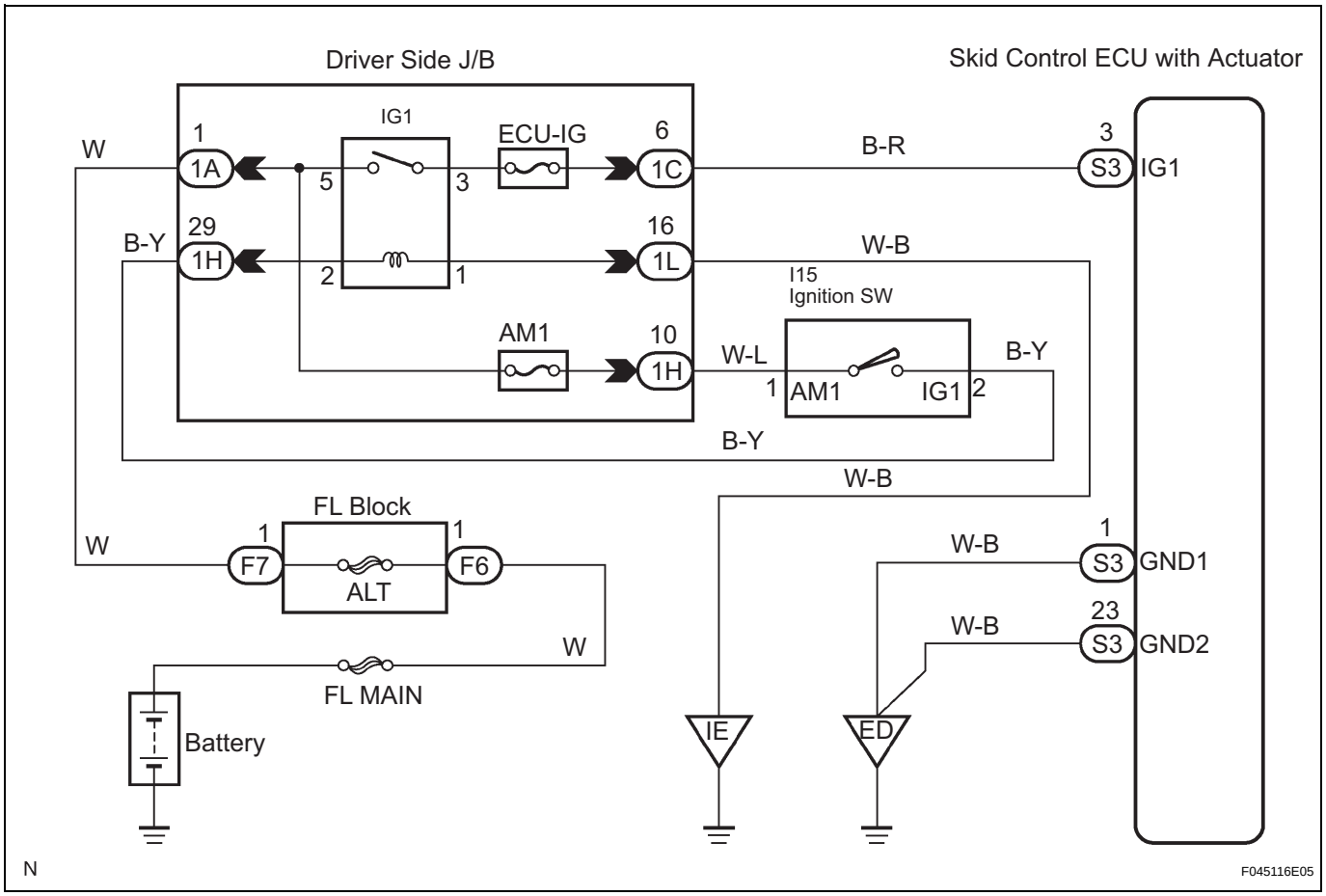
DTC	C1241/41	Low Battery Positive Voltage

DESCRIPTION

If there is a problem with the brake actuator assembly (skid control ECU) power supply circuit, the skid control ECU outputs the DTC and prohibits the ABS operation with the fail safe function.
If the voltage supplied to the IG1 terminal is not within the DTC detection threshold due to malfunctions in such as the battery and alternator circuit, this DTC is stored.

DTC No.	DTC Detection Condition	Trouble Area
C1241/41	When any of the following is detected: • Vehicle speed is 3 km/h (1.8 mph) or more and IG1 terminal voltage is 9.5 V or less for at least 10 seconds. • While the solenoid relay is ON, the IG1 terminal voltage is 10 V or less and the relay contact is open solenoid fault detecting conditions are established. • Voltage of ECU terminal IG1 remains at more than 17 V for 1 second or more..	• Battery • ECU-IG fuse • Charging system • Power source circuit

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:
After steps 1 and 2 are completed, start the inspection from step 3 when using the intelligent tester, and from step 4 when not using the intelligent tester.

