



**FSE SAFE**

Singapore | Dubai



# INSTRUCTION MANUAL

**VirtuaLine™ SWITCH LED Line Projector**

# Notice

This document and its contents are the intellectual property of Laserglow.com Limited (hereafter referred to as "Laserglow") and are intended for use only by Laserglow customers for the purpose of operating their Laserglow products. Unauthorized reproduction or distribution is prohibited without express written consent from Laserglow. An exception is granted for personal archival copies, distribution within an organization which is itself a customer of Laserglow or transferring this document to a new owner upon sale of the product. Careful and reasonable efforts have been made to ensure the quality and accuracy of this document, but Laserglow shall not be liable for errors or omissions contained herein, or for any incidental or consequential damages arising from the use of this document or the product itself. Safety information provided in this document is for reference only and should not be considered an adequate substitute for industry-standard laser safety training. Laserglow recommends that the Customer consult with a Certified Laser Safety Officer before using any type of laser device for any application. Failure to heed the recommendations, warnings, and safety information provided herein may result in property damage, serious injury, or death. Please read this entire document before attempting to operate the product and always store these instructions with the product.

# Introduction

Thank you for purchasing the Virtualine™ LED SWITCH light fixture from Laserglow. This fixture is designed to provide a bright and highly visible line for hazard awareness and a wide range of other industrial and commercial applications. This manual contains complete instructions on how to set up and operate your Virtualine™ LED SWITCH, descriptions of all features, and some troubleshooting tips. If after reading this manual you still have questions about the safe and proper operation of your projector, please contact us and we would be happy to assist you. Our contact information is listed at the bottom of this page.

# Table of contents

**Section 1: Safety Information**

**Section 2: Unpacking and Inspection**

**Section 3: Setup and Operation**

**Section 4: Smart Sensor Schematics**

**Section 5: Troubleshooting**

**Section 6: Maintenance**

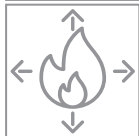
**Section 7: Warranty Information**

# Section 1: Safety Information

## READ THIS FIRST



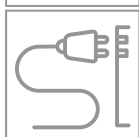
Place the Virtualine™ LED SWITCH in a location that has good air flow.



Keep flammable materials away from the fixture (minimum distance to flammable material is 1 foot / 30 cm).



Do not look directly into the light source; it is extremely bright.



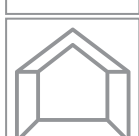
Always disconnect the fixture from power before performing any service on the unit.



Light fixtures should be installed and maintained only by qualified personnel with experience in lighting equipment and general electrical experience.

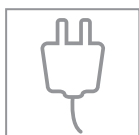


When suspending the fixture above ground level, verify that the structure can hold at least 10 times the weight of all installed devices. Use the safety cable to secure the fixture in addition to the primary mounting bracket.



The Virtualine™ LED SWITCH is suitable for indoor use only.

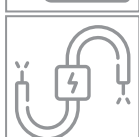
## ELECTRICAL SAFETY



Disconnect the fixture from power before handling.



Use only a power source that complies with local building and electrical codes and which has both overload and ground-fault protection.



Do not use the fixture if the power cable or power plug is in any way damaged, defective, or wet, or if they show signs of overheating. If the power cable or plug for the fixture is damaged, it must only be replaced by Laserglow or an authorized service agent to avoid an electric shock or fire hazard.



The light source contained in this luminaire shall only be replaced by Laserglow or an authorized service agent.

## Section 2: Unpacking and Inspection

This product was shipped to you wrapped in a double-walled box to protect it from damage during storage and transit. However, unexpected things can occur during shipping, so it is important to inspect and test your product as soon as it arrives. Claims for shipping damage must be made within 7 days of receipt. Beyond this time, any damage to the product will be considered to have occurred while it was in your possession, which may void your warranty.



**1. Inspect the shipping carton:** Look for obvious signs of damage or exposure to moisture. If either are present, contact Laserglow immediately for instructions on how to proceed. In the unlikely event that the product is damaged this information may be important for filing a claim with the carrier.



