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.

1979 FORD Cortina OEM Service and Repair Workshop Manual

Go to manual page

Are the resistances greater than 10,000 Ohms?

Yes	GO to D3

No	REPAIR the circuit.

D3 CHECK THE LH (LEFT-HAND) PRB (POWER RUNNING BOARD) MOTOR CONTROL CIRCUITS FOR AN OPEN

- Disconnect DSM (driver front seat module) C341D .
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3185A-1	Ω	C341D-13
C3185A-3	Ω	C341D-14

Are the resistances less than 3 Ohms?

Yes	GO to D4

No	REPAIR the circuit.

D4 CHECK THE LH (LEFT-HAND) PRB (POWER RUNNING BOARD) MOTOR CIRCUITS FOR A SHORT TOGETHER

- Measure:

Positive Lead	Measurement / Action	Negative Lead

No	REPAIR the circuit.

D5 CHECK FOR CORRECT DSM (DRIVER FRONT SEAT MODULE) OUTPUT

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

- Connect DSM (driver front seat module) C341D .
- 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 LH (left-hand) door is opened.

  Open any side door.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3185A-3	V	C3185A-1

Is the voltage greater than 10 volts?

Yes	REPLACE the PRB (power running board) motor. REFER to: Power Running Board (PRB) Motor (501-08 Exterior Trim and Ornamentation, Removal and Installation).

RIGHT RB DEPLOY circuit and ground to the RIGHT RB STOW circuit. The DSM (driver front seat module) monitors the PRB (power running board) motor current draw while it is operating. These Diagnostic Trouble Codes (DTCS) will set if the circuits are interrupted or if the PRB (power running board) motor current is above 45 Amps. **DTC Fault Trigger Conditions**

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
DSM (driver front seat module) C1007:11	Right Power Running Board Motor: Circuit Short To Ground	This DTC (diagnostic trouble code) sets if the RH (right-hand) PRB (power running board) motor stow or deploy circuit is shorted to ground when a movement is requested.
DSM (driver front seat module) C1007:12	Right Power Running Board Motor: Circuit Short To Battery	This DTC (diagnostic trouble code) sets if the RH (right-hand) PRB (power running board) motor stow or deploy circuit is shorted to voltage when a movement is requested.
DSM (driver front seat module) C1007:13	Right Power Running Board Motor: Circuit Open	This DTC (diagnostic trouble code) sets if the RH (right-hand) PRB (power running board) motor stow or deploy circuit is open when a movement is requested.
DSM (driver front seat module) C1007:19	Right Power Running Board Motor: Circuit Current Above Threshold	This DTC (diagnostic trouble code) sets if the RH (right-hand) PRB (power running board) motor current draw is excessive.

Possible Sources

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

Visual Inspection and Pre-checks

- RH (right-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.

C3186A-3	Ω	Ground

Are the resistances greater than 10,000 Ohms?

Yes	GO to E3

No	REPAIR the circuit.

E3 CHECK THE RH (RIGHT-HAND) PRB (POWER RUNNING BOARD) MOTOR CONTROL CIRCUITS FOR AN OPEN

- Disconnect DSM (driver front seat module) C341B .
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3186A-1	Ω	C341B-7
C3186A-3	Ω	C341B-8

Are the resistances less than 3 Ohms?

Yes	GO to E4

No	REPAIR the circuit.

E4 CHECK THE RH (RIGHT-HAND) PRB (POWER RUNNING BOARD) MOTOR CIRCUITS FOR A SHORT TOGETHER

- Measure:

Yes	GO to E5

No	REPAIR the circuit.

E5 CHECK FOR CORRECT DSM (DRIVER FRONT SEAT MODULE) OUTPUT

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

- Connect DSM (driver front seat module) C341B .
- 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 RH (right-hand) door is opened.

  Open any side door.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3186A-3	V	C3186A-1

Is the voltage greater than 10 volts?

each PRB (power running board) motor. The DSM (driver front seat module) supplies a shared 10 volt controlled voltage and a shared ground circuit to the PRB (power running board) motor hall-effect sensors, and receives separate sensor signals from the RH (right-hand) and LH (left-hand) hall-effect sensors. Voltage varies on the LEFT or RIGHT RB hall-effect signal circuit as the motor moves the PRB (power running board) . An open or shorted circuit will set these DTC (diagnostic trouble code) . **DTC Fault Trigger Conditions**

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
DSM (driver front seat module) C1008:11	Left Power Running Board Position/Motion Sensor: Circuit Short To Ground	This DTC (diagnostic trouble code) sets if the system voltage is between 9.5 - 16 volts, the LH (left-hand) PRB (power running board) motion is commanded and the left RB hall effect signal circuit at the DSM (driver front seat module) does not change.
DSM (driver front seat module) C1008:15	Left Power Running Board Position/Motion Sensor: Circuit Short To Battery Or Open	This DTC (diagnostic trouble code) sets if the system voltage is between 9.5 - 16 volts, the LH (left-hand) PRB (power running board) motion is commanded and the left RB hall effect signal circuit at the DSM (driver front seat module) does not change.
DSM (driver front seat module) C1009:11	Right Power Running Board Position/Motion Sensor: Circuit Short To Ground	This DTC (diagnostic trouble code) sets if the system voltage is between 9.5 - 16 volts, the RH (right-hand) PRB (power running board) motion is commanded and the right RB hall effect signal circuit at the DSM (driver front seat module) does not change.
DSM (driver front seat module) C1009:15	Right Power Running Board Position/Motion Sensor: Circuit Short To Battery Or Open	This DTC (diagnostic trouble code) sets if the system voltage is between 9.5 - 16 volts, the RH (right-hand) PRB (power running board) motion is commanded and the right RB hall effect signal circuit at the DSM (driver front seat module) does not change.
DSM (driver front seat module) C1B14:11	Sensor Supply Voltage A: Circuit Short To Ground	This DTC (diagnostic trouble code) sets if the system voltage is between 9.5 - 16 volts, any PRB (power running board) motion is commanded and the hall effect power circuit at the DSM (driver front seat module) is less than 7.5 volts.

Yes	GO to F2

No	REPAIR the circuit.

F2 CHECK THE 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 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.
- 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-4	V	C3186A-6

C3186A-4	V	Ground
C3185A-4	V	Ground

Is the voltage between 7 and 10.5 volts?

Yes	GO to F5

No	GO to F4

F4 CHECK HALL-EFFECT SENSOR POWER CIRCUIT FOR AN OPEN OR SHORT TO GROUND

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

Positive Lead	Measurement / Action	Negative Lead
C3186A-4	Ω	C341E-3
C3185A-4	Ω	C341E-3
C3186A-4	Ω	Ground
C3185A-4	Ω	Ground

Is the resistance less than 3 ohms between the PRB (power running board) motor and the DSM (driver front seat module) module; and greater than 10,000 ohms between the PRB (power running

C3186A-4	V	Ground
C3185A-4	V	Ground

Is any voltage present?

Yes	REPAIR the circuit.

No	GO to F9

F7 CHECK THE HALL-EFFECT SENSOR SIGNAL CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect DSM (driver front seat module) C341E .
- Ignition ON.
- For DTC (diagnostic trouble code) C1009:11 and C1009:15 (RH (right-hand) side), measure:

Positive Lead	Measurement / Action	Negative Lead
C3186A-5	V	Ground

- For DTC (diagnostic trouble code) C1008:11 and C1008:15 (LH (left-hand) side), measure:

Positive Lead	Measurement / Action	Negative Lead
C3185A-5	V	Ground

Is any voltage present?