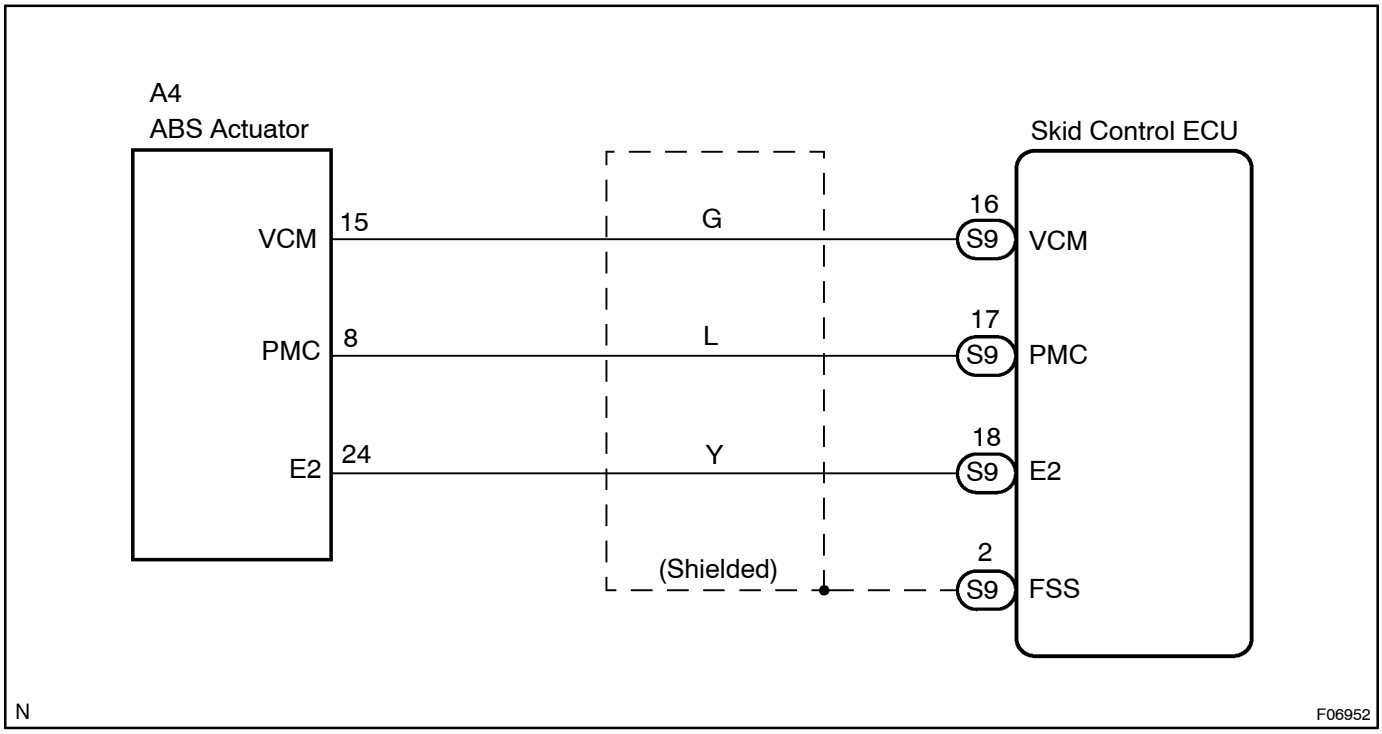
DTC	C1246/46	MALFUNCTION IN MASTER CYLINDER PRESSURE SENSOR

CIRCUIT DESCRIPTION

DTC No.	DTC Detecting Condition	Trouble Area
C1246/46	Either of the following 1., 2., 3., or 4. is detected: 1. At the vehicle speed of 7 km/h (4 mph) or more, master cylinder pressure sensor does not change continues for 30 sec. 2. Interference occurs 7 times or more for 5 sec. 3. ECU terminal STP is OFF, and the condition that master cylinder pressure sensor voltage becomes more than 0.86 V or less than 0.3 V continues for 5 sec. or more. 4. Master cylinder pressure sensor circuit is open or short for 1.2 sec. or more.	• Master cylinder pressure sensor • Master cylinder pressure sensor circuit

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:
Start the inspection from step 1 in case of using the hand–held tester and start from step 2 in case of not using the hand–held tester.

