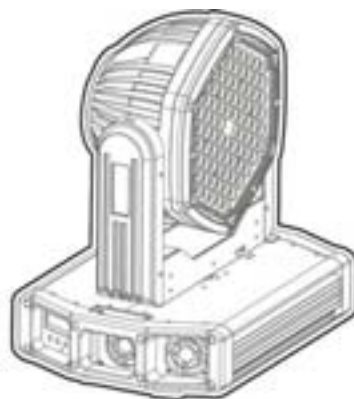


Legend™ 6500  
LEG-6500

## Snapshot

OK on Dimmer	⊘
Outdoor OK	⊘
Sound Activated	⊘
DMX512	✓
Master/Slave	✓
Autoswitching Transformer	✓
Replaceable Fuse	✓
User Serviceable	⊘
Duty Cycle	⊘

## USER MANUAL



Chauvet, 3000 N 29<sup>th</sup> Ct, Hollywood, FL 33020 U.S.A.  
(800) 762-1084 – (954) 929-1115  
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[www.chauvetlighting.com](http://www.chauvetlighting.com)

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# 1. BEFORE YOU BEGIN

## What is included

- 1 x Legend™ 6500
- 1 x Mounting Bracket kit w/screws
- 1 x Neutrik® Power cable with plug
- 1 x Warranty Card
- 1 x User Manual

## Unpacking Instructions

Immediately upon receiving a fixture, carefully unpack the carton, 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.

## Safety Instructions



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

- Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.
- Always 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.
- The unit must be installed in a location with adequate ventilation, at least 20in (50cm) from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Always disconnect from power source before servicing or replacing lamp or fuse and be sure to replace with same lamp source.
- Secure fixture to fastening device using a safety chain. Never carry the fixture solely by its head. Use its carrying handles.
- Maximum ambient temperature (Ta) is 104°F (40°C). Do not operate 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 by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.

**Caution!** *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 CHAUVET at: 954-929-1115.*

**Caution!** *After prolonged periods of operation, the fixture chassis may reach high temperatures. Use caution when handling this fixture.*

## LED Expected Lifespan

LEDs gradually decline in brightness over time. HEAT is the dominant factor that leads to the acceleration of this decline. Packaged in clusters, LEDs exhibit higher operating temperatures than in ideal or singular optimum conditions. For this reason when all color LEDs are used at their fullest intensity, life of the LEDs is significantly reduced. It is estimated that a viable lifespan of 40,000 to 50,000 hours will be achieved under normal operational conditions. If improving on this lifespan expectancy is of a higher priority, place care in providing for lower operational temperatures. This may include climatic-environmental and the reduction of overall projection intensity

# 2. INTRODUCTION

## Features

- 10 or 14-channel DMX-512 LED moving yoke color wash
- Pan: 540° / tilt: 270°
- RGBW color mixing with or without DMX controller
- Variable electronic strobe
- Variable electronic dimmer (0 – 100%)
- Remote fixture reset and vector speed channel
- 255 user-programmable steps without DMX controller
- Color temperature presets (3,200°K - 10,000°K) or create your own
- Adjustable fan speed

### ADDITIONAL FEATURES

- High-powered, 2W/5W (600mA red, 1,300mA green, blue, white) LEDs
- 3-pin and 5-pin DMX connections
- User-selectable pan/tilt ranges
- Automatic pan/tilt correction
- Reset to factory settings option
- User-selectable basic or advanced operating modes
- LCD display with password protection

### OPTIONS

- Optical systems available: 15° (installed), 30° (CL20X30)

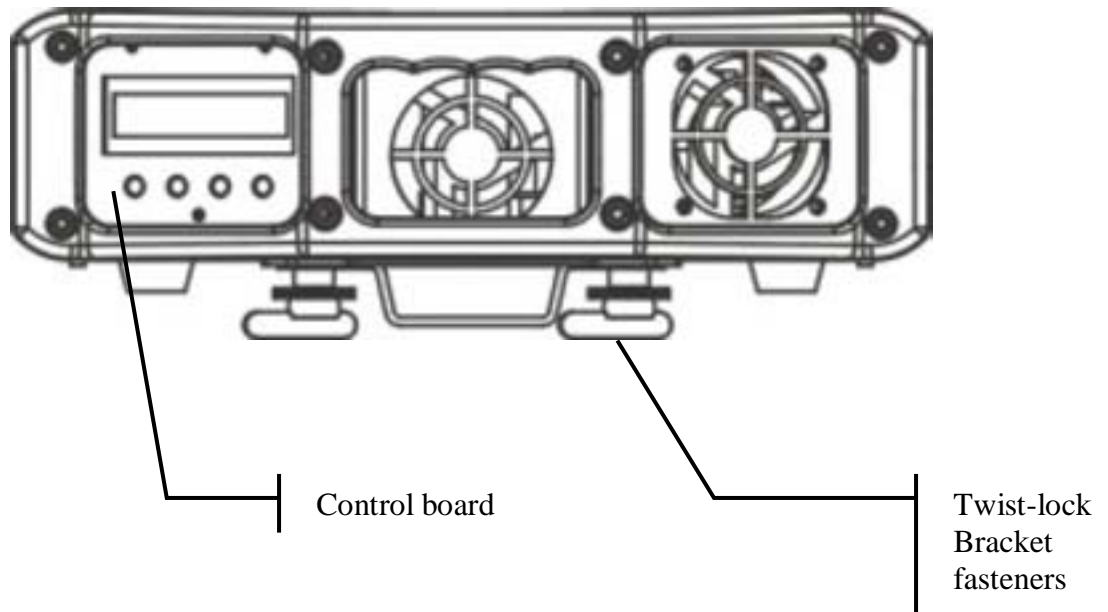
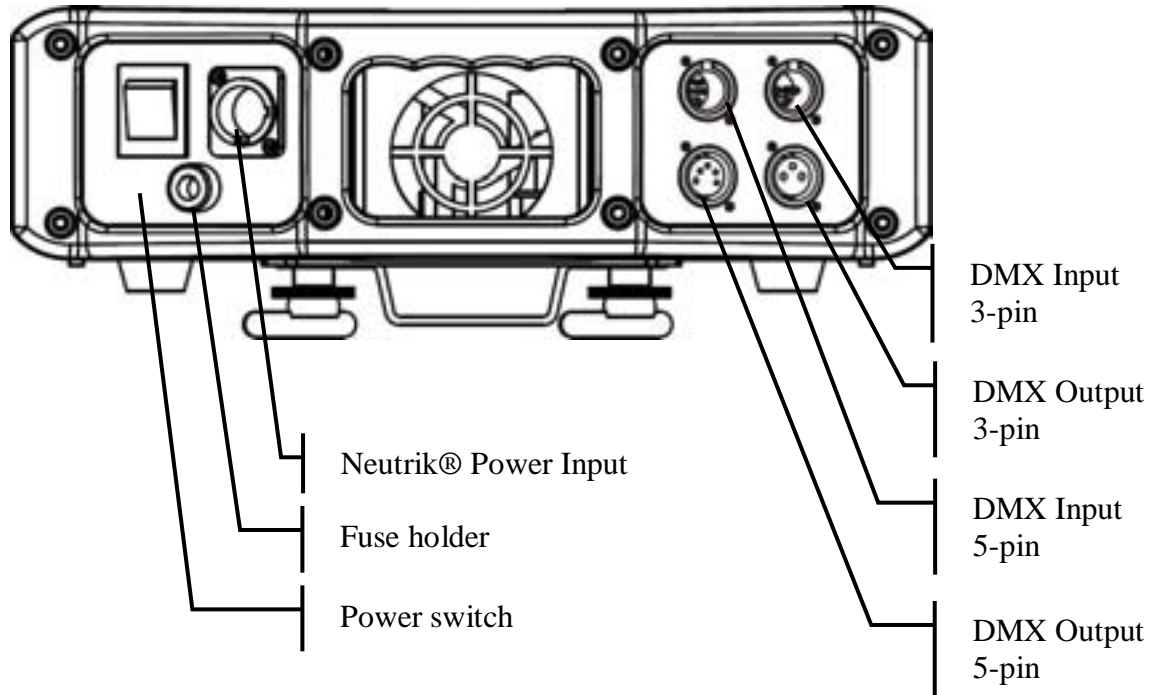
## DMX Channel Summary

