

A Single Power Window Is Inoperative/Does Not Operate Correctly - LH Front

Refer to Wiring Diagrams Cell [100](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: [Glass, Frames and Mechanisms - System Operation and Component Description](#) (501-11 Glass, Frames and Mechanisms, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Conditions
B1088:83	<u>LIN</u> Bus "B": Value of Signal Protection Calculation Incorrect	This <u>DTC</u> sets when the <u>DDM</u> has received invalid data from the driver door window control switch.
B1088:87	<u>LIN</u> Bus "B": Missing Message	This <u>DTC</u> sets when the <u>DDM</u> has lost communication from the driver door window control switch.
B117E:16	Front Power Window Up: Circuit Voltage Below Threshold	This <u>DTC</u> sets when the <u>DDM</u> senses the driver window regulator motor circuit voltage is too low.
B1189:29	Front Window Position Sensor: Signal Invalid	This <u>DTC</u> sets when the <u>DDM</u> detects a difference with one or both of the Hall-effect sensor circuit(s). When this <u>DTC</u> is present, the front window only operates in short steps.
B12C5:71	Front Window Lifter Motor Up Relay: Actuator Stuck	This <u>DTC</u> sets when the <u>DDM</u> detects the UP relay (integral to the <u>DDM</u>) is stuck or a short to voltage is present in the UP window motor circuit. When this <u>DTC</u> is present, the front window will not operate.
B12C8:71	Front Window Lifter Motor Down Relay: Actuator Stuck	This <u>DTC</u> sets when the <u>DDM</u> detects the DOWN relay (integral to the <u>DDM</u>) is stuck or a short to voltage is present in the DOWN window motor circuit. When this <u>DTC</u> is present, the front window will not operate.
C1B14:11	Sensor Supply Voltage A: Circuit Short To Ground	This <u>DTC</u> sets when the <u>DDM</u> detects a short to ground in the Hall-effect sensor power supply circuit. When this <u>DTC</u> is present, the front window only operates in short steps.
C1B14:15	Sensor Supply Voltage A: Circuit Short To Battery or Open	This <u>DTC</u> sets when the <u>DDM</u> detects a short to voltage or open in the Hall-effect sensor power supply circuit. When this <u>DTC</u> is present, the front window only operates in short steps.

Possible Sources

- Fuse
- Wiring, terminals or connectors
- Driver door window control switch
- Driver door window regulator motor
- BCM
- DDM

Visual Inspection and Diagnostic Pre-checks

- For 2014 vehicles only, verify BCM fuse 23 (10A) (Fusion) or fuse 31 (10A) (MKZ) is OK.

PINPOINT TEST C : A SINGLE POWER WINDOW IS INOPERATIVE/DOES NOT OPERATE CORRECTLY- LH FRONT

C1 CHECK FOR DDM (DRIVER DOOR MODULE) DIAGNOSTIC TROUBLE CODES (DTCs)

- Ignition ON.
- Using a diagnostic scan tool, perform DDM self-test.

Are any DDM Diagnostic Trouble Codes (DTCs) present?

Yes	<p>For <u>DTC</u> C1B14:11, GO to C9 For <u>DTC</u> B1189:29 or C1B14:15, GO to C7 For <u>DTC</u> B117E:16, B12C5:71 or B12C8:71, GO to C3 For <u>DTC</u> B1087:83, B1087:86 or B1087:88, REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems) .</p> <p>For <u>DTC</u> B1088:83 and B1088:87 only (B1087:XX is not present), GO to C14 For all other Diagnostic Trouble Codes (DTCs), REFER to: Locks, Latches and Entry Systems (501-14 Handles, Locks, Latches and Entry Systems) .</p>
No	GO to C2

C2 CHECK THE FRONT LEFT DOOR WINDOW SWITCH (FL_WDW) PID (PARAMETER IDENTIFICATION)

- Ignition ON.
- Using a diagnostic scan tool, view DDM Parameter Identifications (PIDs).
- Monitor the DDM PID FL_WDW while pressing and releasing the driver door window control switch in the up and down positions.



Does the PID status agree with the driver door window control switch as it is pressed and released?

Yes	GO to C3
No	<p>INSTALL a new driver door window control switch. REFER to: Front Door Window Control Switch (501-11 Glass, Frames and Mechanisms, Removal and Installation).</p>

C3 CHECK FOR A SHORT TO VOLTAGE IN THE WINDOW UP/DOWN CIRCUITS

- Ignition OFF.
- Disconnect: Driver Door Window Regulator Motor [C518](#).
- Disconnect: DDM [C501A](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C518-1		Ground
C518-4		Ground

Is any voltage present?

