Cruise Control

Diagnostic Trouble Code (DTC) Chart

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.
REFER to: Diagnostic Methods (100-00 General Information, Description and Operation).

Diagnostic Trouble Code Chart

Module	DTC	Description	Action **New:** *hover over Pinpoint Test links to show title*
PCM	P0504:00	Brake Switch A/B Correlation: No Sub Type Information	GO to Pinpoint Test C
PCM	P0572:00	Brake Switch A Circuit Low: No Sub Type Information	GO to Pinpoint Test C
PCM	P0573:00	Brake Switch A Circuit High: No Sub Type Information	GO to Pinpoint Test C
PCM	P1703:00	Brake Switch Out Of Self - Test Range : No Sub Type Information	GO to Pinpoint Test C
PCM	P1935:00	Brake Switch/Sensor Signal: No Sub Type Information	GO to Pinpoint Test C
SCCM	B137F:09	Steering Wheel Left Switch Pack: Component Failure	GO to Pinpoint Test A
SCCM	B137F:11	Steering Wheel Left Switch Pack: Circuit Short to Ground	GO to Pinpoint Test A
SCCM	B137F:17	Steering Wheel Left Switch Pack: Circuit Voltage Above Threshold	GO to Pinpoint Test A
SECM	B137F:11	Steering Wheel Left Switch Pack: Circuit Short to Ground	GO to Pinpoint Test B
SECM	B137F:17	Steering Wheel Left Switch Pack: Circuit Voltage Above Threshold	GO to Pinpoint Test B
SECM	B137F:2A	Steering Wheel Left Switch Pack: Signal Stuck in Range	GO to Pinpoint Test B
SECM	B137F:4A	Steering Wheel Left Switch Pack: Incorrect Component Installed	GO to Pinpoint Test B
SECM	C2003:11	Steering Wheel Switch Left Module: Circuit Short to Ground	GO to Pinpoint Test B

Symptom Chart(s)

Symptom Chart: Cruise Control

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.
REFER to: Diagnostic Methods (100-00 General Information, Description and Operation).

Symptom Chart

Condition	Possible Sources	Actions
The cruise control is inoperative	Refer to the Pinpoint Test	GO to Pinpoint Test A
The cruise control is inoperative - with adaptive steering	Refer to the Pinpoint Test	GO to Pinpoint Test B
The cruise control indicator lamp is never/always on	Refer to the Pinpoint Test	REFER to: Instrumentation, Message Center and Warning Chimes (413-01 Instrumentation, Message Center and Warning Chimes, Diagnosis and Testing).
The cruise control switch is inoperative/does not operate correctly	Refer to the Pinpoint Test	GO to Pinpoint Test A

Pinpoint Tests

PINPOINT TEST A : THE CRUISE CONTROL IS INOPERATIVE

Refer to Wiring Diagrams Cell 31 for schematic and connector information.

Normal Operation and Fault Conditions

If the cruise control cannot set above 105 kmh (65 mph), 113 kmh (70 mph), 121 kmh (75 mph) or 129 kmh (80 mph), a MyKeyÂ® restricted key is in use and MyKeyÂ® maximum speed limiter may be turned on. With an administration key, VERIFY if MyKeyÂ® maximum speed limiter is turned on. REFER to the Owner's Manual.

REFER to: Cruise Control - System Operation and Component Description (419-03A Cruise Control, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
SCCM B137F:09	Steering Wheel Left Switch Pack: Component Failures	A continuous and on-demand DTC that sets when one or more of the cruise control switches are stuck.
SCCM B137F:11	Steering Wheel Left Switch Pack: Circuit Short To Ground	A continuous and on-demand DTC that sets when the cruise control switch circuits are shorted to ground.
SCCM B137F:17	Steering Wheel Left Switch Pack: Circuit Voltage Above Threshold	A continuous and on-demand DTC that sets when the cruise control switch circuits are shorted to voltage.