The Legend™ 6500 has 2 DMX channel configurations, referred to as “Personalities” in this manual and in the fixture control board. The 2 personalities are [Advanced, Basic]. Each of the personalities can be accessed from the control panel. Please see section on “Control Panel Functions” on a description on how to accomplish this.

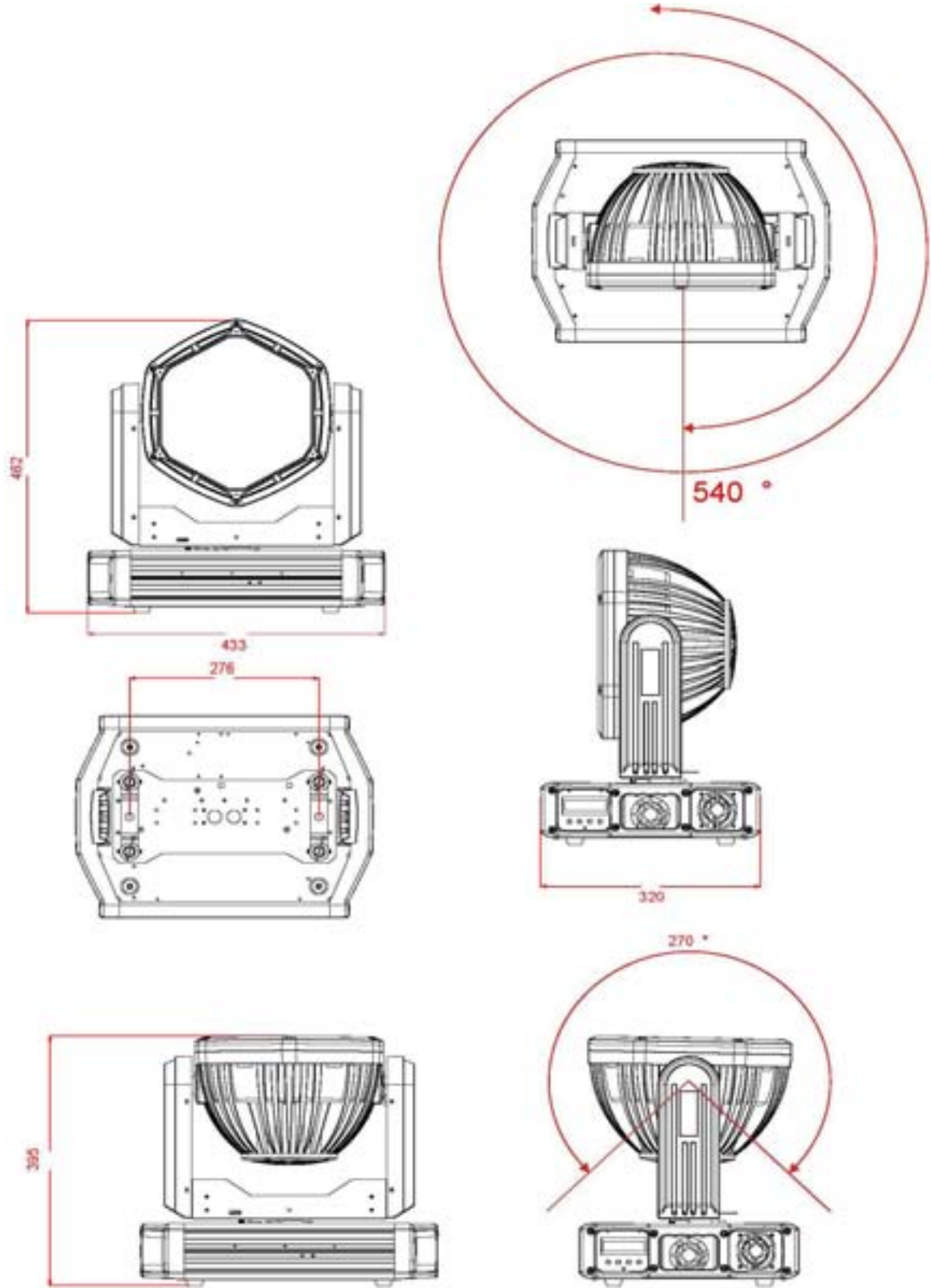
<b>[ADVANCED]</b>	<b>CHANNEL</b>	<b>DESCRIPTION</b>
	1	Pan
	2	Pan Fine
	3	Tilt
	4	Tilt Fine
	5	Pan/Tilt Speed
	6	Red
	7	Green
	8	Blue
	9	White
	10	Color/White Macro
	11	Dimmer
	12	Strobe
	13	Dimmer Speed
	14	Control

<b>[BASIC]</b>	<b>CHANNEL</b>	<b>DESCRIPTION</b>
	1	Pan
	2	Tilt
	3	Red
	4	Green
	5	Blue
	6	White
	7	Color/White Macro
	8	Dimmer
	9	Strobe
	10	Control

# Product Overview



# Product Dimensions



# 3. SETUP

## AC Power

This fixture has an auto-switching switch-mode 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 fixture will accommodate between 100V and 240V AC 50-60 Hz. All fixtures 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.

This fixture is designed for power linking from one Legend™ 6500 to another Legend™ 6500 fixture. Each fixture ships with Neutrik® power input cables. Each fixture ships with a power adapter to Male Edison connector.

**Warning!** *All fixtures must be connected to circuits with a suitable Earth Ground.*

Depending on the application, the lighting fixture may require a different connector. Please refer to the below wire color code if installing a new connector.

