



# INSTRUCTION MANUAL

SafetyCast™ 80 Virtual Projector



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## Introduction

Thank you for purchasing the SafetyCast™ Virtual Projector from Laserglow. This projector is designed to provide a bright and highly visible image 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 projector, 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.



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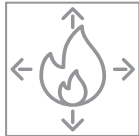


# Section 1: Safety Information

## READ THIS FIRST



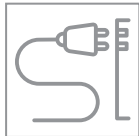
Place the projector in a location that has good air flow.



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



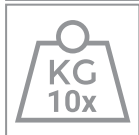
Do not look directly into the light source; it is extremely bright.



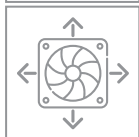
Always disconnect the fixture from power before performing any service on the unit.



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

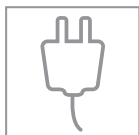


When suspending the fixture above ground level, verify that the structure can hold at least 10 times the weight of all installed devices. Use the safety cable to secure the fixture in addition to the primary mounting bracket.



Provide a minimum clearance of 4 inches (10 cm) around the projector air vents.

## 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 SafetyCast™ 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, if included. 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 projector<sup>1</sup> includes lens with the chosen image template<sup>2</sup>, a mounting bracket<sup>3</sup> and power supply<sup>4</sup>. If you ordered multiple products, check the packing list and make sure that all of the listed items are present. Note that the chosen projection image template will be installed by Laserglow before shipping – usually it is easy to verify that the image template is installed by looking directly into the projector lens while the projector is off. Never look directly into the lens while the projector is on! If everything is included and there is no evident damage, proceed through this manual for instructions on how to set up and install your projector. If there is any discrepancy please contact Laserglow immediately.





# Section 3: Setup and Operation

1

The projector does not have a power switch and will turn on as soon as power is connected.

2

Focus the projection by threading the lens in and out until the image is well focused. The projector is shipped with the lens all the way retracted to reduce the overall size. You may need to unscrew the lens more than 40 complete revolutions before good focus is achieved.

3

Turn on the image rotator with the pushbutton on the side of the projector, and switch it back off when the image projects in the desired position. There are no controls for speed or direction of the image rotator.

4

Re-adjust the focus if necessary. Note that the **image rotator is not intended for continuous operation**. Damage to the image rotator resulting from continuous use is not covered under warranty.

5

The focus can be locked in position by tightening the retaining ring on the focusing lens onto the projector body. Note that there is a rubber O-ring to prevent the retaining ring from damaging the projector.

6

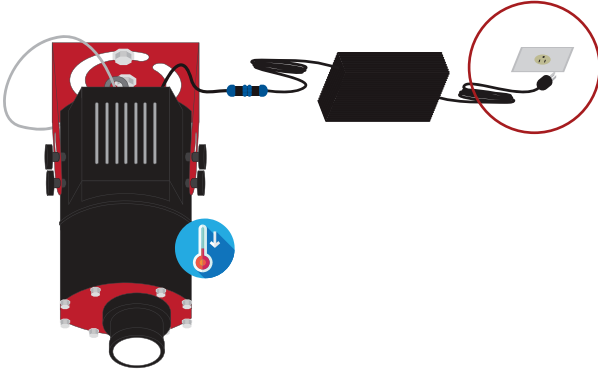
NOTE: When installing the power supply, do not add cable extensions between the power supply and the projector. The length of cable between the power supply and projector should be as short as possible (6 feet maximum, 3 feet or less recommended). Any extensions required to bring power to the projector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



## PROJECTION LENSES AND CHANGING THE PROJECTED IMAGE

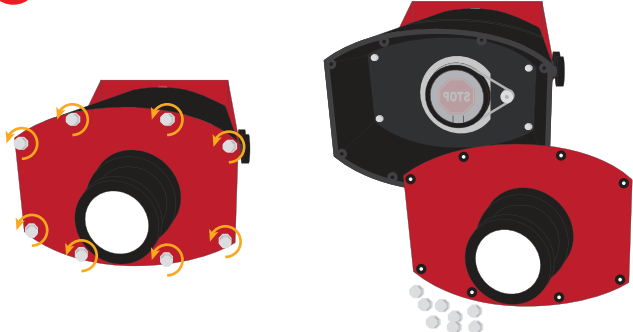
The projector accommodates interchangeable projection lenses to alter the projection size and brightness at various distances. The smaller the projection angle of the lens, the smaller and brighter the image will be. The lens can be removed by simply unscrewing it all the way - please note this may take dozens of full turns.

