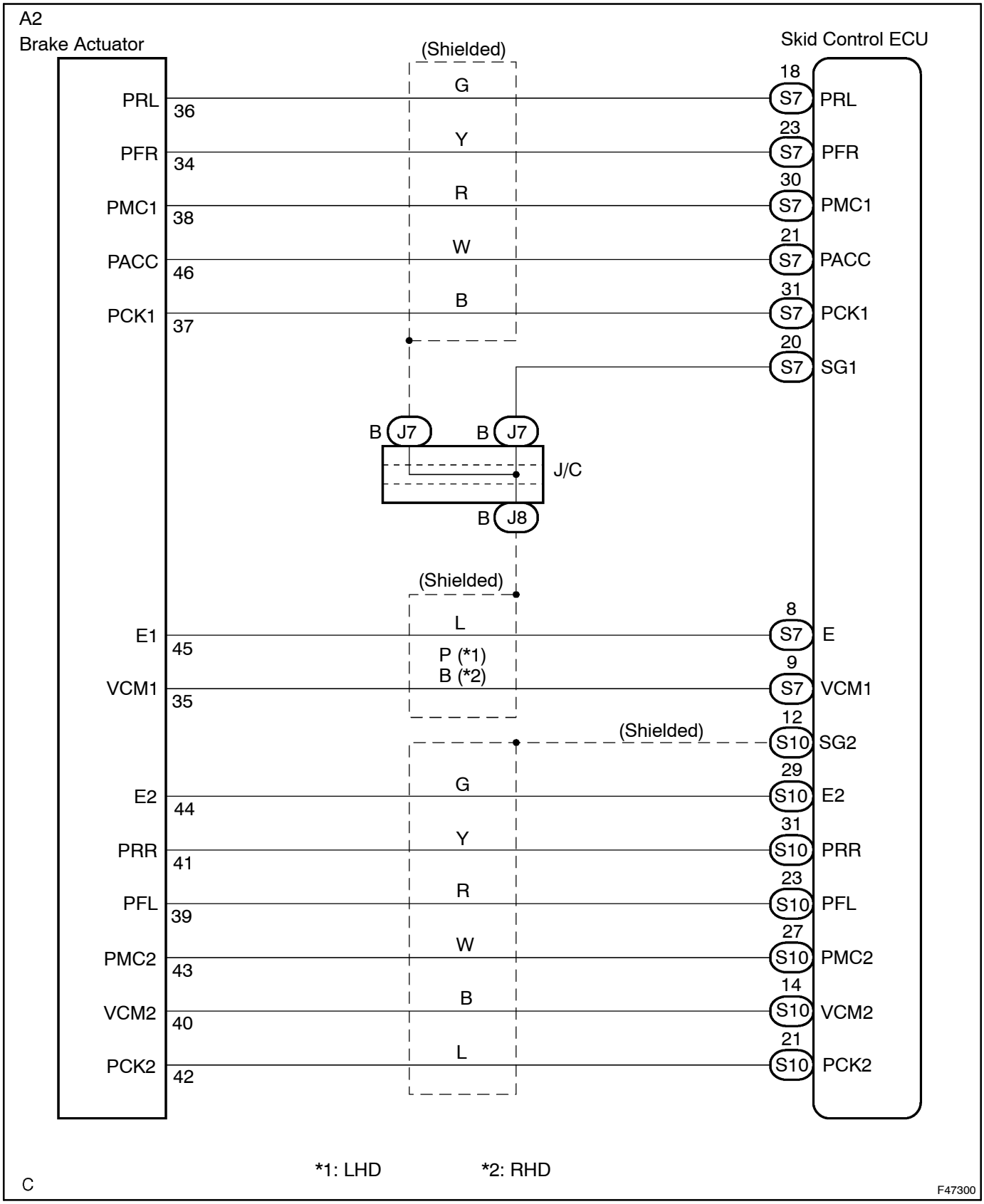
DTC	C1365/54	MALFUNCTION IN ACC PRESSURE SENSOR

CIRCUIT DESCRIPTION

The accumulator (ACC) pressure sensor is built into the brake actuator.
The skid control ECU detects the accumulator pressure from the data sent from the accumulator pressure sensor, and then runs and stops the pump motor by operating the motor relay.
DTCs may be output if the accumulator pressure drops due to frequent braking (this is not a malfunction).

