

# Your Ultimate Source for OEM Repair Manuals

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## 2006 CHEVROLET Nubira/Lacetti Wagon OEM Service and Repair Workshop Manual

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The folding top control module supplies low current control signals to the folding top pump motor relay 1 and folding top pump motor relay 2. The relays supply high current to the folding top pump motor. Folding top pump motor relay 1 allows the folding top pump motor to run in one direction and folding top pump motor relay 2 allows the motor to run in the opposite direction. When opening the top the pump motor will change directions 2 times depending on what position the top is in. When Closing the top the pump motor will change directions 3 times. During the OFF state, the motor is grounded on both terminals. The folding top control module monitors the voltage applied to the folding top pump motor through sense lines spliced to the wires at J416 and J415.

Folding top pump motor, folding top solenoid valve 1, folding top solenoid valve 2, folding top solenoid valve 3, and folding top solenoid valve 4 are not serviceable separately, they are all part of the folding top pump motor assembly.

#### **Conditions for Running the DTC**

- Battery voltage must be between 9 to 16V.
- Ignition switch in OFF, ACCESSORY or RUN positions.

#### **Conditions for Setting the DTC**

##### **B1308 01**

The folding top control module has detected a short to battery in the control circuit.

##### **B1308 02**

The folding top control module has detected a short to ground in the control circuit.

##### **B1308 04**

The folding top control module has detected an open circuit in the control circuit.

#### **Action Taken When the DTC Sets**

##### **B1308 01**

If the folding top switch is pressed, the driver information center will display "Only Manual Operation of Top Possible".

The module will supply voltage to the pump motor relay 1 and pump motor relay 2 control circuits.

##### **B1308 02, B1308 04**

If the folding top switch is pressed, the driver information center will display "Only Manual Operation of Top Possible".

- If less than  $2\ \Omega$ , repair the open/high resistance in the ground connection.

- **If less than  $10\ \Omega$**

### 3. NOTE

#### Note

With the K149A Folding Top Pump Motor Relay 1 disconnected the K23 Folding Top Control Module senses a fault and shuts down the output driver. The K23 Folding Top Control Module will not supply voltage to the circuit when pressing the S22B Folding Top Control Switch or commanding the top to open/close with the scan tool.

Disconnect the X1 harness connector at the K23 Folding Top Control Module.

#### 4. Test for infinite resistance between the control circuit terminal 1 and ground.

- **If less than infinite resistance**

Repair the short to ground on the circuit.

- **If infinite resistance**

#### 5. Test for less than $2\ \Omega$ in the control circuit terminal 1 end to end.

- **If  $2\ \Omega$  or greater**

Repair the open/high resistance in the circuit.

- **If less than  $2\ \Omega$**

#### 6. Ignition ON.

#### 7. Test for less than 1 V between the control circuit terminal 1 and ground.

- **If greater than 1 V**

Repair the short to voltage on the circuit.

- **If less than 1 V**

#### 8. Replace the K149A Folding Top Pump Motor Relay 1.

#### 9. Connect the X1 harness connector at the K23 Folding Top Control Module.

#### 10. Using the scan tool, clear the DTC.

#### 11. Verify DTC B1308 does not set when commanding the Folding Top to Open and Close with a scan tool.

- **If DTC B1308 is set**

Replace the K23 Folding Top Control Module.

7. All OK

### Repair Instructions

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

- [Folding Top Pump Replacement](#)
- [Control Module References](#) for folding top control module replacement, programming and setup

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Folding top pump motor, folding top solenoid valve 1, folding top solenoid valve 2, folding top solenoid valve 3, and folding top solenoid valve 4 are not serviceable separately, they are all part of the folding top pump motor assembly.

#### **Conditions for Running the DTC**

- Battery voltage must be between 9 to 16V.
- Ignition switch in OFF, ACCESSORY or RUN positions.

#### **Conditions for Setting the DTC**

##### **B1309 01**

The folding top control module has detected a short to battery in the control circuit.

##### **B1309 02**

The folding top control module has detected a short to ground in the control circuit.

##### **B1309 04**

The folding top control module has detected an open circuit in the control circuit.

#### **Action Taken When the DTC Sets**

##### **B1309 01**

If the folding top switch is pressed, the driver information center will display "Only Manual Operation of Top Possible".

The module will supply voltage to the pump motor relay 1 and pump motor relay 2 control circuits.

##### **B1309 02, B1309 04**

If the folding top switch is pressed, the driver information center will display "Only Manual Operation of Top Possible".