



LASER LIGHT
AVOID DIRECT EYE EXPOSURE
CLASS 3R LASER PRODUCT
CLASSIFIED PER EN/IEC 60825-1:2007
Complies with FDA performance standards
for laser products except for deviations
pursuant to Laser Notice No. 50, dated
June 24, 2007.

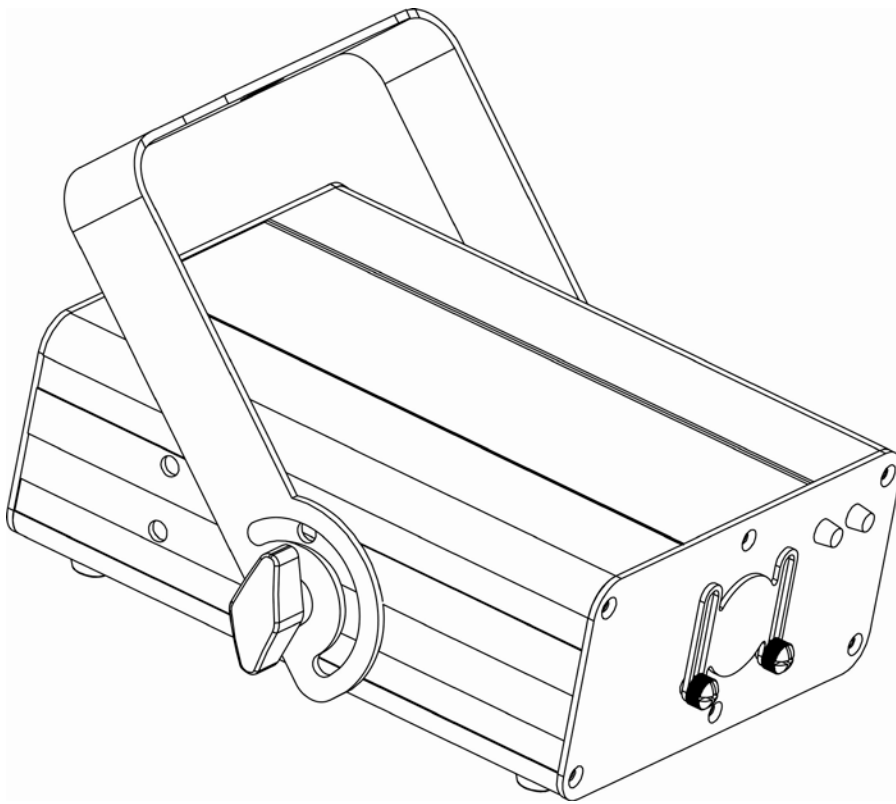


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1. BEFORE YOU BEGIN

What Is Included

- 1 x Scorpion™ Storm MG
- Hanging Bracket with Mounting Hardware
- 1 x Power Cord
- 1 x Warranty Card
- 1 x User Manual

Unpacking Instructions

Immediately upon receipt, carefully unpack this product and check the container to make sure you have received all the parts indicated above 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
<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 the following notes carefully because they include important safety information about the installation, usage, and maintenance of this product.

- Keep this User Manual for future consultation. If you sell this product to another user, be sure that they also receive this document.
 - Always make sure that the voltage of the outlet to which you are connecting this product is within the range stated on the decal or rear panel of the product.
 - This product is for indoor use only! To prevent risk of fire or shock, do not expose this product to rain or moisture.
 - Make sure there are no flammable materials close to the unit while operating.
 - Always install this product 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 this product from the power source before cleaning it or replacing fuse.
 - Make sure to replace the fuse with another of the same type and rating.
 - If mounting it overhead, always secure this product to a fastening device using a safety chain.
 - The maximum ambient temperature (Ta) is 104° F (40° C). Do not operate this product at higher temperatures.
 - In the event of a serious operating problem, stop using the unit immediately. Never try to repair the unit. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center.
 - Never connect this product to a dimmer pack.
 - Make sure the power cord is not crimped or damaged.
 - Never disconnect the power cord by pulling or tugging on the cord.
 - Never carry a product from the power cord or any moving part. Always use the hanging/mounting bracket or the handles.
 - Always avoid direct eye exposure to the light source when this product is on.
 - Lasers can be hazardous and have unique safety considerations. Permanent eye injury and blindness is possible if lasers are used incorrectly. Pay close attention to each safety REMARK and WARNING statement in this user manual. Read all instructions carefully BEFORE operating this device.

