

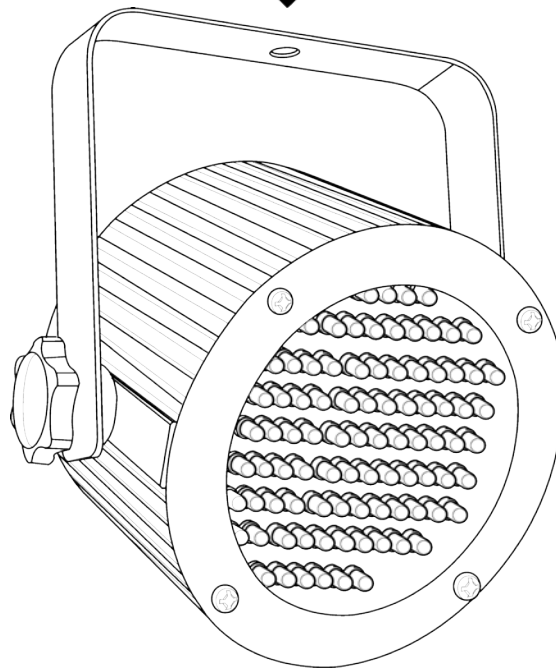
# LEDsplash™ 86B

*It's Green Thinking*

## Snapshot

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

## User Manual



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# 1. BEFORE YOU BEGIN

## What is Included

- 1 x LEDsplash™ 86B
- 1 x Warranty Card
- 1 x 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.




## Manual Conventions

CHAUVET® manuals use the following conventions to differentiate certain types of information from the regular text.

CONVENTION	MEANING
[10]	A DIP switch to be configured
<Menu>	A key to be pressed on the fixture's control panel
1~512	A range of values
50/60	A set of values of which only one can be chosen
<b>Settings</b>	A menu option not to be modified (for example, showing the operating mode/current status)
<b>MENU &gt; Settings</b>	A sequence of menu options to be followed
<b>ON</b>	A value to be entered or selected

## Icons

This manual uses the following icons to indicate information that requires special attention on the part of the user.

ICONS	MEANING
	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.
	Important installation or configuration information. Failure to comply with this information may prevent the fixture from functioning correctly.
	Useful non-critical information.

## Safety Instructions



Read these instructions carefully. They contain important information about the installation, usage, and maintenance of this product.

- Please keep this User Manual 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 in (50 cm) 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 source.
- Secure fixture to fastening device using a safety chain.
- 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.
- Never 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.
- Never carry the fixture directly from the cord. Always use the hanging/mounting bracket.
- Avoid direct eye exposure to the light source while it is on.

