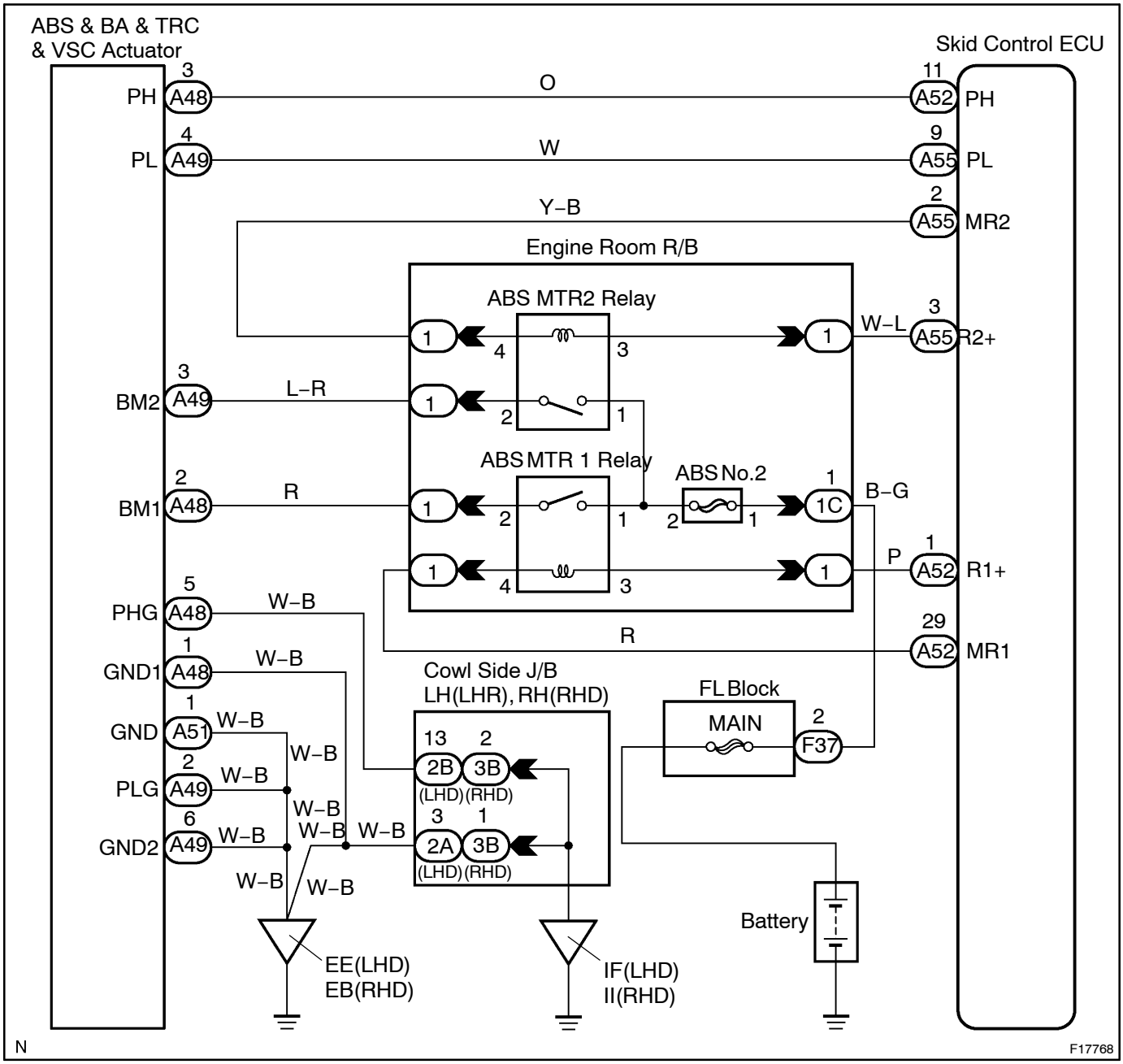
DI6XT–03

DTC	C 1256 / 56	Accumulator Low Pressure Malfunction

CIRCUIT DESCRIPTION

DTC No.	DTC Detecting Condition	Trouble Area
C1256 / 56	Either of the following 1. through 7. is detected: 1. With the vehicle running, when the pressure switch (PL) detects high pressure, although ABS, TRC or VSC does not control, the pressure switch (PL) detects low pressure for more than 1.4 sec. 2. With the vehicle running, when the pressure switch (PL) detects high pressure, although ABS, TRC or VSC controls, the pressure switch (PL) detects low pressure for more than 0.2 sec. 3. After the ignition switch is turned ON, the pressure switch (PL) detects low pressure for more than 64 sec. 4. With the vehicle running, after ignition switch has been ON, the pressure switch (PL) detects low pressure for more than 0.2 sec. although ABS, TRC, or VSC does not control and when the pressure switch is ON and stuck under high pressure. 5. With the vehicle running, after ignition switch is ON, the pressure switch (PL) detects low pressure for more than 0.2 sec. when ABS, TRC or VSC controls, the pressure switch is ON and stuck under high pressure. 6. With the vehicle running, after ignition switch is ON, the pressure switch (PL) is stuck to under low pressure although ABS, TRC or VSC does not control for more than 1.4 sec. 7. With the vehicle running, after ignition switch is ON, the pressure switch (PL) is stuck under low pressure when ABS, TRC or VSC controls for more than 0.2 sec.	• Accumulator • Pressure switch (PH or PL) • Hydraulic brake booster pump motor

WIRING DIAGRAM



INSPECTION PROCEDURE

1	**Check accumulator operation.**

PREPARATION:

(a) Turn the ignition switch OFF, and depress the brake pedal 40 times or more.

