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2023 Ford Transit-350 HD Service and Repair Manual

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<p>PCM (powertrain control module) P0068:00</p>	<p>MAP / MAF - Throttle Position Correlation: No Sub Type Information</p>	<p>Sets during KOER (key on, engine running) self-test the when the PCM (powertrain control module) detects a comparison of the readings are not consistent with the calibrated load values. An intake air system leak at a hose, line or connection of any intake air system or PCV (positive crankcase ventilation) system component may cause this DTC (diagnostic trouble code) to set. The PCM (powertrain control module) monitors a vehicle operation rationality check by comparing the TP (throttle position) sensor to the MAF (mass air flow) sensor readings (if equipped) or to the MAP (manifold absolute pressure) sensor readings (if equipped). Check for other Diagnostic Trouble Codes (DTCs). Diagnose all other Diagnostic Trouble Codes (DTCs) first.</p>
<p>PCM (powertrain control module) P0120:00</p>	<p>Throttle/Pedal Position Sensor/Switch 'A' Circuit: No Sub Type Information</p>	<p>Sets when the PCM (powertrain control module) detects a concern with the TP (throttle position) signal. This concern exhibits a symptom of limited power.</p>
<p>PCM (powertrain control module) P0121:00</p>	<p>Throttle/Pedal Position Sensor/Switch 'A' Circuit Range/Performance: No Sub Type Information</p>	<p>Sets when the PCM (powertrain control module) detects the TP (throttle position) sensor 1 circuit is out of range in either the closed or WOT (wide open throttle) modes. This concern exhibits a symptom of limited power.</p>
<p>PCM (powertrain control module) P0122:00</p>	<p>Throttle/Pedal Position Sensor/Switch 'A' Circuit Low: No Sub Type Information</p>	<p>Sets when the PCM (powertrain control module) detects the TP (throttle position) 1 signal is too low. This concern exhibits a symptom of limited power. A TP1 PID (parameter identification) reading less than 0.25 volt in ignition ON, engine OFF or ignition ON, engine running indicates a concern is present.</p>
<p>PCM (powertrain control module) P0123:00</p>	<p>Throttle/Pedal Position Sensor/Switch 'A' Circuit High: No Sub Type Information</p>	<p>Sets when the PCM (powertrain control module) detects the TP (throttle position) 1 signal is too high. This concern exhibits a symptom of limited power. A TP1 PID (parameter identification) reading greater than 4.75 volts in ignition ON, engine OFF or ignition ON, engine running indicates a concern is present.</p>

module) P1584:00		Diagnostic Trouble Codes (DTCs). Diagnose other Diagnostic Trouble Codes (DTCs) first.
PCM (powertrain control module) P1588:00	Throttle Control Detected Loss Of Return Spring: No Sub Type Information	Sets when the PCM (powertrain control module) detects the throttle does not return to the default (limp home) position. Visually inspect the throttle plate for an obstruction.
PCM (powertrain control module) P2100:00	Throttle Actuator 'A' Control Motor Circuit /Open: No Sub Type Information	This DTC (diagnostic trouble code) sets when a PCM (powertrain control module) fault flag is set indicating the motor circuit is open.
PCM (powertrain control module) P2101:00	Throttle Actuator 'A' Control Motor Circuit Range/Performance: No Sub Type Information	Sets when the PCM (powertrain control module) detects a PCM (powertrain control module) fault flag is set indicating the motor circuit is open.
PCM (powertrain control module) P2107:00	Throttle Actuator 'A' Control Module Processor: No Sub Type Information	Sets when the PCM (powertrain control module) detects the electronic throttle control area of the PCM (powertrain control module) failed the self-test. The concern could be the result of an incorrect throttle position command, or TAC motor wires shorted together. This DTC (diagnostic trouble code) may be accompanied by other Diagnostic Trouble Codes (DTCs). Diagnose other Diagnostic Trouble Codes (DTCs) first.
PCM (powertrain control module) P2109:00	Throttle / Pedal Position Sensor 'A' Minimum Stop Performance: No Sub Type Information	Sets when the PCM (powertrain control module) detects the throttle plate does not reach the lower mechanical stop position within a calibrated amount of time. Visually inspect the throttle plate for an obstruction.
PCM (powertrain control module) P2111:00	Throttle Actuator 'A' Control System - Stuck Open: No Sub Type Information	Sets when the PCM (powertrain control module) detects the PCM (powertrain control module) fault status indicates the throttle plate is at a greater angle than commanded.