Yes	REPAIR the circuit in question.
No	GO to C4

C4 CHECK FOR A SHORT TO GROUND IN THE WINDOW UP/DOWN CIRCUITS

- Ignition OFF.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C518-1	Ω	Ground
C518-4	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to C5
No	REPAIR the circuit in question.

C5 CHECK FOR AN OPEN IN THE WINDOW UP/DOWN CIRCUITS

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C518-1	Ω	C501A-13
C518-4	Ω	C501A-14

Are the resistances less than 3 ohms?

Yes	GO to C6
No	REPAIR the circuit in question.


C6 CHECK THE DDM (DRIVER DOOR MODULE) OUTPUT

NOTICE: The following step uses a test light to simulate normal circuit loads. Use only the test light recommended in the Special Tools table at the beginning of this section. To avoid connector terminal damage, use the Flex Probe Kit for the test light probe connection to the vehicle. Do not use the test light probe directly on any connector.

NOTE: Because the power window motor electrical connector (Hall-effect sensor input) is disconnected, the DDM only activates the window output for approximately 500 ms then turns off.

- Ignition OFF.
- Connect: DDM [C501A](#).
- Ignition ON.
- Activate the driver door window control switch in the up and down positions while observing the test light.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C518-1		C518-4

Does the test light momentarily illuminate when the driver door window control switch is activated in both up and down positions?

Yes	INSTALL a new driver door window regulator motor. REFER to: Front Door Window Regulator Motor (501-11 Glass, Frames and Mechanisms, Removal and Installation).
No	GO to C19

C7 CHECK THE HALL-EFFECT POWER AND RETURN CIRCUITS

- Ignition OFF.
- Disconnect: Driver Door Window Regulator Motor [C518](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C518-3		C518-6

Is the voltage greater than 11 volts?

Yes	GO to C11
No	GO to C8

C8 CHECK FOR AN OPEN IN THE HALL-EFFECT POWER AND RETURN CIRCUITS

- Ignition OFF.
- Disconnect: DDM [C501A](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C518-3	Ω	C501A-16

Positive Lead	Measurement / Action	Negative Lead
C518-6	Ω	C501A-22

Are the resistances less than 3 ohms?

Yes	GO to C19
No	REPAIR the circuit in question.

C9 CHECK THE HALL-EFFECT POWER CIRCUIT FOR A SHORT TO GROUND

- Ignition OFF.
- Disconnect: DDM [C501A](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C501A-16	Ω	Ground

Is the resistance greater than 10,000 ohms?

Yes	GO to C19
No	GO to C10

C10 CHECK THE HALL-EFFECT POWER CIRCUIT FOR A SHORT TO GROUND WITH THE POWER WINDOW MOTOR DISCONNECTED

- Disconnect: Driver Door Window Regulator Motor [C518](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C501A-16	Ω	Ground

Is the resistance greater than 10,000 ohms?



Yes	INSTALL a new driver door window regulator motor. REFER to: Front Door Window Regulator Motor (501-11 Glass, Frames and Mechanisms, Removal and Installation).
No	REPAIR the circuit.

C11 CHECK FOR A SHORT TO VOLTAGE IN THE HALL-EFFECT SIGNAL CIRCUITS

- Ignition OFF.

- Disconnect: [DDM C501A](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C518-2		Ground
C518-5		Ground

Is any voltage present?

Yes	REPAIR the circuit in question.
No	GO to C12

C12 CHECK FOR A SHORT TO GROUND IN THE HALL-EFFECT SIGNAL CIRCUITS

- Ignition OFF.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C518-2	Ω	Ground
C518-5	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to C13
No	REPAIR the circuit in question.

C13 CHECK FOR AN OPEN IN THE HALL-EFFECT SIGNAL CIRCUITS

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C518-2	Ω	C501A-21
C518-5	Ω	C501A-11

Are the resistances less than 3 ohms?

Yes	INSTALL a new driver door window regulator motor. REFER to: Front Door Window Regulator Motor (501-11 Glass, Frames and
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Mechanisms, Removal and Installation).


TEST the system for normal operation. If the concern is still present, GO to [C19](#)

No REPAIR the circuit in question.

