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1. BEFORE YOU BEGIN

What Is Included

- 1 x Scorpion[™] Storm RGX
- 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></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.

lcons	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.
1	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.

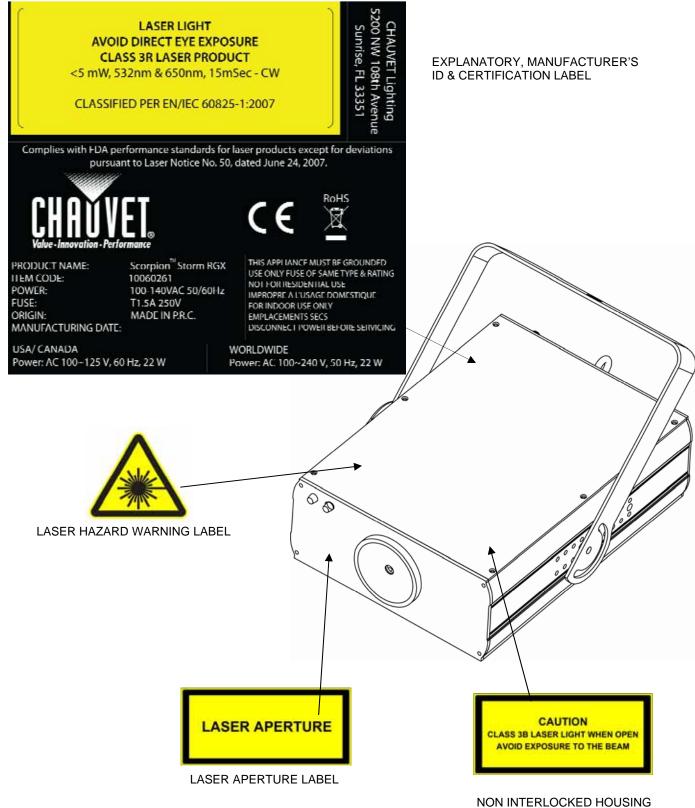
It is also incorrect to assume that because the laser light is moving, it is safe. This is not true. Nor, do the laser beams always move. Since eye injuries can occur instantly, it is critical to prevent the possibility of any direct eye exposure. In the laser safety regulation, it is not legal to aim 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.

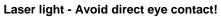
Laser Safety Label Reproduction



LABEL



LASER EXPOSURE



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 GaAIAs 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.

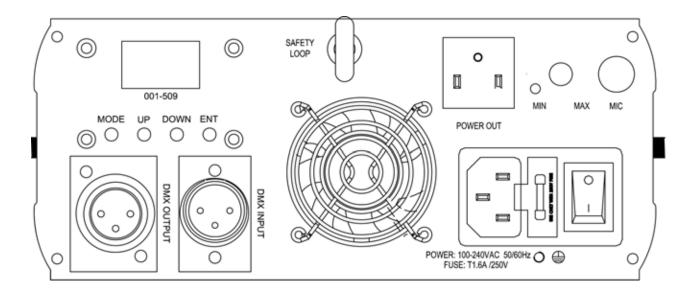
Laser Compliance Statement

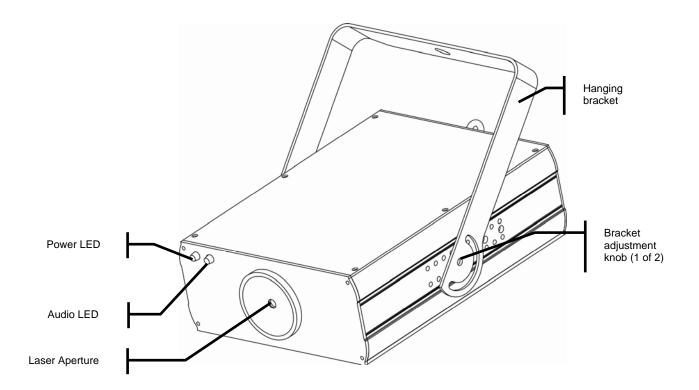


This laser product complies with EN/IEC 60825-1 Ed 2, 2007-03, and US FDA/CDRH FLPPS via the terms of Laser Notice No. 50 dated June 24, 2007. This laser device is classified 3R. (Class 3R is the international equivalent of US Class IIIa). No maintenance is required to keep this product in compliance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

