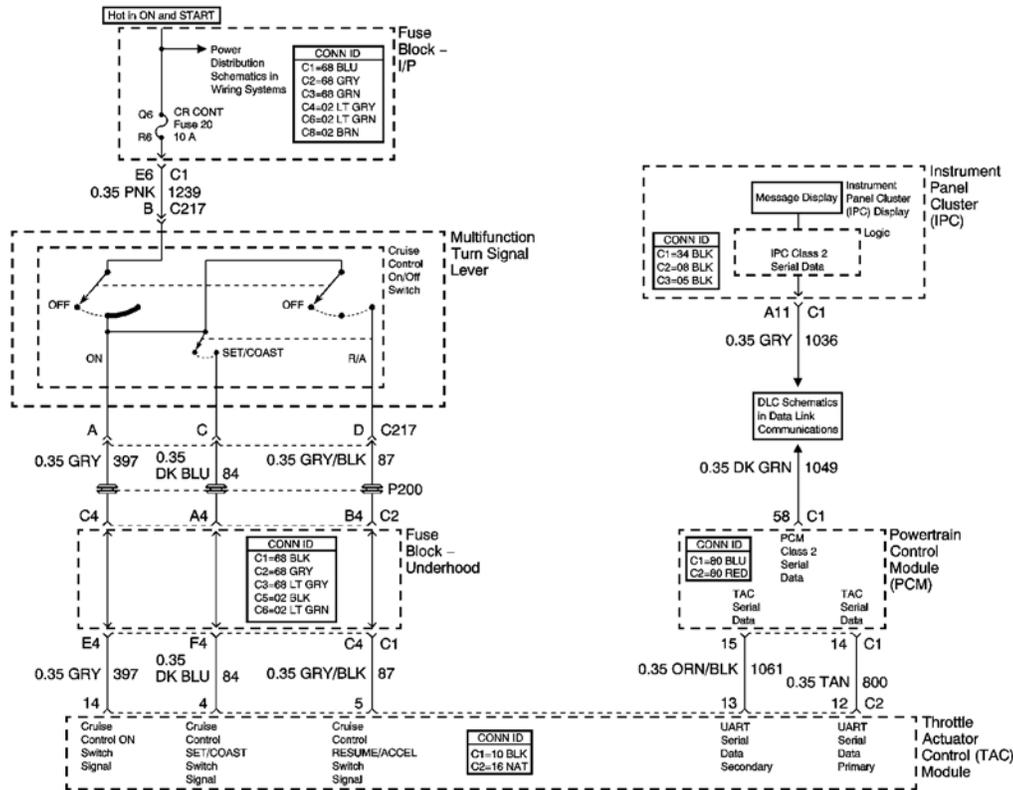


Cruise Control - Corvette

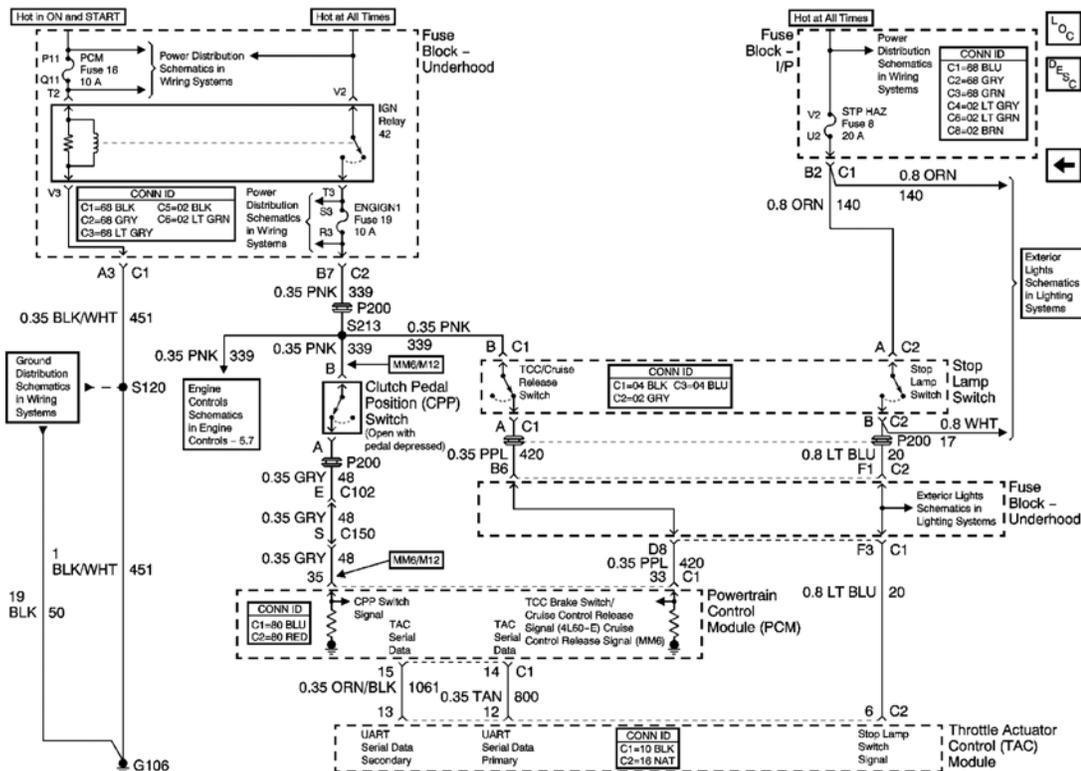
**SCHEMATIC AND ROUTING DIAGRAMS**

**CRUISE CONTROL SCHEMATICS**



**Fig. 1: Cruise Control Switch, Throttle Actuator Control Motor And Cruise Control Release Switch Schematic**

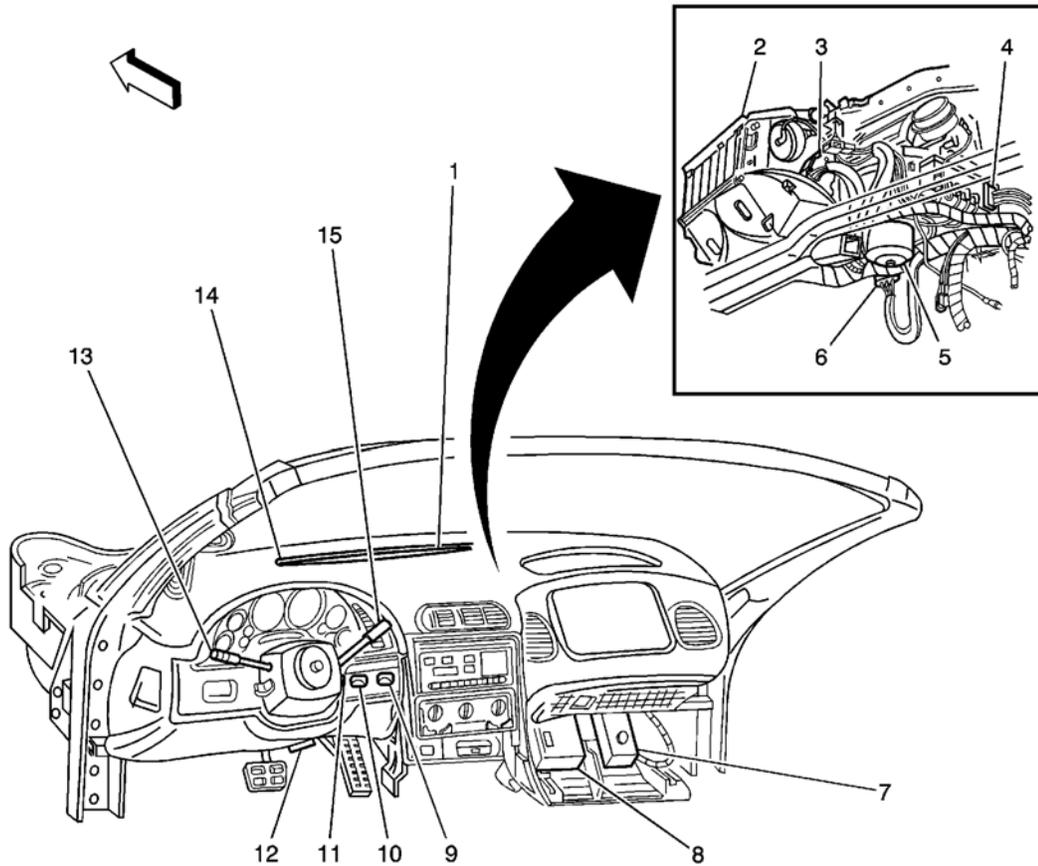
Courtesy of GENERAL MOTORS CORP.



**Fig. 2: Power, Ground And Stop Lamp Switch Schematic**  
 Courtesy of GENERAL MOTORS CORP.

## COMPONENT LOCATOR

### CRUISE CONTROL COMPONENT VIEWS

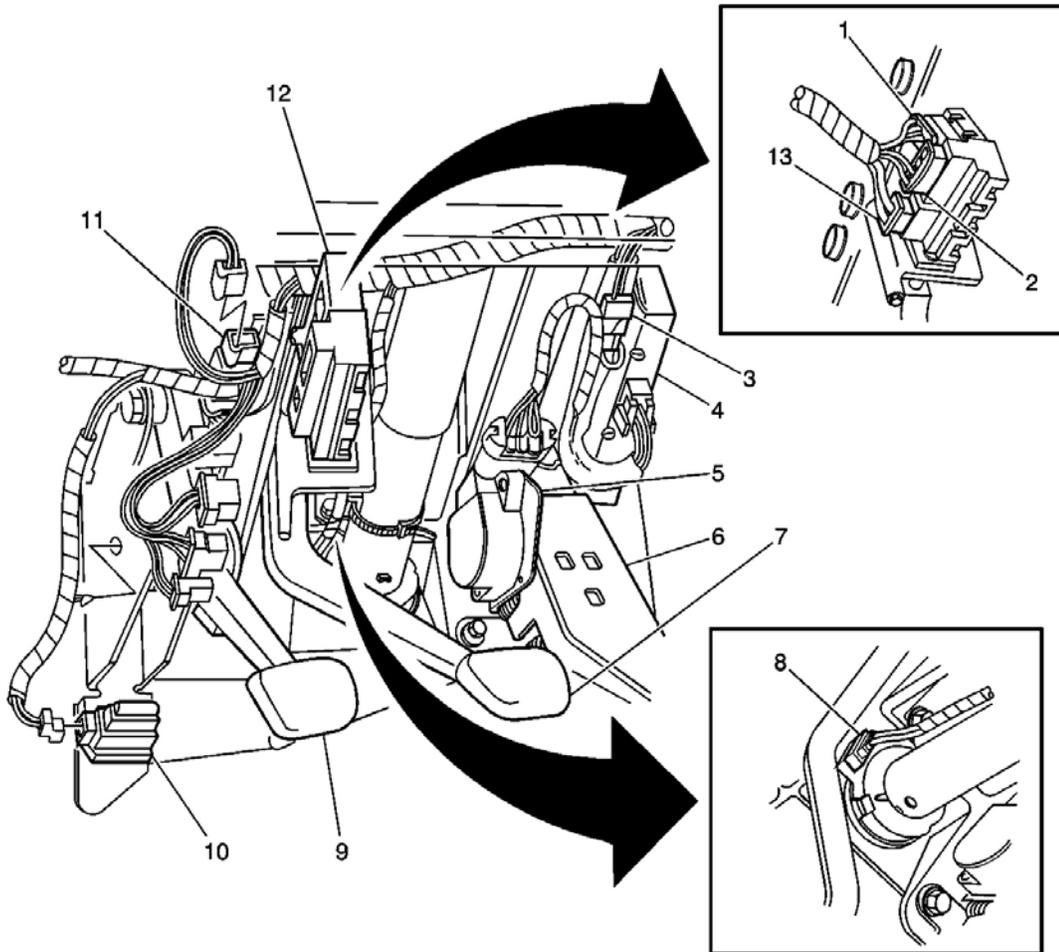


**Fig. 3: Instrument Panel Component View**  
 Courtesy of GENERAL MOTORS CORP.

**Callouts For Fig. 3**

Callout	Component Name
1	Sunload Sensor
2	HVAC Module Assembly
3	Air Temperature Actuator (C60)
4	Vacuum Control Assembly (CJ2)
5	Blower Motor
6	Blower Motor Control Processor
7	Fuse Block-IP
8	Body Control Module (BCM)
9	Ignition Switch
10	Air Temperature Sensor - Inside
11	Telescoping Actuator Switch

