## LEG-3000 <br> Legend ${ }^{\text {TM }}$ 3000X (250W)

## USER MANUAL



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## Before You Begin

## What is included

LEG-3000, Legend ${ }^{\text {TM }} 3000 \mathrm{X}$ or

> 2 Clamp mounting brackets
> 9 additional metal gobos
> Manual
> Power cord with plug
> HSD250 Discharge lamp
> Warranty Card

## 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.

## AC Power

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 is its average current draw under normal conditions. 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. Before applying power to a fixture, check that the source voltage matches the fixture's requirement. Check the fixture or device carefully to make sure that if a voltage selection switch exists that it is set to the correct line voltage you will use.

## Warning! Verify that the power select switch on your unit matches the line voltage applied. All fixtures must be connected to circuits with a suitable Earth Ground.

## Safety Instructions



Please read these instructions carefully, which includes important information about the installation, usage and maintenance?


- 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 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 50 cm 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 is Ta: $40^{\circ}$. Do not operate fixture at temperatures higher than this.
- In the event of 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.
- Don't connect the device to a dimmer pack.
- Make sure power cord is never crimped or damaged.
- Never disconnect power cord by pulling or tugging on the cord.
- Avoid direct eye exposure to lamp while it is on.


## INTRODUCTION

## Control Features

Legend $^{\text {TM }}$ 3000X (250W)

- Mechanical dimmer
- Variable shutter/strobe (7fps)
- Color wheel
- 11 colors plus open
- Rainbow color spin, both directions
- Static gobo wheel
- 9 interchangeable gobos plus open
- All interchangeable
- Gobo wheel spin, both directions
- Indexing rotating gobos
- 6 interchangeable rotating gobos
- 5 metal, 1 dichroic gobo
- Additional gobos: 9 metal
- Gobos fully indexed
- Rotating gobo wheel spin, both directions
- 3-facet high speed rotating prism
- Motorized focus
- Remote fixture reset
- Remote lamp ON/OFF
- HSD250 (250W) lamp source


## Features

- Automatic Pan \& Tilt correction
- Micro-stepping motors
- LED display
- Fixture time counter
- Lamp time counter
- Thermal switch
- Fan cooled
- User selectable 16-bit or 8-bit Pan/Tilt resolution


## OPTIONS

CA-14 Wired remote controller for stand-alone operation

## DMX Channel Summary

## 16-Bit Mode

| Channel | Function |  | Channel | Function |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | Dimmer |  | $\mathbf{8}$ | Focus |
| $\mathbf{2}$ | Shutter/Strobe |  | $\mathbf{9}$ | Pan |
| $\mathbf{3}$ | Colors |  | $\mathbf{1 0}$ | Tilt |
| $\mathbf{4}$ | Static Gobos |  | $\mathbf{1 1}$ | Pan (Fine) |
| $\mathbf{5}$ | Rotating Gobos |  | $\mathbf{1 2}$ | Tilt (Fine) |
| $\mathbf{6}$ | Gobo Rotation |  | $\mathbf{1 3}$ | Control |
| $\mathbf{7}$ | Prism |  | $\mathbf{1 4}$ | Lamp ON/OFF |

## 8-Bit Mode

| Channel | Function |
| :---: | :---: |
| $\mathbf{1}$ | Dimmer |
| $\mathbf{2}$ | Shutter/Strobe |
| $\mathbf{3}$ | Colors |
| $\mathbf{4}$ | Static Gobos |
| $\mathbf{5}$ | Rotating Gobos |
| $\mathbf{6}$ | Gobo Rotation |


| Channel | Function |
| :---: | :---: |
| $\mathbf{7}$ | Prism |
| 8 | Focus |
| 9 | Pan |
| 10 | Tilt |
| 11 | Control |
| 12 | Lamp ON/OFF |

## Product Overview



## SETUP

Lamp
You will need to install a lamp prior to the initial operation of the fixture. A MSD250 high intensity discharge lamp is included.

## Warning! <br> When replacing the lamp, please wait 15 minutes after powering down to allow the unit to cool down! Always disconnect from main power prior to lamp replacement.

