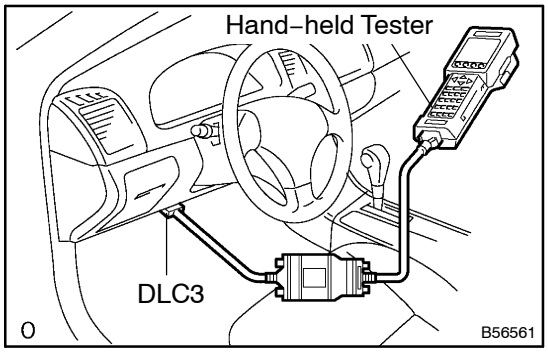
055VF–02

PRE–CHECK



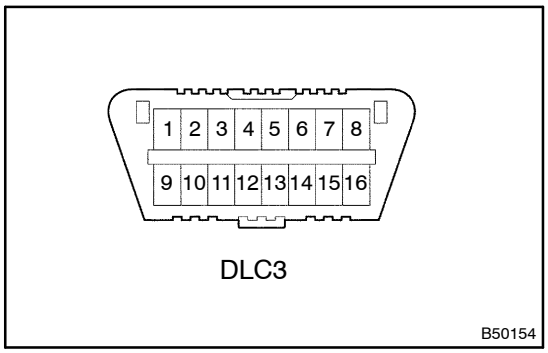
1. DIAGNOSIS SYSTEM

(a) Description

ECM controls the function of the immobiliser on this vehicle.

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

Therefore when there seems to be a trouble with immobiliser, use the hand–held tester to check and troubleshoot it.



(b) Inspect the DLC3.

The vehicle's ECM uses ISO 14230 for communication. The terminal arrangement of the DLC3 complies with SAE J1962 and matches the ISO 14230 format.

Terminal No.	Condition	Specified condition
7 (Bus + 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 the display shows "UNABLE TO CONNECT TO VEHICLE" when you have connected the cable of the hand–held tester to the DLC3, turned the ignition switch ON and operated the hand–held tester, there is a problem on the vehicle side or tool side.

- If the communication is normal when the tool is connected to another vehicle, inspect the DLC3 of the original vehicle.
- If the 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

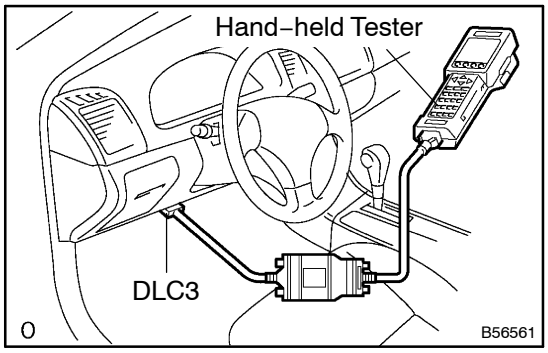
(a) Using the hand–held tester, check the DTC.

NOTICE:

Hand–held tester only:

When the diagnosis system is switched from the normal mode to the check mode, all the DTCs and freeze frame data recorded in the normal mode will be erased. So before switching the modes, always check the DTCs and freeze frame data, and note them down.

(1) Prepare the hand–held tester.



(2) Connect the hand–held tester to the DLC3 under the instrument panel lower pad.

(3) Turn the ignition switch ON and push the hand–held tester switch ON.

(4) Use the hand–held tester to check the DTCs and freeze frame data and then note them down. (For operating instructions, see the hand–held tester instruction book.)

(5) See page 05–1260 to confirm the details of the DTCs.

(b) Clear the DTC, and the following procedures will erase the DTCs and freeze frame data.

(1) Operating the hand–held tester to erase the codes. (See the hand–held tester instruction book for operating instructions.)

(2) Disconnecting the battery terminals or EFI fuse.

3. DATA LIST

HINT:

According to the DATA LIST displayed by the hand–held tester, you can read the value of the switch, sensor, actuator and so on without parts removal. Reading the DATA LIST as a first step of troubleshooting is one of the method to shorten the labor time.

(a) Connect the hand–held tester to the DLC3.

(b) Turn the ignition switch ON.

(c) According to the display on tester, read the ”DATA LIST”.

Standard (ECM):

Item	Measurement Item/ Display (Range)	Normal Condition	Diagnostic Note
KEY TYPE	Key type / MASTER or SUB	MASTER: Master key is inserted SUB: Sub–key is inserted	–
REGISTERD KEY #	Number or registered key / min.: 0, max.: 10	Number of registered key	–