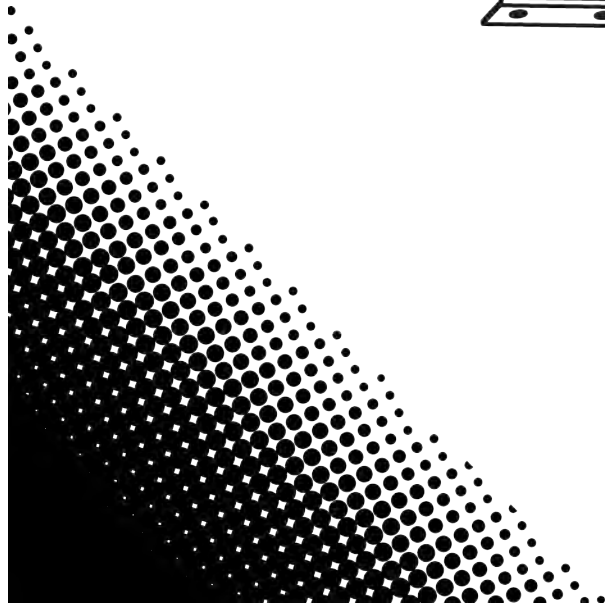
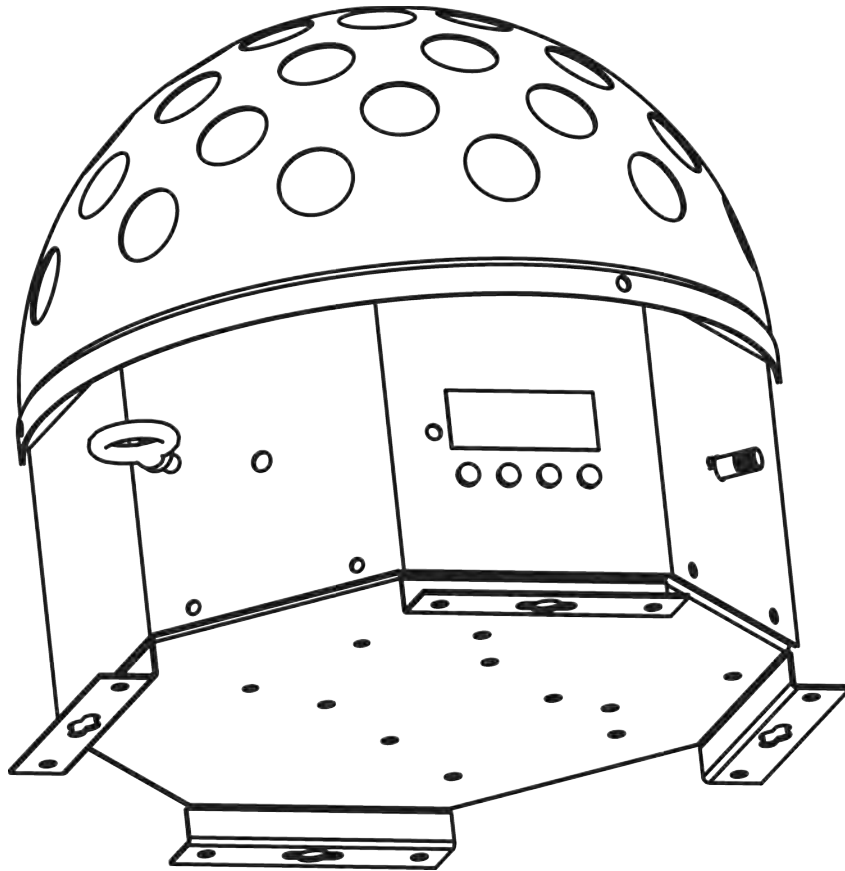


# HEMISPHERE™ 5

## *User Manual*



**CHAUVET®**

*Value • Innovation • Performance*

*It's Green Thinking*

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# 1. BEFORE YOU BEGIN

## What is Included

- 1 x Hemisphere™ 5
- 1 x Power Cord
- 1 x Warranty Card
- 1 x User Manual

## Unpacking Instructions




Immediately upon receiving this product, carefully unpack it and check the container in which you received it. Make sure that you have received all the parts indicated above and that they are all in good condition. If the material inside the container (this product and any other accessory included with it) appears damaged from shipping, or if the container shows signs of mishandling, notify the shipper immediately. In addition, retain the container and all the packing material for inspection.