module) U0606:00	'A': No Sub Type Information	
PCM (powertrain control module) U210F:00	Throttle/Pedal Position Sensor/Switch 'A' Communication Circuit Low: No Sub Type Information	Sets when the PCM (powertrain control module) detects the electronic throttle control TP (throttle position) signal is too low. This concern exhibits a symptom of limited power.
PCM (powertrain control module) U2110:00	Throttle/Pedal Position Sensor/Switch 'A' Communication Circuit High: No Sub Type Information	Sets when the PCM (powertrain control module) detects the electronic throttle control TP (throttle position) signal is too high. This concern exhibits a symptom of limited power.

Possible Sources

- Intake air system concern
- PCV (positive crankcase ventilation) system concern
- MAF (mass air flow) sensor (if equipped) circuitry concern
- MAP (manifold absolute pressure) sensor (if equipped) circuitry concern
- TP (throttle position) sensor circuitry concern
- Electronic throttle body circuitry concern
- TP (throttle position) sensor not seated correctly
- Obstruction in the throttle plate movement
- Throttle plate restrictions
- Electronic throttle body (9F991)
- TP (throttle position) sensor (9E928)
- PCM (powertrain control module) (12A650)

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

PINPOINT TEST QE : ELECTRONIC THROTTLE CONTROL (ETC) SYSTEM

Normal Operation and Fault Conditions

Refer to the DTC (diagnostic trouble code) Fault Trigger Conditions.

The informational Diagnostic Trouble Codes (DTCs) are the result of the failure mode effects management operating strategy that maintains limited vehicle function in the event of a PCM (powertrain control module) , harness or component concern.

<p>PCM (powertrain control module) P061B:00</p>	<p>Internal Control Module Torque Calculation Performance: No Sub Type Information</p>	<p>Sets when the PCM (powertrain control module) detects an internal calculation error. The presence of this DTC (diagnostic trouble code) may indicate that the vehicle is operating in failure mode and may experience a loss of power. Check for sensor and circuit related Diagnostic Trouble Codes (DTCs). Do not install a new electronic throttle body for this DTC (diagnostic trouble code) .</p>
<p>PCM (powertrain control module) P061C:00</p>	<p>Internal Control Module Engine RPM Performance: No Sub Type Information</p>	<p>Sets when the PCM (powertrain control module) detects an internal error. Verify correct operation of the CKP (crankshaft position) and CMP (camshaft position) sensors and related circuits. The presence of this DTC (diagnostic trouble code) may indicate that the vehicle is operating in failure mode and may experience a loss of power.</p>
<p>PCM (powertrain control module) P061D:00</p>	<p>Internal Control Module Engine Air Mass Performance: No Sub Type Information</p>	<p>Sets when the PCM (powertrain control module) detects internal an error. An intake air system leak at a hose, line or connection of any intake air system component may cause this DTC (diagnostic trouble code) to set. Aftermarket modifications to the intake air system may cause this DTC (diagnostic trouble code) to set. Verify the PCM (powertrain control module) is at the latest calibration level.</p>
<p>PCM (powertrain control module) P061F:00</p>	<p>Internal Control Module Throttle Actuator Controller Performance: No Sub Type Information</p>	<p>Sets when the PCM (powertrain control module) detects an internal error. Verify correct operation of the electronic throttle control (ETC) components and related circuits.</p>
<p>PCM (powertrain control module) P062B:00</p>	<p>Internal Control Module Fuel Injector Control Performance: No Sub Type Information</p>	<p>Sets when the PCM (powertrain control module) detects an internal error. The presence of this DTC (diagnostic trouble code) may indicate that the vehicle is operating in failure mode and may experience a loss of power.</p>
<p>PCM (powertrain control module) P062C:00</p>	<p>Internal Control Module Vehicle Speed Performance: No Sub Type Information</p>	<p>Sets when the PCM (powertrain control module) does not receive a valid vehicle speed or wheel speed signal. Diagnose all vehicle communication concerns, ABS (anti-lock brake system) Diagnostic Trouble Codes (DTCs), ABS (anti-lock brake system) related Diagnostic Trouble Codes (DTCs) in other modules, TCM (transmission control module) Diagnostic Trouble Codes (DTCs),</p>

