DTC	C1257/57	IG Power Source

DESCRIPTION

The motor relay (semiconductor relay) is built into the hydraulic brake booster and drives the pump motor based on a signal from the skid control ECU.

DTC No.	DTC Detecting Condition	Trouble Areas
C1257/57	Open in pump motor input circuit	Hydraulic brake booster pump motor circuit

1 CHECK HYDRAULIC BRAKE BOOSTER PUMP MOTOR OPERATION

(a) Turn the ignition switch to OFF.
(b) Disconnect the actuator connector (S1).
(c) Depress the brake pedal more than 20 times.
(d) Check the hydraulic brake booster pump motor operation.
OK:
Hydraulic brake booster pump operates.

NG → **REPLACE MASTER CYLINDER SOLENOID**

OK ↓

2 RECONFIRM DTC

(a) Turn the ignition switch to OFF.
(b) Reconnect the actuator connector (S1).
(c) Turn the ignition switch to the ON position.
(d) Clear the DTCs (See page BC-118).
(e) Check if the same DTCs are recorded.

Result	Proceed to
DTC output	A
DTC not output	B

B → **END**

A ↓

REPLACE MASTER CYLINDER SOLENOID

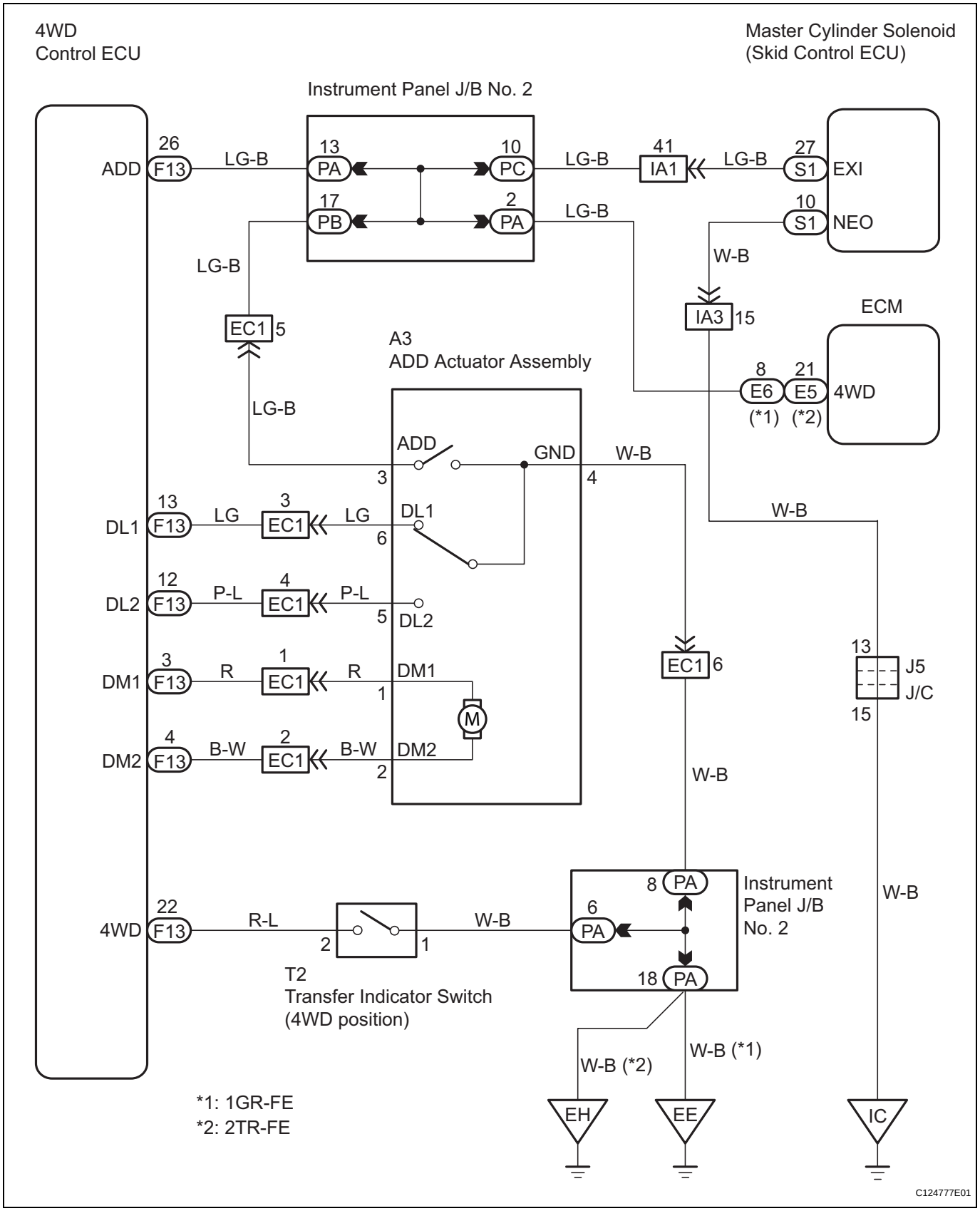
DTC	C1258/58	Transfer 4WD Position Switch Circuit