1	READ VALUE OF HAND–HELD TESTER(MASTER CYLINDER PRESSURE SENSOR OUTPUT VALUE)

(a) Connect the hand–held tester to the DLC3.
(b) Start the engine.
(c) Select the DATA LIST mode on the hand–held tester.

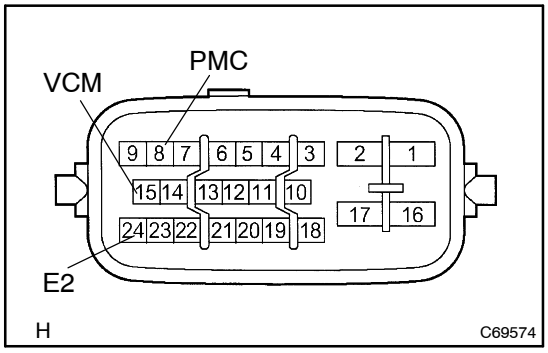
Item	Measurement Item / Range (Display)	Normal Condition
MAS CYL PRS 1	Master cylinder pressure sensor 1 reading / min.: 0 V, max.: 5 V	When brake pedal is released: 0.3 to 0.9 V

(d) Check that the brake fluid pressure value of the master cylinder pressure sensor indicated on the hand–held tester changes when the brake pedal is depressed.
Standard:
When depressing the brake pedal, the reading on the value increases.

OK	Go to step 4

NG

2	INSPECT BRAKE ACTUATOR ASSY



(a) Install LSPV gauge to the front brake caliper bleeder plug portion, and bleed air from LSPV gauge.
(b) Measure voltage between terminal STP of skid control ECU and body ground when brake pedal is depressed.
Standard:
4.7 to 5.3 V
(c) Start the engine and depress the brake pedal, then check the relation between the fluid pressure and voltage of PMC(8) and E2(24) terminals of the master cylinder pressure sensor with connector still connected.
Standard:

Front brake caliper fluid pressure	Voltage
0 kPa (0 Kgf/cm^2, 0 psi)	0.37 – 0.63 V
5,883 kPa (60 kgf/cm^2, 853 psi)	1.57 – 1.83 V
11,768 kPa (120 kgf/cm^2, 1,706 psi)	2.77 – 3.03 V

NG	REPLACE BRAKE ACTUATOR ASSY (SEE PAGE 32–40)

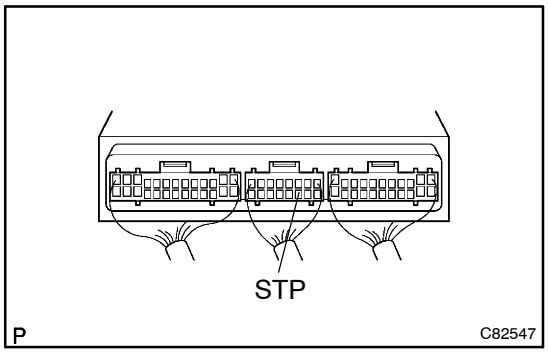
OK

3	CHECK HARNESS AND CONNECTOR (MASTER CYLINDER PRESSURE SENSOR – SKID CONTROL ECU) (SEE PAGE 01–33)

NG → REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

4	CHECK SKID CONTROL ECU TERMINAL VOLTAGE



(a) Remove the skid control ECU with connectors still connected.

(b) Measure voltage between terminal STP of skid control ECU and body ground when brake pedal is depressed.
Standard:
8 to 14 V

(c) Measure voltage between terminal STP of skid control ECU and body ground when brake pedal is released.
Standard:
Below 1.5 V

NG → CHECK STOP LAMP SWITCH CIRCUIT

OK

REPLACE SKID CONTROL ECU ASSY (SEE PAGE 32–54)