See the *Claims* section in the “*Technical Information*” chapter.

## Text Conventions

Convention	Meaning
[10]	A DIP switch to be configured
<Menu>	A key to be pressed on the fixture'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

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

## Document Information

The information and specifications contained in this document are subject to change without notice. CHAUVET® assumes no responsibility or liability for any errors or omissions that may appear in this manual.

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## Product at a Glance

Use on Dimmer	X	Auto Programs	P
Outdoor Use	X	Auto-ranging Power Supply	P
Sound Activated	P	Replaceable Fuse	P
DMX	P	User Serviceable	X
Master/Slave	P	Duty Cycle	X

## Safety Notes

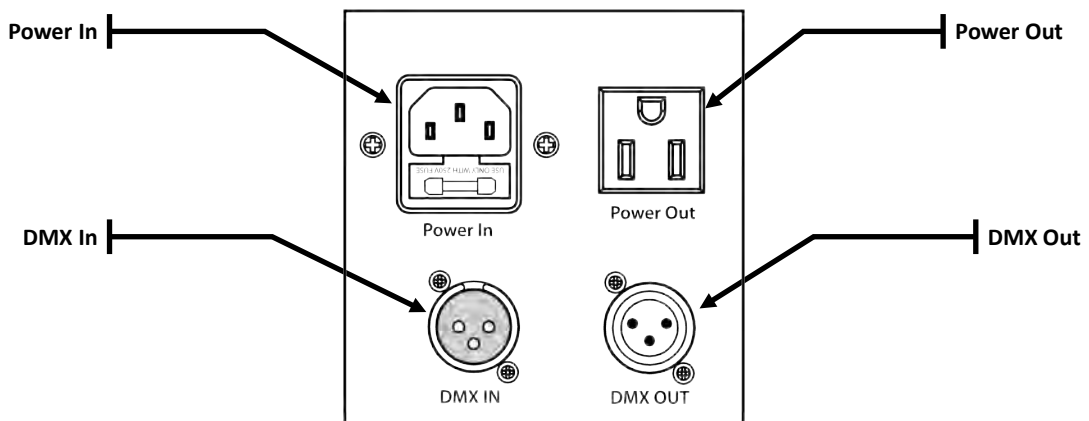
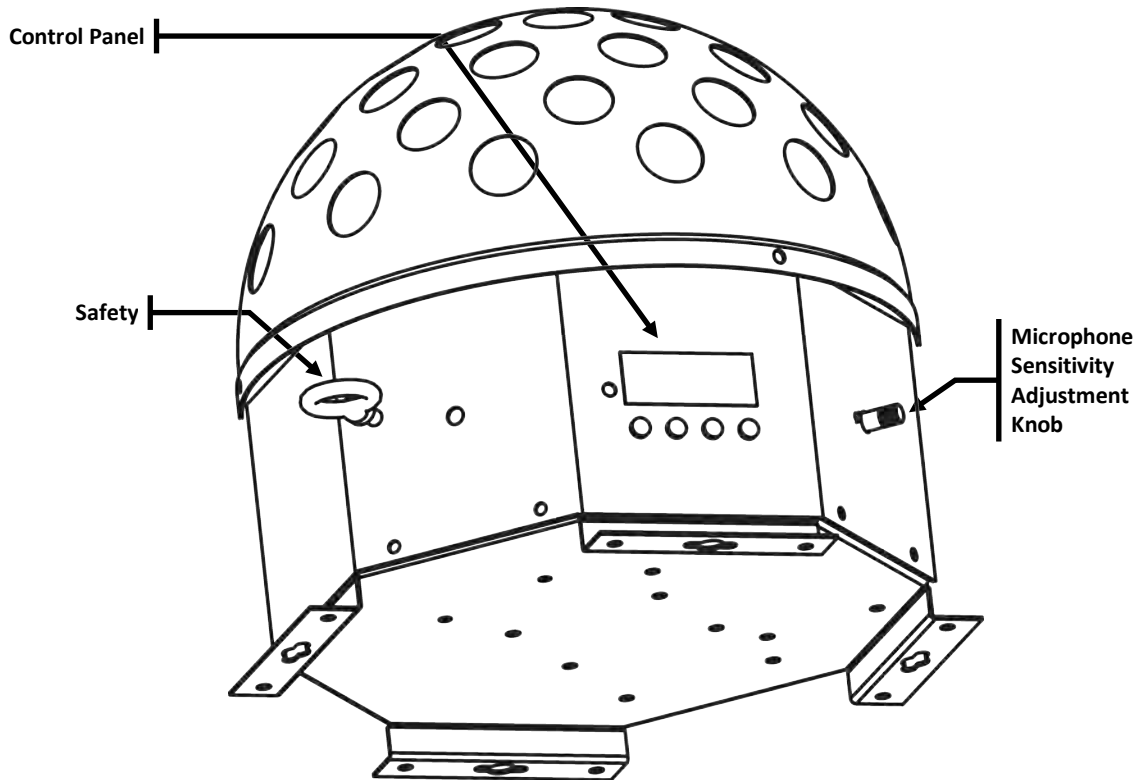


