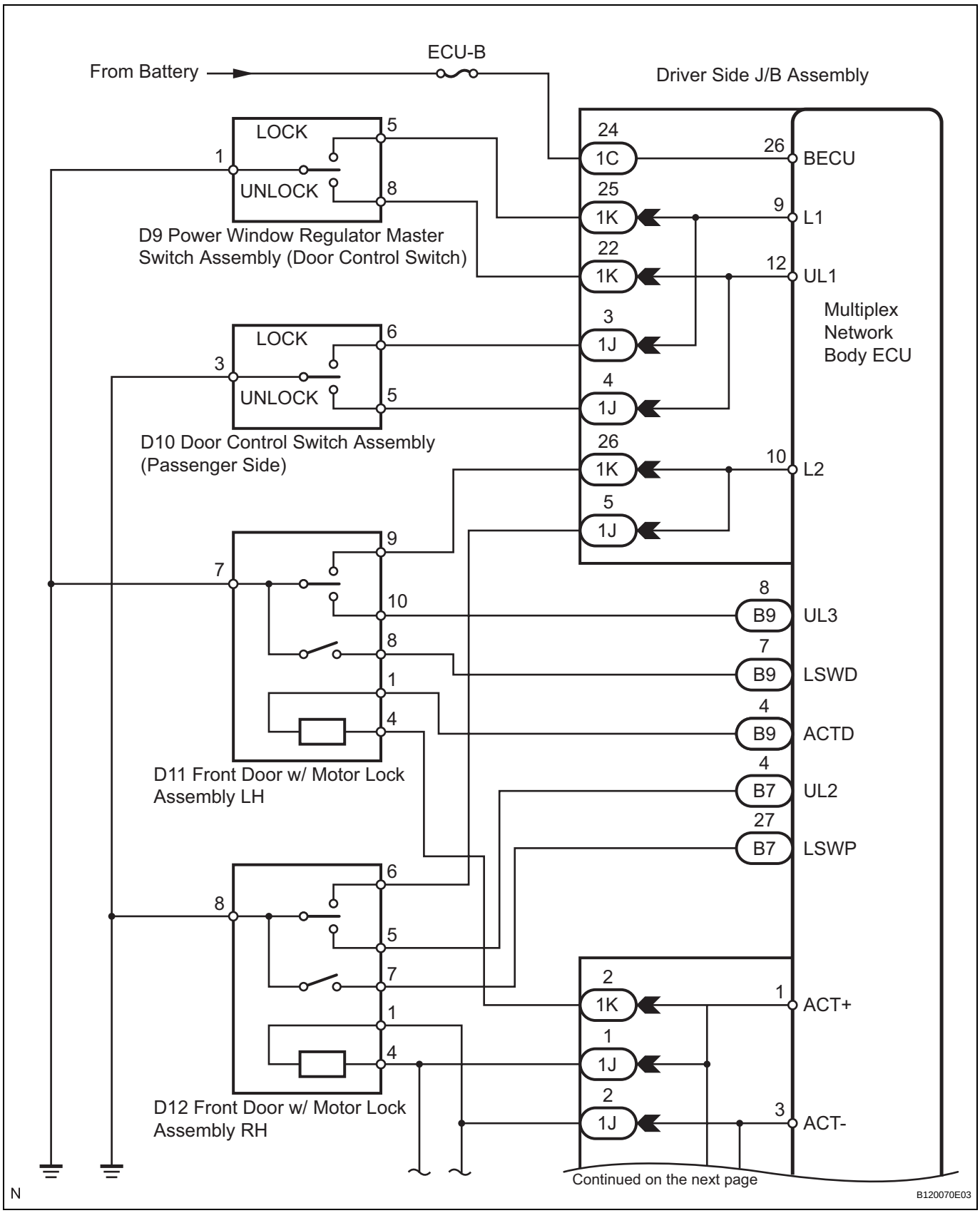
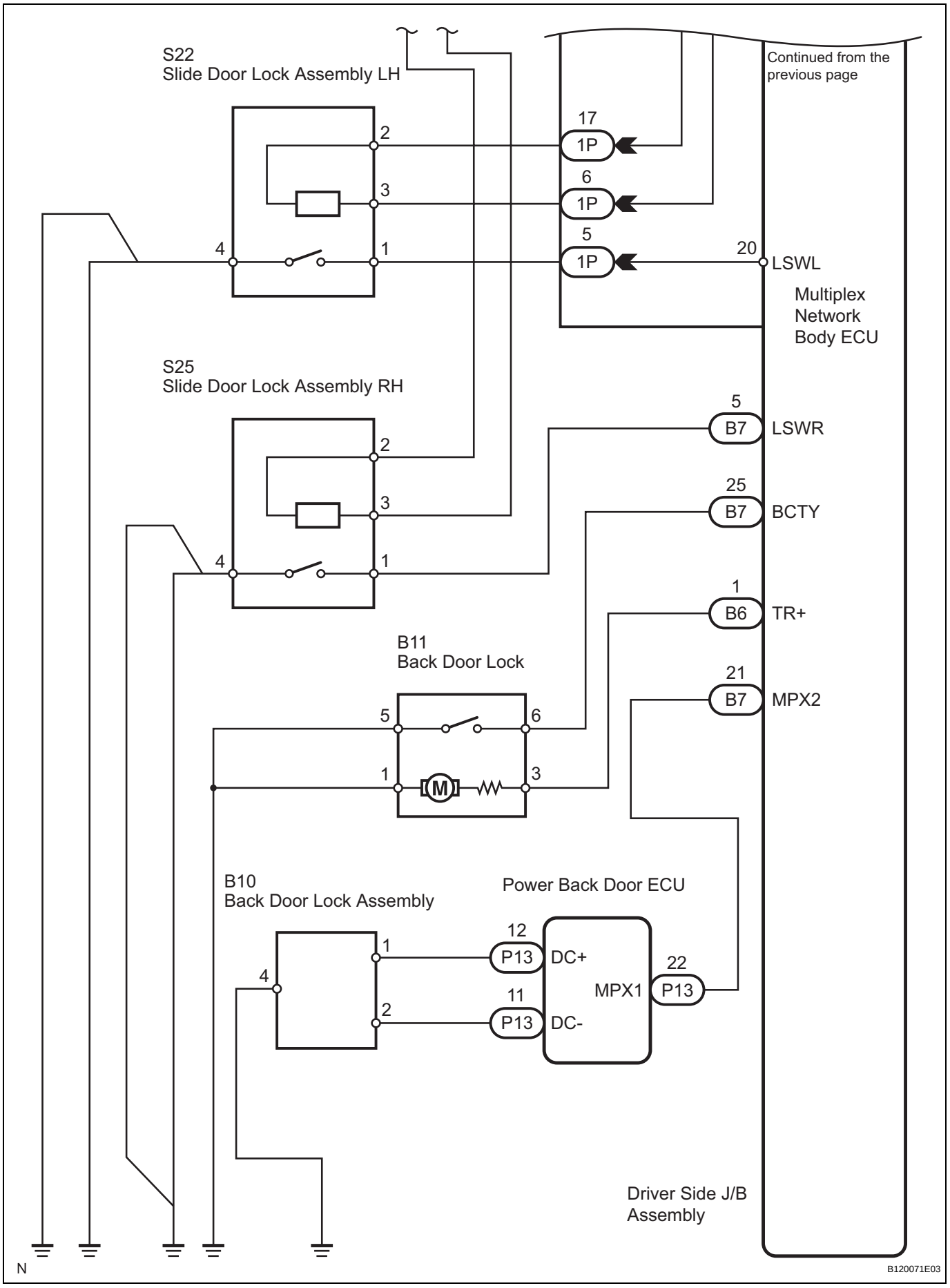
All Doors cannot be Locked / Unlocked at Once

