

QUICK DIAGNOSTIC CHART [LF]

B3E010318881W02

X: Applicable

| Possible factor | | Starter motor malfunction (Mechanical or electrical) | Starter circuit including ignition switch is open. | Starter interlock switch malfunction (MTX with starter interlock system) | Improper engine oil level | Low or dead battery | Charging system malfunction | Improper engine compression | Improper valve timing | Hydrolocked engine | Improper engine oil viscosity | Improper dipstick | Base engine malfunction | Flywheel or drive plate are seized. | Improper tension or damaged drive belts | Improper engine coolant level | Water and anti-freeze mixture is improper. | Cooling system malfunction (Radiator, hoses, overflow system, thermostat, etc.) | Cooling fan system malfunction | Engine or transaxle mounts are improperly installed. | Cooling fan seat is improper. | Accelerator cable free play misadjustment | Fuel quality | Intake-air temperature is too hot |
|-----------------------------|---|--|--|--|---------------------------|---------------------|-----------------------------|-----------------------------|-----------------------|--------------------|-------------------------------|-------------------|-------------------------|-------------------------------------|---|-------------------------------|--|---|--------------------------------|--|-------------------------------|---|--------------|-----------------------------------|
| Troubleshooting Item | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Melting of main or other fuses | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | MIL illuminates | x | x | x | | x | x | | | x | | | | x | | | | | | | | | | |
| 3 | Will not crank | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Hard to start/long crank/erratic start/erratic crank | | | | | | | | | | | | | | | | | | | | | | x | |
| 5 | Engine stalls. After start/at idle | | | | | | | x | x | x | | | | | | | | | | | | | x | |
| 6 | Cranks normally but will not start | | | | | | | x | x | x | | | | | | | | | | | | | x | |
| 7 | Slow return to idle | | | | | | | | | | | | | | | | | | x | | | | | |
| 8 | Engine runs rough/rolling idle | | | | | | | x | x | | | | | | | | | | | | | | x | |
| 9 | Fast idle/runs on | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | Low idle/stalls during deceleration | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | Engine stalls/quits. Acceleration/cruise | | | | | | | x | x | | | | | | | | | | | | | | x | |
| | Engine runs rough. Acceleration/cruise | | | | | | | x | x | | | | | | | | | | | | | | x | |
| | Misses. Acceleration/cruise | | | | | | | x | x | | | | | | | | | | | | | | x | |
| | Buck/jerk. Acceleration/cruise/deceleration | | | | | | | x | x | | | | | | | | | | | | | | x | |
| | Hesitation/stumble. Acceleration | | | | | | | x | x | | | | | | | | | | | | | | x | |
| | Surges. Acceleration/cruise | | | | | | | x | x | | | | | | | | | | | | | | x | |
| 12 | Lack/loss of power. Acceleration/cruise | | | | | | | x | x | | | | | | | | | | | | | | x | x |
| 13 | Knocking/pinging. Acceleration/cruise | | | | | | | x | | | | | | | | | | x | | | | | | |
| 14 | Poor fuel economy | | | | | | | x | x | | | | | | | x | | x | x | | | | x | |
| 15 | Emission compliance | | | | | | | x | x | | | | x | | | | | x | | | | | | |
| 16 | High oil consumption/leakage | | | | | | | | | | x | x | x | | | | | | | | | | | |
| 17 | Cooling system concerns. Overheating | | | | | | | | | | | | | | x | x | x | x | x | | | | | |
| 18 | Cooling system concerns. Runs cold | | | | | | | | | | | | | | | | | x | x | | | | | |
| 19 | Exhaust smoke | | | | | | | x | | | | | | | | | | x | | | | | | |
| 20 | Fuel odor (in engine compartment) | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | Engine noise | | | | x | | | | | | | | x | | x | | | | | | | | | |
| 22 | Vibration concerns (engine) | | | | | | | | | | | | | | x | | | | | x | x | | | |
| 23 | A/C does not work sufficiently. | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | A/C is always on or A/C compressor runs continuously. | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | A/C is not cut off under WOT conditions. | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | Exhaust sulfur smell | | | | | | | | | | | | | | | | | | | | | | x | |
| 27 | Spark plug condition | | | | | | | x | | | | | x | | | | | | | | | | | |
| 28 | ATX concerns. Upshift/downshift engagement | | | | | | | | | | | | | | | | | | | | | | | |

