



Color Light Streams™ Lighted Super Bubbler Kit Gunite CLSSBK

SAVE THESE INSTRUCTIONS!

SR Smith Color Light Streams Lighted Super Bubbler is a very simple device to provide lighted water for small fountains and sun shelf areas. The Color Light Streams Lighted Super Bubbler is preassembled for easy connection to a water supply line and a conduit connection for the fiber. The fiber is already connected to the bubbler and comes with 25 feet of pre-attached fiber that will snap into the LED driver. No fiber cutting!

IMPORTANT:

Read and follow all safety and installation instructions carefully.

Read instructions completely before start of installation!

At least 1.0" conduit (1.5" recommended) for the fiber optic cable must be run to the Color Light Streams Mini Deck Box, no more than 20' from the bubbler. A reducer will be required to terminate to the 3/4", female conduit connectors. **DO NOT USE 3/4" CONDUIT FOR ENTIRE LENGTH.** The metal fiber port parts will be extremely difficult to pull through the conduit run and impossible through any turns.

The SR Smith Color Light Streams™ Mini Deck Box (LSMDB) is your distribution center to the wonderful world of LED lighted water features. Designed as the connection center for all of the SR Smith Fiber Optic water feature products, simply place in the ground, per instructions and hook up the fiber from the selection of our fiber products and enjoy the wonderful lighting effects from SR Smith Color Light Streams products.

**COLOR LIGHT STREAMS DECK BOX IS MADE OF ABS MATERIAL.
USE ONLY ABS-PVC GLUE WHEN MAKING ANY PLUMBING CONNECTIONS TO
THIS DECK BOX.**

You now are set to start enjoying the wonderful lit Color Light Streams Water Features manufactured by SR Smith.

For additional product or installation help, please contact the SR Smith Technical Service department.

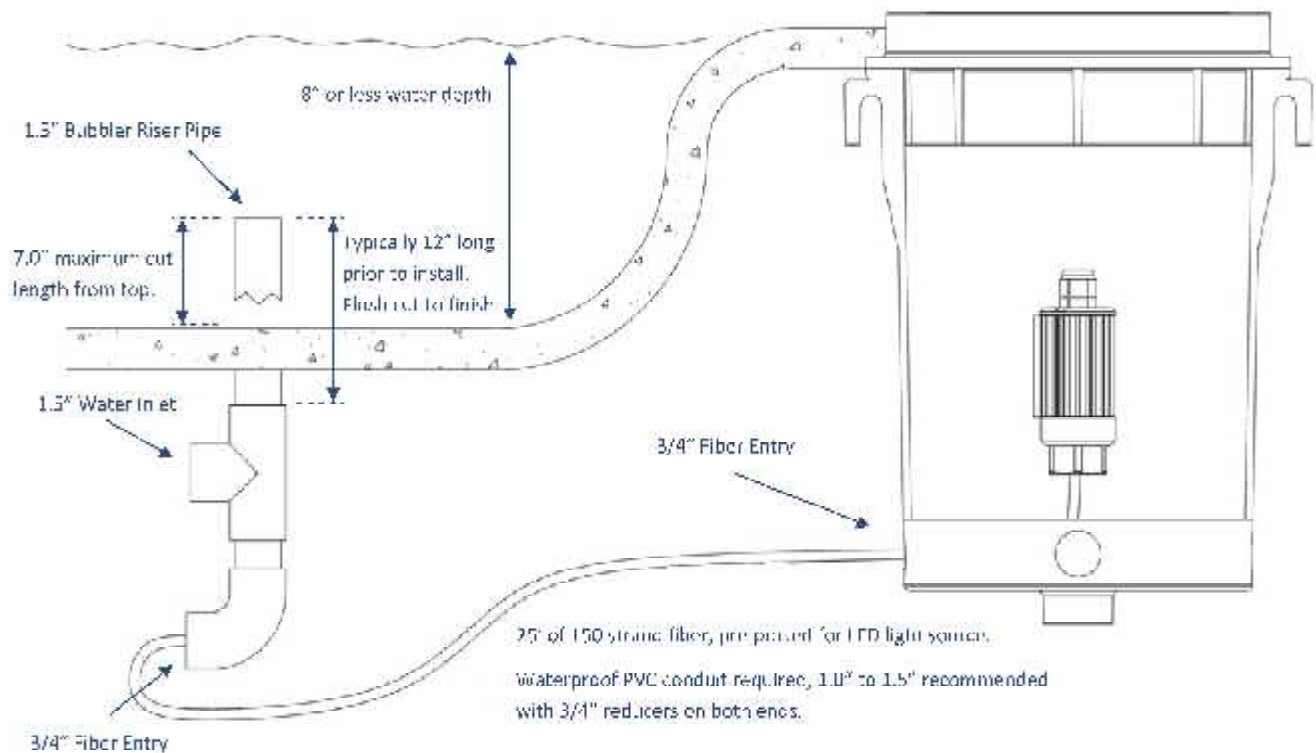
Input Power:	12V AC
Total Power:	5 W



ETL listed for installations within 5 ft. (1.5M) of outer edge of water

Installation Directions

1. The Color Light Streams Lighted Super Bubbler is designed to be installed during the gunite phase of the pool building. *** For hard freeze areas that require winterization, please see page 6 for special considerations.**
(If winterization is not required, do not use the extra 1.5" threaded fitting in the box)
2. Two conduits should be run to the bubbler location:
 - a. qty 1 -- 1½" PVC pipe for water supply, 14-16 GPM minimum.
 - b. qty 1 -- 1 to 1½" PVC conduit for fiber with ¾" reducers.