**Please read the following notes carefully because they include important safety information about the installation, usage, and maintenance of this product.**

- 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 fixture.
- This product is for indoor use only! To prevent risk of fire or shock, do not expose this fixture 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.
- 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 this product overhead, always secure it to a fastening device using a safety cable.
- 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 this product. 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 fixture 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 fixture is on.

## 2. INTRODUCTION

### Product Overview



**Back Panel**

# 3. SETUP

## AC Power

This product has an auto-ranging power supply and it can work with an input voltage range of 100~240 VAC, 50/60 Hz.

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



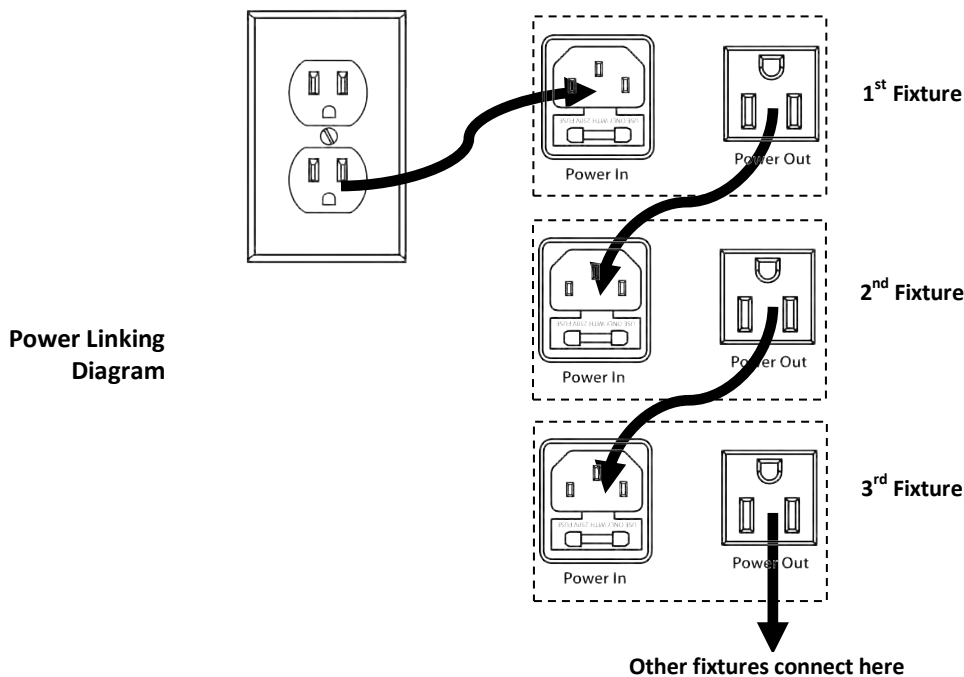
**Always connect this product to a protected circuit (circuit breaker or fuse), making sure that it has an appropriate electrical ground to avoid the risk of electrocution or fire.**



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

### Power Linking

This fixture provides power linking via the Edison outlet located in the back of the unit. Please see the diagram below for further explanation.



**You can power link up to 12 Hemisphere™ 5 units on 120 VAC or up to 24 Hemisphere™ 5 units on 230 VAC.**



**The power linking diagram shown above corresponds to the North American version of this product ONLY! If using this product in other markets, you must consult with the local CHAUVET® distributor as power linking connectors and requirements may differ in your country or region.**

---

## Mounting

### Orientation

The Hemisphere™ 5 may be mounted in any position, provided there is adequate room for ventilation around it.

### Rigging

Be sure that the structure onto which you are mounting this product can support its weight. Please see the “Technical Specifications” section of this manual for weight information.

