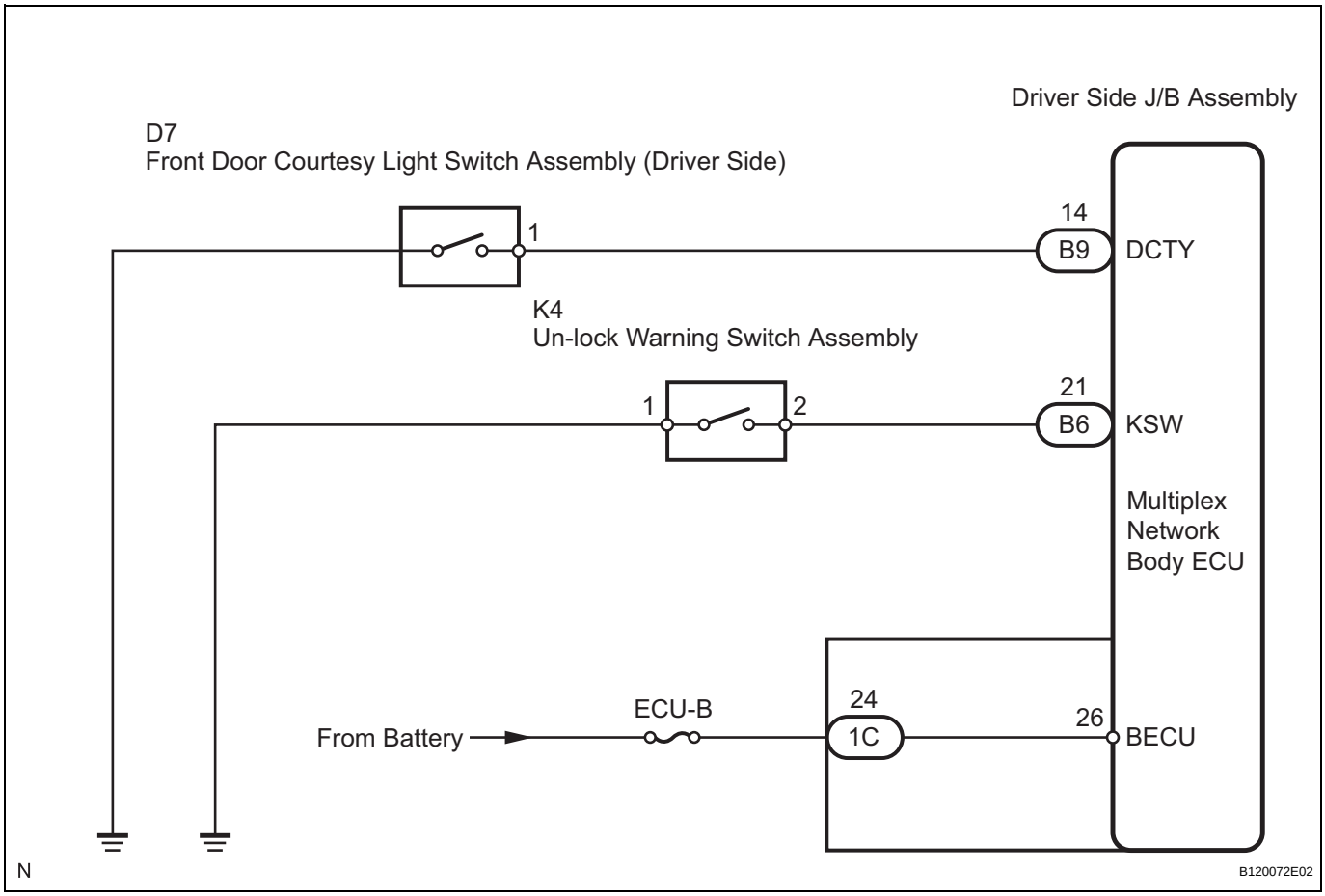
Key Lock-in Prevention Function does not Work Properly (Manual Operation and Operation Interlocked with Key are Active)

DESCRIPTION

The un-lock warning switch turns ON when the key is inserted in the ignition key cylinder. The courtesy light switch turns ON when the driver side door is opened. These 2 switches are monitored by the body ECU.
In order to prevent the key from being locked in, the body ECU controls door locking operation according to the conditions of these switches so that the doors are not locked.

WIRING DIAGRAM



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	READ VALUE OF DATA LIST

(a) Using the intelligent tester, check that the un-lock warning switch signal is output when the switch is operated.

