

# INSTALLATION MANUAL

## ION Series FIBER OPTIC ILLUMINATOR IP67 OUTDOOR RATED

ION-8000-WW (Warm White)

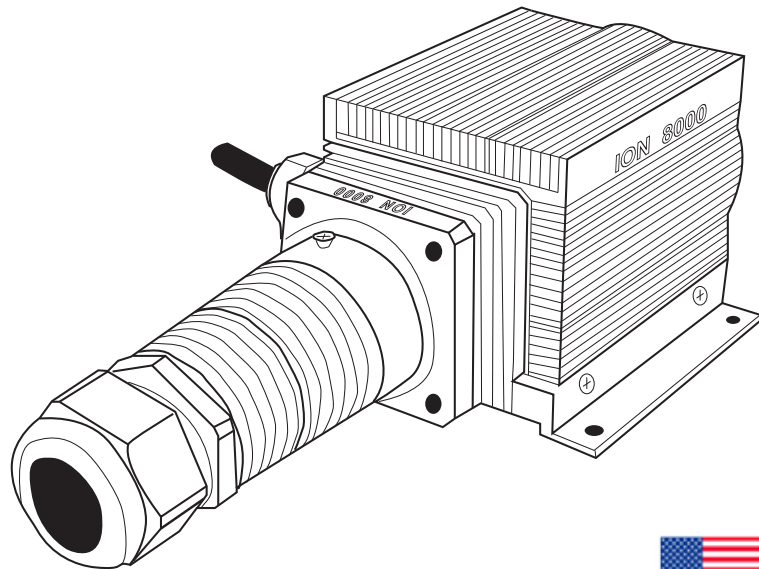
ION-8000-CW (Cool White)

ION-8000-B (Blue)

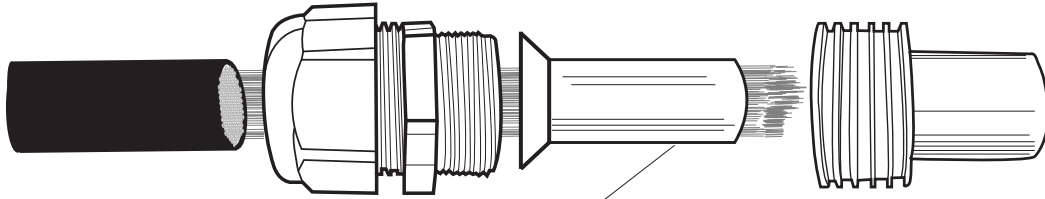
ION-8000 RGB

ION-8000 RGBW

ION-8000 WW-CW

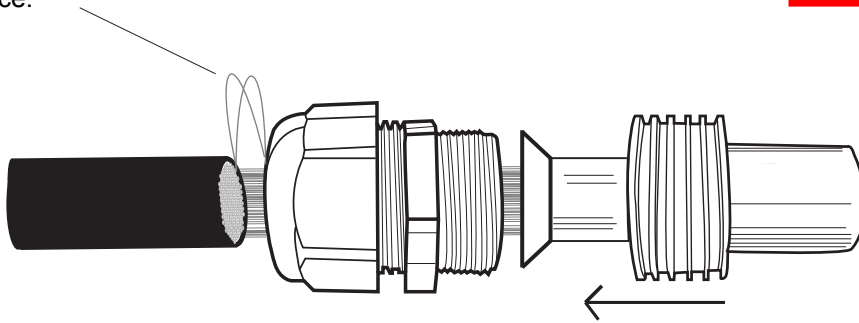


## STEP 2 INSERT FIBER INTO FIBERHEAD



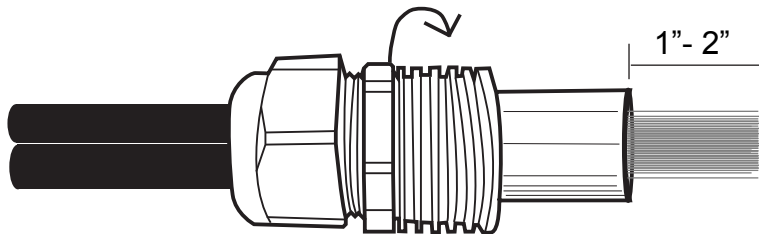
**2a.** Centering Reducers are used when the aluminum ferrule is not completely filled with fiber. Fiber must be tightly packed at the end of the ferrule. For optimum performance a centering device is used in combination with “dead” (see step **2e**) fibers to achieve this.

**2b.** Pull any “jamed” fibers completely out and re-insert individually or in small groups while leaving the other fibers in place.



**PRO-TIP #2**  
Many Pro installers prefer to disassemble the fiberhead components then insert the fiber through each component, before re-attaching each component back together.

**2c.** Tighten the Aluminum Ferrule to the PG



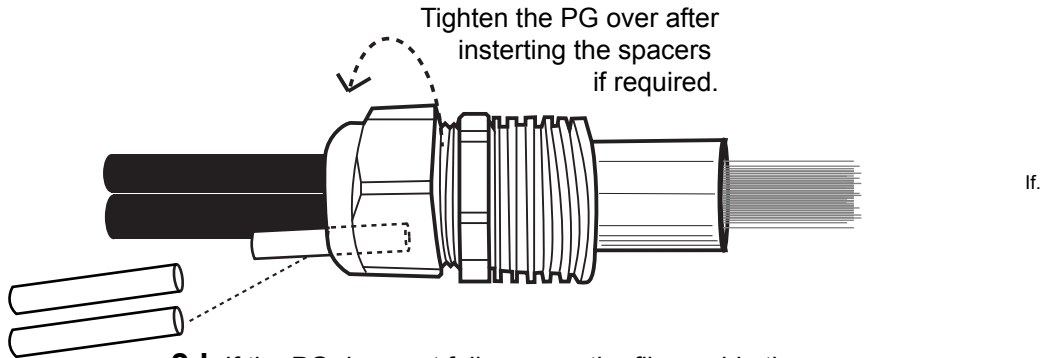
All fibers should extend 1”- 2” prior to cutting.



