



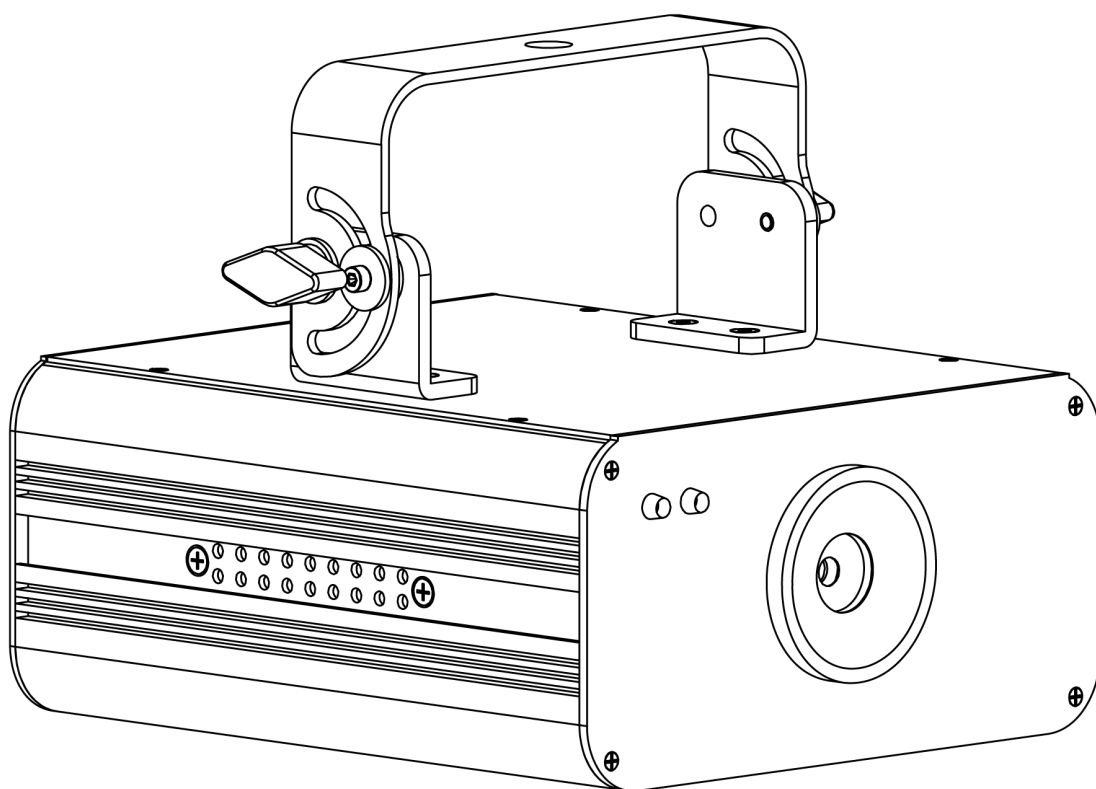
LASER LIGHT

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.



CHAUVET®
Value • Innovation • Performance

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1. BEFORE YOU BEGIN

What Is Included

- One Scorpion™ Storm FXRG
- One Power Cord
- One Warranty Card
- One User Manual

Claims

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. 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 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

Symbols

Icons	MEANING
	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.
	Important installation or configuration information. Failure to comply with this information may prevent the product from functioning correctly.
	Useful 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 or rheostat.
- 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 U.S. 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.**
-

Non Interlocked Housing Warning

- This unit contains high-power laser devices internally.
- Do not open the laser housing because of 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 and the laser beams are 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 three (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 use laser if the laser appears to be emitting only one or two beams.
- 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 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 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.