12	Data Link Connector (DLC)
13	Multifunction Turn Signal Lever
14	Ambient Light Sensor
15	Windshield Wiper/Washer Switch

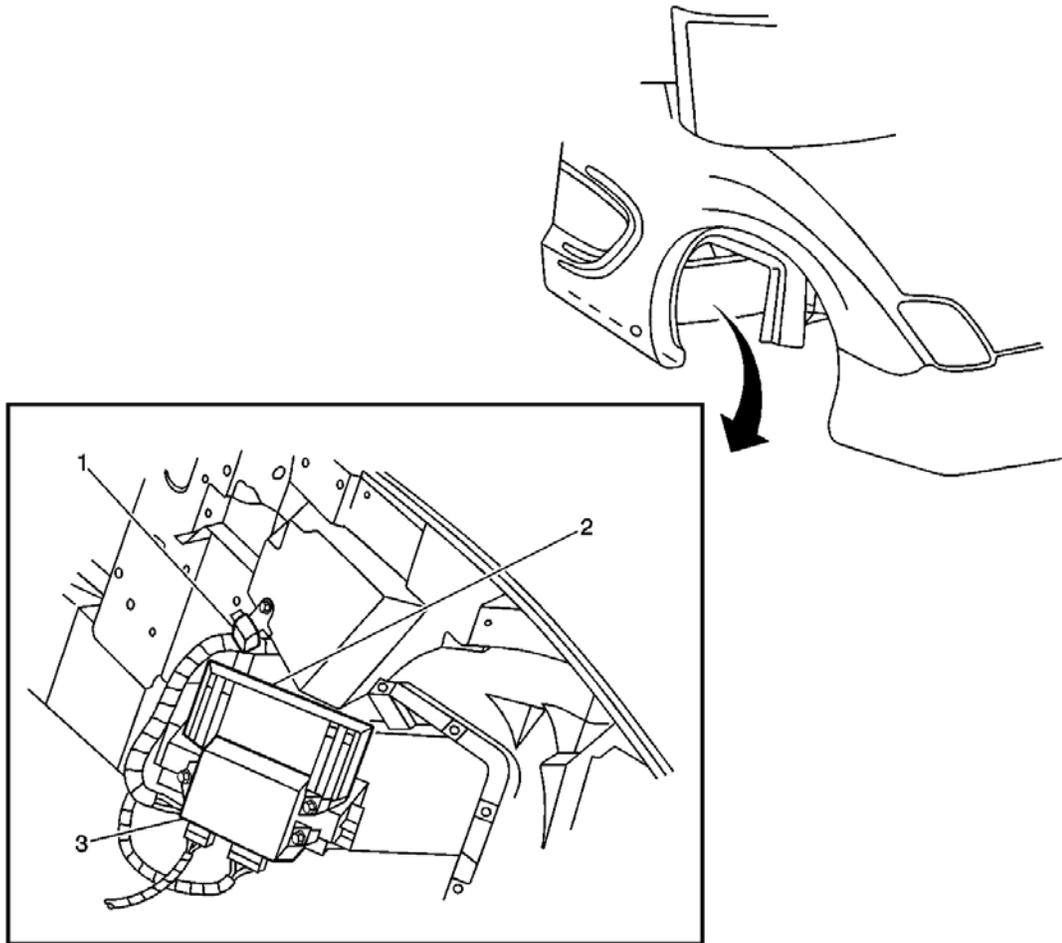


**Fig. 4: Under Side Of The Dash Component View - Left**  
 Courtesy of GENERAL MOTORS CORP.

**Callouts For Fig. 4**

Callout	Component Name
1	Stop Lamp Switch C1
2	Stop Lamp Switch C3
3	C213
4	Bose Signal Processor
5	Accelerator Pedal Position (APP) Sensor

6	Accelerator Pedal
7	Brake Pedal
8	Steering Wheel Position Sensor
9	Clutch Pedal
10	Clutch Pedal Start Switch
11	Clutch Pedal Position Switch
12	Stop Lamp Switch
13	Stop Lamp Switch Connector C2



**Fig. 5: RH Wheel Well Component View**  
**Courtesy of GENERAL MOTORS CORP.**

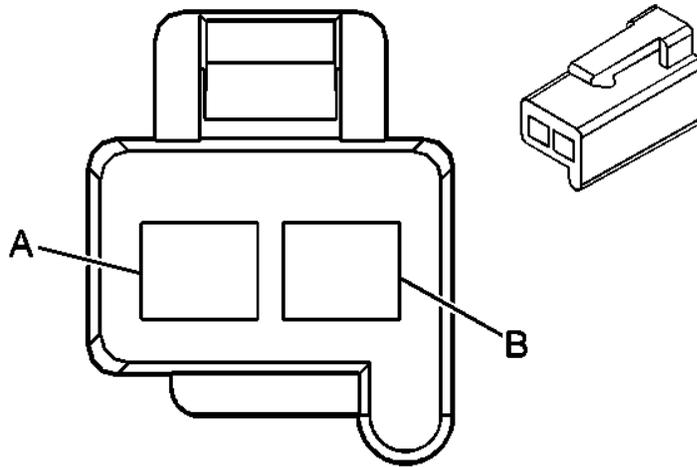
**Callouts For Fig. 5**

Callout	Component Name
1	Secondary Air Injection (AIR) Solenoid

2	Powertrain Control Module (PCM)
3	Throttle Actuator Control (TAC) Module

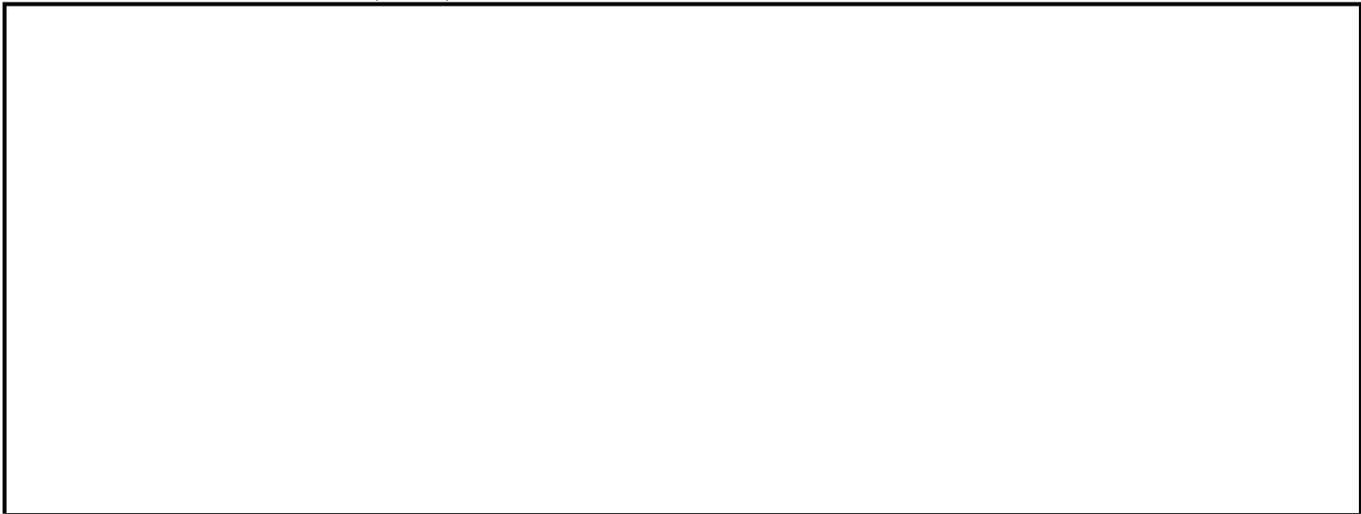
## CRUISE CONTROL CONNECTOR END VIEWS

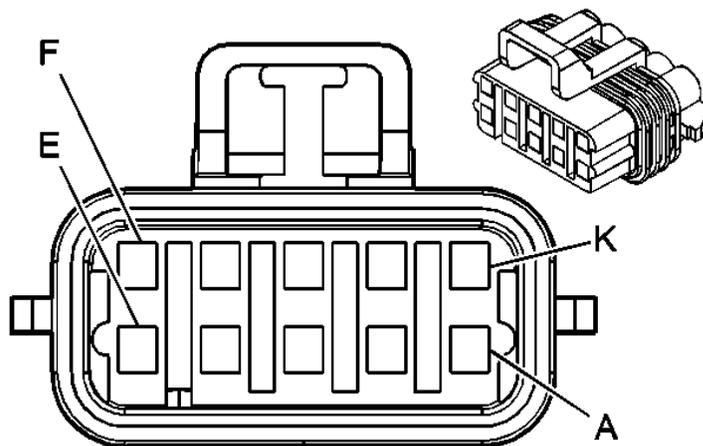
### Clutch Pedal Position (CPP) Switch Terminal Identification Connector End View



<b>Connector Part Information</b>		<ul style="list-style-type: none"> <li>• 12041433</li> <li>• 2-Way F Metri-Pack 280 Series (BLK)</li> </ul>	
<b>Pin</b>	<b>Wire Color</b>	<b>Circuit No.</b>	<b>Function</b>
A	GRY	48	CPP Switch Signal
B	PNK	339	Ignition 1 Voltage

### Throttle Actuator Control (TAC) Module Terminal Identification Connector End View - C1

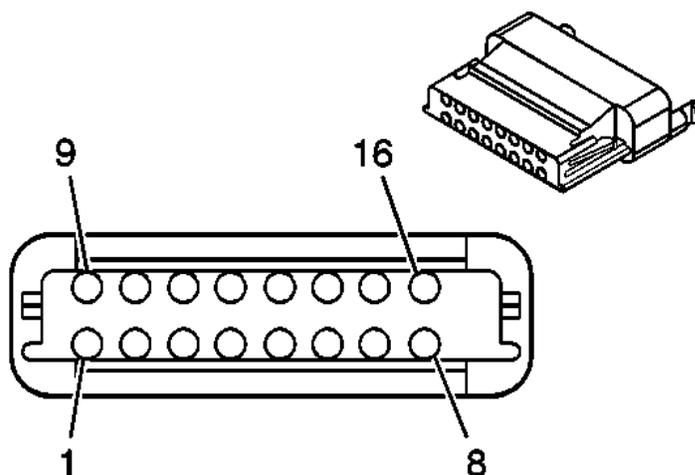




Connector Part Information		<ul style="list-style-type: none"> <li>• 12186688</li> <li>• 10-Way F Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	GRY	1273	Low Reference
B	PPL	1272	Low Reference
C	LT BLU	1162	APP Sensor 2 Signal
D	TAN	1274	5 Volt Reference
E	YEL/BLK	1275	5 Volt Reference
F	DK BLU	1161	APP Sensor 1 Signal
G	LT BLU	1276	5 Volt Reference
H	-	-	Not Used
J	BRN	1271	Low Reference
K	DK GRN	1163	APP Sensor 3 Signal

**Throttle Actuator Control (TAC) Module Terminal Identification Connector End View - C2**





Connector Part Information		<ul style="list-style-type: none"> <li>• 12191065</li> <li>• 16-Way F Micro-Pack 100 Series (MD GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
1	DK BLU	417	TP Sensor 1 Signal
2	DK GRN	485	5 Volt Reference
3	PPL	486	Low Reference
4	DK BLU	84	Cruise Control Set/Coast Switch Signal
5	GRY/BLK	87	Cruise Control Resume/Accel Switch Signal
6	LT BLU	20	Stop Lamp Supply Voltage
7	PNK	539	Ignition 1 Voltage
8	BRN	582	TAC Motor Control - 2
9	YEL/BLK	487	5 Volt Reference
10	WHT	484	Low Reference
11	PNK	427	TP Sensor 2 Signal
12	TAN	800	UART Serial Data Primary
13	ORN/BLK	1061	UART Serial Data Secondary
14	GRY	397	Cruise Control On Signal
15	BLK/WHT	451	Ground
16	YEL	581	TAC Motor Control - 1

## DIAGNOSTIC INFORMATION AND PROCEDURES

### DIAGNOSTIC STARTING POINT - CRUISE CONTROL

Begin the system diagnosis with **Diagnostic System Check - Cruise Control** . The Diagnostic System Check

will provide the following information:

- The identification of the control module (s) which command the system
- The ability of the control module (s) to communicate through the serial data circuit
- The identification of any stored diagnostic trouble codes (DTCs) and their status

The use of the Diagnostic System Check will identify the correct procedure for diagnosing the system and where the procedure is located.

