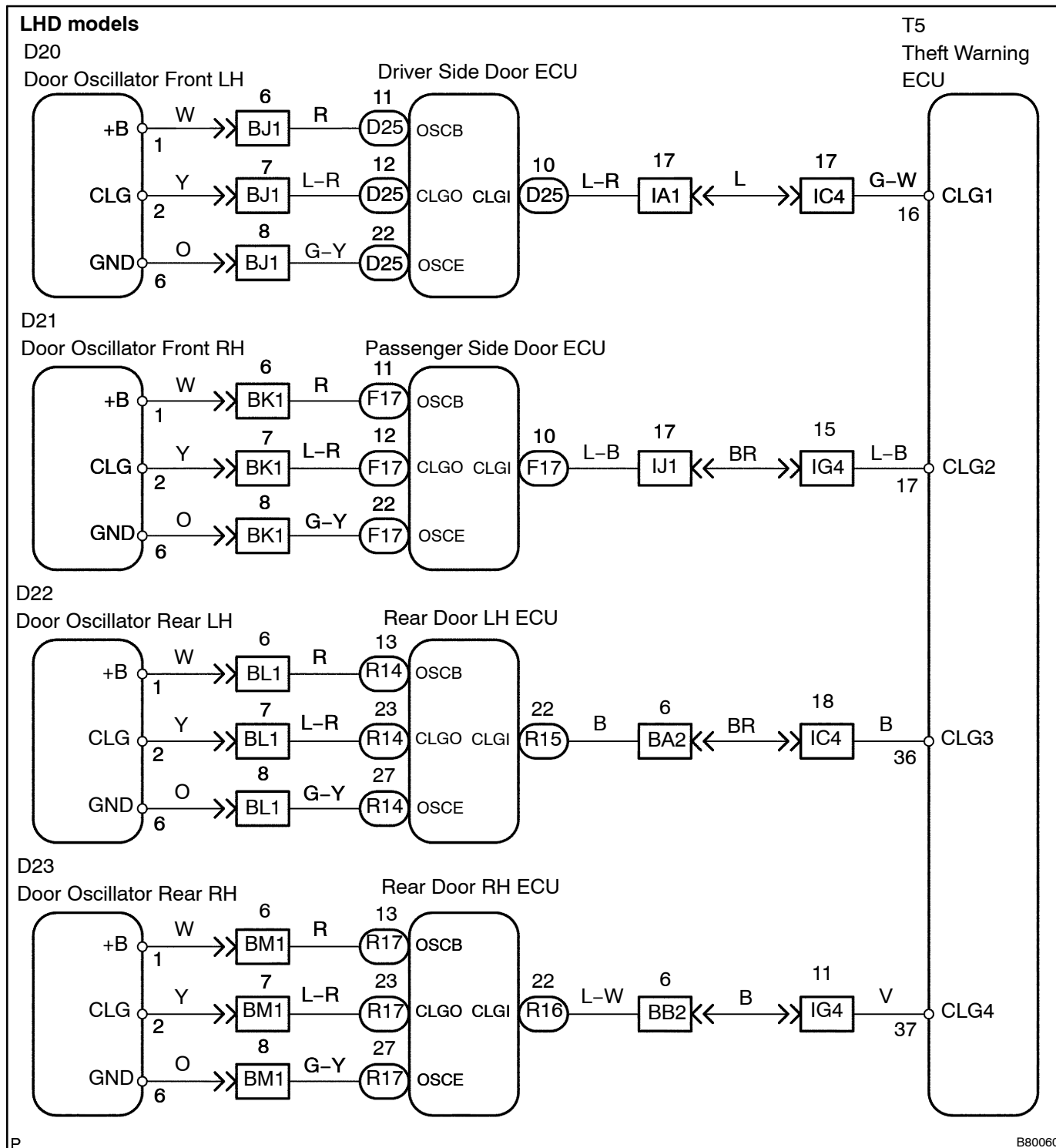


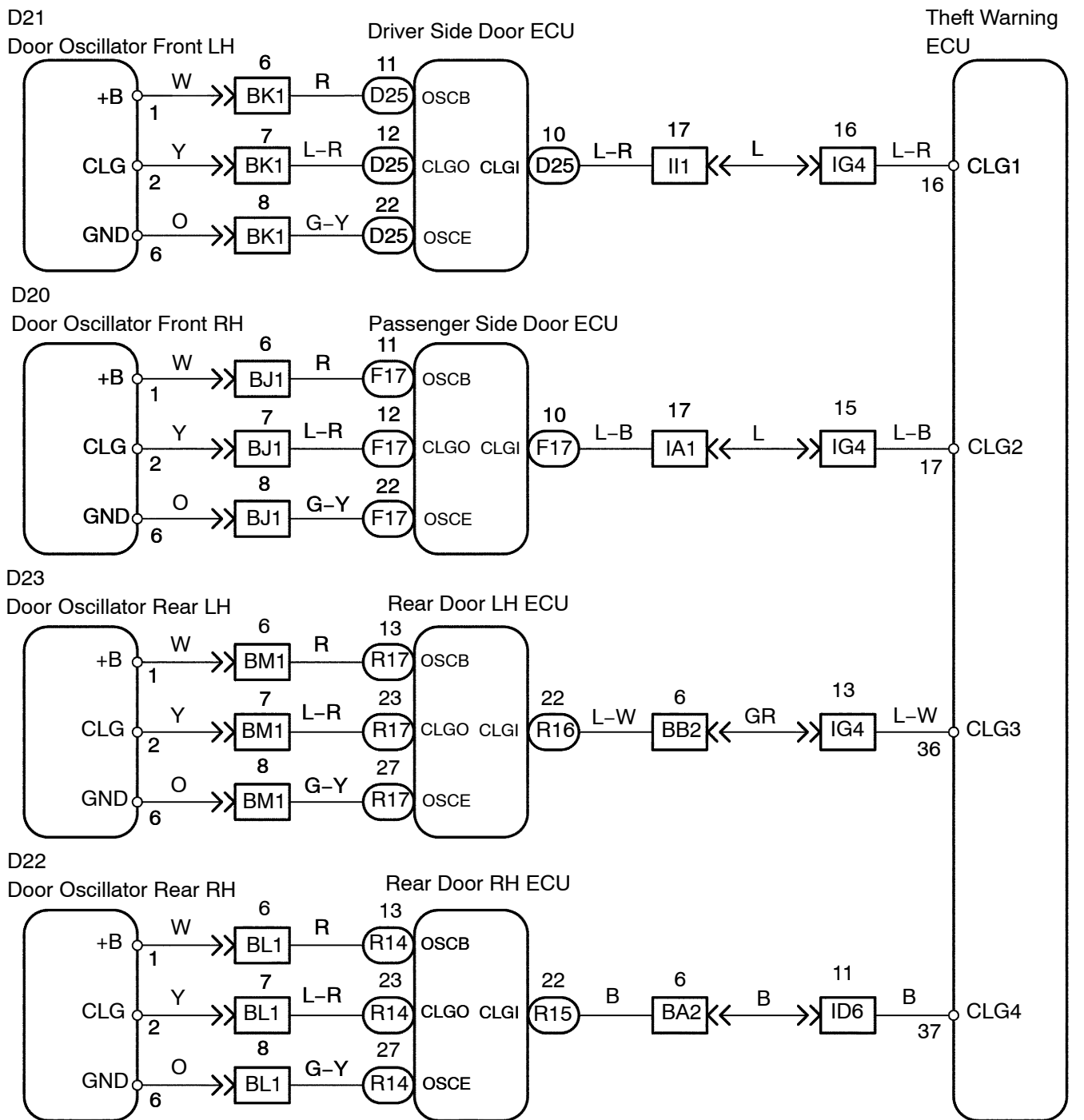
DOOR OSCILLATOR CIRCUIT

CIRCUIT DESCRIPTION

Door oscillators are built into each door. Each of them forms its own detection area around its door and detects the presence of the smart key.

