DTC	B1294	IMMOBOLIZER ECU COMMUNICATION STOP

CIRCUIT DESCRIPTION

This DTC is detected when communication between the immobilizer ECU (steering lock ECU*1 or transponder key ECU*2) and gateway ECU stops more than 10 seconds.

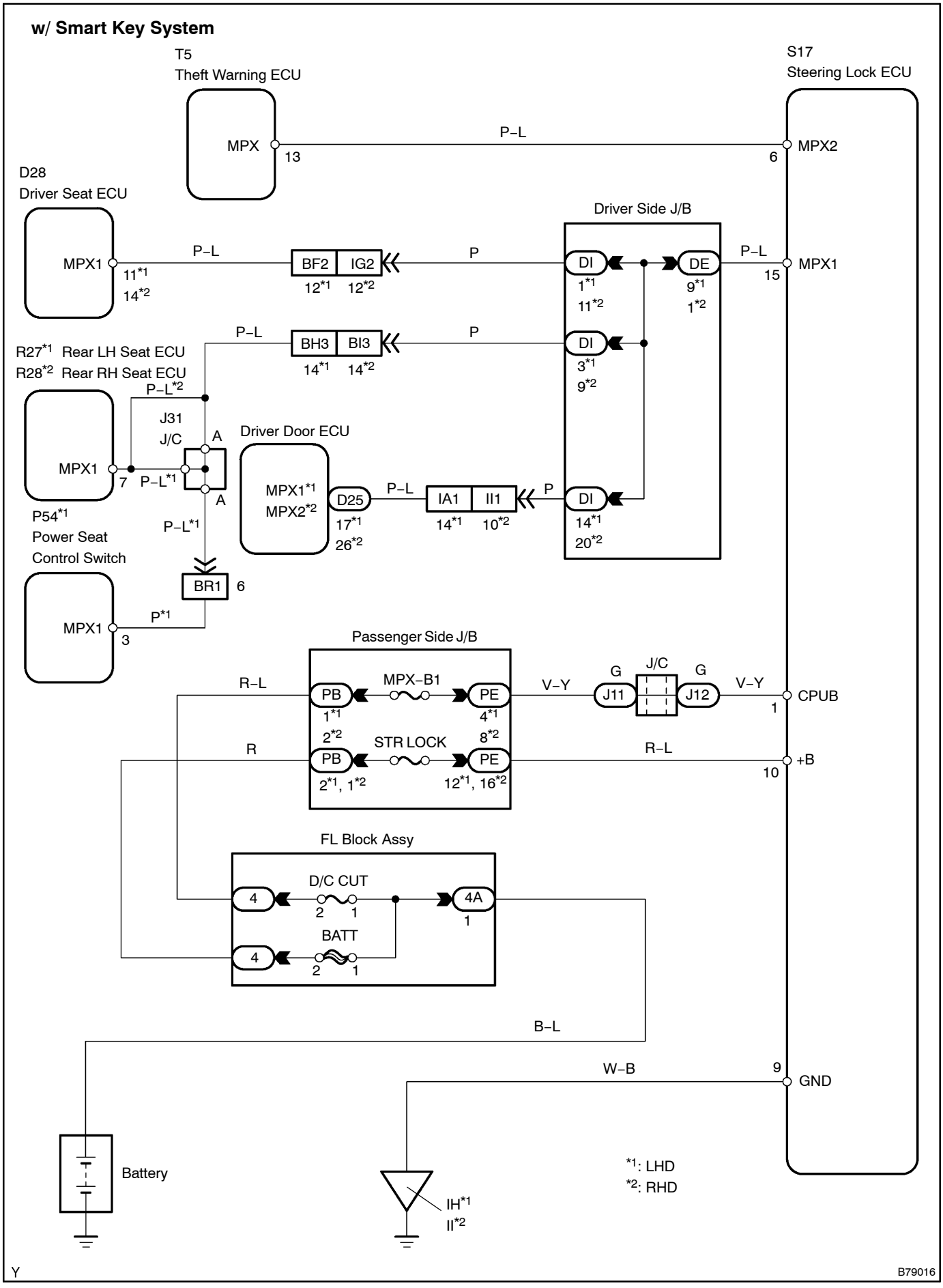
DTC No.	DTC Detection Condition	Trouble Area
B1294	Immobilizer ECU communication stops	• Steering lock ECU*1 • (Transponder key ECU*2 • Wire harness

