

We offer complete factory authorized service for most Litelab lighting controllers. This includes both the logic and the switching packs. Factory original parts are used whenever possible. We also sell all parts that are still being made plus we have most of the parts that are no longer available anywhere else.

Complete rebuild of the classic logics, L-4000 and L-8000, is priced at a flat rate of \$269.00 plus freight. This flat rate applies in all but the most extreme cases where a lot of physical damage is present. (Like dragging it behind your van or pouring a rum & coke in it.)

Work on packs is always priced as parts plus labor. The single biggest expense is usually in triacs. Those are the silver hexagon shaped things that screw into the heat sink. They have three wires attached, probably black, red and yellow. They cost \$24.00 each with leads. It is unusual to spend more than \$300.00 on a pack unless it has been on fire or needs to have all capacitors replaced. If there have been flares in multiple channels, costs can run upwards of \$1000. But remember, these packs cannot be replaced, especially the spin/chase packs.

Our normal turn-around time is "same day" but be sure to call if time is critical. Only one tech works on these and he is often on the road.

## **Frequently Asked Questions**

The following answers apply mostly to classic logics and triac packs with a pull-out disconnect. We work on other models but online support is not available. (FYI - Plug in the ribbon cable backward and you will burn the ULN2003 chip in the logic every time. You will also sometimes melt the chip into the socket. Usually there is no further damage.)

### **A few words about servicing your own equipment** **SAFETY \* SAFETY \* SAFETY**

Do not attempt to service a driver pack unless you have general knowledge of electrical service and can use a VOM or DMM. Never work on a pack unless you are sure that the power is off. I always check all of the incoming lines with a voltmeter before starting work. Pulling the disconnect is a good idea but I have seen several cases where someone has wired around the disconnect.

#### **Nothing works, not even the power light. (Check in this order)**

1. Make sure you have power to both sides of the disconnect and that the ribbon cable is plugged in.
2. Check the fuse that is in the corner of the pack next to the 3 large gray, blue or orange capacitors.
3. Next to the pull-out disconnect there is the B+ transformer. There are three red wires going to a green, three screw connector on the PCB. With your DMM set to AC voltage in a range that includes 30VAC confirm the presence of around 26 VAC between the two outside screws. If not, the transformer is bad.
4. Check continuity of the logic power switch.

5. Check ribbon cable for damage.
6. Power supply in pack probably has problems. It's a pretty simple power supply but a pain to get to. Generally, I just pull the board out and replace everything in the power supply (3 capacitors, bridge rectifier and a few diodes).

### **One or more channels, hot or neutral, are locked on, sometimes even after I shut off the switch.**

This is almost always a bad triac. You can check by unplugging the yellow wire (white on later models) and turning on the power. Do not apply power with any other wire unplugged. Immediate damage will result. If the channel still comes on, you have a bad triac. When the display is an inductive load, such as pin beams or neon, we always replace the triac and opto as a pair. A triac that has come apart from its base should be replaced, not super glued.

### **One or more channels, hot or neutral never come on or come on at reduced brightness.**

1. If it is a hot channel, check the fuse with an ohmmeter.
2. If it is a neutral channel or if the fuse is good, check the opto and the display wiring. The opto is the little gray or white chip below the triac. Just swap it between two channels and see if your problem moves. Don't put the opto in backward. Refer to the dimple in one corner, not the writing.

### **Slide pots on the logic are erratic.**

Spray with Caig MCL, nothing else. That means no tuner cleaner. If you can't find it, call. We sell it. If that doesn't work replace the pot.

### **I keep blowing 10A output fuses.**

Your load is too great. Have you changed to higher wattage lamps since the system was installed? If you have an inductive load (such as pin spots or neon) the problem could be more involved. Call us. The correct fuse is a 10A ceramic slo-blo fuse. The on-rush from a hundred or so 11 watt lamps is huge!. If you can't find them, we have them.

### **My sound system hums when the lights are on.**

Reverse the audio leads on the back of the logic. (Or maybe it forgot the words to the song.)

### **My pack was on fire. Is there any hope?**

Absolutely, but it depends on how bad the fire was. What burns are the square yellow caps, and when they flare they produce a lot of smoke and soot. Most of the time it just soots up the other parts and really doesn't hurt much. Other times, I have seen it burn a hole in the board the size of a silver dollar. Either problem can be fixed, it just depends on how much you want to spend.

**NOTE: CHECK YOUR PACK. IF IT IS A TRIAC STYLE PACK WITH A PULL-OUT DISCONNECT IT MAY NEED IMMEDIATE SERVICE! DISCONNECT THE POWER, REMOVE THE COVER AND THE INTERNAL SHIELD OVER THE ELECTRONICS. EACH CHANNEL HAS A CLUSTER OF PARTS JUST BELOW THE TRIAC. THERE ARE TWO, .1 MFD CAPACITORS. THEY ARE SQUARE AND ABOUT 3/8" x 1/2" x 1/4". IF THEY**

**ARE YELLOW THEY NEED TO BE REPLACED IMMEDIATELY. WHEN THEY FAIL THEY CAN FLARE AND OFTEN DAMAGE THE PC BOARD SEVERELY. CALL IF YOU HAVE QUESTIONS.**

### **Will you sell me prints?**

Blueprints or schematics are the property of Litelab Corporation. We do not distribute them in any fashion.

### **Can I get live telephone support?**

Yes, our technician is available for live troubleshooting M-F, 9-5 CST. Please be at a phone that is within reach of the logic. Cost is \$1.00/minute billed to your VISA/Mastercard. Time starts when you reach the technician. Our Litelab technician has been working on Litelab systems since 1978 and services Litelab logics and packs every week. Many pack problems can be fixed over the phone if you have general electrical knowledge, a VOM or DMM and are experienced in soldering with a 25W iron.

### **Can I buy replacement or additional equipment?**

Litelab has not produced any of this equipment since 1986. We have rebuilt packs and logics available quite often. Please call or email for availability.

### **What products do you support?**

1. L-4000, L-8000, L-1000, L-4001, LCE-445, LCE-440, all 4 ch packs, all 8ch packs, SmartAdvantage and beacons.
2. We also service or support all products we have ever sold including Electro-Voice, QSC, Mackie, VEI, American DJ, Shure, EAW, NSI, JBL, and many others.