Do not touch the envelope (glass area) of the bulb with bare hands. If this happens, clean the lamp with alcohol and wipe it with a lint free cloth before installation.

## Lamp Installation

1. Remove screws (S1) and (S2) as shown in the illustration to remove lamp top cover.
2. Remove the 2 thumbscrews (S3) to remove lamp lower cover as illustrated.
3. If replacing the lamp, remove old lamp first.
4. With a clean cloth or napkin, hold the new lamp by the glass top end, align the pins on the lamp with the holes in the socket and insert the lamp squarely until the lamp socket secures the lamp tightly.
5. Clean the glass/envelope of the bulb with an alcohol wipe or equivalent.
6. Replace lamp lower cover, align the screw holes and fasten the thumbscrews back onto the lamp lower cover.
7. If you are replacing the lamp, you may want to log the fixture hours in order to track the lamps use. Navigate to the $\{\mathrm{LPti}\}$ on the menu display to obtain this information. (Page 11, Control Board Functions)
8. Replace lamp top cover and fasten with screws.


## Power

Your product is equipped with an internal input-voltage select switch.

## Warning! <br> Verify that the power select switch on your unit matches the line voltage applied. All fixtures must be connected to circuits with a suitable Earth Ground.

- 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 is its average current draw under normal conditions.
- 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.
- Before applying power to a fixture, check that the source voltage matches the fixture's requirement.
- All fixtures must be connected to circuits with a suitable Earth Ground.

1. Make sure the fixture is not connected to power, if so disconnect.
2. Remove the right base access cover panel as illustrated on the right.
3. Locate the power selection switches and dial.

4. Rotate the voltage dial to the setting that most closely matches the local AC voltage. If your voltage falls halfway between two settings, select the higher voltage on the dial.
5. Move the frequency switch to the setting that matches the local AC frequency; 50 or 60 Hz .
6. Replace access cover.

Power Cable Configuration

| Cable | Pin | International |
| :---: | :---: | :---: |
| Brown | Live | L |
| Blue | Neutral | N |
| Yellow/Green | Earth | EG (Ground) |

## Replacing gobos

1. Begin to remove the fixture top cover by loosening the screws labeled (S1) on the lamp heat plate located at the rear of the head of the fixture.
2. Remove the heat plate to expose reflector and additional screws.
3. Remove screws labeled (S2).
4. Rotate the head and remove screw (S3) from the front of the fixture.
5. Press both tips of the gobo tension ring together and remove from the gobo aperture.
6. Push the gobo with your finger from the back side following the same direction that the tension ring was removed.

## NOTE!

Replacing the gobos on the static gobo wheel of the Legend ${ }^{\text {TM }} 3000 \mathrm{X}$ is achieved using the same method as the rotating gobo wheel. However, the spring needs to be removed first using a small flat head screw driver before pushing the gobo out of the aperture.


Gobo tension ring


## Mounting

## Orientation

All models described in this manual can sit on stage or be mounted on a truss using a clamp in any position, provided, there is adequate room for ventilation.

## Warning

It is important never to obstruct the fan or vents pathway.

- When selecting installation location, take into consideration lamp replacement access and routine maintenance.
- Safety cables should always be used.
- Never mount in places where the fixture will be exposed to rain, high humidity, extreme temperature changes or restricted ventilation.
- The fixture must have a minimum of 1 meter from combustible materials.



## Rigging

All models described include 2 clamp mounting brackets to which a half-coupler pipe clamp can be bolted.

1. Verify the structure can hold 10 times the weight of all fixtures to-be installed.
2. Attach two clamps as illustrated above (b).

## Operating Instructions

## Control Board

On the control panel you can set the DMX address, reset the fixture and change fixture personality trait.