 - **Avoid direct eye contact with laser light. Never intentionally expose your eyes or others to direct laser light.**
 - **This laser product can potentially cause instant eye injury or blindness if laser light directly strikes the eyes.**
 - **It is illegal and dangerous to shine this laser into audience areas, where the audience or other personnel could get direct laser beams or bright reflections into their eyes.**
- 
- **It is a US Federal offense to shine any laser at aircraft.**
 - **Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.**
 - **There are no user serviceable parts inside the unit. Do not open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact the dealer nearest to you.**
 - **Avoid direct eye contact with laser light. Never intentionally expose your eyes or others to direct laser light.**

Non Interlocked Housing Warning

- This unit contains high power laser devices internally.
- Do not open the laser housing, due to potential exposure to unsafe levels of laser radiation.
- The laser power levels, accessible if the unit is opened, can cause instant blindness, skin burns, and fires.

Laser Safety Notes



STOP AND READ ALL THE LASER SAFETY NOTES BELOW

Laser Light is different from any other light sources with which you may be familiar. The light from this product can potentially cause eye injury if not set up and used properly. Laser light is thousands of times more concentrated than light from any other kind of light source. This concentration of light can cause instant eye injuries, primarily by burning the retina (the light sensitive portion at the back of the eye). Even if you cannot feel “heat” from a laser beam, it can still potentially injure or blind you or your audience. Even very small amounts of laser light are potentially hazardous even at long distances. Laser eye injuries can happen quicker than you can blink.




It is incorrect to think that because these laser entertainment products split the laser into hundreds of beams that the laser beam is scanned out in high speed, that an individual laser beam is safe for eye exposure. This laser product uses dozens of milliwatts of laser power (Class 3B levels internally) before it splits into multiple beams (Class 3R levels). Many of the individual beams are potentially hazardous to the eyes.

It is also incorrect to assume that because the laser light is moving, it is safe. This is not true. Nor, do the laser beams always move. Since eye injuries can occur instantly, it is critical to prevent the possibility of any direct eye exposure. In the laser safety regulation, it is not legal to aim Class 3R lasers in areas which people can get exposed. This is true even if it is aimed below people’s faces, such as on a dance floor.