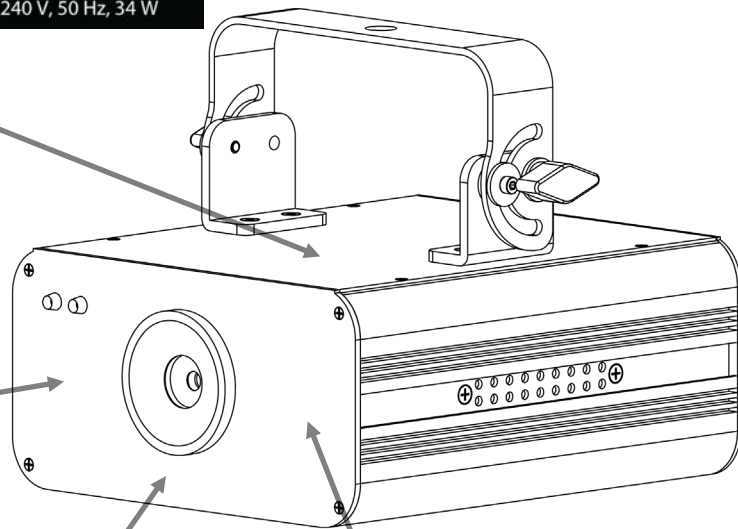
Laser Safety Label Reproduction

<p>LASER LIGHT AVOID DIRECT EYE EXPOSURE CLASS 3R LASER PRODUCT <5 mW, 532 nm & 650 nm, 300 mSec - 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>CHAUVET Value • Innovation • Performance</p> <p>MET [®] _{us} E113093</p> <p>Complies with UL 1573 CSA C22.2 No. 166</p> <p>CE</p> <p>RoHS</p>		
<p>PRODUCT NAME: Scorpion™ Storm FXRG ITEM CODE: 10060506 FUSE: T1A 250V 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, 36 W</p>		<p>WORLDWIDE Power: AC 100~240 V, 50 Hz, 34 W</p>

EXPLANATORY,
MANUFACTURER'S ID, &
CERTIFICATION LABEL



LASER HAZARD
WARNING LABEL



LASER APERTURE

LASER APERTURE LABEL

CAUTION
 CLASS 3B LASER LIGHT WHEN OPEN
 AVOID EXPOSURE TO THE BEAM

NON INTERLOCKED
HOUSING 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, 532 nm
Red Laser Medium	LD GaAlAs 650 nm, typical
Beam Diameter	<5mm at aperture
Pulse Data	All pulses < 4 Hz (>0.25 sec)
Divergence (each beam)	<2 mrad
Divergence (total light)	<160 degrees
Laser Power of Each Beam from Aperture*	<5 mW

* As measured under IEC measurement conditions for classification.

