

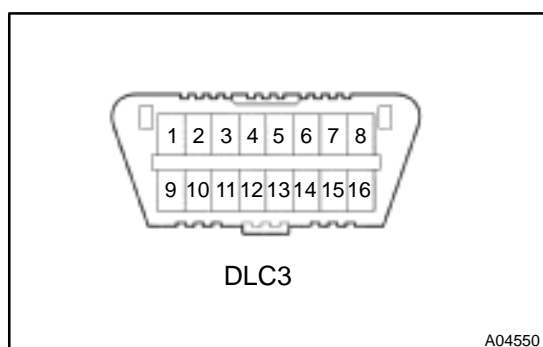
PRE-CHECK

1. DIAGNOSIS SYSTEM

(a) Description

ECM controls the function of immobiliser on this vehicle. Data of the immobiliser or Diagnostic Trouble Code (DTC) can be read from the Data Link Connector 3 (DLC3) of the vehicle. When a trouble occurs in immobiliser, Malfunction Indicator Lamp (MIL) does not light ON but DTC inspection is performed.

Therefore when there seems to be a trouble with immobiliser, use TOYOTA hand-held tester or SST (diagnosis check wire No. 2) to check and troubleshoot it.



(b) Inspect the DLC3.

The vehicle's ECM uses ISO 9141-2 for communication. The terminal arrangement of the DLC3 complies with SAE J1962 and matches the ISO 9141-2 format.

Tester connection	Condition	Specified condition
7 (Bus \oplus Line) – 5 (Signal Ground)	During communication	Pulse generation
4 (Chassis Ground) – Body Ground	Always	1 Ω or less
5 (Signal Ground) – Body Ground	Always	1 Ω or less
16 (B+) – Body Ground	Always	9 – 14 V

HINT:

If your display shows "UNABLE TO CONNECT TO VEHICLE" when you have connected the cable of the OBD II scan tool or TOYOTA hand-held tester to the DLC3, turned the ignition switch ON and operated the scan tool, there is a problem on the vehicle side or tool side.

- If communication is normal when the tool is connected to another vehicle, inspect the DLC3 on the original vehicle.
- If communication is still impossible when the tool is connected to another vehicle, the problem is probably in the tool itself, so consult the Service Department listed in the tool's instruction manual.

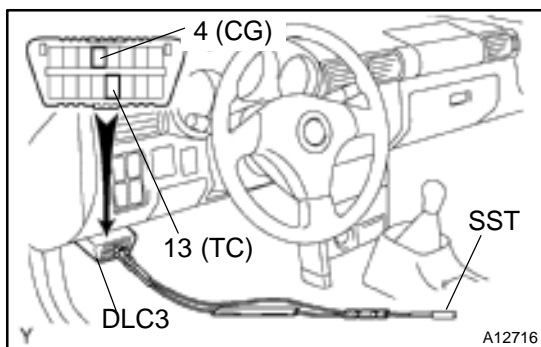
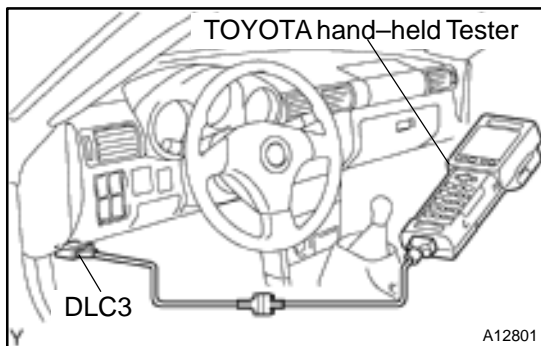
2. INSPECT DIAGNOSIS

- (a) Using TOYOTA hand-held tester:
Check the DTC.

NOTICE:**TOYOTA hand-held tester only:**

When the diagnosis system is switched from the normal mode to the check mode, it erases all DTCs and freeze frame data recorded in the normal mode. So before switching the 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 the DLC3 under the instrument panel lower pad.
- (3) Turn the ignition switch ON and push 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 [DI-340](#) to confirm the details of DTCs.

- (b) Using SST (diagnosis check wire No. 2):
Check the DTC.

- (1) Turn the ignition switch ON.
- (2) Using SST, connect terminals 4 (CG) and 13 (TC) of the DLC3.