Make sure to mount the fixture securely to a rigging point, whether an elevated platform or a truss.

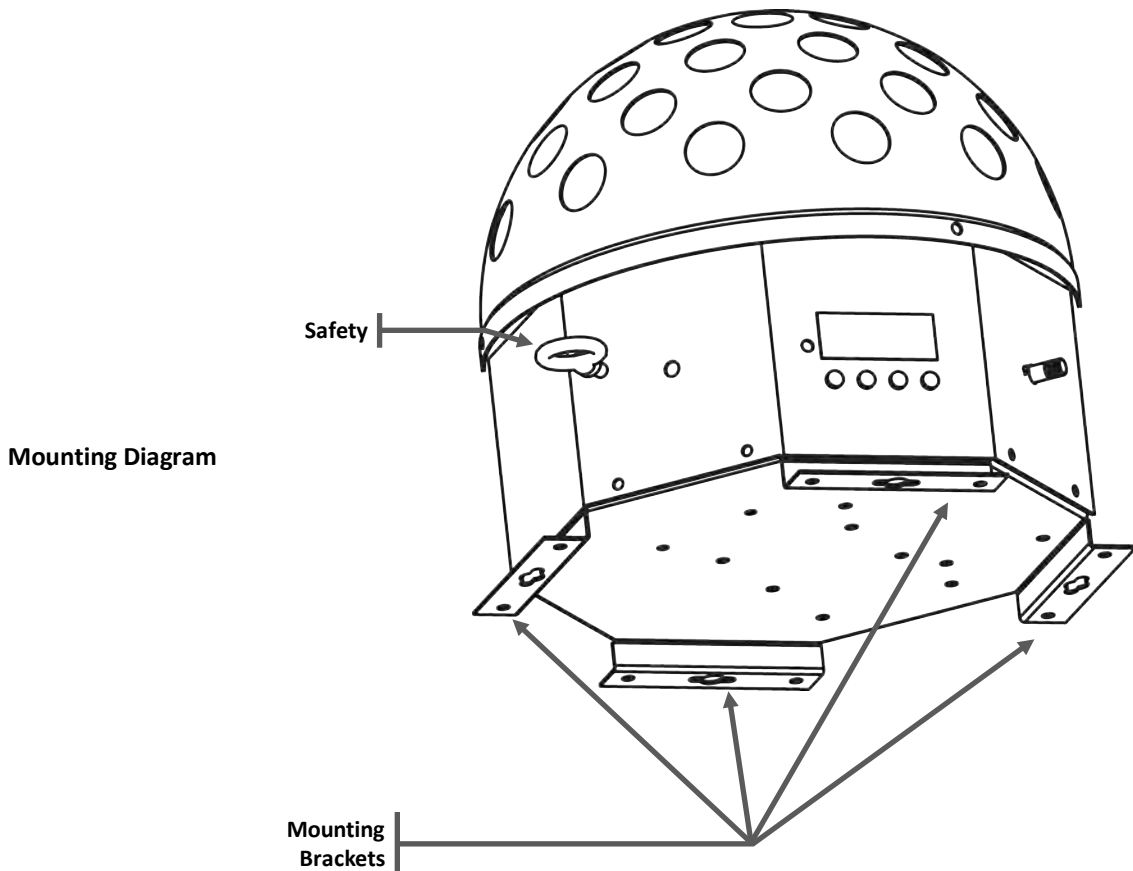
When rigging this product onto a truss, you should use two mounting clamps of appropriate weight capacity. The four mounting brackets have 13 mm Ø holes for this purpose.

When mounting this product overhead, always use a safety cable.

Always consider ease of access to the unit for maintenance and programming purposes before deciding on a location for this product.

It is also possible to mount this fixture to a flat, dry surface such as plywood using the mounting brackets.

When power linking multiple fixtures, always consider the length of the power linking cable and mount the fixtures close enough from each other to accommodate for this.



# 4. OPERATION

## Control Panel Operation

To access the control panel functions, use the four buttons located underneath the display.