# 2. INTRODUCTION

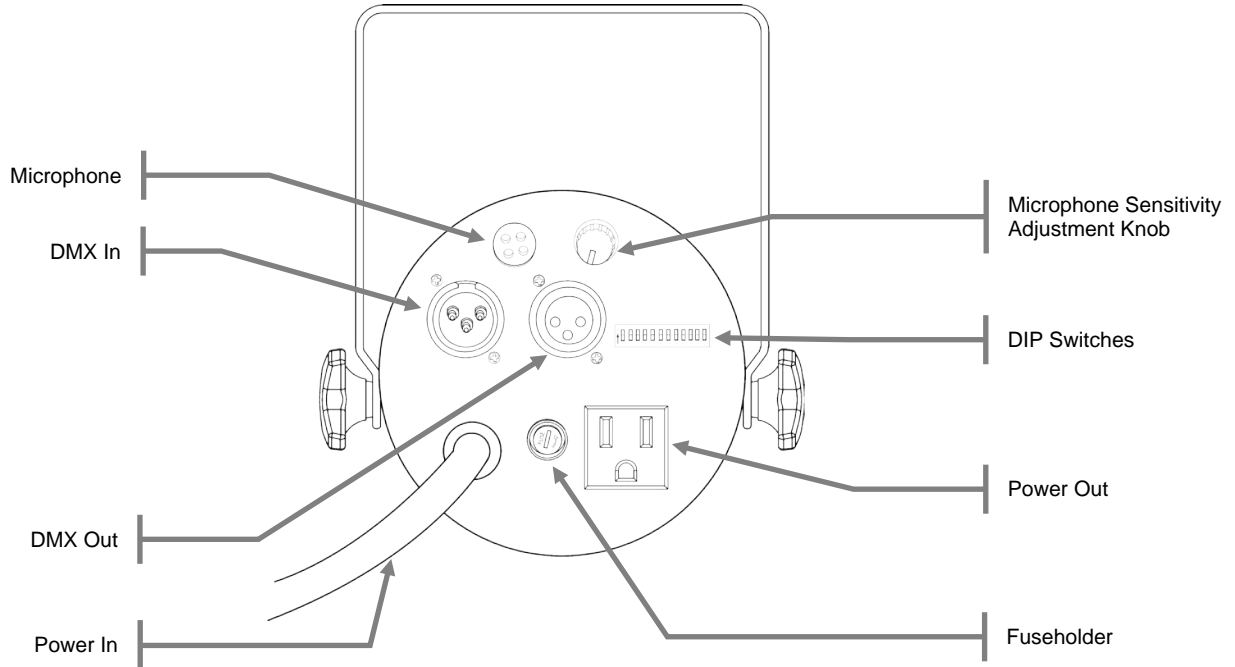
## Features

- 3 or 7-channel DMX-512 LED PAR can
- Operating modes:
  - 3-channel: RGB control
  - 7-channel: RGB, macros, run/strobe speed, automatic/sound, dimmer
- Static colors and RGB color mixing with or without DMX controller
- Built-in automated programs via master/slave or DMX with variable speed
- Built-in sound activated programs via master/slave or DMX
- Pulse effect with adjustable speed

## Additional Features

- Additional power output: max 37 units
- Double-bracket yoke doubles as floor stand

## Product Overview



# 3. SETUP

## AC Power

This fixture runs on 100~240 VAC, 50/60 Hz. Before powering on the unit, make sure the line voltage to which you are connecting it is within the range of accepted voltages.



***Always connect the fixture to a switched circuit. Never connect the fixture to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used only as a 0 to 100% switch.***

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 indicates its average current draw under normal conditions.



***Always connect the fixture to a circuit with a suitable electrical ground.***

## Power Linking

This fixture contains power linking via the Edison outlet located in front of the power input cable. Please see the diagram below for further explanation.



**The maximum quantity of fixtures that may be linked is 37.**



***The power linking in this document is for the Chauvet® North American version ONLY! Therefore, it is the customer's responsibility to check with the Dealer/Distributor regarding power linking on the local version of the product. Connections and availability may change, depending on the power requirements and/or regulations of each country/region.***

## Mounting

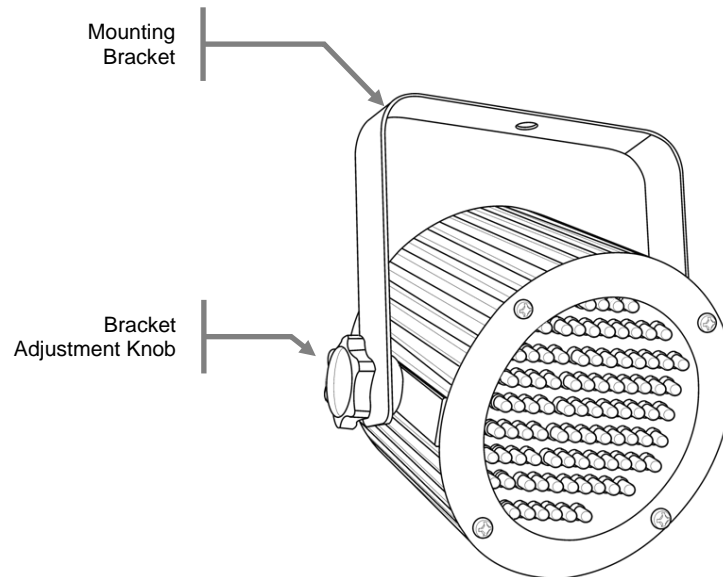
### Orientation

The LEDsplash™ 86B may be mounted in any safe position, provided there is adequate room for ventilation.

### Rigging

Be sure that the structure can support the weight of the fixture. Please see the "Technical Specifications" section of this manual for a detailed weight listing. Mount the fixture securely. This may be done with a screw, nut and bolt, or a hanging clamp. The hole in each bracket is 13 mm in size. When rigging consider routine maintenance and control panel access. Please see the following steps for installation.

