

# INSTALLATION MANUAL

## IMP-8000 Series

FIBER OPTIC ILLUMINATOR  
INDOOR RATED



**UL** US  
LISTED  
CLASS 2  
E359853

**IMPACT**<sup>®</sup>  
LIGHTING

03/2024

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# PRODUCT OVERVIEW

The IMP-8000 is the indoor version of the ION-8000 designed for architectural illumination, and pool or fountain applications. High-power white LEDs provide consistent color temperature and higher light output and longer life than conventional 150-watt fiber optic illuminator bulbs.

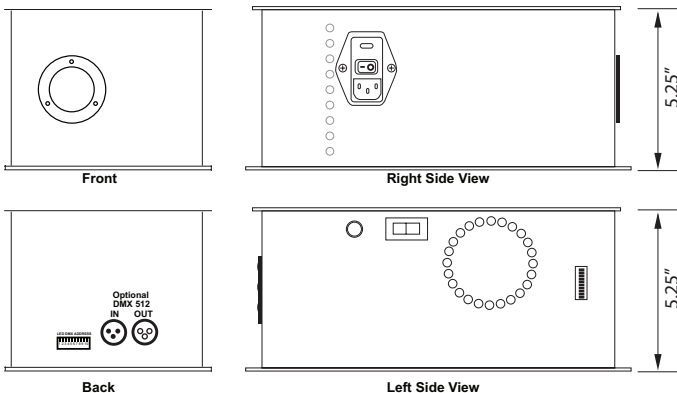
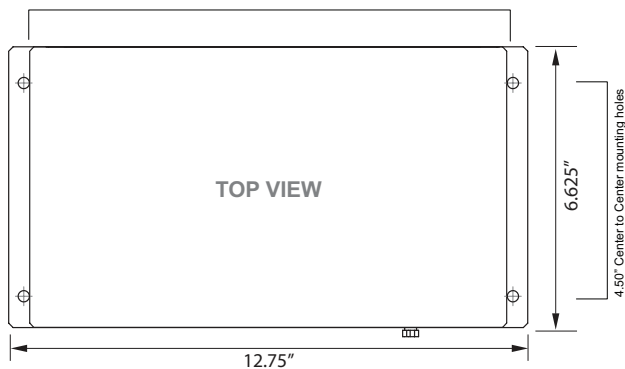
Slow-rate controlled dimming and shielded conductors keep the driver's EMI emissions at a very low level.

IMP-8000 Series LED Light Sources have a 5RPM (top speed) motor than can be speed controlled via DMX or a manual speed control with an attached sparkle wheel for added effects.

The Impact Lighting Inc. Sync® module creates turbulent, pulsated air-jets that can be directed precisely to locations where thermal management is needed. A patented actuator technology delivers robust thermal management.

### CONTROL OPTIONS:

- MANUAL
- DMX
- RS232
- RF
- TOGGLE CONTROL



### SPECIFICATIONS

PARAMETER	MAX RATING
Input Voltage	120-240VAC
Amps	0.8 Max (on white)
Wattage	80-90W Max (on white)
HZ	50/60
Fiber capacity	1000
Operating Temperature	-10°C to 50° C
Housing	Powder Coated Aluminum

### PHOTOMETRICS

LED	LUMENS @ 700ma
WW	2650 lm
CW	4400 lm
RGBW	3465 lm (R=765 G=920 B=230 W=1550)

**PRO-TIP** ▶

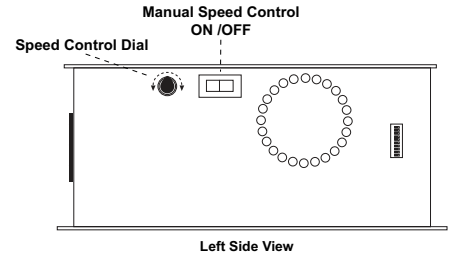
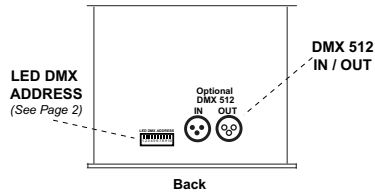
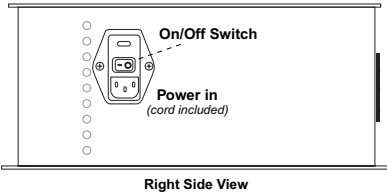
You will find Pro-Tips throughout this manual that are helpful hints and practical advice from lighting professionals.