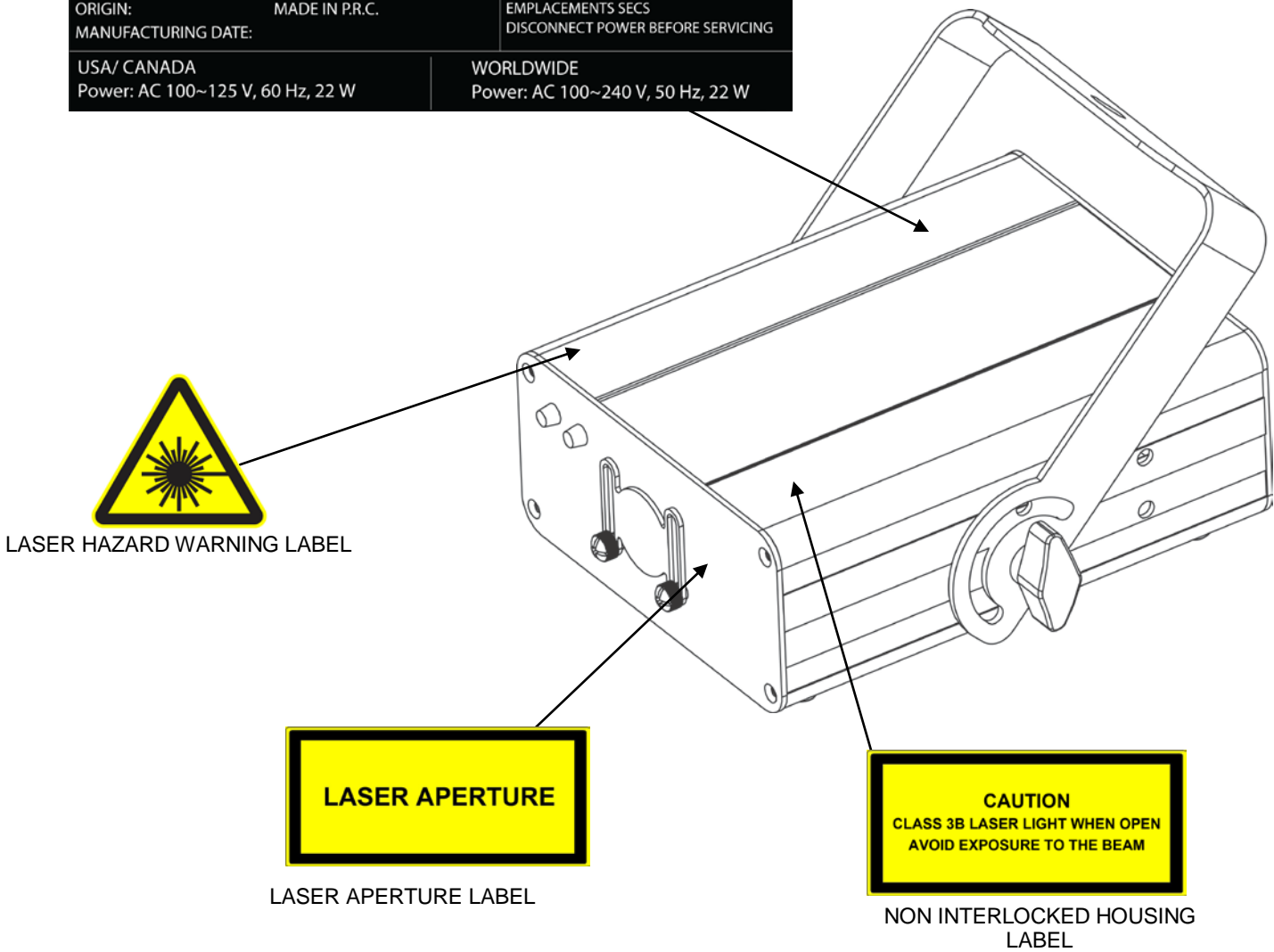


- Do not operate the laser without first reading and understanding all safety and technical data in this manual.
- Always set up and install all laser effects so that all laser light is at least 3 meters (9.8 feet) above the floor on which people can stand. See “Proper Usage” section later in this manual.
- After set up, and prior to public use, test laser to ensure proper function. Do not use if any defect is detected. Do not use if laser emits only one or two laser beams rather than dozens/hundreds, as this could indicate damage to the diffraction grating optic, and could allow emission of higher laser levels above Class 3R.
- Do not point lasers at people or animals.
- Never look into the laser aperture or laser beams.
- Do not point lasers in areas in which people can potentially get exposed, such as uncontrolled balconies, etc.
- Do not point lasers at highly reflective surfaces, such as windows, mirrors and shiny metal. Even laser reflections can be hazardous.
- Never point a laser at aircraft, this is a federal offense.
- Never point un-terminated laser beams into the sky.
- Do not expose the output optic (aperture) to cleaning chemicals.
- Do not use laser if the laser appears to be emitting only one or two beams.
- Do not use the laser if the housing is damaged, open, or if the optics appear damaged in any way.
- Never open the laser housing. The high laser power levels inside of the protective housing can start fires, burn skin and will cause instant eye injury.
- Never leave this device running unattended.
- The operation of a class 3R laser show is only allowed if the show is controlled by a skilled and well-trained operator, familiar with the data included in this manual.
- The legal requirements for using laser entertainment products vary from country to country. The user is responsible for the legal requirements at the location/country of use.
- Always use appropriate lighting safety cables when hanging lights and effects overhead.

