DI6XQ–01

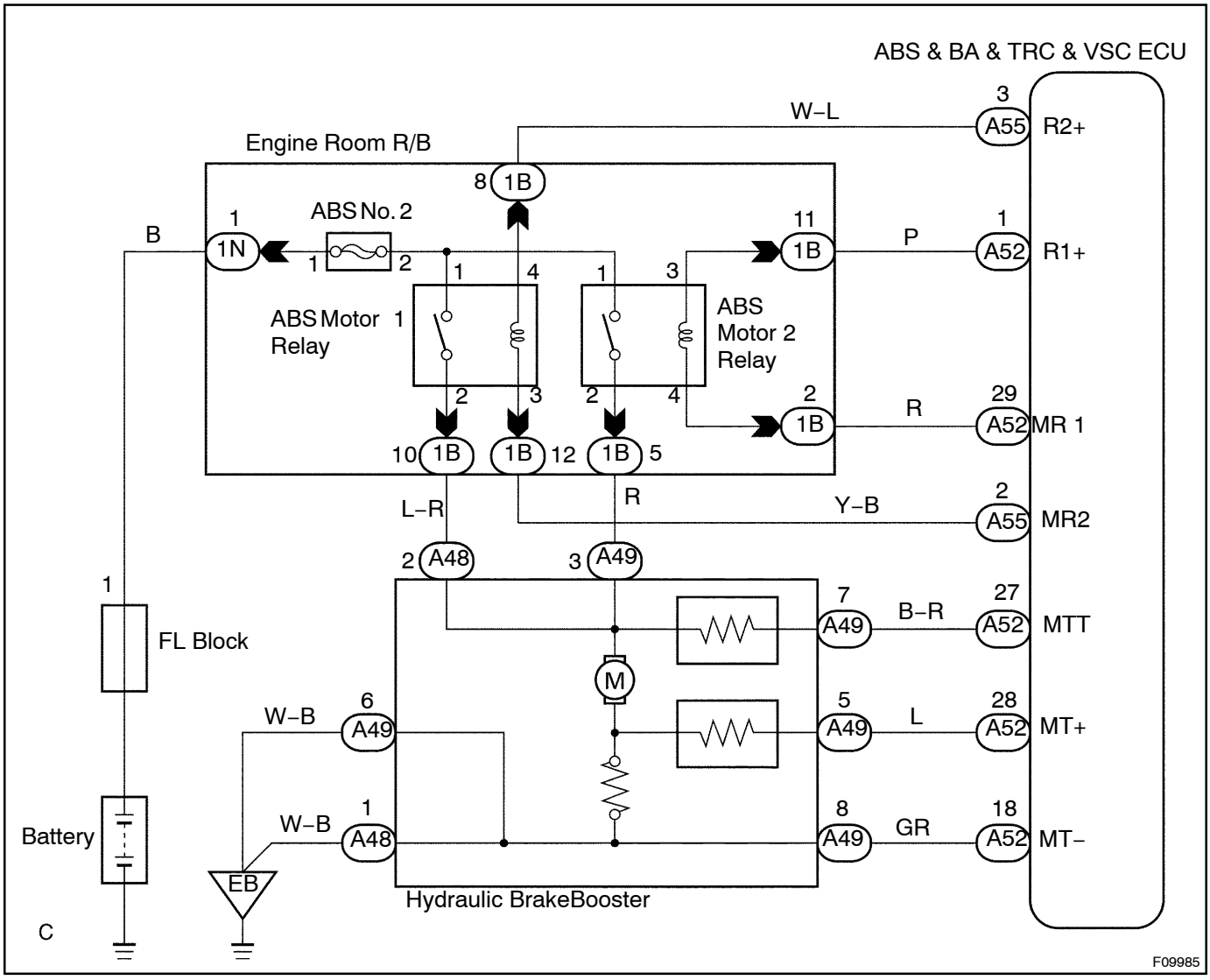
DTC	C 1252 / 52	Hydraulic Brake Booster Pump Motor ON Time Abnormally Long

