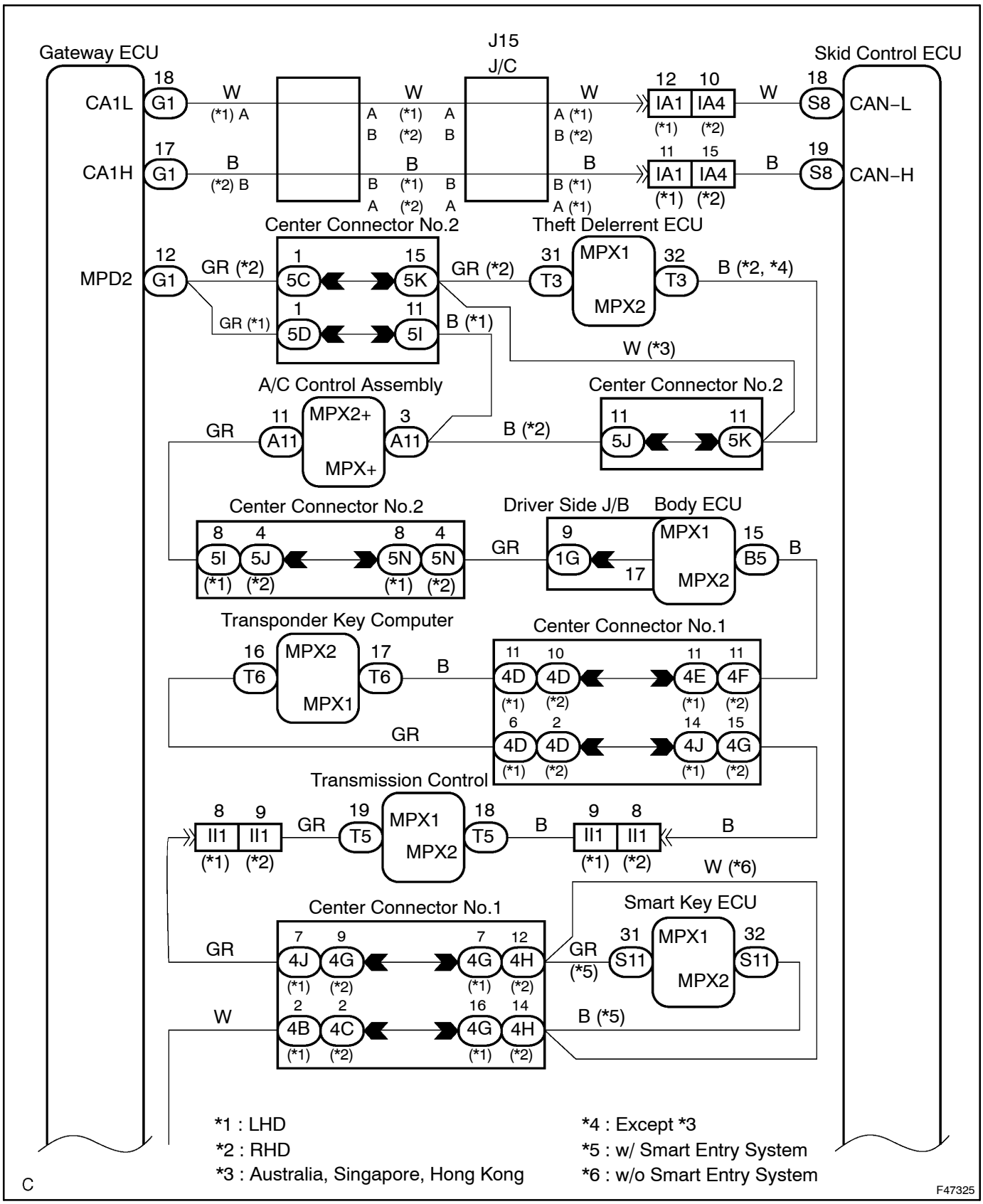