## DIAGNOSTIC SYSTEM CHECK - CRUISE CONTROL

### Description

The Cruise Control Diagnostic System Check is an organized approach to identifying a condition created by an electronic control system failure. The Diagnostic System Check directs the service technician to the next logical step in diagnosing the concern. Understanding the system, the table, and using it correctly reduces diagnostic time and prevents misdiagnosis. For a review of the cruise control system, refer to **Cruise Control Description and Operation** .

### Test Description

The numbers below refer to the step numbers on the diagnostic table.

**2:** Lack of communication may be due to a malfunction in the class 2 serial data circuit. The specified procedure will determine the particular condition.

**5:** The presence of DTCs which begin with "U" indicates that some other module is not communicating. The specified procedure will compile all the available information before tests are performed.

### Diagnostic System Check - Cruise Control

Step	Action	Yes	No
1	Install a scan tool. Does the scan tool power up?	Go to <b>Step 2</b>	Go to <b><u>Scan Tool Does Not Power Up</u></b> in Data Link Communications
2	1. Turn the ignition ON, with the engine OFF. 2. Attempt to establish communication with the following modules: <ul style="list-style-type: none"> <li>• The powertrain control module (PCM)</li> <li>• The electronic brake control module (EBCM)</li> </ul> Does the scan tool communicate with the modules listed above?	Go to <b>Step 3</b>	Go to <b><u>Scan Tool Does Not Communicate with Class 2 Device</u></b> in Data Link Communications

3	<p><b>IMPORTANT:</b> The engine may start during the following step. Turn the engine OFF as soon as you have observed the Crank power mode.</p> <ol style="list-style-type: none"> <li>1. With a scan tool, access the Class 2 Power Mode in the Diagnostic Circuit Check.</li> <li>2. Rotate the ignition switch through all positions while observing the System Power Mode parameter.</li> </ol> <p>Does the System Power Mode parameter reading match the ignition switch position for all switch positions?</p>	Go to <b>Step 4</b>	Go to <b>Power Mode Mismatch</b> in Body Control System
4	<p>Select the DTCs function on the scan tool for the following modules:</p> <ul style="list-style-type: none"> <li>• The powertrain control module (PCM)</li> <li>• The electronic brake control module (EBCM)</li> </ul> <p>Does the scan tool display any DTCs?</p>	Go to <b>Step 5</b>	Go to <b>Symptoms - Cruise Control</b>
5	Does the scan tool display any DTCs which begin with a "U"?	Go to <b>Scan Tool Does Not Communicate with Class 2 Device</b> in Data Link Communications	Go to <b>Step 6</b>
6	Does the scan tool display DTC P0562, P0563, P0615, or P01638?	Go to <b>Diagnostic Trouble Code (DTC) List</b> in Engine Electrical	Go to <b>Diagnostic Trouble Code (DTC) List</b>

## SCAN TOOL DATA LIST

### Powertrain Control Module (PCM) Scan Tool Data List

Scan Tool Parameter	Data List	Units Displayed	Typical Data Value
<b>Ignition ON/Engine Idling at Normal Operating Temperature/Vehicle is in Park or Neutral/Cruise On/Off Switch is Turned Off</b>			
Clutch Pedal Switch	Cruise Control Data	Applied/Released	Released
Cruise Control Active	Cruise Control	Yes/No	No

	Data		
Cruise Disengage (1 - 8) History	Cruise Control Data	The last reason for cruise control disengagement	Varies
Cruise On/Off Switch	Cruise Control Data	On/Off	Off
Cruise Release Brake Pedal Switch	Cruise Control Data	Applied/Released	Released
Cruise Resume/Accel. Switch	Cruise Control Data	On/Off	Off
Cruise Set/Coast Switch	Cruise Control Data	On/Off	Off
Engine Speed	Cruise Control Data	RPM	Varies
Extended Travel Brake Pedal Switch	Engine Data 1	Applied/Released	Released
Ignition 1 Signal	Cruise Control Data	Volts	12 to 14 Volts
Reduced Engine Power	Cruise Control Data	Active/Inactive	Inactive
Stop Lamp Pedal Switch	Cruise Control Data	Applied/Released	Released
TAC/PCM Communication Signal	Cruise Control Data	OK/Fault	OK
Traction Control Signal	Cruise Control Data	Active/Inactive	Active
Vehicle Speed Sensor	Cruise Control Data	km/h (mph)	0 km/h (0 mph)

## SCAN TOOL DATA DEFINITIONS (CRUISE CONTROL)

The Scan Tool Data Definitions contains a brief description of all cruise control related parameters available on the scan tool.

### Clutch Pedal Switch

The scan tool displays Applied or Released. The PCM monitors the signal circuit of the clutch start switch. An open switch is displayed as Applied

### Cruise Control Active

The scan tool displays Yes or No. The PCM determines the current status of cruise control operation. An active cruise control system is displayed as Yes.

### Cruise Disengage (1 - 8) History

The scan tool displays the last 8 reasons why the cruise control system was disengaged. Refer to the Scan Tool Data Definitions (Disengaged History) for descriptions.

### **Cruise On/Off Switch**

The scan tool displays On or Off. The TAC module the monitors the signal circuit of the On/Off switch of the cruise control system. A closed switch is displayed as On.

### **Cruise Release Brake Pedal Switch**

The scan tool displays Applied or Released. The PCM monitors the TCC brake switch/Cruise control release signal circuit. An open switch is displayed as Applied.

### **Cruise Resume/Accel. Switch**

The scan tool displays On or Off. The TAC module the monitors the signal circuit of the resume/accel switch. A closed switch is displayed as On.

### **Cruise Set/Coast Switch**

The scan tool displays On or Off. The TAC module the monitors the signal circuit of the set/coast switch. A closed switch is displayed as On. The cruise control On/Off switch must be switched On in order to correctly view the Cruise Set/Coast Switch parameter.

### **Extended Travel Brake Switch**

The scan tool displays Applied or Released. The PCM monitors the signal circuit of the extended travel brake switch. An open switch is displayed as Applied

### **Engine Speed**

The scan tool displays 0 to 9,999 RPM. The PCM monitors the CKP signal circuit in order to determine the engine RPM.

### **Ignition 1 Signal**

The scan tool displays 6 Volts to 18 Volts. The PCM monitors the Ignition 1 signal circuit in order to determine the system voltage.

### **Reduced Engine Power**

The scan tool displays Active or Inactive. When the PCM determines that a throttle actuator control system malfunction exists, the scan tool displays Active.

### **Stoplamp Pedal Switch**

The scan tool displays Applied or Released. The PCM monitors the stop lamp switch signal circuit. An open switch is displayed as Applied.

### **TAC/PCM Communication Signal**

The scan tool displays OK or Fault. The PCM uses the UART serial data circuit in order to communicate with the TAC module. If the communication between the PCM and the TAC module is interrupted, the scan tool displays Fault.

### **Traction Control Signal**

The scan tool displays Active or Inactive. When the PCM receives a class 2 signal from the Electronic Brake Control Module requesting a traction control related function, the scan tool displays Active.

### **Vehicle Speed Sensor**

The scan tool displays 0 to 150 km/h (93.2 mph). The PCM monitors the vehicle speed sensor signal circuit in order to calculate the vehicle speed for display.

## **SCAN TOOL DATA DEFINITIONS (DISENGAGE HISTORY)**

The Cruise Control Scan Tool Definitions - Disengage History is a common list for all of the available cruise control disengagement definitions available on the scan tool. The cruise control system equipped on the vehicle determines which cruise control disengagement parameters are available on the scan tool.

One of the following conditions must be present in order for a disengagement parameter to appear:

- The cruise control system is active and disengagement is requested.
- The engagement of the cruise control system is requested while a fault is present.

### **Accel Rate**

The PCM/ECM detects that the vehicle acceleration is greater than the calibrated cruise control threshold.

### **Bad Sequence**

The PCM/ECM detects that a cruise control software execution error is present.

### **Brake**

The PCM/ECM detects that the stop lamps have been activated or the PCM/ECM detects that a stop lamp pedal activation had not occurred before the cruise control system was requested.

### **Cancel**

The PCM/ECM detects that the cruise control cancel switch has been activated.

## **CC Sw. Position**

The PCM/ECM detects that the acceleration mode is active without the activation of the Accel. switch.

## **Clutch**

The PCM/ECM detects that the clutch pedal switch has been activated.

## **Clutch Switch**

The PCM/ECM detects that the clutch pedal switch has been activated.

## **Cruise Off**

The PCM/ECM detects that the cruise On/Off switch was turned to Off when the cruise control system was enabled.

## **Coast Low Speed**

The PCM/ECM detects that the Set/Coast switch is activated until the vehicle speed is below 37 km/h (23 mph).

## **Coast Disengage**

When the PCM/ECM detects that the cruise set/coast signal is active and the throttle blade fully closes the cruise control system will disengage until the PCM/ECM detects that the set/coast signal is inactive. The cruise control system will then engage and set with the new vehicle speed.

## **Decel Rate**

The PCM/ECM detects that the vehicle deceleration is greater than the calibrated cruise control threshold.

## **DTC Set**

The PCM/ECM detects that a DTC has been set which affects the cruise control operation.

## **Engine Run Time**

The PCM/ECM detects that the cruise control system has been requested and the engine run time counter is not active.

## **Engine Speed**

The PCM/ECM detects that the engine speed is less than or greater than a calibrated RPM.

## **ETC**

The PCM/ECM detects a fault within the TAC system.

### **First Gear**

While the cruise control system is active, the PCM/ECM detects that the transmission is in Drive 1.

### **High Accel.**

The PCM/ECM detects that the vehicle acceleration is greater than the calibrated cruise control threshold.

### **High Decel.**

The PCM/ECM detects that the vehicle deceleration is greater than the calibrated cruise control threshold.

### **High Speed**

The PCM/ECM detects that the vehicle speed is greater than the calibrated amount.

### **Illegal Mode**

The PCM/ECM detects that the acceleration mode is active without the activation of the Accel. switch.

### **Injector Disable**

The PCM/ECM detects that the engine is overspeed and that the fuel shutoff has been activated.

### **Low Speed**

The PCM/ECM detects that the vehicle speed is less than 37 km/h (23 mph) while the cruise control system was enabled.

