

Q-Mix

Q-Mix™ DMX Lighting Effect

USER MANUAL



CHAUVET, 3000 N 29th Ct, Hollywood, FL 33020 U.S.A
(800) 762-1084 – (954) 929-1115
FAX (954) 929-5560
www.chauvetlighting.com

Table of Content

BEFORE YOU BEGIN.....	3
WHAT IS INCLUDED	3
UNPACKING INSTRUCTIONS.....	3
AC POWER	3
SAFETY INSTRUCTIONS.....	3
INTRODUCTION	4
FEATURES.....	4
DMX CHANNEL SUMMARY	4
PRODUCT OVERVIEW.....	5
SETUP	6
LAMP.....	6
Lamp Installation	6
POWER	6
MOUNTING	7
OPERATING INSTRUCTIONS.....	8
CONTROL PANEL.....	8
CONTROL PANEL FUNCTIONS	8
APPLYING CHANGES TO FUNCTIONS (QUICK INSTRUCTIONS)	8
OPERATING MODES.....	9
Master & Stand Alone (F6).....	9
Setting Slave Fixtures	9
Sound-active (F4) or Auto-run (F5).....	9
DMX Mode.....	10
Daisy Chain Connection.....	10
MENU FUNCTIONS	10
DMX-512 addressing.....	10
Setting the starting address	10
Segment Display Configurations	11
F8 - Display Invert	11
Service Functions	11
F3 - Fixture Reset (all motors)	11
APPENDIX.....	12
DMX PRIMER	12
Fixture Linking	12
DMX CHANNEL VALUES	13
MAINTENANCE	14
RETURNS PROCEDURE	14
CLAIMS	14
GENERAL TROUBLESHOOTING	15
TECHNICAL SPECIFICATIONS.....	16
TECHNICAL SUPPORT	16

BEFORE YOU BEGIN

What is included

- Q-Mix™ with ELC bulb
- Power cord with plug
- Manual
- 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.

Figure 1 - AC Voltage Switch



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 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 is $T_a: 40^\circ$. 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.

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.

INTRODUCTION

Features

Control Features

- 2 channel DMX Intelligent Effect
- Variable strobe
- 11 Gobo/Color combinations plus open
 - Gobo wheel spin in both directions, at variable speeds
 - Gobo Bounce™
- Variable mirror reflector rotation in both directions

