

## **Troubleshooting Guide – Data Cable Continuity Check**

<u>NOTE</u> - To check the continuity of a data cable, a standard multi-meter with two probes will be needed.

1. Inside the store, disconnect the "To OCS" cable from the Everbrite converter box.

2. Take the silver DB9 adapter apart by removing two small flat head screws from the adapter cover. This will reveal the back side of the DB9 connector, where the data cable's wires are soldered to the pins. The picture below displays the pin configuration of a DB9 connector (viewed looking at the male connector from the rear with the row of 5 pins on the bottom). The green wire should be on pin 5, the red wire on pin 6, and the black wire on pin 9.



3. Open up the COD cabinet outside and disconnect the data cable from the COD. If it's an LCD unit (shows pictures), the data cable will connect directly to a pigtail extension coming down from the display. If it's an LED unit (shows red letters), the data cable may connect directly to a surge box, or to a pigtail extension coming down from the display. Either way, disconnect the data cable from the unit and twist all three of the copper leads inside the data cable (red, black, and green) together. Ensure that all three copper leads are touching firmly. **NOTE** – Depending on the age and style of the unit, the wiring configuration may be different. For example: Blue w/ White stripe – pin 6, White w/ Orange stripe – pin 9, White w/ Blue stripe, pin 5 OR Red – pin 6, White – pin 5, and Black – pin 9. See documentation or contact Everbrite for assistance if need be.

4. Return to the converter box inside the store. Set the multi-meter to the "ohms" setting (this may be labeled with a symbol that looks like an upside-down horseshoe). <u>NOTE</u> - Each time you do an ohms test using an analog multi-meter, touch the two probes together and use the calibration dial to "zero it out." For a digital multi-meter, touch the probes together and it automatically calibrates itself.

5. Hold the multi-meter's probe tips to the soldered connections on the <u>back</u> of the DB9 connector to check continuity of every possible wire combination. Avoid touching the probe tips

to anything other than the designated pins during the test. Green to Red (pins 5 and 6), Red to Black (pins 6 and 9), and Green to Black (pins 5 and 9) - each of these connections will typically produce a reading between 8 and 15 ohms, though readings slightly outside of this range can be acceptable. On a digital multi-meter, a reading of "0.L" indicates infinity – an open circuit. This means the data cable has a broken wire or loose connection, in which case the cable will need to be replaced. **NOTE** – If you get an ohm reading that is very low (near zero) this may be due to a shorted cable. To test for this, untwist all three wires out at the COD and let them hang individually - NOT touching anything. Take another ohm reading using the steps listed above. You should get a reading of "0.L" – an open circuit – on every connection. If you receive a near zero reading, the cable is shorted and will need to be replaced.

If you have any questions or need assistance, please contact Everbrite technical support at 888-877-3092.

Greg Johnson Technical Support Engineer Everbrite, LLC 11/08/11