**2. Unpack the Virtualine™ LED SWITCH and power supply:** Carefully remove the projector from the box and inspect it for any physical damage which may have occurred during shipping, then do the same for the power supply and relay box. If any physical damage or moisture is present, contact Laserglow immediately to report it.

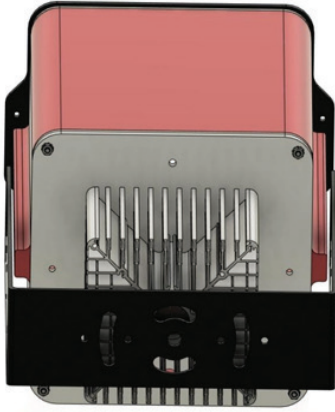


**3. Check the contents of the shipment against the packing list:** Every fixture<sup>1</sup> includes a mounting bracket<sup>2</sup>, power supply<sup>3</sup>, and a relay box<sup>4</sup>. If you ordered multiple products, check the packing list and make sure that all of the listed items are present. If everything is included and there is no evident damage, proceed through this manual for instructions on how to set up and install your Virtualine™ LED SWITCH. If there is any discrepancy, please contact Laserglow immediately.



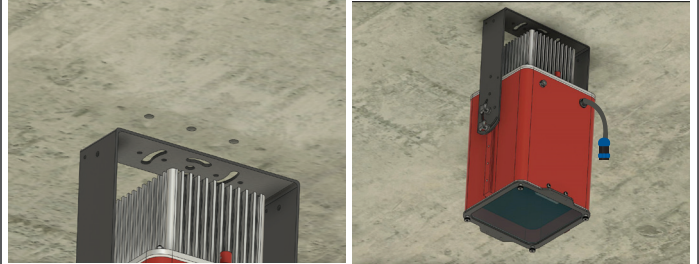
## Section 3: Setup and Operation

1



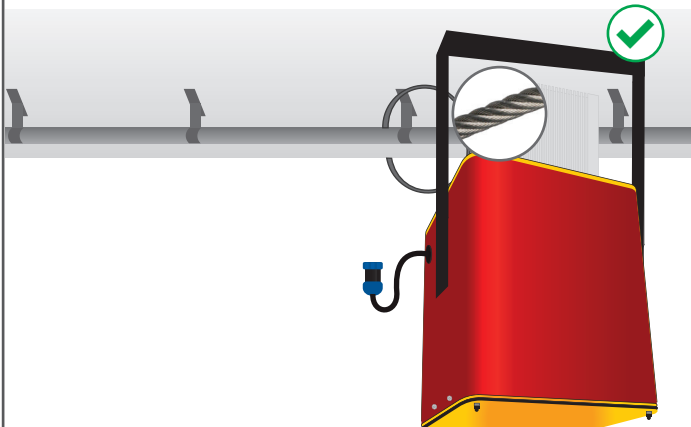
You will receive Virtualine with mounting bracket attached to the unit as shown in fig. Ideally, it is recommended to use the marked holes to mount the unit on Ceiling or any other available mounting surface.

2



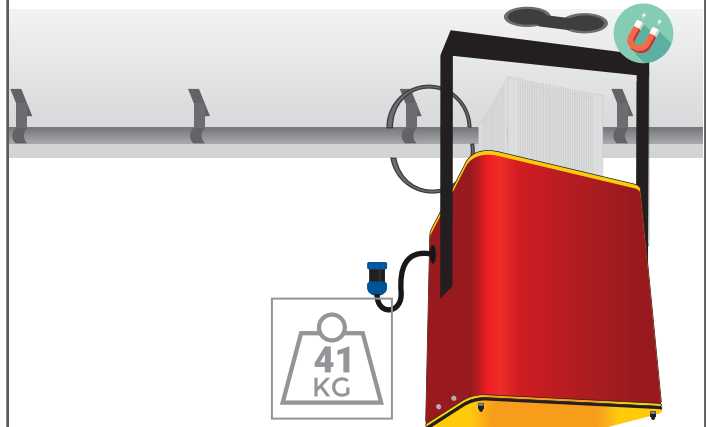
Then affix the Virtualine™ LED SWITCH to your mounting surface using hardware designed for that type of mounting surface (drywall anchors for drywall without a stud, concrete screws for concrete). Once the fixture is in place, clear any dust or debris out of the rear heatsink area before powering on the fixture.