DESCRIPTION

The body ECU receives a switch signal from the master switch, the door control switch, the driver door key cylinder and the passenger door key cylinder and then drives the door lock motor.

WIRING DIAGRAM




S22
Slide Door Lock Assembly LH
Continued from the previous page
17
1P
2
6
1P
3
5
1P
4
1
20
LSWL
Multiplex Network Body ECU
S25
Slide Door Lock Assembly RH
5
B7
LSWR
2
25
B7
BCTY
3
4
1
1
B6
TR+
B11
Back Door Lock
21
B7
MPX2
5
6
1
M
3
B10
Back Door Lock Assembly
Power Back Door ECU
12
P13
DC+
1
22
4
MPX1
P13
11
P13
DC-
2
Driver Side J/B Assembly
N
B120071E03

DL

INSPECTION PROCEDURE

1	INSPECT FUSE (ECU-B)

(a) Remove ECU-B fuse from engine room junction block.
(b) Measure the resistance.
Standard resistance:
Below 1 Ω

NG → **REPLACE FUSE**

OK

2	PERFORM ACTIVE TEST BY INTELLIGENT TESTER

(a) Select the ACTIVE TEST and then check that the power door lock operates.
HINT:
During the ACTIVE TEST, the intelligent tester sends a signal to the body ECU to drive all the power door lock motors. If the power door lock operates, the power door lock motor itself and the wire harness between the power door lock motor and body ECU are considered to be functioning normally.

DL

BODY (Multiplex network body ECU)

Item	Test details	Diagnostic Note
DOOR LOCK	Operate the door lock motor for all doors OFF/LOCK/UNLOCK	-

OK → **INSPECT DRIVER SIDE JUNCTION BLOCK ASSEMBLY (MULTIPLEX NETWORK BODY ECU)**

NG

3	CHECK OPERATION (MASTER SWITCH OR KEY CYLINDER)

(a) When manual door lock/unlock operation via the master switch can not be performed, proceed to A.
(b) When manual door lock/unlock operation via the door control switch (passenger side) can not be performed, proceed to B.
(c) When manual door lock/unlock operation interlocked with the driver side door lock key cylinder can not be performed, proceed to C.
(d) When manual door lock/unlock operation interlocked with the passenger side door lock key cylinder can not be performed, proceed to D.

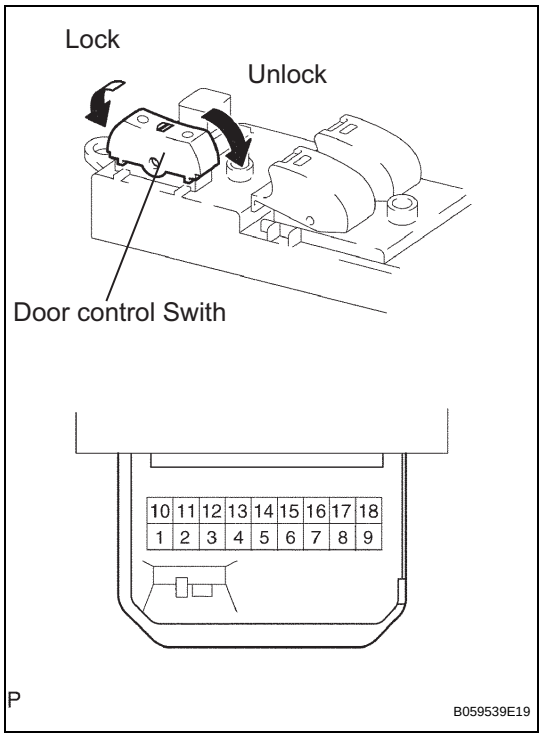
B → **Go to step 6**

C → **Go to step 8**

D → **Go to step 10**

A

4	**INSPECT POWER WINDOW REGULATOR SWITCH ASSEMBLY (DOOR CONTROL SWITCH)**



(a) Remove the master switch.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Terminal No.	Switch Position	Specified Condition
1 - 5	Lock	Below 1 Ω
1 - 5, 1 - 8	OFF	10 kΩ or higher
1 - 8	Unlock	Below 1 Ω

NG → **REPLACE POWER WINDOW REGULATOR SWITCH ASSEMBLY**

OK

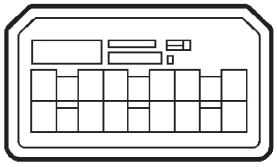
DL

5	CHECK HARNESS AND CONNECTOR (POWER WINDOW REGULATOR MASTER SWITCH - DRIVER SIDE J/B)

Wire Harbess Side

D9

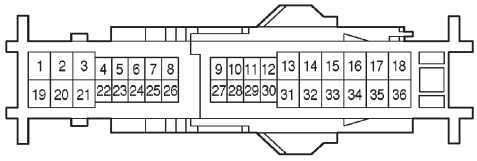
Power Window Regulator Master Switch Assembly



