

INSTALLATION MANUAL

ION-100 Series

FIBER OPTIC ILLUMINATOR
IP67 OUTDOOR RATED




LISTED
CLASS 2
E359853



IMPACT
LIGHTING

05/2018

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PRODUCT OVERVIEW

1

The **ION 100** is an outdoor rated RGB+W or white only LED Light Source ideal for fiber optic lighted waterfalls, lighted water features and fiber optic star floors. With the powerful RGB+W LED the Red, Green, Blue and White LED chipset delivers a full 16.4m color and stunning white light. Indoor or outdoor installation.

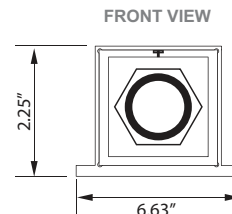
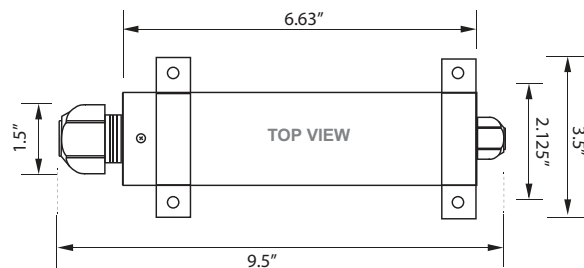
The Smart Board (SB) option with built-in color programs works with industry standard 12VAC PX-100 and 12VAC PX-300 transformers for easy installation and hook up or included 12VDC PWR supply.



ION-100

FEATURES:

- Made in the USA
- Rigid Anodized Aluminum Construction
- Made in the USA
- Eight color modes with SB (Smart Board option):
- Full color spectrum with RGB + White option
- 12VDC or 12VAC SB option wires directly to PX-100 or PX-300 Transformers
- 300 Fiber capacity
- Small form
- Easy installation



SPECIFICATIONS

PARAMETER	MAX RATING
Input Voltage	12VAC / opt. 12VDC
Amps	2.0 Max (on white)
Wattage	10W Max (on white)
Fiber Capacity	300
Operating Temperature	-10°C to 50° C
Outdoor Rating	IP67
Housing	Anodized Aluminum

PRO-TIP ►

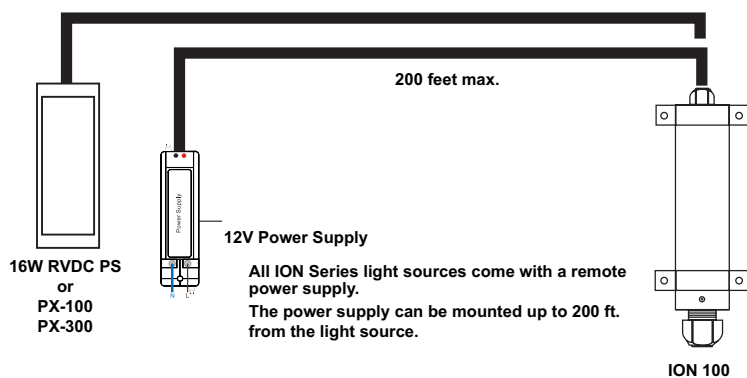
You will find Pro-Tips throughout this manual that are helpful hints and practical advice from lighting professionals.

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

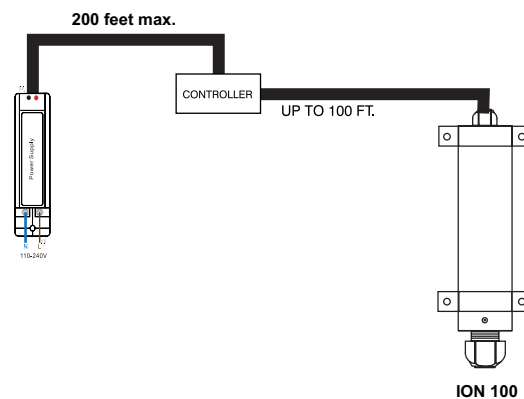
General Wiring Parameters:

Single Color

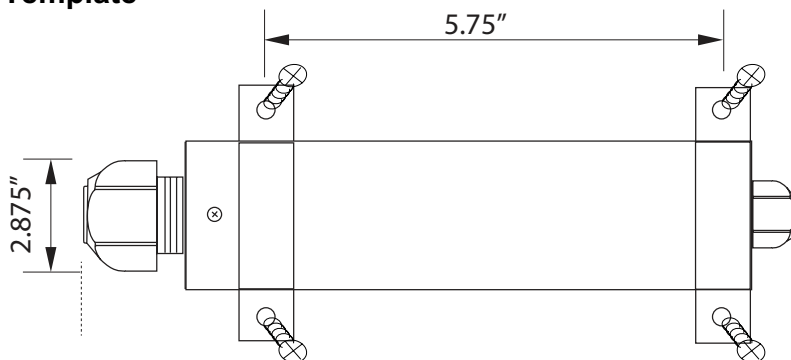
Use either 16W RVDC PS, PX-100, PX-300 OR 12V Power supply



Controlled

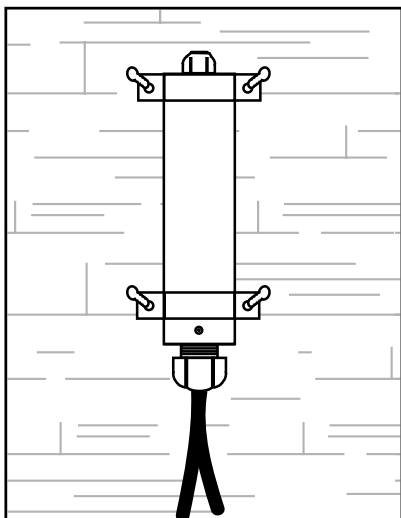


Mounting Hole Template

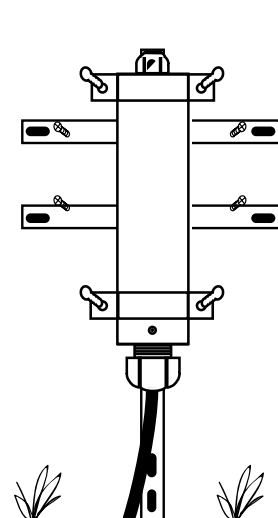


Vertical Mounting

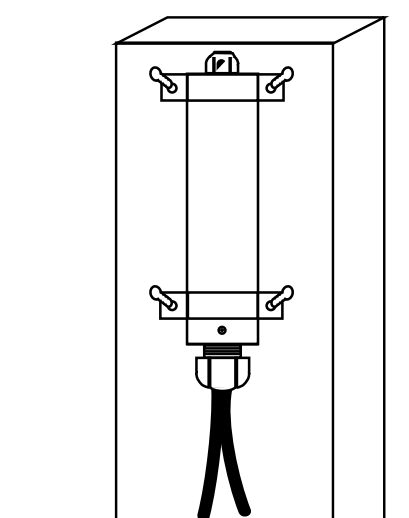
Wall Mount



Uni-Strut Mount



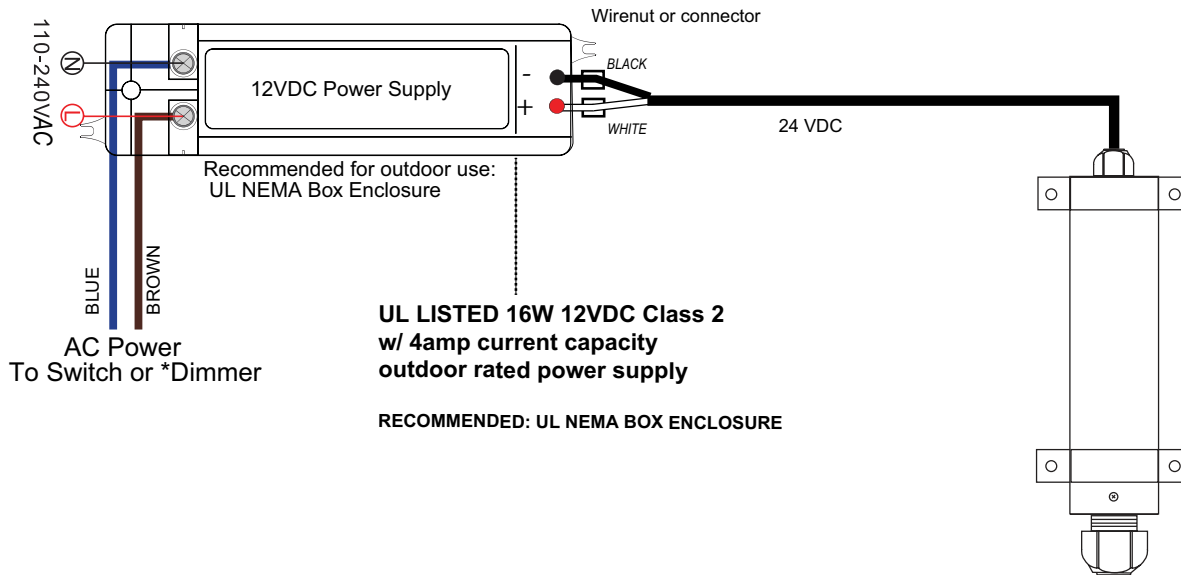
Post Mount



SINGLE COLOR STAND ALONE SYSTEM MANUAL OPERATION