1



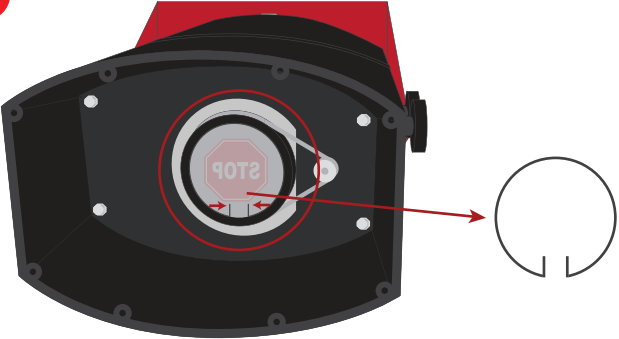
If the projector is on, turn it off and allow the unit to cool for at least 5 minutes before proceeding.

2



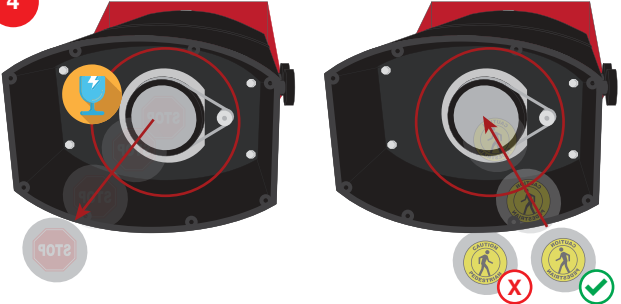
Remove the front cover (with the projection lens) by removing the eight screws holding it in place.

3



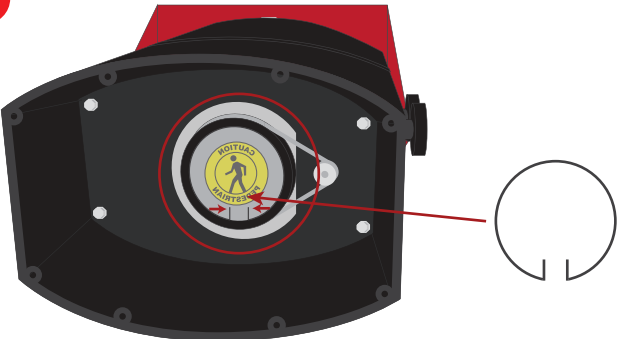
Push the two pins of the image template retaining ring together and pull out the retaining ring.

4




Carefully remove the old image template and replace it with the new image template. The image template should appear to be backwards or mirrored when looking into the front of the projector.

5



Replace the retaining ring and make sure it evenly pushes the image template all the way in.

