

<b>DTC</b>	<b>C1252 / 52</b>	<b>Hydraulic brake booster Pump Motor ON Time Abnormally Long</b>
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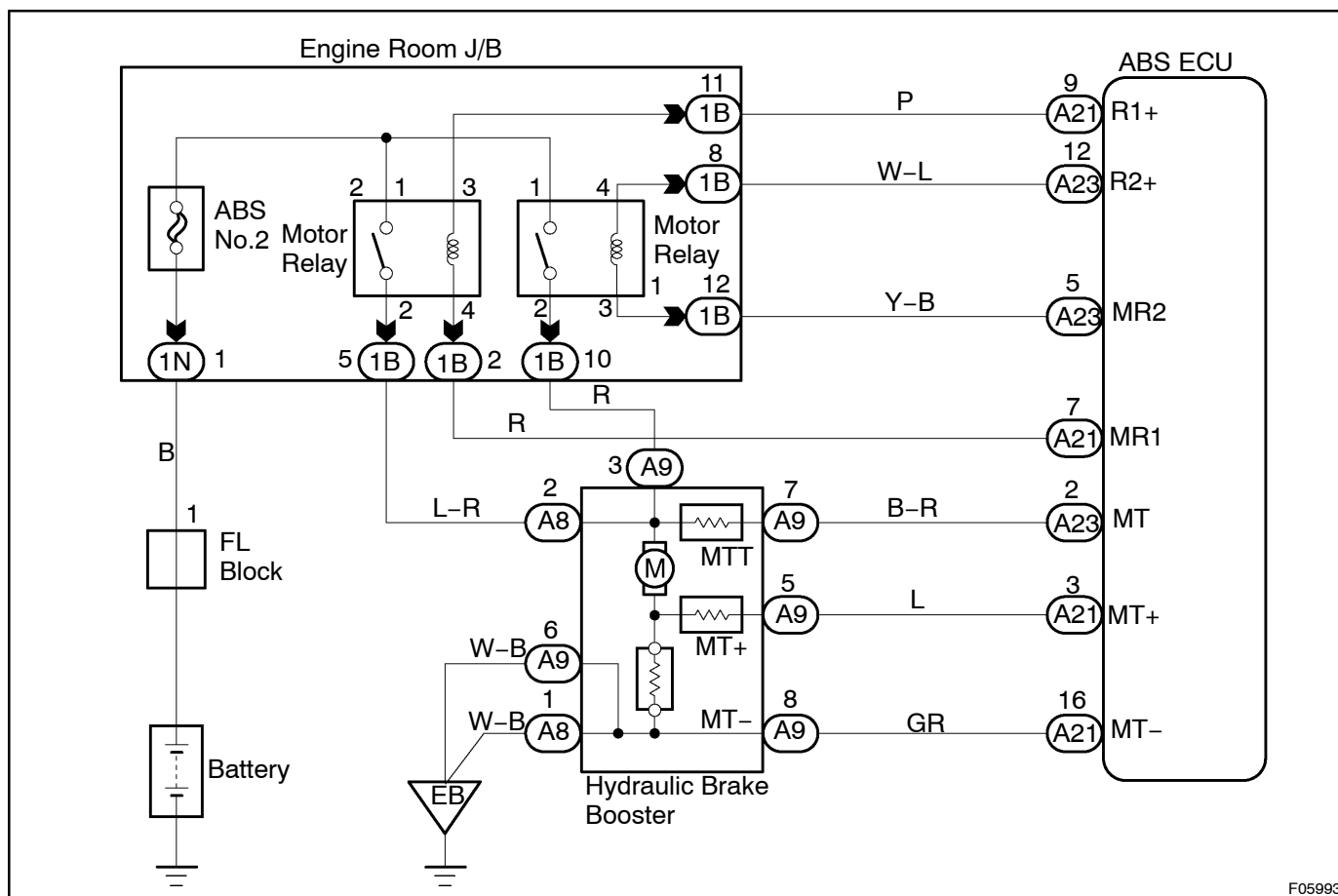
## CIRCUIT DESCRIPTION

DTC No.	DTC Detecting Condition	Trouble Area
C1252 / 52	After the ignition switch has been turned ON, when the power is supplied to the pump motor for more than 5 minutes.	<ul style="list-style-type: none"> <li>Hydraulic brake booster pump motor</li> <li>Hydraulic brake booster pump motor circuit</li> <li>Pressure switch (PH or PL)</li> </ul>

Fail safe function:

If trouble occurs in the pump motor, the ECU cuts off current to the ABS solenoid relay and prohibits ABS control.

