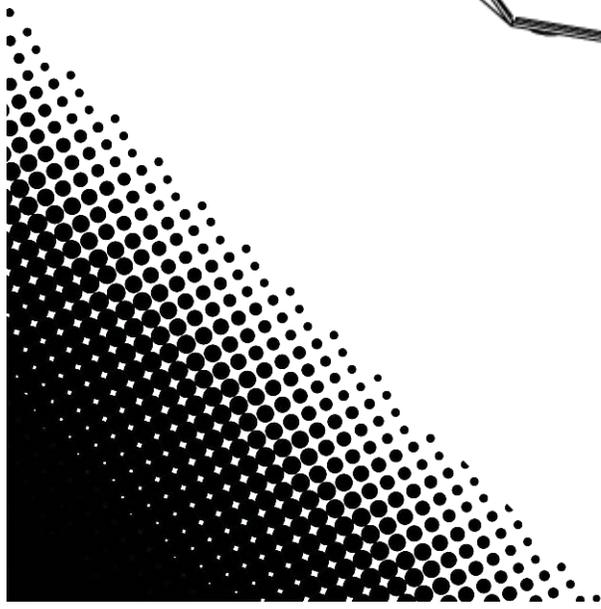
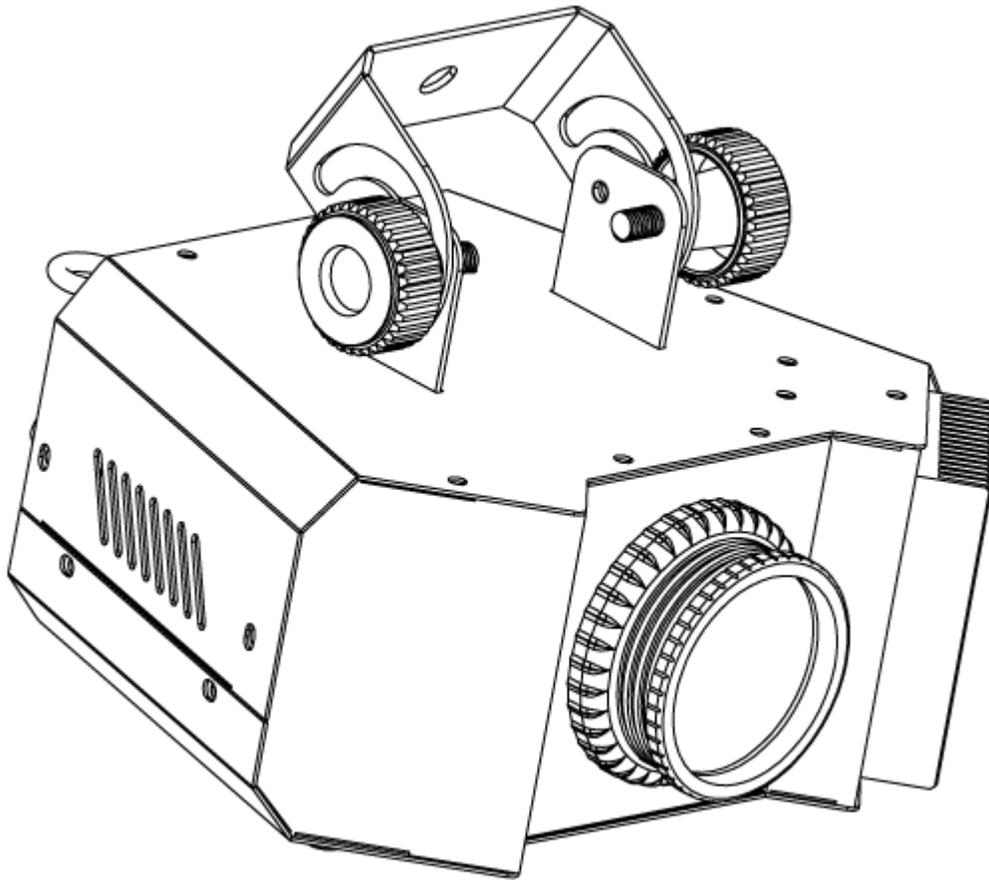


DMF-10

User Manual



CHAUVET[®]

Value • Innovation • Performance

It's Green Thinking

TABLE OF CONTENTS

1. Before you Begin	3
What is Included.....	3
Unpacking Instructions	3
<i>Claims</i>	3
Text Conventions	3
Icons	3
Document Information	3
Product at a Glance.....	4
Safety Notes	4
2. Introduction	5
Product Overview.....	5
Product Dimensions	6
3. Setup	7
AC Power.....	7
<i>Fuse Replacement</i>	7
<i>Power Linking</i>	8
Mounting	9
<i>Orientation</i>	9
<i>Rigging</i>	9
4. Operation	10
Control Panel Operation	10
Menu Map.....	10
Configuration (DMX).....	11
<i>Starting Address</i>	11
DMX Channel Assignments and Values.....	11
<i>6-CH</i>	11
Configuration (Standalone).....	12
<i>Sound Active Mode</i>	12
<i>Automatic Mode</i>	12
<i>Master/Slave Mode</i>	12
5. Technical Information	13
Fixture Maintenance.....	13
General Troubleshooting	14
Contact Procedure	15
CHAUVET® Contact Information.....	15
Returning Products to CHAUVET®.....	15
DMX Primer	16
<i>Starting Address</i>	16
<i>Fixture Linking (Daisy Chain)</i>	16
<i>DMX Cabling</i>	17
<i>DMX Connectors</i>	17
6. Technical Specifications	18

