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2012 FORD F-150 Raptor SVT OEM Service and Repair Workshop Manual

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Positive Lead	Measurement / Action	Negative Lead
C1323-2		Ground

Is the voltage greater than 11 volts?

Yes

For incandescent fog lamps, INSTALL a new front fog lamp bulb.

REFER to: [Front Fog Lamp Bulb](#)

(417-01 Exterior Lighting, Removal and Installation).

Clear the Diagnostic Trouble Codes (DTCs) and repeat the self-test (required to enable the lamp output driver), TEST the system for normal operation. If the DTC (diagnostic trouble code) or condition returns, INSTALL a new front fog lamp.

REFER to: [Front Fog Lamp](#)

(417-01 Exterior Lighting, Removal and Installation).

For LED (light emitting diode)

fog lamps, INSTALL a new front fog lamp.

REFER to: [Front Fog Lamp](#)

(417-01 Exterior Lighting, Removal and Installation).


No

GO to [B6](#)

B5 CHECK THE INOPERATIVE FOG LAMP GROUND CIRCUIT FOR AN OPEN

- For incandescent fog lamps, measure:

LH (left-hand) Front Fog Lamp

Positive Lead	Measurement / Action	Negative Lead
C152-B		C152-A

RH (right-hand) Front Fog Lamp

Positive Lead	Measurement / Action	Negative Lead

B6 CHECK FOG LAMP VOLTAGE SUPPLY CIRCUIT FOR A SHORT TO GROUND

- Place the headlamp switch in the OFF position.
- Ignition OFF.
- Disconnect: BCM (body control module) C2280G.
- For incandescent fog lamps, measure:

LH (left-hand) Front Fog Lamp

Positive Lead	Measurement / Action	Negative Lead
C152-B	Ω	Ground

RH (right-hand) Front Fog Lamp

Positive Lead	Measurement / Action	Negative Lead
C162-B	Ω	Ground

- For LED (light emitting diode) fog lamps, measure:

LH (left-hand) Front Fog Lamp

Positive Lead	Measurement / Action	Negative Lead
C1322-2	Ω	Ground

RH (right-hand) Front Fog Lamp

Positive Lead	Measurement / Action	Negative Lead
C1323-2	Ω	Ground

Is the resistance greater than 10,000 ohms?

C1322-2	Ω	C2280G-12
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RH (right-hand) Front Fog Lamp

Positive Lead	Measurement / Action	Negative Lead
C1323-2	Ω	C2280G-5

Is the resistance less than 3 ohms?

Yes	GO to B8
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No	REPAIR the circuit.
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B8 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Disconnect and inspect all BCM (body control module) and all related in-line 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 BCM (body control module) and all related in-line 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	<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 BCM (body control module) .</p> <p>REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).</p>
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Headlamps - Electric

417-01 Exterior Lighting	2022 F-150
Diagnosis and Testing	Procedure revision date: 04/1/2022

Headlamps - Electric

Diagnostic Trouble Code (DTC) Chart

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.

REFER to: [Diagnostic Methods](#)

(100-00 General Information, Description and Operation).

Diagnostic Trouble Code Chart

Module	DTC (diagnostic trouble code)	Description	Action
BCM (body control module)	B14E0:11	Exterior Lamps Power Supply "C": Circuit Short to Ground	GO to Pinpoint Test A
BCM (body control module)	B14E0:15	Exterior Lamps Power Supply "C": Circuit Short to Battery or Open	GO to Pinpoint Test A
BCM (body control module)	B14E1:11	Exterior Lamps Power Supply "D": Circuit Short to Ground	GO to Pinpoint Test A
BCM (body control module)	B14E1:15	Exterior Lamps Power Supply "D": Circuit Short to Battery or Open	GO to Pinpoint Test A

HCM (headlamp control module)	B1088:86	LIN Bus "B": Signal Invalid	GO to Pinpoint Test F
HCM (headlamp control module)	B14DB:87	Left Headlamp Driver Control System: Missing Message	GO to Pinpoint Test K
HCM (headlamp control module)	B14DC:87	Right Headlamp Driver Control System: Missing Message	GO to Pinpoint Test K
HCM (headlamp control module)	B1D64:01	Left Headlamp Swiveling Motor: General Electrical Failure	GO to Pinpoint Test F
HCM (headlamp control module)	B1D64:87	Left Headlamp Swiveling Motor: Missing Message	GO to Pinpoint Test F
HCM (headlamp control module)	B1D65:01	Right Headlamp Swiveling Motor: General Electrical Failure	GO to Pinpoint Test F
HCM (headlamp control module)	B1D65:87	Right Headlamp Swiveling Motor: Missing Message	GO to Pinpoint Test F
HCM (headlamp control module)	B1D68:64	Left Headlamp Swiveling Feedback Sensor: Signal Plausibility Failure	GO to Pinpoint Test F
HCM (headlamp control module)	B1D69:64	Right Headlamp Swiveling Feedback Sensor: Signal Plausibility Failure	GO to Pinpoint Test F
HCM (headlamp control module)	U0100:87	Lost Communication With ECM/PCM "A": Missing Message	GO to Pinpoint Test L
HCM (headlamp control module)	U0121:87	Lost Communication With Anti-Lock Brake System (ABS) Control Module: Missing Message	GO to Pinpoint Test M

