

# LEDsplash™2

## Snapshot

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

## USER MANUAL



Value • Innovation • Performance  
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# 1. BEFORE YOU BEGIN

## What is included

- 1 x LEDSplash™ 2
- Power Cord
- Warranty Card
- 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

This fixture has an auto-switching power supply that can accommodate a wide range of input voltages. The only thing necessary to do before powering on the unit is to make sure the line voltage you are applying is within the range of accepted voltages. This fixture will accommodate between 100V and 240V AC. 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.

## Contact Us

### World Wide

<b>General Information</b>	Chauvet Lighting 3000 North 29 <sup>th</sup> Court Hollywood, FL 33020 voice: 954.929.1115 fax: 954.929.5560 toll free: 800.762.1084
<b>Technical Support</b>	Chauvet Lighting 3000 North 29 <sup>th</sup> Court Hollywood, FL 33020 voice: 954.929.1115 <b>(Press 4)</b> fax: 954.929.5560 <b>(Attention: Service)</b>
<b>World Wide Web</b>	<a href="http://www.chauvetlighting.com">www.chauvetlighting.com</a>

## Safety Instructions



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

- Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.
- Always make sure that you are connecting to the proper voltage, and that the line voltage you are connecting to is not higher than that stated on the decal or rear panel of the fixture.
- 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 20in (50cm) from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Always disconnect from power source before servicing or replacing fuse and be sure to replace with same fuse size and type.
- Secure fixture to fastening device using a safety chain. Never carry the fixture solely by its head. Use its carrying handles.
- Maximum ambient temperature (Ta) is 104°F (40°C). Do not operate fixture at temperatures higher than this.
- In the event of a serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.
- 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.
- Do not daisy chain power to more than 8 units.

### **Caution!**

***There are no user serviceable parts inside the unit. Do not open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact CHAUVET at: 954-929-1115.***

# 2. INTRODUCTION

## Features

- 6-channel DMX-512 LED wash light
- Blackout/static/dimmer/strobe
- Static colors and RGB color mixing with or without DMX controller
- Built-in automated programs via master/slave or DMX
- Built-in sound activated programs via master/slave or DMX

## Additional Features

- High-power, 1W (350mA) LEDs
- Linkable with LED Shadow™, LED Shadow™ 2, LED Techno Strobe™, LED Techno Strobe™ RGB, LEDsplash™ 200B and LEDsplash™ 2 in stand alone

## DMX Channel Summary

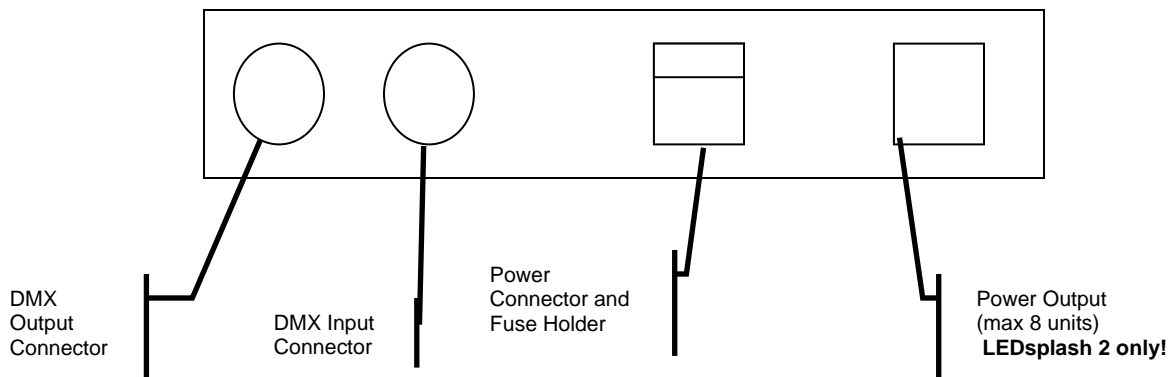
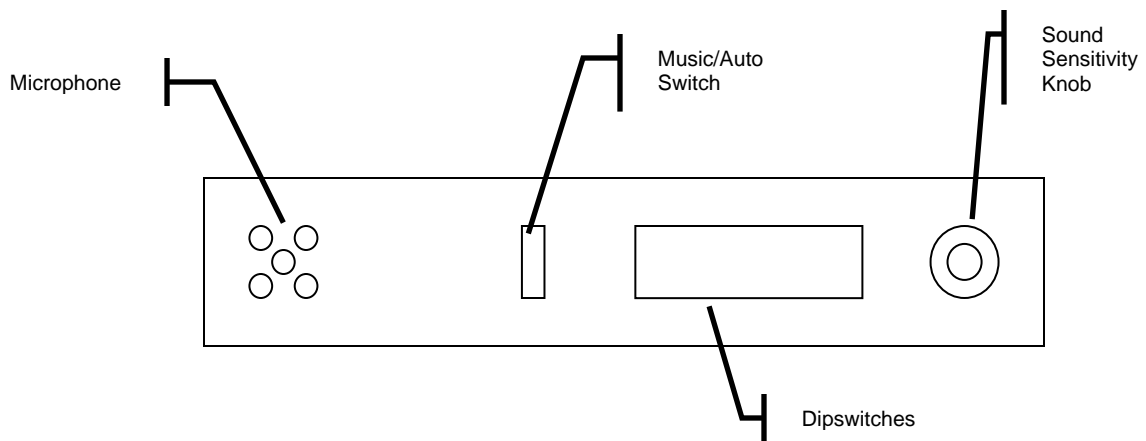
1		2	3	4	5	6
RGB	000-029	Red 000-255	Green 000-255	Blue 000-255	Strobe 000-255	Dimmer 000-255
Pulse	030-119 (Slow>Fast)	No Function				
Color Macros	120-149	Color Macro 000-255				
RGB Chase	150-179				Chase Speed 000-255	
Color Change	180-209				Program Speed 000-255	
Color Change w/ fade	210-239					
Sound	240-255					