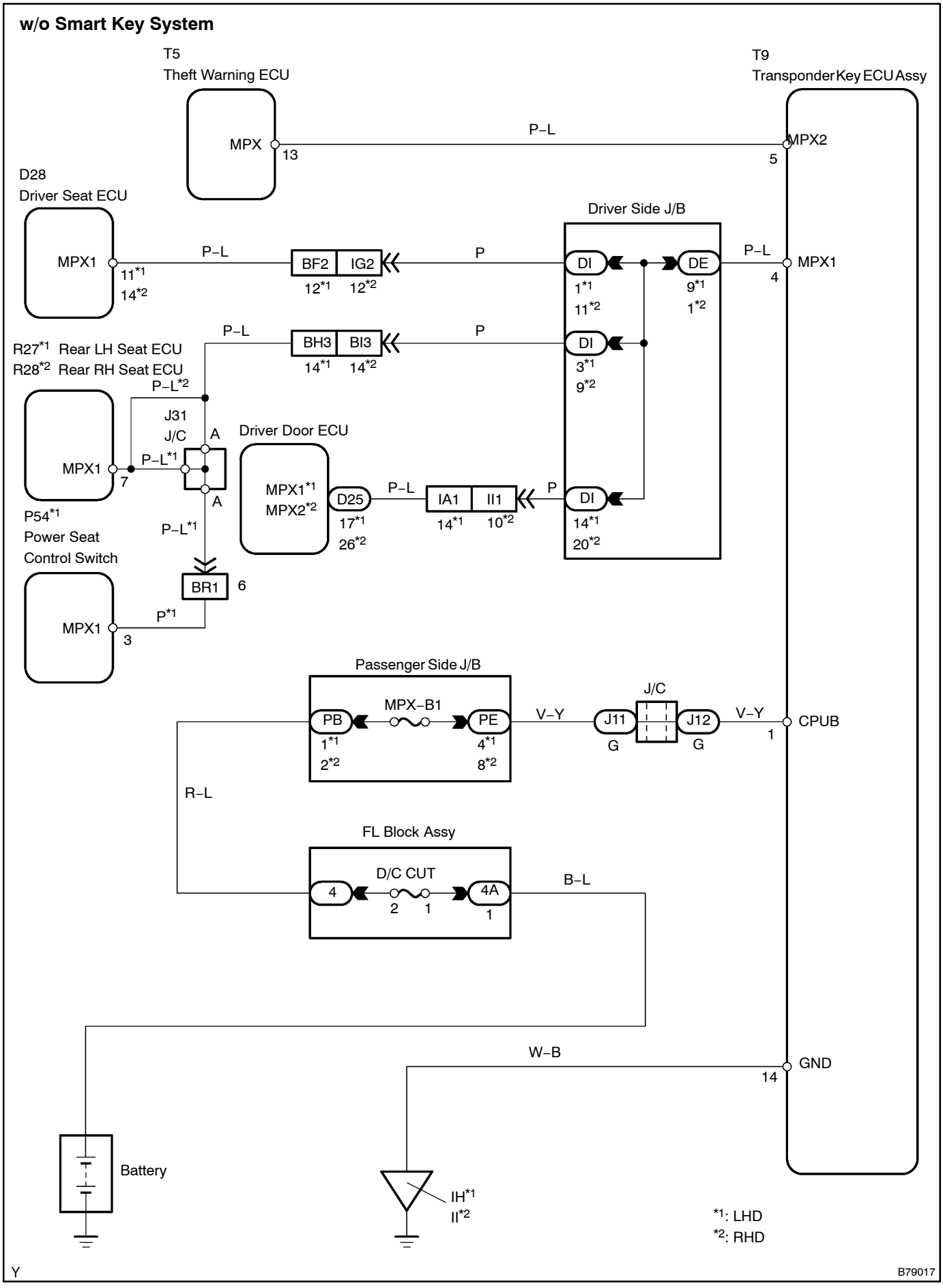
*1: w/ Smart key system

*2: w/o Smart key system

WIRING DIAGRAM

The wiring diagram is shown on the next page.