1. BEFORE YOU BEGIN

What is Included

- 1 x DMF-10
- 1 x Power Cord
- 1 x Warranty Card
- 1 x User Manual

Unpacking Instructions

Immediately upon receiving this product, carefully unpack it and check the container in which you received it. Make sure that you have received all the parts indicated above and that they are all in good condition.

Claims

If the material inside the container (this product and any other accessory included with it) appears damaged from shipping, or if the container shows signs of mishandling, notify the carrier immediately, not CHAUVET®, upon reception of the damaged merchandise. Failure to do so in a timely manner may invalidate your claim with the carrier. In addition, retain the container and all the packing material for inspection.

For other issues such as missing components or parts, damage not related to shipping, or concealed damage, you should make claims to CHAUVET® within seven (7) days of receiving the merchandise.

Text Conventions

Convention	Meaning
1~512	A range of values
50/60	A set of values of which only one can be chosen
<i>Claims</i>	A section or chapter in this document
Settings	A menu option not to be modified (for example, showing the operating mode/current status)
Menu > Settings	A sequence of menu options to be followed
<ENTER>	A key to be pressed on the fixture's control panel
ON	A value to be entered or selected

Icons

Icon	Meaning
	This paragraph contains critical installation, configuration, or operation information. Failure to comply with this information may render the fixture partially or completely inoperative, cause damage to the fixture, or cause harm to the user.
	This paragraph contains important installation or configuration information. Failure to comply with this information may prevent the fixture from functioning correctly.
	This paragraph reminds you of useful, although not critical, information.

Document Information

The information and specifications contained in this document are subject to change without notice. CHAUVET® assumes no responsibility or liability for any errors or omissions that may appear in this manual. CHAUVET® reserves the right to update the existing document or to create a new document to correct any errors or omissions.

You can download the latest version of this document from www.chauvetlighting.com.

© Copyright 2011 CHAUVET®. All rights reserved

Printed in P.R.C.

Electronically published by CHAUVET® in the United States of America

Author	Editor	Manager	PD Manager
A. Diaz	O. Desmonteix	A. Reiss	F. Sellers

Product at a Glance

Use on Dimmer	⊘	Auto Programs	✓
Outdoor Use	⊘	Auto-ranging Power Supply	✓
Sound Activated	✓	Replaceable Fuse	✓
DMX	✓	User Serviceable	⊘
Master/Slave	✓	Duty Cycle	⊘

Safety Notes

Please read the following notes carefully **before** starting to work with this product. They include important safety information about its installation, usage, and maintenance.



- Always connect this product to a grounded circuit to avoid the risk of electrocution.
- Always disconnect this product from the power source before cleaning it or replacing the fuse.
- Avoid direct eye exposure to the light source while the fixture is on.
- Make sure the power cord is not crimped or damaged.
- Never disconnect this product from power cord by pulling or tugging on the cord.
- If mounting this product overhead, always secure it to a fastening device using a safety cable.
- Make sure there are no flammable materials close to the unit while operating.
- Do not touch this product's housing when operating because it may be very hot.