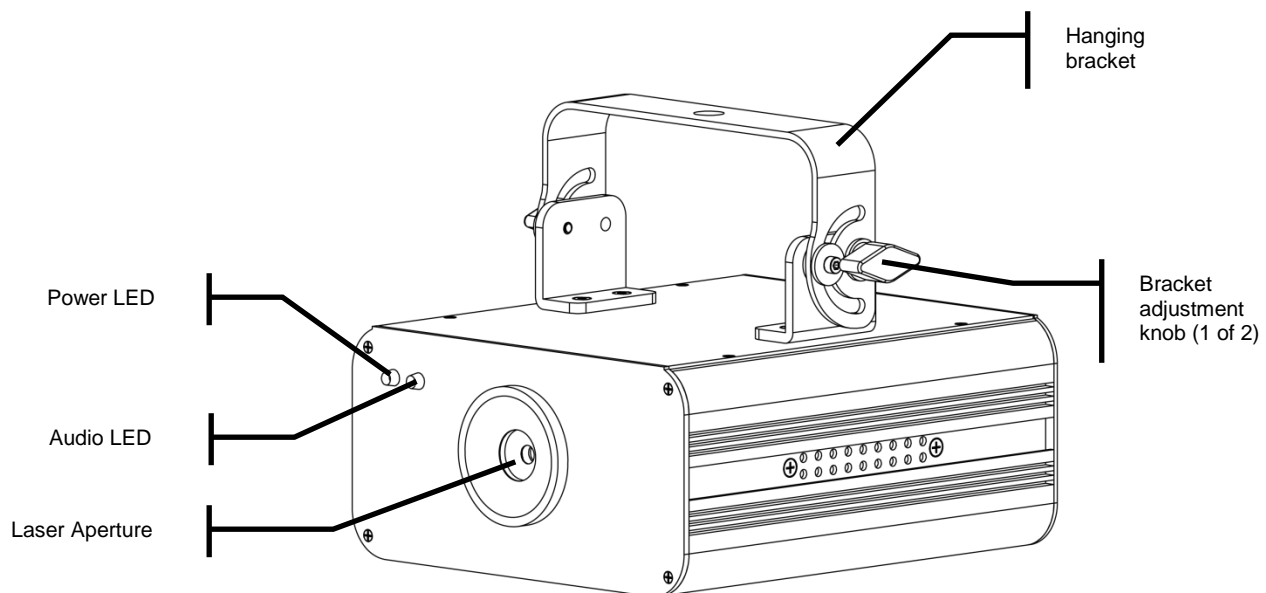
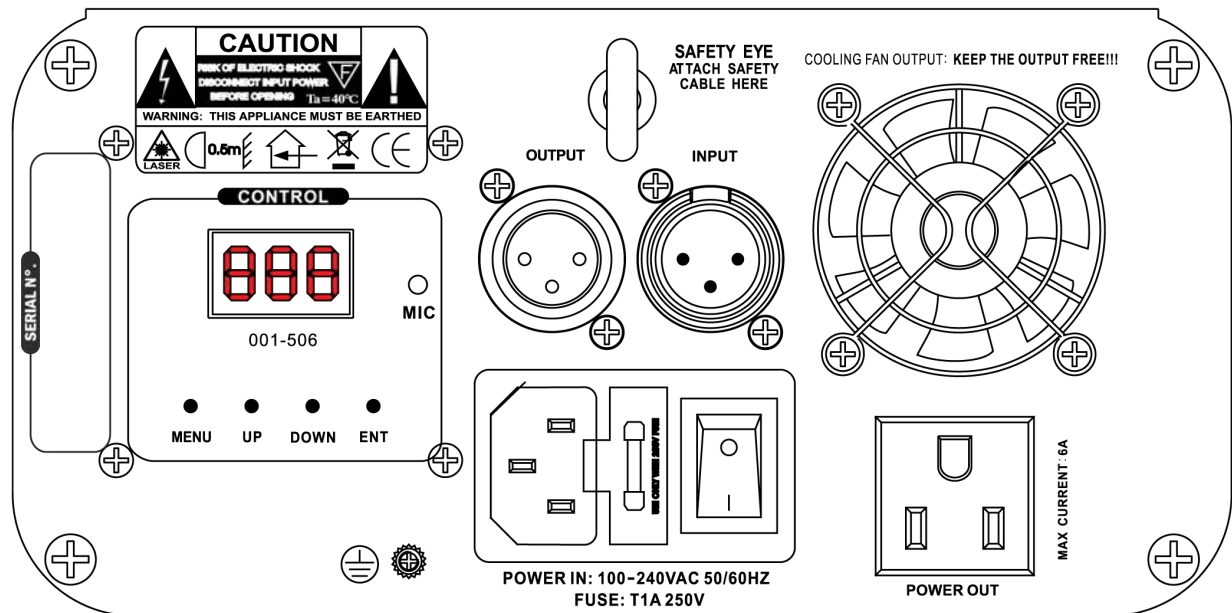
Laser Compliance Statement