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

## General Wiring Parameters:

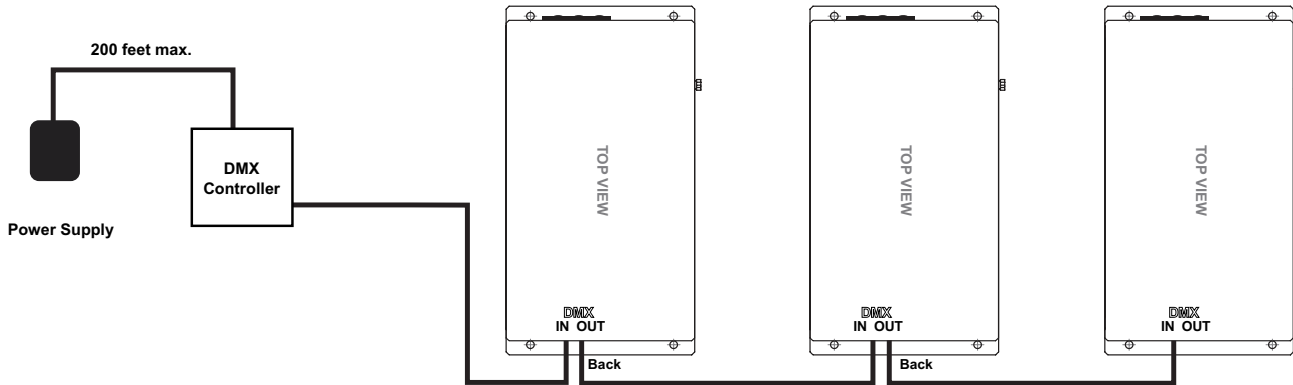
### Direct

The IMP-8000 plugs directly into outlet or surge protector

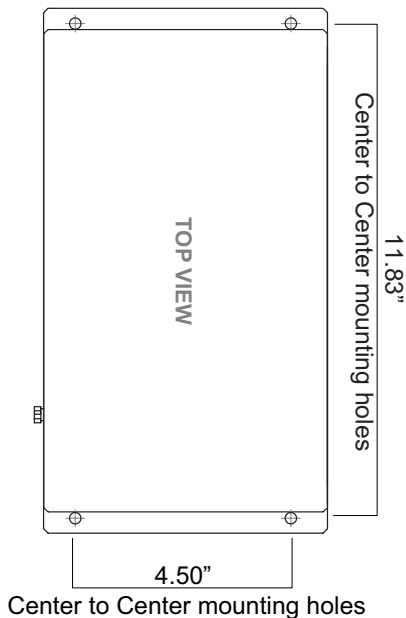


### Daisy Chain

The IMP-8000 can be daisy chained

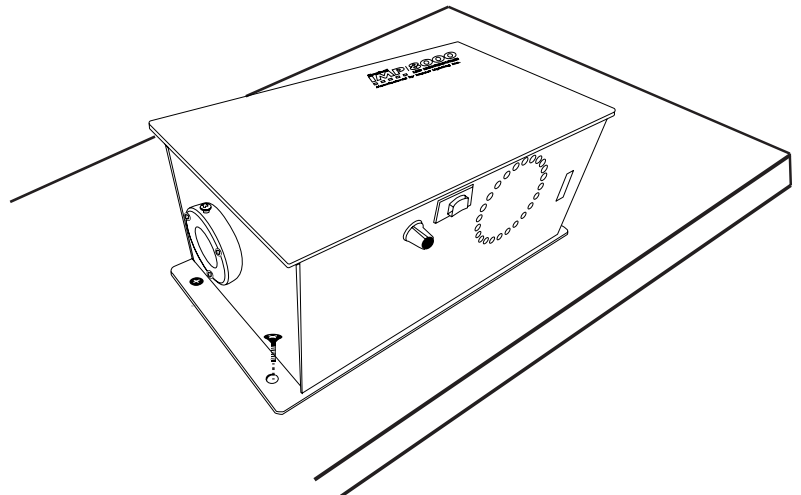


### Mounting Hole Template

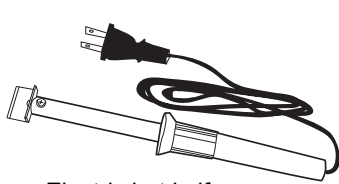


### Horizontal / Vertical Mounting

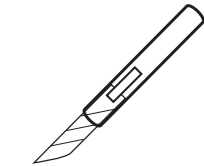
(screw into surface)



