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2022 Ford Bronco Service and Repair Manual

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PCM (powertrain control module) P0152:00	O2 Sensor Circuit High Voltage (Bank 2 Sensor 1): No Sub Type Information	Sets when PCM (powertrain control module) detects an over voltage concern with one of the circuits used to determine the oxygen content in the exhaust gas.
PCM (powertrain control module) P0153:00	O2 Sensor Circuit Slow Response (Bank 2 Sensor 1): No Sub Type Information	Sets when PCM (powertrain control module) detects the oxygen sensor signal does not reach the predicted amplitude within a predetermined response time. The PCM (powertrain control module) monitors the universal HO2S (heated oxygen sensor) bank 2, sensor 1response time by commanding a calibrated fuel control routine. This routine sets the air to fuel ratio to a calibrated limit to produce a predictable oxygen sensor signal amplitude.
PCM (powertrain control module) P0154:00	O2 Sensor Circuit No Activity Detected (Bank 2 Sensor 1): No Sub Type Information	Sets when PCM (powertrain control module) detects no movement in the sensor signal while the air to fuel ratio is oscillating. If the sensor signal value is not changing from the default value, the PCM (powertrain control module) commands an oscillating air to fuel ratio attempting to detect some movement in the signal value.
PCM (powertrain control module) P0155:00	O2 Sensor Heater Circuit (Bank 2 Sensor 1): No Sub Type Information	Sets when PCM (powertrain control module) detects an open circuit , a short circuit or the universal HO2S (heated oxygen sensor) bank 2, sensor 1 heater current draw exceeds a calibrated limit.
PCM (powertrain control module) P064D:00	Internal Control Module O2 Sensor Processor Performance - Bank 1: No Sub Type Information	Sets when PCM (powertrain control module) detects an internal circuit or communication concern. The PCM (powertrain control module) monitors the application specific integrated circuit that controls and monitors the universal heated oxygen sensor HO2S (heated oxygen sensor) bank 1, sensor 1. Check for other Diagnostic Trouble Codes (DTCs) and diagnose those first. Check for intermittent universal HO2S (heated oxygen sensor) wiring concerns. Check the universal HO2S (heated oxygen sensor) wiring between the PCM (powertrain control module) and the sensor for damage. Check for aftermarket performance products. Reprogram or update the calibration. Clear the Diagnostic Trouble Codes (DTCs), repeat the self-test.
PCM (powertrain	Internal Control Module O2 Sensor	Sets when PCM (powertrain control module) detects an internal circuit or communication concern. The PCM (powertrain control

		module) and the sensor for damage. Check for aftermarket performance products. Reprogram or update the calibration. Clear the Diagnostic Trouble Codes (DTCs), repeat the self-test.
PCM (powertrain control module) P164A:00	O2 Sensor Positive Current Trim Circuit Performance (Bank 1 Sensor 1): No Sub Type Information	Sets when PCM (powertrain control module) detects an inconsistent or erratic measurement of the resistor. A resistor is installed in the universal HO2S (heated oxygen sensor) bank 1, sensor 1 connector for part to part variance. The PCM (powertrain control module) determines the value of this resistor by taking multiple measurements of the resistor during each ignition ON event. The PCM (powertrain control module) uses this value to compensate for the variance in the pumping current signal.
PCM (powertrain control module) P164B:00	O2 Sensor Positive Current Trim Circuit Performance (Bank 2 Sensor 1): No Sub Type Information	Sets when PCM (powertrain control module) detects an inconsistent or erratic measurement of the resistor. A resistor is installed in the universal HO2S (heated oxygen sensor) bank 2, sensor 1 connector for part to part variance. The PCM (powertrain control module) determines the value of this resistor by taking multiple measurements of the resistor during each ignition ON event. The PCM (powertrain control module) uses this value to compensate for the variance in the pumping current signal.
PCM (powertrain control module) P2096:00	Post Catalyst Fuel Trim System Too Lean Bank 1: No Sub Type Information	Sets when PCM (powertrain control module) detects the correction value is greater than a calibrated limit. The PCM (powertrain control module) monitors the correction value from the HO2S (heated oxygen sensor) bank 1, sensor 2 as part of the fore-aft oxygen sensor control routine.
PCM (powertrain control module) P2097:00	Post Catalyst Fuel Trim System Too Rich Bank 1: No Sub Type Information	Sets when PCM (powertrain control module) detects the correction value is greater than a calibrated limit. The PCM (powertrain control module) monitors the correction value from the HO2S (heated oxygen sensor) bank 1, sensor 2 as part of the fore-aft oxygen sensor control routine.
PCM (powertrain control module) P2098:00	Post Catalyst Fuel Trim System Too Lean Bank 2: No Sub Type Information	Sets when PCM (powertrain control module) detects the correction value is greater than a calibrated limit. The PCM (powertrain control module) monitors the correction value from the HO2S (heated oxygen sensor) bank 2, sensor 2 as part of the fore-aft oxygen sensor control routine.

