

QT: Powertrain Control Module (PCM) Quick Test**QT1 CARRY OUT A VISUAL INSPECTION**

Note: Verify the battery state of charge (SOC) is greater than 70% before diagnosing any auto stop start concerns. Refer to the Workshop Manual Section 414-00, Charging System, for additional information.

Note: Regeneration may occur during normal operation. During regeneration, diagnostic procedures may display biased values. If a regeneration occurs during diagnostic procedures, allow the process to complete before continuing diagnostics.

Note: Visually inspect the vehicle for aftermarket accessories and performance modifications (air filter, exhaust system, intake system, performance chip, and turbocharger). Refer to Section 1, [Engine Control \(EC\) System](#), Modifications to OBD Vehicles.

- Access any related OASIS or TSB information.
- Check the battery and charging system for correct operation. Refer to the Workshop Manual Section 414-00, Battery and Charging System General Information.
- Inspect the air cleaner, intake tubes and clamps for damage, restrictions, obstructions, and correct routing.
- Inspect all hoses for damage, leaks, blockage, and correct routing.
- Inspect the fuel system including the fuel tank and the fuel lines for damage, kinks, bends, leaks and correct routing.
- Check fuses for continuity and correct installation.
- Inspect the vehicle wiring harnesses for damage, chafing and correct routing.
- Inspect the exhaust system for damage, restrictions, collapsed pipes, and correct routing.
- Check for the correct engine oil level and quality.
- Check for the correct engine coolant level and quality.

Is a concern present?

Yes	REPAIR as necessary.
No	GO to QT2 .

QT2 VEHICLE PREPARATION

- Place the transmission gear selector into PARK (automatic transmission) or NEUTRAL (manual transmission).
- Apply the parking brake.
- Block the drive wheels.
- Turn off all electrical loads (radios, lights, A/C, blower, and fans).

Has the vehicle preparation been completed?

Yes	GO to QT3 .
No	CARRY OUT the vehicle preparation.

QT3 CARRY OUT THE QUICK TEST

Note: If unable to access the PCM or a scan tool communication concern exists, GO to Pinpoint Test [AE](#).

- Connect the scan tool to the data link connector (DLC). Refer to Section 2, [Scan Tool Setup and Functionality](#).
- Carry out the PCM Quick Test to access and record any key ON, engine OFF (KOEO), key ON, engine running (KOER) and continuous memory DTCs. Refer to Section 2, [Quick Test Description](#).
- For Transit, Carry out the Reductant Dosage Control Module (RDCM) Quick Test to access and record any key ON, engine OFF (KOEO), key ON, engine running (KOER) and continuous memory DTCs. Refer to Section 2, [Quick Test Description](#).
- Access and record the Freeze Frame Data. Refer to Section 2, [Freeze Frame Data](#).

Are any RDCM or PCM DTCs present?

Yes	GO to Section 4, Diagnostic Trouble Code (DTC) Charts and Descriptions to diagnose the DTCs after
------------	---

	noting the following: DIAGNOSE the circuit related DTCs first. For multiple circuit DTCs that are set as a result of a concern with more than one component, REFER to the Wiring Diagrams Manual and IDENTIFY the common cause such as SIGRTN, VREF, or VPWR. CONTINUE DTC diagnosis by referring to the appropriately identified pinpoint test. Any KOEO self-test DTCs Any KOER self-test DTCs Any continuous memory self-test DTCs. Retrieve any available freeze frame data and disregard any identical or related continuous DTCs already repaired.
No	GO to No Diagnostic Trouble Codes (DTCs) Present Symptom Chart Index for direction to the symptom chart in No Diagnostic Trouble Codes (DTCs) Present Symptom Charts. If the symptom is not listed, REFER to the applicable Workshop Manual Section to continue diagnosis.

mcx30.com