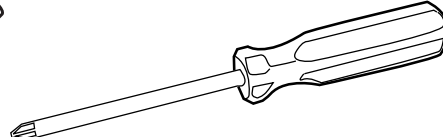
## TOOLS REQUIRED



Electric hot knife  
Also see PRO TIP #4



Razor knife

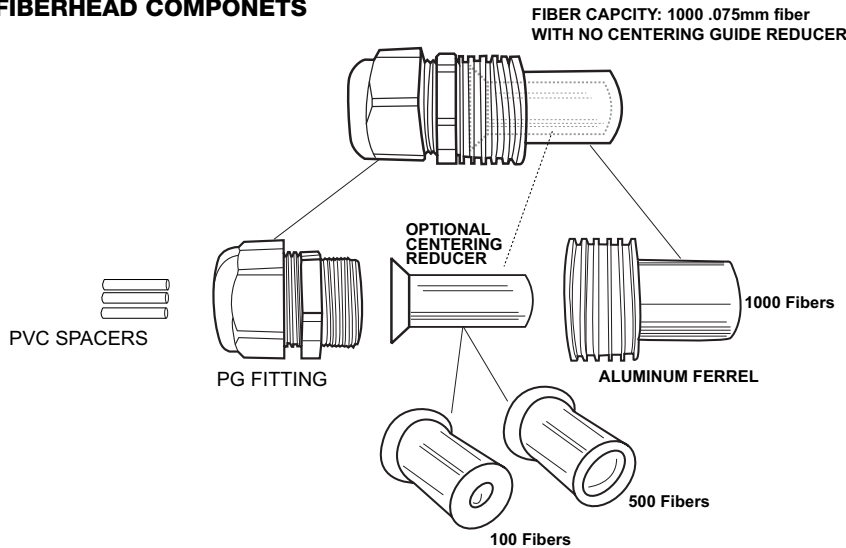


Philips screwdriver



**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

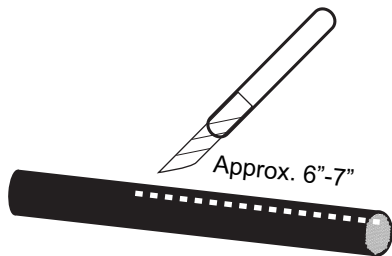


### PRO-TIP 1 ▶

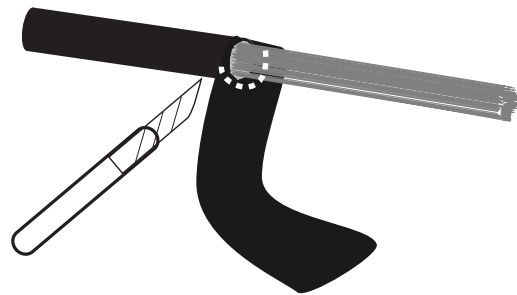
Preparation of the fiberhead is one of the most important elements in achieving maximum performance from your ION Series Fiber Optic Light Source. Solidly packed, clean cut fibers allow the light emitted from the light source to enter the ends of the fiber at an optimum angle for superior performance 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

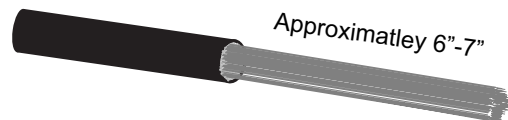
### Remove the PVC jacket from the cable



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



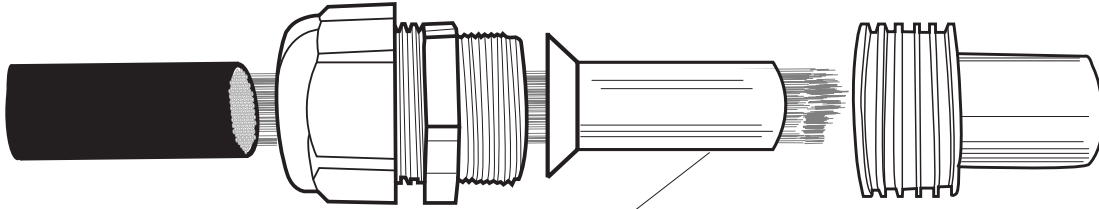
**1b.** Remove the excess jacket with a knife or scissors.



The cut fiber cable should look like this.

