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2020 Ford Explorer Service and Repair Manual

Go to manual page

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
PCM (powertrain control module) U0126:00	Lost Communication With Steering Angle Sensor Module: No Sub Type Information	he PCM (powertrain control module) sets this DTC (diagnostic trouble code) if data messages from the SCCM (steering column control module) through the GWM (gateway module A) are missing.
PCM (powertrain control module) U0212:00	Lost Communication With Steering Column Control Module: No Sub Type Information	The PCM (powertrain control module) sets this DTC (diagnostic trouble code) if data messages from the SCCM (steering column control module) through the GWM (gateway module A) are missing.

Possible Sources

- Communications network concern
- SCCM (steering column control module)
- GWM (gateway module A)
- PCM (powertrain control module)

D1 VERIFY THE CUSTOMER CONCERN

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

Is an observable symptom present?

Yes	GO to D2

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.

D2 CHECK THE COMMUNICATION NETWORK

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

Did the SCCM (steering column control module) module pass the network test?

Yes	GO to D3

D6 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) U0126 or U0212 still present?

Yes	GO to D7

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.

D7 CHECK FOR OTHER CAUSES OF COMMUNICATION NETWORK CONCERN

NOTE

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

- CHECK the vehicle service history for recent service actions related to the SCCM (steering column control module) , GWM (gateway module A) or PCM (powertrain control module) . If recent service history is found:
  - verify correct replacement module was installed
    - HVBOM may be used to verify correct part fitment
  - verify the configuration of replacement module was correct
    - re-configure module using as-built data if prior configuration is suspect
  - verify the module was not obtained from a like vehicle and installed into customer vehicle
    - return the swapped module to source vehicle and obtain new replacement module
- Operate the system and determine if the observable symptom is still present.

Refer to Wiring Diagrams Cell 026for schematic and connector information.
Normal Operation and Fault Conditions Refer to the DTC (diagnostic trouble code) Fault Trigger Conditions. **DTC Fault Trigger Conditions**

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
PCM (powertrain control module) P0298:00	Engine Oil Overtemperature Condition: No Sub Type Information	Sets when PCM (powertrain control module) detects the engine oil temperature protection strategy in the PCM (powertrain control module) has been activated. This temporarily prohibits high engine speed operation by disabling injectors, to reduce the risk of engine damage from high engine oil temperature. The PCM (powertrain control module) uses an oil algorithm to determine actual engine oil temperature. The engine is operating in high RPM (revolutions per minute) range due to incorrect gear selection. This may cause a lack/loss of power or surge.

Possible Sources

- Vehicle driving conditions
- Very high engine RPM (revolutions per minute) for an extended period of time
- Overheating condition
- Base engine concerns

Pinpoint Test Steps available in the on-line Workshop Manual.

PINPOINT TEST F : U0131

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)	Lost Communication With Power Steering Control	A continuous memory DTC (diagnostic trouble code) that sets in the PCM (powertrain control module) if

F3 PERFORM THE PSCM (POWER STEERING CONTROL MODULE) SELF-TEST

- Using a diagnostic scan tool, perform a PSCM (power steering control module) self-test.

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Adaptive Steering(211-02 Power Steering, Diagnosis and Testing). REFER to: Power Steering (211-02 Power Steering, Diagnosis and Testing).
No	GO to F4

F4 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 F5

F5 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 F6

F6 RECHECK THE PCM (POWERTRAIN CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCS)

Yes	GO to F8

No	The system is operating correctly at this time. The concern may have been due to incorrect parts replacement procedures or incorrect module configuration.

F8 CHECK FOR CORRECT PSCM (POWER STEERING CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the PSCM (power steering control module) control module connector(s).
- 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 PSCM (power steering control module) 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 steering gear. REFER to: Steering Gear (211-02 Power Steering, 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 G : U0137

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

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

Did the TBM (trailer brake control module) pass the network test?

Yes	GO to G3
No	REFER to: Controller Area Network (CAN) Module Communications Network(418-00A Controller Area Network (CAN) Module Communications Network, Diagnosis and Testing).

G3 PERFORM TBM (TRAILER BRAKE CONTROL MODULE) SELF-TEST

- Using a diagnostic scan tool, perform a TBM (trailer brake control module) self-test.

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Auxiliary Brake System(206-10 Auxiliary Brake System, Diagnosis and Testing).
No	GO to G4

G4 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 G5

G5 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.

- re-configure module using as-built data if prior configuration is suspect
- verify the module was not obtained from a like vehicle and installed into customer vehicle
  - return the swapped module to source vehicle and obtain new replacement module
- Operate the system and determine if the observable symptom is still present.

Is the observable symptom still present?

Yes	GO to G8

No	The system is operating correctly at this time. The concern may have been due to incorrect parts replacement procedures or incorrect module configuration.

G8 CHECK FOR CORRECT RCM (RESTRAINTS CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the RCM (restraints control module) module connector(s).
- 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 RCM (restraints control module) 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 TRM (trailer module) . REFER to: Trailer Module (TRM) (417-01 Exterior Lighting, 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.

Yes	GO to H3

No	REFER to: Controller Area Network (CAN) Module Communications Network(418-00A Controller Area Network (CAN) Module Communications Network, Diagnosis and Testing).

H3 PERFORM ATCM (ALL TERRAIN CONTROL MODULE) SELF-TEST

- Using a diagnostic scan tool, perform a ATCM (all terrain control module) self-test.

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Four-Wheel Drive Systems - Vehicles With: Electronic Shift Transfer Case(307-07A Four-Wheel Drive Systems, Diagnosis and Testing).

No	GO to H4

H4 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 H5

H5 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.

- verify the module was not obtained from a like vehicle and installed into customer vehicle
  - return the swapped module to source vehicle and obtain new replacement module
- Operate the system and determine if the observable symptom is still present.

Is the observable symptom still present?

Yes	GO to H8

No	The system is operating correctly at this time. The concern may have been due to incorrect parts replacement procedures or incorrect module configuration.

H8 CHECK FOR CORRECT AWD (ALL-WHEEL DRIVE) MODULE OPERATION