1K

Driver Side J/B Assembly

(Multiplex Network Body ECU)



B068918E02

(a) Disconnect the D9 switch and 1K J/B connectors.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Symbol (Terminal No.)	Specified Condition
L (D9-5) - L1 (1K-25)	Below 1 Ω
UL (D9-8) - UL1 (1K-22)	Below 1 Ω
E (D9-1) - Body ground	Below 1 Ω

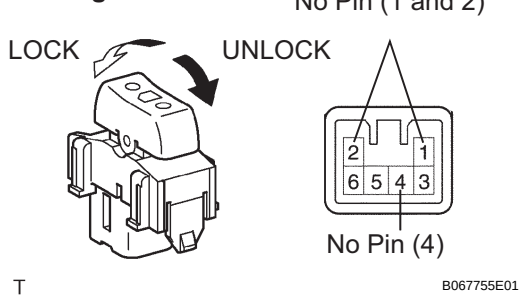
OK → **Go to step 8**

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

6	INSPECT DOOR CONTROL SWITCH ASSEMBLY

Passenger Side



T

B067755E01

(a) Passenger side:
Inspect the resistance of the switch.

Standard resistance

Terminal No.	Switch Position	Specified Condition
3 - 6	Lock	Below 1 Ω
3 - 5, 3 - 6	OFF	10 kΩ or higher
3 - 5	Unlock	Below 1 Ω

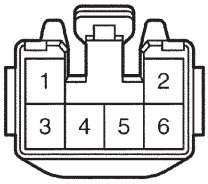
NG → **REPLACE DOOR CONTROL SWITCH ASSEMBLY**

OK

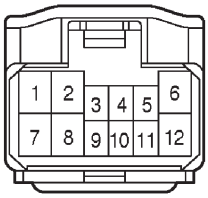
7	**CHECK HARNESS AND CONNECTOR (DOOR CONTROL SWITCH (PASSENGER SIDE) - DRIVER SIDE J/B)**

Wire Harness Side

D10
Door Control Switch Assembly
(Passenger Side)



1J
Driver Side J/B Assembly
(Multiplex Network Body ECU)



B068919E02

(a) Disconnect the D10 switch and 1J J/B connectors.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Symbol (Terminal No.)	Specified Condition
L (D10-6) - L1 (1J-3)	Below 1 Ω
UL (D10-5) - UL1 (1J-4)	Below 1 Ω
E (D10-3) - Body ground	Below 1 Ω

