

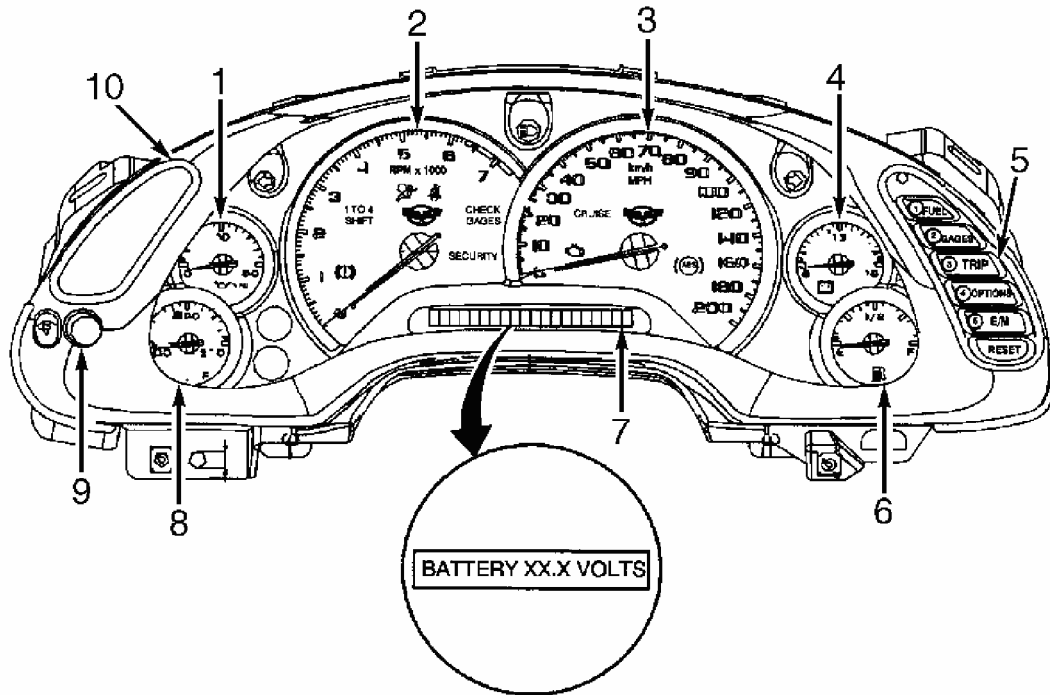
## 2000 ACCESSORIES & EQUIPMENT

### Analog Instrument Panels - Corvette

#### DESCRIPTION

**WARNING:** Deactivate air bag system before performing any service operation. See appropriate **AIR BAG RESTRAINT SYSTEMS** article. **DO NOT** apply electrical power to any component on steering column without first deactivating air bag system. Air bag may deploy.

Instrument Panel Cluster (IPC) contains gauges for speedometer, fuel level, tachometer, coolant temperature, oil pressure and voltage. Warning indicator lights are used for: turn signals, high beam, fasten seat belt, air bag, brake system, check gauges, ABS, Malfunction Indicator Light (MIL), SECURITY, MPH, traction system, and 1-4 SHIFT. IPC can also perform ambient light sensor processing, chime functions, warning/status message display and Driver Information Center (DIC) functions. See **Fig. 1** .



- |  |                                      |
|--|--------------------------------------|
| 1. Oil Pressure Gauge                        | 6. Fuel Gauge                        |
| 2. Tachometer                                | 7. Driver's Information Center (DIC) |
| 3. Speedometer                               | 8. Coolant Temperature Gauge         |
| 4. Battery Voltage Gauge                     | 9. Dimmer Knob                       |
| 5. Driver's Information Center (DIC) Buttons | 10. Heads-Up Display (HUD) Controls  |

G99J03932

**Fig. 1: Identifying Instrument Cluster**  
 Courtesy of GENERAL MOTORS CORP.

## OPERATION

### HEAD-UP DISPLAY (HUD)

The instrument cluster head-up display (HUD) system projects selected driver information on the windshield and is viewed from the driver's seat. Information may be displayed in English or Metric units by pressing the E/M button. See **Fig. 2**. There are 4 major components to the HUD system. The HUD display unit, Instrument Panel Cluster (IPC), HUD control switch and windshield (labeled SHADED HUD on lower right side). There are 5 different HUD display modes. Press and hold the PAGE button on the LH switch assembly to select any of the following display modes:

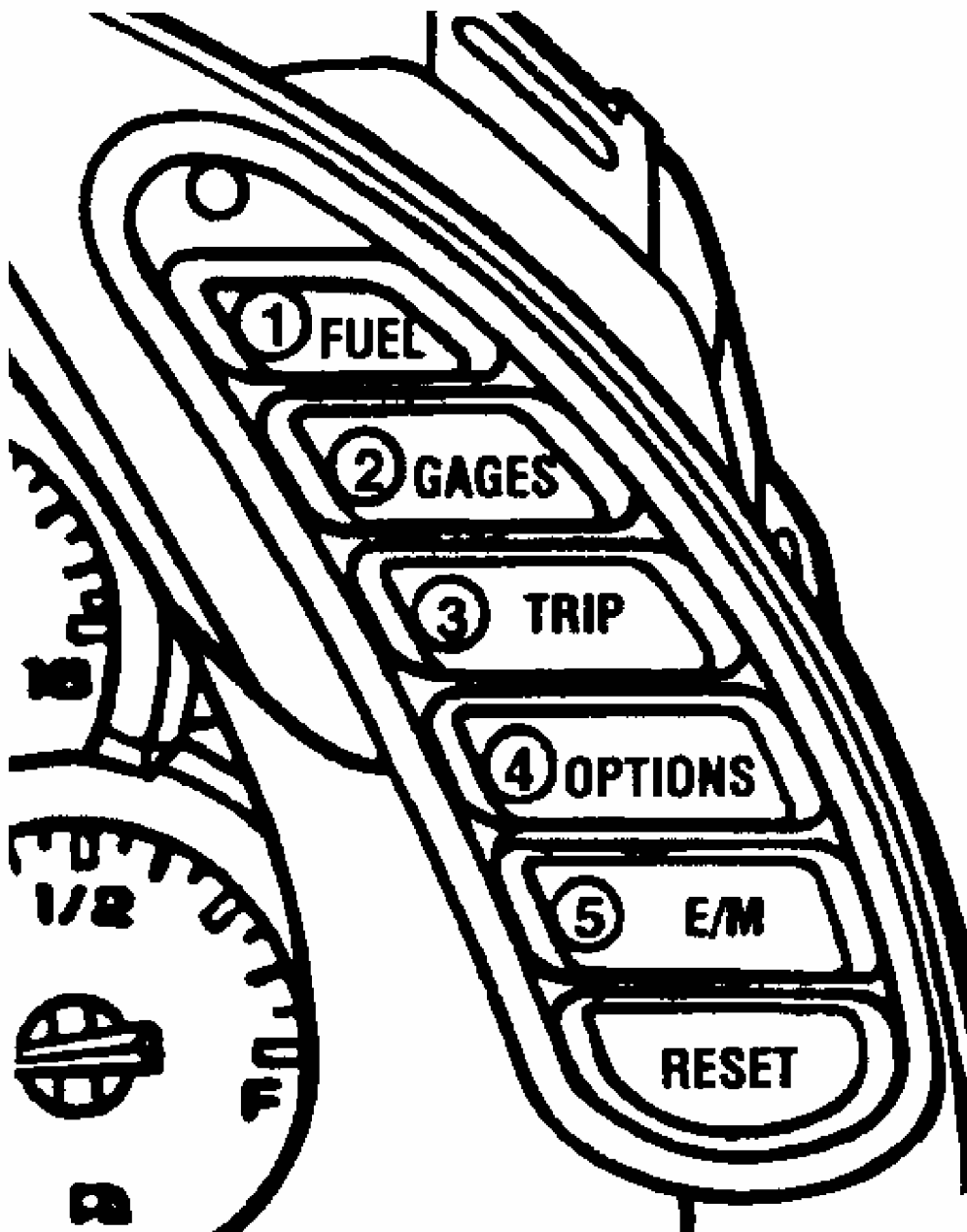
- Speed Only
- Speed And Gauge

- Speed, Tach And Gauge
- Speed And Tach
- Tachometer Only

While a minor gage is displayed, a quick tap of the PAGE button will allow you to select one of the following minor gage display modes:

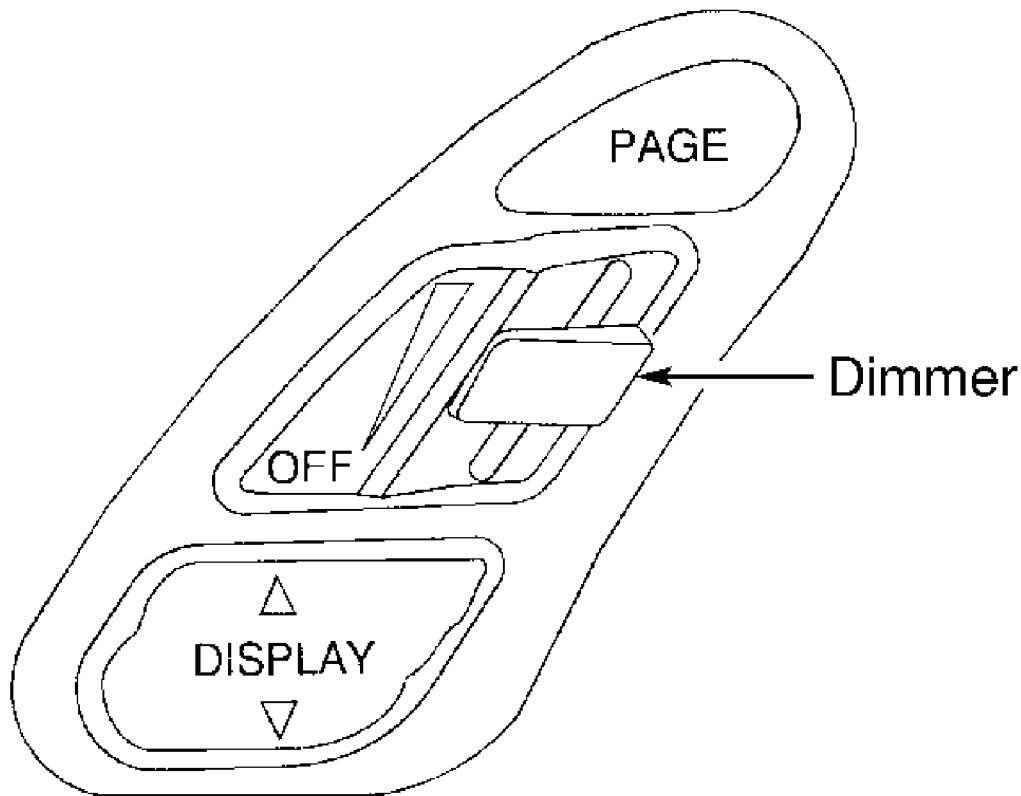
- Oil Pressure
- Coolant Temperature
- Fuel

HUD image can be manually moved up or down on windshield by pressing the DISPLAY UP or DOWN button. See **Fig. 3** . HUD system also contains a forward facing ambient light sensor which allows the HUD display image to adapt to ambient light intensity. The ambient light sensor is part of the HUD unit and is not serviced separately. HUD image brightness can be manually adjusted by rotating the dimmer switch located on the HUD switch assembly. The HUD image can be completely turned OFF by rotating the dimmer switch to the full clockwise position. HUD system performs a self test when the ignition is first turned on. All segments of display will illuminate for 3.5 seconds. After 3.5 seconds, HUD system will begin normal operation.



DIC CONTROL PANEL

G98J12228



G99D03934

**Fig. 3: Identifying Head-Up Display (HUD) Controls**  
Courtesy of GENERAL MOTORS CORP.

#### INSTRUMENT PANEL CLUSTER (IPC)

Some vehicle systems share data over a serial data line to execute various vehicle functions. Communication between each system is accomplished by sending digitally coded messages, which consist of specific information the system module must follow. Each system module is assigned its own recognition code, so that it can respond to appropriate messages.

Signals that activate the IPC are known as "wake-up" signals. IPC is asleep when it is not controlling or monitoring the following wake-up functions: any activity on serial data line, headlight switch on, courtesy lights on, power mode message received from Body Control Module (BCM), battery disconnection and reconnection, or ignition is turned on. The IPC will enter a sleep state (to reduce parasitic load) when all of the following conditions exist: no activity on serial data line for about 10 seconds, ignition is turned off, headlights are off, courtesy lights are off, power mode message was not received from BCM and SECURITY indicator is not on.

## GAUGES

The IPC controls gauge functions with signals received on the serial data line or by a dedicated circuit from another system. The gauges may be toggled between English and Metric units by pressing the E/M button. Each gauge contains damping fluid to ensure smooth and steady operation of the needle.

The IPC receives a 4000 pulse-per mile Vehicle Speed Sensor (VSS) input over a dedicated circuit from the PCM. Engine RPM input information sent from PCM on a dedicated circuit to the IPC. The IPC also receives engine RPM data on the serial data line. The PCM is responsible for processing and sending VSS and engine RPM data to the IPC.

IPC receives fuel level, oil pressure and coolant temperature data from the PCM on the serial data line. The IPC receives vehicle voltage data through ignition 1 circuit which is directly connected to the IPC.

## DRIVER INFORMATION CENTER (DIC)

### Display Functions

Driver's Information Center (DIC) has the ability to communicate to driver, current status of monitored systems. Driver can manually select desired systems to monitor by using the switches located to right of instrument cluster. See **DRIVER INFORMATION CENTER (DIC) SWITCHES**. DIC will automatically display warning messages if a monitored system is malfunctioning. Warning messages will have priority over manually monitored system displays. See **DRIVER INFORMATION CENTER (DIC) WARNING MESSAGES** under OPERATION. Instrument Panel Cluster (IPC) is equipped with an on-board diagnostic display feature which can display and/or clear DTCs through DIC. When specific buttons on IPC are pressed, DTCs are displayed on DIC. See **ON-BOARD DIAGNOSTIC CAPABILITIES**.

### Driver Information Center (DIC) Switches

Driver Information Center (DIC) buttons allow driver to change display functions and customize electrical features. DIC also contains the ambient light sensor, which provides IPC and other systems with information needed for interior light dimming functions. See **Fig. 2**.

- **FUEL (Switch 1)**

Allows fuel information to be displayed in average fuel economy mode (determined over last 20 gallons), instantaneous fuel economy mode (updated every one second), or fuel range mode (estimated distance vehicle can travel under current fuel economy and fuel level conditions).

- **GAUGES (Switch 2)**

Allows information to be displayed on oil pressure, oil temperature, coolant temperature, transmission fluid temperature (A/T models), battery voltage, and front and rear tire pressure.

- **TRIP (Switch 3)**

Allows information to be displayed for odometer, TRIP A odometer, TRIP B odometer, elapsed time feature, average speed (since last ignition cycle or system was manually reset), or oil life remaining.

- **OPTIONS (Switch 4)**

Allows the following vehicle options to be customized: lock and arm, alarm, passive unlock, approach lights, auto lock and unlock, easy entry, language, and a blank page (for FOB or tire training access). For programming of tire pressure monitoring system, see **PROGRAMMING**. For programming of Remote Keyless Entry (RKE) transmitters or personalizing alarm functions under the OPTION menu of Driver's Information Center (DIC), see **PROGRAMMING** in REMOTE KEYLESS ENTRY SYSTEMS - CORVETTE article.

- **E/M (Switch 5)**

Allows IPC to change unit of measurement (from English to Metric).

- **RESET**

Allows driver to perform the following functions: acknowledge IPC messages, reset trip odometer functions, start/stop elapsed time, reset average speed, reset oil life system, reset fuel economy functions, or customize vehicle electrical functions.

#### **On-Board Diagnostic Capabilities**

When diagnostic mode is first entered, DIC will enter an automatic display sequence of all systems that communicate on serial data line. After each system is displayed, DIC will display the number of DTCs (current or history) set in that system. At any time during this automatic display sequence, the manual diagnostic mode may be selected.

In manual diagnostic mode, a specific module can be manually selected for diagnosis by pressing specific buttons on Driver Information Center (DIC). Only DTCs for that particular module will be displayed until another system is requested. See **SELF-DIAGNOSTIC SYSTEM** for additional information.

#### **DRIVER INFORMATION CENTER (DIC) WARNING MESSAGES**

DIC will automatically display warning messages if a monitored system is malfunctioning.

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See **WARNING/STATUS MESSAGE DISPLAY MESSAGES** table. Warning messages will have priority over manually monitored system displays. Proceed to appropriate diagnostic and repair procedure under **SYMPTOM TESTS** .

### WARNING/STATUS MESSAGE DISPLAY MESSAGES

Warning/Status Message	Monitored System
LOW OIL PRESSURE	PCM
HIGH OIL TEMPERATURE REDUCE ENGINE RPM	IPC
ENGINE PROTECTION REDUCE ENGINE RPM	PCM
UPSHIFT NOW!	PCM
COOLANT OVER TEMP	PCM
REDUCE ENGINE POWER	PCM
SHOCKS INOPERATIVE	RTD
MAXIMUM SPEED 129 KM/H (80 MPH)	PCM
HIGH TRANS TEMP	PCM
FLAT TIRE - MAX SPD 55, REDUCED HNDLG (1)	RFA/TPM
HIGH TIRE PRESSURE <sup>(1)</sup>	RFA/TPM
LOW TIRE PRESSURE <sup>(1)</sup>	RFA/TPM
OVER SPEED WARNING	PCM & IPC
LOW OIL LEVEL	PCM
LOW VOLTAGE	IPC
HIGH VOLTAGE	IPC
LOW BRAKE FLUID	IPC
CHANGE OIL NOW	PCM
TRACTION SYSTEM ON/OFF	ABS & BCM
TRACTION SYSTEM ACTIVE	ABS
SERVICE TRACTION SYSTEM	ABS
SERVICE COLUMN LOCK	BCM
PULL KEY-WAIT 10 SEC	BCM
SERVICE RIDE CONTROL	RTD
SERVICE TIRE MONITOR	RFA/TPM
CHARGE SYSTEM FAULT	PCM
SERVICE VEHICLE SOON	PCM, BCM, ABS, RFA & RTD
LOW FUEL	PCM
LOW WASHER FLUID	IPC
HATCH AJAR	BCM



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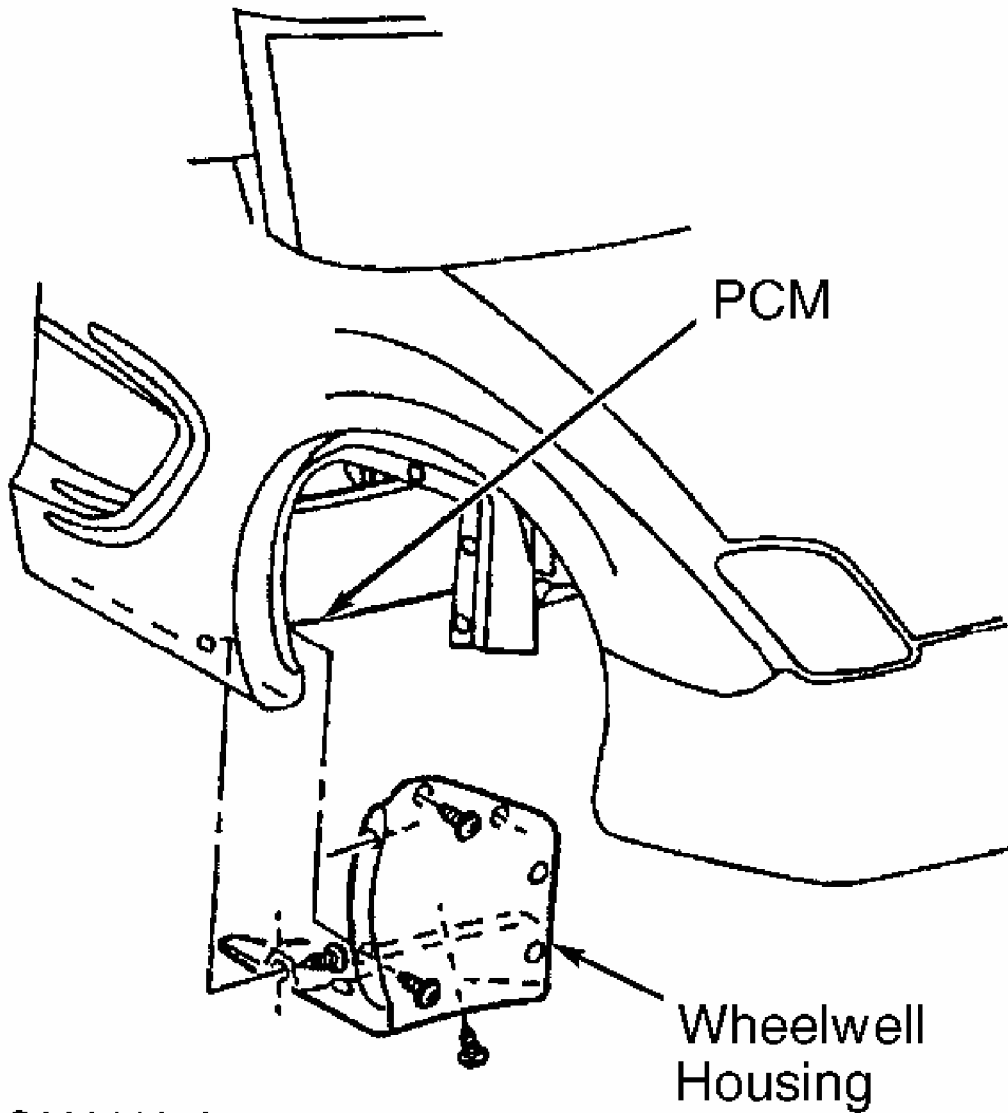
DOOR AJAR	BCM
RESERVE FUEL	PCM
CHANGE OIL SOON	PCM
CRUISE SET XX KM/H (XX MPH)	PCM
CRUISE DISENGAGED	PCM
BRAKE BEFORE SHIFT	IPC
TRAC/ACT HNDLG - ON/OFF	ABS
COMPETITIVE DRIVING	ABS
TRACTION SYS ACTIVE	ABS
ABS ACTIVE	ABS
ACTIVE HANDLING	ABS
ACT HNDLG-WARMING UP	ABS
WARM UP COMPLETE	ABS
ACT HNDLG PERF LIMIT	ABS
SERVICE ABS	ABS
SERVICE ACTIVE HNDLG	ABS

(1) Message will indicate appropriate tire.

## COMPONENT LOCATIONS

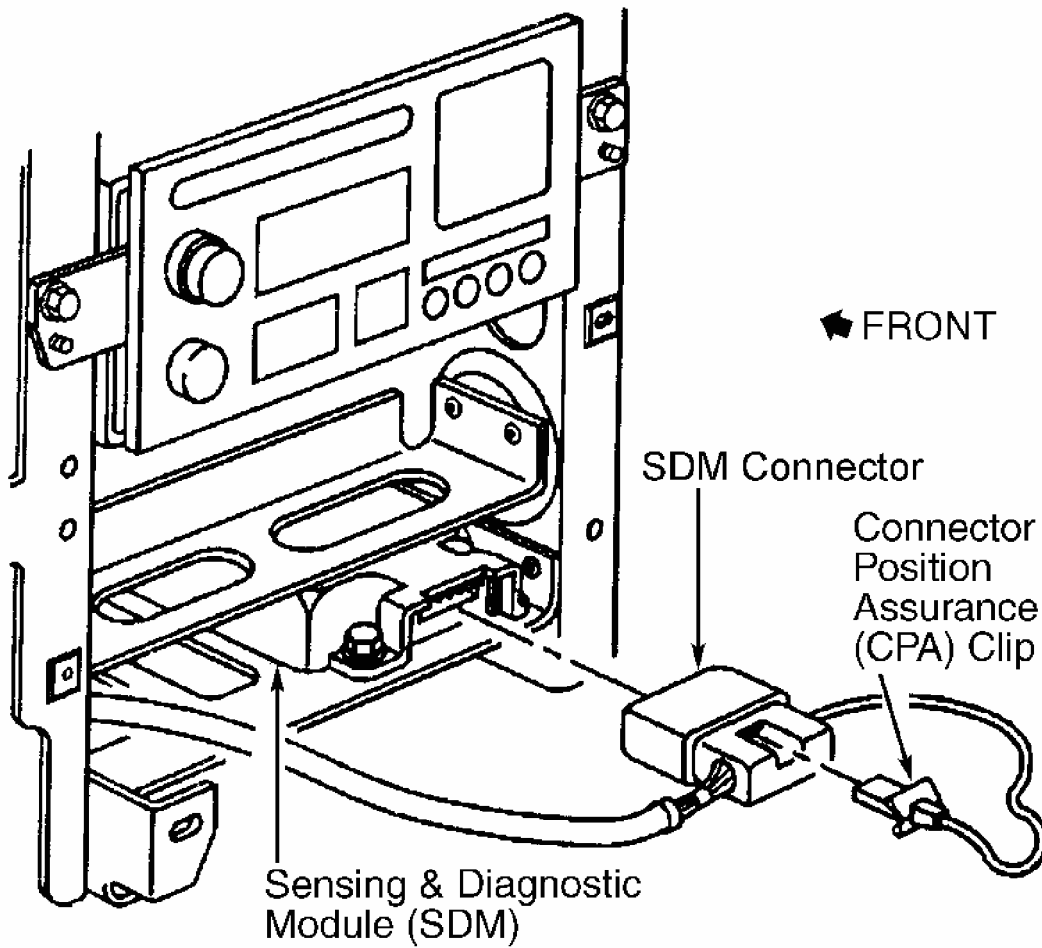
### COMPONENT LOCATIONS

Component	Location
Brake Fluid Level Indicator Switch	On Left Side Of Brake Fluid Reservoir
Data Link Connector (DLC)	Behind Left Side Of Instrument Panel, Below Steering Column
Door Control Module (DCM)	Behind Bottom Center Of Door Trim Panel
Engine Coolant Level Indicator Switch	In Right Rear Corner Of Engine Compartment, In Bottom Of Coolant Reservoir
Parking Brake Switch	In Center Console, Under Parking Brake
Underhood Electrical Center	Right Rear Corner Of Engine Compartment, Between Battery & Coolant Reservoir
Windshield Washer Solvent Level Switch	Rear Of Washer Fluid Reservoir



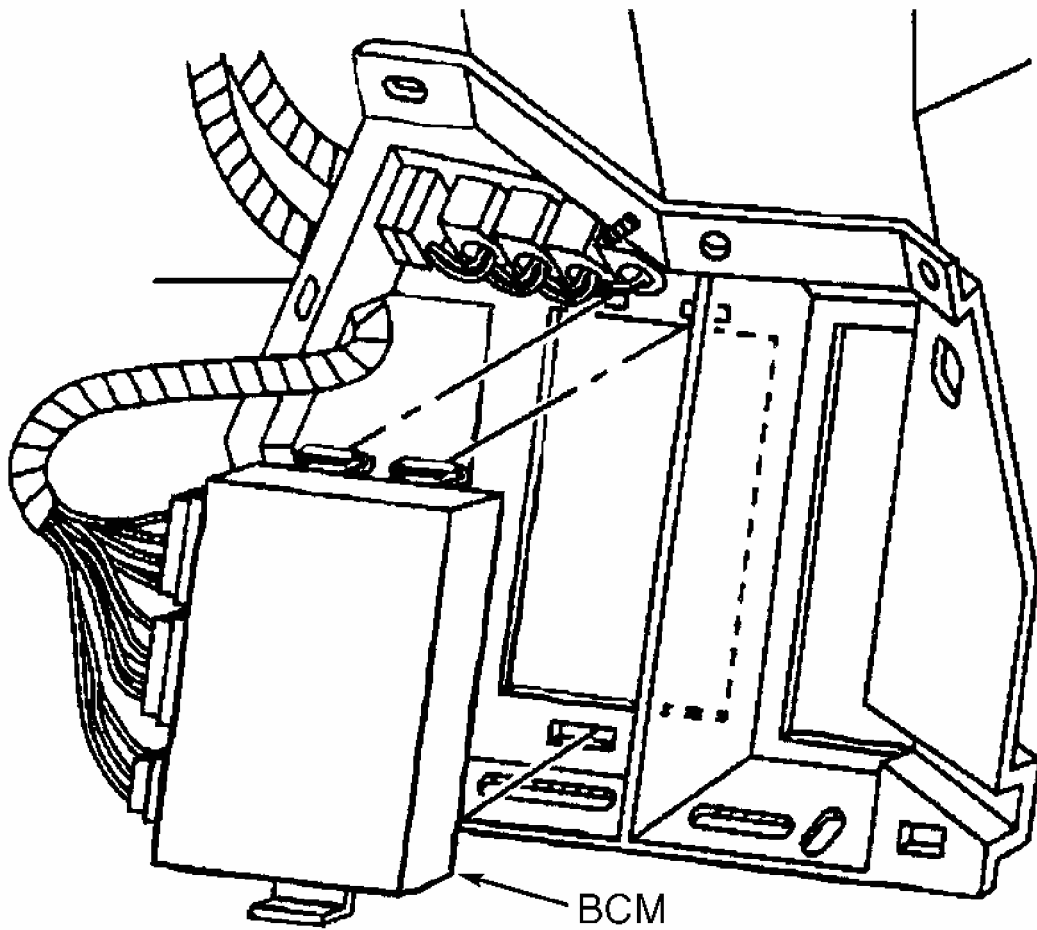
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**Fig. 4: Locating Powertrain Control Module (PCM)**  
Courtesy of GENERAL MOTORS CORP.



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**Fig. 5: Locating Sensing & Diagnostic Module (SDM)**  
Courtesy of GENERAL MOTORS CORP.