HCM (headlamp control module)	U0429:00	Invalid Data received from Steering Column Control Module: No Sub Type Information	GO to Pinpoint Test H
HCM (headlamp control module)	U0452:00	Invalid Data Received From Restraints Control Module: No Sub Type Information	GO to Pinpoint Test H
HCM (headlamp control module)	U053B:00	Invalid Data Received From Image Processing Module A: No Sub Type Information	GO to Pinpoint Test H
HCM (headlamp control module)	U2024:51	Control Module Cal-Config Data: Not Programmed	GO to Pinpoint Test G
HCM (headlamp control module)	U2024:57	Control Module Cal-Config Data: Invalid / Incompatible Software Component	GO to Pinpoint Test G
HCM (headlamp control module)	U202B:61	In-Use Application Signing Key: Signal Calculation Failure	GO to Pinpoint Test G
HCM (headlamp control module)	U202B:62	In-Use Application Signing Key: Signal Compare Failure	GO to Pinpoint Test G
HCM (headlamp control module)	U2100:00	Initial Configuration Not Complete: No Sub Type Information	GO to Pinpoint Test G
HCM (headlamp control module)	U2101:56	Control Module Configuration Incompatible: Invalid / Incompatible Configuration	GO to Pinpoint Test G
HCM (headlamp control module)	U2200:45	Control Module Configuration Memory Corrupt: Program Memory Failure	GO to Pinpoint Test G
HCM (headlamp control module)	U3000:41	Control Module: General Checksum Failure	GO to Pinpoint Test G

A)			
LDCMA (Lighting Driver Control Module A)	B1D00:11	Left Low Beam: Circuit Short To Ground	GO to Pinpoint Test A
LDCMA (Lighting Driver Control Module A)	B1D00:12	Left Low Beam: Circuit Short To Battery	GO to Pinpoint Test A
LDCMA (Lighting Driver Control Module A)	B1D00:13	Left Low Beam: Circuit Open	GO to Pinpoint Test A
LDCMA (Lighting Driver Control Module A)	B1D00:14	Left Low Beam: Circuit Short To Ground or Open	GO to Pinpoint Test A
LDCMA (Lighting Driver Control Module A)	B1D00:16	Left Low Beam: Circuit Voltage Below	GO to Pinpoint Test A
LDCMA (Lighting Driver Control Module A)	B1D00:1E	Left Low Beam: Circuit Resistance Out of Range	GO to Pinpoint Test A
LDCMA (Lighting Driver Control Module A)	B1D00:4B	Left Low Beam: Over Temperature	GO to Pinpoint Test A
LDCMA (Lighting Driver Control Module A)	B1D00:62	Left Low Beam: Signal Compare Failure	GO to Pinpoint Test A
LDCMA (Lighting Driver Control Module A)	B1D00:87	Left Low Beam: Missing Message	GO to Pinpoint Test A
LDCMA (Lighting Driver Control Module A)	B1D00:87	Left Low Beam: Missing Message	GO to Pinpoint Test K

LDCMA (Lighting Driver Control Module A)	U0273:00	Lost Communication With Lighting Driver Control Module "A": No Sub Type Information	GO to Pinpoint Test T
LDCMA (Lighting Driver Control Module A)	U0542:00	Invalid Data Received From Headlamp Control Module "A": No Sub Type Information	GO to Pinpoint Test K
LDCMA (Lighting Driver Control Module A)	U2100:00	Initial Configuration Not Complete: No Sub Type Information	GO to Pinpoint Test U
LDCMA (Lighting Driver Control Module A)	U3000:45	Control Module: Program Memory Failure	GO to Pinpoint Test U
LDCMA (Lighting Driver Control Module A)	U3003:16	Battery Voltage: Circuit Voltage Below Threshold	GO to Pinpoint Test T
LDCMA (Lighting Driver Control Module A)	U3003:17	Battery Voltage: Circuit Voltage Above Threshold	GO to Pinpoint Test T
LDCMA (Lighting Driver Control Module A)	U3003:A2	Battery Voltage: System Voltage Low	GO to Pinpoint Test T
LDCMA (Lighting Driver Control Module A)	U3003:A3	Battery Voltage: System Voltage High	GO to Pinpoint Test T
LDCMB (Lighting Driver Control Module B)	B123B:87	Right Front Turn Indicator: Missing Message	GO to Pinpoint Test K
LDCMB (Lighting Driver Control Module B)	B124A:87	Right Daytime Running Light: Missing Message	GO to Pinpoint Test K

LDCMB (Lighting Driver Control Module B)	B1D01:16	Right Low Beam: Circuit Voltage Below	GO to Pinpoint Test A
LDCMB (Lighting Driver Control Module B)	B1D01:1E	Right Low Beam: Circuit Resistance Out of Range	GO to Pinpoint Test A
LDCMB (Lighting Driver Control Module B)	B1D01:4B	Right Low Beam: Over Temperature	GO to Pinpoint Test A
LDCMB (Lighting Driver Control Module B)	B1D01:87	Right Low Beam: Missing Message	GO to Pinpoint Test A
LDCMB (Lighting Driver Control Module B)	B1D01:87	Right Low Beam: Missing Message	GO to Pinpoint Test K
LDCMB (Lighting Driver Control Module B)	B1D03:11	Right High Beam: Circuit Short To Ground	GO to Pinpoint Test B
LDCMB (Lighting Driver Control Module B)	B1D03:12	Right High Beam: Circuit Short To Battery	GO to Pinpoint Test B
LDCMB (Lighting Driver Control Module B)	B1D03:13	Right High Beam: Circuit Open	GO to Pinpoint Test B
LDCMB (Lighting Driver Control Module B)	B1D03:14	Right High Beam: Circuit Short To Ground or Open	GO to Pinpoint Test B
LDCMB (Lighting Driver Control Module B)	B1D03:16	Right High Beam: Circuit Voltage Below	GO to Pinpoint Test B