch assembly.

1. Switch assembly (83) to instrument panel wiring harness electrical connectors.
2. Switch assembly (83) to carrier (75).

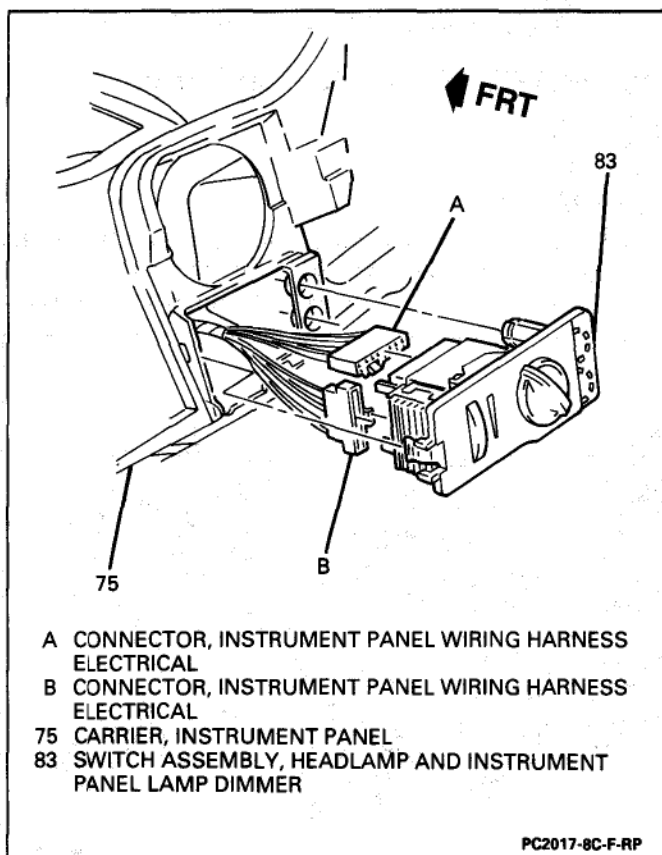


Figure 23 – Headlamp and Instrument Panel Lamp Dimmer Switch Assembly – (Pontiac)

Lid Release Switch Assembly

Chevrolet

Figure 24

Remove or Disconnect

1. Switch assembly (31) from instrument panel carrier (75) inside instrument panel compartment door.
2. Instrument panel wiring harness electrical connector from switch assembly (31).

Install or Connect

1. Instrument panel wiring harness electrical connector to switch assembly (31).
2. Switch assembly (31) to instrument panel carrier (75) inside instrument panel compartment door.

Pontiac

Figure 25

Remove or Disconnect

1. Driver knee bolster assembly. Refer to "Driver Knee Bolster Assembly and Deflector" in this section.
2. Switch assembly (31) from instrument panel wiring harness electrical connector.
3. Switch assembly (31) from bolster assembly (3).

Install or Connect

1. Switch assembly (31) to bolster assembly (3).
2. Switch assembly (31) to instrument panel wiring harness electrical connector.

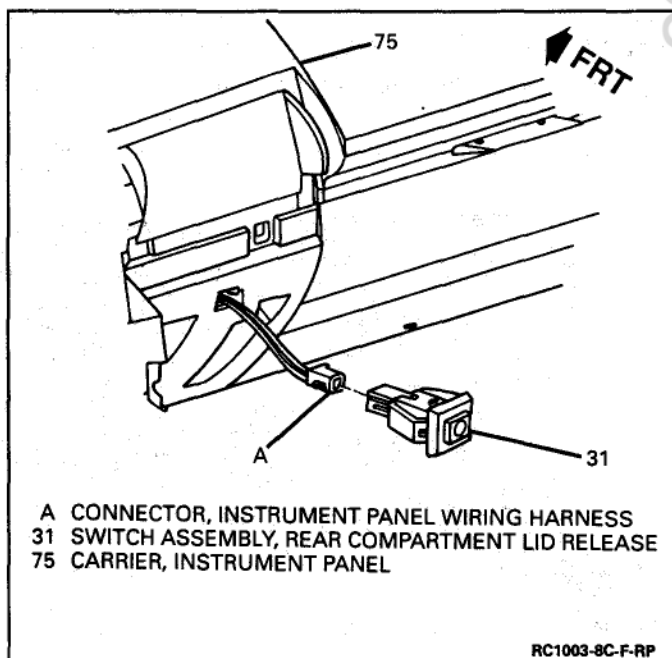


Figure 24 – Lid Release Switch Assembly – (Chevrolet)

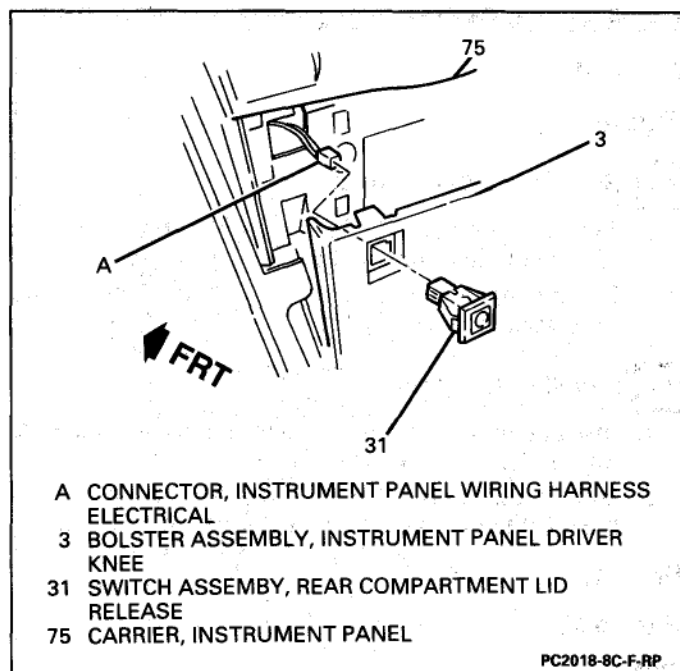


Figure 25 – Lid Release Switch Assembly – (Pontiac)

3. Driver knee bolster assembly. Refer to "Driver Knee Bolster Assembly and Deflector" in this section.

INSTRUMENT PANEL WIRING HARNESS ASSEMBLY

Refer to Figures 26 and 27 for instrument panel wiring harness assembly routing.

