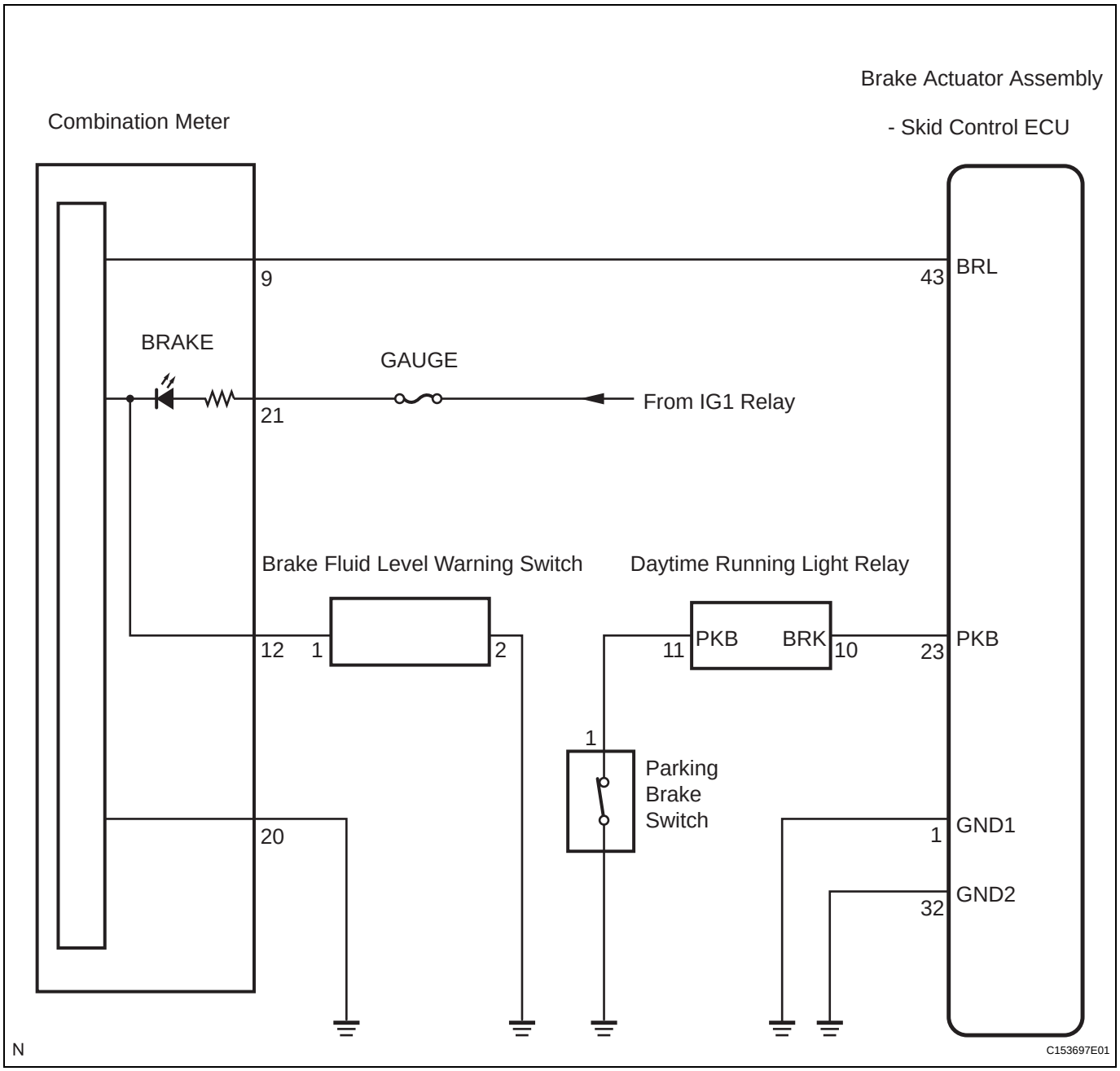
Brake Warning Light Circuit

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



INSPECTION PROCEDURE

NOTICE:

When replacing the ABS and TRACTION actuator assembly, perform zero point calibration (See page BC-80).

HINT:

When releasing the parking brake, set the chocks to hold the vehicle for safety.

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1	CHECK BRAKE FLUID

(a) Check that the brake fluid level is proper.

NG → **ADD BRAKE FLUID**

OK

2	INSPECT SKID CONTROL ECU CONNECTOR SECURELY CONNECTED

(a) Check the ECU connector's connecting condition.
OK:
The connector should be securely connected.

NG → **CONNECT CONNECTOR TO ECU CORRECTLY**

OK

3	CHECK DTC FOR ABS

(a) Are the DTCs recorded? (See page BC-96)

NO → **Go to step 4**

YES

REPAIR CIRCUIT INDICATED BY OUTPUT DTC

4	INSPECT BRAKE WARNING LIGHT

(a) WHEN USING INTELLIGENT TESTER:
(1) Connect the intelligent tester to the DLC3.
(2) Start the engine.
(3) Select the "BRAKE WARN LIGHT" in the ACTIVE TEST and operate the BRAKE warning light by the intelligent tester.