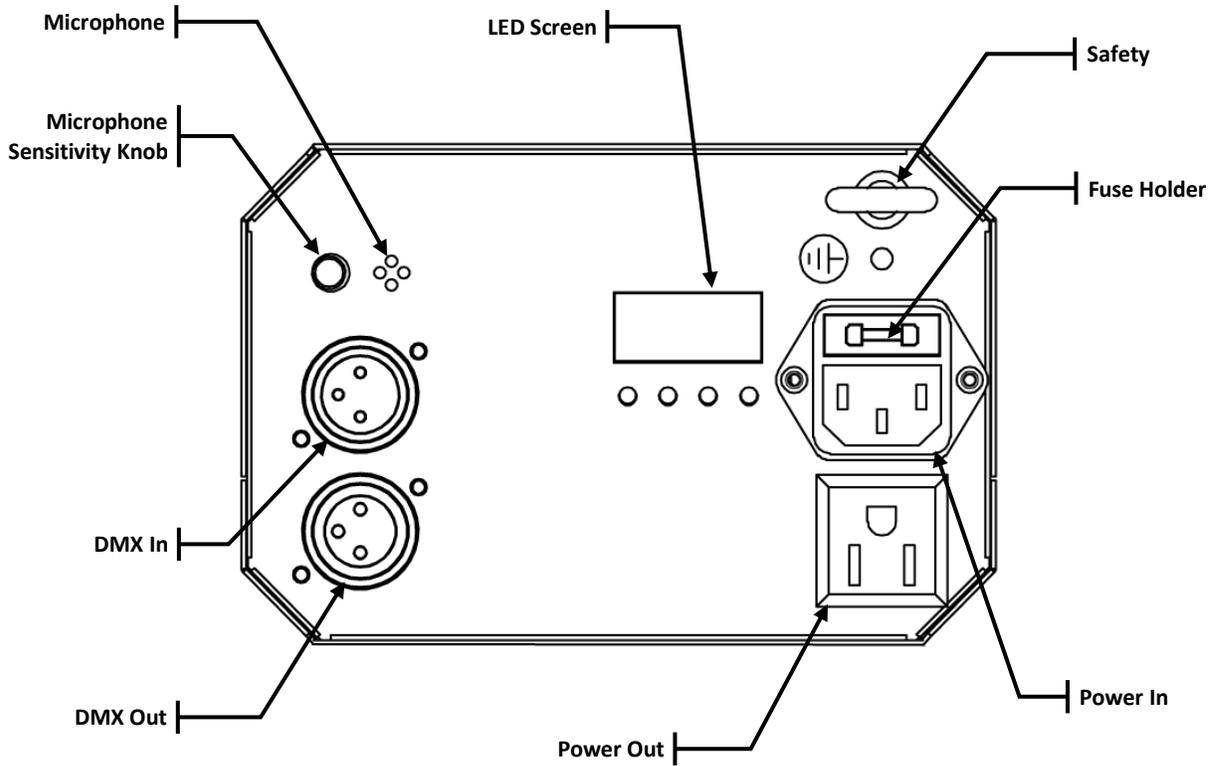
- Always make sure that the voltage of the outlet to which you are connecting this product is within the range stated on the decal or rear panel of the fixture.
- This product is for indoor use only! (IP20) To prevent risk of fire or shock, do not expose this fixture to rain or moisture.
- Always install this product in a location with adequate ventilation, at least 20 in (50 cm) from adjacent surfaces.
- Be sure that no ventilation slots on the unit's housing are blocked.
- Never connect this product to a dimmer pack.
- Make sure to replace the fuse with another of the same type and rating.
- Never carry this product from the power cord or any moving part. Always use the hanging/mounting bracket or the handles.
- The maximum ambient temperature (Ta) is 104° F (40° C). Do not operate this product at higher temperatures.
- In the event of a serious operating problem, stop using the unit immediately.
- Never try to repair this product. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center.



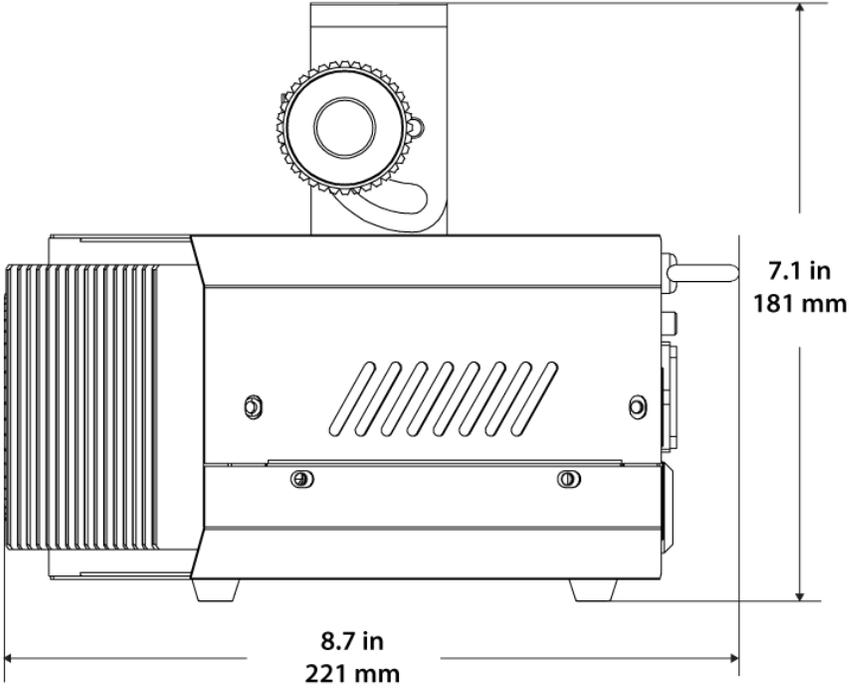
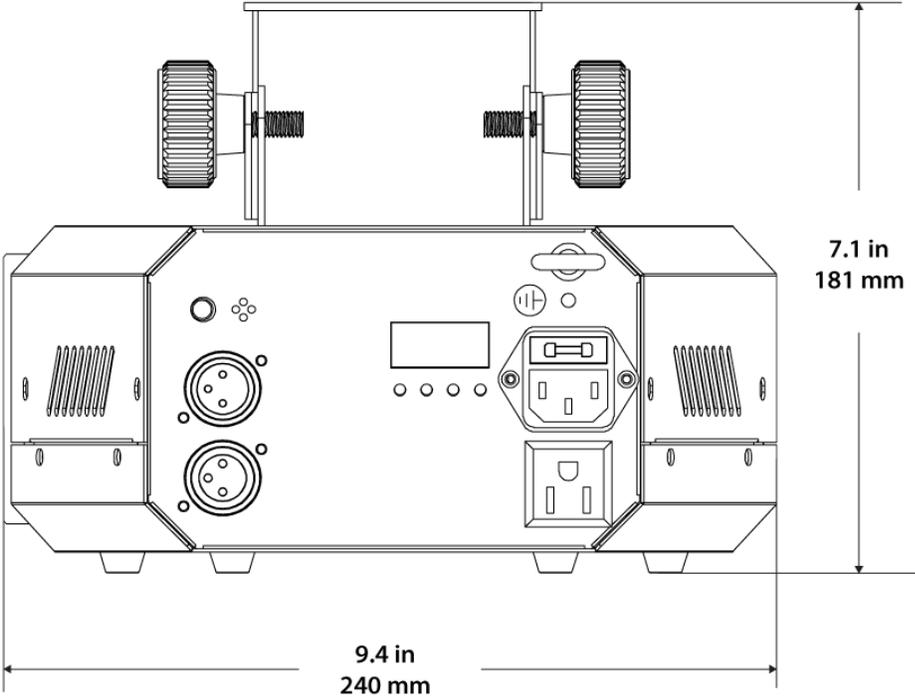
- Keep this User Manual for future consultation. If you sell this product to another user, be sure that they also receive this document.