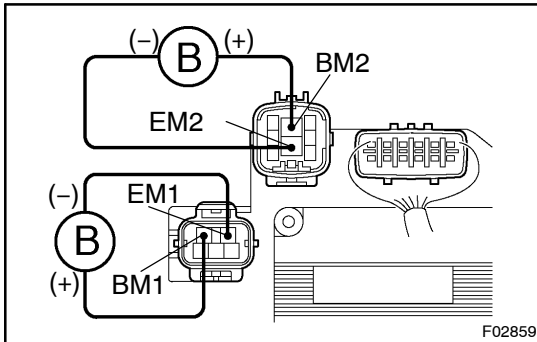
## WIRING DIAGRAM



F05993

## INSPECTION PROCEDURE

### 1 Check operation of hydraulic brake booster pump motor.



#### **PREPARATION:**

Disconnect the 2 connectors from hydraulic brake booster connector.

#### **CHECK:**

Connect positive  $\oplus$  lead to BM1 or BM2 terminal and negative  $\ominus$  lead to EM1 or EM2 terminal of the hydraulic brake booster (pump motor) connector.

#### **OK:**

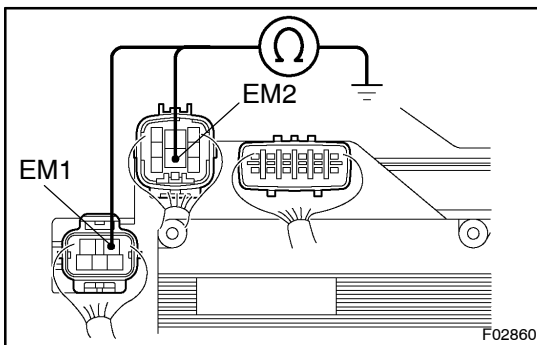
The operation sound of the pump motor should be heard.

OK

Go to step 3.

NG

### 2 Check continuity between GND terminal of hydraulic brake booster (pump motor) connector and body ground.



#### **CHECK:**

Check continuity between EM1 or EM2 terminal of hydraulic brake booster (pump motor) connector and body ground.

#### **OK:**

Continuity

NG

Repair or replace harness or connector.

OK

Replace hydraulic brake booster pump motor.

<b>3</b>	<b>Check for short circuit in harness and connector between hydraulic brake booster (pump motor) and ABS ECU (See page IN-33).</b>
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Repair or replace harness or connector.

OK

<b>4</b>	<b>Check for short circuit (to B+) in harness and connector between MT of hydraulic brake booster and ABS ECU ( See page IN-33).</b>
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OK

Check and replace ABS ECU.

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<b>5</b>	<b>Check pressure switch (PH).</b>
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**IN CASE OF USING LEXUS HAND-HELD TESTER:****PREPARATION:**

- (a) Connect the LEXUS hand-held tester to the DLC3.
- (b) Turn the ignition switch ON and push the LEXUS hand-held tester main switch ON.
- (c) Select the DATALIST mode on the LEXUS hand-held tester.

**CHECK:**

Depress the brake pedal more than 40 times with the ignition switch OFF then turn the ignition switch ON and check the pressure switch (PH) condition.

**HINT:**

When a pressure in power supply system is released, reaction force becomes light and stroke becomes longer.

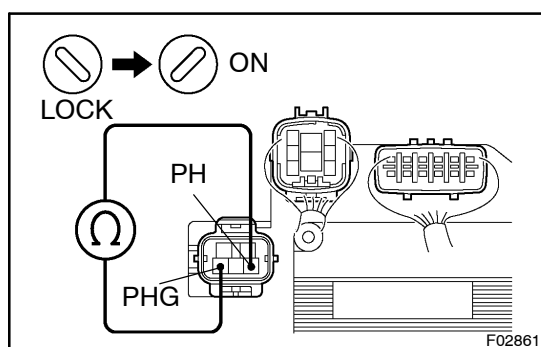
**OK:**

"OFF" turns to "ON".

**HINT:**

OFF: Low pressure

ON: High pressure

**IN CASE OF NOT USING LEXUS HAND-HELD TESTER:****PREPARATION:**

- (a) Disconnect the connector from the hydraulic brake booster.
- (b) With ignition switch OFF, depress the brake pedal more than 40 times to decrease the accumulator pressure.

**HINT:**

When a pressure in power supply system is released, reaction force becomes light and stroke becomes longer.

**CHECK:**

Measure resistance between terminals PH and PHG of hydraulic brake booster connector.

**OK:**

**Resistance: 1 kΩ**

**PREPARATION:**

- (a) Connect the connector to the hydraulic brake booster.
- (b) Disconnect the connector after ignition switch has been ON and the pump motor has been stopped.

