

# Hayward Water Features

## ColorLogic Laminar

General Overview & Installation



TTP-WFL209a

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# **ColorLogic Laminar Overview**

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# ColorLogic Laminar: Description & Main Features

ColorLogic Laminars offer breathtaking ambiance by generating a clear glass-like rod of arcing water from the deck to pool.

- Illuminate the ColorLogic Laminar utilizing ColorLogic or CrystaLogic 320 and 160 lighting for a wide variety of options.
- Features multiple cover color options with the industry's only height adjustment mechanism for perfect deck alignment even after settling occurs.
- The simple integrated flow adjustment can eliminate the need for dedicated valves for each laminar while also allowing complete control of stream height and distance without the need for specialized tools.



# ColorLogic Laminar: SKU Breakdown

| SKU Generator: WFL100  |            |
|------------------------|------------|
| <b>WFL</b>             | <b>100</b> |
| Water Feature, Laminar | 100 series |

| Replacement Parts |                             |                   |                             |
|-------------------|-----------------------------|-------------------|-----------------------------|
| Part Number       | Description                 | Matching Color    | Description                 |
| GLXWFLIDGRY       | LT GREY LID, DECK NICHE     | GLX-BKT-GR        | Gray Nozzle Kit             |
| GLXWFLIDDKGRY     | DRK GREY LID, DECK NICHE    | GLX-BKT-DG        | Dark Grey Nozzle Kit        |
| GLXWFLJET         | LAMINAR JET                 | GLX-BKT-WT        | White Nozzle Kit            |
| GLXWFLHOSE        | WATER INLET ASSEMBLY        | GLXWFLSCRNPK5     | SCREEN, 5PK                 |
| GLXWFOPTIC        | OPTIC BOTTOM SEAL PLATE     | GLXWFLGASKET      | LAMINAR GASKET KIT          |
| GLXWFLTUBE        | TUBING ASSEMBLY             | GLXWFLVLVADPT     | VALVE ADAPTER KIT           |
| GLXWFLDISRPT      | DISRUPTOR ASSEMBLY          | GLXWFLTSPLT       | TOP SEAL PLATE              |
| GLXWFLLDSCRWPK10  | DECK NICHE LID SCREW (10PK) | GLXWFLLDSCRW PK10 | DECK NICHE LID SCREW (10PK) |

**\*To transform into a lighted water feature please reference part numbers on the next page.**

# ColorLogic Laminar: SKU Breakdown

## ColorLogic 320

| Model      | Description            |
|------------|------------------------|
| LACUS11150 | CL 320, Switched, 150' |
| LACUS11100 | CL 320, Switched, 100' |
| LACUS11050 | CL 320, Switched, 50'  |
| LACUS11025 | CL 320, Switched, 25'  |
| LACUN11150 | CL 320, Network, 150'  |
| LACUN11100 | CL 320, Network, 100'  |
| LACUN11050 | CL 320, Network, 50'   |
| LACUN11025 | CL 320, Network, 25'   |

## ColorLogic 160

| Model      | Description            |
|------------|------------------------|
| LYCUS11150 | CL 160, Switched, 150' |
| LYCUS11100 | CL 160, Switched, 100' |
| LYCUS11050 | CL 160, Switched, 50'  |
| LYCUS11025 | CL 160, Switched, 25'  |
| LYCUN11150 | CL 160, Network, 150'  |
| LYCUN11100 | CL 160, Network, 100'  |
| LYCUN11050 | CL 160, Network, 50'   |
| LYCUN11025 | CL 160, Network, 25'   |

## CrystaLogic 320

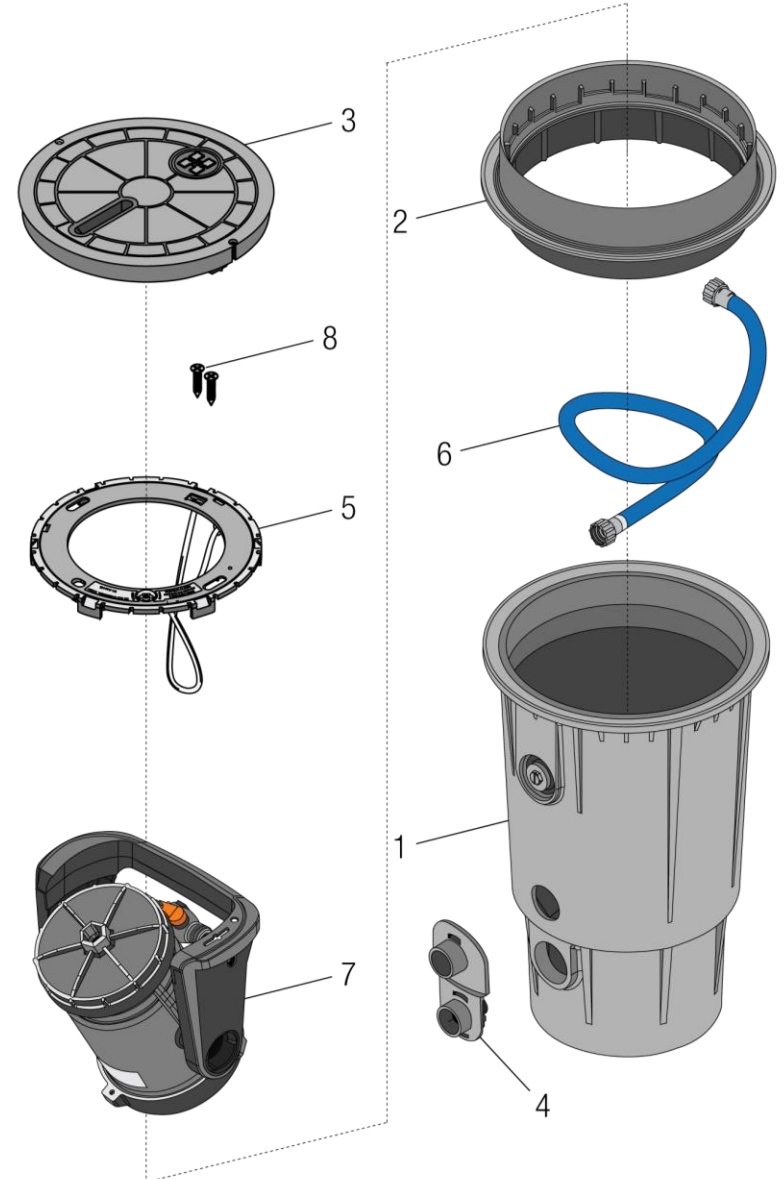
| Model      | Description         |
|------------|---------------------|
| LAWUS11150 | CL 320, White, 150' |
| LAWUS11100 | CL 320, White, 100' |
| LAWUS11050 | CL 320, White, 50'  |
| LAWUS11025 | CL 320, White, 25'  |

## CrystaLogic 160

| Model      | Description         |
|------------|---------------------|
| LYWUS11150 | CL 160, White, 150' |
| LYWUS11100 | CL 160, White, 100' |
| LYWUS11050 | CL 160, White, 50'  |
| LYWUS11025 | CL 160, White, 25'  |

# ColorLogic Laminar: Assembly Breakdown

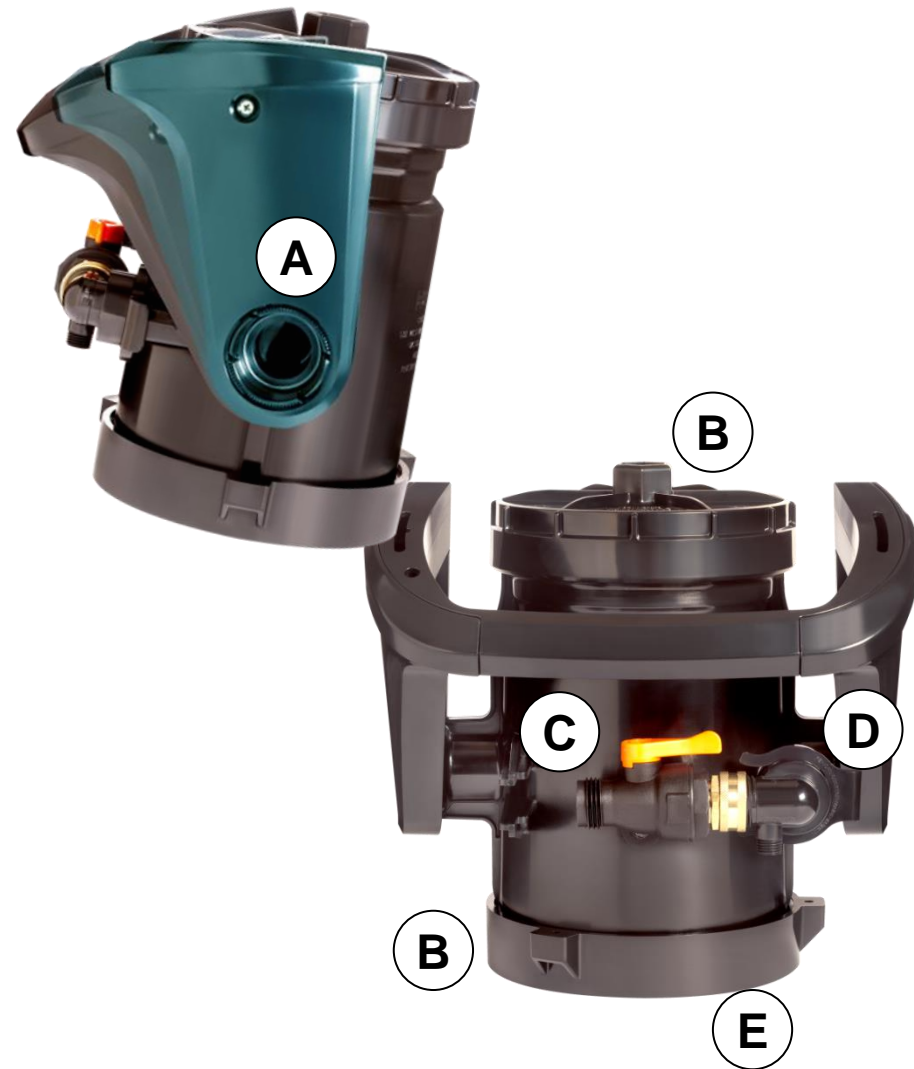
| # | Part Description               |
|---|--------------------------------|
| 1 | Deck Niche                     |
| 2 | Collar, Deck Niche             |
| 3 | Lid with Label, Deck Niche     |
| 4 | Entry Port, Deck Niche         |
| 5 | Disruptor Assembly, Deck Niche |
| 6 | Water Inlet Assembly, Laminar  |
| 7 | Laminar Jet                    |
| 8 | Screw Pack, Deck Niche         |