BC

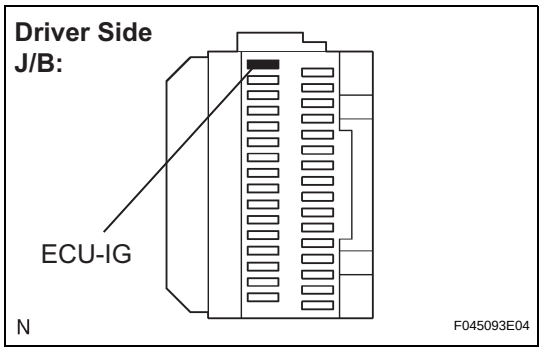
1	**INSPECT BATTERY**

(a) Check the battery voltage.
Standard voltage:
11 to 14 V

NG → **INSPECT CHARGING SYSTEM**

OK

2	**INSPECT FUSE (ECU-IG FUSE)**



(a) Remove the ECU-IG fuse from the driver side J/B.
(b) Measure the resistance according to the value(s) in the table below.
Standard resistance

Tester Connection	Specified Condition
ECU-IG (10 A) fuse	Below 1 Ω (Continuity)

NG → **REPLACE FUSE (ECU-IG FUSE)**

OK

3	**READ VALUE OF INTELLIGENT TESTER (IG1 POWER SUPPLY)**

(a) Install the ECU-IG fuse.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch to the ON position and turn the intelligent tester main switch on.
(d) Start the engine.
(e) Select the DATA LIST mode on the intelligent tester.

ABS:

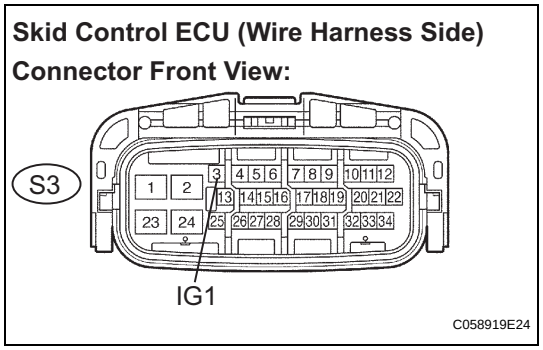
Item (Display)	Measurement Item / Range (Display)	Normal Condition	Diagnostic Note
IG VOLTAGE	ECU IG power supply voltage / TOO LOW/NORMAL	TOO LOW: 9.5 V or less NORMAL: 9.5 to 14.0 V	-

(f) Measure the voltage output from the ECU displayed on the intelligent tester.
OK:
"Normal" is displayed.

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR (IG1 CIRCUIT)**

OK

4 INSPECT SKID CONTROL ECU (IG1 TERMINAL VOLTAGE)



(a) Disconnect the skid control ECU connector.
(b) Turn the ignition switch to ON position.
(c) Measure the voltage according to the value(s) in the table below.

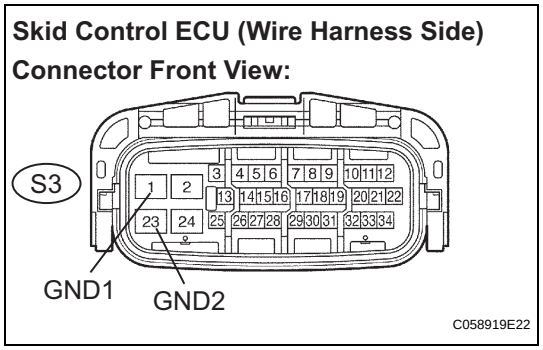
Standard voltage

Tester Connection	Specified Condition
S3-3 (IG1) - Body ground	10 to 14 V

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR (IG1 CIRCUIT)**

OK

5 INSPECT SKID CONTROL ECU (GND TERMINAL CONTINUITY)



(a) Turn the ignition switch off.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Specified Condition
S3-1 (GND1) - Body ground	Below 1 Ω
S3-23 (GND2) - Body ground	Below 1 Ω

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR (GND CIRCUIT)**

OK

6 RECONFIRM DTC

(a) Clear the DTCs (See page BC-10).
(b) Check that the same DTC is recorded (See page BC-10).
HINT:
Reinstall the sensors, connectors, etc. and restore the vehicle to its prior condition before rechecking for DTCs.

Result

Condition	Proceed to
DTC (C1241/41) is output	A
DTC (C1241/41) is not output (When troubleshooting in accordance with the DTC CHART)	B
DTC (C1241/41) is not output (When troubleshooting in accordance with the PROBLEM SYMPTOMS TABLE)	C

B → **END**

C → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

BC

A

REPLACE BRAKE ACTUATOR ASSEMBLY