

Last Modified: 12-21-2017	6.8:8.0.48	Doc ID: RM100000000T301
Model Year Start: 2016	Model: LX570	Prod Date Range: [09/2015 -]
Title: JF2A TRANSFER / 4WD / AWD: TRANSFER SYSTEM: SYSTEM DESCRIPTION; 2016 - 2018 MY LX570 [09/2015 -]		

SYSTEM DESCRIPTION

1. INDICATOR LIGHT OPERATION WHEN SWITCHING 4WD DRIVING MODE

DRIVING MODE		4LO INDICATOR LIGHT	CENTER DIFFERENTIAL LOCK INDICATOR LIGHT
H4F (Transfer high and center differential free)		Not illuminated	Not illuminated
H4L (Transfer high and center differential lock)		Not illuminated	Illuminated
L4F (Transfer low and center differential free)		Illuminated	Not illuminated
L4L (Transfer low and center differential lock)		Illuminated	Illuminated
Center differential	Switching between free and lock	State of transfer indicated	Blinking
Transfer	Switching between high and low	Blinking	State of center differential indicated

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

2. FUNCTION OF COMPONENTS

COMPONENTS			FUNCTIONS
Transfer position switch (integration control and panel assembly)			Switches between the H4 and L4 drive modes.
Center differential lock switch (integration control and panel assembly)			Selects free or lock for the center differential.
Combination meter assembly	4LO indicator light		Illuminates to inform the user of transfer L4 mode status. Blinks to inform the user of H4 and L4 mode switching. Rapidly blinks (during DTC output) to inform the user of a transfer system malfunction. HINT: When the transfer is in L4 mode, VSC and TRAC are prohibited.
	Center differential lock indicator light		Illuminates to inform the user of center differential lock status. Blinks to inform the user of switching between free and lock. Rapidly blinks (during DTC output) to inform the user of a center differential system malfunction.
	Buzzer		• Sounds 3 times when a communication malfunction occurs with the skid control ECU (master cylinder solenoid) and the center differential mode is switched. • When the vehicle speed condition is no longer met while the center differential is switching between free and lock, the buzzer sounds 3 times. • When the vehicle speed condition is no longer met or when the shift lever is no longer in N while the transfer is switching between high and low, the buzzer sounds 3 times.
Skid control ECU (master cylinder solenoid)			Sends wheel speed signals to the 4 wheel drive control ECU via CAN communication.
ECM			Sends information such as the shift position signal and engine speed to the 4 wheel drive control ECU via CAN communication.
4 wheel drive control ECU			Detects the vehicle status from wheel speed signals, engine speed signals, etc. received via CAN communication, and switches to the requested 4WD mode (H4 or L4, and center differential free or lock) by operating the transfer shift actuator assembly (high-low transfer actuator and center differential lock actuator) according to the operation of the transfer position switch and center differential lock switch.
Air conditioning amplifier assembly			Sends ambient temperature signals to the 4 wheel drive control ECU via CAN communication.
Transfer shift actuator assembly	High-low transfer actuator	High-low transfer shift motor and high-low transfer limit switch	Operates the high-low transfer shift motor according to commands sent from the 4 wheel drive control ECU and switches the driving mode (H4 or L4).
	Center differential lock actuator	Center differential lock shift motor and center differential lock limit switch	Operates the center differential lock shift motor according to commands sent from the 4 wheel drive control ECU and switches the driving mode (center differential free or lock).
		Center differential lock detection switch	Detects the center differential lock condition and sends that information to the 4 wheel drive control ECU.
	Temperature sensor*		Detects the transfer shift actuator temperature and sends that information to the 4 wheel drive control ECU.

*: w/ Temperature Sensor

- 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)
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