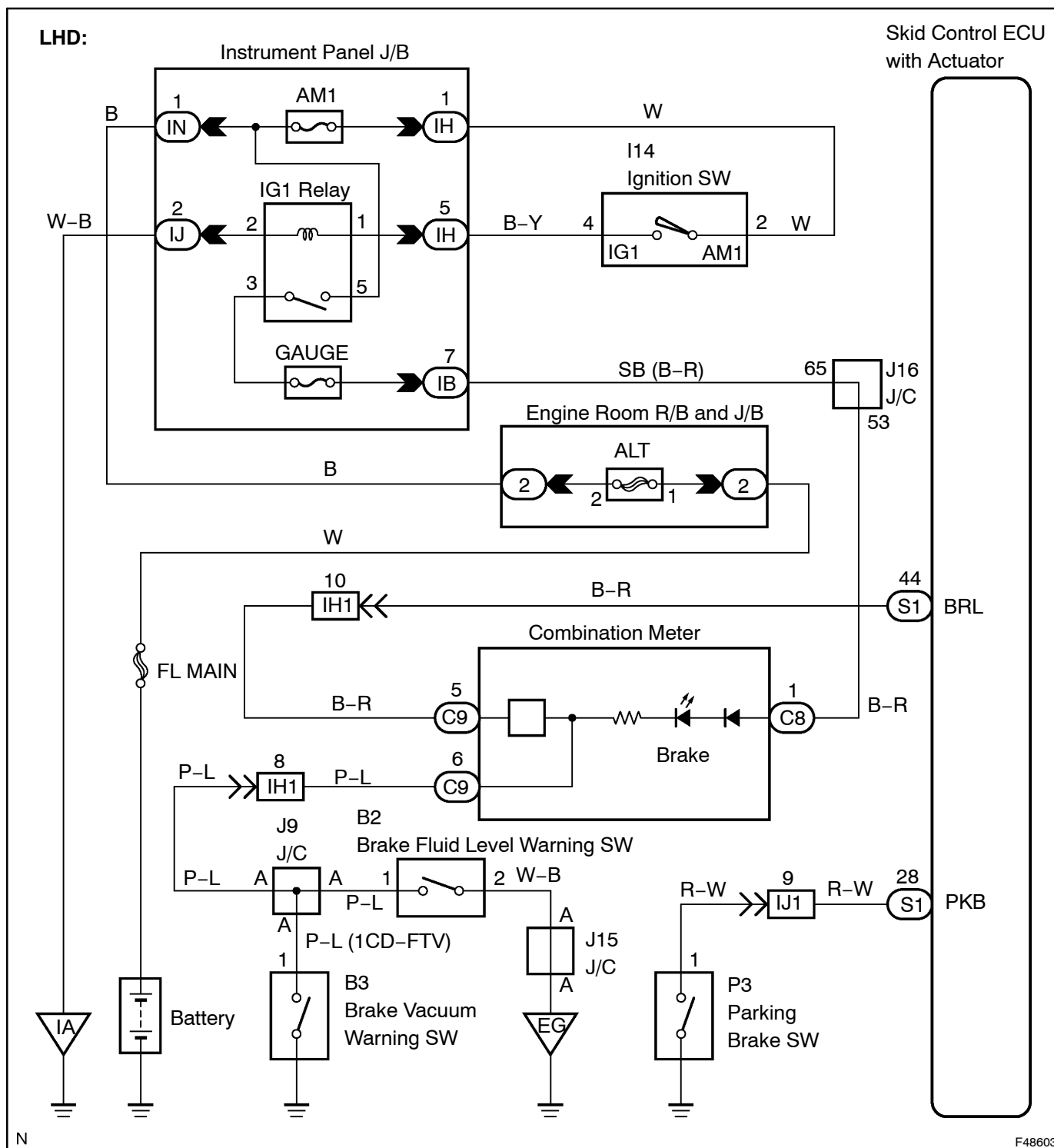


BRAKE WARNING LIGHT CIRCUIT

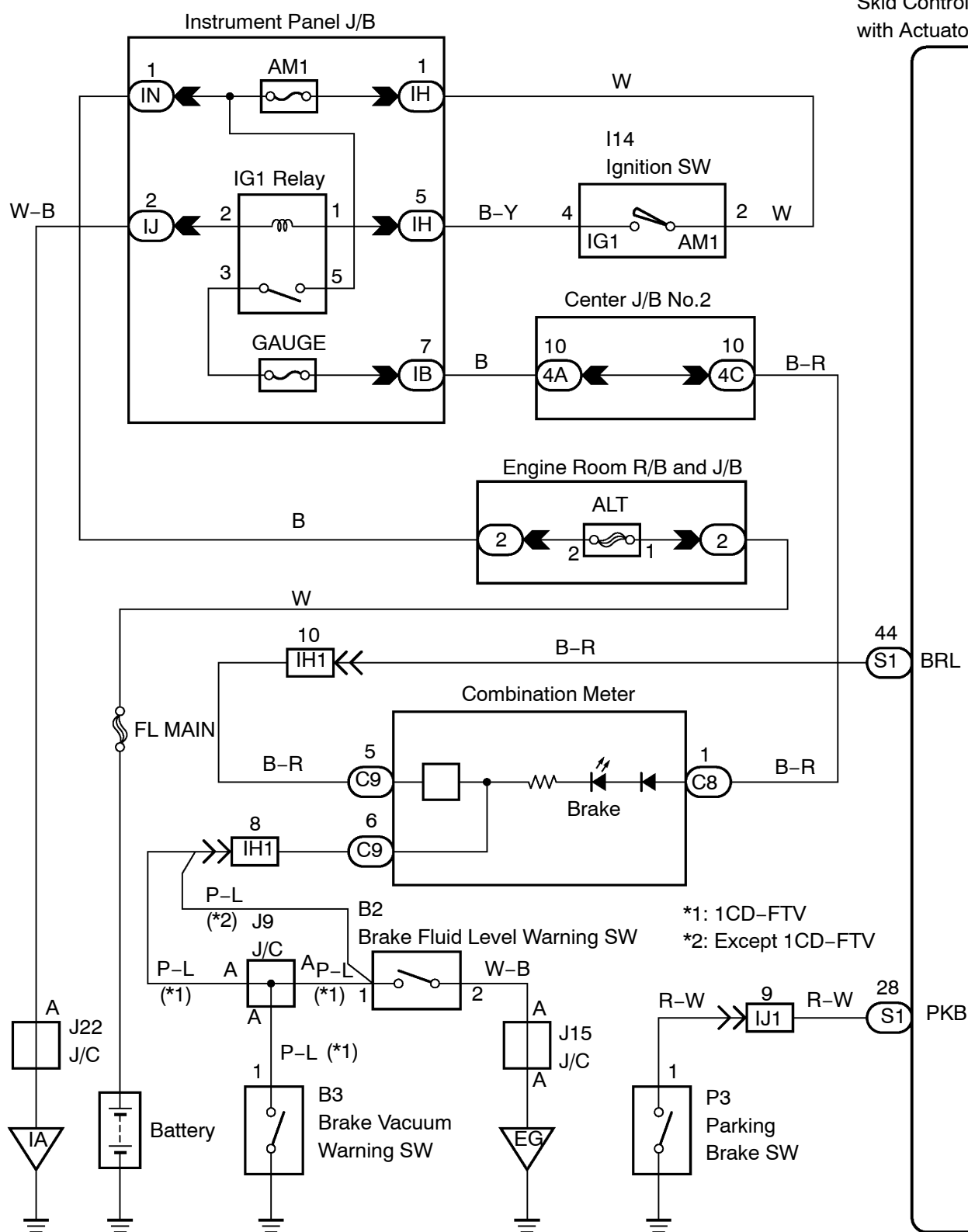
CIRCUIT DESCRIPTION

The BRAKE warning light comes on when the brake fluid is insufficient, the parking brake is applied or the EBD is defective.

WIRING DIAGRAM



RHD:

Skid Control ECU
with Actuator

N

F48604

INSPECTION PROCEDURE

HINT:
When releasing the parking brake, move the shift lever into the P position for an AT vehicle, and chock the wheels for an MT vehicle to hold the vehicle for safety.

1 CHECK BRAKE FLUID

Check that the brake fluid level is proper.