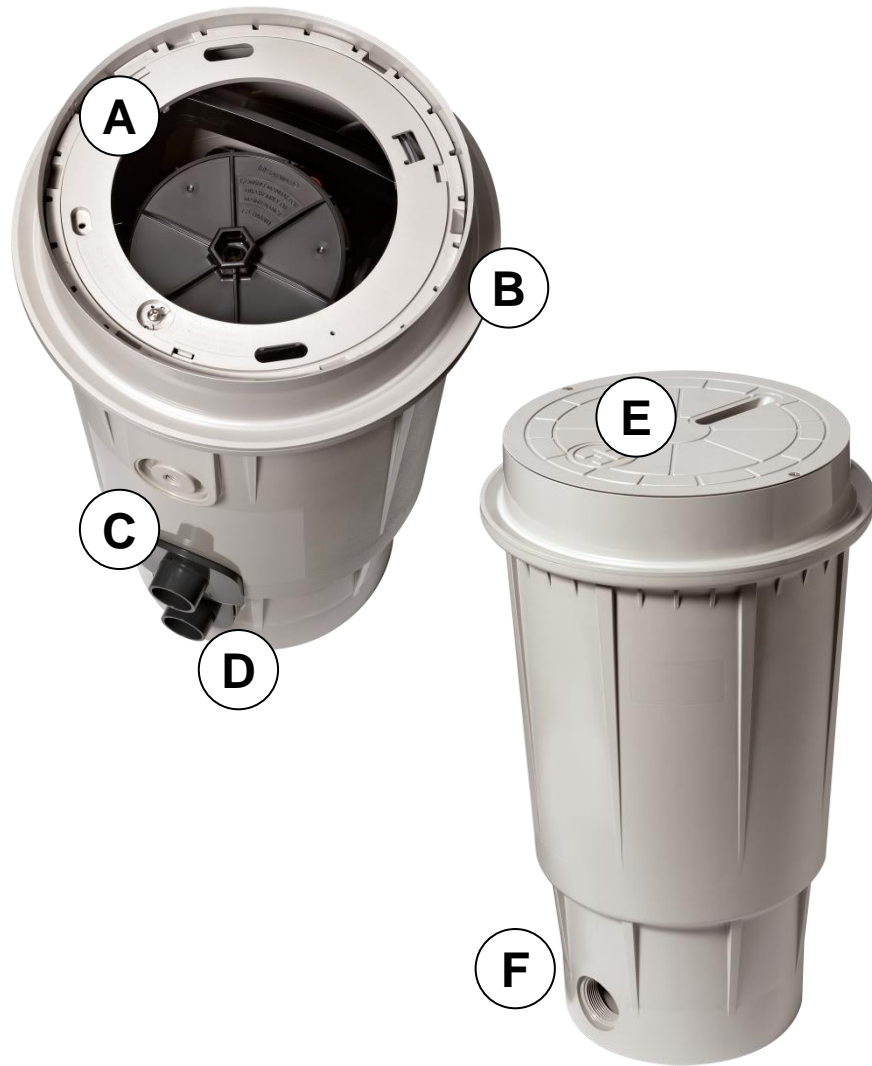


# ColorLogic Laminar: Laminar Jet Features

|   | Feature Description   |
|---|---|
| A | Ratcheting angle adjustments via the laminar jet handle; angle adjustment range 65°-75° in 2° increments. |
| B | Top and bottom unions for quick dis-assembly. The top entry can be opened using a 1 ¼", 6-point socket.   |
| C | Ball valve available for finite adjustments that can be made directly at the laminar jet body.            |
| D | Quick supply disconnect provides easy servicing of laminar jet vessel and screens.                        |
| E | The ColorLogic Laminar can use either a CrystaLogic or ColorLogic 320 / 160 for illumination.             |



# ColorLogic Laminar: Laminar Niche Features



|   | Feature Description   |
|---|---|
| A | Disruptor assembly features four set positions; allowing for a max lid lift of 3/8" in 1/8" increments.                               |
| B | Adjustable Deck Collar allows for angle adjustments. This feature tolerates up to 2° of variance between the deck niche and the deck. |
| C | 1" Electrical inlet port.   |
| D | 1" Water supply inlet port.   |
| E | Securable deck niche lid.   |
| F | 1.5" Threaded side mount drain port, reduces the overall minimum dig depth to 22".  |



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# **ColorLogic Laminar Installation**

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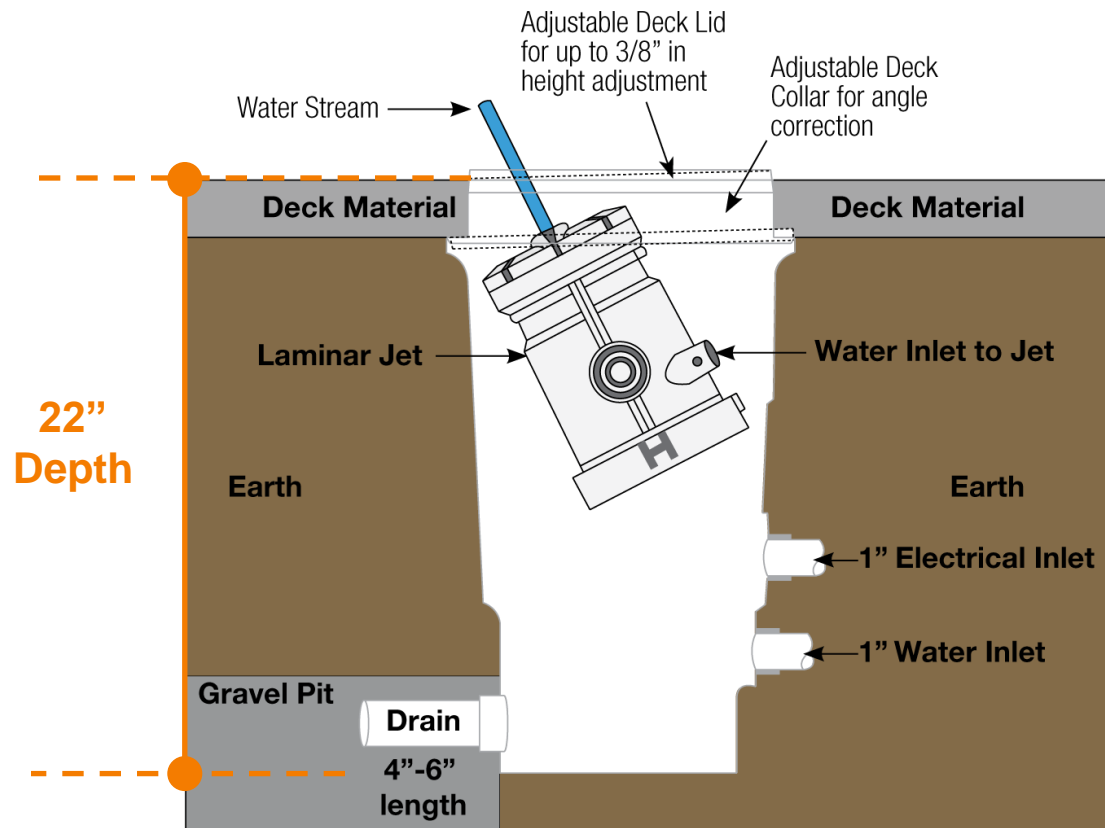
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# ColorLogic Laminar: Installation – Deck Niche

*This is an example of an installed deck niche. Notice the requirement specific to the drain port (4-6" minimum length).*

NOTE: A gravel pit must be available to allow for drainage. The lack of a gravel pit may disturb permanently installed niche and cause cracks in pool deck.

It is also common for gravel pits to extend below the deck niche as well.

