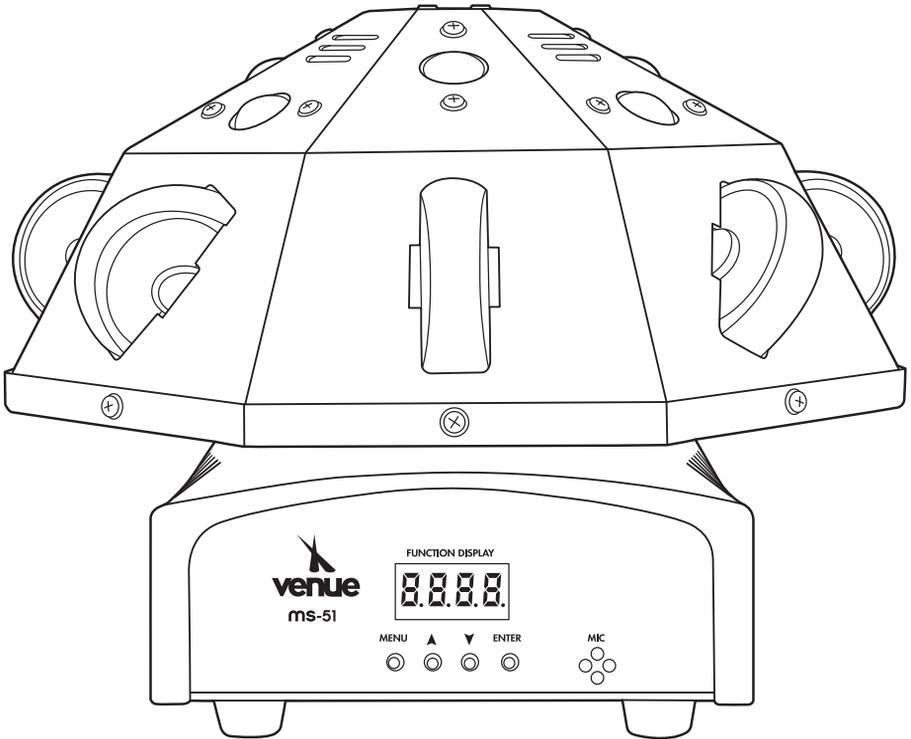




# mothership

360° MOVING HEAD MULTI-EFFECT LIGHT WITH LASER







## INTRODUCTION

The Venue MS-51 “Mothership” is a DMX intelligent moving head effect light, which includes a green laser, LED beams, and an LED column effect. It is lightweight and compact which makes it a great light for mobile DJs, clubs and parties. This unit can be used as a stand-alone fixture in sound-activated mode, or controlled via DMX controller.

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# BEFORE YOU BEGIN

## What Is Included

- Mothership
- Mounting Bolts (x2)
- Power Cord
- Mounting Bracket
- 13mm Safety Loop
- User Manual

## Unpacking Instructions

Carefully unpack the carton, then check the contents to ensure that all parts are present and have been received in good condition. Notify the shipper immediately and retain packing material for inspection if any parts appear damaged from shipping, or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

## Manual Conventions

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

CONVENTION	MEANING
<Menu>	Key to be pressed on the fixture's Control Display
1~512	Range of values
50/60	Set of values of which only one can be chosen
Settings	Menu option not to be modified (for example, showing the operating mode/current status)
MENU > Settings	Sequence of menu options to be followed
ON	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 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.

# SAFETY INSTRUCTIONS



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



Use extreme caution when the laser beam is turned on. When device is in use, do NOT look directly or indirectly (reflectance) into the laser beam. NEVER point the laser beam directly or via a reflecting surface towards another people's or animals' eyes or skin. Burns and permanent eye damage will result.

Do not point the laser beam towards highly explosive gasses.

Keep out of reach of children.

## FCC Statement

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
  - (1) This device may not cause harmful interference, and
  - (2) This device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

## General Safety

Please keep this User Manual for future reference.