Wire	Connection	Connection	Pin
Brown	AC Live	AC Live	1
Blue	AC Neutral	AC Neutral	2
Green/Yellow	AC Ground	Ground(Earth)	3



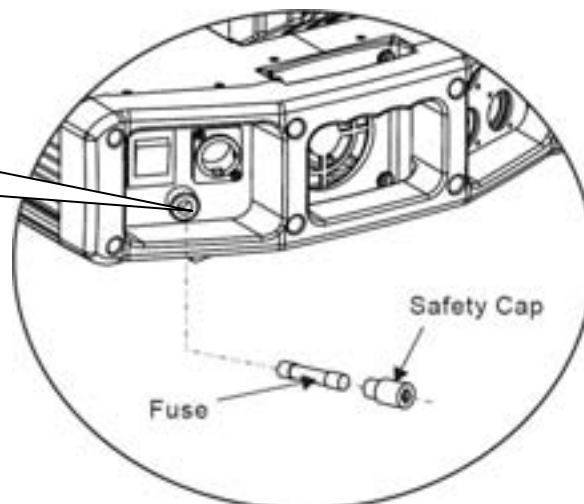
Disconnect the power cord before replacing a fuse and always replace with the same type fuse.



## Fuse Replacement

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

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





## Mounting

### Orientation

This fixture may be mounted vertically or horizontally.

### Rigging

The fixture includes a mounting yoke to which a rigging clamp can be attached. You must supply your own clamp and make sure the clamp is capable of supporting the weight of this fixture. It is recommended to use at least 2 mounting points per fixture. You can order “C” and “O”-clamps from any CHAUVET dealer or distributor (CLP-15, CLP-06 recommended).

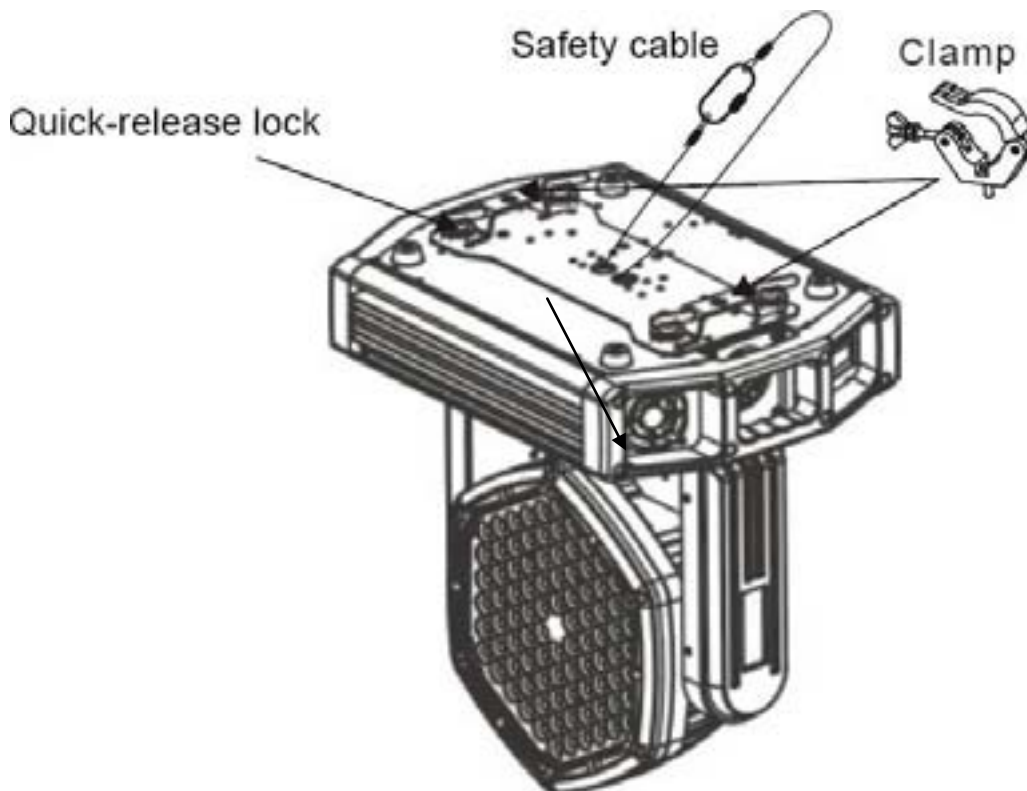
*Note: There are 2 types of applications for this fixture: floor stand for up lighting, and overhead use for down lighting. If you are using this fixture for up lighting, then you must use at least 1 safety cable/chain for each fixture in addition to the mounting brackets.*

If hanging the fixture for over head use, then please follow the below steps.

1. Block access below the work area and use suitable and stable platform when installing or servicing fixture.
2. Safety cables must always be used, secured through the safety cable passageway. The safety cable must be capable of holding 10 times the weight of the fixture.
3. Verify the structure can hold 10 times the weight of all to-be installed fixtures.

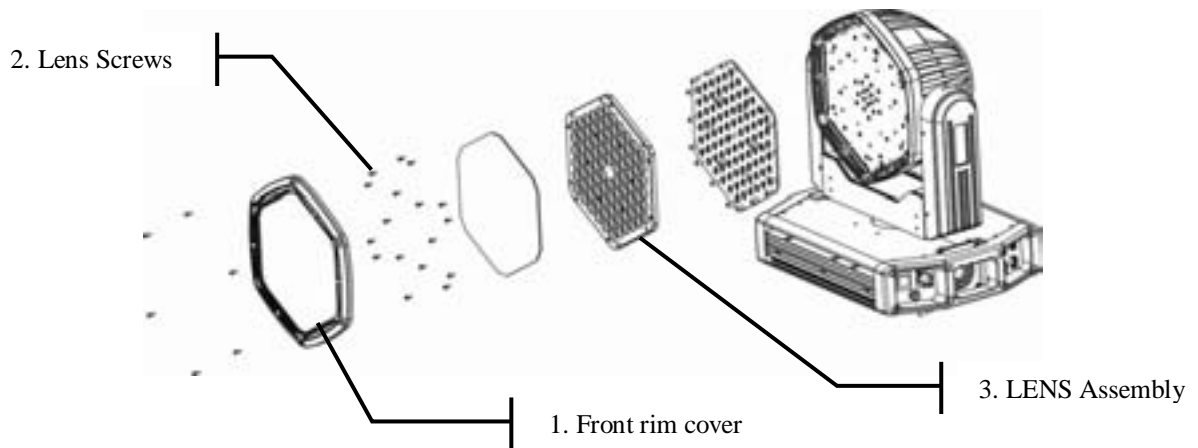
#### **Caution!**

***After prolonged periods of operation, the fixture chassis may reach high temperatures. This fixture must be mounted in a ventilated location, as it is fan/convection cooled.***



## Lens Assembly Installation/Replacement

The Legend™ 6500 comes with 15° lens assembly pre-installed from the factory. However, there is another optional lens kit (**CL20X30**) available as an accessory, which will alter the beam angle. Please follow the below instructions for proper replacement/installation.



1. Remove the front rim cover (black) by removing the screws that hold it in place. There are screws to remove for this step.
2. After removing the front rim cover, remove the screws that hold the lens assembly in place.  
**Note: use care when performing this procedure, as this gives you direct access to the LEDs, which are very fragile.**
3. You now should have full access to the lens assembly. This must be removed and the old lenses must be replaced with the new lenses. The same assembly is to be reinstalled with the new lenses in place and the process is complete.