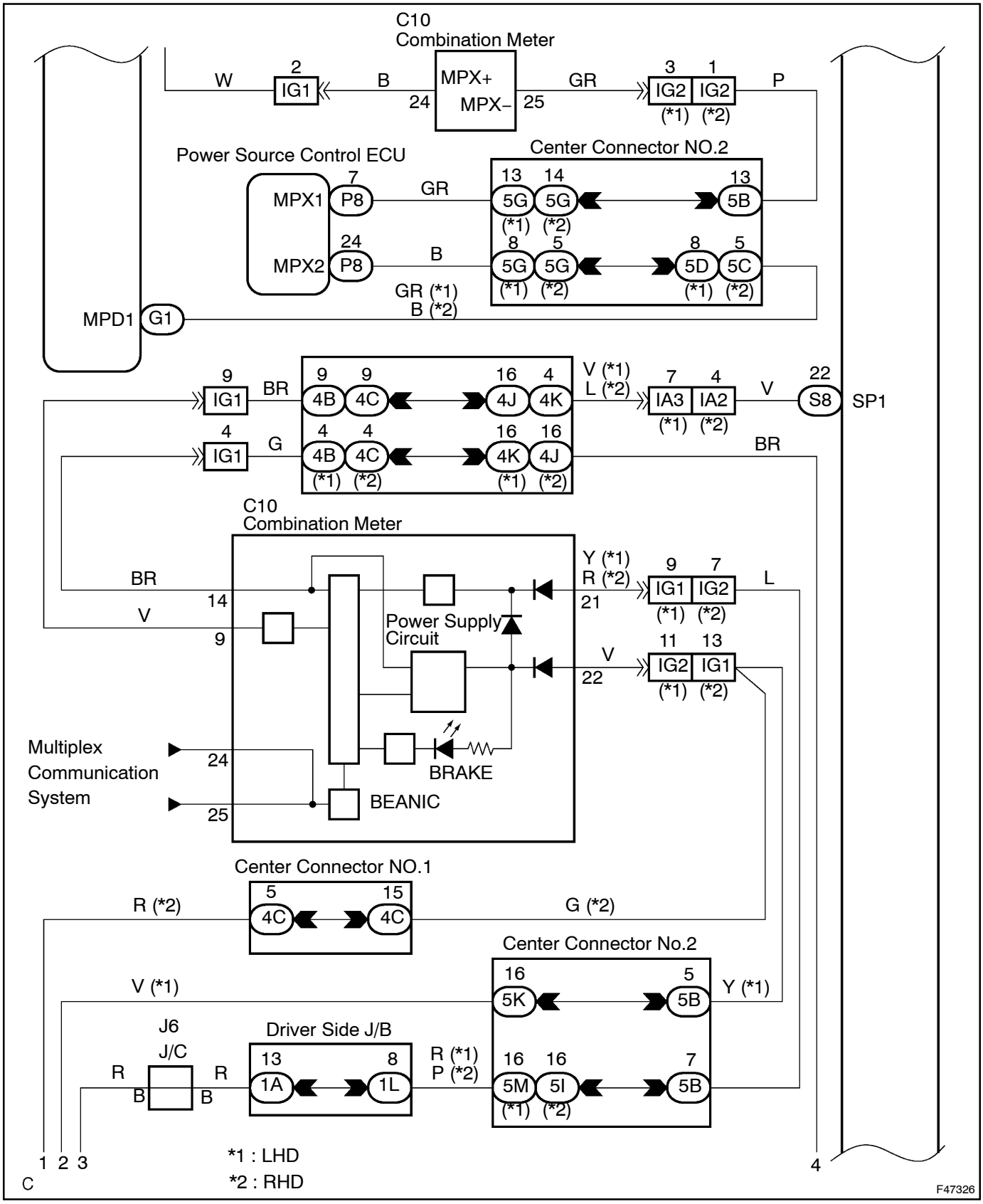
# BRAKE WARNING LIGHT CIRCUIT