## Control Board Functions

| Function | Options | Notes |
| :---: | :---: | :---: |
| Rodr | 000~512 | DMX channel addressing |
| LP.L1 | 081 | Lamp use timer <br> Pressing $\boldsymbol{\Delta V}$ simultaneously zeroes lamp counter. |
| Shut | Off/On | Off: Normal <br> On: Shutter closes during the changing of color, gobos or prism. Shutter will open after color, gobo or prism is in position. |
| Coto | Off/On | ```Off: Color wheel gradually advances to the next color allowing the user to stop between colors. On: Color wheel will jump to the next color.``` |
| Focu | Off/On | Off: Normal <br> On: Focus adjustment |
| r.9Rn | Off/On | Off: Left to right head movement (Pan Normal) <br> On: Right to left head movement (Pan Inverted) |
| r.tit | Off/On | Off: Down to up head movement (Tilt Normal) <br> On: Up to Down head movement (Tilt Inverted) |
| $16 . b r$ | Off/On | Off: 8 bit control mode On: 16 bit control mode |
| dEMo | Off/On | Off: Normal <br> On: Self-demo |
| 50 Ft | Off/On | Off: Quick paced function demonstration <br> On: Slow paced function demonstration <br> Note: Only works with dEीo = On |
| dP5E | Off/on | Off: Display off, press any key to turn on display On: Display On |
| FSEL | Off/On | Off: Normal <br> On: Reset all motors at once |
| dF.5E | Off/On | Off: Normal <br> On: Reset entire unit, defaults to Off |
| L Rnp | Off/On | Off: Lamp Off On: Lamp On |
| turn | Off/On | Off: Normal On: Reverse LED display |
| [HnL | Off/On | Off: Assign Pan \& Tilt's DMX address to channel 8-1 On: Assign Pan \& Tilt's DMX address to channel 1-4 |
| F. Li | 801 | Fixture use timer. Press VA simultaneously for 3 seconds to zero the timer. Unit: hour |
| Rud. 5 | Off/On | Off: Normal, please be sure to disconnect DMX console On: Sound-activated (Slow), see full instructions pg. 16 |
| Rud.F | Off/On | Off: Normal, please be sure to disconnect DMX console On: Sound-activated (Fast) , see full instructions pg. 16 |

## Applying changes to Functions (Quick Instructions)

Unless other wise stated changes in the control board can be applied in the following manner.

1. Press any of the [MENU] arrow buttons repeatedly until the display reads the menu function you wish to change.
2. Press any one of the [SELECT] arrow buttons to activate menu function. The display will show the current state of the function, either "Off" or "On" with exception for DMX addressing and Lamp Time.

3. Press any one of the [SELECT] arrow buttons again to change the currently selected setting.

## Operating Modes

- DMX control mode will provide the greatest flexibility and creativity. Each fixture trait can be controlled individually using any universal DMX-512 controller.
- Stand-alone mode using the optional CA-14 Wired Remote Controller.


## DMX Mode

Operating in a DMX Control mode environment gives the user the greatest flexibility when it comes to customizing or creating a show. You can tailor your programming to suit a specific event. Whether it is a wedding where a spot light may be required or a lead singer requiring a color solo, the opportunities are endless. In this mode you will be able to control each individual trait of the fixture independently.

## Daisy Chain Connection

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.

Daisy Chain Connection


## Menu Functions

## DMX-512 addressing

DMX mode enables the use of a universal DMX controller device. Each fixture requires a "start address" from 1 to 511. 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 6 channels of DMX and was addressed to start on DMX channel 100, would read data from channels: 100, 101, 102, 103, 104, and 105. Choose start addresses so that the channels used do not overlap and notate the start address selected for future reference.

If this is your first time addressing a fixture using the DMX-512 control protocol than I suggest jumping to the Appendix Section and read the heading "DMX Primer". It contains very useful information that will help you understand its use.

## Setting the starting address

1. Press the [MENU] arrow button until the display reads "Rodr".
2. Press the [SELECT] arrow buttons to increase or decrease values until the desired value is achieved.
3. Press the [MENU] button to activate selection.

Note! Make sure "Aud.S" and "Aud.F" is set to OFF, otherwise it will not allow DMX control.

## User Configurations

## $\{1$ b.br\} 8/16 bit Control Channel

In the 16 bit Control Channel mode you gain a higher degree of resolution in both Pan and Tilt movement. One extra channel for both the Pan and the Tilt are added and they perform as the "Fine" movement.