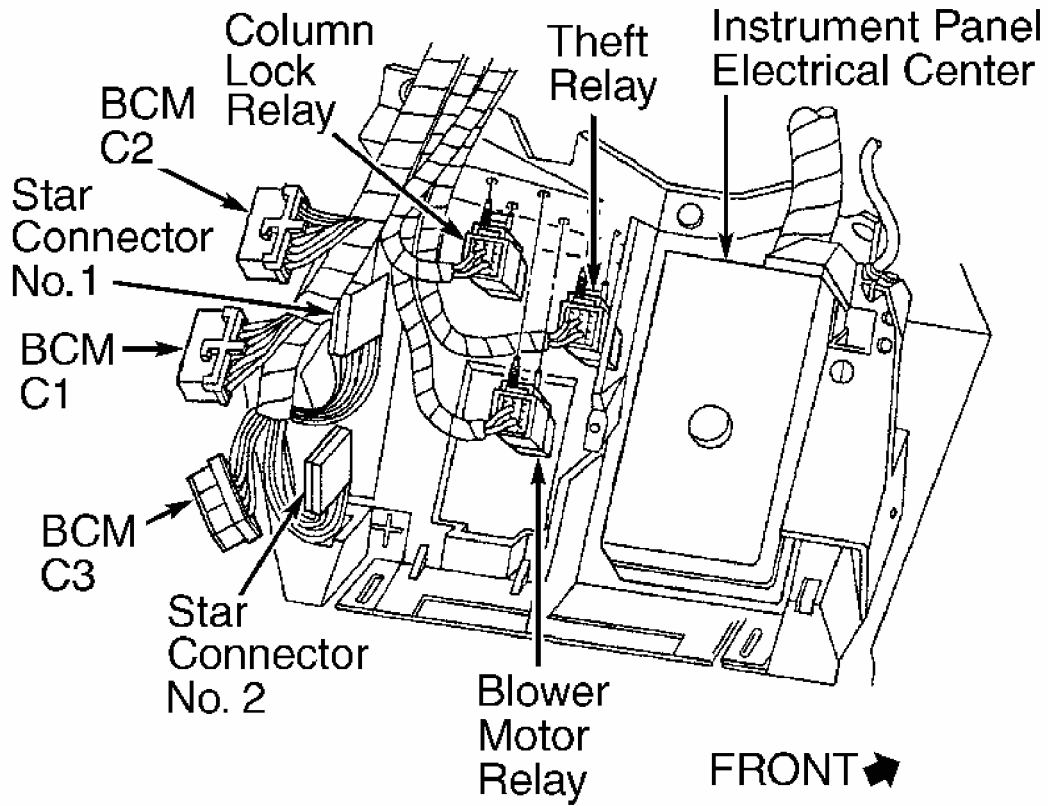


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**Fig. 6: Locating Body Control Module (BCM)**  
Courtesy of GENERAL MOTORS CORP.

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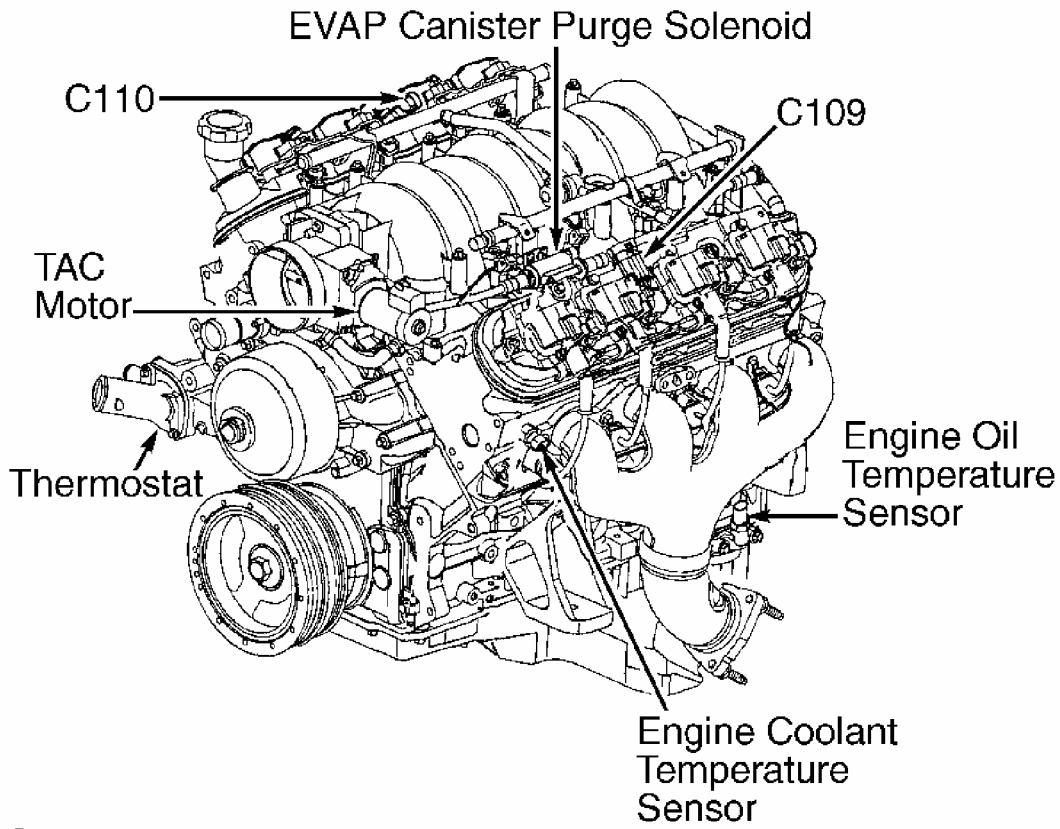


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**Fig. 7: Locating Body Control Module (BCM) & Star Connectors  
Courtesy of GENERAL MOTORS CORP.**

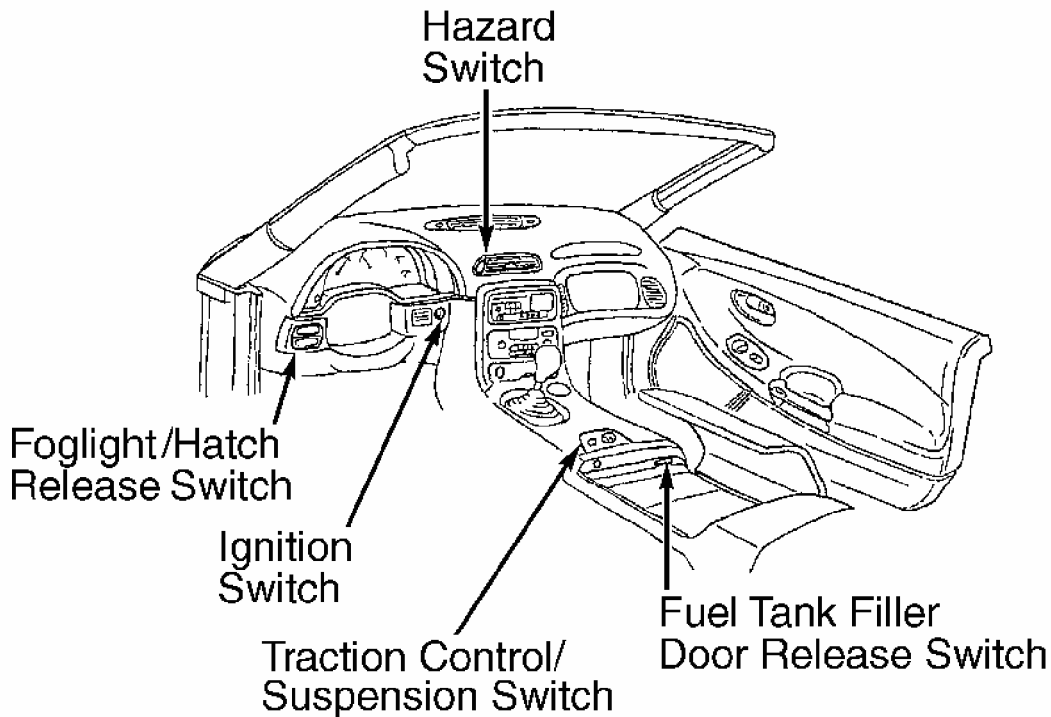
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**Fig. 8: Locating Engine Oil & Coolant Temperature Sensors**  
Courtesy of GENERAL MOTORS CORP.



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**Fig. 9: Locating Instrument Panel Components**  
Courtesy of GENERAL MOTORS CORP.

## PROGRAMMING

**NOTE:** For programming of Remote Keyless Entry (RKE) transmitters or personalizing alarm functions under the OPTION menu of Driver's Information Center (DIC), see PROGRAMMING in REMOTE KEYLESS ENTRY SYSTEMS - CORVETTE article.

### TIRE PRESSURE MONITOR (TPM) SENSOR PROGRAMMING

#### Programming Sensors

**NOTE:** Make sure the vehicle has been stationary for at least 2 minutes before attempting to program the TPM sensors.

1. Turn ignition on. Press Driver Information Center (DIC) RESET button to clear any Instrument Panel Cluster (IPC) warning messages. See **Fig. 2** . Press DIC OPTIONS button until IPC display is blank.
2. Press and hold DIC RESET button for 3 seconds. Press DIC OPTIONS button again

until TIRE TRAINING message appears. Press DIC RESET button until IPC LEARN L FRONT TIRE message appears to begin programming sequence.

**NOTE: TPM Sensor Programming Tool (J 41760) is a large magnet.**

3. Install TPM Sensor Programming Tool (J 41760) over left front wheel valve stem. See **Fig. 10** . Vehicle horn will sound, indicating TPM sensor is programmed. Proceed to next TPM sensor as directed by IPC messages.

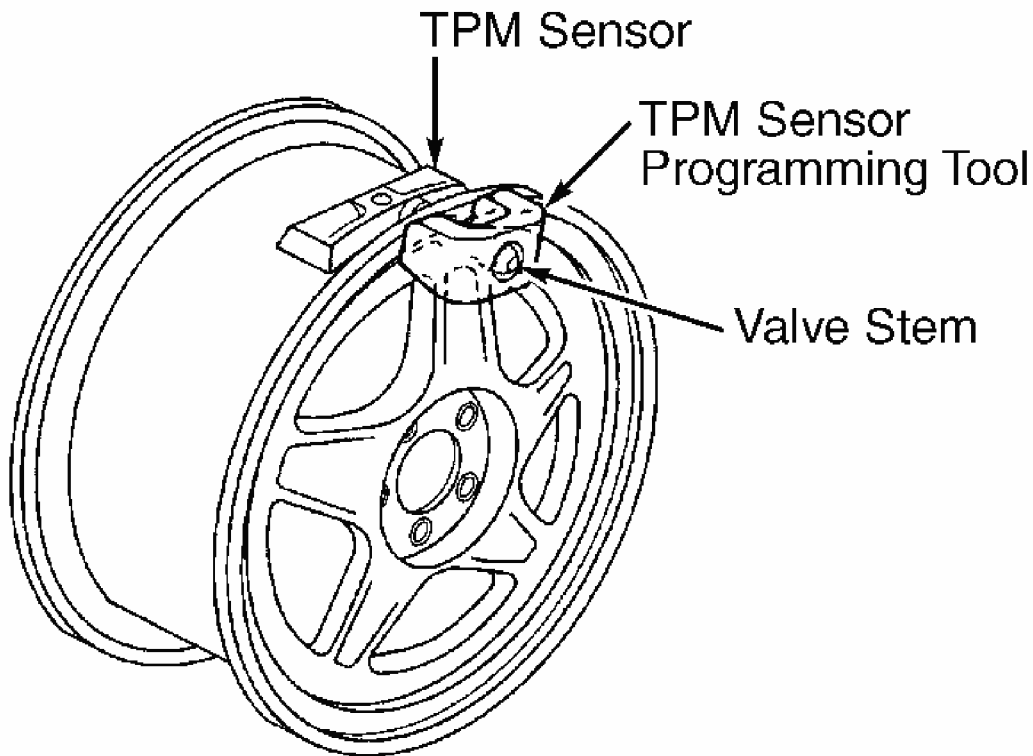
#### **Programming Cancellation**

Programming sequence will cancel if one of the following conditions occur:

- Program Mode Is Exited Through DIC
- Ignition Is Turned Off
- All 4 TPM Sensors Have Been Programmed
- TPM system Has Been In Program Mode For More Than 2 Minutes & No Sensors Have Been Programmed

If program mode is cancelled with less than 4 TPM sensors stored, remote control door lock receiver will only accept codes programmed up to that point.





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**Fig. 10: Programming TPM Sensors**  
Courtesy of GENERAL MOTORS CORP.

## SELF-DIAGNOSTIC SYSTEM

Instrument Panel Cluster (IPC) is equipped with a self-diagnostic system, which detects system Diagnostic Trouble Codes (DTCs) or abnormalities. When a malfunction occurs, IPC will store a DTC. See **IPC DTC DEFINITIONS** . Malfunctions are recorded as history/intermittent failures or as current failures. Current DTCs indicate IPC has detected a fault which is currently present. A history DTC indicates that BCM has previously detected a malfunction that is not currently present as it is either an intermittent condition or the system is not being currently operated.

Instrument Panel Cluster (IPC) can be used to retrieve and clear DTCs. A scan tool can be used to retrieve and clear DTCs. See **RETRIEVING DIAGNOSTIC TROUBLE CODES (DTCs)** . The scan tool also has several features that can be used to help locate an intermittent condition. When scan tool is used for system tests, it will display values actually seen or commanded by various systems (i.e., BCM, PCM). This will usually include the following types of information:

- **Analog Data Input**

Displays analog input seen by system.

- **Inputs/Outputs**

Displays digital values as seen by system, and provides indication of whether input or output has cycled.

- **Special Functions (Output Controls)**

Allows for outputs of system to be set at a desired value (ON or OFF). This will only indicate if IPC is sending the appropriate commands, not what action was actually taken.

- **Clear Codes**

Will erase DTCs for system currently selected (if problem still exists in system, DTC may immediately reset). IPC is equipped with a 20-character vacuum fluorescent display feature that can display specific warning/status messages. See **DRIVER INFORMATION CENTER (DIC) WARNING MESSAGES** under OPERATION. These warning messages will be displayed in order of priority. If ignition is cycled, IPC will display last message before ignition was cycled. Many messages may coincide with warning indicator lights or DTCs. DTCs should always be diagnosed first before any warning message.

Warning messages will be displayed in all modes except configuration and diagnostic modes. Warning messages will overwrite any other messages that may be displayed. Message will be displayed until system sends a stop broadcasting signal to IPC over serial data line, or it is acknowledged/cleared by pressing RESET button (unless system requests a continuous message display). See **DRIVER INFORMATION CENTER (DIC) WARNING MESSAGES** under OPERATION for additional information and complete list of warning messages.

## **RETRIEVING DIAGNOSTIC TROUBLE CODES (DTCS)**

### **Using On-Board Diagnostics**

Turn ignition on (engine off). Press RESET button to acknowledge any warning messages that may be present. Press OPTIONS button (switch 4) on Driver Information Center (DIC) and hold. See **Fig. 2** . While holding OPTIONS button, press FUEL button (switch 1) 4 times within 10 seconds. System will enter automatic display mode.

In automatic display mode, each system module will be displayed on IPC followed by DTCs that exist in that system. See **IPC DTC DEFINITIONS** table. If no DTCs exist, IPC will

display NO CODES for that system. If DTCs exist, each DTC will be displayed for 3 seconds followed by a one second pause. If IPC cannot communicate with any system, IPC will display NO COMM for that system. At any time during automatic display mode, manual display feature can be activated by pressing any DIC button except E/M (switch 5). When all systems have been checked in automatic mode, IPC will display NO MORE CODES for 2 seconds, and will then enter manual mode.

When manual mode is entered, IPC will display MANUAL DIAGNOSTICS for 2 seconds or until any DIC button except E/M (switch 5) is pressed. IPC will then display first system and number of DTCs set in that system, and wait for further instructions. Using DIC buttons, move through system diagnostics as necessary. See **DIC BUTTON DIAGNOSTIC FUNCTIONS** table.

In both diagnostic modes, systems will be displayed in the following order:

- Powertrain Control Module (PCM).
- Traction Control System (TCS).
- Real Time Damping (RTD).
- Body Control Module (BCM).
- Instrument Panel Cluster (IPC).
- Radio.
- Heater, Ventilation And Air Conditioning (HVAC).
- Left Door Control Module (LDCM).
- Right Door Control Module (RDCM).
- Seat Control Module (SCM).
- Remote Function Actuation (RFA).

If a DTC exists in any system, display will indicate whether DTC is current (with a "C") or history (with an "H"). When E/M button (switch 5) on DIC is pressed at any time, IPC will exit diagnostics mode. On-board diagnostics will also be exited automatically if no DIC buttons are pressed for longer than 60 seconds. For service procedures, see **SELF-DIAGNOSTIC SYSTEM** .

When E/M button (switch 5) on DIC is pressed at any time, IPC will exit diagnostics mode. On-board diagnostics will automatically exit if no DIC buttons are pressed for longer than 60 seconds.

#### **Using Scan Tool**

Diagnostic Trouble Codes (DTCs) can also be retrieved using scan tool. Connect scan tool to Data Link Connector (DLC) located under driver's side of instrument panel. Turn ignition switch to ON position. Select appropriate module on scan tool display to retrieve current and history DTCs. Record DTCs and proceed to appropriate DTC and follow diagnostic and

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repair procedures. See **IPC DTC DEFINITIONS** table.

#### DIC BUTTON DIAGNOSTIC FUNCTIONS

DIC Button	Function
FUEL (Switch 1)	Previous DTC
GAGES (Switch 2)	Next DTC
TRIP (Switch 3)	Previous System
OPTIONS (Switch 4)	Next System
E/M (Switch 5)	Exit Diagnostics
RESET	Clear DTCs

#### CLEARING DIAGNOSTIC TROUBLE CODES (DTCS)

Current DTCs will clear as soon as the fault is repaired and ignition switch is cycled to ON and OFF position 50 times. History DTCs will need to be manually cleared using DIC or scan tool.

##### Using On-Board Diagnostics

Use manual control functions to select and view DTC. See RETRIEVING DTCs. Depress the RESET button on DIC for 2 seconds to clear the selected DTC from the selected module. See **DIC BUTTON DIAGNOSTIC FUNCTIONS** table. See **Fig. 2** .

##### Using Scan Tool

Select CLEAR DTCs function on scan tool. Clear current and history DTCs. Operate vehicle and recheck for DTCs.

#### IPC DTC DEFINITIONS

#### IPC DTC DEFINITIONS

Code No.	Circuit Affected
<b>B0516</b>	Speedometer Signal Circuit Malfunction
<b>B0521</b>	Tachometer Signal Circuit Malfunction
<b>B1512</b>	DIC Switch 1 Signal (Short To Ground)
<b>B1517</b>	DIC Switch 2 Signal (Short To Ground)
<b>B1522</b>	DIC Switch 3 Signal (Short To Ground)
<b>B1527</b>	DIC Switch 4 Signal (Short To Ground)
<b>B1532</b>	DIC Switch 5 Signal (Short To Ground)
<b>B1537</b>	DIC Switch 6 Signal (Short To Ground)
<b>B1542</b>	Oil Temperature Circuit (Short To Ground)
<b>B1543</b>	Oil Temperature Circuit (Open)
	Class 2 Communication Malfunction

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U1000 & U1255 <sup>(1)</sup>	
U1001-U1254 <sup>(1)</sup>	Loss Of Communication With XXX
U1300 <sup>(1)</sup>	Serial Data Line Short To Ground
U1301 <sup>(1)</sup>	Serial Data Line Short To Battery
(1) See appropriate diagnosis and repair procedure under <b>DIAGNOSTIC TESTS</b> in <b>BODY CONTROL MODULES - CORVETTE</b> article.	

#### INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK

**CAUTION:** Unless scan tool directions indicate otherwise, always exit all scan tool test before cycling ignition switch from OFF to ON position. Follow all scan tool manufacturer's instructions. If scan tool instructions are not followed, vehicle may set DTCs (may be false codes), vehicle systems may malfunction or scan tool may malfunction.

**NOTE:** Use this check as the starting point for any IPC complaint. IPC is a very reliable component, and is not likely the cause of malfunction. Most malfunctions are caused by faulty wiring, connectors or components.

#### Testing

1. Connect scan tool to DLC located under steering column. If scan tool powers up, go to next step. If scan tool does not power up, go to **SCAN TOOL DOES NOT POWER UP** under SELF-DIAGNOSTIC SYSTEM in BODY CONTROL MODULES - CORVETTE article.
2. Turn ignition off. Connect scan tool. Turn ignition on. Attempt to establish communication with IPC. If scan tool communicates with IPC, go to next step. If scan tool does not communicate with IPC, go to **SCAN TOOL DOES NOT COMMUNICATE WITH CLASS 2 DEVICE** under SELF-DIAGNOSTIC SYSTEM in BODY CONTROL MODULES - CORVETTE article.
3. Using scan tool, select IPC DTC function. Check for IPC DTCs. If any DTC exists, go to next step. If no DTCs exist, diagnose IPC by symptom. Go to **SYMPTOM TESTS**.
4. Using scan tool, select IPC DTC function. Check for IPC communication DTCs. These DTCs will begin with "U". If any "U" DTC exists, go to **SCAN TOOL DOES NOT COMMUNICATE WITH CLASS 2 DEVICE** under SELF-DIAGNOSTIC SYSTEM in BODY CONTROL MODULES - CORVETTE article. If no "U" DTCs exist, go to **IPC DTC DEFINITIONS** table for diagnosis and repair of DTC.

#### TIRE PRESSURE MONITORING (TPM) SYSTEM DIAGNOSTIC SYSTEM CHECK

1. Connect scan tool to DLC located under steering column. If scan tool powers up, go to next step. If scan tool does not power up, go to **SCAN TOOL DOES NOT POWER UP** under SELF-DIAGNOSTIC SYSTEM in BODY CONTROL MODULES - CORVETTE article.
2. Turn ignition off. Connect scan tool. Turn ignition on. Attempt to establish communication with RFA system. If scan tool communicates with RFA system, go to next step. If scan tool does not communicate with RFA system, go to **SCAN TOOL DOES NOT COMMUNICATE WITH CLASS 2 DEVICE** under SELF-DIAGNOSTIC SYSTEM in BODY CONTROL MODULES - CORVETTE article.
3. Using scan tool, select RFA DTC display function. Check for RFA DTCs. If any DTC exists, go to next step. If no DTCs exist, diagnose RFA by symptom. Go to **REMOTE KEYLESS ENTRY SYSTEMS - CORVETTE** article.
4. Check for RFA communication DTCs. These DTCs will begin with "U". If any "U" DTC exists, go to **SCAN TOOL DOES NOT COMMUNICATE WITH CLASS 2 DEVICE** under SELF-DIAGNOSTIC SYSTEM in BODY CONTROL MODULES - CORVETTE article. If no "U" DTCs exist, go to **IPC DTC DEFINITIONS** table for diagnosis and repair of DTC.

**STARTING/CHARGING SYSTEM DIAGNOSTIC SYSTEM CHECK**

1. Verify battery is fully charged. If battery is fully charged, go to next step. If battery is not fully charged, charge as necessary and recheck system operation.
2. Connect scan tool to DLC located under steering column. If scan tool powers up, go to next step. If scan tool does not power up, go to **SCAN TOOL DOES NOT POWER UP** under SELF-DIAGNOSTIC SYSTEM in BODY CONTROL MODULES - CORVETTE article.
3. Turn ignition on. Attempt to establish communication with Body Control (BCM) and Powertrain Control Modules (PCM). If scan tool communicates with BCM and PCM, go to next step. If scan tool does not communicate with BCM and PCM, go to **SCAN TOOL DOES NOT COMMUNICATE WITH CLASS 2 DEVICE** under SELF-DIAGNOSTIC SYSTEM in BODY CONTROL MODULES - CORVETTE article.
4. Using scan tool, check for DTCs stored in BCM or PCM. If no DTCs are stored, repair charging system. See appropriate GENERATORS & REGULATORS article. If any DTCs are stored, go to next step.
5. Check for communication DTCs. These DTCs will begin with "U". If no "U" DTCs exist, go to next step. If any "U" DTC exists, go to **SCAN TOOL DOES NOT COMMUNICATE WITH CLASS 2 DEVICE** under SELF-DIAGNOSTIC SYSTEM in BODY CONTROL MODULES - CORVETTE article.
6. If scan tool displays DTCs P0562, P0563, P1637 or P1638, go to appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE. If DTCs are not set, go to next step.
7. If DTC B1000 is set, go to **DTC B1000: ECU MALFUNCTION** under

DIAGNOSTIC TESTS in BODY CONTROL MODULES - CORVETTE article. If DTC B1000 is not set, go to next step.

8. If scan tool displays DTCs B2721, B2722, B2723 or B2735, go to **DIAGNOSTIC TESTS** in ANTI-THEFT SYSTEMS - CORVETTE article for diagnostic and repair procedures. If DTCs are not set, system is operating properly at this time.

## DIAGNOSTIC TESTS

**NOTE:** For wiring and connector terminal identification, see **WIRING DIAGRAMS** .

**NOTE:** When testing procedure indicates to probe or check a terminal, use adapters from Connector Test Adapter Kit (J-35616-A). This will ensure terminal will not be damaged, and that connection is okay.

### DTC B0516: SPEEDOMETER SIGNAL CIRCUIT MALFUNCTION

#### Description

Powertrain Control Module (PCM) supplies Instrument Panel Cluster (IPC) with information on vehicle speed. PCM processes information from Vehicle Speed Sensor (VSS), and sends a 4000 pulse-per-mile input to IPC.

DTC B0516 will set when IPC detects vehicle speed information over 200 MPH (322 KM/H) for one second. IPC will display vehicle speed at 200 MPH (322 KM/H). No driver warning message will be displayed.

If conditions for malfunction no longer exist, history DTC will clear after 50 consecutive ignition cycles. DTC B0516 will also clear when conditions no longer exist, or when IPC or scan tool is used to clear codes.

**NOTE:** If DTC B0516 is a history code, problem may be intermittent. Wiggle wires while performing the following test.

#### Testing

1. If IPC diagnostic system check was performed, go to next step. If IPC diagnostic system check was not performed, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** .
2. Using scan tool, check if any VSS DTCs are stored in PCM memory. If no VSS DTCs exist, go to next step. If any VSS DTCs exist, perform appropriate powertrain diagnostic system check. See appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.

3. Test drive vehicle and check for proper speedometer operation. If speedometer operates properly, go to next step. If speedometer does not operate properly, go to **SPEEDOMETER AND/OR ODOMETER INOPERATIVE** under SYMPTOM TESTS.
4. Check for open, short to ground or short to voltage in Dark Green/White wire between splice S204 and IPC connector terminal A7. See **Fig. 13** . S204 located approximately 2 IN from 20-pin connector C150 located at right rear of engine compartment, below battery. If circuit is okay, go to next step. If faulty circuit is found, repair as necessary and go to step 7 .
5. Check for poor connections at IPC connector. If connections are okay, go to next step. If faulty connections are found, repair as necessary and go to step 7 .
6. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. Go to next step.
7. Turn ignition off. Reinstall all components and connectors. Turn ignition on. Clear DTCs. Wait 5 seconds and check for DTCs. If DTC B0516 resets as current, go to step 6 . If DTC B0516 is not current, system is operating properly.

**Diagnostic Aids**

1. Conditions that may cause an intermittent are PCM is unable to process correct vehicle speed data sent from VSS or erratic VSS operation.
2. Test drive vehicle and check for proper speedometer operation. If IPC cannot display proper vehicle speed information, use scan tool to display PCM VSS data. If PCM is not receiving proper input from VSS, PCM and VSS circuits must be diagnosed first before diagnosing DTC B0516. See appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.
3. Before diagnosing DTC B0516, always check for proper speedometer operation by using scan tool to display PCM vehicle speed data and check for VSS DTCs.

**DTC B0521: TACHOMETER SIGNAL CIRCUIT MALFUNCTION****Description**

Powertrain Control Module (PCM) supplies Instrument Panel Cluster (IPC) with information on engine RPM. IPC receives engine RPM data from PCM and serial data line, but will only display data received from PCM.

DTC B0521 will set when IPC detects that PCM has sent engine RPM information of 7400 RPM for one second. IPC will display engine RPM at 7400 RPM. No driver warning message will be displayed.

If conditions for malfunction no longer exist, history DTC will clear after 50 consecutive ignition cycles. DTC B0521 will also clear when conditions no longer exist, or when IPC or scan tool is used to clear codes.



**NOTE:** If DTC B0521 is a history code, problem may be intermittent. Wiggle wires while performing the following test.

### Testing

1. If IPC diagnostic system check was performed, go to next step. If IPC diagnostic system check was not performed, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** .
2. Using scan tool, check if DTC P0654 is stored in PCM memory. If DTC P0654 does not exist, go to next step. If DTC P0654 exists, perform appropriate powertrain diagnostic system check. See appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.
3. Test drive vehicle and check for proper tachometer operation. If tachometer operates properly, go to next step. If tachometer does not operate properly, go to **TACHOMETER INOPERATIVE** under SYMPTOM TESTS.
4. Check for open, short to ground or short to voltage in White wire between PCM connector C2 terminal No. 10 and IPC connector terminal A17. See **Fig. 13** . If circuit is okay, go to next step. If faulty circuit is found, repair as necessary and go to step 7 .
5. Check for poor connections at IPC connector. If connections are okay, go to next step. If faulty connections are found, repair as necessary and go to step 7 .
6. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. Go to next step.
7. Turn ignition off. Reinstall all components and connectors. Turn ignition on. Clear DTCs. Wait 5 seconds and check for DTCs. If DTC B0521 is current, go to step 6 . If DTC B0521 is not current, system is operating properly.