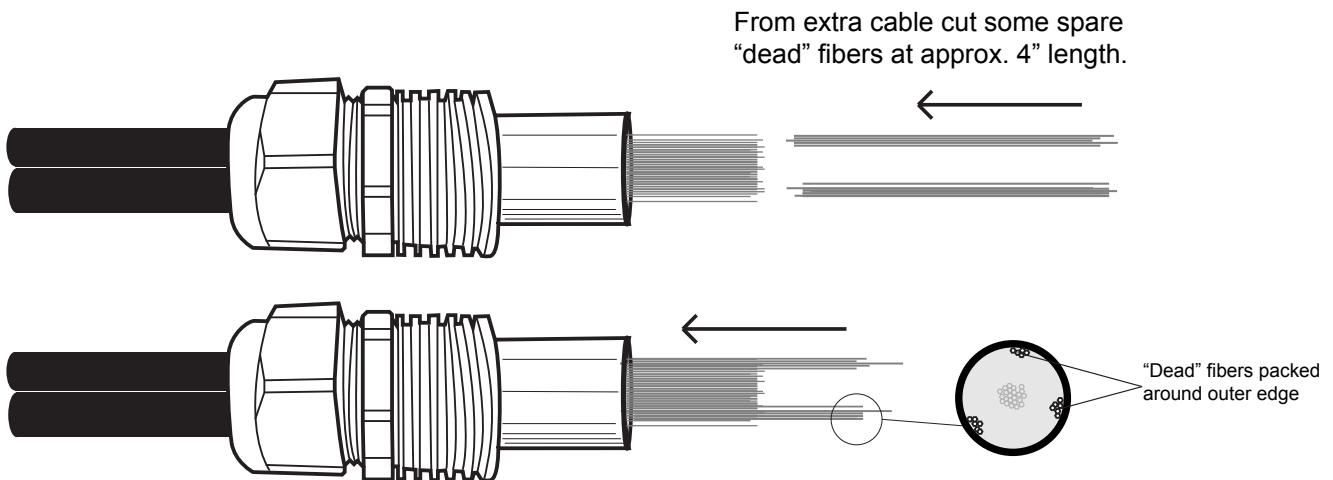
Visit our YouTube Channel for fiberhead instructions:  
**ImpactLightingInc**  
<http://youtu.be/Ph9LmnFvAy8>

**CONT. >**

## STEP 2 INSERT FIBER INTO FIBERHEAD (CONT.)



**2d.** If the PG does not fully secure the fiber cable then insert spacers into the back of the PG fitting and then tighten the PG securely on the cable.



**2e.** Insert "dead" fibers into end of aluminum ferrule tip.

### PRO-TIP #3

Inserting "dead" fibers into the end of the fiber head around the outer edge of the fiberhead will help to pack all the fibers tightly together so the light will enter at the optimal angle and help to eliminate air pockets where excess heat can build up.

**Pack as tightly as possible!**

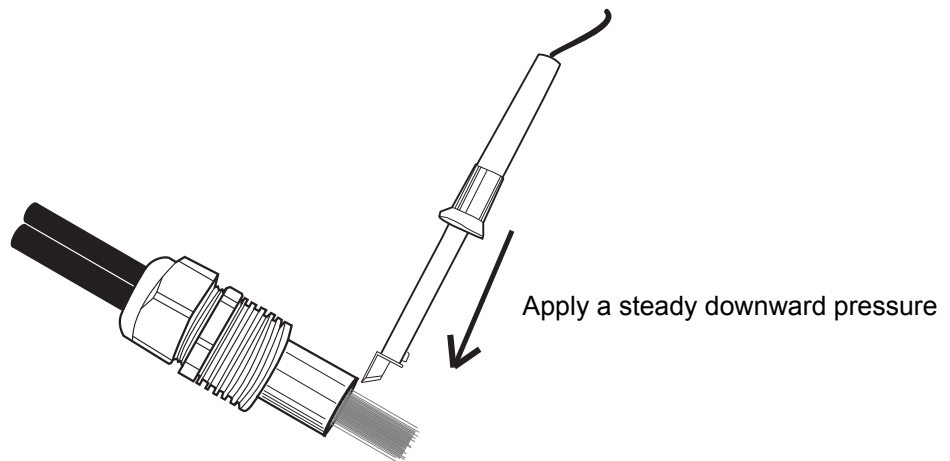


Visit our YouTube Channel for fiberhead instructions:

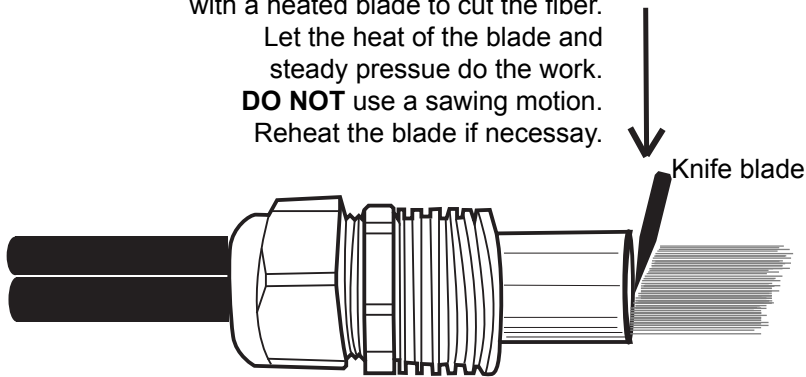
**ImpactLightingInc**

<http://youtu.be/Ph9LmnFvAy8>

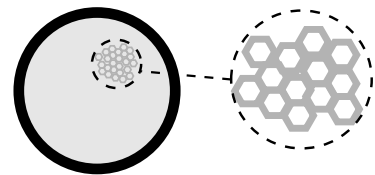
## STEP 2 CUTTING THE FIBER



- 3b. Use a steady downward pressure with a heated blade to cut the fiber. Let the heat of the blade and steady pressure do the work. **DO NOT** use a sawing motion. Reheat the blade if necessary.



