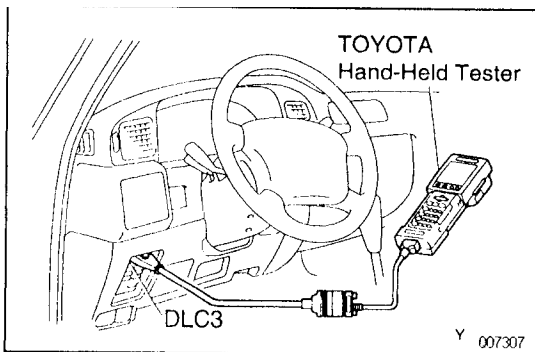
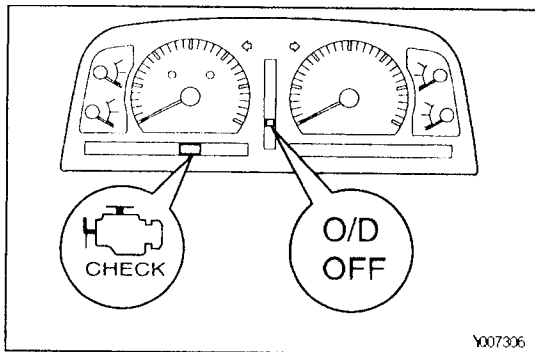


The diagnosis system operates in normal mode during normal vehicle use, and also has a check mode for technicians to simulate malfunction symptoms and perform troubleshooting. Most DTCs use 2 trip detection logic(*) to prevent erroneous detection. By switching the ECM to check mode when troubleshooting, the technician can cause the MIL to light up and O/D OFF indicator lights to blink for a malfunction that is only detected once or momentarily. (TOYOTA hand-held tester)

(See page [AT-36](#))

* 2 trip detection logic:

When a logic malfunction is first detected, the malfunction is temporarily stored in the ECM memory. If the same malfunction is detected again during the second test drive, this second detection causes the MIL to light up and O/D OFF indicator lights to blink.



DIAGNOSIS INSPECTION (NORMAL MODE)

MALFUNCTION INDICATOR LAMP CHECK

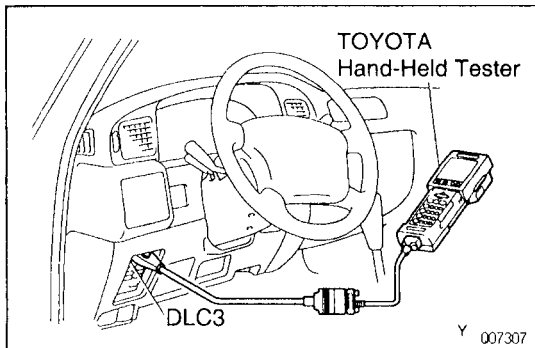
1. The MIL comes on when the ignition switch is turned ON and the engine is not running.
HINT: If the MIL does not light up, troubleshoot the combination meter (See page [BE-34](#))
2. When the engine is started, the MIL should go off. If the lamp remains on, the diagnosis system has detected a malfunction or abnormality in the system

DIAGNOSTIC TROUBLE CODE CHECK

NOTICE (TOYOTA hand-held tester only): When the diagnostic system is switched from normal mode to check mode, it erases all DTCs and freeze frame data recorded in normal mode. So before switching modes, always check the DTCs and freeze frame data, and note them down.

1. Prepare the OBD II scan tool (complying with SAE J 1978) or TOYOTA hand-held tester.
2. Connect the OBD II scan tool or TOYOTA hand-held tester to DLC 3 in the fuse box at the lower left of the instrument panel.
3. Turn the ignition switch ON and turn the OBD II scan tool or TOYOTA hand-held tester switch ON.
4. Use the OBD II scan tool or TOYOTA hand-held tester to check the DTCs and freeze frame data. Note them down. (For operating instructions, see the OBD II scan tool's instruction book.)

5. See page [AT-42](#) to confirm the details of the DTCs.
NOTICE: When simulating symptoms with an OBD II scan tool (excluding TOYOTA hand-held tester) to check the DTCs, use normal mode. For codes on the DTC chart subject to "2 trip detection logic", turn the ignition switch off after the symptoms have been simulated for the first time. Then repeat the simulation process again. When the program has been simulated twice, the MIL lights up and the DTCs are recorded in the ECM.



DIAGNOSIS INSPECTION (CHECK MODE)

TOYOTA hand-held tester only

Compared to the normal mode, the check mode has high sensing ability to detect malfunctions.

Furthermore, the same diagnostic items which are detected in the normal mode can also be detected in the check mode.

DIAGNOSTIC TROUBLE CODE CHECK

1. Initial conditions.
 - (a) Battery positive voltage 11 V or more.
 - (b) Throttle valve fully closed.
 - (c) Transmission in PARK position.
 - (d) Air conditioning switched off.
2. Turn ignition switch OFF.
3. Prepare the TOYOTA hand-held tester.
4. Connect the TOYOTA hand-held tester to DLC 3 in the fuse box at the lower left of the instrument panel.
5. Turn the ignition switch ON and switch the TOYOTA hand-held tester ON.
6. Switch the TOYOTA hand-held tester from normal mode to check mode. (Check that the MIL flashes.)
7. Start the engine. (MIL and O/D OFF indicator lights go off after the engine starts.)
8. Simulate the conditions of the malfunction described by the customer.
NOTICE: Leave the ignition switch ON until you have checked the DTCs etc.
9. After simulating the malfunction conditions, use the TOYOTA hand-held tester diagnosis selector to check the DTCs and freeze frame data, etc.
HINT: Take care not to turn the ignition switch OFF. Turning the ignition switch off switches the diagnosis system from check mode to normal mode, so all DTCs, etc. are erased.
10. After checking the DTC, inspect the applicable circuit.