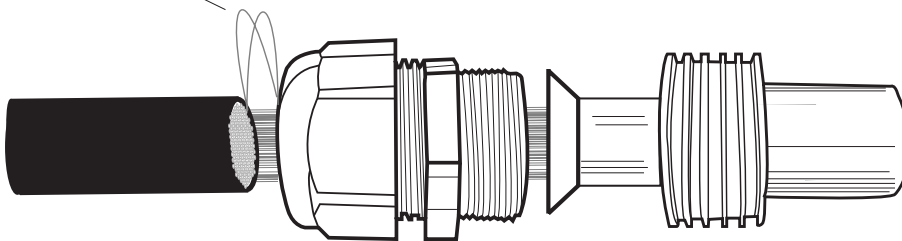
Visit our YOUTube Channel for fiberhead instructions:  
IMPACTLIGHTINGINC  
<http://youtu.be/Ph9LmnFvAy8>

## 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.

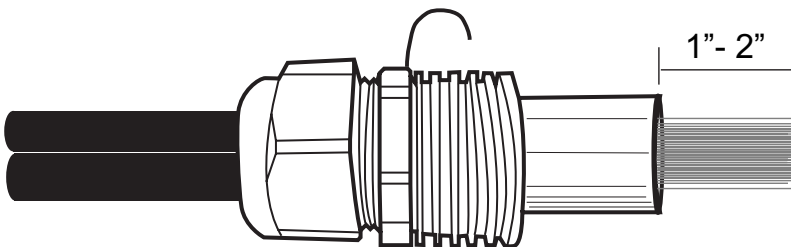
**2b.** Pull any “jamed” fibers completely out and re-insert individually or in small groups while leaving the other fibers in place.



### PRO-TIP 2 ▶

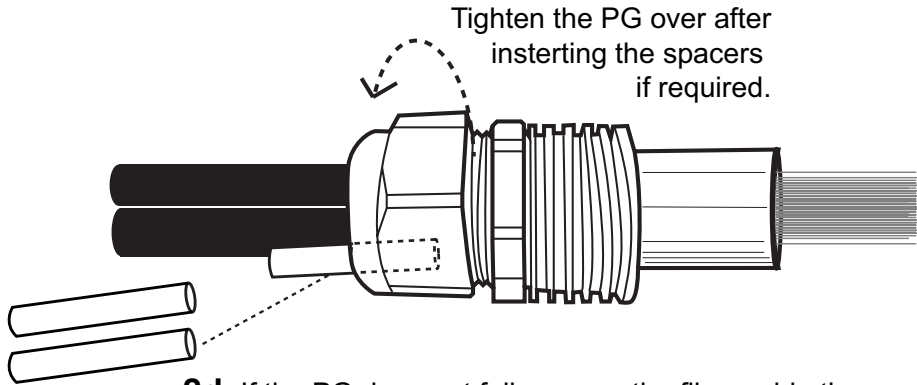
Many Pro installers prefer to disassemble the fiberhead components then insert the fiber through each component, before re-attaching each component back together.

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

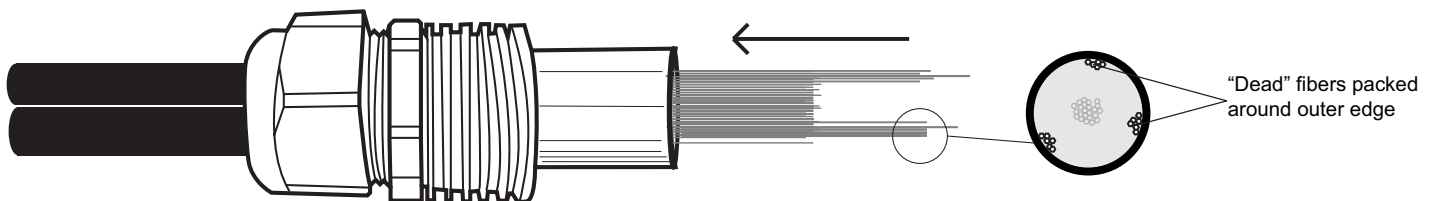
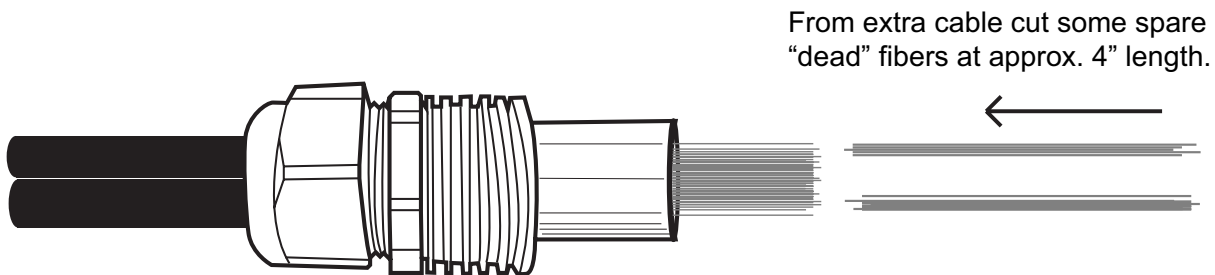