The result should be a smooth cut with the fibers densely packed together.

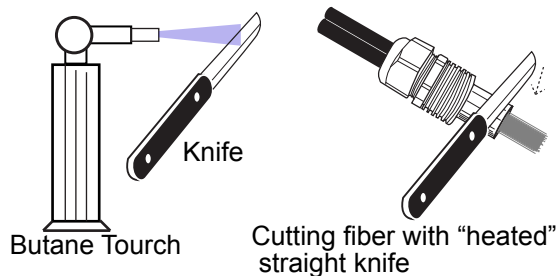


End View of fiberhead.

### PRO-TIP #4

#### For Experienced Professionals ONLY!

You may experience difficulty cutting fibers when you have too long an ext. cord to the knife, resulting in low knife tip temperature, or when there is no electrical service available or cold temperatures. An alternate method is to use a butane torch to heat a knife blade. It might be necessary to re-heat the knife during the cutting. Use the same method as the electric knife - no sawing, downward pressure letting the heat do the cutting.



### PRO-TIP #5

A very fine sandpaper 1000 Grit can be used to polish the end then finish with a plastic polish.



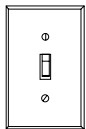
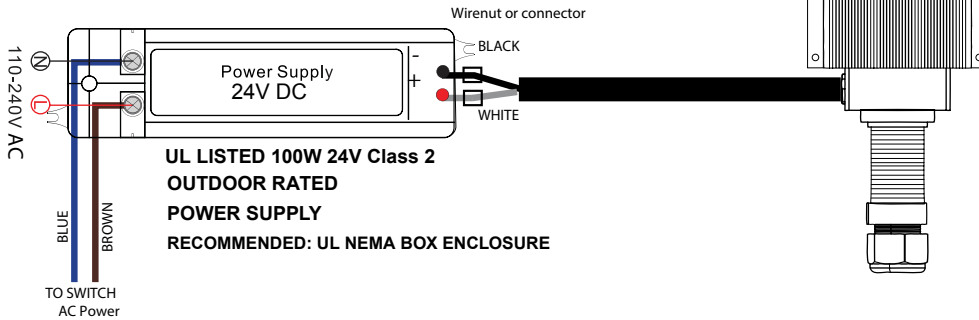
Visit our YouTube Channel for fiberhead instructions:

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<http://youtu.be/Ph9LmnFvAy8>

## WW-CW STAND ALONE SYSTEM MANUAL OPERATION

ION-8000 WW-CW



### TOGGLE SWITCH

A toggle switch is to be wired to the AC input. This switch is used to scroll through all the modes on the Illuminator.

1. MODE: Advance to next color by toggling switch 1-2 seconds OFF then ON.

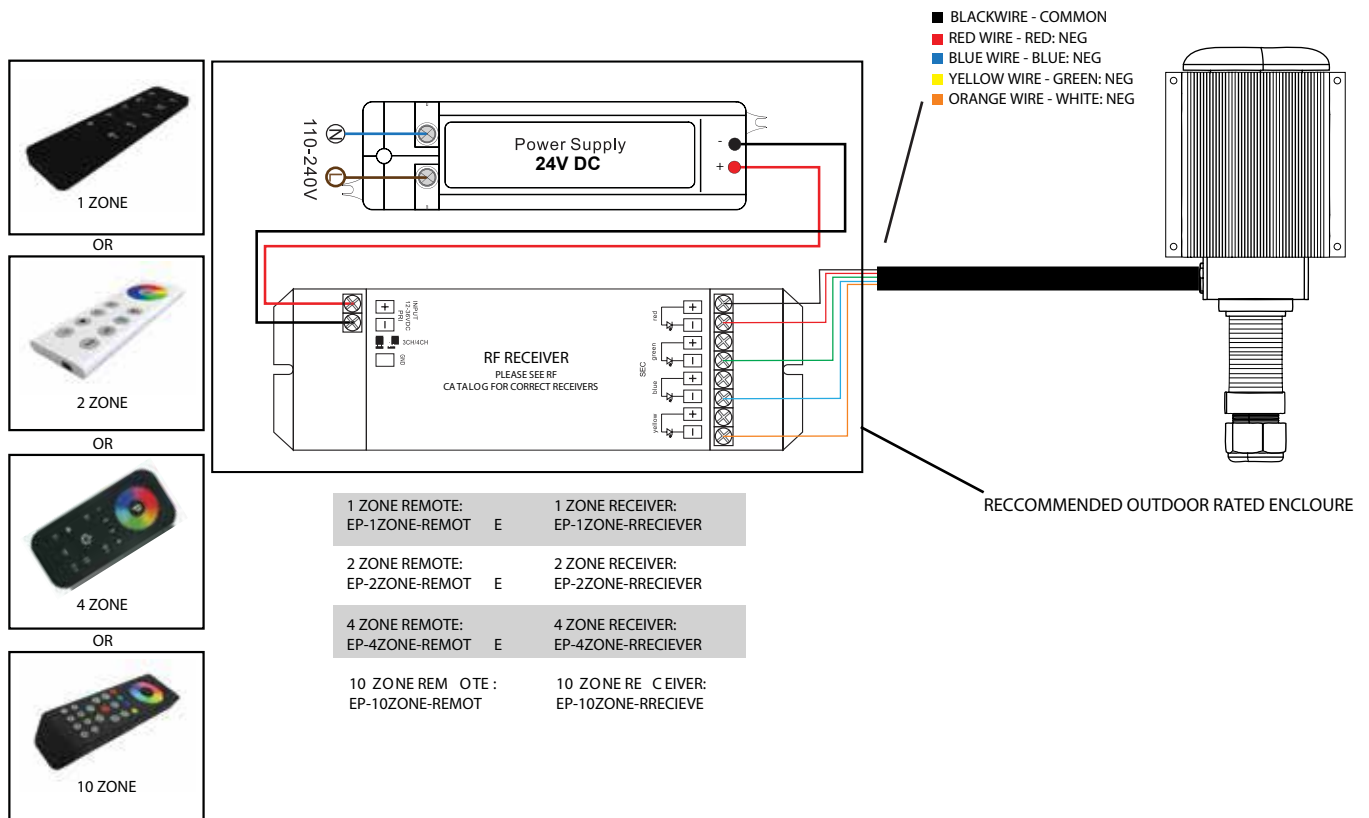
MODE COLOR ORDER: Cool White 5000K / Neutral White 4000K / Warm White 3000K