2. INTRODUCTION

Product Overview



Product Dimensions



3. SETUP

AC Power This product has an auto-ranging power supply and it can work with an input voltage range of 100~240 VAC, 50/60 Hz.

To determine the power requirements for this product (circuit breaker, power outlet, and wiring), use the current value listed on the label affixed to the product's back panel, or refer to the product's specifications chart. The listed current rating indicates the product's average current draw under normal conditions.



Always connect this product to a protected circuit (circuit breaker or fuse), making sure that it has an appropriate electrical ground to avoid the risk of electrocution or fire.



Never connect this product to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel serves only as a 0 to 100% switch.

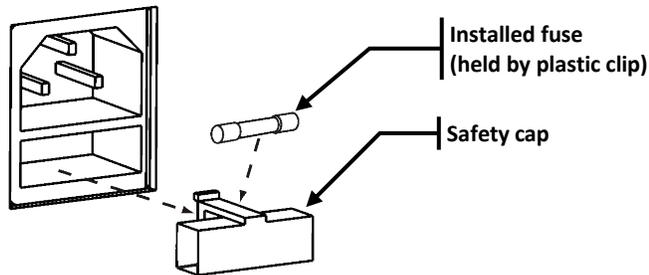
Fuse Replacement

This fixture uses an F 2 A, 250 V fuse. Follow the instructions below to change it in case it blows.



Disconnect this product from the power outlet before replacing the fuse.

- 1) Wedge the tip of a flat head screwdriver into the slot of the fuse holder and pry it out of its housing.
- 2) Remove the blown fuse from its holder and replace it with a fuse of the exact same type and rating.
- 3) Insert the fuse holder back into its place, and reconnect power.



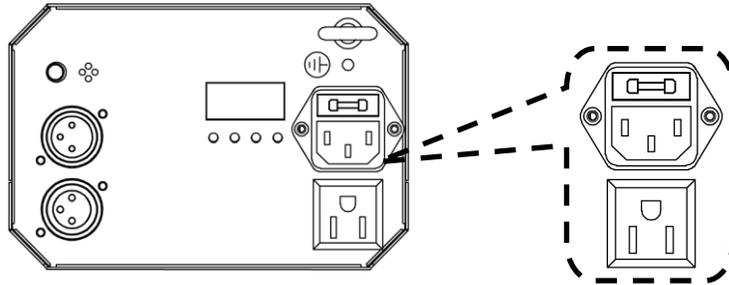
Although the safety cap does have room for a spare fuse, this product ships with no spare fuse.



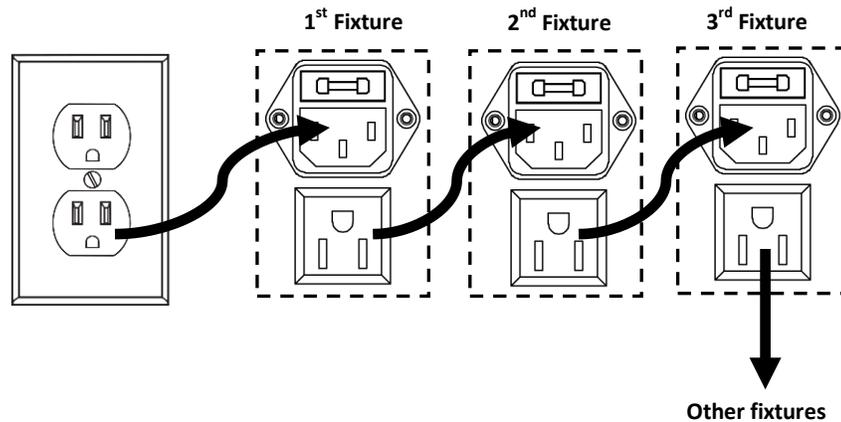
Always replace a blown fuse with a good fuse of the same type and rating.