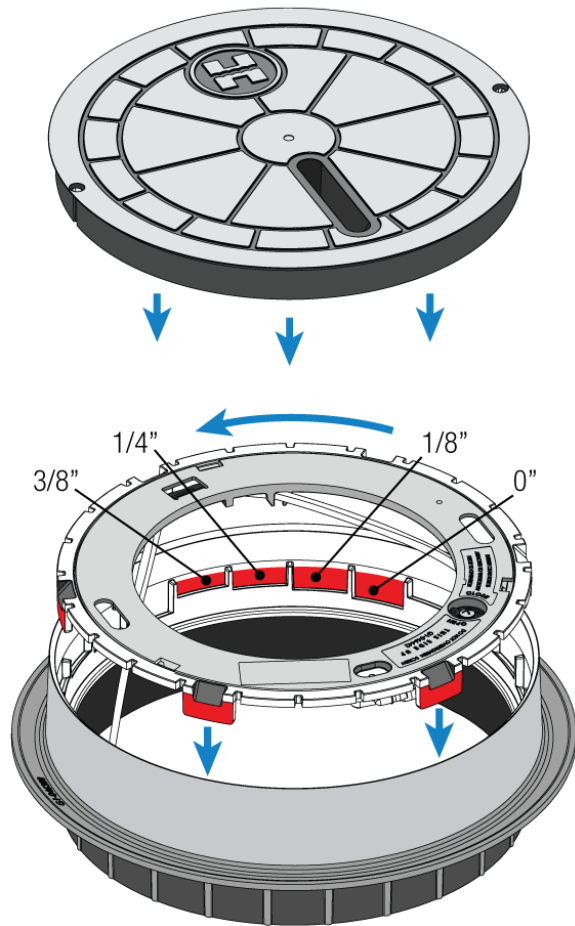


# ColorLogic Laminar: Installation – Deck Niche Examples

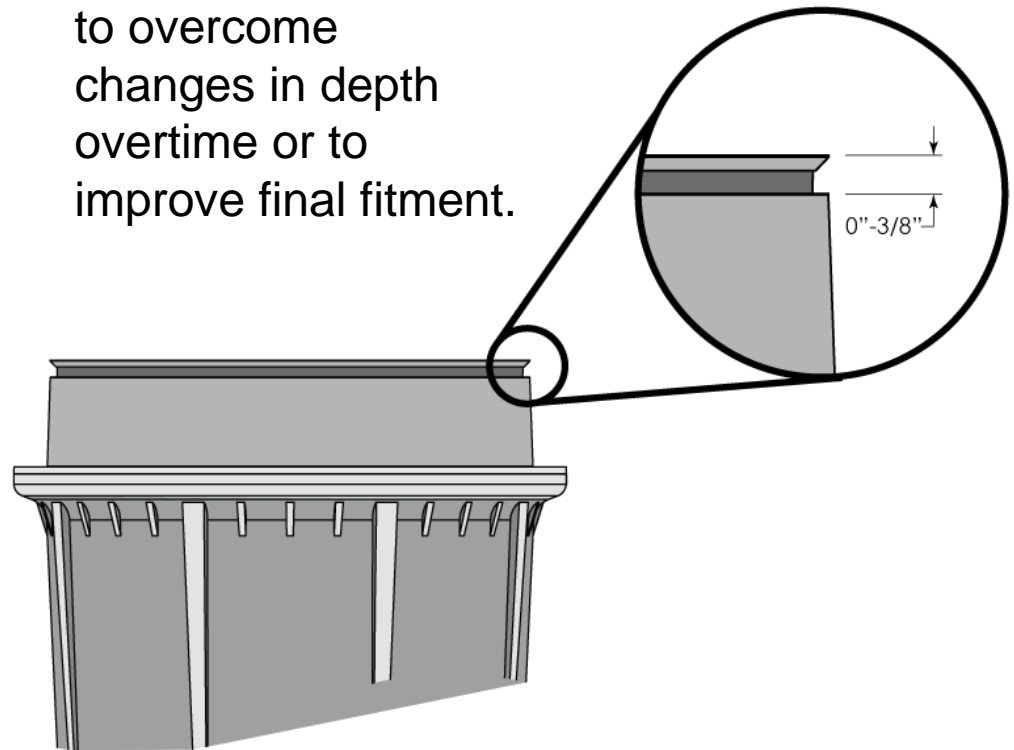


# ColorLogic Laminar: Installation – Deck Niche Lid

***The Deck Lid has four heights: 0" (flush), or it can be proud by 1/8", 1/4", or 3/8" depending on the indent the disruptor assembly is placed in.***



- This adjustment feature can be used to overcome changes in depth overtime or to improve final fitment.





# ColorLogic Laminar: Installation – Plumbing Options

*The ColorLogic Laminar can be installed to two main plumbing configurations:*

## **Dedicated:**

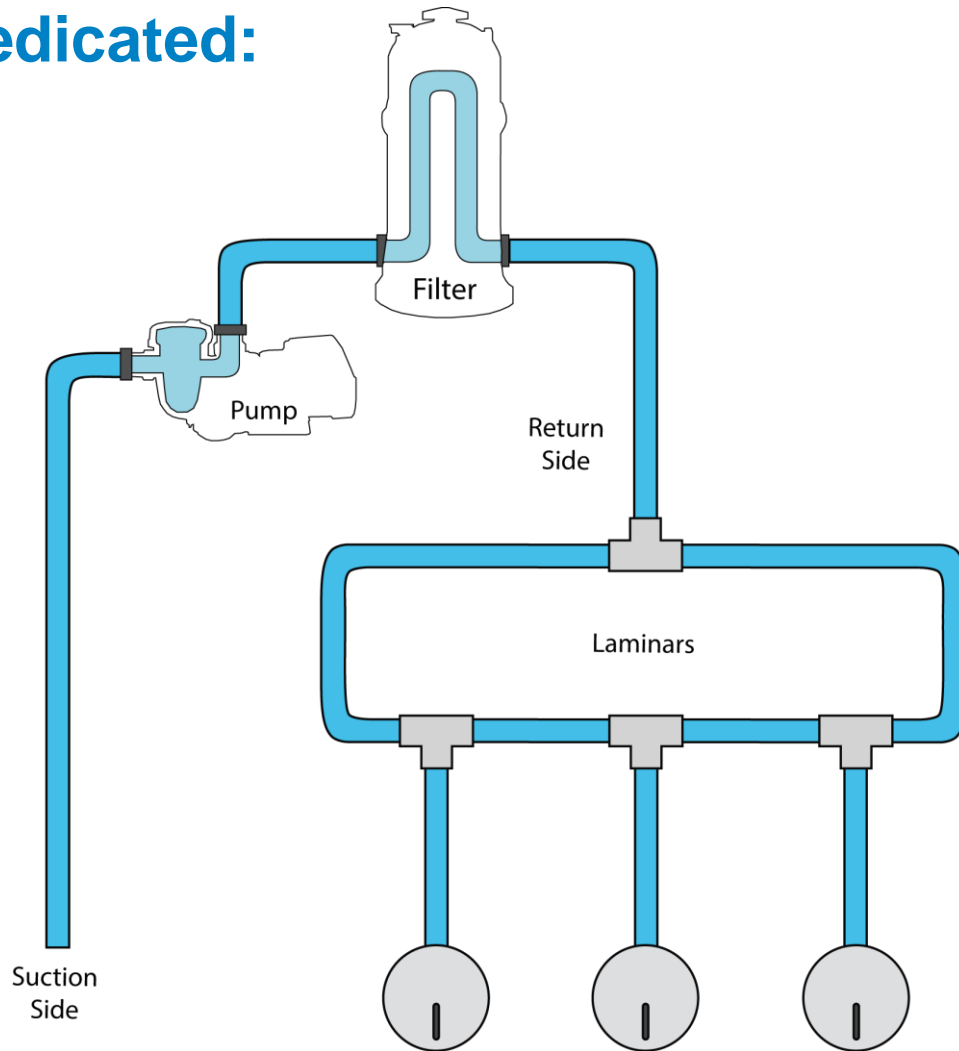
- When installed on a dedicated plumbing circuit, the collective ColorLogic Laminars will require their own pump and filter. The state of the pump may be used to determine the level of their activity.

## **Shared:**

- When installed on a shared plumbing configuration, the ColorLogic Laminars will use of the existing pump and filtration system. At least one valve will be required to control the level of their activity.

