



Light Streams™ Lighted Bubbler Kit Gunite

2LSLBK

(75 strands of Fiber per Bubbler)

SAVE THESE INSTRUCTIONS!

Fiberstars Light Streams Lighted Bubbler is a very simple device to provide lighted water for small fountains and sun shelf areas. The Light Streams Lighted 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 fiber pre-attached.

IMPORTANT:

Read and follow all safety and installation instructions carefully. **Read instructions completely before start of installation!**

The conduit for the fiber optic cable should be run to the Light Streams Mini Deck Box, no more than 20' from bubbler

Fiberstars 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 Fiberstars fiberoptic water feature products, simply place in the ground, per instructions and hook up the fiber from the huge selection of our fiber products and enjoy the wonderful lighting effects from Fiberstars Light Streams.

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 Light Streams Water Features manufactured by Fiberstars.

For additional product or installation help, please contact Fiberstars Technical Service department.



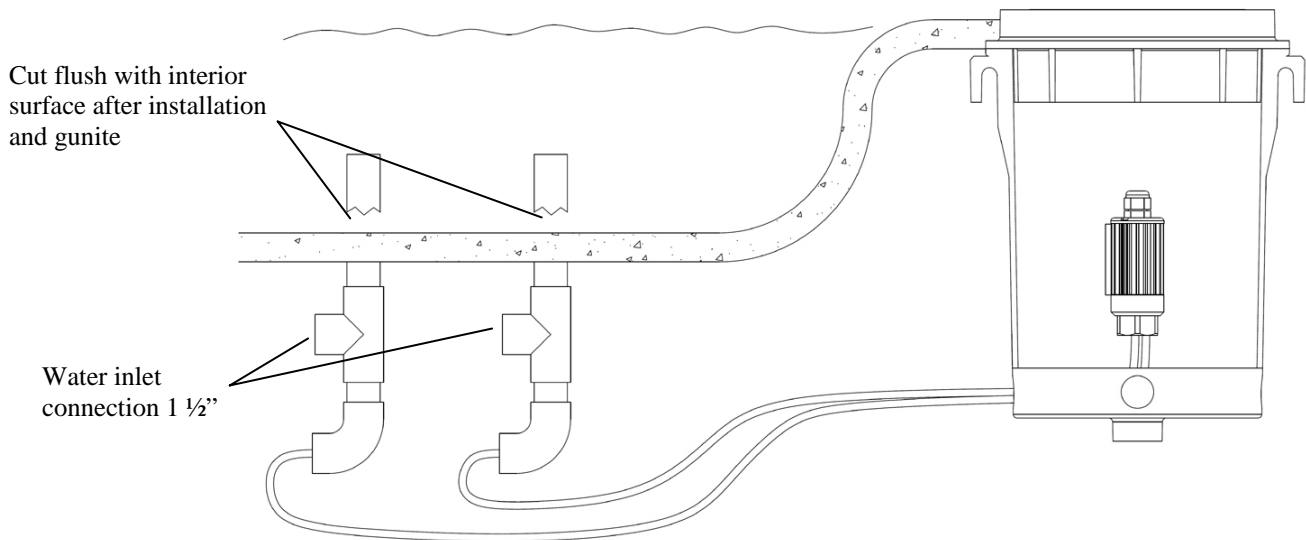
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ETL listed for installations within 5 ft. (1.5M) of outer edge of water

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Installation Directions

1. The Light Streams Lighted Bubbler is designed to be installed during the gunite phase of the pool building
2. Two conduits should be run to the bubbler:
 - a. 2 – 1 ½” PVC pipe for water supply.
 - b. 2 – ¾” conduit for fiber.



3. The water supply pipe should have a gate valve or ball valve installed to adjust the water supply flow
4. The conduit for the fiber optic cable should be run to the 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 washing 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 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 fiberoptic conduits be no less than ¾" in diameter and that the 12VAC conduit for the wire on the Light Streams LED driver be no less than ¾". 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 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 Light Streams LED driver through your conduit, back to the location of your transformer.
13. Run all fiber cable through their respective conduits to the Light Streams Mini Deck Box.
14. Fill all conduit connections inside the 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.

Typical Results

Results based upon 40ft at 1 ½ PVC water supply pipe and 6" under water.

NOTE: LIGHTING EFFECT IS ONLY 10-12 INCHES MAXIMUM

42 GPM – From 12 inches above water level
55 GPM – From 16 inches above water level
75 GPM – From 30 inches above water level

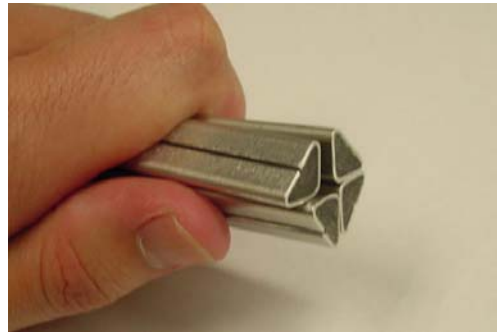
NOTE: LIGHTING EFFECT IS ONLY 10-12 INCHES MAXIMUM

FIBER PORT INSTALLATION

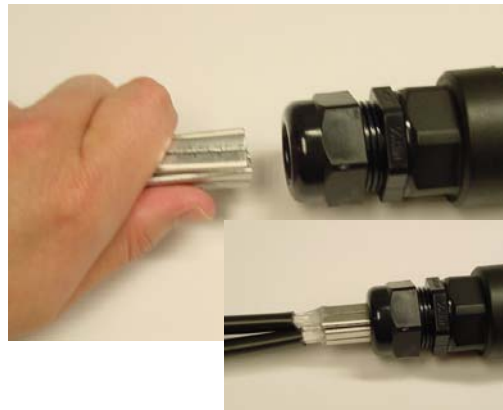
Remove Light Streams LED driver from bracket by unscrewing the mounting screw and sliding the LED driver from the bracket.



Hold the ferrules together to create a square shaped bundle.



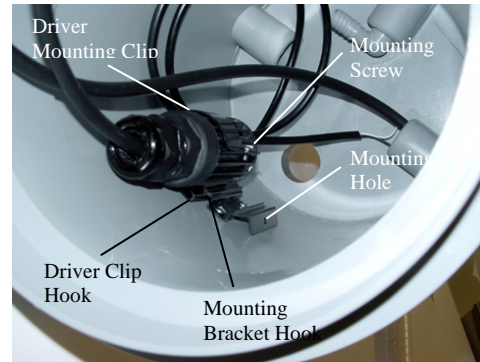
While holding the ferrules together, insert into the strain relief opening as illustrated.



Gently push all the ferrules until it is completely inside the strain relief and cannot be pushed any farther. Now **HAND** tighten the strain relief to hold the ferrules and fiber in place.



Slip the Driver Mounting Clip onto the Light Driver. Slide the Light Driver and Driver Mounting Clip onto the Driver Mounting Bracket using the Driver Clip Hook and the Mounting Bracket Hook as shown. Thread the Mounting Screw onto the Mounting Hole.



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.

The Light Streams™ Lighted Bubbler is designed so that the tip of the bubbler is approximately 5 to 6 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.

Fiberstars recommends that during installation the Light Streams Lighted Bubbler tip is capped off with tape, etc. so that no debris gets into the internal area of the bubbler.

The Light Streams Lighted 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 Fiberstars Customer Service Pool & Spa Division.