Power Linking

This fixture provides power linking via the IEC outlet located in the back of the unit. Please see the diagram below for further explanation.



Power Linking Diagram



You can power link up to 24 DMF-10 units on 120 VAC or up to 44 DMF-10 units on 230 VAC.



The power linking diagram shown above corresponds to the North American version of this product ONLY! If using this product in other markets, you must consult with the local CHAUVET® distributor as power linking connectors and requirements may differ in your country or region.

Mounting

Before mounting this product, read and follow the safety recommendations indicated in the *Safety Notes* section (page 2 of this manual).

Orientation

The DMF-10 may be mounted in any position, provided there is adequate room for ventilation around it.

Rigging

Before deciding on a location for this product, always make sure that it will be easy to access the unit for maintenance and programming purposes.

Make sure that the structure onto which you are mounting this product can support its weight. Please see the *Technical Specifications* section of this manual for weight information.

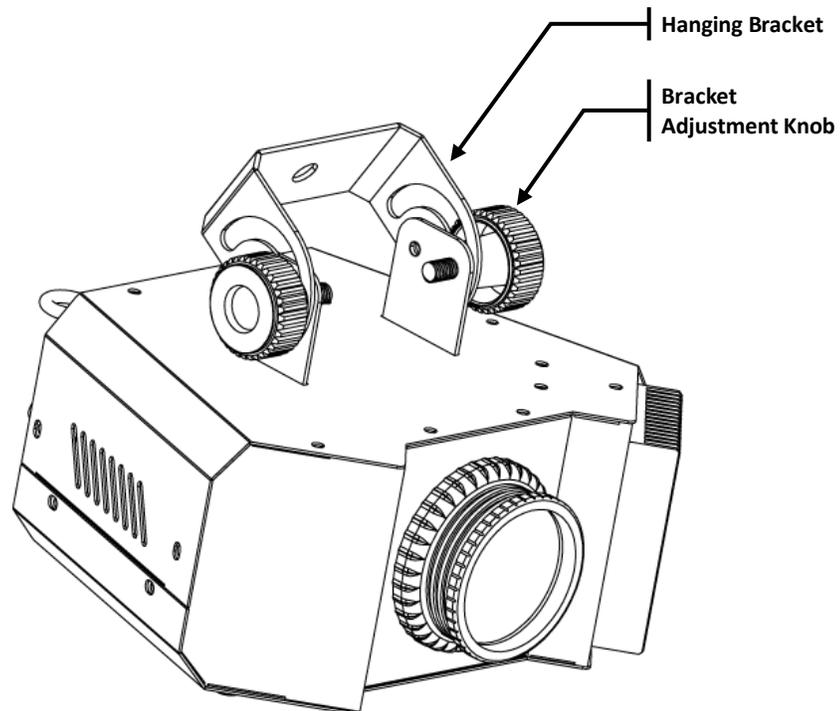
When mounting this product overhead, always use a safety cable. Mount the fixture securely to a rigging point, whether an elevated platform or a truss.

When rigging this product onto a truss, you should use a mounting clamp of appropriate weight capacity. The bracket has a 13 mm hole, which is appropriate for this purpose.

When power linking multiple fixtures, you must always consider the length of the power linking cable and mount the fixtures close enough for the cable to reach them.

The bracket adjustment knobs allow for directional adjustment when aiming the fixture/product to the desired angle. Only loosen or tighten the bracket knobs using your bare hands. Using tools could damage the knobs.

Mounting Diagram



4. OPERATION

Control Panel Operation

To access the control panel functions, use the four buttons located underneath the display. Please refer to the Product Overview (page 5) to see the buttons location on the control panel.

Button	Function
<MENU>	Press to find an operation mode or to back out of the current menu option
<UP>	Press to scroll up the list of options or to find a higher value
<DOWN>	Press to scroll down the list of options or to find a lower value
<ENTER>	Press to activate a menu option or a selected value

Menu Map

Mode	Programming Steps		Description
<i>DMX Mode</i>	<i>D001~512</i>	<i>512</i>	Selects the DMX starting address.
<i>Automatic Mode</i>	AUTO		Selects Automatic Mode.
<i>Sound Active Mode</i>	sUd		Selects Sound Active Mode.

Configuration (DMX)

Set this product in DMX mode to control it with a DMX controller.

- 1) Connect this product to a suitable power outlet.
- 2) Turn this product on.
- 3) Connect a DMX cable from the DMX output of the DMX controller to the DMX input socket of this product.

Starting Address

When selecting a starting DMX address, always consider the number of DMX channels the selected DMX mode uses. If you choose a starting address that is too high, you could restrict the access to some of the fixture's channels.

The DMF-10 uses up to 6 DMX channels in DMX mode, which defines the highest configurable address to 507.

If you are not familiar with the DMX protocol, you may refer to the *DMX Primer* section in the *Technical Information* chapter.

To select the starting address, do the following:

- 1) Press **<MENU>** repeatedly until **512** shows on the display.
- 2) Press **<ENTER>**.
- 3) Use **<UP>** or **<DOWN>** to select the starting address.
- 4) Press **<ENTER>**.