Auxiliary Fuse Block

Figure 28

Remove or Disconnect

1. Bolt/screw (86) connecting auxiliary fuse block to carrier (75).

2. Auxiliary fuse block.

Install or Connect

NOTICE: See "Notice" on page 8C-1 of this section.

1. Auxiliary fuse block to carrier (75).
2. Bolt/screw (86).

Tighten

- Bolt/screw (86) to 1.5 N•m (13 lb. in.).

Convenience Center

Figure 29

Remove or Disconnect

1. Bolts/screws (87) attaching convenience center to tie bar assembly (25).
2. Convenience center.

Install or Connect

NOTICE: See "Notice" on page 8C-1 of this section.

1. Convenience center to tie bar assembly (25).
2. Bolts/screws (87).

Tighten

- Bolts/screws (87) to 1.5 N•m (13 lb. in.).

ODOMETER REPAIR NOTICE LABEL

Figure 30

Important

- When repairing an instrument cluster assembly, the law requires the odometer reading of the replacement unit to be set to register the same mileage as the

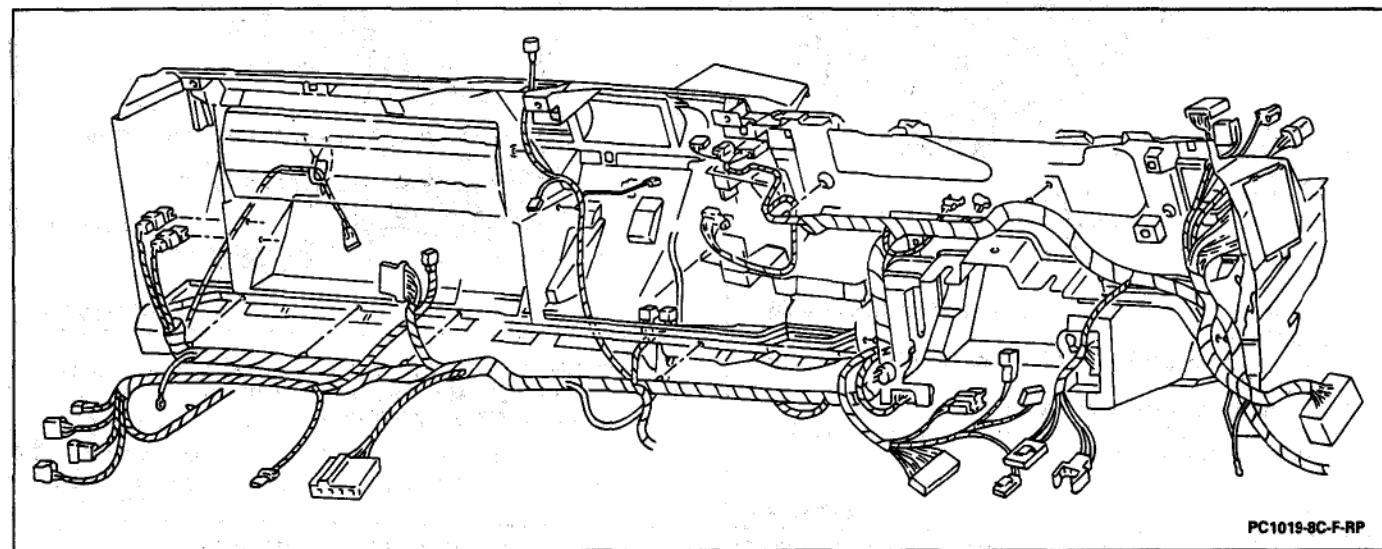


Figure 26 – Instrument Panel Wiring Harness Routing – (Chevrolet)

