

# Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

1998 FORD Cougar OEM Service and Repair Workshop Manual

Go to manual page

Yes	GO to	A9
No	GO to	A8

# A8 CHECK HALL-EFFECT SENSOR POWER CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect DSM (driver front seat module) C341E.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3186A-4	Ω	C341E-3

### Is the resistance less than 3 ohms?

Yes GO to A10

**No** REPAIR the circuit.

# A9 CHECK THE HALL-EFFECT SENSOR RETURN CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect DSM (driver front seat module) C341E.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3186A-6	Ω	C341E-20

Is the resistance less than 3 ohms?

C341D-1	ν̈	Ground
C341D-2	₩	Ground

# Is the voltage within 0.2 volts of the recorded battery voltage?

Yes	GO to	A12

No

VERIFY BCM (body control module) fuse F38 (40A) is OK. If OK, REPAIR the circuit for high resistance or an open. If not OK, REFER to the Wiring Diagrams manual to identify the cause of the circuit short.

#### A12 CHECK FOR CORRECT DSM (DRIVER FRONT SEAT MODULE) OPERATION

- Ignition OFF.
- Disconnect All PRB (power running board) system and related in-line connectors.
- Check for:
  - corrosion install new connector or terminals and clean module pins
  - damaged or bent pins install new terminals or pins
  - pushed-out pins install new pins as necessary
- Connect all PRB (power running board) system and related in-line connectors and make sure they seat correctly.
- Operate the system and verify the concern is still present.

# Is the concern still present?

Yes

CHECK OASIS for any applicable Technical Service Bulletins (TSBs). If a TSB (Technical Service Bulletin) exists for this concern, DISCONTINUE this test and FOLLOW TSB (Technical Service Bulletin) instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new DSM (driver front seat module).

REFER to: Driver Front Seat Module (DSM)

(501-10A Front Seats, Removal and Installation).

Yes	REPAIR the DTC (diagnostic trouble code) concern.		
No	GO to B2		
INO	GO to BZ		

#### **B2 CHECK THE OPERATION OF THE POWER RUNNING BOARDS — AUTOMATIC MODE**

#### NOTE

When all the doors are closed, a short delay is normal before the PRB (power running board) 's retracts. This delay feature is to reduce excessive PRB (power running board) cycling if a door is closed and another door is opened.

- Set the PRB (power running board) system to the AUTO (enabled) mode.
- Open and close RH (right-hand) front door. The PRB (power running board) 's should deploy when the door is open, and retract when the door is closed.
- Open and close RH (right-hand) rear door. The PRB (power running board) 's should deploy when the door is open, and retract when the door is closed.

Does the RH (right-hand) PRB (power running board) operate correctly?



B3 CHECK THE OPERATION OF THE POWER RUNNING BOARDS — MANUAL MODE

If the interior lights do not light when one of the door is opened, DIAGNOSE the interior lighting concern.

REFER to: Interior Lighting

(417-02 Interior Lighting, Diagnosis and Testing).

**No** If the interior lights do operate as expected and the door ajar message does not display on the message center when one of the RH (right-hand)

doors is opened, DIAGNOSE the message center concern.

REFER to: Instrumentation, Message Center and Warning Chimes

(413-01 Instrumentation, Message Center and Warning Chimes, Diagnosis and Testing).

# **B6 CHECK THE RIGHT SIDE HALL-EFFECT SENSOR POWER AND RETURN CIRCUITS**

#### **NOTE**

Use a meter with a min-max feature or recording capabilities to obtain accurate measurements. The DSM (driver front seat module) disables the voltage output immediately if the PRB (power running board) motor is not present.

- Ignition OFF.
- Disconnect RH (right-hand) PRB (power running board) motor C3186A.
- Ignition ON.
- Make sure the PRB (power running board) is set to AUTO in the vehicle message center.
- Close all vehicle doors.
- Connect the meter to the RH (right-hand) PRB (power running board) motor electrical connector, harness side.
- Set the meter to measure DC (direct current) voltage.
- Set the meter range to greater than 15 volts.
- Enable the min-max or recording feature on the meter.

#### NOTE

Make sure all test connections are made at the PRB (power running board) motor before the door is opened.

Open any side door.

Measure:

Positive Lead	Measurement / Action	Negative Lead
		0

C3186A-4 C3185A-4
-------------------

#### Is the resistance less than 3 ohms?

Yes	GO to	B8

No	REPAIR the circuit.

# **B8 CHECK RIGHT SIDE HALL-EFFECT SENSOR RETURN CIRCUIT FOR AN OPEN**

#### **NOTE**

Use a meter with a min-max feature or recording capabilities to obtain accurate measurements. The DSM (driver front seat module) disables the voltage output immediately if the PRB (power running board) motor is not present.

