CONVERGING SYSTEMS ILC-450 Controllers and e-Node Communication Devices Instructions

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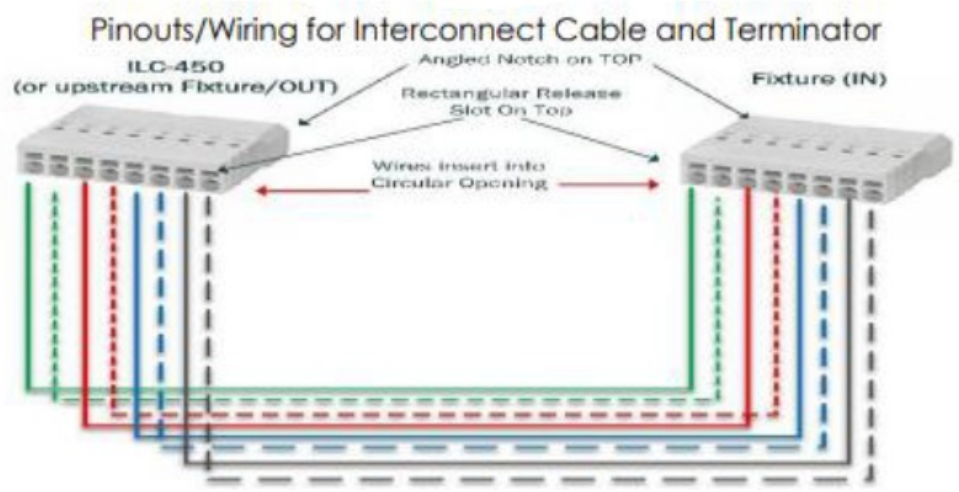
Absolute Light Product Information

The Absolute Light is an innovative lighting fixture that uses a load bus daisy-chain system. It comes with internal circuitry that automatically bypasses a unit if its LEDs are burned out. The product has IN and OUT ports that are well marked for ease of installation. It is important to note that hot swapping or hot plugging is not recommended as it can cause damage to the product, and there is no warranty coverage for such damage. To ensure proper installation, follow the recommended installation procedures below.

Product Usage Instructions

Proper Wiring

Wire the Absolute Light properly by connecting pin 1 to pin 1, pin 2 to pin 2, and so on. Check the pinouts and color codes twice to avoid errors. Incorrect wiring is the cause of 60% of failures in the field.The most frequent problem seen in the field is that the wiring of the high-density Phoenix connectors is not done properly. When using multi-colored 20/8 thermostat solid wire, make sure that you observe 1 to 1, 2 to 2, 3 to 3, 4 to 4, 5 to 5 and 6 to 6 wiring without any crossovers or skips. If you strip the wire with about 4-5 mm of exposed copper, insert the bare wire into the round hole as shown above. If you happen to insert it into the wrong round hole, use a tiny flat head jewelers type screwdriver to release the wire by inserting it into the narrow rectangular hole (seen at top above each round hole). This frees up the internal spring type latch and allows easy removal. After you finish the preparation, check your pinouts/color two times—just to be sure. Nearly 60% of the failures in the field have resulted from errors here.



The Teeter Totter Syndrome

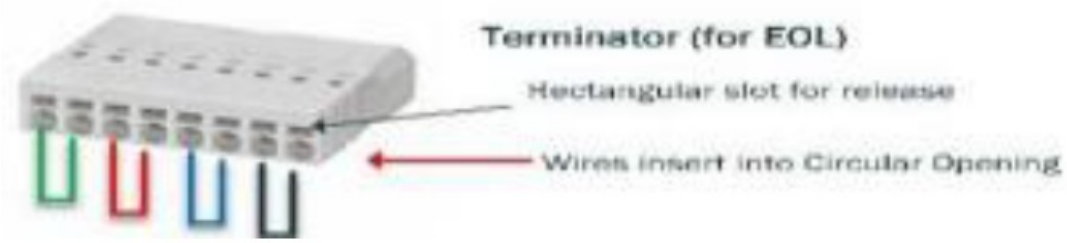
Ensure that the white plug is properly seated with latches latched tightly, and the connector does not rock one way or another. Improper seating of high-density Phoenix connectors is the second most common problem seen in the field. The Absolute Light comes with a safety mechanism that can prevent this problem if used. If you discover that you have failed to properly seat one or more connectors, turn off the power to all of the iLC-450 on the bus, re-insert properly, and try again. The “teeter totter” syndrome-make sure white plug is properly seated with latches latched tightly and the connector does not rock one way or another

The second most common problem seen in the field is that the high-density Phoenix connectors have not be properly seated such that all 8 wires are not making proper contact. It is easy to figure out if this is the problem for some colors of LEDs may illuminate while others will not (kind of like the Christmas Tree light problem). The Absolute Light comes with a safety mechanism that will make sure this does not happen provided you use it. So please use it. If you discover that you have failed to properly seat one or more connectors, simply turn off the power to all of the iLC-450 on the bus, re-insert PROPERLY and try again.