3



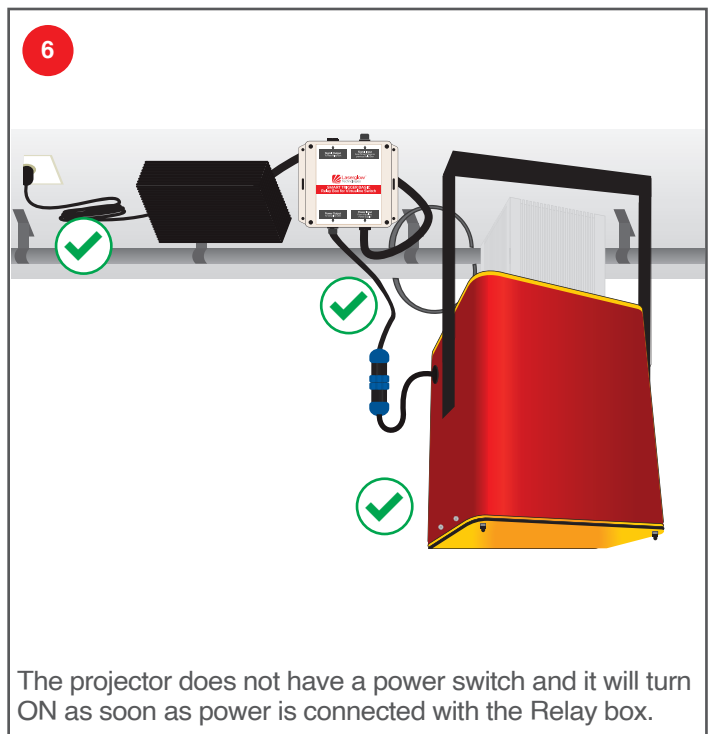
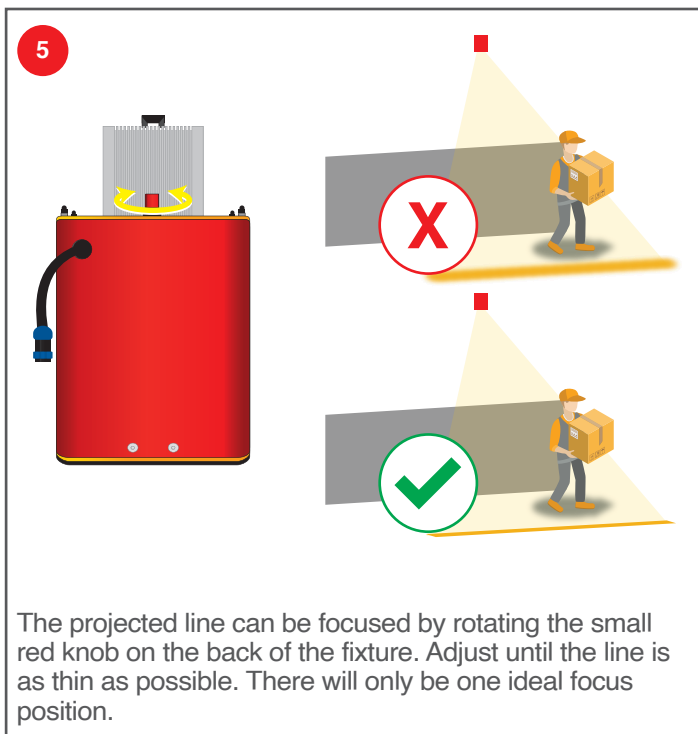
Finally, be sure to loop the included steel safety cable through the eyelet on the back of the Virtualine™ LED SWITCH and around the nearest secure object, pipe, or rail. This is to prevent injury in the unlikely event that the primary mount fails.

4



If you purchased the magnetic mount accessory, your mounting bracket will already have the magnets installed. Simply stick the magnets to the desired surface and loop the included steel safety cable around the attachment point to prevent the fixture from falling if the magnets fail. The magnets hold with approximately 90 pounds (41 kg) of force.

