



Your Current Vehicle: 2007 Chevrolet Suburban 1500

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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.

DTC Descriptor

DTC B2494 02	Liftgate Handle Switch Circuit Short to Ground
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Diagnostic Fault Information

Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
Rear Liftgate Open/Close Switch Signal	B2494 02	1	1	—
Exterior Liftgate Control Switch Low Reference	—	1	1	—
Liftgate Close Switch Low Reference	—	1	1	—
1. Liftgate Switch Malfunction				

Circuit/System Description

The liftgate close switch and exterior liftgate handle switch are parallel circuits and provide a single input to the liftgate control module. When a switch contact closes and the voltage drops, the liftgate module detects the voltage drop and commands the liftgate to open.

Conditions for Running the DTC

The system voltage is 9–16 V.

Conditions for Setting the DTC

The liftgate handle switch signal circuit is active for greater than 30 seconds.

Action Taken When the DTC Sets

The liftgate control module will ignore the signal from the liftgate handle switch and the liftgate close switch. Normal power liftgate operation will be available from the interior liftgate control switch or from a request from the remote keyless entry module.

Conditions for Clearing the DTC

- The DTC will be current for as long as the fault is present.
- When the fault is no longer present, the DTC will be a history DTC.
- A history DTC will clear after 50 ignition cycles.

Diagnostic Aids

- If the liftgate will not release from the closed position, refer to Opening the Liftgate Without Electrical Power for the appropriate procedure.
- Whenever the liftgate control module loses power or is disconnected, the ignition must be cycled OFF then ON in order to reactivate the liftgate control module.
- An intermittent short to ground in the Rear Liftgate Open/Close Switch circuit may cause the liftgate control module to command the liftgate to open if the vehicle is in park and the doors are unlocked. If the vehicle has a history of the liftgate opening unexpectedly, inspect the point where the wires enter the exterior liftgate handle switch for corrosion or evidence of water intrusion.

Reference Information

Schematic Reference

Liftgate Schematics

Connector End View Reference

Description and Operation

Electrical Information Reference

- Testing for Intermittent Conditions and Poor Connections
- Circuit Testing
- Wiring Repairs
- Connector Repairs

Scan Tool Reference

Control Module References for scan tool information

Circuit/System Verification

1. DTC B2494 should not be set as a history DTC.
 - If DTC B2494 is set only as history, replace the liftgate handle switch.
2. Observe the scan tool Liftgate Handle Sw. Status parameter while pressing and releasing the liftgate handle switch and pressing and releasing the liftgate close switch. The reading should change between Active and Inactive as each switch is pressed and released.

Circuit/System Testing

1. Ignition OFF, disconnect the harness connector at the liftgate handle switch.
2. Test for less than 10 Ω between the low reference circuit terminal B and ground.
 - If greater than the specified range, test the low reference circuit for an open/high resistance between the connector and the circuit splice.
3. Ignition OFF, disconnect the harness connector at the liftgate close switch.
4. Test for less than 10 Ω between the low reference circuit terminal A and ground.
 - If greater than the specified range, test the low reference circuit for an open/high resistance between the connector and the circuit splice.
5. Ignition ON, verify the scan tool Liftgate Handle Sw. Status parameter is Inactive.
 - If not the specified value, test the signal circuit terminal D at the liftgate close switch for a short to ground. If the circuit tests normal, replace the liftgate control module.

6. Connect a 3A fused jumper wire between the signal circuit terminal D and ground. Verify that the scan tool Liftgate Handle Sw. parameter is Active.
 - If not the specified value, test the signal circuit for a short to voltage or an open/high resistance. If the circuit tests normal, replace the liftgate control module
7. Ignition OFF, connect the harness connector at the liftgate close switch.
8. Ignition ON, observe the scan tool Liftgate Handle Sw. Status parameter while pressing and releasing the liftgate close switch, the reading should change between Active and Inactive
 - If the value is always Inactive or always Active, test or replace the liftgate close switch.
9. If all circuits test normal, test or replace the liftgate handle switch.

Component Testing

Liftgate Handle Switch

1. Ignition OFF, disconnect the harness connector at the liftgate handle switch.
2. Test for infinite resistance between the signal terminal A and the low reference terminal B with the switch in the open position.
 - If not the specified value, replace the liftgate handle switch.
3. Test for less than 2 Ω between the signal terminal A and the low reference terminal B with the switch in the closed position.
 - If greater than the specified range, replace the liftgate handle switch.

Liftgate Close Switch

1. Ignition OFF, disconnect the harness connector at the liftgate close switch.
2. Test for infinite resistance between the signal terminal D and the low reference terminal A with the switch in the open position.
 - If not the specified value, replace the liftgate close switch.
3. Test for less than 2 Ω between the signal terminal D and the low reference terminal A with the switch in the closed position.
 - If greater than the specified range, replace the liftgate close switch.

Repair Instructions

Perform the Diagnostic Repair Verification after completing the diagnostic repair.

- Liftgate Release Switch Replacement (Except Avalanche and EXT Escalade)
- Control Module References for liftgate control module replacement, programming and setup

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