DESCRIPTION

This circuit monitors whether the transfer is in 2WD or 4WD mode and inputs the signal to the skid control ECU. In 2WD mode, TRAC is activated.
In 4WD mode, A-TRAC is activated.

DTC No.	DTC Detecting Conditions	Trouble Areas
C1258/58	• 4WD: Open in 4WD detecting circuit • 2WD: Terminal NEO ground short, or abnormal signals transmitted to terminal EXI	• Transfer indicator switch (4WD position) • Transfer indicator switch (4WD position) circuit • Master cylinder solenoid (skid control ECU)

WIRING DIAGRAM



NOTICE:
When replacing the master cylinder solenoid, perform zero point calibration (See page BC-99).

1	CONFIRM VEHICLE TYPE

(a) Confirm the vehicle drive train.

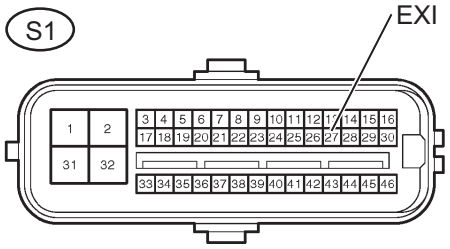
Drive Train	Proceed to
4WD	A
2WD, Pre-Runner	B

B → Go to step 7

A

2	INSPECT SKID CONTROL ECU (EXI TERMINAL VOLTAGE)

Skid Control ECU
(harness side connector):



C121700E16

(a) Disconnect the skid control ECU connector.
(b) Turn the ignition switch to the ON position.
(c) Measure the voltage.

Standard

Tester Connection	Transfer Condition	Specified Condition
S1-27 (EXI) - Body ground	2WD	8 to 16 V
S1-27 (EXI) - Body ground	4WD	Below 1.5 V

(d) Turn the ignition switch to OFF.
(e) Reconnect the skid control ECU connector.

NG → Go to step 4

OK

3	RECONFIRM DTC

(a) Clear the DTCs (See page BC-118).
(b) Check if the same DTCs are recorded.

Result	Proceed to
DTC output	A
DTC not output	B

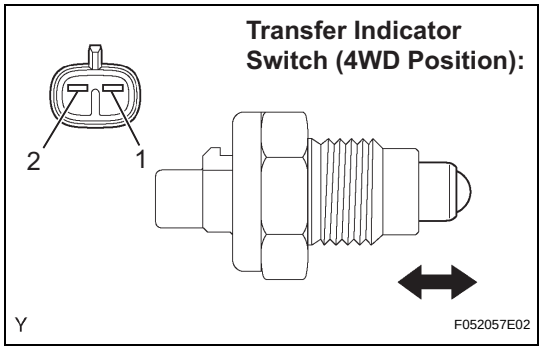
NG → END

A

REPLACE MASTER CYLINDER SOLENOID

BC

4	INSPECT TRANSFER INDICATOR SWITCH (4WD POSITION)



(a) Disconnect the transfer indicator switch (4WD position) connector.
(b) Remove the transfer indicator switch (4WD position).
(c) Measure the voltage.

Standard

Tester Connection	Switch Position	Specified Condition
1 - 2	Pushed	Below 1 Ω
1 - 2	Free	10 kΩ or higher