	No Sub Type Information	
PCM (powertrain control module) P2254:00	O2 Sensor Negative Current Control Circuit/Open - Bank 2, Sensor 1: No Sub Type Information	Sets when PCM (powertrain control module) detects a concern with the circuit used to determine the oxygen content in the exhaust gas.
PCM (powertrain control module) P2626:00	O2 Sensor Positive Current Trim Circuit/Open Bank 1 Sensor 1: No Sub Type Information	Sets when PCM (powertrain control module) detects the actual oxygen sensor voltage exceeds the maximum expected voltage threshold for a specified amount of time. During deceleration fuel shut-off the PCM (powertrain control module) monitors the integrity of the UO2SPCT11 circuit by comparing the actual oxygen sensor voltage signal to an expected oxygen sensor voltage signal.
PCM (powertrain control module) P2627:00	O2 Sensor Positive Current Trim Circuit Low Bank 1, Sensor 1: No Sub Type Information	Sets when PCM (powertrain control module) detects the resistance value from the universal HO2S (heated oxygen sensor) is too high. A resistor is installed in the universal HO2S (heated oxygen sensor) connector for part to part variance. The PCM (powertrain control module) determines the value of this resistor by taking multiple measurements of the resistor during each ignition ON event. The PCM (powertrain control module) uses this value in order to compensate for the variance in the pumping current signal.
PCM (powertrain control module) P2628:00	O2 Sensor Positive Current Trim Circuit High Bank 1, Sensor 1: No Sub Type Information	Sets when PCM (powertrain control module) detects a concern with the circuit used to determine the oxygen content in the exhaust gas.
PCM (powertrain control module) P2629:00	O2 Sensor Positive Current Trim Circuit/Open Bank 2 Sensor 1: No Sub Type Information	Sets when PCM (powertrain control module) detects the actual oxygen sensor voltage exceeds the maximum expected voltage threshold for a specified amount of time. During deceleration fuel shut-off the PCM (powertrain control module) monitors the integrity of the UO2SPCT21 circuit by comparing the actual oxygen sensor voltage signal to an expected oxygen sensor voltage signal.

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
PCM (powertrain control module) P0171:00	System Too Lean Bank 1: No Sub Type Information	Sets when PCM (powertrain control module) detects the adaptive fuel tables reach a rich calibrated limit. Refer to Fuel Trim for additional information. The adaptive fuel strategy continuously monitors the fuel delivery hardware. View the freeze frame data to determine the operating conditions when the DTC (diagnostic trouble code) was set. Observe the LONGFT1 and LONGFT2 PIDs.
PCM (powertrain control module) P0172:00	System Too Rich Bank 1: No Sub Type Information	Sets when PCM (powertrain control module) detects the adaptive fuel tables reach a lean calibrated limit. Refer to Fuel Trim for additional information. The adaptive fuel strategy continuously monitors the fuel delivery hardware. View the freeze frame data to determine the operating conditions when the DTC (diagnostic trouble code) was set. Observe the LONGFT1 and LONGFT2 PIDs.
PCM (powertrain control module) P0174:00	System Too Lean Bank 2: No Sub Type Information	Sets when PCM (powertrain control module) detects the adaptive fuel tables reach a rich calibrated limit. Refer to Fuel Trim for additional information. The adaptive fuel strategy continuously monitors the fuel delivery hardware. View the freeze frame data to determine the operating conditions when the DTC (diagnostic trouble code) was set. Observe the LONGFT1 and LONGFT2 PIDs.
PCM (powertrain control module) P0175:00	System Too Rich Bank 2: No Sub Type Information	The adaptive fuel strategy continuously monitors the fuel delivery hardware. This DTC (diagnostic trouble code) sets when the adaptive fuel tables reach a lean calibrated limit. Refer to Fuel Trim for additional information. View the freeze frame data to determine the operating conditions when the DTC (diagnostic trouble code) was set. Observe the LONGFT1 and LONGFT2 PIDs.
PCM (powertrain control module) P1137:00	Lack Of HO2S12 Switches - Sensor Indicates Lean: No Sub Type Information	Sets when PCM (powertrain control module) detects no output of the HO2S12 circuit in a calibrated amount of time. The HO2S (heated oxygen sensor) bank 1, sensor 2 is forced rich and lean and monitored by the PCM (powertrain control module) .
PCM (powertrain control	Lack Of HO2S12 Switches - Sensor Indicates Rich: No	Sets when PCM (powertrain control module) detects no output of the HO2S12 circuit in a calibrated amount of time. The HO2S (heated

