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2010 FORD F-150 Super Crew OEM Service and Repair Workshop Manual

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DTC (diagnostic trouble code) B1305:01 and/or B1305:15 sets if the hood is open. Make sure the hood is closed prior to running the self-test.

- Ignition ON.
- Using a diagnostic scan tool, carry out the BCM (body control module) self-test.

Are any Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to the DTC (diagnostic trouble code) Chart in this section.

No	GO to B2

B2 CHECK THE DOOR AJAR SWITCH INPUT

- Close all the doors.
- Observe the IPC (instrument panel cluster) .

Does the IPC (instrument panel cluster) indicate a door is ajar?

Yes	DIAGNOSE the courtesy lamps staying on continuously. REFER to: Instrumentation, Message Center and Warning Chimes (413-01 Instrumentation, Message Center and Warning Chimes, Diagnosis and Testing).

No	GO to B3

B3 VERIFY THE HAZARD FLASHER LAMP OPERATION

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 BCM (body control module) . REFER to: Body Control Module (BCM) (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.

PINPOINT TEST C : B1305:01, B1305:15

Refer to Wiring Diagrams Cell 117for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Perimeter Anti-Theft Alarm (419-01 Perimeter Anti-Theft Alarm - Anti-Theft Alarm, Interior Sensor) .

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
BCM (body control module) B1305:01	Hood Switch: General Electrical Failure	Sets when the BCM (body control module) detects an open from the hood ajar switch input during a self-test. This DTC (diagnostic trouble code) also sets if the self-test is carried out with the hood open.
BCM (body control module) B1305:15	Hood Switch: Circuit Short To Battery Or Open	Sets when the BCM (body control module) detects a short to battery or open from the hood ajar switch input during a self-test.

Possible Sources

- Wiring, terminals or connectors
- Hood latch
- BCM (body control module)

Visual Inspection and Pre-checks

- Disconnect Hood Ajar Switch C127 (gasoline and hybrid vehicles).
- Disconnect Front Trunk Latch C1858 (electric vehicle).
- Ignition ON.
- Gasoline and hybrid vehicles, connect: a fused jumper wire

Positive Lead	Measurement / Action	Negative Lead
C127-2		C127-1

- Electric vehicle, connect: a fused jumper wire

Positive Lead	Measurement / Action	Negative Lead
C1858 -5		C1858 -4

- Using a diagnostic scan tool, perform the BCM (body control module) self-test.

Is DTC (diagnostic trouble code) B1305:01 or B1305:15 still present?

Yes	REMOVE the fused jumper wire. GO to C2

No	REMOVE the fused jumper wire. INSTALL a new hood latch. REFER to: Hood Latch (501-14 Handles, Locks, Latches and Entry Systems, Removal and Installation). or REFER to: Hood Latch - Electric (501-14 Handles, Locks, Latches and Entry Systems, Removal and Installation).

C2 CHECK THE HOOD AJAR SWITCH GROUND CIRCUIT FOR AN OPEN

- Gasoline and hybrid vehicles, connect a fused jumper wire:

Positive Lead	Measurement / Action	Negative Lead

Is any voltage present?

Yes	REPAIR the circuit in question.

No	GO to C4

C4 CHECK THE HOOD AJAR SWITCH INPUT CIRCUIT FOR AN OPEN

- Ignition OFF.
- Gasoline and hybrid vehicles, measure:

Positive Lead	Measurement / Action	Negative Lead
C127-2	Ω	C2280F-14

- Electric vehicle, measure:

Positive Lead	Measurement / Action	Negative Lead
C1858-4	Ω	C2280F-14

Is the resistance less than 3 ohms?

Yes	GO to C5

No	REPAIR the circuit.

C5 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all the BCM (body control module) connectors.
- Repair:

D1 MONITOR THE BCM (BODY CONTROL MODULE) ALARM EVENT PID (PARAMETER IDENTIFICATION) 'S

- Identify and isolate the cause of the last alarm activation.
  - Access the BCM (body control module) and monitor the ALARM_EVT_1 (Most Recent Alarm Trigger Event) PID (parameter identification)
  - Access the BCM (body control module) and monitor the ALARM_EVT_2 (2nd Most Recent Alarm Trigger Event) PID (parameter identification)
  - Access the BCM (body control module) and monitor the ALARM_EVT_3 (3rd Most Recent Alarm Trigger Event) PID (parameter identification)
  - Access the BCM (body control module) and monitor the ALARM_EVT_4 (4th Most Recent Alarm Trigger Event) PID (parameter identification)

Are there any BCM (body control module) PID (parameter identification) s present?

