

QT: Step 1: PCM Quick Test

QT1 PERFORM PCM QUICK TEST

Note: If the vehicle was brought in with an emission compliance failure symptom, GO directly to Section 5; GO to [EM1](#).

- Complete preliminary checks looking for obvious concerns that may relate to the symptom. Check items such as those listed:
 - 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).
- Complete PCM Quick Test to access any DTCs. Note any Key On Engine Off, Key On Engine Running (if engine runs) and Continuous Memory (MIL and non-MIL) DTCs.

Note: If unable to access DTCs, or any scan tool communication concern exists, GO to [QA1](#) in Section 5. For additional information on retrieving MIL and non-MIL DTCs, refer to Section 2, [Diagnostic Methods](#) (Continuous Memory Self-Test).

Were any DTCs present?

Yes	<p>If engine runs rough at idle and Key On Engine Running or Continuous Memory DTC(s) are present: GO to QT2 to check injector fault PIDS.</p> <p>All Others: GO to Section 4 (Diagnostic Trouble Code (DTC) Charts) for direction to service DTC(s) after noting the following: Service DTCs in the following order (begin diagnosis with the first DTC output in that mode).</p> <ol style="list-style-type: none"> 1. Any KOEO DTC(s) 2. Any KOER DTC(s) 3. Any Continuous Memory DTC(s) (retrieve any available Freeze Frame Data)(disregard any identical/related Continuous DTC(s) of DTC(s) already serviced).
No	<p>GO to Step 2: NO DTC(s) PRESENT SYMPTOM CHART INDEX for direction to proper STEP 3 Chart.</p> <p>Note: If symptom is not listed, REFER to applicable Workshop Manual or GO to Z1 in Section 5 (for intermittent PCM system diagnostics).</p>

QT2 ENGINE RUNS ROUGH AT IDLE WITH KEY ON ENGINE RUNNING OR CONTINUOUS MEMORY DTC(S): CHECK INJECTOR FAULT (INJXF) PID(S)

Note: An injector circuit fault could result in unrelated DTC(s) being received from the PCM.

- Key on, engine off.
- 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 DTC(s).
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Natural Gas applications:GO to [HA27](#).**All Others:**GO to [H52](#).

No	No fault detected by injector fault PIDs. KEY OFF. GO to QT1 and follow the YES Action To Take for all others.
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