

- BPP switch

## DIAGNOSIS AND TESTING > CRUISE CONTROL > PINPOINT TESTS > PINPOINT TEST A : THE CRUISE CONTROL IS INOPERATIVE > PINPOINT TEST A : THE CRUISE CONTROL IS INOPERATIVE

### A1 CHECK FOR DIAGNOSTIC TROUBLE CODES (DTCs)

Using a diagnostic scan tool, perform the PCM self-test.

Using a diagnostic scan tool, perform the SCCM self-test.

#### Are any Diagnostic Trouble Codes (DTCs) recorded?

|            |                                                                                                                                                                                                                                                                                                                                |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Yes</b> | If PCM Diagnostic Trouble Codes (DTCs) were retrieved, REFER to the PCM/DTC Chart in this service information. If SCCM Diagnostic Trouble Codes (DTCs) B137F:09, B137F:11 or B137F:17 were retrieved, GO to A3 For all other SCCM Diagnostic Trouble Codes (DTCs), REFER to: Steering Wheel and Column Electrical Components . |
| <b>No</b>  | GO to A2                                                                                                                                                                                                                                                                                                                       |

### A2 CHECK THE STOPLAMP SWITCH (BOO1) AND CRUISE CONTROL DEACTIVATOR SWITCH (BOO2) PARAMETER IDENTIFICATIONS (PIDS)

Using a diagnostic scan tool, view PCM Parameter Identifications (PIDs).

Using the table, monitor the Parameter Identifications (PIDs) BOO1 (stoplamp switch) and BOO2 (cruise control deactivator switch) while applying and releasing the brake pedal.

| Brake Pedal Position | BOO1 PID | BOO2 PID |
|----------------------|----------|----------|
| Released             | Off      | Off      |
| Applied              | On       | On       |

#### Do the PID values agree with the brake pedal position?

|            |                       |
|------------|-----------------------|
| <b>Yes</b> | GO to A3              |
| <b>No</b>  | GO to Pinpoint Test B |

### A3 CHECK THE CRUISE CONTROL SWITCH PID (PARAMETER IDENTIFICATION)

Using a diagnostic scan tool, view SCCM Parameter Identifications (PIDs).

Using the chart below, press each cruise control switch while monitoring the cruise control switch PID.

| Cruise Control Switch         | PID Value |
|-------------------------------|-----------|
| Cruise On (pressed/released)  | On/Off    |
| Cruise Off (pressed/released) | On/Off    |
| Resume (pressed/released)     | On/Off    |
| Cancel (pressed/released)     | On/Off    |
| SET + (pressed/released)      | On/Off    |
| SET - (pressed/released)      | On/Off    |

**Does the PID value agree with the switch position?**

|            |          |
|------------|----------|
| <b>Yes</b> | GO to A4 |
|------------|----------|

|           |                                                                                                                                                                                                                        |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>No</b> | If only one switch does not display the correct PID value, INSTALL a new LH steering wheel switch. REFER to: Steering Wheel Multifunction Switch . If multiple switches do not display the correct PID value, GO to A5 |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**A4 MONITOR THE PCM (POWERTRAIN CONTROL MODULE) TR (TRANSMISSION RANGE) PID (PARAMETER IDENTIFICATION)**

Using a diagnostic scan tool, view PCM Parameter Identifications (PIDs).

Monitor the PCM PID TR.

Select DRIVE.

**Does the PID value agree with the TR selector lever position?**

|            |          |
|------------|----------|
| <b>Yes</b> | GO to A9 |
|------------|----------|

|           |                                                      |
|-----------|------------------------------------------------------|
| <b>No</b> | REFER to: AUTOMATIC TRANSMISSION EXTERNAL CONTROLS . |
|-----------|------------------------------------------------------|

**A5 CHECK FOR VOLTAGE TO THE CRUISE CONTROL SWITCHES**

Ignition OFF.

Remove the driver airbag. REFER to: Driver Airbag .

