## Élan ${ }^{\text {™ }}$

| Snapshot |  |
| :---: | :---: |
| OK on Dimmer | $\Omega$ |
| Outdoor OK | $\Omega$ |
| Sound Activated | $\Omega$ |
| DMX512 | $\Omega$ |
| Master/Slave | $\Omega$ |
| 115V/230V Switch | $\Omega$ |
| Replaceable Fuse | $\Omega$ |
| User Serviceable | $\Omega$ |
| Duty Cycle | $\Omega$ |

USER MANUAL


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## 1. Before You Begin

## What is included

> $1 \times$ Élan $^{\text {TM }}$<br>> Power cord<br>> Warranty Card<br>> 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.

## 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 voltage select switch on your unit matches the line voltage applied. Damage to your fixture may result if the line voltage applied does not match the voltage indicated on the voltage selector switch. All fixtures must be connected to circuits with a suitable Earth Ground.


## Contact Us

## World Wide

| General Information | Chauvet Lighting <br> 3000 North $29^{\text {th }}$ Court |
| :--- | :--- |
|  | Hollywood, FL 33020 |
| voice: 954.929 .1115 |  |
|  | fax: 954.929 .5560 |
|  | toll free: 800.762 .1084 |
| Technical Support | Chauvet Lighting <br> 3000 North $29^{\text {th }}$ Court |
|  | Hollywood, FL 33020 <br> voice: 954.929.1115 (Press 4) <br> fax: 954.929 .5560 (Attention: Service) |
| World Wide Web | www.chauvetlighting.com |

## Safety Instructions



Please read these instructions carefully, as it 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.
- This product is intended for indoor use only!
- To prevent risk of fire or shock, do not expose fixture to rain or moisture. Make sure there are no flammable materials close to the unit while operating.
- The unit must be installed in a location with adequate ventilation, at least $20 \mathrm{in}(50 \mathrm{~cm})$ 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 (Ta) is $95^{\circ} \mathrm{F}\left(35^{\circ} \mathrm{C}\right)$. 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.
- Don't connect the device to a dimmer pack.
- Make sure the power cord is never crimped or damaged.
- Never disconnect the power cord by pulling or tugging on the cord.
- Avoid direct eye exposure to the light source while it is on.

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.

## 2. INTRODUCTION

## CONTROL FEATURES

- 4-channel DMX-512 LED effect light
- Blackout/static/strobe
- Individual control of red, green and blue LEDs


## ADDITIONAL FEATURES

- Built-in automated programs via master/slave
- Built-in sound active programs via master/slave
- (2) built-in microphones: 1 for LEDs, 1 for motor
- (2) sound sensitivity knobs: 1 for LEDs, 1 for motor
- Additional power output for daisy chaining units together (max. 20 units)
- Ultra bright LEDs
- Low power consumption
- Wide coverage area
- Fan cooled


## DMX Channel Summary

| Channel | Function |
| :--- | :--- |
| $\mathbf{1}$ | Red |
| $\mathbf{2}$ | Green |
| $\mathbf{3}$ | Blue |
| $\mathbf{4}$ | Strobe |

## Product Overview



## 3. SETUP

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


## Fuse Replacement

With a flat head screwdriver wedge the fuse holder out of its housing. Remove the damaged fuse from its holder and replace with exact same type fuse. Insert the fuse holder back in its place and reconnect power.


## 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.

$$
\begin{aligned}
& \text { Important: } \\
& \text { Fixtures on a serial data link must be daisy chained in one single line. To comply with the EIA-485 } \\
& \text { standard no more than } 32 \text { devices should be connected on one data link. Connecting more than } 32 \\
& \text { fixtures on one serial data link without the use of a DMX optically-isolated splitter may result in } \\
& \text { deterioration of the digital DMX signal. }
\end{aligned}
$$

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<br>Maximum capacitance between conductors - $30 \mathrm{pF} / \mathrm{ft}$.<br>Maximum capacitance between conductor and shield - 55 pF/ft.<br>Maximum resistance of 20 ohms / 1000 ft .<br>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.


## 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 $1.5 \mathrm{~m} / 4.9 \mathrm{ft}$ |
| DMX4.5 | DMX Cable $4.5 \mathrm{~m} / 14.8 \mathrm{ft}$ |
| DMX10 | DMX Cable $10 \mathrm{~m} / 32.8 \mathrm{ft}$ |

## Universal DMX Controller



## 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 Stand alone operation requires that the first fixture in the chain be initialized for this purpose via either settings in the control panel or DIP-
Mounting switches. Secondarily, 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.

## ORIENTATION

This fixture may be mounted in any position provided there is adequate room for ventilation.

## RIGGING

Hanging Clamp
It is important never to obstruct the fan or vents pathway. Mount the fixture using, a suitable "C" or "O" type clamp. Adjust the angle of the fixture loosening both knobs and tilting the fixture. After finding the desired position, retighten both knobs.

- When selecting installation location, take into consideration lamp replacement access and routine maintenance.
- Safety cables must always be used.
- Never mount in places where the fixture will be exposed to rain, high

Note! humidity, extreme temperature changes or restricted ventilation.

## 4. OPERATION

## Stand-Alone Mode (Sound-Active):

This mode allows a single unit to run to the beat of the music, or the unit will auto change in Auto Mode.

