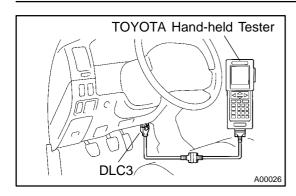
DI1KG-10

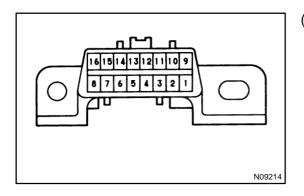


PRE-CHECK

1. DIAGNOSIS SYSTEM

(a) Description

ECM controls the function of immobiliser on this vehicle. Data of the immobiliser or DTC can be read form DLC3 of the vehicle. When a trouble occurs in immobiliser, 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 to check and troubleshoot it.



(b) Inspect the DLC3.

The vehicle's ECM uses ISO 9141-2 for communication. The terminal arrangement of DLC3 complies with SAEJ1962 and matches the ISO 9141-2 format.

Tester connection	Condition	Specified condition
7 (Bus ⊕ line) - 5 (Signal ground)	During communication	Pulse generation
4 (Chassis ground) - Body	Always	1 Ω or less
5 (Signal ground) - Body	Always	1 Ω or less
16 (B+) - Body	Always	9 - 14 V

HINT:

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

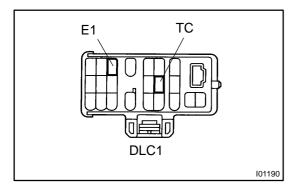
- If communication is normal when the tool is connected to another vehicle, inspect DLC3 on the original vehicle.
- If communication is still impossible when the tool is connected to another vehicle, the problem is probably in the tool itself, so consult the Service Department listed in the tool's instruction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

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2. INSPECT DIAGNOSIS

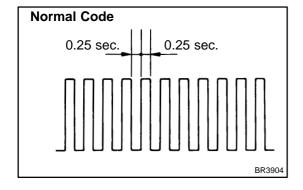
- (a) Check the DTC (Using TOYOTA hand-held tester).
 - (1) Prepare the OBD II scan tool (complying with SAEJ 1978) or TOYOTA hand-held tester.
 - (2) Connect the OBD II scan tool or TOYOTA handheld tester to DLC3 under the instrument panel lower pad.
 - (3) Turn the ignition switch ON and turn the OBD 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 DI-494 to confirm the details of the DTCs.



- (b) Check the DTC (Using diagnosis check wire).
 - (1) Turn the ignition switch ON.
 - (2) Using SST, connect between terminals 11 (TC) and 3 (E1) of the DLC1.
 SST 09843-18040
 - (3) Read the diagnostic trouble code from malfunction indicator lamp.

HINT:

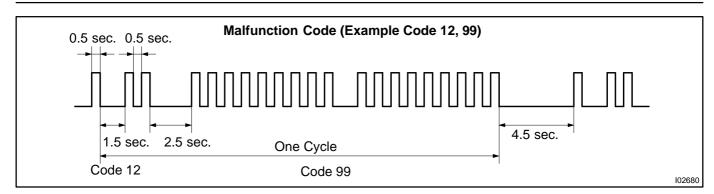
- If a diagnostic trouble code is not output, check the TC terminal circuit.
- ECM controls the immobiliser function on this vehicle, DTC is out put with DTC of engine.



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

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- (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) and turn OFF the display.

HINT:

In the event of 2 or more malfunction codes, indication will begin from the smaller numbered code and continue in order to the larger.

(c) Clear the DTC.

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

- (1) Operating the OBD II scam tool (complying with SAEJ1978) 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 EFI fuse.

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