Possible Sources

- Wiring, terminals or connectors
- Cruise control switch
- TR sensor
- PCM
- SCCM
- BPP switch

A1 CHECK FOR DIAGNOSTIC TROUBLE CODES (DTCS)

- Ignition ON.
- Connect the diagnostic tool.
- Using a diagnostic scan tool, perform the PCM self-test.
- Using a diagnostic scan tool, perform the SCCM self-test.

Are any DTCs recorded?

Yes	If PCM DTCs were retrieved, REFER to the Master DTC Chart. If SCCM DTCs B137F:09, B137F:11 or B137F:17 were retrieved, GO to A3 For all other SCCM DTCs, REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components, Diagnosis and Testing).
No	GO to A2

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

- Using a diagnostic scan tool, view PCM PIDs.
- Using the table, monitor the PIDs

  Access the PCM and monitor the BOO1 (0) PID

  (stoplamp switch) and

  Access the PCM and monitor the BOO2 (0) PID

  (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?

Yes	GO to A3
No	GO to Pinpoint Test C

A3 CHECK THE CRUISE CONTROL SWITCH PID (PARAMETER IDENTIFICATION)

- Using a diagnostic scan tool,

  Access the SCCM and monitor the SC_ONOFF (0) PID

  ,

  Access the SCCM and monitor the SC_CNCL_RESM (0) PID

  ,

  Access the SCCM and monitor the SC_SET+ (0) PID

  and

  Access the SCCM and monitor the SC_SET- (0) PID

- Using the table, press each cruise control switch while monitoring the cruise control switch PID.

Cruise Control Switch	PID Value
ON (pressed/released)	On/Off
OFF (pressed/released)	On/Off
RES (pressed/released)	On/Off
CNCL (pressed/released)	On/Off
SET + (pressed/released)	On/Off
SET - (pressed/released)	On/Off

Does the PID value agree with the switch position?

Yes	If equipped with 6.2L or 7.3L, GO to A9 If equipped with 6.7L diesel, GO to A10
No	If only one switch does not display the correct PID value, INSTALL a new LH steering wheel switch. REFER to: Steering Wheel Multifunction Switch (211-05 Steering Wheel and Column Electrical Components, Removal and Installation). If multiple switches do not display the correct PID value, GO to A4

A4 CHECK FOR VOLTAGE TO THE CRUISE CONTROL SWITCHES

- Ignition OFF.
- Remove the driver airbag.
  REFER to: Driver Airbag (501-20B Supplemental Restraint System, Removal and Installation).
- Disconnect LH Steering Wheel Switch C2490 .
- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2490-4	V	C2490-5
C2490-6	V	C2490-5
C2490-7	V	C2490-5

Is the voltage approximately 5 volts?

Yes	TURN the ignition off and WAIT one minute. INSTALL a new LH steering wheel switch. REFER to: Steering Wheel Multifunction Switch (211-05 Steering Wheel and Column Electrical Components, Removal and Installation). INSTALL the driver airbag. REFER to: Driver Airbag (501-20B Supplemental Restraint System, Removal and Installation).
No	GO to A5

A5 CHECK THE STEERING WHEEL SWITCH HARNESS FOR AN OPEN

- Ignition OFF.
- Disconnect Clockspring C218B .
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2490-4	Ω	C218B-15
C2490-5	Ω	C218B-8
C2490-6	Ω	C218B-6
C2490-7	Ω	C218B-7

Are the resistances less than 3 ohms?

Yes	GO to A6
No	INSTALL a new steering wheel. REFER to: Steering Wheel (211-04 Steering Column, Removal and Installation).

A6 CHECK THE STEERING WHEEL SWITCH HARNESS FOR A SHORT TO GROUND

- Measure:

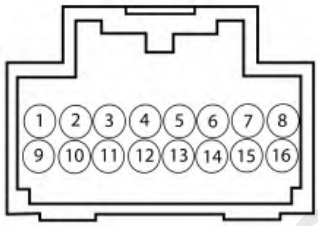
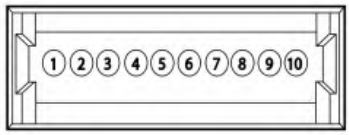
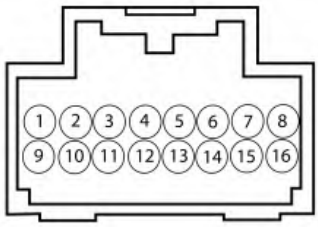
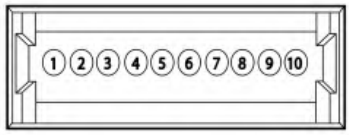
Positive Lead	Measurement / Action	Negative Lead
C2490-4	Ω	Ground
C2490-5	Ω	Ground
C2490-6	Ω	Ground
C2490-7	Ω	Ground

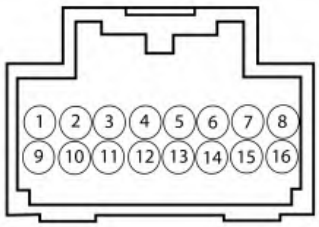
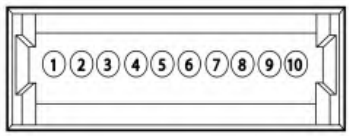
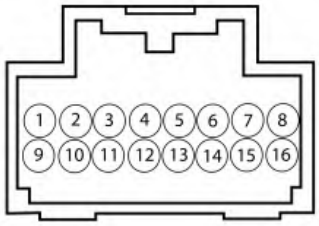
Are the resistances greater than 10,000 ohms?

Yes	GO to A7
No	Install a new steering wheel. REFER to: Steering Wheel (211-04 Steering Column, Removal and Installation).

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

- Disconnect Clockspring C218G from SCCM .
- Measure:

Positive Lead	Measurement / Action	Negative Lead
 E155137 C218B-6 (component side)	Ω	 E155657 C218G-5 (component side)
 E155137 C218B-7 (component side)	Ω	 E155657 C218G-7 (component side)

Positive Lead	Measurement / Action	Negative Lead
 E155137 C218B-15 (component side)	Ω	 E155657 C218G-8 (component side)
 E155137 C218B-8 (component side)	Ω	 E155657 C218G-9 (component side)

Are the resistances less than 3 ohms?

Yes	GO to A8
No	INSTALL a new clockspring. REFER to: Clockspring (501-20B Supplemental Restraint System, Removal and Installation).

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

- Ignition OFF.
- Disconnect and inspect all SCCM 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. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new SCCM. REFER to: Steering Column Control Module (SCCM) (211-05 Steering Wheel and Column Electrical Components, Removal and Installation).
No	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.
- 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. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, Click here to access Guided Routine (PCM).
No	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.

A10 CHECK FOR CORRECT TCM (TRANSMISSION CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all TCM 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 TCM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new TCM. REFER to: Transmission Control Module (TCM) (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R140, Removal and Installation).
No	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.

PINPOINT TEST B : THE CRUISE CONTROL IS INOPERATIVE - WITH ADAPTIVE STEERING

Refer to Wiring Diagrams Cell 31 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Steering Wheel and Column Electrical Components - System Operation and Component Description (211-05 Steering Wheel and Column Electrical Components, Description and Operation).

REFER to: Cruise Control - System Operation and Component Description (419-03A Cruise Control, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
SECM C2003:11	Steering Wheel Switch Left Module: Circuit Short To Ground	A continuous memory DTC that sets when the cruise control switch circuits are shorted to ground.
SECM B137F:11	Steering Wheel Left Switch Pack: Circuit Short To Ground	A continuous memory DTC that sets when the cruise control switch circuits are shorted to ground.
SECM B137F:17	Steering Wheel Left Switch Pack: Circuit Voltage Above Threshold	A continuous memory DTC that sets when the cruise control switch circuits are shorted to voltage.
SECM B137F:2A	Steering Wheel Left Switch Pack: Stuck in Range	A continuous memory DTC that sets when a cruise control switch is stuck in position.
SECM B137F:4A	Steering Wheel Left Switch Pack: Incorrect Component Installed	A continuous memory DTC that sets when the SECM detects a switch is installed that does not correspond with the switch configuration in the module.