C14 CHECK FOR VOLTAGE TO THE DRIVER DOOR WINDOW CONTROL SWITCH

- Ignition OFF.
- Disconnect: Driver Door Window Control Switch [C535](#).
- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C535-1		Ground

Is the voltage greater than 11 volts?

Yes	GO to C16
No	For 2013 vehicles, GO to C15 For 2014 vehicles, VERIFY BCM fuse 23 (10A) (Fusion) or fuse 31 (10A) (MKZ) is OK. If not OK, REFER to the Wiring Diagrams manual to identify the possible causes of the circuit short. If OK, GO to C20

C15 CHECK FOR AN OPEN OR SHORT TO GROUND IN THE DRIVER DOOR WINDOW CONTROL SWITCH POWER CIRCUIT

- Ignition OFF.
- Disconnect: [DDM](#) [C501B](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C535-1	Ω	C501B-10

- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C535-1	Ω	Ground

Is the resistance less than 3 ohms between the window control switch and the [DDM](#); and greater than 10,000 ohms between the window control switch and ground?


Yes	GO to C19
No	REPAIR the circuit.

C16 CHECK THE DRIVER DOOR WINDOW CONTROL SWITCH GROUND CIRCUIT

NOTICE: The following step uses a test light to simulate normal circuit loads. Use only the test light recommended in the Special Tools table at the beginning of this section. To avoid connector terminal damage, use the Flex Probe Kit for the test light probe connection to the vehicle. Do not use the test light probe directly on any connector.

- Ignition ON.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C535-1		C535-4

Does the test light illuminate?

Yes	GO to C18
No	GO to C17

C17 CHECK THE DRIVER DOOR WINDOW CONTROL SWITCH GROUND CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect: [DDM C501A](#)C501A.
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C535-4	Ω	C501A-17

Is the resistance less than 3 ohms?

Yes	GO to C19
No	REPAIR the circuit.

C18 CHECK THE DRIVER DOOR WINDOW CONTROL SWITCH LIN (LOCAL INTERCONNECT NETWORK) CIRCUIT FOR AN OPEN

- Ignition OFF.
- Disconnect: [DDM C501A](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C535-3	Ω	C501A-5

Is the resistance less than 3 ohms?

Yes	INSTALL a new driver door window control switch. REFER to: Front Door Window Control Switch (501-11 Glass, Frames and Mechanisms, Removal and Installation).
No	REPAIR the circuit.

C19 CHECK FOR CORRECT DDM (DRIVER DOOR MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the DDM connectors.
- Repair:
 - corrosion (install new connector or terminals - clean module pins)
 - damaged or bent pins - install new terminals/pins as necessary
 - pushed-out pins - install new pins as necessary
- Reconnect the DDM connectors. Make sure they seat and latch correctly.
- Reconnect all previously disconnected connectors.
- Ignition ON.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK <u>OASIS</u> for any applicable Technical Service Bulletins (TSBs). If a <u>TSB</u> exists for this concern, DISCONTINUE this test and FOLLOW <u>TSB</u> instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new <u>DDM</u> . REFER to: Driver Door Module (DDM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.

C20 CHECK FOR AN OPEN IN THE DRIVER DOOR WINDOW CONTROL SWITCH POWER CIRCUIT

- Ignition OFF.
- Disconnect: BCM [C2280F](#).
- Measure:

[Click to display connectors](#)

Positive Lead	Measurement / Action	Negative Lead
C535-1	Ω	C2280F-30

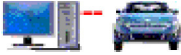
Is the resistance less than 3 ohms?

Yes	GO to C21
No	REPAIR the circuit.

C21 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the BCM connectors.
- Repair:
 - corrosion (install new connector or terminals - clean module pins)
 - damaged or bent pins - install new terminals/pins as necessary
 - pushed-out pins - install new pins as necessary
- Reconnect the BCM connectors. Make sure they seat and latch correctly.
- Reconnect all previously disconnected connectors.
- Ignition ON.
- Operate the system and determine if the concern is still present.

Is the concern still present?

Yes	CHECK <u>OASIS</u> for any applicable Technical Service Bulletins (TSBs). If a <u>TSB</u> exists for this concern, DISCONTINUE this test and FOLLOW <u>TSB</u> instructions. If no Technical Service Bulletins (TSBs) address this concern, INSTALL a new <u>BCM</u> .  Click here to access Guided Routine (BCM).
No	The system is operating correctly at this time. The concern may have been caused by module connections. ADDRESS the root cause of any connector or pin issues.