

QT: Step 1: Powertrain Control Module (PCM) Quick Test**QT1 CARRY OUT THE PCM QUICK TEST**

Note: If the vehicle was brought in with an emission compliance failure symptom, [GO to Pinpoint Test EM](#).

- Complete the preliminary checks looking for obvious concerns that may relate to the symptom. Check items such as those listed below:
 - Related electrical connectors or fuses
 - Vacuum lines (leaks, routing)
 - Air intake system (leaks, restrictions)
 - Fuel quality (octane, contamination, winter/summer blend)
 - Cooling system (engine operating at proper temperature)
- Access any related OASIS or TSB information (if available).
- **Note:** For applications that use a stand-alone transmission control module (TCM), the PCM does not output TCM related DTCs. Refer to the Workshop Manual Section 307-01 Automatic Transaxle/Transmission for diagnosis and testing.

Note: If unable to access the DTCs, or any diagnostic tool communication concern exists, [GO to Pinpoint Test QA](#) in Section 5. For additional information on retrieving MIL and non-MIL DTCs, refer to Section 2, [Diagnostic Methods Continuous Memory Self-Test](#).

Complete the PCM Quick Test to access any DTCs. Note any key on engine off (KOEO), key on engine running (KOER) (if engine runs) and Continuous Memory (MIL and non-MIL) DTCs.

Are any DTCs present?

Yes	<p>If the engine runs rough at idle and KOER or Continuous Memory DTCs are present:</p> <p>GO to QT2 to check injector fault PIDs.</p> <p>All others:</p> <p>GO to Section 4, Diagnostic Trouble Code (DTC) Charts and Descriptions for direction to repair DTCs after noting the following: Diagnose DTCs in the following order (begin diagnosis with the first DTC output in that mode and diagnose any circuit related DTCs first).</p> <ol style="list-style-type: none"> 1. Any KOEO DTCs 2. Any KOER DTCs 3. Any Continuous Memory DTCs (retrieve any available freeze frame data and disregard any identical/related continuous DTCs already repaired).
No	<p>GO to Step 2: No DTC(s) Present Symptom Chart Index for direction to the proper STEP 3 Chart.</p> <p>Note: If the symptom is not listed, REFER to the applicable Workshop Manual Section or GO to Pinpoint Test Z in Section 5 for intermittent PCM system diagnostics.</p>

QT2 THE ENGINE RUNS ROUGH AT IDLE WITH KOER OR CONTINUOUS MEMORY DTCs: CHECK THE INJECTOR FAULT (INJXF) PID(S)

Note: An injector circuit fault could result in unrelated DTCs being received from the PCM.

- KOEO.
- Access the INJxF PIDs (the "x" indicates the injector number). There will be one INJxF PID for each engine cylinder.

Do any of the INJxF PIDs indicate a fault (or Yes)?

Yes	An injector circuit fault exists. KEY OFF. Disregard the DTCs. Ford GT: GO to HL3 . All others: GO to H40 .
No	No fault detected by injector fault PIDs. KEY OFF. GO to QT1 and follow the YES Action to Take for all others.