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2000 CHEVROLET Express OEM Service and Repair Workshop Manual

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Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
Ground	<u> </u>	B2476 04	_	_

- 1. OnStar® LED Inoperative
- 2. LED Illuminated At All Times

Circuit Description

The OnStar® status LEDs are located in the inside rearview mirror telematic button assembly. The green LED is illuminated when the system is ON and operating normally. When the green LED is green and flashing, it is an indication that a call is in progress. When the red LED is illuminated, a system malfunction is present. In the event there is a system malfunction and the OnStar® system is still able to make a call, the LED will flash red during the call. The OnStar® LEDs are controlled by the telematics communication interface control module via the keypad green LED control circuit and the keypad red LED control circuit.

Conditions for Running the DTC

- Ignition ON.
- Battery voltage must be between 9-16 V.

Conditions for Setting the DTC

B2476 04

The telematics communication interface control module detects a short to voltage or an open/high resistance on the keypad 10 V reference circuit.

B2482 and B247659

The telematics communication interface control module detects a valid signal on the keypad signal circuit for longer than 15 s. If one of the OnStar® buttons is held or stuck for 15 s or greater, the telematics communication interface control module will set this DTC.

Action Taken When the DTC Sets

- The OnStar® status LED turns red.
- No calls can be placed.

- 2. Verify no DTC are set.
 - If any DTC are set

Refer to Diagnostic Trouble Code (DTC) List - Vehicle

- If no DTC are set
- 3. Verify that the green LED turns ON and OFF when commanding the Green Indicator ON and OFF with a scan tool.
 - o If the green LED does not turn ON and OFF

Refer to Circuit/System Testing - Green LED Test

- If the green LED turns ON and OFF
- 4. Verify that the red LED turns ON and OFF when commanding the Red Indicator ON and OFF with a scan tool.
 - $\circ~$ If the red LED does not turn ON and OFF

Refer to Circuit/System Testing - Red LED Test

- o If the red LED turns ON and OFF
- 5. All OK.

Circuit/System Testing

Green LED Test

- 1. Ignition OFF, and all vehicle systems OFF, disconnect the harness connector at the A10 Inside Rearview Mirror. It may take up to 2 min for all vehicle systems to power down. Doors closed, courtesy lamps OFF.
- 2. Test for less than 10 Ω between the ground circuit terminal 5 and ground.
 - If 10 Ω or greater
 - 1. Ignition OFF.
 - 2. Test for less than 2Ω in the ground circuit end to end.
 - If 2Ω or greater, repair the open/high resistance in the circuit.
 - If less than 2 Ω , repair the open/high resistance in the ground connection.
 - \circ If less than 10 Ω
- 3. Ignition ON.

- 2. Test for less than 2 Ω in the ground circuit end to end.
 - If 2Ω or greater, repair the open/high resistance in the circuit.
 - If less than 2 Ω , repair the open/high resistance in the ground connection.
- \circ If less than 10 Ω
- 3. Ignition ON.
- 4. Test for less than 1 V between the control circuit terminal 7 and ground while commanding the Red Indicator OFF with a scan tool.

• If 1 V or greater

- 1. Ignition OFF, disconnect the X1 harness connector at the K73 Telematics Communication Interface Control Module, ignition ON.
- 2. Test for less than 1 V between the control circuit terminal 7 and ground.
 - If 1 V or greater, repair the short to voltage on the circuit.
 - If less than 1 V, replace the K73 Telematics Communication Interface Control Module.
- o If less than 1 V
- 5. Test for greater than 8 V between the control circuit terminal 7 and ground while commanding the Red Indicator ON with a scan tool.
 - If 8 V or less
 - 1. Ignition OFF, disconnect the X1 harness connector at the K73 Telematics Communication Interface Control Module.
 - 2. Test for infinite resistance between the control circuit terminal 7 and ground.
 - If less than infinite resistance, repair the short to ground on the circuit.
 - If infinite resistance
 - 3. Test for less than 2 Ω in the control circuit end to end.
 - If 2 Ω or greater, repair the open/high resistance in the circuit.
 - If less than 2 Ω , replace the K73 Telematics Communication Interface Control Module.
 - If greater than 8 V
- 6. Test or replace the A10 Inside Rearview Mirror.

Repair Instructions

YOUR CURRENT VEHICLE

OnStar Button Malfunction

OnStar Button 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.

DTC Descriptors

DTC B2476 04	Cellular Phone Select Service Switch Open				
DTC B2476 59	Cellular Phone Select Service Switch Protection Time-out				
DTC B2482 00	Cellular Phone Select Service Switch Range/Performance				

Diagnostic Fault Information

Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
10 V Reference	B2476 04	B2476 04	B2476 04	_
Signal Terminal 3	B2476 04	B2476 04	B2476 59	B2476 59, B2482 00
Ground	_	B2476 04	_	_

1. OnStar® Buttons Inoperative