w/ Smart Key System
T5
Theft Warning ECU
MPX
13
P–L
S17
Steering Lock ECU
6
MPX2
D28
Driver Seat ECU
MPX1
11*1
14*2
P–L
BF2
IG2
12*1
12*2
P
Driver Side J/B
DI
1*1
11*2
DE
9*1
1*2
P–L
15
MPX1
R27*1 Rear LH Seat ECU
R28*2 Rear RH Seat ECU
P–L*2
BH3
BI3
14*1
14*2
P
DI
3*1
9*2
J31
J/C
A
Driver Door ECU
MPX1
7
P–L*1
A
MPX1*1
MPX2*2
D25
17*1
26*2
P–L
IA1
II1
14*1
10*2
P
DI
14*1
20*2
P54*1
Power Seat
Control Switch
P–L*1
BR1
6
MPX1
3
P*1
Passenger Side J/B
R–L
PB
1*1
2*2
MPX–B1
PE
4*1
8*2
V–Y
G
J/C
G
J11
J12
V–Y
CPUB
1
R
PB
2*1, 1*2
STR LOCK
PE
12*1, 16*2
R–L
+B
10
FL Block Assy
D/C CUT
4
2
1
4A
1
BATT
4
2
1
B–L
W–B
9
GND
Battery
IH*1
II*2
*1: LHD
*2: RHD
Y
B79016


w/o Smart Key System
T5
Theft Warning ECU
MPX
13
P–L
T9
Transponder Key ECU Assy
MPX2
5
D28
Driver Seat ECU
MPX1
11*1
14*2
P–L
BF2
IG2
12*1
12*2
P
Driver Side J/B
DI
1*1
11*2
DE
9*1
1*2
P–L
MPX1
4
R27*1 Rear LH Seat ECU
R28*2 Rear RH Seat ECU
P–L
BH3
BI3
14*1
14*2
P
DI
3*1
9*2
P–L*2
J31
J/C
A
MPX1
7
P–L*1
A
Driver Door ECU
MPX1*1
MPX2*2
D25
17*1
26*2
P–L
IA1
II1
14*1
10*2
P
DI
14*1
20*2
P54*1
Power Seat
Control Switch
P–L*1
BR1
6
MPX1
3
P*1
Passenger Side J/B
MPX–B1
PB
1*1
2*2
PE
4*1
8*2
V–Y
J/C
J11
G
J12
G
V–Y
1
CPUB
R–L
FL Block Assy
D/C CUT
4
2
1
4A
1
B–L
W–B
GND
14
Battery
IH*1
II*2
*1: LHD
*2: RHD
Y
B79017

INSPECTION PROCEDURE

w/ Smart Key System

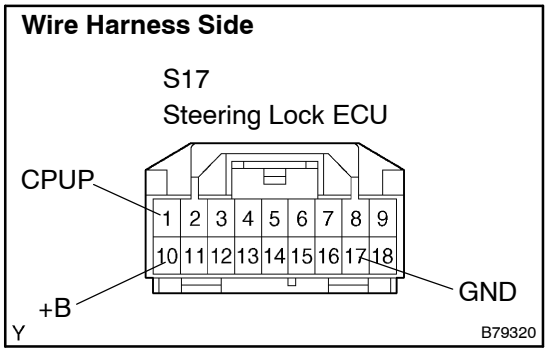
1	INSPECT FUSE (MPX–B1, STR LOCK, D/C CUT fuse)

(a) Remove the MPX–B1 and STR LOCK fuses from the passenger side J/B.
(b) Remove the D/C CUT fuses from the FL Block assy.
(c) Measure the resistance.
Standard: Below 1 Ω

NG → **REPLACE FUSE**

OK

2	CHECK WIRE HARNESS (STEERING LOCK ECU – BODY GROUND)



(a) Disconnect the S17 ECU connector.
(b) Measure the voltage and resistance between the wire harness side connector and body ground.
Standard:

Tester Connection	Specified Condition
S17–1 (CPUB) – Body ground	10 to 14 V
S17–10 (+B) – Body ground	10 to 14 V
S17–9 (GND) – Body ground	Below 1 Ω

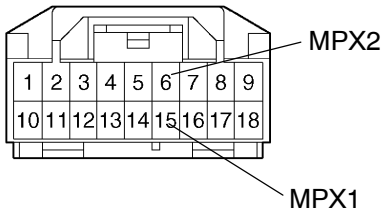
NG → **REPAIR OR REPLACE HARNESS AND CONNECTOR**

OK

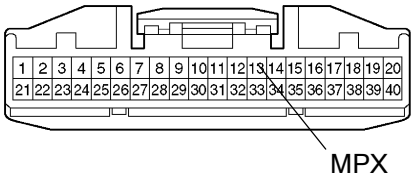
3 CHECK RESISTANCE OF COMMUNICATION LINE

Wire Harness Side

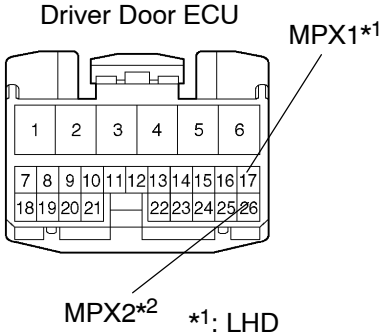
S17
Steering Lock ECU



T5
Theft Warning ECU



D25
Driver Door ECU



*1: LHD
*2: RHD

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B80216

(a) Disconnect the S17 ECU connector.
(b) Disconnect the T5 ECU connector.
(c) Disconnect the D25 ECU connector.
(d) Measure the resistance between the wire harness side connectors.