See 0503, TROUBLESHOOTING

See 0503, TROUBLESHOOTING

B3E01031003

X: Applicable

| Possible factor | | Variable tumble control malfunction | Engine overheating | Air cleaner element clogging or restriction | Air leakage from intake-air system (Loose tubes, cracks, gaskets breakage) | IAC valve improper operation | Idle learning of IAC system is not completed | Throttle body malfunction | Variable intake-air control malfunction | Vacuum leakage (Vacuum hose damage, misrouting) | Ignition coil malfunction (e.g. open, short or cracks) | Initial ignition timing misadjustment (CKP sensor & crankshaft pulley misadjustment) | Erratic signal to ignition coil | Spark plug malfunction | CKP sensor is damaged. (e.g. open or short circuits) | Crankshaft pulley is damaged | Improper gap between CKP sensor and crankshaft | Fuel pump malfunction (Mechanically or electrically) | Pressure regulator malfunction | Fuel hoses restriction or clogging |
|-----------------------------|---|-------------------------------------|--------------------|---|--|------------------------------|--|---------------------------|---|---|--|--|---------------------------------|------------------------|--|------------------------------|--|--|--------------------------------|------------------------------------|
| Troubleshooting item | | | | | | | | | | | | | | | | | | | | |
| 1 | Melting of main or other fuses | | | | | | | | | | | | | | | | | | | |
| 2 | MIL illuminates | x | | | | x | | | x | | | | | | x | | | | | |
| 3 | Will not crank | | | | | | | | | | | | | | | | | | | |
| 4 | Hard to start/long crank/erratic start/erratic crank | | | x | x | x | | | | x | | | x | x | x | x | x | x | x | x |
| 5 | Engine stalls. | | x | x | x | x | | | | x | x | x | x | x | x | x | x | x | x | x |
| 6 | Cranks normally but will not start | | x | x | x | x | | | | x | x | x | x | x | x | x | x | x | x | x |
| 7 | Slow return to idle | | | | | | | x | | | | | | | | | | | | |
| 8 | Engine runs rough/rolling idle | | x | x | x | x | x | | | x | | x | x | x | x | x | x | x | x | x |
| 9 | Fast idle/runs on | | | | x | | | x | | | | | | | | | | | | |
| 10 | Low idle/stalls during deceleration | | | | x | x | | | | x | | | | | | | | | | |
| 11 | Engine stalls/quits. Acceleration/cruise | x | x | x | x | x | | x | | x | | | x | x | x | x | x | x | x | x |
| | Engine runs rough. Acceleration/cruise | x | x | x | x | x | | x | | x | | | x | x | x | x | x | x | x | x |
| | Misses Acceleration/cruise | x | x | x | x | x | | x | | x | | | x | x | x | x | x | x | x | x |
| | Buck/jerk Acceleration/cruise/deceleration | x | x | x | x | x | | x | | x | | | x | x | x | x | x | x | x | x |
| | Hesitation/stumble Acceleration | x | x | x | x | x | | x | | x | | | x | x | x | x | x | x | x | x |
| Surges Acceleration/cruise | x | x | x | x | x | | x | | x | | | x | x | x | x | x | x | x | x | x |
| 12 | Lack/loss of power Acceleration/cruise | x | x | x | x | | | x | x | x | | | x | x | x | x | x | x | x | x |
| 13 | Knocking/pinging Acceleration/cruise | | x | | | | | | | | | | | | | | | x | x | |
| 14 | Poor fuel economy | x | | x | | | | | x | | | | | x | | | | | x | |
| 15 | Emission compliance | | | x | x | | | x | | x | | | x | x | | | | x | x | x |
| 16 | High oil consumption/leakage | | | | | | | | | | | | | | | | | | | |
| 17 | Cooling system concerns Overheating | | | | | | | | | | | | | | | | | | | |
| 18 | Cooling system concerns Runs cold | | | | | | | | | | | | | | | | | | | |
| 19 | Exhaust smoke | | | x | | | | | | | | | | x | | | | x | x | x |
| 20 | Fuel odor (in engine compartment) | | | | | | | | | | | | | | | | | | x | |
| 21 | Engine noise | | | | x | | | | | x | | | | | | | | | | |
| 22 | Vibration concerns (engine) | | | | | | | | | | | | | | | | | | | |
| 23 | A/C does not work sufficiently. | | | | | | | | | | | | | | | | | | | |
| 24 | A/C is always on or A/C compressor runs continuously. | | | | | | | | | | | | | | | | | | | |
| 25 | A/C is not cut off under WOT conditions. | | | | | | | | | | | | | | | | | | | |
| 26 | Exhaust sulfur smell | | | | | | | | | x | | | | | | | | x | x | x |
| 27 | Spark plug condition | | | x | | | | | | | | | | x | x | | | x | x | x |
| 28 | ATX concerns Upshift/downshift engagement | See 0503, TROUBLESHOOTING | | | | | | | | | | | | | | | | | | |