### Diagnostic Aids

1. Conditions that may cause an intermittent are PCM is unable to process correct RPM data or erratic RPM signal sent from PCM.
2. Test drive vehicle and check for proper tachometer operation. If IPC cannot display proper engine RPM information, use scan tool to display PCM engine RPM data. If PCM is not sending proper engine RPM data to IPC, PCM and engine RPM circuits must be diagnosed first before diagnosing DTC B0521. See appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.
3. Before diagnosing DTC B0521, always check for proper tachometer operation by using scan tool to display PCM engine RPM data and check for VSS DTCs.

### DTC B1512: DIC SWITCH 1 SIGNAL (SHORT TO GROUND)

#### Description

Driver Information Center (DIC) contains 6 switch circuits that allow IPC functions to be

performed. IPC supplies a 5-volt reference voltage signal to each switch circuit. When any DIC switch is pressed, voltage will be pulled low when circuit is grounded through DIC switch. IPC monitors DIC switch circuits and determines how long any circuit experiences voltage changes.

DTC B1512 will set when IPC detects a low voltage level (short to ground) in DIC switch 1 (FUEL) circuit for 60 seconds. No driver warning message will be displayed.

If conditions for malfunction no longer exist, history DTC will clear after 50 consecutive ignition cycles. DTC B1512 will also clear when conditions no longer exist, or when IPC or scan tool is used to clear codes.

**NOTE: If DTC B1512 is a history code, problem may be intermittent. Wiggle wires while performing the following test.**

**NOTE: If DIC switch 1 (FUEL) is pressed for longer than 60 seconds, DTC B1512 may set with no existing malfunctions. Always verify that this condition does not exist before diagnosing DTC B1512.**

### Testing

1. If IPC diagnostic system check was performed, go to next step. If IPC diagnostic system check was not performed, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** .
2. Using scan tool, select IPC data display. Monitor DIC switch 1 (FUEL) data. If scan tool displays DIC switch 1 (FUEL) data as INACTIVE, go to next step. If scan tool does not display DIC switch 1 (FUEL) data as INACTIVE, go to step 4 .
3. Observe scan tool DIC switch 1 (FUEL) data. Press DIC switch 1 (FUEL). See **Fig. 2** . If status does not change from INACTIVE to ACTIVE, go to next step. If status changes from INACTIVE to ACTIVE, go to **DIAGNOSTIC AIDS** .
4. Turn ignition off. Monitor DIC switch 1 (FUEL) data. Disconnect DIC switch connector. Turn ignition on. If scan tool does not display DIC switch 1 (FUEL) data as INACTIVE, go to next step. If scan tool displays DIC switch 1 (FUEL) data as INACTIVE, go to step 7 .
5. Check for short to ground in Orange wire between DIC switch IPC. See **WIRING DIAGRAMS** . If circuit is okay, go to next step. If faulty circuit is found, repair as necessary and go to step 10 .
6. Check for poor connections at IPC connector. If connections are okay, go to step 10 . If faulty connections are found, repair as necessary and go to step 8 .
7. Check for poor connections at DIC switch connector. If connections are okay, go to step 10 . If faulty connections are found, repair as necessary and go to step 9 .
8. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. Go to step 10 .

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9. Replace DIC switch assembly. See **DRIVER INFORMATION CENTER (DIC) & HEAD-UP DISPLAY (HUD) CONTROL SWITCHES** under REMOVAL & INSTALLATION. Go to next step.
10. Turn ignition off. Reinstall all components and connectors. Turn ignition on. Clear DTCs. Wait 5 seconds and check for DTCs. If DTC B1512 resets as current, go to step 2 . If DTC B1512 is not current, system is operating properly.

#### Diagnostic Aids

1. The following conditions may cause an intermittent:
  - Intermittent short to ground in DIC switch harness.
  - Internal short to ground in DIC switch 1 (FUEL).
  - DIC switch 1 (FUEL) is pressed for longer than 60 seconds.
2. Use scan tool to verify proper DIC switch 1 (FUEL) operation. When button is pressed, scan tool should display DIC switch 1 (FUEL) status as ACTIVE. When button is released, scan tool should display DIC switch 1 (FUEL) status as INACTIVE.

#### DTC B1517: DIC SWITCH 2 SIGNAL (SHORT TO GROUND)

##### Description

Driver Information Center (DIC) contains 6 switch circuits that allow IPC functions to be performed. IPC supplies a 5-volt reference voltage signal to each switch circuit. When any DIC switch is pressed, voltage will be pulled low when circuit is grounded through DIC switch. IPC monitors DIC switch circuits and determines how long any circuit experiences voltage changes.

DTC B1517 will set when IPC detects a low voltage level (short to ground) in DIC switch 2 (GAUGES) circuit for 60 seconds. No driver warning message will be displayed.

If conditions for malfunction no longer exist, history DTC will clear after 50 consecutive ignition cycles. DTC B1517 will also clear when conditions no longer exist, or when IPC or scan tool is used to clear codes.

**NOTE:** If DTC B1517 is a history code, problem may be intermittent. Wiggle wires while performing the following test.

**NOTE:** If DIC switch 2 (GAUGES) is pressed for longer than 60 seconds, DTC B1517 may set with no existing malfunctions. Always verify that this condition does not exist before diagnosing DTC B1517.

##### Testing

1. If IPC diagnostic system check was performed, go to next step. If IPC diagnostic

system check was not performed, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** .

2. Using scan tool, select IPC data display. Monitor DIC switch 2 (GAUGES) data. If scan tool displays DIC switch 2 (GAUGES) data as INACTIVE, go to next step. If scan tool does not display DIC switch 2 (GAUGES) data as INACTIVE, go to step 4 .
3. Observe scan tool DIC switch 2 (GAUGES) data. Press DIC switch 2 (GAUGES). See **Fig. 2** . If status does not change from INACTIVE to ACTIVE, go to next step. If status changes from INACTIVE to ACTIVE, go to **DIAGNOSTIC AIDS** .
4. Turn ignition off. Monitor DIC switch 2 (GAUGES) data. Disconnect DIC switch connector. Turn ignition on. If scan tool does not display DIC switch 2 (GAUGES) data as INACTIVE, go to next step. If scan tool displays DIC switch 2 (GAUGES) data as INACTIVE, go to step 7 .
5. Check for short to ground in Brown wire between DIC switch and IPC. See **WIRING DIAGRAMS** . If circuit is okay, go to next step. If faulty circuit is found, repair as necessary and go to step 10 .
6. Check for poor connections at IPC connector. If connections are okay, go to step 8 . If faulty connections are found, repair as necessary and go to step 10 .
7. Check for poor connections at DIC switch connector. If connections are okay, go to step 9 . If faulty connections are found, repair as necessary and go to step 10 .
8. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. Go to step 10 .
9. Replace DIC switch assembly. See **DRIVER INFORMATION CENTER (DIC) & HEAD-UP DISPLAY (HUD) CONTROL SWITCHES** under REMOVAL & INSTALLATION. Go to next step.
10. Turn ignition off. Reinstall all components and connectors. Turn ignition on. Clear DTCs. Wait 5 seconds and check for DTCs. If DTC B1517 resets as current, go to step 2 . If DTC B1517 is not current, system is operating properly.

#### Diagnostic Aids

1. The following conditions may cause an intermittent:
  - Intermittent short to ground in DIC switch harness.
  - Internal short to ground in DIC switch 2 (GAUGES).
  - DIC switch 2 (GAUGES) is pressed for longer than 60 seconds.
2. If DIC switch 2 (GAUGES) is pressed for longer than 60 seconds, DTC B1517 may set with no existing malfunctions. Always verify that this condition does not exist before diagnosing DTC B1517.
3. Use scan tool to verify proper DIC switch 2 (GAUGES) operation. When button is pressed, scan tool should display DIC switch 2 (GAUGES) status as ACTIVE. When button is released, scan tool should display DIC switch 2 (GAUGES) status as INACTIVE.

**DTC B1522: DIC SWITCH 3 SIGNAL (SHORT TO GROUND)****Description**

Driver Information Center (DIC) contains 6 switch circuits that allow IPC functions to be performed. IPC supplies a 5-volt reference voltage signal to each switch circuit. When any DIC switch is pressed, voltage will be pulled low when circuit is grounded through DIC switch. IPC monitors DIC switch circuits and determines how long any circuit experiences voltage changes.

DTC B1522 will set when IPC detects a low voltage level (short to ground) in DIC switch 3 (TRIP) circuit for 60 seconds. No driver warning message will be displayed.

If conditions for malfunction no longer exist, history DTC will clear after 50 consecutive ignition cycles. DTC B1522 will also clear when conditions no longer exist, or when IPC or scan tool is used to clear codes.

**NOTE: If DTC B1522 is a history code, problem may be intermittent. Wiggle wires while performing the following test.**

**NOTE: If DIC switch 3 (TRIP) is pressed for longer than 60 seconds, DTC B1522 may set with no existing malfunctions. Always verify that this condition does not exist before diagnosing DTC B1522.**

**Testing**

1. If IPC diagnostic system check was performed, go to next step. If IPC diagnostic system check was not performed, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** .
2. Using scan tool, select IPC data display. Monitor DIC switch 3 (TRIP) data. If scan tool displays DIC switch 3 (TRIP) data as INACTIVE , go to next step. If scan tool does not display DIC switch 3 (TRIP) data as INACTIVE , go to step 4 .
3. Observe scan tool DIC switch 3 (TRIP) data. Press DIC switch 3 (TRIP). See **Fig. 2** . If status does not change from INACTIVE to ACTIVE, go to next step. If status changes from INACTIVE to ACTIVE, go to **DIAGNOSTIC AIDS** .
4. Turn ignition off. Monitor DIC switch 3 (TRIP) data. Disconnect DIC switch connector. Turn ignition on. If scan tool does not display DIC switch 3 (TRIP) data as INACTIVE, go to next step. If scan tool displays DIC switch 3 (TRIP) data as INACTIVE, go to step 7 .
5. Check for short to ground in White wire between DIC switch and IPC. See **WIRING DIAGRAMS** . If circuit is okay, go to next step. If faulty circuit is found, repair as necessary and go to step 10 .
6. Check for poor connections at IPC connector. If connections are okay, go to step 8 . If faulty connections are found, repair as necessary and go to step 10 .

7. Check for poor connections at DIC switch connector. If connections are okay, go to step 9 . If faulty connections are found, repair as necessary and go to step 10 .
8. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. Go to step 10 .
9. Replace DIC switch assembly. See **DRIVER INFORMATION CENTER (DIC) & HEAD-UP DISPLAY (HUD) CONTROL SWITCHES** under REMOVAL & INSTALLATION. Go to next step.
10. Turn ignition off. Reinstall all components and connectors. Turn ignition on. Clear DTCs. Wait 5 seconds and check for DTCs. If DTC B1522 resets as current, go to step 2 . If DTC B1522 is not current, system is operating properly.

**Diagnostic Aids**

1. The following conditions may cause an intermittent:
  - Intermittent short to ground in DIC switch harness.
  - Internal short to ground in DIC switch 3 (TRIP).
  - DIC switch 3 (TRIP) is pressed for longer than 60 seconds.
2. If DIC switch 3 (TRIP) is pressed for longer than 60 seconds, DTC B1522 may set with no existing malfunctions. Always verify that this condition does not exist before diagnosing DTC B1522.
3. Use scan tool to verify proper DIC switch 3 (TRIP) operation. When button is pressed, scan tool should display DIC switch 3 (TRIP) status as ACTIVE. When button is released, scan tool should display DIC switch 3 (TRIP) status as INACTIVE.

**DTC B1527: DIC SWITCH 4 SIGNAL (SHORT TO GROUND)****Description**

Driver Information Center (DIC) contains 6 switch circuits that allow IPC functions to be performed. IPC supplies a 5-volt reference voltage signal to each switch circuit. When any DIC switch is pressed, voltage will be pulled low when circuit is grounded through DIC switch. IPC monitors DIC switch circuits and determines how long any circuit experiences voltage changes.

DTC B1527 will set when IPC detects a low voltage level (short to ground) in DIC switch 4 (OPTIONS) circuit for 60 seconds. No driver warning message will be displayed.

If conditions for malfunction no longer exist, history DTC will clear after 50 consecutive ignition cycles. DTC B1527 will also clear when conditions no longer exist, or when IPC or scan tool is used to clear codes.

**NOTE: If DTC B1527 is a history code, problem may be intermittent. Wiggle wires while performing the following test.**

**NOTE:** If DIC switch 4 (OPTIONS) is pressed for longer than 60 seconds, DTC B1527 may set with no existing malfunctions. Always verify that this condition does not exist before diagnosing DTC B1527.

### Testing

1. If IPC diagnostic system check was performed, go to next step. If IPC diagnostic system check was not performed, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK**.
2. Using scan tool, select IPC data display. Monitor DIC switch 4 (OPTIONS) data. If scan tool displays DIC switch 4 (OPTIONS) data as INACTIVE, go to next step. If scan tool does not display DIC switch 4 (OPTIONS) data as INACTIVE, go to step 4.
3. Observe scan tool DIC switch 4 (OPTIONS) data. Press DIC switch 4 (OPTIONS). See **Fig. 2**. If status does not change from INACTIVE to ACTIVE, go to next step. If status changes from INACTIVE to ACTIVE, go to **DIAGNOSTIC AIDS**.
4. Turn ignition off. Monitor DIC switch 4 (OPTIONS) data. Disconnect DIC switch connector. Turn ignition on. If scan tool does not display DIC switch 4 (OPTIONS) data as INACTIVE, go to next step. If scan tool displays DIC switch 4 (OPTIONS) data as INACTIVE, go to step 7.
5. Check for short to ground in Green wire between DIC switch and IPC. See **WIRING DIAGRAMS**. If circuit is okay, go to next step. If faulty circuit is found, repair as necessary and go to step 10.
6. Check for poor connections at IPC connector. If connections are okay, go to step 8. If faulty connections are found, repair as necessary and go to step 10.
7. Check for poor connections at DIC switch connector. If connections are okay, go to step 9. If faulty connections are found, repair as necessary and go to step 10.
8. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. Go to next step.
9. Replace DIC switch assembly. See **DRIVER INFORMATION CENTER (DIC) & HEAD-UP DISPLAY (HUD) CONTROL SWITCHES** under REMOVAL & INSTALLATION. Go to step 10.
10. Turn ignition off. Reinstall all components and connectors. Turn ignition on. Clear DTCs. Wait 5 seconds and check for DTCs. If DTC B1527 resets as current, go to step 2. If DTC B1527 is not current, system is operating properly.

### Diagnostic Aids

1. The following conditions may cause an intermittent:
  - Intermittent short to ground in DIC switch harness.
  - Internal short to ground in DIC switch 4 (OPTIONS).
  - DIC switch 4 (OPTIONS) is pressed for longer than 60 seconds.

2. If DIC switch 4 (OPTIONS) is pressed for longer than 60 seconds, DTC B1527 may set with no existing malfunctions. Always verify that this condition does not exist before diagnosing DTC B1527.
3. Use scan tool to verify proper DIC switch 4 (OPTIONS) operation. When button is pressed, scan tool should display DIC switch 4 (OPTIONS) status as ACTIVE. When button is released, scan tool should display DIC switch 4 (OPTIONS) status as INACTIVE.

### DTC B1532: DIC SWITCH 5 SIGNAL (SHORT TO GROUND)

#### Description

Driver Information Center (DIC) contains 6 switch circuits that allow IPC functions to be performed. IPC supplies a 5-volt reference voltage signal to each switch circuit. When any DIC switch is pressed, voltage will be pulled low when circuit is grounded through DIC switch. IPC monitors DIC switch circuits and determines how long any circuit experiences voltage changes.

DTC B1532 will set when IPC detects a low voltage level (short to ground) in DIC switch 5 (E/M) circuit for 60 seconds. No driver warning message will be displayed.

If conditions for malfunction no longer exist, history DTC will clear after 50 consecutive ignition cycles. DTC B1532 will also clear when conditions no longer exist, or when IPC or scan tool is used to clear codes.

**NOTE: If DTC B1532 is a history code, problem may be intermittent. Wiggle wires while performing the following test.**

**NOTE: If DIC switch 5 (E/M) is pressed for longer than 60 seconds, DTC B1532 may set with no existing malfunctions. Always verify that this condition does not exist before diagnosing DTC B1532.**

#### Testing

1. If IPC diagnostic system check was performed, go to next step. If IPC diagnostic system check was not performed, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** .
2. Using scan tool, select IPC data display. Monitor DIC switch 5 (E/M) data. If scan tool displays DIC switch 5 (E/M) data as INACTIVE, go to next step. If scan tool does not display DIC switch 5 (E/M) data as INACTIVE, go to step 4 .
3. Observe scan tool DIC switch 5 (E/M) data. Press DIC switch 5 (E/M). See **Fig. 2** . If status does not change from INACTIVE to ACTIVE, go to next step. If status changes from INACTIVE to ACTIVE, go to **DIAGNOSTIC AIDS** .
4. Turn ignition off. Monitor DIC switch 5 (E/M) data. Disconnect DIC switch connector.



- Turn ignition on. If scan tool does not display DIC switch 5 (E/M) data as INACTIVE, go to next step. If scan tool displays DIC switch 5 (E/M) data as INACTIVE, go to step 7 .
5. Check for short to ground in Red wire between DIC switch and IPC. See **WIRING DIAGRAMS** . If circuit is okay, go to next step. If faulty circuit is found, repair as necessary and go to step 10 .
  6. Check for poor connections at IPC connector. If connections are okay, go to step 8 . If faulty connections are found, repair as necessary and go to step 10 .
  7. Check for poor connections at DIC switch connector. If connections are okay, go to step 9 . If faulty connections are found, repair as necessary and go to step 10 .
  8. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. Go to step 10 .
  9. Replace DIC switch assembly. See **DRIVER INFORMATION CENTER (DIC) & HEAD-UP DISPLAY (HUD) CONTROL SWITCHES** under REMOVAL & INSTALLATION. Go to next step.
  10. Turn ignition off. Reinstall all components and connectors. Turn ignition on. Clear DTCs. Wait 5 seconds and check for DTCs. If DTC B1532 resets as current, go to step 2 . If DTC B1532 is not current, system is operating properly.

**Diagnostic Aids**

1. The following conditions may cause an intermittent:
  - Intermittent short to ground in DIC switch harness.
  - Internal short to ground in DIC switch 5 (E/M).
  - DIC switch 5 (E/M) is pressed for longer than 60 seconds.
2. If DIC switch 5 (E/M) is pressed for longer than 60 seconds, DTC B1532 may set with no existing malfunctions. Always verify that this condition does not exist before diagnosing DTC B1532.
3. Use scan tool to verify proper DIC switch 5 (E/M) operation. When button is pressed, scan tool should display DIC switch 5 (E/M) status as ACTIVE. When button is released, scan tool should display DIC switch 5 (E/M) status as INACTIVE.

**DTC B1537: DIC SWITCH 6 SIGNAL (SHORT TO GROUND)****Description**

Driver Information Center (DIC) contains 6 switch circuits that allow IPC functions to be performed. IPC supplies a 5-volt reference voltage signal to each switch circuit. When any DIC switch is pressed, voltage will be pulled low when circuit is grounded through DIC switch. IPC monitors DIC switch circuits and determines how long any circuit experiences voltage changes.

DTC B1537 will set when IPC detects a low voltage level (short to ground) in DIC switch 6

(RESET) circuit for 60 seconds. No driver warning message will be displayed.

If conditions for malfunction no longer exist, history DTC will clear after 50 consecutive ignition cycles. DTC B1537 will also clear when conditions no longer exist, or when IPC or scan tool is used to clear codes.

**NOTE:** If DTC B1537 is a history code, problem may be intermittent. Wiggle wires while performing the following test.

**NOTE:** If DIC switch 6 (RESET) is pressed for longer than 60 seconds, DTC B1537 may set with no existing malfunctions. Always verify that this condition does not exist before diagnosing DTC B1537.

### Testing

1. If IPC diagnostic system check was performed, go to next step. If IPC diagnostic system check was not performed, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK**.
2. Using scan tool, select IPC data display. Monitor DIC switch 6 (RESET) data. If scan tool displays DIC switch 6 (RESET) data as INACTIVE, go to next step. If scan tool does not display DIC switch 6 (RESET) data as INACTIVE, go to step 4.
3. Observe scan tool DIC switch 6 (RESET) data. Press DIC switch 6 (RESET). See **Fig. 2**. If status does not change from INACTIVE to ACTIVE, go to next step. If status changes from INACTIVE to ACTIVE, go to **DIAGNOSTIC AIDS**.
4. Turn ignition off. Monitor DIC switch 6 (RESET) data. Disconnect DIC switch connector. Turn ignition on. If scan tool does not display DIC switch 6 (RESET) data as INACTIVE, go to next step. If scan tool displays DIC switch 6 (RESET) data as INACTIVE, go to step 7.
5. Check for short to ground in Blue wire between DIC switch and IPC. See **WIRING DIAGRAMS**. If circuit is okay, go to next step. If faulty circuit is found, repair as necessary and go to step 10.
6. Check for poor connections at IPC connector. If connections are okay, go to step 8. If faulty connections are found, repair as necessary and go to step 10.
7. Check for poor connections at DIC switch connector. If connections are okay, go to step 9. If faulty connections are found, repair as necessary and go to step 10.
8. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. Go to step 10.
9. Replace DIC switch assembly. See **DRIVER INFORMATION CENTER (DIC) & HEAD-UP DISPLAY (HUD) CONTROL SWITCHES** under REMOVAL & INSTALLATION. Go to next step.
10. Turn ignition off. Reinstall all components and connectors. Turn ignition on. Clear DTCs. Wait 5 seconds and check for DTCs. If DTC B1537 resets as current, go to step

2 . If DTC B1537 is not current, system is operating properly.

**Diagnostic Aids**

1. The following conditions may cause an intermittent:
  - Intermittent short to ground in DIC switch harness.
  - Internal short to ground in DIC switch 6 (RESET).
  - DIC switch 6 (RESET) is pressed for longer than 60 seconds.
2. If DIC switch 6 (RESET) is pressed for longer than 60 seconds, DTC B1537 may set with no existing malfunctions. Always verify that this condition does not exist before diagnosing DTC B1537.
3. Use scan tool to verify proper DIC switch 6 (RESET) operation. When button is pressed, scan tool should display DIC switch 6 (RESET) status as ACTIVE. When button is released, scan tool should display DIC switch 6 (RESET) status as INACTIVE.

**DTC B1542: OIL TEMPERATURE CIRCUIT (SHORT TO GROUND)****Description**

Instrument Panel Cluster (IPC) receives oil temperature information from oil temperature sensor. Oil temperature sensor will produce high resistance when engine oil temperature is low, and low resistance when engine oil temperature is high. IPC supplies a 5-volt reference signal to oil temperature sensor. When engine oil is cold, sensor resistance will decrease, and IPC reference voltage level will drop. IPC checks reference voltage change and displays calculated value on gauge.

DTC B1542 will set when IPC detects oil temperature greater than 374°F (190°C) or IPC detects a low voltage level (short to ground) in Dark Green/White wire between oil temperature sensor and IPC for one second. When DTC B1542 is set, IPC will display oil temperature at greater than 374°F (190°C). If Dark Green/White wire or oil temperature sensor is shorted to ground, IPC will display a constant oil temperature of 392°F (200°C). Drivers Information Center (DIC) will also display HIGH OIL TEMPERATURE REDUCE ENGINE RPM message.

If conditions for malfunction no longer exist, history DTC will clear after 50 consecutive ignition cycles. DTC B1542 will also clear when conditions no longer exist, or when IPC or scan tool is used to clear codes.

**Testing**

1. If IPC diagnostic system check was performed, go to next step. If IPC diagnostic system check was not performed, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** .

2. Using scan tool, select IPC data display. Monitor oil temperature data. If scan tool displays a value that is not between 14°F (-10°C) and 374°F (190°C), go to next step. If scan tool displays a value that is between 14°F (-10°C) and 374°F (190°C), go to **DIAGNOSTIC AIDS** .
3. Turn ignition off. Monitor oil temperature data. Disconnect oil temperature sensor connector. See **COMPONENT LOCATIONS** . Turn ignition on. If scan tool displays a value less than 14°F (-10°C), go to next step. If scan tool displays a value greater than 14°F (-10°C), go to step 5 .
4. Turn ignition off. Connect a 3-amp fused jumper wire between oil temperature connector terminals. Monitor oil temperature data. Turn ignition on. If scan tool displays a value greater than 374°F (190°C), go to step 8 . If scan tool does not display a value greater than 374°F (190°C), go to step 6 .
5. Check for short to ground in Dark Green/White wire between IPC terminal A10 and oil temperature sensor connector terminal "B". See **WIRING DIAGRAMS** . See **Fig. 13** . If circuit is okay, go to step 9 . If faulty circuit is found, repair as necessary and go to step 12 .
6. Check for short to voltage in Dark Green/White wire between IPC terminal A10 and oil temperature sensor connector terminal "B". See **WIRING DIAGRAMS** . If circuit is okay, go to next step. If faulty circuit is found, repair as necessary and go to step 12 .
7. Check for open or high resistance in Black wire between IPC terminal B8 and oil temperature sensor connector terminal "A". If circuit is okay, go to step 9 . If faulty circuit is found, repair as necessary and go to step 12 .
8. Check for poor connections at oil temperature sensor connector terminals. If connections are okay, go to step 10 . If faulty connections are found, repair as necessary and go to step 12 .
9. Check for poor connections at IPC connector terminals. If connections are okay, go to step 11 . If faulty connections are found, repair as necessary and go to step 12 .
10. Replace oil temperature sensor. After repairs, go to step 12 .
11. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
12. Turn ignition off. Reinstall all components and connectors. Turn ignition on. Clear DTCs. Wait 5 seconds and check for DTCs. If DTC B1542 resets as current, go to step 2 . If DTC B1542 is not current, system is operating properly.

#### Diagnostic Aids

The following conditions may cause an intermittent:

- Intermittent short to ground in Dark Green/White wire between oil temperature sensor and IPC.
- Internal short to ground in oil temperature sensor.

**DTC B1543: OIL TEMPERATURE CIRCUIT (OPEN)****Description**

Instrument Panel Cluster (IPC) receives oil temperature information from oil temperature sensor. Oil temperature sensor will produce high resistance when engine oil temperature is low, and low resistance when engine oil temperature is high. IPC supplies a 5-volt reference signal to oil temperature sensor. When engine oil is cold, sensor resistance will decrease, and IPC reference voltage level will drop. IPC checks reference voltage change and displays calculated value on gauge.

DTC B1543 will set when IPC detects oil temperature less than 14°F (-10°C) or IPC detects a high voltage level (open) in oil temperature circuit No. 357 (Dark Green/White wire). This DTC will set only after engine is run for longer than 5 minutes. When DTC B1543 is set, IPC will display oil temperature as LOW. No driver warning message will be displayed.

If conditions for malfunction no longer exist, history DTC will clear after 50 consecutive ignition cycles. DTC B1543 will also clear when conditions no longer exist, or when IPC or scan tool is used to clear codes.

**Testing**

1. If IPC diagnostic system check was performed, go to next step. If IPC diagnostic system check was not performed, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK**.
2. Using scan tool, select IPC data display. Monitor oil temperature data. If scan tool displays a value that is not between 14°F (-10°C) and 374°F (190°C), go to next step. If scan tool displays a value that is between 14°F (-10°C) and 374°F (190°C), go to **DIAGNOSTIC AIDS**.
3. Using scan tool, select IPC data display. Monitor oil temperature data. If scan tool displays a value less than 14°F (-10°C), go to next step. If scan tool does not display a value less than 14°F (-10°C), go to step 5.
4. Turn ignition off. Disconnect oil temperature sensor connector. See **COMPONENT LOCATIONS**. Monitor oil temperature data. Connect a 3-amp fused jumper wire between oil temperature sensor connector terminals. Turn ignition on. If scan tool does not display a value greater than 374°F (190°C), go to step 6. If scan tool displays a value greater than 374°F (190°C), go to step 8.
5. Check for short to ground in Dark Green/White wire between IPC terminal A10 and oil temperature sensor connector terminal "B". See **WIRING DIAGRAMS**. See **Fig. 13**. If circuit is okay, go to step 9. If faulty circuit is found, repair as necessary and go to step 12.
6. Check for short to voltage in Dark Green/White wire between IPC terminal A10 and oil temperature sensor connector terminal "B". If circuit is okay, go to next step. If faulty circuit is found, repair as necessary and go to step 12.

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7. Check for open or high resistance in Black wire between IPC terminal B8 and oil temperature sensor connector terminal "A". If circuit is okay, go to step 9 . If faulty circuit is found, repair as necessary and go to step 12 .
8. Check for poor connections at oil temperature sensor connector terminals. If connections are okay, go to step 10 . If faulty connections are found, repair as necessary and go to step 12 .
9. Check for poor connections at IPC connector terminals. If connections are okay, go to step 11 . If faulty connections are found, repair as necessary and go to step 12 .
10. Replace oil temperature sensor. After repairs, go to step 12 .
11. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
12. Turn ignition off. Reinstall all components and connectors. Turn ignition on. Clear DTCs. Wait 5 seconds and check for DTCs. If DTC B1543 resets as current, go to step 2 . If DTC B1543 is not current, system is operating properly.

#### Diagnostic Aids

The following conditions may cause an intermittent:

- Intermittent open or high resistance in Dark Green/White wire.
- Intermittent open or high resistance in Black wire.
- Internal open in oil temperature sensor.

