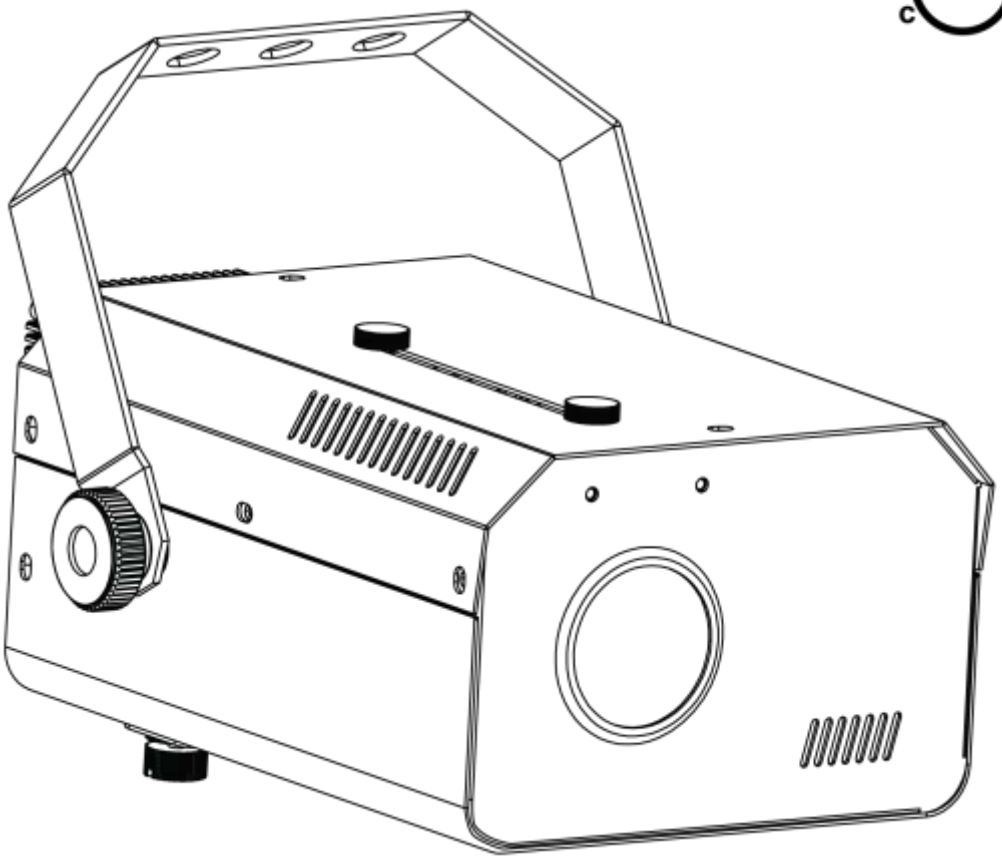
# Gobo Zoom™ LED 2.0

## *User Manual*



CHAUVET®

Value · Innovation · Performance

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# 1. BEFORE YOU BEGIN

## What is Included

- 1 x Gobo Zoom™ LED 2.0
- 1 x Set of four colored gels
- 1 x Set of eight replacement gobos
- 1 FREE gobo of Chauvet's logo
- 1 x Power cord
- 1 x Warranty card
- 1 x User Manual

## Unpacking Instructions

Immediately upon receiving a product, carefully unpack the carton, check the contents to ensure that all parts are present, and have been received in good condition.

## Claims

If the container or the material inside the container (this product and any other accessory included) appears damaged from shipping, or shows signs of mishandling, notify the carrier immediately, not CHAUVET®, upon receipt of the damaged merchandise. Failure to do so in a timely manner may invalidate your claim with the carrier. In addition, retain the container and all the packing material for inspection.

For other issues such as missing components or parts, damage not related to shipping, or concealed damage, file a claim with CHAUVET® within seven (7) days of receiving the merchandise.

