05IMB–02

DIAGNOSIS SYSTEM

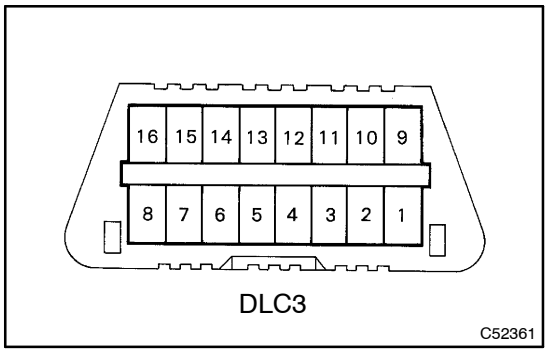
1. DESCRIPTION

(a) DIAGNOSTIC SYSTEM

When troubleshooting a vehicle with a diagnostic system, the only difference from the usual troubleshooting procedure is connecting the intelligent tester II to the vehicle and reading various data output from the vehicle's transmission control ECU assy.

The transmission control ECU assy records DTCs when the computer detects a malfunction in the computer itself or in its circuits.

To check the DTCs, connect the intelligent tester II to the DLC3 on the vehicle. The intelligent tester II enables you to erase the DTCs, activate the several actuators and check freeze frame data and data list.



DLC3

(b) Check the DLC3.

The transmission control ECU follows the CAN and ISO 9141–2 (Euro–OBD)/ISO 14230 (M–OBD) communication protocol. The terminal arrangement of the DLC3 complies with ISO 15031–3 and matches the ISO 9141–2/ISO 14230 format.

Symbols (Terminals No.)	Terminal Description	Condition	Specified Condition
SIL(7) – SG(5)	Bus "+" line	During communication	Pulse generation
CG(4) – Body ground	Chassis ground	Always	Below 1 Ω
SG(5) – Body ground	Signal ground	Always	Below 1 Ω
BAT(16) – Body ground	Battery positive	Always	11 to 14 V
CANH(6) – CANL (14)	HIGH–level CAN bus line	Power switch off	54 to 67 Ω
CANH(6) – Battery positive	HIGH–level CAN bus line	Power switch off	1 MΩ or higher
CANH(6) – CG(4)	HIGH–level CAN bus line	Power switch off	3 KΩ or higher
CANL(14) – Battery positive	LOW–level CAN bus line	Power switch off	1 MΩ or higher
CANL(14) – CG(4)	LOW–level CAN bus line	Power switch off	3 KΩ or higher

HINT:

If the display shows "UNABLE TO CONNECT TO VEHICLE" after connecting the intelligent tester II cable to the DLC3 and turning the power switch on (IG), there is a problem with either the vehicle or tester.

- If communication is normal when connecting the tester to another vehicle, inspect the DLC3 on the original vehicle.
- If communication is still not possible when connecting the tester to another vehicle, the problem is probably on the tester itself, so consult the Service Department listed in the tester's operator's manual.