**CAUTION:** The magnets in the magnetic mount accessory are very powerful! Do not allow the magnets to slam together, as this may damage the magnets and they will be very difficult to separate. NEVER PUT YOUR FINGERS BETWEEN THE MAGNETS AND THE MOUNTING SURFACE OR OTHER MAGNETS. The magnets are strong enough to cause serious injury! The heatsink on the back of the Virtualine LED SWITCH must be kept clear to allow adequate airflow for cooling. Do not cover the heatsink with any material.

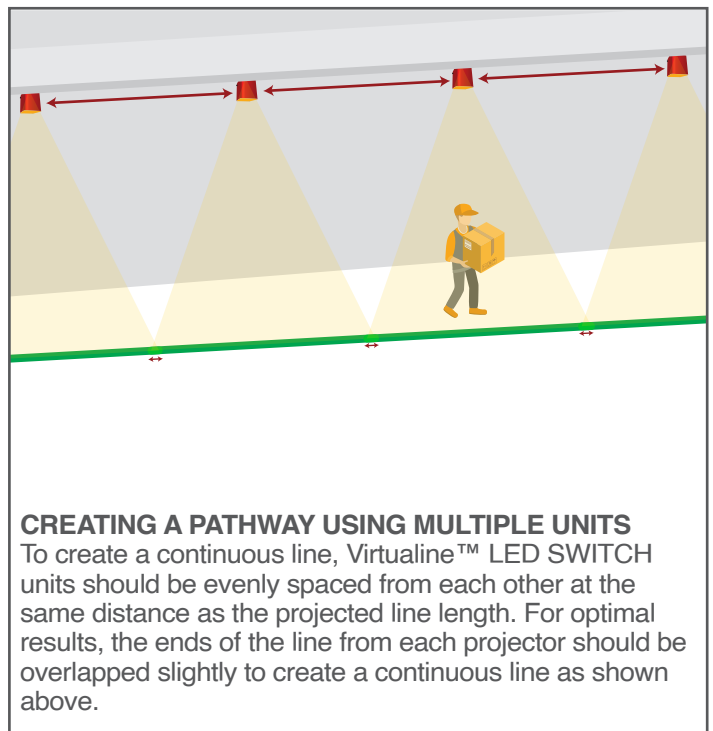
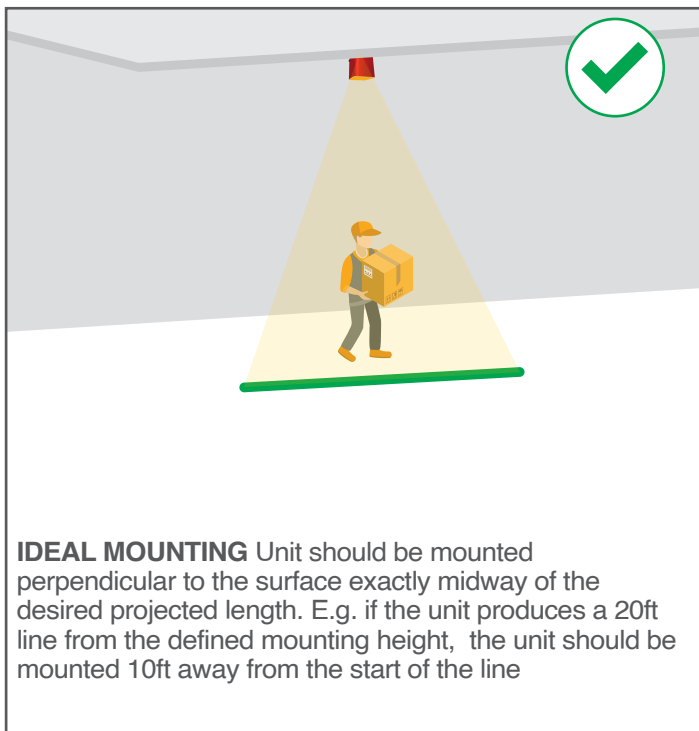
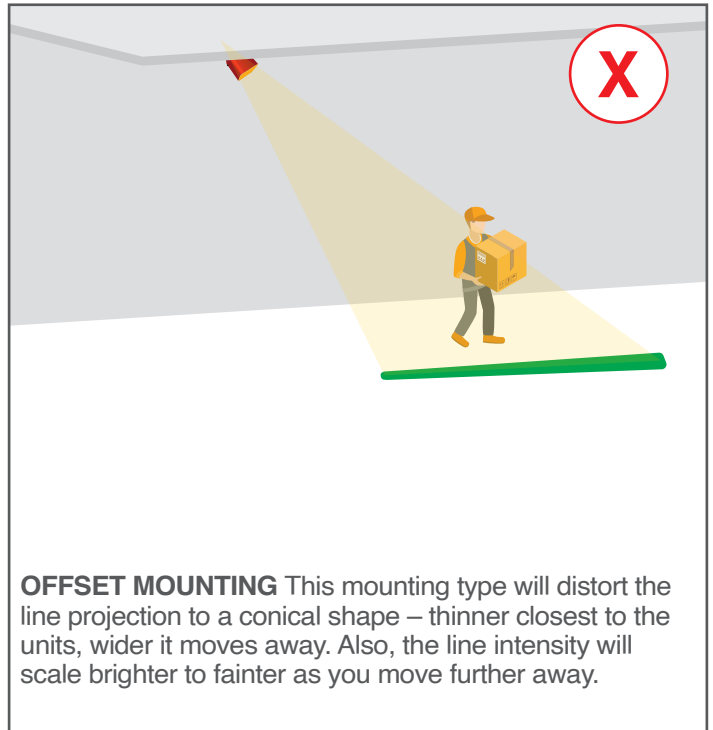
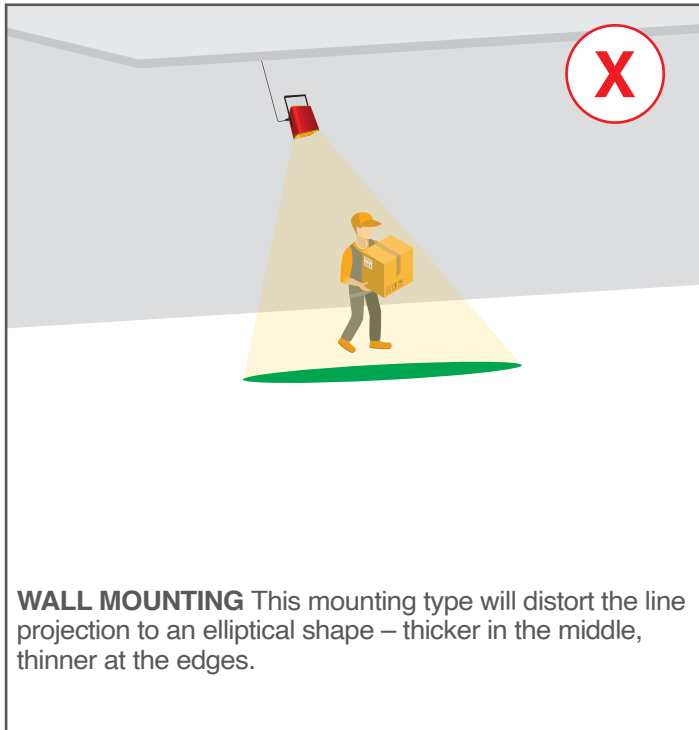


