

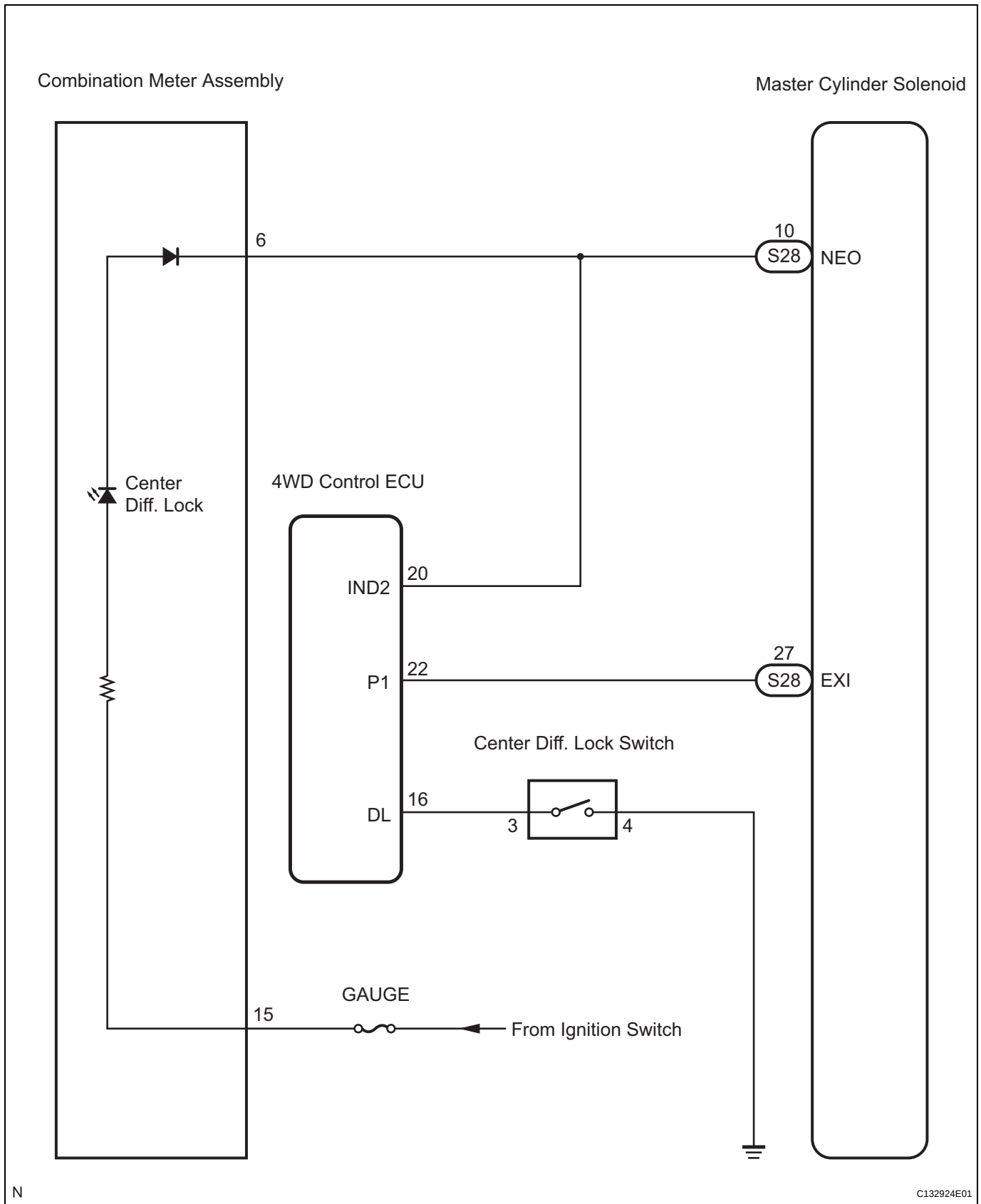
DTC	C1340/47	Center Differential Lock Circuit
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DESCRIPTION

When the center differential is locked, VSC control turns off and the VSC OFF indicator illuminates.