## Manual Conventions

CHAUVET® manuals use the following conventions to differentiate certain types of information from the regular text.

| CONVENTION | MEANING |
|---|---|
| [10] | A DIP switch to be configured |
| **<Menu>** | A key to be pressed on the product's control panel |
| 1~512 | A range of values |
| 50/60 | A set of values of which only one can be chosen |
| ***Settings*** | A menu option not to be modified (for example, showing the operating mode/current status) |
| ***MENU > Settings*** | A sequence of menu options to be followed |
| **ON** | A value to be entered or selected |

## Icons

This manual uses the following icons to indicate information that requires special attention on the part of the user.

| ICONS | MEANING |
|---|---|
|  | This paragraph contains critical installation, configuration or operation information. Failure to comply with this information may render the product partially or completely inoperative, cause damage to the product or cause harm to the user. |
|  | This paragraph contains important installation or configuration information. Failure to comply with this information may prevent the product from functioning correctly. |
|  | This paragraph reminds you of useful, although not critical, information. |

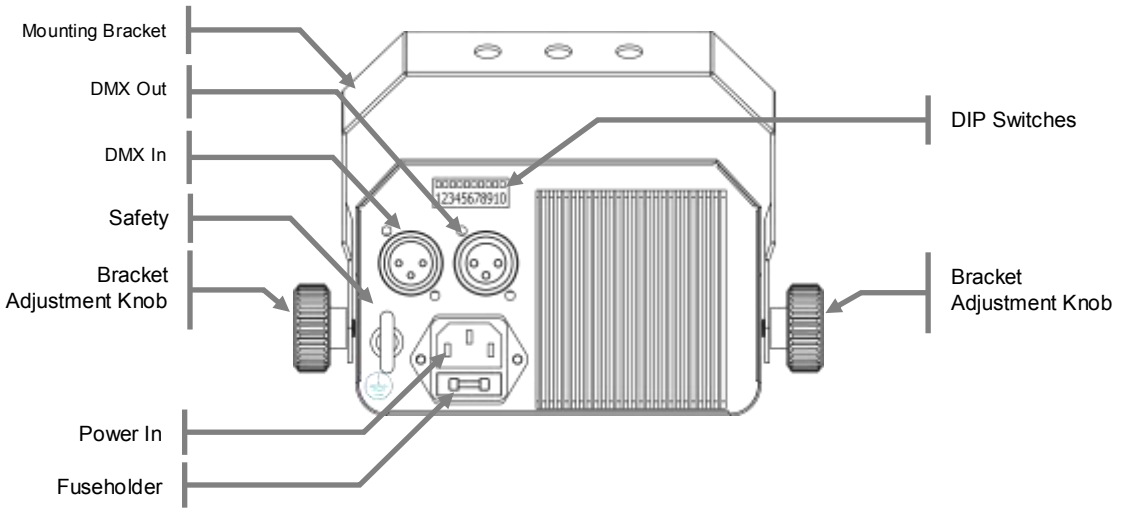
# Safety Instructions

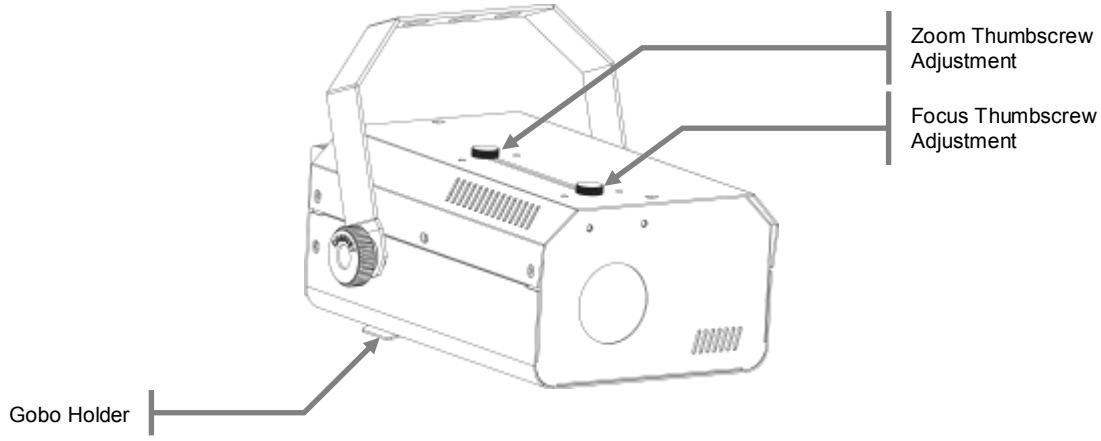
Please read these instructions carefully. It includes important information about the installation, usage and maintenance of this product.