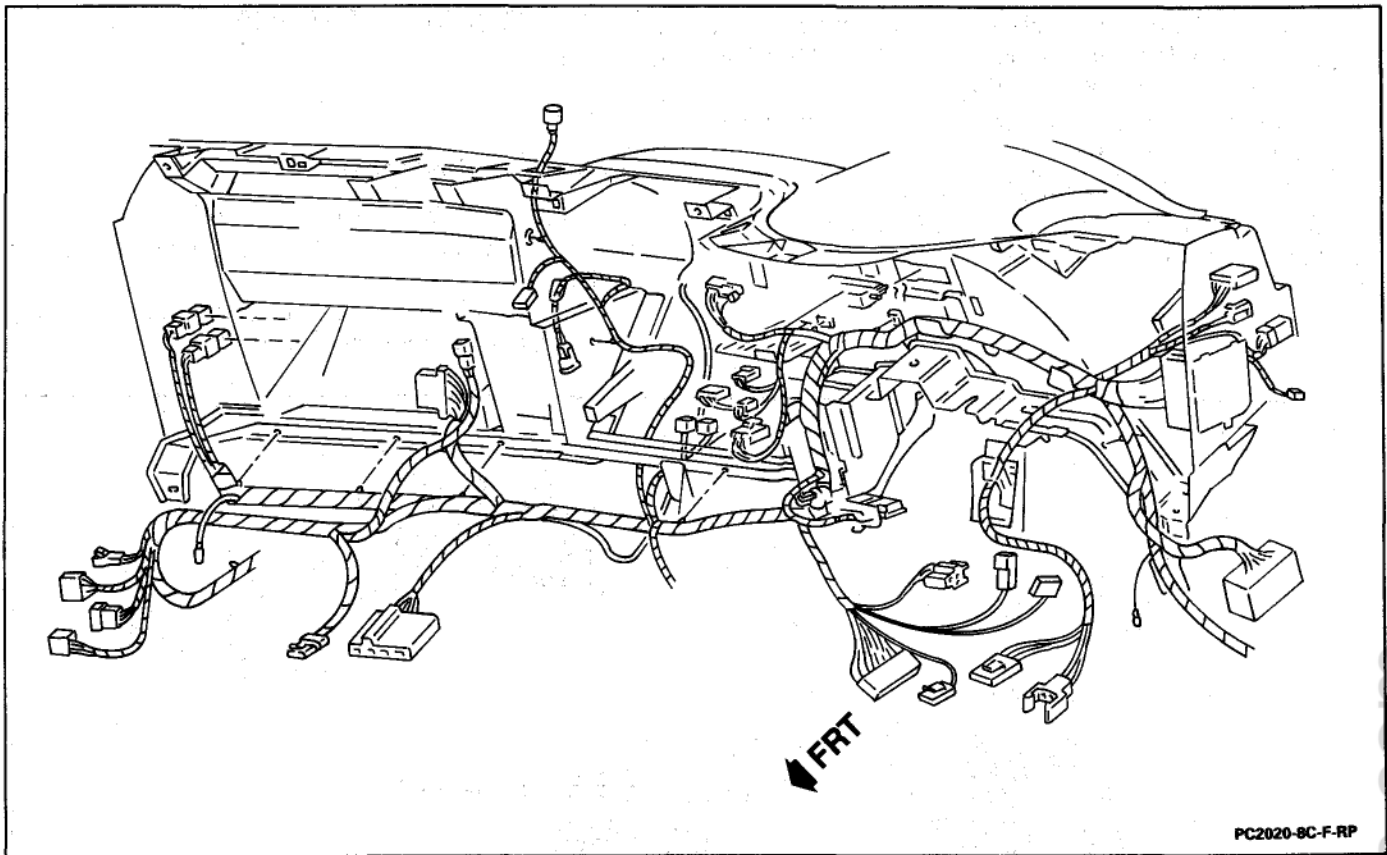


Figure 27 – Instrument Panel Wiring Harness Routing – (Pontiac)

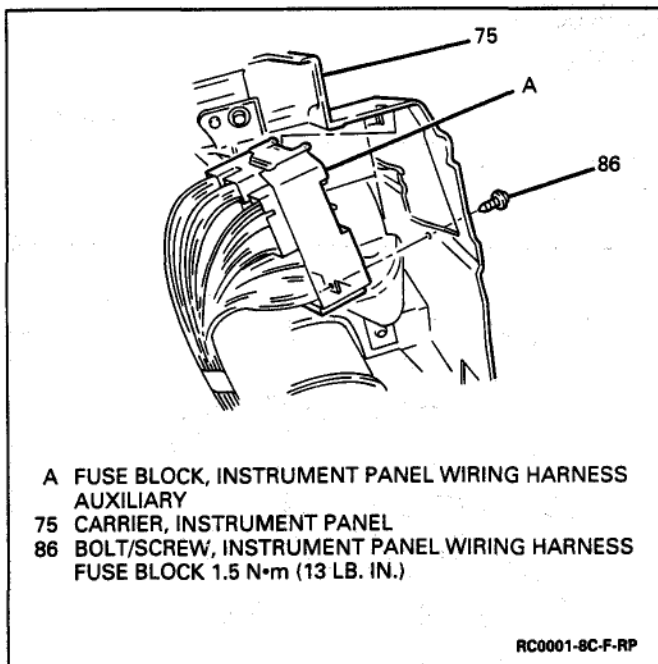


Figure 28 – Auxiliary Fuse Block

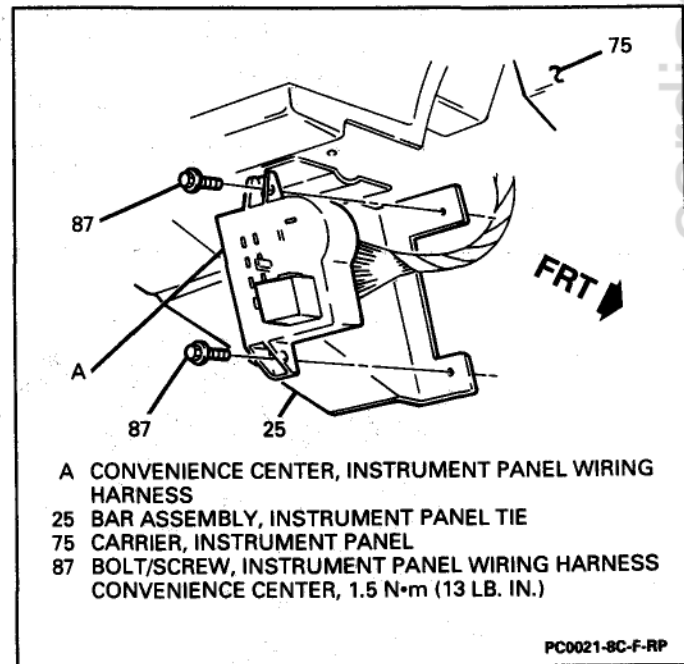


Figure 29 – Convenience Center

prior odometer. If the same mileage cannot be set, the law requires that the replacement odometer be set to zero and a label be installed on the driver's door frame to show the previous reading and the date of replacement.

- A copy of the label must be retained in compliance with the retention requirements specified in the "Guidelines for General Motors Odometer Policy."



Install or Connect

1. Clean area around left B-pillar where odometer repair notice label is to be attached.

- Label area is to be clean and free from plastisol or any foreign material that could affect adhesion of odometer repair notice label.
2. Properly fill out all necessary information on odometer repair notice label.
 - Sign and date odometer repair notice label.
 3. Remove backing and attach odometer repair notice label to left B-pillar.

