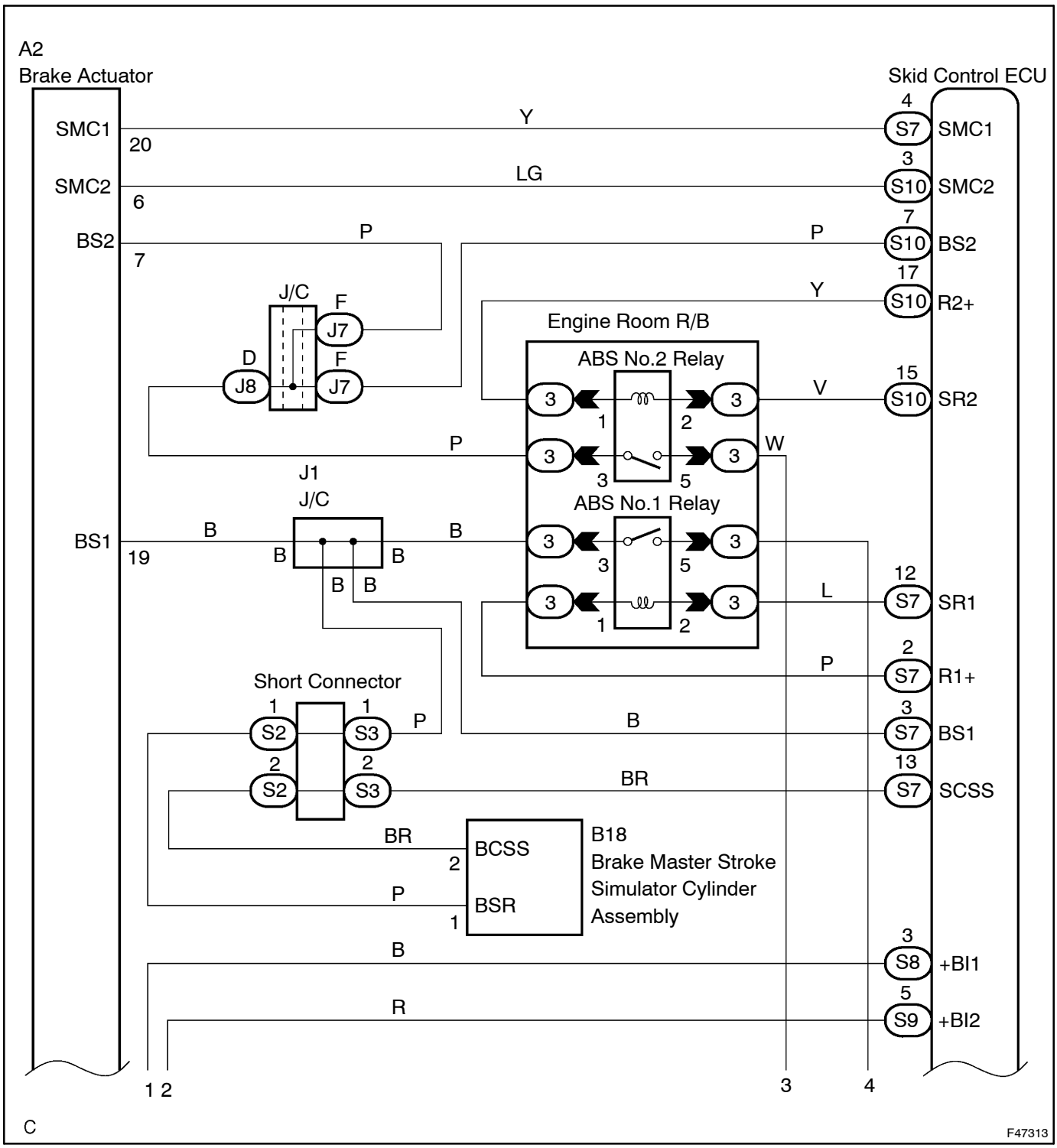
DTC C1377/43 CAPACITOR MALFUNCTION

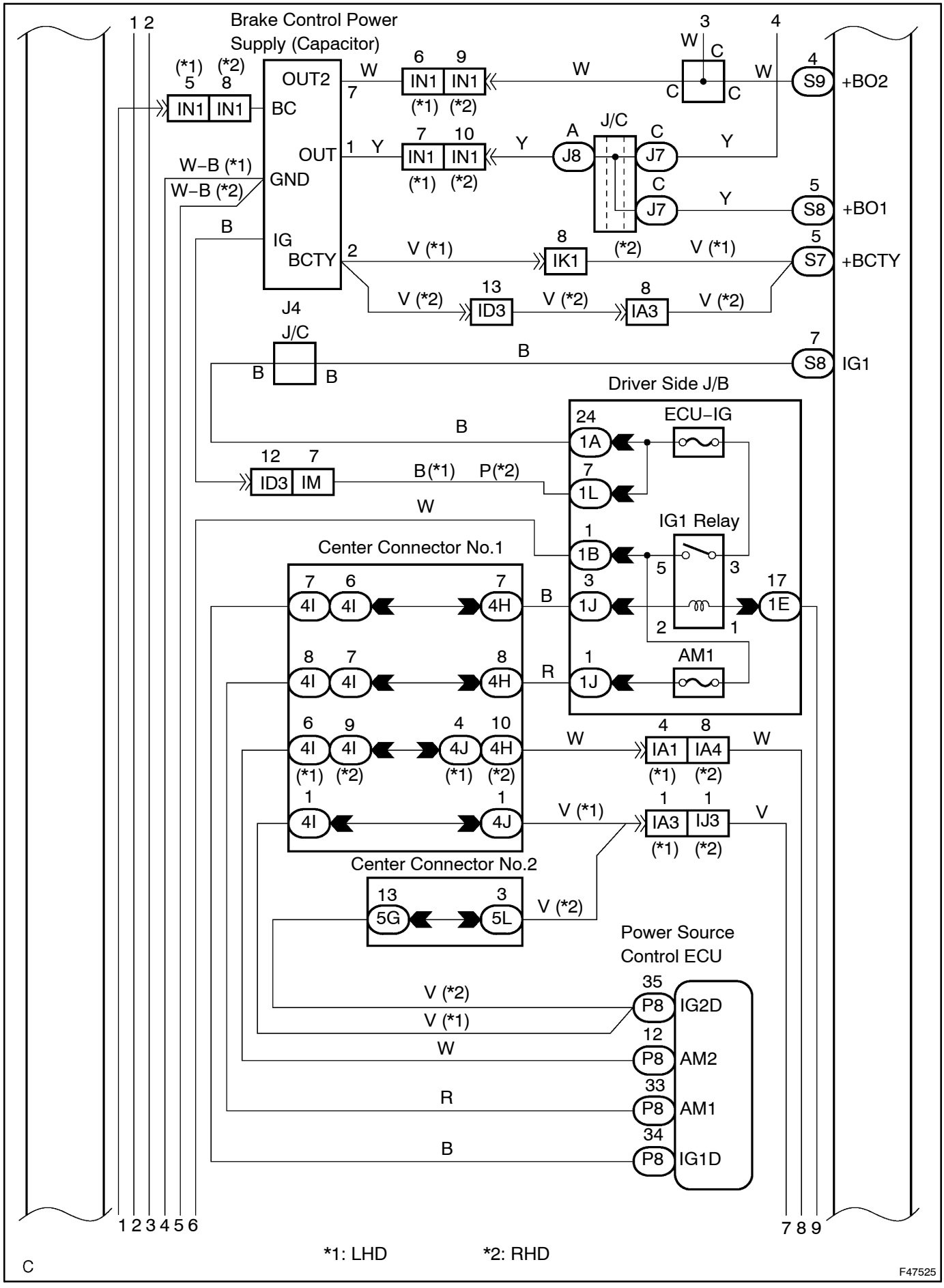