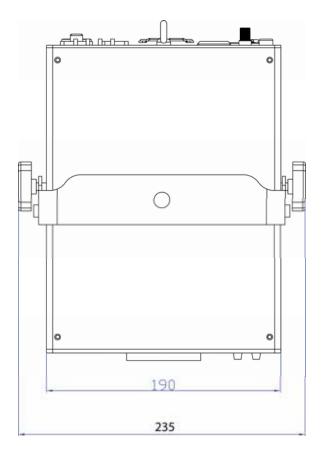
2. INTRODUCTION

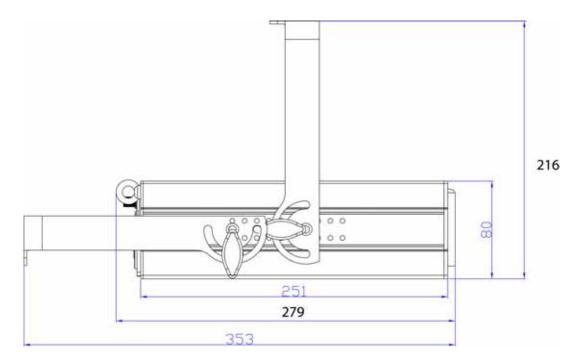
Product Overview





Product Dimensions





3. Setup

AC Power

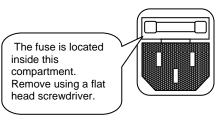
This product has an auto-switching power supply that can accommodate a wide range of input voltages. The only thing necessary to do before powering on the unit is to make sure the line voltage you are applying is within the range of accepted voltages. This product will accommodate between 100V and 240V AC 50-60 Hz. All products must be powered directly off a switched circuit and cannot be run off a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used solely for a 0% to 100% switch.



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 fuse. Insert the fuse holder back in its place and reconnect power.





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

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

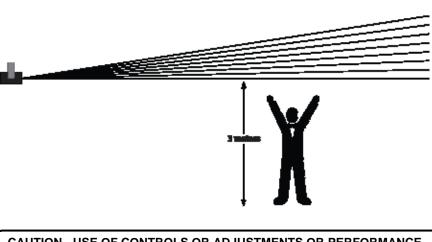


Note! Clamp is sold separately.

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

Fixture Linking

You will need a serial data link to run light shows of one or more products using a DMX-512 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 serial data link determines the number of products 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 32 fixtures should be connected on one data link. Connecting more than 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.

- Maximum recommended serial data link distance: 500 meters (1640 ft.)
- Maximum recommended number of products on a serial data link: 32 products

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.

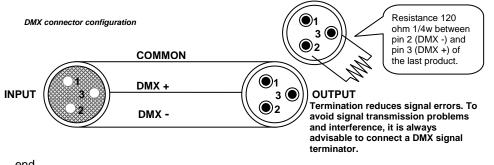
DMX Data Cable

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 will have the following characteristics:

2-conductor twisted pair plus a shield Maximum capacitance between conductors – 30 pF/ft. Maximum capacitance between conductor and shield – 55 pF/ft. Maximum resistance of 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







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

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 3pin adapter. CHAUVET Model No: DMX5M, or DMX5F. 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
Do not use		Do not use
Do not use		Do not use

Setting Up a DMS Serial Data Link

- 1. Connect the (male) 3 pin connector side of the DMX cable to the output (female) 3 pin connector of the controller. Universal DMX Controller
- Connect the end of the cable coming from the controller 2. 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.

1. Connect the (male) 3 pin connector side of the DMX

cable to the output (female) 3 pin connector of the first

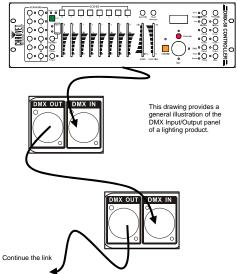
CHAUVET Certified DMX Data Cables

Order Code	De
DMX1.5	
DMX4.5	
DMX10	

Master/Slave Fixture Linking

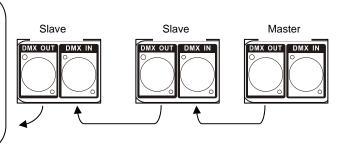
product.

Code	Description
5	DMX Cable 1.5m/4.9ft
5	DMX Cable 4.5m/14.8ft
	DMX Cable 10m/32.8ft



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

Often, the setup for Master-Slave and Standalone operation requires that the first product in the chain be initialized for this purpose via either settings in the control panel or DIP-switches. Secondarily, the products that follow may also require a slave setting. Please consult the "Operating Instructions" section in this manual for complete instructions for this type of setup and configuration.



