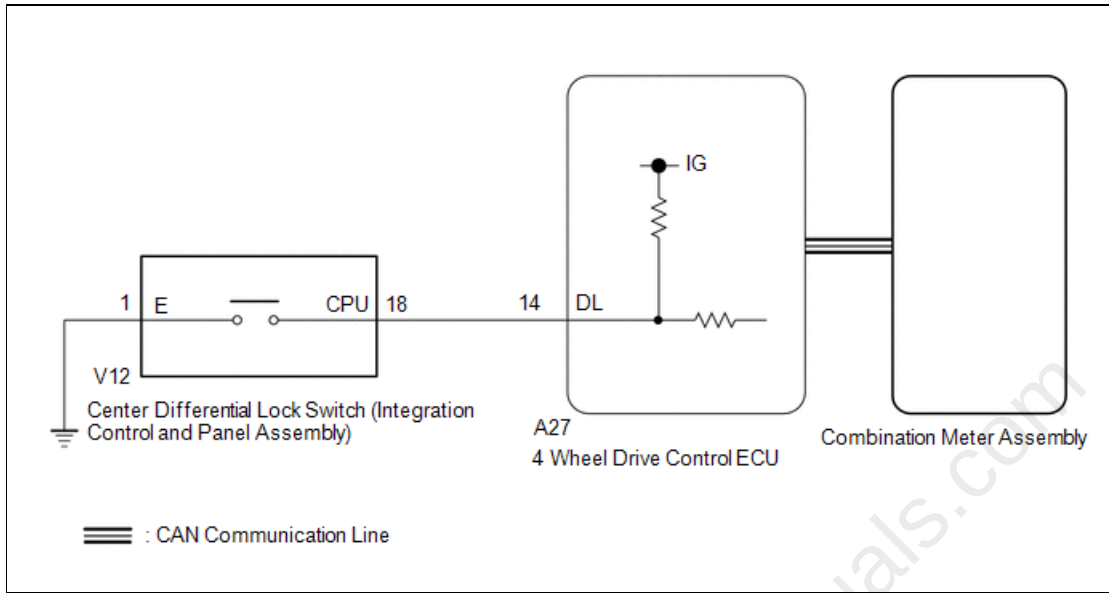


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Model Year Start: 2016	Model: LX570	Prod Date Range: [09/2015 -]
Title: JF2A TRANSFER / 4WD / AWD: TRANSFER SYSTEM: Center Differential Lock Switch Circuit; 2016 - 2018 MY LX570 [09/2015 -]		

Center Differential Lock Switch Circuit

WIRING DIAGRAM



PROCEDURE

1.	CHECK CENTER DIFFERENTIAL LOCK INDICATOR LIGHT
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- (a) Turn the engine switch on (IG).
- (b) Check the center differential lock indicator light.
- (c) Press the center differential lock switch.
- (d) After 60 seconds, check the center differential lock indicator light.

Result

RESULT	PROCEED TO
The center differential lock indicator light blinks, turns off or illuminates	A
Center differential lock indicator light remains off regardless of switch operation	B
Center differential lock indicator remains illuminated regardless of switch operation	C
Center differential lock indicator light rapidly blinks	D

Blinking: Blinks at 0.5 second intervals (0.5 seconds on and 0.5 seconds off)
 Rapidly blinking: Blinks at 0.25 second intervals (0.25 seconds on and 0.25 seconds off)

A ► END

C ► GO TO STEP 7

D ► Go to P17D0

B
▼

2. CHECK CAN COMMUNICATION LINE

(a) Select "Bus Check" from the System Selection Menu screen, and follow the prompts on the screen to inspect the CAN bus (See page [INFO](#) [INFO](#)).

OK:

"Bus Check" indicates no malfunctions in CAN communication.