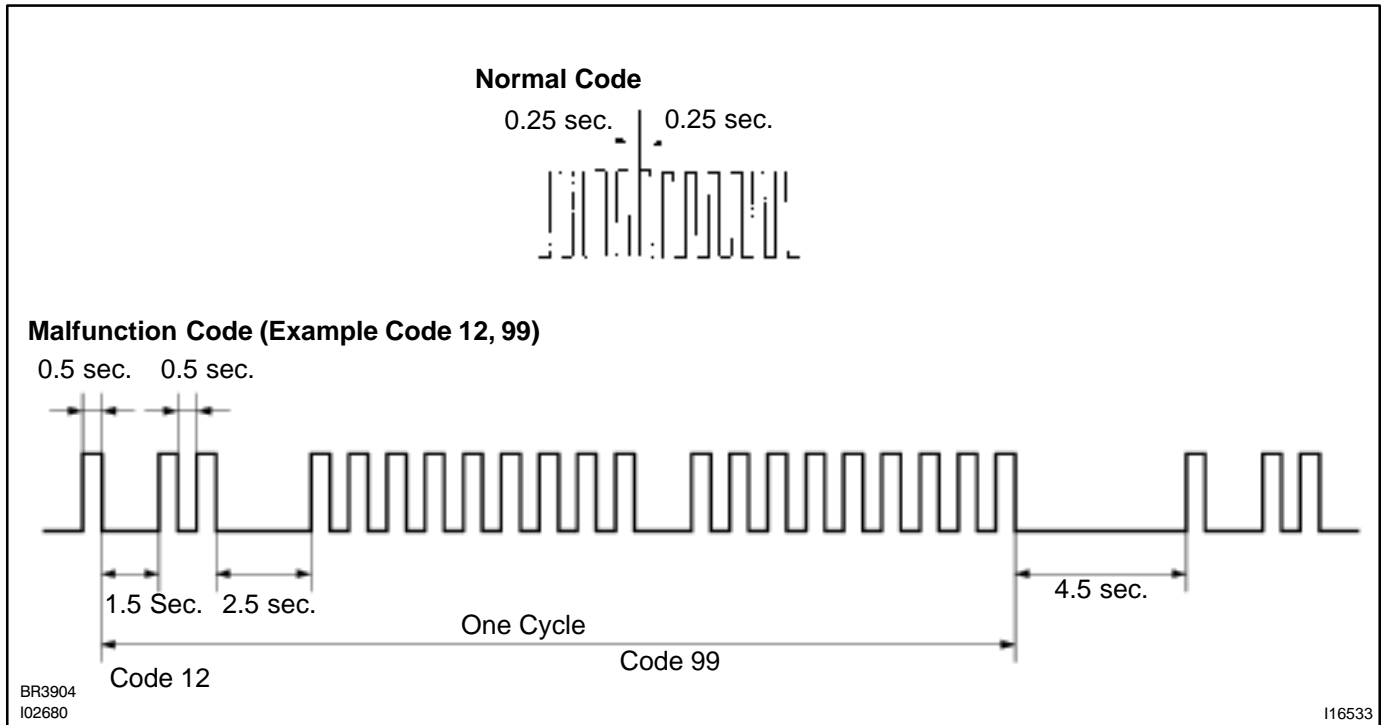
SST 09843-18040

- (3) Read the DTC from the MIL.

HINT:

- If a DTC is not output, check the TC terminal circuit.
- ECM controls the immobiliser function on this vehicle, DTC is output with DTC of engine.

- As an example, the blinking patterns for codes; normal, 12 and 99 are as shown in the illustration.



- (4) When DTC "99" is output, there is a trouble with immobiliser. Start troubleshooting referring to PROBLEM SYMPTOM TABLE.
- (5) After completing the check, disconnect terminals 13 (TC) and 4 (CG) of the DLC3, and turn OFF the display.

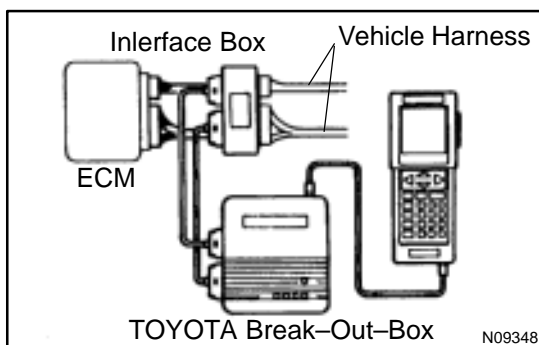
HINT:

If 2 or more malfunctions are found, the codes will be displayed from the smaller number to larger.

- (c) Clear the DTC.

The following procedures will erase the DTCs and freeze frame data.

- (1) Operating the OBD II scan tool (complying with SAE J1978) or TOYOTA hand-held tester to erase the codes. (See the OBD II scan tool's instruction book for operating instructions.)
- (2) Disconnecting the battery terminals or EFI1 fuse.



- (d) Using TOYOTA break-out-box and TOYOTA hand-held tester, measure the ECM terminal values (See page [DI-3](#)).