

American DJ<sup>®</sup>



# FUSION FX BAR 4



## User Instructions

American DJ<sup>®</sup>  
6122 S. Eastern Ave.  
Los Angeles Ca. 90040  
www.americandj.com

### Fusion FX Bar 4

### Introduction

**Unpacking:** Thank you for purchasing the Fusion FX Bar 4 by American DJ<sup>®</sup>. Every Fusion FX Bar 4 has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect your fixture for any damage and be sure all accessories necessary to operate the unit has arrived intact. In the case damage has been found or parts are missing, please contact our toll free customer support number for further instructions. Do not return this unit to your dealer without first contacting customer support.

**Introduction:** The Fusion FX Bar 4 is part of American DJ's continuing pursuit for creating high quality affordable intelligent fixtures. The Fusion FX Bar 4 is a DMX intelligent LED display fixture. This fixture is a great piece for retail stores, displays, mood, architectural, interior and exterior decoration, and clubs. This unit can be used as a stand alone, or in a Master/Slave configuration. The unit can also be controlled via DMX controller.

**Customer Support:** American DJ<sup>®</sup> provides a toll free customer support line, to provide set up help and to answer any question should you encounter problems during your set up or initial operation. You may also visit us on the web at [www.americandj.com](http://www.americandj.com) for any comments or suggestions. Service Hours are Monday through Friday 9:00 a.m. to 5:00 p.m. Pacific Standard Time.

Voice: (800) 322-6337

Fax: (323) 582-2941

E-mail: [support@americandj.com](mailto:support@americandj.com)

To purchase parts online visit <http://parts.americandj.com>

**Warning!** To prevent or reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.

**Caution!** There are no user serviceable parts inside this unit. Do not attempt any repairs yourself, doing so will void your manufactures warranty. In the unlikely event your unit may require service please contact American DJ<sup>®</sup>.

**PLEASE recycle the shipping carton when ever possible.**

## Fusion FX Bar 4

## General Instructions

To optimize the performance of this product, please read these operating instructions carefully to familiarize yourself with the basic operations of this unit. These instructions contain important safety information regarding the use and maintenance of this unit. Please keep this manual with the unit, for future reference.

## Fusion FX Bar 4

## Features

- White LED Wash/Strobe Effect, 1 TRI Color LED Moonflower, & 1 Green Laser
- Electronic Dimming 0-100%
- Built in Microphone
- DMX-512 protocol
- Six DMX Modes
- Six Show Modes, 1 Radom Show Mode
- 3 Operating Modes - Sound Active, Show Mode, or DMX Control
- UC3 Remote Control Compatiable (Not Included)
- Power Cord Daisy Chaining

## Fusion FX Bar 4

## Warranty Registration

The Fusion FX Bar 4 carries a 3 year (1095 days) limited warranty. Please fill out the enclosed warranty card to validate your purchase and warranty. You may also register your product online at [www.americandj.com](http://www.americandj.com). All returned service items whether under warranty or not, must be freight pre-paid and accompany a return authorization (R.A.) number. If the unit is under warranty you must provide a copy of your proof of purchase invoice. Please contact American DJ® customer support for a R.A. number.

## Fusion FX Bar 4

## Safety Precautions

- To reduce the risk of electrical shock or fire, do not expose this unit rain or moisture
- Do not spill water or other liquids into or on to your unit.
- Be sure that the local power outlet match that of the required voltage for your unit.
- Do not attempt to operate this unit if the power cord has been frayed or broken. Do not attempt to remove or break off the ground prong from the electrical cord. This prong is used to reduce the risk of electrical shock and fire in case of an internal short.
- Disconnect from main power before making any type of connection.
- Do not remove the cover under any conditions. There are no user serviceable parts inside.
- Never operate this unit when it's cover is removed.
- Never plug this unit in to a dimmer pack
- Always be sure to mount this unit in an area that will allow proper ventilation. Allow about 6" (15cm) between this device and a wall.
- Do not attempt to operate this unit, if it becomes damaged.
- This unit is intended for indoor use only, use of this product outdoors voids all warranties.
- During long periods of non-use, disconnect the unit's main power.
- Always mount this unit in safe and stable matter.
- Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to the point they exit from the unit.
- Cleaning -The fixture should be cleaned only as recommended by the manufacturer. See page 14 for cleaning details.
- Heat -The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
- The fixture should be serviced by qualified service personnel when:
  - A. The power-supply cord or the plug has been damaged.
  - B. Objects have fallen, or liquid has been spilled into the appliance.
  - C. The appliance has been exposed to rain or water.
  - D. The appliance does not appear to operate normally or exhibits a marked change in performance.