DTC No.	DTC Detection Condition	Trouble Area
C1340/47	- When the terminal IG1 voltage is between 10 and 14 V, there is an open in the center differential lock circuit for 2 seconds or more. - A center diff. lock indicator OFF signal is continuously output for 5 seconds or more with the center differential locked (Multi Mode 4WD).	- Center diff. lock switch - Center diff. lock switch circuit - Center diff. lock indicator light circuit 4WD control ECU

WIRING DIAGRAM



BC

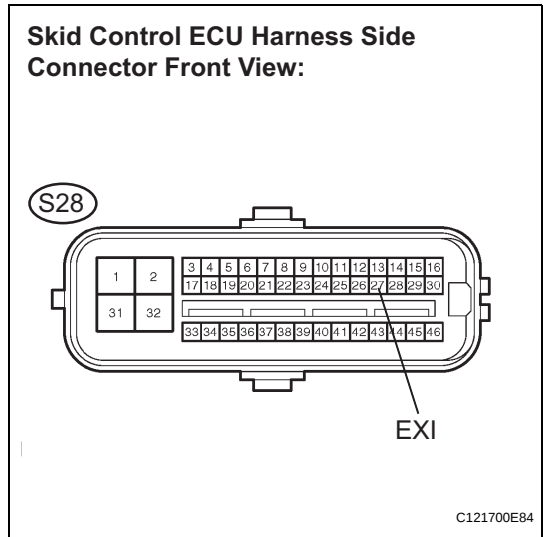
INSPECTION PROCEDURE

NOTICE:

When replacing the master cylinder solenoid, perform zero point calibration (See page [BC-19](#)).

1

INSPECT SKID CONTROL ECU (EXI TERMINAL)



OK

- (a) Transfer is in 4WD mode (Multi Mode 4WD only).
- (b) Disconnect the skid control ECU connector.
- (c) Turn the ignition switch to the ON position.
- (d) Measure the voltage according to the value(s) in the table below.

Standard voltage

Tester Connection	Condition	Specified Condition
S28-27 (EXI) - Body ground	Center diff. locked	Below 1.5 V
S28-27 (EXI) - Body ground	Center diff. free	10 to 14 V

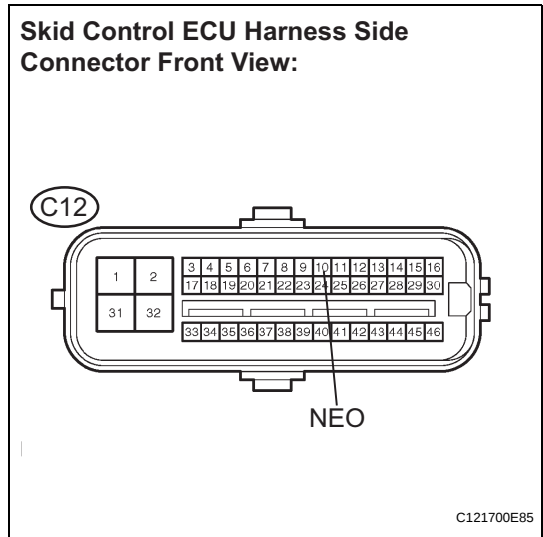
NG

Go to step 4

BC

2

INSPECT SKID CONTROL ECU (NEO TERMINAL)



OK

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

Standard voltage

Tester Connection	Condition	Specified Condition
S28-10 (NEO) - Body ground	Center diff. locked	Below 2 V
S28-10 (NEO) - Body ground	Center diff. free	10 to 14 V

HINT:
The center diff. lock indicator light comes on while the center differential is being switched to lock. Therefore, perform the measurement after confirming that the indicator light comes on and the center differential is actually locked by driving the vehicle.

NG

Go to step 9

3

RECONFIRM DTC

- (a) Clear the DTC (See page BC-38).
 - (b) Check if the same DTC is detected (See page BC-38).
- HINT:
Reinstall the sensors, connectors, etc. and restore the previous vehicle conditions before rechecking for DTCs.