6

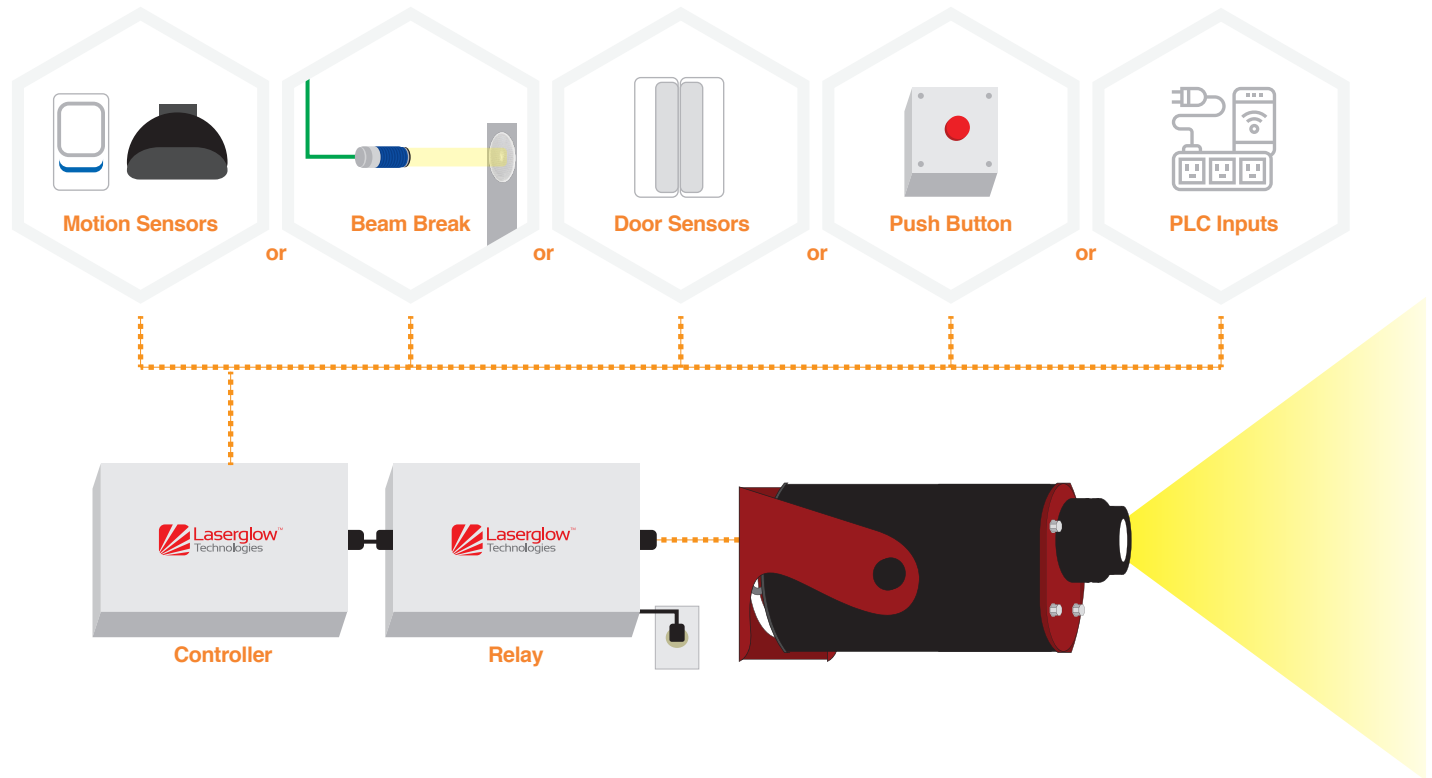


Replace the front cover and adjust the focus as needed. You will likely need to use the image rotator to align the projection as well.



## Section 4: Accessories and Options

The most popular accessories for SafetyCast™ 80 Virtual Projector are shown below. For additional details regarding these or other accessories please see our website or contact us directly.







## 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 projector.</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 projector.
<b>Projector is on, but projection is just a colored or white circle with fuzzy edges.</b>	Projector is out of focus.	Rotate the lens on the front of the projector to improve the focus. It may require 40 or more full revolutions if the projector is being used for the first time.
<b>Image is rotating continuously.</b>	Image rotator is active.	Press the silver button on the side of the projector, near the front, to enable and disable the image rotator. Note that the image rotator is not intended for continuous use.
<b>Image is backwards or mirrored.</b>	Image template installed the wrong way.	Remove the image template by following the instructions in section 3. A correctly installed template will appear backwards or mirrored when looking into the front of the projector.



## Section 6: Maintenance

Laserglow's SafetyCast™ 80 Virtual 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.



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