NG ADD BRAKE FLUID

OK

2 CHECK DTC FOR ABS

Are the DTC recorded? (see page 05-625)

NO Go to step 3

YES

REPAIR CIRCUIT INDICATED BY OUTPUT CODE

3 INSPECT BRAKE WARNING LAMP

WHEN USING INTELLIGENT TESTER II:

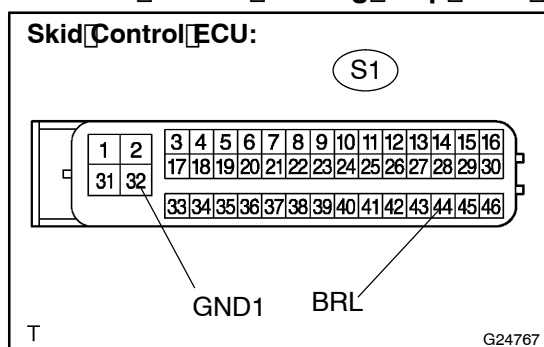
- Connect the intelligent tester II to the DLC3.
- Start the engine.
- Select the item "BRAKE WARNING LIGHT" in the ACTIVE TEST and operate the BRAKE warning lamp by using the intelligent tester II.

Item	Vehicle Condition / Test Details	Diagnostic Note
BRAKE Warning Light	Turns BRAKE warning light ON / OFF	Observe combination meter

- Check that "ON" and "OFF" of the BRAKE warning lamp are indicated on the combination meter when using the intelligent tester II.

OK:

The BRAKE warning lamp turns on or off in accordance with the intelligent tester II.



WHEN NOT USING INTELLIGENT TESTER II:

- Turn the ignition switch off and disconnect the skid control ECU S1 connector.
- Ground terminal BRL of the skid control ECU.
- Turn the ignition switch to the ON position.
- Check the brake warning lamp.

OK:

The lamp turns on or off in accordance with the connection of terminal GND and BRL.

NG Go to step 4

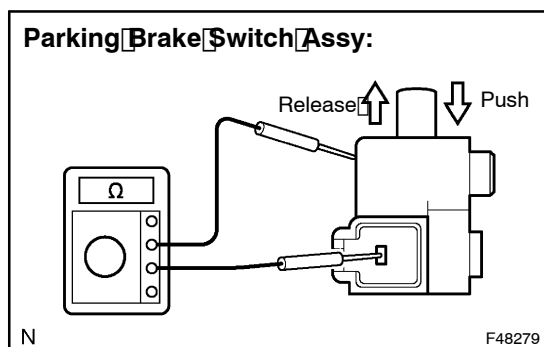
OK

REPLACE ABS & TRACTION ACTUATOR ASSY (SEE PAGE 32-20)

NOTICE:

When replacing the ABS & TRACTION actuator assy, perform zero point calibration (see page 05-610).

4 INSPECT PARKING BRAKE SWITCH ASSY



- Remove the parking brake switch assy.
- Measure the resistance according to the value(s) in the table below.

Standard:

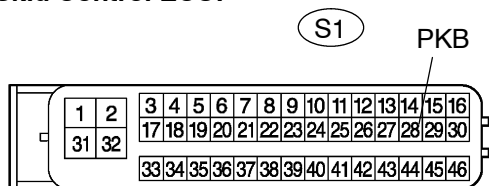
Tester Connection	Switch Condition	Specified Condition
P3-1 - Ground part	Released	Below 1 Ω
P3-1 - Ground part	Pushed in	10 k Ω or higher

NG REPLACE PARKING BRAKE SWITCH ASSY

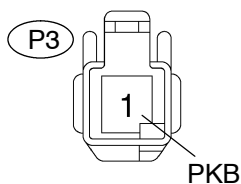
OK

5 CHECK HARNESS OR CONNECTOR(SKID CONTROL ECU – PARKING BRAKE SWITCH)

Skid Control ECU:



Parking Brake Switch:



G26243

- Disconnect the skid control ECU S1 connector and the parking brake switch P3 connector.
- Measure the resistance according to the value(s) in the table below.

Standard:

Tester Connection	Specified Condition
S1-28 (PKB) – P3-1 (PKB)	Below 1 Ω
S1-28 (PKB) – Body ground	10 k Ω or higher

Result:

OK (1CD-FTV)	A
OK (1AZ-FE, 2AZ-FE)	B
NG	C

B

Go to step 8

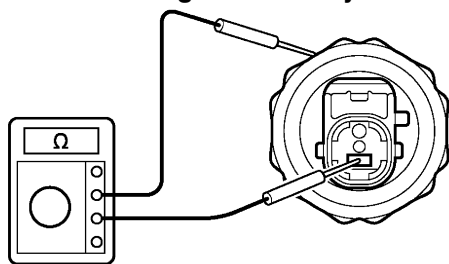
C

REPAIR OR REPLACE HARNESS OR CONNECTOR

A

6 INSPECT VACUUM WARNING SWITCH ASSY

Vacuum Warning Switch Assy:



N

F48282

- Remove the vacuum warning switch assy.
- Measure the resistance according to the value(s) in the table below.