All fibers should extend 1”- 2” prior to cutting.

## 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.

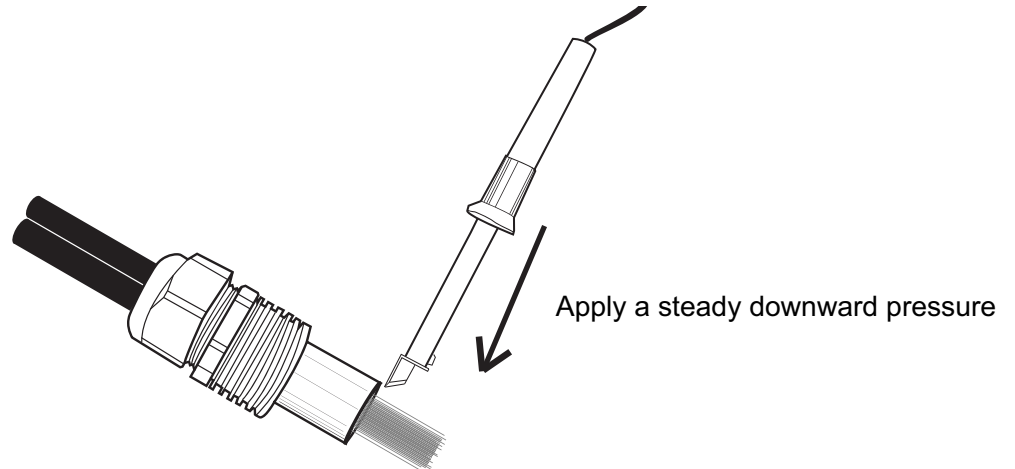
### PRO-TIP 3 ▶

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.

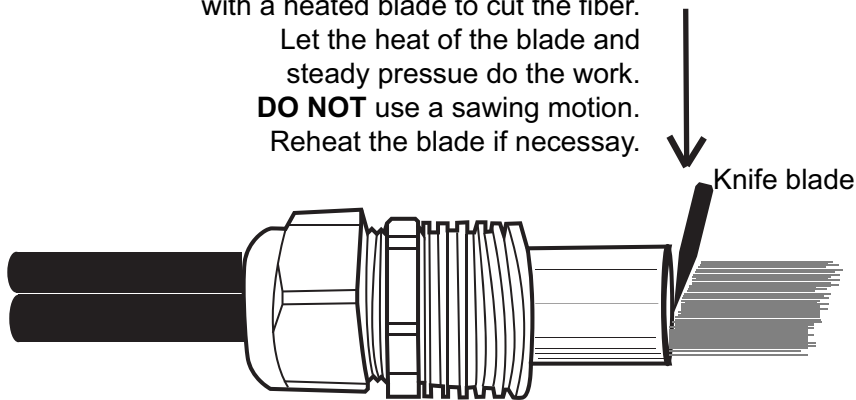
***Pack as tightly as possible!***

## FIBER HEAD PREPARATION

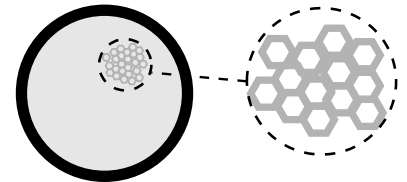
### STEP 3 CUTTING THE FIBER



- 2f. 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.



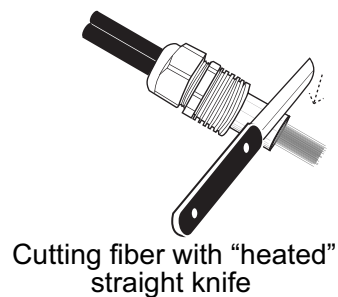
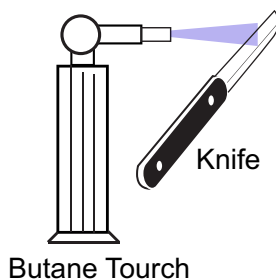
The result should be a smooth cut with the fibers densely packed together.



