



## **Specialty Stop Arm Relay Troubleshooting Guide**

**This Carolina Thomas Bus Buzz provides troubleshooting information on the solid-state Stop Arm Relay Module. This component is commonly rejected on warranty claims and we requested information specifically from Specialty.**





## **Specialty Stop Arm Relay Troubleshooting Guide**

**Symptom: The most common symptom is that the stop arm lights activate with the bus shut off.**

**Our goal is to make your jobs easier by providing information.**

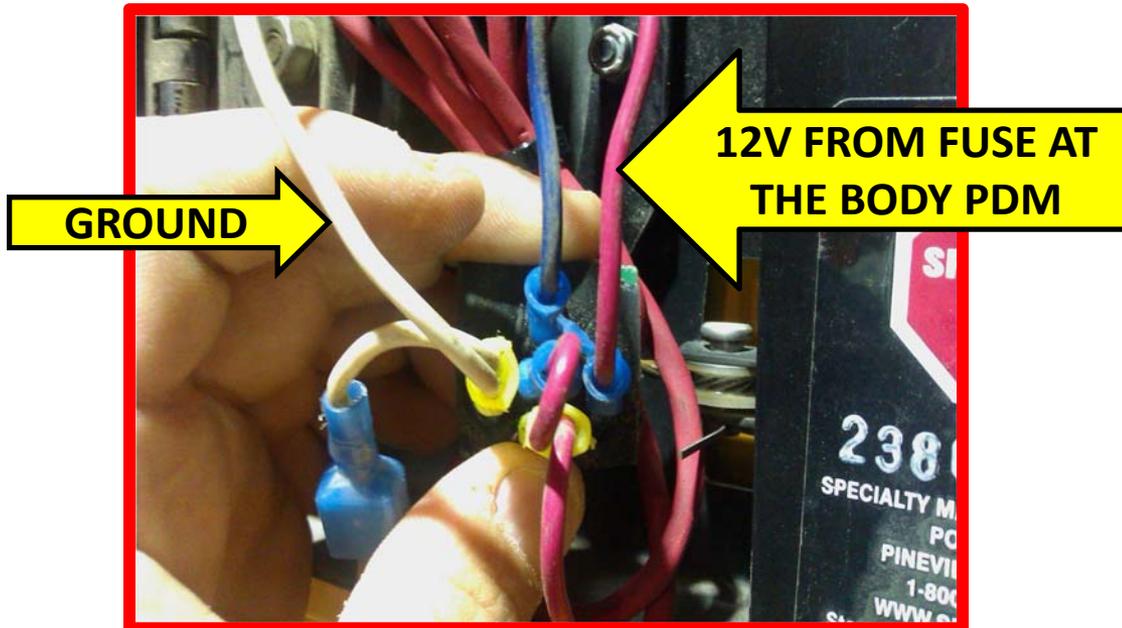


Do NOT disturb any wire connections for these tests as interrupting 12V power to the stop arm relay can cause an intermittent failing relay to start working. We feel the relay has an intermittent issue and are working diligently to prove this.

**THESE TESTS ARE CONDUCTED WITH THE KEY ON.**

**Step 1:** Access the relay by opening access cover behind stop arm blade. Test the red input wire from fuse for full battery voltage (+12V) at the wire. If no voltage check fuse at PDM. It is marked Stop Arm and located in the switch cabinet.

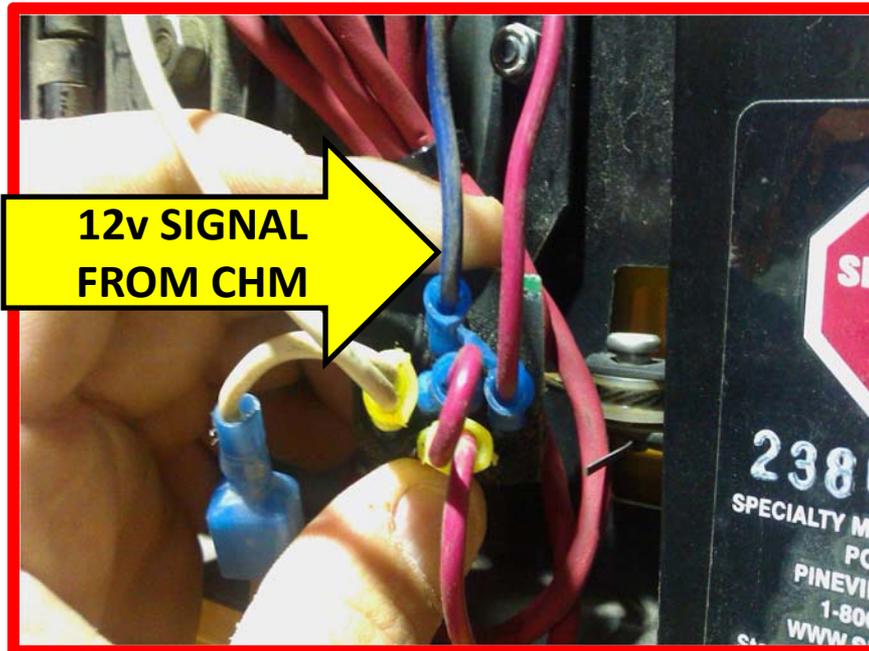
**Step 2:** Test the white ground wire at the relay for good ground at the wire by doing a voltage ground test with digital multi-meter. .