Note: You will be happy to know that there is internal circuitry within each Absolute Light that will automatically bypass a unit if its LEDs are burned out. So, in this case if an upstream fixture has failed, all downstream devices will continue to operate.

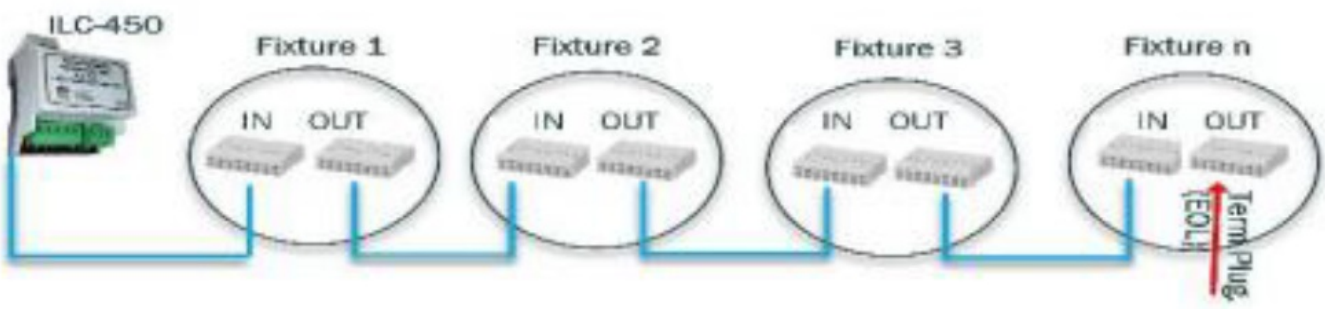
Failure to Wire Properly and Insert the EOL Final Plug

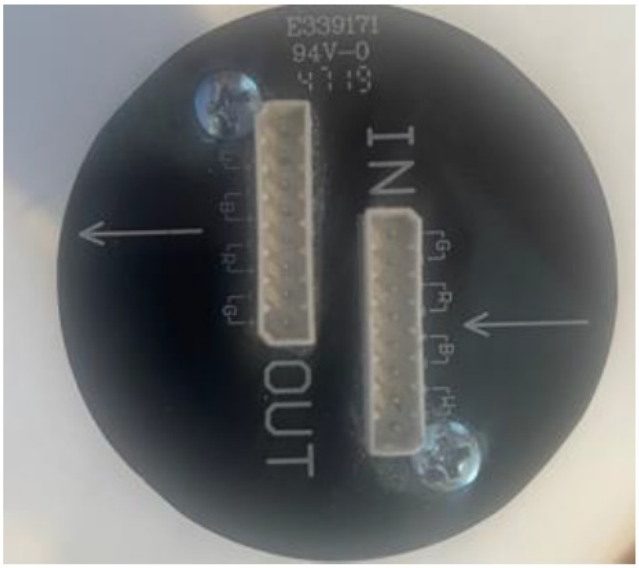
The Absolute Light’s innovative load bus is a daisy-chain system that requires a final terminator (EOL) plug. Failure to install the EOL will cause no fixtures to illuminate. This plug must be plugged in before powering on the load. If you discover that you have failed to properly insert the EOL, turn off the power to all of the iLC-450 on the bus, insert it properly, and try again. Our innovative load bus is actually a daisy-chain which requires a final terminator (EOL) plug. Failure to install the EOL will cause no fixtures to illuminate (although no damage will occur). This plug must be plugged in before powering on the load. If you discover that you have failed to properly insert the EOL, simply turn off the power to all of the iLC-450 on the bus, insert and try again.



Failure to Obey the IN and OUT Markings

Each fixture is well marked as to the IN and OUT ports. Follow these directions to avoid errors. If you discover that you have failed to properly insert the individual harnesses into the correct port, turn off the power to all of the iLC-450 on the bus, correct it, and try again.You will see from the above, that each fixture is well marked as to the IN and OUT ports. Follow these directions and you will be set. If you discover that you have failed to properly insert the individual harnesses into the correct port, simply turn off the power to all of the iLC-450 on the bus, correct and try again.