Sample

PCM (powertrain control module)	P0206:00	Cylinder 6 Injector A Circuit/Open: No Sub Type Information	GO to Pinpoint Test DI
PCM (powertrain control module)	P02EE:00	Cylinder 1 Injector Circuit Range/Performance: No Sub Type Information	GO to Pinpoint Test DI
PCM (powertrain control module)	P02EF:00	Cylinder 2 Injector Circuit Range/Performance: No Sub Type Information	GO to Pinpoint Test DI
PCM (powertrain control module)	P02F0:00	Cylinder 3 Injector Circuit Range/Performance: No Sub Type Information	GO to Pinpoint Test DI
PCM (powertrain control module)	P02F1:00	Cylinder 4 Injector Circuit Range/Performance: No Sub Type Information	GO to Pinpoint Test DI
PCM (powertrain control module)	P02F2:00	Cylinder 5 Injector Circuit Range/Performance: No Sub Type Information	GO to Pinpoint Test DI
PCM (powertrain control module)	P02F3:00	Cylinder 6 Injector Circuit Range/Performance: No Sub Type Information	GO to Pinpoint Test DI
PCM (powertrain control module)	P2149:00	Fuel Injector Group B Supply Voltage Circuit/Open: No Sub Type Information	GO to Pinpoint Test KG
PCM (powertrain control module)	P21CF:00	Cylinder 1 Injector B Circuit/Open: No Sub Type Information	GO to Pinpoint Test KG
PCM (powertrain control module)	P21D0:00	Cylinder 2 Injector B Circuit/Open: No Sub Type Information	GO to Pinpoint Test KG
PCM (powertrain control module)	P21D1:00	Cylinder 3 Injector B Circuit/Open: No Sub Type Information	GO to Pinpoint Test KG
PCM (powertrain control module)	P21D2:00	Cylinder 4 Injector B Circuit/Open: No Sub Type Information	GO to Pinpoint Test KG
PCM (powertrain control module)	P21D3:00	Cylinder 5 Injector B Circuit/Open: No Sub Type Information	GO to Pinpoint Test KG
PCM (powertrain control module)	P21D4:00	Cylinder 6 Injector B Circuit/Open: No Sub Type Information	GO to Pinpoint Test KG

P0203:00		inoperative.
PCM (powertrain control module) P0204:00	Cylinder 4 Injector 'A' Circuit/Open: No Sub Type Information	Sets when the PCM (powertrain control module) detects the fuel injector circuitry is inoperative.
PCM (powertrain control module) P0205:00	Cylinder 5 Injector 'A' Circuit/Open: No Sub Type Information	Sets when the PCM (powertrain control module) detects the fuel injector circuitry is inoperative.
PCM (powertrain control module) P0206:00	Cylinder 6 Injector 'A' Circuit/Open: No Sub Type Information	Sets when the PCM (powertrain control module) detects the fuel injector circuitry is inoperative.
PCM (powertrain control module) P02EE:00	Cylinder 1 Injector Circuit Range/Performance: No Sub Type Information	Sets when the PCM (powertrain control module) detects the output voltage of the fuel injector control circuit is outside of the calibrated limit.
PCM (powertrain control module) P02EF:00	Cylinder 2 Injector Circuit Range/Performance: No Sub Type Information	Sets when the PCM (powertrain control module) detects the output voltage of the fuel injector control circuit is outside of the calibrated limit.
PCM (powertrain control module) P02F0:00	Cylinder 3 Injector Circuit Range/Performance: No Sub Type Information	Sets when the PCM (powertrain control module) detects the output voltage of the fuel injector control circuit is outside of the calibrated limit.
PCM (powertrain control module) P02F1:00	Cylinder 4 Injector Circuit Range/Performance: No Sub Type Information	Sets when the PCM (powertrain control module) detects the output voltage of the fuel injector control circuit is outside of the calibrated limit.
PCM (powertrain control module) P02F2:00	Cylinder 5 Injector Circuit Range/Performance: No Sub Type Information	Sets when the PCM (powertrain control module) detects the output voltage of the fuel injector control circuit is outside of the calibrated limit.

