



Color Light Streams

CLS-2is

Instructions for 2015 CLS-2is | 12V RGB



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Introduction

The S.R. Smith CLS-2is, is the most efficient RGB LED Fiber illuminator available that will run maintenance free for years. It has low power consumption and a robust design that enables it to be installed in places that are unsuitable for other types of illuminators.



IMPORTANT SAFETY INSTRUCTIONS!

- 1. Save these instructions.**
- 2. Read and follow all safety instructions carefully.**
- 3. This product must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the product and hazards involved.**
- 4. To be used with a listed Class II or better power supply only.**
- 5. Inherently Protected.**
- 6. Not for use in fire rated installations.**
- 7. Suitable for Damp Locations.**
- 8. Type IC Recessed**



Consignes de sécurité importantes!

- 1. Conservez ces instructions.**
- 2. Lisez et suivez attentivement toutes les consignes de sécurité.**
- 3. Ce produit doit être installé en conformité avec le code d'installation par une personne familière avec la construction et le fonctionnement du produit et des risques impliqués.**
- 4. Pour être utilisé avec une Classe II énumérés alimentation seulement.**
- 5. Intrinsèquement protégées**
- 6. Ne pas utiliser pour les installations de feu.**
- 7. Convient pour Damp Localisations.**
- 8. Type IC Recessed.**



Installation:

The CLS-2is can be used for many applications including architectural and landscape, structure illumination, pool/spa water feature illumination, etc.

The following considerations should be made for choosing a mounting location:

1. The CLS-2is is suitable for use in damp and dry locations. **Do not** submerge or mount in a location that is exposed to a constant water stream.
2. The CLS-2is may be mounted in a horizontal or vertical position.
3. Use the stainless steel mounting bracket.
4. **Do not** mount the illuminator in an explosive environment or near combustible materials.
5. **Do not** keep the CLS-2is in ambient air temperature in excess of 150°F (66°C). Lower temperatures do not adversely affect the performance of the CLS-2is.
6. **Do not** cover the fins or insulate the unit from air flow.
7. **Do not** encase the CLS-2is in concrete or bury in the earth.
8. **Do not** hang or use the power cord as a support for the CLS-2is as it is **not** a pendant light.

Using Supplied Mounting Bracket:

1. The CLS-2is should be mounted using the supplied mounting bracket.
2. The mounting bracket can be mounted to wood, masonry, drywall, or metal by using the appropriate fasteners.
3. Make sure the mounting surface is stable prior to installation of the CLS-2is.
4. The bracket can be secured to the mounting surface prior to installing the CLS-2is.
5. Use a #10 screw appropriate to the attachment surface.
6. The fiber should be supported by a separate means appropriate to support the fiber and for the attachment surface.
7. **Do not** try to support long length of fiber using only the CLS-2is as the main support.

Electrical connections:

1. The CLS-2is must be connected to a Class II or better power supply. Use a power supply that is appropriate to the installation. The power source is 12 VAC power. The minimum output for the source must be 5W (volt amps) per CLS-2is unit. The connection should be made in a junction box or at the power supply.
2. The lead wires are 18awg stranded and tinned copper.
3. For weatherproof connections, a Heyco fitting or equivalent can be used in the junction box to seal the lead cable. The power cable is already sealed on the CLS-2is.



Fiber Luminaire Compatibility

Fiber Types:

The CLS-2is is designed for side peripheral or end emitting fiber with a numeric aperture (NA) of .5 or greater. Lower numeric aperture fiber will work with less efficiency.

The composition of the fiber can be solid or stranded, glass or plastic. At the focal point, there is virtually no ultraviolet light or heat. The end of the fiber will not degrade over time as with other systems.

Fiber Sizes:

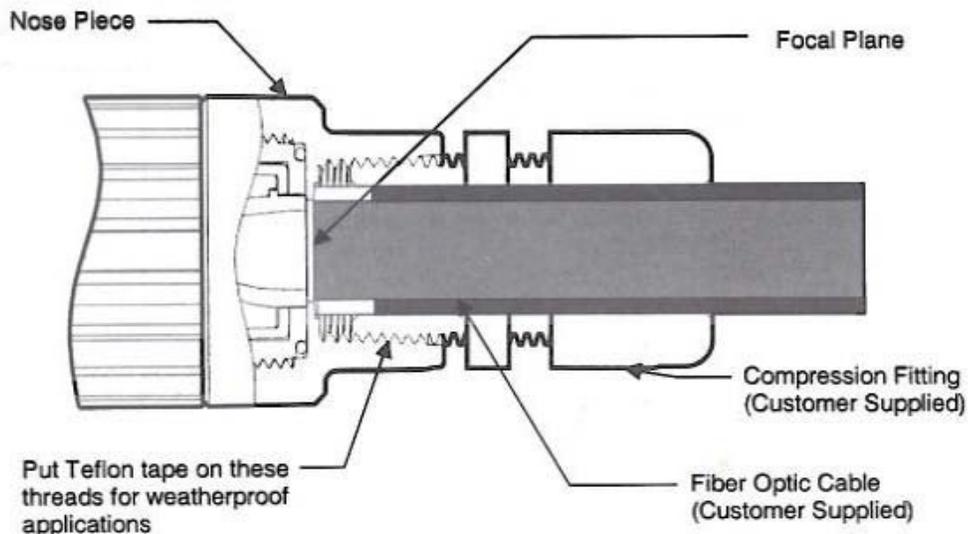
The CLS-2is is most efficient for fiber of 0.38" to 0.50" dia. Small diameter fiber can be used with some loss of efficiency.