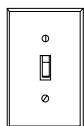
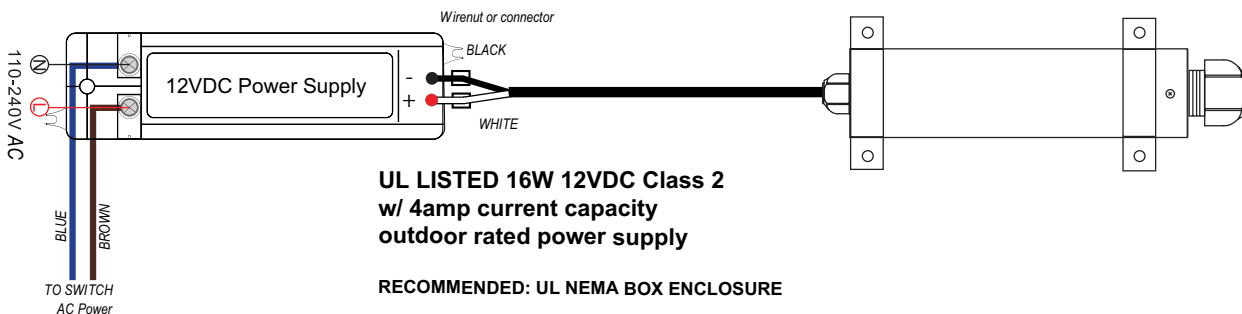
NOTE: Only a licensed electrician should install this product.

Use either 16W RVDC PS, PX-100, PX-300 **OR** 12V Power supply



RGB / RGBW STAND ALONE SYSTEM MANUAL OPERATION

Use either 16W RVDC PS, PX-100, PX-300 **OR** 12V Power supply



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
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-100-RGBW-5W ONLY 12VDC