Standard:

Tester Connection	Specified Condition
1 – Ground part	10 k Ω or higher

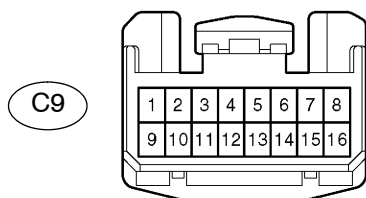
NG

REPLACE VACUUM WARNING SWITCH ASSY

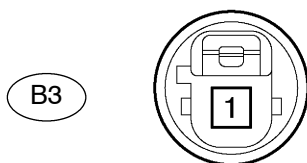
OK

7 CHECK HARNESS OR CONNECTOR(VACUUM WARNING SWITCH ASSY – COMBINATION METER)

Combination Meter:



Vacuum Warning Switch Assy:



N

F48283

- Disconnect the combination meter C9 connector and vacuum warning switch assy B3 connector.
- Measure the resistance according to the value(s) in the table below.

Standard:

Tester Connection	Specified Condition
C9-6 – B3-1	Below 1 Ω
C9-6 – Body ground	10 k Ω or higher

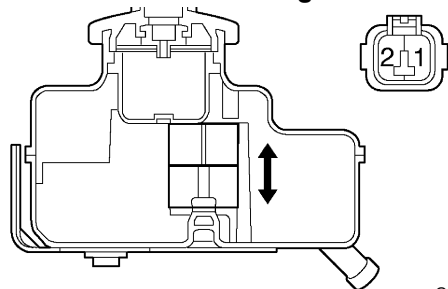
NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

8 INSPECT BRAKE FLUID LEVEL WARNING SWITCH

Brake Fluid Level Warning Switch:



G26237

- Remove the reservoir tank cap and strainer.
- Disconnect the brake fluid level warning switch B2 connector.
- Measure the resistance according to the value(s) in the table below.

Standard:

Tester Connection	Switch Condition	Specified Condition
(B2-1) – (B2-2)	Float UP	10 k Ω or higher
(B2-1) – (B2-2)	Float DOWN	Below 1 Ω

NG

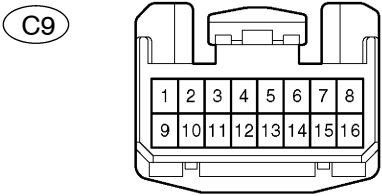
REPLACE BRAKE FLUID LEVEL WARNING SWITCH

OK

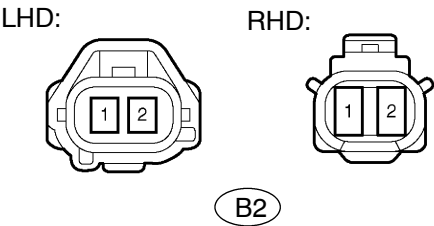
9

CHECK HARNESS OR CONNECTOR(BRAKE FLUID LEVEL WARNING SWITCH – COMBINATION METER)

Combination Meter:



Brake Fluid Level Warning Switch:



N

F48265

- (a) Disconnect the combination meter C9 connector and the brake fluid level warning switch B2 connector.
- (b) Measure the resistance according to the value(s) in the table below.

Standard:

Tester Connection	Specified Condition
(C9-6) – (B2-1)	Below 1 Ω
(C9-6) – Body ground	10 kΩ or higher

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

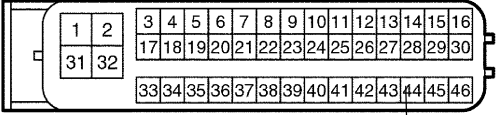
OK

10

CHECK HARNESS OR CONNECTOR(SKID CONTROL ECU - COMBINATION METER)

Skid Control ECU:

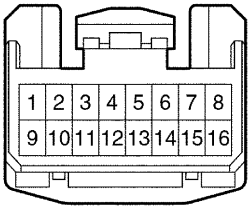
S1



BRL

Combination Meter:

C9



P

F48266

- (a)
- Disconnect the skid control ECU S1 connector and combination meter C9 connector.
- (b)
- Measure the resistance according to the value(s) in the table below.

Standard:

Tester Connection	Specified Condition
S1-44 (BRL) - (C9-5)	Below 1 Ω
S1-44 (BRL) - Body ground	10 k Ω or higher

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

REPAIR OR REPLACE COMBINATION METER ASSY