- Make sure that you are connecting to the proper voltage, and that the line voltage you are connecting to is not higher than that stated on the decal or rear panel of the fixture.
- This product is intended for indoor use only! To prevent risk of fire or shock, do not expose fixture to rain or moisture.
- Make sure there are no flammable materials close to the unit while operating.
- The unit must be installed in a location with adequate ventilation, at least 20" (50 cm) from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Always disconnect from the power source before servicing or replacing the fuse and be sure to replace with same type fuse.
- Secure fixture to included safety loop using a safety chain.
- Maximum ambient temperature is 104° F (40° C). Do not operate the fixture at temperatures higher than this.
- In the event of a serious operating problem, stop using the unit immediately. Never try to repair the unit yourself.
- Never connect the device to a dimmer pack.
- Make sure the power cord is never crimped or damaged.
- Never disconnect the power cord by pulling or tugging on the cord.
- Never carry the fixture directly from the cord. Always use the hanging/mounting bracket.
- Avoid direct eye exposure to the light source while it is on.

## INTRODUCTIONS

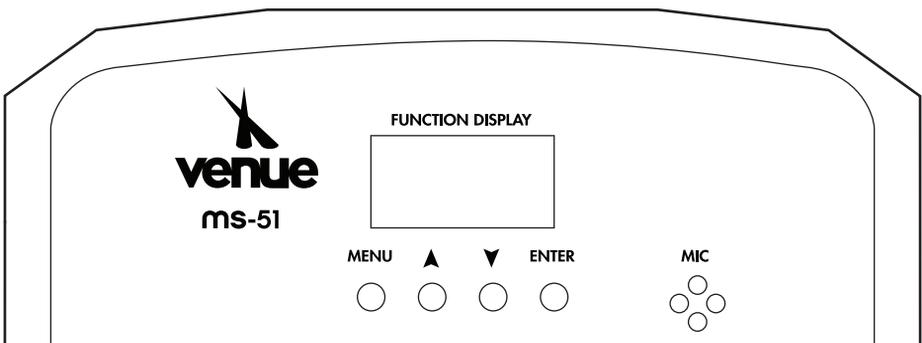
### Control Features

- X-Axis moving head, with laser, LED beam, and LED column effects
- 540° pan control, with or without DMX controller
- Built-in automated programs via master/slave or DMX with variable speed
- Built-in sound activated programs via master/slave or DMX
- 13 channel DMX-512 operation

### Additional Features

- Includes rubber feet for desktop placement & metal bracket/safety loop for truss mounting

### Control Panel



# SETUP

## AC Power

This fixture runs on 100~240 VAC, 50/60 Hz. Before powering on the unit, make sure the line voltage is within the range of accepted voltages.

To determine the power requirements for a particular fixture, see the label affixed to the bottom 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.

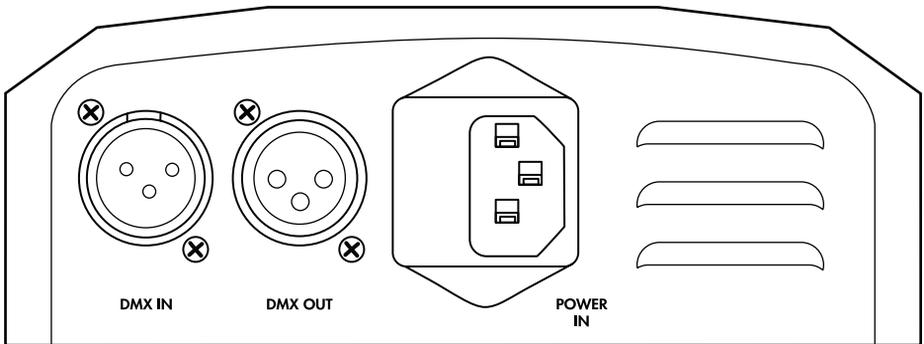


Always connect the fixture to a switched circuit. Never connect the fixture to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used only as a 0 to 100% switch.