HINT:

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

(b) Install the LSPV gauge (SST) to rear brake caliper and bleed air.
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CHECK:

Depress the brake pedal with force of more than 343 N (35 kgf, 77 lbf) and turn the ignition switch ON, then check the rear brake caliper pressure when an increase of pressure changes from acutely to mildly.

OK:

5,099 – 8,924 kPa (52 – 91 kgf/cm^2, 740 – 1,294 psi) at 20 °C (68 °F)

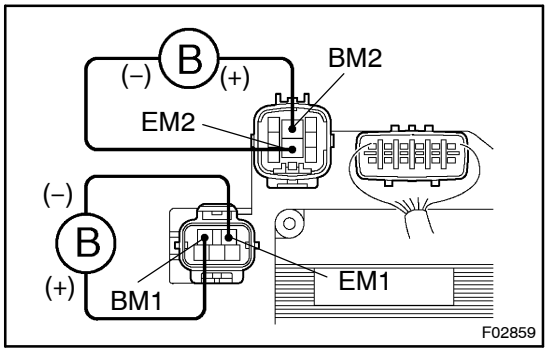
HINT:

If the value is not within the standard, cool the engine room and check it again.

NG	**Replace accumulator.**

OK

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



PREPARATION:

Disconnect the 2 connectors from the hydraulic brake booster.

CHECK:

Connect battery positive ⊕ lead to BM 1 or BM2 terminal and battery negative ⊖ lead to EM 1 or EM2 terminal of the hydraulic brake booster (pump motor) connector.

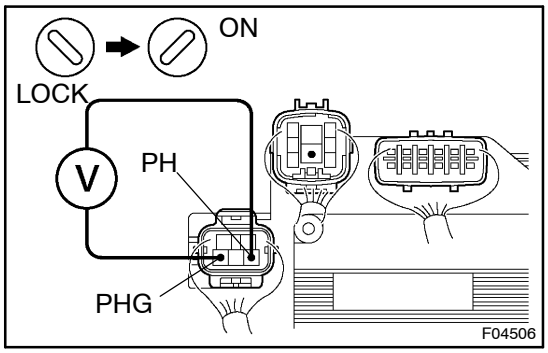
OK:

The operation sound of the pump motor should be heard.

NG	**Go to step 7.**

OK

3	**Check pressure switch (PH) operation.**



PREPARATION:

(a) Turn the ignition switch OFF, and depress the brake pedal 40 times or more.

HINT:

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

(b) Install the LSPV gauge (SST) to the rear brake caliper and bleed air.

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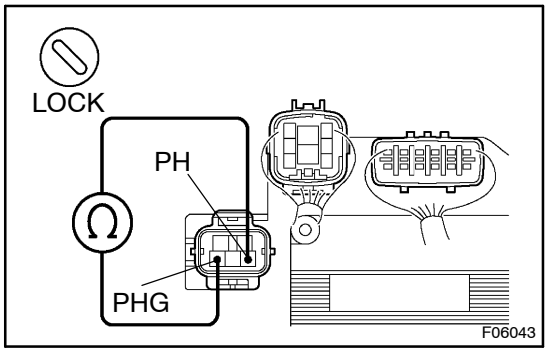
CHECK:

While checking the voltage between terminals PH and PHG of hydraulic brake booster, depress the brake pedal with force of more than 343 N (35 kgf, 77 lbf) and turn the ignition switch ON, then check the rear wheel cylinder pressure when voltage changes from 6 V to 0 V.