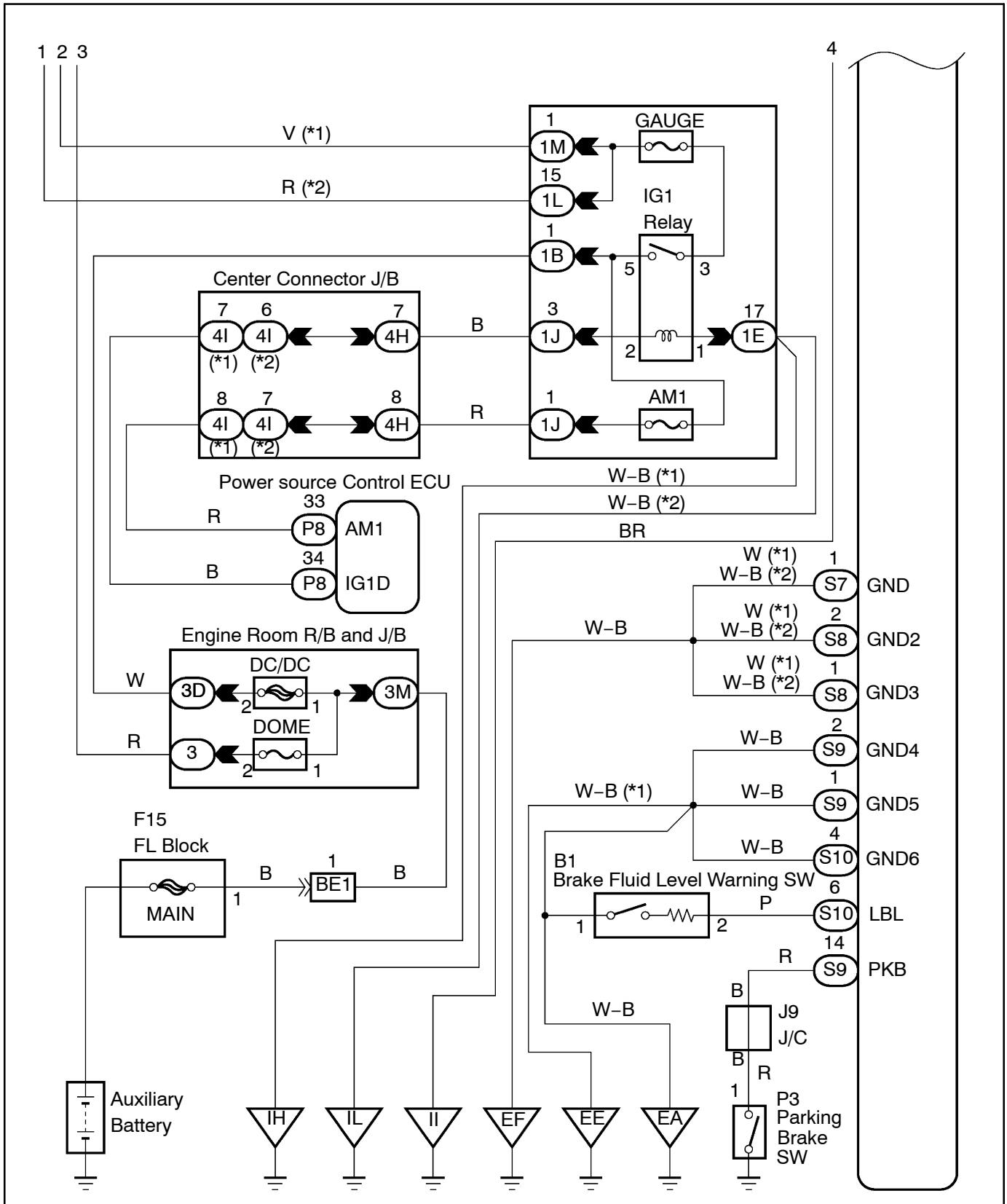
## CIRCUIT DESCRIPTION

When DTC is normal and BRAKE warning light remains on, perform troubleshooting as indicated below.
The BRAKE warning light comes on when the brake fluid is insufficient or the parking brake is applied.
The skid control ECU is connected to the combination meter via CAN and Multiplex communications.

# WIRING DIAGRAM




C10
Combination Meter
W
IG1
2
B
24
MPX+
MPX–
25
GR
IG2
3
IG2
1
P
(*1) (*2)
Power Source Control ECU
Center Connector NO.2
MPX1
P8
7
GR
13
14
5G
5G
(*1) (*2)
13
5B
MPX2
P8
24
B
8
5
5G
5G
(*1) (*2)
8
5
5D
5C
(*1) (*2)
GR (*1)
B (*2)
MPD1
G1
9
IG1
BR
9
9
4B
4C
16
4
4J
4K
V (*1)
L (*2)
7
4
IA3
IA2
(*1) (*2)
V
22
S8
SP1
4
IG1
G
4
4
4B
4C
(*1) (*2)
16
16
4K
4J
(*1) (*2)
BR
C10
Combination Meter
BR
14
V
9
Power Supply
Circuit
Y (*1)
R (*2)
21
9
7
IG1
IG2
(*1) (*2)
L
V
22
11
13
IG2
IG1
(*1) (*2)
Multiplex
Communication
System
24
25
BRAKE
BEANIC
Center Connector NO.1
R (*2)
5
15
4C
4C
G (*2)
Center Connector No.2
V (*1)
16
5
5K
5B
Y (*1)
J6
J/C
R
B
R
B
Driver Side J/B
13
8
1A
1L
R (*1)
P (*2)
16
16
7
5M
5I
5B
(*1) (*2)
1 2 3
C
*1 : LHD
*2 : RHD
4
F47326




*1 : LHD
*2 : RHD
*3 : Australia, Singapore, Hong Kong
*4 : Except *3
*5 : w/ Smart Entry System
*6 : w/o Smart Entry System

C

F47327

# INSPECTION PROCEDURE

| 1 | CHECK BRAKE FLUID LEVEL IN RESERVOIR |
|---|---|

Check that the brake fluid level is proper.