- If the power link out is intended to be used with multiple fixture, take into account the length of each power cable, and mount the fixtures close enough to one another to accommodate for this.
- When aiming the fixtures, you may use the bracket adjustment knob. Loosen the knob, adjust to the desired angle, and then tighten the knob by turning clockwise. Do not use tools for this step, as it may cause damage.
- Safety cables must always be used.



# 4. OPERATING INSTRUCTIONS

## Configuring the Starting Address

Each fixture requires a starting address from 1–512. A fixture requiring one or more channels for control begins to read the data on the channel indicated by the starting address. For example, a fixture that uses seven DMX channels and is addressed to start on DMX channel 100, will read data from channels: 100, 101, 102, 103, 104, 105 and 106. Choose the starting addresses for each fixture so that the channels used do not overlap. In addition, you should note the starting address selected for future reference. If you are unfamiliar with DMX, download the DMX Primer from [www.chauvetlighting.com](http://www.chauvetlighting.com). The LEDsplash™ 86B fixture uses seven or three DMX channels. If this is your first time using DMX, we recommend reading the “DMX Primer” section in the “Appendix”.

## DMX Operation

This is the operating mode which will allow for control with an external DMX controller. You must set the starting address for this mode. If this is your first time using DMX, then it is recommended that you refer to the “DMX Primer” section in the “Appendix” of this manual.

Mode	DIP switches
DMX	1–9 = set to the DMX starting address 10 = Off

## Accessing the 2 Personalities

There are two personalities for this fixture. There is the standard 7-channel personality with strobe and color macros, and then there is the basic 3-channel RGB personality. Please see the DIP switch settings to access each of these personalities below.

Mode	DIP switches
7-CH	11-12 = Off
3-CH	11 = On

## Master/Slave Mode (Sound-Active, Auto Mode, Static Colors)

This mode allows a single unit to run a standalone program, while 1 or more other units follow the same operation. This requires the fixtures to be linked with DMX cables. Please see the section on *Fixture Linking*.

- 1) The Master unit may be operated in **Automatic**, **Sound-Active**, and **Static Colors**.
- 2) Adjust the DIP switches to the Slave position on the slave units, and they will react the same as the Master. See below for DIP switch assignment.

Mode	DIP switches
Slave	2–11 = Off 1 = On

## Strobe Speed

This fixture has a strobe speed adjustment which will decrease the maximum speed. Please see the setting below for lowering the strobe rate for compatibility mode.

Mode	DIP switches
Standard mode	
6 Hz–18 Hz:	12 = On
Decreased Speed	
2 Hz–6 Hz:	12 = Off

## Standalone Operation

### Automatic

This fixture has a preprogrammed color fade program. This is accessed via the DIP switches on the back of the fixture, and the speed may be increased, as well. Please see the chart below for further explanation.

Mode	DIP switches
Master Auto	7, 9, 10 = On
Increase Speed	1–6 = On (add more DIP switches to reach higher speed)



## Sound-Active

This fixture has preprogrammed sound triggered chases. These are accessed via the DIP switches on the back of the fixture, and the sensitivity may be adjusted using the audio adjustment knob. Please see the chart below for further explanation.

Mode	DIP switches
Master Sound	10 = On

## Static Colors

This unit has separate DIP switches for each of the 3 colors (red, green, and blue). These are accessed via the DIP switches on the back of the fixture. Each of the 3 colors may be mixed with different intensities. Please see the chart below for further explanation.

Mode	DIP switches
Master Static	8, 9, 10 = On
Static (Red)	1-2 = On
Static (Green)	3-4 = On
Static (Blue)	5-6 = On