2. RESET MODE: Toggle OFF 5-7 seconds then ON. This will reset all light sources back to blue.

Memory will be save after 8 seconds.

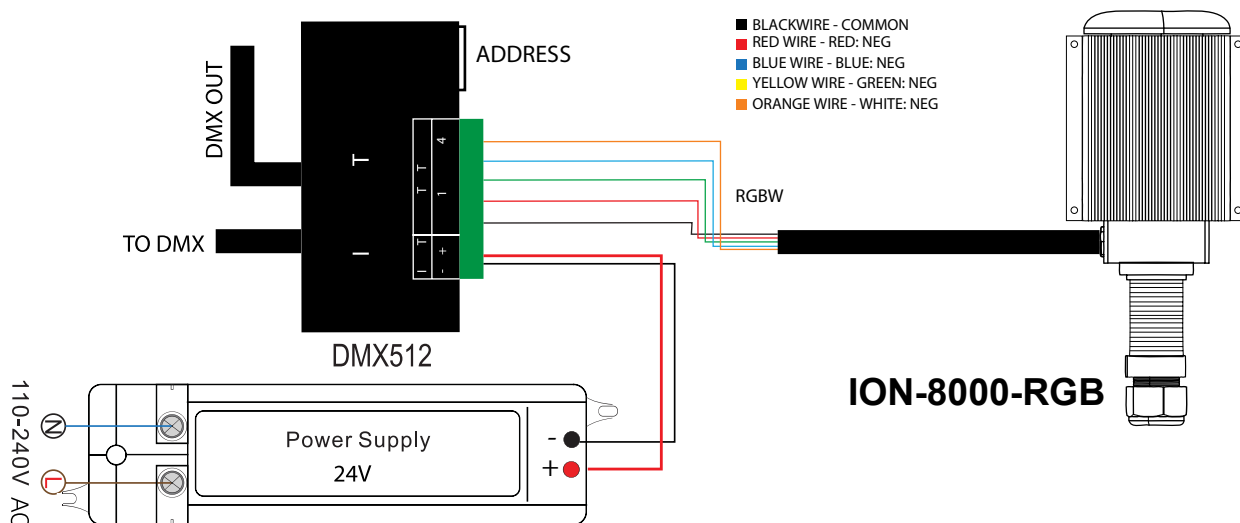
## RF SYSTEM WIRING

ION-8000 RGB-DMX  
ION-8000 RGBW-DMX



## DMX SYSTEM WIRING

ION-8000 RGB-DMX  
 ION-8000 RGBW-DMX  
 ION-8000 WW-CW-DMX

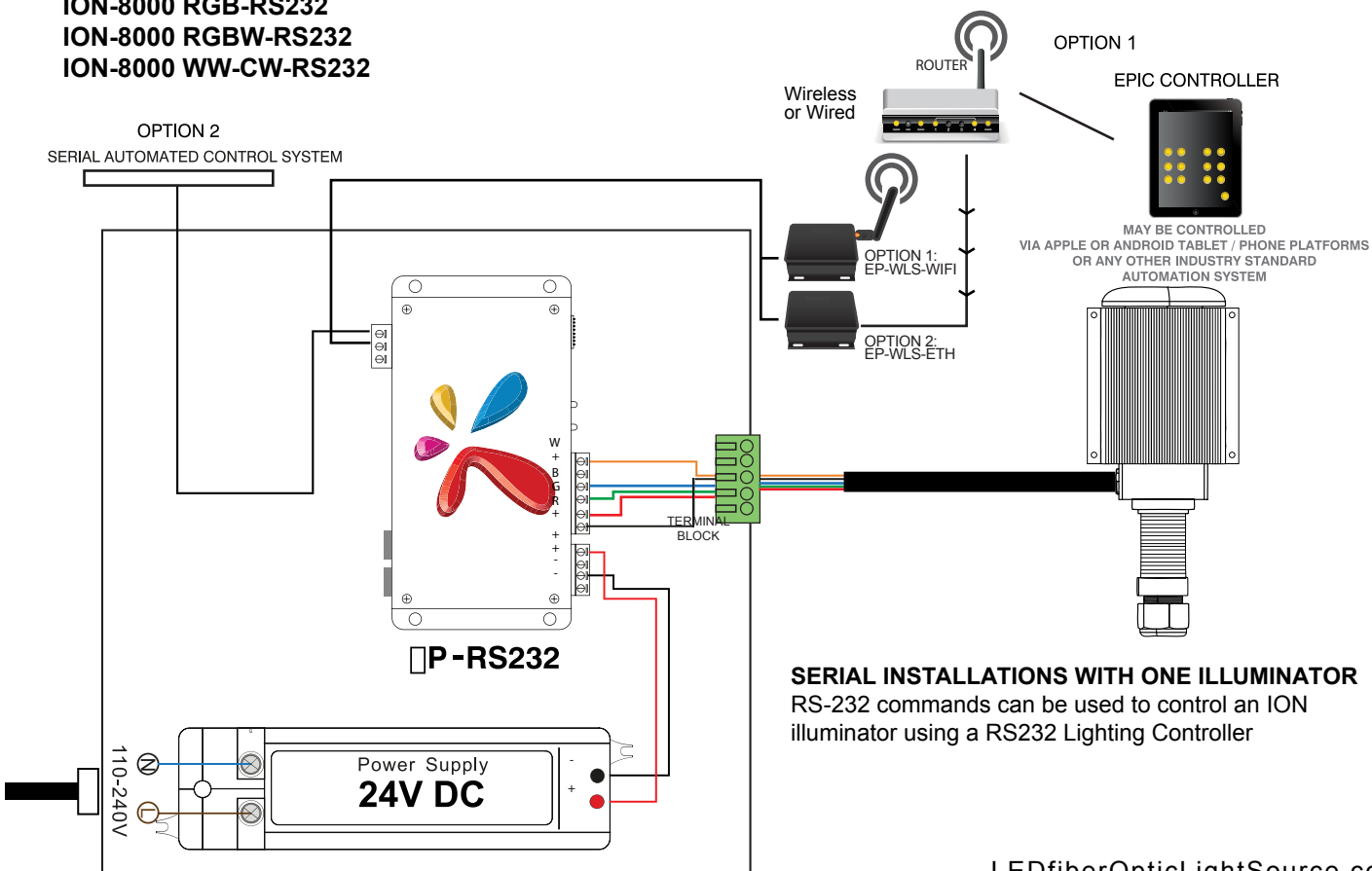


### ION-8000-DMX

DMX is an industry standard abbreviation for “digital multiplex”. It is an RS-485 based protocol that has become the industry standard for digital lighting control interfaces. DMX allows users to synchronize fixtures to a centralized lighting controller. It supplies a constant flow of data to the fixture so that the unit knows what it should be doing at all times.

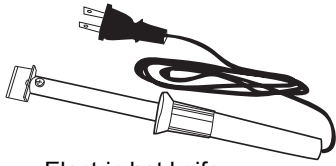
## RS232 SYSTEM WIRING

ION-8000 RGB-RS232  
 ION-8000 RGBW-RS232  
 ION-8000 WW-CW-RS232

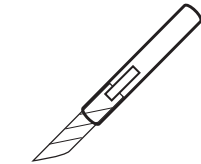


# INSTALLATION MANUAL FIBER HEAD PREPARATION **6**

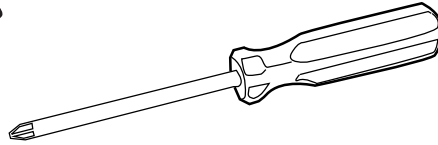
