

TROUBLESHOOTING HILO-M0XX/HILO-M1XX 2 Series Single w/Molex Connectors

LITERATURE: [LIT-MAN-HILO-2](#)

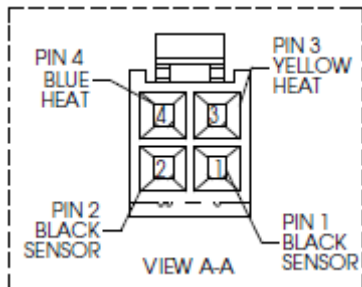
Regular switch function: Up for high (Orange LED) or Down for low (Green LED)

Timeframe manufactured & sold: February 2012 – February 2016

If the system does not heat up, check the following:

To test the unit you must sit in it for at least a 5-minute period in which the heat has time to reach the seat surface.

- 1.) If this is a brand new installation, please confirm that the power harness was connected last before powering up the system. If not, please disconnect the power harness for roughly 30 seconds, reset the system and try powering up. If the system is still not working, please continue with the following:
- 2.) Check the fuse utilized during the installation. This system requires a minimum of a 7.5 amp, keyed ignition, fuse at the power source.
- 3.) Ensure that all connections are properly mated, that there are no loose connections or spread/popped pins, and that the 12V DC and ground wires are properly installed. (See seat heater [wiring diagram](#))
- 4.) A break in the heating element circuit. To check for this, pull on the wires at all connectors to verify they are properly seated in the connector. Don't forget the connector on the back element. Also check for continuity at the 4 pin connector. The cushion and back elements must be connected and use a multi-meter set to ohms. See Figure & directions:
 - a. Probe Pin 1 and Pin 2 to test Ohms. Normal reading should be 6,500 to 15,000 Ohms.
 - b. Probe Pin 3 and Pin 4 to test Ohms. Normal reading is between 1.5 and 22 Ohms.
 - c. If Pin 4 is a blue wire, this system is equipped with a mandatory backrest heating element. The two elements are wired in series. Trace on the blue wire harness to find the backrest element connector.
 - d. The backrest element can be tested for Ohms on its own.
 - e. The cushion element must have the backrest element connected during the Ohm reading test.
- 5.) A low voltage condition on the controller input from the fuse box. To verify the voltage input, use a multi-meter set to volts, across red AND black wires at controller module (it should read 11-15V DC).



<p><u>SYSTEM PART NUMBERS:</u></p> <p>If HILO-M0XX:</p> <p>Single Element: E28XXXM</p> <p>Hardware Pack: HPACK-EC9-PRO</p> <p>Power Harness: PH-EC26-12FT</p> <p>Control Module: ECMC-M9-A</p> <p>High/Low Switch Harness: SWH-EC-M9-A</p> <p>High/Low Round Switch: SW-SPDT-06-24V</p> <p>If HILO-M1XX:</p> <p>Cushion Element: E27XXXM</p> <p>Backrest Element: E07XXX</p> <p>Hardware Pack: HPACK-EC9-PRO</p> <p>Power Harness: PH-EC26-12FT</p> <p>Control Module: ECMC-M9-A</p> <p>High/Low Switch Harness: SWH-EC-M9-A</p> <p>High/Low Round Switch: SW-SPDT-06-24V</p>
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If the heating elements, switch, and seat harness test OK, then a power problem exists, check the following:

- 1.) Using a multi-meter or a test light, start at the power connection and trace back through all of the connectors and the switch to determine where the power loss is occurring. Repair as necessary.

If the fuse continues to fail, check the following:

- 1.) Each pair of heating elements that are installed in the vehicle must have their own 7.5amp keyed ignition fuse.
- 2.) A poor ground connection. Check connections or try another grounding point. Another possible cause is the fuse used for power is computer controlled (try another fuse location).

If this is a new installation and everything seems to be connected properly, and no power issues, please walk through the [wiring diagram](#) to confirm all components being installed are connected to the correct port and all pinouts are wired correctly when comparing to wiring diagram. This confirms that there are no manufacturing assembly errors in the wiring of any components.

If all components look to be wired correctly, and this is NOT a brand new installation,

a. Has the vehicles battery died recently?

- i. If yes, reset the system. Disconnect power harness from control module for roughly 30 seconds and reconnect before powering back up.

b. Has the system or any components of the system been removed, re-installed, or replaced?

- i. If yes, confirm everything was re-installed properly into the correct ports of the control module, etc. After confirming, try resetting the system by disconnecting the power harness from the control module for roughly 30 seconds, and re-connecting it before trying to power up the system again.

c. Is the vehicle battery providing the amperage needed?

- i. A failure of the vehicle battery is possible- battery may be old and is not providing clean and sufficient amperage. Even though the vehicle system may be providing the correct voltage (about 13.8 volts) to the seat heater, a poor battery prevents this seat heater system from operating properly.

After walking through the troubleshooting steps above, if you were not able to resolve the issue as the issue is still unknown or you require a replacement component, please fill out the form with as much information as possible and a representative will be in touch with you within 24 hours.