

CHECK FOR INTERMITTENT PROBLEMS

HINT:

Inspect the vehicle's ECM using check mode. Intermittent problems are easier to detect with the intelligent tester when the ECM is in check mode. In check mode, the ECM uses 1 trip detection logic, which is more sensitive to malfunctions than normal mode (default), which uses 2 trip detection logic.

1. Clear the DTCs (see page [ES-39](#)).
2. Switch the ECM from normal mode to check mode using the intelligent tester (see page [ES-42](#)).
3. Perform a simulation test.
4. Check and wiggle the harness(es), connector(s) and terminal(s).

BASIC INSPECTION

When a malfunction is not confirmed by the DTC check, troubleshooting should be carried out in all circuits considered to be possible causes of the problem. In many cases, by carrying out the basic engine check shown in the following flowchart, the location of the problem can be found quickly and efficiently. Therefore, using this check is essential when performing engine troubleshooting.

1 CHECK BATTERY VOLTAGE

NOTICE:

Conduct this check with the engine stopped and ignition switch OFF.

| Result | Proceed to |
|--------------|------------|
| 11 V or more | OK |
| Below 11 V | NG |

NG

CHARGE OR REPLACE BATTERY

OK

2 CHECK WHETHER ENGINE WILL CRANK

NG

PROCEED TO PROBLEM SYMPTOMS TABLE

OK

3 CHECK WHETHER ENGINE STARTS

NG

GO TO STEP 6

OK

4 CHECK AIR FILTER

(a) Visually check that the air filter is not excessively contaminated with dirt or oil.

NG

REPLACE AIR FILTER

OK

5 CHECK IDLING SPEED

NG

TROUBLESHOOT IDLING SPEED AND PROCEED TO NEXT STEP

OK

6 CHECK FUEL PRESSURE

NG

TROUBLESHOOT FUEL PRESSURE AND
PROCEED TO NEXT STEP

OK

7 CHECK FOR SPARK

NG

TROUBLESHOOT SPARK AND PROCEED
TO NEXT STEP

OK

PROCEED TO PROBLEM SYMPTOMS TABLE

ES