PCM (powertrain control module) P21D1:00	Cylinder 3 Injector 'B' Circuit/Open: No Sub Type Information	Sets when the PCM (powertrain control module) detects the fuel injector circuitry is inoperative. The comprehensive component monitor (CCM) monitors the operation of the fuel injector drivers in the PCM (powertrain control module) .
PCM (powertrain control module) P21D2:00	Cylinder 4 Injector 'B' Circuit/Open: No Sub Type Information	Sets when the PCM (powertrain control module) detects the fuel injector circuitry is inoperative. The comprehensive component monitor (CCM) monitors the operation of the fuel injector drivers in the PCM (powertrain control module) .
PCM (powertrain control module) P21D3:00	Cylinder 5 Injector 'B' Circuit/Open: No Sub Type Information	Sets when the PCM (powertrain control module) detects the fuel injector circuitry is inoperative. The comprehensive component monitor (CCM) monitors the operation of the fuel injector drivers in the PCM (powertrain control module) .
PCM (powertrain control module) P21D4:00	Cylinder 6 Injector 'B' Circuit/Open: No Sub Type Information	Sets when the PCM (powertrain control module) detects the fuel injector circuitry is inoperative. The comprehensive component monitor (CCM) monitors the operation of the fuel injector drivers in the PCM (powertrain control module) .
PCM (powertrain control module) P2C27:00	Fuel Injector Group 'B' Supply Sense Circuit Low: No Sub Type Information	Sets when the PCM (powertrain control module) detects the injector relay voltage is less than the calibrated threshold. This DTC (diagnostic trouble code) also sets when a concern is detected in the injector relay (INJRLY) circuit or the injector power monitor (INJPWRM) circuit.
PCM (powertrain control module) P2C28:00	Fuel Injector Group 'B' Supply Sense Circuit High: No Sub Type Information	Sets when the PCM (powertrain control module) detects the INJRLY circuit voltage is more than the calibrated threshold. This DTC (diagnostic trouble code) also sets when the injector power monitor (INJPWRM) circuit voltage is more than the calibrated threshold.

Possible Sources

- Fuel injector relay
- Fuel injector (9F593)
- PCM (powertrain control module) (12A650)

Fuel Control

303-04B Fuel Charging and Controls - 3.3L Duratec-V6	2022 F-150
Diagnosis and Testing	Procedure revision date: 11/5/2020

Fuel Control

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
PCM (powertrain control module)	P0087:00	Fuel Rail/System Pressure - Too Low (Bank 1): No Sub Type Information	GO to Pinpoint Test DD
PCM (powertrain control module)	P0088:00	Fuel Rail/System Pressure - Too High (Bank 1): No Sub Type Information	GO to Pinpoint Test DD
PCM (powertrain control module)	P0181:00	Fuel Temperature Sensor A Circuit Range/Performance: No Sub Type Information	GO to Pinpoint Test DD
PCM (powertrain control module)	P0182:00	Fuel Temperature Sensor A Circuit Low: No Sub Type Information	GO to Pinpoint Test DD
PCM (powertrain control module)	P0183:00	Fuel Temperature Sensor A Circuit High: No Sub Type Information	GO to Pinpoint Test DD