### **Low Voltage**

The PCM/ECM detects that the ignition voltage is below 9 volts.

### **Manual/ Neutral**

The PCM/ECM detects that transmission is in Neutral, Reverse or Park.

### **Memory Corrupt**

An internal PCM/ECM memory fault is detected.

### **MPH Limit**

The PCM/ECM detects a that the vehicle is overspeed and that the fuel shutoff has been activated.

## **No History**

This parameter is displayed when a new PCM/ECM has been installed.

## **None**

This parameter is displayed when a new PCM/ECM has been installed.

## **Off**

The PCM/ECM detects that the cruise On/Off switch was turned to Off when the cruise control system was enabled.

## **Over Set Speed**

This parameter is displayed when the current vehicle speed is greater than the set vehicle speed by more than a calibrated amount.

## **Over Speed**

This parameter is displayed when the current vehicle speed is greater than the set vehicle speed by more than a calibrated amount.

## **Over Speed Tap**

This parameter is displayed when the Set/Coast switch is briefly applied while the current vehicle speed is greater than the set vehicle speed by more than a calibrated amount.

## **Pedal Initialize**

The PCM/ECM detects that a stop lamp pedal activation had not occurred before the cruise control system was requested.

## **PCM Error**

The PCM/ECM detects that a cruise control software execution error is present.

## **PCM Inhibit**

The PCM/ECM detects a RAM corruption associated to the cruise control system.

## **Pedal > Cruise**

The PCM/ECM detects that the accelerator pedal overrides the set vehicle speed for approximately 60 seconds.

## **Serial Data**

A fault in the serial data circuit from the cruise control switch to the platform module is detected.

## **S/C On, CC Off**

When the PCM/ECM detects that the cruise set/coast signal is active and the throttle blade fully closes the cruise control system will disengage until the PCM/ECM detects that the set/coast signal is inactive. The cruise control system will then engage and set with the new vehicle speed.

## **S/C On - Speed High**

This parameter is displayed when the Set/Coast switch is briefly applied while the current vehicle speed is greater than the set vehicle speed by more than a calibrated amount.

## **Stop Lamp Switch**

The PCM/ECM detects that the stop lamps have been activated.

## **TAC Inhibit**

The PCM/ECM detects a fault within the TAC system.

## **Traction**

The PCM/ECM detects that the traction control system had been activated. It is also possible that a tire with low air pressure can also set this disengagement reason.

## **Traction Loss**

The PCM/ECM detects that the traction control system had been activated. It is also possible that a tire with low air pressure can also set this disengagement reason.

## **Two Commands**

The PCM/ECM detects that the Set/Coast switch and the Resume/Accel switch are active at the same time.

## **Two CC Commands**

The PCM/ECM detects that the Set/Coast switch and the Resume/Accel switch are active at the same time.

## **Under Speed**

The PCM/ECM detects that the vehicle speed is less than the cruise memory speed by more than a

calibrated amount.

## Under Set Speed

The PCM/ECM detects that the vehicle speed is less than the cruise memory speed by more than a calibrated amount.

## DIAGNOSTIC TROUBLE CODE (DTC) LIST

### Diagnostic Trouble Code (DTC) List

DTC	Diagnostic Procedure	Module (s)
CXXXX	<b>Diagnostic Trouble Code (DTC) List</b> in Antilock Brake System	EBCM
P0500	<b>DTC P0500</b> in Manual Transmission - MM6/M12	PCM
P0502	<b>DTC P0502</b> in Automatic Transmission - 4L60-E	PCM
P0503	<b>DTC P0503</b> in Automatic Transmission - 4L60-E	PCM
P0567	<b>DTC P0567</b>	PCM
P0568	<b>DTC P0568</b>	PCM
P0571	<b>DTC P0571</b>	PCM
P0719	<b>DTC P0719</b> in Automatic Transmission - 4L60-E	PCM
P0724	<b>DTC P0724</b> in Automatic Transmission - 4L60-E	PCM
P0833	<b>DTC P0833</b> in Manual Transmission - MM6/M12	PCM
P1574	<b>DTC P1574</b>	PCM
PXXXX	<b>Diagnostic Trouble Code (DTC) List</b> in Engine Controls-5.7L	PCM

### DTC P0567

#### Circuit Description

The cruise control resume/accel switch is an input to the throttle actuator control (TAC) module. The TAC module uses the cruise control resume/accel switch signal circuit in order to detect when the driver has requested to accelerate the set vehicle speed or to resume the cruise control system. The TAC module detects a voltage signal on the cruise control resume/accel switch signal circuit when the switch is applied. The TAC module sends a serial data signal to the PCM via the UART serial data circuit. This DTC sets if the PCM receives a serial data signal from the TAC module indicating that voltage is present on the cruise control resume/accel switch signal circuit for longer than 90 seconds.

#### Conditions for Running the DTC

- The ignition is ON.
- The cruise control switch is ON.

#### Conditions for Setting the DTC

The PCM receives a serial data signal from the TAC module indicating that the resume/accel switch is applied for longer than 90 seconds.

## Action Taken When the DTC Sets

- The PCM stores the DTC information into memory when the diagnostic runs and fails.
- The malfunction indicator lamp (MIL) will not illuminate.
- The PCM records the operating conditions at the time the diagnostic fails. The PCM stores this information in the Failure Records.
- The cruise control system is disabled.

## Conditions for Clearing the MIL/DTC

- A last test failed, or the current DTC, clears when the diagnostic runs and does not fail.
- A history DTC clears after 40 consecutive warm-up cycles, if failures are not reported by this or any other emission related diagnostic.
- Use a scan tool in order to clear the MIL/DTC.

## Diagnostic Aids

Ensure that the resume/accel switch is not stuck or sticking in the engaged position.

For an intermittent condition, refer to **Testing for Intermittent Conditions and Poor Connections** in Wiring Systems.

## Test Description

The numbers below refer to the step numbers on the diagnostic table.

**2:** This step determines if condition is present.

## DTC P0567

Step	Action	Yes	No
<b>Schematic Reference:</b> <u>Cruise Control Schematics</u> <b>Connector End View Reference:</b> <u>Cruise Control Connector End Views</u> , <b>Powertrain Control Module (PCM) Connector End Views</b> in Engine Controls-5.7 L, or <b>Throttle Actuator Control (TAC) Module Connector End Views</b> in Engine Controls-5.7 L			
1	Did you perform the Cruise Control Diagnostic System Check?	Go to <b>Step 2</b>	Go to <b>Diagnostic System Check - Cruise Control</b>
2	<ol style="list-style-type: none"><li>1. Install a scan tool.</li><li>2. Turn the ignition ON, with the engine OFF.</li><li>3. Turn the cruise On/Off control switch ON.</li><li>4. With the scan tool, observe the Cruise Resume/Accel. Switch parameter in the PCM data list.</li></ol>	Go to <b>Step 3</b>	Go to Diagnostic Aids
	Does the Cruise Resume/Accel. Switch parameter display On?		

3	<ol style="list-style-type: none"> <li>1. Turn the ignition OFF.</li> <li>2. Disconnect the cruise control switch.</li> <li>3. Turn the ignition ON, with the engine OFF.</li> <li>4. With the scan tool, observe the Cruise Resume/Accel. Switch parameter.</li> </ol> <p>Does the Cruise Resume/Accel. Switch parameter display On?</p>	Go to <b>Step 4</b>	Go to <b>Step 5</b>
4	<p>Test the cruise control resume/accel switch signal circuit for a short to voltage. Refer to <b>Circuit Testing</b> and to <b>Wiring Repairs</b> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	Go to <b>Step 9</b>	Go to <b>Step 6</b>
5	<p>Inspect for poor connections at the harness connector of the cruise control switch. Refer to <b>Testing for Intermittent Conditions and Poor Connections</b> and to <b>Connector Repairs</b> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	Go to <b>Step 9</b>	Go to <b>Step 8</b>
6	<p>Inspect for poor connections at the harness connector of the TAC module. Refer to <b>Testing for Intermittent Conditions and Poor Connections</b> and to <b>Connector Repairs</b> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	Go to <b>Step 9</b>	Go to <b>Step 7</b>
7	<p>Replace the TAC module. Refer to <b>Throttle Actuator Control (TAC) Module Replacement</b> in Engine Controls-5.7 L.</p> <p>Did you complete the replacement?</p>	Go to <b>Step 9</b>	-
8	<p>Replace the cruise control switch. Refer to <b>Multifunction, Turn Signal Switch Replacement</b> in Steering Wheel and Column.</p> <p>Did you complete the replacement?</p>	Go to <b>Step 9</b>	-
9	<ol style="list-style-type: none"> <li>1. Use the scan tool in order to clear the DTCs.</li> <li>2. Operate the vehicle within the Conditions for Running the DTC.</li> </ol> <p>Does the DTC reset?</p>	Go to <b>Step 2</b>	System OK

## DTC P0568

### Circuit Description

The cruise control set/coast switch is an input to the throttle actuator control (TAC) module. The TAC module uses the cruise control set/coast switch signal circuit in order to detect when the driver has requested to set the vehicle speed or to decelerate the vehicle speed. The TAC module detects a voltage signal on the cruise control set/coast switch signal circuit when the switch is applied. The TAC module sends a serial data signal to the PCM via the UART serial data circuit. This DTC sets if the PCM receives a serial data signal from the TAC module indicating that voltage is present on the cruise control set/coast switch signal circuit for longer than 90 seconds.

### Conditions for Running the DTC

- The ignition is ON.
- The cruise control switch is ON.

### Conditions for Setting the DTC

The PCM receives a serial data signal from the TAC module indicating that the set/coast switch is ON for longer than 90 seconds.

### Action Taken When the DTC Sets

- The PCM stores the DTC information into memory when the diagnostic runs and fails.
- The malfunction indicator lamp (MIL) will not illuminate.
- The PCM records the operating conditions at the time the diagnostic fails. The PCM stores this information in the Failure Records.
- The cruise control system is disabled.

### Conditions for Clearing the MIL/DTC

- A last test failed, or the current DTC, clears when the diagnostic runs and does not fail.
- A history DTC clears after 40 consecutive warm-up cycles, if failures are not reported by this or any other emission related diagnostic.
- Use a scan tool in order to clear the MIL/DTC.

### Diagnostic Aids

Ensure that the set/coast switch is not stuck or sticking in the engaged position.

For an intermittent condition, refer to **Testing for Intermittent Conditions and Poor Connections** in Wiring Systems.

### Test Description

The number below refers to the step number on the diagnostic table.