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.	• Hydraulic brake booster pump motor • Hydraulic brake booster pump motor circuit • Pressure switch (PH or PL)

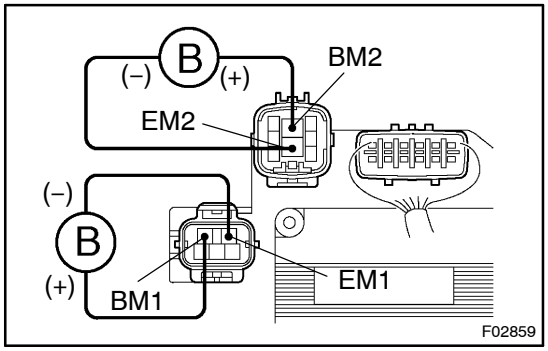
Fail safe function:
If trouble occurs in the pump motor, the ECU cuts off current to the ABS solenoid relay and prohibits ABS & BA & TRC & VSC controls.

WIRING DIAGRAM



INSPECTION PROCEDURE

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



PREPARATION:

Disconnect the 2 connectors from the hydraulic brake booster.

CHECK:

Connect battery positive ⊕ lead to BM1 or BM2 terminal and battery negative ⊖ 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.

NG → **Go to step 9.**

OK

2	**Check for short circuit (to B+) in harness and connector between BM1 or BM2 of hydraulic brake booster and ABS motor 1 or ABS motor 2 relay (See page IN–35).**

NG → **Repair or replace harness or connector.**

OK

3	**Check for short circuit (to B+) in harness and connector between MTT of hydraulic brake booster and ABS & BA & TRC & VSC ECU (See page IN–35).**

NG → **Repair or replace harness or connector.**

OK

4	Check pressure switch (PH).

In case of using the hand–held tester.

PREPARATION:

(a) Connect the hand–held tester to the DLC3.

(b) Turn the ignition switch ON and push the hand–held tester main switch ON.

(c) Select the DATALIST mode on the 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:

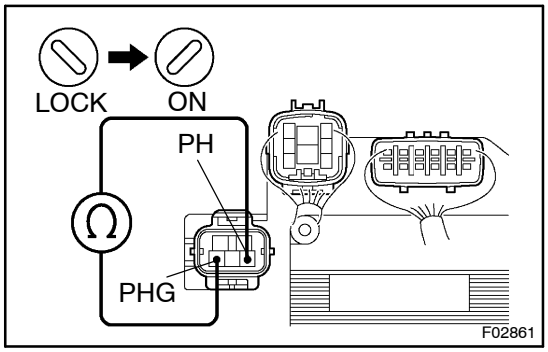
"OFF" turns to "ON".

HINT:

OFF: Low pressure

ON: High pressure

In case of not using the hand–held tester.



PREPARATION:

(a) Disconnect the connector (5P) from the hydraulic brake booster.

(b) With the 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: 1.0 kΩ

PREPARATION:

(a) Connect the connector (5P) to the hydraulic brake booster.

(b) Disconnect the connector (5P) after ignition switch has been ON and the pump motor has stopped.

CHECK:

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

OK:

Resistance: 0 Ω

HINT:

After inspection, connect the connector and clear the DTC (See page DI–4).

NG	Replace hydraulic brake booster assembly.

OK

5	Check pressure switch (PL).

In case of using hand –held tester:

PREPARATION:

(a) Connect the hand –held tester to the DLC3.

(b) Turn the ignition switch ON and push the hand –held tester main switch ON.

(c) Select the DATALIST mode on the 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:

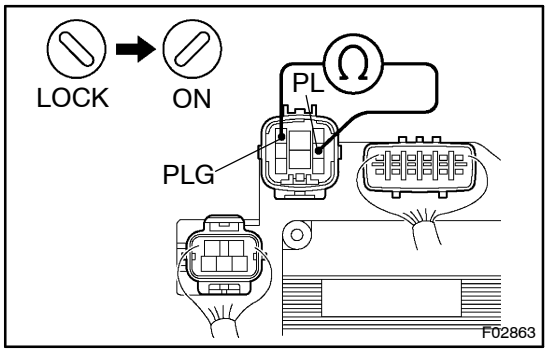
"OFF" turns to "ON".