control module) P219A:00	No Sub Type Information	air to fuel imbalance monitor is designed to detect large differences in the air to fuel ratio between cylinders per engine bank.
PCM (powertrain control module) P219B:00	Bank 2 Air-Fuel Ratio Imbalance: No Sub Type Information	Sets when PCM (powertrain control module) detects the air to fuel ratio difference per cylinder is greater than a calculated amount. The air to fuel imbalance monitor is designed to detect large differences in the air to fuel ratio between cylinders per engine bank.
PCM (powertrain control module) P219C:00	Cylinder 1 Air-Fuel Ratio Imbalance: No Sub Type Information	Sets when PCM (powertrain control module) detects the minimal air to fuel ratio difference in cylinder 1 is greater than a calculated amount. The air to fuel ratio imbalance torque monitor is designed to detect minimal differences in the air to fuel ratio between cylinders. This DTC (diagnostic trouble code) may be caused by other systems related to cylinder 1. Diagnose any other cylinder 1 related Diagnostic Trouble Codes (DTCs) first. The CKP (crankshaft position) sensor signal is very sensitive to electrical noise.Check the routing of the CKP (crankshaft position) sensor wiring harness.
PCM (powertrain control module) P219D:00	Cylinder 2 Air-Fuel Ratio Imbalance: No Sub Type Information	Sets when PCM (powertrain control module) detects the minimal air to fuel ratio difference in cylinder 2 is greater than a calculated amount. The air to fuel ratio imbalance torque monitor is designed to detect minimal differences in the air to fuel ratio between cylinders. This DTC (diagnostic trouble code) may be caused by other systems related to cylinder 2. Diagnose any other cylinder 1 related Diagnostic Trouble Codes (DTCs) first. The CKP (crankshaft position) sensor signal is very sensitive to electrical noise.Check the routing of the CKP (crankshaft position) sensor wiring harness.
PCM (powertrain control module) P219E:00	Cylinder 3 Air-Fuel Ratio Imbalance: No Sub Type Information	Sets when PCM (powertrain control module) detects the minimal air to fuel ratio difference in cylinder 3 is greater than a calculated amount. The air to fuel ratio imbalance torque monitor is designed to detect minimal differences in the air to fuel ratio between cylinders. This DTC (diagnostic trouble code) may be caused by other systems related to cylinder 3. Diagnose any other cylinder 1 related Diagnostic Trouble Codes (DTCs) first. The CKP (crankshaft position) sensor signal is very sensitive to electrical noise.Check the routing of the CKP (crankshaft position) sensor wiring harness.

module) P2271:00		monitored by the PCM (powertrain control module) . Check for leaks in the exhaust system. Check for an intermittent HO2S12 signal.
PCM (powertrain control module) P2272:00	O2 Sensor Signal Stuck Lean - Bank 2, Sensor 2: No Sub Type Information	Sets when PCM (powertrain control module) does not detect the output of the HO2S22 in a calibrated amount of time. The HO2S (heated oxygen sensor) bank 2, sensor 2 is forced rich and lean and monitored by the PCM (powertrain control module) . Check for leaks in the exhaust system. Check for an intermittent HO2S22 signal.
PCM (powertrain control module) P2273:00	O2 Sensor Signal Stuck Rich - Bank 2, Sensor 2: No Sub Type Information	Sets when PCM (powertrain control module) detectsdoes not detect the output of the HO2S22 in a calibrated amount of time. The HO2S (heated oxygen sensor) bank 2, sensor 2 is forced rich and lean and monitored by the PCM (powertrain control module) . Check for leaks in the exhaust system. Check for an intermittent HO2S22 signal.
PCM (powertrain control module) P2BEC:00	Fuel Control System 'A' Too Lean Bank 1: No Sub Type Information	Sets when PCM (powertrain control module) detects the adaptive fuel tables reach a rich calibrated limit. The adaptive fuel strategy continuously monitors the fuel delivery hardware. Refer to Fuel Trim for additional information. View the freeze frame data to determine the operating conditions when the DTC (diagnostic trouble code) was set. Observe the LONGFT1 and LONGFT2 PIDs.
PCM (powertrain control module) P2BED:00	Fuel Control System 'A' Too Rich Bank 1: No Sub Type Information	Sets when PCM (powertrain control module) detects the adaptive fuel tables reach a lean calibrated limit. The adaptive fuel strategy continuously monitors the fuel delivery hardware. Refer to Fuel Trim for additional information. View the freeze frame data to determine the operating conditions when the DTC (diagnostic trouble code) was set. Observe the LONGFT1 and LONGFT2 PIDs.
PCM (powertrain control module) P2BEE:00	Fuel Control System 'A' Too Lean Bank 2: No Sub Type Information	Sets when PCM (powertrain control module) detects the adaptive fuel tables reach a rich calibrated limit. The adaptive fuel strategy continuously monitors the fuel delivery hardware. Refer to Fuel Trim for additional information. View the freeze frame data to determine the operating conditions when the DTC (diagnostic trouble code) was set. Observe the LONGFT1 and LONGFT2 PIDs.
PCM (powertrain control module) P2BEF:00	Fuel Control System 'A' Too Rich Bank 2: No Sub Type Information	Sets when PCM (powertrain control module) detects the adaptive fuel tables reach a lean calibrated limit. The adaptive fuel strategy continuously monitors the fuel delivery hardware. Refer to Fuel Trim for additional information. View the freeze frame data to determine