The primary Pan or Tilt channel is known as the MSB "Most Significant Bit". This is the channel that controls the course or broader range of movement. On a DMX signal stream, there are 255 values for one channel.

The "Fine" Pan or Tilt channel is known as the LSB "Least Significant Bit". This channel gives you control of the space between any two MSB values. In other words, it increases the resolution of both the Pan and Tilt movement, by providing the control of 255 additional values in between each Primary channel value.

Function Set To Notes

| E. |  |  |
| :--- | :--- | :--- | :--- |
| E. | Off | 8 bit Control Channel |
| On | 16 bit Control Channel |  |

## \{r.PRn\} Pan reverse / \{r. $\mathrm{L}_{\mathrm{A}} \mid \mathrm{t}$ \} Tilt reverse

It is possible to invert the pan and tilt mirror movement from within the fixture itself. This could be helpful in situations where the positioning or rigging of a fixture led to a reverse orientation of the fixture in relation to all or most other fixtures installed. When choosing to command the pan or tilt of all fixtures at the same time you will notice that the fixtures whose orientation is different from the others will most likely move opposite of the rest. You can apply a pan and tilt Invert by following the settings in the table below.

Function $\mid$ Set To $\quad$ Notes

| r.gnorn | Off | Left to Right |
| :---: | :---: | :---: |
|  | On | Right to Left |
| 「.LIL | Off | Down to Up |
|  | On | Up to Down |

## \｛［HnL\}-Pan/Tilt control channel re-assign

This function will re－position the pan \＆tilt control channels to start at DMX value number 1 ．

| Function | Set To | Notes |
| :--- | :--- | :--- |
| LHint． | Off | Default |
|  | On | Pan／Tilt re－assign to channel <br> $1-4$ |

## \｛5hut \}-Shutter auto-close

The shutter will close momentarily during the color，gobo or prism changes．The shutter will re－open once the color，gobo or prism has reached its position．

| Function | Set To | Notes |
| :---: | :--- | :--- |
| ELuL | Off | Normal |
|  | On | Shutter auto－close |

## \｛［ol o $\}$－Color wheel linear／step behavior

This function set to＂Off＂will allow the linear or gradual progression for the selection of a color on the color wheel．It gives the user the ability to stop the wheel in between colors．The default＂On＂setting advances the color wheel full or complete steps．

Function ${ }^{\text {Set To }}$ To

| Lín a | Off | Linear progression |
| :--- | :--- | :--- | :--- |
|  | On | Step advance |

\｛Focu\} - Manual focus
The user can use this function to manually adjust the focus．This feature can be used in conjunction with operating the demo show or during maintenance and alignment．

| Function | Set To | Notes |
| :---: | :--- | :--- |
| FロE I | Off | Normal |
|  | On | Adjust focus |

## Segment Display Configurations

\｛dP．5E\}-Display Auto-off
The led display can be set to automatically turn off during normal operations．

| FUNCTION | SET To | Notes |
| :---: | :--- | :--- |
| ロロ．EE | Off | Display Auto－Off，press any <br> key to turn on display |
|  | On | Always on |

\｛turn\}-Reverse the display
You can rotate the display $180^{\circ}$ so that it becomes easier to read when the fixture is positioned upside down．

| Function | Set To | Notes |
| :--- | :--- | :--- |
| Lur I | Off | Normal display view |
|  | On | Reverse the display |

## Service Functions

## \{ 5 E t$\}$ - Fixture Reset (all motors)

This function will re-initialize the fixture by returning all motors to its startup positions or otherwise known as (home position).

| Function | Set To | Notes |
| :--- | :--- | :--- |
| FEEL | Off | Normal |
|  | On | Reset all motors |

## \{dF.5E\} - Fixture Reset (excludes Pan \& Tilt)

This function will re-initialize the fixture with exception of the Pan and Tilt motors.

| Function | SET To | Notes |
| :--- | :--- | :--- |
| ロE.EE | Off | Normal |
|  | On | Reset unit |

## \{LP.L. \} - Lamp Time

The (lamp time) readout displays the number of hours the lamp has been in use. It is not uncommon to find new fixtures with a few logged hours. This means the fixture was thoroughly tested prior to delivery.