Button	Function
<MENU>	Press to find an operation mode or to back out of the current menu option
<DOWN>	Press to scroll down the list of options or to find a lower value
<UP>	Press to scroll up the list of options or to find a higher value
<SETUP>	Press to activate a menu option or a selected value

## Menu Map

Mode	Programming Steps	Description
<i>PR.XX</i>	<b>PR.01~14</b>	Selects one of the auto programs
<b>AUTO</b>	n/a	Runs all 14 auto programs in sequence
<i>d.xxx</i>	<b>d.001~d.512</b>	Selects DMX address and enables the 4-Ch DMX mode
<b>SLAV</b>	n/a	Selects the "Slave" function (M/S mode)
<b>SOUN</b>	n/a	Selects the "Sound" function
<b>CL.XX</b>	<b>CL.R-</b>	Static color Red
	<b>CL.G-</b>	Static color Green
	<b>CL.B-</b>	Static color Blue
	<b>CL.W-</b>	Static color White
	<b>CL.Y-</b>	Static color Yellow
	<b>CL.RG</b>	Static color Red & Green
	<b>CL.RB</b>	Static color Red & Blue
	<b>CL.RW</b>	Static color Red & White
	<b>CL.RY</b>	Static color Red and Yellow
	<b>CL.GB</b>	Static color Green & Blue
	<b>CL.GW</b>	Static color Green & White
	<b>CL.GY</b>	Static color Green & Yellow
	<b>CL.BW</b>	Static color Blue & White
	<b>CL.BY</b>	Static color Blue & Yellow
	<b>CL.WY</b>	Static color White & Yellow
	<b>RGB-</b>	Static color Red, Green, & Blue
	<b>RGBW</b>	Static color Red, Green, Blue, & White
<b>RGBY</b>	Static color Red, Green, Blue, & Yellow	
<b>CL.FL</b>	Static color	



---

## Configuration (DMX Connectivity)

Setting this product to operate in DMX mode will allow you to control it with a DMX controller.

- 1) Connect this product to a suitable power outlet.
- 2) Turn this product on.
- 3) Connect a DMX cable from the DMX output of the DMX controller to the DMX input socket of this product.

### Starting Address

When selecting a starting DMX address, you must always consider the number of DMX channels assigned to the selected DMX mode. If you choose a starting address that is too high, you could restrict the access to some of the channels of the DMX mode in use.

The Hemisphere™ 5's single DMX mode uses five DMX channels, which defines the highest configurable address to 508.

If you are not familiar with the DMX protocol, you may refer to the "DMX Primer" section in the *Technical Information* chapter.

To select the starting address, do the following:

- 1) Press **<MENU>** repeatedly until **d.xxx** shows on the display.
- 2) Use **<UP>** or **<DOWN>** to select the starting address.
- 3) Press **<SETUP>**.



**After pressing <SETUP>, the fixture will immediately activate its 5-channel DMX mode.**

---

## Configuration (Standalone Modes)

Setting this product to operate in standalone mode will allow you to control it without a DMX controller.

- 1) Connect this product to a suitable power outlet.
- 2) Turn this product on.
- 3) Select a standalone mode, as indicated in the next sections.



**Never connect a fixture that is operating in any standalone mode, whether Static, Automatic, or Sound to a DMX string already connected to a DMX controller. This is because fixtures in standalone mode may transmit DMX signals that could interfere with the DMX signals from the controller.**

### ***Automatic Programs***

This fixture has 14 automatic programs, which you can select individually.

To select and enable an automatic program, follow the instructions below:

- 1) Press **<MENU>** repeatedly until **PR.XX** shows on the display.
- 2) Use **<UP>** or **<DOWN>** to select an automatic program, from **PR.01** to **PR.14**.
- 3) Press **<SETUP>**.

### ***Automatic Sequence***

This mode plays the 14 automatic programs in an endless sequence.

To activate the automatic sequence, follow the instructions below:

- 1) Press **<MENU>** repeatedly until **AUTO** shows on the display.
- 2) Press **<SETUP>**.

### ***Sound Active Mode***

The fixture has a pre-programmed chase that triggers with ambient sound.

To enable the Sound Active mode, do the following:

- 1) Press **<MENU>** repeatedly until **SOUN** shows on the display.
- 2) Turn the music on and adjust the microphone sensitivity knob until the fixture starts reacting to the beat of the music.



**The fixture will only respond to the low frequencies of the music (bass and drums).**

### ***Static Color***

In this mode, the fixture will rotate at a preset speed, although you will be able to control the LED colors.

To enable the Static mode, do the following:

- 1) Press **<MENU>** repeatedly until **CL.XX** shows on the display.
- 2) Use **<UP>** or **<DOWN>** to select a static color combination (from **CL.R-** to **CL.FL**), as shown in the *Menu Map* (page 8).
- 3) Press **<SETUP>**.