- Fuel filter
- Air filter
- HO2S (heated oxygen sensor) circuitry concern
- EVAP (evaporative emission) purge valve
- Fuel line
- EGR (exhaust gas recirculation) valve
- EVAP (evaporative emission) purge valve
- Fuel pump
- MAF (mass air flow) sensor (if equipped)
- HO2S (heated oxygen sensor) (9G444) or (9Y460)
- Fuel injector (9F593)
- PCM (powertrain control module) (12A650)

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

PCM (powertrain control module)	P0123:00	Throttle/Pedal Position Sensor/Switch A Circuit High: No Sub Type Information	GO to Pinpoint Test DV
PCM (powertrain control module)	P0124:00	Throttle/Pedal Position Sensor/Switch A Intermittent: No Sub Type Information	GO to Pinpoint Test DV
PCM (powertrain control module)	P0221:00	Throttle/Pedal Position Sensor/Switch B Circuit Range/Performance: No Sub Type Information	GO to Pinpoint Test DV
PCM (powertrain control module)	P0222:00	Throttle/Pedal Position Sensor/Switch B Circuit Low: No Sub Type Information	GO to Pinpoint Test DV
PCM (powertrain control module)	P0223:00	Throttle/Pedal Position Sensor/Switch B Circuit High: No Sub Type Information	GO to Pinpoint Test DV
PCM (powertrain control module)	P0600:00	Serial Communication Link: No Sub Type Information	GO to Pinpoint Test QE
PCM (powertrain control module)	P060A:00	Internal Control Module Monitoring Processor Performance: No Sub Type Information	GO to Pinpoint Test QE
PCM (powertrain control module)	P060B:00	Internal Control Module A/D Processing Performance: No Sub Type Information	GO to Pinpoint Test QE
PCM (powertrain control module)	P060C:00	Internal Control Module Main Processor Performance: No Sub Type Information	GO to Pinpoint Test QE
PCM (powertrain control module)	P061A:00	Internal Control Module Torque Performance: No Sub Type Information	GO to Pinpoint Test QE
PCM (powertrain control module)	P061B:00	Internal Control Module Torque Calculation Performance: No Sub Type Information	GO to Pinpoint Test QE

PCM (powertrain control module)	P2101:00	Throttle Actuator A Control Motor Circuit Range/Performance: No Sub Type Information	GO to Pinpoint Test DV
PCM (powertrain control module)	P2107:00	Throttle Actuator A Control Module Processor: No Sub Type Information	GO to Pinpoint Test DV
PCM (powertrain control module)	P2109:00	Throttle/Pedal Position Sensor A Minimum Stop Performance: No Sub Type Information	GO to Pinpoint Test DV
PCM (powertrain control module)	P2111:00	Throttle Actuator A Control System - Stuck Open: No Sub Type Information	GO to Pinpoint Test DV
PCM (powertrain control module)	P2112:00	Throttle Actuator A Control System - Stuck Closed: No Sub Type Information	GO to Pinpoint Test DV
PCM (powertrain control module)	P2118:00	Throttle Actuator A Control Motor Current Range / Performance: No Sub Type Information	GO to Pinpoint Test DV
PCM (powertrain control module)	P2119:00	Throttle Actuator A Control Throttle Body Range/Performance: No Sub Type Information	GO to Pinpoint Test DV
PCM (powertrain control module)	P2135:00	Throttle/Pedal Position Sensor/Switch A/B Voltage Correlation: No Sub Type Information	GO to Pinpoint Test DV
PCM (powertrain control module)	P2163:00	Throttle/Pedal Position Sensor A Maximum Stop Performance: No Sub Type Information	GO to Pinpoint Test DV
PCM (powertrain control module)	P2176:00	Throttle Actuator A Control System - Idle Position Not Learned: No Sub Type Information	GO to Pinpoint Test DV
PCM (powertrain control module)	U0300:00	Internal Control Module Software Incompatibility: No Sub Type Information	GO to Pinpoint Test QE