### **Warning!**

1. **When replacing the lens assembly, please make sure that the power is disconnected from the fixture beforehand.**
2. **You must also be VERY CAREFUL when opening this fixture. Improper handling of this unit may void the warranty if any parts are damaged due to negligence on behalf of the user.**

## Fixture 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.

**Important:** *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 devices 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 fixtures on a serial data link: 32 fixtures

## Data Cabling

To link fixtures 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.

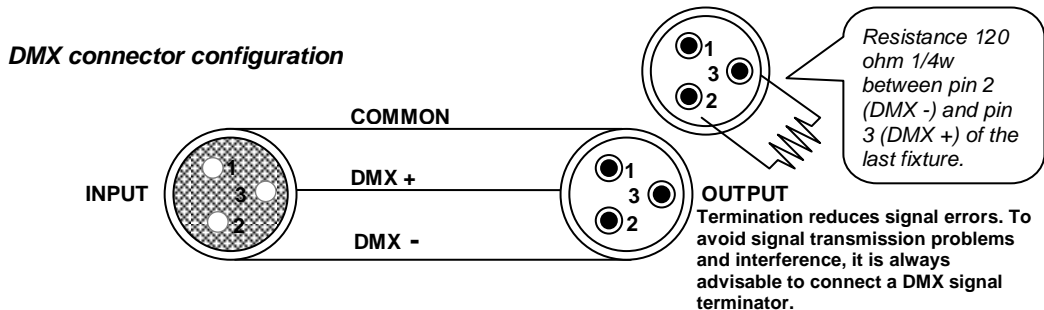
### DMX DATA CABLE

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 end.



**CAUTION** *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

**Note!** *If you use a controller with a 5 pin DMX output connector, you will need to use a 5 pin to 3 pin 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

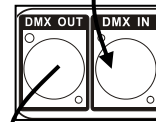
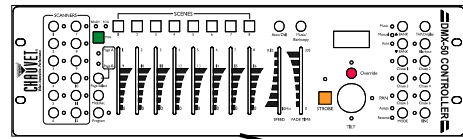
## Setting up a DMX Serial Data Link

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.

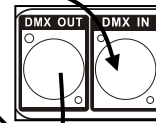
### CHAUVET Certified DMX Data Cables

Order Code	Description
DMX1.5	DMX Cable 1.5m/4.9ft
DMX4.5	DMX Cable 4.5m/14.8ft
DMX10	DMX Cable 10m/32.8ft

Universal DMX Controller



This drawing provides a general illustration of the DMX Input/Output panel of a lighting fixture.

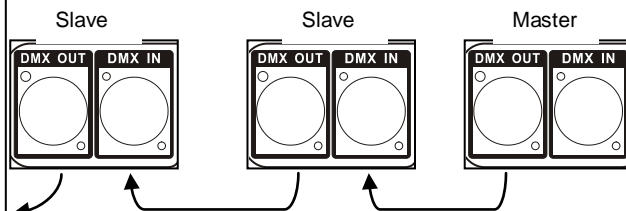


Continue the link

## Master/Slave Fixture 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 as stated above to the input of the following fixture and so on.

Often, the setup for Master-Slave and Standalone operation requires that the first fixture in the chain be initialized for this purpose via either settings in the control panel or DIP-switches. Secondly, the fixtures 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

## Control Options

The Legend™ 6500 is addressable in the DMX range of 001 to 512. In its simplest control form, this allows for the control of up to 36 fixtures in the 14-channel Advanced personality.

### DMX-512 control

The Legend™ 6500 operates on 14 channels of DMX ("Advanced" personality). Address each fixture in increments of 14 channels. (I.e. 1,15,29,43, etc...) To save time you can use the same DMX address for each fixture. All fixtures will then respond simultaneously to control. You may also group your fixtures and address those groups alike for faster programming and control.

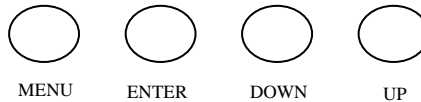
1. Access the control panel function by pressing the **(MENU)** button until the **{1.4 OPERATION}** is displayed.
2. Press **(ENTER)** and use the **(UP/DOWN)** buttons to select **{DMX}** function. Press **(ENTER)**.
3. Then, Press **(MENU)** button and use the **(UP/DOWN)** buttons until **{ADDRESS}** is displayed.
4. Press the **(ENTER)** button.
6. Use the **(UP/DOWN)** buttons to increase or decrease channels between 001 and 512.
7. Press the **(ENTER)** button to confirm action. Then press **(MENU)** to exit.

## Setting the DMX address

Each fixture requires a "start address" from 1 to 512. A fixture requiring one or more channels for control begins to read the data on the channel indicated by the start address. For example, a fixture that occupies or uses 7 channels of DMX and was addressed to start on DMX channel 100, would read data from channels: 100, 101, 102, 103, 104, 105 and 106. Choose start addresses so that the channels used do not overlap and note the start address selected for future reference. The Legend™ 6500 uses up to 9 channels of DMX. If this is your first time using DMX, we recommend reading the DMX Primer in the Appendix Section.

## Control Panel Functions

All fixture functions and settings are accessible via the built-in control panel interface.



BUTTON	FUNCTION
<b>MENU</b>	Exits from the current menu or function
<b>ENTER</b>	Enables the currently displayed menu or sets the currently selected value in to the selected function
<b>DOWN</b>	Navigates upwards through the menu list and increases the numeric value when in a function
<b>UP</b>	Navigates downwards through the menu list and decreases the numeric value when in a function