If oil temperature sensor or related wiring is open, IPC will display LOW for oil temperature.

## SYSTEM TESTS

### CHIME FUNCTION SYSTEM CHECK

1. Turn ignition off. Install scan tool to DLC. Turn ignition on and attempt to establish communications with IPC. If scan tool communicates with IPC, go to next step. If scan tool does not communicate with IPC, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Use scan tool and select IPC special functions. Activate all chime functions. If scan tool communicates with IPC and activates all chime functions, go to next step. If scan tool cannot communicate with IPC and activate all chime functions, replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION.
3. Close driver's and passenger's doors. Ensure seat belts are not fastened. Turn ignition on. IPC should activate fasten seat belt chime for 8 seconds at a slow rate of 60 chimes per minute. If seat belt chime operates as specified, go to next step. If seat belt chime does not operate as specified, go to **SEAT BELT INDICATOR INOPERATIVE** under SYMPTOM TESTS.

4. Turn ignition off. With key in ignition switch, open driver's door. IPC should activate key in ignition reminder chime at a medium rate of 120 chimes per minute until ignition key is removed. If key in ignition reminder chime operates as specified, go to next step. If key in ignition reminder chime does not operate as specified, go to **KEY IN IGNITION CHIME INOPERATIVE** under SYMPTOM TESTS.
5. Remove key from ignition switch. With driver's door open, turn headlight switch to on position. IPC should activate headlights on reminder chime at a fast rate of 180 chimes per minute until headlight switch is turned off. If headlights on reminder chime operates as specified, go to next step. If headlights on reminder chime does not operate as specified, go to **HIGH BEAM INDICATOR INOPERATIVE** under SYMPTOM TESTS.
6. Test drive vehicle. Activate right turn signal and leave turn signal on for a minimum of 3/4 mile (1.2 km) while driving in a straight line. IPC will activate the turn signal reminder chime at a rate of 60 chimes per minute after driving vehicle 3/4 mile after turning signal on. Chime will sound until signal is turned off. If turn signal reminder chime operates as specified, go to next step. If turn signal reminder chime does not operate as specified, go to **RIGHT TURN INDICATOR INOPERATIVE** under SYMPTOM TESTS.
7. Test drive vehicle. Activate left turn signal and leave turn signal on for a minimum of 3/4 mile (1.2 km) while driving in a straight line. IPC will activate the turn signal reminder chime at a rate of 60 chimes per minute after driving vehicle 3/4 mile after turning signal on. Chime will sound until signal is turned off. If turn signal reminder chime operates as specified, go to next step. If turn signal reminder chime does not operate as specified, go to **LEFT TURN INDICATOR INOPERATIVE** under SYMPTOM TESTS.

#### **GAUGE FUNCTION SYSTEM CHECK**

1. Connect scan tool to DLC. Establish communication with IPC. If scan tool communicates with IPC and no IPC DTCs are stored, go to next step. If scan tool does not communicate with IPC or IPC DTCs are stored, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Turn ignition off and back on. IPC will perform a sweep check on all gauges. If all gauges move from minimum reading to maximum reading and back to minimum reading when ignition is cycled, go to next step. If gauges do not operate as specified, go to **BODY CONTROL MODULE DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM in BODY CONTROL MODULES - CORVETTE article.
3. Select IPC special functions on scan tool. Perform gauge sweep on each individual gauge. If each gauge moves from minimum reading to maximum reading and back to minimum reading when commanded, go to next step. If each gauge does not operate as specified, replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under

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4. Start engine and allow to idle. Monitor gauges and test drive vehicle as necessary. If all gauges display accurately, go to next step. If all gauges do not display accurately, go to appropriate procedure under **SYMPTOM TESTS** .
5. Using buttons on Driver's Information Center (DIC) depress and release the gauge button to scroll through readings on DIC display. See **Fig. 2** . If readings are correct, check is complete. If readings are not correct, go to appropriate procedure under **SYMPTOM TESTS** .

**HEAD-UP DISPLAY (HUD) SYSTEM CHECK**

1. Connect scan tool to DLC. Establish communication with IPC. If scan tool communicates with IPC and no IPC DTCs are stored, go to next step. If scan tool does not communicate with IPC or IPC DTCs are stored, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Turn ignition off and back on. IPC will perform an indicator bulb check and sweep check on all gauges. If indicator lights come on and all gauges move from minimum reading to maximum reading and back to minimum reading when ignition is cycled, go to next step. If indicator lights and gauges do not operate as specified, replace IPC. Go to **BODY CONTROL MODULE DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM in BODY CONTROL MODULES - CORVETTE article.
3. Turn ignition off. Set HUD display dimmer switch to maximum position. See **Fig. 3** . Turn ignition on. If all segments of HUD display on windshield come on and turn off in 3.5 seconds, go to next step. If HUD does not operate as specified, go to **HEAD-UP DISPLAY (HUD) INOPERATIVE** under SYMPTOM TESTS.
4. Press HUD DISPLAY button to up position. Press HUD DISPLAY button to down position. If display moves up and down on the windshield, go to next step. If HUD does not operate as specified, go to **HEAD-UP DISPLAY (HUD) IMAGE HEIGHT ADJUSTMENT INOPERATIVE** under SYMPTOM TESTS.
5. Move HUD display dimmer control to OFF position. Move HUD display dimmer control to maximum setting. If display is off in OFF position and at maximum illumination with knob at maximum, go to next step. If HUD does not operate as specified, go to **HEAD-UP DISPLAY (HUD) IMAGE DOES NOT DIM** under SYMPTOM TESTS.
6. Move HUD display dimmer control to maximum setting. Place dark fabric over ambient light sensor on HUD display unit. If display dims, go to next step. If HUD does not operate as specified, go to **HEAD-UP DISPLAY (HUD) IMAGE DOES NOT DIM** under SYMPTOM TESTS.
7. Press and hold the PAGE button on HUD controls. Display should scroll through the following display modes:
  - Speedometer



- Speedometer And Gauges
- Speedometer, Tachometer And Gauges
- Speedometer And Tachometer
- Tachometer

When in this mode, readings should match the instrument cluster. If functions operate as described and match instrument cluster readings, go to next step. If HUD does not operate as specified, go to **HEAD-UP DISPLAY (HUD) DOES NOT CHANGE DISPLAY MODES** or **HEAD-UP DISPLAY (HUD) DOES NOT MATCH INSTRUMENT CLUSTER READINGS** under SYMPTOM TESTS.

8. Set HUD display to either speedometer and gauges or speedometer, tachometer and gauges. Press and release PAGE button to scroll through following gauge readings:
  - Oil Pressure
  - Coolant Temperature
  - Fuel

When in this mode, readings should match the instrument cluster. If functions operate as described and match instrument cluster readings, HUD is operating properly. If HUD does not operate as specified, go to **HEAD-UP DISPLAY (HUD) DOES NOT CHANGE DISPLAY MODES** or **HEAD-UP DISPLAY (HUD) DOES NOT MATCH INSTRUMENT CLUSTER READINGS** under SYMPTOM TESTS.

## INDICATOR SYSTEM CHECK

1. Connect scan tool to DLC. Establish communication with IPC. If scan tool communicates with IPC and no IPC DTCs are stored, go to next step. If scan tool does not communicate with IPC or IPC DTCs are stored, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Turn ignition off and back on again. IPC will perform an indicator bulb check by turning on the following indicators for 3 to 5 seconds:
  - BRAKE
  - CHECK GAUGES
  - ABS
  - SECURITY
  - MPH
  - Km/h
  - Traction
  - AIR BAG indicator will flash 7 times and turn off if air bag system is operating normally.

- FASTEN SEAT BELT indicator will stay on until driver's seat belt is fastened.

If one or more indicators do not operate, check that indicator bulb. If indicator bulbs are okay, replace inoperative bulb. If bulb is not serviceable, replace IPC assembly. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. If indicators operate as specified, go to next step.

3. Connect scan tool to DLC and select IPC special functions. Select following indicators and turn them on and off manually with scan tool:
  - ABS
  - AIR BAG
  - BRAKE
  - CHECK GAUGES
  - Km/h
  - MPH
  - SECURITY
  - TRACTION

If one or more indicators do not operate, check inoperative indicator bulbs. If indicator bulbs are okay, replace IPC assembly. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. If indicators operate as specified, go to next step.

4. Operate left and right turn signals and note operation of instrument cluster turn signal indicators. If turn signal indicators operate with respective switch position, go to next step. If turn signal indicators do not operate, go to **LEFT TURN INDICATOR INOPERATIVE** or **RIGHT TURN INDICATOR INOPERATIVE** under SYMPTOM TESTS.
5. Turn headlights on and activate high beams on and off. If high beam indicator operates with high beams, go to next step. If high beam indicator is inoperative, go to **HIGH BEAM INDICATOR INOPERATIVE** under SYMPTOM TESTS.
6. Close all doors and fasten driver's seat belt. If fasten seat belt indicator turns off, go to next step. If fasten seat belt indicator stays on, go to **SEAT BELT INDICATOR INOPERATIVE** under SYMPTOM TESTS.
7. Apply the parking brake. If BRAKE indicator comes on, go to next step. If BRAKE indicator always on, go to **BRAKE WARNING INDICATOR ALWAYS ON** or **BRAKE WARNING INDICATOR INOPERATIVE (WITH PARKING BRAKE ON)** under SYMPTOM TESTS.
8. Depress traction control button to turn traction control on and off. If traction control indicator comes on when traction control is off, go to next step. If indicator does not operate as specified, go to **TRACTION OFF INDICATOR ALWAYS ON** or

**TRACTION OFF INDICATOR INOPERATIVE** under SYMPTOM TESTS.

9. Ensure traction control is OFF, high beams are OFF and turn signals are OFF. Fasten driver's seat belt and ensure transmission is in PARK position (automatic) or neutral (manual). Start engine and note indicator operation. The following indicators should not remain illuminated after engine is started:

- SERVICE ENGINE SOON
- 1-4 SHIFT
- CHECK GAUGES
- AIR BAG
- ABS
- BRAKE
- SECURITY
- Traction Control
- km/h
- MPH
- High Beam
- Left Or Right Turn Signal

If indicators are not illuminated as specified, check is complete. If one or more indicator is illuminated, see following repair procedure for corresponding indicator:

- **SERVICE ENGINE SOON**

Malfunction may set DTC. See DTC P0650 in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.

- **1-4 SHIFT**

Malfunction may set DTC. See DTC P0804 in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.

- **CHECK GAUGES**

See **CHECK GAUGES INDICATOR INOPERATIVE** under SYMPTOM TESTS.

- **AIR BAG**

See **AIR BAG INDICATOR MALFUNCTION** under SYMPTOM TESTS.

- **ABS**

See ABS INDICATOR ALWAYS ON or ABS INDICATOR INOPERATIVE under SYMPTOM TESTS.

- **BRAKE**

See BRAKE WARNING INDICATOR ALWAYS ON , BRAKE WARNING INDICATOR INOPERATIVE (WITH PARKING BRAKE ON) or BRAKE WARNING INDICATOR INOPERATIVE (WITH LOW BRAKE FLUID LEVEL) under SYMPTOM TESTS.

- **SECURITY**

See SECURITY INDICATOR INOPERATIVE under SYMPTOM TESTS.

- **Traction Control**

See TRACTION OFF INDICATOR ALWAYS ON or TRACTION OFF INDICATOR INOPERATIVE under SYMPTOM TESTS.

- **km/h**

See MPH (km/h) INDICATOR INOPERATIVE under SYMPTOM TESTS.

- **MPH**

See MPH (km/h) INDICATOR INOPERATIVE under SYMPTOM TESTS.

- **High Beam**

See HIGH BEAM INDICATOR INOPERATIVE under SYMPTOM TESTS.

- **Left Or Right Turn Signal**

See LEFT TURN INDICATOR INOPERATIVE or RIGHT TURN INDICATOR INOPERATIVE under SYMPTOM TESTS.

## **SYMPTOM TESTS**

### **HEAD-UP DISPLAY (HUD) INOPERATIVE**

**NOTE:** Diagnosis of any HUD malfunctions must always begin with verifying proper IPC operation. See INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK under SELF-DIAGNOSTIC SYSTEM.

1. If Head-Up Display (HUD) system check has been performed, go to next step. If Head-Up Display (HUD) system check has not been performed, see **HEAD-UP DISPLAY (HUD) SYSTEM CHECK** under SYSTEM TESTS.
2. Turn ignition off and back on. If all gauges sweep from minimum to maximum position, go to next step. If all gauges do not sweep from minimum to maximum position, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
3. Turn ignition off. Move HUD display dimmer switch to maximum position. See **Fig. 3** . Turn ignition on. If all segments of HUD display on windshield come on and turn off in 3.5 seconds, system is operating properly at this time. If HUD does not operate as specified, go to next step.
4. Disconnect IPC and HUD switch connectors. See **DRIVER INFORMATION CENTER (DIC) & HEAD-UP DISPLAY (HUD) CONTROL SWITCHES** under REMOVAL & INSTALLATION. Check for poor connections at HUD switch and IPC connectors. If connections are okay, go to next step. If poor connections are found and repaired, go to step 10 .
5. Disconnect HUD display connector. See **HEAD-UP DISPLAY (HUD) UNIT** under REMOVAL & INSTALLATION. Check for poor connections at HUD display connector. If connections are okay, go to next step. If poor connections are found and repaired, go to step 10 .
6. Remove HUD switch from instrument panel. Test HUD switch circuits for short to ground, short to voltage, or open. See **WIRING DIAGRAMS** . If circuits are okay, go to next step. If faulty circuits are found and repaired, go to step 10 .
7. Replace HUD switch. See **DRIVER INFORMATION CENTER (DIC) & HEAD-UP DISPLAY (HUD) CONTROL SWITCHES** under REMOVAL & INSTALLATION. Recheck system operation. If HUD system does not operate properly, go to next step. If HUD system operates properly, go to step 10 .
8. Replace HUD unit. See **HEAD-UP DISPLAY (HUD) UNIT** under REMOVAL & INSTALLATION. Recheck system operation. If HUD system does not operate properly, go to next step. If HUD system operates properly, go to step 10 .
9. Replace IPC assembly. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
10. Recheck system operation to verify repair. If HUD system operates properly, repair is complete. If HUD system does not operate properly, go to step 2 .

**HEAD-UP DISPLAY (HUD) IMAGE HEIGHT ADJUSTMENT INOPERATIVE**

**NOTE:**      **Diagnosis of any HUD malfunctions must always begin with verifying proper IPC operation. See INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK under SELF-DIAGNOSTIC SYSTEM.**

1. If Head-Up Display (HUD) system check has been performed, go to next step. If Head-Up Display (HUD) system check has not been performed, see **HEAD-UP DISPLAY (HUD) SYSTEM CHECK** under SYSTEM TESTS.
2. Turn ignition off. Move HUD display dimmer switch to maximum position. See **Fig. 3** . Turn ignition on. If all segments of HUD display come on and turn off in 3.5 seconds, go to next step. If HUD does not operate as specified, go to **HEAD-UP DISPLAY (HUD) INOPERATIVE** .
3. Operate HUD DISPLAY button upward and downward to move image up and down on windshield. If display does not move up and down, go to next step. If display moves up and down, go to **HEAD-UP DISPLAY (HUD) SYSTEM CHECK** under SYSTEM TESTS.
4. Access rear of HUD display switch connector but do not disconnect. Backprobe HUD display switch between terminal No. 9 (Gray wire) and ground. See **WIRING DIAGRAMS** . If display moves up, go to next step. If display does not move up, go to step 7 .
5. Backprobe HUD display switch between terminal No. 8 (Orange wire) and ground. If display moves down, go to next step. If display does not move down, go to step 7 .
6. Turn ignition off. Reconnect all disconnected components and connectors. Turn ignition on. Move HUD display dimmer switch to maximum position. Operate HUD display button upward and downward to move image up and down on windshield. If display moves up and down, go to **HEAD-UP DISPLAY (HUD) SYSTEM CHECK** under SYSTEM TESTS. If display does not move up and down, go to step 12 .
7. Check HUD wiring harness between HUD display switch and IPC for an open, short to voltage or short to ground condition. See **WIRING DIAGRAMS** . If faulty circuit is found and repaired, go to step 13 . If circuits are okay, go to next step.
8. Check HUD wiring harness between HUD unit and IPC for an open or short to ground condition. If faulty circuit is found and repaired, go to step 13 . If circuits are okay, go to step 11 .
9. Check HUD wiring harness between HUD display switch and IPC for an open, short to voltage or short to ground condition. If faulty circuit is found and repaired, go to step 13 . If circuits are okay, go to next step.
10. Replace HUD display switch. See **DRIVER INFORMATION CENTER (DIC) & HEAD-UP DISPLAY (HUD) CONTROL SWITCHES** under REMOVAL & INSTALLATION. After repairs, go to step 13 .
11. Replace HUD unit. See **HEAD-UP DISPLAY (HUD) UNIT** under REMOVAL & INSTALLATION. After repairs, go to step 13 .
12. Replace IPC assembly. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
13. Turn ignition off and reconnect all disconnected components and connectors. Recheck system operation. Go to **HEAD-UP DISPLAY (HUD) SYSTEM CHECK** under SYSTEM TESTS.

**HEAD-UP DISPLAY (HUD) IMAGE DOES NOT DIM**

**NOTE:**     **Diagnosis of any HUD malfunctions must always begin with verifying proper IPC operation. See INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK under SELF-DIAGNOSTIC SYSTEM.**

1. If Head-Up Display (HUD) system check has been performed, go to next step. If Head-Up Display (HUD) system check has not been performed, see **HEAD-UP DISPLAY (HUD) SYSTEM CHECK** under SYSTEM TESTS.
2. Turn ignition off. Move HUD display dimmer switch to maximum position. See **Fig. 3** . Turn ignition on. If all segments of HUD display on windshield come on and turn off in 3.5 seconds, go to next step. If HUD does not operate as specified, go to **HEAD-UP DISPLAY (HUD) INOPERATIVE** .
3. Move HUD display dimmer switch down to dim the display on windshield. If display dims, go to next step. If display does not dim, go to step 5 .
4. Move HUD display dimmer switch to maximum position. Cover ambient light sensor located on HUD unit with dark fabric. Wait 5 seconds. If HUD display dims with ambient light sensor covered, go to **HEAD-UP DISPLAY (HUD) SYSTEM CHECK** under SYSTEM TESTS. If HUD display does not dim with ambient light sensor covered, go to step 8 .
5. Disconnect HUD display switch connector. If display does not turn off, go to step 7 . If display turns off, go to step 9 .
6. Turn ignition off. Reconnect all disconnected components and connectors. Turn ignition on. Move HUD display dimmer switch to maximum position. Move HUD display dimmer switch down to dim the display on windshield. If display dims, go to **HEAD-UP DISPLAY (HUD) SYSTEM CHECK** under SYSTEM TESTS. If display does not dim, go to step 11 .
7. Check HUD wiring harness between HUD display switch and IPC for an open, short to voltage or short to ground condition. See **WIRING DIAGRAMS** . If faulty circuit is found and repaired, go to step 12 . If circuits are okay, go to next step.
8. Check HUD wiring harness between HUD unit and IPC for an open, short to voltage or short to ground condition. If circuits are okay, go to step 11 . If faulty circuit is found and repaired, go to step 12 .
9. Check HUD wiring harness between HUD display switch and IPC for an open, short to voltage or short to ground condition. If faulty circuit is found and repaired, go to step 12 . If circuits are okay, go to next step.
10. Replace HUD display switch. See **DRIVER INFORMATION CENTER (DIC) & HEAD-UP DISPLAY (HUD) CONTROL SWITCHES** under REMOVAL & INSTALLATION. After repairs, go to step 6 .
11. Replace HUD unit. See **HEAD-UP DISPLAY (HUD) UNIT** under REMOVAL & INSTALLATION. After repairs, go to step 6 .

12. Turn ignition off and reconnect all disconnected components and connectors. Recheck system operation. Go to **HEAD-UP DISPLAY (HUD) SYSTEM CHECK** under SYSTEM TESTS.

**HEAD-UP DISPLAY (HUD) DOES NOT CHANGE DISPLAY MODES**

**NOTE:**     **Diagnosis of any HUD malfunctions must always begin with verifying proper IPC operation. See INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK under SELF-DIAGNOSTIC SYSTEM.**

1. If Head-Up Display (HUD) system check has been performed, go to next step. If Head-Up Display (HUD) system check has not been performed, see **HEAD-UP DISPLAY (HUD) SYSTEM CHECK** under SYSTEM TESTS.
2. Turn ignition off. Move HUD display dimmer switch to maximum position. See **Fig. 3** . Turn ignition on. If all segments of HUD display on windshield come on and turn off in 3.5 seconds, go to next step. If HUD does not operate as specified, go to **HEAD-UP DISPLAY (HUD) INOPERATIVE** .
3. Press and release the PAGE button on HUD controls and scroll through the following display modes:
  - Speedometer
  - Speedometer And Gauges
  - Speedometer And Tachometer
  - Speedometer, Tachometer And Gauges
  - Tachometer

If display scrolls through all modes, go to **HEAD-UP DISPLAY (HUD) SYSTEM CHECK** under SYSTEM TESTS. If display does not scroll through all modes, go to next step.

4. Check HUD wiring harness between HUD display switch and IPC for an open, short to voltage or short to ground condition. See **WIRING DIAGRAMS** . If faulty circuit is found and repaired, go to step 10 . If circuits are okay, go to next step.
5. Check HUD wiring harness between HUD unit and IPC for an open or short to ground condition. If faulty circuit is found and repaired, go to step 10 . If circuits are okay, go to step 8 .
6. Check HUD wiring harness between HUD display switch and IPC for an open, short to voltage or short to ground condition. See **WIRING DIAGRAMS** . If faulty circuit is found and repaired, go to step 10 . If circuits are okay, go to next step.
7. Replace HUD display switch. See **DRIVER INFORMATION CENTER (DIC) & HEAD-UP DISPLAY (HUD) CONTROL SWITCHES** under REMOVAL & INSTALLATION. After repairs, go to step 10 .
8. Replace HUD unit. See **HEAD-UP DISPLAY (HUD) UNIT** under REMOVAL &



INSTALLATION. After repairs, go to step 10 .

9. Replace IPC assembly. See **INSTRUMENT PANEL CLUSTER (IPC)** under **REMOVAL & INSTALLATION**. After repairs, go to next step.
10. Turn ignition off and reconnect all disconnected components and connectors. Recheck system operation. Go to **HEAD-UP DISPLAY (HUD) SYSTEM CHECK** under **SYSTEM TESTS**.

#### **HEAD-UP DISPLAY (HUD) DOES NOT MATCH INSTRUMENT CLUSTER READINGS**

**NOTE:**     **Diagnosis of any HUD malfunctions must always begin with verifying proper IPC operation. See INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK under SELF-DIAGNOSTIC SYSTEM.**

1. If Head-Up Display (HUD) system check has been performed, go to next step. If Head-Up Display (HUD) system check has not been performed, see **HEAD-UP DISPLAY (HUD) SYSTEM CHECK** under **SYSTEM TESTS**.
2. Turn ignition off. Move HUD display dimmer switch to maximum position. See **Fig. 3** . Turn ignition on. If all segments of HUD display on windshield come on and turn off in 3.5 seconds, go to next step. If HUD does not operate as specified, go to **HEAD-UP DISPLAY (HUD) INOPERATIVE** .
3. If HUD display speedometer reading indicates "- -" for longer than 3.5 seconds, go to step 5 . If HUD display speedometer reading does not indicate "- -" for longer than 3.5 seconds, go to next step.
4. If HUD display matches instrument cluster readings, go to **HEAD-UP DISPLAY (HUD) SYSTEM CHECK** under **SYSTEM TESTS**. If HUD display does not match instrument cluster readings, go to step 7 .
5. Perform **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under **SELF-DIAGNOSTIC SYSTEM**. If instrument cluster operates properly, go to step 7 . If instrument cluster does not operate properly, go to next step.
6. Turn ignition off. Reconnect all disconnected components and connectors. Turn ignition on. Move HUD display dimmer switch to maximum position. If HUD display matches instrument cluster readings, go to **HEAD-UP DISPLAY (HUD) SYSTEM CHECK** under **SYSTEM TESTS**. If HUD display does not match instrument cluster readings, go to step 9 .
7. Check HUD wiring harness between HUD unit and IPC for an open or short to ground condition. See **WIRING DIAGRAMS** . If faulty circuit is found and repaired, go to step 10 . If circuits are okay, go to next step.
8. Replace HUD unit. See **HEAD-UP DISPLAY (HUD) UNIT** under **REMOVAL & INSTALLATION**. After repairs, go to step 10 .
9. Replace IPC assembly. See **INSTRUMENT PANEL CLUSTER (IPC)** under **REMOVAL & INSTALLATION**. After repairs, go to next step.

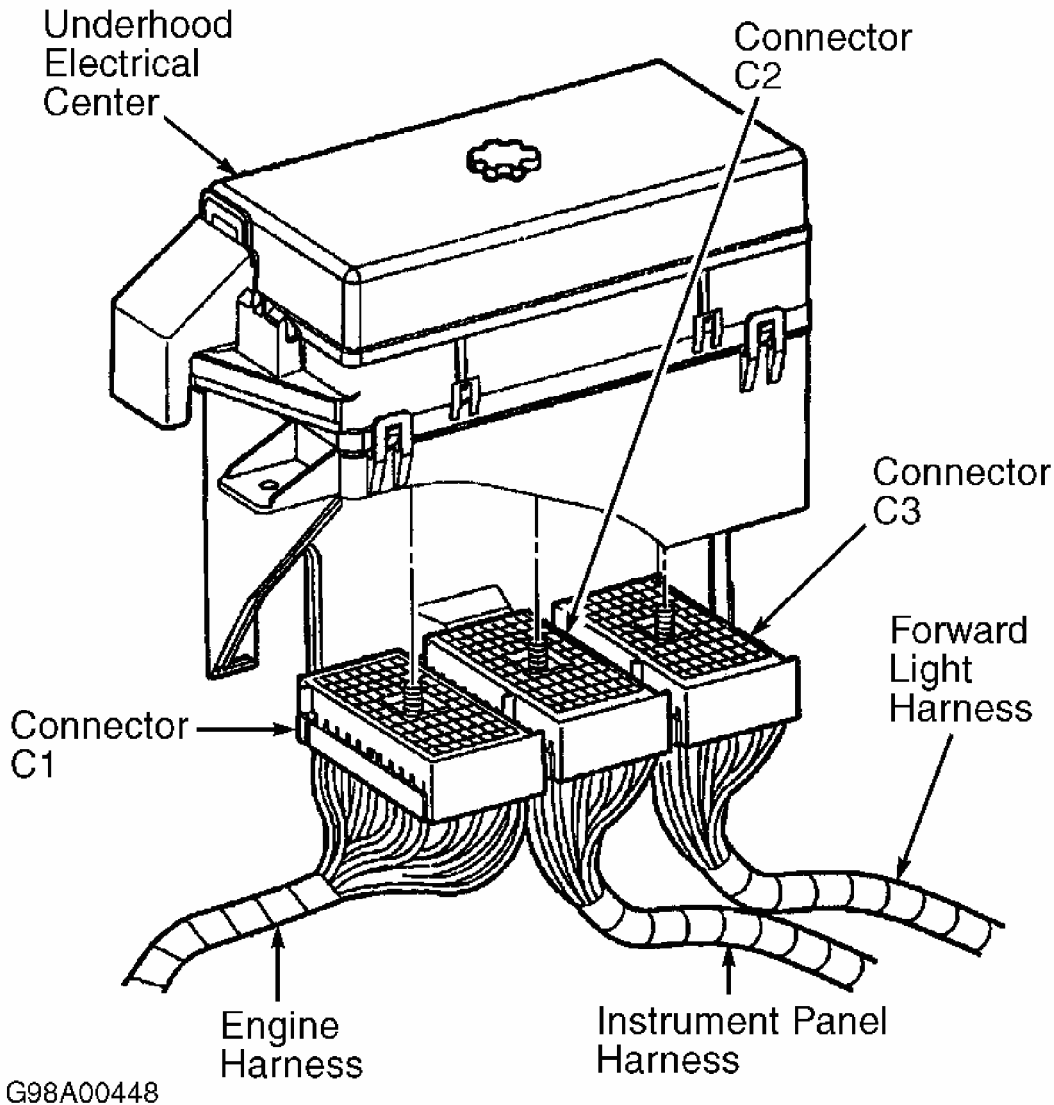
10. Turn ignition off and reconnect all disconnected components and connectors. Recheck system operation. Go to **HEAD-UP DISPLAY (HUD) SYSTEM CHECK** under SYSTEM TESTS.

**LOW WASHER FLUID MESSAGE INOPERATIVE**

**NOTE:** This procedure applies when fluid is low or empty and instrument cluster fails to command **LOW WASHER FLUID** message on **Driver's Information Center (DIC)** screen.

