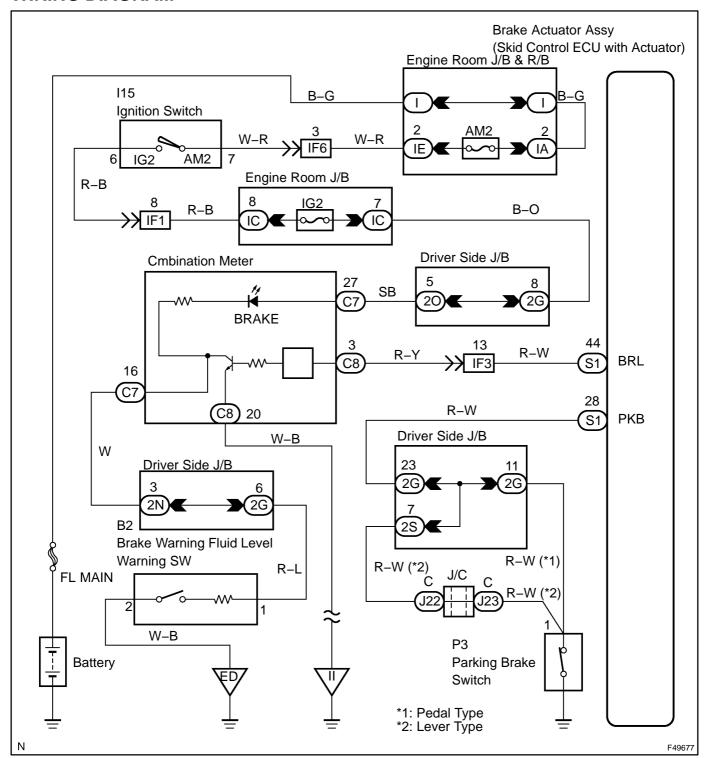
# BRAKE WARNING LIGHT CIRCUIT

## **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**



## **INSPECTION PROCEDURE**

#### NOTICE:

When replacing the brake actuator assy, perform zero point calibration (see page 05-987).

### 1 PERFORM PRE-CHECK

- (a) Check that all of the following conditions for not illuminating the brake warning light are satisfied.
  - (1) The ABS warning light is off.
  - (2) The amount of the brake fluid is between the min. line and max. line of the brake master cylinder reservoir.
  - (3) The parking brake pedal is fully released.

#### NOTICE:

When releasing the parking brake, move the shift lever into the P position to hold the vehicle for safety.

**NEXT** 

# 2 CHECK DTC FOR ABS

(a) Check if the DTCs are recorded (see page 05–1002).

NO > Go to step 3

YES

REPAIR CIRCUIT INDICATED BY OUTPUT CODE (SEE PAGE 05-1010)

### 3 INSPECT BRAKE WARNING LIGHT

#### WHEN USING HAND-HELD TESTER:

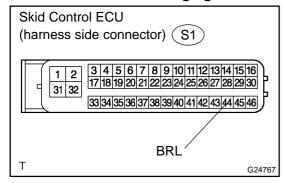
- (a) Connect the hand-held tester to the DLC3.
- (b) Start the engine.
- (c) Select the "BRAKE WARN LIGHT" in the ACTIVE TEST and operate the BRAKE warning light on the hand-held tester.

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

(d) Check that "ON" and "OFF" of the BRAKE warning light are shown on the combination meter with the hand-held tester.

#### OK:

The BRAKE warning light is turned ON or OFF in accordance with the hand-held tester.



## WHEN NOT USING HAND-HELD TESTER:

- (a) Turn the ignition switch off and disconnect connector S1 from the skid control ECU.
- (b) Turn the ignition switch to the ON position.

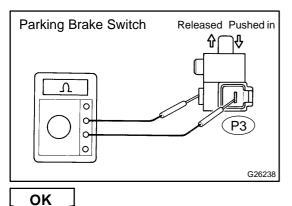
#### OK:

The brake warning light comes on.

OK Go to step 8

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## 4 INSPECT PARKING BRAKE SWITCH ASSY



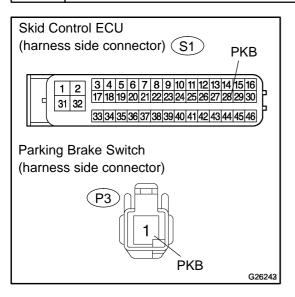
- (a) Remove the parking brake switch assy.
- (b) Measure the resistance according to the value(s) in the table below.

#### Standard:

Tester Connection	Switch Condition	Specified Condition
P3-1 - Ground part	Released	Below 1 $\Omega$
P3–1 – Ground part	Pushed in	10 k $\Omega$ or higher

NG REPAIR PARKING BRAKE SWITCH ASSY

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



- (a) Disconnect the skid control ECU connector S1 and the parking brake switch connector P3.
- (b) 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

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

#### Standard:

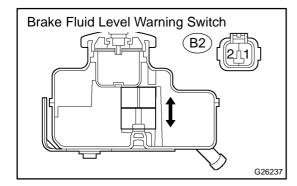
Tester Connection	Specified Condition
S1–28 (PKB) – Body ground	10 kΩ or higher

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REPAIR OR REPLACE HARNESS OR CONNECTOR

OK \_

# 6 INSPECT BRAKE FLUID LEVEL WARNING SWITCH



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

### Standard:

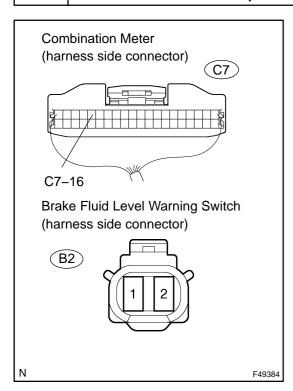
Tester Connection	Switch Condition	Specified Condition
(B2-1) - (B2-2)	Float UP	10 k $\Omega$ or higher
(B2-1) - (B2-2)	Float DOWN	Below 1 Ω

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REPLACE BRAKE FLUID LEVEL WARNING SWITCH

OK

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



- (a) Disconnect the combination meter connector C8 and the brake fluid level warning switch connector B2.
- (b) Measure the resistance according to the value(s) in the table below.

#### Standard:

Tester Connection	Specified Condition
(C7-16) - (B2-1)	Below 1 Ω

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

#### Standard:

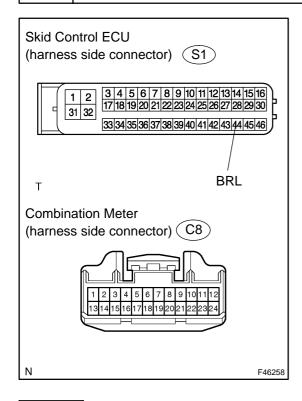
Tester Connection	Specified Condition
(C7–16) – Body ground	10 kΩ or higher





7

# 8 CHECK HARNESS AND CONNECTOR(SKID CONTROL ECU – COMBINATION METER)



- (a) Disconnect the skid control ECU connector S1 and combination meter connector C8.
- (b) Measure the resistance according to the value(s) in the table below.

#### Standard:

Tester Connection	Specified Condition
S1-44 (BRL) - C8-3	Below 1 Ω

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

#### Standard:

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

NG REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

# 9 CHECK COMBINATION METER ASSY

(a) Check combination meter assy (see page 71–1).

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REPAIR OR REPLACE COMBINATION METER ASSY (SEE PAGE 05-1999)

OK

REPLACE BRAKE ACTUATOR ASSY (SEE PAGE 32-63)