OK:

12,553 – 20,104 kpa (128 – 205 kgf·cm^2, 1,820 – 2,916 psi)



PREPARATION:

Turn the ignition switch OFF and disconnect the connector (5P) from the hydraulic brake booster.

CHECK:

While checking the resistance between terminals PH and PHG, depress the brake pedal changing the force in the range of 197 N (20 kgf, 44 lbf) to 343 N (35 kgf, 77 lbf) and check the rear wheel cylinder pressure when resistance changes from 0 kΩ to 1 kΩ between PH and PHG.

OK:

11,964 – 18,240 kpa (122 – 186 kgf·cm^2, 1,735 – 2,645 psi)

HINT:

After inspection, connect the connector, fill brake reservoir with brake fluid and clear the DTC (See page DI–185).

OK	**Go to step 5.**

NG

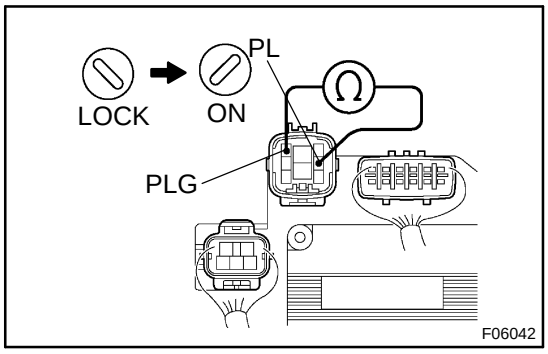
4	**Check for open circuit in harness and connector between pressure switch (PH) and ABS & BA & TRC & VSC ECU (See page IN–38).**

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

OK

Replace hydraulic brake booster assembly.

5	Check pressure switch (PL) operation.



PREPARATION:

(a) Turn the motor switch OFF, and depress the brake pedal 40 times or more.

HINT:

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

(b) Install the LSPV gauge (SST) to the rear brake caliper and bleed air.

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

CHECK:

While checking the resistance between terminals PL and PLG of hydraulic brake booster, depress the brake pedal with force of more than 343 N (35 kgf, 77 lbf) and turn the ignition switch ON, then check the rear wheel cylinder pressure when the resistance changes from 5.7 kΩ to 1.0 kΩ.

OK:

9,022 – 15,102 kpa (92 – 154 kgf·cm^2, 1,308 – 2,190 psi)

PREPARATION:

Turn the ignition switch OFF and disconnect the connector (8P) from the hydraulic brake booster.

CHECK:

While checking the resistance between terminals PL and PLG of hydraulic brake booster, depress the brake pedal changing the force in the range of 197 N (20 kgf, 44 lbf) to 343 N (35 kgf, 77 lbf) and check the rear wheel cylinder pressure when resistance changes from 1.0 kΩ to 5.7 kΩ.

OK:

8,532 – 13,337 kpa (87 – 136 kgf·cm^2, 1,237 – 1,934 psi)

HINT:

After inspection, connect the connector, fill brake reservoir with brake fluid and clear the DTC (See page DI−185).

NG	Replace hydraulic brake booster assembly.

OK

6	**Check pressure switch (PH) and pressure switch (PL)**

CHECK:

Compare the pressure value of the rear wheel cylinder measured in check pressure switch (PL) operation with the one measured in check pressure switch (PH) operation.

OK:

- **Pressure when the voltage between PH and PHG becomes 6 to 0 V > pressure when the resistance between PL and PLG becomes 5.7 kΩ to 1.0 kΩ.**
- **Pressure when the resistance between PH and PHG becomes 0 kΩ to 1 kΩ > pressure when the resistance between PL and PLG becomes 1.0 kΩ to 5.7 kΩ.**

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

OK

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

7	**Check for open or short circuit in harness and connector between hydraulic brake booster pump motor and hydraulic brake booster (See page IN−38).**

NG → **Replace wire harness.**

OK

8	**Check hydraulic brake booster pump motor (See Pub. No. RM731E on page BR−8).**

NG → **Replace hydraulic brake booster pump motor.**

OK

Replace hydraulic brake booster.