**2:** This step determines if condition is present.

### DTC P0568

Step	Action	Yes	No
<b>Schematic Reference:</b> <u>Cruise Control Schematics</u> <b>Connector End View Reference:</b> <u>Cruise Control Connector End Views</u> or <b>Powertrain Control Module (PCM) Connector End Views</b> in Engine Controls-5.7 L, or <b>Throttle Actuator Control (TAC) Module Connector End Views</b> in Engine Controls-5.7 L			
1	Did you perform the Cruise Control Diagnostic System Check?	Go to Step 2	Go to <b><u>Diagnostic System Check - Cruise Control</u></b>

2	<ol style="list-style-type: none"> <li>1. Install a scan tool.</li> <li>2. Turn the ignition ON, with the engine OFF.</li> <li>3. Turn the cruise On/Off control switch ON.</li> <li>4. With the scan tool, observe the Cruise Set/Coast Switch parameter in the PCM data list.</li> </ol> <p>Does the Cruise Set/Coast Switch parameter display On?</p>	Go to <b>Step 3</b>	Go to Diagnostic Aids
3	<ol style="list-style-type: none"> <li>1. Turn the ignition OFF.</li> <li>2. Disconnect the cruise control switch.</li> <li>3. Turn the ignition ON, with the engine OFF.</li> <li>4. With the scan tool, observe the Cruise Set/Coast Switch parameter in the PCM data list.</li> </ol> <p>Does the Cruise Set/Coast Switch parameter display On?</p>	Go to <b>Step 4</b>	Go to <b>Step 5</b>
4	<p>Test the cruise control set/coast switch signal circuit for a short to voltage. Refer to <b>Circuit Testing</b> and to <b>Wiring Repairs</b> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	Go to <b>Step 9</b>	Go to <b>Step 6</b>
5	<p>Inspect for poor connections at the harness connector of the cruise control switch. Refer to <b>Testing for Intermittent Conditions and Poor Connections</b> and to <b>Connector Repairs</b> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	Go to <b>Step 9</b>	Go to <b>Step 8</b>
6	<p>Inspect for poor connections at the harness connector of the TAC module. Refer to <b>Testing for Intermittent Conditions and Poor Connections</b> and to <b>Connector Repairs</b> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	Go to <b>Step 9</b>	Go to <b>Step 7</b>
7	<p>Replace the TAC module. Refer to <b>Throttle Actuator Control (TAC) Module Replacement</b> in Engine Controls-5.7 L.</p> <p>Did you complete the replacement?</p>	Go to <b>Step 9</b>	-
8	<p>Replace the cruise control switch. Refer to <b>Multifunction, Turn Signal Switch Replacement</b> in Steering Wheel and Column.</p> <p>Did you complete the replacement?</p>	Go to <b>Step 9</b>	-
9	<ol style="list-style-type: none"> <li>1. Use the scan tool in order to clear the DTCs.</li> <li>2. Operate the vehicle within the Conditions for Running the DTC.</li> </ol> <p>Does the DTC reset?</p>	Go to <b>Step 2</b>	System OK

## DTC P0571

### Circuit Description

The torque converter clutch (TCC) brake switch/cruise control release signal circuit is incorporated into the stop

lamp switch. The TCC brake switch/cruise control release signal circuit portion of the stop lamp switch is a normally closed switch. The stop lamp switch signal circuit portion of the stop lamp switch is a normally open switch. When the brake pedal is released, the PCM detects a high voltage signal on the TCC brake switch/cruise control release signal circuit and a low signal voltage signal on the stop lamp switch signal circuit.

#### Conditions for Running the DTC

- The engine speed is greater than 700 RPM.
- The engine operates for greater than 2 seconds.
- The wheel speed is greater than 48 km/h (30 mph) in order to enable the diagnostic. The diagnostic disables when the wheel speed is below 16 km/h (10 mph).

#### Conditions for Setting the DTC

- When the brake pedal is released, the PCM detects a high voltage signal on the stop lamp switch signal circuit or when the PCM detects a low voltage signal on the TCC brake switch/cruise control release signal circuit.
- The above conditions are present for 2 seconds.

#### Action Taken When the DTC Sets

- The powertrain control module (PCM) stores the DTC information into memory when the diagnostic runs and fails.
- The malfunction indicator lamp (MIL) will not illuminate.
- The PCM records the operating conditions at the time the diagnostic fails. The PCM stores this information in the Failure Records.

#### Conditions for Clearing the DTC

- A last test failed, or current DTC, clears when the diagnostic runs and does not fail.
- A history DTC will clear after 40 consecutive warm-up cycles, if no failures are reported by this or any other non-emission related diagnostic.
- Use a scan tool in order to clear the DTC.

#### Diagnostic Aids

Refer to **Exterior Lighting Systems Description and Operation** in Lighting Systems, in order to avoid a misdiagnosis.

For an intermittent, refer to **Testing for Intermittent Conditions and Poor Connections** in Wiring Systems.

#### DTC P0571

Step	Action	Yes	No
<b>Schematic Reference:</b> <u>Cruise Control Schematics</u> <b>Connector End View Reference:</b> <u>Cruise Control Connector End Views</u> or <u>Lighting Systems</u>			

## Connector End Views

1	Did you perform the Cruise Control Diagnostic System Check?	Go to <b>Step 2</b>	Go to <b>Diagnostic System Check - Cruise Control</b>
2	<ol style="list-style-type: none"> <li>1. Turn the ignition OFF.</li> <li>2. Disconnect the stop lamp switch.</li> <li>3. Turn the ignition ON, with the engine OFF.</li> <li>4. Connect a test lamp between the stop lamp switch signal circuit and a good ground.</li> </ol> <p>Does the test lamp illuminate?</p>	Go to <b>Step 3</b>	Go to <b>Step 4</b>
3	<p>Test the stoplamp switch signal circuit for an open or for a high resistance. Refer <b>Circuit Testing</b> and to <b>Wiring Repairs</b> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	Go to <b>Step 9</b>	Go to <b>Step 6</b>
4	<p>Test the TCC brake switch/cruise control release signal circuit for an open. Refer <b>Circuit Testing</b> and to <b>Wiring Repairs</b> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	Go to <b>Step 9</b>	Go to <b>Step 5</b>
5	<p>Inspect for poor connections at the harness connector of the stop lamp switch. Refer to <b>Testing for Intermittent Conditions and Poor Connections</b> and <b>Connector Repairs</b> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	Go to <b>Step 9</b>	Go to <b>Step 7</b>
6	<p>Inspect for poor connections at the harness connector of the PCM. Refer to <b>Testing for Intermittent Conditions and Poor Connections</b> and <b>Connector Repairs</b> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	Go to <b>Step 9</b>	Go to <b>Step 8</b>
7	<p>Replace the stop lamp switch. Refer to <b>Stop Lamp Switch Replacement</b> in Lighting Systems.</p> <p>Did you complete the repair?</p>	Go to <b>Step 9</b>	-
8	<p><b>IMPORTANT:</b> <b>Program the replacement PCM.</b></p> <p>Replace the PCM. Refer to <b>Powertrain Control Module (PCM) Replacement</b> in Engine Controls 5.7 L. Did you complete the replacement?</p>	Go to <b>Step 9</b>	-
9	<ol style="list-style-type: none"> <li>1. Use a scan tool in order to clear the DTCs.</li> <li>2. Operate the vehicle within the Conditions for Running the DTC.</li> </ol> <p>Does the DTC reset?</p>	Go to <b>Step 2</b>	System OK

## Circuit Description

This diagnostic test functions on the assumption that sudden decrease in a non-drive, wheel speed must be caused by a brake application. Non-drive wheel speed and stop lamp switch status are supplied to the PCM through serial data from the Electronic Brake Control Module (EBCM). If there is a 4 km/h (2.5 mph) greater decrease of non-drive wheel speed in 0.4 seconds and a transition of the TCC or extended travel contacts of the TCC brake switch without a transition of the stop lamp brake switch, DTC P1574 is set.

## Conditions for Running the DTC

- DTCs P0502, P0503, P0719, P0724, P1575 and P1602 not set.
- Traction control and antilock brake systems have not failed.
- Traction control and antilock brake systems are not active.
- Non-drive wheel speed goes above 32 km/h (20 mph) and then does not go below 6 km/h (4 mph).

## Conditions for Setting the DTC

A 4 km/h (2.5 mph) or greater decrease in non-drive wheel speed in 0.4 second and extended travel brake switch or TCC brake switch indicating brakes applied and no transition noticed in the stop lamp contacts of the stop lamp switch.

## Action Taken When the DTC Sets

PCM will set the stop lamp switch status to not applied.

- The Malfunction Indicator Lamp (MIL) will not illuminate.
- No message will be displayed.

## Conditions for Clearing the DTC

- A History DTC will clear after forty consecutive warm-up cycles with no failures of any non-emission related diagnostic test.
- A Last Test Failed (current) DTC will clear when the diagnostic runs and does not fail.
- Use a scan tool to clear DTCs.
- Interrupting PCM battery voltage may or may not clear DTCs. This practice is not recommended.

## Diagnostic Aids

DTC P1574 indicates the stop lamp switch signal to the EBCM or the EBCM's ability to send the stop lamp switch signal to the PCM has failed. Refer to ABS/TCS DTC's for diagnosis of the stop lamp switch signal and the EBCM.

## DTC P1574

Step	Action	Yes	No
1	Did you perform the Cruise Control Diagnostic		Go to <b>Diagnostic System</b>

	System Check?	Go to <b>Step 2</b>	<u>Check - Cruise Control</u>
2	<ol style="list-style-type: none"> <li>1. Connect the scan tool.</li> <li>2. Turn ON the ignition, with the engine OFF.</li> <li>3. Retrieve the DTCs from the EBCM.</li> </ol> <p>Are there any DTCs that begin with a "C" also set?</p>	Go to <b><u>Diagnostic Trouble Code (DTC) List</u></b>	Go to <b>Step 3</b>
3	<p>Repair the short to voltage on the stop lamp switch signal circuit.</p> <p>Did you find and correct the condition?</p>	Go to <b>Step 4</b>	-
4	<ol style="list-style-type: none"> <li>1. Use the scan tool to clear the DTC (s).</li> <li>2. Operate the vehicle within the conditions for Running the DTC as specified in the supporting text.</li> </ol> <p>Does the DTC reset?</p>	Go to <b>Step 2</b>	System OK

## DTC P1575

### Circuit Description

This diagnostic test functions on the assumption that a brake application causes a sudden decrease in non-drive wheel speed.

The extended travel brake switch is a normally closed switch. When the extended travel brake switch is closed, the powertrain control module (PCM) detects ignition voltage on the extended travel brake switch signal circuit.

If the PCM detects voltage on the extended travel brake switch signal circuit when the extended travel brake switch should be open, this DTC sets.

### Conditions for Running the DTC

- The engine speed is greater than 700 RPM.
- The engine has been operating longer than 2 seconds.
- The wheel speed must be greater than 30 MPH in order to enable the diagnostic. The diagnostic will disable when the wheel speed is below 10 MPH.
- The vehicle speed is decreasing at a rate greater than 2.6 MPH over a 250 millisecond period.

### Conditions for Setting the DTC

- The PCM detects voltage on the extended travel brake switch circuit when the extended travel brake switch should be open.
- The above condition is present for 1.5 seconds.

## Diagnostic Aids

An improperly adjusted extended travel brake switch may cause this DTC to set. In order to avoid misdiagnosis, verify that the extended travel brake switch is properly adjusted. Refer to **Stop Lamp Switch Adjustment** in Lighting Systems.