Always connect the fixture to a circuit with a suitable electrical ground.

## Back Panel



## Mounting Orientation

The Mothership includes a metal bracket and safety loop for hanging upside-down only.

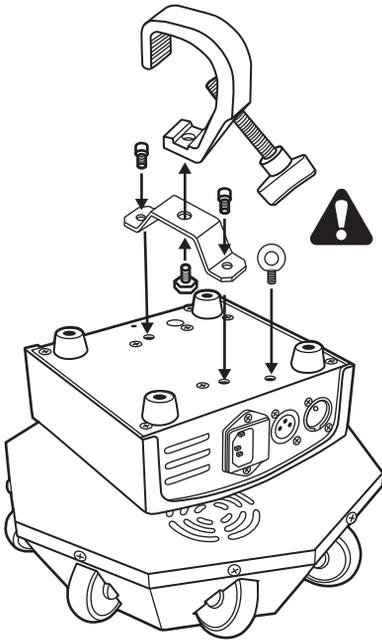
## Rigging

Be sure that the structure can support the weight of the fixture. Please see the “Technical Specifications” section of this manual for a detailed weight listing. Mount the fixture securely. This may be done with a screw, nut and bolt, or a hanging clamp (not included). The hole in each bracket can fit a 13mm screw or bolt. When rigging, consider routine maintenance and back panel access. Please see the following steps for installation.

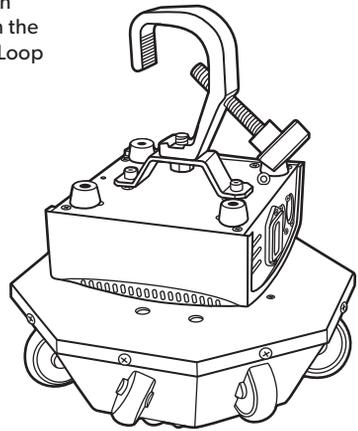
- Ensure that cables are neatly organized and sufficient space is provided to allow full movement of the fixture.
- There are rubber feet attached to the base, which may be used primarily for floor or desk standing positions.
- Safety cables must always be used.



Lighting clamp  
not included.

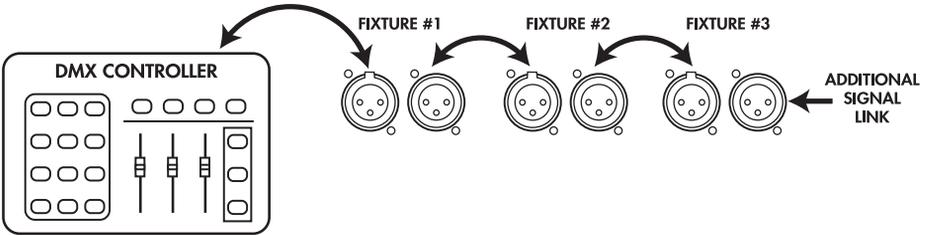


Safety cables must  
always be used in  
conjunction with the  
included Safety Loop



## Signal Linking

In order to use this fixture in a DMX or master/slave operation, you must daisy chain using DMX cables to link from one fixture to another.



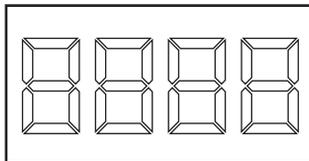
## OPERATING INSTRUCTIONS

### Control Panel Buttons

Access these functions using the four buttons located directly underneath the LED Control Display.

BUTTON	FUNCTION
<Menu>	Scrolls through the current operating mode, as well as back out of the current menu option
<UP>	Selects increasing advancement in the value
<DOWN>	Selects decreasing advancement in the value
<ENTER>	Selects a value and stores it to memory

### FUNCTION DISPLAY



The Control Display shows the current state of the unit. It is used to select the operating mode, as well as the sub-features. For detailed functions, please see the section below.