**Power Supply:** Before plugging your unit in, be sure the source voltage in your area matches the required voltage for your American DJ® Fusion FX Bar 4. The American DJ® Fusion FX Bar 4 is available in a 120v and 220v version. Because line voltage may vary from venue to venue, you should be sure your unit voltages matches the wall outlet voltage before attempting to operate you fixture.

**DMX-512:** DMX is short for Digital Multiplex. This is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions from the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA “IN” and DATA “OUT” XLR terminals located on all DMX fixtures (most controllers only have a DATA “OUT” terminal).

**DMX Linking:** DMX is a language allowing all makes and models of different manufactures to be linked together and operate from a single controller, as long as all fixtures and the controller are DMX compliant. To ensure proper DMX data transmission, when using several DMX fixtures try to use the shortest cable path possible. The order in which fixtures are connected in a DMX line does not influence the DMX addressing. For example; a fixture assigned a DMX address of 1 may be placed anywhere in a DMX line, at the beginning, at the end, or anywhere in the middle. When a fixture is assigned a DMX address of 1, the DMX controller knows to send DATA assigned to address 1 to that unit, no matter where it is located in the DMX chain.

**Data Cable (DMX Cable) Requirements (For DMX Operation):**

The Fusion FX Bar 4 is a six channel DMX unit. The DMX address is set on the rear panel of the Fusion FX Bar 4. Your unit and your DMX controller require a approved DMX-512 110 Ohm Data cable for data input and data output. We recommend Accu-Cable DMX cables. If you are making your own cables, be sure to use standard 110-120 Ohm shielded cable (This cable may be purchased at almost all professional sound and lighting stores). Your cables should be made with a male and female XLR connector on either end of the cable. Also remember that DMX cable must be daisy chained and cannot be split.



Figure 1

**Notice:** Be sure to follow figures two and three when making your own cables. Do not use the ground lug on the XLR connector. Do not connect the cable’s shield conductor to the ground lug or allow the shield conductor to come in contact with the XLR’s outer casing. Grounding the shield could cause a short circuit and erratic behavior.

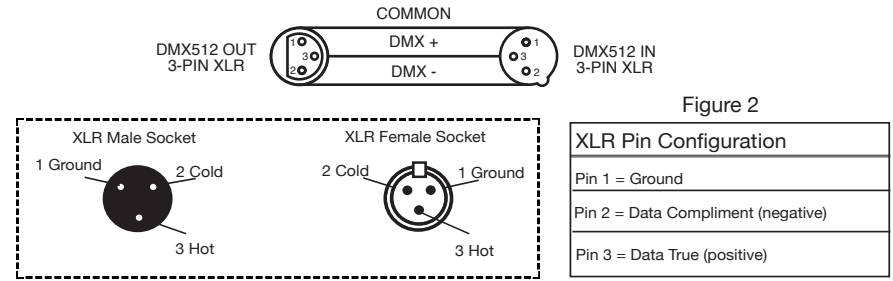


Figure 3

**Special Note: Line Termination.** When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behavior. A terminator is a 110-120 ohm 1/4 watt resistor which is connected between pins 2 and 3 of a male XLR connector (DATA + and DATA -). This unit is inserted in the female XLR connector of the last unit in your daisy chain to terminate the line. Using a cable terminator (ADJ part number Z-DMX/T) will decrease the possibilities of erratic behavior.



Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal, (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX +) of the last fixture.