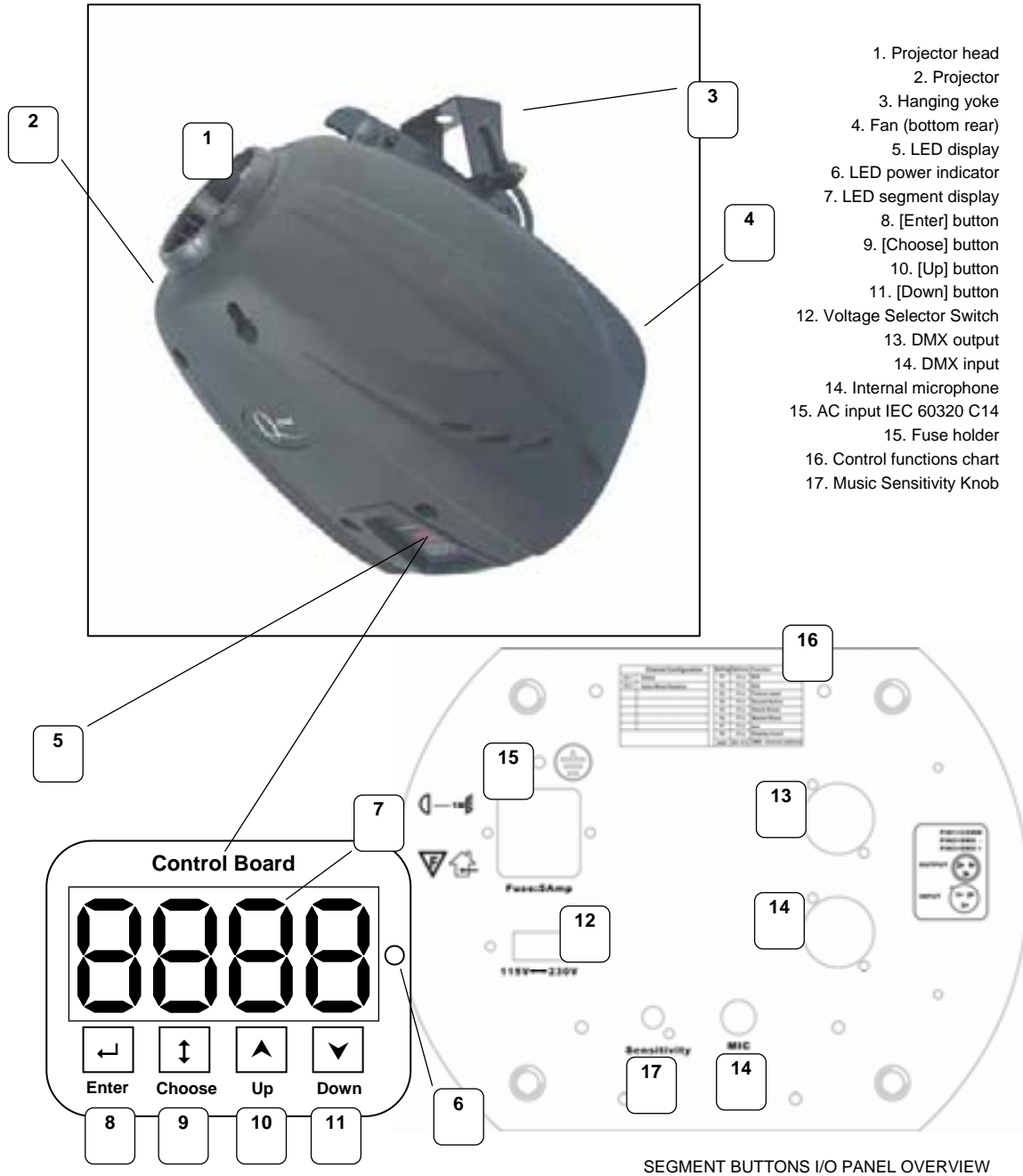
Features

- Built in beat activated and automatic programs (stand-alone)
- Linkable via Master/Slave
- LED Display
- Manual focus
- Sound sensitivity knob
- Micro-stepping motors
- Thermal switch
- Fan cooled

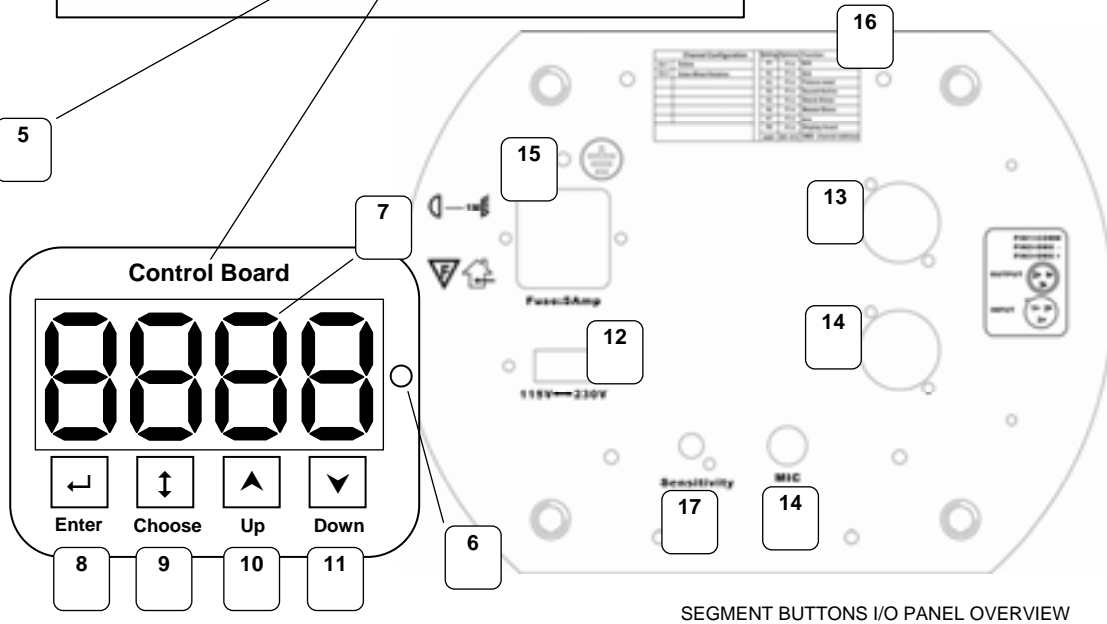
DMX Channel Summary

CHANNEL	FUNCTION
1	Gobo
2	Gobo Wheel Rotation

Product Overview



1. Projector head
2. Projector
3. Hanging yoke
4. Fan (bottom rear)
5. LED display
6. LED power indicator
7. LED segment display
8. [Enter] button
9. [Choose] button
10. [Up] button
11. [Down] button
12. Voltage Selector Switch
13. DMX output
14. DMX input
15. Internal microphone
16. AC input IEC 60320 C14
17. Music Sensitivity Knob