1. Verify that wiper/washer system operates normally. See **WIPER/WASHER SYSTEMS - CORVETTE** article. If wiper/washer system operates normally, go to next step. If wiper/washer system does not operate normally, repair as necessary.
2. Fill washer fluid reservoir to proper level. Turn ignition on and wait one minute. Monitor Driver's Information Center (DIC). If **LOW WASHER FLUID** message appears, go to next step. If **LOW WASHER FLUID** message does not appear, go to step 5 .
3. Disconnect washer fluid level switch connector. Turn ignition on and wait one minute. Monitor Driver's Information Center (DIC). If **LOW WASHER FLUID** message appears, go to next step. If **LOW WASHER FLUID** message does not appear, go to step 6 .
4. Check for short to ground in Black/White wire between washer fluid level switch and IPC. See **WIRING DIAGRAMS** . If circuit is okay, go to step 9 . If faulty circuit is found and repaired, go to step 11 .
5. Disconnect washer fluid level switch connector. Connect a jumper wire between washer fluid level switch connector terminals. Turn ignition on and wait one minute. Monitor Driver's Information Center (DIC). If **LOW WASHER FLUID** message appears, go to next step. If **LOW WASHER FLUID** message does not appear, go to step 7 .
6. Replace windshield wiper solvent level indicator. After repairs go to step 11 .
7. Connect a jumper wire between ground and washer fluid level switch connector terminal "A" (Black/White wire). Turn ignition on and wait one minute. Monitor Driver's Information Center (DIC). If **LOW WASHER FLUID** message appears, go to next step. If **LOW WASHER FLUID** message does not appear, go to step 9 .
8. Repair open or high resistance in Black wire between ground and washer fluid level switch. After repairs, go to step 11 .
9. Check for open or high resistance in Black/White wire between washer fluid level switch and instrument panel. If circuit is okay, go to next step. If faulty circuit is found and repaired, go to step 11 .
10. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs go to next step.

11. Recheck system operation. **INSTRUMENT PANEL CLUSTER (IPC)  
DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.



**Fig. 11: Identifying Underhood Electrical Connectors**  
Courtesy of GENERAL MOTORS CORP.

**REAR HATCH AJAR MESSAGE INOPERATIVE (COUPE)**

**NOTE:** For circuit identification, see **WIRING DIAGRAMS** in **POWER HATCH & FUEL DOOR RELEASE - CORVETTE** article.

1. If Body Control Module (BCM) diagnostic system check has been performed, go to next step. If BCM diagnostic system check has not been performed, see **BODY**

**CONTROL MODULE DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM in BODY CONTROL MODULES - CORVETTE article.

2. Close rear hatch and turn ignition on. If HATCH AJAR message is displayed on DIC, go to next step. If HATCH AJAR message is not displayed on DIC, go to step 6 .
3. Connect scan tool to DLC and display BCM input data 2 list. If scan tool indicates hatch/trunk ajar switch is OPEN, go to next step. If scan tool does not indicate hatch/trunk ajar switch is OPEN, go to step 13 .
4. Disconnect hatch ajar switch connectors located on each hatch latch assembly. If HATCH AJAR message is displayed on DIC, go to next step. If HATCH AJAR message is not displayed on DIC, go to step 8 .
5. Check for short to ground in Red/Black wire between hatch latch ajar switch and BCM. If faulty circuit is found and repaired, go to step 14 . If circuit is okay, go to step 12 .
6. Connect scan tool to DLC and display BCM input data 2 list. Open rear hatch. If scan tool indicates hatch/trunk ajar switch is OPEN, go to next step. If scan tool does not indicate hatch/trunk ajar switch is OPEN, go to step 13 .
7. Disconnect hatch ajar switch connectors located on each hatch latch assembly. Monitor DIC message. Connect a fused jumper wire between terminals of each hatch latch ajar switch connector. If HATCH AJAR message is displayed on DIC, go to next step. If HATCH AJAR message is not displayed on DIC, go to step 9 .
8. Check that hatch latches open and close properly and are aligned correctly. Adjust as necessary. If latches are adjusted okay, replace suspect hatch latch assembly. See **POWER HATCH & FUEL DOOR RELEASE - CORVETTE** article. After repairs, go to step 14 .
9. Monitor DIC message. Connect a fused jumper wire between ground and hatch latch ajar switch connector terminal "B" (Red/Black wire) at each latch. If HATCH AJAR message is displayed on DIC, go to next step. If HATCH AJAR message is not displayed on DIC, go to step 11 .
10. Repair open or high resistance in Black wire between suspect hatch latch and Splice Pack SP302 (ground). SP302 is located on the right "B" pillar. After repairs, go to step 14 .
11. Check for open or high resistance in Red/Black wire between hatch latch ajar switch and BCM. If faulty circuit is found and repaired, go to step 14 . If circuit is okay, go to next step.
12. Replace Body Control Module (BCM). See **BODY CONTROL MODULE (BCM)** under REMOVAL & INSTALLATION. After repairs, go to step 14 .
13. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
14. Recheck system operation. If symptom is still present, go to **BODY CONTROL MODULE DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM in BODY CONTROL MODULES - CORVETTE article.

**TRUNK/TONNEAU AJAR MESSAGE INOPERATIVE (CONVERTIBLE & HARDTOP)**

**NOTE:** For circuit identification, see **WIRING DIAGRAMS** in **ANTI-THEFT SYSTEMS - CORVETTE** article.

1. If Body Control Module (BCM) diagnostic system check has been performed, go to next step. If BCM diagnostic system check has not been performed, see **BODY CONTROL MODULE DIAGNOSTIC SYSTEM CHECK** under **SELF-DIAGNOSTIC SYSTEM** in **BODY CONTROL MODULES - CORVETTE** article.
2. Close trunk lid or folding top cover and turn ignition on. If TRUNK AJAR or TONNEAU AJAR message is displayed on DIC, go to next step. If TRUNK AJAR or TONNEAU AJAR message is not displayed on DIC, go to step 6 .
3. Connect scan tool to DLC and display BCM input data 2 list. If scan tool indicates hatch/trunk ajar or folding top ajar switch is OPEN, go to next step. If scan tool does not indicate hatch/trunk ajar or folding top ajar switch is OPEN, go to step 13 .
4. Monitor DIC messages. Disconnect suspect ajar switch connector located on each latch assembly. If TRUNK AJAR or TONNEAU AJAR message is displayed on DIC, go to next step. If TRUNK AJAR or TONNEAU AJAR message is not displayed on DIC, go to step 8 .
5. Check for short to ground in Red/Black wire between hatch/trunk ajar switch and BCM (convertible and hardtop). Check for short to ground in Dark Blue wire between folding top ajar switch and BCM (convertible). If faulty circuit is found and repaired, go to step 14 . If circuit is okay, go to step 12 .
6. Connect scan tool to DLC and display BCM input data 2 list. Open trunk lid or folding top cover. If scan tool indicates hatch/trunk ajar or folding top ajar switch is OPEN, go to next step. If scan tool does not indicate hatch/trunk ajar or folding top ajar switch is OPEN, go to step 13 .
7. Disconnect suspect ajar switch connector located on each latch assembly. Monitor DIC message. Connect a fused jumper wire between terminals of each latch ajar switch connector. If TRUNK AJAR or TONNEAU AJAR message is displayed on DIC, go to next step. If TRUNK AJAR or TONNEAU AJAR message is not displayed on DIC, go to step 9 .
8. Replace inoperative latch assembly. See **REMOVAL & INSTALLATION** in **POWER HATCH & FUEL DOOR RELEASE - CORVETTE** article. After repairs, go to step 14 .
9. Monitor DIC message. For trunk lid, connect a fused jumper wire between ground and latch ajar switch connector terminal "B" (Red/Black wire). For folding top cover, connect a fused jumper wire between ground and latch ajar switch connector terminal "B" (Dark Blue wire). If TRUNK AJAR or TONNEAU AJAR message is displayed on DIC, go to next step. If TRUNK AJAR or TONNEAU AJAR message is not displayed on DIC, go to step 11 .
10. Repair open or high resistance in Black wire between suspect hatch latch and Splice

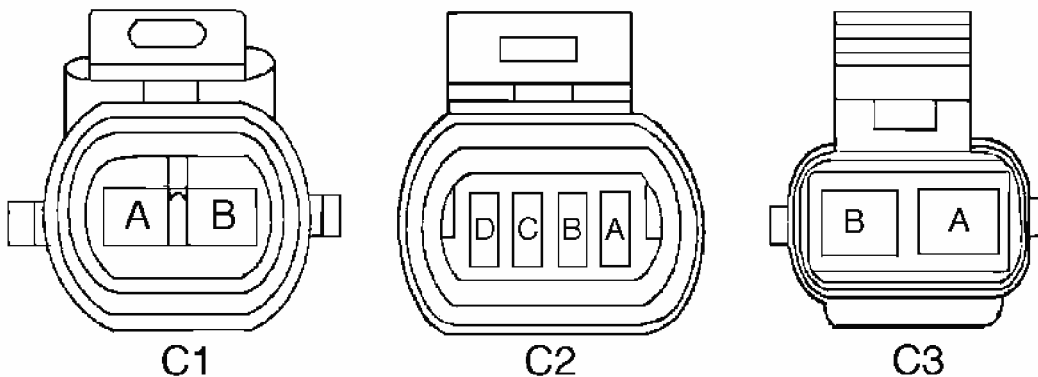
- Pack SP302 (ground). SP302 is located on the right "B" pillar. After repairs, go to step 14 .
11. Check for open or high resistance in Red/Black wire between hatch/trunk ajar switch and BCM (convertible and hardtop). Check for open or high resistance in Dark Blue wire between folding top ajar switch and BCM (convertible). If faulty circuit is found and repaired, go to step 14 . If circuit is okay, go to next step.
  12. Replace Body Control Module (BCM). See **BODY CONTROL MODULE (BCM)** under REMOVAL & INSTALLATION. After repairs, go to step 14 .
  13. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
  14. Recheck system operation. If symptom is still present, go to **BODY CONTROL MODULE DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM in BODY CONTROL MODULES - CORVETTE article.

#### DOOR AJAR MESSAGE INOPERATIVE

**NOTE:** For circuit identification, see **WIRING DIAGRAMS** in **ANTI-THEFT SYSTEMS - CORVETTE** article.

1. If power door systems diagnostic system check has been performed, go to next step. If power door systems diagnostic system check has been performed, go to **POWER DOOR SYSTEMS DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM in POWER DOOR LOCKS - CORVETTE article.
2. Close both doors and turn ignition on. If DOOR AJAR message is displayed on DIC, go to next step. If DOOR AJAR message is no longer displayed on DIC, go to step 6 .
3. Connect scan tool to DLC and display BCM input data 2 list. If scan tool indicates driver's or passenger's door is ajar, go to next step. If scan tool does not indicate driver's or passenger's door is ajar, go to step [13](#) .
4. Turn ignition off. Remove door panel and disconnect suspect door latch connector C2. Turn ignition on. If DOOR AJAR message is displayed on DIC, go to next step. If DOOR AJAR message is no longer displayed on DIC, go to step 8 .
5. For driver's door, check for short to ground in Gray/Black wire between BCM and door latch connector C2 terminal "B". For passenger's door, check for short to ground in Black/White wire between ground and door latch connector C2 terminal "C". If short to ground is found and repaired, go to step 14 . If circuit is okay, go to step 12 .
6. Display BCM input data 2 list on scan tool. Open driver's and passenger's doors. If scan tool does not indicate driver's and passenger's door is ajar, go to next step. If scan tool indicates driver's and passenger's door is ajar, go to step 13 .
7. Disconnect suspect door latch connector C2. On driver's door, connect a fused jumper wire between door latch connector C2 terminals "B" (Gray/Black wire) and "D" (Black wire). On passenger's door, connect a fused jumper wire between door latch connector C2 terminals "C" (Black/White wire) and "A" (Black wire). See **Fig. 12** . Turn ignition

- on. If DOOR AJAR message is displayed on DIC, go to next step. If DOOR AJAR message is no longer displayed on DIC, go to step 9 .
8. Replace suspect door latch assembly. See **DOOR LATCH ASSEMBLY** under REMOVAL & INSTALLATION. After repairs, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
  9. On driver's door, connect a fused jumper wire between ground and door latch connector C2 terminal "B" (Gray/Black wire) and "D" (Black wire). On passenger's door, connect a fused jumper wire between ground and door latch connector C2 terminal "C" (Black/White wire). Turn ignition on. If DOOR AJAR message is displayed on DIC, go to next step. If DOOR AJAR message is no longer displayed on DIC, go to step 11 .
  10. Repair open in Black wire between suspect door latch and ground. After repairs, go to step 14 .
  11. Repair open or high resistance in Gray/Black or Black/White wire between suspect door latch and BCM. If circuit is okay, go to next step. If faulty circuit is found and repaired, go to step 14 .
  12. Replace Body Control Module (BCM). See **BODY CONTROL MODULE (BCM)** under REMOVAL & INSTALLATION. After repairs, go to step 14 .
  13. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
  14. Recheck system operation. Go to **POWER DOOR SYSTEMS DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM in POWER DOOR LOCKS - CORVETTE article.



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**Fig. 12: Identifying Door Latch Connector Terminals**  
 Courtesy of GENERAL MOTORS CORP.

**AIR BAG INDICATOR MALFUNCTION**

**NOTE:** For circuit identification, see **WIRING DIAGRAMS in AIR BAG RESTRAINT SYSTEMS - CORVETTE** article.

1. If Supplemental Inflatable Restraint (SIR) diagnostic system check has been performed, go to next step. If SIR diagnostic system check has not been performed, see appropriate article in MITCHELL(R) AIR BAG SERVICE & REPAIR MANUAL, DOMESTIC & IMPORTED MODELS.
2. If Instrument Panel Cluster (IPC) diagnostic system check has been performed, go to next step. If IPC diagnostic system check has not been performed, see **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
3. Turn ignition off. Note operation or air bag indicator. Turn ignition on again. If air bag indicator does not flash 7 times, go to next step. If air bag indicator flashes 7 times, go to step 5 .
4. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, recheck system operation.
5. Connect scan tool to DLC located under steering column. Attempt to establish communications with IPC. Display IPC DTCs. If DTC U1083 is set as current, go to **IPC DTC DEFINITIONS** table under SELF-DIAGNOSTIC SYSTEM. If DTC U1083 is not set as current, go to next step.
6. Display IPC DATA LIST on scan tool. If AIR BAG WARNING LAMP is being commanded ON, go to next step. If AIR BAG WARNING LAMP is not being commanded ON, go to step 4 .
7. Use scan tool to communicate with Sensing and Diagnostic Module (SDM). Display SIR DATA LIST on scan tool. If displayed ignition voltage is greater than 9 volts, go to next step. If displayed ignition voltage is less than 9 volts, go to step 9 .
8. If displayed ignition voltage is greater than 16 volts, check charging system for overcharge condition and repair as necessary. See GENERATORS & REGULATORS - CORVETTE article in STARTING & CHARGING SYSTEMS. If displayed ignition voltage is less than 16 volts, go to step 17 .
9. Turn ignition off. Remove instrument panel accessory trim plate. See **INSTRUMENT PANEL ACCESSORY TRIM PLATE & KNEE BOLSTER PANEL** under REMOVAL & INSTALLATION. Remove A/C-heater control panel. Disconnect SDM connector. SDM is located below and right of A/C-heater control panel opening. See **Fig. 5** . Check SDM connector for damaged or corroded terminals. If damaged terminals or poor connections are found, go to next step. If terminals and connections are okay, go to step 11 .
10. Replace SDM connector. After repairs, go to step 18 .
11. Remove SDM fuse No. 16 (15-amp) located in instrument panel electrical center next to BCM under passenger's floor board. Using DVOM, measure resistance of Yellow



- wire between SDM fuse and SDM connector terminal A1. If resistance is greater than 2 ohms, go to next step. If resistance is less than 2 ohms, go to step 13 .
12. Repair open or high resistance in Yellow wire. After repairs, go to step 18 .
  13. Turn ignition off. Using DVOM, measure voltage between SDM fuse battery feed and ground. If battery voltage is not indicated, go to next step. If battery voltage is indicated, go to step 15 .
  14. Repair open or high resistance in battery feed to SDM fuse. See POWER DISTRIBUTION article in WIRING DIAGRAMS. After repairs, go to step 18 .
  15. Using DVOM, measure resistance between ground and SDM connector terminal A18 (Black/White wire). If resistance is greater than 2 ohms, go to next step. If resistance is less than 2 ohms, go to step 17 .
  16. Repair open or high resistance in Black/White wire between SDM and Splice Pack SP208 located at rear of right wheelwell, between battery and underhood electrical center. After repairs, go to step 18 .
  17. Replace SDM. See AIR BAG RESTRAINT SYSTEMS - CORVETTE article. After repairs, go to next step.
  18. Reconnect all disconnected components and connectors. Turn ignition on and clear any DTCs. See appropriate article in MITCHELL(R) AIR BAG SERVICE & REPAIR MANUAL, DOMESTIC & IMPORTED MODELS.

**ABS INDICATOR ALWAYS ON**

**NOTE:** For circuit identification, see **WIRING DIAGRAMS** in appropriate **ANTI-LOCK** article in **BRAKES**.

1. If Anti-Lock Brake System (ABS) diagnostic system check has been performed, go to next step. If ABS diagnostic system check has not been performed, see ABS DIAGNOSTIC SYSTEM CHECK in appropriate ANTI-LOCK article in BRAKES.
2. Connect scan tool to DLC located under steering column. Select IPC SPECIAL FUNCTIONS and turn ABS indicator off. If scan tool turns ABS indicator off, go to next step. If scan tool does not turn ABS indicator off, go to step 4 .
3. Replace Electronic Brake Control Module (EBCM). After repairs, see ABS DIAGNOSTIC SYSTEM CHECK in appropriate ANTI-LOCK article in BRAKES.
4. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, see ABS DIAGNOSTIC SYSTEM CHECK in appropriate ANTI-LOCK article in BRAKES.

**ABS INDICATOR INOPERATIVE**

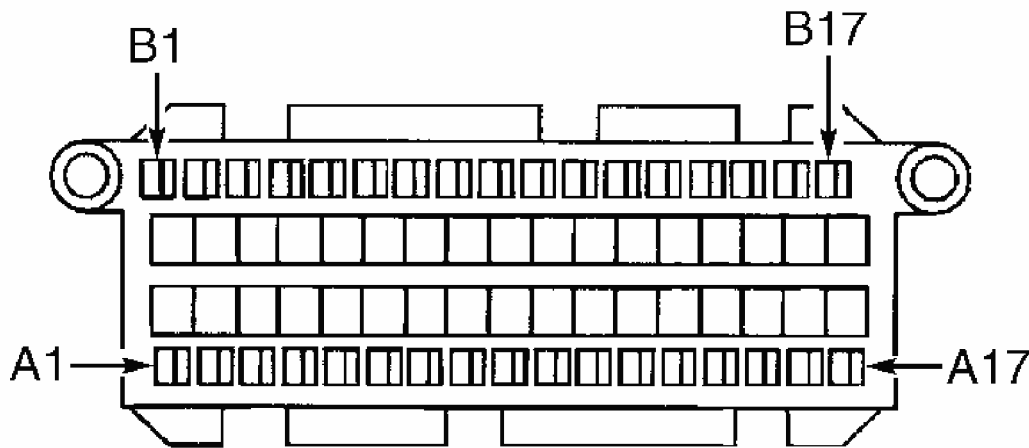
**NOTE:** For circuit identification, see **WIRING DIAGRAMS** in appropriate **ANTI-LOCK** article in **BRAKES**.

1. If Anti-lock Brake System (ABS) diagnostic system check has been performed, go to next step. If ABS diagnostic system check has not been performed, see ABS DIAGNOSTIC SYSTEM CHECK in appropriate ANTI-LOCK article in BRAKES.
2. Connect scan tool to DLC located under steering column. Select IPC SPECIAL FUNCTIONS and turn ABS indicator on. If scan tool turns ABS indicator on, go to next step. If scan tool does not turn ABS indicator on, go to step [4](#) .
3. Replace Electronic Brake Control Module (EBCM). After repairs, see ABS DIAGNOSTIC SYSTEM CHECK in appropriate ANTI-LOCK article in BRAKES.
4. Turn ignition off. Remove instrument panel and check ABS indicator bulb. If bulb is faulty, go to next step. If bulb is okay, go to step 6 .
5. Replace ABS indicator bulb. See **INSTRUMENT PANEL CLUSTER (IPC) BULBS** under REMOVAL & INSTALLATION. After repairs, see ABS DIAGNOSTIC SYSTEM CHECK in appropriate ANTI-LOCK article in BRAKES.
6. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, see ABS DIAGNOSTIC SYSTEM CHECK in appropriate ANTI-LOCK article in BRAKES.

**BRAKE WARNING INDICATOR ALWAYS ON**

1. Ensure that parking brake is off and brake fluid is at proper level. Go to next step.
2. Using scan tool, display IPC DATA LIST. Monitor BRAKE LAMP INPUT. Turn ignition on. If scan tool does not indicate BRAKE LAMP INPUT OFF, go to next step. If scan tool indicates BRAKE LAMP INPUT OFF, go to step 11 .
3. Monitor BRAKE FLUID LEVEL on scan tool. If scan tool indicates BRAKE FLUID LEVEL OK, go to next step. If scan tool does not indicate BRAKE FLUID LEVEL OK, go to step 5 .
4. Monitor PARK BRAKE SWITCH on scan tool. If scan tool does not indicate PARK BRAKE SWITCH INACTIVE, go to step 8 . If scan tool indicates PARK BRAKE SWITCH INACTIVE, go to step 11 .
5. Disconnect brake fluid level switch connector located on bottom of brake fluid reservoir. If scan tool indicates BRAKE FLUID LEVEL OK, go to next step. If scan tool does not indicate BRAKE FLUID LEVEL OK, go to step 7 .
6. Replace brake fluid level switch. After repairs, go to step 12 .
7. Repair short to ground in Purple wire between instrument cluster connector terminal B4 and brake fluid level switch. See **Fig. 13** . After repairs, go to step 12 .
8. Remove instrument panel trim plate and parking brake boot. See **CENTER CONSOLE** under REMOVAL & INSTALLATION. Disconnect parking brake switch connector. If scan tool indicates PARKING BRAKE SWITCH INACTIVE, go to next step. If scan tool does not indicate PARKING BRAKE SWITCH INACTIVE, go to step [10](#) .
9. Replace parking brake switch. After repairs, go to step 12 .

10. Repair short to ground in Tan/White wire between instrument panel connector terminal A6 and parking brake switch. After repairs, go to step 12 .
11. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
12. Recheck system operation. If symptom still exists, return to step 1 .



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**Fig. 13: Identifying Instrument Cluster Connector Terminals**  
 Courtesy of GENERAL MOTORS CORP.

#### **BRAKE WARNING INDICATOR INOPERATIVE (WITH PARKING BRAKE ON)**

1. Ensure that parking brake is off and brake fluid is at proper level. Go to next step.
2. Turn ignition off and back on again. If brake warning indicator comes on for 3-5 seconds and turns off, go to next step. If brake warning indicator does not come on for 3-5 seconds and turn off, go to step 7 .
3. Turn ignition off. Connect scan tool to DLC located under steering column. Display IPC DATA LIST. Turn ignition on. Apply parking brake (pull lever up). If scan tool does not indicate parking brake switch as ACTIVE, go to next step. If scan tool indicates parking brake switch as ACTIVE, go to step 8 .
4. Remove instrument panel trim plate and parking brake boot. See **CENTER CONSOLE** under REMOVAL & INSTALLATION. Disconnect parking brake switch connector. Connect a fused jumper between ground and parking brake switch connector. Turn ignition on. If brake warning indicator does not come on, go to next step. If brake warning indicator comes on, go to step 6 .
5. Check for open or high resistance in Tan/White wire between instrument panel

connector terminal A6 and parking brake switch. See **Fig. 13** . If faulty circuit is found and repaired, go to step 9 . If circuits are okay, go to step 8 .

6. Replace parking brake switch. After repairs, go to step 9 .
7. Turn ignition off. Remove instrument panel and check brake warning indicator bulb. If bulb is faulty, replace bulb. See **INSTRUMENT PANEL CLUSTER (IPC) BULBS** under REMOVAL & INSTALLATION. After repairs, go to step 9 . If bulb is okay, replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to step 9 .
8. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
9. Recheck system operation. If symptom still exists, return to step 1 .

#### **BRAKE WARNING INDICATOR INOPERATIVE (WITH LOW BRAKE FLUID LEVEL)**

1. Ensure that parking brake is off and brake fluid is at proper level. Go to next step.
2. Turn ignition off and back on again. If brake warning indicator comes on for 3-5 seconds and turns off, go to next step. If brake warning indicator does not come on for 3-5 seconds and turn off, go to step 7 .
3. Disconnect brake fluid level switch connector located on bottom of brake fluid reservoir. Connect a fused jumper wire between brake fluid level switch connector terminals. Turn ignition on. If brake warning indicator does not come on, go to next step. If brake warning indicator comes on, go to step 5 .
4. Turn ignition off. Connect scan tool to DLC located below steering column. Display IPC DATA LIST. With fused jumper wire connected, turn ignition on. If scan tool does not indicate brake fluid level LOW, go to next step. If scan tool indicates brake fluid level LOW, go to step 9 .
5. Replace brake fluid level switch. After repairs, go to step 10 .
6. Check for open or high resistance in Black wire between brake fluid level switch and Splice Pack SP101 located on frame rail between left headlight motor and generator. If circuit is okay, go to next step. If faulty circuit is found and repaired, go to step 10 .
7. Check for open or high resistance in Tan/White wire between brake fluid level switch and instrument cluster connector terminal A6. See **Fig. 13** . If circuit is okay, go to next step. If faulty circuit is found and repaired, go to step 10 .
8. Turn ignition off. Remove instrument panel and check brake warning indicator bulb. If bulb is faulty, replace bulb. See **INSTRUMENT PANEL CLUSTER (IPC) BULBS** under REMOVAL & INSTALLATION. If bulb is okay, replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
9. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
10. Recheck system operation. If symptom still exists, return to step 1 .

## CHARGE INDICATOR ALWAYS ON

**NOTE:** For circuit identification, see **WIRING DIAGRAMS in GENERATORS & REGULATORS - CORVETTE** article.

1. If starting/charging system diagnostic system check has been performed, go to next step. If starting/charging system diagnostic system check has not been performed, see **STARTING/CHARGING SYSTEM DIAGNOSTIC SYSTEM CHECK** under **SELF-DIAGNOSTIC SYSTEM**.
2. Start engine. If charge indicator remains on while engine is running, go to next step. If charge indicator does not remain on while engine is running, check for intermittent connections or circuits for charging system. See **GENERATORS & REGULATORS - CORVETTE** article in **STARTING & CHARGING SYSTEMS**.
3. Connect scan tool to DLC. Select PCM DATA LIST and monitor IGNITION 1. If voltage is 11.0-15.5, go to next step. If voltage is not 11.0-15.5 volts, check charging system. See **GENERATORS & REGULATORS - CORVETTE** article in **STARTING & CHARGING SYSTEMS**.
4. Turn ignition off. Disconnect Powertrain Control Module (PCM) connectors. PCM is located behind right wheelwell housing. See **Fig. 4** . Turn ignition on. If charge indicator comes on, go to next step. If charge indicator does not come on, go to step 7 .
5. Check for poor connections at IPC connectors. If connections are okay, go to next step. If faulty connections were found and repaired, go to step 9 .
6. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under **REMOVAL & INSTALLATION**. After repairs, go to step 9 .
7. Check for poor connections at PCM connectors. If connections are okay, go to next step. If faulty connections were found and repaired, go to step 9 .
8. Replace PCM. See appropriate **SELF-DIAGNOSTICS** article in **ENGINE PERFORMANCE**. After repairs, go to next step.
9. Recheck system operation. If symptom still exists, return to step 2 .

## CHARGE INDICATOR INOPERATIVE

**NOTE:** For circuit identification, see **WIRING DIAGRAMS in GENERATORS & REGULATORS - CORVETTE** article.

1. If starting/charging system diagnostic system check has been performed, go to next step. If starting/charging system diagnostic system check has not been performed, see **STARTING/CHARGING SYSTEM DIAGNOSTIC SYSTEM CHECK** under **SELF-DIAGNOSTIC SYSTEM**.
2. Turn ignition off and back on again. If battery indicator comes on during bulb check, system is okay at this time. If battery indicator does not come on during bulb check, go to next step.

3. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, recheck system operation.

**CHECK GAUGES INDICATOR INOPERATIVE**

1. If Instrument Panel Cluster (IPC) diagnostic system check has been performed, go to next step. If IPC diagnostic system check has not been performed, see **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Start engine and bring to operating temperature. Observe following gauges:
  - Fuel
  - Oil Pressure
  - Coolant Temperature
  - Voltage

If gauges are within normal operating range and not in Red areas, go to next step. If one or more gauges are operating improperly or in Red area, go to appropriate symptom diagnostic and repair procedure that best matches symptom description.

3. Connect scan tool to DLC. Turn ignition on. Select IPC special functions on scan tool. Command CHECK GAUGES indicator on and off. If CHECK GAUGES indicator turns on and off, system is okay at this time. If CHECK GAUGES indicator does not turn on and off, go to next step.
4. Remove instrument cluster and check indicator bulb. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. Replace bulb as necessary and go to step 6 . If bulb is okay, go to next step.
5. Replace instrument panel cluster. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
6. Turn ignition off and reconnect all disconnected components and connectors. Turn ignition on. Go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.