### DTC P1575

Step	Action	Value (s)	Yes	No
<b>Schematic Reference: <u>Cruise Control Schematics</u></b>				
1	Did you perform the Cruise Control Diagnostic System Check?	-	Go to <b>Step 2</b>	Go to <b><u>Diagnostic System Check - Cruise Control</u></b>
2	<ol style="list-style-type: none"> <li>Turn the ignition OFF.</li> <li>Install a scan tool.</li> <li>Turn the ignition ON, the engine OFF.</li> <li>With the scan tool, observe the Extended Brake Travel Switch parameter in the PCM Engine 1 Data list.</li> </ol> <p>Does the Extended Brake Travel Switch parameter display Released?</p>	-	Go to <b>Step 3</b>	Go to <b>Step 6</b>
3	<ol style="list-style-type: none"> <li>Depress the brake pedal approximately half way down.</li> <li>With the scan tool, observe the Extended Brake Travel Switch parameter.</li> </ol> <p>Does the Extended Brake Travel Switch parameter display Applied?</p>	-	Go to <b><u>Testing for Intermittent Conditions and Poor Connections</u></b> in Wiring Systems	Go to <b>Step 4</b>
4	<ol style="list-style-type: none"> <li>Turn the ignition OFF.</li> <li>Disconnect the extended travel brake switch.</li> <li>Turn the ignition ON, with the engine OFF.</li> <li>With the scan tool, observe the Extended Brake Travel Switch parameter.</li> </ol> <p>Does the Extended Brake Travel Switch parameter display Applied?</p>	-	Go to <b>Step 11</b>	Go to <b>Step 5</b>
	<ol style="list-style-type: none"> <li>Turn the ignition ON, with the engine OFF.</li> <li>With a DMM, measure the voltage on the extended brake travel switch signal</li> </ol>			

5	<p>circuit.</p> <p>Does the voltage measure more than the specified value?</p>	0.5 V	Go to <b>Step 8</b>	Go to <b>Step 13</b>
6	<ol style="list-style-type: none"> <li>1. Turn the ignition OFF.</li> <li>2. Disconnect the extended travel brake switch.</li> <li>3. Turn the ignition ON, with the engine OFF.</li> <li>4. Connect a test lamp between the ignition 1 voltage circuit and a good ground</li> </ol> <p>Does the test lamp illuminate?</p>	-	Go to <b>Step 7</b>	Go to <b>Step 9</b>
7	<ol style="list-style-type: none"> <li>1. Turn the ignition OFF.</li> <li>2. Connect a 3 ampere fused jumper between the extended travel brake switch signal circuit and the ignition 1 voltage circuit.</li> <li>3. Turn the ignition ON, with the engine OFF.</li> <li>4. With the scan tool, observe the Extended Brake Travel Switch parameter.</li> </ol> <p>Does the Extended Brake Travel Switch parameter display Released?</p>	-	Go to <b>Step 11</b>	Go to <b>Step 10</b>
8	<p>Repair the short to voltage on the extended travel brake switch signal circuit. Refer to <b>Wiring Repairs</b> in Wiring Systems.</p> <p>Did you complete the repair?</p>	-	Go to <b>Step 15</b>	-
9	<p>Repair the open, the short to ground, or the high resistance on the ignition 1 voltage circuit. Refer to <b>Wiring Repairs</b> in Wiring Systems.</p> <p>Did you complete the repair?</p>	-	Go to <b>Step 15</b>	-
10	<p>Test the extended travel brake switch signal circuit for an open or for a high resistance. Refer to <b>Circuit Testing</b> and to <b>Wiring Repairs</b> in Wiring Systems.</p> <p>Did you complete the repair?</p>	-	Go to <b>Step 15</b>	Go to <b>Step 13</b>
11	<p>Inspect for poor connections at the extended travel brake switch. Refer to <b>Testing for Intermittent Conditions and Poor Connections</b> and to <b>Connector Repairs</b> in Wiring Systems.</p>	-		

	Did you find and correct the condition?		Go to <b>Step 15</b>	Go to <b>Step 12</b>
12	Replace the Extended Travel Brake switch. Refer to <b><u>Stop Lamp Switch Replacement</u></b> in Lighting Systems. Did you complete the replacement?	-	Go to <b>Step 15</b>	-
13	Inspect for a poor connection at the PCM. Refer to <b><u>Testing for Intermittent Conditions and Poor Connections</u></b> and to <b><u>Connector Repairs</u></b> in Wiring Systems. Did you find and correct the condition?	-	Go to <b>Step 15</b>	Go to <b>Step 14</b>
14	<b>IMPORTANT:</b> <b>Program the replacement PCM.</b> Replace the PCM. Refer to <b><u>Powertrain Control Module (PCM) Replacement</u></b> in Engine Controls - 5.7L. Did you complete the replacement?	-	Go to <b>Step 15</b>	-
15	1. Use the scan tool in order to clear the DTCs. 2. Operate the vehicle within the Conditions for Running the DTC.  Does the DTC set?	-	Go to <b>Step 2</b>	-

## SYMPTOMS - CRUISE CONTROL

**IMPORTANT:** The following steps must be completed before using the symptom tables.

- Perform **Diagnostic System Check - Cruise Control** before using the Symptom Tables in order to verify that all of the following are true:
  - There are no DTCs set.
  - The control module (s) can communicate via the serial data link.
- Review the system operation in order to familiarize yourself with the system functions. Refer to **Cruise Control Description and Operation** .

### Visual/Physical Inspection

- Inspect for aftermarket devices which could affect the operation of the Cruise Control. Refer to **Checking Aftermarket Accessories** in Wiring Systems.
- Inspect the easily accessible or visible system components for obvious damage or conditions which could cause the symptom.

### Intermittent

Faulty electrical connections or wiring may be the cause of intermittent conditions. Refer to **Testing for Intermittent Conditions and Poor Connections** in Wiring Systems.

### Symptom List

To diagnose the symptom, refer to **Cruise Control Inoperative/Malfunctioning** .

## CRUISE CONTROL INOPERATIVE/MALFUNCTIONING

### Diagnostic Aids

Perform the following in order to avoid a misdiagnosis:

- Inspect for proper operation of the brake lamps. Refer to **Exterior Lighting Systems Description and Operation** in Lighting Systems.
- Inspect for proper operation of the clutch, if equipped with a manual transmission. Refer to **Clutch System Description and Operation** in Clutch.
- Electro magnetic interference (EMI) on the vehicle speed sensor signal circuit may cause erratic cruise control operation.

For an intermittent condition, refer to **Testing for Intermittent Conditions and Poor Connections** in Wiring Systems.

### Conditions for Enabling Cruise Control

- The vehicle speed is greater than 40 km/h (25 mph).
- The vehicle is not in PARK, REVERSE, NEUTRAL, or 1st gear.
- The system voltage is within 12 volts and 16 volts.

### Test description

The numbers below refer to the step numbers on the diagnostic table.

- 7:** This step tests the cruise control set/coast switch signal circuit for an open or for a high resistance.
- 8:** This step tests the cruise control resume/accel switch signal circuit for an open or for a high resistance.
- 9:** This step tests the ignition 1 voltage circuit for an open, for a short to ground, or for a high resistance.
- 26:** DTCs will set in the PCM when you perform this table.

### Cruise Control Inoperative/Malfunctioning

Step	Action	Yes	No
<b>Schematic Reference:</b> <u>Cruise Control Schematics</u> <b>Connector End View Reference:</b> <u>Cruise Control Connector End Views</u> , or <b>Powertrain Control Module (PCM) Connector End Views</b> in Engine Controls-5.7L, or <b>Throttle Actuator Control (TAC) Module Connector End Views</b> in Engine Controls-5.7L			
	Did you perform the Cruise Control Diagnostic System Check?		Go to <b>Diagnostic</b>

1		Go to <b>Step 2</b>	<b>System Check - Cruise Control</b>
2	<ol style="list-style-type: none"> <li>1. Install a scan tool.</li> <li>2. Turn the ignition ON, with the engine OFF.</li> <li>3. Turn the cruise control On/Off switch OFF.</li> <li>4. With the scan tool, observe the Cruise On/Off Switch parameter in the powertrain control module (PCM) Cruise Control Data data list.</li> </ol> <p>Does the Cruise On/Off Switch parameter display Off?</p>	Go to <b>Step 4</b>	Go to <b>Step 3</b>
3	<ol style="list-style-type: none"> <li>1. Turn the ignition OFF.</li> <li>2. Disconnect the cruise control switch.</li> <li>3. Turn the ignition ON, with the engine OFF.</li> <li>4. With the scan tool, observe the Cruise On/Off Switch parameter.</li> </ol> <p>Does the Cruise On/Off Switch parameter display Off?</p>	Go to <b>Step 20</b>	Go to <b>Step 11</b>
4	<ol style="list-style-type: none"> <li>1. Turn the cruise control On/Off switch ON.</li> <li>2. With the scan tool, observe the Cruise On/Off Switch parameter.</li> </ol> <p>Does the Cruise On/Off Switch parameter display On?</p>	Go to <b>Step 5</b>	Go to <b>Step 9</b>
5	<ol style="list-style-type: none"> <li>1. With the scan tool, observe the Cruise Set/Coast Switch parameter in the PCM Cruise Control Data data list.</li> <li>2. Turn the cruise control On/Off switch On.</li> <li>3. Press and hold the cruise control Set/Coast button.</li> </ol> <p>Does the Cruise Set/Coast Switch parameter Display On?</p>	Go to <b>Step 6</b>	Go to <b>Step 7</b>
6	<ol style="list-style-type: none"> <li>1. With the scan tool, observe the Cruise Resume/Accel. Switch parameter in the PCM Cruise Control Data data list.</li> <li>2. Press and hold the Resume/Accel switch.</li> </ol> <p>Does the Cruise Resume/Accel. Switch parameter Display On?</p>	Go to Diagnostic Aids	Go to <b>Step 8</b>
7	<ol style="list-style-type: none"> <li>1. Turn the ignition OFF.</li> <li>2. Disconnect the cruise control switch.</li> <li>3. Turn the ignition ON, with the engine OFF.</li> <li>4. Connect a 3 ampere fused jumper between the cruise control set/coast switch signal circuit and the ignition 1 voltage circuit.</li> </ol>		

	<p>5. With the scan tool, observe the Cruise Set/Coast Switch parameter.</p> <p>Does the Cruise Set/Coast Switch parameter Display On?</p>	Go to <b>Step 20</b>	Go to <b>Step 17</b>
8	<p>1. Turn the ignition OFF.</p> <p>2. Disconnect the cruise control switch.</p> <p>3. Turn the ignition ON, with the engine OFF.</p> <p>4. Connect a 3 ampere fused jumper between the cruise control resume/accel switch signal circuit and the ignition 3 voltage circuit.</p> <p>5. With the scan tool, observe the Cruise Resume/Accel. Switch parameter.</p> <p>Does the Cruise Resume/Accel. Switch parameter Display On?</p>	Go to <b>Step 20</b>	Go to <b>Step 18</b>
9	<p>1. Turn the ignition OFF.</p> <p>2. Disconnect the cruise control switch.</p> <p>3. Turn the ignition ON, with the engine OFF.</p> <p>4. Connect a test lamp between the ignition 1 voltage circuit and a good ground.</p> <p>Does the test lamp illuminate?</p>	Go to <b>Step 10</b>	Go to <b>Step 13</b>
10	<p>1. Connect a 3 ampere fused jumper between the ignition 1 voltage circuit and the cruise control on switch signal circuit.</p> <p>2. With the scan tool, observe the Cruise On/Off Switch parameter.</p> <p>Does the Cruise On/Off Switch parameter display On?</p>	Go to <b>Step 20</b>	Go to <b>Step 16</b>
11	<p>Test the cruise control on switch signal circuit for a short to voltage. Refer to <b>Circuit Testing</b> and to <b>Wiring Repairs</b> in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	Go to <b>Step 26</b>	Go to <b>Step 12</b>
12	<p>1. Turn the ignition OFF.</p> <p>2. Disconnect C1 of the TAC module.</p> <p>3. Turn the ignition ON, with the engine OFF.</p> <p>4. With the scan tool, observe the Cruise On/Off Switch parameter.</p> <p>Does the Cruise On/Off Switch parameter display On?</p>	Go to <b>Step 22</b>	Go to <b>Step 21</b>
13	<p>Test the cruise control set/coast switch signal circuit for a short to ground. Refer to <b>Circuit Testing</b> and to <b>Wiring Repairs</b> in</p>		