SEGMENT BUTTONS I/O PANEL OVERVIEW

BUTTONS	
Choose	Toggles menu functions
Down	Steps backward through menu functions
Up	Steps forward through menu functions
Enter	Confirms selected menu function

I/O PANEL	
DMX Out & In	DMX-512 connectors
Power	AC input IEC 60320 C14 and fuse holder

SETUP

Lamp

You will need to install a lamp prior to the initial operation of the fixture. An ELC halogen lamp is included.

Warning! *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 labeled (S1) and pull cover plate.
2. The lamp is encased in a mirror reflector. Slide entire reflector out of the lamp cage and disconnect from socket. If replacing the lamp, remove old lamp first.
3. Replace with new lamp and slide back into the lamp cage.
4. Replace the cover, align the screw holes and fasten the screws back onto the cover.



Power

Your product is equipped with switch-selectable AC power setting.

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.*

Slide switch up or down depending on your line voltage.



- 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.

Power Cable Configuration

CABLE	PIN	INTERNATIONAL
BROWN	Live	L
BLUE	Neutral	N
YELLOW/GREEN	Earth	EG (Ground)

Mounting

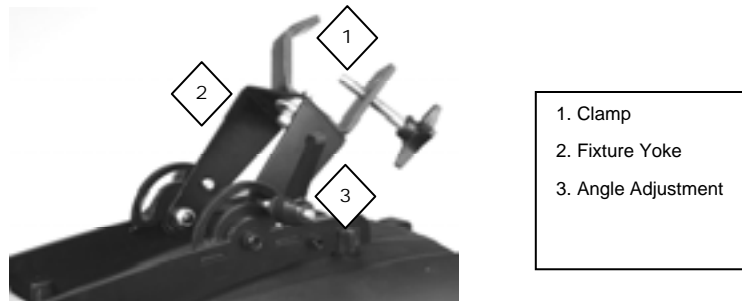
Orientation

Both fixtures 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 distance from combustible materials.



Rigging

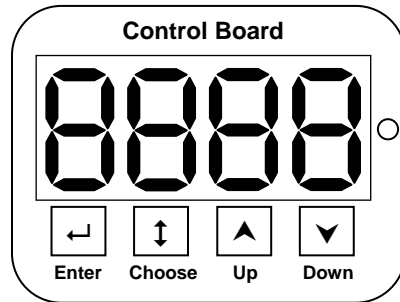
The fixture includes a mounting yoke to which 1 rigging clamp can be bolted.

1. Align the clamp screw with the center hole on the yoke and tighten.
2. Verify the structure can hold 10 times the weight of all to-be installed fixtures.
3. Adjust the angle on the yoke arm as necessary.

OPERATING INSTRUCTIONS

Control Panel

On the control panel you can set the DMX address, set the fixture to Master/Slave mode, reset the fixture and change fixture personality traits.



[Enter] Confirms selection

[Choose] Access to main menu

[Up] Toggle menu items in a forward direction

[Down] Toggle menu items in a reverse direction

Control Panel Functions

FUNCTION	OPTIONS	NOTES
Φ1	-Ψ/-ν	No Function
Φ2	-Ψ/-ν	No Function
Φ3	-Ψ/-ν	Fixture reset
Φ4	-Ψ/-ν	Stand Alone (Sound-Active)
Φ5	-Ψ/-ν	Stand Alone (Auto Run)
Φ6	-Ψ/-ν	Master/Slave
Φ7	-ψ/-ν	No Function
Φ8	-Ψ/-ν	Display invert
A001	000~512	DMX channel addressing

-y: Activates setting

-n: Disables, skips or selects alternative setting

Applying changes to Functions (Quick Instructions)

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

1. Press **[Choose]** button repeatedly until the display reads the menu function you wish to change as illustrated in the table above in section "Control Panel Functions"
2. The display will read the previously stored settings for the desired function, for example, either with a "-y" or a "-n" as in "F1-y or F1-n".
3. Press the **[Up]** or **[Down]** button to toggle between either the "-y" or "-n" selection for that particular menu function.
4. Press the **[Enter]** button to store your selection. The display will read "PASS" to confirm your selection

Operating Modes

- A stand-alone mode will listen to sound and run through its diverse range of built in programs.
- Master/Slave mode will allow the command of up to as many units you want in a synchronized light show to the sound.
- DMX control mode will provide the greatest flexibility and creativity. Each fixture trait can be controlled individually using any universal DMX-512 controller.