WIRING DIAGRAM



RHD models

INSPECTION PROCEDURE

1 PERFORM ACTIVE TEST USING INTELLIGENT TESTER

- (a) Connect the intelligent tester to the DLC3.
 (b) Turn the ignition switch ON and press the intelligent tester main switch ON.
 (c) Select the item below in the ACTIVE TEST and then check that the oscillator operates.

Theft warning ECU:

Item	Test Details	Diagnostic Note
Driver's oscillator	Outputs/Stops	-
Passenger's oscillator	Outputs/Stops	-
Rear left oscillator	Outputs/Stops	-
Rear right oscillator	Outputs/Stops	-

OK: When the smart key is brought close to a door oscillator that is ON, the indicator on the smart key illuminates.

NG

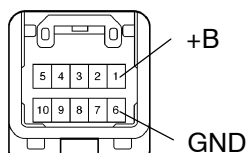
Go to step 2

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOMS TABLE
 (See page 05-2634)

2 CHECK DOOR OSCILLATOR

D20^{*1,*6}, D21^{*2,*5}
 D22^{*3}, D23^{*4}
 Door Oscillator



- *1: Driver Side (LHD)
 *2: Passenger Side (LHD)
 *3: Rear LH
 *4: Rear RH
 *5: Driver Side (RHD)
 *6: Passenger Side (RHD)

B80326

- (a) Remove the door oscillator.
 (b) Measure the voltage between the wire harness side connectors.

Standard:**LHD models (Driver side)**

Tester Connection	Specified Condition
D20-1 (+B) - D20-6 (GND)	10 to 14 V

LHD models (Passenger side)

Tester Connection	Specified Condition
D21-1 (+B) - D21-6 (GND)	10 to 14 V

LHD models (Rear LH)

Tester Connection	Specified Condition
D22-1 (+B) - D22-6 (GND)	10 to 14 V

LHD models (Rear RH)

Tester Connection	Specified Condition
D23-1 (+B) - D23-6 (GND)	10 to 14 V

RHD models (Driver side)

Tester Connection	Specified Condition
D21-1 (+B) – D21-6 (GND)	10 to 14 V

RHD models (Passenger side)

Tester Connection	Specified Condition
D20-1 (+B) – D20-6 (GND)	10 to 14 V

RHD models (Rear LH)

Tester Connection	Specified Condition
D22-1 (+B) – D22-6 (GND)	10 to 14 V

RHD models (Rear RH)

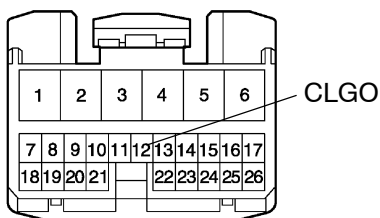
Tester Connection	Specified Condition
D23-1 (+B) – D23-6 (GND)	10 to 14 V

OK**Go to step 7****NG**

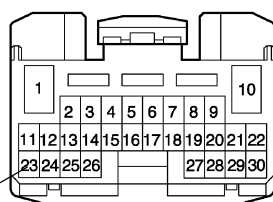
3 CHECK WIRE HARNESS (DOOR OSCILLATOR - DOOR ECU)

Wire Harness Side

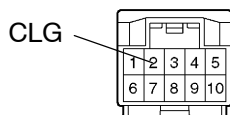
D25 *1, *5, F17 *2, *6
Door ECU



R14 *3, R17 *4
Door ECU



D20 *1, *6, D21 *2, *5
D22 *3, D23 *4
Door Oscillator



- *1: Driver Side (LHD)
- *2: Passenger Side (LHD)
- *3: Rear LH
- *4: Rear RH
- *5: Driver Side (RHD)
- *6: Passenger Side (RHD)

B80304

- (a) Disconnect the D25, F17, R14 and R17 door ECU connectors.
- (b) Disconnect the D20, D21, D22 and D23 door oscillator connectors.
- (c) Measure the resistance of between the wire harness side connectors.