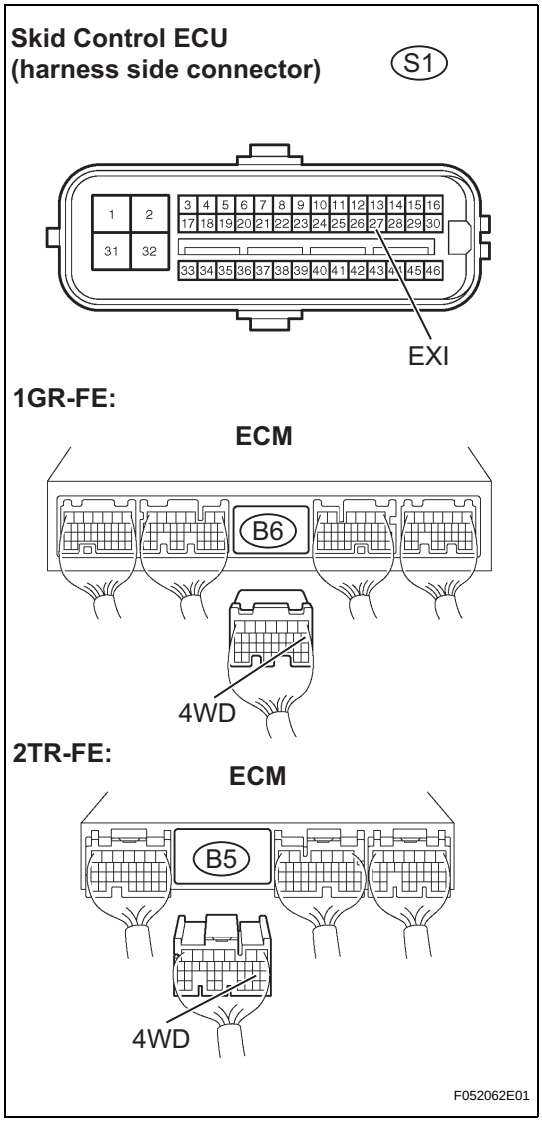
(d) Reinstall the transfer indicator switch (4WD position).
(e) Reconnect the transfer indicator switch (4WD position) connector.

NG → **REPLACE TRANSFER INDICATOR SWITCH (4WD POSITION)**

OK

BC

5	CHECK HARNESS AND CONNECTOR (SKID CONTROL ECU - ECM)



(a) Disconnect the skid control ECU connector.
(b) Disconnect the ECM connector.
(c) Measure the resistance.

Standard (1GR-FE)

Tester Connection	Specified Condition
S1-27 (EXI) - B6-8 (4WD)	Below 1 Ω

Standard (2TR-FE)

Tester Connection	Specified Condition
S1-27 (EXI) - B5-21 (4WD)	Below 1 Ω

(d) Reconnect the ECM connector.
(e) Reconnect the skid control ECU connector.

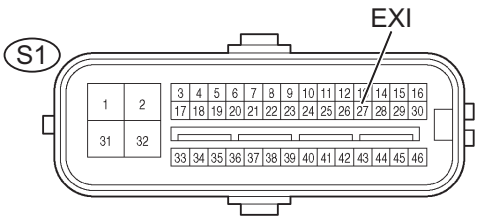
NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

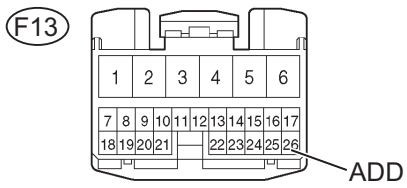
BC

6 CHECK HARNESS AND CONNECTOR (SKID CONTROL ECU - 4WD CONTROL ECU)

Skid Control ECU
(harness side connector)



4WD Control ECU
(herness side connector)



F052382E01

(a) Disconnect the skid control ECU connector.
(b) Disconnect the 4WD control ECU connector.
(c) Measure the resistance.

Standard

Tester Connection	Specified Condition
S1-27 (EXI) - F13-26 (ADD)	Below 1 Ω

(d) Reconnect the 4WD control ECU connector.
(e) Reconnect the skid control ECU connector.

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

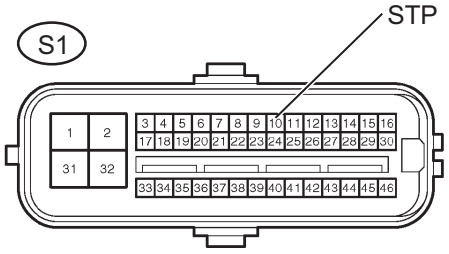
OK

END

BC

7 CHECK HARNESS AND CONNECTOR (NEO TERMINAL - BODY GROUND)

Skid Control ECU
(harness side connector):



C121700E17

(a) Disconnect the skid control ECU connector.
(b) Measure the resistance.

Standard

Tester Connection	Vehicle Drive Train	Specified Condition
S1-10 (NEO) - Body ground	2WD, Pre-runner	10 kΩ or higher
S1-10 (NEO) - Body ground	4WD	Below 1 Ω

(c) Reconnect the skid control ECU connector.

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

OK

8	RECONFIRM DTC

(a) Clear the DTCs (See page BC-118).
(b) Check if the same DTCs are recorded.

Result	Proceed to
DTC output	A
DTC not output	B

B → END

A

REPLACE MASTER CYLINDER SOLENOID