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 ▶

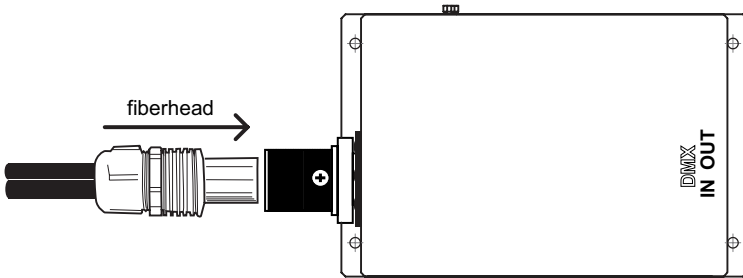
A very fine sandpaper 1000 Grit can be used to polish the end then finish with a plastic polish.



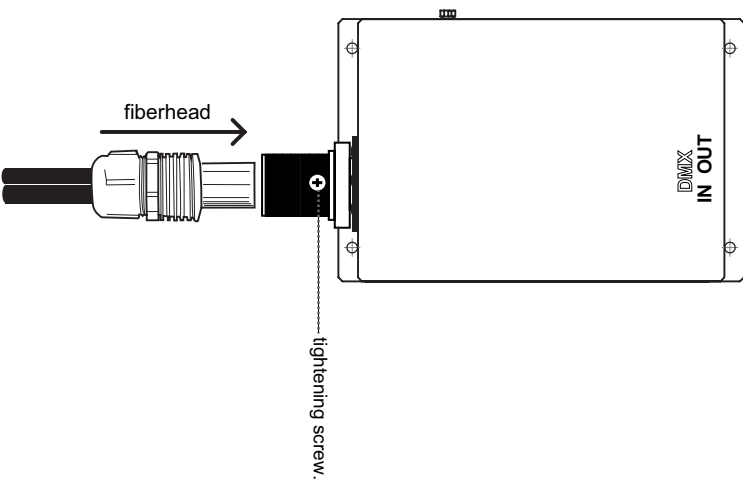
## STEP 3 INSERT FIBERHEAD TO LIGHT SOURCE

**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.



## DMX ADDRESS GUIDE

Accepts DMX512 signal only when the DIP switch FUN=OFF, as Figure 1

DIP	1	2	3	4	5	6	7	8	9	10
Address	001	002	004	008	016	032	064	128	256	FUN

Specifications

DMX512 initial address code is equal to the total sum of the DIP switches numbered from 1 to 9, Placing the DIP switch in the DOWN position sets it's value to ON. Placing the DIP switch in the UP position sets it's value to OFF.

**For example: Set initial address to 37.**

As figure 2, set the 6th, 3rd and 1st bit of the DIP switch downward to "1", the rest to "0", the total sum from 1 to 9 is 32+4+1, so the DMX512 initial address code is 37.

When FUN=OFF, Decoder is DMX controlling mode  
When FUN=ON, Decoder is in self-test mode.



Figure 1



Figure 2

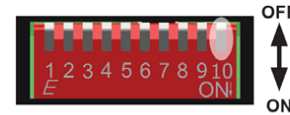
**Example 2: set initial address to 328.**

Set the 4th, 7th, 9th, bit of the DIP switch downward to "1" the rest to "0" (as Figure 3). the summation from 1 to 9 is 8+64+256, so the DMX512 original address code is 328.



Figure 3

### Testing Function.



As figure, FUN=ON: test function: 1-9DIP switch =OFF: BLACK

DIP 1	DIP 2	DIP 3	DIP 4	DIP 5	DIP 6	DIP 7	DIP 8	DIP 9
Red	Green	Blue	Yellow	Purple	Cyan	White	Jump	Gradual



1-7 is to set 8 speed levels.

7 is the fastest level, while dip switch 1-7=OFF: the speed is 0.

DIP 1	DIP 2	DIP 3	DIP 4	DIP 5	DIP 6	DIP 7
Speed 1	Speed 2	Speed 3	Speed 4	Speed 5	Speed 6	Speed 7

As figure, the color changing mode is selected with a speed level of 7 when all the dip switches=ON.

**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)*