SOUND INSULATOR ASSEMBLY

Figure 31

Left Side

Remove or Disconnect

1. Retainer (13) from instrument panel carrier.
2. Insulator assembly (14) from instrument panel carrier.
 - A. Unhook flange on insulator assembly (14) from side kick panel assembly.

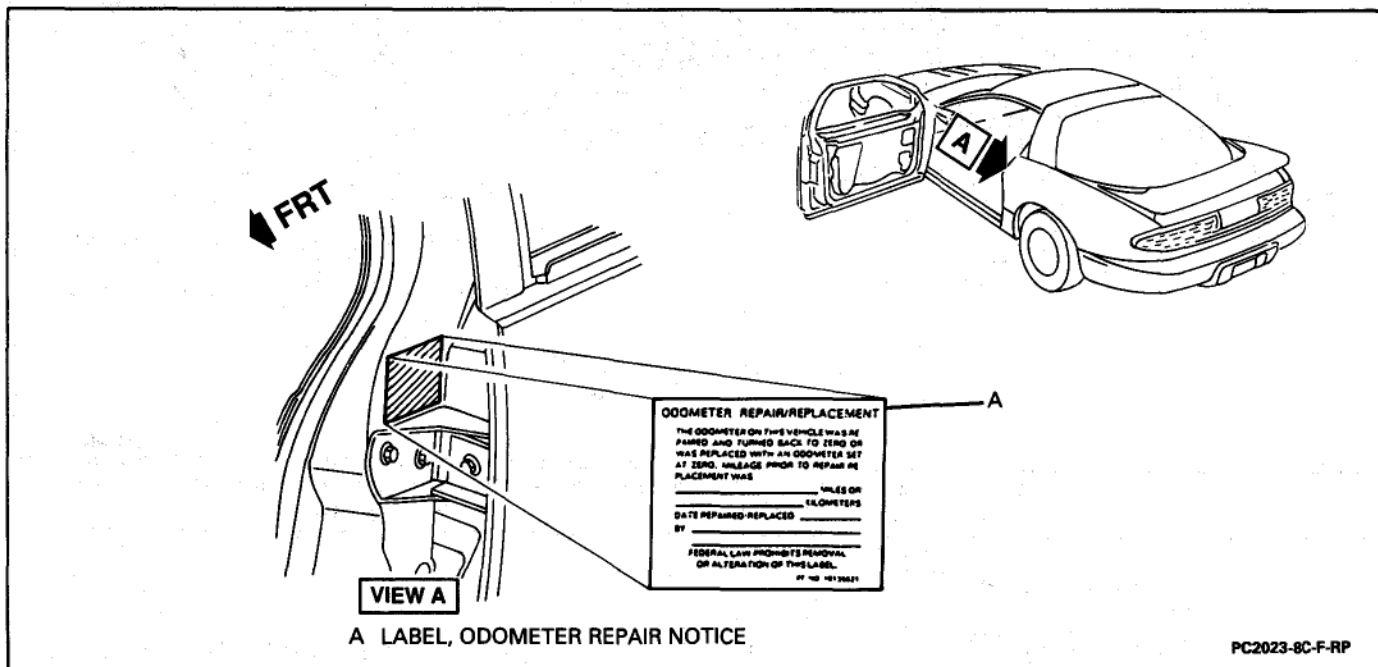


Figure 30 – Odometer Repair Notice Label

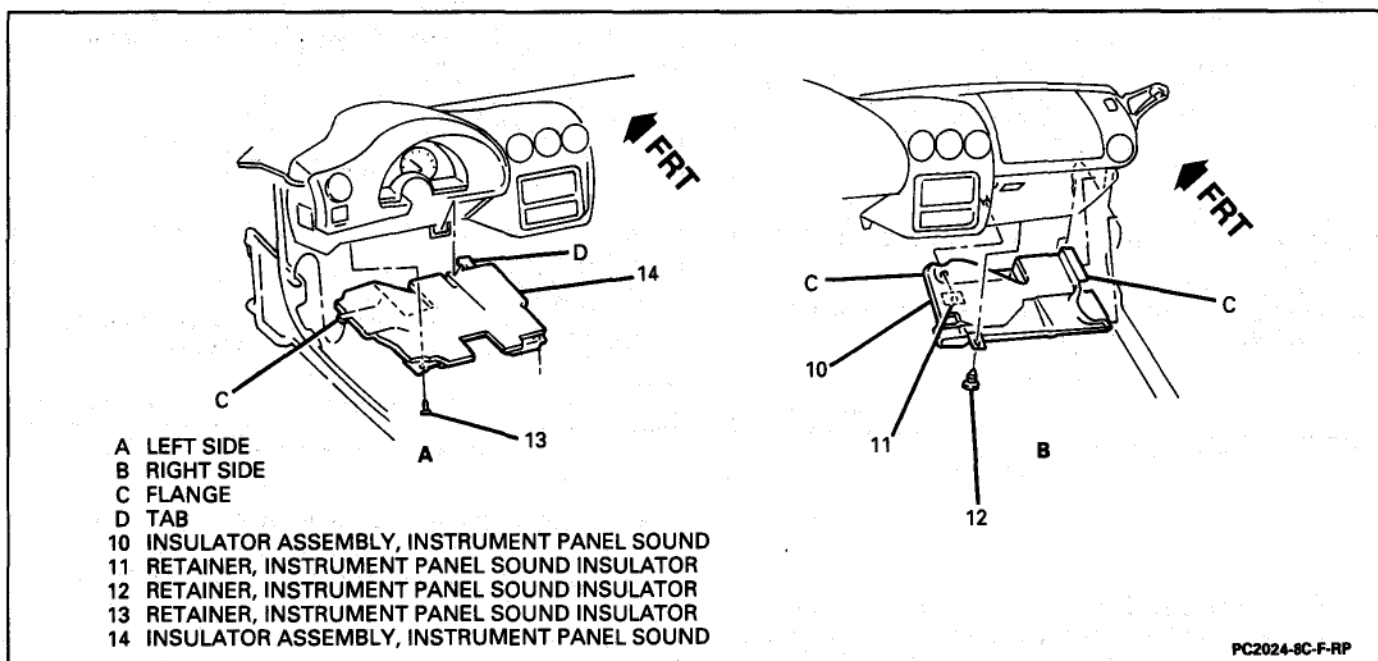


Figure 31 – Sound Insulator Assembly (Typical)

- B. Detach tab on insulator assembly (14) from retainer on instrument panel carrier.