## TOOLS REQUIRED



Electric hot knife  
Also see PRO TIP #4



Razor knife



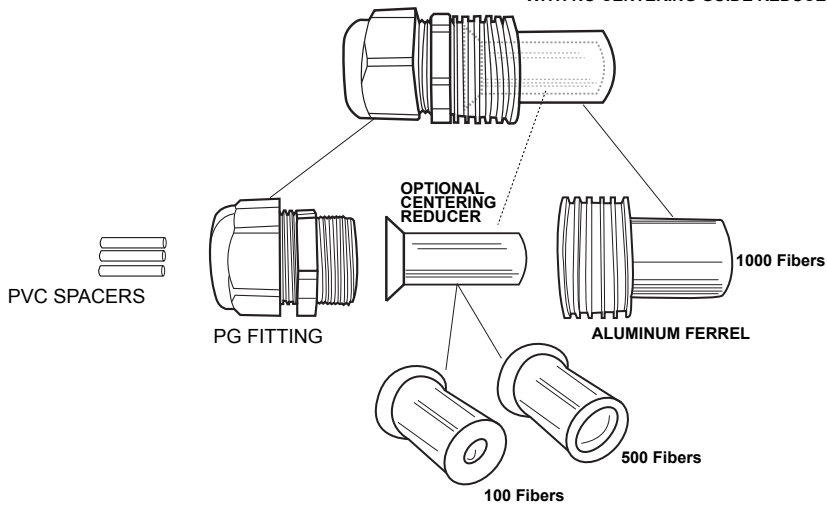
Philips screwdriver



**CAUTION:**  
DO NOT USE ELECTRICAL TAPE TO BIND THE FIBERS OR CABLE TOGETHER NEAR THE FIBERHEAD. ADHESIVE FROM THE TAPE HAS A LOW MELTING TEMPERATURE AND CAN INDUCE THE FIBER TO MELT.

## FIBERHEAD COMPONENTS

FIBER CAPACITY: 1000 .075mm fiber  
WITH NO CENTERING GUIDE REDUCER

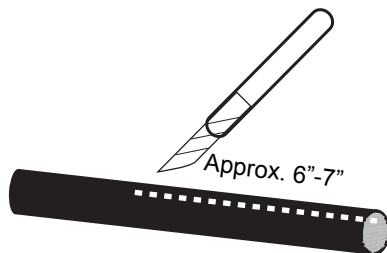


### PRO-TIP #1

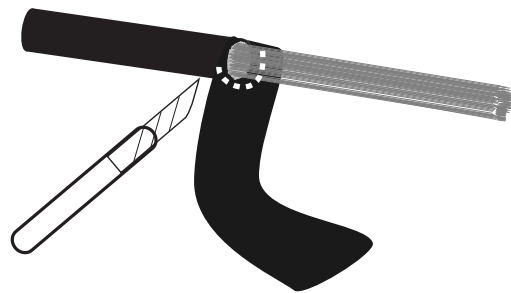
The preparation of the fiberhead is one of the most important elements in achieving maximum performance from your ION Series Fiber Optic Light Source. Solidly packed, clean cut fibers allow the light emitted from the light source to enter the ends of the fiber at an optimum angle for superior performance and reduced fiberhead maintenance. It is advisable to provide a service loop or extra length of fiber at the light source should re-cutting the fiber be necessary. A 12" to 18" service loop is recommended.