CIRCUIT DESCRIPTION

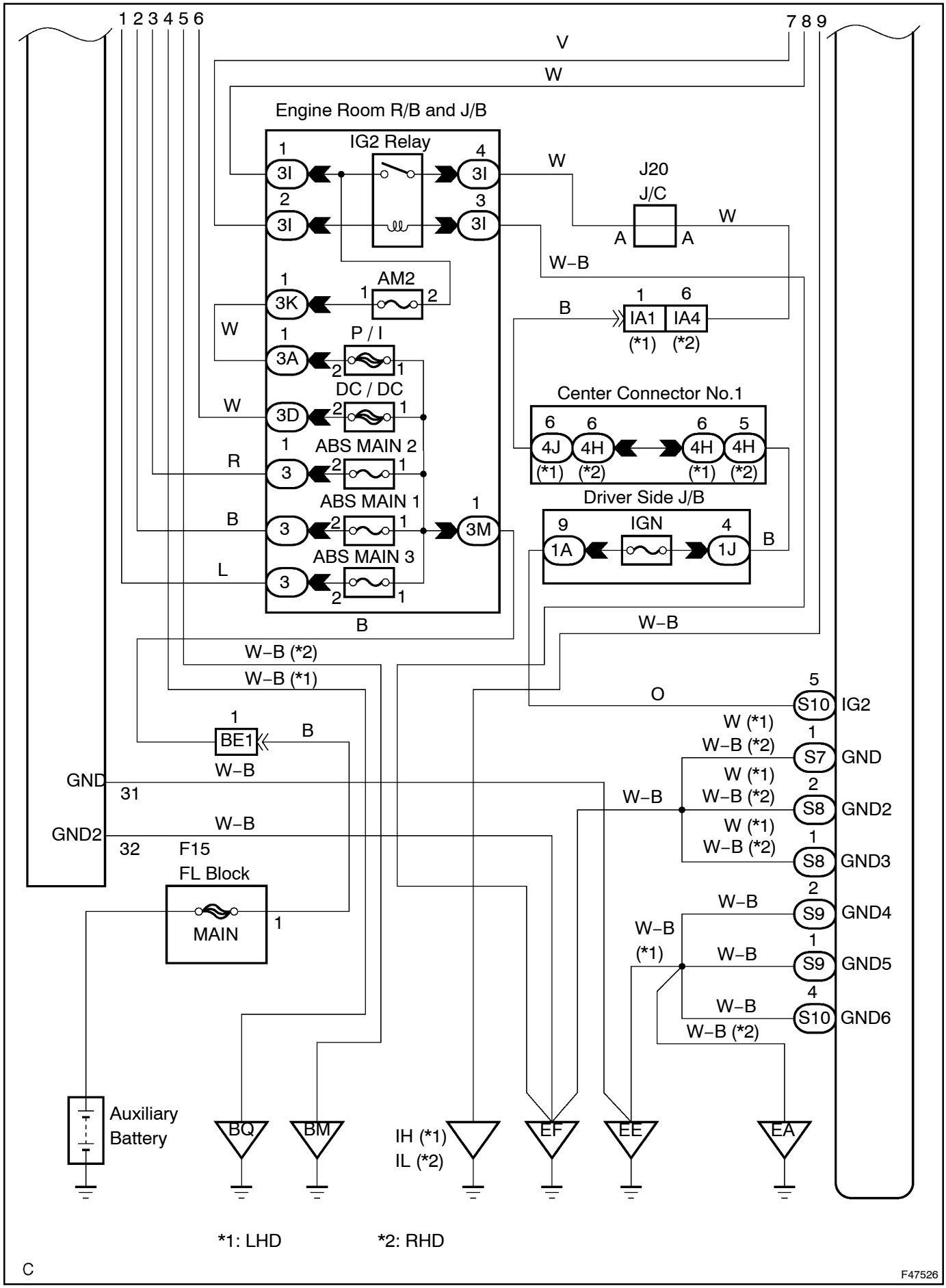
The brake control power supply assy (capacitor) provides auxiliary power for brake control when an auxiliary battery (12 V) voltage drops.