	Wiring Systems. Did you find and correct the condition?	Go to <b>Step 26</b>	Go to <b>Step 14</b>
14	Test the cruise control resume/accel switch signal circuit for a short to ground. Refer to <b>Circuit Testing</b> and to <b>Wiring Repairs</b> in Wiring Systems. Did you find and correct the condition?	Go to <b>Step 26</b>	Go to <b>Step 15</b>
15	Test the cruise control on switch signal circuit for a short to ground. Refer to <b>Circuit Testing</b> and to <b>Wiring Repairs</b> in Wiring Systems. Did you find and correct the condition?	Go to <b>Step 26</b>	Go to <b>Step 19</b>
16	Test the cruise control on switch signal circuit for an open or for a high resistance. Refer to <b>Circuit Testing</b> and to <b>Wiring Repairs</b> in Wiring Systems. Did you find and correct the condition?	Go to <b>Step 26</b>	Go to <b>Step 21</b>
17	Test the cruise control set/coast switch signal circuit for an open or for a high resistance. Refer to <b>Circuit Testing</b> and to <b>Wiring Repairs</b> in Wiring Systems. Did you find and correct the condition?	Go to <b>Step 26</b>	Go to <b>Step 21</b>
18	Test the cruise control resume/accel switch signal circuit for an open or for a high resistance. Refer to <b>Circuit Testing</b> and to <b>Wiring Repairs</b> in Wiring Systems. Did you find and correct the condition?	Go to <b>Step 26</b>	Go to <b>Step 21</b>
19	Repair the open, the high resistance, or the short to ground in the Ignition 1 voltage circuit. Refer to <b>Circuit Testing</b> and to <b>Wiring Repairs</b> in Wiring Systems. Did you complete the repair?	Go to <b>Step 26</b>	-
20	Inspect for poor connections at the harness connector of the cruise control switch. Refer to <b>Testing for Intermittent Conditions and Poor Connections</b> and to <b>Connector Repairs</b> in Wiring Systems. Did you find and correct the condition?	Go to <b>Step 26</b>	Go to <b>Step 23</b>
21	Inspect for poor connections at the harness connector of the TAC module. Refer to <b>Testing for Intermittent Conditions and Poor Connections</b> and to <b>Connector Repairs</b> in Wiring Systems. Did you find and correct the condition?	Go to <b>Step 26</b>	Go to <b>Step 24</b>
22	Inspect for poor connections at the harness connector of the PCM. Refer to <b>Testing for Intermittent Conditions and Poor Connections</b> and to <b>Connector Repairs</b> in Wiring Systems. Did you find and correct the condition?	Go to <b>Step 26</b>	Go to <b>Step 25</b>
23	Replace the cruise control switch. Refer to <b>Multifunction, Turn Signal Switch Replacement</b> in Steering Wheel and Column. Did you complete the replacement?	Go to <b>Step 26</b>	-
	Replace the TAC module. Refer to <b>Throttle Actuator Control</b>		

24	<b>(TAC) Module Replacement</b> in Engine Controls-5.7L. Did you complete the replacement?	Go to <b>Step 26</b>	-
25	<b>IMPORTANT:</b> <b>Program the replacement PCM.</b> Replace the PCM. Refer to <b>Powertrain Control Module (PCM) Replacement</b> in Engine Controls-5.7L.Did you complete the replacement?	Go to <b>Step 26</b>	-
26	1. Use the scan tool in order to clear the PCM DTCs. 2. Operate the vehicle within the conditions for cruise control operation.  Does the cruise control system operate properly?	System OK	Go to <b>Step 2</b>

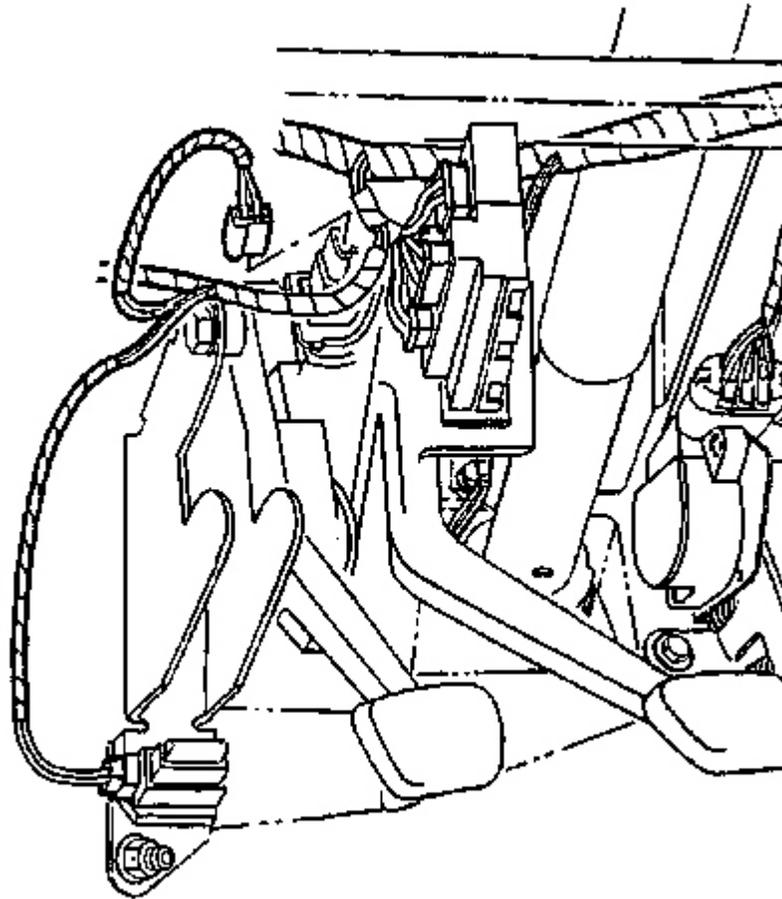
## REPAIR INSTRUCTIONS

### CLUTCH PEDAL CRUISE CONTROL RELEASE SWITCH REPLACEMENT

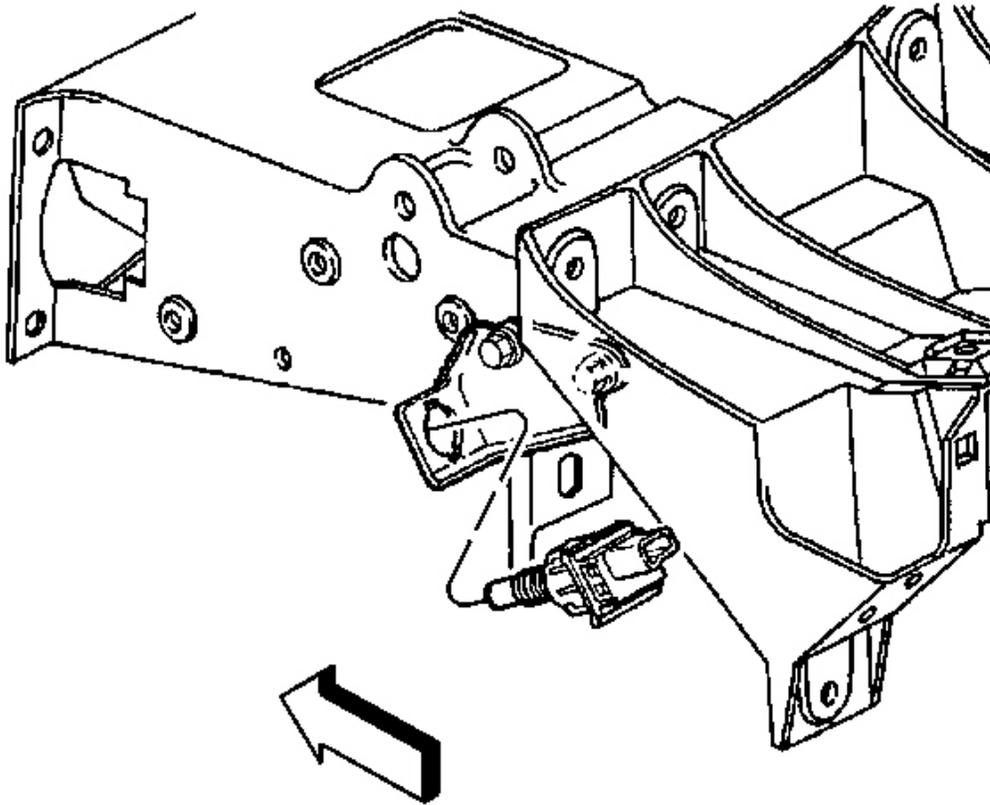
**CAUTION:** Refer to **Battery Disconnect Caution** in Cautions and Notices.

#### Removal Procedure

1. Disconnect the negative battery cable.
2. Remove the LH instrument panel (I/P) lower insulator panel. Refer to **Closeout/Insulator Panel Replacement - Left** in Instrument Panel, Gages, and Console.
3. Disconnect the clutch cruise control release switch electrical connector.



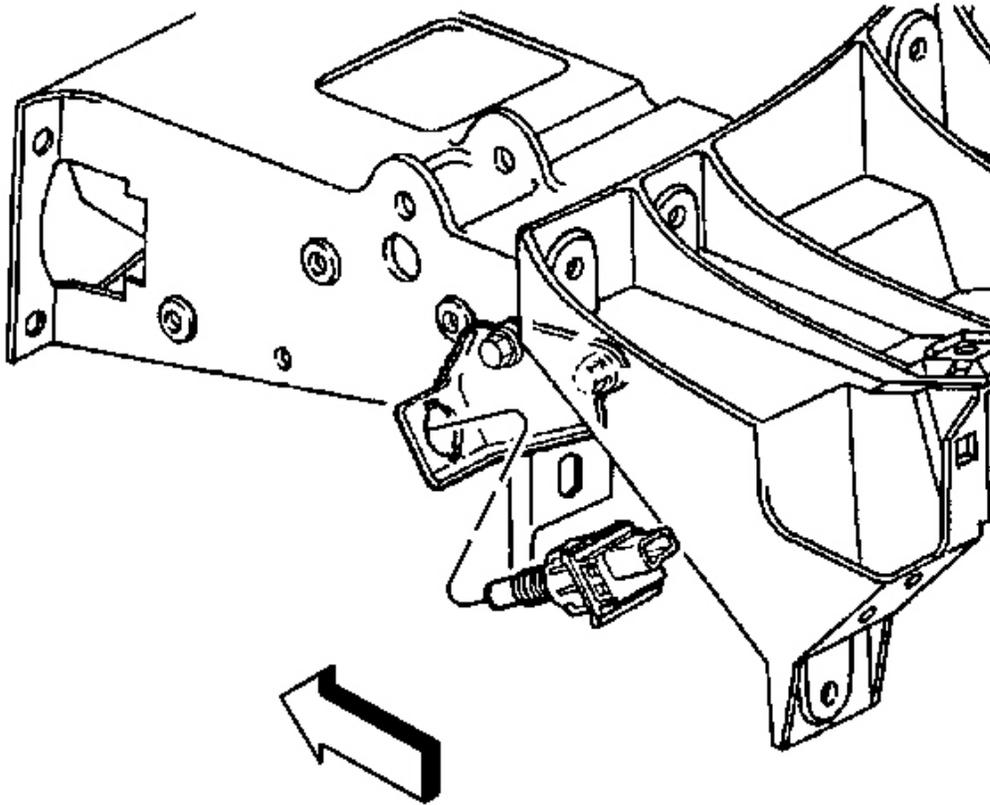
**Fig. 6: Clutch Cruise Control Release Switch Electrical Connector**  
Courtesy of GENERAL MOTORS CORP.