Install or Connect

1. Insulator assembly (14) to instrument panel carrier.
 - A. Attach tab on insulator assembly (14) to retainer on instrument panel carrier.
 - B. Hook flange on insulator assembly (14) to side kick panel assembly.
2. Retainer (13) to instrument panel carrier.

Right Side

Remove or Disconnect

1. Retainer (11) from boss on heater and air conditioning module assembly.
2. Retainer (12) from insulator assembly (10).
3. Insulator assembly (10) from instrument panel carrier.
 - A. Detach forward flange on insulator assembly (10) from boss on heater and air conditioning module assembly.
 - B. Unhook flange on insulator assembly (10) from under side kick panel assembly.

Install or Connect

1. Insulator assembly (10) to instrument panel carrier.
 - A. Hook flange on insulator assembly (10) over side kick panel assembly.
 - B. Attach forward flange on insulator assembly (10) to boss on heater and air conditioning module assembly.
2. Retainer (12) to insulator assembly (10).
3. Retainer (11) to boss on heater and air conditioning module assembly.

TRIM PANEL CLUSTER BEZEL ASSEMBLY, UPPER TRIM PANEL ASSEMBLY AND COMPARTMENTS

Instrument Panel Cluster Trim Plate Bezel Assembly

Chevrolet

Figure 32

Remove or Disconnect

1. Four bolts/screws (6) attaching bezel assembly (5) to carrier (75).
2. Bezel assembly (5) from carrier (75).

Install or Connect

NOTICE: See "Notice" on page 8C-1 of this section.

1. Bezel assembly (5) onto carrier (75).

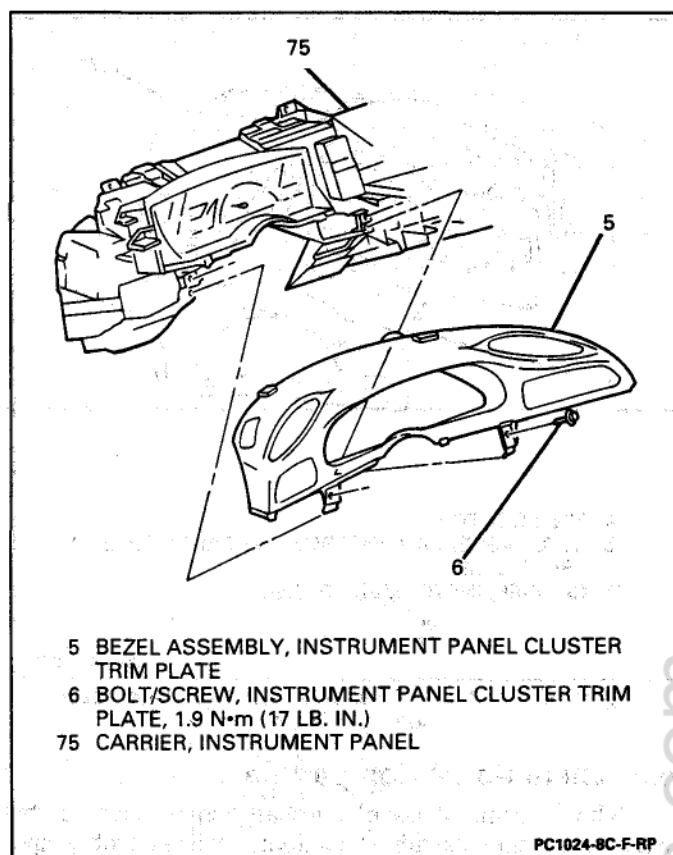


Figure 32 – Instrument Panel Cluster Trim Plate Bezel Assembly – (Chevrolet)

- A. Position bezel assembly (5) over instrument cluster assembly.
 - B. Align holes on bezel assembly (5) with holes on carrier (75).
2. Four bolts/screws (6) attaching bezel assembly (5) to carrier (75).

Tighten

- Bolts/screws (6) to 1.9 N·m (17 lb. in.).

Pontiac

Figure 33

Remove or Disconnect

1. Locator pins attaching bezel assembly (5) to carrier (75).
2. Bezel assembly (5) from carrier (75).

Install or Connect

1. Bezel assembly (5) onto carrier (75).
2. Locator pins attaching bezel assembly (5) to carrier (75).

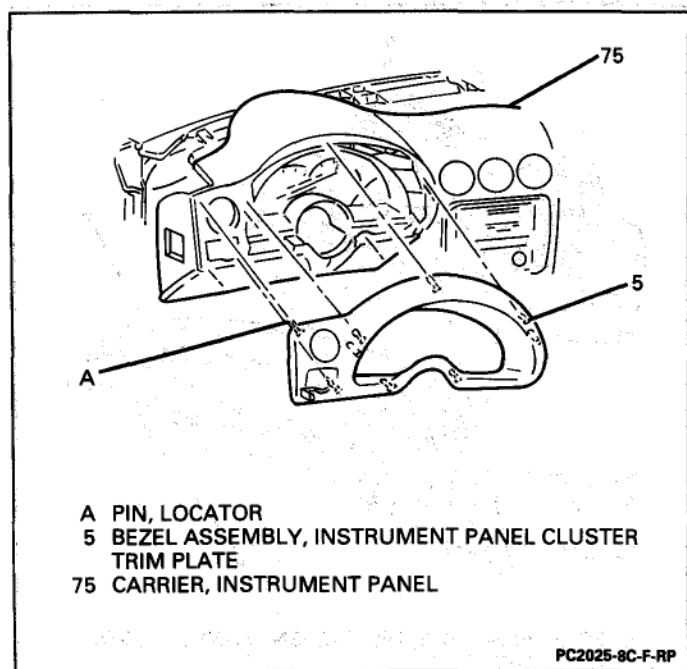


Figure 33 – Instrument Panel Cluster Trim Plate Bezel Assembly – (Pontiac)

Instrument Panel Compartment

The instrument panel compartment is part of the instrument panel carrier. The door, lock assembly and lamp are serviceable. The lamp switch is part of the body

wiring harness assembly. For further information, refer to SECTION 8B.