Disconnect LH Steering Wheel Switch C2998 .

Ignition ON.

Measure:

| Positive Lead | Measurement / Action                                                                | Negative Lead |
|---------------|-------------------------------------------------------------------------------------|---------------|
| C2998-4       |  | C2998-5       |

|         |                                                                                   |         |
|---------|-----------------------------------------------------------------------------------|---------|
| C2998-6 |  | C2998-5 |
| C2998-7 |  | C2998-5 |

**Is the voltage approximately 5 volts?**

|            |                                                                                                                                                                                         |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Yes</b> | TURN the ignition off and WAIT one minute. INSTALL a new LH steering wheel switch. REFER to: Steering Wheel Multifunction Switch . INSTALL the driver airbag. REFER to: Driver Airbag . |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|           |          |
|-----------|----------|
| <b>No</b> | GO to A6 |
|-----------|----------|

**A6 CHECK THE STEERING WHEEL SWITCH HARNESS FOR AN OPEN**

Ignition OFF.

Disconnect Clockspring C218B .

Measure:

| Positive Lead | Measurement / Action | Negative Lead |
|---------------|----------------------|---------------|
| C2998-4       | $\Omega$             | C218B-15      |
| C2998-5       | $\Omega$             | C218B-8       |
| C2998-6       | $\Omega$             | C218B-6       |
| C2998-7       | $\Omega$             | C218B-7       |

**Are the resistances less than 3 ohms?**

|            |          |
|------------|----------|
| <b>Yes</b> | GO to A7 |
|------------|----------|

|           |                                                          |
|-----------|----------------------------------------------------------|
| <b>No</b> | Install a new steering wheel. REFER to: Steering Wheel . |
|-----------|----------------------------------------------------------|

**A7 CHECK THE STEERING WHEEL SWITCH CIRCUITS THROUGH THE CLOCKSPRING FOR AN OPEN**

Disconnect Clockspring C218C .

Measure:

| Positive Lead             | Measurement / Action | Negative Lead            |
|---------------------------|----------------------|--------------------------|
| C218B-6 (component side)  | $\Omega$             | C218D-5 (component side) |
| C218B-7 (component side)  | $\Omega$             | C218D-7 (component side) |
| C218B-15 (component side) | $\Omega$             | C218D-8 (component side) |

**Are the resistances less than 3 ohms?**

|            |                                                    |
|------------|----------------------------------------------------|
| <b>Yes</b> | GO to A8                                           |
| <b>No</b>  | Install a new clockspring. REFER to: Clockspring . |

**A8 CHECK FOR CORRECT SCCM (STEERING COLUMN CONTROL MODULE) OPERATION**

Ignition OFF.

Disconnect and inspect all SCCM connectors and related in-line connectors.

Repair:

corrosion (install new connector or terminals - clean module pins)

damaged or bent pins - install new terminals/pins

pushed-out pins - install new pins as necessary

Reconnect the SCCM connectors and related in-line connectors. Make sure they seat and latch correctly.

Operate the system and determine if the concern is still present.

**Is the concern still present?**

|            |                                                                                                                                                                                                                                  |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Yes</b> | CHECK OASIS for any applicable TSBs. If a TSB exists for this concern, DISCONTINUE this test and FOLLOW TSB instructions. If no TSBs address this concern, INSTALL a new SCCM. REFER to: Steering Column Control Module (SCCM) . |
| <b>No</b>  | The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.                                                                   |

**A9 CHECK FOR CORRECT PCM (POWERTRAIN CONTROL MODULE) OPERATION**

Ignition OFF.

Disconnect and inspect all PCM connectors and related in-line connectors.

Repair:

corrosion (install new connector or terminals - clean module pins)

damaged or bent pins - install new terminals/pins

pushed-out pins - install new pins as necessary

Reconnect the PCM connectors and related in-line connectors. Make sure they seat and latch correctly.

Operate the system and determine if the concern is still present.