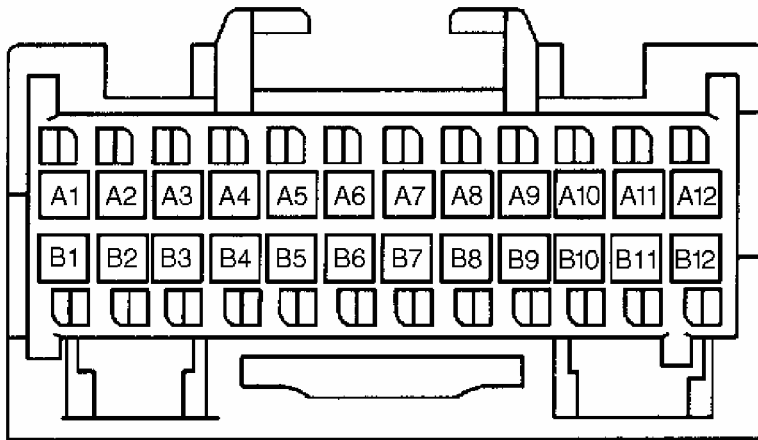
**FOG LIGHT INDICATOR INOPERATIVE**

**NOTE:** For circuit identification, see **EXTERIOR LIGHTS** article.

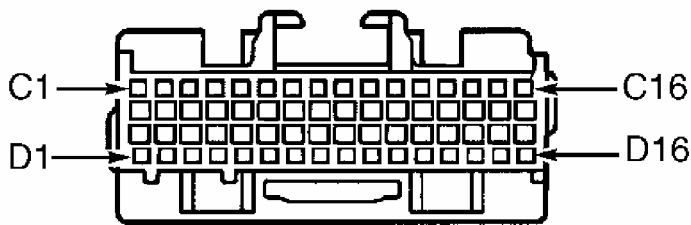
1. If Body Control Module (BCM) diagnostic system check has been performed, go to next step. If BCM diagnostic system check has not been performed, see **BODY CONTROL MODULE DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM in BODY CONTROL MODULES - CORVETTE article.
2. Disconnect fog light switch connector. Remove FOG LP MiniFuse(R) No. 6 (10-amp) located in underhood fuse block. Check for open or high resistance in Purple wire between FOG LP fuse and fog light switch connector terminal No. 5. If circuit is okay,

go to next step. If faulty circuit is found and repaired, go to step 7 .

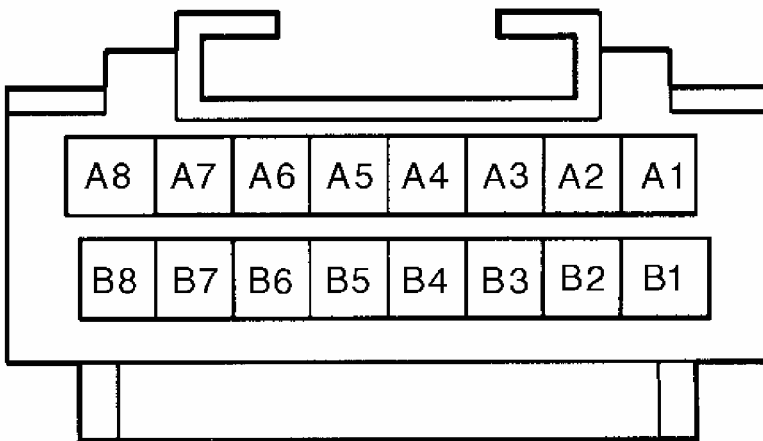
3. Disconnect Body Control module (BCM) connector C3. BCM is located under passenger's floor board. See **Fig. 6** . Check for open or high resistance in Yellow wire between BCM connector C3 terminal B4 and fog light switch connector terminal No. 5. See **Fig. 14** . If circuit is okay, go to next step. If faulty circuit is found and repaired, go to step 7 .
4. Connect fog light switch connector. Install FOG LP MiniFuse(R) No. 6 (10-amp) in underhood fuse block. Using DVOM, backprobe and measure voltage between fog light switch connector terminals No. 3 (Yellow wire) and No. 5 (Purple wire). Turn parking lights and fog lights on. If battery voltage is indicated, go to next step. If battery voltage is not indicated, go to step 6 .
5. Replace fog light/release switch. See **FOGLIGHT/REAR HATCH SWITCH** under REMOVAL & INSTALLATION. After repairs, go to step 7 .
6. Replace Body Control Module (BCM). See **BODY CONTROL MODULE (BCM)** under REMOVAL & INSTALLATION. After repairs, go to next step.
7. Clear any DTCs. Recheck system operation. If symptom still exists, go to **BODY CONTROL MODULE DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM in BODY CONTROL MODULES - CORVETTE article.



C-1 (PINK)



C-2 (PINK)



C-3 (GREEN)

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**Fig. 14: Identifying BCM Connector Terminals (C1, C2 & C3)  
Courtesy of GENERAL MOTORS CORP.**

**HIGH BEAM INDICATOR INOPERATIVE**

1. Perform **INDICATOR SYSTEM CHECK** under SYSTEM TESTS. Go to next step.
2. Turn high beams on. If high beams come on, go to next step. If high beams do not



come on, locate and repair problem in headlight system. See **HEADLIGHT SYSTEMS & DAYTIME RUNNING LIGHTS** article.

3. Disconnect instrument cluster connector. Connect test light between instrument cluster connector terminal A2 (Light Green wire) and ground. See **WIRING DIAGRAMS** . Turn high beams on. If test light comes on, go to next step. If test light does not come on, go to step 7 .
4. Check high beam indicator bulb. If bulb is faulty, go to step 6 . If bulb is okay, go to next step.
5. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under **REMOVAL & INSTALLATION**. After repairs, go to step 8 .
6. Replace bulb. See **INSTRUMENT PANEL CLUSTER (IPC) BULBS** under **REMOVAL & INSTALLATION**. After repairs, go to step 8 .
7. Repair open or high resistance in Light Green wire. See **HEADLIGHT SYSTEMS & DAYTIME RUNNING LIGHTS** article. After repairs, go to next step.
8. Turn ignition off and reconnect all disconnected components and connectors. Turn ignition on. Go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under **SELF-DIAGNOSTIC SYSTEM**.

#### **LEFT TURN INDICATOR INOPERATIVE**

1. Perform **INDICATOR SYSTEM CHECK** under **SYSTEM TESTS**. Go to next step.
2. Activate left turn signal switch. If left outside turn signal lights operate properly, go to next step. If left outside turn signal lights do not operate properly, locate and repair problem in exterior lighting system. See **EXTERIOR LIGHTS** article.
3. Disconnect instrument cluster connector. Connect test light between instrument cluster connector terminal A15 (Light Blue wire) and ground. See **WIRING DIAGRAMS** . Turn ignition on and activate left turn signal. If test light pulses on and off, go to step 5 . If test light does not pulse on and off, go to next step.
4. Repair open or high resistance in Light Blue wire between instrument cluster, instrument panel electrical center and turn signal switch. After repairs, go to step 8 .
5. Check for faulty indicator bulb. If bulb is faulty, go to step 7 . If bulb is okay, go to next step.
6. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under **REMOVAL & INSTALLATION**. After repairs, go to step 8 .
7. Replace bulb. See **INSTRUMENT PANEL CLUSTER (IPC) BULBS** under **REMOVAL & INSTALLATION**. After repairs, go to next step.
8. Turn ignition off and reconnect all disconnected components and connectors. Turn ignition on. Go to **INDICATOR SYSTEM CHECK** under **SYSTEM TESTS**.

#### **RIGHT TURN INDICATOR INOPERATIVE**

1. Perform **INDICATOR SYSTEM CHECK** under **SYSTEM TESTS**. Go to next step.

2. Activate right turn signal switch. If right turn signal light operates properly, go to next step. If right turn signal light does not operate properly, locate and repair problem in exterior lighting system. See **EXTERIOR LIGHTS** article.
3. Disconnect instrument cluster connector. Connect test light between instrument cluster connector terminal A16 (Dark Blue wire) and ground. See **WIRING DIAGRAMS** . Turn ignition on and activate right turn signal. If test light pulses on and off, go to step 5 . If test light does not pulse on and off, go to next step.
4. Repair open or high resistance in Dark Blue wire between instrument cluster, instrument panel electrical center and turn signal switch. After repairs, go to step 8 .
5. Check for faulty indicator bulb. If bulb is faulty, go to step 7 . If bulb is okay, go to next step.
6. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to step 8 .
7. Replace bulb. See **INSTRUMENT PANEL CLUSTER (IPC) BULBS** under REMOVAL & INSTALLATION. After repairs, go to next step.
8. Turn ignition off and reconnect all disconnected components and connectors. Turn ignition on. Go to **INDICATOR SYSTEM CHECK** under SYSTEM TESTS.

#### **MPH (KM/H) INDICATOR INOPERATIVE**

1. If Instrument Panel Cluster (IPC) diagnostic system check has been performed, go to next step. If IPC diagnostic system check has not been performed, see **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Turn ignition on. Connect scan tool to DLC. Use scan tool to check for DTCs. If DTC B1532 is set, go to **DTC B1532: DIC SWITCH 5 SIGNAL (SHORT TO GROUND)** under DIAGNOSTIC TESTS. If DTCs are not set, go to next step.
3. Depress E/M button on Driver's Information Display (DIC) controls to toggle between english and metric displays. See **Fig. 2** . If km/h and MPH indicators alternate, system is okay at this time. If km/h and MPH indicators do not alternate, go to next step.
4. Select IPC special functions on scan tool. Command MPH and km/h indicators on and off. If MPH and km/h indicators turn on and off, go to next step. If MPH and km/h indicators do not turn on and off, go to step 9 .
5. Check for open in Red or Gray wire between IPC and DIC controls. See **WIRING DIAGRAMS** . If faulty circuit is found, repair as necessary and go to step 11 . If circuits are okay, go to next step.
6. Check instrument panel cluster connector for loose or poor connections. If connections are faulty, repair as necessary and go to step 11 . If connections are okay, go to next step .
7. Check DIC controls connector for loose or poor connections. If connections are faulty, repair as necessary and go to step 11 . If connections are okay, go to next step .

8. Replace DIC controls. See **DRIVER INFORMATION CENTER (DIC) & HEAD-UP DISPLAY (HUD) CONTROL SWITCHES** under REMOVAL & INSTALLATION. After repairs, go to step 11 .
9. Check for faulty MPH indicator bulb. If bulb is faulty, repair as necessary and go to step 11 . If bulb is okay, go to next step.
10. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
11. Turn ignition off and reconnect all disconnected components and connectors. Turn ignition on. Go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.

**SEAT BELT INDICATOR/CHIME INOPERATIVE**

1. Perform **INDICATOR SYSTEM CHECK** under SYSTEM TESTS. Go to next step.
2. Disconnect seat belt switch connector. See **COMPONENT LOCATIONS** . Turn ignition on. If seat belt indicator is not on, go to next step. If seat belt indicator is on, go to step 6 .
3. Connect a fused jumper wire between seat belt switch connector terminals "A" (Black/White wire) and "B" (Black wire). Turn ignition on. If seat belt indicator does not come on, go to next step. If seat belt indicator comes on, go to step 7 .
4. Using DVOM, check for open or high resistance in Black/White wire between seat belt switch connector terminal "A" and instrument cluster. See **WIRING DIAGRAMS** . If faulty circuit is found, repair as necessary and go to step 9 . If circuit is okay, go to next step.
5. Using DVOM, check for open or high resistance in Black wire between seat belt switch connector terminal "B" and ground. If faulty circuit is found, repair as necessary and go to step 9 . If circuit is okay, go to step 8 .
6. Using DVOM, check for short to ground in Black/White wire between seat belt switch connector terminal "A" and instrument cluster. See **WIRING DIAGRAMS** . If faulty circuit is found, repair as necessary and go to step 9 . If circuit is okay, go to step 8 .
7. Replace seat belt buckle assembly. After repairs, go to step 9 .
8. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
9. Perform **INDICATOR SYSTEM CHECK** under SYSTEM TESTS.

**SECURITY INDICATOR INOPERATIVE**

1. If anti-theft diagnostic system check has been performed, go to next step. If anti-theft diagnostic system check has not been performed, see **UNIVERSAL THEFT DETERRENT (UTD) SYSTEM CHECK** under TROUBLE SHOOTING in ANTI-THEFT SYSTEMS - CORVETTE article.
2. Connect scan tool to DLC located below steering column. Attempt to communicate

with Body Control Module (BCM), Left Door Control Module (LDCM), Right Door Control Module (RDCM), and Powertrain Control Module (PCM). If scan tool communicates with listed modules, go to next step. If scan tool does not communicate with listed modules, go to step 10 .

3. Select IPC SPECIAL FUNCTIONS on scan tool. Command SECURITY indicator on and off. If SECURITY indicator turns on/off with scan tool commands, go to next step. If SECURITY indicator does not turn on/off with scan tool commands, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
4. Operate power door locks using door lock switches. If power door locks operate properly, go to next step. If power door locks do not operate properly, go to **POWER DOOR LOCKS - CORVETTE** article.
5. Close driver and passenger doors. Turn ignition on. If DOOR AJAR message is displayed on DIC, go to **DOOR AJAR MESSAGE INOPERATIVE** . If DOOR AJAR message is not displayed on DIC, go to next step.
6. If DOOR AJAR message is displayed on DIC, go to next step. If DOOR AJAR message is not displayed on DIC, go to **DOOR AJAR MESSAGE INOPERATIVE** .
7. Close driver door. Open passenger door. If DOOR AJAR message is displayed on DIC, go to next step. If DOOR AJAR message is not displayed on DIC, go to **DOOR AJAR MESSAGE INOPERATIVE** .
8. Turn ignition on. If SECURITY indicator is not on or flashing, go to next step. If SECURITY indicator is on or flashing, go to step 11 .
9. Check for intermittent communications between BCM, IPC, RDCM, LDCM, and PCM. See DATA LINK CONNECTORS article in WIRING DIAGRAMS. Check for intermittent connections at following components:
  - Driver's/Passenger's Door Ajar Switch
  - Hatch/Trunk Ajar Switch
  - Power Door Lock Switches
  - Door Lock Cylinder Switches
  - Hood Ajar Switch (If Equipped)

If problem is found, repair as necessary. After repairs, go to step 12 . If no problems are found, system is okay at this time.

10. Repair no communication condition between malfunctioning system. See DATA LINK CONNECTORS article in WIRING DIAGRAMS. After repairs, perform diagnostic system check for system repaired. After performing diagnostic system check for system repaired, go to step 12 .
11. Use scan tool to check for anti-theft related DTCs. If any anti-theft DTCs are set, go to ANTI-THEFT SYSTEMS - CORVETTE article for diagnostic and repair procedures. If no DTCs are set, system is okay at this time.

12. Turn ignition off. Reconnect any disconnected components and/or connectors. Perform **UNIVERSAL THEFT DETERRENT SYSTEM CHECK** under TROUBLE SHOOTING in ANTI-THEFT SYSTEMS - CORVETTE article.

**TRACTION OFF INDICATOR ALWAYS ON**

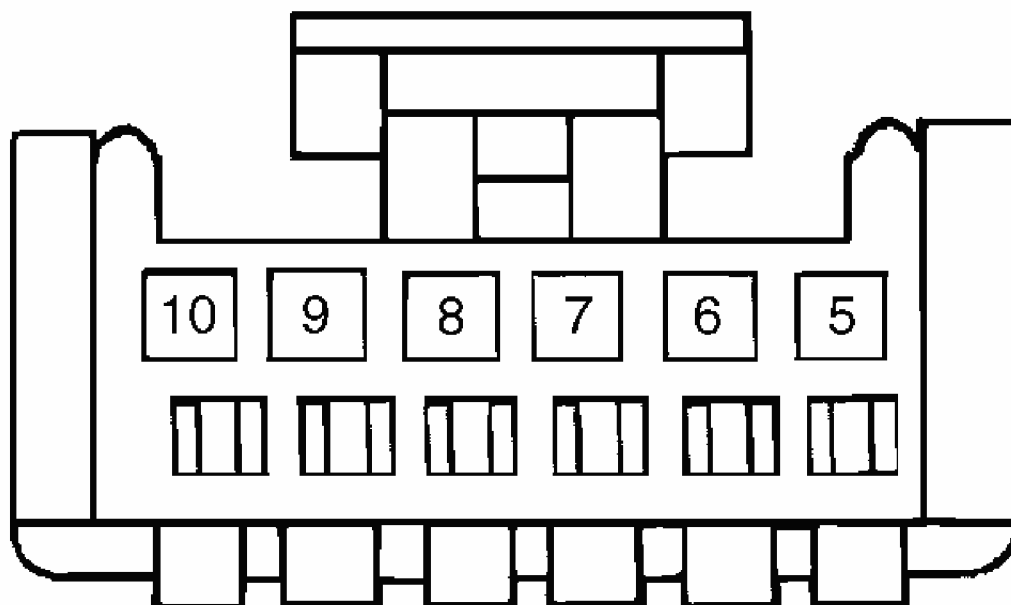
1. If Anti-Lock Brake System (ABS) diagnostic system check has been performed, go to next step. If ABS diagnostic system check has not been performed, see diagnostic system check in appropriate ANTI-LOCK article in BRAKES.
2. Turn ignition on. Using scan tool, check for Body Control Module (BCM) DTCs. If DTC B2597 is set, go to BCM DIAGNOSTIC SYSTEM CHECK under SYSTEM TESTS in BODY CONTROL MODULES - CORVETTE article. If DTC B2597 is not set, go to next step.
3. Using scan tool, select IPC SPECIAL FUNCTIONS. Attempt to turn off traction off indicator using scan tool (indicator matches image on traction control switch). If traction off indicator turns off, go to next step. If traction off indicator does not turn off, go to step 5 .
4. Replace Electronic Brake Control Module (EBCM). After repairs, go to diagnostic system check in appropriate ANTI-LOCK article in BRAKES.
5. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to diagnostic system check in appropriate ANTI-LOCK article in BRAKES.

**TRACTION OFF INDICATOR INOPERATIVE**

1. If Anti-lock Brake System (ABS) diagnostic system check has been performed, go to next step. If ABS diagnostic system check has not been performed, see diagnostic system check in appropriate ANTI-LOCK article in BRAKES.
2. Turn ignition on. Connect scan tool to DLC located under steering column. Select BODY CONTROL MODULE DATA LIST and monitor TCS SWITCH STATE. Press and release Traction Control Switch (TCS) located on center console. If TCS SWITCH STATE on scan tool changes properly with activation of switch, go to next step. If TCS SWITCH STATE on scan tool does not change properly with activation of switch, go to step 9 .
3. Select ABS/TCS or ABS/TCS/ACTIVE HANDLING SPECIAL FUNCTIONS and monitor TCS SWITCH STATUS. Press and release Traction Control Switch (TCS). If TCS SWITCH STATUS on scan tool does not change properly with activation of switch, go to next step. If TCS SWITCH STATUS on scan tool changes properly with activation of switch, go to step 5 .
4. Replace Electronic Brake Control Module (EBCM). After repairs, go to diagnostic system check in appropriate ANTI-LOCK article in BRAKES.
5. Using scan tool, turn on traction off indicator (indicator matches image on traction control switch). If traction off indicator turns on, go to step 4 . If traction off indicator

does not turn on, go to next step.

6. Turn ignition off. Remove instrument panel and check traction off indicator bulb. If bulb is faulty, go to next step. If bulb is okay, go to step 8 .
7. Replace traction off indicator bulb. See **INSTRUMENT PANEL CLUSTER (IPC) BULBS** under REMOVAL & INSTALLATION. After repairs, go to diagnostic system check in appropriate ANTI-LOCK article in BRAKES.
8. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to diagnostic system check in appropriate ANTI-LOCK article in BRAKES.
9. Remove TCS from center console by opening center console lid and pull rear of switch housing to release clips. Disconnect electrical connector. Select BODY CONTROL MODULE DATA LIST and monitor TCS SWITCH STATE. Connect a jumper wire between traction control switch connector terminals No. 5 (Black wire) and No. 7 (Brown/White wire). See **Fig. 15** . If TCS SWITCH STATE on scan tool reads PRESSED with jumper wire connected, go to next step. If TCS SWITCH STATE on scan tool does not read PRESSED with jumper wire connected, go to step 11 .
10. Replace TCS. After repairs, go to diagnostic system check in appropriate ANTI-LOCK article in BRAKES.
11. Turn ignition off. Using DVOM, measure resistance between TCS connector terminal No. 5 (Black wire) and ground. If resistance is greater than 5 ohms, go to next step. If resistance is less than 5 ohms, go to step 13 .
12. Repair open or high resistance in Black wire between TCS and Splice Pack SP201 located at base of left "A" pillar. After repairs, go to diagnostic system check in appropriate ANTI-LOCK article in BRAKES.
13. Disconnect BCM connector C2. See **Fig. 6** . Using DVOM, measure resistance of Brown/White wire between TCS terminal No. 6 and BCM connector C2 terminal D15. See **Fig. 14** . If resistance is greater than 5 ohms, go to next step. If resistance is less than 5 ohms, go to step 15 .
14. Repair open or high resistance in Brown/White wire between TCS and BCM. After repairs, go to diagnostic system check in appropriate ANTI-LOCK article in BRAKES.
15. Replace Body Control Module (BCM). See **BODY CONTROL MODULE (BCM)** under REMOVAL & INSTALLATION. After repairs, go to diagnostic system check in appropriate ANTI-LOCK article in BRAKES.



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**Fig. 15: Identifying Traction Control Switch Connector Terminals**  
 Courtesy of GENERAL MOTORS CORP.

#### COOLANT TEMPERATURE GAUGE INACCURATE OR INOPERATIVE

1. If Instrument Panel Cluster (IPC) diagnostic system check has been performed, go to next step. If IPC diagnostic system check has not been performed, see **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Connect scan tool to DLC and attempt to communicate with PCM. If scan tool communicates with PCM, go to next step. If scan tool does not communicate with PCM, go to diagnostic system check in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.
3. If scan tool shows that DTCs P0117, P0118, P1114 or P1115 are set in PCM, go to diagnostic system check in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE. If no PCM DTCs are set, go to next step.
4. Using scan tool, select IPC SPECIAL FUNCTIONS. Perform gauge sweep. If coolant temperature gauge moves from minimum to maximum and back to minimum reading, go to next step. If coolant temperature gauge does not respond correctly, go to step 8 .
5. Select IPC data display on scan tool. Monitor engine coolant temperature. If scan tool displays correct engine coolant temperature, go to next step. If scan tool does not

display correct engine coolant temperature, go to step 7 .

6. Compare scan tool display and instrument panel cluster gauge engine coolant temperature. If readings are within 15°F (9°C), system is operating okay at this time. If readings are not within 15°F (9°C), go to step 8 .
7. Select PCM data display on scan tool. Monitor engine coolant temperature. If scan tool displays correct engine coolant temperature, go to next step. If scan tool does not display correct engine coolant temperature, go to diagnostic system check in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.
8. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
9. Turn ignition off and reconnect all disconnected components and connectors. Turn ignition on. Go to **GAUGE FUNCTION SYSTEM CHECK** under SYSTEM TESTS. If symptom still exists, return to step 2 .

#### **OIL PRESSURE GAUGE INACCURATE OR INOPERATIVE**

1. If Instrument Panel Cluster (IPC) diagnostic system check has been performed, go to next step. If IPC diagnostic system check has not been performed, see **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Connect scan tool to DLC and attempt to communicate with PCM. If scan tool communicates with PCM, go to next step. If scan tool does not communicate with PCM, go to diagnostic system check in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.
3. If scan tool shows that DTCs P0522 or P0523 are set in PCM, go to diagnostic system check in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE. If no PCM DTCs are set, go to next step.
4. Using scan tool, select IPC SPECIAL FUNCTIONS. Perform gauge sweep. If oil pressure gauge moves from minimum to maximum and back to minimum reading, go to next step. If oil pressure gauge does not respond correctly, go to step 8 .
5. Select IPC data display on scan tool. Monitor engine oil pressure. If scan tool displays correct engine oil pressure, go to next step. If scan tool does not display correct engine oil pressure, go to step 7 .
6. Compare scan tool display and instrument panel cluster gauge engine oil pressure. If readings are within 10 psi (69 kPa), system is operating okay at this time. If readings are not within 10 psi (69 kPa), go to step 8 .
7. Select PCM data display on scan tool. Monitor engine oil pressure. If scan tool displays correct engine oil pressure, go to next step. If scan tool does not display correct engine oil pressure, go to diagnostic system check in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.
8. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.



9. Turn ignition off and reconnect all disconnected components and connectors. Turn ignition on. Go to **GAUGE FUNCTION SYSTEM CHECK** under SYSTEM TESTS. If symptom still exists, return to step 2 .

**OIL TEMPERATURE GAUGE INOPERATIVE (DIC MESSAGE)**

1. If Instrument Panel Cluster (IPC) diagnostic system check has been performed, go to next step. If IPC diagnostic system check has not been performed, see **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. If scan tool shows that DTCs B1542 or B1543 are set in IPC, go to **DTC B1542: OIL TEMPERATURE CIRCUIT (SHORT TO GROUND)** or **DTC B1543: OIL TEMPERATURE CIRCUIT (OPEN)** under DIAGNOSTIC TESTS. If no IPC DTCs are set, go to next step.
3. Compare scan tool IPC data parameters for engine oil temperature with actual gauge readings. If gauge matches scan tool readings, go to next step. If gauge does not match scan tool readings, go to step 5 .
4. Compare scan tool display and instrument panel cluster engine oil temperature gauge. If readings are within 10°F (12°C), system is operating okay at this time. If readings are not within 10°F (12°C), go to step 6 .
5. Replace engine oil temperature sensor. See **COMPONENT LOCATIONS** . After repairs, go to step 7 .
6. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
7. Turn ignition off and reconnect all disconnected components and connectors. Turn ignition on. Go to **GAUGE FUNCTION SYSTEM CHECK** under SYSTEM TESTS. If symptom still exists, return to step 2 .

**FUEL GAUGE INACCURATE OR INOPERATIVE**

1. If Instrument Panel Cluster (IPC) diagnostic system check has been performed, go to next step. If IPC diagnostic system check has not been performed, see **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Connect scan tool to DLC and attempt to communicate with PCM. If scan tool communicates with PCM, go to next step. If scan tool does not communicate with PCM, go to diagnostic system check in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.
3. If scan tool shows that DTCs P0461, P0462, P0463, P1431, P1432 or P1433 are set in PCM, go to diagnostic system check in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE. If no PCM DTCs are set, go to next step.
4. Using scan tool, select IPC SPECIAL FUNCTIONS. Perform gauge sweep. If fuel

- level gauge moves from minimum to maximum and back to minimum reading, go to next step. If fuel level gauge does not respond correctly, go to step [8](#) .
5. Select IPC data display on scan tool. Monitor fuel remaining. If scan tool displays 0-19.1 gal (0-72.3L), go to next step. If scan tool does not display 0-19.1 gal (0-72.3L), go to step [7](#) .
  6. Compare scan tool display and instrument panel cluster fuel gauge. If readings are within 1/8 of a tank (2.4 gal), system is operating okay at this time. If readings are not within 1/8 of a tank (2.4 gal), go to step [8](#) .
  7. Select PCM data display on scan tool. Monitor fuel remaining. If scan tool displays 0-19.1 gal (0-72.3L), go to next step. If scan tool does not display 0-19.1 gal (0-72.3L), go to diagnostic system check in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.
  8. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
  9. Turn ignition off and reconnect all disconnected components and connectors. Turn ignition on. Go to **GAUGE FUNCTION SYSTEM CHECK** under SYSTEM TESTS. If symptom still exists, return to step [2](#) .

**SPEEDOMETER AND/OR ODOMETER INOPERATIVE**

1. If Instrument Panel Cluster (IPC) diagnostic system check has been performed, go to next step. If IPC diagnostic system check has not been performed, see **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Connect scan tool to DLC and attempt to communicate with PCM. If scan tool communicates with PCM, go to next step. If scan tool does not communicate with PCM, go to diagnostic system check in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.
3. If scan tool shows that DTC P0500 or P0608 are set in PCM, go to diagnostic system check in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE. If no PCM DTCs are set, go to next step.
4. Using scan tool, select IPC SPECIAL FUNCTIONS. Perform gauge sweep. If speedometer moves from minimum to maximum and back to minimum reading, go to next step. If speedometer does not respond correctly, go to step [9](#) .
5. Select IPC data display on scan tool. Observe VEHICLE SPEED parameter. Test drive vehicle and monitor vehicle speed. If scan tool displays correct vehicle speed, go to next step. If scan tool does not display correct vehicle speed, go to step [7](#) .
6. Compare scan tool display and instrument panel cluster gauge vehicle speed readings. If readings are within 3 MPH (4.8 km/h), system is operating okay at this time. If readings are not within 3 MPH (4.8 km/h), go to step [9](#) .
7. Select PCM data display on scan tool. Test drive vehicle and monitor vehicle speed. If scan tool displays correct vehicle speed, go to next step. If scan tool does not display

correct vehicle speed, go to diagnostic system check in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.

8. Check for open, short to ground or short to voltage in Dark Green/White wire between PCM and IPC. See **WIRING DIAGRAMS** . If faulty circuit is found and repaired, go to step 10 . If circuit is okay, go to next step.
9. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
10. Turn ignition off and reconnect all disconnected components and connectors. Turn ignition on. Go to **GAUGE FUNCTION SYSTEM CHECK** under SYSTEM TESTS. If symptom still exists, return to step 2 .

### **TACHOMETER INOPERATIVE**

1. If Instrument Panel Cluster (IPC) diagnostic system check has been performed, go to next step. If IPC diagnostic system check has not been performed, see **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Connect scan tool to DLC and attempt to communicate with PCM. If scan tool communicates with PCM, go to next step. If scan tool does not communicate with PCM, go to diagnostic system check in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.
3. If scan tool shows that DTC P0654 is set in PCM, go to diagnostic system check in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE. If no PCM DTCs are set, go to next step.
4. Using scan tool, select IPC SPECIAL FUNCTIONS. Perform gauge sweep. If tachometer moves from minimum to maximum and back to minimum reading, go to next step. If tachometer does not respond correctly, go to step 9 .
5. Select IPC data display on scan tool. Monitor engine RPM. If scan tool displays correct engine RPM, go to next step. If scan tool does not display correct engine RPM, go to step 7 .
6. Compare scan tool display and instrument panel cluster gauge engine RPM readings. If readings are within 500 RPM, system is operating okay at this time. If readings are not within 500 RPM, go to step 9 .
7. Select PCM data display on scan tool. Monitor engine RPM. If scan tool displays correct engine RPM, go to next step. If scan tool does not display correct engine RPM, go to diagnostic system check in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.
8. Repair open, short to ground or short to voltage in White wire between PCM and IPC. See **WIRING DIAGRAMS** . After repairs, go to step 10 .
9. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.