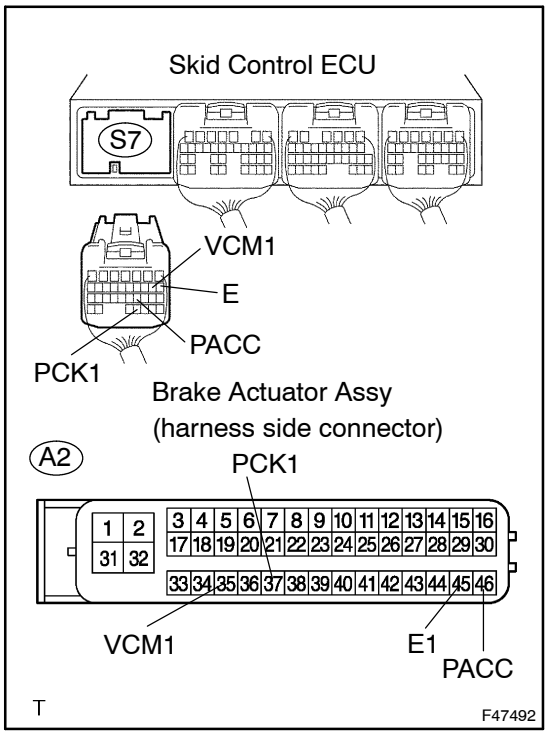
DTC No.	Detailed Code	DTC Detecting Condition	Trouble Area
C1365/54	211	Sensor power 1 (VCM1) voltage is 4.7 V or less or 5.3 V or more for at least 0.05 sec.	• Brake actuator assy (accumulator pressure sensor) • Skid control ECU
C1365/54	212	Ratio of accumulator pressure sensor output voltage (PACC) to sensor power 1 (VCM1) voltage is 5% or less or 90.5% or more for at least 0.05 sec.	• Brake actuator assy (accumulator pressure sensor) • Skid control ECU
C1365/54	214	Total wheel cylinder pressure sensor exceeds 12 MPa after depressing brake pedal, but accumulator pressure sensor output voltage (PACC) changes less than 0.5 MPa for at least 0.5 sec.	• Brake actuator assy (accumulator pressure sensor) • Skid control ECU
C1365/54	215	Ratio of accumulator pressure sensor output voltage (PACC) to sensor power 1 (VCM1) voltage is 90.5% or less for at least 0.1 sec. during self–diagnosis.	• Brake actuator assy (accumulator pressure sensor) • Skid control ECU
C1365/54	216	Voltage difference is 0.3 V or more before and after changing the pull up resistance in sensor signal input circuit (loose contact).	• Brake actuator assy (accumulator pressure sensor) • Skid control ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

1	CHECK HARNESS AND CONNECTOR



(a) Disconnect the skid control ECU connector and brake actuator connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard:

Tester Connection	Specified Condition
S7–8 (E) – A2–45 (E1)	Below 1 Ω
S7–9 (VCM1) – A2–35 (VCM1)	Below 1 Ω
S7–21 (PACC) – A2–46 (PACC)	Below 1 Ω
S7–31 (PCK1) – A2–37 (PCK1)	Below 1 Ω

(c) Measure the resistance according to the value(s) in the table below.

HINT:

Measure the voltage from behind the connector with the connector connected to the skid control ECU.