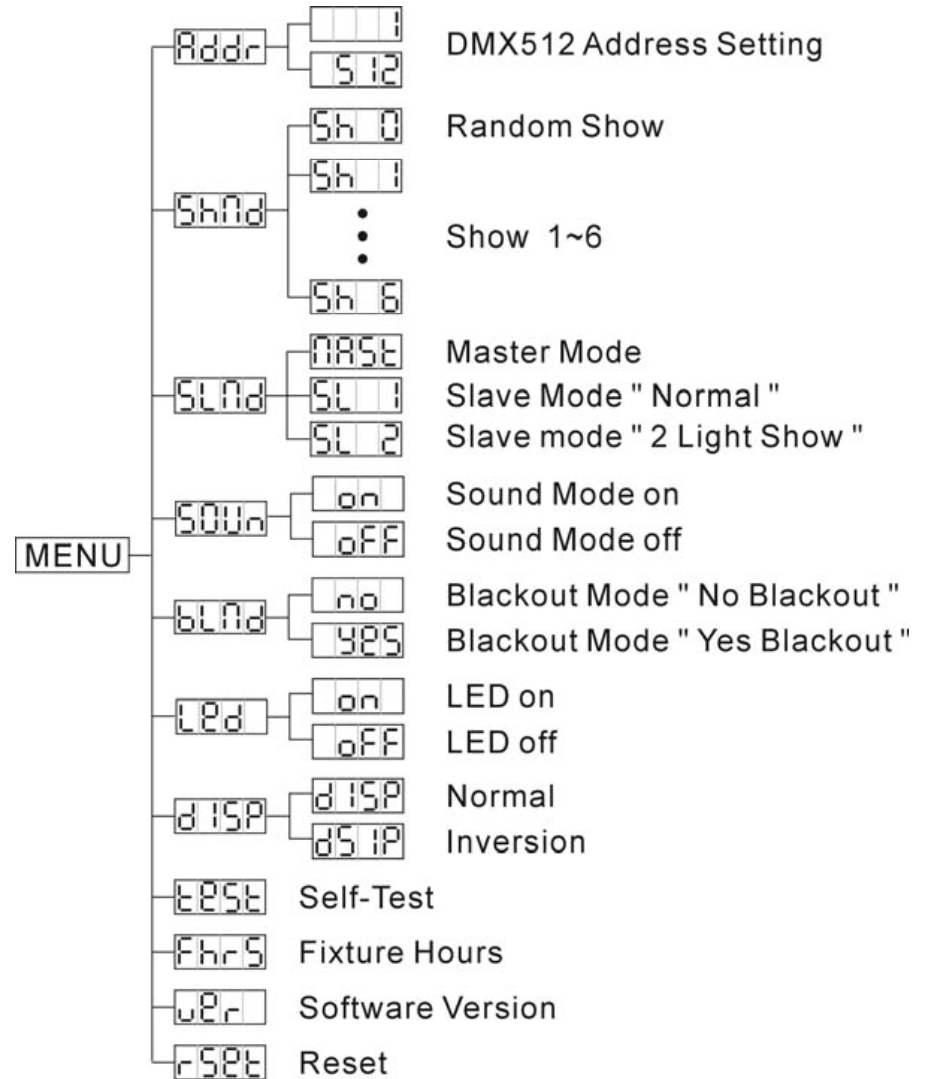
Figure 4

**5-Pin XLR DMX Connectors.** Some manufactures use 5-pin DMX-512 data cables for DATA transmission in place of 3-pin. 5-pin DMX fixtures may be implemented in a 3-pin DMX line. When inserting standard 5-pin data cables in to a 3-pin line a cable adaptor must be used, these adaptors are readily available at most electric stores. The chart below details a proper cable conversion.

Conductor	3-Pin XLR Female (Out)	5-Pin XLR Male (In)
Ground/Shield	Pin 1	Pin 1
Data Compliment (- signal)	Pin 2	Pin 2
Data True (+ signal)	Pin 3	Pin 3
Not Used		Do Not Use
Not Used		Do Not Use



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 6122 S. Eastern Ave.  
 Los Angeles, CA 90040 USA  
 Manufactured:





**On-Board System Menu.** The Fusion FX Bar 4 comes with an easy to navigate system menu. This next section will detail the functions of each command in the system menu. **Please read the next section thoroughly!**

To access the main menu press the MENU button. Tap the UP or DOWN buttons until you reach function you wish to change. When you reach the function you wish to change press the ENTER button. When a function is selected use the UP or DOWN buttons to change the function settings. Once your changes are made press the ENTER button to confirm. If the unit remains static for more than eight seconds the fixture will automatically return to its last setting. To exit without making any changes press the MENU button.

### **ADDR - DMX Address Setting via control board -**

1. Tap the MENU button until "ADDR" is displayed, press ENTER.
2. "X" will now be displayed, "X" represents the displayed address. Press the UP or DOWN buttons to find your desired address.
3. Press ENTER to confirm, and then press and hold the MENU button for at least three seconds to assign.

### **SHND: SH 1 - SH 6 - Show modes 0 - 6 (Factory programs).**

1. Tap the MENU button until "SHND" is displayed, press ENTER.
2. "SH X" will now be displayed, "X" representing a number between 1-6. Programs 1-6 are preset shows, while "SH 0" is random mode. Press the UP or DOWN buttons to find your desired show and press ENTER to confirm.

### **SLND - This will let you set unit as a master or slave in a master/slave configuration.**

1. Tap the MENU button until "SLND" is displayed, press ENTER. Either "MAST", "SL 1" or "SL 2" will be displayed.

2. Tap the UP or DOWN buttons until your desired setting is displayed, press ENTER to confirm.

**NOTE:** In a Master/Slave configuration you can make one fixture the Master and then set the next fixture to "SL 2", the fixtures will now have contrast movement to each other.

