

## TROUBLESHOOTING 3 Series, High/Medium/Low, Single System.

PRM-0XX+1ROUND/PRM-1XX+1ROUND/PRM-0XX+1FLAT/PRM-1XX+1FLAT

### Regular switch function:

**Round:** Down once (Red LED) for High, twice (Burnt orange LED) for Medium, three times (Amber LED) for low. Four for off.

**Flat Membrane:** Press to cycle through settings. LED will remain Amber colored through High, Medium and Low.

### LITERATURE: [LIT-MAN-FST2](#)

Timeframe manufactured & sold: September 2009 – Present

### **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:

### SYSTEM PART NUMBERS:

#### **If PRM-XXX+1ROUND (Round Momentary Switch):**

##### **If Single Element System:**

Single Element: E28XXX

##### **If Backrest & Cushion Element System:**

Cushion Element: E27XXX

Backrest Element: E07XXX

Hardware Pack: HPACK-GM

Relay Power Harness: PH-EC4-12FT

Control Module: ECMC-25

#### **High/Med/Low Round Switch Pack with Switch**

Harness: SWP-EC4-1-RNDM

High/Low Round Switch: SW-SPST-07-12VM

Extension Harness: EXT-EC4-0

#### **If PRM-XXX+1FLAT (Flat Membrane Switch):**

##### **If Single Element System:**

Single Element: E28XXX

##### **If Backrest & Cushion Element System:**

Cushion Element: E27XXX

Backrest Element: E07XXX

Hardware Pack: HPACK-GM

Relay Power Harness: PH-EC4-12FT

Control Module: ECMC-25

#### **High/Med/Low Flat Membrane Switch Harness:**

SWH-EC4-TWIN

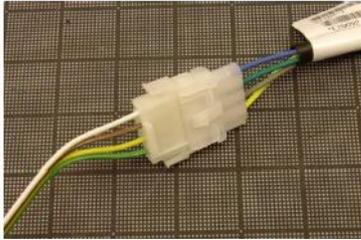
#### **High/Med/Low Single Flat Membrane Switch:**

SW-SPST-31-12VM

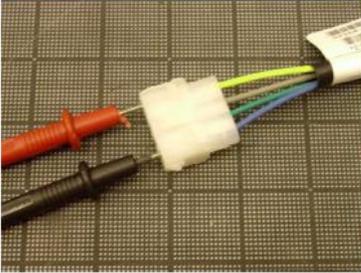
#### **High/Med/Low Single Flat Membrane Switch Frame:**

SW-FRM-SQUR-2

Extension Harness: EXT-EC4-0



**Figure 1:** This is the 4 Pin connector at the end of the element harness. Disconnect the bonded wire harness and use a multi-meter to check for continuity.



**Figure 2:** Set the multi-meter to ohms, and touch the red and black probes to the yellow and blue pins. The meter should show that there is continuity through the heating wire. If it does not, there is a break in the heating wire.

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).

**If the heating elements, switch, and seat harness test OK, then a power problem exists, check the following:**

- 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:**

- Each pair of heating elements that are installed in the vehicle must have their own 7.5 amp keyed ignition fuse.
- 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 all LED's are flashing on the membrane switch or the LED is blinking red on the round rocker switch, check for the following:**

- Verify that all connections are properly made. Cycle power and try again. If the heater element is not plugged into the controller when the power is first applied, the lights will flash and the system will not operate.
- A break in the heating element circuit. To check for this, pull on the brown, blue & yellow 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 Figures 1-2.
- 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).

- 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 a new installation the control module is probably working fine. Disconnect power to reset controller and clear old faults.

**If only two LED's are flashing on the membrane switch or the LED is blinking yellow on the round rocker switch, check for the following:**

- There is a problem with the heat sensor circuit. Pull on grey & green wires at connectors to verify that they are properly seated in the connector. If possible swap in another control module to see if the LED(s) is (are) still flashing. If so, then the problem is inside the cushion element (replace). If a new installation the control module is probably working fine. Make sure power is off to controller when changing it out.

**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 are connected to 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.*