- Please keep this User Manual for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.
- Always make sure that you are connecting to the proper voltage, and that the line voltage you are connecting to is not higher than that stated on the decal or rear panel of the product.
- This product is intended for indoor use only! To prevent risk of fire or shock, do not expose product to rain or moisture.
- Make sure there are no flammable materials close to the unit while operating.
- The unit must be installed in a location with adequate ventilation, at least 20 in (50 cm) from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Always disconnect from power source before servicing or replacing fuse and be sure to replace with same fuse source.
- Secure product to fastening device using a safety chain.
- Maximum ambient temperature (Ta) is 104° F (40° C). Do not operate product at temperatures higher than this.
- In the event of a serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center.
- Never connect the device to a dimmer pack.
- Make sure the power cord is never crimped or damaged.
- Never disconnect the power cord by pulling or tugging on the cord.
- Never carry the product directly from the cord. Always use the hanging/mounting bracket.
- Avoid direct eye exposure to the light source while it is on.

# 2. INTRODUCTION

## Product Overview



# 3. SETUP

## AC Power

This product runs on 100~240 VAC, 50/60 Hz. Before powering on the unit, make sure the line voltage to which you are connecting it is within the range of accepted voltages.

To determine the power requirements for a particular product, see the label affixed to the back plate of the product or refer to the product's specifications chart. A product's listed current rating indicates its average current draw under normal conditions.

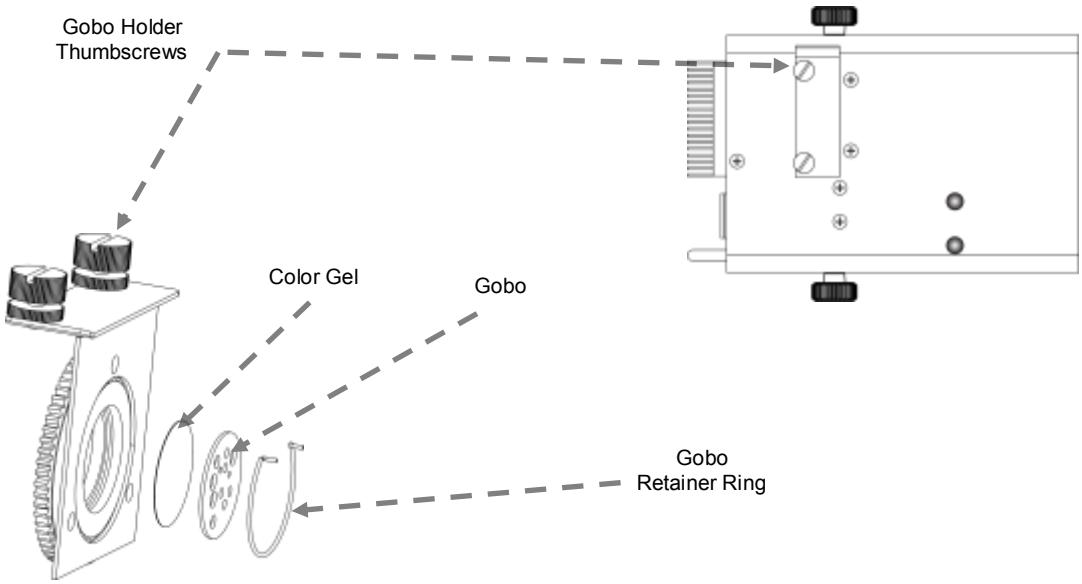
***Always connect the product to a switched circuit. Never connect the product to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used only as a 0 to 100% switch.***

***Always connect the product to a circuit with a suitable electrical ground.***

## Replacing the Gobo/Color Gel

This product has replaceable gobos and colored gels. See the instructions below.