**NOTE:** When installing the power supply, do not add cable extensions between the power supply and the light fixture. The length of cable between the power supply and fixture should be as short as possible (6 feet maximum, 3 feet or less recommended). Any extensions required to bring power to the projector should be added on the AC side of the power supply.

### MOUNTING RECOMMENDATION

To produce the clearest possible projection, it is recommended that the Virtualine™ LED SWITCH be mounted directly above the center point of the projected line. Mounting the fixture near one end of the line will cause the far end of the line to lose focus, which will cause it to appear wider with more blurry edges. Mounting the fixture off to one side of the line, such as on a wall, will cause the line to appear wider and with more blurry edges, particularly the far edge. In many environments it will not be possible for the fixture to be mounted directly above the center of the projection, for example due to obstructions or other obstacles. If this is the case, it is recommended to mount the fixture as near as possible to the ideal position to minimize distortion of the projected line.

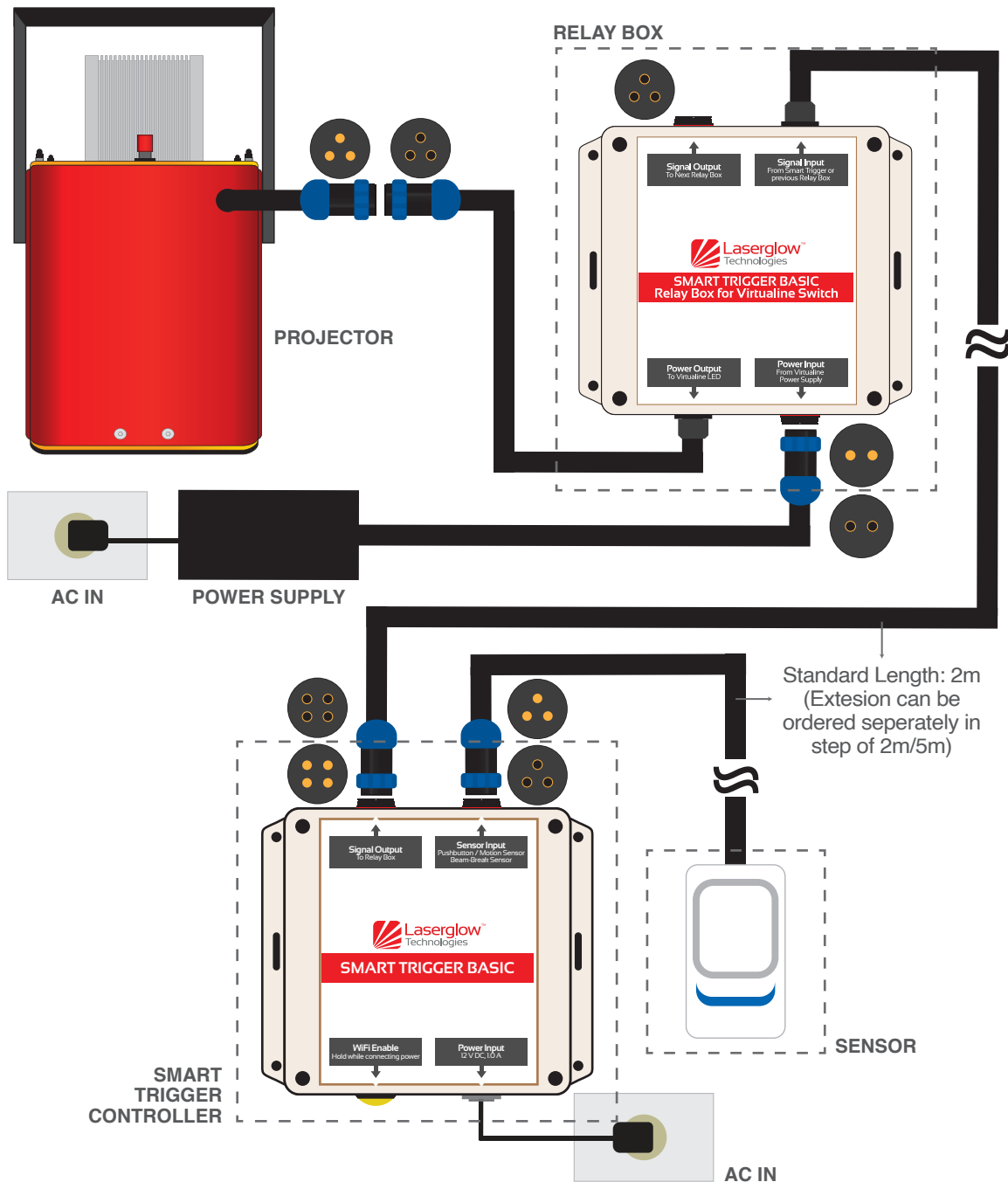
It is normal for the ends of the line produced by the Virtualine™ LED SWITCH to fade out to nothing over a distance, and for the middle of the line to be the brightest area.