## Menu Map

MAIN FUNCTION	SUB-FUNCTION	SELECTION	INSTRUCTION
1. Intro	1.1 Address	000 ~ 255	Sets the DMX starting address
	1.2 Reset	Yes ~ No	<ul style="list-style-type: none"> <li>Resets fixture when selecting Yes</li> </ul>
	1.3 Fans	High, Normal, Low, Auto	<ul style="list-style-type: none"> <li>Sets the fan speed</li> </ul>
	1.4 Operation	DMX512 Auto1 Auto2 Custom Slave Test	<ul style="list-style-type: none"> <li>Use with DMX controller</li> <li>Built-in Program 1</li> <li>Built-in Program 2</li> <li>Custom Internal Program</li> <li>Use for Master/Slave</li> <li>Use for testing functions</li> </ul>
	1.5 Channels	Basic ~ Advanced	<ul style="list-style-type: none"> <li>Choose between 10 or 14-channels</li> </ul>
	1.6 Display	60 close ~ Bright	<ul style="list-style-type: none"> <li>Choose display readout option</li> </ul>
	1.7 Info	Edition	<ul style="list-style-type: none"> <li>Displays the version number</li> </ul>
2. Invert	2.1 Pan	Normal ~ Reverse	<ul style="list-style-type: none"> <li>Invert Pan movement</li> </ul>
	2.2 Tilt	Normal ~ Reverse	<ul style="list-style-type: none"> <li>Invert Tilt movement</li> </ul>
	2.2 Dimmer	Normal ~ Reverse	<ul style="list-style-type: none"> <li>Invert dimmer</li> </ul>
	2.4 Use	No ~ Yes	<ul style="list-style-type: none"> <li>Turns on/Off this invert function</li> </ul>
3. Range	3.1 P/start	000 ~ 255	<ul style="list-style-type: none"> <li>Sets the Pan starting position</li> </ul>
	3.2 P/Finish	000 ~ 255	<ul style="list-style-type: none"> <li>Sets the Pan finishing position</li> </ul>
	3.3 T/start	000 ~ 255	<ul style="list-style-type: none"> <li>Sets the Tilt starting position</li> </ul>
	3.4 T/Finish	000 ~ 255	<ul style="list-style-type: none"> <li>Sets the Tilt finishing position</li> </ul>
	3.5 Use	No ~ Yes	<ul style="list-style-type: none"> <li>Turns on/off this range function</li> </ul>
4. Special	4.1 Black Delay	No ~ Yes	<ul style="list-style-type: none"> <li>This will enable/disable the need to wait 3 seconds for turning on/off the pan/tilt black function.</li> </ul>
	4.2 Reset	DMX ~ System	<ul style="list-style-type: none"> <li>Enables/disables DMX control of RESET function</li> </ul>
	4.3 Dimmer	Normal ~ System	<ul style="list-style-type: none"> <li>Sets the dimmer to normal (linear) or special dimming curve</li> </ul>
	4.4 RGB	No ~ Yes	<ul style="list-style-type: none"> <li>Sets the RGB to full form RGB-to-white (yes) or RGB to full intensity (no)</li> </ul>
	4.5 Fan	DMX ~ System	<ul style="list-style-type: none"> <li>Enables/disables DMX control of fan speed</li> </ul>
5. Edit	5.1 Scene	000 ~ 255	<ul style="list-style-type: none"> <li>Chooses the step to edit</li> </ul>
	5.2 Pan	000 ~ 255	<ul style="list-style-type: none"> <li>Sets the pan location for the step</li> </ul>
	5.3 Tilt	000 ~ 255	<ul style="list-style-type: none"> <li>Sets the tilt location for the step</li> </ul>
	5.4 Speed	000 ~ 255	<ul style="list-style-type: none"> <li>Chooses speed for the current step</li> </ul>
	5.5 Red	000 ~ 255	<ul style="list-style-type: none"> <li>Combine these channels to create the desired color mixture</li> </ul>
	5.6 Green	000 ~ 255	
	5.7 Blue	000 ~ 255	
	5.8 White	000 ~ 255	
	5.9 Strobe	000 ~ 255	<ul style="list-style-type: none"> <li>Strobes from 0-20Hz</li> </ul>
	5.10 Dimmer	000 ~ 255	<ul style="list-style-type: none"> <li>Chooses dimmer for current step</li> </ul>
	5.11 Time	000 ~ 255	<ul style="list-style-type: none"> <li>Chooses time for the current step</li> </ul>
	5.12 Use	No ~ Yes	<ul style="list-style-type: none"> <li>Select yes to run the user program</li> </ul>
6. Extra	6.1 User key	0000	Modifies the User key
	6.2 password	1111	Modifies the password

# DMX512 Channel Values

The Legend™ 6500 has 2 DMX512 channel configurations [ADVANCED, BASIC].

## BASIC

CHANNEL	VALUE	FUNCTION
1	000 ⇔ 255	<b>Pan</b> Clockwise rotate 0°-540°
	000 ⇔ 255	<b>Tilt</b> Tilt from 0°-270°
3	000 ⇔ 255	<b>Red</b> 0 ⇔ 100%
	000 ⇔ 255	<b>Green</b> 0 ⇔ 100%
5	000 ⇔ 255	<b>Blue</b> 0 ⇔ 100%
	000 ⇔ 255	<b>White</b> 0 ⇔ 100%
7	000 ⇔ 005	<b>Color/White Macro</b> No Function
	006 ⇔ 025	Red Down/Green down/Blue 100%
	026 ⇔ 045	Red 100%/Green up/Blue down
	046 ⇔ 065	Red 100%/Green 0%/Blue 100%
	066 ⇔ 085	Red up/Green 0%/Blue 100%
	086 ⇔ 105	Red 0%/Green Down/Blue 100%
	106 ⇔ 125	Red 0%/Green 100%/Blue Up
	126 ⇔ 145	Red Down/Green 100%/Blue 0%
	146 ⇔ 165	Red 100%/Green up/Blue 0%
	166 ⇔ 180	No Function
	181 ⇔ 190	No Function
	191 ⇔ 200	Red 100%/Green 100%/Blue 100%
	201 ⇔ 205	White 1:3200K
	206 ⇔ 210	White 2:3400K
	211 ⇔ 215	White 3:4200K
	216 ⇔ 220	White 4:4900K
	221 ⇔ 225	White 5:5600K
	226 ⇔ 230	White 6:5900K
	231 ⇔ 235	White 7:6500K
	236 ⇔ 240	White 8:7200K
	241 ⇔ 245	White 9:8000K
246 ⇔ 250	White 10:9500K	
251 ⇔ 255	White 11:10000K	
8	000 ⇔ 255	<b>Dimmer</b> 0 ⇔ 100%
	000 ⇔ 255	<b>Strobe</b> 0 ⇔ 100%
10	000 ⇔ 019	<b>Control</b> No Function
	020 ⇔ 039	Pan/tilt black open
	040 ⇔ 059	Pan/tilt black close
	060 ⇔ 079	No Function
	080 ⇔ 099	Fan slow
	100 ⇔ 119	Fan normal
	120 ⇔ 139	Fan fast
	140 ⇔ 149	No Function
	150 ⇔ 159	Auto 1 (activated after 3 secs)
	160 ⇔ 169	Auto 2 (activated after 3 secs)
	170 ⇔ 179	Test (activated after 3 secs)
	180 ⇔ 189	Custom (activated after 3 secs)
	190 ⇔ 199	No function
	200 ⇔ 219	Reset (activated after 3 secs)
	220 ⇔ 255	No Function



