DI2XW-02

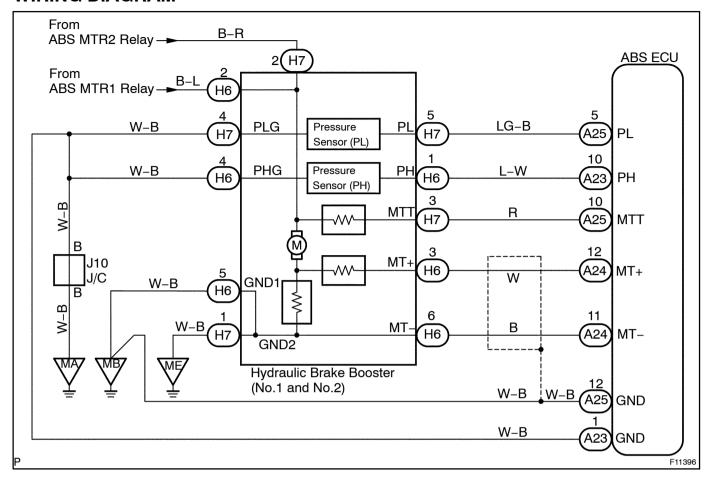
DTC 56 Accumulator Low Pressure Malfunction

# **CIRCUIT DESCRIPTION**

2003 RAV4 EV (RM1003U)

DTC No.	DTC Detecting Condition	Trouble Area
56	Any of following (a) through (g) is detected:  (a) With vehicle running, when pressure switch (PL) detects high pressure, although ABS does not control, pressure switch (PL) detects low pressure for more than 1.4 sec.  (b) With vehicle running, when pressure switch (PL)detects high pressure, although ABS controls, pressure switch (PL) detects low pressure for more than 0.2 sec.  (c) After motor switch is turned ON, the pressure switch (PL) detects low pressure for more than 60 sec.  (d) With vehicle running, after motor switch has been ON, pressure switch (PL) detects low pressure for more than 0.2 sec. although ABS does not control and when pressure switch is ON and stuck under high pressure  (e) With vehicle running, after motor switch is ON, pressure switch (PL) detects low pressure for more than 0.2 sec. when ABS, controls, pressure switch is ON and stuck under high pressure  (f) With vehicle running, after motor switch is ON, pressure switch (PL) is stuck under low pressure although ABS does not control for more than 1.4 sec.  (g) With vehicle running, after motor switch is ON, pressure switch (PL) is stuck under low pressure when ABS controls for more than 0.2 sec.	Accumulator     Pressure switch (PH or PL)     Hydraulic brake booster pump motor     ABS ECU

# WIRING DIAGRAM



# INSPECTION PROCEDURE

1 Check accumulator operation.

### **PREPARATION:**

- (a) Turn the motor switch OFF, and depress the brake pedal 40 times or more.
- (b) Install the LSPV gauge (SST) to rear wheel cylinder and bleed air.

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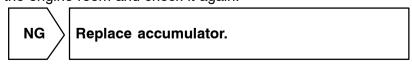
## **CHECK:**

Depress the brake pedal with force of more than 294 N (30 kgf, 66 lbf) and turn the motor switch ON, then check the rear wheel cylinder pressure when an increase of pressure changes from accutely to mildly.

## <u>OK:</u>

#### HINT:

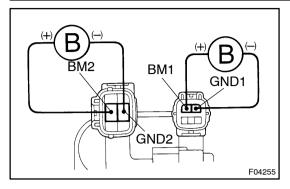
If the value is not within the standard, cool the engine room and check it again.



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2003 RAV4 EV (RM1003U)

# 2 Check operation of hydraulic brake booster pump motor.



### PREPARATION:

Disconnect hydraulic brake booster connectors.

### **CHECK:**

Connect battery positive  $\oplus$  lead to terminal BM1 or BM2 and battery negative  $\ominus$  lead to terminal GND1 or GND2 of the hydraulic brake booster (pump motor) connector.

### OK:

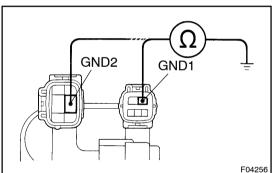
The operation sound of the pump motor should be heard.

OK

Go to step 4.

NG

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



#### CHECK

Check continuity between terminal GND1 or GND2 of hydraulic brake booster (pump motor) connector and body ground.

### OK:

Continuity

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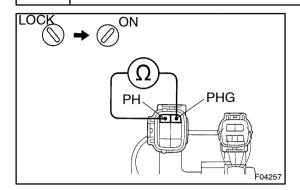
Repair or replace harness or connector.

ОК

Replace hydraulic brake booster pump motor.

4

# Check pressure switch (PH).



### PREPARATION:

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

### CHECK:

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

### OK:

Resistance: 1.0 k $\Omega$ 

### **PREPARATION:**

- (a) Connect the connector to the hydraulic brake booster.
- (b) Disconnect the connector after motor 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  $\Omega$ 

HINT:

After inspection, clear the DTC (See page DI-230).

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Go to step 6.

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5

Check for short circuit in harness and connector between pressure switch and ABS ECU (See page IN-28).

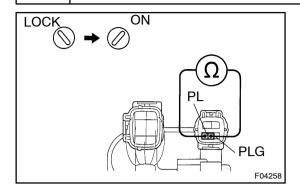
NG

Repair or replace harness or connector.

OK

Replace pressure switch.

6 Check pressure switch (PL).



# **PREPARATION:**

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

#### CHECK:

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

OK:

Resistance: 5.7 k $\Omega$ 

# **PREPARATION:**

- (a) Connect the connector to the hydraulic brake booster.
- (b) Disconnect the connector after motor 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 $\Omega$ 

HINT:

After inspection, clear the DTC (See page DI-230).

NG

Replace pressure switch.

OK

Check and replace ABS ECU.