# ColorLogic Laminar: Installation – Plumbing Options (cont.)

## Dedicated:

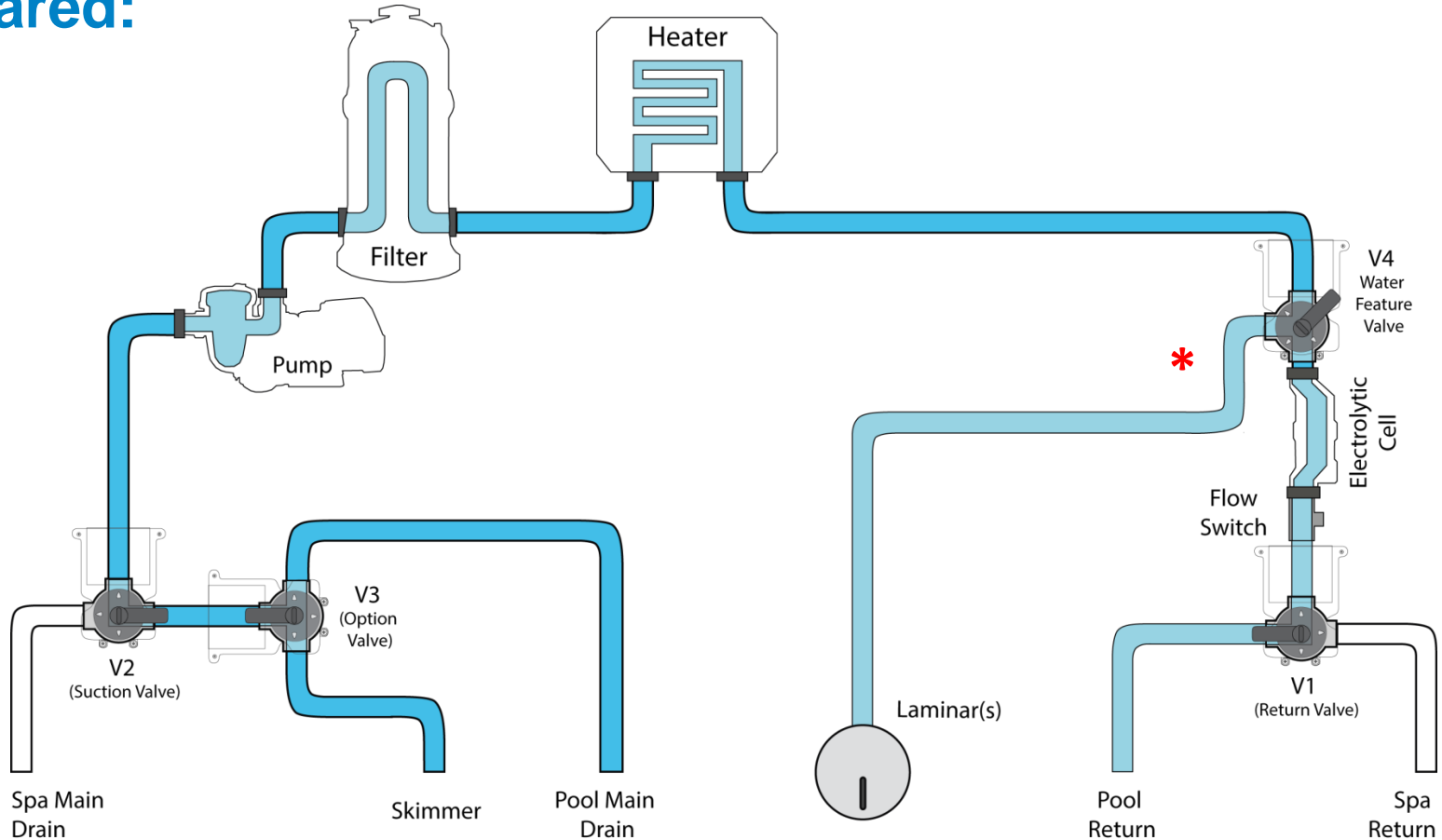


- In a dedicated system the Laminar circuit will require its own pump and filter.
- In this example, a loop configuration is demonstrated on the sub system plumbing (the plumbing specific to the Laminars).
- In the next section we will cover the sub system plumbing options.



# ColorLogic Laminar: Installation – Plumbing Options (cont.)

## Shared:



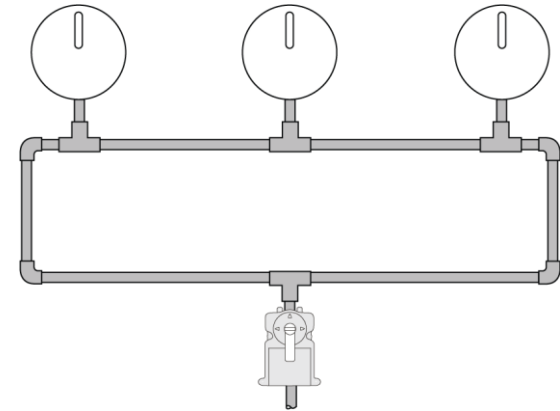
**\*Notice: The Laminar is installed prior to the chlorinator and would be controlled through a valve based on the restrictions of a shared equipment setup.**

# ColorLogic Laminar: Installation – Sub System Plumbing

*When multiple laminars are installed, there are two main sub system plumbing options:*

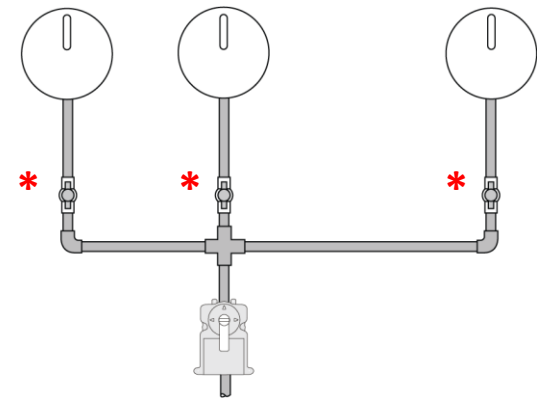
## Loop Layout:

- The loop layout should be plumbed symmetrically, with the main feed centralized in the loop.



## Manifold Layout:

- In a manifold layout though symmetry is still encouraged, it is not required. Each laminar will be regulated through a manifold.



**\*NOTE: Though the laminar offers stream control, by adjusting the ball valve, this should not supplant the need for manifolds in non-loop layout configurations.**

# ColorLogic Laminar: Installation – Plumbing Connections

*The ColorLogic Laminar comes with the inlet hose connected to the deck niche. The other end of the hose is capped to prevent debris from entering the line during installation but is also used for a pressure test.*

## Pressure Test:

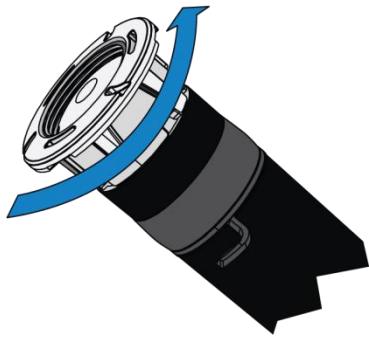
- After plumbing the 1" water connection to the laminar, the next step is to pressure test the lines to ensure there are not leaks. This test should not exceed 15PSI.
- Once the pressure test is complete, it is important to drain the lines (to prevent debris from entering the laminar jet).



**\*NOTE: In markets where winterization is required, save this cap to support the winterization process.**

# ColorLogic Laminar: Installation – Lighting

*The ColorLogic Laminar can accommodate any of the CL 320/160 form factors to include color lighting or all white.*



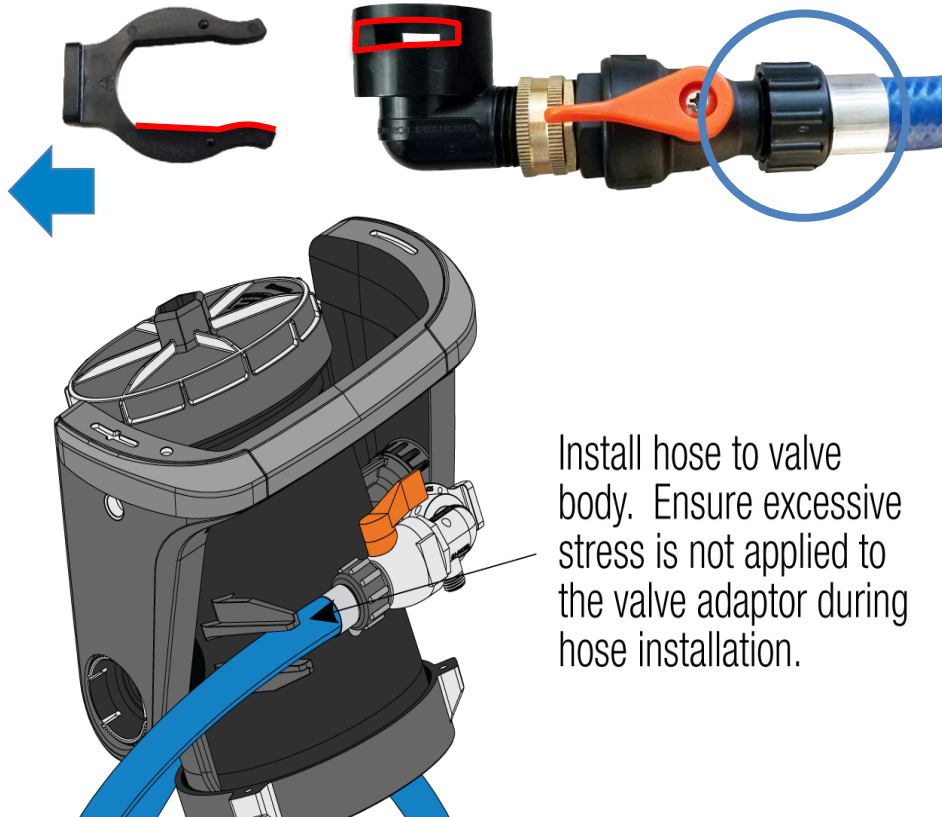
- On the light, remove the 320/160's trim ring.
- Then thread the light clockwise into the bottom of the laminar jet clockwise until snug.

