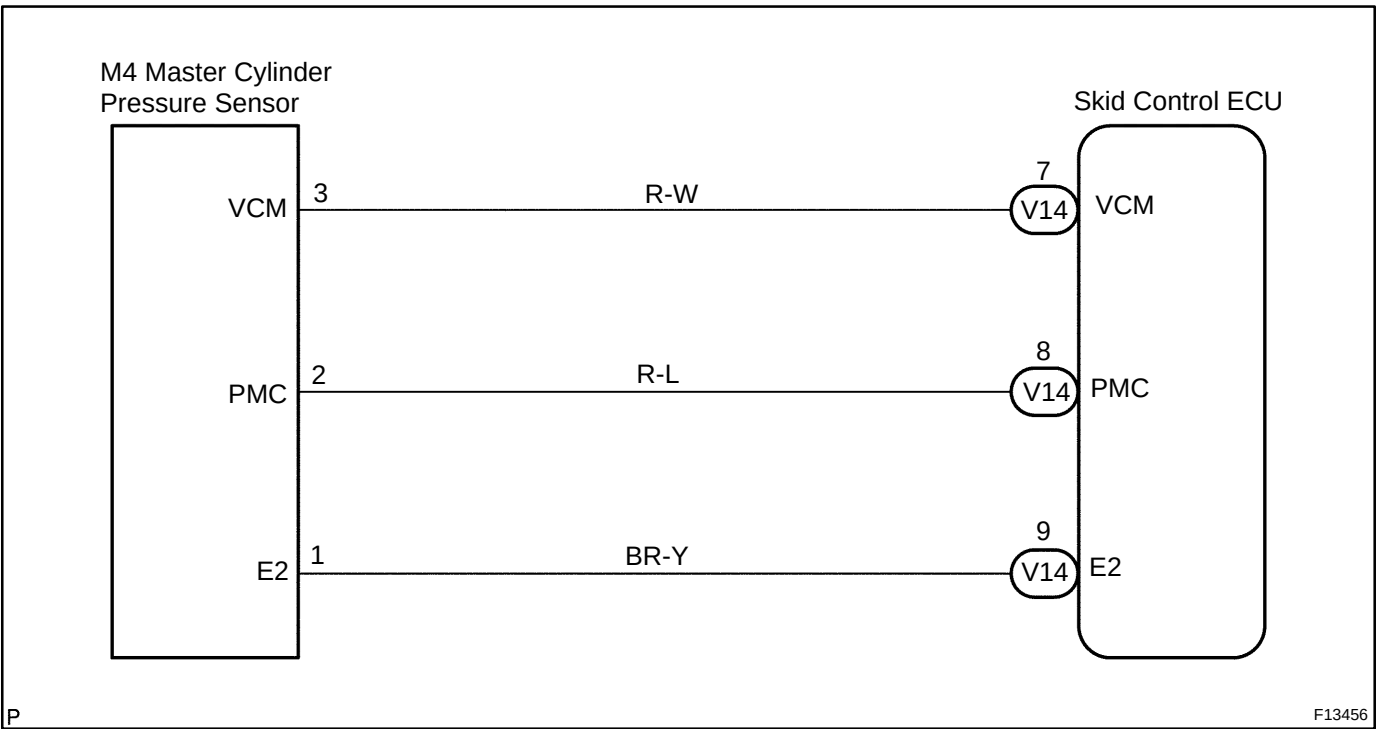


DTC	C1246 / 53	Master Cylinder Pressure Sensor Circuit
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CIRCUIT DESCRIPTION

DTC No.	DTC Detecting Condition	Trouble Area
C1246 / 53	When any of the following 1. through 3. is detected: 1. The voltage of sensor signal is out of range (less than 0.25 V, more than 4.75 V). 2. The sensor supply voltage is out of range (above 5.6 V, below 4.4 V). 3. The sensor signal offset value is out of range.	• Master cylinder pressure sensor • Master cylinder pressure sensor circuit • Stop light switch circuit

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

Start the inspection from step 1 in case of using the TOYOTA hand-held tester and start from step 2 in case of not using the TOYOTA hand-held tester.

1 Check output value of the master cylinder pressure sensor.

PREPARATION:

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

CHECK:

Check that the brake fluid pressure value of the master cylinder pressure sensor displayed on the TOYOTA hand-held tester is changing when depressing the brake pedal.

OK:

Brake fluid pressure value must be changing.

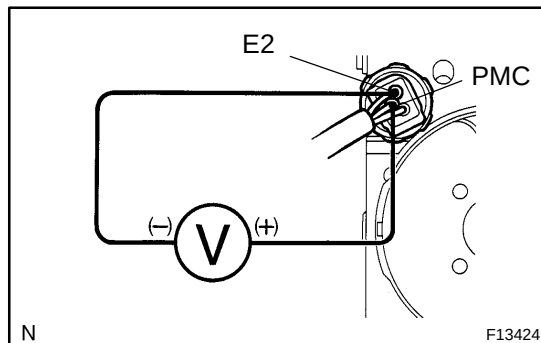
Voltage: 0.25 - 4.75 V

OK

Go to step 4.

NG

2 Check master cylinder pressure sensor.



PREPARATION:

Install LSPV gauge to the front caliper bleeder plug portion, and bleed the air from LSPV gauge.

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CHECK:

Start the engine and depress the brake pedal, then check the relation between the fluid pressure and voltage of PMC and E2 terminals of the master cylinder pressure sensor with connector still connected.

OK:

Front brake caliper fluid pressure	Voltage
0 kPa (0 Kg/cm ² , 0 psi)	0.44 - 0.76 V
5,883 kPa (60 kg/cm ² , 853 psi)	1.34 - 1.66 V
11,768 kPa (120 kg/cm ² , 1,706 psi)	2.24 - 2.56 V

HINT:

Voltage between terminals VCM and E2: 4.7 - 5.3 V

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Replace master cylinder pressure sensor.

OK

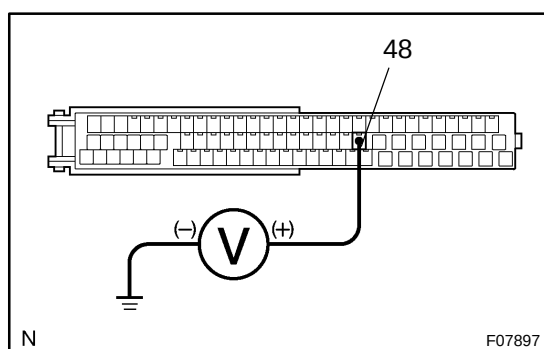
- 3 Check for open and short circuit in harness and connector between master cylinder pressure sensor and skid control ECU (See page [IN-31](#)).**

NG

Repair or replace harness or connector.

OK

- 4 Check voltage between terminal STP (48) of skid control ECU and body ground when the brake pedal is depressed and released.**



PREPARATION:

Disconnect the connector from the skid control ECU.

CHECK:

Measure the voltage between terminal 48 of skid control ECU harness side connector and body ground when the brake pedal is depressed and released.

OK:

Brake pedal	Voltage
depressed (Measure cylinder pressure valve ≥ 1.5 Mpa)	7.5 - 14 V
released	below 2.0 V

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Check the stop light switch circuit (See page [BE-35](#)) and stop light switch.

OK

Check and replace skid control ECU.