### Control Panel Menu Selections

	MAIN FUNCTION	SUB-FUNCTION	SELECTION	INSTRUCTION
DMX Address	Addr		A001-A512	Select starting DMX address
Master/Slave Mode	SLNd	Mast		Designate as the master unit
		SLA-		Designate as slave unit
Show/Program	Shnd	SH 0 SH 1 SH 2 SH 3		Select pre-programmed show 0-3
Audio Sensitivity	SenS		0-100	Select sensitivity level of the microphone between 0 (less sensitive) and 100 (more sensitive)
Mode	Mode	Auto		Enable automatic programs
		Sound		Enable sound-active mode
LED Display	Led	On		Select whether the LED display will always be illuminated, or turn off after 5 seconds of non-use
		Off		
Flip Display	dISP	No		When this menu option is selected, the display will instantly flip upside-down, for better visibility when hanging from a truss
		Yes		
Pan Direction	rPAn	No		Select standard or reverse x-axis movement
		Yes		
Test	teSt			When this menu option is selected, the light will test movement, and cycle through all colors until "Menu" is pressed again
Manual Control	MAnu	PAN	0-255	Manually alter parameters, specifying values between 0-255 for all options
		Top	0-255	
		Mid	0-255	
		Bot1	0-255	
		Bot2	0-255	
		LASE	0-255	
		DIMM	0-255	
		STRO	0-255	
Reset	rSet			When this menu option is selected, the light will briefly reset, and factory settings will be implemented

# STAND-ALONE OPERATION

## Pre-Programmed Chases

This fixture has 4 preprogrammed lighting chases with corresponding movement sequences. These “shows” are accessed via the Control Display (page 6).

1. Press **<MENU>** until “Shnd” appears on the LED screen.
2. Press **<ENTER>**.
3. Using **<UP>** and **<DOWN>**, select the desired program (Sh0-Sh3).
4. Press **<ENTER>**.

## AUTOMATIC / SOUND ACTIVE

While an automatic program is enabled, you can choose whether or not to use the built-in microphone for sound-active response. This option is accessed via the Control Display (page 6).

1. Press **<MENU>** until “Mode” appears on the LED screen.
2. Press **<ENTER>**.
3. Using **<UP>** and **<DOWN>**, select either “Auto” to enable automatic operation, or “SoUn” to enable sound-active mode.
4. Press **<ENTER>** to confirm settings.

## Audio Sensitivity

While in sound active mode, you can adjust the sensitivity of the microphone via the Control Display (page 6).

1. Activate a sound-active program (Mode - SoUn).
2. Press **<MENU>** until “SENS” appears on the LED screen.
3. Press **<ENTER>**.
4. Press **<UP>** or **<DOWN>** to adjust the sensitivity between 0 and 100 (0 = least sensitive, 100 = most sensitive)
5. Press **<ENTER>** to save your sensitivity setting.

## Manual Control

This fixture allows the user to manually control each lighting effect, as well as alter the dimmer, strobe, and pan angle through the main menu. These are accessed via the Control Display (page 6).

1. Press **<MENU>** until “MAnu” appears on the LED screen.
2. Press **<ENTER>**.
3. Using **<UP>** and **<DOWN>**, select the lighting zone or parameter you would like to adjust.
4. Press **<ENTER>**.
5. Using **<UP>** and **<DOWN>**, select the desired value (0 - 255). By selecting 0 for a lighting zone parameter, that section will remain off.
6. Press **<ENTER>**.
7. Repeat steps 3 - 6 until the desired effect and position is obtained. The current setting will remain active until **<MENU>** is pressed again, at which point the unit will revert back to its most recent program.