HINT:

OFF: Low pressure

ON: High pressure

In case of not using hand –held tester:



PREPARATION:

(a) Disconnect the connector (8P) from the hydraulic brake booster.

(b) With the 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 k Ω

PREPARATION:

(a) Connect the connector (8P) to the hydraulic brake booster.

(b) Disconnect the connector (8P) after ignition switch has been ON and the pump motor has stopped.

CHECK:

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

OK:

Resistance: 1.0 k Ω

HINT:
After inspection, connect the connector and clear the DTC (See page DI−4).

NG → **Replace hydraulic brake booster assembly.**

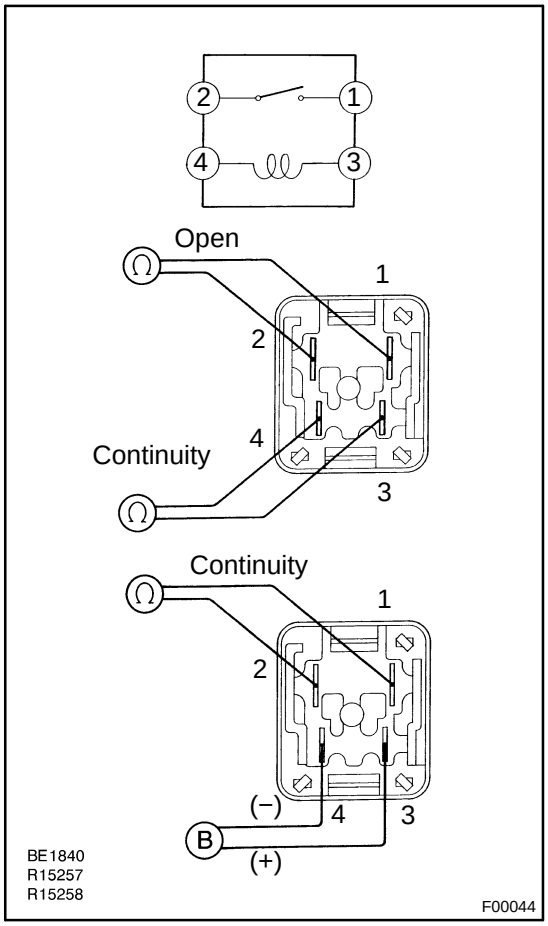
OK

6	**Check for short circuit (to B+) in harness and connector between pressure switch and ABS & BA & TRC & VSC ECU (See page IN−35).**

NG → **Repair or replace harness or connector.**

OK

7	**Check ABS motor 1 and ABS motor 2 relay.**



PREPARATION:
Remove ABS motor 1 and ABS motor 2 relay from engine room J/B.

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: ABS motor 1 relay 54 Ω
ABS motor 2 relay 62 Ω

CHECK:
(a) Apply battery voltage between terminals 3 and 4.
(b) Check continuity between terminals.

OK:

Terminals 1 and 2	Continuity

NG → Replace ABS motor 1 or ABS motor 2 relay.

OK

8	Check for short circuit in harness and connector between ABS motor 1 or ABS motor 2 relay and ABS & BA & TRC & VSC ECU (See page IN–35).

NG → Repair or replace harness or connector.

OK

Check and replace ABS & BA & TRC & VSC ECU.

9	Check for open or short circuit in harness and connector between hydraulic brake booster pump motor and hydraulic brake booster (See page IN–35).

NG → Replace wire harness.

OK

10	Check hydraulic brake booster pump motor (See page BR–32).

NG → Replace hydraulic brake booster pump motor.

OK

Replace hydraulic brake booster.