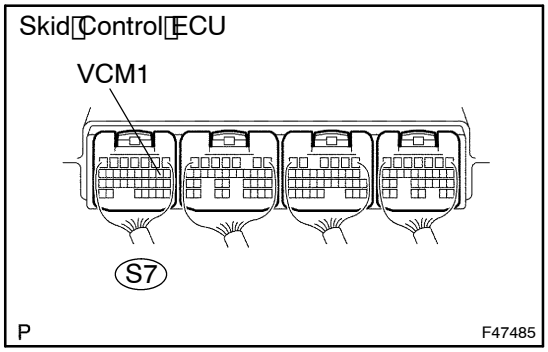
Standard:

Tester Connection	Specified Condition
S7–8 (E) – Body ground	10 kΩ or higher
S7–9 (VCM1) – Body ground	10 kΩ or higher
S7–21 (PACC) – Body ground	10 kΩ or higher
S7–31 (PCK1) – Body ground	10 kΩ or higher

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

2 INSPECT SKID CONTROL ECU TERMINAL VOLTAGE(VCM1 TERMINAL)



(a) Measure the voltage according to the value(s) in the table below.

HINT:

Measure the voltage from behind the connector with the connector connected to the skid control ECU.

Standard:

Tester Connection	Condition	Specified Condition
S7–9 (VCM1) – Body ground	Power switch ON (READY)	4.75 to 5.25 V

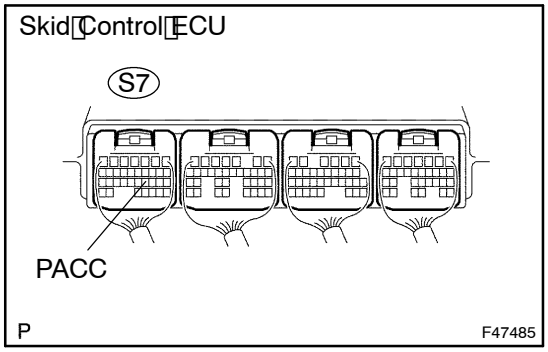
NG → **REPLACE SKID CONTROL ECU ASSY (SEE PAGE 32–81 or 32–82)**

NOTICE:

When replacing the skid control ECU assy, perform initialization of linear solenoid valve and calibration (see page 05–721).

OK

3 INSPECT SKID CONTROL ECU TERMINAL VOLTAGE(PACC TERMINAL)



(a) Check the auxiliary battery voltage.

Standard: 10 to 14 V

(b) Depress the brake pedal to operate the pump motor, and then check that the pump motor stops.

(c) Measure the voltage according to the value(s) in the table below.

Standard:

Tester Connection	Specified Condition
S7–21 (PACC) – Body ground	3.3 to 4.7 V

NOTICE:

- **Do not depress the brake until after the pump motor stops and the voltage check is finished in order to keep the accumulator pressure.**
- **Check from behind the connector with the connector connected to the skid control ECU.**
- **Do not use a DATA LIST, as the sensor itself must be checked.**

NG → **REPLACE BRAKE ACTUATOR ASSY (SEE PAGE 32–66)**

OK

4	READ VALUE OF INTELLIGENT TESTER II

(a) Connect the intelligent tester II to the DLC3.
(b) Turn the power switch ON (READY).
(c) Select the DATA LIST mode on the intelligent tester II.

Item	Measurement Item / Range (Display)	Normal Condition
Accumulator Sensor 1	Accumulator pressure sensor 1 / min.: 0 V, max.: 5 V	Specified value: 3.2 to 4.0 V

(d) Depress the brake pedal 4 or 5 times to operate the pump motor, and check the output value on the intelligent tester II with the motor stopped (no braking).
OK:
Accumulator (ACC) pressure sensor voltage does not drop.

NG → **REPLACE BRAKE ACTUATOR ASSY (SEE PAGE 32–66)**

OK ↓

REPLACE SKID CONTROL ECU ASSY (SEE PAGE 32–81 or 32–82)

NOTICE:
When replacing the skid control ECU assy, perform initialization of linear solenoid valve and calibration (see page 05–721).