The lighting zones are represented by the following in the menu map:

toP = Top 4 Beams - Orange, CTO, Cyan, Amber (0-255)

Mld = Middle 4 Beams - Red, Green, Blue, White

bot1 = Bottom Row Column Effect 1 of 2 - Orange, CTO, Cyan, Amber (0-255)

bot2 = Bottom Row Column Effect 2 of 2 - Red, Green, Blue, White

LASe = Green Laser (0-255)

# DMX OPERATION

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

## Configuring the Starting Address

Each fixture requires a starting address from 1–512. A fixture requiring one or more channels for control begins to read the data on the channel indicated by the starting address. For example, a fixture that uses seven DMX channels and is addressed to start on DMX channel 100, will read data from channels: 100, 101, 102, 103, 104, 105 and 106. Choose the starting addresses for each fixture so that the channels used do not overlap. In addition, you should note the starting address selected for future reference.

1. Press **<MENU>** until “Addr” appears on the LED screen.
2. Press **<ENTER>**.
3. Using **<UP>** and **<DOWN>**, select the desired DMX address (1–512).
4. Press **<ENTER>**.

## Master/Slave (Standalone Operating Modes)

This is the operating mode which will allow one fixture to act as the master and control all of the other slave fixtures. You must set both the master and the slave(s) fixtures to the correct mode for this operation.

Master Settings:

1. Connect the fixtures with DMX cables, as shown in the “Fixture Linking” section.
2. Press **<MENU>** until “SLnd” appears on the LED screen.
3. Press **<ENTER>**.
4. Using **<UP>** and **<DOWN>**, select MAST.
5. Press **<ENTER>**.

Slave Settings:

1. Press **<MENU>** until “SLnd” appears on the LED screen.
2. Press **<ENTER>**.
3. Using **<UP>** and **<DOWN>**, select “SLA-”
4. Press **<ENTER>**.



Although any fixture in the DMX daisy chain may be set to master, it is advisable to set the master as the first fixture in the line.

Only one fixture may be set to master.

Do not connect a DMX controller to the daisy chain for this operating mode. It does not matter which DMX mode is selected for the slave fixtures.

Either mode will be effective.

## 13 Channel DMX Operation

FUNCTION	VALUE	PERCENT/SETTING	CHANNEL
Pan	0-255	0-100%	1
Pan Speed	0-255	0-100%	2
Dimmer	0-255	0-100%	3
Strobe	0-255	0-100%	4
Top Row LED	0-255	0-100%	5
Middle Row LED	0-255	0-100%	6
Bottom Row 1 LED	0-255	0-100%	7
Bottom Row 2 LED	0-255	0-100%	8
Laser	0-255	0-100%	9
Auto Show - Motion Settings	0-15	Motion Off	10
	16-44	Auto Movement 0	
	45-74	Auto Movement 1	
	75-104	Auto Movement 2	
	105-128	Auto Movement 3	
	129-157	Sound-Active Movement 0	
	158-187	Sound-Active Movement 1	
	188-217	Sound-Active Movement 2	
218-255	Sound-Active Movement 3		
Audio Sensitivity - Motion Settings	0-255	0-100%	11
Auto Show - Color Settings	0	LEDs Off	12
	1-7	Color Fade	
	8-39	Auto Colors 0	
	40-72	Auto Colors 1	
	73-105	Auto Colors 2	
	106-140	Auto Colors 3	
	141-167	Sound-Active Colors 0	
	168-195	Sound-Active Colors 1	
	196-223	Sound-Active Colors 2	
	224-255	Sound-Active Colors 3	
Audio Sensitivity - Color Settings	0-255	0-100%	13

# APPENDIX

## DMX Primer

There are 512 channels in a DMX connection. Channels may be assigned in any manner. A fixture capable of receiving DMX will require one or a number of sequential channels. The user must assign a starting address on the fixture that indicates the first channel reserved in the controller. There are many different types of DMX controllable fixtures 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 fixtures whose starting address is set incorrectly. You can however, control multiple fixtures 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 fixtures will be slaved together and will all respond exactly the same. Consult the Owner's Manual to your DMX controller for more information.

