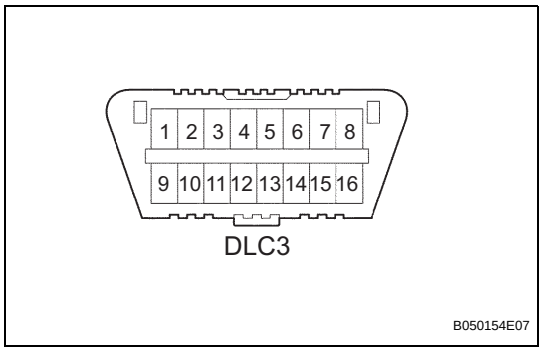

DIAGNOSIS SYSTEM

1. DIAGNOSIS SYSTEM

(a) Inspect the DLC3.

HINT:

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.

Standard

Tester Connection	Condition	Specified Condition
7 (Bus+line) - 5 (Signal ground)	During communication	Pulse generation
4 (Chassis ground) - Body ground	Constant	Below 1 Ω
5 (Signal ground) - Body ground	Constant	Below 1 Ω
16 (B+) - Body ground	Constant	9 to 14 V

HINT:

If the screen displays UNABLE TO CONNECT TO VEHICLE after you have connected the cable of the intelligent tester to the DLC3, turned the ignition switch ON and used the intelligent tester, there is a problem on the vehicle side or tester side.

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

(b) Check the battery voltage

Standard:

11 to 14 V

If the voltage is below 11 V, replace the battery before proceeding.

DATA LIST / ACTIVE TEST

1. DATA LIST

HINT:

Using the DATA LIST displayed on the intelligent tester, you can read the value of the switch, sensor, actuator, etc. without parts removal. Reading the DATA LIST as the first step of troubleshooting is one way to shorten the lator time.

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch ON.
(c) Read the DATA LIST according to the display on the tester.

Standard (Sliding roof ECU)

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
OPEN SW	Sliding roof open switch signal / ON or OFF	ON: Sliding roof open switch is pressed OFF: Sliding roof open switch is not pressed	-
CLOSE SW	Sliding roof open switch signal / ON or OFF	ON: Sliding roof close switch is pressed OFF: Sliding roof close switch is not pressed	-
UP SW	Sliding roof open switch signal / ON or OFF	ON: Sliding roof up switch is pressed OFF: Sliding roof up switch is not pressed	-
DOWN SW	Sliding roof open switch signal / ON or OFF	ON: Sliding roof down switch is pressed OFF: Sliding roof down switch is not pressed	-
LIMIT SW1	Sliding roof operating signal / ON or OFF	ON: Sliding roof motor is operating OFF: Sliding roof motor is not operating	-
LIMIT SW2	Sliding roof operating signal / ON or OFF	ON: Sliding roof motor is operating OFF: Sliding roof motor is not operating	-
MOTOR PULSE	Sliding roof operating signal / HI or LO	HI: Sliding roof motor is operating LO: Sliding roof motor is not operating	-
MOTOR STATUS	Sliding roof operating signal / NORMAL or LOCK	NORMAL: Sliding roof motor is operating LOCK: Sliding roof motor is not operating	-
IG (DIRCT SIG)	Ignition switch signal / ON or OFF	ON: Ignition switch ON OFF: Ignition switch OFF	-
IG (MPX)	Ignition switch signal (MPX signal) / ON or OFF	ON: Ignition switch ON OFF: Ignition switch OFF	-
D-DOOR WARN SW	Driver's door courtesy light switch signal / ON or OFF	ON: Driver's door is open OFF: Driver's door is closed	-
KEY OPEN OPERT	Key-linked sliding root open signal / ON or OFF	ON: Door lock is turned to open position using key OFF: Door lock is not turned	-

2. ACTIVE TEST

HINT:

Performing the ACTIVE TEST using the intelligent tester allows you to operate the relay, VSV, actuator, etc. without parts removal. Performing the ACTIVE TEST as the first step of troubleshooting is one way to shorten the labor time. It is possible to display the DATA LIST during the ACTIVE TEST.

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch ON.

(c) Perform the ACTIVE TEST according to the display on the tester.

Standard (Sliding roof ECU)

Item	Test Details	Diagnostic Note
SLIDE ROOF	Operate sliding roof CLOSE	-
SLIDE ROOF	Operate sliding roof OPEN	-