DMX Channel Assignments and Values

6-CH	Channel	Function	Value	Setting
	1	Red	000 ⇔ 255	Red (0-100%)
	2	Green	000 ⇔ 255	Green (0-100%)
	3	Blue	000 ⇔ 255	Blue (0-100%)
	4	White	000 ⇔ 255	White (0-100%)
	5	Strobe	000 ⇔ 009 010 ⇔ 255	No function Strobe effect with increasing speed
	6	Light Rotation/ Auto Programs	000 ⇔ 010 011 ⇔ 100 101 ⇔ 249 250 ⇔ 255	Static light Rotating light Auto programs Sound active mode

Configuration (Standalone)

Set this product in one of the standalone modes to control it without a DMX controller.

- 1) Connect this product to a suitable power outlet.
- 2) Turn this product on.



Never connect a fixture that is operating in any standalone mode, whether Static, Automatic, or Sound to a DMX string connected to a DMX controller. This is because fixtures in standalone mode may transmit DMX signals that could interfere with the DMX signals from the controller.

Sound Active Mode

To enable the Sound Active mode, do the following:

- 1) Press **<MENU>** repeatedly until **sUd** shows on the display.
- 2) Press **<ENTER>**.
- 3) Turn the music on and adjust the microphone sensitivity knob until the fixture starts reacting to the beat of the music.
- 4) Press **<ENTER>**.



The fixture will only respond to the low frequencies of the music (bass and drums).

Automatic Mode

To enable the Automatic Mode, follow the instructions below:

- 1) Press **<MENU>** repeatedly until **AUTO** shows on the display.
- 2) Press **<ENTER>**.

Master/Slave Mode

This mode allows a single DMF-10 unit (the “master”) to control the actions of one or more DMF-10 units (the “slaves”) without the need of a DMX controller. The master unit will be set to operate in either Automatic or Sound Active mode, while the slave units will be set to operate in Slave Mode. Once set and connected, the slave units will operate in unison with the master unit.

Configure the units as indicated below.

Slave units:

- 1) Press **<MENU>** repeatedly until **512** shows on the display.
- 2) Press **<ENTER>** to accept.
- 3) Set the DMX address to “001”, as previously explained.
- 5) Connect the DMX input of the first slave unit to the DMX output of the master unit.
- 6) Connect the DMX input of the subsequent slave units to the DMX output of the previous slave unit.
- 7) Finish setting and connecting all the slave units.

Master unit:

- 1) Set the master unit to operate in either Automatic or Sound mode, as previously indicated.
- 2) Make the master unit the first unit in the DMX daisy chain.



- **Configure all the slave units before connecting the master unit to the DMX daisy chain.**
- **Never connect a DMX controller to a DMX string configured for Master/Slave operation because it may interfere with the signals from the master unit.**
- **Do not connect more than 31 slave units to the master unit.**

5. TECHNICAL INFORMATION

Fixture Maintenance

Dust build up reduces light output performance and can cause overheating. This can lead to reduction of the light source's life and/or mechanical wear. To maintain optimum performance and minimize wear, you should clean your lighting fixtures at least twice a month. However, be aware that usage and environmental conditions could be contributing factors to increase the cleaning frequency.

To clean this fixture, follow the instructions below:

- Unplug the fixture from power.
- Wait until the fixture is cold.
- Use a vacuum (or dry compressed air) and a soft brush to remove dust collected on the external surface/vents.
- Clean the lens with a mild soap solution, ammonia-free glass cleaner, or isopropyl alcohol.
- Apply the solution directly to a soft, lint free cotton cloth or a lens cleaning tissue.
- Softly drag any dirt or grime to the outside of the lens.
- Gently polish the lens until it is free of haze and lint.



Always dry the lens carefully after cleaning it.

General Troubleshooting

Symptom	Possible Cause	Possible Action
Circuit breaker or fuse keeps blowing	<ul style="list-style-type: none"> Excessive load on the circuit 	<ul style="list-style-type: none"> Make sure that the total load does not exceed 80% of the breaker or fuse nominal current
	<ul style="list-style-type: none"> Short circuit along the power lines 	<ul style="list-style-type: none"> Check the power lines and power cords
Product does not power up	<ul style="list-style-type: none"> No energy on power outlet 	<ul style="list-style-type: none"> Check power outlet Change to another outlet
	<ul style="list-style-type: none"> Loose or damaged power cord 	<ul style="list-style-type: none"> Check the power cord
	<ul style="list-style-type: none"> Blown fuse 	<ul style="list-style-type: none"> Replace blown fuse with a good one of the same type and rating
	<ul style="list-style-type: none"> Internal problem 	<ul style="list-style-type: none"> Send product for repair
Fixture does not respond to DMX	<ul style="list-style-type: none"> Wrong starting address on the fixture 	<ul style="list-style-type: none"> Set the correct starting address on the fixture Use the right fader(s) on the controller
	<ul style="list-style-type: none"> Wrong DMX personality on the fixture 	<ul style="list-style-type: none"> Set the correct DMX fixture's personality Assign the faders accordingly
	<ul style="list-style-type: none"> Wrong polarity setting on the DMX controller 	<ul style="list-style-type: none"> Change the signal polarity on the controller
	<ul style="list-style-type: none"> Loose or damaged DMX cable 	<ul style="list-style-type: none"> Check the DMX cable before the faulty unit
	<ul style="list-style-type: none"> Internal problem 	<ul style="list-style-type: none"> Send product for repair
Intermittent DMX Problems	<ul style="list-style-type: none"> Signal cables are not DMX compatible 	<ul style="list-style-type: none"> Replace non DMX cables with true DMX cables
	<ul style="list-style-type: none"> Interference with AC or radio signals 	<ul style="list-style-type: none"> Keep DMX cables away from AC wires or radio equipment
	<ul style="list-style-type: none"> DMX cable too long 	<ul style="list-style-type: none"> Install an optically coupled DMX amplifier right before the fixture with intermittent problems
	<ul style="list-style-type: none"> Too many fixtures connected 	<ul style="list-style-type: none"> Install an optically coupled DMX amplifier after unit #32
	<ul style="list-style-type: none"> Terminator not connected 	<ul style="list-style-type: none"> Install a terminator, as indicated in the <i>DMX Primer</i> section.