Master & Stand Alone (F6)

In order to create the correct environment for Stand Alone operation, several parameters have to be set in the control panel. Please make the changes to the functions as listed in the table below.

FUNCTION	SET TO	NOTES
F6	-y	Master mode (one Master only)
F4	-y	Sound activated
A	001	Channel address

Note!

If the fixture is connected to a controller, please disconnect it.

The display will read the previously selected setting.

Only one fixture can be the Master assigned fixture. However, 16 units can be slaved to the master unit.

Setting Slave Fixtures

The Master/Slave mode will allow you to link multiple units in a daisy chain fashion. In this mode, the first unit in the daisy chain, the master, will automatically command all other units following. The first unit will operate in a Stand/Alone mode and all units following will synchronize to the first unit. Up to 16 fixtures can be daisy chained in Master/Slave mode.

MENU	SET TO	NOTES
F6	-n	Master mode
F4	-n	Sound activated
A	001	Channel address

Sound-active (F4) or Auto-run (F5)

In Master/Slave mode you can choose whether the fixture will run in a sound-active state where the movement is triggered by sound or in auto-run where the speed is pre-programmed.

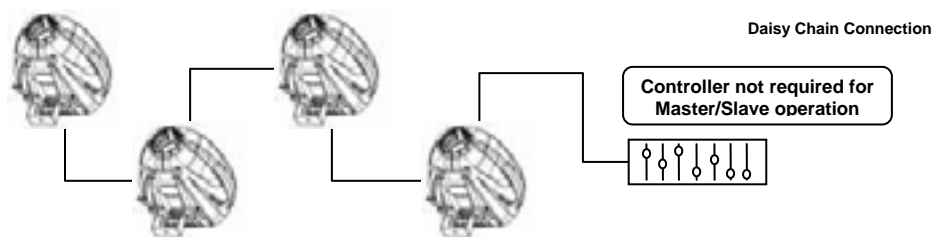
MENU	SET TO	NOTES
F4	-n	Sound Activated
or		
F5	-n	Auto-run

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.



Menu Functions

DMX-512 addressing

This 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 **[Choose]** button until the display reads "ANNN" where N represents a number from 0 to 9.
2. Press the **[Up]** and **[Down]** buttons to increase or decrease values until the desired value is achieved.
3. Press the **[Enter]** button to activate selection.

Segment Display Configurations

The display can be inverted making it easier to read the menu depending on the orientation of your fixture.

F8 - Display Invert

FUNCTION	SET TO	NOTES
F8	-y	Invert display
F8	-n	Return to normal

Service Functions

F3 - 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).

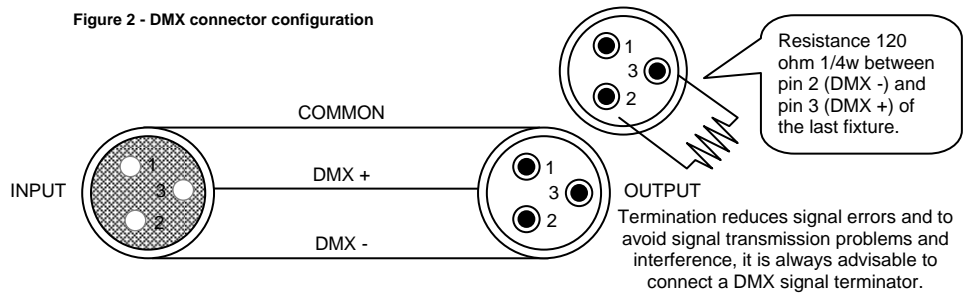
FUNCTION	SET TO	NOTES
F3	-y	Reset fixture
F3	-n	Skip function

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')