1. Remove power to the Gobo Zoom™ LED 2.0.
2. On the underside of the product, locate the two thumbscrews that secure the gobo holder in place.
3. Remove the thumbscrews and carefully slide the gobo holder vertically apart from the product.
4. Locate the gobo retainer ring and remove it. Use caution for this step, as the retainer ring will be under tension. This may cause the ring to be difficult to remove, as well as unstable after removal. Be careful not to lose it.
5. Remove any gobo that may already be installed.
6. Place the new color gel and gobo in position in the gobo holder, shown below.
7. Reinstall the gobo retainer ring securely.
8. Slide the gobo holder back into the product and tighten the two thumbscrews.



# Mounting

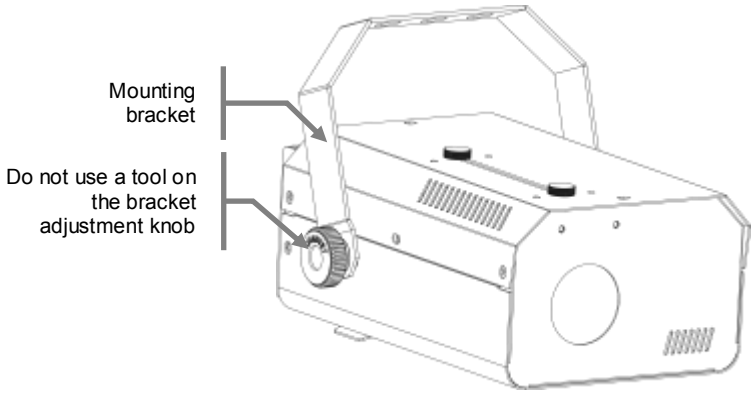
## Orientation

The Gobo Zoom™ LED 2.0 may be mounted in any position, provided there is adequate room for ventilation.

## Rigging

Be sure that the structure can support the weight of the product. Please see the "Technical Specifications" section of this manual for a detailed weight listing. Mount the product securely. This may be done with a screw, nut and bolt, or a hanging clamp. The hole in each bracket is 13 mm in size. When rigging consider routine maintenance and control panel access. Please see the following notes on installation.

- When aiming the products, you may use the bracket adjustment knob. Loosen the knob, adjust to the desired angle, and then tighten the knob by turning clockwise. Do not use tools for this step, as it may cause damage.
- Safety cables must always be used.



# 4. OPERATING INSTRUCTIONS

## Configuring the Starting Address

The Gobo Zoom™ LED 2.0 product uses **two** DMX channels. The highest channel that the product may be set to in order to function properly is **511**. Any address higher than this will prevent access to all of the channels.

If this is your first time using DMX, we recommend reading the "DMX Primer" section in the "Appendix".

### DMX Operation

This is the operating mode which will allow for control with an external DMX controller. You must set the starting address for this mode. If this is your first time using DMX, then it is recommended that you refer to the "DMX Primer" section in the "Appendix" of this manual.

| **Mode** | **DIP switches** |
|---|---|
| DMX | 1~9 = set to the DMX starting address<br>10 = On (DMX mode) |

### Standalone

This product has preprogrammed operating modes. These are accessed via the DIP switches on the back of the product.

DIP switch [10] must be OFF in this mode.

Please see the chart below for further explanation.

| **Mode** | **DIP switches** |
|---|---|
| 100% Dimmer, Slow Rotation Speed | 1 = ON |
| **100% Dimmer, Medium Rotation** | **2 = ON** |
| **Speed** | 3 = ON |
| 100% Dimmer, Fast Rotation Speed | **4 = ON** |
| **100% Dimmer, No Rotation** | |

***The DIP switches will not work together. Higher the switch values have higher priority. Only use one out of the four modes listed above!***

## DMX Channel Values

| CHANNEL | VALUE | FUNCTION |
|---|---|---|
| **1** | 000 ⇔ 255 | **Dimmer**<br>0%~100% |
| **2** | 000 ⇔ 255 | **Gobo Rotation**<br>Slow~fast |