Possible Sources

- Wiring, terminals or connectors
- Cruise control switch
- TR sensor
- PCM
- SCCM
- SASM
- SECM
- BPP switch

B1 PERFORM A NETWORK TEST

- Ignition ON.
- Connect the diagnostic tool.
- Using a diagnostic scan tool, perform the a network test.

Does the SASM and SCCM communicate on the network?

Yes	GO to B2
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

B2 CHECK FOR DIAGNOSTIC TROUBLE CODES (DTCS)

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

Are any DTCs recorded?

Yes	If PCM DTCs were retrieved, REFER to the Master DTC Chart. If SECM DTC B137F:11, B137F:17, B137F:2A, B137F:4A or C2003:11 was retrieved, GO to B4 For **all** other SECM DTCs, REFER to: Adaptive Steering (211-02 Power Steering, Diagnosis and Testing).
No	GO to B3

B3 CHECK THE STOPLAMP SWITCH (BOO1) AND CRUISE CONTROL DEACTIVATOR SWITCH (BOO2) PARAMETER IDENTIFICATIONS (PIDS)

- Using a diagnostic scan tool, view PCM PIDs.
- Using the table, monitor the PIDs

  Access the PCM and monitor the BOO1 (0) PID

  (stoplamp switch) and

  Access the PCM and monitor the BOO2 (0) PID

  (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?

Yes	GO to B4
No	GO to Pinpoint Test C

B4 CHECK THE CRUISE CONTROL SWITCH

- Using a diagnostic scan tool, perform the SECM active test.
- Using the scan tool select and activate each cruise control switch while monitoring the IPC message center.

Does the message center agree with each switch selection?

Yes	If equipped with 6.2L or 7.3L, GO to B8 If equipped with 6.7L diesel, GO to B9
No	If one or more cruise control switch selections do not display on the IPC message center, GO to B5

B5 CHECK THE CRUISE CONTROL STEERING WHEEL SWITCH

- Ignition OFF.
- Remove the driver airbag.
  REFER to: Driver Airbag (501-20B Supplemental Restraint System, Removal and Installation).
- Disconnect Steering Wheel Switch C2490 .
- Ignition ON.
- Measure

Positive Lead	Measurement / Action	Negative Lead
C2490-4	V	C2490-5
C2490-6	V	C2490-5
C2490-7	V	C2490-5

Is the voltage approximately 5 volts?

Yes	TURN the ignition off and WAIT one minute. INSTALL a new LH steering wheel switch. REFER to: Steering Wheel Multifunction Switch (211-05 Steering Wheel and Column Electrical Components, Removal and Installation). INSTALL the driver airbag. REFER to: Driver Airbag (501-20B Supplemental Restraint System, Removal and Installation).
No	GO to B6

B6 CHECK THE STEERING WHEEL SWITCH HARNESS FOR AN OPEN

- Ignition OFF.
- Disconnect SECM C2391B .
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2490-4	Ω	C2391B-10
C2490-5	Ω	C2391B-6
C2490-6	Ω	C2391B-3
C2490-7	Ω	C2391B-2

Are the resistances less than 3 ohms?

Yes	GO to B7
No	Install a new steering wheel. REFER to: Steering Wheel (211-04 Steering Column, Removal and Installation).

B7 CHECK THE STEERING WHEEL SWITCH HARNESS FOR A SHORT TO GROUND

- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2490-4	Ω	Ground
C2490-5	Ω	Ground
C2490-6	Ω	Ground
C2490-7	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	INSTALL a new SECM. REFER to: Steering Wheel - Vehicles With: Adaptive Steering (211-04 Steering Column, Removal and Installation).
No	Install a new steering wheel. REFER to: Steering Wheel (211-04 Steering Column, Removal and Installation).

B8 CHECK FOR CORRECT PCM (POWERTRAIN CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all PCM 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. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, Click here to access Guided Routine (PCM).
No	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.

B9 CHECK FOR CORRECT TCM (TRANSMISSION CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all TCM 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 TCM connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new TCM. REFER to: Transmission Control Module (TCM) (307-01B Automatic Transmission, Transfer Case and Power Transfer Unit - 10-Speed Automatic Transmission â€“ 10R140, Removal and Installation).
No	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.