B3E0103W102

X: Applicable

| Possible factor | | Injectors malfunction (Leakage or clogging, inoperative) | Fuel leakage from fuel system (including injector O-ring) | Fuel filters restriction or clogging | CMP sensor is damaged, (e.g. open or short circuit) | Camshaft is damaged | Improper air/fuel mixture ratio control | Exhaust system restriction or clogging | Catalytic converter malfunction | EGR system malfunction | EVAP control system malfunction | Fuel into evaporative purge hose | Check valve (two-way) malfunction | PCV valve malfunction | Constant voltage supply circuit malfunction | Main relay malfunction (Mechanically or electrically) | PCM or sensor GND circuit open or short | ECT sensor malfunction | TR switch misadjustment (ATX) | TR switch malfunction (ATX) | Break switch and related circuit malfunction | Manifold absolute pressure sensor and related circuit malfunction | HO2S (front or rear) and related circuit malfunction |
|---------------------------|---|--|---|--------------------------------------|---|---------------------|---|--|---------------------------------|------------------------|---------------------------------|----------------------------------|-----------------------------------|-----------------------|---|---|---|------------------------|-------------------------------|-----------------------------|--|---|--|
| Troubleshooting item | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Melting of main or other fuses | | | | | | | | | | | | | | | | | | | | | | |
| 2 | MIL illuminates | | | | X | | X | | | | | | | | | | | X | | | X | X | X |
| 3 | Will not crank | | | | | | | | | | | | | | | | | | X | X | | | |
| 4 | Hard to start/long crank/erratic start/erratic crank | | | X | | | X | X | | X | | | | X | | | X | | | | | | X |
| 5 | Engine stalls. After start/at idle | X | X | | | | X | X | | X | X | | | X | | X | | | | | | | X |
| 6 | Cranks normally but will not start | X | X | | | | X | X | | X | X | | | X | X | X | | | | | | | X |
| 7 | Slow return to idle | | | | | | | | | | | | | | | | | X | | | | | |
| 8 | Engine runs rough/rolling idle | X | | X | X | X | X | X | | X | X | | | X | | | X | | | | | | X |
| 9 | Fast idle/runs on | | | | | | | | | | | | | | | | | X | | | | | |
| 10 | Low idle/stalls during deceleration | | | | | | X | | | | X | | | | | | | | X | X | | | X |
| 11 | Engine stalls/quits. Acceleration/cruise | X | | X | X | X | X | X | | X | X | X | X | X | X | X | | | | | | | X |
| | Engine runs rough. Acceleration/cruise | X | | X | X | X | X | X | | X | X | X | X | X | X | X | | | | | | | X |
| | Misses. Acceleration/cruise | X | | X | X | X | X | X | | X | X | X | X | X | X | X | | | | | | | X |
| | Buck/jerk. Acceleration/cruise/ deceleration | X | | X | X | X | X | X | | X | X | X | X | X | X | X | | | | | | | X |
| | Hesitation/stumble. Acceleration | X | | X | X | X | X | X | | X | X | X | X | X | X | X | | | | | | | X |
| | Surges. Acceleration/cruise | X | | X | X | X | X | X | | X | X | X | X | X | X | X | | | | | | | X |
| 12 | Lack/loss of power. Acceleration/cruise | X | | | X | X | X | X | | X | X | | | X | | | X | | | | | | |
| 13 | Knocking/pinging. Acceleration/cruise | | | | X | | | | | | | | | | | | | | | | | | |
| 14 | Poor fuel economy | | | X | X | X | | X | | | | | | X | | | | | | | | | |
| 15 | Emission compliance | | | X | X | X | X | X | X | X | X | | | X | | | | | | | | | X |
| 16 | High oil consumption/leakage | | | | | | | | | | | | | X | | | | | | | | | |
| 17 | Cooling system concerns Overheating | | | | | | | | | | | | | | | | | | | | | | |
| 18 | Cooling system concerns Runs cold | | | | | | | | | | | | | | | | | | | | | | |
| 19 | Exhaust smoke | X | | | | | | | | | | | | X | | | | | | | | | |
| 20 | Fuel odor (in engine compartment) | | X | | | | | | | | X | | | | | | | | | | | | |
| 21 | Engine noise | | | | | | | | | | | | | | | | | | | | | | |
| 22 | Vibration concerns (engine) | | | | | | | | | | | | | | | | | | | | | | |
| 23 | A/C does not work sufficiently. | | | | | | | | | | | | | | | | | | | | | | |
| 24 | A/C is always on or A/C compressor runs continuously. | | | | | | | | | | | | | | | | | | | | | | |
| 25 | A/C is not cut off under WOT conditions. | | | | | | | | | | | | | | | | | | | | | | |
| 26 | Exhaust sulfur smell | | | X | | | | | | | X | | | | | | | | | | | | |
| 27 | Spark plug condition | X | X | | | | X | | | | | | | | | | X | | | | | | |
| 28 | ATX concerns Upshift/downshift/ engagement | | | | | | | | | | | | | | | | | | | | | | |
| See 0503, TROUBLESHOOTING | | | | | | | | | | | | | | | | | | | | | | | |