DMX fixtures are designed to receive data through a serial Daisy Chain. A Daisy Chain connection is where the DATA OUT of one fixture connects to the DATA IN of the next fixture. The order in which the fixtures are connected is not important and has no effect on how a controller communicates to each fixture. Use an order that provides for the easiest and most direct cabling. Connect fixtures 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+).

## General Troubleshooting

SYMPTOM	POSSIBLE CAUSE(S)	POSSIBLE ACTION(S)
Breaker/Fuse keeps blowing	<ul style="list-style-type: none"> <li>Excessive circuit load</li> <li>Short circuit along the power wires</li> </ul>	<ul style="list-style-type: none"> <li>Check total load placed on the electrical circuit</li> <li>Check for a short in the electrical wiring (internal and/or external)</li> </ul>
Device does not power up	<ul style="list-style-type: none"> <li>No power</li> <li>Loose power cord</li> </ul>	<ul style="list-style-type: none"> <li>Check for power on Mains</li> <li>Check power cord</li> </ul>
Fixture is not responding to DMX	<ul style="list-style-type: none"> <li>Wrong DMX addressing</li> <li>Damaged DMX cables</li> <li>Wrong polarity settings on the controller</li> <li>Loose DMX cables</li> <li>Faulty DMX interface</li> <li>Faulty Main PCB</li> </ul>	<ul style="list-style-type: none"> <li>Check Control Display and unit addressing</li> <li>Check DMX cables</li> <li>Check polarity switch settings on the controller</li> <li>Check cable connections</li> <li>Replace DMX input</li> <li>Replace Main PCB</li> </ul>
Loss of signal	<ul style="list-style-type: none"> <li>Non DMX cables</li> <li>Bouncing signals</li> <li>Long cable / Low level signal</li> <li>Too many fixtures</li> <li>Interference from AC wires</li> </ul>	<ul style="list-style-type: none"> <li>Use only DMX compatible cables</li> <li>Install terminator as suggested</li> <li>Install amplifier right after fixture with strong signal</li> <li>Install an optically coupled DMX splitter after unit #32</li> <li>Keep DMX cables separated from power cables or black light</li> </ul>

## Fixture Linking

You will need a serial data link to run light shows of one or more fixtures using a DMX 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 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 DMX signal.

Maximum recommended serial data link distance: 500 m (1640 ft)

Maximum recommended number of fixtures on a serial data link: 32

## DMX Data Cable

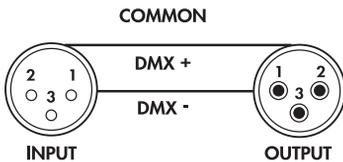
Use a cable which meets the specifications for EIA RS-485 applications. Standard microphone cables cannot transmit DMX data reliably over long distances. The cable must have the following characteristics:

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

## Cable Connectors

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

### DMX CONNECTOR CONFIGURATION



### TERMINATOR

To avoid signal transmissions problems and interference, it is always advisable to connect a DMX signal terminator.

120 ohm 1/4 W resistor between pin 2 (DMX-) and pin 3 (DMX+) on the output of the last fixture



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 Ohm meter 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

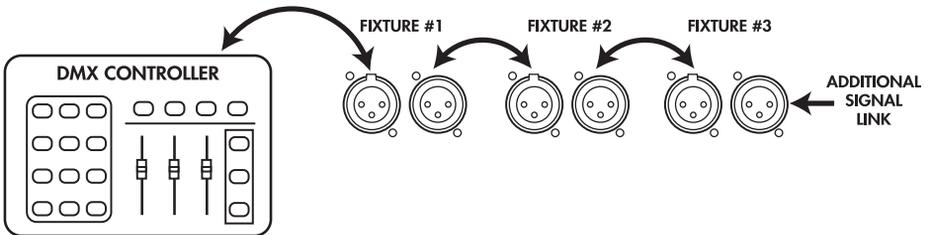


If you use a controller with a 5-pin DMX output connector, you will need to use a 5-pin to 3-pin adapter. The chart below details a proper cable conversion:

3-PIN TO 5-PIN CONVERSION CHART		
Conductor	3-Pin Female (Output)	5-Pin Male (Input)
Ground/Shield	Pin 1	Pin 1
Data (-) Signal	Pin 2	Pin 2
Data (+) Signal	Pin 3	Pin 3
Not Used		Pin4
Not Used		Pin5

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



### General Maintenance

To maintain optimum performance and minimize wear, fixtures should be cleaned frequently. Usage and environment are contributing factors in determining frequency. As a general rule, fixtures should be cleaned at least twice a month. Dust reduces performance and can cause overheating.

This can lead to reduced lamp life and increased mechanical wear. Be sure to power off fixture before conducting maintenance.

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

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



Always dry parts carefully after cleaning them.



Never spin a fan using compressed air.

## TECHNICAL SPECIFICATIONS

### Weight & Dimensions

Length: 13.46" (342mm)  
Width: 13.46" (342mm)  
Height: 7.18" (182.3mm)  
Weight: 6.18 lbs (2.80 kg)

### Power

Auto-Ranging Power Supply: 100~240 VAC, 50/60 Hz  
Power Consumption @ 120 V: 49 W max, 0.68 A inrush  
Power Consumption @ 230 V: 47 W max, 0.39 A inrush Fuse 2A

### Light Source

Laser	x1 (Green)
Maximum Output	<4.9mW
Emitted Wavelengths	532 nm
LEDs	x16 (3-watt)
Lux @ 2 m	
Red:	1234
Green:	1051
Blue:	17
Amber:	450
White:	1885
Cyan:	306
Yellow:	1099
Pink:	1214
Beam Angle	5°
Column Angle	180°

### Thermal

Maximum Ambient Temperature	104° F (40° C)
Cooling	Fan

### Motion

X-Axis Rotation	540°
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## WARRANTY

### One (1) Year Limited Warranty

Subject to the limitations set forth below, Venue® hereby represents and warrants that the components of this product shall be free from defects in workmanship and materials, including implied warranties of merchantability or fitness for a particular purpose, subject to normal use and service, for one (1) year (ninety (90) days on lamps) to the original owner from the date of purchase.

Retailer and manufacturer shall not be liable for damages based upon inconvenience, loss of use of product, loss of time, interrupted operation or commercial loss or any other incidental or consequential damages including but not limited to lost profits, downtime, goodwill, damage to or replacement of equipment and property, and any costs of recovering, reprogramming, or reproducing any program or data stored in equipment that is used with Venue® products. This guarantee gives you specific legal rights. You may have other legal rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

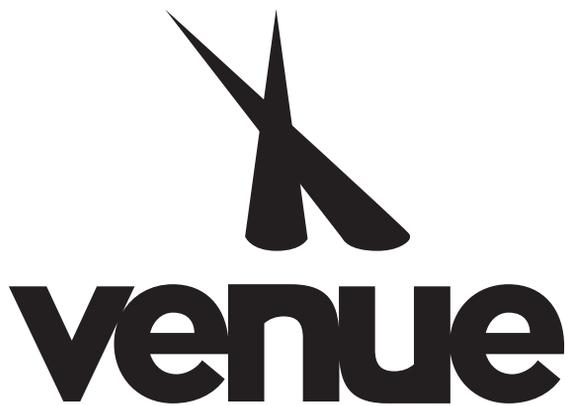
### Venue Lighting Effects

P.O. Box 5111, Thousand Oaks, CA 91359-5111 [www.venuelightingeffects.com](http://www.venuelightingeffects.com)

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