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2020 Ford Expedition Service and Repair Manual

[Go to manual page](#)

PCM (powertrain control module) U0140:00	Lost Communication With Body Control Module: No Sub Type Information	The PCM (powertrain control module) sets this DTC (diagnostic trouble code) if data messages from the BCM (body control module) control module through the GWM (gateway module A) are missing.
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Possible Sources

- Communications network concern
- BCM (body control module)
- GWM (gateway module A)
- PCM (powertrain control module)

I1 VERIFY THE CUSTOMER CONCERN

- Ignition ON.
- Verify there is an observable symptom present.

Is an observable symptom present?

Yes	GO to I2
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No	The system is operating normally at this time. The DTC (diagnostic trouble code) may have been set due to high network traffic or an intermittent fault condition.
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I2 CHECK THE COMMUNICATION NETWORK

- Using a diagnostic scan tool, perform a network test.

Did the BCM (body control module) pass the network test?

Yes	GO to I3
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No	REFER to: Controller Area Network (CAN) Module Communications Network (418-00A Controller Area Network (CAN) Module Communications Network, Diagnosis and Testing).
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I3 PERFORM BCM (BODY CONTROL MODULE) SELF-TEST

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

(programmable module installation) may not have been carried out.

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Repeat the PCM (powertrain control module) self-test.

Is DTC (diagnostic trouble code) U0136 still present?

Yes	GO to I7
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No	The system is operating correctly at this time. The DTC (diagnostic trouble code) may have been set due to high network traffic or an intermittent fault condition.
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I7 CHECK FOR OTHER CAUSES OF COMMUNICATION NETWORK CONCERN

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) module.</p> <p>REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).</p>
No	<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 J : U0151

Normal Operation and Fault Conditions

If the PCM (powertrain control module) does not receive messages from other modules within a certain time frame the PCM (powertrain control module) sets a DTC (diagnostic trouble code) for lost communication.

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
PCM (powertrain control module) U0151:00	Lost Communication With Restraints Control Module: No Sub Type Information	The PCM (powertrain control module) sets this DTC (diagnostic trouble code) if data messages from the RCM (restraints control module) through the GWM (gateway module A) are missing.

Possible Sources

- Communications network concern
- RCM (restraints control module)
- GWM (gateway module A)
- PCM (powertrain control module)

J1 VERIFY THE CUSTOMER CONCERN

- Ignition ON.

Yes	REFER to: Controller Area Network (CAN) Module Communications Network (418-00A Controller Area Network (CAN) Module Communications Network, Diagnosis and Testing).
No	GO to J5
J5 PERFORM THE PCM (POWERTRAIN CONTROL MODULE) SELF-TEST	
<ul style="list-style-type: none"> Using a diagnostic scan tool, perform the PCM (powertrain control module) self-test. Are any non-network Diagnostic Trouble Codes (DTCs) present?	
Yes	REFER to PCM DTC Chart in this section.
No	GO to J6
J6 RECHECK THE PCM (POWERTRAIN CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCs)	
<div>NOTE</div> <p>If new modules were installed prior to the DTC (diagnostic trouble code) being set, the module configuration may be incorrectly set during the PMI (programmable module installation) , or the PMI (programmable module installation) may not have been carried out.</p> <ul style="list-style-type: none"> Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs). Wait 10 seconds. Repeat the PCM (powertrain control module) self-test. Is DTC (diagnostic trouble code) U0151 still present?	
Yes	GO to J7
No	The system is operating correctly at this time. The DTC (diagnostic trouble code) may have been set due to high network traffic or an intermittent fault condition.

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 RCM (restraints control module) .</p> <p>REFER to: Restraints Control Module (RCM) (501-20B Supplemental Restraint System, Removal and Installation).</p>
No	<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 K : U0155

Normal Operation and Fault Conditions

If the PCM (powertrain control module) does not receive messages from other modules within a certain time frame the PCM (powertrain control module) sets a DTC (diagnostic trouble code) for lost communication.

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
PCM (powertrain control module) U0155:00	Lost Communication With Instrument Panel Cluster (IPC) Control Module: No Sub Type Information	The PCM (powertrain control module) sets this DTC (diagnostic trouble code) if data messages from the IPC (instrument panel cluster) control module through the GWM (gateway module A) are missing.