1) Set dipswitches position to Sound Active Mode.

| Mode | Dipswitches |
| :--- | :---: |
| Sound Active | All Off |
| Sound Active w/ Strobe | 9,12 On |
| Fixed Speed strobe w/ movement | $9,10,11$ On |
| Strobe w/ Color Change | 9,11 On |
| Sound Activated (no sound for 3 sec. unit will change color rotation) | $9,10,12$ On |

2) The unit will react to the low frequencies of music via the internal microphone in Sound Active mode.
3) Use the audio sensitivity knob on the back of the unit to make the unit more or less sensitive in Sound-Active mode. Turning the knob counterclockwise decreases the sensitivity; turning the knob clockwise increases the sensitivity.

## Master/Slave Mode (Master Sound):

This mode will allow you to link up to 32 units together without a controller.

1) Use standard DMX cables to daisy chain your units together via the DMX connector on the side of the units. For longer cable runs we suggest a terminator at the last fixture.
2) Choose a unit to function as the Master. Turn dipswitches to the Master position on the unit. The unit must be the first unit in line, and then simply chain the units together using DMX cable.
3) Turn dipswitch 1 to the "on" position on the slave units, and the slave units will react the same as the master.

| Mode | Dipswitches |
| :--- | :--- |
| Master Sound | 9 On |
| Fixed Speed Strobe with Color Change | $9,10,11$ On |
| Strobe with Color Change Effect | 9,11 On |
| Sound Activated (no sound for 3 sec. unit will change color rotation | $9,10,12$ On |

## DMX Mode

DMX mode allows the user to select specific colors displayed, as well as the shutter speed (for strobe effect), by adjusting the value of four separate DMX channels. For more information on setting the address, or if you are unfamiliar with DMX, please read the DMX Primer (pg. 15) and address information (pg. 12-13).

1) To place the fixture into $D M X$ mode, connect a $D M X$ cable into the " $D M X$ In" from a $D M X$ controller or other DMX unit and set the DMX address.

Note: In DMX mode, movement is still controlled via sound activation. To adjust the sensitivity of the unit, turn the knob slowly clockwise (when facing unit) to make the unit more sensitive.

## DMX Channel Values

| Channel | Value | Function |
| :---: | :---: | :---: |
| 1 | $\begin{aligned} & 000 \Leftrightarrow 010 \\ & 011 \Leftrightarrow 255 \end{aligned}$ | Red Off <br> On |
| 2 | $\begin{aligned} & 000 \Leftrightarrow 010 \\ & 011 \Leftrightarrow 255 \end{aligned}$ | Green Off On |
| 3 | $\begin{aligned} & 000 \Leftrightarrow 010 \\ & 011 \Leftrightarrow 255 \end{aligned}$ | Blue <br> Off <br> On |
| 4 | $\begin{aligned} & 000 \Leftrightarrow 005 \\ & 006 \Leftrightarrow 010 \\ & 011 \Leftrightarrow 255 \end{aligned}$ | Strobe <br> No Strobe Blackout <br> Slow $\rightarrow$ Fast |

## SETTING THE STARTING ADDRESS

This DMX mode enables the use of a universal DMX controller device. 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 uses 6 DMX channels 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 note the start address selected for future reference.

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

Set the start address using the group of DIP switches located usually on bottom of the fixture. Each dip switch has an associated value. Adding the value of each switch in the ON position will provide the start address. Figuring out which switches to toggle ON given a specific start address can be accomplished by determining which switch values will add up to the address value and turning these switches on. Do so by doing the following:

1) Determine the largest value switch that is less than the start address. Turn this switch on.
2) Subtract the value of the switch you just turned on from the starting address number.
3) Determine the largest value switch that is less than the remainder from the previous subtraction. Turn this switch on.
4) Subtract the value of the switch you just turned on from the remainder of the previous subtraction.
5) Repeat steps three and four until you have a remainder of zero.

Example Starting Address


## DMX QUICK REFERENCE CHART

## DMX Address Quick Reference Chart

Dip Switch Position


Dip Switch Position
DMX Address

## 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 <br> 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 $1 / 4^{\prime \prime}$ 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 <br> Install terminator <br> Note: Keep DMX cables separated from power cables or black lights. | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Moves slow | Check 220/110v switch for proper setting | $\checkmark$ |  |  |  |
| No flash | Re-install bulb, may have shifted in shipping | $\checkmark$ |  |  |  |
| No laser output | Bounce mirror motor may have shifted during shipping, readjust | $\checkmark$ |  |  |  |
| No light output | Check slip ring \& brushes for contact Install bulb <br> 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 | $\checkmark$ |  |  |  |

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

## Technical Support

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

## 5. 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 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.

Note: If you are given an RA \#, 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 RA \#
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.

## Technical Specifications

WEIGHT \& DIMENSIONS


POWER
Switch-selectable power settings ............................................................. 120 V 60 Hz AC or 230 V 50 Hz
Power Consumption 36 W (0.37A) max at 120 V
Inrush Power $14 \mathrm{~W}(0.22 \mathrm{~A})$ at 120 V
Power Factor ..... 0.76 at 120 V
Power Output (AC Plug) ..... $8 \mathrm{~A}(960 \mathrm{~W}$ at 120 V ) max
LIGHT SOURCE
LED. 224 (88 red, 48 green, 88 blue) 100,000hrs
РНОTO OPTIC
Beam Angle ..... $70^{\circ}$
THERMAL
Maximum ambient temperature ..... $104^{\circ} \mathrm{F}\left(40^{\circ} \mathrm{C}\right)$
FUSE
Main... 1.5A 250V 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 .....  4
ORDERING INFORMATION
Élan ..... Elan
WARRANTY INFORMATION
Warranty 2-year limited warranty