**The rotation speed is not adjustable in the Static Color mode.**

---

## Master/Slave Mode

This mode allows a single Hemisphere™ 5 unit (the “master”) to control the actions of one or more Hemisphere™ 5 units (the “slaves”) without the need of a DMX controller. The master unit will be set to operate in either Automatic or Sound Active mode, while the slave units will be set to operate in Slave Mode. Once configured and connected the slave units will operate in unison with the master unit.

Configure the units as indicated below.

Slave units:

- 1) Press **<MENU>** repeatedly until **SLAV** shows on the display.
- 2) Press **<SETUP>**.

Master unit:

- 1) Set the master unit to operate in either Automatic or Sound mode, as indicated previously.
- 2) Make the master unit the first unit in the DMX daisy chain.



- **Configure all the slave units before connecting the master unit to the DMX daisy chain.**
- **Never connect a DMX controller to a DMX string configured for Master/Slave operation because it may interfere with the signals from the master unit.**



**Do not connect more than 31 slave units to the master unit.**

## DMX Channel Assignments and Values

### 4 Channel Mode

Channel	Function	Value	Setting
1	Mode Selection	000 ó 009	Blackout
		010 ó 019	Red
		020 ó 029	Green
		030 ó 039	Blue
		040 ó 049	White
		050 ó 059	Amber
		060 ó 069	Red/Green
		070 ó 079	Red/Blue
		080 ó 089	Red/White
		090 ó 099	Red/Amber
		100 ó 109	Green/Blue
		110 ó 119	Green/White
		120 ó 129	Green/Amber
		130 ó 139	Blue/White
		140 ó 149	Blue/Amber
		150 ó 159	White/Amber
		160 ó 169	Red/Green/Blue
170 ó 179	Red/Green/Blue/White		
180 ó 189	Red/Green/Blue/Amber		
190 ó 199	Red/Green/Blue/White/Amber		
200 ó 229	Auto Program		
230 ó 255	Sound Mode		
2	Strobe	000 ó 009	No function
		010 ó 255	Slow~fast
3	Auto Program Speed	000 ó 009	No function
		010 ó 255	0~100%
4	Rotation	000 ó 009	Stop
		010 ó 119	Rotate (slow~fast)
		120 ó 129	Stop
		130 ó 255	Rotate (slow~fast)

---

## 5. TECHNICAL INFORMATION

### General Maintenance

Dust build up reduces light output performance and can cause overheating. This can lead to reduction of the light source's life and mechanical wear. To maintain optimum performance and minimize wear, you should clean your lighting fixtures at least twice a month. However, be aware that usage and environmental conditions could be contributing factors to increase the cleaning frequency.

To clean this fixture, follow the instructions below:

- Unplug the fixture from power.
- Wait until the fixture is cold.
- Use a vacuum (or dry compressed air) and a soft brush to remove dust collected on the external surfaces.
- Clean all glass surfaces with a mild solution of glass cleaner or isopropyl alcohol.
- Apply the solution directly to a soft, lint free cotton cloth or a lens cleaning tissue and drag any dirt or grime to the outside of the lens.
- Gently polish the external glass surfaces until they are free of haze and lint.



**Always dry the external glass surfaces carefully after cleaning them.**

## General Troubleshooting

Symptom	Possible Cause	Possible Action
Circuit breaker or fuse keeps blowing	· Excessive load on the circuit	· Make sure that the total load does not exceed 80% of the breaker or fuse nominal current
	· Short circuit along the power lines	· Check the power lines and power cords
Product does not power up	· No energy on power outlet	· Check power outlet · Change to another outlet
	· Loose or damaged power cord	· Check the power cord
	· Blown fuse	· Replace blown fuse with a good one of the same type and rating
	· Internal problem	· Send product for repair
Fixture does not respond to DMX	· Wrong starting address on the fixture	· Set the correct starting address on the fixture · Use the right fader(s) on the controller
	· Wrong DMX personality on the fixture	· Set the correct DMX personality on fixture · Assign the faders accordingly
	· Wrong polarity setting on the DMX controller	· Change the signal polarity on the controller
	· Loose or damaged DMX cable	· Check the DMX cable before the faulty unit
	· Internal problem	· Send product for repair
Intermittent DMX Problems	· Signal cables are not DMX compatible	· Replace non DMX cables with true DMX cables
	· Interference with AC or radio signals	· Keep DMX cables away from AC wires or radio equipment
	· DMX cable too long	· Install an optically coupled DMX amplifier right before the fixture with intermittent problems
	· Too many fixtures connected	· Install an optically coupled DMX amplifier after unit #32
	· Terminator not connected	· Install a terminator, as indicated in "DMX Primer".