Result

Condition	Proceed to
DTC is output	A
DTC is not output	B

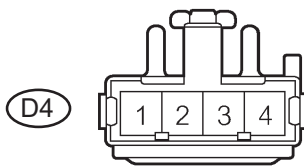
B

END

A

REPLACE MASTER CYLINDER SOLENOID**4****INSPECT CENTER DIFFERENTIAL LOCK SWITCH (GROUND TERMINAL)**

Center Diff. Lock Switch Harness Side Connector
Front View:



H

I044042E02

- (a) Disconnect the center diff. lock switch connector.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Specified Condition
D4-4 - Body ground	Below 1 Ω

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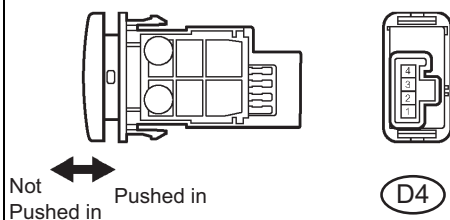
**REPAIR OR REPLACE HARNESS OR
CONNECTOR (GROUND CIRCUIT)**

BC

OK

5**INSPECT CENTER DIFFERENTIAL LOCK SWITCH**

Push-lock Type:



Not Pushed in ↔ Pushed in

I044044E03

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

Standard resistance

Tester Connection	Condition	Specified Condition
D4-3 - D4-4	Switch is pushed in	Below 1 Ω
D4-3 - D4-4	Switch is not pushed in	10 k Ω or higher

NG

**REPLACE CENTER DIFFERENTIAL LOCK
SWITCH**

OK

6**INSPECT 4WD CONTROL ECU**

- (a) Check the select high-low system (See page [TF-43](#)) or the select 2-4 and high-low system (See page [TF-42](#)).

NG

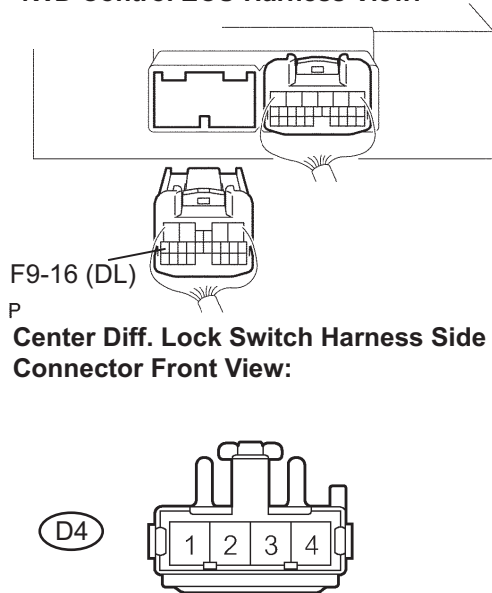
REPLACE 4WD CONTROL ECU

OK

7

CHECK HARNESS AND CONNECTOR (4WD CONTROL ECU - CENTER DIFFERENTIAL LOCK SWITCH)

4WD Control ECU Harness View:



F9-16 (DL)
P
Center Diff. Lock Switch Harness Side Connector Front View:

D4

H

I045789E02

- (a) Disconnect the 4WD control ECU (F9) connector and center diff. lock switch connector.
- (b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Specified Condition
F9-16 (DL) - D4-3	Below 1 Ω
F9-16 (DL) - Body ground	10 kΩ or higher

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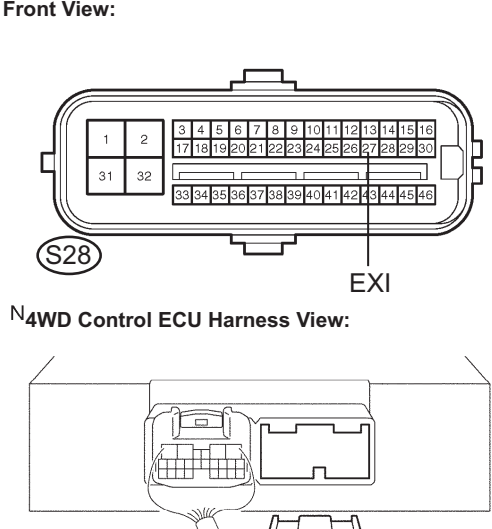
REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

8

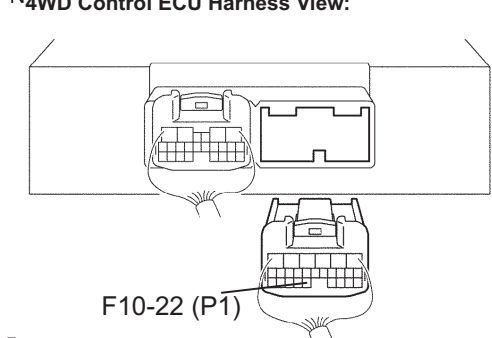
CHECK HARNESS AND CONNECTOR (SKID CONTROL ECU - 4WD CONTROL ECU)