DTC No.	Detailed Code	DTC Detecting Condition	Trouble Area
C1377/43	101	Brake control power supply assy is deteriorated (indicates a need to replace).	• Brake control power supply
C1377/43	102	Self–discharge (current leak) is excessive (internal malfunction).	• Brake control power supply
C1377/43	103	Input voltage from the auxiliary battery (12 V) to the brake control power supply is 16.4 V or more for at least 10 sec.	• Brake control power supply
C1377/43	105	Circuit inside the power back up unit (charge) is malfunctioning.	• Brake control power supply
C1377/43	106	Circuit inside the power back up unit (back up output circuit) is malfunctioning.	• Brake control power supply
C1377/43	108	Circuit inside the power back up unit (voltage monitor circuit) is malfunctioning.	• Brake control power supply
C1377/43	109	Open circuit between auxiliary battery (12 V) and brake control powre supply power input (+BC terminal).	• Harness and connector • ABS No.3 fuse
C1377/43	110	• Open or short circuit between auxiliary battery (12 V) and capacitor output 1 (OUT 1). • Open or short circuit between auxiliary battery (12 V) and capacitor output 2 (OUT 2)	• Harness and connector • ABS No.1 fuse • ABS No.2 fuse

WIRING DIAGRAM

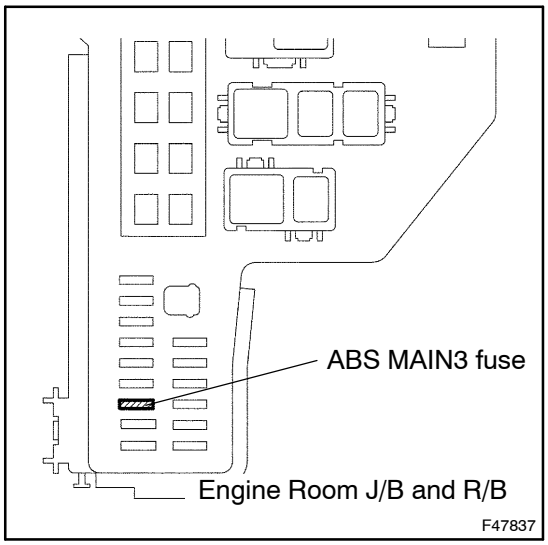



Brake Control Power Supply (Capacitor)
OUT2
BC
OUT
GND
IG
BCTY
W–B (*1)
W–B (*2)
B
W
Y
V (*1)
V (*2)
B (*1)
P (*2)
IN1
IK1
ID3
IM
IA3
J/C
J4
J8
J7
S9
+BO2
S8
+BO1
S7
+BCTY
IG1
Driver Side J/B
ECU–IG
1A
1L
1B
1J
IG1 Relay
1E
AM1
Center Connector No.1
4I
4H
4J
IA1
IA4
IJ3
Center Connector No.2
5G
5L
Power Source Control ECU
P8
IG2D
AM2
AM1
IG1D
1 2 3 4 5 6
7 8 9
*1: LHD
*2: RHD
C
F47525


1 2 3 4 5 6
7 8 9
V
W
Engine Room R/B and J/B
IG2 Relay
3I
3K
3A
3D
3M
AM2
P / I
DC / DC
ABS MAIN 2
ABS MAIN 1
ABS MAIN 3
J20
J/C
IA1
IA4
(*1)
(*2)
Center Connector No.1
4J
4H
Driver Side J/B
IGN
1A
1J
W–B
B
L
R
BE1
GND
31
GND2
32
F15
FL Block
MAIN
Auxiliary Battery
BQ
BM
IH (*1)
IL (*2)
EF
EE
EA
O
W (*1)
W–B (*2)
S10
IG2
S7
GND
S8
GND2
GND3
S9
GND4
GND5
GND6
*1: LHD
*2: RHD
C
F47526

INSPECTION PROCEDURE

1 INSPECT FUSE(ABS MAIN3 FUSE)



(a) Remove the ABS MAIN3 fuse from the engine room J/B and J/B.

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

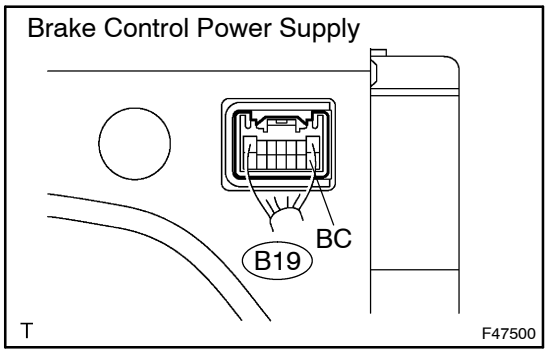
Standard:

ABS MAIN3 fuse	Below 1 Ω (Continuity)

NG → **CHECK FOR SHORT IN ALL HARNESS AND CONNECTOR CONNECTED TO FUSE AND REPLACE FUSE**

OK

2 INSPECT BRAKE CONTROL POWER SUPPLY(BC TERMINAL VOLTAGE)



(a) Measure the voltage according to the value(s) in the table below.

