

# User's Manual for Plashlights Flexible LED Strip Lights



Part Number:

**FLS-(Color)-68-(Length)**

## SAFETY TIPS:

- 1) Non-compliance of these instructions may cause damage to the lights or injury, and will also invalidate our limited lifetime warranty.
- 2) The installation must be carried out by qualified personnel in accordance with local and national codes.
- 3) Regularly inspect the lights, power wire, connections, and any other accessories. If any part is damaged, the product should not be installed.
- 4) Disconnect the power supply before installation and service.
- 5) Keep this instruction manual handy for future use.
- 6) Power supply should be UL listed class 2 DC 12V or 24V.
- 7) The light source of this product are not changeable or replaceable.
- 8) **PLASH 2100 RTV Silicone** (Sold Separately) must be used for installation.
- 9) IP68 LED light strips are water proof, suitable for outdoor use. However, permanent underwater usage is not advised.

## READ THESE INSTRUCTIONS BEFORE INSTALLATION.

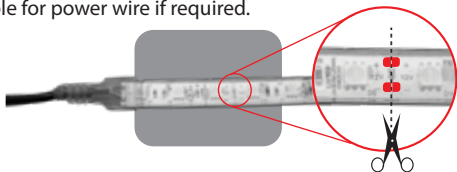
- 10) To prevent the risk of fire, do not compress the lights and keep a 1/4" gap from the light emitting surface.
- 11) Prohibit the use of this product in excess of the operating voltage (12V DC/ 24V DC)  $\pm 5\%$ . The correct voltage is on the package.
- 12) You can cut each section at the line marked with scissors, this cut off piece is not usable.
- 13) Always disconnect the power before cutting the lights.
- 14) Apply power to the lights to test prior to installation.
- 15) Always use the proper fuse size (see chart).
- 16) **DO NOT** crimp, bend forcefully, bend width-wise or bend the lights lengthwise to a radius smaller than 6 inches.
- 17) **DO NOT CONNECT 12V / 24V DC FLEXIBLE LED LIGHT STRIPS TO 120V AC POWER.**
- 18) Ensure LED light strips stay clean prior to installing.

## Installation Instructions:

**HINT:** We highly suggest measuring the installation area and making any custom lengths to lights prior to installing.

### STEP 1:

Unpackage light strips and test fit for length. Leave strips lying in a clean environment. You can cut every few inches on the dotted line with the scissor symbol if they need to be shortened. Using the end caps supplied, silicone the end caps over the cut end and discard remainder of strip. Drill hole for power wire if required.



### STEP 2:

Clean mounting surface with an alcohol swab, removing oils and moisture. Make sure cleaned area is dry.

**HINT:** Tape off the area next to where the lights are to be installed for protection and a cleaner look.



### STEP 3:

Support the power wire end of the strip. This can be done in a few ways:

- Using the rubber clips supplied.
- Using Weld-On® tabs (NOT SUPPLIED).
- Temporarily w/ painter tape (NOT SUPPLIED).



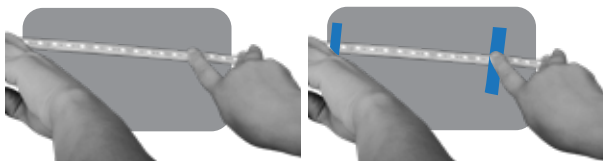
### STEP 4:

Embed the back side of the lights in a constant bead of PLASH 2100 RTV Marine Silicone Sealant (Sold Separately).



### STEP 5:

Gently apply the lights to the area to be mounted. Do not allow the lights to have a strain on them. An assistant or blue painters tape can be helpful. Wipe away excess sealant.



### STEP 6:

When you get to the end, it may be helpful to install a permanent support (Step 3) as the ends have a tendency to curl.



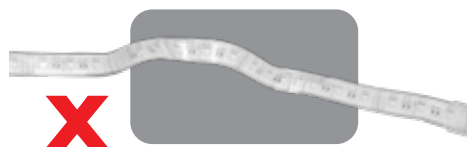
### STEP 7:

Go back to the power wire end, remove support, install silicone, and re-install support.



### STEP 8:

Reviews entire strip for gaps in silicone, sagging, excess silicone, etc.

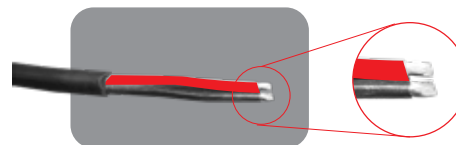


### STEP 9:

Allow silicone to dry for 24 hours before any movement or vibration. After the silicone has cured inspect LED light strips to insure there is no movement. LED strip lights should be 100% adhered.