B3E0 1031002

X: Applicable

| Possible factor | | IAT sensor and related circuit malfunction | Barometric pressure sensor malfunction | Neutral or clutch switch and related circuit malfunction (MTX) | MAF sensor and related circuit malfunction | Knock sensor and related circuit malfunction | TP sensor and related circuit malfunction | TP sensor misadjustment (including looseness) | EHPAS and related circuit malfunction | Improper refrigerant charging amount | A/C relay (A/C control signal circuit malfunction) | A/C compressor magnetic clutch malfunction | Improper load signal input | Clutch slippage (MTX) | ATX related parts malfunction (ATX) | Improper ATF level (ATX) | VSS and related circuit malfunction | Brake dragging | Loose parts | Improper balance of wheels and tires | Drive line malfunction | Suspension malfunction | Immobilizer system operating (if equipped) |
|----------------------|---|--|--|--|--|--|---|---|---------------------------------------|--------------------------------------|--|--|----------------------------|-----------------------|-------------------------------------|--------------------------|-------------------------------------|----------------|-------------|--------------------------------------|------------------------|------------------------|--|
| Troubleshooting item | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Melting of main or other fuses | X | X | X | X | X | X | | X | | | | | | | | X | | | | | | |
| 2 | MIL illuminates | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Will not crank | | | | | | | | | | | | | | | | | | | | | | X |
| 4 | Hard to start/long crank/erratic start/erratic crank | | | | X | | | | | | | | | | | | | | | | | | |
| 5 | Engine stalls. After start/at idle | | X | | | | | | | X | X | | | | | | | | | | | | X |
| 6 | Cranks normally but will not start | | | | | | | | | | | | | | | | | | | | | | X |
| 7 | Slow return to idle | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Engine runs rough/rolling idle | | X | | | | | | X | X | X | | X | | | | | | | | | | |
| 9 | Fast idle/runs on | | | | | | | | | | | | X | | | | | | | | | | |
| 10 | Low idle/stalls during deceleration | | X | X | X | | X | X | | | X | | | | | | | | X | | | | |
| 11 | Engine stalls/quits. Acceleration/cruise | | X | | X | | X | X | | X | X | | | X | X | | X | | | | | | |
| | Engine runs rough. Acceleration/cruise | | X | | X | | X | X | | X | X | | | X | X | | X | | | | | | |
| | Misses Acceleration/cruise | | | | X | | X | X | | X | X | | | | X | | X | | | | | | |
| | Buck/jerk Acceleration/cruise /deceleration | | | | X | | X | X | | X | X | | X | X | X | | | | | | | | |
| | Hesitation/stumble Acceleration | | X | | X | | X | X | | X | X | | | X | X | | X | | | | | | |
| | Surges Acceleration/cruise | | | | X | | X | X | | X | X | | | X | X | | X | | | | | | |
| 12 | Lack/loss of power Acceleration/cruise | | | | X | | X | | | X | X | | | X | X | | X | X | | | | | |
| 13 | Knocking/pinging Acceleration/cruise | X | | | X | X | | | | | | | | X | | X | | X | | | | | |
| 14 | Poor fuel economy | | | | X | | | | | | | | | X | | X | | X | | | | | |
| 15 | Emission compliance | | X | | | | | | | | | | | | | | | | | | | | |
| 16 | High oil consumption/leakage | | | | | | | | | | | | | | | | | | | | | | |
| 17 | Cooling system concerns Overheating | | | | | | | | | X | X | | | | | | | | | | | | |
| 18 | Cooling system concerns Runs cold | | | | | | | | | | | | | | | | | | | | | | |
| 19 | Exhaust smoke | | | | | | | | | | | | | | | | | | | | | | |
| 20 | Fuel odor (in engine compartment) | | | | | | | | | | | | | | | | | | | | | | |
| 21 | Engine noise | | | | | | | | | | | | | | | | | | X | | | | |
| 22 | Vibration concerns (engine) | | | | | | | | | | | | | | | | | | X | X | X | X | |
| 23 | A/C does not work sufficiently. | | | | | | | | | X | X | X | | | | | | | | | | | |
| 24 | A/C is always on or A/C compressor runs continuously. | | | | | | | | | | X | X | | | | | | | | | | | |
| 25 | A/C is not cut off under WOT conditions. | | | | | | X | X | | | | | | | | | | | | | | | |
| 26 | Exhaust sulfur smell | | | | | | | | | | | | | | | | | | | | | | |
| 27 | Spark plug condition | | | X | X | | | | | | | | | | | | | | | | | | |
| 28 | ATX concerns Upshift/downshift/engagement | See 0503, TROUBLESHOOTING | | | | | | | | | | | | | | | | | | | | | |

B3E0 1031 001