Mounting Fiber:

The CLS-2is is equipped with a 3/4" NPT, female threaded nose fitting. The common way to attach the CLS-2is, is using a compression type of electrical fitting. These fittings are commercially available from several sources including Heyco, Kleinhuis, Sealcon and Skintop.

For a weatherproof installation, use sealing tape on the threads before threading into the nose and tighten the compression nut to the manufacturers suggested torque.

After installation of the compression fitting, insert the fiber into the fitting so that the fiber end is flush with the focal plane. Do not force the fiber past the focal plane. For fibers that are less than 0.56" dia (14.2mm) use an outer jacket to prevent the fiber from passing through the nosepiece aperture.





Basic Operation for LED CLS-2is

When connected to an approved, 12VAC, Class 2 or better power supply - The S.R. Smith CLS-2is LED color changing light source uses simple 'off / on' power switching to control the basic, pre-defined color modes with memory function. This allows for a variety of simple control layouts to best fit your application.

Memory

The new memory function will allow the user to have the same color light as last used. For example, if the light was last used in Blue mode, the next time the light is simply turned on - it will use the memorized color.

Color Mode Selection

Due to the memory function, when the lights are switched on, they will display the last used color. To move to the next color mode, simply toggle the power to the lights 'OFF / ON' within 1 second or faster.

Advance through the modes until the desired color (mode) is selected - the modes will cycle 1,2,3,4,5,6,7,8, then cycle back to #1 and repeat (see table at bottom of this page).

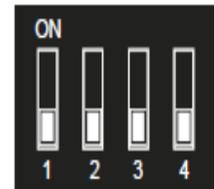
Color Sync - Reset

The memory function may make it difficult get all lights to Color Sync depending on how the units are installed and tested. To synchronize all lights on the system including older *Fiberstars LED Series Pool lights, you must use the following sequence:

1. Turn lights 'ON' to confirm the color modes are out of sync.
2. Turn lights 'OFF' for 5 seconds or more.
3. Toggles lights 'ON' / OFF' three times within three seconds - must end in 'OFF' condition
4. Leave lights in 'OFF' condition for 5 seconds.
5. Turn lights 'ON' and confirm that all lights are in mode #1, Soft Color Change

Color Mode Selection Guide	
Mode 1	Soft Color Change
Mode 2	White
Mode 3	Blue
Mode 4	Green
Mode 5	Red
Mode 6	Amber
Mode 7	Magenta
Mode 8	Flash Color Change

* Older Fiberstars LED lights can synchronize with the newest generation lights ONLY if they have their DIP switches in their default, 'All Down' position. In a mixed environment, the Color Sync Reset will need to be performed each time the lights are used and color synchronization is desired.



Advanced Operation via ACP

Advance Control Protocol (ACP) provides dimming and custom color control through a dedicated color remote control. All S.R. Smith LED lights (Treo®, Fiberglass®, Treo Micro®) and 2015 or later water features are ACP compatible.



Specifications

Mechanical

Weight: approx. 11.5 oz (317g)
Composition: Aluminum Alloy and Polyamide

Regulatory Standards

ETL Listed:
Conforms to ANSI/UL Std. 2108
Certified to CAN/CSA Std. 22.2 No. 250.0



Optical Specification

Numeric Aperture (NA): (0.5)
Lumen Output (White)..... (= or >) 73
White point 100% Green, ~50% red, ~ 50% Blue

Electrical Specification

Supply Voltage: 12VAC Nominal (11-14 min/max) **Class II or better only**
Power Consumption:5W (max)
S.R.Smith poolLUX™ **ACP*** compatible
(*ACP = Advanced Control Protocol – see pg. 5 for additional information)

Thermal Specifications

Maximum Ambient Air Temperature:150°F (66°C)
Minimum Ambient Air Temperature: -40°F (-40°C)