

Del Lighting
Instruction Manual
for the S150 Illuminator

Congratulations on your purchase of the
S150 Metal Halide
Fiber optic lighting system!

For architectural lighting, fiber optics is the colorful, fun and safe alternative to conventional lighting systems. *Del Lighting* offers the latest advances in both side emitting fiber optic cable and high intensity end light fiber optic cable, which will significantly enhance the beauty of any building or display, utilizing accent lighting applications.

The S150 Metal Halide high intensity illuminator will produce vibrant color and the intense light required for all fiber optic lighting configurations. The S150 Metal Halide is engineered with cutting edge technology and quality components. Performance and reliability makes the S150 Metal Halide the industry leader.

ADVANTAGES OF *Del Lighting* FIBER OPTIC LIGHTING

- No electricity omitted with fiber optic cables
- Multiple light sources from one illuminator
- No UV or IR omitted with fiber optic cables
- Color change option
- Flexible and easy to install cables
- Will not break like glass neon
- One light source with 10,000 hours of lamp life (very low maintenance – 15 hours per day for 667 days = 1.83 YEARS!)
- UL and CSA listed

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General Descriptions

Del Lighting offers multiple separate light cable configurations to choose from. Your first step is to select which light cable or combination will be best suited for your application. You have many choices to choose from but here are a few for your consideration.

Side Emitting cable

S-S30 The round 30 strand cable is designed for side light use. This light cable utilizes 30 high-grade fibers incased in a water clear PVC jacket. Light is displayed in a lineal fashion producing a brilliant light simulating a neon effect. The side emitting cable is flexible, easily installed, UV resistant and has the advantage of vibrant color changes. Applications include bars, lobbies, patios and building facades, landscaping decks, boat docks, perimeter installation around rooms, billiard tables, perimeter and underwater lighting for swimming pools, etc.

S-SO40 Similar to the S-S30, the 40 Strand 1/4"x5/8" oval cable is designed for flat side light use. This light cable utilizes 40 high-grade fibers incased in a water clear PVC jacket. Light is displayed in a lineal fashion producing a brilliant light simulating a neon effect. The side emitting cable is flexible, easily installed, UV resistant and has the advantage of vibrant color changes. Applications include bars, lobbies, patios and building facades, landscaping decks, boat docks, perimeter installation around rooms, billiard tables, perimeter and underwater lighting for swimming pools, etc.

S-SO75 Like the S-SO40, this 75 Strand 1/4"x5/8" Oval cable is designed for flat side light use but almost twice as bright. This flexible cable can easily be installed in a confined area, which may prove difficult with conventional electrical wiring. Multiple lighting is possible from one light source and has the advantage of up to eight vibrant color changes. Applications may include task lighting, showcase lighting, signage, and accent lighting, commercial lineage lighting or pools and water applications.

End Emitting cable

E-S10 10 Strand, 1/4" round blue-jacketed cable ideal for garden lights or small lighting applications. This cable does not glow along its length.

E-S150 150 Strand 12mm diameter red-jacketed cable is ideal for underwater lighting of pools, ponds starfields, or any medium size end-light application. This cable does not glow along its length

E-S225 225 Strand 14mm diameter black-jacketed cable is ideal for underwater lighting of pools, ponds starfields, or any larger sized end-light application. It carries 50% more light than the E-S150 cable. This cable does not glow along its length

E-S300 300 Strand 16mm diameter black-jacketed cable is ideal for underwater lighting of pools, ponds starfields, or any larger sized end-light application. It carries 100% more light than the E-S150 cable. This cable does not glow along its length

Solid core cable is stiffer than the stranded cable and usually cost more. It carries more light when compared to stranded cable of equal diameter, but unless your light output is critical, this may not be a consideration. Side emitting cable has a water clear PVC jacket and is UV resistant. As with our stranded cable, this is manufactured with PMMA acrylic cable.

S150 Illuminator

The S150 metal halide illuminator is a professional high intensity illuminator the produces 15,000 lumens of light along with 10,000 hours of lamp life. The S150 is constructed with the finest quality components, is easy to install, and highly dependable. The multi color feature allows for continuous vibrant color change ability with the option to be stopped on any one desired color. Multiple lighting is possible from one illuminator. UL and CSA listed.