ION-8000 WW-CW



OR



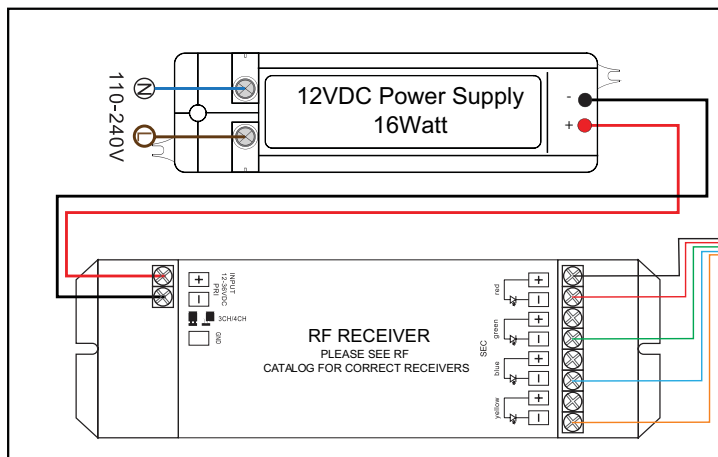
OR



OR



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



- BLACK WIRE - COMMON
- RED WIRE - RED:NEG
- BLUE WIRE - BLUE:NEG
- YELLOW WIRE - GREEN:NEG
- ORANGE WIRE - WHITE:NEG

1 ZONE REMOTE:
EP-1ZONE-REMOTE

1 ZONE RECEIVER:
EP-1ZONE-RRECIEVER

2 ZONE REMOTE:
EP-2ZONE-REMOTE

2 ZONE RECEIVER:
EP-2ZONE-RRECIEVER

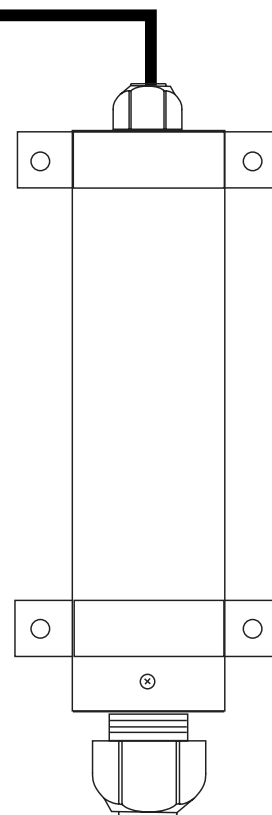
4 ZONE REMOTE:
EP-4ZONE-REMOTE

4 ZONE RECEIVER:
EP-4ZONE-RRECIEVER

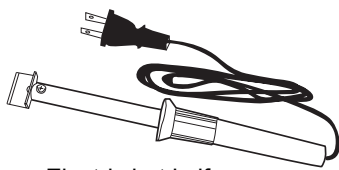
10 ZONE REMOTE:
EP-10ZONE-REMOT

10 ZONE RECEIVER:
EP-10ZONE-RRECIEVE

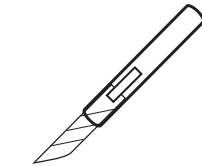
OUTDOOR RATED ENCLOSURE
RECOMMENDED: UL NEMA BOX ENCLOSURE



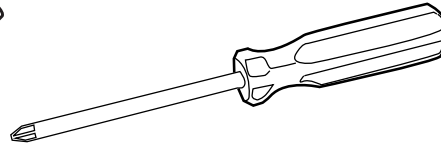
TOOLS REQUIRED



Electric hot knife
Also see PRO TIP #4



Razor knife

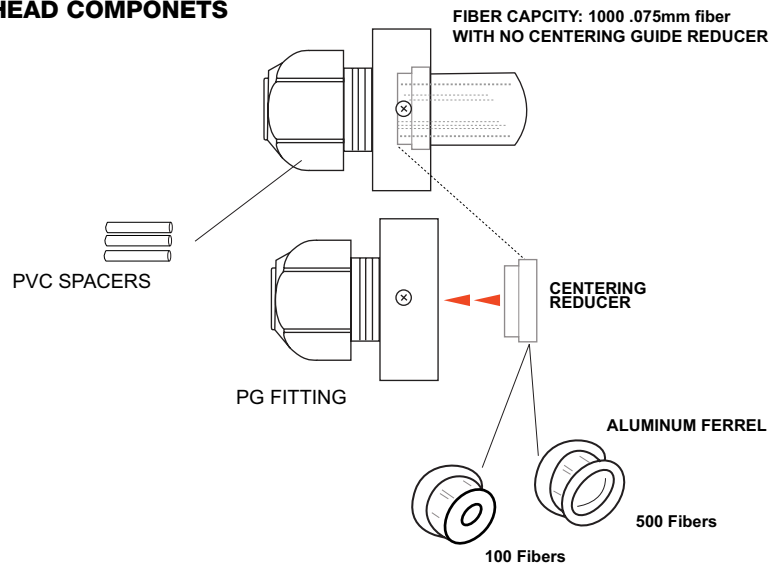


Philips screwdriver