**Fig. 7: Clutch Cruise Control Release Switch At Bracket**  
Courtesy of GENERAL MOTORS CORP.

4. Remove the clutch cruise control release switch from the bracket.

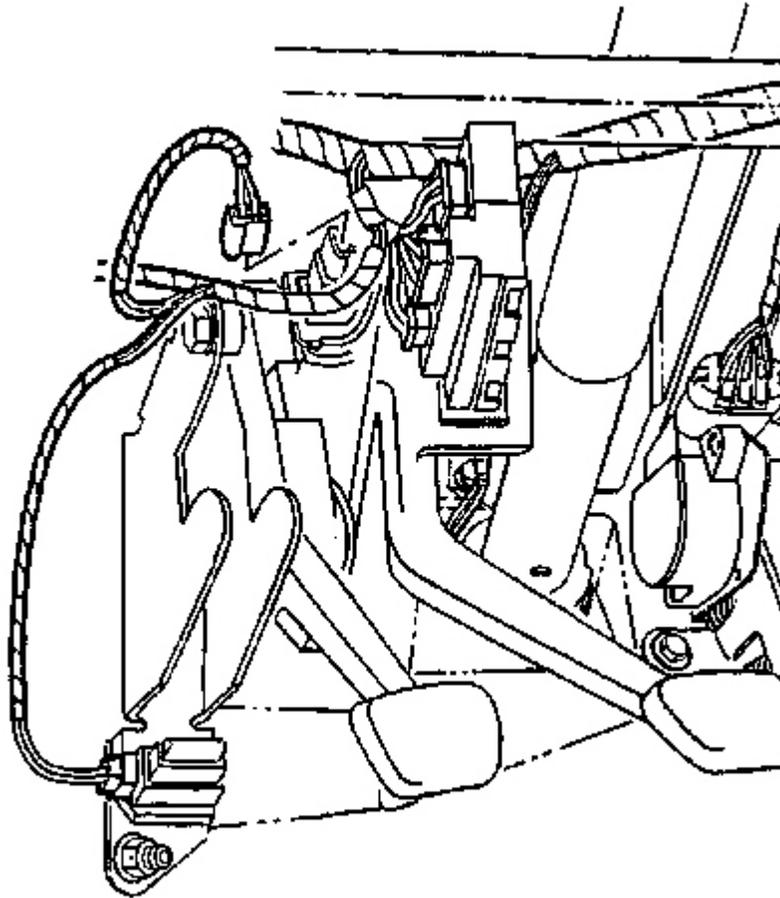
#### **Installation Procedure**



**Fig. 8: Clutch Cruise Control Release Switch At Bracket**  
Courtesy of GENERAL MOTORS CORP.

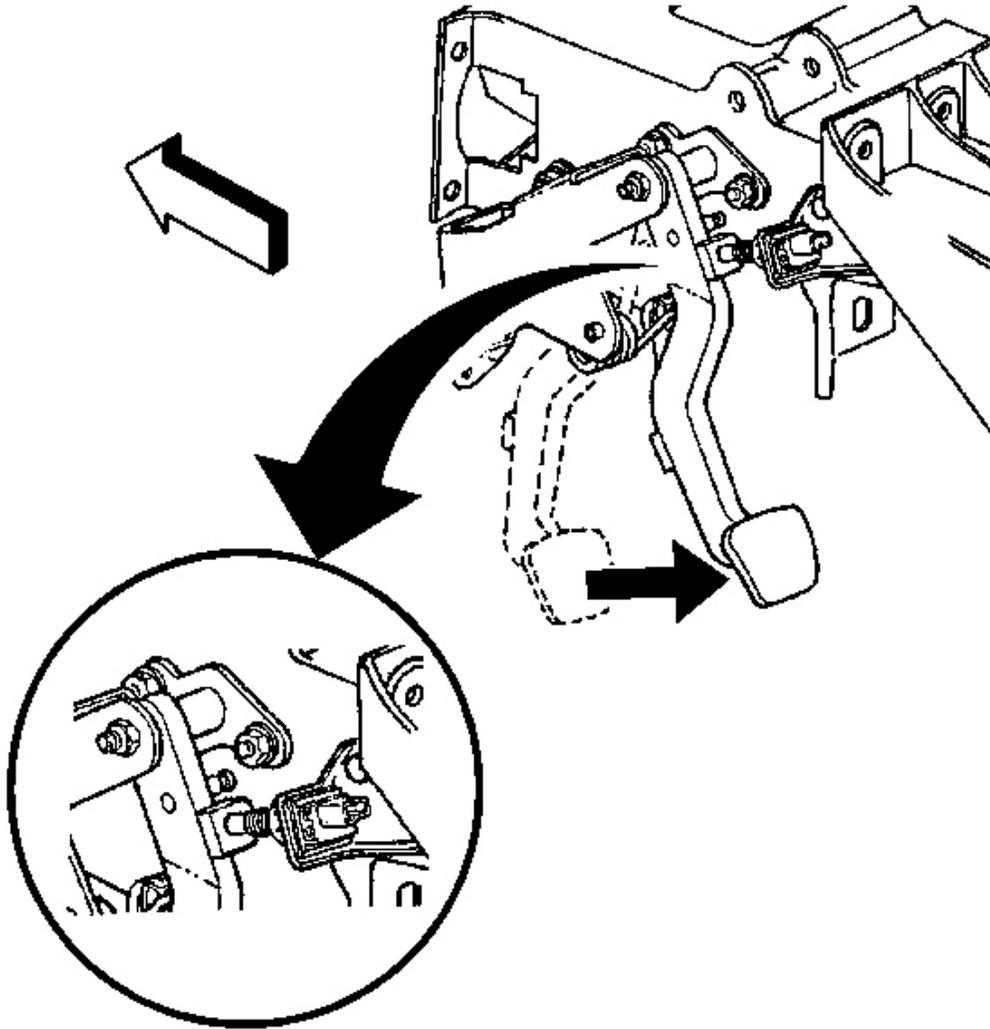
1. Install the clutch cruise control release switch to the bracket.
2. Fully seat the switch to the bracket.

Audible clicks will be heard while pushing the switch.



**Fig. 9: Clutch Cruise Control Release Switch Electrical Connector**  
Courtesy of GENERAL MOTORS CORP.

3. Connect the clutch cruise control release switch electrical connector.



**Fig. 10: Adjusting Clutch Cruise Control Release Switch**  
Courtesy of GENERAL MOTORS CORP.

4. Adjust the clutch cruise control release switch.
5. Grasp the clutch pedal and pull fully rearward against the pedal stop.

Audible clicks may be heard as the switch moves into the adjusted position.

6. Install the LH I/P lower insulator panel. Refer to **Closeout/Insulator Panel Replacement - Left** in Instrument Panel, Gages, and Console.

**NOTE:** Refer to Fastener Notice in Cautions and Notices.

7. Connect the negative battery cable.

**Tighten:** Tighten the negative battery cable bolt to 15 N.m (11 lb ft).

## DESCRIPTION AND OPERATION

### CRUISE CONTROL DESCRIPTION AND OPERATION

Cruise control is a speed control system that maintains a desired vehicle speed under normal driving conditions at vehicle speeds above 40 km/h (25 mph). Steep grades may cause variations in the selected vehicle speeds.

The following are the main components of the cruise control system:

- The powertrain control module (PCM)
- The On/Off switch
- The Resume/Accel switch
- The Set/Coast switch
- The TCC/brake switch
- The stop lamp switch
- The throttle actuator control (TAC) module
- The Clutch Pedal Position (CPP) switch, if equipped with a manual transmission

#### Cruise Control Engaged

The TAC module monitors the signal circuits of the following cruise control switches:

- On/Off
- Resume/Accel
- Set/Coast

The PCM will engage and adjust vehicle speed based on the information received from the TAC module via the UART serial data link. For further information on the TAC system, refer to Throttle Actuator Control (TAC) System Description in Engine Controls-5.7 L.

The cruise control switches are located on the multifunction/turn signal lever.

Ignition positive voltage is supplied from the 10 ampere CR CONT fuse to the cruise control switch via the ignition 1 voltage circuit. When the normally open cruise control On/Off switch is turned On, the switch closes and the TAC module detects a high signal voltage on the cruise control on switch signal circuit. When the normally open Set/Coast switch is pressed, the switch closes and the TAC module detects a high signal voltage on the cruise control set/coast switch signal circuit. To engage the cruise control system, turn the On/Off switch On and momentarily press the Set/Coast switch. The TAC sends a UART message to the PCM, in order to

confirm that the cruise control enable criteria has been met.

The PCM will engage the cruise control system and record the selected vehicle speed. The PCM sends a class 2 message to the instrument panel cluster in order to illuminate the cruise control indicator. Pressing the accelerator pedal, while the cruise control system is engaged, will allow the driver to override the cruise control system in order to accelerate the vehicle beyond the current set vehicle speed. When the accelerator pedal is released, the vehicle will decelerate and resume the current set vehicle speed. The driver can also override the current set vehicle speed via the Set/Coast switch and the Resume/Accel switch. When the cruise control system is engaged, pressing and holding the Set/Coast switch will allow the vehicle to decelerate from the current set vehicle speed without deactivating the cruise control system.

When the Set/Coast switch is released, the PCM will record the vehicle speed and maintain the vehicle speed as the new set vehicle speed. When the cruise control system is engaged, momentarily pressing the Set/Coast switch will allow the vehicle to decelerate at 1 MPH increments for each time that the Set/Coast is momentarily pressed, with a minimum vehicle speed of 23 MPH. When the normally open Resume/Accel. switch is activated, the switch closes and the TAC module detects a high signal voltage on the cruise control resume/accel switch signal circuit. Activating and holding the Resume/Accel switch, when the cruise control system is engaged, will allow the vehicle to accelerate to a greater vehicle speed than the current set vehicle speed. When the Resume/Accel switch is released, the PCM will record the vehicle speed and maintain the vehicle speed as the new set vehicle speed. When the cruise control system is engaged, momentarily activating the Resume/Accel switch will allow the vehicle to accelerate at 1 MPH increments for each time that the Resume/Accel switch is momentarily activated, with the maximum acceleration total of 10 MPH over the current set vehicle speed. Momentarily activating the Resume/Accel switch, after the cruise control system has been disengaged by pressing the brake pedal, will recall the previous set vehicle speed that is recorded in the PCM.

### **Cruise Control Disengaged**

The PCM disengages the cruise control operation based on the information received from the TAC module. The TAC module monitors the signal circuits of the following switches:

- The On/Off switch
- The TCC/brake switch
- The stop lamp switch
- The CPP switch

The TCC brake switch and the stop lamp switch are incorporated into an assembly and are mounted to the brake pedal bracket. Pressing the brake pedal while the cruise control is engaged will disengage the cruise control system. The TAC module monitors the stop lamp switch signal circuit and the PCM monitors the TCC brake switch/cruise control release signal circuit. When the brake pedal is pressed, the normally closed TCC brake switch opens and the normally open stoplamp switch closes. The TAC module detects a high signal voltage on the stop lamp switch signal circuit and the PCM detects a low signal voltage on the TCC brake switch/cruise control release signal circuit. The TAC module sends a UART message to the PCM indicating the status of the stop lamp switch. The cruise control system will disengage when the cruise control On/Off switch is turned Off. The vehicle speed stored in the memory of the PCM will be erased when the Off button is activated, or the ignition switch is turned off.

The clutch switch is mounted to the clutch pedal bracket. Depressing the clutch pedal while the cruise control is engaged will disengage the cruise control system. When the clutch pedal is depressed, the normally closed clutch switch closes and the PCM detects a low signal voltage on the clutch switch signal circuit.

The cruise control system will disengage when the PCM detects that the driver has the accelerator pedal override active for approximately 60 seconds.

When the cruise control system is disengaged, the PCM sends a class 2 message to the IPC in order to deactivate the cruise control indicator.

### **Cruise Control Inhibited**

The PCM inhibits the cruise control operation when any of the following conditions exist:

- A cruise control system related DTC has been set.
- The vehicle speed is less than 40 km/h (25 mph).
- The vehicle is in PARK, REVERSE, NEUTRAL, or 1st gear.
- The engine RPM low.
- The engine RPM is high.
- The vehicle speed is too high.
- The system voltage is not between 6 volts and 16 volts.
- The antilock brake system/traction control system is active for more than 2 seconds.