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

(4) Check that "ON" and "OFF" of the BRAKE warning light are indicated on the combination meter when using the intelligent tester.
OK:
The BRAKE warning light turns on or off in accordance with the intelligent tester.

(b) WHEN NOT USING INTELLIGENT TESTER:
(1) Turn the ignition switch off.
(2) Disconnect the skid control ECU connector.
(3) Turn the ignition switch to the ON position.
(4) Check that the BRAKE warning light.

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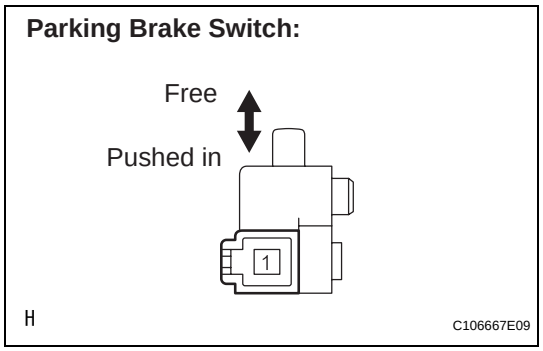
OK:
The brake warning light comes on.

NG → **Go to step 5**

OK

REPLACE ABS AND TRACTION ACTUATOR ASSEMBLY

5 INSPECT PARKING BRAKE SWITCH



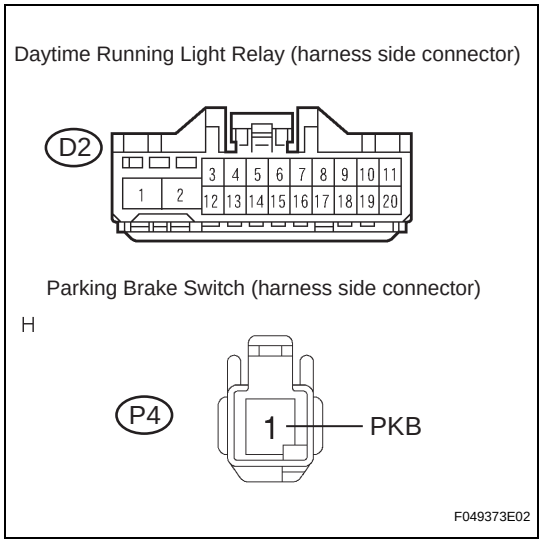
(a) Remove the parking brake switch connector.
(b) Measure the resistance according to the value(s) in the table below.
Standard resistance

Tester Connection	Condition	Specified Condition
1 - Ground part	Free	Below 1 Ω
1 - Ground part	Pushed in	10 kΩ or higher

NG → **REPLACE PARKING BRAKE SWITCH**

OK

6 CHECK HARNESS AND CONNECTOR (PARKING BRAKE SWITCH - DAYTIME RUNNING LIGHT RELAY)



(a) Disconnect the daytime running light relay connector and parking brake switch connector.
(b) Measure the resistance according to the value(s) in the table below.
Standard resistance

Tester Connection	Specified Condition
D2-11 (PKB) - P4-1 (PKB)	Below 1 Ω
P4-1 (PKB) - Body ground	10 kΩ or higher

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

OK

7 INSPECT DAYTIME RUNNING LIGHT RELAY

(a) Check the daytime running light relay.

NG → **REPLACE DAYTIME RUNNING LIGHT RELAY**

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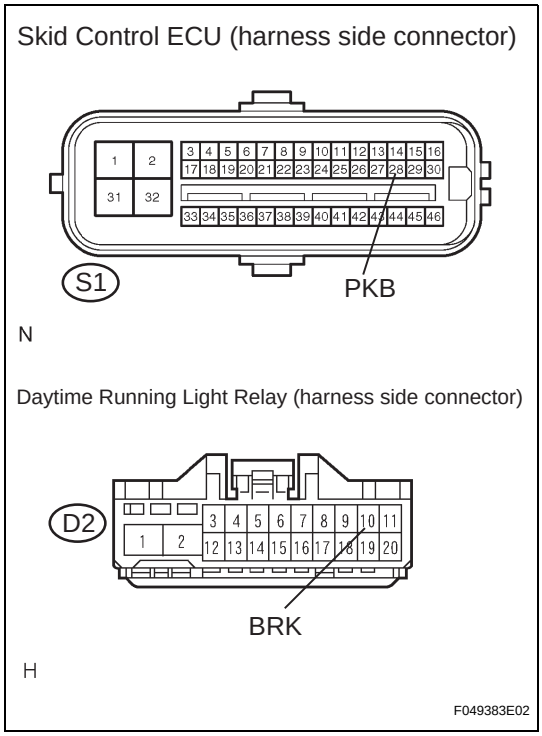
OK

8 CHECK HARNESS AND CONNECTOR (DAYTIME RUNNING LIGHT RELAY - SKID CONTROL ECU)



(a) Disconnect the skid control ECU connector and daytime running light relay connector.
(b) Measure the resistance according to the value(s) in the table below.