**\*NOTE: It is recommended to leave a 3' service loop, coiled in the bottom of the laminar deck niche.**



# ColorLogic Laminar: Installation – Laminar Jet Plumbing

***Once the pressure test is complete (with no leaks detected), remove the hose cap and drain any debris in the hose prior to connecting.***



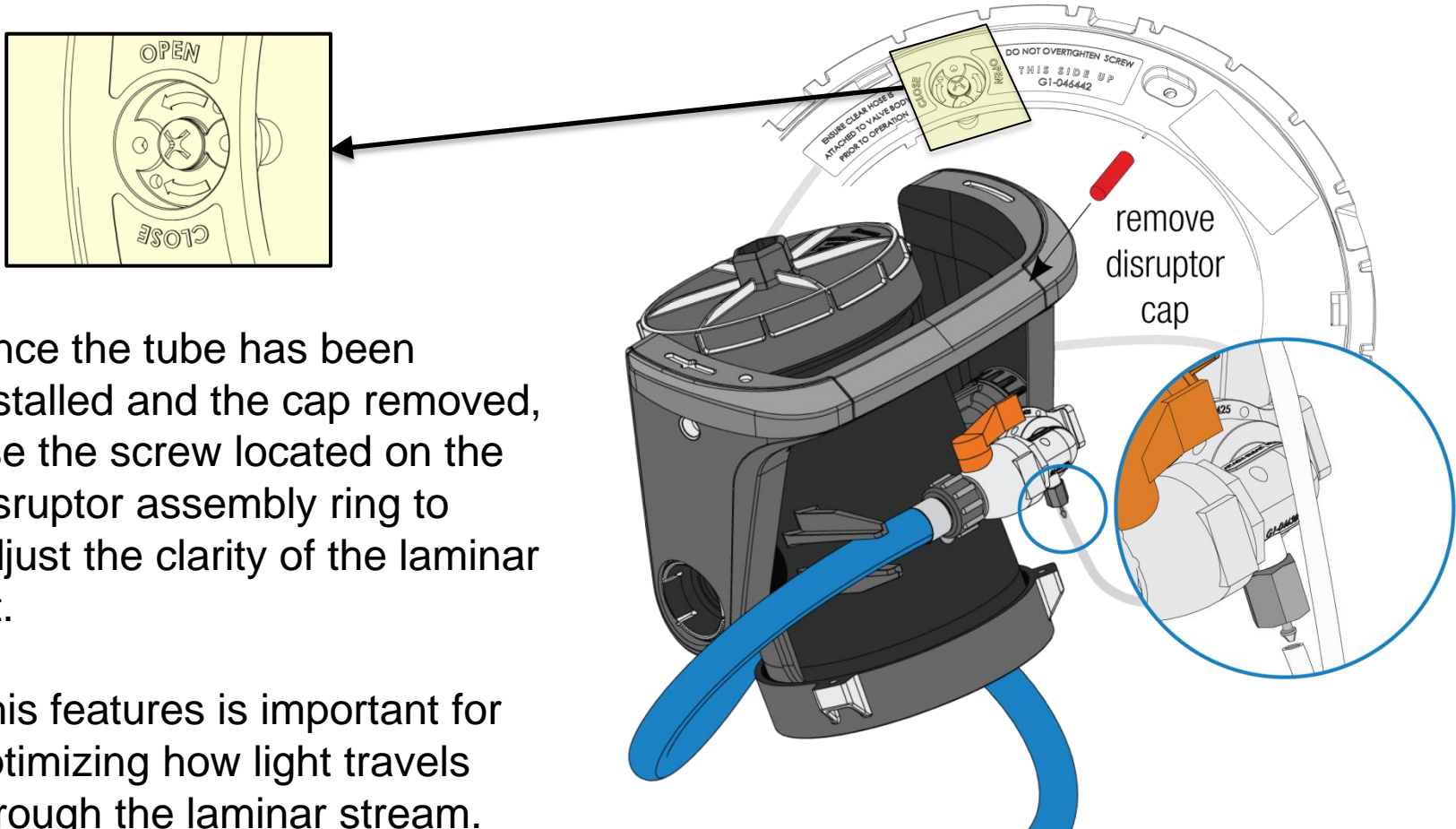
Install hose to valve body. Ensure excessive stress is not applied to the valve adaptor during hose installation.

- Detach the valve body by removing the retaining clip.
- Attach the hose to the valve body.
- Then secure the valve body with the, valve handle up, to the entry port pressing the hose into the strain relief bracket.
- Reattach the retaining clip.



# ColorLogic Laminar: Installation – Disruptor Hose

***Connect the disruptor tube to the bottom of the valve assembly by pressing it into onto the barb, then remove the disruptor cap.***

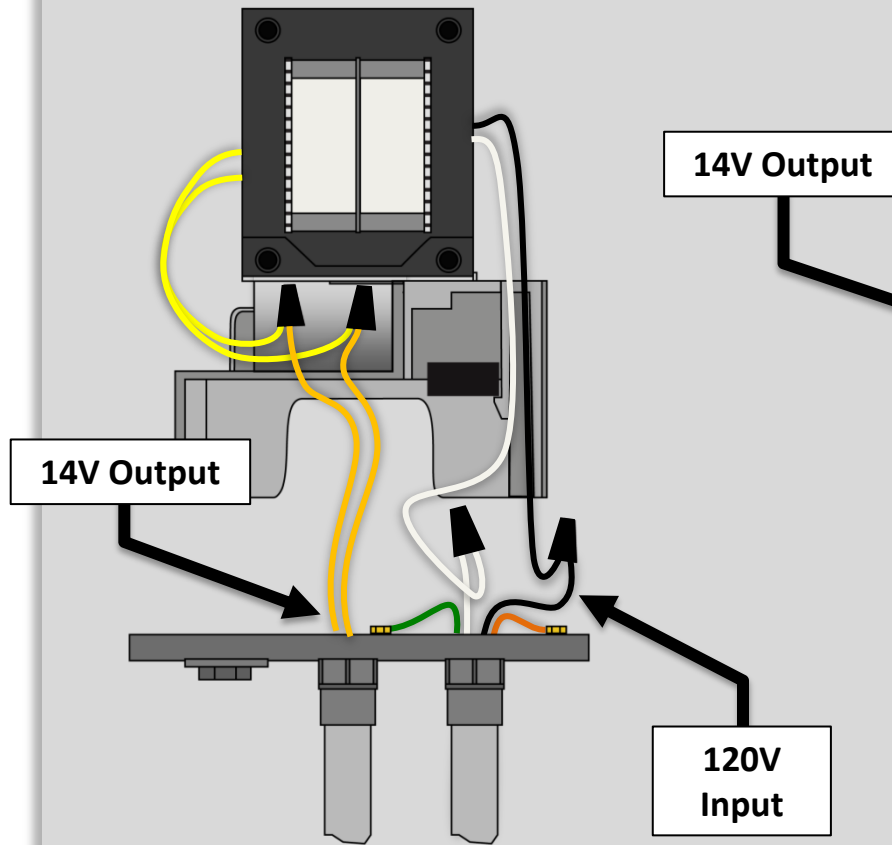


- Once the tube has been installed and the cap removed, use the screw located on the disruptor assembly ring to adjust the clarity of the laminar jet.
- This features is important for optimizing how light travels through the laminar stream.