Skid Control ECU Harness Side Connector Front View:



S28
EXI

N4WD Control ECU Harness View:



F10-22 (P1)
P

I045768E02

- (a) Disconnect the 4WD control ECU (F10) connector.
- (b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Specified Condition
S28-27 (EXI) - F10-22 (P1)	Below 1 Ω
S28-27 (EXI) - Body ground	10 kΩ or higher

OK

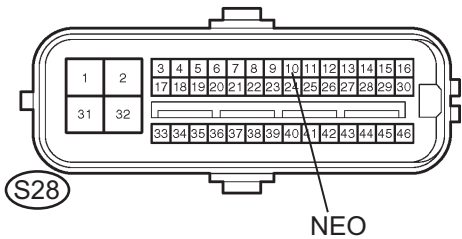
Go to step 12

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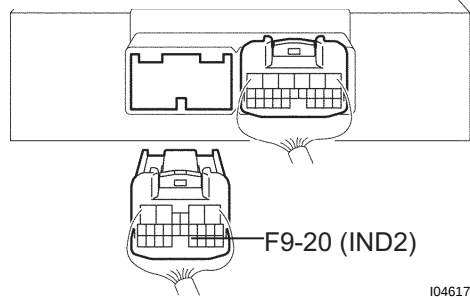
REPAIR OR REPLACE HARNESS OR CONNECTOR

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

Skid Control ECU Harness Side Connector Front View:



4WD Control ECU Harness View:



OK

- (a) Disconnect the 4WD control ECU (F9) connector.
 (b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Specified Condition
S28-10 (NEO) - F9-20 (IND2)	Below 1 Ω
S28-10 (NEO) - Body ground	10 kΩ or higher

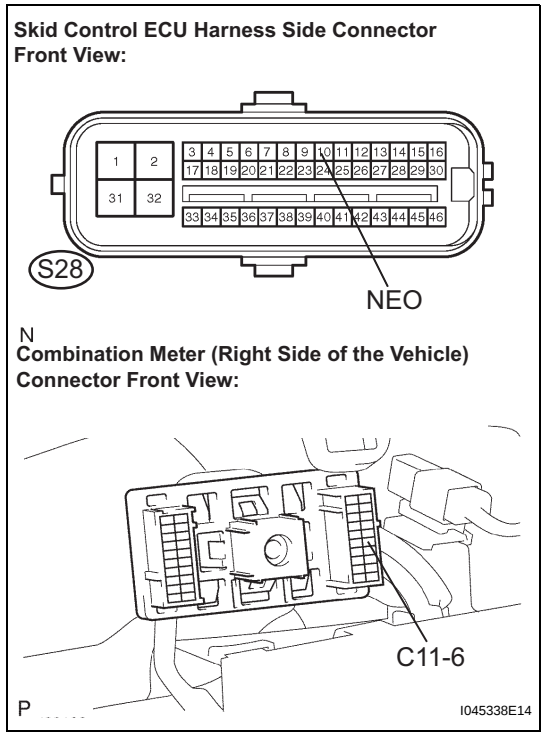
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REPAIR OR REPLACE HARNESS OR CONNECTOR

BC

10

CHECK HARNESS AND CONNECTOR (SKID CONTROL ECU - COMBINATION METER)



- (a) Disconnect the combination meter connector.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Specified Condition
S28-10 (NEO) - C11-6	Below 1 Ω
S28-10 (NEO) - Body ground	10 kΩ or higher

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

11

INSPECT COMBINATION METER ASSEMBLY

- (a) Check the combination meter system (See page ME-4).

NG

REPLACE COMBINATION METER ASSEMBLY

OK

12

RECONFIRM DTC

- (a) Clear the DTC (See page BC-38).
(b) Check if the same DTC is detected (See page BC-38).
HINT:
Reinstall the sensors, connectors, etc. and restore the previous vehicle conditions before rechecking for DTCs.

Result

Condition	Proceed to
DTC is output	A
DTC is not output	B

B

END

A

REPLACE MASTER CYLINDER SOLENOID