Standard:

LHD models

Tester Connection	Specified Condition
S17–15 (MPX1) – D25–17 (MPX1)	Below 1 Ω
S17–6 (MPX2) – T5–13 (MPX)	Below 1 Ω

RHD models

Tester Connection	Specified Condition
S17–15 (MPX1) – D25–26 (MPX1)	Below 1 Ω
S17–6 (MPX2) – T5–13 (MPX)	Below 1 Ω

Result:

Result	Proceed to
Both are OK	A
One is OK	B
Both are NG	C

B → **REPLACE STEERING LOCK ECU AND REPAIR OR REPLACE HARNESS AND CONNECTOR**

C → **REPAIR OR REPLACE HARNESS AND CONNECTOR**

A

REPLACE STEERING LOCK ECU

w/o Smart Key System

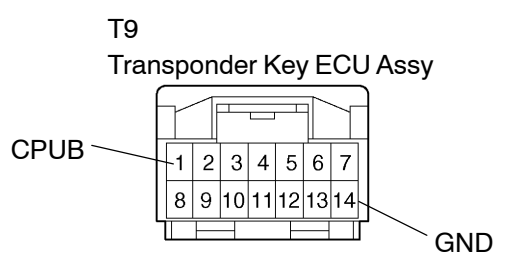
1	INSPECT FUSE (MPX–B1)

(a) Remove the MPX–B1 fuse from the passenger side J/B.
(b) Remove the D/C CUT fuse from the FL Block assy.
(c) Measure the resistance.
Standard: Below 1 Ω

NG → **REPLACE FUSE**

OK

2	CHECK WIRE HARNESS (TRANSPONDER KEY ECU – BODY GROUND)



(a) Disconnect the T9 ECU connector.
(b) Measure the voltage and resistance between the wire harness side connector and body ground.
Standard:

Tester Connection	Specified Condition
T9–1 (CPUB) – Body ground	10 to 14 V
T9–14 (GND) – Body ground	Below 1 Ω

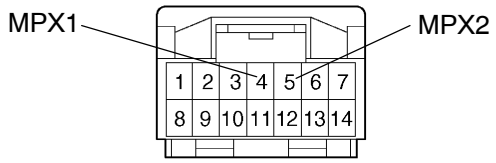
NG → **REPAIR OR REPLACE HARNESS AND CONNECTOR**

OK

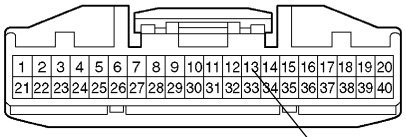
3 CHECK RESISTANCE OF COMMUNICATION LINE

Wire Harness Side

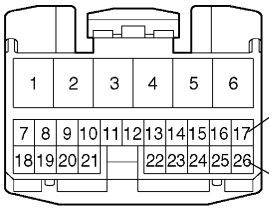
T9
Transponder Key ECU Assy



T5
Theft Warning ECU



D25
Driver Door ECU



*1: LHD
*2: RHD

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(a) Disconnect the T9 ECU connector.
(b) Disconnect the T5 ECU connector.
(c) Disconnect the D25 ECU connector.
(d) Measure the resistance between the wire harness side connectors.

Standard:

LHD models

Tester Connection	Specified Condition
T9–4 (MPX1) – D25–17 (MPX1)	Below 1 Ω
T9–5 (MPX2) – T5–13 (MPX)	Below 1 Ω

RHD models

Tester Connection	Specified Condition
T9–4 (MPX1) – D25–26 (MPX2)	Below 1 Ω
T9–5 (MPX2) – T5–13 (MPX)	Below 1 Ω

Result:

Result	Proceed to
Both are OK	A
One is OK	B
Both are NG	C

A

REPLACE TRANSPONDER KEY ECU ASSY

B → **REPLACE TRANSPONDER KEY ECU ASSY AND REPAIR OR REPLACE HARNESS AND CONNECTOR**

C → **REPAIR OR REPLACE HARNESS AND CONNECTOR**