Possible Sources

- Communications network concern
- IPC (instrument panel cluster) control module
- GWM (gateway module A)
- PCM (powertrain control module)

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes

REFER to: [Controller Area Network \(CAN\) Module Communications Network](#)(418-00A Controller Area Network (CAN) Module Communications Network, Diagnosis and Testing).

No

GO to [K5](#)

K5 PERFORM THE PCM (POWERTRAIN CONTROL MODULE) SELF-TEST

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

Are any non-network Diagnostic Trouble Codes (DTCs) present?

Yes

REFER to PCM DTC Chart in this section.

No

GO to [K6](#)

K6 RECHECK THE PCM (POWERTRAIN CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCs)

NOTE

If new modules were installed prior to the DTC (diagnostic trouble code) being set, the module configuration may be incorrectly set during the PMI (programmable module installation) , or the PMI (programmable module installation) may not have been carried out.

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Repeat the PCM (powertrain control module) self-test.

Is DTC (diagnostic trouble code) U0136 still present?

Yes

GO to [K7](#)

No

The system is operating correctly at this time. The DTC (diagnostic trouble code) may have been set due to high network traffic or an intermittent fault condition.

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 IPC (instrument panel cluster) module.</p> <p>REFER to: Instrument Panel Cluster (IPC) (413-01 Instrumentation, Message Center and Warning Chimes, Removal and Installation).</p>
No	<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 L : U0164

Normal Operation and Fault Conditions

If the PCM (powertrain control module) does not receive messages from other modules within a certain time frame the PCM (powertrain control module) sets a DTC (diagnostic trouble code) for lost communication.

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
PCM (powertrain control module) U0164:00	Lost Communication With HVAC Control Module 'A': No Sub Type Information	The PCM (powertrain control module) sets this DTC (diagnostic trouble code) if data messages from the HVAC (heating, ventilation and air conditioning) control module through the GWM (gateway module A) are missing.

Possible Sources

- Communications network concern
- HVAC (heating, ventilation and air conditioning) control module
- GWM (gateway module A)
- PCM (powertrain control module)

L4 CHECK THE GWM (GATEWAY MODULE A) DIAGNOSTIC TROUBLE CODES (DTCs)

- Using a diagnostic scan tool, retrieve the GWM (gateway module A) Diagnostic Trouble Codes (DTCs).

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes

REFER to: [Controller Area Network \(CAN\) Module Communications Network](#)(418-00A Controller Area Network (CAN) Module Communications Network, Diagnosis and Testing).

No

GO to [L5](#)

L5 PERFORM THE PCM (POWERTRAIN CONTROL MODULE) SELF-TEST

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

Are any non-network Diagnostic Trouble Codes (DTCs) present?

Yes

REFER to PCM DTC Chart in this section.

No

GO to [L6](#)

L6 RECHECK THE PCM (POWERTRAIN CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCs)

NOTE

If new modules were installed prior to the DTC (diagnostic trouble code) being set, the module configuration may be incorrectly set during the PMI (programmable module installation) , or the PMI (programmable module installation) may not have been carried out.

- Using a diagnostic scan tool, clear the Diagnostic Trouble Codes (DTCs).
- Wait 10 seconds.
- Repeat the PCM (powertrain control module) self-test.

Is DTC (diagnostic trouble code) U0164 still present?

Yes

GO to [L7](#)

- 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 HVAC (heating, ventilation and air conditioning) control module connector(s). 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 HVAC (heating, ventilation and air conditioning) control module. REFER to: Heating, Ventilation and Air Conditioning (HVAC) Control Module (412-00 Climate Control System - General Information, 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 M : U0199

Normal Operation and Fault Conditions

If the PCM (powertrain control module) does not receive messages from other modules within a certain time frame the PCM (powertrain control module) sets a DTC (diagnostic trouble code) for lost communication.

DTC Fault Trigger Conditions

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
PCM (powertrain control module) U0199:00	Lost Communication With 'Door Control Module A': No Sub Type Information	he PCM (powertrain control module) sets this DTC (diagnostic trouble code) if data messages from the DDM (driver door module) through the GWM (gateway module A) are missing.

Possible Sources