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

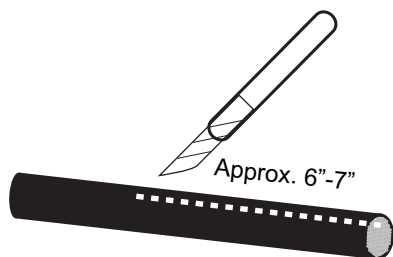


PRO-TIP 1 ►

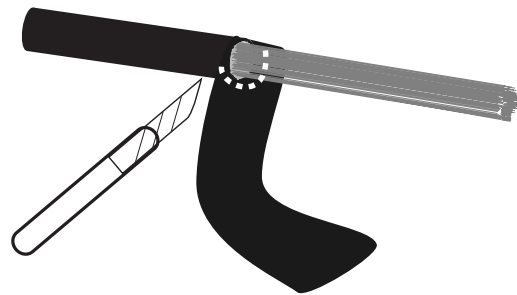
Preparation of the fiberhead is one of the most important elements in achieving maximum performance from your ION Series Fiber Optic Light Source. Solidly packed, clean cut fibers allow the light emitted from the light source to enter the ends of the fiber at an optimum angle for superior performance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

STEP 1

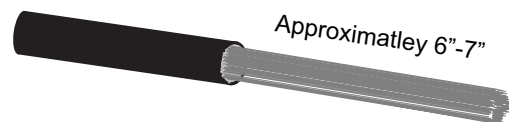
Remove the PVC jacket from the cable



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



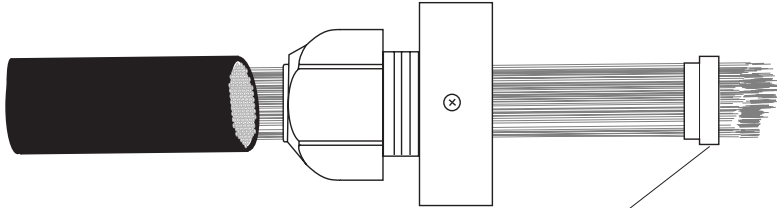
1b. Remove the excess jacket with a knife or scissors.



The cut fiber cable should look like this.

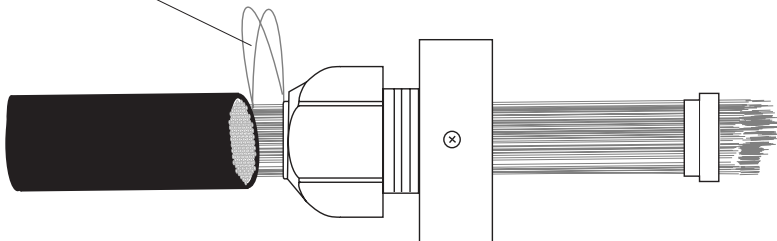
Visit our YOUTube Channel for fiberhead instructions:
IMPACTLIGHTINGINC
<http://youtu.be/Ph9LmnFvAy8>