For a detailed view of DMX values turn to the Appendix section in this manual. Control mode parameters are set by DMX values in Channel # 1.

# Product Overview



Mounting Bracket



# 3. SETUP



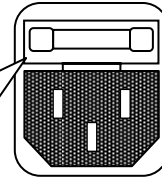
Disconnect the power cord before replacing a fuse and always replace with the same type fuse.



## 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.

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



## Fixture Linking

You will need a serial data link to run light shows of one or more fixtures using a DMX-512 controller or to run synchronized shows on two or more fixtures set to a master/slave operating mode. The combined number of channels required by all the fixtures on a serial data link determines the number of fixtures the data link can support.

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

Maximum recommended serial data link distance: 500 meters (1640 ft.)

Maximum recommended number of fixtures on a serial data link: 32 fixtures

## Data Cabling

To link fixtures together you must obtain data cables. You can purchase CHAUVET-certified DMX cables directly from a dealer/distributor or construct your own cable. If you choose to create your own cable please use data-grade cables that can carry a high quality signal and are less prone to electromagnetic interference.

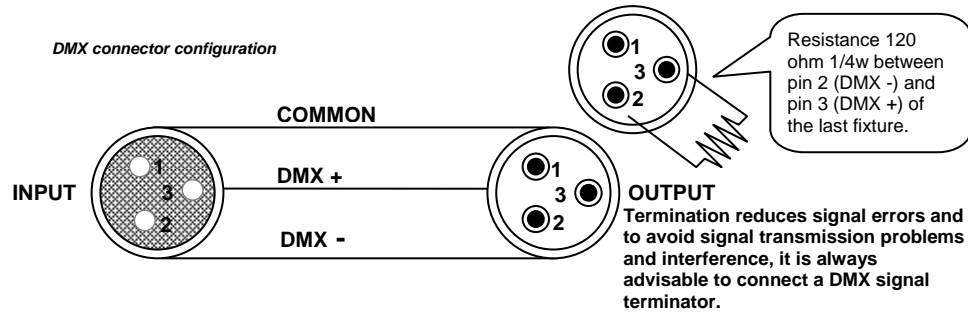
## DMX DATA CABLE

Use a Belden© 9841 or equivalent cable which meets the specifications for EIA RS-485 applications. Standard microphone cables cannot transmit DMX data reliably over long distances. The cable will have the following characteristics:

*2-conductor twisted pair plus a shield*  
*Maximum capacitance between conductors – 30 pF/ft.*  
*Maximum capacitance between conductor and shield – 55 pF/ft.*  
*Maximum resistance of 20 ohms / 1000 ft.*  
*Nominal impedance 100 – 140 ohms*

## CABLE CONNECTORS

Cabling must have a male XLR connector on one end and a female XLR connector on the other end.



**CAUTION** Do not allow contact between the common and the fixture's chassis ground. Grounding the common can cause a ground loop, and your fixture may perform erratically. Test cables with an ohm meter to verify correct polarity and to make sure the pins are not grounded or shorted to the shield or each other.