Laser Safety Label Reproduction

<p>LASER LIGHT AVOID DIRECT EYE EXPOSURE CLASS 3R LASER PRODUCT <5 mW, 532nm, 750uSec - CW</p> <p>CLASSIFIED PER EN/IEC 60825-1:2007</p>		<p>CHAUVET Lighting 5200 NW 108th Avenue Sunrise, FL 33351</p>
<p>Complies with FDA performance standards for laser products except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.</p>		
  		
<p>PRODUCT NAME: Scorpion™ Storm MG ITEM CODE: 10060260 POWER: 12VDC 1A LIGHT SOURCE: LASER ORIGIN: MADE IN P.R.C. MANUFACTURING DATE:</p>	<p>THIS APPLIANCE MUST BE GROUNDED USE ONLY FUSE OF SAME TYPE & RATING NOT FOR RESIDENTIAL USE IMPROPRE A L'USAGE DOMESTIQUE FOR INDOOR USE ONLY EMPLACEMENTS SECS DISCONNECT POWER BEFORE SERVICING</p>	
<p>USA/ CANADA Power: AC 100~125 V, 60 Hz, 22 W</p>	<p>WORLDWIDE Power: AC 100~240 V, 50 Hz, 22 W</p>	

EXPLANATORY, MANUFACTURER'S ID & CERTIFICATION LABEL





LASER EXPOSURE



Laser light - Avoid direct eye contact!

Further guidelines and safety programs for safe use of lasers can be found in the ANSI Z136.1 Standard "For Safe Use of Lasers", available from the Laser Institute of America: www.laserinstitute.org. Many local governments, corporations, agencies, military and others, require all lasers to be used under the guidelines of ANSI Z136.1. Laser Display guidance can be obtained via the International Laser Display Association: www.laserist.org.

Laser Emission Data

Laser Classification	Class 3R
Green Laser Medium	DPSS Nd:YVO4, 532nm
Red Laser Medium	LD GaAlAs 650nm, typical
Beam Diameter	<5mm at aperture
Pulse Data	All pulses < 4Hz (>0.25sec)
Divergence (each beam)	<2 mrad
Divergence (total light)	<160 degrees
Laser Power of Each Beam from Aperture*	<5mW

* As measured under IEC measurement conditions for classification.