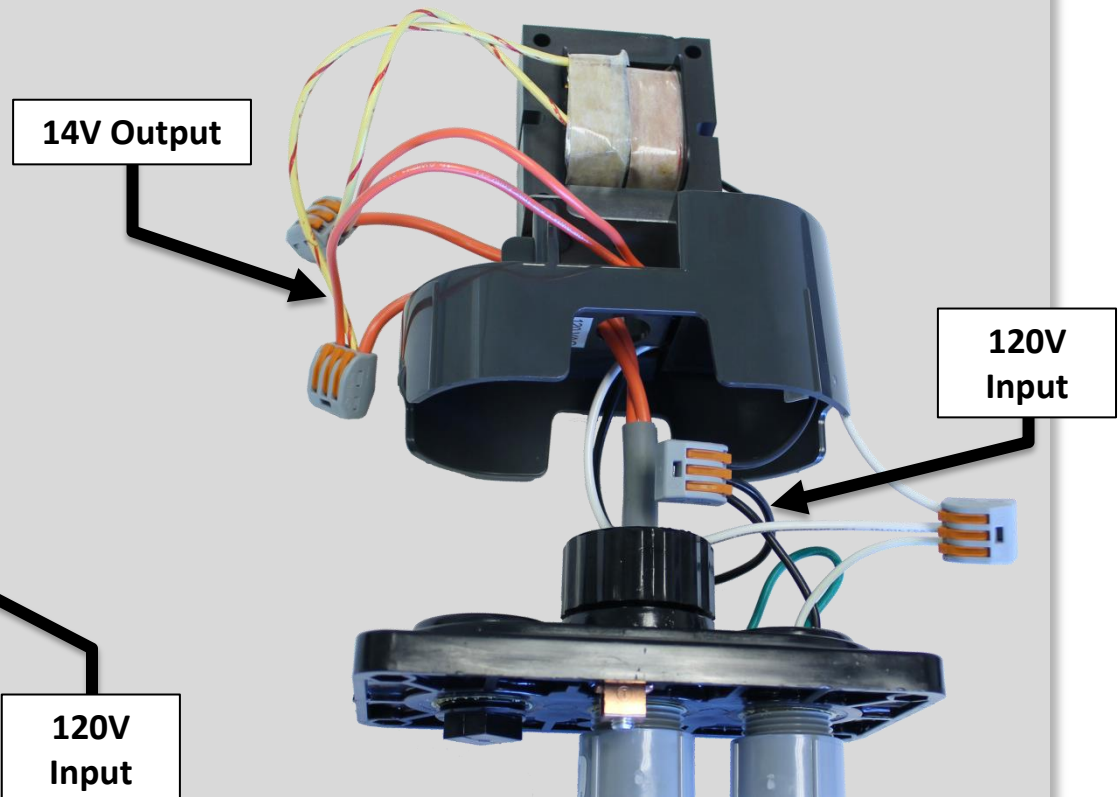


# ColorLogic Laminar: Installation – 70W Transformer

## Wiring Diagram



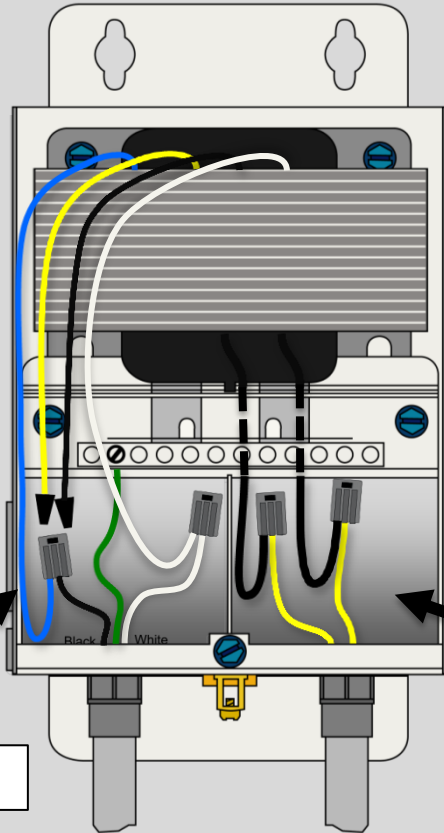
## Reference Picture



**Don't forget the snubber: GLX-HAL-XSNUB**

# ColorLogic Laminar: Installation – 70W Transformer

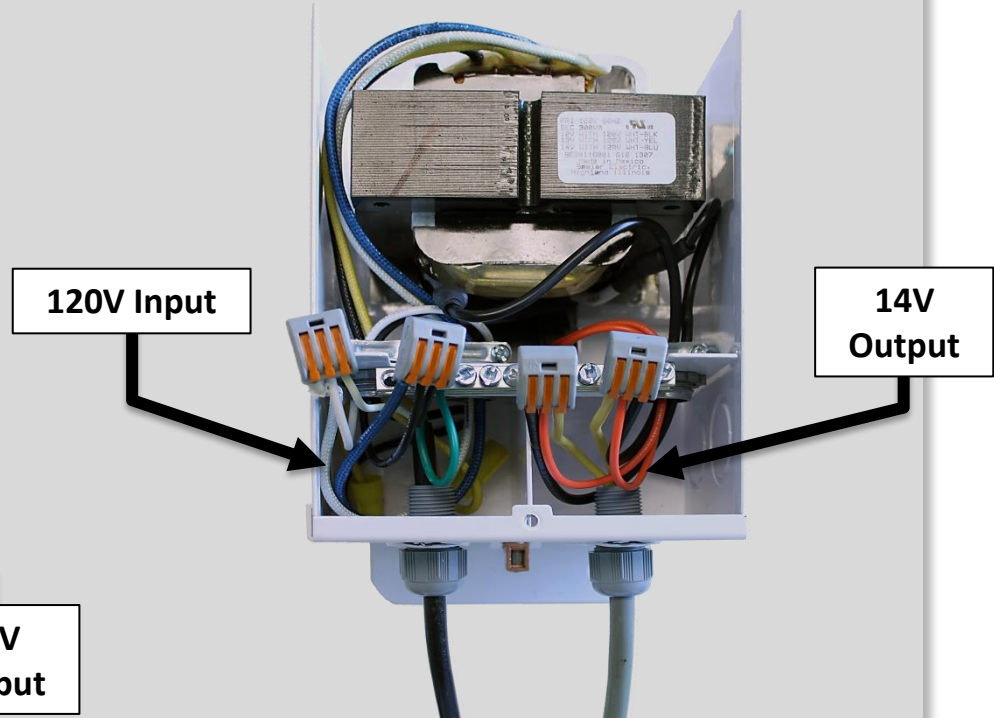
## Wiring Diagram



120V Input

14V  
Output

## Reference Picture



120V Input

14V  
Output

**Note:** When wiring the Hayward 300W Transformer (LTBUY11300), Supply the **Blue & White** wires (shown on the left with 120V (primary side) to ensure the transformer's output is 14V (secondary side).

**Don't forget the snubber: GLX-HAL-XSNUB**

# ColorLogic Laminar: Installation - Final Assembly View



## Final Assembly:

- This diagram shows a cutaway of how the laminar should look after final assembly.
- Please Note: The drain plumbing and light have been removed to demonstrate all the key mechanical connections.

# ColorLogic Laminar: Installation - Examples



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# **ColorLogic Laminar Maintenance**

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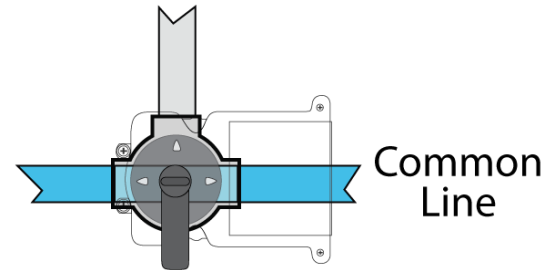
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# ColorLogic Laminar: Maintenance – Dismantle



Laminar(s)



To dismantle the ColorLogic Laminar, start by suspending flow to the device, either by turning the pump off or rotating the pressure side valve (depends on installation).



# ColorLogic Laminar: Maintenance – Disruptor

1



Disconnect the disruptor supply hose by carefully pulling it off the valve assembly barb.

# ColorLogic Laminar: Maintenance – Valve Removal

2



Pull the valve retention clip to release the supply line from the Laminar Jet.

# ColorLogic Laminar: Maintenance – Laminar Jet O-Ring

3



Verify the valve O-ring is still attached to the Laminar Jet. This O-ring ensures a seal is created between the Laminar Jet and the supply line (do not lose this part).

# ColorLogic Laminar: Maintenance – Loosen Top Seal Plate

4



Lay the laminar down with the handle facing up, then using a 1 1/4" socket loosen the cap (rotating counter clockwise).

# ColorLogic Laminar: Maintenance – Remove Screens

5

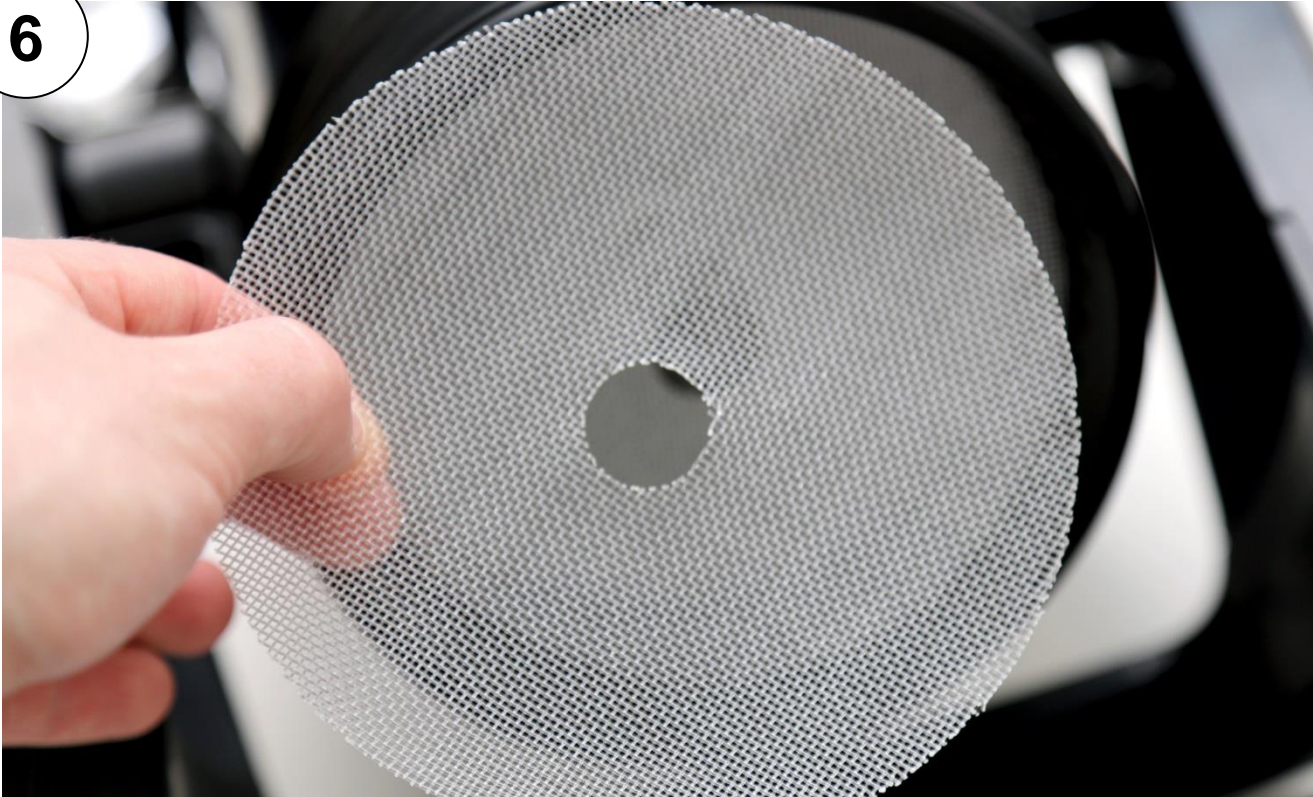


Gently remove each layer of screen (5 layers total). Take care not to puncture screens as this will likely cause problems in the laminar flow.



