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2015 FORD S-Max OEM Service and Repair Workshop Manual

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F21 CHECK THE DSM (DRIVER FRONT SEAT MODULE) / RBM (RUNNING BOARD CONTROL MODULE) FOR CORRECT OPERATION

- Ignition OFF.
- Disconnect and inspect all the DSM (driver front seat module) / RBM (running board control module) 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 DSM (driver front seat module) / RBM (running board control module) 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 (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 DSM (driver front seat module) / RBM (running board control module) . REFER to: Driver Front Seat Module (DSM) (501-10A Front Seats, 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.

F22 CHECK THE GWM (GATEWAY MODULE A) FOR CORRECT OPERATION

- Ignition OFF.
- Disconnect and inspect the GWM (gateway module A) connector.
- 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 GWM (gateway module A) connector. Make sure it seats and latches correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

	connections. ADDRESS the root cause of any connector or pin issues.

F24 CHECK THE PDM (PASSENGER DOOR MODULE) FOR CORRECT OPERATION

- Ignition OFF.
- Disconnect and inspect the PDM (passenger door module) connector.
- 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 PDM (passenger door module) connector. Make sure it seats and latches correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	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 PDM (passenger door module) . REFER to: Passenger Door Module (PDM) (419-10 Multifunction Electronic Modules, 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.

F25 CHECK THE RTM (RADIO TRANSCEIVER MODULE) FOR CORRECT OPERATION

- Ignition OFF.
- Disconnect and inspect the RTM (radio transceiver module) connector.
- 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 RTM (radio transceiver module) connector. Make sure it seats and latches correctly.
- Operate the system and determine if the concern is still present.

- Ignition OFF.
- Disconnect and inspect the SCMG (driver multi-contour seat module) connector.
- 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 SCMG (driver multi-contour seat module) connector. Make sure it seats and latches correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	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: Driver Multi-Contour Seat Module [SCMG] (501-10A Front Seats, 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.

F27 CHECK THE SCMH (PASSENGER MULTI-CONTOUR SEAT MODULE) FOR CORRECT 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
  - pushed-out pins - install new pins as necessary
- Reconnect the SCMH (passenger multi-contour seat module) connector. Make sure it seats and latches correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

- Refer to the Rotunda flex probe or probe kit documentation to confirm the dimensions, if not printed on the probe.

Are any pin fit concerns or damage observed with remote DLC (data link connector) pins 3, 4, 5, 6, 11, 14 and 16?

Yes	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 remote DLC (data link connector) .

No	GO to G2

G2 CHECK THE DIAG 1 NETWORK CIRCUIT TERMINATION RESISTANCE

- Disconnect the negative battery cable.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2122-6	Ω	C2122-14

Is the resistance between 108 and 132 ohms?

Yes	GO to G3

No	If the resistance is greater than 132 ohms, GO to G9 If the resistance is less than 108 ohms, GO to G10

G3 CHECK THE DIAG 1 NETWORK CIRCUIT (+) AND (-) CIRCUITS FOR A SHORT TO GROUND

- Connect the negative battery cable.
- Measure:

- Disconnect: GWM (gateway module A) C2431A.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2122-6	Ω	Ground
C2122-14	Ω	Ground

Are the resistances greater than 1,000 ohms?

Yes	GO to G11

No	REPAIR the circuit in question.

G5 CHECK THE DIAG 1 NETWORK CIRCUIT (+) AND (-) CIRCUITS FOR A SHORT TO VOLTAGE

- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2122-6	V⎓	Ground
C2122-14	V⎓	Ground

Is the voltage greater than 6 volts on either circuit?

Yes	REPAIR the circuit in question.

No	REPAIR the circuit.

G8 CHECK THE GWM (GATEWAY MODULE A) CASE GROUND

- Ignition OFF.
- Measure the resistance between the GWM (gateway module A) case and a good chassis ground.

Is the resistance less than 3 ohms?

Yes	GO to G11

No	REPAIR the GWM (gateway module A) case ground as necessary.

G9 CHECK THE DIAG 1 NETWORK CIRCUIT (+) AND (-) CIRCUITS FOR AN OPEN WITH THE GWM (GATEWAY MODULE A) DISCONNECTED

No	REPAIR the circuits.

G11 CHECK FOR CORRECT GWM (GATEWAY MODULE A) OPERATION

- Ignition OFF.
- Disconnect and inspect the GWM (gateway module A) connector.
- 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 GWM (gateway module A) connector. Make sure it seats and latches correctly.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	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 GWM (gateway module A) . REFER to: Gateway Module A (GWM) (418-00A Controller Area Network (CAN) Module Communications Network, 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 H : THE ABS (ANTI-LOCK BRAKE SYSTEM) DOES NOT RESPOND TO THE DIAGNOSTIC SCAN TOOL

Refer to Wiring Diagrams Cell 14for schematic and connector information.
Refer to Wiring Diagrams Cell 42for schematic and connector information.
Normal Operation and Fault Conditions The ABS (anti-lock brake system) module communicates on the FD-CAN (Flexible Data Rate Controller Area Network) . REFER to: Controller Area Network (CAN) Module Communications Network - System Operation and Component Description
(418-00A Controller Area Network (CAN) Module Communications Network, Description and Operation).

- Ignition OFF.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C135-30	Ω	Ground
C135-46	Ω	Ground

Are the resistances less than 3 ohms?

Yes	GO to H3

No	REPAIR the circuit in question.

H3 CHECK THE FD-CAN (FLEXIBLE DATA RATE CONTROLLER AREA NETWORK) CIRCUITS BETWEEN THE ABS (ANTI-LOCK BRAKE SYSTEM) MODULE AND THE GWM (GATEWAY MODULE A) FOR AN OPEN

- Disconnect GWM (gateway module A) C2431A .
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C135-22	Ω	C2431A-4
C135-23	Ω	C2431A-17

Are the resistances less than 3 ohms?

Yes	CONNECT all disconnected connectors. GO to H4

(418-00A Controller Area Network (CAN) Module Communications Network, Description and Operation).

Possible Sources

- Fuse
- Wiring, terminals and connector
- ACCM (air conditioning control module)

Visual Inspection and Pre-checks

- Verify BCMC (body control module C) [BJB (battery junction box)] fuse 8 (20A) is OK.

I1 CHECK THE ACCM (AIR CONDITIONING CONTROL MODULE) VOLTAGE SUPPLY CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect: ACCM (air conditioning control module) C1803A.
- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C1803A-1	V	Ground

Is the voltage greater than 11 volts?

Yes	GO to I2

No	VERIFY BCMC (body control module C) [BJB (battery junction box)] fuse 8 (20A) is OK. If OK, REPAIR the circuit. If not OK, REFER to the Wiring Diagrams manual to identify the possible causes of the circuit short.

I2 CHECK THE ACCM (AIR CONDITIONING CONTROL MODULE) GROUND CIRCUIT FOR AN OPEN

- Ignition OFF.
- Measure:

Positive Lead	Measurement / Action	Negative Lead