***The product ships with the gobos shown below.***

# 5. APPENDIX

## General Troubleshooting

| SYMPTOM | POSSIBLE CAUSE(S) | POSSIBLE ACTION(S) |
|---|---|---|
| Breaker/Fuse keeps blowing | • Excessive circuit load | • Check total load placed on the electrical circuit. |
| | • Short circuit along the power wires | • Check for a short in the electrical wiring (internal and/or external). |
| Device does not power up | • No power | • Check for power on Mains. |
| | • Loose power cord | • Check power cord |
| Product is not responding to DMX | • Wrong DMX addressing | • Check Control Panel and unit addressing |
| | • Damaged DMX cables | • Check DMX cables |
| | • Wrong polarity settings on the controller | • Check polarity switch settings on the controller |
| | • Loose DMX cables | • Check cable connections |
| | • Faulty DMX interface | • Replace DMX input |
| | • Faulty Main PCB | • Replace Main PCB |
| Loss of signal | • Non DMX cables | • Use only DMX compatible cables |
| | • Bouncing signals | • Install terminator as suggested. |
| | • Long cable / Low level signal | • Install amplifier right after product with strong signal. |
| | • Too many products | • Install an optically coupled DMX splitter after unit #32. |
| | • Interference from AC wires | • Keep DMX cables separated from power cables or black lights. |

***If you still have a problem after trying the above solutions, please contact CHAUVET® Technical Support.***

# DMX Primer

There are 512 channels in a DMX connection. A product capable of receiving DMX will require one or a number of sequential channels. The user must assign a starting address on the product that indicates the first channel reserved in the controller. There are many different types of DMX controllable products and they all may vary in the total number of channels required. Choosing a start address should be planned in advance. Channels should never overlap. If they do, this will result in erratic operation of the products whose starting address is set incorrectly. You can however, control multiple products of the same type using the same starting address as long as the intended result is that of unison movement or operation. In other words, the products will all respond exactly the same.

DMX products are designed to receive data through a daisy chain. A daisy chain connection is where the DATA OUT of one product connects to the DATA IN of the next product. The order in which the products are connected is not important and has no effect on how a controller communicates to each product. Use an order that provides for the easiest and most direct cabling. Connect products using shielded two conductor twisted pair DMX data cable with three pin XLR male to female connectors. The shield connection is pin 1, while pin 2 is Data Negative (S-) and pin 3 is Data positive (S+).

# Product Linking (Daisy Chain)

You will need a daisy chain to run light shows of one or more products using a DMX controller or to run synchronized shows on two or more products set to a master/slave operating mode. The combined number of channels required by all the products on a daisy chain determines the number of products the data link can support.

***To comply with the EIA-485 standard, do not connect more than 32 products on one daisy chain. Connecting more than 32 products on one daisy chain without the use of a DMX optically-isolated splitter may result in deterioration of the digital DMX signal.***

*Maximum recommended cable distance: 500 m (1640 ft)*
*Maximum recommended number of products on a daisy chain: 32*

# Data Cabling

To link products together you must obtain data cables. You can purchase CHAUVET® certified DMX cables directly from a dealer/distributor or construct your own cable. If you choose to create your own cable please use data-grade cables that can carry a high quality signal and are less prone to electromagnetic interference.

