IP67 OUTDOOR RATED
ION-8000-WW (Warm White)
ION-8000-CW (Cool White)
ION-8000-B (Blue)
ION-800-RGB
ION-8000-RGBW
ION-8000-WW/CW

PRO-TIP
PRO-TIPS ARE USEFUL PIECES OF PRACTICAL ADVICE THROUGHOUT THIS MANUAL FROM FIBER OPTIC LIGHTING PROFESSIONALS.

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

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:

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PRODUCT OVERVIEW 1
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SPECIFICATIONS
| INPUT VOLTAGE TO POWER SUPPLY | 100-240 VAC |
| INPUT VOLTAGE TO LIGHT SOURCE | 24VDC |
| AMPS | 4 AMPS |
| WATTAGE | 96W MAX |
| FREQUENCY | 50-60 Hz |
| FIBER OPTIC CAPACITY | 1000 @ .075MM |
| OPERATING TEMP.* | -10˚C TO 80˚C |
| WEIGHT | 7 LBS. |
| OUTDOOR RATING | IP67 |
| FINISH | ANODIZED BLACK |
| CONSTRUCTION | ALUMINUM |
**MOUNTING**

**General Wiring Parameters:**

**Single Color**

24V Power Supply

200 feet max.

**Controlled**

The power supply can be mounted up to 200 ft. from the light source.

**Mounting Hole Template**

<table>
<thead>
<tr>
<th>Hole 1</th>
<th>Hole 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.25&quot;</td>
<td>4.5&quot;</td>
</tr>
<tr>
<td></td>
<td>0.325&quot;</td>
</tr>
</tbody>
</table>

**Horizontal Mounting**

**Vertical Mounting**

- Wall Mount
- Uni-Strut Mount
- Post Mount

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**WIRING**

**SINGLE COLOR STAND ALONE SYSTEM**

**MANUAL OPERATION**

**ION-8000-CW (Cool White)**

**ION-8000-B (Blue)**

NOTE: Only a licensed electrician should install this product.

**UL LISTED 100W 24VDC Class 2**

*For dimming use a UL Listed 100W 24V Magnetic Dimmable Transformer*

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**RGB / RGBW STAND ALONE SYSTEM**

**MANUAL OPERATION**

**ION-8000 RGB**

**ION-8000 RGBW**

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.

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**DIMMING OPTION**

**UL Listed 100W 24VDC Class 2**

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**POWER SUPPLY**

**24V DC Power Supply**

**UL Enclosure Box**

**RECOMMENDED: UL NEMA B**

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**WIRING PAGE**

**Impact Lighting, Inc. - ION Series LED Lightsource**

**Page 2**
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 saved after 8 seconds.

DMX SYSTEM WIRING
ION-8000 RGB-DMX
ION-8000 RGBW-DMX
ION-8000 WW-CW-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
RS232 commands can be used to control an ION Illuminator using a RS232 Lighting Controller.
**CUTTING THE FIBER HEAD**

**TOOLS REQUIRED**
- Electric hot knife
- Razor knife
- Philips screwdriver

**FIBERHEAD COMPONENTS**
- PVC SPACERS
- PG FITTING
- ALUMINUM FERREL
- OPTIONAL CENTERING REDUCER
- 1000 Fibers
- 500 Fibers
- 100 Fibers
- FIBER CAPACITY: 1000 0.075mm fiber

**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.

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

**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.

**TARGET FIBER HEAD**

**STEP 2**
INSERT FIBER INTO FIBERHEAD

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

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

2c. Tighten the Aluminum Ferrel to the PG

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

Visit our YouTube Channel for fiberhead instructions:
ImpactLightingInc
http://youtu.be/Ph9LmnFvAy8
**CUTTING THE FIBER HEAD (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.

From extra cable cut some spare “dead” fibers at approx. 4” length.

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

**CUTTING THE FIBER HEAD (cont.)**

**STEP 3**
**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.

Apply a steady downward pressure

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

**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!

**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.

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http://youtu.be/Ph9LmnFvAy8

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CUTTING THE FIBER HEAD (cont.)

STEP 4
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.

TROUBLESHOOTING

NOTE: This light source is not serviceable and has no internal servicable 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 MANUFACTURER.