1. Press the [ $\varangle$ MENU] button until the display reads "LP.L,".
2. Press [『SELECT] button to read the number of hours used.
3. Press both [ $\mathbf{V A} \quad$ SELECT] buttons at the same time to reset the lamp counter to zero if changing a lamp.
\{F1. $L_{1}$ \}-Fixture Timer
The (Fixture Timer) readout displays the total number of operating hours of the fixture. It is not uncommon to find new fixtures with a few logged hours.
\{dEीo\}-Self-demo
This function will execute the built-in program in the fixture.

| FUNCTION | Set To | Notes |
| :--- | :--- | :--- |
| DEMa | Off | Normal |
|  | On | Run self-demonstration |

\{5oft \} - Demo speed
You can set the pace of the demo to either quick or fast.

Function Set To Notes
E~FL
\{Rud. \} - Sound-Active (Master/Slave)
In this mode the fixture can be set to run in a sound-activated mode in either a fast or slow pace.
Additionally, slave fixtures can all also be set to synchronize to the first fixture or in this case Master.
Please disconnect from the controller before enabling this function.
Requirements:
In the Legend 3000X the default 16-bit channel mode is required to be set. The Legend 3000X is controlled using 14 channels.

Function Set To Notes

| Buロ.」 | Off | Normal "Off" |
| :--- | :--- | :--- |
|  | On | Sound-active slow pace |

Function Set To Notes

| Rud.F | Off | Normal "Off" |
| :--- | :--- | :--- |
|  | On | Sound-active fast pace |

## Master Fixture Settings

1. DMX address Ch 001
2. Set Aud.S or Aud.F to "On"

## Slave Fixture Settings

In a Master/Slave setup all slave fixtures following the master would be addressed the same. Please follow the following instructions for all slave fixtures.

Legend 2000X: DMX address Ch 014, Aud.S or Aud.F set to OFF
Legend 3000X: DMX address Ch 015, Aud.S or Aud.F set to OFF
Important!
All Slave fixtures must have "Aud.S" or "Aud.F" set to off.
You must set "Aud.S" and "Aud.F" to off to regain DMX control of the fixture.

## 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 ( $\mathrm{S}-$ ) and pin 3 is Data positive ( $\mathrm{S}+$ ). CHAUVET carries 3-pin XLR DMX compliant cables, DMX-10 (33'), DMX-4.5 (15') and DMX-1.5 (5')


## Fixture Linking

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. 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 |