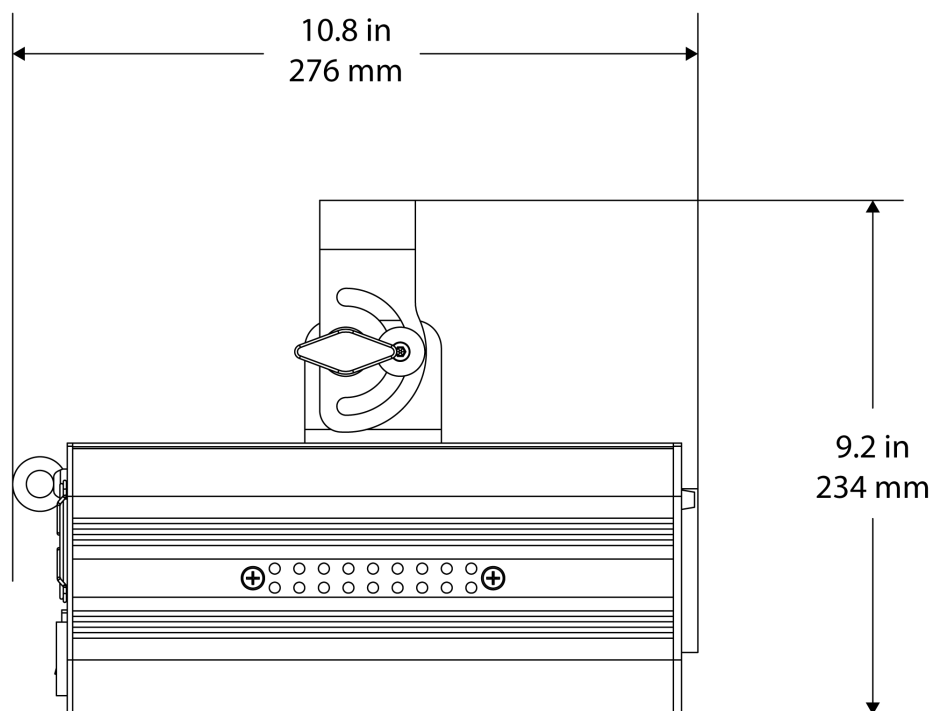
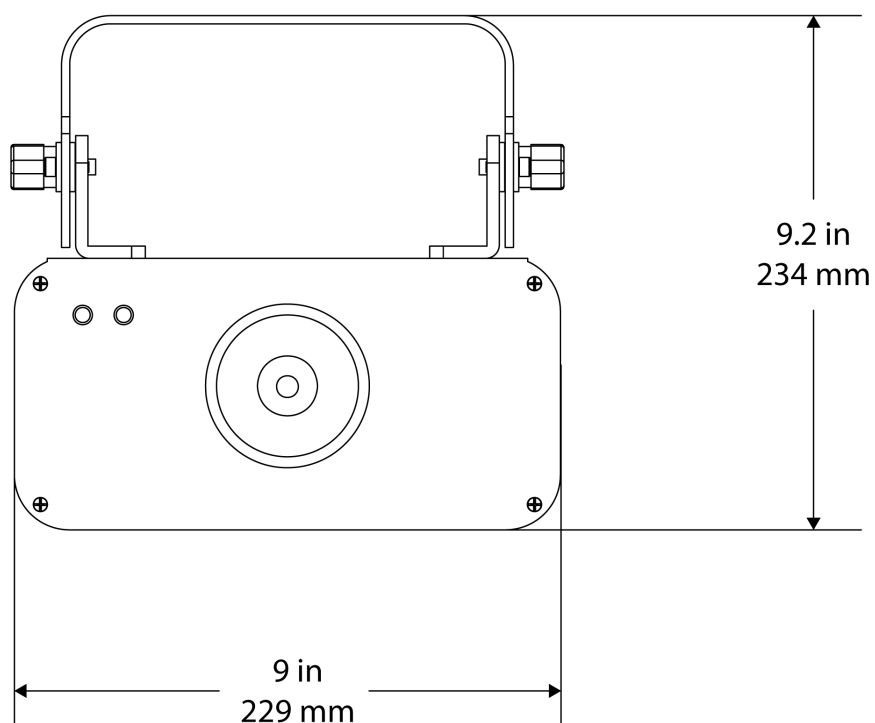
This laser product complies with EN/IEC 60825-1 Ed 2, 2007-03, and US FDA/CDRH FLPPS via the terms of Laser Notice No. 50 dated June 24, 2007. This laser device is classified 3R. (Class 3R is the international equivalent of U.S. Class IIIa). No maintenance is required to keep this product in compliance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

2. INTRODUCTION

Product Overview



Product Dimensions



3. SETUP

AC Power

This fixture has an auto-switching power supply that can accommodate a wide range of input voltages. Before powering on the unit, make sure the line voltage you are applying is within the range of accepted voltages. This fixture will accommodate 100~240 VAC, 50/60 Hz.