## STEP 1

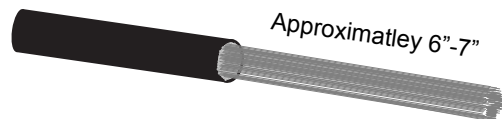
### Remove the PVC jacket from the cable



**1a.** Slice through the jacket, careful not to cut any fibers.



**1b.** Remove the excess jacket with a knife or scissors.



The cut fiber cable should look like this.



Visit our YouTube Channel for fiberhead instructions:

**ImpactLightingInc**

<http://youtu.be/Ph9LmnFvAy8>

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## PRODUCT OVERVIEW

The ION Series Fiber Optic Illuminator is a commercial grade LED light source. It is UL rated for indoor or outdoor use.

It is designed for use with side-emitting and end-emitting fibers and fiber optic cables.

Side-emitting fiber optic cable extract light along the length of the fiber to provide the look of neon while being passive and flexible.

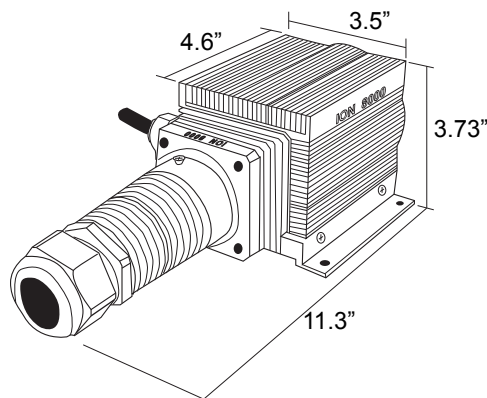
End-emitting fibers transport light from one end of the fiber to the other with minimal light loss to a light fixture or as fiber point sources. It is available in several different models:

- ION-8000-WW** - single color warm white
- ION-8000-CW** - single color cool white
- ION-8000-B** - single color blue
- ION-8000 RGB** - Red Green Blue
- ION-8000 RGBW** - Red Green Blue White
- ION-8000 WW-CW** - Dynamic color change from warm white to cool white, tunable via controller.

Control system options include:

- Manual - Stand Alone**
- DMX**
- RS232**
- RF**

**PRO-TIP**  
 PRO-TIPS are useful pieces of practical advice throughout this manual from fiber optic lighting professionals.



## SPECIFICATIONS

| PARAMETER                     | MAX. RATING    |
|-------------------------------|----------------|
| Input Voltage to Power Supply | 100-240VAC     |
| Input Voltage to Light Source | 24VDC          |
| Amps                          | 4 Amps         |
| Wattage                       | 96W max        |
| Hz                            | 50-60Hz        |
| Fiber Capacity                | 1000 @ .075mm  |
| *Operating Temp.              | -10°C to +80°C |
| Weight                        | 7 lbs.         |
| Outdoor rating                | IP67           |
| Finish                        | Anodized Black |
| Construction                  | Aluminum       |

\*Thermal cut-off protection 70°C



**NOTE:** This light source is not serviceable and has no internal serviceable parts. Please contact the manufacturer with service related issues.

**Problem:** Low light levels in fiber

**Possible Cause:** Melted fibers in fiberhead from overheating.

**Solution:** Recut the fiberhead and when it is re-inserted insert it up to 1/2" off the fully seated position. This will not affect the light intensity.

**Problem:** Light Source is not ON.

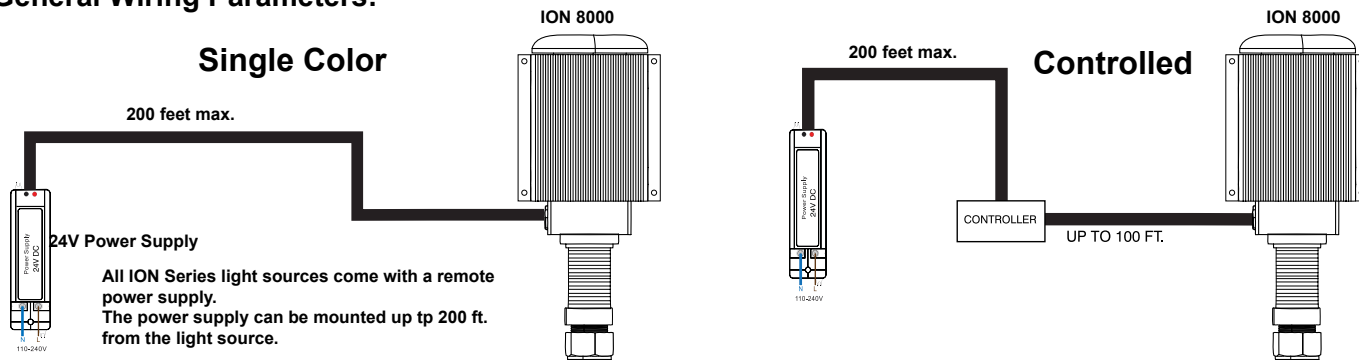
**Possible Cause:** No power / improper wiring

**Solution:** 1. Check that main power to the unit is ON / If power is ON and the light source is still not ON then check if there is power at the low voltage side of the power supply. Is there is no power at the low voltage side contact the factory.  
If there is power at the low voltage side of the power supply check for proper control system wiring.