Installation of S-S30, S-SO40 or S-SO75 side emitting cable

The S-S30, S-SO40 and S-SO75 light cables utilize 30, 40 or 75 high-grade fibers and are engineered for side vision light use. The light is displayed in a lineal fashion producing a brilliant neon effect. They operate on a closed loop system requiring both ends to be brought back to the illuminator. If a single illuminator is used the will be 60, 80 or 150 fibers per cable loop (both ends of the cable in the illuminator). Up to 750 strands of fiber can be run off of one illuminator. For optimum efficiency, 200 feet is the maximum recommended loop length per light cable. Be careful not to kink the light cable by keeping all bending radiuses to 1 inch or more.

Tools required:

- Sharp knife
- Scissors or snips
- Phillips screwdriver
- Chalk line
- Measuring tape

Step 1

Determine the location of the S150 metal halide illuminator best suited for your situation. Please see the [Design Guide](#) and [Guide to Cable](#) for further information.

Step 2

Determine the route in which the fiber optic cables will travel. Fiber optic cables are to be in a loop configuration. If two illuminators are used, the fiber optic cable ends can travel from one illuminator to the other. 200 feet per light cable length is the maximum recommended.

Step 3

Once the route is established, begin to install the track or cable clamps in which the fiber optic cable will be held. Make sure the light track/cable clamps are affixed in a straight line. Use a chalk line if necessary. Affix the light track with Phillips screws spaced 2 feet apart.

Step 4

When the track is in place, begin to install the side emitting cable.

Step 5

On the ground, first unroll the fiber optic cable for the entire route of installation. Lay out the path in which the fiber optic cable will travel from the illuminator or illuminators around the desired path and back to the illuminator again. **Do not cut the cable until it is completely installed in the track!** For each fiber optic cable end, leave 12 inches extra at the illuminator.

Step 6

Starting at the illuminator, snap the fiber optic cable into the light track. Do not kink the light cable and avoid sharp bends less than 1 inch radius. Be sure to leave 12 inches of extra light cable at the illuminator before installing into the light track.

Step 7

Work your way around the light track path until you arrive back at the illuminator. Cut the light cable leaving 12 inches extra light cable.

Step 8

At this point the light cable and the light track should be completely installed. The light cable ends should be extending at least 12 inches beyond the illuminators location.

Step 9

With the preceding steps completed, refer to the illuminator installation section for the final assembly.

Trouble Shooting

WARNING: ALWAYS DISCONNECT POWER SUPPLY BEFORE SERVICING

- THE ILLUMINATOR DOES NOT COME ON.
- Check power supply
 - Is the fuse blown for the illuminator? (Use a 5 amp. fuse)
 - Is the fuse blown for the wall plug?
 - Is the illuminator light switch on?
- THE FAN COMES ON BUT THE LIGHT IS OFF.
 - Open the cover and check that the lamps electrical connector is full mated. If the lamp does not light up, replace it with an approved *Del Lighting* lamp.
- THE LIGHT COMES ON, THEN GOES OFF, THEN COMES ON AGAIN WHILE THE FAN IS RUNNING ALL THE TIME.
 - Check that the vents are clear of debris. If they are blocked or obstructed this will occur.
- THE FAN IS NOT RUNNING, BUT THE LIGHT COMES ON.
 - Shut the illuminator off immediately and contact *Del Lighting*; you will burn out the unit!

If the preceding problems, or any other problems persists, please contact Del Lighting at (210) 590-5196

Replacing Lamp

- Step 1: Disconnect the power supply and allow the S150 illuminator to cool completely before opening.
 - Step 2: Use a coin or screwdriver to unlock the latch on the cover. Turn the latch until it releases.
 - Step 3: Open the cover completely allowing it to swing out of your way.
 - Step 4: Turn off the power supply at the switch.
 - Step 5: Remove the screws from the aluminum and slide the lamp/reflector out of the unit. Press the release clips that hold the lamp and carefully raise the lamp out of the socket wires.
 - Step 6: Carefully remove the new lamp from the shipping case and press the two pins mounting base back into the socket.
 - Step 7: Reinstall the aluminum reflector by reversing Step 5.
- **DO NOT TOUCH THE FILAMENT OR INNER REFLECTOR WITH YOUR FINGER TIPS!**

Note: Use only approved *Del Lighting* lamp. Lamp type – specify serial number*

Order: S150 Metal Halide replacement bulb.

* Changes have been made to the lamp and we require the serial number to best service you.