Result

RESULT	PROCEED TO
DTC is not output	A
DTC is output	B

B ► CHECK CAN COMMUNICATION SYSTEM

A

3. READ VALUE USING TECHSTREAM (CENTER DIFFERENTIAL LOCK SWITCH)

- Turn the engine switch off.
- Connect the Techstream to the DLC3.
- Turn the Techstream on.
- Turn the engine switch on (IG).
- Enter the following menus: Powertrain / Four Wheel Drive / Data List.
- According to the display on the Techstream, read the Data List.

Four Wheel Drive

TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Center Differential Lock Control SW	Center differential lock switch (integration control and panel assembly) status/ ON or OFF	ON: Switch pressed and held OFF: Switch not pressed	-

OK:

Display changes according to center differential lock switch (integration control and panel assembly) operation.

NG ► GO TO STEP 5

OK

4. INSPECT COMBINATION METER ASSEMBLY

- Turn the engine switch off.
- Perform an Active Test of the combination meter assembly using the Techstream (See page [INFO](#) [INFO](#)).
- Check the combination meter assembly.

OK:

The center differential lock indicator light turns on or off in accordance with the Techstream.

OK ► REPLACE 4 WHEEL DRIVE CONTROL ECU

5. INSPECT INTEGRATION CONTROL AND PANEL ASSEMBLY

(a) Remove the center differential lock switch (integration control and panel assembly) (See page [INFO](#)).

(b) Inspect the center differential lock switch (integration control and panel assembly) (See page [INFO](#)).

OK:

The center differential lock switch (integration control and panel assembly) operates normally.

NG REPLACE INTEGRATION CONTROL AND PANEL
ASSEMBLY

OK

6. CHECK HARNESS AND CONNECTOR (4 WHEEL DRIVE CONTROL ECU - INTEGRATION CONTROL AND PANEL ASSEMBLY)

(a) Disconnect the A27 4 wheel drive control ECU connector.

(b) Disconnect the V12 center differential lock switch (integration control and panel assembly) connector.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A27-14 (DL) - V12-18 (CPU)	Always	Below 1 Ω
V12-1 (E) - Body ground	Always	Below 1 Ω

OK REPLACE 4 WHEEL DRIVE CONTROL
ECU

NG REPAIR OR REPLACE HARNESS OR
CONNECTOR

7. CHECK CAN COMMUNICATION LINE

(a) Select "Bus Check" from the System Selection Menu screen, and follow the prompts on the screen to inspect the CAN bus (See page [INFO](#) [INFO](#)).

OK:

"Bus Check" indicates no malfunctions in CAN communication.

Result

RESULT	PROCEED TO
DTC is not output	A
DTC is output	B

B CHECK CAN COMMUNICATION
SYSTEM

A

8. READ VALUE USING TECHSTREAM (CENTER DIFFERENTIAL LOCK INDICATOR LIGHT)

- (a) Turn the engine switch off.
- (b) Connect the Techstream to the DLC3.
- (c) Turn the Techstream on.
- (d) Turn the engine switch on (IG).
- (e) Enter the following menus: Powertrain / Four Wheel Drive / Data List.
- (f) According to the display on the Techstream, read the Data List.

Four Wheel Drive

TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Center Differential Lock Indicator Request	Center differential lock indicator light request/ Blink3, Blink2, Blink1, ON or OFF	• Blink3: Indicator light rapidly blinks • Blink2: Indicator light blinks 3 times • Blink1: Indicator light blinks • ON: Indicator light illuminates • OFF: Indicator light turns off	• Blinking: 0.5 second intervals (0.5 seconds on and 0.5 seconds off) • Rapidly blinking: 0.25 second intervals (0.25 seconds on and 0.25 seconds off)

- (1) Turn the center differential lock switch (integration control and panel assembly) on and off several times and check the Techstream display condition of the center differential lock indicator light.

RESULT	PROCEED TO
Data List continues to display ON even when center differential lock switch (integration control and panel assembly) is operated	A
Data List display changes according to center differential lock switch (integration control and panel assembly) operation	B

A ▶ REPLACE 4 WHEEL DRIVE CONTROL
ECU

B ▶ INSPECT METER / GAUGE
SYSTEM