# ColorLogic Laminar: Maintenance – Clean Screens

6

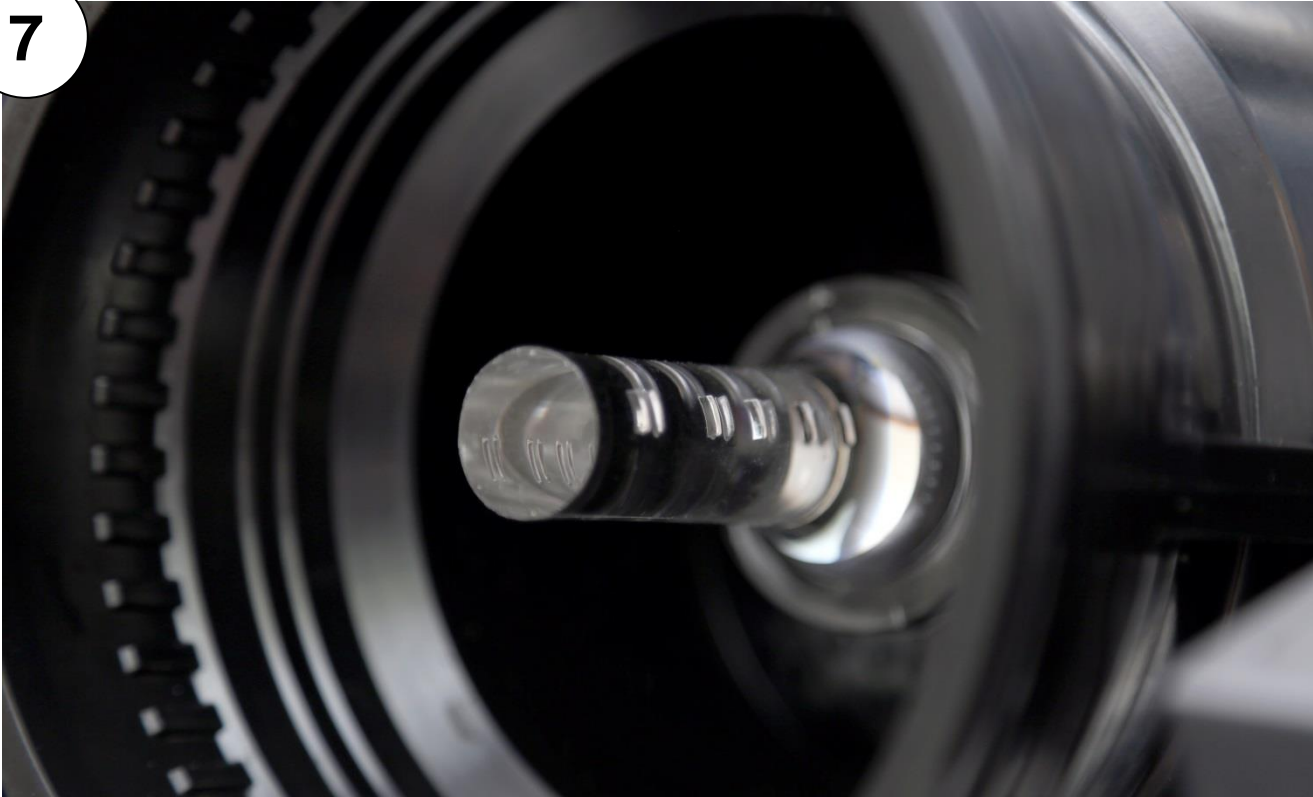


Clean the screens gently using a soft bristle brush to remove debris that is stubbornly clogged. The screens may be dipped in 4 parts water to 1 part muriatic acid if necessary. **DO NOT** leave screens in the acid solution for more than a few hours.



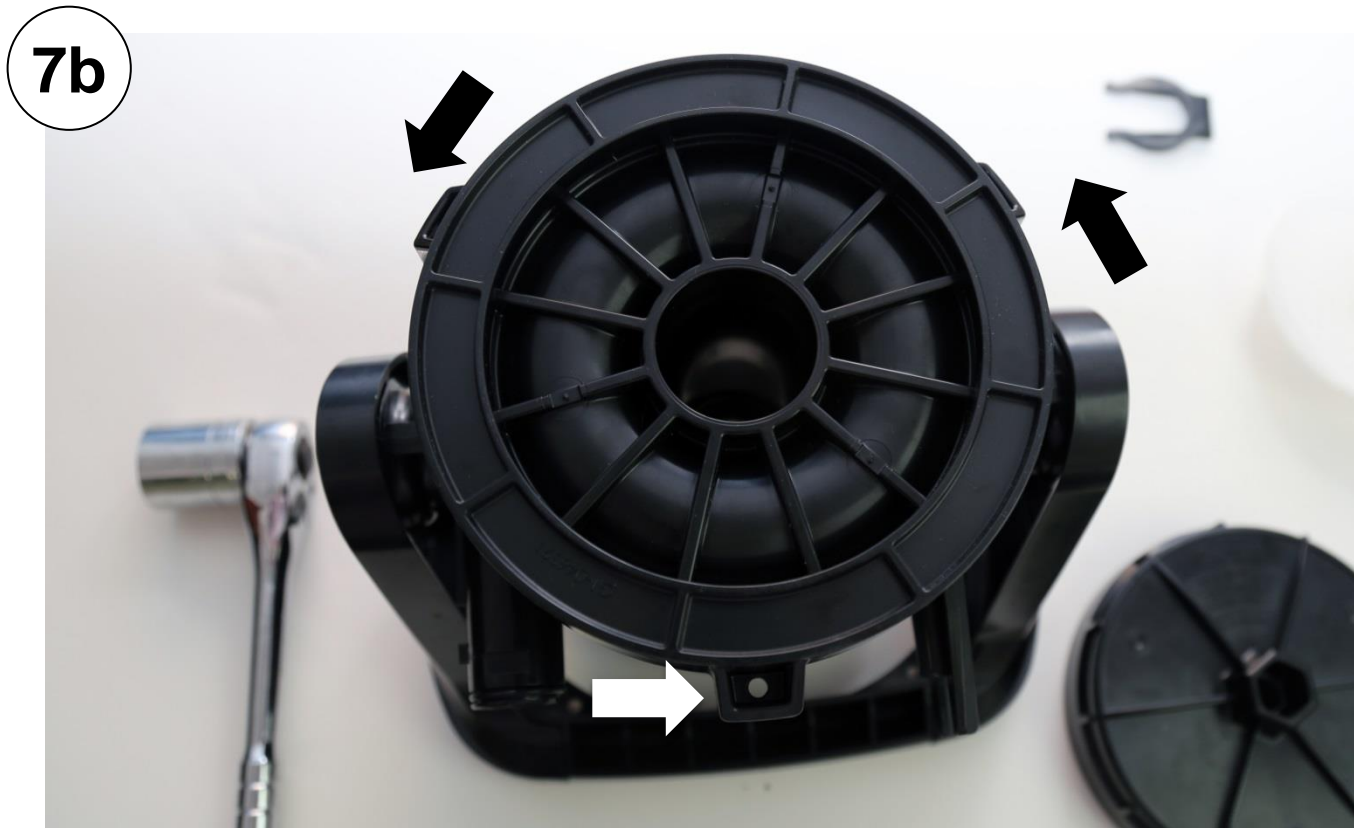
# ColorLogic Laminar: Maintenance – Light Pipe

7



This is a picture of the light pipe, be careful not to scratch or chip it. The light pipe serves as the optic for the laminar, focusing the light into the stream. If cleaning is required, a mild dish soap and water should be used.

# ColorLogic Laminar: Maintenance – Remove Retaining Ring



If the laminar is heavily clogged with debris, then the plastic diffuser plates may also be affected. To access remove the bottom seal plate (rotating the retaining ring counter clockwise).