# Section 4: Smart Trigger Schematics

VirtuaLine™ SWITCH will only work when connected to a Smart Trigger System. It consists of a Smart Trigger Controller (Sold Separately) that will be connected to the Relay Box that came with the VirtuaLine™ SWITCH. Each Fixture will come with one relay box and switching between the color will be handled by the relay box and Smart Trigger Controller. If you need more than one projector connected to the same Controller Box, it will have to be "daisy chained" using the Signal Output port on the Relay Box as indicated on the label. Signal Output from one relay box will be Jumped to Signal Input of another relay box using Signal extension cable (Ordered Separately, not included in the box).



## Section 5: Troubleshooting

If you are experiencing trouble with your projector, please check if the symptom is listed in this guide. Many common problems can be solved without requiring a return. If you need further assistance, please contact us. Do not attempt to disassemble or repair your projector, as this may void your warranty.

Problem	Possible Cause	Solution
<b>No light emitted from fixture.</b>	Power supply is not receiving electricity.	Check the electrical source to ensure that it is turned on.
	Power supply connection loose.	Try disconnecting and reconnecting the power supply to the fixture.
<b>Line is blurry on one side.</b>	Fixture is mounted to the side of the projected line.	Mount the fixture directly above the midpoint of the line being projected on the floor, or as close to this point as possible.
<b>Line is thin at one end, but wide at the other end.</b>	Fixture is mounted near one end of the line or Focus is not set correctly.	Mount the fixture directly above the midpoint of the line being projected on the floor, or as close to this point as possible. Or adjust the focus until the projected line is as narrow as possible.
<b>Line is not long enough.</b>	Wrong lens fan angle for application.	The lens fan angle cannot be changed by the user. Contact Laserglow for assistance.
<b>Projected line is very blurry or washed out.</b>	Focus is not set correctly.	Adjust the focus until the projected line is as narrow as possible.
<b>The color of the line doesn't change to its default state.</b>	The sensor is not working	Contact Laserglow for assistance.
<b>Change the default colour.</b>	-	Contact Laserglow for assistance.

## Section 6: Maintenance

Laserglow's Virtualine™ LED SWITCH fixtures require very little maintenance. Depending on the cleanliness of your environment, maintenance may be required with some regularity, or never at all. Inspect the fixture regularly to ensure there is no buildup of debris or dust on the output lens or rear heatsink.

### CLEANING THE OUTPUT LENS

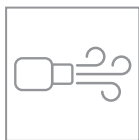
Depending on the operating environment, it is possible that some dust may accumulate on the output lens of the projector. You can use a can of clean compressed air to try to blow the dust off of the lens or use a soft cloth to wipe away any debris. Do not use alcohol or any other chemicals to clean the lens – doing so may cause irreversible damage to the lens and is not covered under warranty.



**NEVER USE tissue paper, paper towel, facial tissues, etc.** The wood fibers in these products can damage the coatings on the lens.



**NEVER USE cleaning solutions other than those explicitly mentioned here.** The lens coatings are delicate and can be damaged by common cleaning products. NEVER touch the lens or other optics with your fingers as oil from your skin can contaminate and damage the coatings. Failure to follow these warnings can result in damage to your laser which will not be covered by warranty.



**1. Compressed air:** You can use a can of clean compressed air to try to blow the dust off of the lens without making physical contact with the lens itself. These are commonly used to clean computer keyboards and can be purchased at any office supply store. They usually have a long tube or nozzle attached to them. Carefully insert this tube a few mm into the aperture of the laser to blow air over the lens. Be careful not to touch the lens with this tube. Hold the can upright or it may produce some liquid which can leave deposits on the lens.



**2. Microfiber cloth:** If there are deposits on the lens that cannot be removed with compressed air, you can try using a microfiber lens cloth to gently wipe the output lens. Ensure that the microfiber cloth is clean before you use it, since any oil, dirt, or grit may damage the lens. Since the lens is slightly recessed in the housing, you may need to twist the microfiber cloth into a small "finger" to get it deep enough into the aperture to make contact. If you still cannot reach the lens with the cloth, you may need to remove the aperture cap from the front of the laser: DISCONNECT THE POWER BEFORE PROCEEDING. Remove the three set screws from the aperture cap and thread the cap all the way off. The output lens should now be exposed, and you can attempt to clean it using the microfiber cloth.