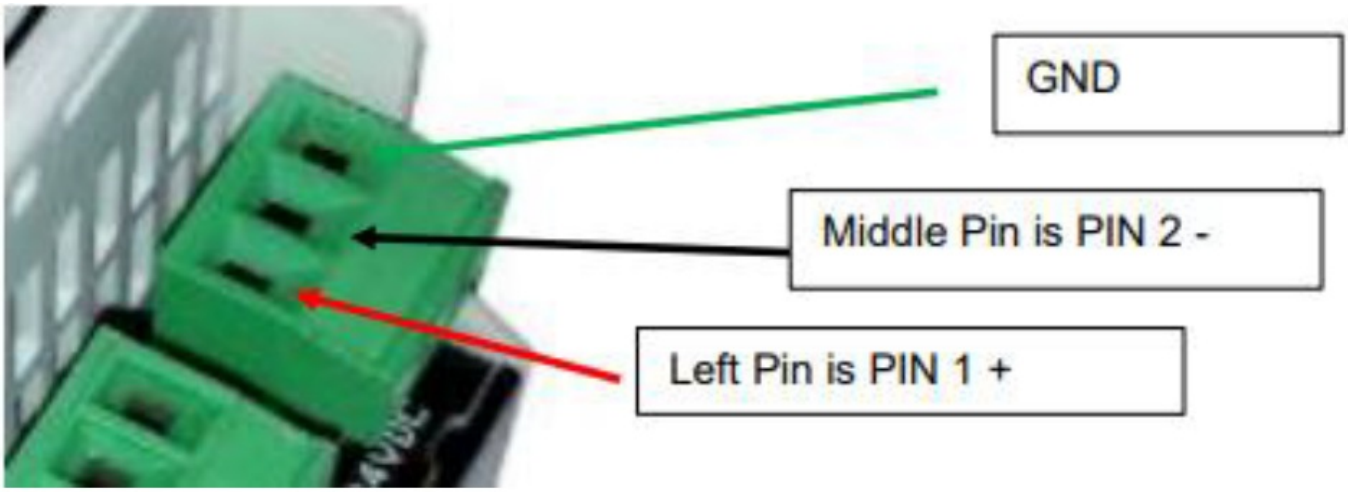


No Hotswapping/Hot Plugging

Do not hot-swap or hot-plug the Absolute Light as it can cause damage to the product, and there is no warranty coverage for such damage. If you need to make a correction, turn off the power to the iLC-450 and power on again. You have probably already figured out that we don't like hot-swapping/hot plugging. If you need to make a correction, just turn off the power to the ILC-450 and power on again. There is absolutely no warranty coverage for damage resulting from hot swapping/hot plugging

Ground/Ground/Ground

Ensure that the Absolute Light is properly grounded to avoid electrical hazards. On each ILC-450 there is a Green 3-pin connector. If you do not connect the GND to the earth or electrical ground that is feeding your power supply, our communication bus will not work reliably. If you are stuck and failed to bring in a third wire, just connect an earth ground to your 24v or 48v power supply negative output terminal and rely on that as your surrogate ground. We can guarantee that you will spend hours diagnosing communication issues if you don't heed this advice. GOT IT



Select Proper Power Supply Depending Upon Connected Fixtures

To maximize LED life and product reliability, use only two types of power supplies in a system. For 1 to 2 fixtures, use a 24v power supply. For 3-4 fixtures, use a 48v power supply. Use the appropriate power supply depending on the number of Absolute Lights connected.

Number of Absolute Light Fixture	**Preferred Power Supply**
1	**24v 96 watts**
2	**24v 96 watts**
3	**48v 96 watts**
4	**48v 96 watts**

To maximize LED life, and product reliability we have determined that just two (2) types of power supplies should be used in a system. The determinate is how many fixtures will be connected. For 1 to 2 fixtures, use a 24v power supply. For 3-4 fixtures, use a 48v power supply. We are excited about your upcoming installation of Clarte Lighting's Absolute Light fixtures and Converging Systems ILC-450 controllers and e-Node communication devices. Over the past two years we have been a key component to a number of world-class installations using these products and as a result we have captured important issues from our experience and have assembled all of this information in this short document. These are all important thoughts (i.e., failures) that need to be remembered/avoided in order to guarantee a worry-free installation. Feel free to also review this document for more general information.

Documents / Resources

	**CONVERGING SYSTEMS ILC-450 Controllers and e-Node Communication Devices** [pdf] Instructions ILC-450 Controllers and e-Node Communication Devices, ILC-450, Controllers and e-Node Communication Devices, e-Node Communication Devices, Communication Devices, Devices