HINT:

Measure the voltage from behind the connector with the connector connected.

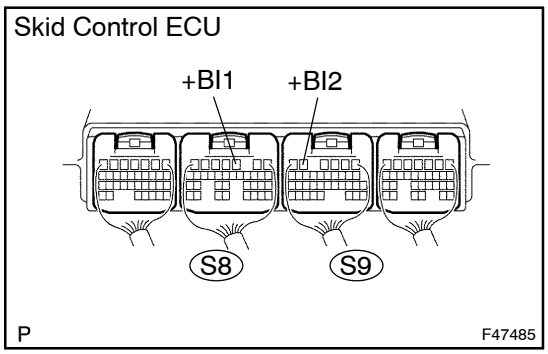
Standard:

Tester Connection	Specified Condition
B19–8 (BC) – Body ground	10 to 14 V

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

OK

3 INSPECT SKID CONTROL ECU TERMINAL VOLTAGE



(a) Measure the voltage according to the value(s) in the table below.

HINT:

Measure the voltage from behind the connector with the connector connected to the skid control ECU.

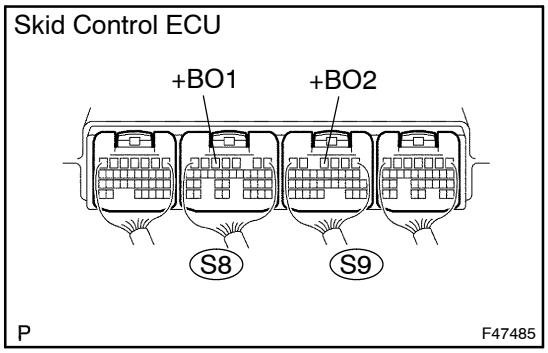
Standard:

Tester Connection	Specified Condition
S8–3 (+BI1) – Body ground	10 to 14 V
S9–5 (+BI2) – Body ground	10 to 14 V

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

OK

4 INSPECT SKID CONTROL ECU TERMINAL VOLTAGE



(a) Measure the voltage according to the value(s) in the table below.

HINT:

Measure the voltage from behind the connector with the connector connected to the skid control ECU.

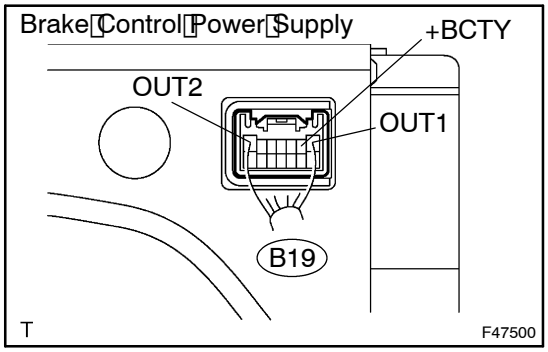
Standard:

Tester Connection	Specified Condition
S8–5 (+BO1) – Body ground	10 to 14 V
S9–4 (+BO2) – Body ground	10 to 14 V

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

OK

5 INSPECT BRAKE CONTROL POWER SUPPLY



(a) Turn the power switch ON (READY).

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

HINT:

Measure the voltage from behind the connector with the connector connected.

Standard:

Tester Connection	Condition	Specified Condition
B19–1 (OUT1) – Body ground	Power switch ON (READY)	9 to 13 V
B19–2 (+BCTY) – Body ground	Power switch ON (READY)	9 to 13 V
B19–7 (OUT2) – Body ground	Power switch ON (READY)	9 to 13 V

NG → **REPLACE BRAKE CONTROL POWER SUPPLY**

NOTICE:

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

OK

REPAIR OR REPLACE HARNESS OR CONNECTOR