10. Turn ignition off and reconnect all disconnected components and connectors. Turn ignition on. Go to **GAUGE FUNCTION SYSTEM CHECK** under SYSTEM TESTS. If symptom still exists, return to step 2 .

**TIRE PRESSURE GAUGE INOPERATIVE (DIC MESSAGE)**

1. If Instrument Panel Cluster (IPC) diagnostic system check has been performed, go to next step. If IPC diagnostic system check has not been performed, see **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. If Tire Pressure Monitoring (TPM) system diagnostic system check has been performed, go to next step. If TPM system diagnostic system check has not been performed, see **TIRE PRESSURE MONITORING (TPM) SYSTEM DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
3. Connect scan tool to DLC. Select IPM DATA LIST and observe tire pressure data. Test drive vehicle at speeds greater than 25 MPH (40 km/h) for 20 minutes or until tire pressure data is received. Scan tool will display tire pressure as 148 psi (1020 kPa) until tire pressure data is received. If tire pressure readings are as specified, go to next step. If tire pressure readings are not as specified, go to **TIRE PRESSURE MONITORING (TPM) SYSTEM DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
4. Observe tire pressure data. Test drive vehicle at speeds greater than 25 MPH (40 km/h) for 20 minutes or until tire pressure data is received. Scan tool will display tire pressure as 148 psi (1020 kPa) until tire pressure data is received. After tire pressure data is received, tire pressure readings will be 0-61 psi (0-427 kPa). If tire pressure readings are as specified, go to next step. If tire pressure readings are not as specified, go to step 6 .
5. Compare tire pressure readings on scan tool with readings on DIC. If tire pressure readings between scan tool and DIC are within 5 psi (34 kPa), system is okay at this time. If tire pressure readings between scan tool and DIC are not within 5 psi (34 kPa), go to next step.
6. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
7. Turn ignition off and reconnect all disconnected components and connectors. Turn ignition on. Recheck system operation. If symptom still exists, return to step 2 .

**TIRE PRESSURE MESSAGE DISPLAYED (NO DTCS)**

1. If Tire Pressure Monitoring (TPM) diagnostic system check has been performed, go to next step. If TPM diagnostic system check has not been performed, see **TIRE PRESSURE MONITORING (TPM) SYSTEM DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Use a manual tire pressure gauge to check tire pressure for each tire. Check

recommended tire pressure located on side wall of tire. If tire pressure is okay, go to next step. If tire pressure is not okay, go to step 7 .

3. Test drive vehicle at speeds greater than 25 MPH (40 km/h) for 5 minutes or until tire pressure data is received. Monitor DIC tire pressure. Tire pressure readings will be 5-42 psi (34-289 kPa). If tire pressure readings are as specified, go to next step. If tire pressure readings are not as specified, go to step 5 .
4. If HIGH TIRE PRESSURE, LOW TIRE PRESSURE or FLAT TIRE message is displayed on DIC, go to next step. If no messages are displayed, system is okay at this time.
5. Connect scan tool to DLC located under steering column. Select RFA DATA DISPLAY. Test drive vehicle at speeds greater than 25 MPH (40 km/h) for 5 minutes or until tire pressure data is received. Observe tire pressure data. Scan tool will display tire pressure as 148 psi (1020 kPa) until tire pressure data is received. After tire pressure data is received, tire pressure readings will be 5-42 psi (34-289 kPa). If tire pressure readings are as specified, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM. If tire pressure readings are not as specified, go to next step.
6. Replace suspect Tire Pressure Monitoring (TPM) sensor. Tire must be dismounted from rim to replace TPM. After replacement, reprogram all TPM sensors. See **TIRE PRESSURE MONITOR (TPM) SENSOR PROGRAMMING** under PROGRAMMING. After repairs, go to step 8 .
7. Adjust air pressure in tire as necessary. After resetting air pressures, use RESET button on DIC to reset Tire Pressure Monitoring (TPM) warning messages. Go to step 3 .
8. Perform **TIRE PRESSURE MONITORING (TPM) SYSTEM DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.

#### **TRANSMISSION FLUID TEMPERATURE GAUGE INACCURATE OR INOPERATIVE (DIC MESSAGE)**

**NOTE:** This procedure applies to automatic transmission models. Some imported manual transmission models may be equipped with transmission temperature monitoring. On automatic transmissions, transmission temperature sensor is part of transmission fluid pressure switch located on valve body. On manual transmission models, transmission temperature sensor is installed in place of transmission fluid fill plug.

1. If Instrument Panel Cluster (IPC) diagnostic system check has been performed, go to next step. If IPC diagnostic system check has not been performed, see **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Connect scan tool to DLC and attempt to communicate with PCM. If scan tool communicates with PCM, go to next step. If scan tool does not communicate with

PCM, go to diagnostic system check in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.

3. View DTCs using scan tool. If scan tool shows that DTCs P0711, P0712 or P0713 are set in PCM, go to diagnostic system check in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE. If no PCM DTCs are set, go to next step.
4. Select IPC data display on scan tool. Monitor transmission fluid temperature. If scan tool displays -31 to 419°F (-40 to 215°C), go to next step. If scan tool does not display -31 to 419°F (-40 to 215°C), go to step 6 .
5. Select transmission fluid temperature on DIC display. Compare scan tool display and transmission fluid temperature on DIC display. If readings are within 10°F (10°C), go to step 7 . If readings are not within 10°F (10°C), go to step 8 .
6. Select PCM data display on scan tool. Monitor transmission fluid temperature. If scan tool displays -31 to 419°F (-40 to 215°C), go to step 8 . If scan tool does not display -31 to 419°F (-40 to 215°C), go to diagnostic system check in appropriate SELF-DIAGNOSTICS article in ENGINE PERFORMANCE.
7. Replace transmission temperature sensor. After replacement, go to step 9 .
8. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
9. Turn ignition off and reconnect all disconnected components and connectors. Turn ignition on. Go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM. If symptom still exists, return to step 2 .

#### **VOLTAGE GAUGE INOPERATIVE**

1. If Instrument Panel Cluster (IPC) diagnostic system check has been performed, go to next step. If IPC diagnostic system check has not been performed, see **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Attempt to communicate with IPC. If scan tool communicates with IPC, go to next step. If scan tool does not communicate with IPC, go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
3. Using scan tool, select IPC SPECIAL FUNCTIONS. Perform gauge sweep. If voltage gauge moves from minimum to maximum and back to minimum reading, go to next step. If voltage gauge does not respond correctly, go to step 9 .
4. Display IGNITION 1 parameter from IPC DATA LIST on scan tool. If readings are 8-16 volts, go to next step. If readings are not 8-16 volts, go to step 6 .
5. Compare IGNITION 1 display and instrument panel cluster voltage gauge. If readings are within 0.5 volt, system is operating okay at this time. If readings are not within 0.5 volt, go to step 7 .

6. Check for open or short to ground in Pink wire between IPC connector terminal A13 and instrument panel electrical center IPC MiniFuse(R) No. 10 (10-amp). See **WIRING DIAGRAMS** . If faulty circuit was found and repaired, go to step 9 . If circuit is okay, go to step 8 .
7. Select IPC special functions on scan tool and recalibrate voltage gauge. If voltage gauge was recalibrated successfully, go to step 9 . If voltage gauge was unable to be recalibrated successfully, go to next step.
8. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
9. Turn ignition off and reconnect all disconnected components and connectors. Turn ignition on. Go to **GAUGE FUNCTION SYSTEM CHECK** under SYSTEM TESTS.

**INSTRUMENT PANEL ILLUMINATION INOPERATIVE**

1. If Instrument Panel Cluster (IPC) diagnostic system check has been performed, go to next step. If IPC diagnostic system check has not been performed, see **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Turn ignition off. Connect scan tool to DLC. Locate ambient light sensor at top of Driver's Information Center (DIC) buttons and cover with Black electrical tape. See **Fig. 2** . Select IPC data display on scan tool and monitor ambient light sensor counts. If counts are less than 5, go to next step. If counts are greater than 5, go to step 9 .
3. Remove Black electrical tape and monitor ambient light sensor counts. If counts are 5-255, go to next step. If counts are greater than 255, go to step 9 .
4. Turn headlights or parking lights on. Rotate instrument panel dimmer knob to minimum brightness position. See **Fig. 1** . Monitor switch dimming data counts on scan tool. If counts are 5 or less, go to next step. If counts are 5 or more, go to step 8 .
5. Rotate instrument panel dimmer knob to maximum brightness position. See **Fig. 1** . Monitor switch dimming data counts on scan tool. If counts are 220-255, go to next step. If counts are not 220-255, go to step 8 .
6. Turn headlights or parking lights on. With ambient light sensor covered, rotate instrument panel dimmer knob to maximum brightness position. If gauge backlight comes on, go to next step. If gauge backlight does not come on, go to step 11 .
7. If driver's information center control or head-up display controls light up, go to step 10 . If driver's information center control or head-up display controls do not light up, go to step 11 .
8. Replace head-up display switch/dimmer switch assembly. See **DRIVER INFORMATION CENTER (DIC) & HEAD-UP DISPLAY (HUD) CONTROL SWITCHES** under REMOVAL & INSTALLATION. After repairs, go to step 12 .
9. Replace driver's information center control containing ambient light sensor. See **DRIVER INFORMATION CENTER (DIC) & HEAD-UP DISPLAY (HUD)**

**CONTROL SWITCHES** under REMOVAL & INSTALLATION. After repairs, go to step 12 .

10. Replace inoperative driver's information center control or head-up display controls. See **DRIVER INFORMATION CENTER (DIC) & HEAD-UP DISPLAY (HUD) CONTROL SWITCHES** under REMOVAL & INSTALLATION. After repairs, go to step 12 .
11. Replace IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** under REMOVAL & INSTALLATION. After repairs, go to next step.
12. Turn ignition off and reconnect all disconnected components and connectors. Turn ignition on. Go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.

#### **KEY IN IGNITION CHIME INOPERATIVE**

1. If Instrument Panel Cluster (IPC) diagnostic system check has been performed, go to next step. If IPC diagnostic system check has not been performed, see **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under SELF-DIAGNOSTIC SYSTEM.
2. Use scan tool and select IPC special functions. Activate all chime functions. If scan tool activates all chime functions, go to next step. If scan tool cannot activate all chime functions, go to step 10 .
3. Turn ignition off and connect scan tool to DLC. Turn ignition on. Attempt to establish communications with BCM. If scan tool communicates with BCM, go to next step. If scan tool will not communicate with BCM, go to BCM DIAGNOSTIC SYSTEM CHECK in BODY CONTROL MODULES - CORVETTE article.
4. Select BCM data on scan tool and monitor KEY-IN-IGNITION status. Remove and replace ignition key from ignition switch and monitor status. If status is ACTIVE with key in, system is okay at this time. If status is not ACTIVE with key in, go to step 6 .
5. Turn ignition off and remove key from ignition switch. Monitor KEY-IN-IGNITION status. If scan tool indicates status as INACTIVE, system is okay at this time. If scan tool does not indicate status as INACTIVE, go to next step.
6. Check for open, short to ground or short to voltage in Tan or Light Green/Black wires between BCM and ignition switch. See **WIRING DIAGRAMS** . If circuits are okay, go to next step. If faulty circuit is found and repaired, go to step 11 .
7. Disconnect BCM connectors and inspect for loose, damaged or corroded terminals. If connections are okay, go to next step. If faulty connections are found, repair as necessary and go to step 11 .
8. Disconnect ignition switch connectors and inspect for loose, damaged or corroded terminals. If connections are okay, go to next step. If faulty connections are found, repair as necessary and go to step 11 .
9. Replace ignition switch. See **IGNITION LOCK CYLINDER** under REMOVAL & INSTALLATION. After repair, go to step 11 .



10. Replace IPC assembly. See **INSTRUMENT PANEL CLUSTER (IPC)** under **REMOVAL & INSTALLATION**. After repairs, go to next step.
11. Turn ignition off and reconnect all disconnected components and connectors. Recheck system operation. Go to **INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC SYSTEM CHECK** under **SELF-DIAGNOSTIC SYSTEM**. If symptom still exists, return to step 2 .

## REMOVAL & INSTALLATION

**WARNING:** Deactivate air bag system before performing any service operation. See appropriate **AIR BAG RESTRAINT SYSTEMS** article. **DO NOT** apply electrical power to any component on steering column without first deactivating air bag system. Air bag may deploy.

### BODY CONTROL MODULE (BCM)

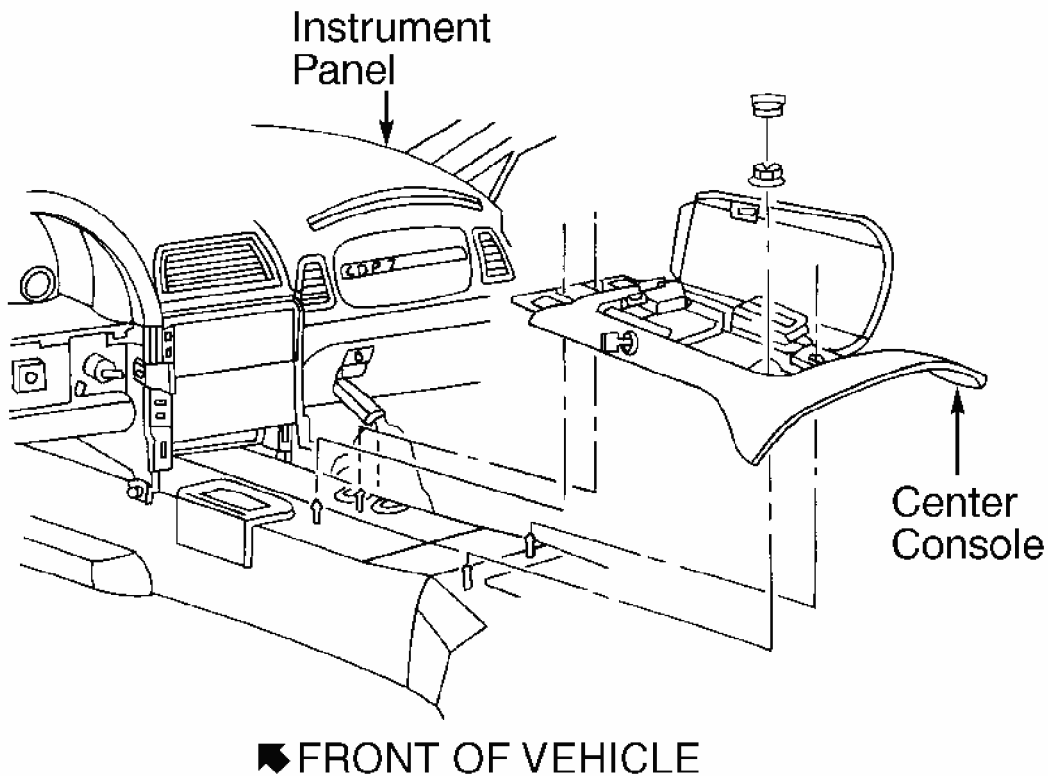
#### Removal & Installation

See **REMOVAL & INSTALLATION** in **BODY CONTROL MODULES - CORVETTE** article for removal and installation, and BCM programming procedures.

### CENTER CONSOLE

#### Removal & Installation

1. Open console door. Pull up on rear of TCS switch to release it from retaining clips (if switch does not release from trip plate, use screwdriver in recess at rear of switch). Disconnect TCS connector. Remove TCS switch.
2. Using small flat-blade screwdriver, carefully remove console retaining nut covers. Remove front and rear console nuts. Remove instrument panel accessory trim plate nuts. Lift rear of console slightly and pull rearward to release front of console.
3. Disconnect electrical accessory plug connector. Unscrew electrical accessory plug retainer from housing. Remove electrical accessory plug housing from console. Disconnect fuel door release switch connector. Remove fuel door release switch. Turn console over. Using small flat-blade screwdriver, carefully release switch tabs. Remove console from vehicle. See **Fig. 16** .
4. To install, reverse removal procedure. Tighten console retaining nuts to 89 INCH lbs. (10 N.m).



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**Fig. 16: Removing Center Console**  
 Courtesy of GENERAL MOTORS CORP.

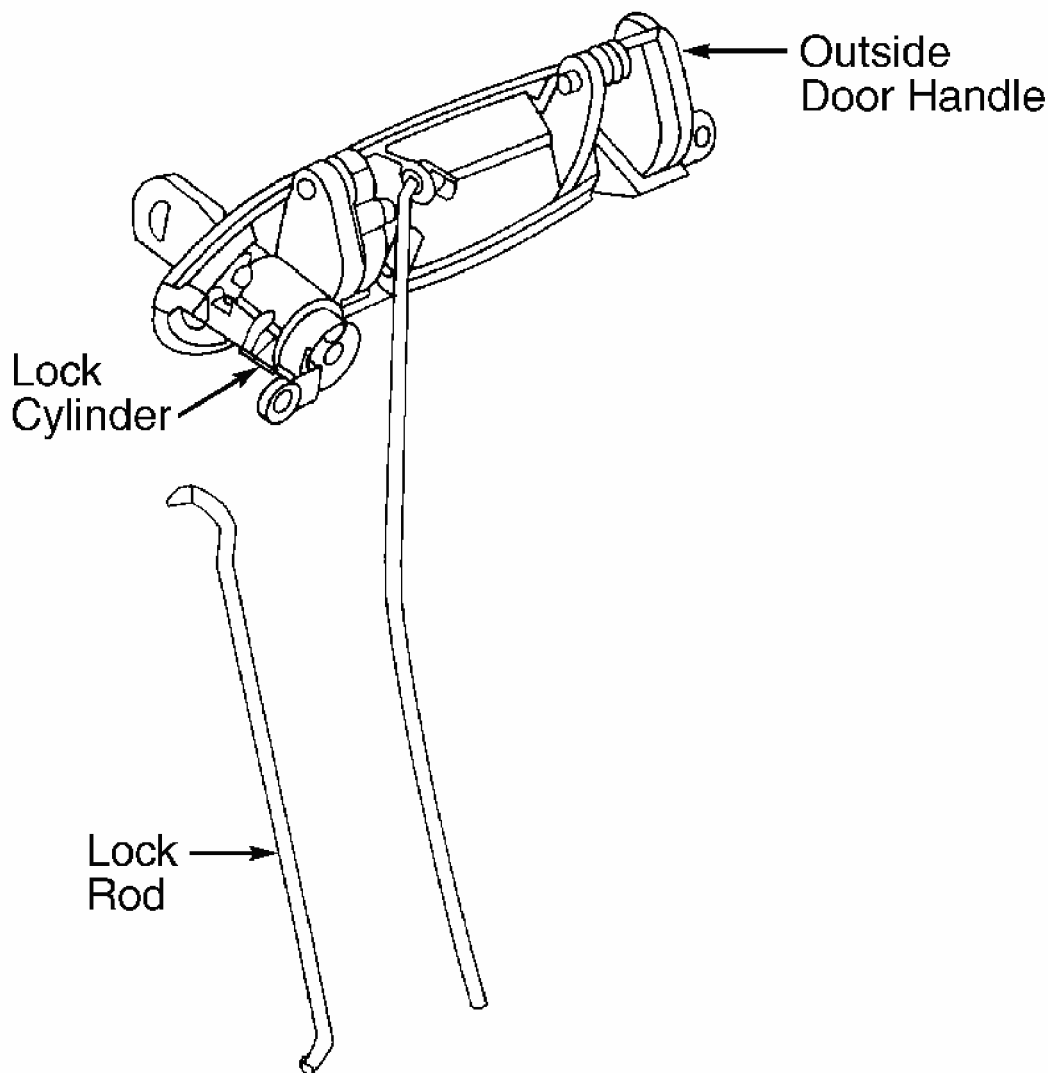
## DOOR LATCH ASSEMBLY

### Removal & Installation

1. Open door and pull out on inside door handle to access release tabs for bezel. Use a small, flat-bladed screwdriver to release front locking tabs. Then release rear tabs by pulling on bezel. Carefully use screwdriver to remove screw cover from behind inside door panel pull handle. Remove screws behind cover.
2. Carefully pry at rear of door panel using appropriate trim panel to release retainers. These retainers are plastic and very easy to break. Continue working around door until all clips are released. Pull door panel upward to remove from door. Disconnect electrical connectors and set door panel aside.
3. Remove power switch assembly from door panel. Remove water deflector from door. Reconnect power switch assembly to door harness and raise window to access lock/latch assembly. After raising window, disconnect switch assembly.
4. Disconnect lock rod from outside door handle. See **Fig. 17**. Disconnect electrical connectors from lock/latch assembly. Remove outside door handle opening rod from

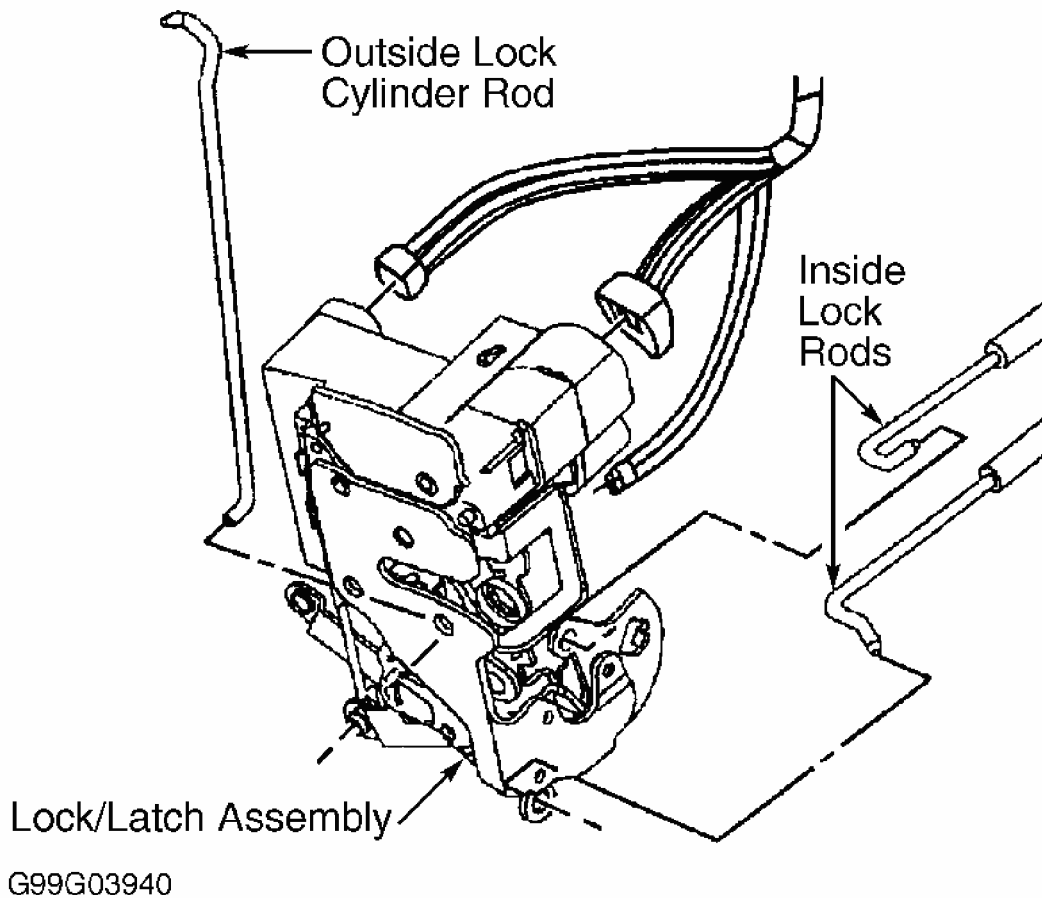
lock/latch assembly using a long, thin screwdriver to pry open retaining clip or by cutting rear of retaining clip and unscrewing clip from rod. See **Fig. 18** .

5. Remove screws attaching lock/latch assembly to door. Remove screws attaching inside door handle to door. Disconnect rods from inside door handle and remove anti-rattle clip from lock rods. Remove lock/latch assembly from door with inside lock rods attached. Remove lock rods from lock/latch assembly. To install, reverse removal procedure.



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**Fig. 17: Disconnecting Lock Rods From Outside Door Handle**  
Courtesy of GENERAL MOTORS CORP.



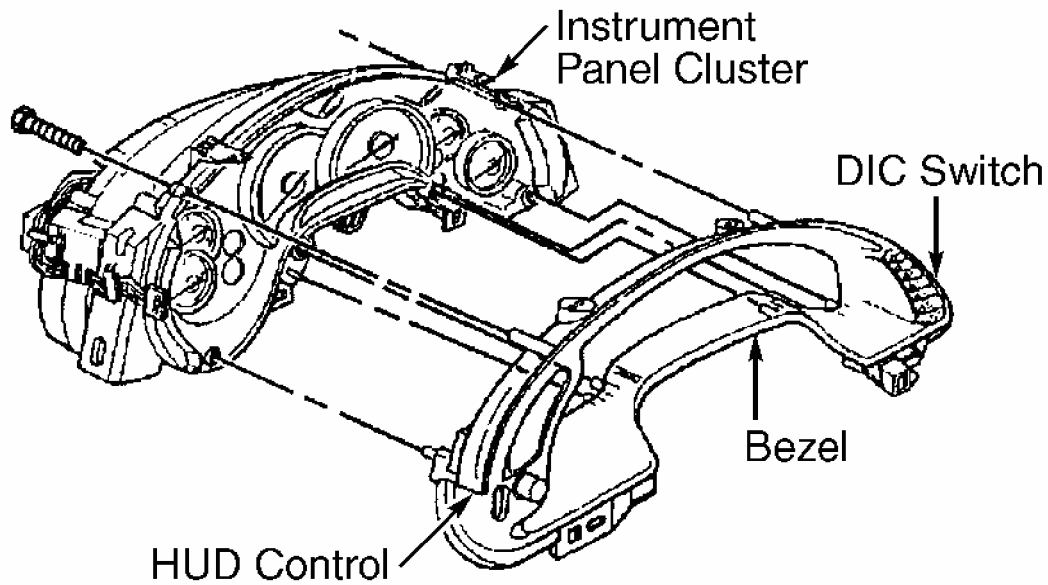
**Fig. 18: Removing Lock/Latch Assembly**  
Courtesy of GENERAL MOTORS CORP.

#### DRIVER INFORMATION CENTER (DIC) & HEAD-UP DISPLAY (HUD) CONTROL SWITCHES

**CAUTION:** When IPC is removed from vehicle, DO NOT set IPC on its face for more than 15 minutes, or fluid-filled air core gauges may be damaged.

#### Removal & Installation

1. Remove IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** . Disconnect instrument panel dimmer switch connector. Disconnect DIC switch connector. Remove IPC bezel retaining screws, and remove bezel. See **Fig. 19** . Remove screws and DIC switch. Remove HUD switch in same manner.
2. To install, reverse removal procedure. Tighten switch screws to 13 INCH lbs. (1.5 N.m). Tighten IPC bezel retaining screws to 13 INCH lbs. (1.5 N.m).

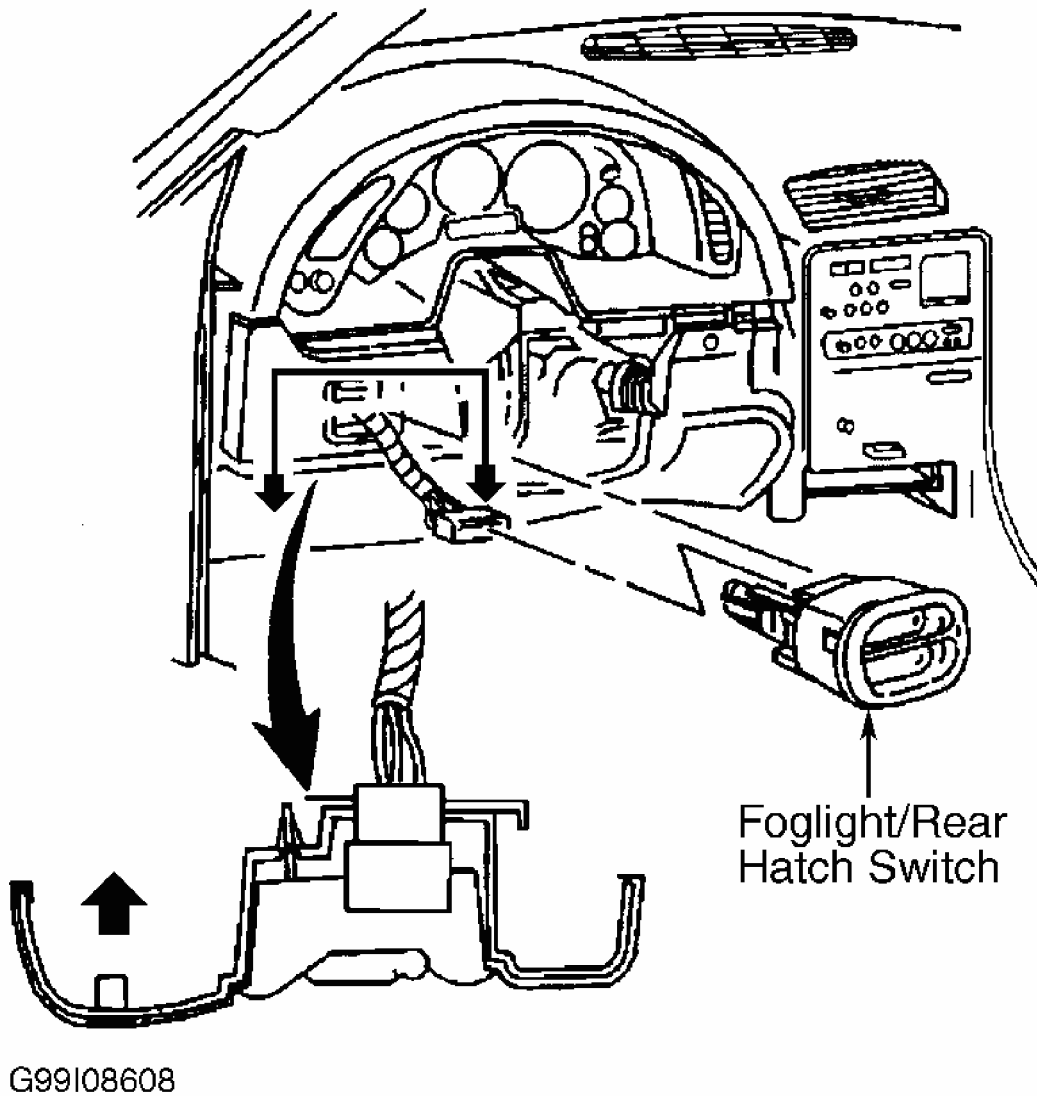


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**Fig. 19: Removing Instrument Panel Cluster Bezel**  
Courtesy of GENERAL MOTORS CORP.