Standard:

LHD models (Driver side)

Tester Connection	Specified Condition
D25-12 (CLGO) - D20-2 (CLG)	Below 1 Ω

LHD models (Passenger side)

Tester Connection	Specified Condition
F17-12 (CLGO) - D21-2 (CLG)	Below 1 Ω

LHD models (Rear LH)

Tester Connection	Specified Condition
R14-23 (CLGO) - D22-2 (CLG)	Below 1 Ω

LHD models (Rear RH)

Tester Connection	Specified Condition
R17-23 (CLGO) - D23-2 (CLG)	Below 1 Ω

RHD models (Driver side)

Tester Connection	Specified Condition
D25-12 (CLGO) - D21-2 (CLG)	Below 1 Ω

RHD models (Passenger side)

Tester Connection	Specified Condition
F17-12 (CLGO) - D20-2 (CLG)	Below 1 Ω

RHD models (Rear LH)

Tester Connection	Specified Condition
R14-23 (CLGO) - D22-2 (CLG)	Below 1 Ω

RHD models (Rear RH)

Tester Connection	Specified Condition
R17-23 (CLGO) - D23-2 (CLG)	Below 1 Ω

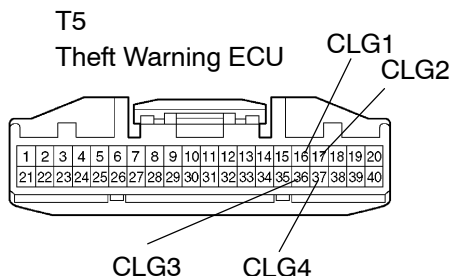
NG

REPAIR OR REPLACE HARNESS AND CONNECTOR

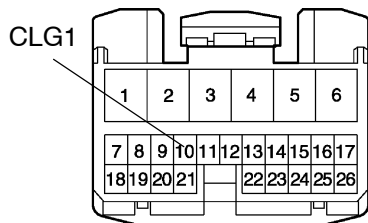
OK

4 CHECK WIRE HARNESS (THEFT WARNING ECU - DOOR ECU)

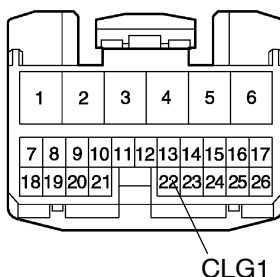
Wire Harness Side



D25 *1, F17 *2
Door ECU



R15 *3, *6, R16 *4, *5
Door ECU



- *1: Driver Side
- *2: Passenger Side
- *3: Rear LH (LHD)
- *4: Rear RH (LHD)
- *5: Rear LH (RHD)
- *6: Rear RH (RHD)

B80327

- (a) Disconnect the T5 ECU connector.
- (b) Disconnect the D25, F17, R15 and R16 ECU connectors.
- (c) Measure the resistance of between the wire harness side connectors.

Standard:

LHD models (Driver side)

Tester Connection	Specified Condition
D25-10 (CLG1) - T5-16 (CLG1)	Below 1 Ω

LHD models (Passenger side)

Tester Connection	Specified Condition
F17-10 (CLG1) - T5-17 (CLG2)	Below 1 Ω

LHD models (Rear LH)

Tester Connection	Specified Condition
R15-22 (CLG1) - T5-36 (CLG3)	Below 1 Ω

LHD models (Rear RH)

Tester Connection	Specified Condition
R16-22 (CLG1) - T5-37 (CLG4)	Below 1 Ω

RHD models (Driver side)

Tester Connection	Specified Condition
D25-10 (CLG1) - T5-16 (CLG1)	Below 1 Ω

RHD models (Passenger side)

Tester Connection	Specified Condition
F17-10 (CLG1) - T5-17 (CLG2)	Below 1 Ω

RHD models (Rear LH)

Tester Connection	Specified Condition
R15-22 (CLG1) - T5-36 (CLG3)	Below 1 Ω

RHD models (Rear RH)