NG → ADD BRAKE FLUID

OK

| 2 | CHECK DTC FOR ABS |
|---|---|

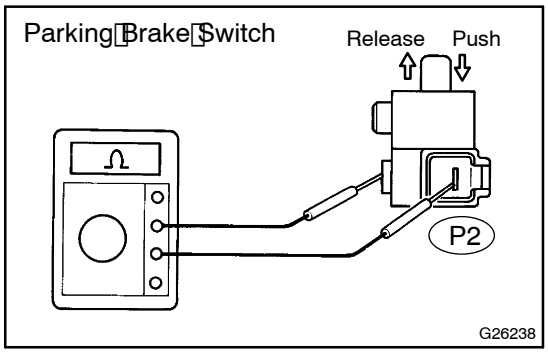
Are the DTC recorded? (see page 05–738)

NO → Go to step 3

YES

REPAIR CIRCUIT INDICATED BY OUTPUT CODE

| 3 | INSPECT PARKING BRAKE SWITCH ASSY |
|---|---|




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

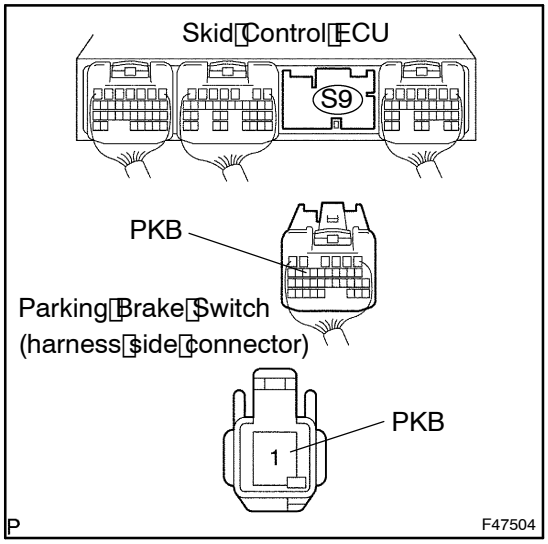
**Standard:**

| Tester Connection | Switch Condition | Specified Condition |
|---|---|---|
| P2–1 – Ground part | Released | Below 1 Ω |
| P2–1 – Ground part | Pushed in | 10 kΩ or higher |

NG → REPLACE PARKING BRAKE SWITCH ASSY

OK

## 4 CHECK HARNESS AND CONNECTOR(SKID CONTROL ECU – PARKING BRAKE SWITCH)




(a) Disconnect the skid control ECU connector and the parking brake switch connector.

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

**Standard:**

| Tester Connection | Specified Condition |
|---|---|
| S9–14 (PKB) – P3–1 (PKB) | Below 1 Ω |

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

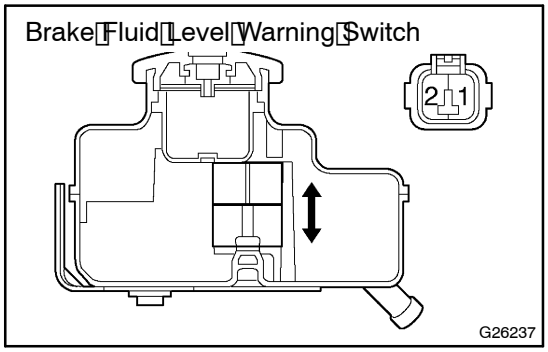
**Standard:**

| Tester Connection | Specified Condition |
|---|---|
| S9–14 (PKB) – Body ground | 10 kΩ or higher |

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

**OK**

## 5 INSPECT BRAKE FLUID LEVEL WARNING SWITCH




(a) Remove the reservoir tank cap and strainer.

(b) Disconnect the brake fluid level warning switch connector.

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

**Standard:**

| Tester Connection | Fluid Level | Specified Condition |
|---|---|---|
| (B1–1) – (B1–2) | Proper | 1.8 to 2.16 kΩ |
| (B1–1) – (B1–2) | Below min. level | Below 1 Ω |

**NG** → **REPLACE BRAKE FLUID LEVEL WARNING SWITCH**

**OK**

## 6 INSPECT CAN COMMUNICATION SYSTEM

(a) Is the DTC output for CAN communication system?

**Result:**

| | |
|---|---|
| DTC is not output | A |
| DTC is output | B |

**B** → **REPAIR CAN COMMUNICATION SYSTEM (SEE PAGE 05–2332)**

**A**

| 7 | INSPECT MULTIPLEX COMMUNICATION SYSTEM |
|---|---|

(a) Is the DTC output for Multiplex communication system?

**Result:**

| | |
|---|---|
| DTC is not output | A |
| DTC is output | B |

B → **REPAIR MULTIPLEX COMMUNICATION SYSTEM (SEE PAGE 05–2250)**

A

**REPAIR OR REPLACE COMBINATION METER ASSY (SEE PAGE 32–81 or 32–82)**

**NOTICE:**
**When replacing the skid control ECU assy, perform initialization of linear solenoid valve and calibration (see page 05–721).**