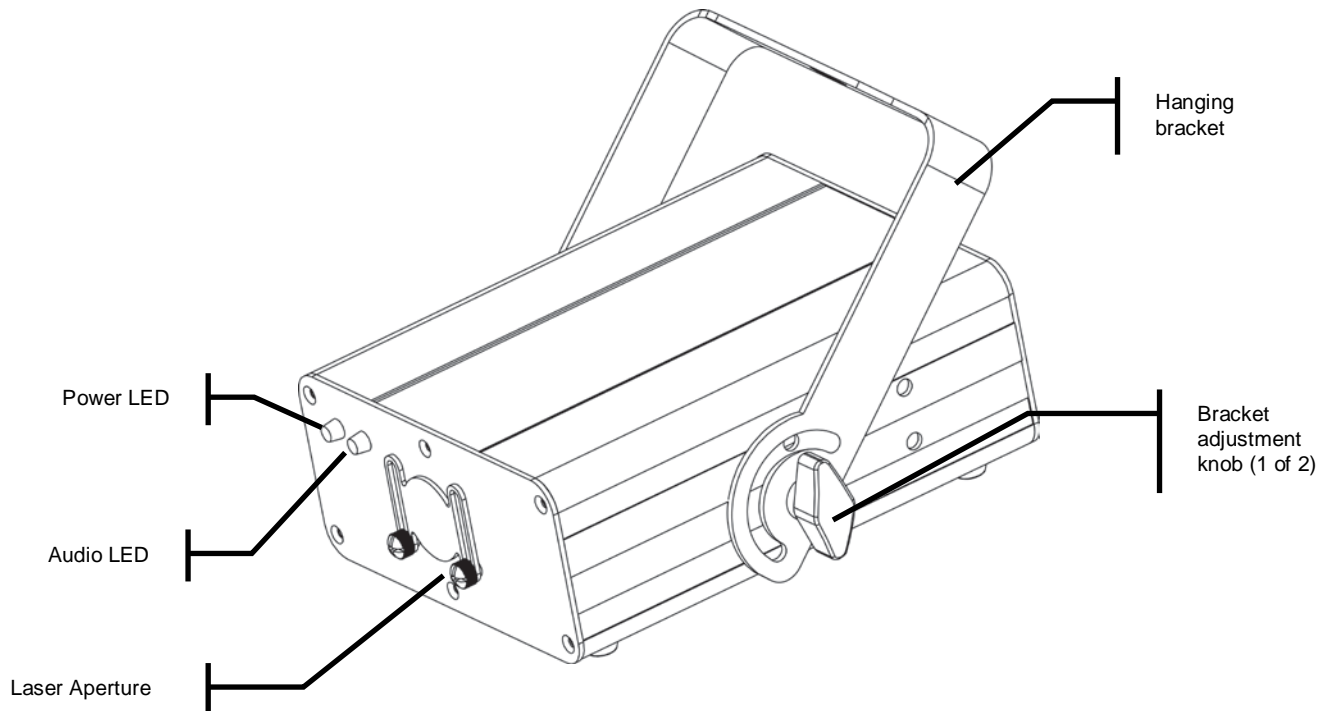
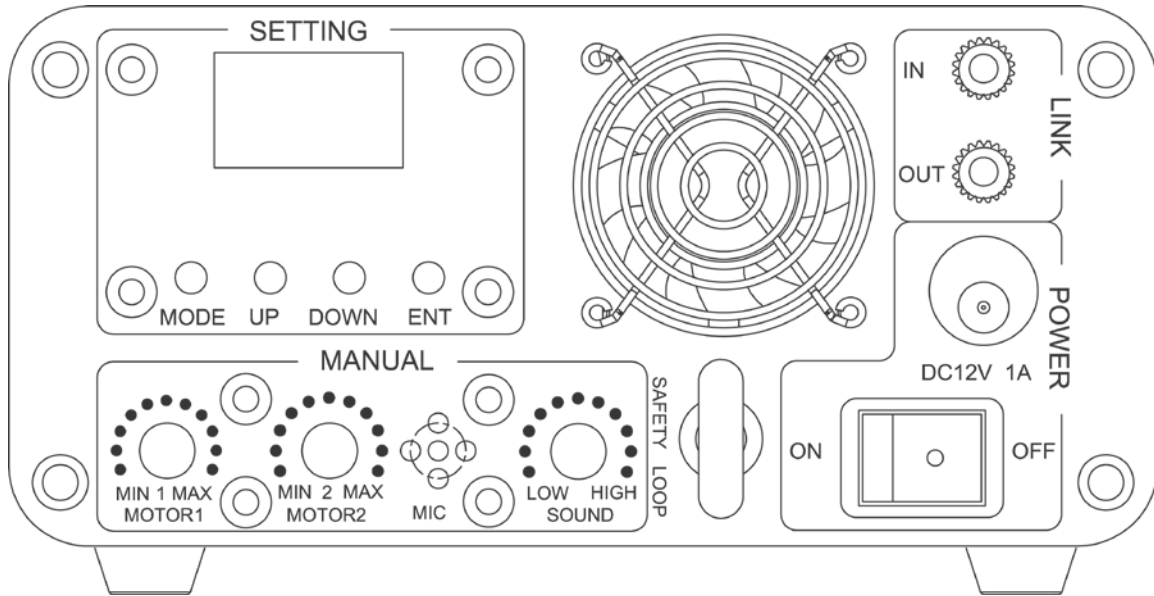
Laser Compliance Statement