Instrument Panel Compartment Door Assembly

Figure 34

Remove or Disconnect

1. Bolts/screws (20 and 90) attaching hinge to instrument panel carrier.
2. Open door assembly (89).
3. Door assembly (89) from instrument panel carrier.

Install or Connect

NOTICE: See "Notice" on page 8C-1 of this section.

1. Door assembly (89) onto instrument panel carrier.
2. Close door assembly (89).
3. Bolts/screws (20 and 90) attaching hinge to instrument panel carrier.
 - Align hinge.

Tighten

- Bolts/screws (20 and 90) to 2.8 N•m (25 lb. in.).

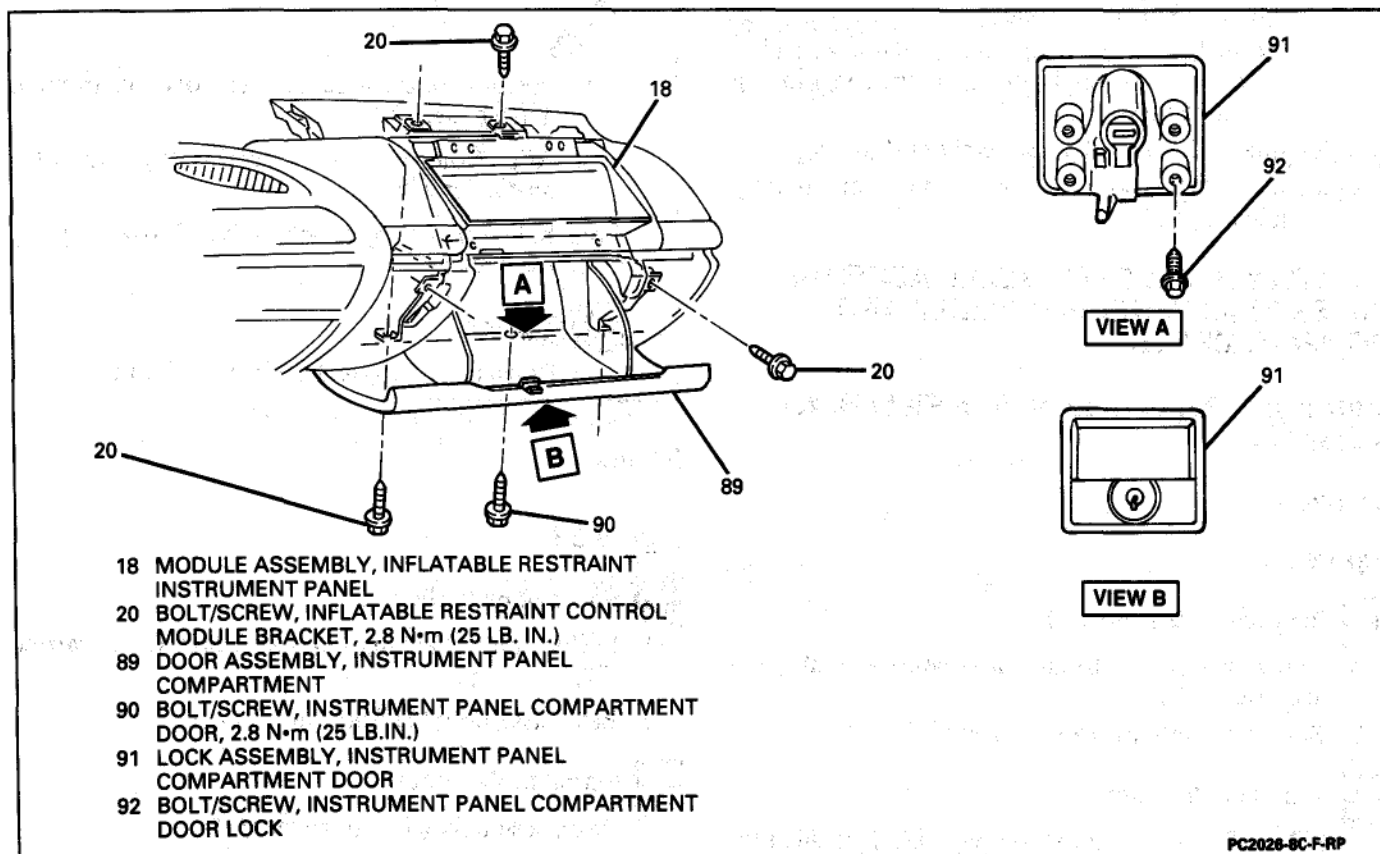


Figure 34 – Instrument Panel Compartment Door and Lock Assembly

Instrument Panel Compartment Door Lock Assembly

Figure 34

Remove or Disconnect

1. Open door assembly (89).
2. Three bolts/screws (92) attaching lock assembly (91) to door assembly (89).
3. Lock assembly (91) from door assembly (89).

Install or Connect

1. Lock assembly (91) to door assembly (89).
2. Three bolts/screws (92) attaching lock assembly (91) to door assembly (89).
 - Align and tighten bolts/screws (92).
3. Close door assembly (89).

Instrument Panel Compartment Lamp Switch

Figure 35

Remove or Disconnect

1. Switch (96) and retainer (95) from carrier (75).
2. Retainer (95) from switch (96).

Install or Connect

1. Retainer (95) to switch (96).
2. Switch (96) and retainer (95) down through opening in carrier (75).
 - Be sure retainer (95) is seated into carrier (75).

