

Power Windows Malfunction

Diagnostic Instructions

- Perform the [Diagnostic System Check - Vehicle](#) prior to using this diagnostic procedure.
- Review [Strategy Based Diagnosis](#) for an overview of the diagnostic approach.
- [Diagnostic Procedure Instructions](#) provides an overview of each diagnostic category.

Diagnostic Fault Information

Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
Driver Door Switch B+	1, 3	1	--	--
LR Window Switch B+	1, 3	3	--	--
Passenger Door Switch B+	2, 4	2	--	--
RR Window Switch B+	2, 4	4	--	--
Power Window Switch Right Rear Down Signal	B3823 00	B3823 00	B3823 00	--
Power Window Switch Right Rear Up Signal	B3822 00	B3822 00	B3822 00	--
Power Window Switch Left Rear Down Signal	B3820 00	B3820 00	B3820 00	--
Power Window Switch Left Rear Up Signal	B3819 00	B3819 00	B3819 00	--
Power Window Lockout Left Rear Control	B3821 00	B3821 00	B3821 00	--
Power Window Lockout Right Rear Control	B3824 00	B3824 00	B3824 00	--
LR Window Motor Control	3	3	3	--
Passenger Window Motor Control	B3205 00	B3205 0B	B3205 00	--
RR Window Motor Control	4	4	4	--
Driver Window Motor Control	B3205 00	B3205 0B	B3205 00	--
LR Window Switch Ground	--	3	3	--
RR Window Switch Ground	--	4	4	--
RR Window Switch Ground	--	4	4	--
Driver Door Switch Ground	--	1	1	--
Passenger Door Switch Ground	--	2	2	--

1. Driver Window Malfunction
2. Passenger Window Malfunction
3. Left Rear Window Malfunction
4. Right Rear Window Malfunction

Circuit/System Description

The driver and passenger door lock and side window switches are integrated control module switch assemblies. The driver door switch (DDS) controls the passenger window through a serial data message to the passenger door switch (PDS). When a power window switch is activated in the up or down positions the DDS or PDS supplies power and ground to their respective window motor control circuits to drive the window motor in the required direction. The rear passenger power windows can also be operated from the DDS through a serial data message to the BCM. The rear passenger window switches on the DDS have 2 positions, up and down, their position is a direct input into the DDS. When the BCM receives a command to operate a rear window up or down, the appropriate signal is sent to the rear door window switch which will command the window motor to perform the up or down function.

Reference Information

Schematic Reference

- [Moveable Window Schematics](#)
- [Door Control Module Schematics](#)

Connector End View Reference

[Component Connector End Views](#)

Description and Operation

[Power Windows Description and Operation](#)

Electrical Information Reference

- [Circuit Testing](#)
- [Connector Repairs](#)
- [Testing for Intermittent Conditions and Poor Connections](#)
- [Wiring Repairs](#)

Scan Tool Reference

[Control Module References](#) for scan tool information

Circuit/System Verification

1. Ignition ON, observe the operation of the power windows while commanding each window UP and DOWN by using their respective window switches, each window should perform the UP and DOWN function.
 - If the driver window is inoperative, refer to Driver Window Malfunction.
 - If the front passenger window is inoperative, refer to Passenger Window Malfunction.
 - If either rear passenger window is inoperative, refer to Rear Passenger Window Malfunction.
2. Globally command the windows UP and DOWN by using the global window switch, all windows should globally express UP and express DOWN.
 - If all windows fail to perform the global command, refer to Global Command Malfunction.
3. Observe the scan tool Driver Window RF Switch, Driver Window LR Switch and Driver Window RR Switch parameters while using the driver master control switches. The parameter should change between Off/Up/Down/Express Down.
 - If the parameter does not change, replace the DDS.
4. Observe the scan tool Window Lockout Switch parameter while pressing and depressing the window lockout switch on the driver master control. The parameter should change between On and Off.
 - If the parameter does not change, replace the DDS.

Circuit/System Testing

Driver Power Window Inoperative

1. Ignition OFF, disconnect the X1 harness connector at the DDS.
2. Test for less than 1 ohm between the ground circuit terminal 6 and ground.
 - If greater than the specified range, test the ground circuit for an open/high resistance.
3. Ignition ON, verify that a test lamp illuminates between the B+ circuit terminal listed below and ground:
 - B+ circuit terminal 2
 - B+ circuit terminal 4
 - If the test lamp does not illuminate, test the B+ circuit for a short to ground or an open/high resistance.
4. Ignition OFF, connect the harness connector at the DDS.
5. Ignition ON, observe the scan tool Driver Window Switch parameters while using the driver power window switch. The parameter should change between Off/Up/Down/Express Down.
 - If the parameter does not change, replace the DDS.
6. Ignition OFF, disconnect the harness connector at the driver window motor.
7. Ignition ON, test for less than 1 ohm between the control circuit terminal listed below and ground:
 - Control circuit terminal A
 - Control circuit terminal B
 - If greater than the specified range, test the control circuit for a short to voltage or an open/high resistance. If the circuit tests normal, replace the DDS.
8. Connect a test lamp between control circuit terminal A and control circuit terminal B.
9. Command the driver window UP and DOWN by using the driver window switch. The test lamp should illuminate when commanding the UP and DOWN states.
 - If the test lamp does not illuminate during either of the commands, test for a short to ground on either control circuit. If the circuits test normal, replace the DDS.
10. If all circuits test normal, test or replace the driver window motor.