**If you still experience problems after trying the above solutions, contact CHAUVET® Technical Support.**

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## Returns Procedure

The user must send the merchandise prepaid, in the original box, and with its original packing and accessories. CHAUVET® will not issue call tags.

Call CHAUVET® and request a Return Merchandise Authorization (RMA) number before shipping the fixture. Be prepared to provide the model number, serial number, and a brief description of the cause for the return.

The user must clearly label the package with a Return Merchandise Authorization (RMA) number. CHAUVET® will refuse any product returned without an RMA number.



**DO NOT write the RMA number directly on the box. Instead, write it on a properly affixed label.**

Once you have received the 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 problem

Be sure to pack the fixture properly. Any shipping damage resulting from inadequate packaging will be 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 returned product(s).**

## Claims

The carrier is responsible for any damage incurred during shipping to this product or any part that shipped with it. Therefore, if the received merchandise appears to have damages caused during shipping, the customer must submit the damage report and any related claims with the carrier, not CHAUVET®. The customer must submit the report upon reception of the damaged merchandise. Failure to do so in a timely manner may invalidate the customer's claim with the carrier.

For other issues such as missing components or parts, damage not related to shipping, or concealed damage, the customer must make claims to CHAUVET® within seven (7) days of receiving the merchandise.

## Contact Information

### World Headquarters

CHAUVET®

#### General Information

Address: 5200 NW 108th Avenue  
Sunrise, FL 33351

Voice: (954) 929-1115

Fax: (954) 929-5560

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#### Technical Support

Voice: (954) 929-1115 (Press 4)

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#### World Wide Web

[www.chauvetlighting.com](http://www.chauvetlighting.com)

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Voice: +44 (0)1773 511115

Fax: +44 (0)1773 511110

Email: [uktech@chauvetlighting.com](mailto:uktech@chauvetlighting.com)

#### World Wide Web

[www.chauvetlighting.co.uk](http://www.chauvetlighting.co.uk)

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## DMX Primer

The USITT DMX512-A data transmission protocol (DMX, from now on) is based on the EIA-485 standard and it has 512 channels (001 to 512). This system requires a controller (DMX controller), one or more DMX compatible fixtures, and a DMX circuit (also known as “DMX universe”) to link the fixtures to the controller.

Depending on their complexity and features, DMX compatible fixtures may require from one to more than 30 DMX channels to operate. Some DMX fixtures have multiple operation modes (also known as “personalities”), each with its own number of channels and controllable parameters.

### Starting Address

In the DMX system, the controller sends DMX data to each fixture based on the fixture’s starting address. The starting address is the number of the DMX channel (001 to 512) assigned to the fixture’s first control channel (Channel 1). When assigning starting addresses to multiple fixtures, it is critical to ensure that no starting address is already in use by another fixture to prevent channels from overlapping. Otherwise, the affected fixtures may operate erratically.

For instance, a user has two DMX compatible fixtures. Fixture “A” has four channels and fixture “B” has six channels. If the user configures the starting address of fixture “A” to “001”, channels 001 through 004 on the DMX controller will control fixture “A”. This means that the user should assign the starting address of fixture “B” to “005” or higher. For a starting address of “005”, the DMX controller would use channels 005 to 010 to control fixture “B”.

It is possible to control multiple fixtures of the same type by assigning each one of them the same starting address. In this case, all the fixtures would respond in unison (synchronized) to the signals from the DMX controller.

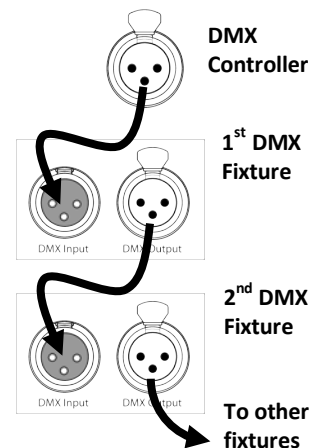
### Fixture Linking (Daisy Chain)

DMX compatible fixtures receive the control signals from the DMX controller through the DMX cables. Each fixture has a DMX In and a DMX Out connector. The figure to the right illustrates how the fixtures link to each other using multiple segments of DMX cable in a sequential format called “daisy chain”.