STEP 2 INSERT FIBER INTO FIBERHEAD



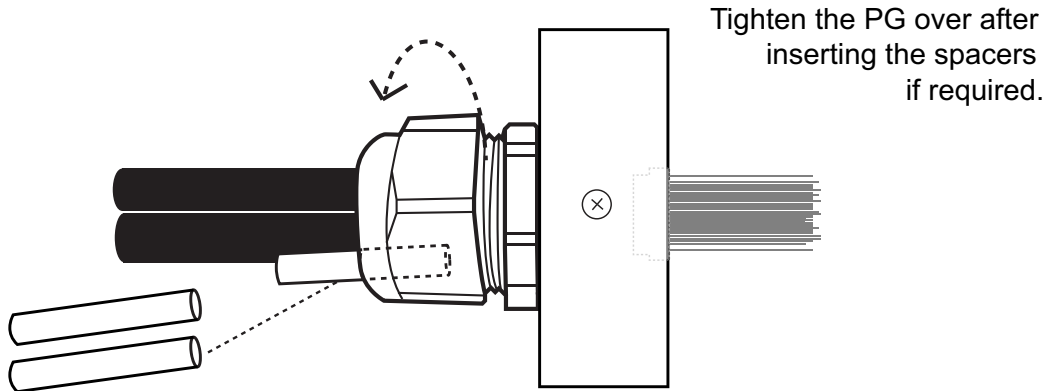
2a. Centering Reducers are used when the aluminum ferrule is not completely filled with fiber. Fiber must be tightly packed at the end of the ferrule. For optimum performance a centering device is used in combination with “dead” (see step **2e**) fibers to achieve this.

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

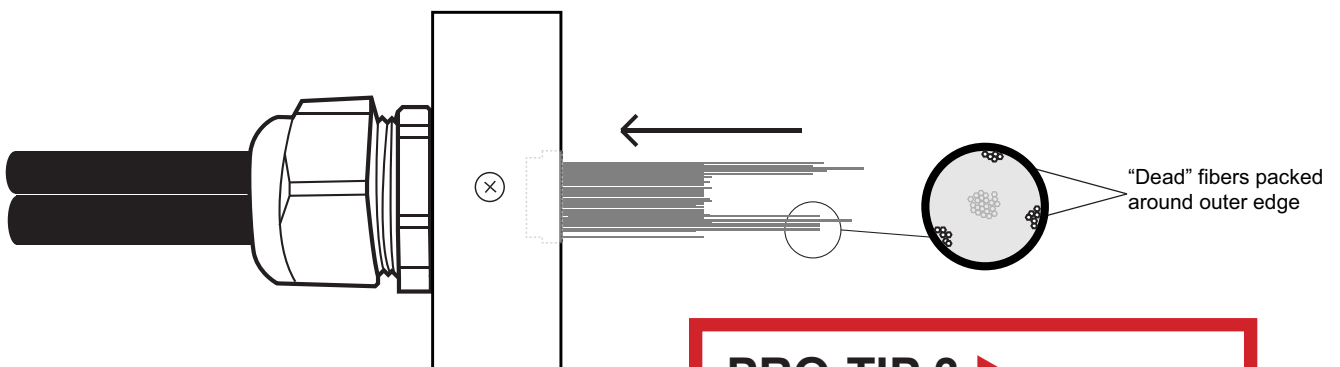
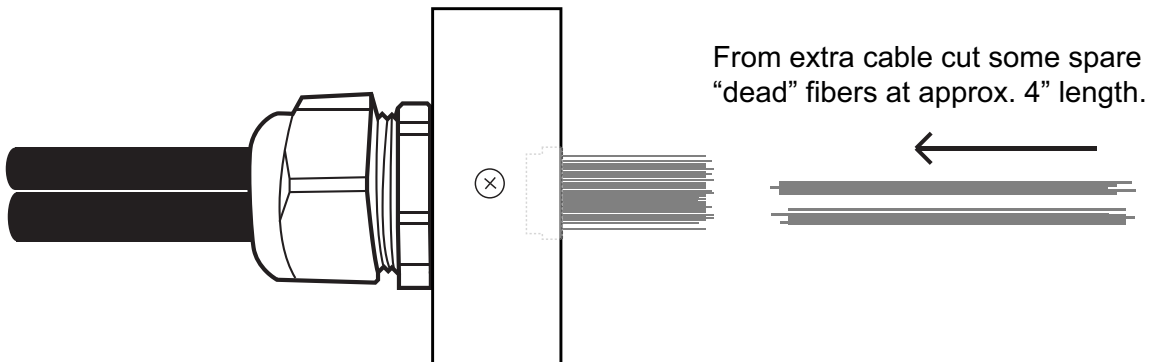


PRO-TIP 2 ►

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

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.