## ADVANCED

CHANNEL	VALUE	FUNCTION
1	000 ⇔ 255	<b>Pan</b> Clockwise rotate 0°~540°
2	000 ⇔ 255	<b>Pan fine</b> Fine control of pan movement 0°~3°
3	000 ⇔ 255	<b>Tilt</b> Tilt from 0°~270°
4	000 ⇔ 255	<b>Tilt fine</b> Fine control of tilt movement 0°~3°
5	000 ⇔ 255	<b>Pan/Tilt Speed</b> From fast to slow
6	000 ⇔ 255	<b>Red</b> 0 ⇔ 100%
7	000 ⇔ 255	<b>Green</b> 0 ⇔ 100%
8	000 ⇔ 255	<b>Blue</b> 0 ⇔ 100%
9	000 ⇔ 255	<b>White</b> 0 ⇔ 100%
10	000 ⇔ 005 006 ⇔ 025 026 ⇔ 045 046 ⇔ 065 066 ⇔ 085 086 ⇔ 105 106 ⇔ 125 126 ⇔ 145 146 ⇔ 165 166 ⇔ 180 181 ⇔ 190 191 ⇔ 200 201 ⇔ 205 206 ⇔ 210 211 ⇔ 215 216 ⇔ 220 221 ⇔ 225 226 ⇔ 230 231 ⇔ 235 236 ⇔ 240 241 ⇔ 245 246 ⇔ 250 251 ⇔ 255	<b>Color/White Macro</b> No Function Red Down/Green down/Blue 100% Red 100%/Green up/Blue down Red 100%/Green 0%/Blue 100% Red up/Green 0%/Blue 100% Red 0%/Green Down/Blue 100% Red 0%/Green 100%/Blue Up Red Down/Green 100%/Blue 0% Red 100%/Green up/Blue 0% No Function No Function Red 100%/Green 100%/Blue 100% White 1:3200K White 2:3400K White 3:4200K White 4:4900K White 5:5600K White 6:5900K White 7:6500K White 8:7200K White 9:8000K White 10:9500K White 11:10000K
11	000 ⇔ 255	<b>Dimmer</b> 0 ⇔ 100%
12	000 ⇔ 255	<b>Strobe</b> 0 ⇔ 100%
13	000 ⇔ 005 006 ⇔ 255	<b>Dimmer Speed</b> No Function Slow>Fast
14	000 ⇔ 019 020 ⇔ 039 040 ⇔ 059 060 ⇔ 079 080 ⇔ 099 100 ⇔ 119 120 ⇔ 139 140 ⇔ 149 150 ⇔ 159 160 ⇔ 169 170 ⇔ 179 180 ⇔ 189 190 ⇔ 199 200 ⇔ 219 220 ⇔ 255	<b>Control</b> No Function Pan/tilt black activated Pan/tilt black deactivated No Function Fan slow Fan normal Fan fast No Function Auto 1 (activated after 3 secs) Auto 2 (activated after 3 secs) Test (activated after 3 secs) Custom (activated after 3 secs) No function Reset (activated after 3 secs) No Function

# 6. APPENDIX

## DMX Primer

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

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+). CHAUVET carries 3-pin XLR DMX compliant cables, DMX-10 (33'), DMX-4.5 (15') and DMX-1.5 (5')

## 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 build up reduces light output 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 and internal components. 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 internal and 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 surrounding can cause greater accumulation of dirt on the unit's optics. Clean with soft cloth using normal glass cleaning fluid. - Always dry the parts carefully. - Clean the external optics at least every 20 days. Clean the internal optics at least every 30/60 days.

## 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 (RA #). Products returned without a RMA # will be refused. Call CHAUVET and request RA # prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, 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.

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

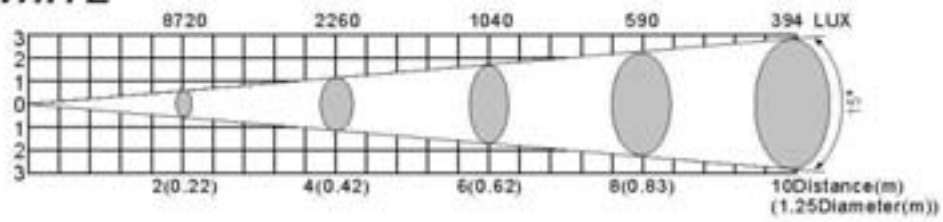
- 1) Your name
- 2) Your address
- 3) Your phone number
- 4) The RMA #
- 5) A brief description of the symptoms

## Claims

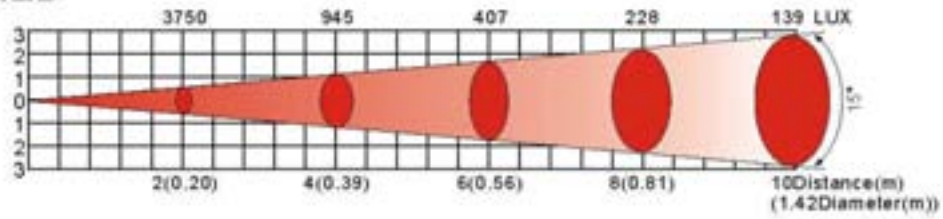
Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise. It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Any other claim for items such as missing component/part, damage not related to shipping, and concealed damage, must be made within seven (7) days of receiving merchandise.