### **SOUN - In this mode you can run in sound active mode.**

1. Tap the MENU button until "SOUN" is displayed, press ENTER.
2. Either "ON" or "OFF" will now be displayed. Press the UP or DOWN buttons to select one or the other.

### **BLND - This will control blackout**

1. Tap the MENU button until "BLND" is displayed, press ENTER.
2. Either "YES" or "NO" will now be displayed. Press the UP or DOWN buttons to select one or the other.
3. Press ENTER, and then press and hold the MENU button for at least three seconds to confirm.

### **LED - This will turn the LED on or off**

1. Tap the MENU button until "LED" is displayed, press ENTER.
2. Either "ON" or "OFF" will now be displayed. Press the UP or DOWN buttons to select one or the other.
3. Press ENTER, and then press and hold the MENU button for at least three seconds to confirm.

### **DISP - This will "flip" the LED display**

1. Tap the MENU button until "DISP" is displayed, press ENTER.
2. Either "DISP" or "DSIP" will now be displayed. Press the UP or DOWN buttons to select one or the other and then press ENTER

to confirm.

**TEST** - This function will run a self test program.

1. Tap the MENU button until "TEST" is displayed, press ENTER.
2. The fixture will now run a self test.

**FHRS** - With this function you can display the running time of the unit.

1. Tap the MENU button until "FHRS" is displayed, press ENTER.
2. The running time of the fixture will now be displayed. Press MENU to exit.

**VER** - This will display the software version

1. Tap the MENU button until "VER" is displayed. Press the ENTER button and the software version will be displayed.
2. Press the MENU button to leave this function.

**RSET** - Use this function to reset the unit.

1. Tap the MENU button until "RSET" is displayed, press ENTER.
2. The fixture will now reset.

*With this feature you can connect the fixtures to one another using the IEC input and output sockets. The quantity that can be connected is 23 fixtures maximum. After 23 fixtures you will need to use a new power outlet. They must be the same fixtures. DO NOT mix fixtures.*

Channel	Value	Function
1	0 - 7 8 - 190 191 - 200 201 - 247 248 - 255	WHITE DIMMER/STROBE OFF MASTER DIMMER 0% - 100% SOUND ACTIVE STROBING SLOW - FAST FULL ON
2	0 - 7 8 - 190 191 - 200 201 - 247 248 - 255	MOON FLOWER DIMMER/STROBE OFF MASTER DIMMER 0% - 100% SOUND ACTIVE STROBING SLOW - FAST FULL ON
3	0 - 18 19 - 37 38 - 56 57 - 75 76 - 94 95 - 113 114 - 127 128 - 159 160 - 191 192 - 223 224 - 255	MOON FLOWER COLOR RED RED & GREEN GREEN GREEN & BLUE BLUE RED & BLUE RED, GREEN, & BLUE RED - GREEN GREEN - BLUE RED - BLUE RED - GREEN - BLUE
4	0 - 9 10 - 120  121 - 134 135 - 245  246 - 255	MOON FLOWER ROTATION NO ROTATION CLOCKWISE ROTATION FAST - SLOW NO ROTATION COUNTER CLOCKWISE ROTATION SLOW - FAST NO ROTATION

Fusion FX Bar 4		DMX Values and Functions
Channel	Value	Function
5		LASER PATTERNS
	0 - 12	PATTERN 1
	13 - 24	PATTERN 2
	25 - 36	PATTERN 3
	37 - 48	PATTERN 4
	49 - 60	PATTERN 5
	61 - 72	PATTERN 6
	73 - 85	PATTERN 7
	86 - 97	PATTERN 8
	98 - 109	PATTERN 9
	110 - 121	PATTERN 10
	122 - 133	PATTERN 11
	134 - 145	PATTERN 12
	146 - 157	PATTERN 13
	158 - 170	PATTERN 14
	171 - 182	PATTERN 15
	183 - 194	PATTERN 16
	195 - 206	PATTERN 17
	207 - 218	PATTERN 18
	219 - 230	PATTERN 19
231 - 242	PATTERN 20	
243 - 255	PATTERN 21	
6		LASER ON/OFF
	0 - 15	LASER OFF
	16 - 255	LASER ON

**Fusion FX Bar 4 UC3 Control**

Stand By	Blackout the unit	
Function	1. Ø 5 LED Strobe	Select show
	2. Moon flower strobe	Show1-6
Mode	Sound (LED OFF)	LED ON

**Fusion FX Bar 4 Cleaning**

Due to fog residue, smoke, and dust cleaning the internal and external optical lenses must be carried out periodically to optimize light output.