Yes	For a PID (parameter identification) value of "Panic" causing the false alarm event, the system is operating correctly at this time. INSTRUCT the customer in the correct operation of the panic alarm feature. REFER to Panic Alarm in the Owner's Literature. For a PID (parameter identification) value of "Door Ajar" causing the false alarm event, DIAGNOSE the ajar switches. REFER to: Interior Lighting (417-02 Interior Lighting - Anti-Theft Alarm, Interior Sensor) . For a PID (parameter identification) value "Hood Ajar" causing the false alarm event, diagnose the hood ajar switch. GO to Pinpoint Test C For a PID value "Intrusion Sensor" causing the false alarm event, diagnose the intrusion sensor. GO to Pinpoint Test E
No	The system is operating correctly at this time.

PINPOINT TEST E : THE ALARM SYSTEM DOES NOT ACTIVATE FROM THE INTRUSION SENSOR

Refer to Wiring Diagrams Cell 117for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Perimeter Anti-Theft Alarm (419-01 Perimeter Anti-Theft Alarm - Anti-Theft Alarm, Interior Sensor) .

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition

Positive Lead	Measurement / Action	Negative Lead
C9800-1	V	Ground

Is the voltage greater than 11 volts?

Yes	GO to E3

No	VERIFY the BCM (body control module) fuse 9 (5A) is OK. If OK, GO to E2 If not OK, REFER to the Wiring Diagrams manual to identify the possible cause of the circuit short.

E2 CHECK THE INTRUSION SENSOR VOLTAGE SUPPLY CIRCUIT FOR A OPEN

- Disconnect BCM (body control module) C2280C .
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C9800-1	Ω	C2280C-15

Is the resistance less than 3 ohms?

Yes	GO to E7

No	REPAIR the circuit.

E3 CHECK THE INTRUSION SENSOR GROUND CIRCUIT FOR A OPEN

- Measure:

Positive Lead	Measurement / Action	Negative Lead

C9800-2	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to E6

No	REPAIR the circuit.

E6 CHECK THE INTRUSION SENSOR LIN (LOCAL INTERCONNECT NETWORK) CIRCUIT FOR AN OPEN

- Measure:

Positive Lead	Measurement / Action	Negative Lead
C9800-2	Ω	C2280E-36

Is the resistance less than 3 ohms?

Yes	INSTALL a new intrusion sensor. REFER to: Intrusion Sensor (419-01A Perimeter Anti-Theft Alarm, Removal and Installation). TEST the system for normal operation. If the concern is still present, GO to E7

No	REPAIR the circuit.

E7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM (body control module) connectors.
- Repair:
  - corrosion (install new connector or terminals – clean module pins)

- Using a diagnostic scan tool, carry out the BCM (body control module) self-test.

Are there any other Diagnostic Trouble Codes (DTCs) Present ?

Yes	DIAGNOSE all other Diagnostic Trouble codes (DTCs) first. Refer to DTC (diagnostic trouble code) Chart in this section.

No	INSTALL new Intrusion Sensor. REFER to: Intrusion Sensor (419-01A Perimeter Anti-Theft Alarm, Removal and Installation).

PINPOINT TEST G : DTC (DIAGNOSTIC TROUBLE CODE) B109F:55

Normal Operation and Fault Conditions

REFER to: Perimeter Anti-Theft Alarm (419-01 Perimeter Anti-Theft Alarm - Anti-Theft Alarm, Interior Sensor) .

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
BCM (body control module) B109F:55	Intrusion Sensor Module: Not Configured	Sets when the Intrusion Sensor Module detects a fault when there is no ID stored in the BCM (body control module) .

Possible Sources

- Incorrect response from intrusion sensor
- There is no intrusion sensor module ID stored in the BCM (body control module) memory

G1 CHECK BCM (BODY CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

- Using a diagnostic scan tool, carry out the BCM (body control module) self-test.

Are there any other Diagnostic Trouble Codes (DTCs) Present ?

Yes	DIAGNOSE all other Diagnostic Trouble codes (DTCs) first. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Diagnosis and Testing).

C2498F-12		Ground

- Using a diagnostic scan tool, perform the TRM (trailer module) self-test.

Is DTC (diagnostic trouble code) B131E:12 still present?

Yes	REMOVE the fused jumper wire. GO to H2

No	REMOVE the fused jumper wire. REPAIR the circuit.

H2 CHECK THE TRM (TRAILER MODULE) CIRCUIT FOR A SHORT TO VOLTAGE

- Disconnect BCM (body control module) C2280E .
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2498F-7		Ground

Is any voltage present?

Yes	REPAIR the circuit in question.

No	GO to H3

H3 CHECK THE TRM (TRAILER MODULE) CIRCUIT TO THE BCM (BODY CONTROL MODULE) FOR AN OPEN

- Ignition OFF.
- Measure:

Positive Lead	Measurement / Action	Negative Lead