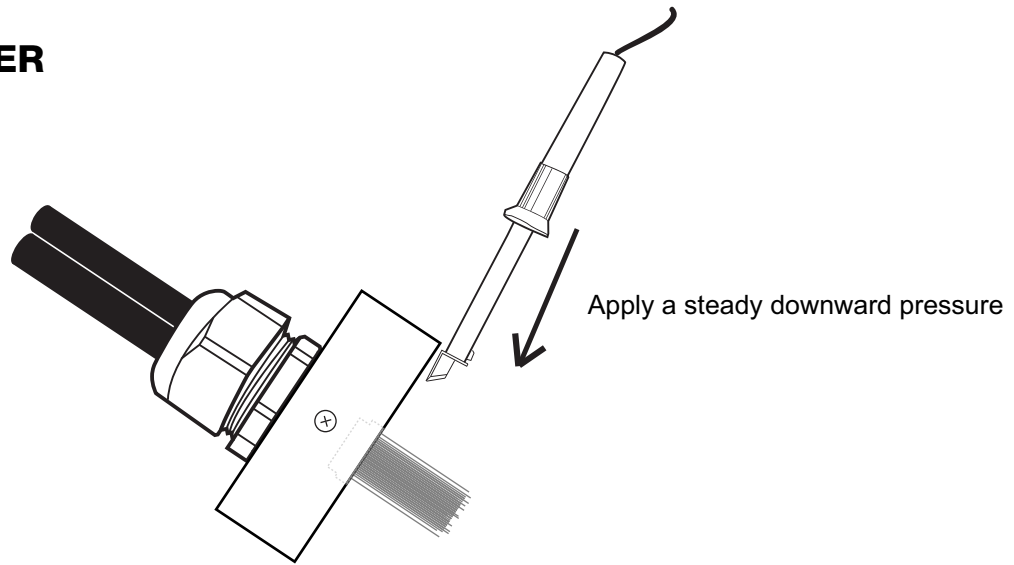
2e. Insert "dead" fibers into end of aluminum ferrel tip.

PRO-TIP 3

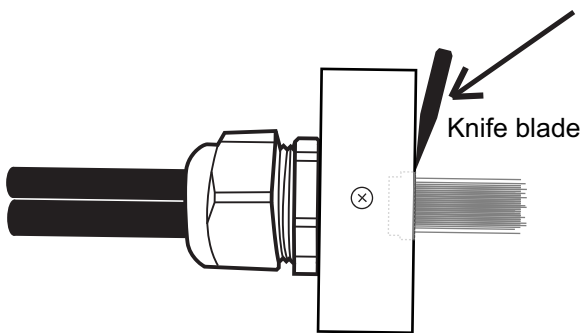
Inserting "dead" fibers into the end of the fiber head around the outer edge of the fiber head will help to pack all the fibers tightly together so the light will enter at the optimal angle and help to eliminate air pockets where excess heat can build up.

Pack as tightly as possible!

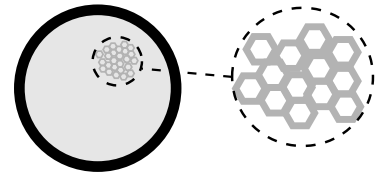
STEP 3 CUTTING THE FIBER



- 3a** 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.



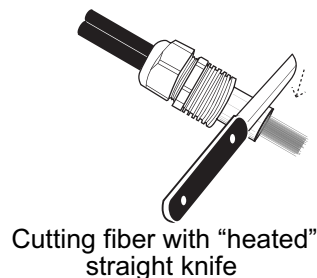
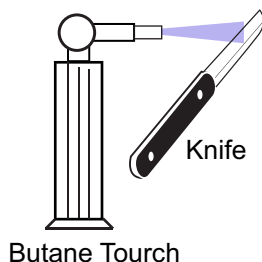
The result should be a smooth cut with the fibers densely packed together.



End View of Fiberhead.

PRO-TIP 4 ►

For Experienced Professionals ONLY! You may experience difficulty cutting fibers when you have too long an extension 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.



