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## 2017 FORD C-Max OEM Service and Repair Workshop Manual

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**No** REPAIR the circuit. GO to [F19](#)

#### F14 CHECK THE THE FRONT SEAT CUSHION MODULE LIN (LOCAL INTERCONNECT NETWORK) CIRCUIT FOR A SHORT TO VOLTAGE

- Disconnect: SCMG (driver multi-contour seat module) C3385.
- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3886-3	$\bar{V}$	Ground

**Is any voltage present?**

**Yes** REPAIR the circuit. GO to [F19](#)

**No** GO to [F15](#)

#### F15 CHECK THE THE FRONT SEAT CUSHION MODULE LIN (LOCAL INTERCONNECT NETWORK) CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3886-3	$\Omega$	Ground

**Is the resistance greater than 10,000 ohms?**

**Yes** GO to [F16](#)

- Ignition ON.
- Operate the system and determine if the concern is still present.

**Is the concern still present?**

<p><b>Yes</b></p>	<p>CHECK OASIS (Online Automotive Service Information System) for any applicable service articles: TSB (Technical Service Bulletin) , GSB (General Service Bulletin) , SSM (special service message) or FSA (Field Service Action) . 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 SCMG (driver multi-contour seat module) .</p> <p>REFER to: <a href="#">Driver Multi-Contour Seat Module [SCMG]</a> (501-10A Front Seats, Removal and Installation).</p> <p>GO to <a href="#">F19</a></p>
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<p><b>No</b></p>	<p>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. GO to <a href="#">F19</a></p>
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**F18 CHECK THE FRONT SEAT CUSHION MODULE AND SCMG (DRIVER MULTI-CONTOUR SEAT MODULE) OPERATION**

- Ignition OFF.
- Disconnect and inspect the SCMG (driver multi-contour seat module) and front seat cushion module connectors.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary

**NOTE**

Do not reconnect Driver Side Airbag In-line C3051 at this time.

Reconnect the SCMG (driver multi-contour seat module) and front seat cushion module connectors. Make sure they seat and latch correctly.

- Ignition ON.
- Operate the system and determine if the concern is still present.

**Is the concern still present?**

- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCMG (driver multi-contour seat module) connector. Make sure it seats and latches correctly.
- Reconnect all previously disconnected connectors and hoses.
- Ignition ON.
- Operate the system and determine if the concern is still present.

**Is the concern still present?**

<p><b>Yes</b></p>	<p>CHECK OASIS (Online Automotive Service Information System) for any applicable service articles: TSB (Technical Service Bulletin) , GSB (General Service Bulletin) , SSM (special service message) or FSA (Field Service Action) . 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 SCMG (driver multi-contour seat module) .          REFER to: <a href="#">Driver Multi-Contour Seat Module [SCMG]</a> (501-10A Front Seats, Removal and Installation).</p>
<p><b>No</b></p>	<p>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.</p>

**PINPOINT TEST G : THE MULTI-CONTOUR SEAT IS INOPERATIVE/ DOES NOT OPERATE CORRECTLY — PASSENGER**

Refer to Wiring Diagrams Cell 120 for schematic and connector information.

**Normal Operation and Fault Conditions** REFER to: [Front Seats - System Operation and Component Description](#) (501-10A Front Seats, Description and Operation).

**DTC Fault Trigger Conditions**

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
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		pressure change is not within the allowed threshold, this DTC (diagnostic trouble code) sets.
SCMH (passenger multi-contour seat module) B1471:11	Multi-Contour Seat Switch Input: Circuit Short To Ground	This DTC (diagnostic trouble code) sets when the seat control switch (multi-contour) input circuit is shorted to ground. This DTC (diagnostic trouble code) may be set on-demand or in continuous memory.
SCMH (passenger multi-contour seat module) B1471:13	Multi-Contour Seat Switch Input: Circuit Open	This DTC (diagnostic trouble code) sets when the seat control switch (multi-contour) input circuit is open. This DTC (diagnostic trouble code) may be set on-demand or in continuous memory.
SCMH (passenger multi-contour seat module) B1471:2A	Multi-Contour Seat Switch Input: Stuck in Range	If the seat control switch is active for greater than 2 minutes or is active during the self-test, the SCMH (passenger multi-contour seat module) sets this DTC (diagnostic trouble code) .
SCMH (passenger multi-contour seat module) B1473:11	Pump Driver: Circuit Short To Ground	This DTC (diagnostic trouble code) sets when the current draw for the air pump driver is too high for a predetermined time period. This DTC (diagnostic trouble code) may be set on-demand or in continuous memory.

#### Possible Sources

- Wiring, terminals or connectors
- Seat control switch
- Front seat power lumbar assembly
- Front multi-contour control pump
- Front seat cushion module
- SCMH (passenger multi-contour seat module)

#### Visual Inspection and Pre-checks

- Verify all the hose connections to the SCMH (passenger multi-contour seat module) , front seat cushion module and front multi-contour control pump are correctly seated and not leaking and/or check for any signs of restrictions (kinked or pinched hoses).

- Disconnect: SCMH (passenger multi-contour seat module) C3386.
- Disconnect: Right Multi-Contour Seat Control Pump C3384.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3384-1	$\Omega$	Ground

**Is the resistance greater than 10,000 ohms?**

<b>Yes</b>	<p>INSTALL a new front multi-contour seat control pump.          REFER to: <a href="#">Front Multi-Contour Control Pump</a>          (501-10A Front Seats, Removal and Installation).          GO to <a href="#">G19</a></p>
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<b>No</b>	REPAIR the circuit. GO to <a href="#">G19</a>
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**G3 RECHECK THE SCMH (PASSENGER MULTI-CONTOUR SEAT MODULE) DIAGNOSTIC TROUBLE CODES (DTCS) WITH SEAT CONTROL SWITCH DISCONNECTED**

- Ignition OFF.
- Disconnect: Passenger Seat Control Switch C3388.
- Ignition ON.
- Using a diagnostic scan tool, perform the SCMH (passenger multi-contour seat module) self-test.