# Photometrics

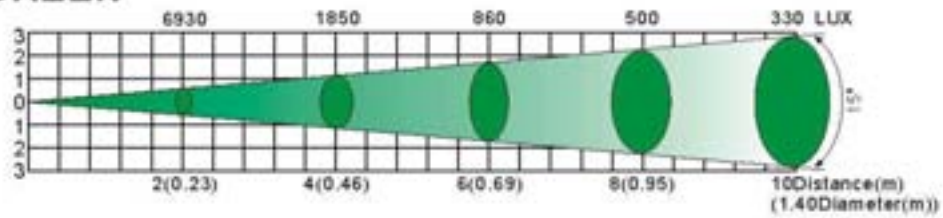
## WHITE



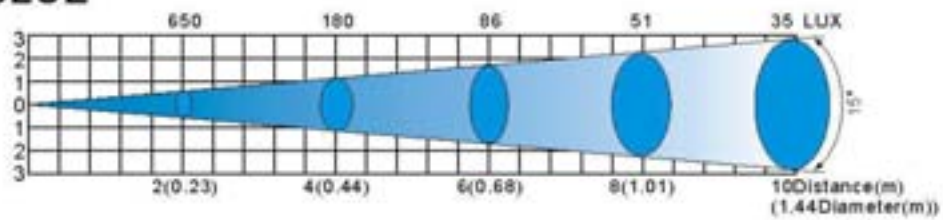
## RED



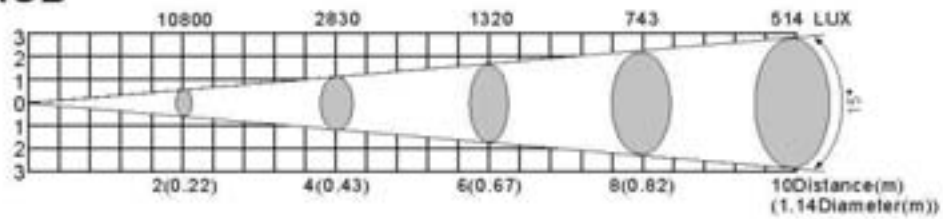
## GREEN



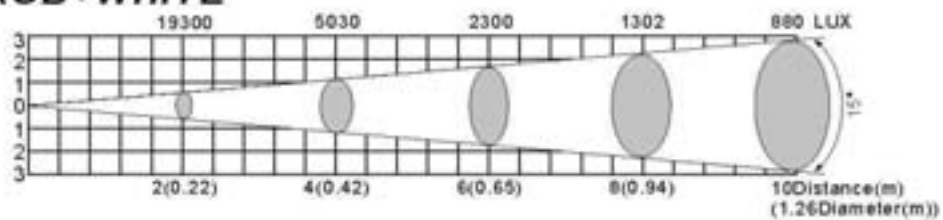
## BLUE



## RGB

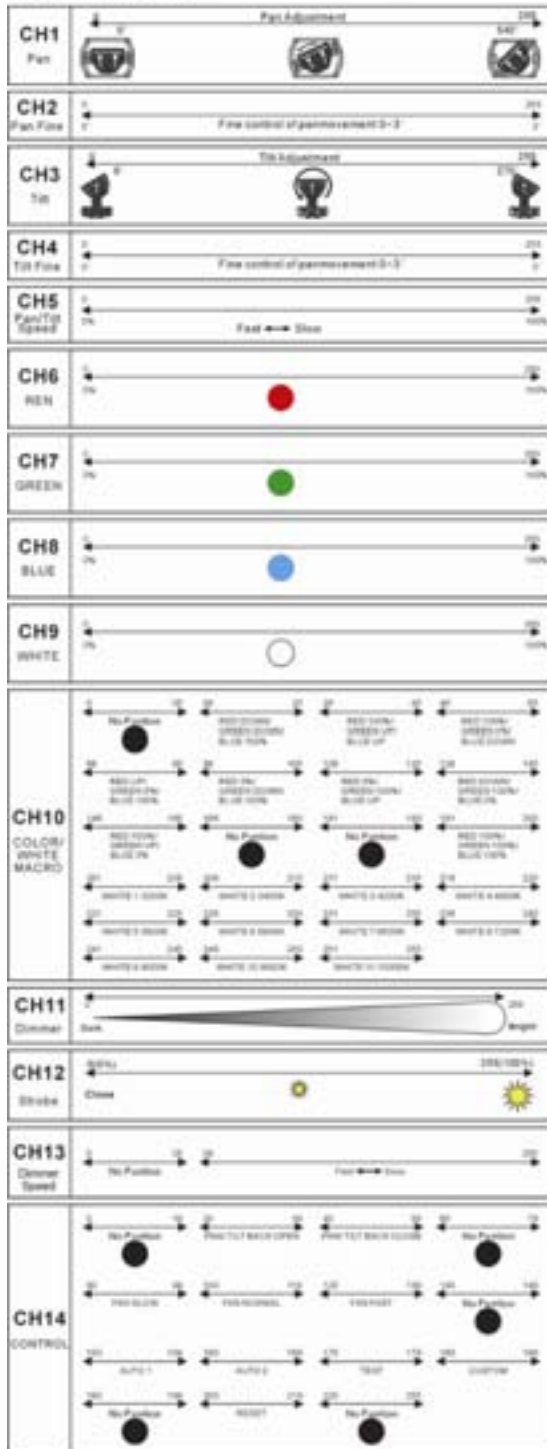


## RGB+WHITE

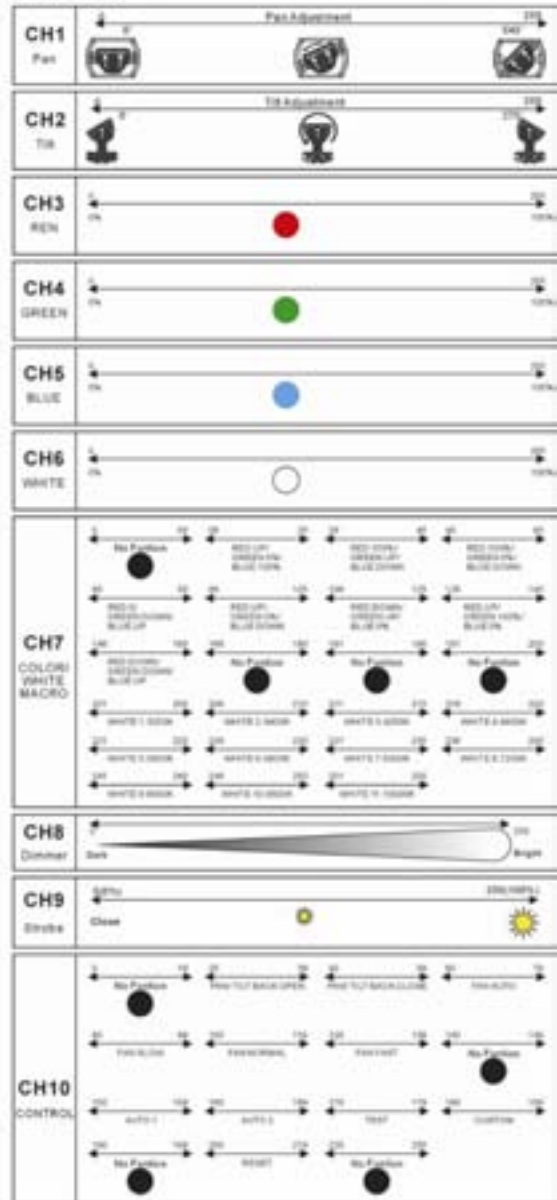


# DMX Channels Chart

## ADVANCED



## BASIC

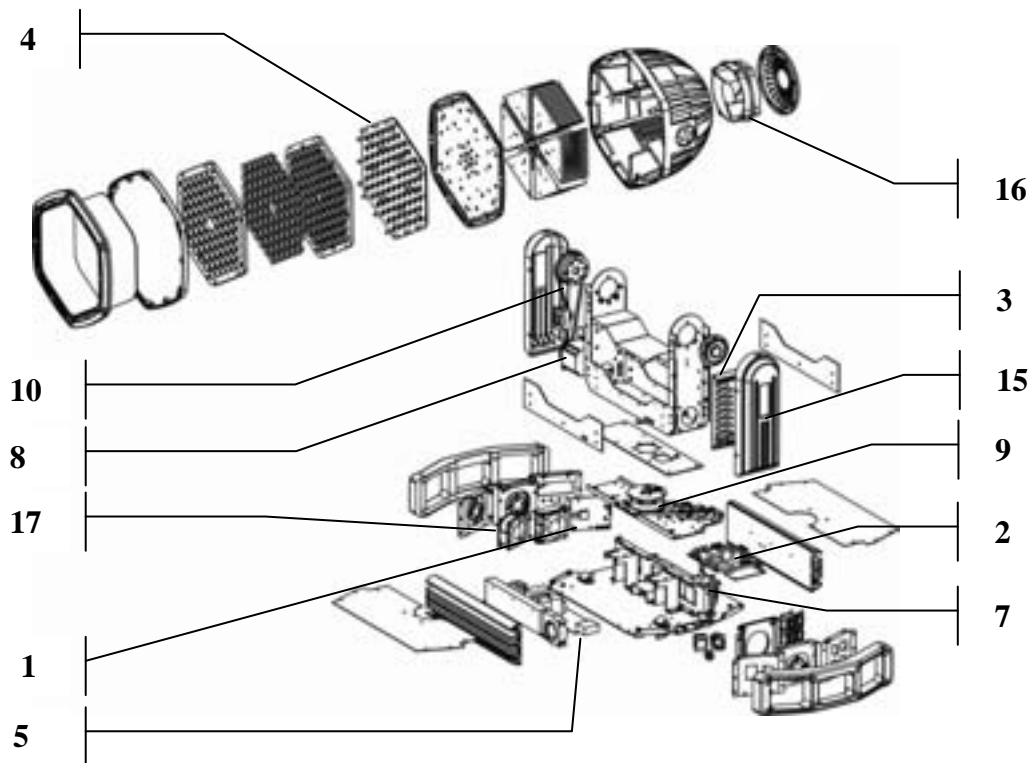


## Legend™ 6500 Service Maintenance Guide

Symptom(s)	Possible Solution(s)
1 or more LED's are not illuminating	Clean the fixture regularly to avoid any such failure. This fixture is convection cooled, which means that if the surface is kept clean and free of debris, then proper cooling will be allowed to occur
	An LED may have failed, resulting in an open circuit. In this event, all of the red, green, or blue in a single module will no longer illuminate. This does not mean that all of the LEDs have failed, but the circuit is wired in series.
	An LED may have failed, resulting in a short circuit. In this event, only the single LED which has failed will no longer function. This does not mean that all of the LEDs have failed, but the circuit is wired in series.
	<i>-Note: In the event of LED failure, a replacement LED PCB assembly may be purchased directly from Chauvet Part#: P222-6500LED</i>
1 or more LED's are producing very low output	Check that the lens assembly is installed properly. If the lens assembly is not aligned properly over the LEDs, then they will not project fully <i>-See section on Lens Assembly Installation</i>
	<i>-Note: In the event of LED failure, a replacement LED PCB assembly may be purchased directly from Chauvet Part#: P222-6500LED</i>
Breaker/Fuse keeps blowing	Check total load placed on the electrical circuit
	Check for a short in the electrical wiring: internal and/or external
Device has no power	Check device's fuse (internal)
	Check for power on Mains
	Check cable connections The Legend™ 6500 IP-66 cables must be firmly connected and locked in place for operation
	<i>-Note: In the event of autoswitching transformer failure, the unit can be sent in for repair; however, a replacement part can be ordered directly from Chauvet Part#: P140-6500ELTR</i>
Fixture is not responding to DMX	Check Control Panel settings for correct addressing
	Check DMX cables
	Check polarity switch settings on the controller
	Check cable connections
	Call service technician
	<i>-Note: In the event of Display/Master PCB failure, a replacement PCB can be ordered directly from Chauvet Part#: P172-6500DP</i>
Loss of signal	Use only DMX cables
	Install terminator
	Note: Keep DMX cables separated from power cables or black lights
Pan/tilt movement/reset problem	1 or more sensors may need to be replaced. This may be either the optical sensor or the magnetic stopper sensor.
	<i>Note In the event of a sensor failure, a replacement sensor may be ordered directly from Chauvet: Part#: Magnetic Pan: P172-6500PSS Optical Pan: P172-6500POS Magnetic Tilt: P172-6500TSS Optical Tilt: P172-6500TOS</i>
	1 or more sensors may need to be adjusted. <i>This should be done by a qualified technician, as it involves opening the case of the fixture and modifying internal components.</i>
