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2019 Ford Transit-150 Service and Repair Manual

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No	The system is operating correctly at this time. The concern may have been due to incorrect parts replacement procedures or incorrect module configuration.
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A8 CHECK FOR CORRECT GSM (GEAR SHIFT MODULE) MODULE OPERATION

- Ignition OFF.
- Disconnect and inspect the GSM (gear shift 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 GSM (gear shift module) connector(s). Make sure it seats and latches 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 GSM (gear shift module) .</p> <p>REFER to: Gear Shift Module (GSM) - Vehicles With: Column Shift (307-05B Automatic Transmission External Controls - 10-Speed Automatic Transmission – 10R80, Removal and Installation).</p> <p>REFER to: Gear Shift Module (GSM) - Vehicles With: Console Shift (307-05B Automatic Transmission External Controls - 10-Speed Automatic Transmission – 10R80, Removal and Installation).</p>
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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.
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PINPOINT TEST B : U0104

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 CCM (cruise control module) module pass the network test?

Yes	GO to B3
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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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B3 PERFORM CCM (CRUISE CONTROL MODULE) CONTROL MODULE SELF-TEST

- Using a diagnostic scan tool, perform a CCM (cruise control module) control module self-test.

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Cruise Control (419-03B Cruise Control - Vehicles With: Adaptive Cruise Control, Diagnosis and Testing).
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No	GO to B4
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B4 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).
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No	GO to B5
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B5 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?

- 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 B8
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No	The system is operating correctly at this time. The concern may have been due to incorrect parts replacement procedures or incorrect module configuration.
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B8 CHECK FOR CORRECT CCM (CRUISE CONTROL MODULE) MODULE OPERATION

- Ignition OFF.
- Disconnect and inspect the CCM (cruise 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 CCM (cruise control module) connector(s). Make sure it seats and latches 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 CCM (cruise control module) . REFER to: Cruise Control Module (CCM) (419-03B Cruise Control - Vehicles With: Adaptive Cruise Control, Removal and Installation).
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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.
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Yes	GO to C3
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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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C3 PERFORM ABS (ANTI-LOCK BRAKE SYSTEM) CONTROL MODULE SELF-TEST

- Using a diagnostic scan tool, perform a ABS (anti-lock brake system) control module self-test.

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Anti-Lock Brake System (ABS) and Stability Control (206-09 Anti-Lock Brake System (ABS) and Stability Control, Diagnosis and Testing).
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No	GO to C4
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C4 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).
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No	GO to C5
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C5 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.
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- 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 C8
------------	--------------------------

No	The system is operating correctly at this time. The concern may have been due to incorrect parts replacement procedures or incorrect module configuration.
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C8 CHECK FOR CORRECT ABS (ANTI-LOCK BRAKE SYSTEM) MODULE OPERATION

- Ignition OFF.
- Disconnect and inspect the ABS (anti-lock brake system) control module connector.
- 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 ABS (anti-lock brake system) control module connector. 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 ABS (anti-lock brake system) module.
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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.
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PINPOINT TEST D : U0126, U0212

Normal Operation and Fault Conditions

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

Yes	GO to D3
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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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D3 PERFORM SCCM (STEERING COLUMN CONTROL MODULE) SELF-TEST

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

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Steering Wheel and Column Electrical Components (211-05 Steering Wheel and Column Electrical Components, Diagnosis and Testing).
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No	GO to D4
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D4 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).
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No	GO to D5
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D5 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.
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- 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 D8
------------	--------------------------

No	The system is operating correctly at this time. The concern may have been due to incorrect parts replacement procedures or incorrect module configuration.
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D8 CHECK FOR CORRECT SCCM (STEERING COLUMN CONTROL MODULE) OPERATION

Sample

control module) P0298:00	Condition: No Sub Type Information	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.
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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) U0131:00	Lost Communication With Power Steering Control Module 'A': No Sub Type Information	A continuous memory DTC (diagnostic trouble code) that sets in the PCM (powertrain control module) if messages from the PSCM (power steering control module) through the GWM (gateway module A) are missing.

Possible Sources

- Communication network concern
- Battery voltage concern
- GWM (gateway module A)
- PSCM (power steering control module)

- 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).
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No	GO to F4
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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).
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No	GO to F5
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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.
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No	GO to F6
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F6 RECHECK THE PCM (POWERTRAIN CONTROL MODULE) DIAGNOSTIC TROUBLE CODES (DTCs)

NOTE