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2018 Ford Explorer Service and Repair Manual

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Sample

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I7 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 HVAC (heating, ventilation and air conditioning) 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.

Is the observable symptom still present?

Yes	GO to I8

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

I8 CHECK FOR CORRECT HVAC (HEATING, VENTILATION AND AIR CONDITIONING) MODULE OPERATION

- Ignition OFF.
- Disconnect and inspect the HVAC (heating, ventilation and air conditioning) 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 HVAC (heating, ventilation and air conditioning) control module connector(s). Make sure they seat and latch correctly.

Sample

J1 VERIFY THE CUSTOMER CONCERN

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

Is an observable symptom present?

Yes	GO to J2

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.

J2 CHECK THE COMMUNICATION NETWORK

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

Did the DDM (driver door module) pass the network test?

Yes	GO to J3

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

J3 PERFORM DDM (DRIVER DOOR MODULE) SELF-TEST

- Using a diagnostic scan tool, perform a DDM (driver door module) self-test.

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Locks, Latches and Entry Systems(501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).

No	GO to J4

J4 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).

Sample

J7 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 DDM (driver door 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.

Is the observable symptom still present?

Yes	GO to J8

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

J8 CHECK FOR CORRECT PDM (PASSENGER DOOR MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the DDM (driver door 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 DDM (driver door 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?

Sample

- Verify there is an observable symptom present.

Is an observable symptom present?

Yes	GO to K2

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.

K2 CHECK THE COMMUNICATION NETWORK

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

Did the PDM (passenger door module) pass the network test?

Yes	GO to K3

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

K3 PERFORM PDM (PASSENGER DOOR MODULE) SELF-TEST

- Using a diagnostic scan tool, perform a PDM (passenger door module) self-test.

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Locks, Latches and Entry Systems(501-14 Handles, Locks, Latches and Entry Systems, Diagnosis and Testing).

No	GO to K4

K4 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?

Sample

K7 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 PDM (passenger door 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.

Is the observable symptom still present?

Yes	GO to K8

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

K8 CHECK FOR CORRECT PDM (PASSENGER DOOR MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the PDM (passenger door 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 PDM (passenger door 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?

Sample

- Verify there is an observable symptom present.

Is an observable symptom present?

Yes	GO to L2

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.

L2 CHECK THE COMMUNICATION NETWORK

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

Did the IPMA (image processing module A) pass the network test?

Yes	GO to L3

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

L3 PERFORM IPMA (IMAGE PROCESSING MODULE A) SELF-TEST

- Using a diagnostic scan tool, perform a IPMA (image processing module A) module self-test.

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Lane Keeping System(419-07 Lane Keeping System, Diagnosis and Testing).

No	GO to L4

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

Sample

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 IPMA (image processing module A) , 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.

Is the observable symptom still present?

Yes	GO to L8

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

L8 CHECK FOR CORRECT IPMA (IMAGE PROCESSING MODULE A) OPERATION

- Ignition OFF.
- Disconnect and inspect the IPMA (image processing module A) 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 IPMA (image processing module A) 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?

Sample

- Verify there is an observable symptom present.

Is an observable symptom present?

Yes	GO to M2

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.

M2 CHECK THE COMMUNICATION NETWORK

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

Did the APIM (SYNC module) pass the network test?

Yes	GO to M3

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

M3 PERFORM APIM (SYNC MODULE) MODULE SELF-TEST

- Using a diagnostic scan tool, perform a APIM (SYNC module) self-test.

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Information and Entertainment System(415-00 Information and Entertainment System - General Information, Diagnosis and Testing).

No	GO to M4

M4 CHECK THE GWM (GATEWAY MODULE A) DIAGNOSTIC TROUBLE CODES (DTCS)

- Using a diagnostic scan tool, retrieve the BCM (body control module) Diagnostic Trouble Codes (DTCs).

Are any Diagnostic Trouble Codes (DTCs) recorded?

Sample

M7 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 , APIM (SYNC 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.

Is the observable symptom still present?

Yes	GO to M8

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

M8 CHECK FOR CORRECT APIM (SYNC MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the APIM (SYNC 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 APIM (SYNC 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?

Sample