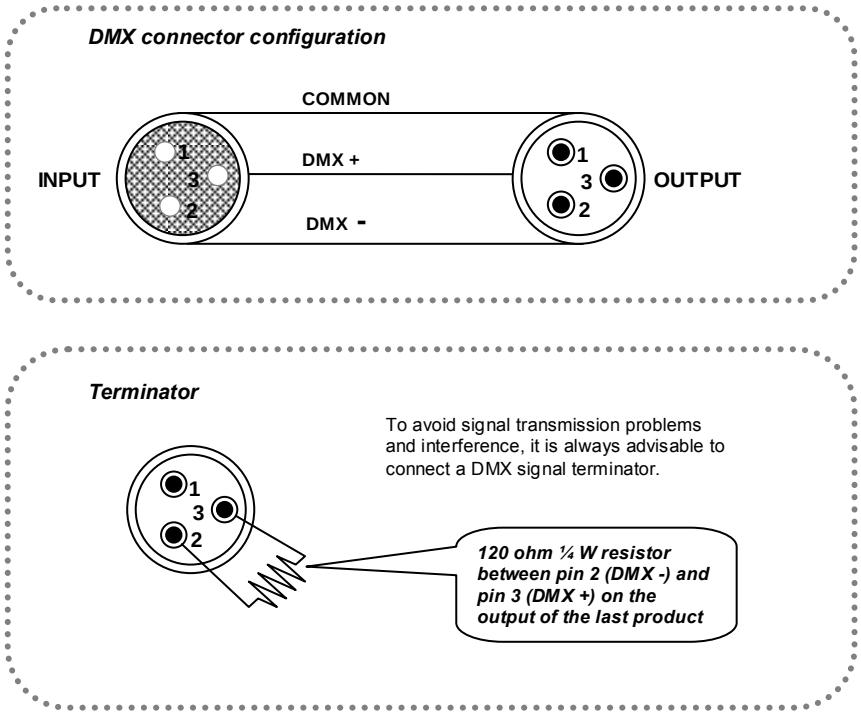
## DMX Data Cable

Use a Belden© 9841 or equivalent cable which meets the specifications for EIA RS-485 applications. Standard microphone cables cannot transmit DMX data reliably over long distances. The cable must have the following characteristics:

| | |
|---|---|
| *Type:* | *shielded, 2-conductor twisted pair* |
| *Maximum capacitance between conductors:* | *30 pF/ft* |
| *Maximum capacitance between conductor and shield:* | *55 pF/ft* |
| *Maximum resistance:* | *20 ohms/1000 ft* |
| *Nominal impedance:* | *100 ~ 140 ohms* |

## Cable Connectors

Cabling must have a male XLR connector on one end and a female XLR connector on the other end.




***Do not allow contact between the common and the product's chassis ground. Grounding the common can cause a ground loop, and your product may perform erratically. Test cables with an ohm meter to verify correct polarity and to make sure the pins are not grounded or shorted to the shield or each other.***

## Setting the Starting Address

This DMX mode enables the use of a universal DMX controller device. Each product requires a start address from 1~512. A product requiring one or more channels for control begins to read the data on the channel indicated by the start address. For example, a product that uses six DMX channels and was addressed to start on DMX channel 100, would read data from channels: 100, 101, 102, 103, 104, and 105. Choose start addresses so that the channels used do not overlap, and note the start address selected for future reference.

If this is your first time addressing a product using the DMX control protocol, we suggest jumping to the "Appendix" section and reading the heading "DMX Primer". It contains very useful information that will help you understand its use.

## 3-Pin to 5-Pin Conversion Chart

***If you use a controller with a 5-pin DMX output connector, you will need to use a 5-pin to 3-pin adapter. The chart below details a proper cable conversion:***

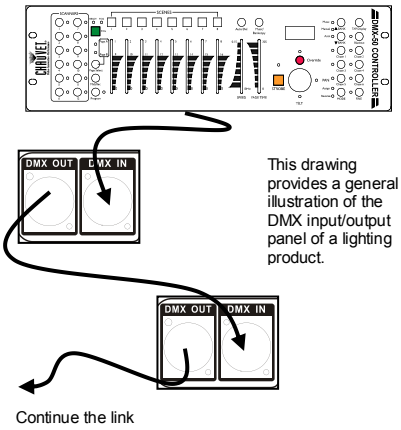
**3-PIN TO 5-PIN CONVERSION CHART**

| Conductor | 3-Pin Female (Output) | 5-Pin Male (Input) |
|---|---|---|
| **Ground/Shield** | Pin 1 | Pin 1 |
| **Data ( - ) signal** | Pin 2 | Pin 2 |
| **Data ( + ) signal** | Pin 3 | Pin 3 |
| **Not used** | | Pin 4 |
| **Not used** | | Pin 5 |

## Setting up a DMX Daisy Chain

1. Connect the (male) 3-pin connector side of the DMX cable to the output (female) 3-pin connector of the controller.
2. Connect the end of the cable coming from the controller which will have a (female) 3-pin connector to the input connector of the next product consisting of a (male) 3-pin connector.
3. Then, proceed to connect from the output as stated above to the input of the following product and so on.