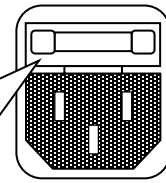


Always connect the product to a switched circuit. Never connect the product to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used only as a 0% to 100% switch.

Fuse Replacement

With a flat-head screwdriver, wedge the fuse holder out of its housing. Remove the damaged fuse from its holder and replace with exact same type of fuse. Insert the fuse holder back in its place and reconnect power.

The fuse is located inside this compartment. Remove using a flat-head screwdriver.



Disconnect the power cord before replacing a fuse and always replace with the same type of fuse.

Mounting

Orientation

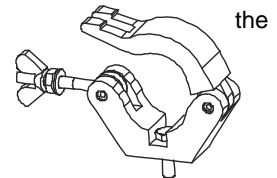
This fixture may be mounted in any safe position, provided there is adequate room for ventilation.

Rigging

It is important never to obstruct the fan or vents pathway. Mount the fixture using a suitable C- or O-type clamp. Adjust the angle of the fixture by loosening both knobs and tilting the fixture. Once the fixture is in 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 fixture will be exposed to rain, high humidity, extreme temperature changes, or restricted ventilation.

Hanging Clamp



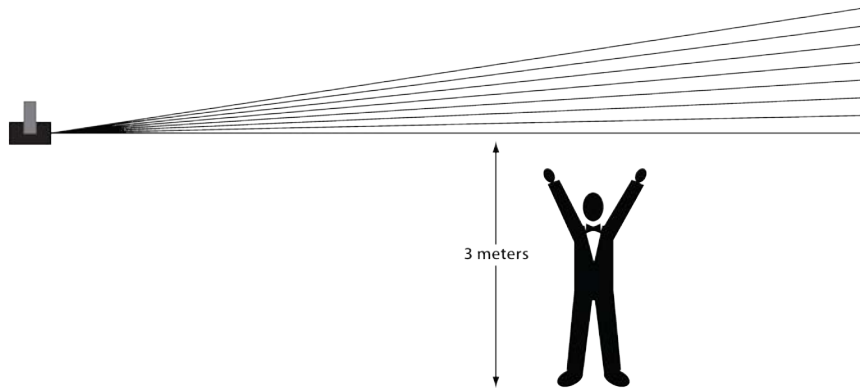
Note!
Clamp is sold separately.

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 three (3) meters (9.8 feet) of vertical separation between the floor and the lowest laser light vertically. Additionally, three (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 IN THIS USER MANUAL MAY RESULT IN HAZARDOUS RADIATION EXPOSURE

Data Linking

You will need a serial data link to run light shows of one or more fixtures using a DMX-512 controller or to run synchronized shows on two or more fixtures set to a Master/Slave operating mode. The combined number of channels required by all the fixtures on a serial data link determines the number of fixtures the data link can support.



Fixtures on a serial data link must be daisy chained in one single line. To comply with the EIA-485 standard, no more than thirty-two (32) fixtures should be connected on one data link. Connecting more than thirty-two (32) fixtures on one serial data link without the use of a DMX optically isolated splitter may result in deterioration of the digital DMX signal.

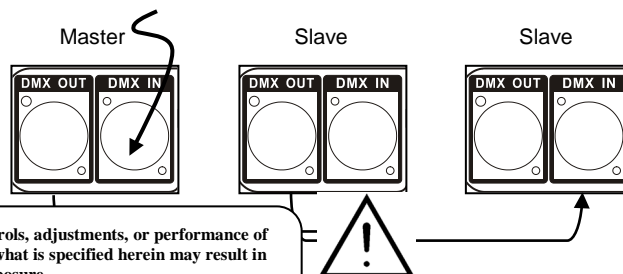
Master/Slave Linking

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

Often, the setup for Master/Slave or standalone operations require that the first fixture in the chain be initialized via DIP switches. Secondly, the fixtures that follow may also require a slave setting. Please consult the [Operating Instructions](#) section of this manual for complete instructions for this type of setup and



CAUTION: Use of controls, adjustments, or performance of procedures other than what is specified herein may result in hazardous radiation exposure

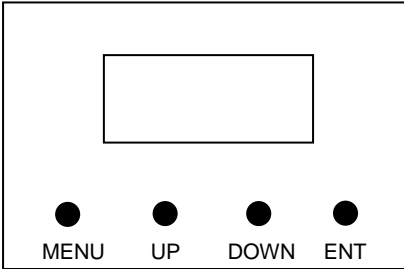


4. OPERATING INSTRUCTIONS

Navigating the Control Panel

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

Button	Function
<MENU>	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
<ENT>	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 below. 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 <ENT>. Use <UP> and <DOWN> to navigate the menu map and menu options. Press <ENT> 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 <MENU>.