SPECIFICATIONS

L: 12" W: 9.5" D: 7.75"

Placement:	Indoor or outdoor uses. Certified for wet locations. UL, CSA, CE and C√
Housing:	Paint: Baked powder coat Material: 0.051" Satin coat steel Color: Gray Hammer tone
Lamp:	Type: HIT 150 unit, specify serial # Life: 10,000 hours Light output: 15,000 lumens Volts: 120 VAC Watts: 150 watts
Power:	Supply: 120 VAC Consumption: 150 watts
Current:	1.7 amps
Fuse:	5.0 amp
Weight:	20 lbs
Color wheel (8color option)	Red, Dark Blue, Orange, Lt Blue, Yellow, Magenta, Green, White
Color motor:	115 VAC, 1 RPM
Cooling fan:	115 VAC, 120 CFM
Fiber capacity:	750 individual fibers

Installation of S150 Metal Halide commercial illuminator

The S150 metal halide illuminator is a high intensity illuminator producing intense light as well as a variety of vibrant colors. Separate switching controls the S150's power supply and color change wheel. Continuous color change is possible or you can lock on a color of your choice. Eight colors are available: red, dark blue, orange, lt. blue, yellow, magenta, green and white. This illuminator operates on a 120-volt plug in power supply and is suitable for **indoor or outdoor use**. The lamp will produce 15,000 lumens of intense light and provide 10,000 hours of lamp life (low maintenance).

Tools Required:

- Flat head and Phillips head screwdriver
- Scissors or snips
- Sharp knife
- Hot knife for cutting fibers.

Step 1:

Determine the location in which the illuminator will be installed. For servicing purposes install in an area readily accessible. It can be mounted on the wall, floor or in a ceiling. The S150 illuminator utilizes a cooling fan. Install in an area with no less than 6 cubic feet of air space. Slight fan noise will be experienced.

Step 2:

Affix the S150 illuminator to its surface with screws

Step 3:

Run all light cables to the illuminators location. For each light cable leave 1 2" of extra length at the illuminators location.

Step 4:

At the end of each light cable remove the first 6" of the outer jacket. Using a sharp knife, score the jacket half way through and pull the end off holding the lower part of the cable with your other hand. Be careful not to nick the fiber. Any damage to the fibers at this point will affect its final performance. Proceed with caution on this step.

Step 5:

One port kit with 4 inserts is provided with each S150 Illuminator. These inserts are provided to hold the light cable ends for termination. The small bore will hold 100 fibers and the medium unit will hold 500, the large bore 750 fibers and the main body with no insert will hold 800+. Add up the total number of fibers brought into the illuminator and select the proper insert fitting.

Step 6:

Slide all of the fibers from the light cables into the port kit. Allow 1" of fiber to extend beyond the end of the port.

Step 7:

Cut 2" off of a discarded light cable and stuff more fibers into the tube until it is completely filled and will not accept any more fibers. Note: It is important that you completely fill the port until it will not accept any more fibers.

Step 8:

Now tighten the flex connector attached to the opposite end of the port kit. It is important to tighten down on the casing of the fiber jackets to ensure a firm/tight fit.

Step 9:

Plug in the hot knife and allow 10 minutes for it to heat up. Exercise caution avoiding the tip from touching anything.

Step 10:

When the hot knife is ready, place the knife blade against the aluminum tube where the fiber ends are protruding. Begin pressing down lightly letting the knife do the work. Do not apply excessive pressure. A straight clean 90° cut should be achieved. Allow the knife to heat up again if this is not the case and make a second skim pass if necessary. Please take your time, this is an important step.

Step 11:

If the light cable bundle is not completely secure it may be necessary to build up the bundle diameter with off cuts of the optic cable cover jacket. Do not use electrical tape on the fiber jacket. Ensure the light cable bundle is secure. Make sure the insert is flush with the optic port end before securing the light bundle.

Step 12:

Install the fiber optic port into the face of the S150 illuminator and press into position and rotate to lock the port.

Step 13:

Plug in the power supply of 120 volts.

Step 14:

Turn the S150 illuminator on. If the light comes on and the fan is not running, turn off **immediately**. If this or any other problem occurs, consult the troubleshooting section.

Step 15:

At this point all light cables installed should be brightly lit. The color switch will provide constant color change or lock on any one desired color.