If you still experience problems after trying the above solutions, contact CHAUVET® Technical Support.

Contact Procedure

In case you need to return a product or request support, follow the procedure below:

- If you live in the US, contact CHAUVET® World Headquarters (see below).
- If you live in the UK or Ireland, contact CHAUVET® Europe Ltd.(see below).
- If you live in any other country, DO NOT contact CHAUVET®. Instead, contact your distributor of record. Refer to our Web site for contact details of distributors outside the US, United Kingdom, or Ireland.

CHAUVET® Contact Information

World Headquarters

CHAUVET®

General Information

Address: 5200 NW 108th Avenue
Sunrise, FL 33351
Voice: (954) 929-1115
Fax: (954) 929-5560
Toll free: (800) 762-1084

Technical Support

Voice: (954) 929-1115 (Press 4)
Fax: (954) 756-8015
Email: tech@chauvetlighting.com

World Wide Web

www.chauvetlighting.com

United Kingdom & Ireland

CHAUVET® Europe Ltd.

General Information

Address: Unit 1C
Brookhill Road Industrial Estate
Pinxton, Nottingham, UK
NG16 6NT
Voice: +44 (0)1773 511115
Fax: +44 (0)1773 511110

Technical Support

Email: uktech@chauvetlighting.com

World Wide Web

www.chauvetlighting.co.uk



If you live outside the US, United Kingdom, or Ireland, contact your distributor of record and follow their instructions on how to return CHAUVET® products to them. Visit our Web site for contact details.

Returning Products to CHAUVET®

Call the corresponding CHAUVET® Tech Support office and request a Return Merchandise Authorization (RMA) number before shipping the fixture. Be prepared to provide the model number, serial number, and a brief description of the cause for the return.

You must send the merchandise prepaid, in its original box, and with its original packing and accessories. CHAUVET® will not issue call tags.

Clearly label the package with the RMA number. CHAUVET® will refuse any product returned without an RMA number.



DO NOT write the RMA number directly on the box. Instead, write it on a properly affixed label.

Before sending the product, clearly write the following information on a piece of paper and place it inside the box:

- Your name
- Your address
- Your phone number
- The RMA number
- A brief description of the problem

Be sure to pack the fixture properly. Any shipping damage resulting from inadequate packaging will be your responsibility. As a suggestion, proper UPS packing or double-boxing is always a safe method to use.



CHAUVET® reserves the right to use its own discretion to repair or replace returned product(s).

DMX Primer

The USITT DMX512-A data transmission protocol (DMX, from now on) is based on the EIA-485 standard and it has 512 channels (001 to 512). This system requires a controller (DMX controller), one or more DMX compatible fixtures, and a DMX circuit (also known as “DMX universe”) to link the fixtures to the controller.

Depending on their complexity and features, DMX compatible fixtures may require from one to more than 30 DMX channels to operate. Some DMX fixtures have multiple operation modes (also known as “personalities”), each with its own number of channels and controllable parameters.

Starting Address

In the DMX system, the controller sends DMX data to each fixture based on the fixture’s starting address. The starting address is the number of the DMX channel (001 to 512) assigned to the fixture’s first control channel (Channel 1). When assigning starting addresses to multiple fixtures, it is critical to ensure that no starting address is already in use by another fixture to prevent channels from overlapping. Otherwise, the affected fixtures may operate erratically.

For instance, a user has two DMX compatible fixtures. Fixture “A” has four channels and fixture “B” has six channels. If the user configures the starting address of fixture “A” to “001”, channels 001 through 004 on the DMX controller will control fixture “A”. This means that the user should assign the starting address of fixture “B” to “005” or higher. For a starting address of “005”, the DMX controller would use channels 005 to 010 to control fixture “B”.

It is possible to control multiple fixtures of the same type by assigning each one of them the same starting address. In this case, all the fixtures would respond in unison (synchronized) to the signals from the DMX controller.