**Universal DMX Controller**




This drawing provides a general illustration of the DMX input/output panel of a lighting product.

## General Maintenance

To maintain optimum performance and minimize wear, products should be cleaned frequently. Usage and environment are contributing factors in determining frequency. As a general rule, products should be cleaned at least twice a month. Dust build up reduces light output performance and can cause overheating. This can lead to reduced lamp life and increased mechanical wear. Be sure to power off product before conducting maintenance.

- Unplug product from power.
- Use a vacuum or air compressor and a soft brush to remove dust collected on external vents.
- Clean all lenses when the product is cool with a mild solution of glass cleaner or Isopropyl Alcohol and a soft lint free cotton cloth or lens tissue.
- Apply solution to the cloth or tissue and drag dirt and grime to the outside of the lens.
- Gently polish optical surfaces until they are free of haze and lint.

The cleaning of external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the product operates. Damp, smoky or particularly dirty surroundings can cause greater accumulation of dirt on the unit's optics. Clean with soft cloth using normal glass cleaning fluid. Clean the external optics at least every 20 days. Clean the product at least every 30/60 days.

***Always dry the parts carefully after cleaning them.***

***Never spin a fan using compressed air.***

## Returns Procedure

Returned merchandise must be sent prepaid and in the original packing; call tags will not be issued. Package must be clearly labeled with a Return Merchandize Authorization Number (RMA #). Products returned without the RMA # will be refused. Call CHAUVET® and request an RMA # prior to shipping the product. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to pack product properly; any shipping damage resulting from inadequate packaging is the customer's responsibility. As a suggestion, proper UPS packing or double-boxing is always a safe method to use. CHAUVET® reserves the right to use its own discretion to repair or replace product(s).

***If you are given an RMA #, please include the following information on a piece of paper inside the box:***

1) ***Your name***
2) ***Your address***
3) ***Your phone number***
4) ***The RMA #***
5) ***A brief description of the symptoms***

# TECHNICAL SPECIFICATIONS

**WEIGHT & DIMENSIONS**

| | |
|---|---|
| Length | 9 in (230 mm) |
| Width | 7 in (186 mm) |
| Height | 7 in (182 mm) |
| Weight | 4.4 lbs (2 kg) |

**POWER**

| | |
|---|---|
| Auto-ranging power supply | 100~240 VAC, 50/60 Hz |
| Power consumption @ 120 V | 18 W (0.3 A) max, 0.2 A inrush |
| Power consumption @ 230 V | 17 W (0.2 A) max, 0.2 A inrush |

**GOBO DIMENSIONS**

| | |
|---|---|
| Outside | 28.6 mm |
| Image | 26 mm |
| Maximum thickness | 1 mm |

**LIGHT SOURCE**

| | |
|---|---|
| Type | high-power, single source LED |
| Quantity | 1 |
| Rating (white) | (15 W) 4 A, 50,000 hrs |

**PHOTO OPTIC**

| | |
|---|---|
| Zoom angle | 18°~25° |

**INDOOR/OUTDOOR**

| | |
|---|---|
| Rating | For indoor use only |

**THERMAL**

| | |
|---|---|
| Maximum ambient temperature | 104° F (40° C) |

**CONTROL & PROGRAMMING**

| | |
|---|---|
| Data input | locking 3-pin XLR female socket |
| Data output | locking 3-pin XLR male socket |
| Data pin configuration | pin 1 shield, pin 2 (-), pin 3 (+) |
| Protocol | DMX-512 USITT |
| DMX Channels | 2 |

**ORDERING INFORMATION**

| | |
|---|---|
| Gobo Zoom™ LED 2.0 | GOBOZOOMLED2 |

**WARRANTY INFORMATION**

| | |
|---|---|
| Warranty | 2-year limited warranty |

# CONTACT US

**World Wide**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