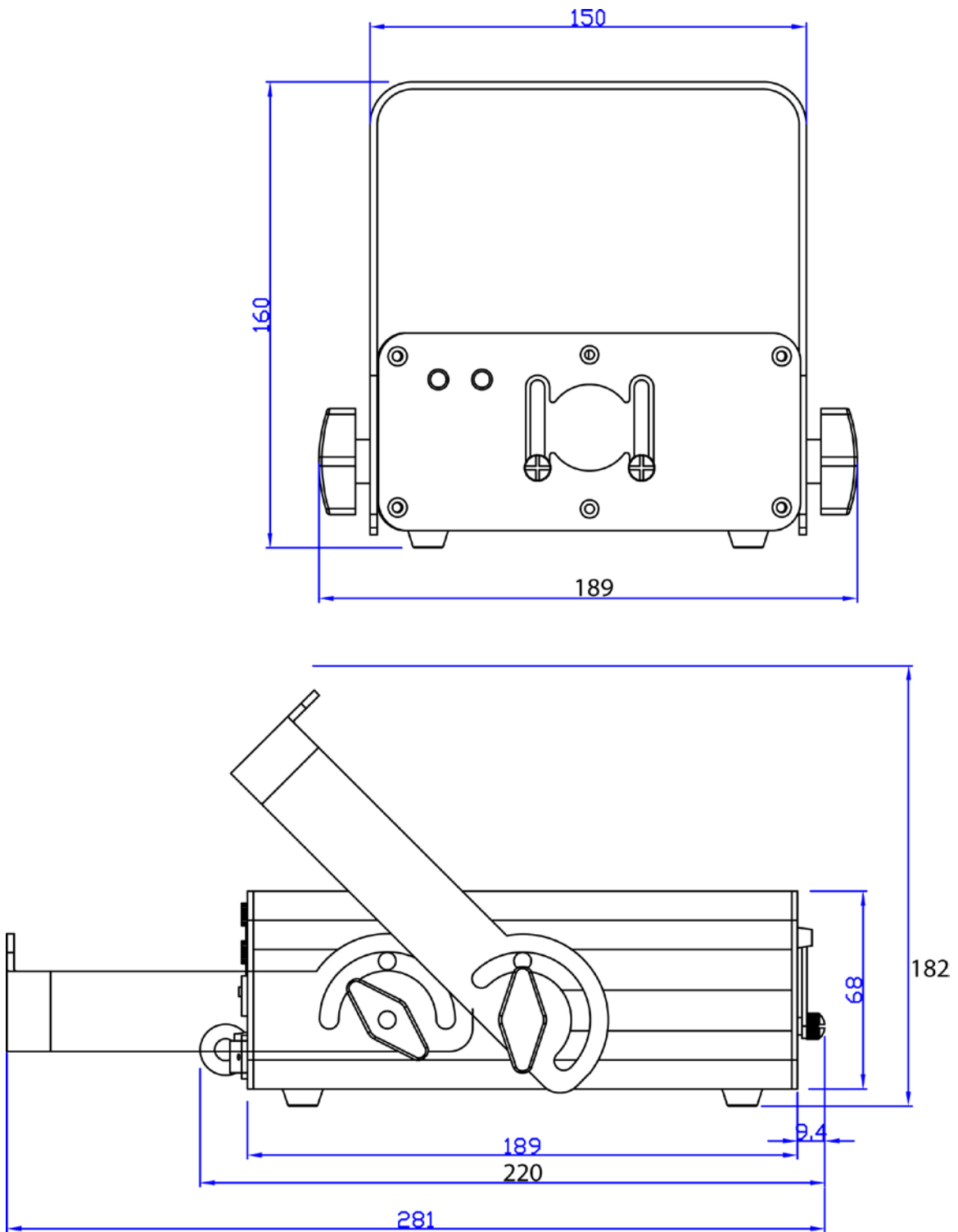
This laser product complies with EN/IEC 60825-1 Ed 2, 2007-03, and US FDA/CDRH FLPPS via the terms of Laser Notice No. 50 dated June 24, 2007. This laser device is classified 3R. (Class 3R is the international equivalent of US Class IIIa). No maintenance is required to keep this product in compliance with laser performance standards.

2. INTRODUCTION

Product Overview



Product Dimensions



3. SETUP

AC Power



Power Supply

This product has an auto-switching power supply that can accommodate a wide range of input voltages. The only thing necessary to do before powering on the unit is to make sure the line voltage you are applying is within the range of accepted voltages. This product will accommodate between 100V and 240V AC 50-60 Hz.