## DMX Channel Values

### 7-CH Mode

CHANNEL	VALUE	FUNCTION
1	000 ⇔ 255	<b>Red</b> Dimmer: 0%~100%
2	000 ⇔ 255	<b>Green</b> Dimmer: 0%~100%
3	000 ⇔ 255	<b>Blue</b> Dimmer: 0%~100%
4	000 ⇔ 015 016 ⇔ 255	<b>Color Macros (overrides CH.1-3)</b> No Function Color Macros
5	000 ⇔ 255	<b>Speed (CH.6 @ values 32~223)</b> Slow~Fast
	000 ⇔ 015 016 ⇔ 255	<b>Strobe (RGB &amp; Macro only)</b> No Function Slow~Fast
6	000 ⇔ 031 032 ⇔ 063 064 ⇔ 095 096 ⇔ 127 128 ⇔ 159 160 ⇔ 191 192 ⇔ 223 224 ⇔ 255	<b>Mode</b> RGB mode Pulse effect 0%~100% (using RGB faders) Pulse effect 100%~0% (using RGB faders) Pulse effect 100%~0%~100% (using RGB faders) Auto fade transition Auto snap transition (3 colors) Auto snap transition (7 colors) Sound triggering mode
7	000 ⇔ 255	<b>Dimmer</b> Intensity (RGB/Macro modes): 0%~100%

When CH.6 is set @ 032~223, CH.5 controls the speed.

### 3-CH Mode

CHANNEL	VALUE	FUNCTION
1	000 ⇔ 255	<b>Red</b> Dimmer: 0%~100%
2	000 ⇔ 255	<b>Green</b> Dimmer: 0%~100%
3	000 ⇔ 255	<b>Blue</b> Dimmer: 0%~100%

# 5. APPENDIX

## 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.
- 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 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 surroundings can cause greater accumulation of dirt on the unit's optics. Clean with soft cloth using normal glass cleaning fluid. Clean the external optics at least every 20 days. Clean the fixture at least every 30/60 days.



***Always dry the parts carefully after cleaning them.***



***Never spin a fan using compressed air.***

## 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. 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.

## Fixture Linking

You will need a serial data link to run light shows of one or more fixtures using a DMX 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.



***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 fixtures 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 m (1640 ft)*

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

## General Troubleshooting

SYMPTOM	POSSIBLE CAUSE(S)	POSSIBLE ACTION(S)
Breaker/Fuse keeps blowing	Excessive circuit load Short circuit along the power wires	Check total load placed on the electrical circuit. Check for a short in the electrical wiring (internal and/or external)
Device does not power up	No power Loose power cord	Check for power on power outlet Check power cord
Fixture is not responding to DMX	Wrong DMX addressing Damaged DMX cables Wrong polarity settings on the controller Loose DMX cables Faulty DMX interface Faulty Main PCB	Check Control Panel and unit addressing Check DMX cables Check polarity switch settings on the controller Check cable connections Replace DMX input Replace Main PCB
Loss of signal	Non DMX cables Bouncing signals Long cable / Low level signal Too many fixtures Interference from AC wires	Use only DMX compatible cables Install terminator as suggested Install amplifier right after fixture with strong signal Install an optically coupled DMX splitter after unit #32 Keep DMX cables separated from power cables or black lights



**If you still have a problem after trying the above solutions, please contact CHAUVET® Technical Support.**

## Return 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 Merchandize Authorization Number (RMA #). Products returned without the RMA # will be refused.

Call CHAUVET® and request an RMA # 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 pack fixture properly; any shipping damage resulting from inadequate packaging is the customer's responsibility. FedEx packing or double-boxing are recommended.

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



**If you are given an RMA #, 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 RMA #
- 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..... 4.9 in (124 mm)  
Width..... 6 in (153 mm)  
Height..... 6.8 in (173 mm)  
Weight..... 1.8 lbs (0.8 kg)

## POWER

Auto-ranging power supply..... 100~240 VAC, 50/60 Hz  
Power consumption @ 120 VAC, 60 Hz..... 9 W (0.2 A) max, 0.2 A inrush  
Power consumption @ 230 VAC, 50 Hz..... 5 W (0.1 A) max, 0.1 A inrush  
Power output..... 37 units max  
Fuse..... F 1 A, 250 V

## LIGHT SOURCE

LED..... 86 x 5 mm (44 red, 21 green, 21 blue) 100,000 hrs

## PHOTO OPTIC

Luminance @ 1 m..... 530 lux  
Beam Angle..... 19°  
Field Angle..... 36°

## THERMAL

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

## ORDERING INFORMATION

LEDsplash™ 86B..... LEDSPASH86B

## WARRANTY INFORMATION

Warranty..... 2-year limited warranty

# Contact Us

## World Wide

### General Information

CHAUVET® Lighting  
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### World Wide Web

[www.chauvetlighting.com](http://www.chauvetlighting.com)