Spa Lighting

Troubleshooting Guide

LiquaLED

To order replacement parts, visit SloanLED.com/spa/retailers

Problem	Solution*
Single LED is off or out of sync with other LEDs.	Most likely a cable problem: 1.) Find problem LED and attached cable. 2.) Unplug cable and replace with new cable.
Many LEDs are off or out of sync.	Most likely a connector issue: 1.) Find first cable in daisy chain where cables are having a problem. 2.) Inspect connectors where problem occurred. 3.) Disconnect and reconnect connector where problem occurred. 4.) Replace cable where problem occurred if necessary.
None of the LEDs turn on.	Most likely power going into LED controller: 1.) Check fuse located on red wire of LED control box. 2.) Check 12 VAC going into controller from spa pack. 3.) If stereo power supply is used to power LED control box then check 12 VDC from stereo power supply.
All LEDs turn on but one color doesn't light.	Most likely a shorted cable: 1.) Disconnect cables one at a time starting at open end of daisy chain. 2.) Check LEDs after disconnecting each cable. If LEDs start to work properly then last cable removed is the bad cable. Replace this cable.

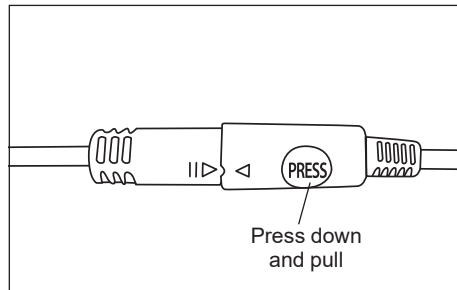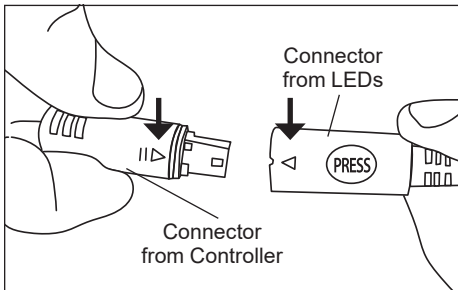* If above actions do not resolve the issue, the next step is to replace the Controller.

Controller Software Functions (Control 40)

The LED Controller color schemes can be selected via the on-off button on the top-side control panel.

These are the color sequences:

1) Color wheel – gradually changes colors (starts at yellow)

2) White	5) Blue	8) Red
3) Cyan	6) Yellow	9) Color jump – abrupt color change (starts at cyan)
4) Magenta	7) Green	10) Slow color wheel – very gradual (starts at green)

Instructions for connecting LiquaLED Overmold Connector

Connector from LEDs
Connector from Controller
PRESS

Press down and pull
PRESS

1. **Connect overmold connectors:** Align arrow on male connector to arrow on female connector and push connectors together until fully seated.

2. **Disconnect overmold connectors:** With thumb, press down the "Press" on the female connector and pull on male connector.

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LiquaLED Bullet Lights

Item Description	Single-LED	Dual-LED	Quad-LED	Quad-LED 38	Quad-LED XL	Six-LED
Part number	701564-1-F	701564-2-F	701564-4-F	701564-4-F-38	701564-4-F-XL	701564-6-F
LEDs per cable	1	2	4	4	4	6
Typical max current	50 mA	40 mA	80 mA	80 mA	80 mA	120 mA
Cable length (connector-to-connector)	50"	50"	50"	76"	76"	96"
Outer bullet light wire length	25"	25"	25"	24"	36"	52"
Inner bullet light wire length	N/A	N/A	17"	16"	24"	48"

LiquaLED Cluster Main Lights

Item Description	21-LED Cluster	14-LED Cluster	7-LED Cluster
Part number	701570-18-DLSO	701570-12-DLSO	701570-6-DLSO-S
LEDs per cluster	21	14	7
Typical max current	240 mA	160 mA	80 mA
Diameter of PCB	2.9"	2.0"	1.3"
Fits lens size (approx)	~ 5.0"	3.0" – 5.0"	2.0" – 5.0"
Cable length (connector-to-connector)	36"	36"	36"

UltraBRITE Integrated Controllers

Item Description	UltraBRITE LED Light	UltraBRITE-Mini LED Light
Part number	701739-SAOX1	701861-9-P (bi-pin)
LEDs per cluster	10	9 (5 mm)
Input voltage	12 VAC	12 VAC
Typical max current	240 mA	200 mA
Diameter of PCB	1.57"	1.3"
Fits lens size (approx.)	~ 2.0" to 5.0"	~ 2.0" to 5.0"
Lamp depth	1.44"	1.75"

LiquaLED Controllers

Item Description	Control 40	Multi-Zone Controller
Part number	701678-DLO	701898-DLO
Max # LEDs (not including clusters)	40	100
Required input voltage - AC	12V AC from Spa Pack	12V AC from Spa Pack
Optional input voltage - DC	No external DC supply required	12V DC from External Supply (>1 A)
Typical max output current/power	1 A / 12 W	2 A / 24 W
Controller dimensions	3.25" × 2.75" × .75"	2.90" × 4.38" × 1.00"
On/Off control	Spa pack light on/off switch on top-side control panel	Momentary Selections on top-side Spa Pack Light Control

Jumper Cables

Item Description	2' Jumper Cable	5' Jumper Cable
Part number	410117-24-O	410117-60-O
Cable length (connector-to-connector)	24"	60"

Spa Pack Connector Adapters

Part number	410114	410119	410120
Cable length (connector-to-connector)	0.25" QC Terminal Male to MLX Male	0.25" QC Terminal Female to MLX Female	3-Prong MTA to MLX Female

Bullet Light Lenses

Item Description	Standard	Wide Flange	Wide Flange Faceted	Large Round	Nut	O-rings
Part number	400372	400372-W	400372-WF	400372-RND	400388	400417 400510

LiquaLED Accent Lights

Item Description	7.5' Perimeter String Light	RGB Skirt Light	RGB Strip Light (Short)	RGB Strip Light (Long)
Part number	701755-M4-18-DLO	701787	701963-RGBSX1	701963-RGBLX1
# Modules	4 Modules per String	1 each	1 each	1 each
# LEDs	2 per module	3	3	4
Typical max current	280 mA per string	60 mA	41 mA	68 mA
Cable length (connector-to-connector)	7.5" total cable	36" cable	6"	6"

Power Supplies

Item Description	Self-Contained 20 W	MODW(E) 60 W
Part number	701680	701507-MODW(E)
Input voltage	100-240 V	100-240 V
Input current	0.3 A	1.0 A
Output voltage	12 VDC	12 VDC
Output current	1.5 A	5.0 A
Output power	20 W	60 W
Dimensions	4.65" × 1.38" × 1.03"	9.0" × 2.5" × 1.5"