- Close all vehicle doors.
- Connect the meter to the RH (right-hand) PRB (power running board) motor electrical connector, harness side.
- Set the meter to measure DC (direct current) voltage.
- Set the meter range to greater than 15 volts.
- Enable the min-max or recording feature on the meter.

#### NOTE

Make sure all test connections are made at the PRB (power running board) motor before the door is opened.

Open any side door.

• Measure:

Positive Lead	Measurement / Action	Negative Lead
C3186A-6	Ω	C3185A-6

#### C1 CHECK FOR DSM (DRIVER FRONT SEAT MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

• Using a diagnostic scan tool, retrieve all Diagnostic Trouble Codes (DTCs) for the DSM (driver front seat module).

# Are any Diagnostic Trouble Codes (DTCs) present?

Yes REPAIR the DTC (diagnostic trouble code) cond	ern.
---	------

No GO to C2

#### C2 CHECK THE OPERATION OF THE POWER RUNNING BOARDS — AUTOMATIC MODE

#### **NOTE**

When all the doors are closed, a short delay is normal before the PRB (power running board) 's retracts. This delay feature is to reduce excessive PRB (power running board) cycling if a door is closed and another door is opened.

- Set the PRB (power running board) system to the AUTO (enabled) mode.
- Open and close LH (left-hand) front door. The PRB (power running board) 's should deploy when the door is open, and retract when the door is closed.
- Open and close LH (left-hand) rear door. The PRB (power running board) 's should deploy when the door is open, and retract when the door is closed.

# Does the LH (left-hand) PRB (power running board) operate correctly?



#### C3 CHECK THE OPERATION OF THE POWER RUNNING BOARDS — MANUAL MODE

• Set the PRB (power running board) system to the OUT mode. Both Power Running Boards (PRBs) should deploy.

Do both Power Running Boards (PRBs) deploy?

If the interior lights do operate as expected and the door ajar message does not display on the message center when one of the LH (left-hand)

doors are opened, DIAGNOSE the message center concern.

REFER to: Instrumentation, Message Center and Warning Chimes

(413-01 Instrumentation, Message Center and Warning Chimes, Diagnosis and Testing).

#### **C6 CHECK THE LEFT SIDE HALL-EFFECT SENSOR POWER AND RETURN CIRCUITS**

# NOTE

Use a meter with a min-max feature or recording capabilities to obtain accurate measurements. The DSM (driver front seat module) disables the voltage output immediately if the PRB (power running board) motor is not present.

- Ignition OFF.
- Disconnect LH (left-hand) PRB (power running board) motor C3185A.
- Ignition ON.
- Make sure the PRB (power running board) is set to AUTO in the vehicle message center.
- Close all vehicle doors.
- Connect the meter to the LH (left-hand) PRB (power running board) motor electrical connector, harness side.
- Set the meter to measure DC (direct current) voltage.
- Set the meter range to greater than 15 volts.
- Enable the min-max or recording feature on the meter.

#### NOTE

Make sure all test connections are made at the PRB (power running board) motor before the door is opened.

Open any side door.

• Measure:

Positive Lead	Measurement / Action	Negative Lead
C3185A-4	₩	C3185A-6

Is the voltage between 7 and 10.5 volts?

#### Is the resistance less than 3 ohms?

Yes	REPAIR the circuit.

#### **C8 CHECK LEFT SIDE HALL-EFFECT SENSOR RETURN CIRCUIT FOR AN OPEN**

#### **NOTE**

Use a meter with a min-max feature or recording capabilities to obtain accurate measurements. The DSM (driver front seat module) disables the voltage output immediately if the PRB (power running board) motor is not present.

- Close all vehicle doors.
- Connect the meter to the LH (left-hand) PRB (power running board) motor electrical connector, harness side.
- Set the meter to measure DC (direct current) voltage.
- Set the meter range to greater than 15 volts.
- Enable the min-max or recording feature on the meter.

#### NOTE

Make sure all test connections are made at the PRB (power running board) motor before the door is opened.

Open any side door.

• Measure:

Positive Lead	Measurement / Action	Negative Lead
C3186A-6	Ω	C3185A-6

#### Is the resistance less than 3 ohms?

<b>Yes</b> REPAIR the circuit.
--------------------------------

C1006:19	Above Threshold	is above excessive.
----------	-----------------	---------------------

#### **Possible Sources**

- Wiring, terminals or connectors
- LH (left-hand) PRB (power running board) motor
- DSM (driver front seat module)

# **Visual Inspection and Pre-checks**

• LH (left-hand) PRB (power running board) motor harness connections and wiring.

# **NOTICE**

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

D1 CHECK THE LH (LEFT-HAND) PRB (POWER RUNNING BOARD) MOTOR CONTROL CIRCUITS FOR A SHORT TO VOLTAGE