Instrument Panel Fuse Block Access Door Assembly

Figure 36

Remove or Disconnect

- Door assembly (2) from carrier (75).

Install or Connect

- Door assembly (2) to carrier (75).
 - A. Align tabs on door assembly (2) with front edge of carrier (75).
 - B. Align locator pins on door assembly (2) with holes on carrier (75) and apply pressure.

Instrument Panel Upper Trim Panel Assembly

Figure 37

Remove or Disconnect

1. Panel assembly (1) from lower windshield support.
2. Panel assembly (1) from carrier (75).

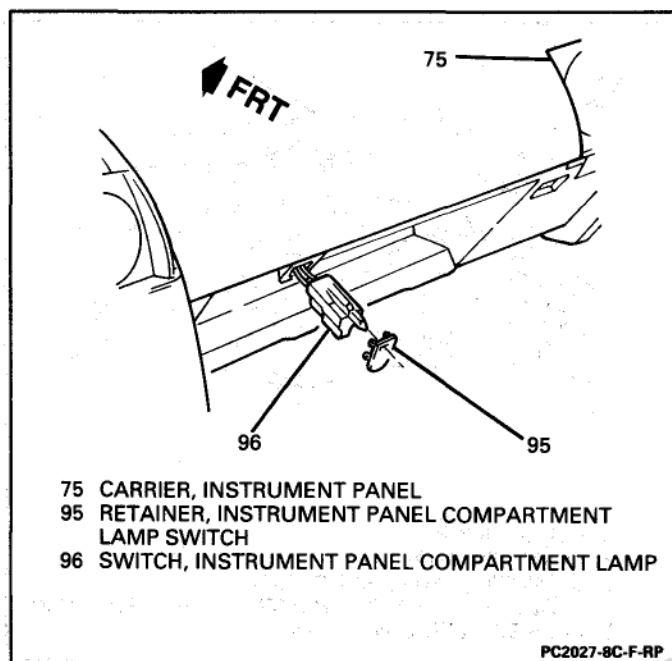


Figure 35 – Instrument Panel Compartment Lamp Switch (Typical)

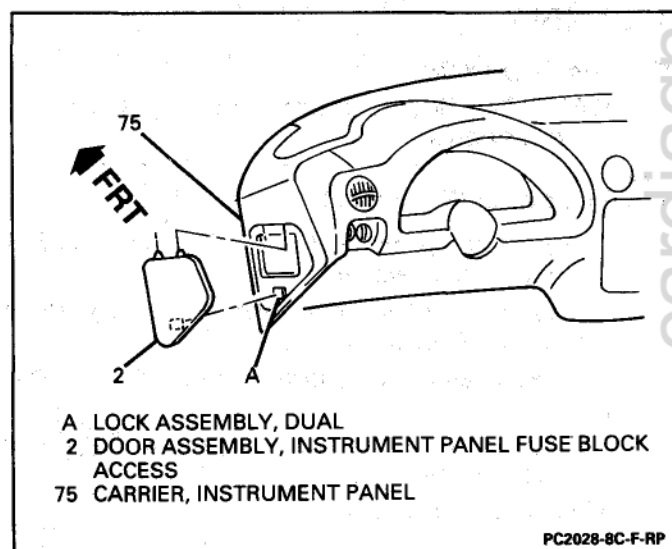


Figure 36 – Instrument Panel Fuse Block Access Door Assembly (Typical)

Install or Connect

1. Panel assembly (1) to carrier (75).
 - A. Align panel assembly (1), using locator pins.
 - B. Apply pressure to rear of panel assembly (1), engaging dual lock fasteners with mating surface.
2. Panel assembly (1) to lower windshield support.
 - Engage dual lock fasteners with mating surface.

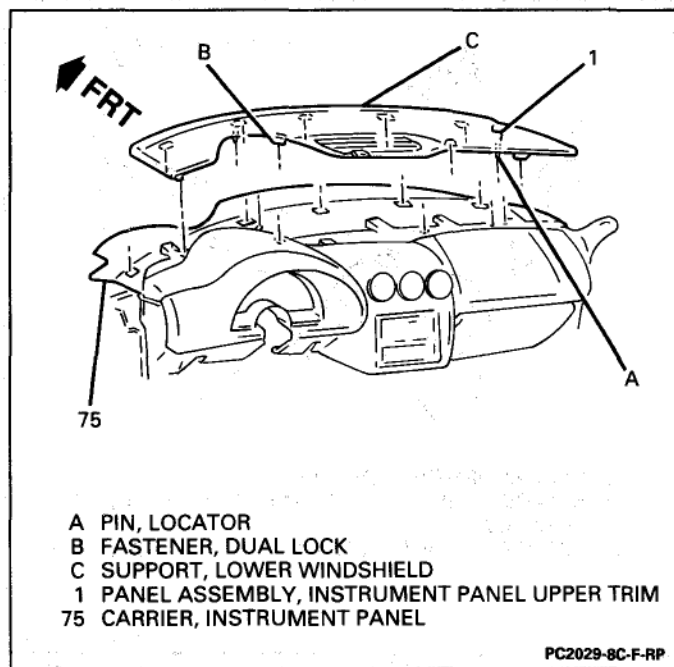


Figure 37 – Instrument Panel Upper Trim Panel Assembly (Typical)

PASSENGER SIDE INFLATOR MODULE ASSEMBLY

Figures 34 and 38

CAUTION: See “Caution” on page 8C-1 of this section.

Remove or Disconnect

1. Disable SIR system. Refer to “Disabling the SIR System” in this section.
2. Bolts/screws (20) attaching bracket assembly (19) to instrument panel carrier.
3. Bracket assembly (19) from instrument panel carrier.
4. Bolts/screws (17) attaching module assembly (18) to bracket assembly (19).
5. Module assembly (18).