Menu Functions

MAIN FUNCTION	SELECTION	DESCRIPTION/VALUES	
DMX mode	001	001–506	DMX starting address assignment
Standalone modes	AFr	Automatic fast (red)	
	ASr	Automatic slow (red)	
	AFG	Automatic fast (green)	
	ASG	Automatic slow (green)	
	AFB	Automatic fast (red & green)	
	ASB	Automatic slow (red & green)	
	SrD	Sound (red)	
	SGr	Sound (green)	
	SrG	Sound (red & green)	
Slave	rDM	Random	
	SLA	Slave mode	

DMX Channel Summary

CHANNEL	FUNCTION
1	Control mode
2	Color selection
3	Strobe
4	Rotation (motor 1)
5	Stutter (motor 1)
6	Rotation (motor 2)
7	Stutter (motor 2)

DMX Channel Values

CHANNEL	VALUE	FUNCTION
1	000 ⇔ 019	Control Mode
	020 ⇔ 039	DMX Mode
	040 ⇔ 059	Automatic fast (red)
	060 ⇔ 079	Automatic slow (red)
	080 ⇔ 099	Automatic fast (green)
	100 ⇔ 119	Automatic slow (green)
	120 ⇔ 139	Automatic fast (red & green)
	140 ⇔ 159	Automatic slow (red & green)
	160 ⇔ 179	Sound (red)
	180 ⇔ 199	Sound (green)
	200 ⇔ 255	Sound (red & green)
2	000 ⇔ 004	Random
	005 ⇔ 028	Color selection
	029 ⇔ 056	Blackout
	057 ⇔ 084	Red
	085 ⇔ 112	Green
	113 ⇔ 140	Red & Green
	141 ⇔ 168	Green strobing
	169 ⇔ 197	Red strobing
	198 ⇔ 224	Red on & Green strobing
	225 ⇔ 255	Green on & Red strobing
		Red & Green strobing
3	000 ⇔ 004	Strobe
	005 ⇔ 254	No function
	255 ⇔ 255	Strobe (slow ⇔ fast)
4	000 ⇔ 004	Strobe to sound
	005 ⇔ 127	Rotation (motor 1)
	128 ⇔ 133	No rotation
	134 ⇔ 255	Clockwise rotation (slow ⇔ fast)
5	000 ⇔ 004	Stop
	005 ⇔ 056	Counterclockwise rotation (slow ⇔ fast)
	057 ⇔ 112	Stutter (motor 1)
	113 ⇔ 168	No function
	169 ⇔ 255	Mode 1 (slow ⇔ fast) (affected by channel 4)
6	000 ⇔ 004	Mode 2 (slow ⇔ fast) (affected by channel 4)
	005 ⇔ 127	Mode 3 (slow ⇔ fast)
	128 ⇔ 133	Mode 4 (slow ⇔ fast)
	134 ⇔ 255	
7	000 ⇔ 004	Rotation (motor 2)
	005 ⇔ 127	No rotation
	128 ⇔ 133	Clockwise rotation (slow ⇔ fast)
	134 ⇔ 255	Counterclockwise rotation (slow ⇔ fast)
		Stutter (motor 2)
7	000 ⇔ 004	No function
	005 ⇔ 056	Mode 1 (slow ⇔ fast) (affected by channel 6)
	057 ⇔ 112	Mode 2 (slow ⇔ fast) (affected by channel 6)
	113 ⇔ 168	Mode 3 (slow ⇔ fast)
	169 ⇔ 255	Mode 4 (slow ⇔ fast)