#### FOGLIGHT/REAR HATCH SWITCH

Carefully pry the lower edge of the foglight/rear hatch switch to release locking tab. See **Fig. 20** . Disconnect electrical connectors and remove switch. To install, reverse removal procedure.



**Fig. 20: Removing Foglight/Rear Hatch Switch**  
Courtesy of GENERAL MOTORS CORP.

### HAZARD WARNING SWITCH

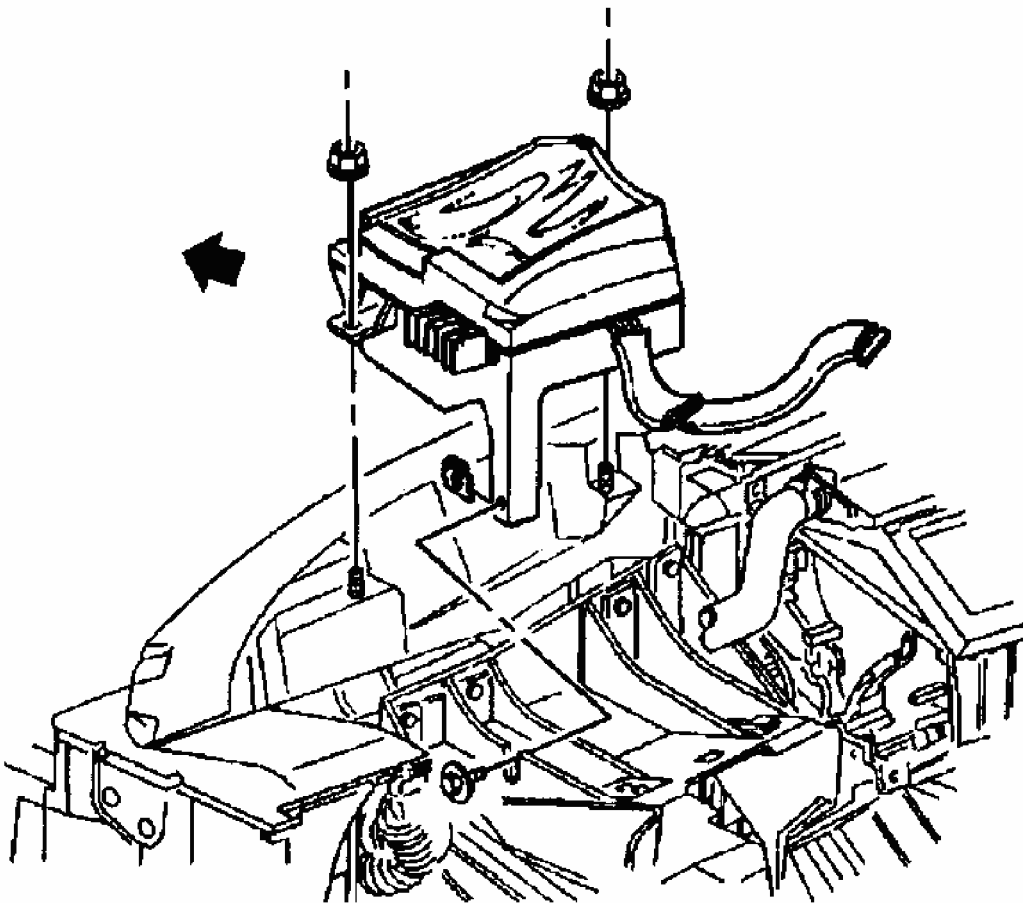
#### Removal & Installation

Remove instrument panel upper trim pad. See **INSTRUMENT PANEL UPPER TRIM PAD**. Turn trim pad over. Use care not to scratch trim pad. Remove hazard warning switch from trim pad. To install, reverse removal procedure.

### HEAD-UP DISPLAY (HUD) UNIT

#### Removal & Installation

1. Disconnect negative battery cable. Remove instrument panel upper trim pad. See **INSTRUMENT PANEL UPPER TRIM PAD** . Note position and routing of HUD wiring harness. Carefully lift the HUD wiring harness from between the IPC and the HUD. Disconnect the HUD electrical connector at IPC.
2. Remove IPC steering column bracket retaining screws. Raise rear of IPC to release locator tabs. Move IPC as to access HUD-to-steering column support bracket retaining screw.
3. Loosen the HUD-to-steering column support bracket retaining screw. Remove HUD retaining nuts and remove HUD from vehicle. See **Fig. 21** . To install, reverse removal procedure. Carefully place HUD wiring harness in original position.



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**Fig. 21: Removing Head-Up Display (HUD) From Instrument Panel**  
Courtesy of GENERAL MOTORS CORP.

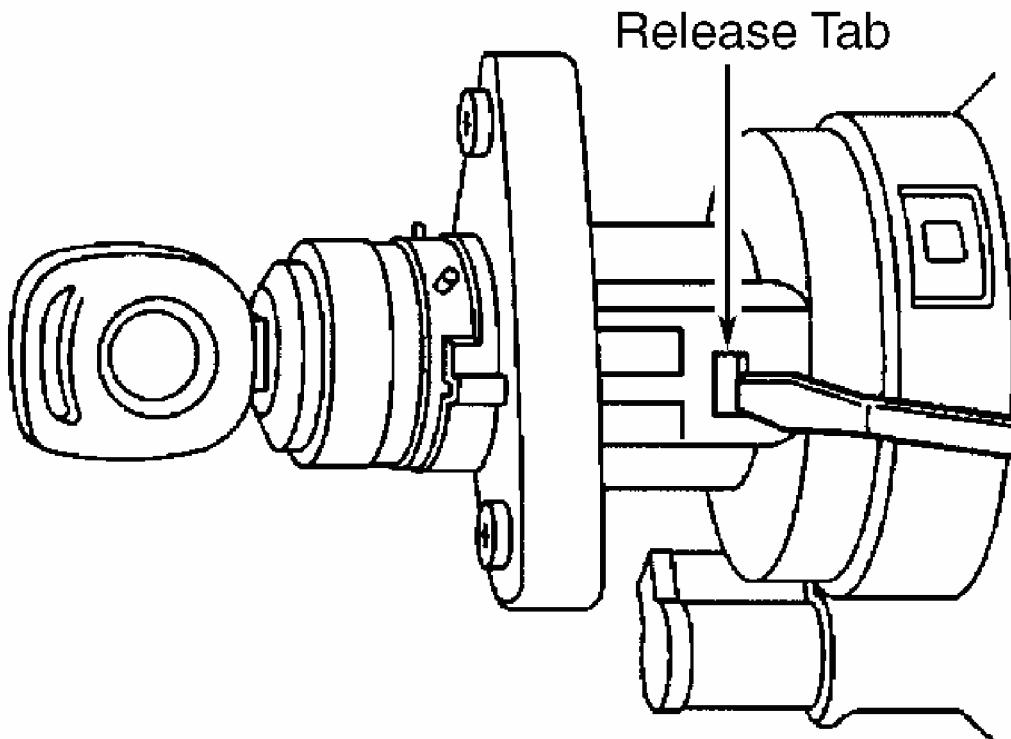
### Removal

1. Disconnect negative battery cable. Set parking brake. Remove instrument panel accessory trim plate and knee bolster panel. See **INSTRUMENT PANEL ACCESSORY TRIM PLATE & KNEE BOLSTER PANEL** . Remove lock cylinder connector from retaining tab on ignition switch. Disconnect lock cylinder connector.
2. Insert key into ignition switch. Turn ignition switch to RUN position. Using a flat-blade screwdriver, depress and hold ignition lock cylinder retaining tab located on lower right side of ignition switch. Remove ignition lock cylinder. See **Fig. 22** . Note how ignition switch lock cylinder wiring is wrapped around base of ignition switch bezel for installation reference. Remove ignition switch bezel.

### Installation

1. Install ignition switch bezel to lock cylinder. Insert ignition lock cylinder with key into ignition switch, and press into position until retaining tab produces an audible click. Pull on lock cylinder to ensure it is fully engaged. Turn ignition switch to LOCK position, and remove key.
2. To complete installation, reverse removal procedure. Insert key into ignition switch and check freedom of movement in various positions. Attempt to remove key with ignition switch in each position. Key should only be removable when ignition switch is in LOCK position.





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**Fig. 22: Removing Ignition Lock Cylinder**  
 Courtesy of GENERAL MOTORS CORP.

## IGNITION SWITCH

### Removal & Installation

1. Disconnect negative battery cable. Set parking brake. Remove instrument panel accessory trim plate and knee bolster panel. See INSTRUMENT PANEL ACCESSORY TRIM PLATE & KNEE BOLSTER PANEL . Remove lock cylinder connector from retaining tab on ignition switch. Disconnect lock cylinder connector.

**NOTE:** Note how ignition switch lock cylinder wiring is wrapped around base of ignition switch bezel for installation reference.

2. Remove ignition switch bezel. Disconnect hazard warning switch wiring harness from ignition switch retainer. Disconnect ignition switch connectors.
3. On A/T models, insert key into ignition switch. Turn ignition switch to RUN position. Using flat-blade screwdriver, depress park/lock cable retaining tab (located on bottom

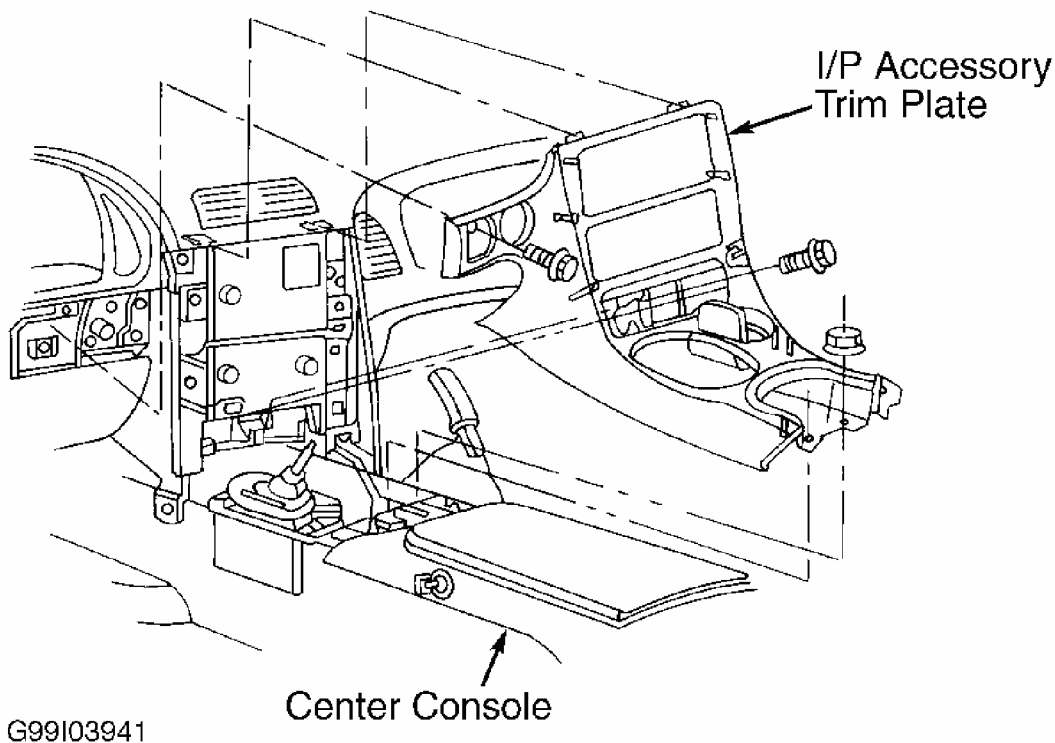
of switch near base of cable). Disconnect park/lock cable from ignition switch.

4. On all models, remove bolts and remove ignition switch. To install, reverse removal procedure. Tighten ignition switch retaining bolts to 49 INCH lbs. (5.5 N.m). Program PASS-Key(R) system See **PROGRAMMING** in BODY CONTROL MODULES - CORVETTE article.

## **INSTRUMENT PANEL ACCESSORY TRIM PLATE & KNEE BOLSTER PANEL**

### **Removal & Installation**

1. Remove console. See **CENTER CONSOLE** . Set parking brake. Shift transmission into 2nd gear (A/T models) or 4th gear (M/T models). On M/T models, grasp shift control boot, apply light pressure in toward shift control lever, and release shift boot retaining tabs from instrument panel accessory trim plate.
2. On all models, remove ashtray. Remove instrument panel accessory trim plate grille. Remove trim plate screws next to cigarette lighter and behind ashtray. Remove trim plate screw in grille opening. Holding sides of trim plate near curve at base, pull trim plate rearward to release locking tabs. Disconnect electrical connector.
3. On M/T models, rotate shift control boot until one end is down in shifter opening in trim plate. On all models, remove instrument panel accessory trim plate. See **Fig. 23** .
4. Prying at lower edge of switch, release locking tab and remove foglight/rear compartment lid release switch. Disconnect electrical connector. Remove driver's knee bolster trim panel screws. Holding trim panel at sides, pull rearward firmly to release locking tabs. Remove knee bolster trim panel. To install, reverse removal procedure.



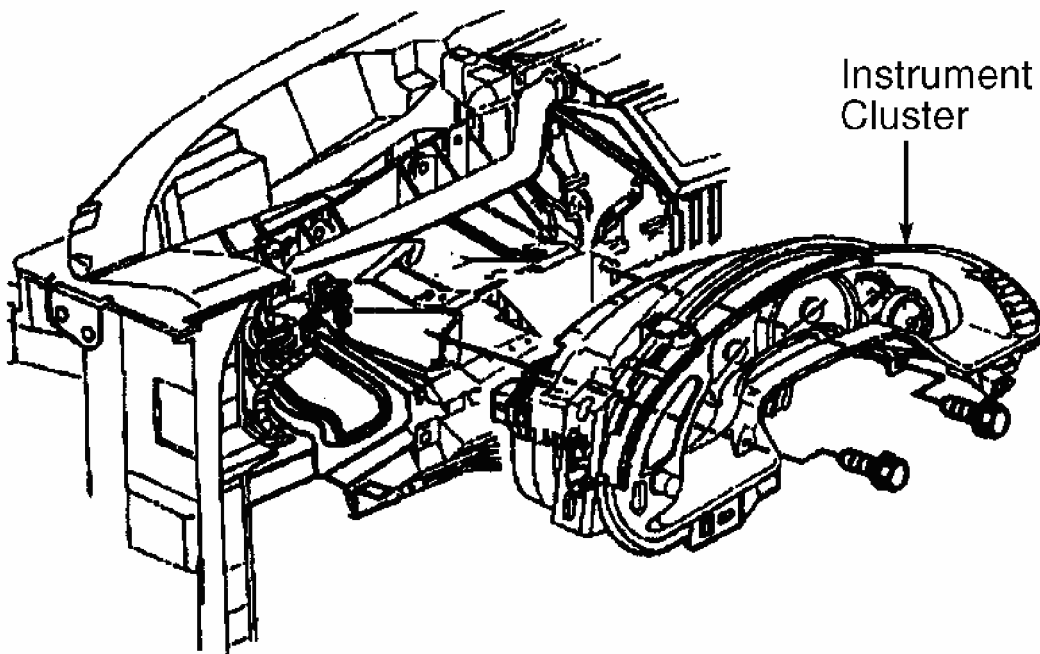
**Fig. 23: Removing Instrument Panel Accessory Trim Plate**  
Courtesy of GENERAL MOTORS CORP.

#### INSTRUMENT PANEL CLUSTER (IPC)

**CAUTION:** When IPC is removed from vehicle, DO NOT set IPC on its face for more than 15 minutes, or fluid-filled air core gauges may be damaged.

#### Removal & Installation

1. Disconnect negative battery cable. Remove instrument panel upper trim pad. See **INSTRUMENT PANEL UPPER TRIM PAD** . Remove IPC-to-steering column bracket retaining screws.
2. Lift rear of IPC slightly to release locator tab. Lift IPC and disconnect electrical connector. Remove IPC. See **Fig. 24** . To install, reverse removal procedure. Tighten IPC-to-steering column bracket screws to 31 INCH lbs. (3.5 N.m).



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**Fig. 24: Removing Instrument Cluster**  
Courtesy of GENERAL MOTORS CORP.

#### INSTRUMENT PANEL CLUSTER (IPC) BULBS

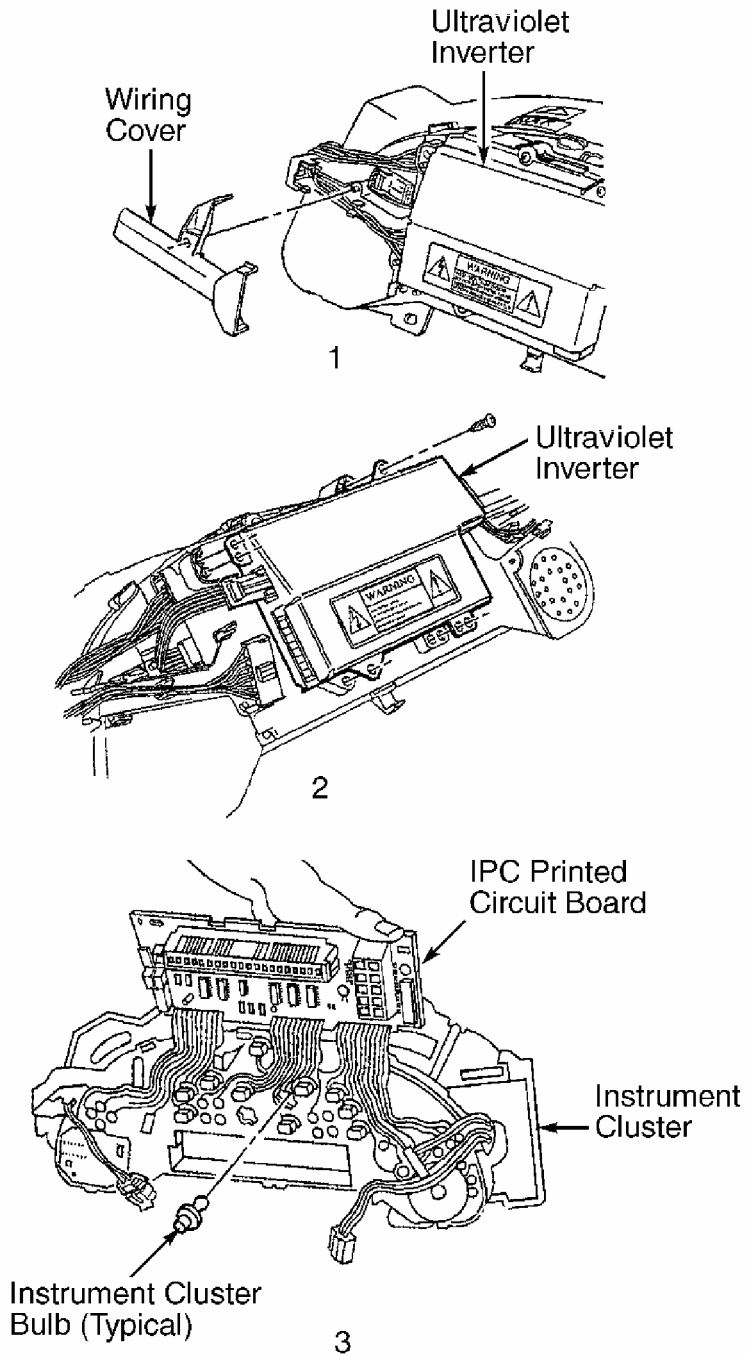
**CAUTION:** When IPC is removed from vehicle, DO NOT set IPC on its face for more than 15 minutes, or fluid-filled air core gauges may be damaged.

#### Removal & Installation

1. Remove IPC. See **INSTRUMENT PANEL CLUSTER (IPC)** . Unsnap and remove Ultra-Violet (UV) inverter wiring covers (1). See **Fig. 25** . Disconnect UV inverter electrical connectors. Remove UV inverter mounting screws and remove UV inverter (2).
2. Disconnect electrical connectors from IPC printed circuit board. Remove IPC rear cover retaining screws. Unsnap and remove rear cover from IPC.
3. Disconnect remaining electrical connectors from IPC printed circuit board. Remove the circuit board retaining screws. Tilt circuit board up slightly and unsnap circuit board retaining tabs. Disconnect chime connector from circuit board. Move circuit board out of the way ensuring flat wires do not become kinked or loose. See **Fig. 25** .
4. Twist to remove appropriate bulb/socket from the IPC. To install, reverse removal procedure. Tighten IPC rear cover retaining screws to 6 INCH lbs. (0.7 N.m).

# 2000 Chevrolet Corvette

## 2000 ACCESSORIES & EQUIPMENT Analog Instrument Panels - Corvette



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**Fig. 25: Accessing & Removing Instrument Panel Cluster (IPC) Indicator Bulbs**  
Courtesy of GENERAL MOTORS CORP.

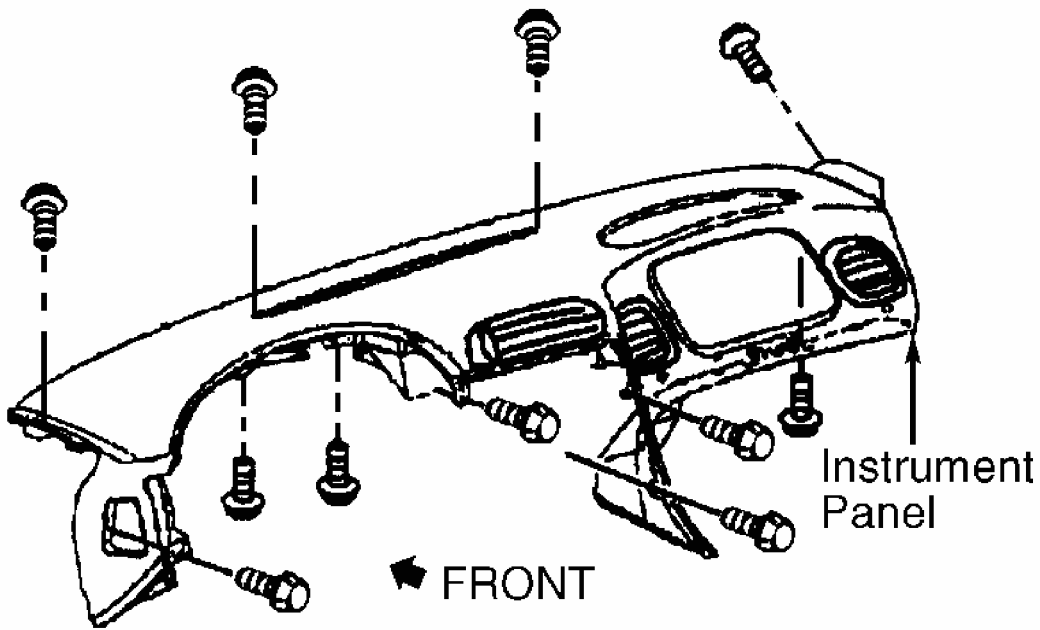
### INSTRUMENT PANEL UPPER TRIM PAD

#### Removal

1. Remove instrument panel accessory trim plate and knee bolster panel. See **INSTRUMENT PANEL ACCESSORY TRIM PLATE & KNEE BOLSTER PANEL** . Open glove box door, and disconnect glove box light switch connector. Reach behind glove box door, and push out trim plugs. Remove lower glove box bolts. Remove side and upper glove box screws. Remove glove box.
2. Remove windshield defroster grille. Move Daytime Running Lights (DRL) sensor and sunload sensor (if equipped) into defroster duct to provide additional clearance. Remove windshield side garnish moldings. Remove upper trim pad-to-defroster duct screws. Remove screws retaining upper trim pad to left and right hinge pillars.
3. Remove IPC bezel to upper trim pad. Remove screws retaining upper trim pad to driver's knee bolster outer bracket and center support bracket. Remove upper trim pad-to-passenger's air bag bracket.
4. Tilt steering wheel to lowest position. Lift rear edge of upper trim pad about 2" to clear air distribution duct. Slowly pull upper trim pad out while guiding tabs on sides of trim pad past hinge pillars. Disconnect hazard warning switch connector. Remove upper trim pad. See **Fig. 26** .

#### **Installation**

To install, reverse removal procedure. Tighten lower glove box bolts and upper trim pad-to-hinge pillar screws to 22 INCH lbs. (2.5 N.m). Tighten all other screws to 17 INCH lbs. (1.9 N.m).



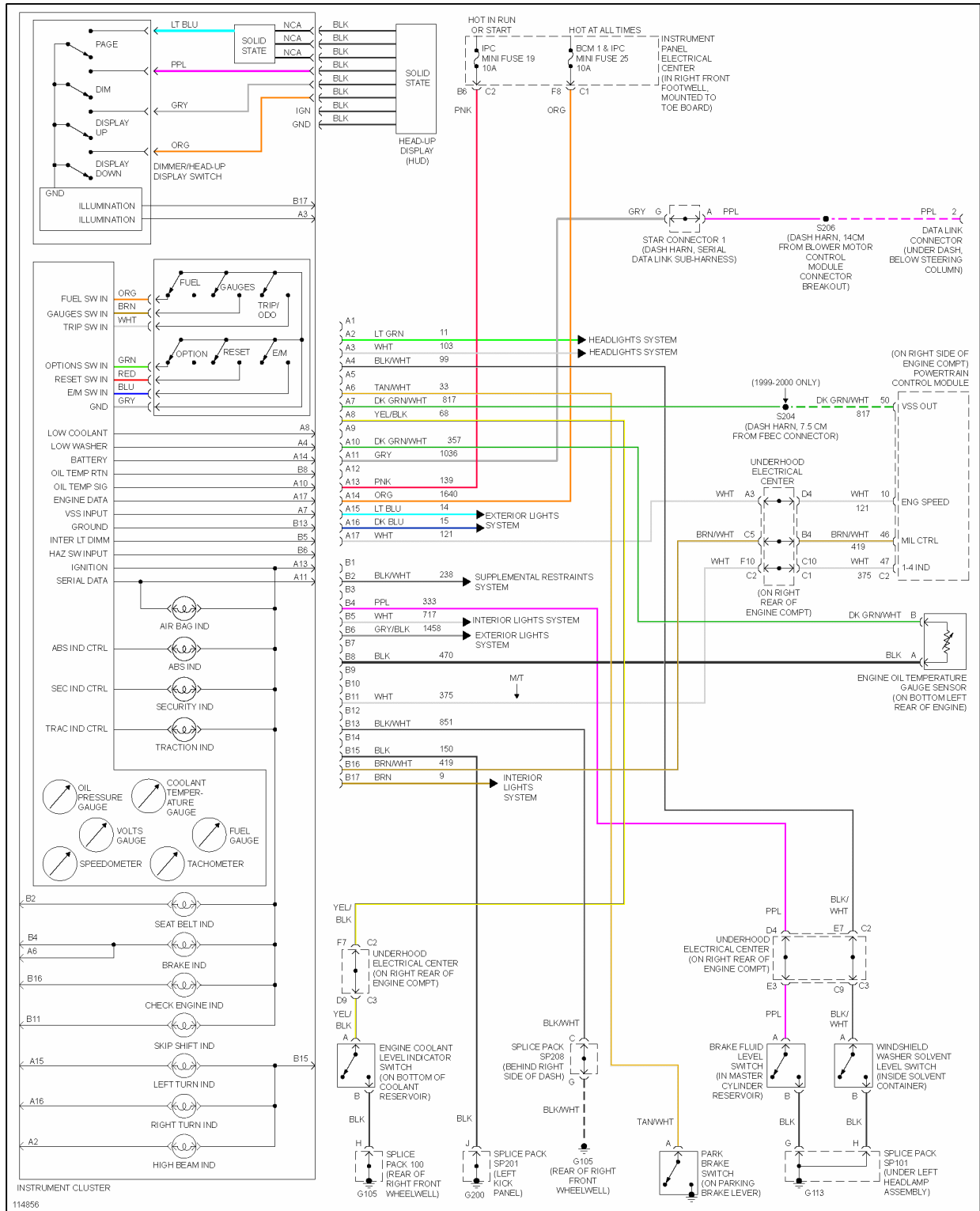
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**Fig. 26: Removing Instrument Panel Upper Trim Pad**  
Courtesy of GENERAL MOTORS CORP.

## WIRING DIAGRAMS

# 2000 Chevrolet Corvette

## 2000 ACCESSORIES & EQUIPMENT Analog Instrument Panels - Corvette



**Fig. 27: Analog Instrument Panel Wiring Diagram (Corvette)**