Install or Connect

NOTICE: See “Notice” on page 8C-1 of this section.

1. Module assembly (18) into bracket assembly (19).
2. Bolts/screws (17) attaching module assembly (18) to bracket assembly (19).

Tighten

- Bolts/screws (17) to 2.8 N•m (25 lb. in.).
3. Bracket assembly (19) to instrument panel carrier.
 4. Bolts/screws (20) attaching bracket assembly (19) to instrument panel carrier.

Tighten

- Bolts/screws (20) to 2.8 N•m (25 lb. in.).

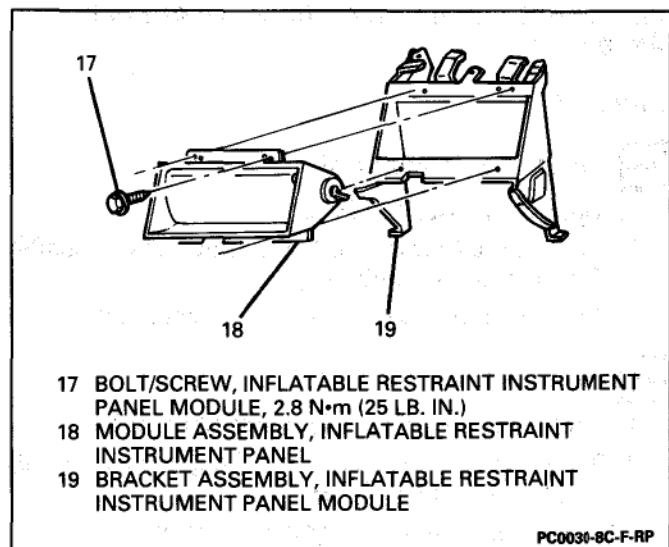


Figure 38 – Passenger Side Inflator Module Assembly

5. Enable the SIR system. Refer to “Enabling the SIR System” in this section.

WARNING/REMINDER CHIMES

Alarm Assembly

Figure 39

Remove or Disconnect

- Alarm assembly (97) from convenience center.

Install or Connect

- Alarm assembly (97) to convenience center.

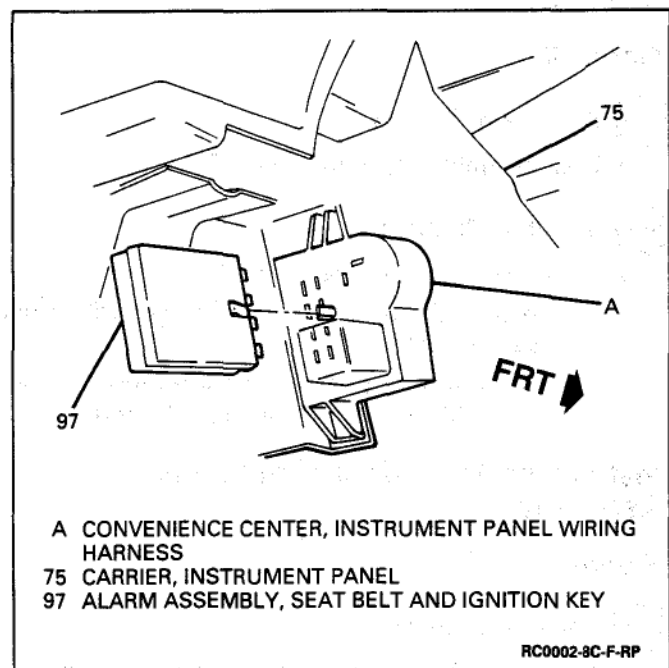


Figure 39 – Seat Belt and Ignition Key and Alarm Assembly

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

Air Distributor Duct Bolt/Screw	1.9 N•m (17 lb. in.)
Floor Air Outlet Duct Bolt/Screw	1.9 N•m (17 lb. in.)
Front Floor Console Bolt/Screw	8 N•m (71 lb. in.)
Front Floor Console Bracket Bolt/Screw	8 N•m (71 lb. in.)
Heater and Air Conditioning Control Bolt/Screw	1.9 N•m (17 lb. in.)
Heater and Air Conditioning Evaporator and Blower Module Bolt/Screw	5.5 N•m (49 lb. in.)
Inflatable Restraint Control Module Bracket Bolt/Screw	2.8 N•m (25 lb. in.)
Inflatable Restraint Instrument Panel Module Bolt/Screw	2.8 N•m (25 lb. in.)
Instrument Cluster Bolt/Screw	2.2 N•m (20 lb. in.)
Instrument Panel Bolt/Screw (Upper)	1.9 N•m (17 lb. in.)
Instrument Panel Bolt/Screw (Lower)	5.5 N•m (49 lb. in.)
Instrument Panel Center Air Outlet Duct Bolt/Screw	1.9 N•m (17 lb. in.)
Instrument Panel Cluster Trim Plate Bolt/Screw	1.9 N•m (17 lb. in.)
Instrument Panel Compartment Door Bolt/Screw	2.8 N•m (25 lb. in.)
Instrument Panel Driver Knee Bolster Bolt/Screw	1.9 N•m (17 lb. in.)
Instrument Panel Nut	25 N•m (18 lb. ft.)
Instrument Panel Outer Air Outlet Bolt/Screw	1.9 N•m (17 lb. in.)
Instrument Panel Wiring Harness Convenience Center Bolt/Screw	1.5 N•m (13 lb. in.)
Instrument Panel Wiring Harness Engine Control Module Data Link Connector Bolt/Screw	1.5 N•m (13 lb. in.)
Instrument Panel Wiring Harness Fuse Block Bolt/Screw	1.5 N•m (13 lb. in.)
Radio Bracket Bolt/Screw	1.8 N•m (16 lb. in.)
Radio Bracket Nut	2.8 N•m (25 lb. in.)
Rear Radio Bracket Bolt/Screw	1.9 N•m (17 lb. in.)

