

SUBJECT: TROUBLESHOOTING STROBE LIGHT UNITS

Effective Date: 12-6-04 Revised Date: 8/10/05

The strobe lights on the stop arm assemblies require the system input voltage to be above 12V to function optimally over all temperatures. Some school bus 8-way flasher systems loose their ability to supply a constant 12V power in cold weather climate. (below 32°F)

***Note:** Some components that may be determined to be ‘at fault’ are not necessarily defective. The fault may be due to loose connections, dirty contacts, low voltage etc. as well as worn parts. The situations listed below are those that are most often encountered in the field. If further help is needed, contact the Engineering department at Specialty Manufacturing Inc.

SYMPTOMS:

- A- Strobe light(s) will not work all, although stop arm still may function normally:**
- B- Strobe lights take several minutes to activate or “warm up” when it’s cold. (below 32° F) But work fine when it’s warm out or when the bus is in the heated garage.**
- C- Strobe lights work but are erratic: Sporadic flash cycles or complete absence of flash for long periods of time.**
- D- One strobe light does not work but the other flashes. (even though strobe bulbs were replaced and power pack was replaced)**

CAUSES:

Low Voltage conditions: In cold weather and utilizing the 8-way control box [Weldon or In-power] as a power source may result in a low voltage input condition to the unit. (*the power source originates from the ‘STOP ARM SOLENOID’ terminal*)

1. Check input voltage at the power pack. This should measure > 12 Volts. Preferably 12.8V. This is the red wire to the blade fuse on the outside of the black plastic power pack box.
 - If the input voltage is > 12V, then the power pack is most likely defective. It needs to be replaced.
 - If the input voltage is < 12 Volts, then it’s recommended adding a relay and rewiring. Refer to Tech bulletin A001 to bring the battery in as the power source (when the 8-way system is invoked). This greatly improves the power source capability.

**WARNING!! Do NOT measure OUTPUT voltage to Xenon bulbs!
It is high voltage and could cause injury!**

- E- Plastic case on powerpacks are bowed. Is this a defective unit?**

No. This is due to the size of the metal base plate. It has no affect on the functionality of the unit.

- F- The flash rate of this strobe is faster than the “old” one I took off. Is this “normal”?**

Yes. The flash rate of the newer version of the strobe power packs are much faster. If the strobe power pack is from 2004, it is most likely the “new” flash rate. This is “normal”.

- G- Does the “new” faster flash rate meet our state specs?**

Yes. The double flash rate of the strobe power packs are counted as a single flash so the flash rate still meets FMVSS131 requirements.

Note: If bus has a 5-series stop arm with strobes, that is from spring of 2004 or newer, then it already has the power derived directly from the battery. The Tech bulletin A001 will NOT help. It already has this rewire. To verify if the 5-series unit has the rewire process: Without activating the 8-ways, manually pull out on the stop arm blade. If the strobe lights activate, then it already has the rewire.