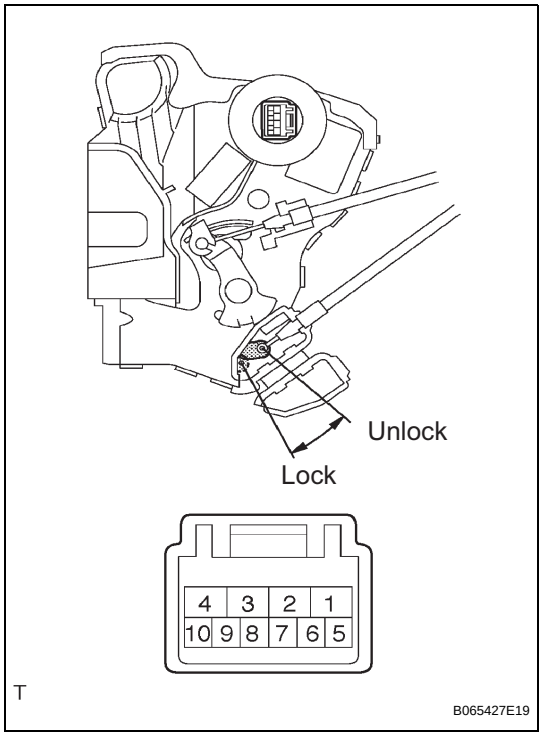
OK → **Go to step 10**

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

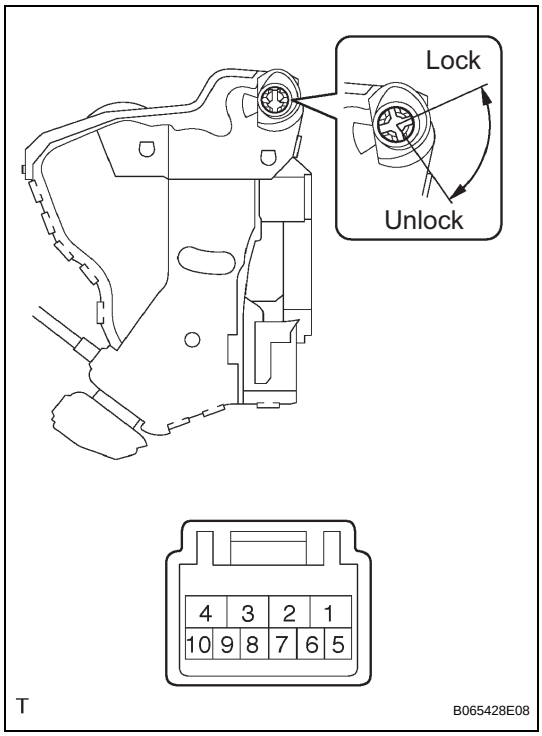
DL

8	INSPECT FRONT DOOR W/ MOTOR LOCK ASSEMBLY LH



(a) Apply battery voltage and inspect operation of the door lock motor.
Standard

Measurement Condition	Specified Condition
Battery positive (+) → Terminal 4 Battery negative (-) → Terminal 1	Lock
Battery positive (+) → Terminal 1 Battery negative (-) → Terminal 4	Unlock



(b) Inspect the resistance of the door lock and unlock switch.
Standard resistance

Terminal No.	Door Lock Position	Specified Condition
7 - 9	Lock	Below 1 Ω
7 - 9, 7 - 10	OFF	10 kΩ or higher
7 - 10	Unlock	Below 1 Ω

(c) Inspect the resistance of the position switch.
Standard resistance

Terminal No.	Door Lock Position	Specified Condition
7 - 8	Lock	10 kΩ or higher
	Unlock	Below 1 Ω

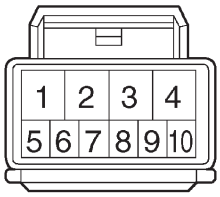
NG → **REPLACE FRONT DOOR W/MOTOR LOCK ASSEMBLY LH**

OK

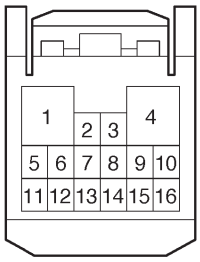
9	**CHECK HARNESS AND CONNECTOR (FRONT DOOR W/ MOTOR LOCK ASSEMBLY - DRIVER SIDE J/B)**

Wire Harness Side

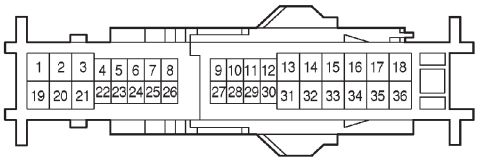
D11
Front Door w/ Motor Lock Assembly LH



B9
Driver Side J/B Assembly
(Multiplex Network Body ECU)



1K
Driver Side J/B Assembly
(Multiplex Network Body ECU)



B068917E02

(a) Disconnect the D11 door lock, B9 and 1K body ECU connectors.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Symbol (Terminal No.)	Specified Condition
UL (D11-1) - ACTD (B9-4)	Below 1 Ω
L (D11-4) - ACT+ (1K-2)	Below 1 Ω
E (D11-7) - Body ground	Below 1 Ω

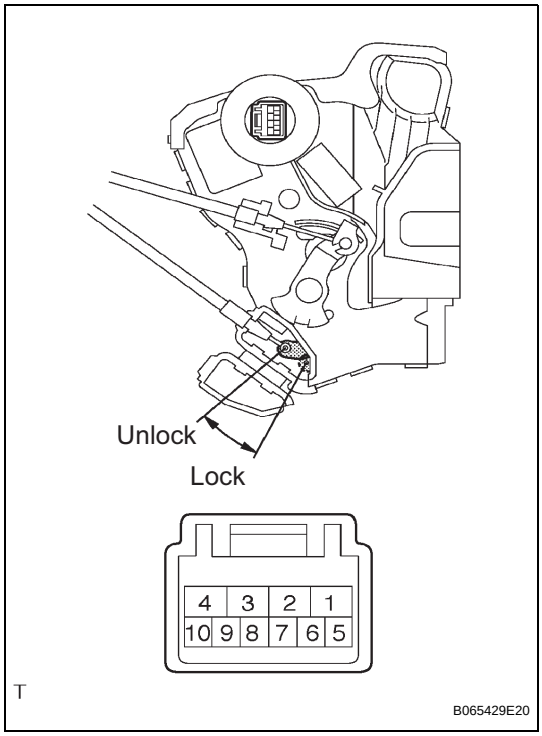
NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