Tester Connection	Specified Condition
R15-22 (CLG1) - T5-37 (CLG4)	Below 1 Ω

NG

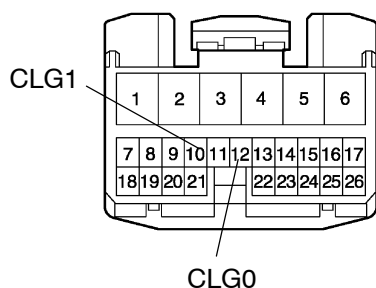
REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

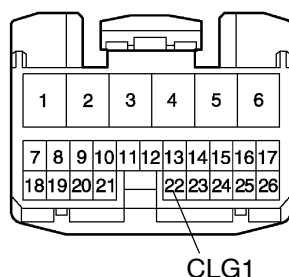
5 INSPECT DOOR ECU

Wire Harness Side

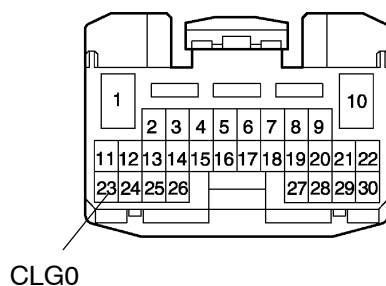
D25 *1, F17 *2
Door ECU



R15 *3, R16 *4
Door ECU



R14 *3, R17 *4
Door ECU



- *1: Driver Side
- *2: Passenger Side
- *3: Rear LH
- *4: Rear RH

B80306

- (a) Remove door ECU.
- (b) Measure the resistance of between the wire harness side connectors.

Standard:

LHD models (Driver side)

Tester Connection	Specified Condition
D25-10 (CLG1) - D25-12 (CLG0)	Below 1 Ω

LHD models (Passenger side)

Tester Connection	Specified Condition
F17-10 (CLG1) - F17-12 (CLG0)	Below 1 Ω

LHD models (Rear LH)

Tester Connection	Specified Condition
R15-22 (CLG1) - R14-23 (CLG0)	Below 1 Ω

LHD models (Rear RH)

Tester Connection	Specified Condition
R16-22 (CLG1) - R17-23 (CLG0)	Below 1 Ω

RHD models (Driver side)

Tester Connection	Specified Condition
D25-10 (CLG1) - D25-12 (CLG0)	Below 1 Ω

RHD models (Passenger side)

Tester Connection	Specified Condition
F17-10 (CLG1) - F17-12 (CLG0)	Below 1 Ω

RHD models (Rear LH)

Tester Connection	Specified Condition
R15-22 (CLG1) - R14-23 (CLG0)	Below 1 Ω

RHD models (Rear RH)

Tester Connection	Specified Condition
R16-22 (CLG1) - R17-23 (CLG0)	Below 1 Ω

NG

REPLACE DOOR ECU

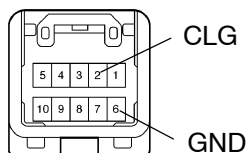
OK

6 INSPECT DOOR OSCILLATOR

D20 *1,*6, D21 *2,*5

D22 *3, D23 *4

Door Oscillator



*1: Driver Side (LHD)

*2: Passenger Side (LHD)

*3: Rear LH

*4: Rear RH

*5: Driver Side (RHD)

*6: Passenger Side (RHD)

B80326

- (a) Measure the frequency of each terminals of the connector.

Standard:**LHD models (Driver side)**

Tester Connection	Condition	Specified Condition
D20-2 (CLG) - D20-6 (GND)	During ACTIVE TEST	Some Hz

LHD models (Passenger side)

Tester Connection	Condition	Specified Condition
D21-2 (CLG) - D21-6 (GND)	During ACTIVE TEST	Some Hz

LHD models (Rear LH)

Tester Connection	Condition	Specified Condition
D22-2 (CLG) - D22-6 (GND)	During ACTIVE TEST	Some Hz

LHD models (Rear RH)

Tester Connection	Condition	Specified Condition
D23-2 (CLG) - D23-6 (GND)	During ACTIVE TEST	Some Hz

RHD models (Driver side)