PINPOINT TEST C : P0504, P0572, P0573, P1703 OR P1935

Refer to Wiring Diagrams Cell 31 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Cruise Control - System Operation and Component Description (419-03A Cruise Control, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
PCM P0504:00	Brake Switch "A"/"B" Correlation: No Sub Type Information	A DTC that sets when the PCM does not sense the correct sequence of the brake pedal input signal from both the cruise control deactivator and stoplamp switches when the brake pedal is pressed and released.
PCM P0572:00	Brake Switch "A" Circuit Low: No Sub Type Information	A DTC that sets when the PCM detects an open in the stoplamp switch signal. The PCM monitors the vehicle speed, the engine speed, the engine torque and the stoplamp input during start and stop driving cycles. If the stoplamp switch input to the PCM is always off during start and stop driving cycles, this DTC sets in continuous memory.
PCM P0573:00	Brake Switch "A" Circuit High: No Sub Type Information	A DTC that sets when the PCM detects a short to voltage on the stoplamp switch signal. The PCM monitors the vehicle speed, the engine speed, the engine torque and the stoplamp switch input during start and stop driving cycles. If the stoplamp lamp switch input to the PCM is always on during start and stop driving cycles, this DTC sets in continuous memory.
PCM P1703:00	Brake Switch Out Of Self Test Range: No Sub Type Information	A DTC that sets in the PCM during the self-test when the stoplamp switch input signal is high or does not cycle high and low.
PCM P1935:00	Brake Switch/Sensor Signal: No Sub Type Information	A DTC that sets when the PCM does not receive the brake switch input on the brake switch signal circuit to deactivate the cruise control.

Possible Sources

- Wiring, terminals or connectors
- Stoplamp switch
- PCM

NOTICE: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

C1 CHECK THE OPERATION OF THE STOPLAMPS

- Ignition ON.
- Operate the stoplamps.

Do the stoplamps and high mounted stoplamp operate correctly?

Yes	GO to C2
No	REFER to: Stoplamps (417-01 Exterior Lighting, Diagnosis and Testing).

C2 CHECK THE STOPLAMP SWITCH (BOO1) AND CRUISE CONTROL DEACTIVATOR SWITCH (BOO2) PARAMETER IDENTIFICATIONS (PIDS)

- Connect the diagnostic tool.
- Using a diagnostic scan tool, view PCM PIDs.
- Using the table, monitor the PIDs

  Access the PCM and monitor the BOO1 (0) PID

  (stoplamp switch) and

  Access the PCM and monitor the BOO2 (0) PID

  (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?

Yes	GO to C8
No	For an incorrect BOO1 PID value, GO to C3 For an incorrect BOO2 PID value, GO to C4

C3 CHECK THE STOPLAMP SWITCH CIRCUIT

- Ignition OFF.
- Disconnect PCM C175B 6.2L, 7.3L .
- Disconnect PCM C1232B 6.7L diesel.
- Ignition ON.
- While applying and releasing the brake pedal, measure:

6.2L or 7.3L

Positive Lead	Measurement / Action	Negative Lead
C175B-8		Ground

6.7L Diesel

Positive Lead	Measurement / Action	Negative Lead
C1232B-35		Ground

Is the voltage greater than 11 volts with the brake pedal applied and 0 volts with the brake pedal released?

Yes	GO to C8
No	REPAIR the circuit.

C4 CHECK THE CRUISE CONTROL DEACTIVATOR SWITCH FOR CORRECT OPERATION

- Ignition OFF.
- Disconnect PCM C175B 6.2L or 7.3L.
- Disconnect PCM C1232B 6.7L diesel.
- While firmly applying and releasing the brake pedal, measure:

6.2L or 7.3L

Positive Lead	Measurement / Action	Negative Lead
C175B-23	Ω	Ground

6.7L Diesel

Positive Lead	Measurement / Action	Negative Lead
C1232B-52	Ω	Ground

Is the resistance less than 3 ohms with the brake pedal released, and greater than 10,000 ohms with the brake pedal firmly applied?