Passenger Power Window Inoperative

1. Ignition OFF, disconnect the X1 harness connector at the PDS.
2. Test for less than 1 ohm between the ground circuit terminal 6 and ground.
 - If greater than the specified range, test the ground circuit for an open/high resistance.
3. Ignition ON, verify that a test lamp illuminates between the B+ circuit terminal listed below and ground:
 - B+ circuit terminal 2
 - B+ circuit terminal 4
 - If the test lamp does not illuminate, test the B+ circuit for a short to ground or an open/high resistance.
4. Ignition OFF, connect the harness connector at the PDS.
5. Ignition ON, observe the scan tool Passenger Window Switch parameters while using the passenger power window switch. The parameter should change between Off/Up/Down/Express Down.
 - If the parameter does not change, replace the PDS.
6. Ignition OFF, disconnect the harness connector at the passenger window motor.
7. Connect a test lamp between control circuit terminal A and control circuit terminal B.
8. Ignition ON, command the passenger window UP and DOWN by using the passenger window switch. The test lamp should illuminate when commanding the UP and DOWN states.
 - If the test lamp does not illuminate during either of the commands, test for a short to ground or open/high resistance on either control circuit. If the circuits test normal, replace the PDS.
 - If the test lamp continuously illuminates, test for a short to voltage on either control circuit. If the circuits test normal, replace the PDS.
9. If all circuits test normal, test or replace the passenger window motor.

Rear Power Window Inoperative

1. Ignition OFF, disconnect the harness connector at the appropriate rear window switch.
2. Test for less than 1 ohm between the ground circuit terminal E and ground.
 - If greater than the specified range, test the ground circuit for an open/high resistance.
3. Ignition ON, verify that a test lamp illuminates between the B+ circuit terminal H and ground.
 - If the test lamp does not illuminate, test the B+ circuit for a short to ground or an open/high resistance.
4. Enable the rear windows by using the window lockout switch on the driver master control.
5. Test for greater than 10V between the control circuit terminal D and ground.
 - If less than the specified range, test the control circuit for a short to ground or open/high resistance. If the circuit tests normal, replace the BCM.
6. Test for greater than 10V between the signal circuit terminal C and ground while commanding the rear window DOWN with a scan tool.

- If less than the specified range, test the signal circuit for a short to ground or open/high resistance. If the circuit tests normal, replace the BCM.
- 7. Test for greater than 10V between the signal circuit terminal A and ground while commanding the rear window UP with a scan tool.
 - If less than the specified range, test the signal circuit for a short to ground or open/high resistance. If the circuit tests normal, replace the BCM.
- 8. Ignition OFF, connect the rear window switch and disconnect the harness connector at the rear window motor
- 9. Test for less than 1 ohm between the control circuit terminal listed below and ground:
 - Control circuit terminal A
 - Control circuit terminal B
 - If greater than the specified range, test the control circuit for a short to voltage or an open/high resistance. If the circuit tests normal, replace the rear window switch.
- 10. Connect a test lamp between control circuit terminal A and control circuit terminal B.
- 11. Ignition ON, command the rear window UP and DOWN by using the rear window switch. The test lamp should illuminate when commanding the UP and DOWN states.
 - If the test lamp does not illuminate during either of the commands, test for a short to ground on either control circuit. If the circuits test normal, replace the rear window switch.
- 12. If all circuits test normal, test or replace the rear window motor.

Global Command Malfunction

1. Ignition OFF, disconnect the X5 harness connector at the DDS.
2. Test for infinite resistance between the signal circuit terminals 9 and 10 and the 12 volt reference circuit terminal 6 with the global window switch in the INACTIVE position.
 - If less than the specified value, replace the global window switch.
3. Test for less than 2 ohms between the signal circuit terminal 9 and the 12 volt reference circuit terminal 6 with the switch in the UP position.
 - If greater than the specified range, replace the global window switch.
4. Test for less than 2 ohms between the signal circuit terminal 10 and the 12 volt reference circuit terminal 6 with the switch in the DOWN position.
 - If greater than the specified range, replace the global window switch.
5. If all circuits test normal, replace the DDS.

Component Testing

1. Ignition OFF, disconnect the harness connector at the appropriate window motor.
2. Install a 25A fused jumper wire between one of the control terminals and 12V. Momentarily install a jumper wire between the other control terminal and ground. Reverse the jumper wires at least two times, the window motor should perform the UP/DOWN functions.
 - If it does not perform as specified, replace the window motor.

Repair Instructions

Perform the [Diagnostic Repair Verification](#) after completing the diagnostic procedure.

- [Rear Side Door Window Switch Replacement](#)
- [Front Side Door Window Regulator Motor Replacement](#)
- [Rear Side Door Window Regulator Motor Replacement](#)
- [Control Module References](#) for DDS, PDS and BCM replacement, setup and programming