4. OPERATING INSTRUCTIONS

Navigating the Control Panel

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

Button	Function	1					
<mode></mode>	Used to access the menu or to return to a previous menu option						
<up></up>	Scrolls through menu options in ascending order		-	L			
<down></down>	Scrolls through menu options in descending order))F	UP		
<enter></enter>	Used to select and store the current menu or option within a menu	ľ		· <u> </u>		20111	2.1121

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/VALUES					
DMX mode	001	001 - 509 DMX starting address assignment					
	AFr	Automatic fast (red)					
	ASr	Automatic slow (red)					
	AFG	Automatic fast (green)					
	ASG	Automatic slow (green)					
Stand-alone	AFB	Automatic fast (red & green)					
modes	ASB	Automatic slow (red & green)					
	SrD	Sound (red)					
	SGr	Sound (green)					
	SrG	Sound (red & green)					
	rDM	Random					
Slave	SLA	Slave mode					

DMX Channel Summary

CHANNEL	FUNCTION
1	Control Mode
2 Color selection	
3	Strobe
4	Rotation

DMX Channel Values

CHANN	EL VALUE	FUNCTION
1	$\begin{array}{c} 000 \Leftrightarrow 019 \\ 020 \Leftrightarrow 039 \\ 040 \Leftrightarrow 059 \\ 060 \Leftrightarrow 079 \\ 080 \Leftrightarrow 099 \\ 100 \Leftrightarrow 119 \\ 120 \Leftrightarrow 139 \\ 140 \Leftrightarrow 159 \\ 160 \Leftrightarrow 179 \\ 180 \Leftrightarrow 199 \\ 200 \Leftrightarrow 255 \end{array}$	Control Mode DMX Mode Automatic fast (red) Automatic slow (red) Automatic fast (green) Automatic fast (green) Automatic fast (red & green) Automatic slow (red & green) Sound (red) Sound (green) Sound (red & green) Random
2	$\begin{array}{c} 000 \Leftrightarrow 004\\ 005 \Leftrightarrow 028\\ 029 \Leftrightarrow 056\\ 057 \Leftrightarrow 084\\ 085 \Leftrightarrow 112\\ 113 \Leftrightarrow 140\\ 141 \Leftrightarrow 168\\ 169 \Leftrightarrow 197\\ 198 \Leftrightarrow 224\\ 225 \Leftrightarrow 255 \end{array}$	Color selection Blackout Red Green Red & Green Green strobing Red strobing Red on & Green strobing Green on & Red strobing Red & Green strobing Red & Green strobing Red & green (alternate strobing)
3	000 ⇔ 004 005 ⇔ 254 255 ⇔ 255	Strobe No function Strobe (slow ⇔ fast) Strobe to sound
4	000 ⇔ 004 005 ⇔ 127 128 ⇔ 133 134 ⇔ 255	Rotation No rotation Clockwise rotation (slow ⇔ fast) Stop Counterclockwise rotation (slow ⇔ fast)

Setting the Starting Address

This DMX mode enables the use of a universal DMX controller device. Each product requires a "start address" from 1 to 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 6 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-512 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.

General Troubleshooting

			Ар	plies to	
Symptom	Solution(s)	Lights	Foggers & Snow	Controllers	Dimmers & Chaser
Auto shut off	Check fan thermal switch reset	~			
Beam is very dim or not bright	Clean optical system or replace lamp Check 220/110v switch for proper setting	~			
Breaker/Fuse keeps blowing	Check total load placed on device				✓
Chase is too slow	Check users manual for speed adjustment	~		~	√
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	~		~	~
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	~			
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	~			

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) 929-1115 - (Press 4) Fax: (954) 756-8015 (Attention: Service) Website: http://www.chauvetlighting.com

5. Appendix

DMX Primer

There are 512 channels in a DMX-512 connection. Channels may be assigned in any manner. A product capable of receiving DMX 512 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 be slaved together and all respond exactly the same.

DMX products are designed to receive data through a serial 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 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+). CHAUVET carries 3-pin XLR DMX compliant cables, DMX-10 (33'), DMX-4.5 (15') and DMX-1.5 (5')

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
- The RMA #
- A brief description of the symptoms

Technical Specifications

WEIGHT & DIMENSIONS Length Width Height Weight	
POWER Autoswitching Fuse Power Consumption Inrush Power Power Output	1.5A 250V slow-blow
LASER Green diode Red Diode Laser Type Cooling	
RANGE	
Coverage Angle	114°
Coverage Angle THERMAL Maximum ambient temperature	
THERMAL	locking 3-pin XLR male socket locking 3-pin XLR female socket pin 1 shield, pin 2 (-), pin 3 (+) DMX-512 USITT
THERMAL Maximum ambient temperature CONTROL & PROGRAMMING Data input Data output Data pin configuration	104°F (40°C) locking 3-pin XLR male socket locking 3-pin XLR female socket pin 1 shield, pin 2 (-), pin 3 (+) DMX-512 USITT 4