

DTC	C1246 / 46	Master Cylinder Pressure Sensor Circuit
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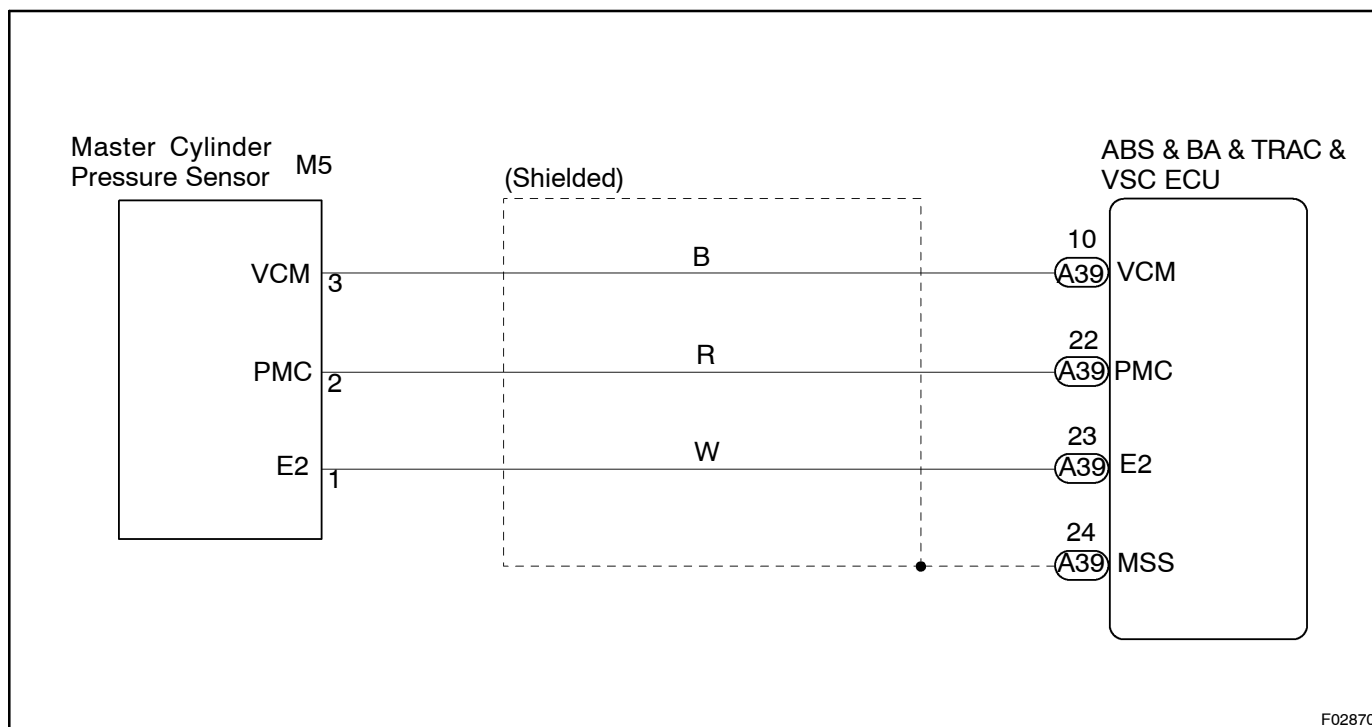
CIRCUIT DESCRIPTION

DTC No.	DTC Detecting Condition	Trouble Area
C1246 / 46	Either of the following 1., 2., 3., 4. or 5. is detected: - At the vehicle speed of 7 km/h (4 mph) or more, ECU terminal PMC voltage becomes more than 0.86 V and the condition that 0.01 V or less does not change continues for 30 sec. - Interference occurs to ECU terminal PMC 7 times or more for 5 sec. - ECU terminal STP is OFF, and the condition that terminal PMC voltage becomes more than 0.86 V or less than 0.3 V continues for 5 sec. or more. - The condition that ECU terminal IG1 voltage is 9.5 V to 17.0 V, and terminal VCM voltage other than the range from 4.4 V to 5.6 V continues for 1.2 sec. or more. - The condition that ECU terminal VCM voltage is 4.4 V to 5.6 V, and terminal PMC voltage other than the range from 0.14 V to 4.85 V continues for 1.2 sec. or more.	- Master cylinder pressure sensor - Master cylinder pressure sensor circuit

Fail safe function:

If trouble occurs in the master cylinder pressure sensor circuit, the ECU cuts off current to the ABS solenoid relay and prohibits ABS & BA & TRAC & VSC controls and the brake system becomes normal.

WIRING DIAGRAM



F02870

INSPECTION PROCEDURE

HINT:

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

1	Check output value of the master cylinder pressure sensor.
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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:

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

OK:

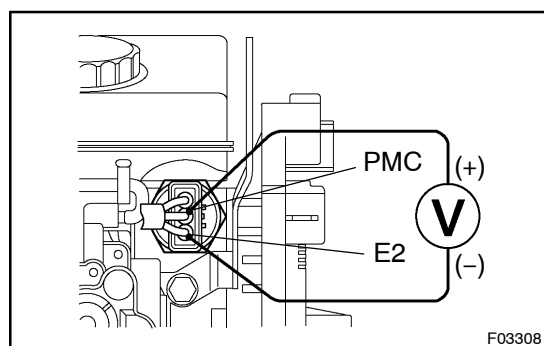
Brake fluid pressure value must be changing.

OK

Go to step 4.

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2	Check master cylinder pressure sensor.
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PREPARATION:

- (a) Install LSPV gauge to the front caliper bleeder plug portion, and bleed LSPV gauge.
SST 09709-29018
- (b) Remove air cleaner inlet and battery clamp cover.

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)	0.1 V
9,807 kPa (100 kgf/cm ² , 1,422 psi)	0.5 V
17,651 kPa (180 kgf/cm ² , 2,560 psi)	0.82 V

HINT:

Voltage of between terminals VCM and E2: 4.7 – 5.3 V

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Replace master cylinder pressure sensor.

OK

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| 3 | Check for open and short circuit in harness and connector between master cylinder pressure sensor and ABS & BA & TRAC & VSC ECU (See page IN-34). |
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Repair or replace harness or connector.

OK

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| 4 | Check whether or not the ECU terminal STP input voltage is changed when the stop light switch is turned on and off. |
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NO

Check the stop light switch circuit (See page [DI-379](#)).

YES

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