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2017 FORD Explorer OEM Service and Repair Workshop Manual

Go to manual page

Sample

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Is BCMC (body control module C) DTC (diagnostic trouble code) U2100:00 and/or U2200:00 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 BCMC (body control module C) . REFER to: Body Control Module C (BCMC) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time.

PINPOINT TEST L : U3000:49 OR U3000:57

Normal Operation and Fault Conditions

REFER to: Module Controlled Functions - System Operation and Component Description(419-10 Multifunction Electronic Modules, Description and Operation).

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
BCMC (body control module C) U3000:49	Control Module: Internal Electronic Failure	This DTC (diagnostic trouble code) sets when the BCMC (body control module C) detects an internal failure.
BCMC (body control module C) U3000:57	Control Module: Invalid/Incompatible Software Component	This DTC (diagnostic trouble code) sets when the BCMC (body control module C) detects invalid or incompatible software.

Possible Sources

- BCMC (body control module C)

NOTE

Sample

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Install BCMC (body control module C) As-Built data from PTS (Professional Technician System) following scan tool instructions.

Is BCMC (body control module C) DTC (diagnostic trouble code) U3000:49 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 BCMC (body control module C) . REFER to: Body Control Module C (BCMC) (419-10 Multifunction Electronic Modules, Removal and Installation).

No	The system is operating correctly at this time.

PINPOINT TEST M : U3003:16

Refer to Wiring Diagrams Cell 13for schematic and connector information.
Normal Operation and Fault Conditions The BCMC (body control module C) receives direct battery voltage. **DTC Fault Trigger Conditions**

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
BCMC (body control module C) U3003:16	Battery Voltage: Circuit Voltage Below Threshold	A continuous and on-demand DTC (diagnostic trouble code) that sets in the BCMC (body control module C) when the BCMC (body control module C) detects lower than expected battery voltage on the supply input circuit.

Possible Sources

- Wiring, terminals or connectors
- Charging system concern
- Battery concern
- BCMC (body control module C)

Sample

- Using a diagnostic scan tool, retrieve all Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Are any charging system DTCs present?

Yes	DIAGNOSE and REPAIR those DTCs first. REFER to: Charging System - 2.7L EcoBoost (238kW/324PS)/3.5L EcoBoost (BM) (414-00 Charging System - General Information, Diagnosis and Testing). DIAGNOSE and REPAIR those DTCs first. REFER to: Charging System - 3.3L Duratec-V6/5.0L 32V Ti-VCT (414-00 Charging System - General Information, Diagnosis and Testing). REFER to: Charging System - 5.2L 32V Ti-VCT – Supercharged (414-00 Charging System - General Information) .

No	GO to M3

M3 CHECK THE BATTERY CONDITION AND STATE OF CHARGE

- Check the battery condition and verify the battery is fully charged.
  REFER to: Battery(414-01 Battery, Mounting and Cables, Diagnosis and Testing).

Is the battery OK and fully charged?

Yes	GO to M4

No	If the battery is discharged, DIAGNOSE the cause of the low battery condition. REFER to: Battery (414-01 Battery, Mounting and Cables, Diagnosis and Testing). If the battery condition fails, INSTALL a new battery. REFER to: Battery (414-01 Battery, Mounting and Cables, Removal and Installation).

M4 CHECK THE BCMC (BODY CONTROL MODULE C) VOLTAGE SUPPLY CIRCUIT

- Ignition OFF.
- Disconnect BCMC (body control module C) C1617A .
- Ignition ON.
- Measure:

Sample

M6 CHECK FOR CORRECT BCMC (BODY CONTROL MODULE C) OPERATION

- Ignition OFF.
- Disconnect and inspect the BCMC (body control module C) 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 BCMC (body control module C) 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 BCMC (body control module C) . REFER to: Body Control Module C (BCMC) (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.

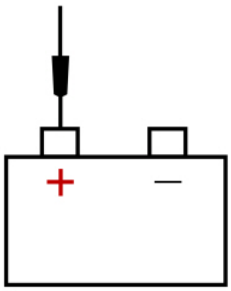
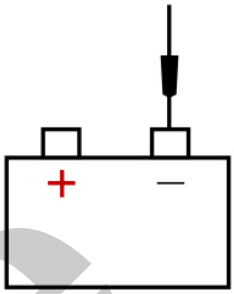
PINPOINT TEST N : U3003:17

Refer to Wiring Diagrams Cell 13for schematic and connector information.
Normal Operation and Fault Conditions The BCMC (body control module C) receives direct battery voltage. **DTC Fault Trigger Conditions**

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
BCMC (body control module C) U3003:17	Battery Voltage: Circuit Voltage Above Threshold	A continuous and on-demand DTC (diagnostic trouble code) that sets in the BCMC (body control module C) when the BCMC (body control module C) detects higher than expected battery voltage on the supply input circuit.

