

PRE-CHECK

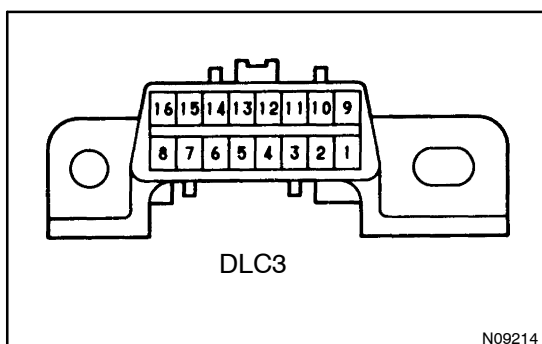
1. DIAGNOSIS SYSTEM

(a) Description

Engine and ECT ECU controls the function of immobiliser on this vehicle.

Data of the immobiliser or DTC can be read from DLC3 of the vehicle. When a trouble occurs on immobiliser, MIL does not light up but DTC inspection is performed.

Therefore when there seems to be a trouble on immobiliser, use LEXUS hand-held tester or SST to check and troubleshoot it.



(b) Inspect the DLC3.

The vehicle's engine and ECT ECU 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

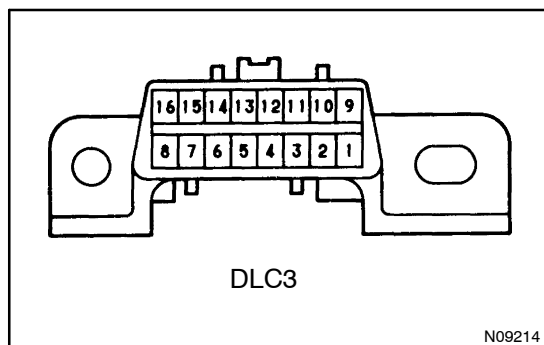
HINT:

If your display shows "UNABLE TO CONNECT TO VEHICLE" when you have connected the cable of OBD II scan tool or LEXUS 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 not possible 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

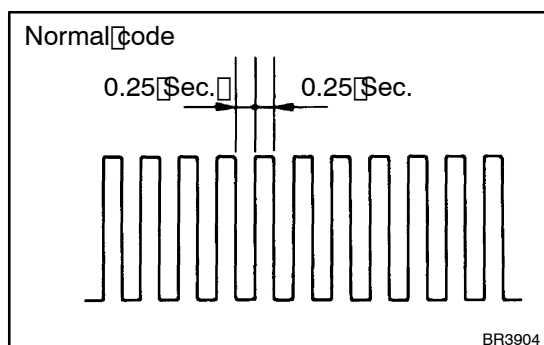
- (a) Check the DTC (Using LEXUS hand-held tester).
- (1) Prepare the OBD II scan tool (complying with SAE J 1978) or LEXUS hand-held tester.
 - (2) Connect the OBD II scan tool or LEXUS hand-held tester to DLC3 under the instrument panel lower pad.
 - (3) Turn the ignition switch ON and turn the OBD II scan tool or LEXUS hand-held tester switch ON.
 - (4) Use the OBD II scan tool or LEXUS 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-588 to confirm the details of the DTCs.



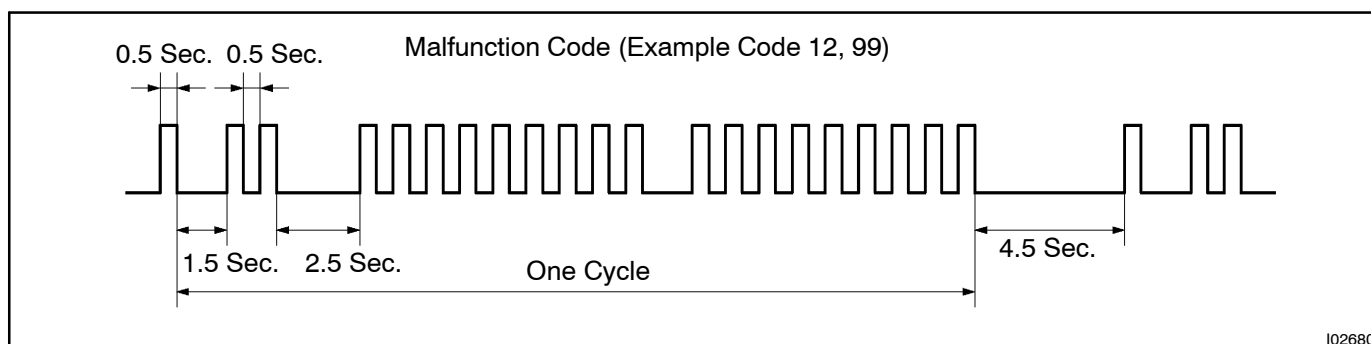
- (b) Check the DTC (Using diagnosis check wire)
- (1) Turn ignition switch ON.
 - (2) Using SST, connect between terminals 13 (TC) and 4 (CG) of DLC 3.
SST 09843-18040
 - (3) Read the diagnostic trouble code from malfunction indicator lamp.

HINT:

- If a diagnostic trouble code is not output, check the TC terminal circuit.
- Engine and ECT ECU controls the immobiliser function on this vehicle, DTC is out put with engine data.



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



- (4) When DTC "99" is output, there is a trouble of immobiliser. Start troubleshooting referring to PROBLEM SYMPTOMS 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 operations will erase the DTCs and freeze frame data.

- Operating the OBD II scan tool (complying with SAEJ1978) or LEXUS hand-held tester to erase the codes. (See the OBD II scan tool's instruction book for operating instructions.)
- Disconnecting the battery terminals or EFI fuse.