Installation of fiber optic cable

All *Del Lighting* fiber optic cable is designed for end/side light use. This non-electric flexible light cable can easily be installed in a confined area that may prove difficult with conventional electrical wiring. Multiple lighting is possible from one light source.

Dramatic color change makes *Del Lighting* cable unique. Light cable lengths should not exceed 75'. Each light cable has various individual light fibers while the S150 illuminator will hold 750+ individual light fibers.

Tools Required:

- Sharp knife
- Scissors or snips
- Hot knife

Step 1:

Determine the illuminator location best suited for your situation. Consult the S150 illuminator section for proper location.

Step 2:

Determine the number of END light fixtures and their locations. One light cable will be used for each light fixture. Light cable lengths should not exceed 75' per cable.

Step 3:

Cut a hole 3" in diameter at all light fixture locations. Panel thickness should be no less than ½" and interior cavity depth no less than 4"

Step 4:

From the S150 illuminator run one light cable to each of the light fixtures locations. Be careful not to kink the light cable when installing. Allow 8" of extra light cable at the light fixture locations and 12" of extra of extra light cable at the illuminator location.

Step 5:

At the light fixture location remove outer jacket of the light cable 2" down from the end. Use a sharp knife being careful **not** to nick or cut the fibers.

Step 6:

The light fixture comes complete with an optic lens, plastic centering disc and a light cable connector. Disassemble the thin black backing nut and the centering disc from the connector.

Step 7:

Slide the black nut over the light cable end followed by the centering disc. The lower step on the centering disc will face towards the light cable end.

Step 8:

Slide the light cable connector over raw fibers until it seats itself on the jacket.

Step 9:

Tighten the acorn nut on the cable connector with two adjustable wrenches. Make sure it is secure. **Do not over tighten.**

Step 10:

Place the centering disc over the threads on the connector and tighten up the black nut behind it.

Step 11:

Once all the light cables are fed and connected, plug in your hot knife. Allow it to heat up a minimum of 10 minutes before using. Use the stand provided exercising caution to avoid the hot tip.

Step 12:

When the hot knife is ready, place the blade on the fibers 1/8" away from the acorn nut face. Push forward slowly, letting the knife do the work, do not apply excessive pressure. A straight, clean 90° cut should be achieved. Repeat this process for all lights, although in may be necessary for the knife to heat up again after each application. Please take your time, this is an important step.

Step 13:

At this point all *Del lighting* light cables should be terminated at the light fixture locations. The light cable connector will be securely affixed to the terminated light cable end with the centering disc and backer nut in place.

Step 14:

Hold the light fixture with one hand. With the other hand, push the terminated light cable end through the back of the light fixture

Step 15:

Slide the light cable between on the top backside of the light fixture.

Step 16:

Slowly pull the light cable back through the light fixture until the spring loaded fork is gently seated on the base of the light cable connector.

Step 17:

Screw the clear optic lens in from the front of the light fixture. The plastic centering disc will seat itself on the back of the optic lens as you do this.

Step 18:

Continue to screw the optic lens into the light fixture. The disc the light fixture will begin to apply pressure on the light cable connector. Turn in until finger tight only. **Do not over tighten.** It is normal to have exposed threads on the optic lens.

Step 19:

At this point the *Del Lighting* light cable should be securely held in place with the lens in place within the light fixture.

Step 20:

Gently push the light fixture into the 3" diameter hole already cut in the panel. The light fixture should be flush to the panel.

Step 21:

All light fixtures should now be in place at their locations. Proceed to the S150 illuminator installations section for the final assembly.

Del Lighting

Lifetime Warranty

Del Lighting warrants the the S150 metal halide light box is free from defects in material and workmanship at the time of manufacture. The S150 metal halide unit is covered 100% (excluding freight) for 1 year from the date of purchase.

After that period, Del Lighting will repair or replace defective units at a cost of \$100.00 for as long as you own the product, EXCLUDING THE 150 METAL HALIDE BULB. The light box (minus the fiber and the port) should be returned prepaid to our factory, along with a \$100.00 certified check or money order (do not send cash), payable to Del Lighting. Proof of purchase (store receipt) must also accompany the unit.

Please call our customer service at (210) 590-5196 for arrangements.

The warranty does not cover defects caused by abuse, accident, negligence or repairs make by others. This warranty gives you specific legal rights, you may also have other rights which may vary from state to state or province to province.