## 3-PIN TO 5-PIN CONVERSION CHART

**Note!** If you use a controller with a 5 pin DMX output connector, you will need to use a 5 pin to 3 pin adapter. CHAUVET Model No: DMX5M, or DMX5F. The chart below details a proper cable conversion:

### 3 PIN TO 5 PIN CONVERSION CHART

Conductor	3 Pin Female (output)	5 Pin Male (Input)
Ground/Shield	Pin 1	Pin 1
Data ( - ) signal	Pin 2	Pin 2
Data ( + ) signal	Pin 3	Pin 3
Do not use		Do not use
Do not use		Do not use

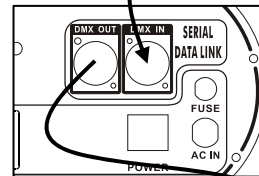
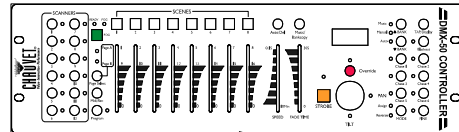
## Setting up a DMX Serial Data Link

1. Connect the (male) 3 pin connector side of the of the controller.
2. Connect the end of the cable coming from the to the input connector of the next fixture consis
3. Then, proceed to connect from the output as si so on.

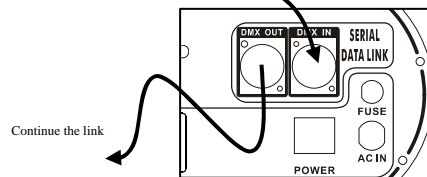
### CHAUVET Certified DMX Data Cables

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

### Universal DMX Controller



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





## Master/Slave Fixture Linking

1. Connect the (male) 3 pin connector side of the DMX cable to the output (female) 3 pin connector of the first fixture.
2. Connect the end of the cable coming from the first fixture which will have a (female) 3 pin connector to the input connector of the next fixture consisting of a (male) 3 pin connector. Then, proceed to connect from the output as stated above to the input of the following fixture and so on.

Often, the setup for Master-Slave and Standalone operation requires that the first fixture in the chain be initialized for this purpose via either settings in the control panel or DIP-switches. Secondly, the fixtures that follow may also require a slave setting. Please consult the "Operating Instructions" section in this manual for complete instructions for this type of setup and configuration.



## Mounting

### ORIENTATION

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

### RIGGING

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 by 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 should always be used.
- Never mount in places where the fixture will be exposed to rain, high humidity, extreme temperature changes or restricted ventilation.

*Hanging Clamp*



Note!  
Clamp is sold separately.

# 4. OPERATING INSTRUCTIONS

## Operation

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

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 all dipswitches on the unit to the "Off" position and the unit will run its built in color change program.

#### **OPTIONS**

- Set Music/Auto switch to Music and for sound-activated triggering of the program
- Set Music/Auto switch to Auto then use the rotary dial to adjust speed of the program
- See below under **Dipswitch Options** for additional program settings

### Master/Slave Mode (Master Sound, Master Auto):

The Master/Slave mode will allow you to link up to as many units you want in a daisy chain fashion. In this mode, the first unit in the daisy chain will automatically command all other units following.

1. Connect all LEDsplash™2 units in a daisy chain fashion as described in the section following.
2. Dipswitch settings on slave fixtures are not required and will have no affect.
3. Set all dipswitches on the Master unit to the "Off" position and the unit will run its built in color change program.

#### **OPTIONS**

- Set Music/Auto switch to Music and for sound-activated triggering of the program
- Set Music/Auto switch to Auto then use the rotary dial to adjust speed of the program
- See below under **Dipswitch Options** for additional program settings

## DIPSWITCH OPTIONS

FUNCTIONS	DIPSWITCHES ( ON )	NOTES & DESCRIPTION
Color change program	None	<b>Music/Auto switch</b> Music: Sound Activated, Rotary knob sets sound sensitivity Auto: Rotary knob sets speed of program
Red LEDs	1	Low Intensity
	2	Medium Intensity
	3	Full Intensity
Green LEDs	4	Low Intensity
	5	Medium Intensity
	6	Full Intensity
Blue LEDs	7	Low Intensity
	8	Medium Intensity
	9	Full Intensity
"User Color"	Any combination of Red, Green and Blue LED intensity to create custom color.	For example Dipswitch 9 and 3 ON creates a Pink color

## DMX Mode

This mode allows the unit to be controlled by any universal DMX controller. If you are unfamiliar with DMX, please read the DMX Primer on page 15.