**Was DTC (diagnostic trouble code) B1471:13 retrieved?**

<b>Yes</b>	<p>INSTALL a new seat control switch.          REFER to: <a href="#">Front Seat Control Switch</a>          (501-10A Front Seats, Removal and Installation).</p>
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<b>No</b>	GO to <a href="#">G4</a>
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**G4 CHECK THE SEAT CONTROL SWITCH CIRCUIT FOR A SHORT TO GROUND**

**Yes** REMOVE the fused jumper wire. INSTALL a new seat control switch.  
REFER to: [Front Seat Control Switch](#)  
(501-10A Front Seats, Removal and Installation).  
GO to [G19](#)

**No** REMOVE the fused jumper wire. GO to [G6](#)

**G6 CHECK THE SEAT CONTROL SWITCH CIRCUITS FOR AN OPEN CIRCUIT**

- Ignition OFF.
- Disconnect: SCM<sub>H</sub> (passenger multi-contour seat module) C3386.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3388-9	$\Omega$	C3386-6
C3388-20	$\Omega$	C3386-15

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

**Yes** GO to [G17](#)

**No** REPAIR the circuit in question. GO to [G19](#)

**G7 VERIFY THE MULTI-CONTOUR SEAT CONTROL PUMP OPERATES**

- Ignition OFF.
- Ignition ON.

**NOTE**

<b>No</b>	REPAIR the circuit in question. GO to <a href="#">G19</a>
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### **G9 CHECK THE MULTI-CONTOUR SEAT CONTROL PUMP HOSES FOR CORRECT INSTALLATION OR DAMAGE**

- Ignition OFF.
- Visually inspect the multi-contour seat control pump hoses for correct installation or damage and check the hose routing to make sure the entire length of the hoses are not restricted, bent, kinked or damaged.

#### **Are the multi-contour seat control pump hoses installed correctly with no damage?**

<b>Yes</b>	INSTALL a new front multi-contour control pump. REFER to: <a href="#">Front Multi-Contour Control Pump</a> (501-10A Front Seats, Removal and Installation). Operate the system and determine if the concern is still present. If the concern is still present, GO to <a href="#">G20</a>
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<b>No</b>	REPAIR the hose(s) or INSTALL a new seat component as necessary.
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### **G10 CHECK THE BACKREST HOSE(S) FOR CORRECT INSTALLATION, RESTRICTION OR DAMAGE**

- Ignition OFF.
- Visually inspect the backrest hose(s) for correct installation or damage and check the hose routing to make sure the entire length of the hose is not restricted, bent, kinked or damaged.

#### **Are the backrest hoses installed correctly with no damage or restrictions?**

<b>Yes</b>	GO to <a href="#">G20</a>
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<b>No</b>	REPAIR the hose(s) or INSTALL a new front seat power lumbar assembly. REFER to: <a href="#">Front Seat Power Lumbar Assembly - Vehicles With: Multi-Contour Seats</a> (501-10A Front Seats, Removal and Installation). Operate the system and determine if the concern is still present. If the concern is still present, GO to <a href="#">G20</a>
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### G13 CHECK THE THE FRONT SEAT CUSHION MODULE GROUND CIRCUIT FOR AN OPEN

- Ignition OFF.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3887-4	$\Omega$	Ground

Is the resistance less than 3 ohms?

**Yes** GO to [G14](#)

**No** REPAIR the circuit. GO to [G19](#)

### G14 CHECK THE THE FRONT SEAT CUSHION MODULE LIN (LOCAL INTERCONNECT NETWORK) CIRCUIT FOR A SHORT TO VOLTAGE

- Disconnect: SCMH (passenger multi-contour seat module) C3386.
- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C3887-3	$\bar{V}$	Ground

Is any voltage present?

**Yes** REPAIR the circuit. GO to [G19](#)

**No** GO to [G15](#)

## G17 CHECK THE SCMH (PASSENGER MULTI-CONTOUR SEAT MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the SCMH (passenger multi-contour seat module) connector.
- Repair:
  - corrosion (install new connector or terminals - clean module pins)
  - damaged or bent pins - install new terminals/pins as necessary
  - pushed-out pins - install new pins as necessary
- Reconnect the SCMH (passenger multi-contour seat module) connector. Make sure it seats and latches correctly.

### NOTE

Do not reconnect Passenger Side Airbag In-line C3053 at this time.

Reconnect all previously disconnected connectors and hoses.

- Ignition ON.
- Operate the system and determine if the concern is still present.

### Is the concern still present?

<b>Yes</b>	CHECK OASIS (Online Automotive Service Information System) for any applicable service articles: TSB (Technical Service Bulletin) , GSB (General Service Bulletin) , SSM (special service message) or FSA (Field Service Action) . 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 SCMH (passenger multi-contour seat module) . REFER to: <a href="#">Driver Multi-Contour Seat Module [SCMG]</a> (501-10A Front Seats, Removal and Installation). GO to <a href="#">G19</a>
<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. GO to <a href="#">G19</a>

## G18 CHECK THE FRONT SEAT CUSHION MODULE AND SCMH (PASSENGER MULTI-CONTOUR SEAT MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the SCMH (passenger multi-contour seat module) and front seat cushion module connectors.