Troubleshooting

Symptom	Solution(s)	Applies to	
		Lights	Controllers
Auto shut off	Check fan thermal switch reset	✓	
Beam is very dim or not bright	Clean optical system or replace lamp Check 220/110 v switch for proper setting	✓	
Breaker/Fuse keeps blowing	Check total load placed on device		
Device has no power	Check for power on Mains Check device's fuse (internal and/or external)	✓	✓
Fixture is not responding	Check DMX Dip switch settings for correct addressing Check DMX cables Check polarity switch settings	✓	
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	✓	✓
Lamps cuts off sporadically	Possible bad lamp or fixture is overheating Lamp may be at end of its life	✓	
Light will not come on after power failure	Some discharge lamps require a cooling off period before the electronics in the fixture can kick start it again, wait 5 to 10 minutes before powering up	✓	
Loss of signal	Use only DMX cables Install terminator Note: Keep DMX cables separated from power cables or black lights.	✓	✓
Moves slow	Check 220/110v switch for proper setting	✓	
No flash	Re-install bulb, may have shifted in shipping	✓	
No laser output	Bounce mirror motor may have shifted during shipping, readjust	✓	
Standalone mode	All Chauvet® lighting fixtures featuring standalone functions do not require additional settings, simply power the fixture on and it will automatically enter into this mode	✓	

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

Returns

Returned merchandise must be sent prepaid and in the original packing. CHAUVET® will not issue call tags. Package must be clearly labeled with a Return Merchandise Authorization (RMA) number). Products returned without an RMA number will not be accepted.

Call CHAUVET® and request an RMA number prior to shipping the fixture. Be prepared to provide the model number, serial number, and a brief description of the cause(s) for the return.



Mark the RMA number clearly on a label and apply to the box. Do not write the RMA number directly on the box.

Be sure to properly pack the fixture and accessories. 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). FedEx packing or double-boxing are recommended.

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

- Your name
- Your address
- Your phone number
- The RMA number
- A brief description of the cause(s) for the return

Contact Us

World Headquarters

CHAUVET®

General Information

Address: 5200 NW 108th Avenue
Sunrise, FL 33351
Voice: 954-929-1115
Fax: 954-929-5560
Toll free: (800) 762-1084

Technical Support

Voice: 954-929-1115 (Press 4)
Fax: 954-756-8015
Email: tech@chauvetlighting.com

World Wide Web: www.chauvetlighting.com

United Kingdom & Ireland

CHAUVET® Europe Ltd.

General Information

Address: Unit 1C
Brookhill Road Industrial Estate
Pinxton, Nottingham, UK
NG16 6NT
Voice: +44 (0)1773 511115
Fax: +44 (0)1773 511110

Technical Support

Email: uktech@chauvetlighting.com

World Wide Web: www.chauvetlighting.co.uk

Technical Specifications

WEIGHT & DIMENSIONS

Length	10.8 in (276 mm)
Width	9 in (229 mm)
Height	9.2 in (234 mm)
Weight	5.9 lbs (2.7 kg)

POWER

Autoswitching	100~240 VAC, 50/60 Hz
Fuse	T 1 A, 250 V
Power Consumption @ 120 V	0.3 A max
Power Linking @ 120 V	28 units
Power Consumption @ 230 V	0.2 A max
Power Linking @ 230 V	50 units

LASER

Green diode	532 nm, 40 mW
Red Diode	650 nm, 100 mW
Laser Type	DPSS

RANGE

Coverage Angle	99°
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THERMAL

Maximum ambient temperature	104° F (40° C)
Cooling	Fan cooled

CONTROL & PROGRAMMING

Data input	locking 3-pin XLR male socket
Data output	3-pin XLR female socket
Data pin configuration	pin 1 (shield), pin 2 (-), pin 3 (+)
Protocols	USITT DMX512-A
DMX Channels	7

ORDERING INFORMATION

Scorpion™ Storm FXRG	SCORPIONSTORMFXRG
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WARRANTY INFORMATION

Warranty	2-year limited warranty
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UL 1573
CSA C22.2 No. 166
E113093