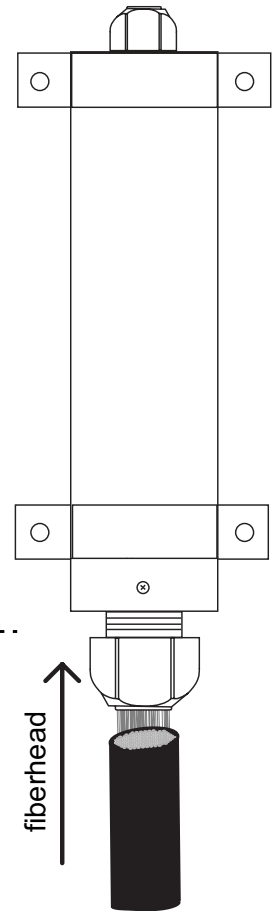
PRO-TIP 5 ►

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

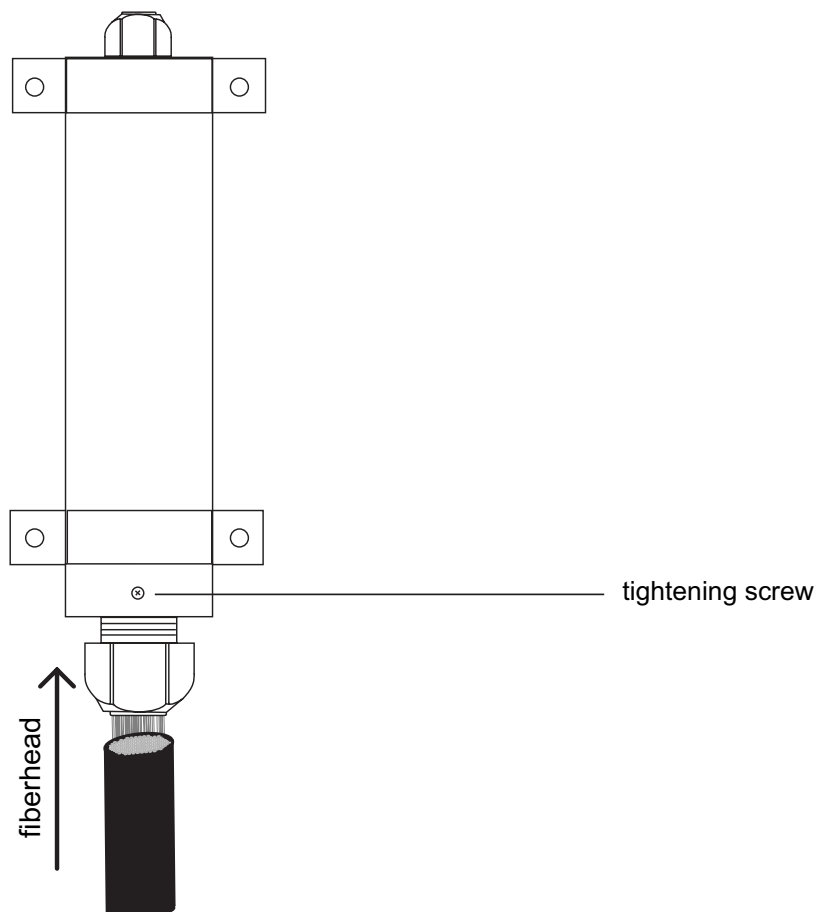
STEP 3 INSERT FIBERHEAD TO LIGHT SOURCE

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.



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 fiber head are overheating.
- ▶ **Solution:** Re-cut the fiber head. Loosen the ferrule and push the fibers 1/2" past the fiber head. Follow steps 2-3.

- ▶ **Problem:** Light source is not turning on
- ▶ **Possible Cause:** No power or improper wiring
- ▶ **Solution:** Check that the main power to the unit. If the main power is on and the unit still does not turn on, check to see if there is power at the low voltage side of the power supply. If there is power on the low voltage side of the power supply, check your control system and make sure it is wired properly. *(check wiring diagrams that correspond to your application)*

ILLUMINATI

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