**Step 3: Activate the 8-light warning system and check the blue wire at the relay for full battery voltage (+12V) from the Chassis Hub Module (CHM). If no voltage check fuse at CHM fuse panel. It is clearly marked.**

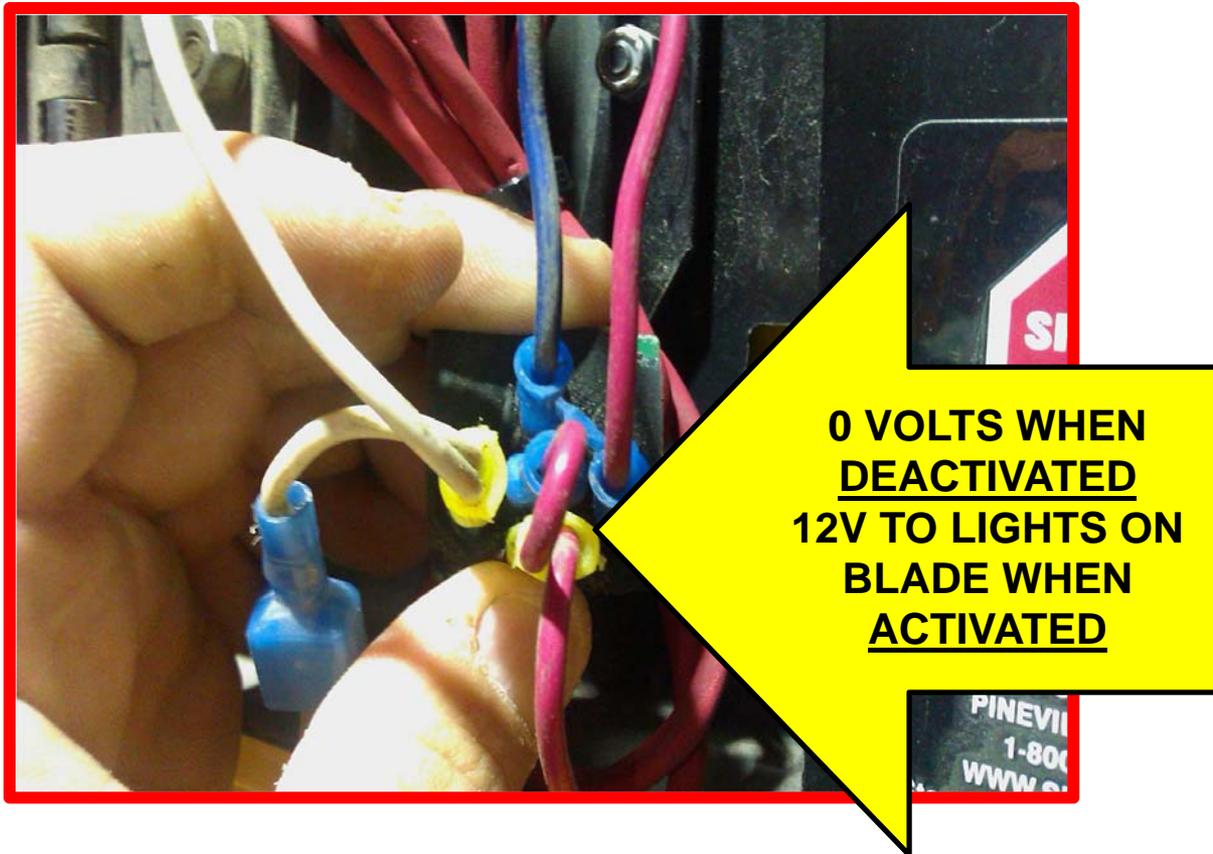
**Also, check for 0-Volts when the warning system is deactivated. If 0-Volts recorded and lights are on, the relay is bad.**

**Step 4: If any of the previous inputs are incorrect, check the wiring leads to the stop sign lights for breaks or shorts. You can activate the system and move the wire loom to stop arm blade back and forth to see if you can get lights to fail due to a bad loom.**



**Step 5: With all three correctly functioning inputs, check that there is 0 volts on the output wire to the stop arm blade lights with the warning system deactivated.**

**Step 6: With the warning system activated check that there is constant battery voltage (+12V) on the output to the lights on the stop arm blade.**



**0 VOLTS WHEN  
DEACTIVATED  
12V TO LIGHTS ON  
BLADE WHEN  
ACTIVATED**



**Step 7: If all of the above checks are OK the lights or light wires to stop arm blade are probably at fault.**

**If steps 5 or 6 do not check out as described the stop arm relay module is at fault.**

**Call Carolina Thomas Toll Free at 800-440-3492 and we will get you taken care of.**