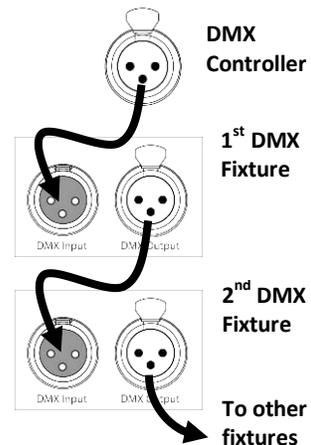
Fixture Linking (Daisy Chain)

DMX compatible fixtures receive the control signals from the DMX controller through the DMX cables. Each fixture has a DMX In and a DMX Out connector. The figure to the right illustrates how the fixtures link to each other using multiple segments of DMX cable in a sequential format called “daisy chain”.

The order in which the fixtures connect to the DMX controller is irrelevant because all fixtures receive the same DMX signals and they only respond to them based on their individual starting addresses. However, it is important to notice that the connections between fixtures should always be as short and direct as possible.

To ensure the integrity of the DMX signal, follow the recommendations of the EIA-485 standard:

- The maximum recommended cable length is 500 m (1,640 feet).
- The maximum recommended number of fixtures on the same daisy chain is 32.



Connecting more than 32 fixtures on one daisy chain without the use of a DMX optically-isolated splitter may result in deterioration of the digital DMX signal.

DMX Cabling

The DMX protocol requires using special data cables to accommodate for the high speed digital signals it uses. Despite their apparent similarities, data cables are electrically different from standard microphone cables because they can carry high frequency digital signals and have better protection against electromagnetic interference. You can purchase CHAUVET® certified DMX cables directly from a dealer/distributor or make your own DMX cable.

If you choose to make your own DMX cable, you must use a data-grade cable such as the Belden 9841, which has the following electrical characteristics:

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

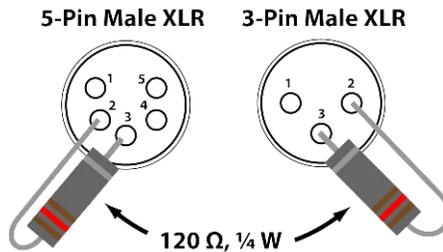
DMX Connectors

Each DMX cable must have a male XLR connector on one end and a female XLR connector on the other end. The DMX protocol indicates that the XLR connectors must have five pins. However, most lighting fixtures use the 3-pin XLR connector. The pin assignment of the 3-pin and 5-pin XLR connectors in a DMX cable is as follows:

Signal	Male Plug		Female Plug		
	3-Pin	5-Pin	5-Pin	3-Pin	Signal
Common	1	1	1	1	Common
Data -	2	2	2	2	Data -
Data +	3	3	3	3	Data +
Not used		4	4		Not used
Not used		5	5		Not used

You can use the above table to create a 3-pin/3-pin cable, a 5-pin/5-pin cable, or a 3-pin to 5-pin adapter.

The DMX daisy chain uses a terminator to reduce signal transmission problems, especially with long cables. The terminator consists of either a 3-pin or 5-pin XLR male plug with a 120 Ω, ¼ W resistor connected to the wire side of pins 2 and 3, as shown below.



The terminator plug connects to the DMX Out socket of the last DMX fixture in the daisy chain.



Do not allow the common wire of the DMX cable to touch the fixture's chassis ground. This could cause a ground loop, which may affect your fixtures' performance. Test all DMX cables with an ohmmeter to verify the correct polarity of the wires, and to make sure that they are not touching the shield or each other.

6. TECHNICAL SPECIFICATIONS

<i>Dimensions and Weight</i>	Length	Width	Height	Weight
	8.7 in (221 mm)	9.4 in (240 mm)	7 in (181 mm)	4.3 lbs (2 kg)

Note: Dimensions in inches rounded to the nearest decimal digit.

<i>Power</i>	Power Supply Type	Range	Voltage Selection
	Switching (internal)	100~240 V, 50/60 Hz	Auto-ranging

Parameter	120 V, 60 Hz	230 V, 50 Hz
Consumption	24 W	22 W
Operating current	0.3 A	0.2 A
Power linking current (units)	8 A (24 units)	8 A (44 units)
Fuse	F 2 A, 250 V	F 2 A, 250 V

Power I/O	US/Worldwide	UK/Europe
Power input connector	IEC	IEC
Power output connector	Edison	IEC
Power Cord plug	Edison (US)	Local plug

<i>Light Source</i>	Type	Power	Lifespan
	1 quad color LED	27 W	50,000 hours

Color	Quantity	Current
Red	1	2.2 A
Green	1	2.1 A
Blue	1	2.2 A
White	1	1.2 A

<i>Photo Optic</i>	Parameter	Value
	Coverage angle	33°

<i>Thermal</i>	Maximum External Temp.	Cooling System
	104° F (40° C)	Fan cooled

<i>DMX</i>	I/O Connectors	Connector Type	Channel Range
	3-pin XLR	Sockets	6

<i>Ordering</i>	Product Name	Item Code	Item Number
	DMF-10	03050398	DMF-10