## DMX Channel Values

## 16 Bit Movement

| Channel | Value | Function |
| :---: | :---: | :---: |
| 1 | $000 \Leftrightarrow 255$ | Dimmer <br> Closed > Open (0-100\%) |
| 2 | $\begin{aligned} & 000 \Leftrightarrow 001 \\ & 002 \Leftrightarrow 007 \\ & 008 \Leftrightarrow 063 \\ & 064 \Leftrightarrow 071 \\ & 072 \Leftrightarrow 127 \\ & 128 \Leftrightarrow 135 \\ & 136 \Leftrightarrow 191 \\ & 192 \Leftrightarrow 199 \\ & 200 \Leftrightarrow 253 \\ & 254 \Leftrightarrow 255 \end{aligned}$ | Shutter/Strobe <br> Blackout <br> Open <br> Strobe: Slow > Fast (max 7fps) <br> Open <br> Pulse Strobe: Dark > Bright \& Slow > Fast <br> Open <br> Pulse Strobe: Bright > Dark \& Slow > Fast <br> Open <br> Random Strobe: Slow > Fast <br> Open |
| 3 | $\begin{aligned} & 000 \Leftrightarrow 013 \\ & 014 \Leftrightarrow 027 \\ & 028 \Leftrightarrow 041 \\ & 042 \Leftrightarrow 055 \\ & 056 \Leftrightarrow 069 \\ & 070 \Leftrightarrow 083 \\ & 084 \Leftrightarrow 097 \\ & 098 \Leftrightarrow 111 \\ & 112 \Leftrightarrow 125 \\ & 126 \Leftrightarrow 139 \\ & 140 \Leftrightarrow 153 \\ & 154 \Leftrightarrow 167 \\ & 168 \Leftrightarrow 255 \end{aligned}$ | Color Wheel <br> White (Open) <br> Steel Blue <br> Orange <br> Green Blue <br> Bright Blue <br> Bright Pink <br> Red <br> Deep Blue <br> Yellow <br> Dark Pink <br> Moss Green <br> Light Blue <br> Rainbow effect: Slow > Fast |
| 4 | $\begin{aligned} & 000 \Leftrightarrow 015 \\ & 016 \Leftrightarrow 031 \\ & 032 \Leftrightarrow 047 \\ & 048 \Leftrightarrow 063 \\ & 064 \Leftrightarrow 079 \\ & 080 \Leftrightarrow 095 \\ & 096 \Leftrightarrow 111 \\ & 112 \Leftrightarrow 127 \\ & 128 \Leftrightarrow 143 \\ & 144 \Leftrightarrow 159 \\ & 160 \Leftrightarrow 255 \end{aligned}$ | Fixed Gobo Wheel <br> Open <br> Gobo 1 <br> Gobo 2 <br> Gobo 3 <br> Gobo 4 <br> Gobo 5 <br> Gobo 6 <br> Gobo 7 <br> Gobo 8 <br> Gobo 9 <br> Gobo Spin: Slow > Fast |
| 5 | $\begin{aligned} & 000 \Leftrightarrow 023 \\ & 024 \Leftrightarrow 047 \\ & 048 \Leftrightarrow 071 \\ & 072 \Leftrightarrow 095 \\ & 096 \Leftrightarrow 119 \\ & 120 \Leftrightarrow 143 \\ & 144 \Leftrightarrow 167 \\ & 168 \Leftrightarrow 255 \end{aligned}$ | Rotating Gobo <br> Open <br> Gobo 1 <br> Gobo 2 <br> Gobo 3 <br> Gobo 4 <br> Gobo 5 <br> Gobo 6 <br> Gobo Spin: Slow > Fast |
| 5 | $\begin{aligned} & 000 \Leftrightarrow 127 \\ & 128 \Leftrightarrow 191 \\ & 192 \Leftrightarrow 255 \end{aligned}$ | Gobo Rotation \& Indexing <br> Gobo Index ( $0^{\circ} \sim 360^{\circ}$ ) <br> Clockwise gobo rotation: Slow > Fast <br> Counter clockwise gobo rotation: Fast > Slow |
| 6 | $\begin{aligned} & 000 \Leftrightarrow 001 \\ & 002 \Leftrightarrow 007 \\ & 008 \Leftrightarrow 131 \\ & 132 \Leftrightarrow 253 \\ & 254 \Leftrightarrow 255 \end{aligned}$ | Prism <br> Open <br> Prism (static) <br> Prism clockwise rotation: Slow > Fast <br> Prism counter-clockwise rotation: Fast > Slow <br> Prism (static) |
| 8 | $000 \Leftrightarrow 255$ | Focus <br> Near > Far |
| 9 | $000 \Leftrightarrow 255$ | Pan <br> Right $\left(0^{\circ}\right)>\operatorname{Left}\left(570^{\circ}\right)(128=$ half way point) <br> Continued on the next page... |


| 10 | $000 \Leftrightarrow 255$ | Tilt Down $\left(0^{\circ}\right)>\operatorname{Up}\left(270^{\circ}\right)(128=$ half way point $)$ |
| :---: | :---: | :---: |
| 11 | $000 \Leftrightarrow 255$ | Pan (Fine) |
| 12 | $000 \Leftrightarrow 255$ | Tilt (Fine) |
| 13 | $\begin{aligned} & 000 \Leftrightarrow 007 \\ & 008 \Leftrightarrow 063 \\ & 064 \Leftrightarrow 127 \\ & 128 \Leftrightarrow 255 \end{aligned}$ | Control <br> Pan/Tilt Tracking Mode <br> Pan/Tilt Vector Mode: Slow > Fast <br> Reserved <br> Mechanical reset after 3 seconds |
| 14 | $\begin{aligned} & 000 \Leftrightarrow 047 \\ & 048 \Leftrightarrow 095 \\ & 096 \Leftrightarrow 159 \\ & 160 \Leftrightarrow 207 \\ & 208 \Leftrightarrow 255 \end{aligned}$ | Lamp ON/OFF <br> Standby <br> Hold 3 seconds for Lamp ON <br> Standby <br> Hold 3 seconds for Lamp OFF <br> Standby |