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.

Mounting

Orientation

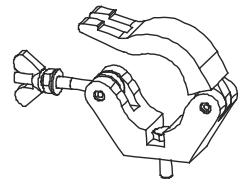
This product may be mounted in any safe position, provided there is adequate room for ventilation.

Rigging

It is important never to obstruct the fan or vents pathway. Mount the product using a suitable "C" or "O" type clamp. Adjust the angle of the product by loosening both knobs and tilting the product. After finding the desired position, retighten both knobs.

- When selecting installation location, take into consideration access and routine maintenance.
- Safety cables must always be used.
- Never mount in places where the product will be exposed to rain, high humidity, extreme temperature changes or restricted ventilation.

Hanging Clamp

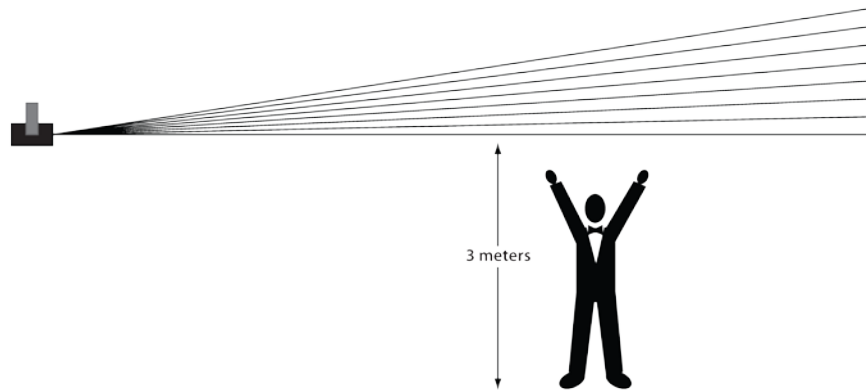


Note!
Clamp is sold separately.

Proper Usage

This product is for overhead mounting only. For safety purposes, CHAUVET® recommends mounting your lighting effect products on steady elevated platforms or sturdy overhead supports using suitable hanging clamps. In all cases, you must use safety cables. You can obtain appropriate mounting hardware from your lighting vendor.

International laser safety regulations require that laser products must be operated in the fashion illustrated below, with a minimum of 3 meters (9.8 ft) of vertical separation between the floor and the lowest laser light vertically. Additionally, 3 meters of horizontal separation is required between laser light and audience or other public spaces.



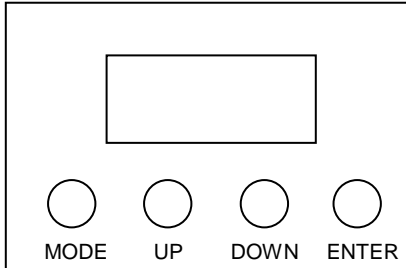
CAUTION - USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE

4. OPERATING INSTRUCTIONS

Navigating the Control Panel

Access control panel functions using the four panel buttons located directly underneath the LCD Display.

Button	Function
<MODE>	Used to access the menu or to return to a previous menu option
<UP>	Scrolls through menu options in ascending order
<DOWN>	Scrolls through menu options in descending order
<ENTER>	Used to select and store the current menu or option within a menu



The Control Panel LED Display shows the menu items you select from the menu map on page #. When a menu function is selected, the display will show immediately the first available option for the selected menu function. To select a menu item, press <ENTER>.

Use the <UP> and <DOWN> buttons to navigate the menu map and menu options. Press the <ENTER> button to access the menu function currently displayed or to enable a menu option. To return to the previous option or menu without changing the value, press the <MODE> button.