1. Use a soft cloth to wipe down the outside casing.

Cleaning frequency depends on the environment in which the fixture operates (i.e. smoke, fog residue, dust, dew).

**Fusion FX Bar 4 Trouble Shooting**

Listed below are a few common problems the user may encounter, with solutions.

**Unit not responding to DMX:**

1. Check that the DMX cables are connected properly and are wired correctly (pin 3 is “hot”; on some other DMX devices pin 2 may be ‘hot’). Also, check that all cables are connected to the right connectors; it does matter which way the inputs and outputs are connected.

**Unit does not respond to sound:**

1. Quiet or high pitched sounds will not activate the unit.

*If problems are not resolved; Contact American DJ® for service.  
1-800-322-6337*

**Fusion FX Bar 4 Fuse Replacement**

First unplug the power. The fuse holder is located next to the power inlets. Using a flat-head screw driver unscrew the fuse holder. Remove the bad fuse and replace with a new one.

## Fusion FX Bar 4

## Warranty

### MANUFACTURER'S LIMITED WARRANTY

A. American DJ, Inc. hereby warrants, to the original purchaser, American DJ and American Audio products to be free of manufacturing defects in material and workmanship for a prescribed period from the date of purchase (see specific warranty period on reverse). This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.

B. For warranty service you must obtain a Return Authorization number (RA#) before sending back the product. Contact American DJ, Inc. Service Department at 800-322-6337. Send the product only to the American DJ, Inc. factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, American DJ, Inc. will pay return shipping charges only to a designated point within the United States. If the entire instrument is sent, it must be shipped in its original package. No accessories should be shipped with the product. If any accessories are shipped with the product, American DJ, Inc. shall have no liability whatsoever for loss of or damage to any such accessories, nor for the safe return thereof.

C. This warranty is void if the serial number has been altered or removed; if the product is modified in any manner which American DJ, Inc. concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the American DJ, Inc. factory unless prior written authorization was issued to purchaser by American DJ, Inc.; if the product is damaged because not properly maintained as set forth in the instruction manual.

D. This is not a service contract, and this warranty does not include maintenance, cleaning or periodic check-up. During the period specified above, American DJ, Inc. will replace defective parts at its expense with new or refurbished parts, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of American DJ, Inc. under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of American DJ. All products covered by this warranty were manufactured after January 1, 1990, and bear identifying marks to that effect.

E. American DJ, Inc. reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products described above. Except to the extent prohibited by applicable law, all implied warranties made by American DJ, Inc. in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said period has expired. The consumer's and/or Dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall American DJ, Inc. be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product.

This warranty is the only written warranty applicable to American DJ and American Audio Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

### MANUFACTURER'S LIMITED WARRANTY PERIODS:

- All American Audio Products = 1-year (365 day) Limited Warranty (except V-Plus Series Amplifiers)
- All American Audio V-Plus Series Amplifiers = 3-year (1095 day) Limited Warranty
- American DJ Lighting and American DJ Branded Products = 1-year (365 day) Limited Warranty (Such as: Special Effect Lighting, Intelligent Lighting, UV lighting, Strobes, Fog Machines, Bubble Machines, Mirror Balls, Par Cans, Trussing, Lighting Stands etc. excluding Laser Products, lamps, and Star Tec Series)
- American DJ Laser Products and Star Tec Products = 90-Day Limited Warranty
- American DJ L.E.D. Products = 3-year (1095 day) Limited Warranty (excluding motors which have a 1-year (365 day) Limited Warranty)

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## Fusion FX Bar 4

## Specifications

### Model: Fusion FX Bar 4

#### SPECIFICATIONS:

Voltage:	100V~240V 50/60Hz
LEDs:	90 White LEDs 1 TRI Color LED
Laser:	4.9mW Green Laser Diode
Power Consumption:	22.6W
Fuse:	7Amp
Power Cord Daisy Chain:	23 Fixtures Max.
Weight:	9lbs./ 3.7Kgs.
Dimensions w/ Bracket:	21.33" (L) x 5.75" (W) x 7.6" (H) 542 x 143 x 194mm
Colors:	RGB Color Mixing
DMX Channels:	6 DMX Channels
Working Position:	Any safe working position
Warranty:	3 Year (1095 days)

**Auto Sensing Voltage:** *This fixture contains a electronic ballast, which will auto sense the voltage when it is plugged into the power source.*

**Please Note:** Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.

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