The order in which the fixtures connect to the DMX controller is irrelevant because all fixtures receive the same DMX signals and they only respond to them based on their individual starting addresses. However, it is important to notice that the connections between fixtures should always be as short and direct as possible.

To ensure the integrity of the DMX signal, follow the recommendations of the EIA-485 standard:

- The maximum recommended cable length is 500 m (1,640 feet).
- The maximum recommended number of fixtures on the same daisy chain is 32.



**Connecting more than 32 fixtures on one daisy chain without the use of a DMX optically-isolated splitter may result in deterioration of the digital DMX signal.**



## DMX Cabling

The DMX protocol requires using special data cables to accommodate for the high speed digital signals it uses. Despite their apparent similarities, data cables are electrically different from standard microphone cables because they can carry high frequency digital signals and have better protection against electromagnetic interference. You can purchase CHAUVET® certified DMX cables directly from a dealer/distributor or make your own DMX cable.

If you choose to make your own DMX cable, you must use a data-grade cable such as the Belden 9841, which has the following electrical 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

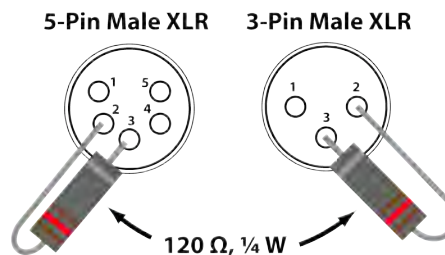
### DMX Connectors

Each DMX cable must have a male XLR connector on one end and a female XLR connector on the other end. The DMX protocol indicates that the XLR connectors must have five pins. However, most lighting fixtures use the 3-pin XLR connector. The pin assignment of the 3-pin and 5-pin XLR connectors in a DMX cable is as follows:

Signal	Male Plug		Female Plug		
	3-Pin	5-Pin	5-Pin	3-Pin	Signal
Common	1	1	1	1	Common
Data -	2	2	2	2	Data -
Data +	3	3	3	3	Data +
Not used		4	4		Not used
Not used		5	5		Not used

You can use the above table to create a 3-pin/3-pin cable, a 5-pin/5-pin cable, or a 3-pin to 5-pin adapter.

The DMX daisy chain uses a terminator to reduce signal transmission problems, especially with long cables. The terminator consists of either a 3-pin or 5-pin XLR male plug with a 120 Ω, ¼ W resistor connected to the wire side of pins 2 and 3, as shown below.



The terminator plug connects to the DMX Out socket of the last DMX fixture in the daisy chain.



**Do not allow the common wire of the DMX cable to touch the fixture's chassis ground. This could cause a ground loop, which may affect your fixtures' performance. Test all DMX cables with an ohmmeter to verify the correct polarity of the wires, and to make sure that they are not touching the shield or each other.**

# 6. TECHNICAL SPECIFICATIONS

## Dimensions and Weight

Length	Width	Height	Weight
10.7 in (272 mm)	10.7 in (272 mm)	10 in (254 mm)	6.7 lbs (3 kg)

**Note:** Dimensions in inches rounded to the nearest decimal digit.

## Power

Power Supply Type	Range	Voltage Selection
Switching (internal)	100~240 V, 50/60 Hz	Auto-ranging
Parameter	120 V, 60 Hz	230 V, 50 Hz
Consumption	48 W (0.7 A)	48 W (0.4 A)
Inrush current	0.3 A	0.4 A
Power Linking	12 Units	24 Units
Power I/O	Input	Output
Connectors	IEC	Edison
Cord plug	Edison	N/A

## Light Source

Type	Power	Lifespan
LED	3 W	50,000 hours
Color	Quantity	Current
Red	1	730 mA
Green	1	730 mA
Blue	1	730 mA
White	1	730 mA
Amber	1	730 mA

## Photo Optic

Parameter	Value
Coverage Angle	180°

## Location

Parameter	Value
Rating	Indoor Use Only

## Thermal

Maximum External Temp.	Cooling System
104° F (40° C)	Convection

## DMX

I/O Connectors	Connector Type	Channel Range
3-pin XLR	Sockets	5

## Ordering

Hemisphere 5
HEMISPHERE5