3. The water supply pipe should have a gate valve or ball valve installed to adjust the water supply flow at the equipment pad.
4. The conduit for the fiber optic cable should be run to the Color Light Streams Mini Deck Box, no more than 20' from bubbler.
5. Prepare a location by digging a hole 2 feet in diameter and depth.
 - a. For in deck applications – Level the lid to the finished grade level of decking.
 - b. For planter areas – Deck Box lid should be 2 inches ABOVE the landscape area to prevent materials from intruding or covering the deck box.
6. Place deck box into the excavated hole with one of the connection holes pointed in the general direction of the conduit for the 12VAC wire to run in.



7. The bottom of the deck box can be supported by utilizing the 1" PVC support connection. The support pipe should be approximately 4" in length. You may also support the deck box to any decking rebar to help maintain the proper level by using the rebar support (4) wings on the deck box.
8. IT IS IMPERATIVE THAT ALL COLOR LIGHT STREAMS DECK BOXES HAVE PROPER DRAINAGE. Install 1' PVC on the bottom of the deck box into the drainage hole provided.
9. Glue into place all conduit pipes at this time. It is recommended that all fiber optic conduits be no less than 1.0" in diameter and that the 12VAC conduit for the wire on the Color Light Streams LED driver be no less than 3/4". It is highly suggested that you install all fiber conduit with sweep fittings for easy fiber installation.
10. Fill excavated area with gravel until the gravel reaches approximately 1" up on the bottom of the deck box.
11. Finish your deck material installation making sure that the Color Light Streams™ Deck Box lid remains level. Utilizing the 3" adjustable Deck Flange on the deck box, adjust to match your deck height.
12. At this time run the supplied 100ft of 12VAC wire from the Color Light Streams LED driver through your conduit, back to the location of your transformer.
13. Carefully run fiber cables through their respective conduits to the Color Light Streams Mini Deck Box. Please handle the four (4) metal, triangular shaped fiber port parts on the end of the cable with care and under no circumstances should they be removed.
14. Fill all conduit connections inside the Color Light Streams Deck box with silicone or similar materials to prevent water from entering deck box interior.
15. Make wire connections per your UL Listed Outdoor Rated Class 2 transformer manufacturers directions. All wiring must be in compliance with local electrical codes and NEC.

NOTE: LIGHTING EFFECT IS ONLY 10-12 INCHES MAXIMUM
Effect will greatly depend on GPM water flow.
Recommend 14-16 GPM minimum when mounted under water surface,
less when used as an out of water fountain application.

FIBER PORT INSTALLATION

Though the light source for this water feature is an LED source - for safety and serviceability purposes the light is transmitted to the Super Bubbler unit in the pool through a non-metallic fiber optic cable. As with all SR Smith CLS line of products, no difficult fiber cutting or polishing procedures are required. To facilitate this, there are four (4) metal, triangular shaped fiber port parts on the end of the cable that are pre-cut and finished at the factory specifically for this application. The CLS-2 LED light source may be removed or loosened from its mounting bracket inside the deck box to make it easier to complete the installation of the fiber port parts as follow:

Hold the ferrules together to create a square shaped bundle.



While holding the ferrules together, insert into the strain relief opening as illustrated.



Gently push all the ferrules until it is completely inside the strain relief and cannot be pushed any farther.

HAND tighten the strain relief to hold the ferrules and fiber in place - DO NOT OVERTIGHTEN.



Place the CLS-2 with the connected fiber back into the holder bracket and secure.

Turn on unit's power and confirm functionality.

Place deck box cover into closed position and secure with included screws.



Basic Operation for LED CLS-2

Advanced control requires iStar Controller - see operation manual for further instructions

When connected to an approved, 12VAC, Class 2 power supply - The S.R.Smith CLS-2 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 shown below. In a mixed environment, the Color Sync Reset will need to be performed each time the lights are used and color synchronization is desired.





IMPORTANT NOTICE

Note: DO NOT INSTALL THE BUBBLER TIP MORE THAN 4 INCHES ABOVE THE GUNITE SURFACE AREA. THE INTERIOR OPTIC ROD IS 4 ¾" DOWN FROM THE TIP'S TOP AND WILL BE DAMAGED IF TRIMMED FOR FLUSH INSTALLATIONS BELOW THIS LEVEL.

**** For hard freeze areas that require winterization procedures, the Super Bubbler will require the use of the 1.5" slip / thread adapter glued on after the trimming the 1.5" riser pipe. The bubbler plumbing will also need to be installed 1.25" – 1.50" deeper to allow for the additional total height of the unit. Once installation is complete, winterization can then be performed by blowing the lines clear, adding pool antifreeze additive, and capping with a standard 1.5" male NPT plug.***

The Color Light Streams™ Lighted Super Bubbler is designed so that the tip of the bubbler is approximately 4-8 inches underwater but can be deeper as long as the water supply volume can be increased.

Keep in mind that the deeper the tip is underwater the less the lighting effect will be above the water.

SR Smith recommends that during installation the Color Light Streams Lighted Super Bubbler tip is capped off with the included cap (unglued) or tape, etc. so that no debris gets into the internal area of the bubbler.

The Color Light Streams Lighted Super Bubbler may be installed in many different methods and applications, such as:

Flush with interior surface (described above)

Raised off the surface area but with the tip under the water surface – typically fountains

Raised above the water surface – typically fountains

After connecting the fiber to the LED Driver and the completion of all steps indicated above, turn on the water supply.

Adjust the water volume to achieve the desired water flume/lighting effect.

For additional questions please contact the SR Smith Customer Service Pool & Spa Division.