**3. Microfiber cloth and lens cleaning solution:** If a cleaning solution is required use ONLY a specifically designed lens cleaning solution. (Available from camera stores or optics companies.) Use a very small amount and wipe the lens only with a microfiber lens cloth. Do not use any other type of cleaning solution or you may permanently damage the lens.

If these steps fail to improve the quality of the beam please contact us for further assistance.

# Section 7: Warranty Information

## LIMITED PRODUCT WARRANTY

Laserglow Technologies ("Laserglow") warrants that this product is guaranteed to operate within the stated specifications, free from defects in materials and workmanship, for a period of twelve (12) months from the date of delivery. BEFORE RETURNING ANY ITEM FOR SERVICE, PLEASE CONTACT LASERGLOW TO RECEIVE A RETURN AUTHORIZATION (RA) NUMBER. ITEMS RETURNED WITHOUT AN RA NUMBER MAY INCUR DELAYS OR ADDITIONAL FEES.

## LASERGLOW'S PLEDGE TO CORRECT PROBLEMS UNDER WARRANTY

At its option, Laserglow will either repair or replace the in-warranty defective unit without charging the customer for costs of repair or replacement. When parts or products are replaced under warranty the replaced items will automatically become property of Laserglow. Once an item has been repaired or replaced under warranty, the repaired or replacement item assumes the remaining period of warranty based on the original date of delivery, plus the period of time during which the laser was out of the customer's possession. Within North America only, and within the first 30 days of the warranty period, Laserglow will cover the cost of shipping the defective item back to Laserglow and the cost of shipping the repaired/replacement item to the customer. After 30 days, or for overseas shipments, the customer will cover the cost of shipping the defective item back to Laserglow and Laserglow will cover the cost of shipping the repaired/replacement item to the customer. Where Laserglow covers the cost of shipping, the carrier and method of shipping will be at Laserglow's discretion. Items returned to Laserglow as warranty issues, which upon inspection are deemed not to have any defect, will incur a diagnosis service charge of \$119.

## NOT COVERED UNDER THIS WARRANTY

This warranty will become void if any of the following conditions are met:

- The product has been modified or tampered with in any way.
- The product has been dropped or subjected to shock in excess of 100 G.
- The product has been exposed to water, any liquid, or condensing atmospheric humidity.
- The unit was powered from a source other than those which are specified in the instruction manual.
- The unit was operated in an area with ambient temperature outside of the operating temperature range, as stated in the product specifications and instruction manual.
- The serial number or other identifying marks are removed.
- Ownership of the product has changed. (This warranty is not transferable).
- The warranty period has expired.

NEITHER THIS WARRANTY NOR ANY OTHER WARRANTY OR GUARANTY, EXPRESSED OR IMPLIED STATUTORY OR OTHERWISE, INCLUDING ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SHALL EXTEND BEYOND THE WARRANTY PERIOD. NO RESPONSIBILITY IS ASSUMED FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING, WITHOUT LIMITATION, DAMAGES RESULTING FROM PRODUCT MALFUNCTION, INACCURACY, OR MATHEMATICAL INACCURACY OF THE PRODUCT SPECIFICATIONS. NOTHING IN THIS WARRANTY AFFECTS YOUR STATUTORY RIGHTS.

## **OTHER BENEFITS (NON-WARRANTY) THAT ARE ACCORDED TO YOU BY LASERGLLOW**

10% Replacement/Upgrade Credit: At any time, for the lifetime of the product, you may return the product to us in any condition, functional or not, for a trade-in credit equal to 10% of the original purchase price or 10% of the current retail price, whichever is less. The new product which you select must be of equal or greater value than the trade-in product, based on the value used to calculate the 10% credit amount.

### **Out-of-Warranty Repairs**

The cost of any out-of-warranty repair will be \$100/hr for labor, plus materials.

### **Rebuild/Complete Product Refurbishment**

The cost of a complete rebuild or refurbishment of an out-of-warranty product will be no more than 60% of the current retail price.



[www.fsesafe.com](http://www.fsesafe.com) / [www.fse-exdigital.com](http://www.fse-exdigital.com)