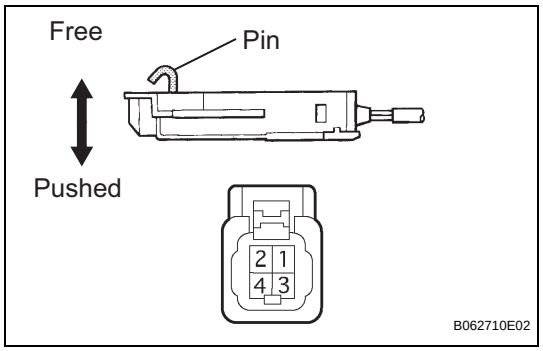
BODY (Multiplex network body ECU)

Item	Measurement Item/Display (Range)	Normal Condition	Diagnostic Note
KEY UNLK WRN SW	Un-lock warning switch signal/ON or OFF	ON: Key is in ignition ley cylinder OFF: No key is in ignition key cylinder	-

OK → **Go to step 5**

NG

3	INSPECT UN-LOCK WARNING SWITCH ASSEMBLY



(a) Remove the un-lock warning switch.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Terminal No.	Condition	Specified Condition
1 - 2	Free (Key removed)	10 kΩ or higher
	Pushed (Key set)	Below 1 Ω

NG → **REPLACE UN-LOCK WARNING SWITCH ASSEMBLY**

OK

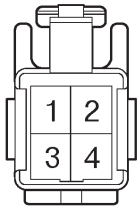
DL

4	CHECK HARNESS AND CONNECTOR (UN-LOCK WARNING SWITCH ASSEMBLY - DRIVER SIDE J/B)

Wire Harness Side

K4

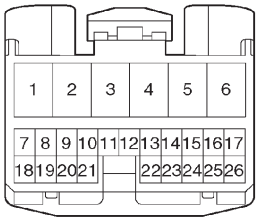
Un-lock Warning Switch Assembly



T B6

Driver Side J/B Assembly

(Multiplex Network Body ECU)



B064723E05

(a) Disconnect the K4 switch and B6 body ECU connectors.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Symbol (Terminal No.)	Specified Condition
K4-2 - KSW (B6-21)	Below 1 Ω
K4-1 - Body ground	Below 1 Ω

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

OK

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

5	READ VALUE OF DATA LIST

(a) Using the intelligent tester, check that the driver side door courtesy light switch signal s output when the switch is operated.

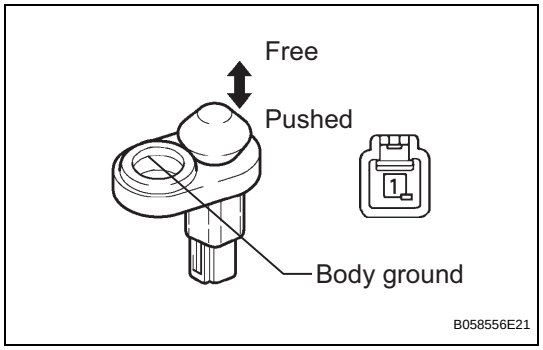
BODY (Multiplex network body ECU)

Item	Measurement Item/Display (Range)	Normal Condition	Diagnostic Note
D DOR CTY SW	Driver side door courtesy light switch signal/ON or OFF	ON: Driver side door is open OFF: Driver side door is closed	-

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

NG

6 INSPECT FRONT DOOR COURTESY LIGHT SWITCH ASSEMBLY (DRIVER SIDE)



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

Standard resistance

Terminal No.	Condition	Specified Condition
1 - Body ground	Free	Below 1 Ω
	Pushed	10 kΩ or higher

NG → **REPLACE FRONT DOOR COURTESY LIGHT SWITCH ASSEMBLY**

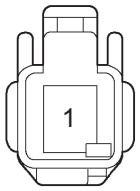
OK

7 CHECK HARNESS AND CONNECTOR (FRONT DOOR COURTESY LIGHT SWITCH - DRIVER SIDE J/B)

Wire Harness Side

D7 Front Door Courtesy Light Switch Assembly

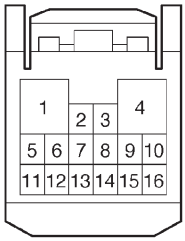
(Driver Side)



B9

Driver Side J/B Assembly

(Multiplex Network Body ECU)



T

B068921E04

(a) Disconnect the D7 switch and B9 body ECU connectors.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Symbol (Terminal No.)	Specified Condition
D7-1 - DCTY (B9-14)	Below 1 Ω

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

OK

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

DL