Sample

- Start and run the engine at approximately 2,000 rpm for three minutes while monitoring the battery voltage.

Positive Lead	Measurement / Action	Negative Lead
		

Does the battery voltage rise to 16 volts or higher?

Yes	DIAGNOSE and REPAIR those DTCs first. REFER to: Charging System - 2.7L EcoBoost (238kW/324PS)/3.5L EcoBoost (BM) (414-00 Charging System - General Information, Diagnosis and Testing). DIAGNOSE and REPAIR those DTCs first. REFER to: Charging System - 3.3L Duratec-V6/5.0L 32V Ti-VCT (414-00 Charging System - General Information, Diagnosis and Testing). REFER to: Charging System - 5.2L 32V Ti-VCT – Supercharged (414-00 Charging System - General Information) .
No	GO to N3

N3 CHECK FOR BCMC (BODY CONTROL MODULE C) CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES (CMDTCS)

- Using a diagnostic scan tool, clear the DTCs.
- Wait 10 seconds.
- Using a diagnostic scan tool, check the BCMC (body control module C) Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC (diagnostic trouble code) U3003:17 still present?

Sample

Snow Plow Package

419-10 Multifunction Electronic Modules	***2022 F-150***
Diagnosis and Testing	***Procedure revision date: 07/21/2020***

Snow Plow Package

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)	B14B6:12	Snow Plow Output: Circuit Short To Battery	GO to Pinpoint Test A
BCM (body control module)	B14B6:14	Snow Plow Output: Circuit Short To Ground or Open	GO to Pinpoint Test A

Symptom 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).

Condition	Actions

Sample

Is fuse OK?

Yes	GO to A2

No	REFER to the Wiring Diagrams manual to identify the possible causes of the circuit short.

A2 CHECK THE REAR HEATED SEATS/CUSTOMER ACCESS RELAY CONTROL CIRCUIT FOR VOLTAGE

- Disconnect BJB (battery junction box) (BCMC (body control module C)) C1035B .
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C1035B-26 component side	V	Ground

Is voltage greater than 11 volts?

Yes	GO to A3

No	GO to A6

A3 CHECK THE SNOWPLOW ENERGY MANAGEMENT RELAY CONTROL CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect BCM (body control module) C2280F .
- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2280F-34	V	Ground

Sample

Is the resistance less than 3 ohms?

Yes	GO to A7

No	REPAIR the circuit.

A6 CHECK FOR CORRECT BCMC (BODY CONTROL MODULE C) OPERATION

- Ignition OFF.
- Disconnect and inspect all BCMC (body control module C) 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 BCMC (body control module C) 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 BCMC (body control module C) . REFER to: Body Control Module C (BCMC) (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. CLEAR the Diagnostic Trouble Codes (DTCs).

A7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

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

Sample

Factory Mode Deactivation

419-10 Multifunction Electronic Modules	***2022 F-150***
General Procedures	***Procedure revision date: 08/28/2017***

Factory Mode Deactivation

Deactivation

NOTE

During vehicle build, some modules, such as the IPC (instrument panel cluster) and BCM (body control module) are set in **factory mode** . Factory mode reduces the drain on the battery during longer periods where the vehicle is not used. While in the factory mode, various systems may be altered or disabled and the IPC (instrument panel cluster) displays FACTORY MODE CONTACT DEALER in the message center. If the vehicle is in factory mode, the system automatically reverts to Transport mode after 60 ignition cycles. If the IPC (instrument panel cluster) displays **TRANSPORT MODE CONTACT DEALER** , refer to the Transport Mode Deactivation procedure in this section.

1. Place the ignition in the OFF position.
2. Verify the battery is fully charged.

   Refer to: Battery Charging(414-01 Battery, Mounting and Cables, General Procedures).
3. Without push button start, cycle the ignition from off to on 60 times.
4. **NOTE**

   One IKT (integrated keyhead transmitter) **must** be in the vehicle.

   With push button start, press the Engine Start/Stop button 120 times.

Sample