## 8 Bit Movement

In the 8 bit Pan/Tilt resolution setting both (FINE) channels is removed. All other channel parameters remain the same as in the "DMX Channel Values" table.

| Channel | Function |
| :---: | :--- |
| 1 | Dimmer |
| 2 | Shutter |
| 3 | Color |
| 4 | Static Gobo |
| 5 | Rotating Gobo |
| 6 | Gobo Rotation |
| 7 | Prism |
| 8 | Focus |
| 9 | Pan |
| 10 | Tilt |
| 11 | Control |
| 12 | Lamp ON/OFF |

## Dip Switches (settings explained)

| DIP SwITCH | EvENT | Notes |
| :--- | :--- | :--- |
| All Off | The lamp will strike first. If striking of the lamp succeeds, in <br> approximately 15 seconds the fixture's motors will be powered <br> and initialized. If the lamp does not strike, the remainder of the <br> fixture will not initialize and you will not have control of the <br> fixture. Please wait 15 minutes before re-starting the <br> fixture, otherwise perform a service check. | This is the default <br> setting on the fixture <br> and helps in reducing <br> the amount of striking or <br> inrush current used by <br> the fixture upon startup. |
| 1-On | Lamp and motors are powered at the same time. | Will consume the most <br> amount of inrush current <br> in the startup phase. |
| 2-On | Only the lamp will turn on in the fixture. |  |
| 1-On, 2-On | Only the lamp will turn on in the fixture | Use only at the end of a <br> DMX daisy chain. |
| 3-On | This switch will terminate the dmx connection. |  |

## 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. Do not to touch the lamp glass when cleaning fixture. Oil and dirt can cause damage and premature aging of the lamp. In the event that the lamp is touched or becomes dirty, clean the lamps with an alcohol wipe.

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 an RA \# 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.

## 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.

## General Troubleshooting

| Symptom | Solution(s) | Applies to |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Lights | Foggers \& Snow | Controllers | Dimmers \& Chaser |
| Auto shut off | Check fan thermal switch reset | $\checkmark$ |  |  |  |
| Beam is very dim or not bright | Clean optical system or replace lamp Check 220/110v switch for proper setting | $\checkmark$ |  |  |  |
| Breaker/Fuse keeps blowing | Check total load placed on device |  |  |  | $\checkmark$ |
| Chase is too slow | Check users manual for speed adjustment | $\checkmark$ |  | $\checkmark$ | $\checkmark$ |
| Device has no power | Check for power on Mains. Check device's fuse. (internal and/or external) | $\checkmark$ |  | $\checkmark$ | $\checkmark$ |
| Fixture is not responding | Check DMX Dip switch settings for correct addressing Check DMX cables Check polarity switch settings | $\checkmark$ |  |  |  |
| Fixture is on but there is no movement to the audio | Make sure you have the correct audio mode on the control switches. If audio provided via $1 /{ }^{\prime \prime}$ " jack, make sure a live audio signal exists Adjust sound sensitivity knob | $\checkmark$ |  | $\checkmark$ | $\checkmark$ |
| Lamps cuts off sporadically | Possible bad lamp or fixture is overheating. Lamp may be at end of its life. | $\checkmark$ |  |  |  |
| Light will not come on after power failure | Some discharge lamps require a cooling off period before the electronics in the fixture can kick start it again, wait 5 to 10 minutes before powering up | $\checkmark$ |  |  |  |
| Loss of signal | Use only DMX cables Install terminator Note: Keep DMX cables separated from power cables or black lights. | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Motor movements are jerky or jumpy | Possible bad motor driver or sensors Check polarity switch on controller | $\checkmark$ |  | $\checkmark$ |  |
| Moves slow | Check 220/110v switch for proper setting | $\checkmark$ |  |  |  |
| No flash | Re-install bulb, may have shifted in shipping | $\checkmark$ |  |  |  |
| No light output | Check slip ring \& brushes for contact Install bulb Call service technician | $\checkmark$ |  |  |  |
| Relay will not work | Check reset switch Check cable connections |  |  |  | $\checkmark$ |
| Remote does not work | Make sure connector is firmly connected to device | $\checkmark$ | $\checkmark$ |  |  |
| Stand alone mode | All CHAUVET lighting fixtures featuring stand-alone functions do not require additional settings, simply power the fixture and it will automatically enter into this mode | $\checkmark$ |  |  |  |
| Unit wobbles when rotating | Check for damages possibly incurred during shipping | $\checkmark$ |  |  |  |