**CHECK:**

Measure resistance between terminals PH and PHG of hydraulic brake booster connector.

**OK:**

**Resistance: 0 Ω**

**HINT:**

After inspection, clear the DTC (See page [DI-326](#)).

**NG**

**Replace hydraulic brake booster.**

**OK**

**6**

**Check pressure switch (PL).**

**IN CASE OF USING LEXUS HAND-HELD TESTER:**

**PREPARATION:**

- (a) Connect the LEXUS hand-held tester to the DLC3.
- (b) Turn the ignition switch ON and push the LEXUS hand-held tester main switch ON.
- (c) Select the DATALIST mode on the LEXUS hand-held tester.

**CHECK:**

Depress the brake pedal more than 40 times with the ignition switch OFF then turn the ignition switch ON and check the pressure switch (PL) condition.

**HINT:**

When a pressure in power supply system is released, reaction force becomes light and stroke becomes longer.

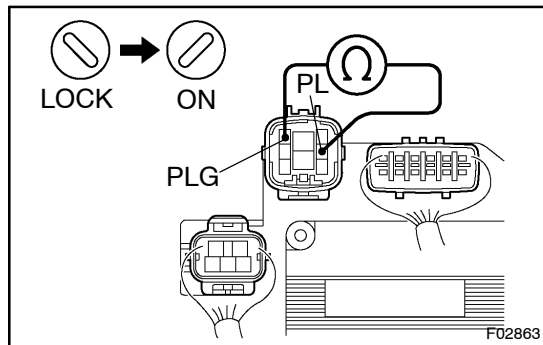
**OK:**

**"OFF" turns to "ON".**

**HINT:**

OFF: Low pressure

ON: High pressure

**IN CASE OF NOT USING LEXUS HAND-HELD TESTER:****PREPARATION:**

- Disconnect the connector from the hydraulic brake booster.
- With ignition switch OFF, depress the brake pedal more than 40 times to decrease the accumulator pressure.

**HINT:**

When a pressure in power supply system is released, reaction force becomes light and stroke becomes longer.

**CHECK:**

Measure resistance between terminals PL and PLG of hydraulic brake booster connector.

**OK:**

**Resistance: 5.7 kΩ**

**PREPARATION:**

- Connect the connector to the hydraulic brake booster.
- Disconnect the connector after ignition switch has been ON and the pump motor has been stopped.

**CHECK:**

Measure resistance between terminals PL and PLG of hydraulic brake booster connector.

**OK:**

**Resistance: 1.0 kΩ**

**HINT:**

After inspection, clear the DTC (See page [DI-326](#)).

**NG**

**Replace hydraulic brake booster.**

**OK**

**7**

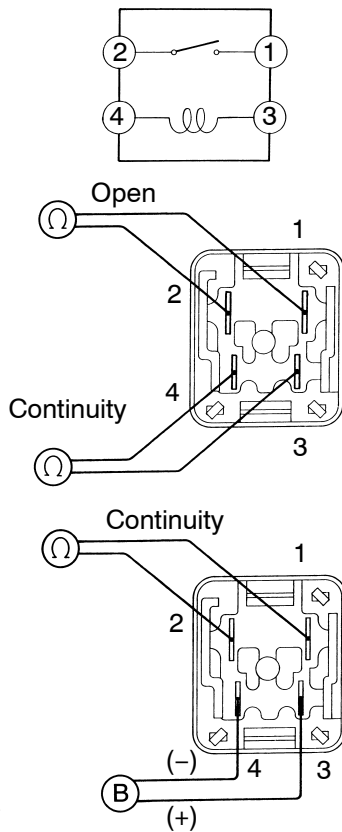
**Check for open and short circuit in harness and connector between pressure switch and ABS ECU (See page [IN-33](#)).**

**NG**

**Repair or replace harness or connector.**

**OK**

## 8 Check ABS motor relays.



BE1840  
R15257  
R15258

F00044

### PREPARATION:

Remove the 2 ABS motor relays from Engine Room R/B No. 2.

### CHECK:

Check continuity between each pair of terminal of motor relay.

### OK:

Terminals 3 and 4	Continuity (Reference value *1)
Terminals 1 and 2	Open

\*1: Motor relay 1 62  $\Omega$

Motor relay 2 54  $\Omega$

### CHECK:

- Apply battery positive voltage between terminals 3 and 4.
- Check continuity between terminals.

### OK:

Terminals 1 and 2	Continuity
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Replace ABS motor relay.

OK

## 9 Check for short circuit in harness and connector between ABS motor relay and ABS ECU (See page IN-33).

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Repair or replace harness or connector.

OK

Check and replace ABS ECU.