REPLACE DRIVER SIDE JUNCTION BLOCK ASSEMBLY (MULTIPLEX NETWORK BODY ECU)

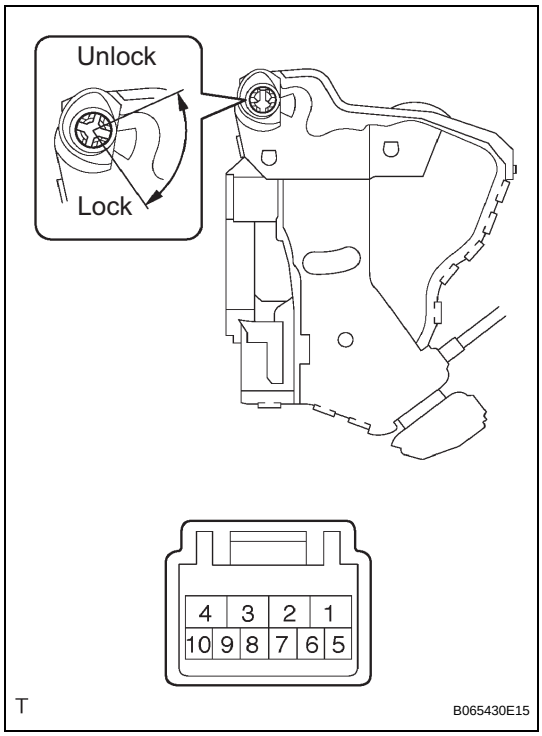
DL

10	INSPECT FRONT DOOR W/MOTOR LOCK ASSEMBLY RH



(a) Apply battery voltage and inspect operation of the door lock motor.
Standard

Measurement Condition	Specified Condition
Battery positive (+) → Terminal 4 Battery negative (-) → Terminal 1	Lock
Battery positive (+) → Terminal 1 Battery negative (-) → Terminal 4	Unlock



(b) Inspect the resistance of the door lock and unlock switch.
Standard resistance

Terminal No.	Door Lock Position	Specified Condition
8 - 5	Lock	Below 1 Ω
8 - 5, 8 - 6	OFF	10 kΩ or higher
8 - 6	Unlock	Below 1 Ω

(c) Inspect the resistance of the position switch.
Standard resistance

Terminal No.	Door Lock Position	Specified Condition
7 - 8	Lock	10 kΩ or higher
	Unlock	Below 1 Ω

NG → **REPLACE FRONT DOOR W/MOTOR LOCK ASSEMBLY RH**

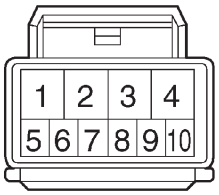
OK

11	CHECK HARNESS AND CONNECTOR (FRONT DOOR W/ MOTOR LOCK ASSEMBLY RH - DRIVER SIDE J/B)

Wire Harness Side

D12

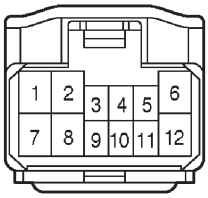
Front Door w/ Motor Lock Assembly RH



1J

Driver Side J/B Assembly

(Multiplex Network Body ECU)



B068920E02

(a) Disconnect the D12 door lock and 1J body ECU connectors.

(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Symbol (Terminal No.)	Specified Condition
UL (D12-1) - ACT- (1J-2)	Below 1 Ω
L (D12-4) - ACT+ (1J-1)	Below 1 Ω
E (D12-8) - Body ground	Below 1 Ω

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

REPLACE DRIVER SIDE JUNCTION BLOCK ASSEMBLY (MULTIPLEX NETWORK BODY ECU)

DL