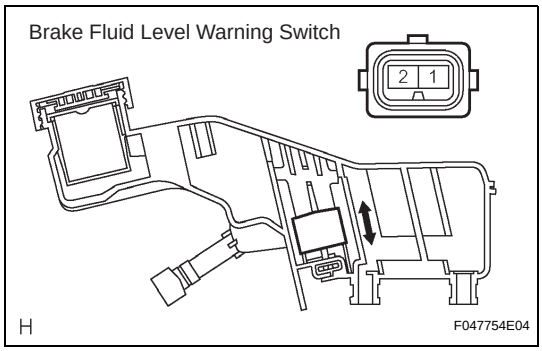
Standard resistance

Tester Connection	Specified Condition
D2-10 (BRK) - S1-28 (PKB)	Below 1 Ω
S1-28 (PKB) - Body ground	10 kΩ or higher

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

OK

9 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 resistance

Tester Connection	Condition	Specified Condition
1 - 2	Float UP	10 kΩ or higher
1 - 2	Float DOWN	Below 1 Ω

NG → **REPLACE BRAKE MASTER CYLINDER RESERVOIR SUB-ASSEMBLY (BRAKE FLUID LEVEL WARNING SWITCH)**

OK

BC

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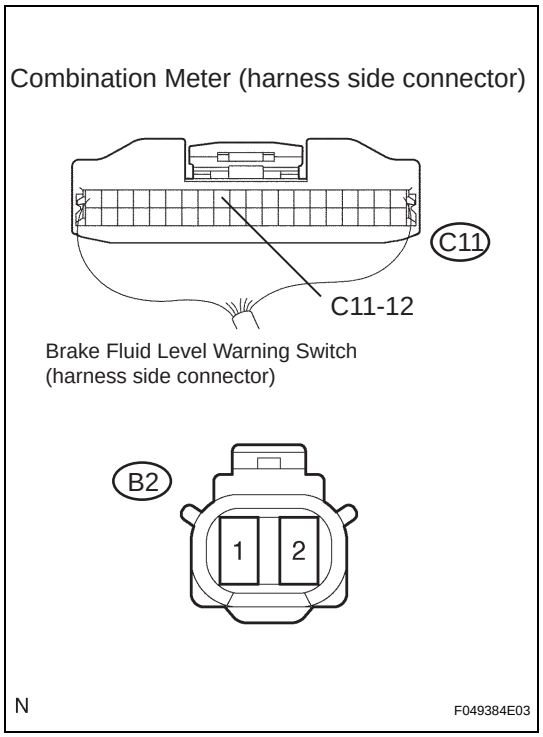
10 CHECK HARNESS AND CONNECTOR (BRAKE FLUID LEVEL WARNING SWITCH - COMBINATION METER)



(a) Disconnect the combination meter connector and the brake fluid level warning switch connector.

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

Standard resistance

Tester Connection	Specified Condition
(C11-12) - (B2-1)	Below 1 Ω

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

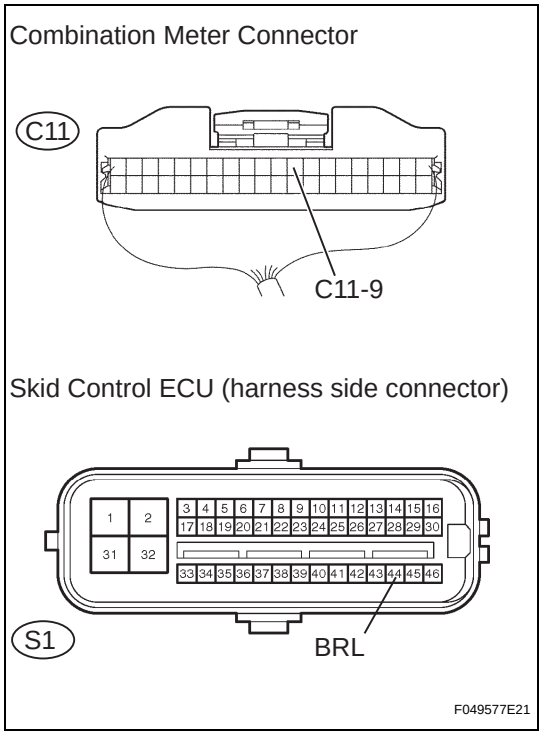
Standard resistance

Tester Connection	Specified Condition
(C11-12) - Body ground	10 kΩ or higher

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

OK

11 CHECK HARNESS AND CONNECTOR (SKID CONTROL ECU - COMBINATION METER)



(a) Disconnect the skid control ECU connector and combination meter connector.

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

Standard resistance

Tester Connection	Specified Condition
S1-44 (BRL) - (C11-9)	Below 1 Ω

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

Standard resistance

Tester Connection	Specified Condition
S1-44 (BRL) - Body ground	10 kΩ or higher

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

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OK

12	INSPECT COMBINATION METER ASSEMBLY

(a) Check combination meter assembly (See page ME-3).

NG → **REPLACE COMBINATION METER ASSEMBLY**

OK

REPLACE ABS AND TRACTION ACTUATOR ASSEMBLY

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