Yes	GO to C8
No	GO to C5

C5 CHECK THE CRUISE CONTROL DEACTIVATOR SWITCH GROUND CIRCUIT FOR AN OPEN

- Disconnect BPP Switch C278 .
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C278-3	Ω	Ground

Is the resistance less than 3 ohms?

Yes	GO to C6
No	REPAIR the circuit.

C6 CHECK THE CRUISE CONTROL DEACTIVATOR SWITCH SIGNAL CIRCUIT FOR A SHORT TO GROUND

- Measure:

Positive Lead	Measurement / Action	Negative Lead
C278-2	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to C7
No	REPAIR the circuit.

C7 CHECK THE CRUISE CONTROL DEACTIVATOR SWITCH SIGNAL CIRCUIT FOR AN OPEN

- Connect a fused jumper wire:

Positive Lead	Measurement / Action	Negative Lead
C278-2		C278-3

- Measure:

6.2L or 7.3L

Positive Lead	Measurement / Action	Negative Lead
C175B-23	Ω	Ground

6.7L Diesel

Positive Lead	Measurement / Action	Negative Lead
C1232B-52	Ω	Ground

Is the resistance less than 3 ohms?

Yes	INSTALL a new BPP switch. REFER to: Stoplamp Switch (417-01 Exterior Lighting, Removal and Installation).
No	REPAIR the signal circuit for an open.

C8 CHECK FOR CORRECT PCM (POWERTRAIN CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all PCM 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. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, Click here to access Guided Routine (PCM).
No	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.

PINPOINT TEST D : P0833:00

Refer to Wiring Diagrams Cell 31 for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Cruise Control - System Operation and Component Description (419-03A Cruise Control, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
PCM P0833:00	Clutch Pedal Switch "B" Circuit: No Sub Type Information	A DTC that sets when the PCM does not sense the correct sequence of the brake pedal input signal from both the cruise control deactivator and stoplamp switches when the brake pedal is pressed and released.

Possible Sources

- Wiring, terminals or connectors
- CPP switch
- PCM

D1 CHECK THE CPP (CLUTCH PEDAL POSITION) SWITCH PID (PARAMETER IDENTIFICATION)

- Ignition ON.
- Connect the diagnostic tool.
- Using a diagnostic scan tool, view PCM PIDs.
- Access the PCM and monitor the CPP_STATUS PID

  while pressing and releasing the clutch pedal.

Does the PID status match the pedal position?

Yes	GO to D4
No	If PID always read "YES", GO to D5 If PID always reads "NO", GO to D2

D2 CHECK THE CPP (CLUTCH PEDAL POSITION) TOP OF TRAVEL SWITCH SIGNAL CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect PCM C175B .
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C175B-53	Ω	Ground

Is the resistance less than 3 ohms?

Yes	GO to D5
No	GO to D3

D3 CHECK THE CPP (CLUTCH PEDAL POSITION) TOP OF TRAVEL SWITCH SIGNAL CIRCUIT FOR A SHORT TO GROUND WITH THE SWITCH DISCONNECTED

- Disconnect CPP C257 .
- Connect:

Positive Lead	Measurement / Action	Negative Lead
C257-5		C257-6

- Measure:

6.2L

Positive Lead	Measurement / Action	Negative Lead
C175B-8	Ω	Ground

Is the resistance less than 3 ohms?

Yes	INSTALL a new CPP switch. REFER to: Clutch Pedal (308-02 Clutch Controls, Removal and Installation).
No	REPAIR the circuit.

D4 RECHECK THE PCM (POWERTRAIN CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Clear the DTCs. Repeat the PCM self-test.

Are any PCM DTCs recorded?

Yes	If DTC P0833:00 is recorded, GO to D5 If any other PCM DTCs are recorded, Refer to the appropriate section in Group 303 for the procedure. GO to D5

D5 CHECK FOR CORRECT PCM (POWERTRAIN CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the PCM 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. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK OASIS for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new PCM. Refer to the appropriate section in Group 303 for the procedure.
No	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.