## Technical Specifications

| WEIGHT \& DIMENSIONS |  |
| :---: | :---: |
| Length. | 381 mm (15 in) |
| Width. | 406 mm (16 in) |
| Height | .635 mm (25 in) |
| Weight. | 27.44 Kgs (60.5 lbs) |
| Shipping Weight | 30.84 Kgs (68 lbs) |

## POWER

Switch-selectable power settings (Internal)....................................115V, 220V, 230V, $240 \mathrm{~V}-50 / 60 \mathrm{~Hz}$
AC input...................................................................................................... 3 prongs IEC 60320 C14

European Version ..........................................................................................................230V/240V
Current draw ............................................................... (peak 388W @ 120V), (inrush 678W @ 120V)

## LAMPS

HSD-250/80 ............................................................................................................. $3000 \mathrm{hr}, 8000 \mathrm{~K}, 250 \mathrm{~W}$
Philips ${ }^{\text {TM }}$ MSD-250/2...................................................................................... 2000 hr, 6500K, 250 W
Philips ${ }^{\text {TM }}$ MSD-200......................................................................................... 2000 hr, 5600K, 200W

## PHOTO OPTIC

Beam Angle ................................................................................................................................. $15^{\circ}$
Pan .......................................................................................................................................... $570^{\circ}$
Tilt............................................................................................................................................ 270º

## ROTATING GOBOS

Outside diameter................................................................................................................ 31 mm ( 1.22 in )
Image diameter (maximum)........................................................................................... 24 mm ( .94 in )
Thickness........................................................................................................................ 3 mm (. 12 in )
STATIC GOBOS
Outside diameter...................................................................................................... 31 mm ( 1.22 in )
Image diameter (maximum).......................................................................................... 24 mm ( .94 in )
Thickness..................................................................................................................2) mm (. 01 in )

## THERMAL

Maximum ambient temperature ...................................................................................... $40^{\circ}\left(104^{\circ} \mathrm{F}\right)$
FUSE
Main...............................................................................................20mm Glass 8A 250V Fast Blow
Internal PCB....................................................................................20mm Glass 5A 250V Fast Blow

## CONTROL \& PROGRAMMING

Data input ....................................................................................non-locking 3-pin XLR male socket Data output non-locking 3-pin XLR female socket
Data pin configuration ............................................................................................................ 1 shield, pin 2 (-), pin 3 (+)
Protocols.................................................................................................................DMX-512 USITT

## DMX CHANNELS

Legend ${ }^{\text {TM }}$ 2000X, DMX Channels .......................................................... (16bit = 13ch), (8bit = 11ch)
Legend $^{\text {TM }}$ 3000X, DMX Channels.............................................................. (16bit = 14ch), (8bit = 12ch)
ORDERING INFORMATION
Legend ${ }^{\text {TM }}$ 3000X ................................................................................................................LEG-3000
Fuse 8A 250V ...........................................................................................................P170FUSE008
Fuse 5A 250V
P170FUSE005
OPTIONS
Wired Remote Controller for stand-alone ..................................................................................CA-14

## Technical Support

Address:
Support (Emai)
Telephone:
3000 N $29^{\text {th }} \mathrm{Ct}$, Hollywood, FL 33020 (U.S.A.)
tech@chauvetlighting.com
Fax:
(954) 929-1115 - (Press 4)

Website: http://www.chauvetlighting.com

