

## CHECK FOR INTERMITTENT PROBLEMS

### HINT:

Intelligent tester only:

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

1. Clear DTCs (See page [ES-38](#)).
2. Switch the ECM from normal mode to check mode using an 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 engine troubleshooting.

### 1 CHECK BATTERY VOLTAGE

**NOTICE:**

Carry out 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