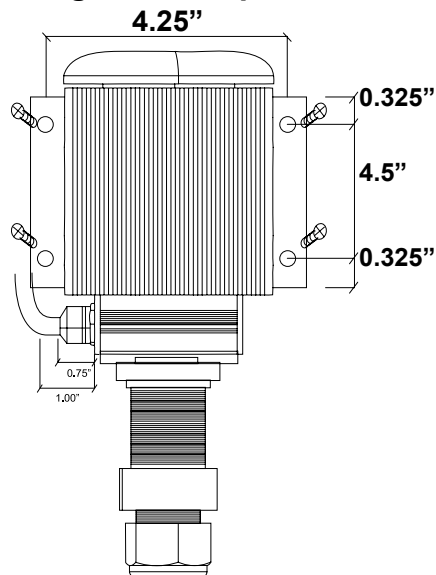
**FOR ALL OTHER ISSUES CONTACT THE FACTORY.**

**NOTE:** This light source is not serviceable and has no internal serviceable parts. Please contact the manufacturer with service related issues.

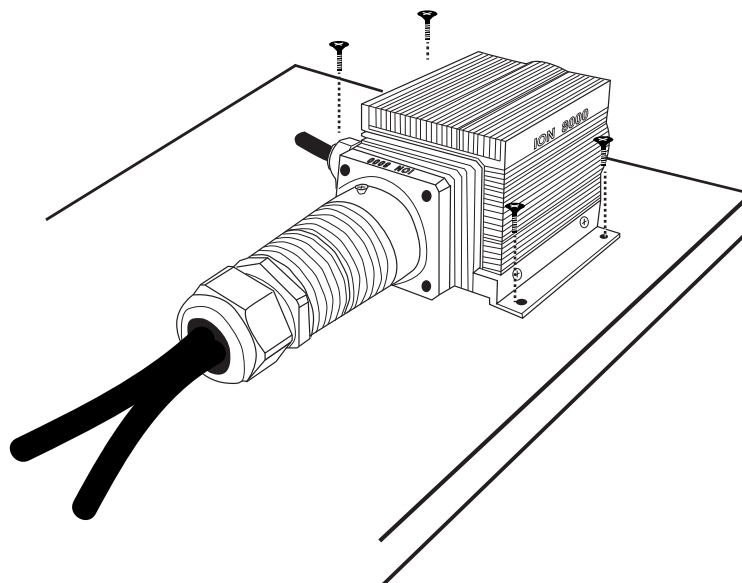
## General Wiring Parameters:



## Mounting Hole Template

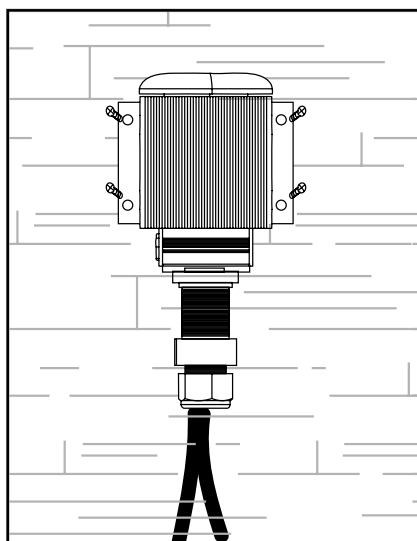


## Horizontal Mounting

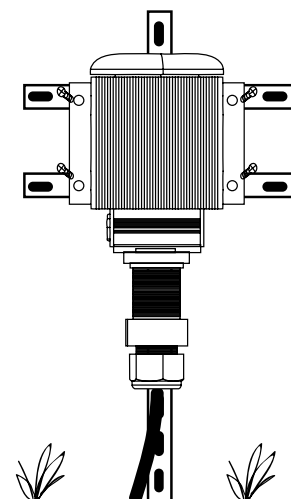


## Vertical Mounting

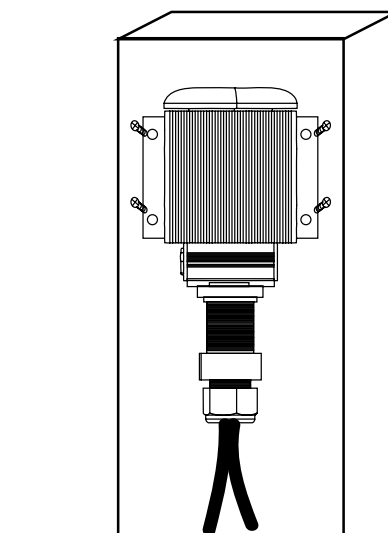
### Wall Mount



### Uni-Strut Mount



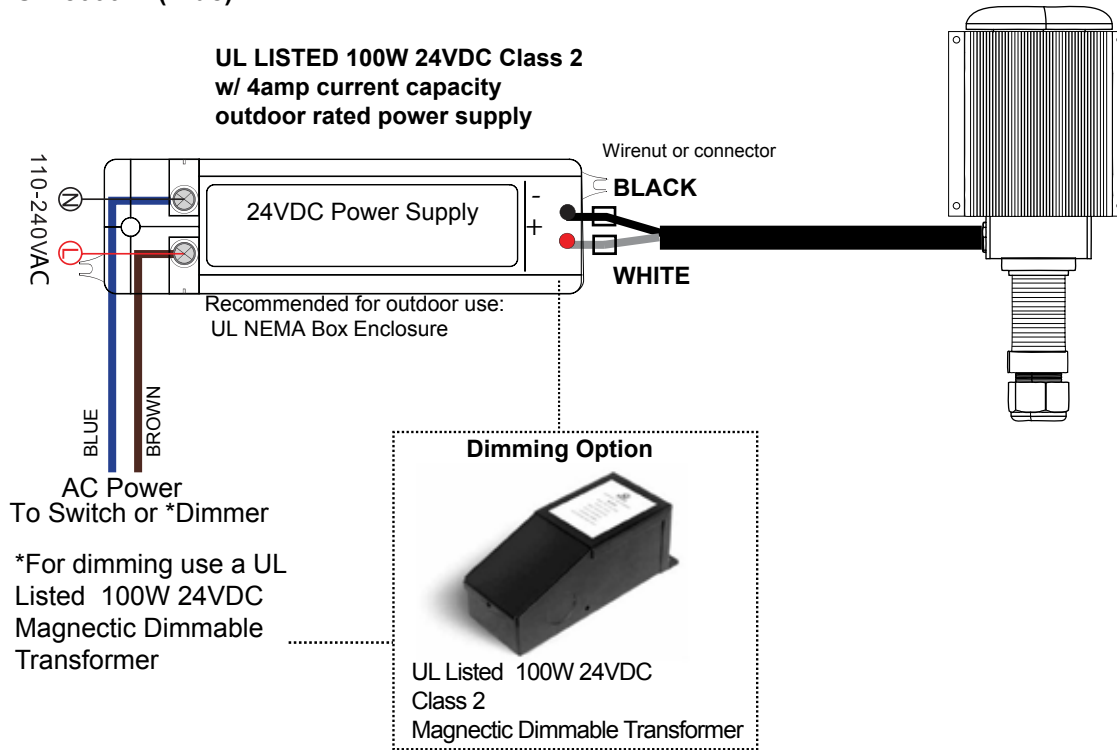
### Post Mount



## SINGLE COLOR STAND ALONE SYSTEM MANUAL OPERATION

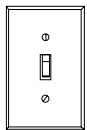
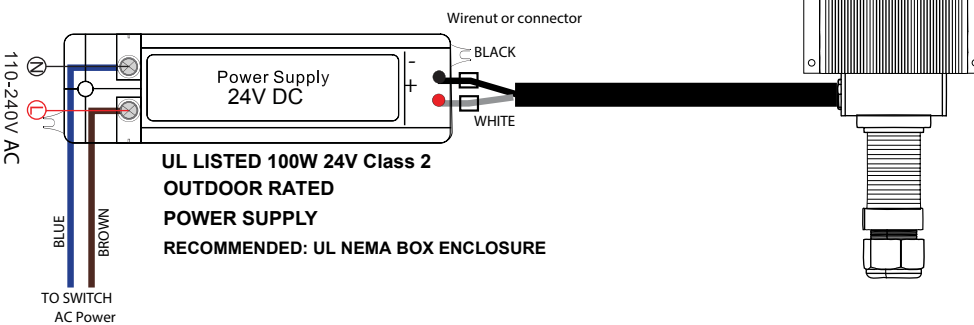
ION-8000-WW (Warm White)  
ION-8000-CW (Cool White)  
ION-8000-B (Blue)

**NOTE:** Only a licensed electrician should install this product.



## RGB / RGBW STAND ALONE SYSTEM MANUAL OPERATION

ION-8000 RGB  
ION-8000 RGBW



### TOGGLE SWITCH

A toggle switch is to be wired to the AC input. This switch is used to scroll through all the modes on the Illuminator.

1. MODE: Advance to next color by toggling switch 1-2 seconds OFF then ON.

MODE COLOR ORDER:

Blue / White / Cyan / Green / Magenta / Red / Gold / Slow color change / Party mode

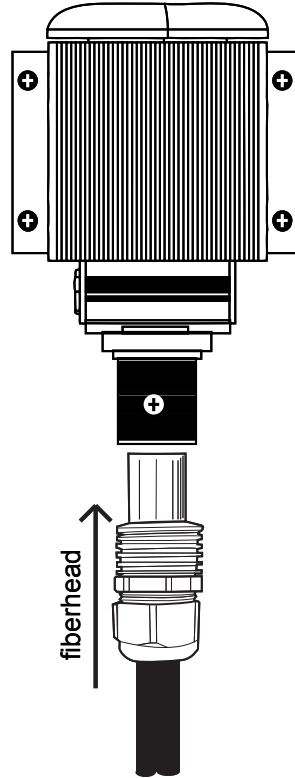
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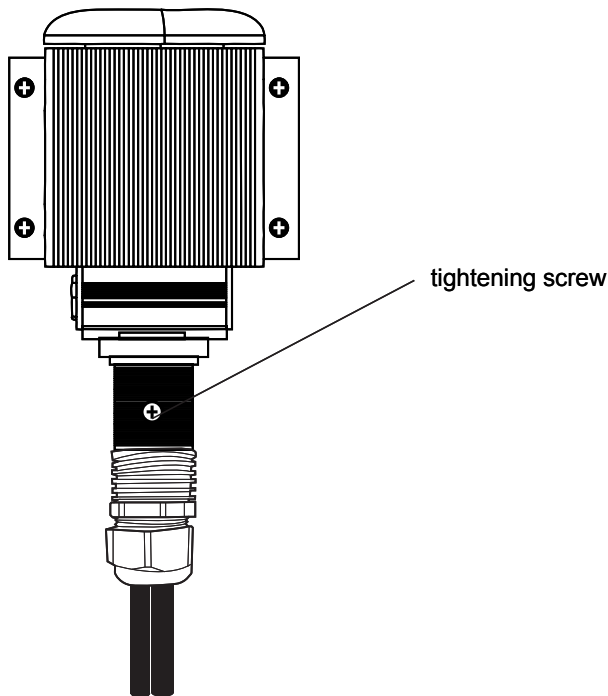
## STEP 3 INSERT FIBERHEAD TO LIGHT SOURCE

NOTE: The Light Source should be mounted before you install the fiber head

**3a.** Slide the fiberhead into the lightsource fiber port.



**3b.** Secure the fiberhead in the light source with the tightening screw.



### PRO-TIP #6

Are you a Pro-Installer? Share your tips and tricks with us at [LEDfiberOpticLightSource.com](http://LEDfiberOpticLightSource.com)  
Not a Pro but want to become one? Go to [impactlighting.com/pro](http://impactlighting.com/pro) to learn how.