

No Diagnostic Trouble Codes (DTCs) Present Symptom Charts**Chart 1**

- Stalls/Quits: Idle, Acceleration, Cruise, Stall After Start
- Runs Rough
- Misses
- Buck/Jerk
- Hesitation/Stumble
- Surge
- Unique Idle Concerns: Rolling Idle

Note: For some vehicle applications, the engine may stall if left running while refueling. Advise the customer to turn the engine off while refueling to avoid contamination or damage to the evaporative emission (EVAP) system.

SYSTEM/COMPONENT	REFERENCE (Section 5 Pinpoint Test unless noted)
Check the following parameter identifiers (PIDs): ▪ LONGFT1 or LONGFT2 (value between -20 and +20%) ▪ VPWR (value between 10.5 and 17.0 volts, and within 0.5 volt of battery voltage)	LONGFT1 or LONGFT2 value low (-): Continue diagnosis. Concentrate checks in areas that would cause the engine to run rich. LONGFT1 or LONGFT2 value high (+): Continue diagnosis. Concentrate checks in areas that would cause the engine to run lean. VPWR not between 10.5 and 17.0 volts: REFER to the Workshop Manual Section 414-00, Charging System, Diagnosis And Testing to continue diagnosis. VPWR between 10.5 and 17.0 volts, but not within 0.5 volt of battery voltage: CHECK the B+ voltage to the powertrain control module (PCM) power relay. CHECK the VPWR circuit between the PCM and the PCM power relay. CHECK the PWR GND circuits.
Fuel Injection System	For vehicles that run rough at idle check the INJx_F PIDs (the x indicates the injector number) with the ignition ON, engine running. There is 1 INJx_F PID for each engine cylinder. All INJx_F PIDs must indicate NO FAULT. The INJx_F PIDs indicate a fault (an injector circuit concern is indicated). For direct fuel injection system diagnosis, GO to Pinpoint Test DI. For port fuel injection system diagnosis, GO to Pinpoint Test KG.
Mass Airflow (MAF) Sensor	GO to Pinpoint Test DC .
Manifold Absolute Pressure (MAP) Sensor	GO to Pinpoint Test DM .
Secondary Ignition System	GO to Pinpoint Test JB .
Fuel Delivery System	GO to Pinpoint Test HC .

SYSTEM/COMPONENT	REFERENCE (Section 5 Pinpoint Test unless noted)
Exhaust System	GO to Pinpoint Test HF .
Positive Crankcase Ventilation (PCV) System	GO to Pinpoint Test HG .
Variable Camshaft Timing (VCT) System	GO to Pinpoint Test HK .
EVAP System	GO to Pinpoint Test HX .
Charging System	REFER to the Workshop Manual Section 414-00, Charging System, Diagnosis And Testing to continue diagnosis.
Universal Heated Oxygen Sensor (HO2S)	GO to Pinpoint Test DZ .
Automatic Transmission	REFER to the Workshop Manual Section 307-01, Automatic Transmission, Diagnosis By Symptom to continue diagnosis.
Base Engine	REFER to the Workshop Manual Section 303-00, Engine System, Diagnosis And Testing to continue diagnosis.
Intake Air System	GO to Pinpoint Test HU .
Supercharger Bypass Control	GO to Pinpoint Test KJ .
Auto Start Stop System	GO to Pinpoint Test AA .
Additional Testing	GO to Pinpoint Test Z .