- 1) A working DMX-512 signal source plugged into the LEDsplash™ 2 activates the DMX mode.

## DMX Channel Values

### NOTE!

**Please read all instructions carefully on fixture DMX control mode and addressing.**

DMX channels 2, 3, 4, 5 and 6 functions are determined by the current settings of channel 1. For example, while Channel 1 is set between 000 and 029 the following conditions will apply;

- i. Channel 2 will control the Red LEDs
- ii. Channel 3 will control the Green LEDs
- iii. Channel 4 will control the Blue LEDs
- iv. Channel 5 will control Strobing
- v. Channel 6 will control the Dimmer

CHANNEL	VALUE	FUNCTION	CH 2	CH 3	CH 4	CH 5	CH 6
1	000 ⇔ 029	RGB Control Mode	Red 000 ⇔ 255	Green 000 ⇔ 255	Blue 000 ⇔ 255	Strobe 000 ⇔ 255	Dimmer 000 ⇔ 255
	030 ⇔ 059 060 ⇔ 119	Pulse Strobe Pulse ( 0 <-> 100% ) Pulse ( 100 <-> 0% )				Speed 000 ⇔ 255	
	120 ⇔ 149	Color Macro Color Macros	See Table 1.1				
	150 ⇔ 179	R,G,B Chase RGB Chase pattern				Speed 000 ⇔ 255	
	180 ⇔ 209	Automatic Color Change					
	210 ⇔ 239	Automatic (Fade) Color Change w fade					
	240 ⇔ 255	Sound Activated Music/Auto switch must be set to Music					

Table 1.1

MODE	CH 2	DESCRIPTION
Color Macro	000 ⇔ 016	Red
	017 ⇔ 056	Red ( Full ) Green: ( 0% - 100% )
Ch 1 120 ⇔ 149	057 ⇔ 094	Green (Full) Red: ( 100% - 0% )
	095 ⇔ 096	Green
	097 ⇔ 136	Green ( Full ) Blue: ( 0% - 100% )
	137 ⇔ 174	Blue ( Full ) Green: ( 100% - 0% )
	175 ⇔ 176	Blue
	177 ⇔ 216	Blue ( Full ) Red: ( 0% - 100% )
	217 ⇔ 255	Blue ( Full ) Red ( Full ) Green: ( 0% - 100% )

**Music/Auto Switch**

**Note!** Regardless of DMX controller operated use, when the LEDsplash 2 is set to run in Sound Activated mode, you should make sure that all units are properly switched to Music and that you have adjusted the rotary dial to optimize the sound level response of the unit.

SWITC	ROTARY FUNCTION
AUTO	Adjusts speed of built in program
MUSIC	Adjusts sound sensitivity of built in Mic.

## 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.	✓	✓	✓	✓
Moves slow	Check 220/110v switch for proper setting	✓			
No flash	Re-install bulb, may have shifted in shipping	✓			
No laser output	Bounce mirror motor may have shifted during shipping, readjust	✓			
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	✓			

**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.  
3000 N 29th Ct, Hollywood, FL 33020 (U.S.A.)  
Support (Email): [tech@chauvetlighting.com](mailto:tech@chauvetlighting.com)  
Telephone: (954) 929-1115 - (Press 4)  
Fax: (954) 929-5560 - (Attention: Service)  
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. 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

Length..... 9.5 in (241 mm)  
Width ..... 9 in (229 mm)  
Height ..... 6.8 in (171 mm)  
Weight ..... 4.7 lbs (2.1 kg)

## POWER

Autoswitching Power Supply ..... 100V – 240V 50/60Hz  
Fuse..... 20mm Glass 2A 250V Fast Blow  
Power Consumption at 120V 60Hz ..... 19W (0.3A) operating  
Inrush Power ..... 1.4A  
Power Factor ..... 0.63

## LIGHT SOURCE

LED..... 24 (8 red, 8 green, 8 blue) 50,000hrs

## PHOTO OPTIC

Beam Angle ..... 11.8°  
Field Angle..... 22°  
Illuminance at 1m ..... 5,627 lux

## THERMAL

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

## 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 ..... 6

## ORDERING INFORMATION

LEDsplatsh 2..... LED-SPLASH2

## WARRANTY INFORMATION

Warranty ..... 2-year limited warranty