### STEP 10:

Cut off excess power wire. The shorter the lead the better. Connect to the proper power supply. Connection details (see diagrams on reverse)



**\*\*The lights must be fully embedded in RTV silicone with no movement or will be unwarrantable\*\***

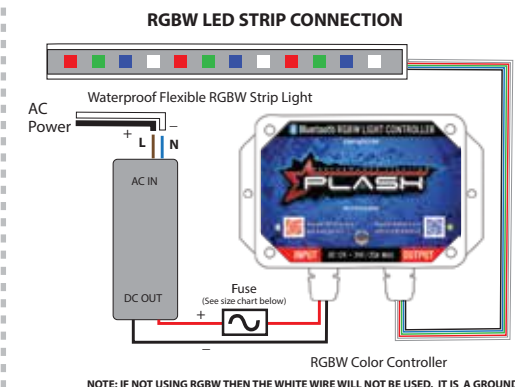
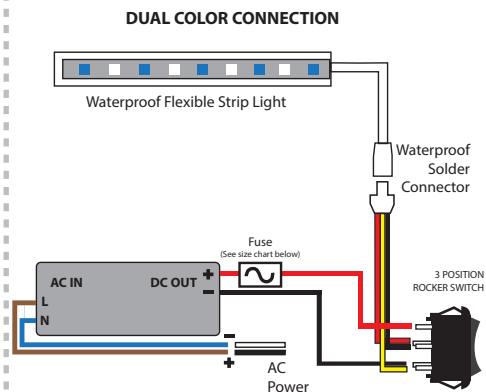
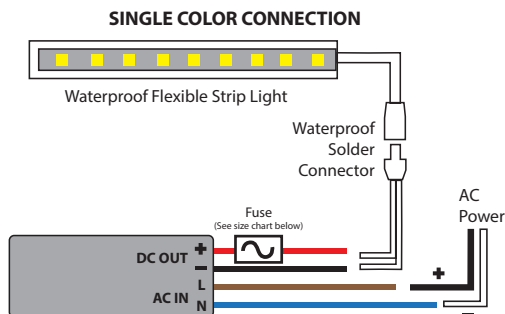


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## WIRING DIAGRAM:



## WIRE COLOR REFERENCE

NOTE: Sometimes the wire color may vary. See charts below:

### SINGLE COLOR

WIRE COLOR		PURPOSE
BLACK	>>>>>>	Ground
RED	>>>>>>	12V+

### DUAL COLOR

WIRE COLOR		PURPOSE
RED	>>>>>>	12V+
BLACK	>>>>>>	GROUND (COOL WHITE)
YELLOW	>>>>>>	GROUND (BLUE)

### RGB & RGBW

WIRE COLOR	OPTIONAL COLOR	PURPOSE
Blue	White (NOT RGBW)	GROUND
Green	Yellow	GROUND
White	>>>>>>	GROUND
Red	>>>>>>	GROUND
Black	>>>>>>	12V+

## AMP DRAW

Each 1ft. Section is 4.5W (0.375A @ 12V) | 10ft. will draw 3.75A @ 12V or 0.1875A @ 24V

Amp draw is rounded up for simplicity see spec sheet for exact values

## FUSE SIZE

Below chart is with the factory length of power wire (9ft). Any additional power wire will increase the amp draw and will need to be a larger gauge. Please refer to the American Wire Gauge.

Total Length	Voltage	Fuse Size
1FT	12V	1A
4FT	12V	2A
8FT	12V	3A
12FT	12V	5A
16FT	12V	7.5A
24FT	12V	10A
32FT	12V	10A

Total Length	Voltage	Fuse Size
1FT	24V	1A
4FT	24V	1A
8FT	24V	2A
12FT	24V	2A
16FT	24V	2.5A
24FT	24V	5A
32FT	24V	5A

## TROUBLE SHOOTING

### LIGHTS DO NOT ILLUMINATE:

- Make sure the DC power supply is turned on and receiving power.
- Check fuse.
- Confirm you have maintained correct polarity (+ to + and - to -) when connecting lights as well as power supply
- Check all light connections and any switch or dimmer connections from the power supply to the lights
- Test with a multimeter to ensure light is receiving the 12V or 24V DC power.
- If RGB(W) confirm that the APP is turned on

### ONLY PART OF LIGHT IS LIT:

- Check connections to the part of the light that is not lit
- Confirm that the voltage input is 12V / 24V.
- If the above items are confirmed, then the light strip has been damaged. Don't worry... we can fix it but you will need to send it back to us.

### LED's FARTHEST FROM THE POWER SUPPLY ARE NOTICEABLY DIMMER:

- This is the result of voltage drop. Decrease the length of the 12V or 24V DC power feed wires or use thicker power feed wires between the 12 or 24V DC power supply and the lights.
- Use shorter lengths of lights. (Most common).
- Consider a different layout configuration