The display backlight will not turn off and stays lit	There is an option in the control board that determines if the display turns off after 60 seconds of inactivity, or if the display stays lit indefinitely. <i>-See section 1.6 in the onboard display "close".</i>

**If you still have a problem after trying the above solutions, please contact CHAUVET Technical Support at the location on page 28.**

## Blow-out Diagram.



	Description	Part Number
1	Display/Master PCB	P172-6500DP
2	X/Y PCB	P170-6500XY
3	LED Driver PCB	P175-6500DVR
4	LED metal-core PCB	P222-6500LED
5	Electronic Transformer	P140-6500ELTR
6	Mounting bracket set (not shown)	P111-60BRKT
7	Pan stepper motor	P176-6500PS
8	Tilt stepper motor	P176-6500TS
9	Pan belt	P111-6500PB
10	Tilt belt	P111-6500TB
11	Pan optical sensor (not shown)	P172-6500POS
12	Pan stopper sensor (not shown)	P172-6500PSS
13	Tilt optical sensor (not shown)	P172-6500TOS
14	Tilt stopper sensor (not shown)	P172-6500TSS
15	Arm plastic cover	P112-6500ARM
16	Fan 120mm 24V	P130-24V120M
17	Fan 60mm 24V	P130-24V60MM
18	Power input cable: Neutrik to Edison	P111-80IPWR

# Technical Specifications

## WEIGHT & DIMENSIONS

Length	17 in (191 mm)
Width	14.5 in (381 mm)
Height	15.5 in (191 mm)
Weight	43.7 lbs (19.8 kg)

## POWER

AC Power Auto-switching	100V~240V 50/60Hz AC
Power Consumption	517W (4.3A) max at 120V 60Hz
Inrush Current	(4.1A) at 120V 60Hz
Power Factor	0.99 at 120V 60Hz

## LIGHT SOURCE

Quantity	90 (18 600mA Red, 1300mA 24 Green, 24 Blue, 24 White) LED 50,000 hours
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## PHOTO OPTIC (WITH 15° LENSES)

Luminance @1m	14,780@2m
Beam Angle	12°
Field Angle	24°

## COOLING

Fan cooled	24V 90MM 0.34A fan
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## CONTROL & PROGRAMMING

Data input	locking 3-pin XLR male socket
Data input	locking 5-pin XLR male socket
Data output	locking 3-pin XLR female socket
Data output	locking 5-pin XLR female socket
Data pin configuration (3-pin)	pin 1 shield, pin 2 (-), pin 3 (+)
Data pin configuration (5-pin)	pin 1 shield, pin 2 (-), pin 3 (+), pin 4 (not used), 5 (not used)
Protocols	DMX-512 USITT
DMX Channels	User Configurable: 10, or 14

## STANDARD ORDERING INFORMATION

Legend™ 6500	LEG6500
10° Optical Lens kit (20pcs)	CL20X15
15° Optical Lens kit (20pcs) (installed)	CL20X15
30° Optical Lens kit (20pcs)	CL20X30

## SPARE PARTS ORDERING INFORMATION

Display/Master PCB (Part)	P172-6500DP
X/Y PCB (Part)	P170-6500XY
LED Driver PCB (Part)	P175-6500DVR
LED Metal-Core PCB: assembled (Part)	P222-6500LED
Electronic Transformer (Part)	P140-6500ELTR
Mounting bracket (Part)	P111-60BRKT
Pan stepper motor (Part)	P176-6500PS
Tilt stepper motor (Part)	P176-6500TS
Pan belt (Part)	P111-6500PB
Tilt belt (Part)	P111-6500PB
Pan optical sensor (Part)	P172-6500POS
Pan stopper sensor (Part)	P172-6500PSS
Tilt optical sensor (Part)	P172-6500TOS
Tilt stopper sensor (Part)	P172-6500TSS
Arm plastic cover (Part)	P112-6500ARM
Fan 120mm 24V (Part)	P130-24V120M
Fan 60mm 24V (Part)	P130-24V60MM
Power input cable: Neutrik to Edison (Part)	P111-80IPWR

## WARRANTY INFORMATION

Warranty	2-year limited warranty
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