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

DEFAULT	VALUE	FUNCTION
		Gobo
	000 ⇔ 005	Blackout
	006 ⇔ 039	Strobe: Slow > Fast
	040 ⇔ 045	Open
	046 ⇔ 051	Gobo 1
	052 ⇔ 057	Gobo 2
	058 ⇔ 063	Gobo 3
	064 ⇔ 069	Gobo 4
	070 ⇔ 075	Gobo 5
	076 ⇔ 081	Gobo 6
	082 ⇔ 087	Gobo 7
	088 ⇔ 093	Gobo 8
	094 ⇔ 099	Gobo 9
	100 ⇔ 105	Gobo 10
1	106 ⇔ 111	Gobo 11
	112 ⇔ 129	Open
	130 ⇔ 135	Gobo 1 Bounce™: Slow > Fast
	136 ⇔ 141	Gobo 2 Bounce™: Slow > Fast
	142 ⇔ 148	Gobo 3 Bounce™: Slow > Fast
	149 ⇔ 153	Gobo 4 Bounce™: Slow > Fast
	154 ⇔ 159	Gobo 5 Bounce™: Slow > Fast
	160 ⇔ 165	Gobo 6 Bounce™: Slow > Fast
	166 ⇔ 171	Gobo 7 Bounce™: Slow > Fast
	172 ⇔ 177	Gobo 8 Bounce™: Slow > Fast
	178 ⇔ 183	Gobo 9 Bounce™: Slow > Fast
	184 ⇔ 189	Gobo 10 Bounce™: Slow > Fast
	190 ⇔ 196	Gobo 11 Bounce™: Slow > Fast
	197 ⇔ 225	Open
	226 ⇔ 255	Scroll: Slow > Fast
		Gobo Wheel Rotation
2	000 ⇔ 005	Static
	000 ⇔ 005	Rotation Counter-Clockwise: Slow > Fast
	000 ⇔ 005	Static
	000 ⇔ 005	Rotation Clockwise: Slow > Fast

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 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	✓			
Beam is very dim or not bright	Clean optical system or replace lamp Check 220/110v switch for proper setting	✓			
Breaker/Fuse keeps blowing	Check total load placed on device				✓
Chase is too slow	Check users manual for speed adjustment	✓		✓	✓
Device has no power	Check for power on Mains. Check device's fuse. (internal and/or external)	✓		✓	✓
Fixture is not responding	Check DMX Dip switch settings for correct addressing Check DMX cables Check polarity switch settings	✓			
Fixture is on but there is no movement to the audio	Make sure you have the correct audio mode on the control switches. If audio provided via ¼" jack, make sure a live audio signal exists Adjust sound sensitivity knob	✓		✓	✓
Lamps cuts off sporadically	Possible bad lamp or fixture is overheating. Lamp may be at end of its life.	✓			
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	✓			
Loss of signal	Use only DMX cables Install terminator Note: Keep DMX cables separated from power cables or black lights.	✓	✓	✓	✓
Motor movements are jerky or jumpy	Possible bad motor driver or sensors Check polarity switch on controller	✓		✓	
Moves slow	Check 220/110v switch for proper setting	✓			
No flash	Re-install bulb, may have shifted in shipping	✓			
No light output	Check slip ring & brushes for contact Install bulb Call service technician	✓			
Relay will not work	Check reset switch Check cable connections				✓
Remote does not work	Make sure connector is firmly connected to device	✓	✓		
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	✓			
Unit wobbles when rotating	Check for damages possibly incurred during shipping	✓			

Technical Specifications

WEIGHT & DIMENSIONS

Length..... 349 mm (13.75 in)
 Width 305 mm (12 in)
 Height 254 mm (10 in)
 Weight 9 Kgs (20.2 lbs)

POWER

Switch-selectable power settings 115V 60 Hz or 230V 50 Hz
 AC input..... 3 prongs IEC 60320 C14
 European version 240V 50 Hz

LAMPS

ELC..... 250W 24V MR16

PHOTO OPTIC

Beam Angle 27°

THERMAL

Maximum ambient temperature..... 40° (104° F)

FUSE

Main (115V) 20mm Glass 6.3A Fast Blow
 Internal PCB 20mm Glass 5A Fast Blow

CONTROL & PROGRAMMING

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

ORDERING INFORMATION

Q-Mix™ DMX Intelligent Effect Light Q-Mix
 Fuse 6.3A P170FUSE006
 Fuse 5A P170FUSE005

Technical Support

Address: Service Dept.
 3000 N 29th Ct, Hollywood, FL 33020 (U.S.A.)
 Support (Email): tech@chauvetlighting.com
 Telephone: (954) 929-1115 - (Press 4)
 Fax: (954) 929-5560 - (Attention: Service)
 Website:..... <http://www.chauvetlighting.com>