# ColorLogic Laminar: Maintenance – Bottom Seal Plate

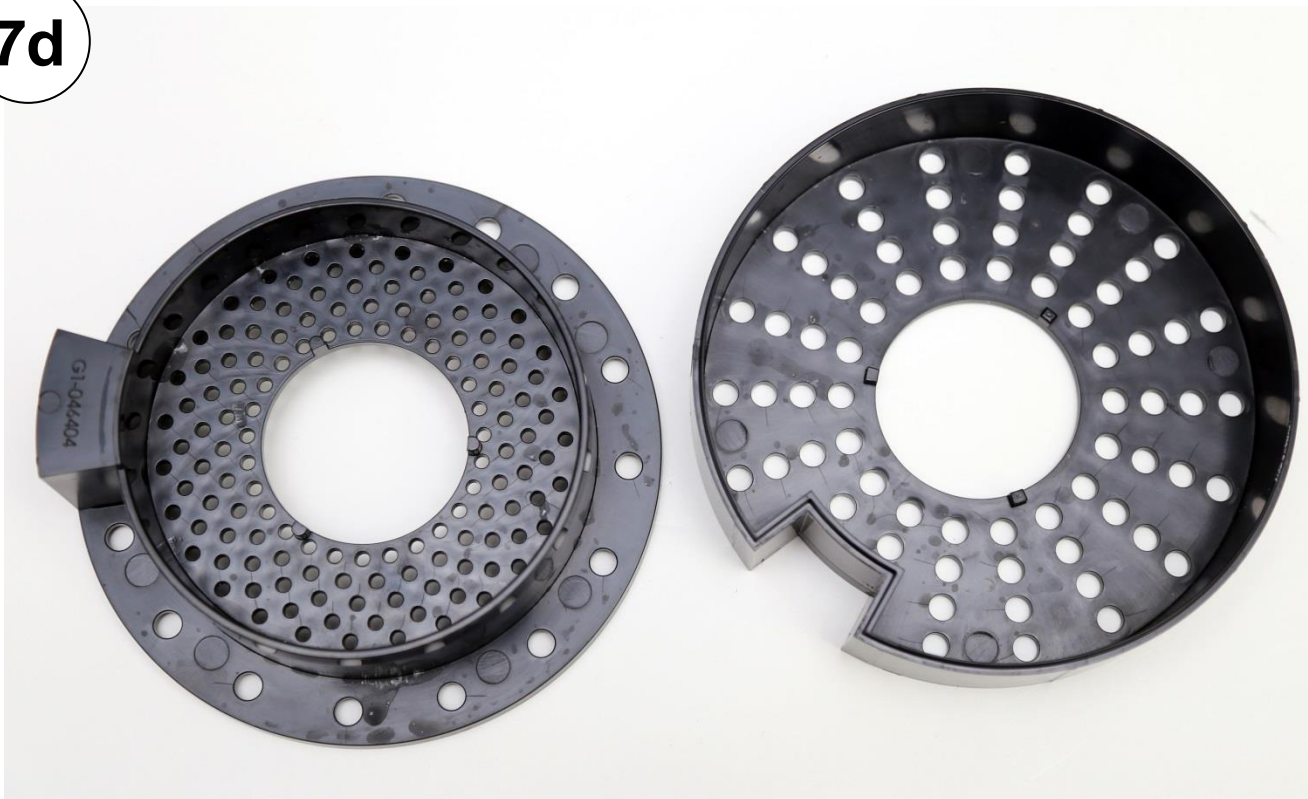
7c



With the retaining ring removed, use a flat head screw driver and gently pry up around the seal plate, as if opening a paint can.

# ColorLogic Laminar: Maintenance – Clean Plastic Diffusers

7d

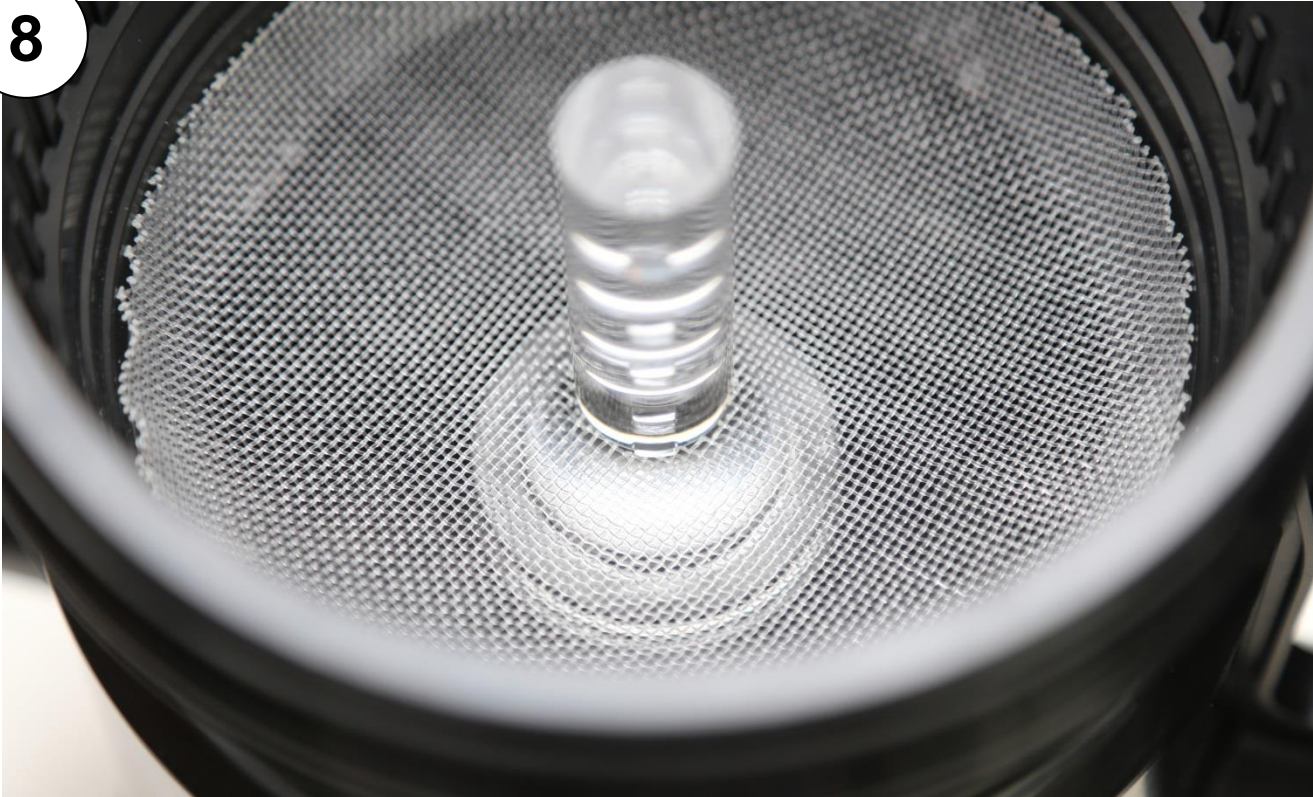


Rinse the plastic diffuser plates and scrub with a soft bristle brush if necessary. Reverse steps 7d-7b once clean.



# ColorLogic Laminar: Maintenance – Installing Screens

8



Once clean, gently reinsert the screens between the raised ridges built into the light pipe.



# ColorLogic Laminar: Maintenance – Screen Overview

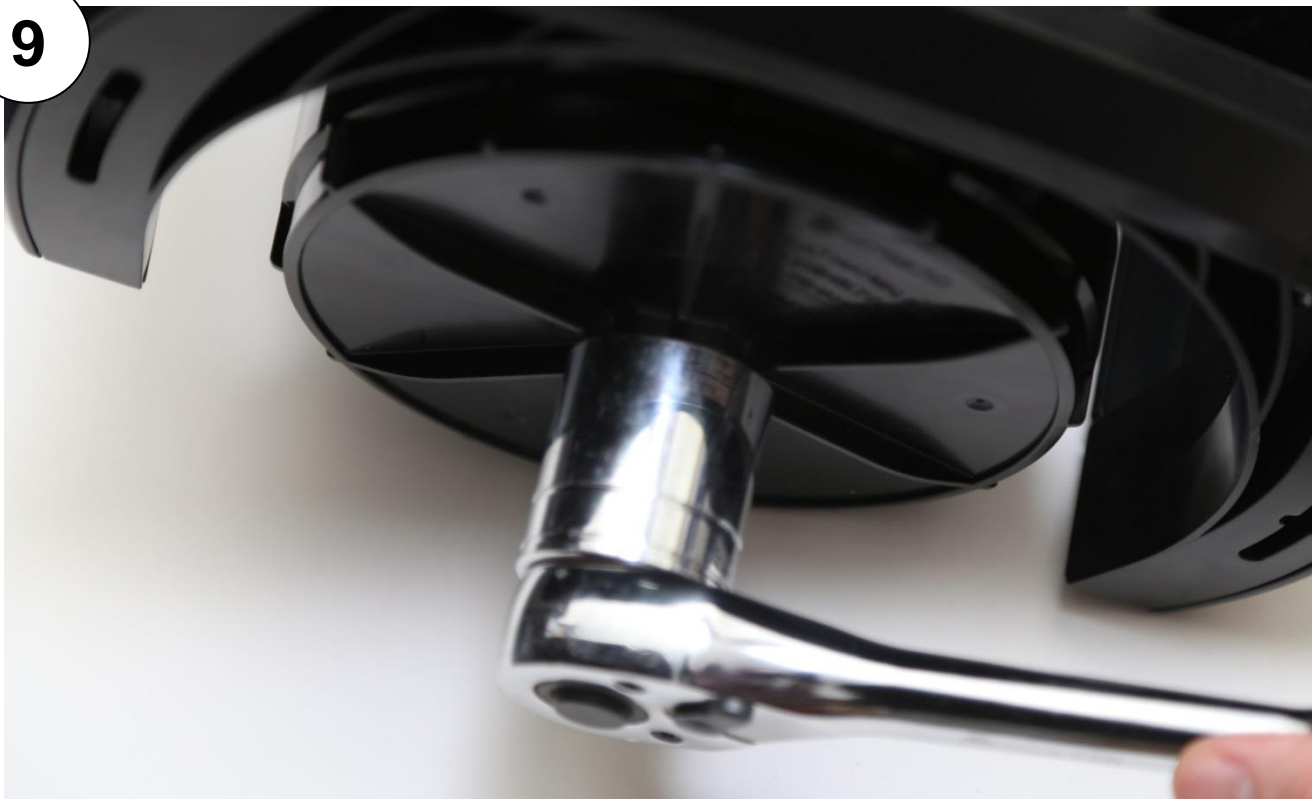
8b



Here is a shot of the laminar jet fully populated with all five screens. Making sure the screens are spaced out evenly and seated in the raised ridges.

# ColorLogic Laminar: Maintenance – Tighten Top Seal Plate

9



Place the top seal plate back on and rotate it clockwise to tighten.  
Make sure the lid is snug but do not overtighten.

**Questions?**

**...**

**Thank you!**