

H - TESTS W/O CODES

1993 Jeep Cherokee

1993 ENGINE PERFORMANCE
Chrysler Corp. Trouble Shooting - No Codes

Jeep; Cherokee, Grand Wagoneer, Grand Cherokee, Wrangler

INTRODUCTION

CAUTION: When battery is disconnected, vehicle computer and memory systems may lose memory data. Driveability problems may exist until computer systems have completed a relearn cycle. See COMPUTER RELEARN PROCEDURES article in the GENERAL INFORMATION Section before disconnecting battery.

Before diagnosing symptoms or intermittent faults, perform steps in appropriate F - BASIC TESTING and G - TESTS W/CODES articles. Use this article to diagnose driveability problems existing when a hard fault code is not present.

NOTE: Some driveability problems may have been corrected by manufacturer with a revised PCM. Check with manufacturer for latest PCM.

Symptom checks can direct the technician to malfunctioning component(s) for further diagnosis. A symptom should lead to a specific component, system test or an adjustment.

Use intermittent test procedures to locate driveability problems that do not occur when the vehicle is being tested. These test procedures should also be used if a soft (intermittent) trouble code was present, but no problem was found during self-diagnostic testing.

NOTE: For specific testing procedures, see appropriate I - SYS/COMP TESTS article. For specifications, see D - ADJUSTMENTS or C - SPECIFICATIONS article.

SYMPTOMS

SYMPTOM DIAGNOSIS

Symptom checks cannot be used properly unless problem occurs while vehicle is being tested. To reduce diagnostic time, ensure steps in appropriate F - BASIC TESTING and G - TESTS W/CODES articles were performed before diagnosing a symptom. Following are some symptoms available for diagnosis.

- * Engine Does Not Operate Smoothly Or Misfires At High Speed
- * Engine Fails To Start, No Spark At Plugs
- * Engine Backfires, Fails To Start
- * Engine Continues To Run With Key Off
- * Excessive Fuel Consumption
- * Intermittent Spark

ENGINE DOES NOT OPERATE SMOOTHLY OR MISFIRES AT HIGH SPEED

- * Ensure distributor cap is dry inside.
- * Ensure distributor cap is not cracked or carbon-tracked.
- * Check spark plugs.
- * Check ignition system wires and connections.

- * See appropriate F - BASIC TESTING article.

ENGINE FAILS TO START, NO SPARK AT PLUGS

- * Ensure distributor cap is not cracked or carbon-tracked.
- * Check for defective rotor.
- * Check for corroded wires and connections.
- * See appropriate F - BASIC TESTING article.

ENGINE BACKFIRES, FAILS TO START

- * Ensure distributor cap is not cracked or carbon-tracked.
- * Ensure ignition wires are connected in proper firing order.
- * Check for moisture in distributor cap.
- * See appropriate F - BASIC TESTING article.

ENGINE CONTINUES TO RUN WITH KEY OFF

- * Check for defective starter motor solenoid.
- * Check for shorted diode in alternator warning light circuit.
- * See appropriate I - SYS/COMP TESTS article.

EXCESSIVE FUEL CONSUMPTION

- * Check for vacuum leaks.
- * Check air filter.
- * See appropriate F - BASIC TESTING article.
- * See appropriate I - SYS/COMP TESTS article.

INTERMITTENT SPARK

- * Check for loose or corroded distributor and coil terminals.
- * See appropriate F - BASIC TESTING article.

INTERMITTENTS

INTERMITTENT PROBLEM DIAGNOSIS

Intermittent fault testing requires duplicating circuit or component failure to identify the problem. These procedures may lead to the computer setting a fault code which may help in diagnosis.

If problem vehicle does not produce fault codes, monitor voltage or resistance values using a DVOM, while attempting to reproduce conditions causing intermittent fault. A change in status on DVOM will indicate a fault has been located.

Use a DVOM to pinpoint faults. When monitoring voltage, ensure ignition switch is in ON position or engine is running. Ensure ignition switch is in OFF position or negative battery cable is disconnected when monitoring circuit resistance. Status changes on DVOM during test procedures will indicate area of fault.

TEST PROCEDURES

Intermittent Simulation

To reproduce conditions creating an intermittent fault, use following methods:

- * Lightly vibrate component.
- * Heat component.
- * Wiggle or bend wiring harness.
- * Spray component with water mist.

* Remove/apply vacuum source.

Monitor circuit/component voltage or resistance while simulating intermittent. If engine is running, monitor for self-diagnostic codes. Use test results to identify a faulty component or circuit.