Menu Functions

MAIN FUNCTION	SELECTION	DESCRIPTION
Auto modes	N11 - N99	<ul style="list-style-type: none"> Use the <UP> button to change the strobe speed (first digit). Use the <DOWN> button to change the rotation direction and speed (second digit). All programs can further be altered and customized by rotating the 2 motor knobs below the display. These will not work in master/slave operation.
	A1 - A9	<ul style="list-style-type: none"> Select any of these automatic programs to constantly change effects, patterns, speeds, etc. These programs do not have manual adjustment and will not work with the motor knobs below the display. These programs will work in master/slave operation.
	011 - 549	<ul style="list-style-type: none"> Use the <UP> button to change the strobe speed and patterns (first & second digit). Use the <DOWN> button to change the rotation direction and speed (third digit). Additional auto programs (alternating in master/slave operation)
Sound	Sou	<ul style="list-style-type: none"> Laser responds to low frequencies picked up by the internal microphone. Use the sound knob to adjust the sensitivity of the microphone.
Slave	SLA	<ul style="list-style-type: none"> Sets the product into slave mode.

General Troubleshooting

Symptom	Solution(s)	Applies to			
		Lights	Foggers & Snow	Controllers	Dimmers & Chaser
Auto shut off	Check fan thermal switch reset	ü			
Beam is very dim or not bright	Clean optical system or replace lamp Check 220/110v switch for proper setting	ü			
Breaker/Fuse keeps blowing	Check total load placed on device				ü
Chase is too slow	Check users manual for speed adjustment	ü		ü	ü
Device has no power	Check for power on Mains. Check device's fuse. (internal and/or external)	ü		ü	ü
Fixture is on but there is no movement to the audio	Make sure you have the correct audio mode on the control switches. If audio provided via ¼" jack, make sure a live audio signal exists Adjust sound sensitivity knob	ü		ü	ü
Lamps cuts off sporadically	Possible bad lamp or product is overheating. Lamp may be at end of its life.	ü			
Light will not come on after power failure	Some discharge lamps require a cooling off period before the electronics in the product can kick start it again, wait 5 to 10 minutes before powering up	ü			
Loss of signal	Use only DMX cables Install terminator Note: Keep DMX cables separated from power cables or black lights.	ü	ü	ü	ü
Moves slow	Check 220/110v switch for proper setting	ü			
No flash	Re-install bulb, may have shifted in shipping	ü			
No laser output	Bounce mirror motor may have shifted during shipping, readjust	ü			
No light output	Check slip ring & brushes for contact Install bulb Call service technician	ü			
Relay will not work	Check reset switch Check cable connections				ü
Remote does not work	Make sure connector is firmly connected to device	ü	ü		
Standalone mode	All Chauvet lighting products featuring standalone functions do not require additional settings, simply power the product and it will automatically enter into this mode	ü			

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

Technical Support

Address: Service Dept.
5200 NW 108th Avenue, Sunrise, FL 33351 (U.S.A.)
Support (Email): tech@chauvetlighting.com
Telephone: (954) 577-4455 - (Press 4)
Fax: (954) 756-8015 (Attention: Service)
Website: <http://www.chauvetlighting.com>

5. APPENDIX

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 Merchandise Authorization Number (RMA #). Products returned without an RMA # will be refused. Call CHAUVET and request 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 properly pack product, any shipping damage resulting from inadequate packaging is the customer's responsibility. CHAUVET reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

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

- Your name
- Your address
- Your phone number
- RMA #
- A brief description of the symptoms

Technical Specifications

WEIGHT & DIMENSIONS

Length.....8.6 in (220 mm)
Width7.4 in (189 mm)
Height7.2 in (182 mm)
Weight3.1 lbs (1.4 kg)



POWER

12V DC 2A adapter (included)100-240VAC 50/60Hz input (to adapter)
Fuse.....1.5A 250V slow-blow
Power Consumption.....11W (0.1A) max @ 120V
Inrush Power0.2A @ 120V

LASER

Green diode.....532 nm 30mW
Laser TypeDPSS
CoolingFan Cooled

RANGE

Coverage Angle100°

THERMAL

Maximum ambient temperature.....104°F (40°C)

MASTER/SLAVE LINKING

Cable typemale-to-male 1/8" (3.5mm) TRS cable

ORDERING INFORMATION

Scorpion™ Storm MG.....SCORPIONSTORMMG

WARRANTY INFORMATION

Warranty1-year limited warranty