Tester Connection	Condition	Specified Condition
D21-2 (CLG) - D21-6 (GND)	During ACTIVE TEST	Some Hz

RHD models (Passenger side)

Tester Connection	Condition	Specified Condition
D20-2 (CLG) - D20-6 (GND)	During ACTIVE TEST	Some Hz

RHD models (Rear LH)

Tester Connection	Condition	Specified Condition
D22-2 (CLG) - D22-6 (GND)	During ACTIVE TEST	Some Hz

RHD models (Rear RH)

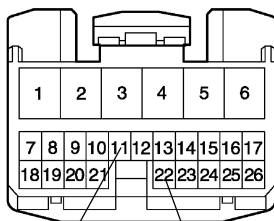
Tester Connection	Condition	Specified Condition
D23-2 (CLG) - D23-6 (GND)	During ACTIVE TEST	Some Hz

NG**REPLACE DOOR OSCILLATOR****OK****REPLACE THEFT WARNING ECU**

7 CHECK WIRE HARNESS (DOOR OSCILLATOR - DOOR ECU)

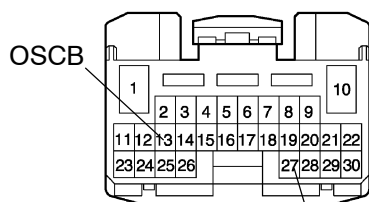
Wire Harness Side

D25 *1, *5, F17 *2, *6
Door ECU



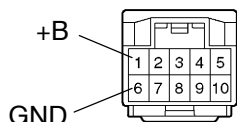
OSCB OSCE

R14 *3, R17 *4
Door ECU



OSCE

D20 *1, *6, D21 *2, *5
D22 *3, D23 *4
Door Oscillator



- *1: Driver Side (LHD)
- *2: Passenger Side (LHD)
- *3: Rear LH
- *4: Rear RH
- *5: Driver Side (RHD)
- *6: Passenger Side (RHD)

B80304

- (a) Disconnect the D25, F17, R14 and R17 door ECU connectors.
- (b) Disconnect the D20, D21, D22 and D23 door oscillator connectors.
- (c) Measure the resistance of between the wire harness side connectors.

Standard:

LHD models (Driver side)

Tester Connection	Specified Condition
D25-11 (OSCB) - D20-1 (+B)	Below 1 Ω
D25-22 (OSCE) - D20-6 (GND)	Below 1 Ω

LHD models (Passenger side)

Tester Connection	Specified Condition
F17-11 (OSCB) - D21-1 (+B)	Below 1 Ω
F17-22 (OSCE) - D21-6 (GND)	Below 1 Ω

LHD models (Rear LH)

Tester Connection	Specified Condition
R14-13 (OSCB) - D22-1 (+B)	Below 1 Ω
R14-27 (OSCE) - D22-6 (GND)	Below 1 Ω

LHD models (Rear RH)

Tester Connection	Specified Condition
R17-13 (OSCB) - D23-1 (+B)	Below 1 Ω
R17-27 (OSCE) - D23-6 (GND)	Below 1 Ω

RHD models (Driver side)

Tester Connection	Specified Condition
D25-11 (OSCB) - D21-1 (+B)	Below 1 Ω
D25-22 (OSCE) - D21-6 (GND)	Below 1 Ω

RHD models (Passenger side)

Tester Connection	Specified Condition
F17-11 (OSCB) - D20-1 (+B)	Below 1 Ω
F17-22 (OSCE) - D20-6 (GND)	Below 1 Ω

RHD models (Rear LH)

Tester Connection	Specified Condition
R14-13 (OSCB) - D22-1 (+B)	Below 1 Ω
R14-27 (OSCE) - D22-6 (GND)	Below 1 Ω

RHD models (Rear RH)

Tester Connection	Specified Condition
R17-13 (OSCB) - D23-1 (+B)	Below 1 Ω
R17-27 (OSCE) - D23-6 (GND)	Below 1 Ω

NG**REPAIR OR REPLACE HARNESS AND CON-
NECTOR****OK****REPLACE THEFT WARNING ECU**