

American DJ[®]



FUSION FX BAR 4



User Instructions

American DJ[®]
6122 S. Eastern Ave.
Los Angeles Ca. 90040
www.americandj.com

Rev. 8/09

Fusion FX Bar 4

Introduction

Unpacking: Thank you for purchasing the Fusion FX Bar 4 by American DJ[®]. 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[®] 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 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

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[®].

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. 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 16 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 contains an electronic ballast, which will auto sense the voltage when it is plugged into the power source. With the electronic ballast you do not need to worry about wall voltage, this unit can be plugged in anywhere. Also be sure to only use the included I.E.C. power cable supplied with the unit.

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 an 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.

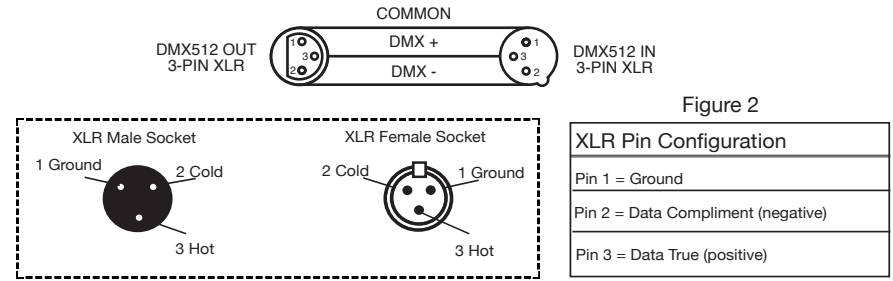


Figure 2

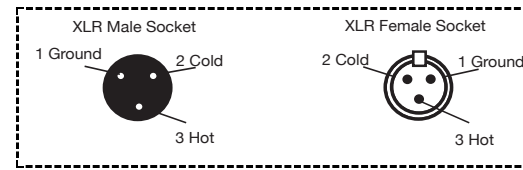


Figure 3

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.

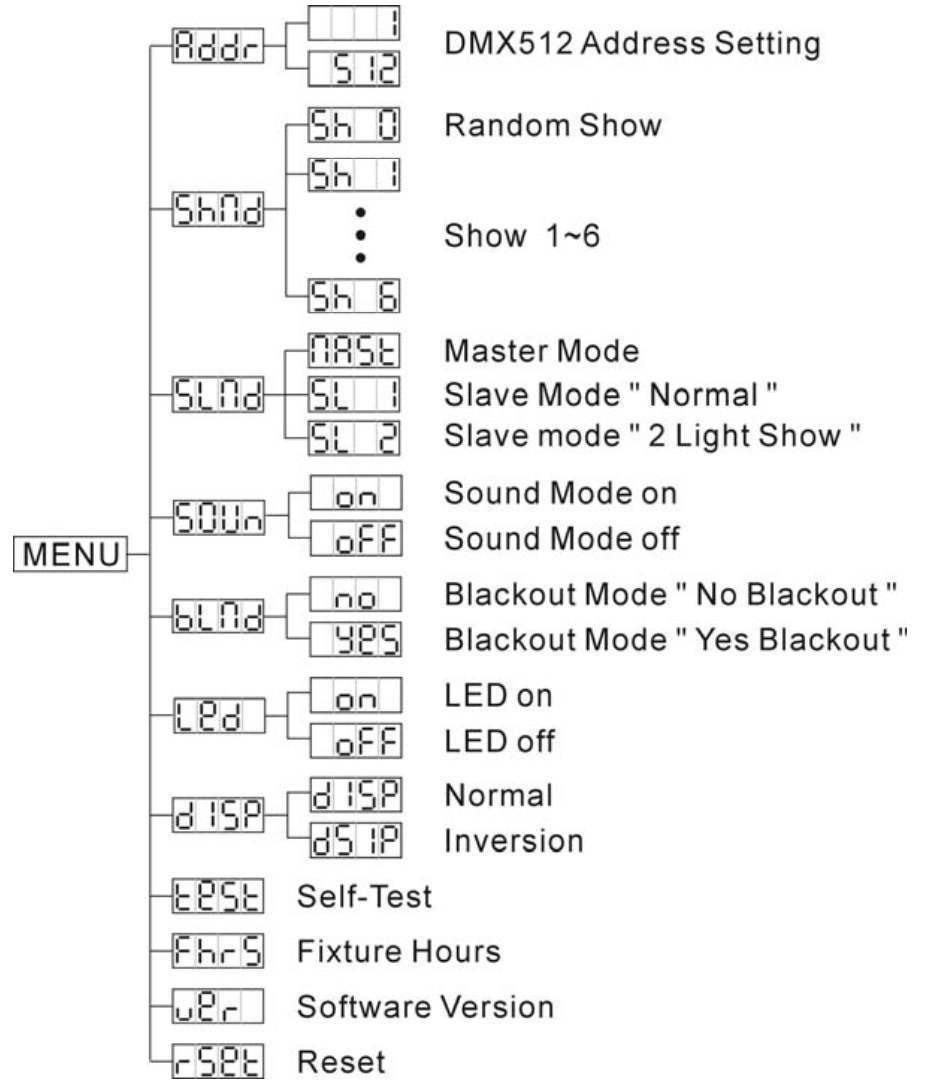
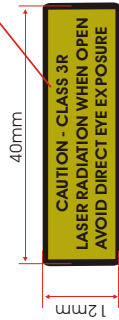
Figure 4

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 Complement (- 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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 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, and then press and hold the MENU button for at least three seconds to confirm and lock the change into the system memory. If the MENU button is not pressed and held within eight seconds the fixture will automatically confirm and lock the change into the system memory. 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.
3. Press ENTER, and then press and hold the MENU button for at least 3 seconds 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 "MASTER", "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.
3. When you have made your selection, press the ENTER, and then press and hold the MENU button for at least 3 seconds to confirm.

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 - With this function the LED display will turn off after 2 minutes.

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 "ON" to keep the LED display on at all times, or "OFF" to allow the LED display to turn off after 2 minutes. Press any button to turn on the LED display again.

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.
3. Press ENTER, and then press and hold the MENU button for at least three seconds 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.

Universal DMX Control: This function allows you to use a Elation® universal DMX-512 controller to control the chases and patterns, dimmer and strobe. A DMX controller allows you to create unique programs tailored to your individual needs.

1. The Fusion FX Bar 4 is a 6 DMX channel unit. See pages 14-15 for a detailed description of the DMX traits.
2. To control your fixture in DMX mode, follow the set-up procedures on pages 5-6 as well as the set-up specifications that are included with your DMX controller.
3. Use the controller’s faders to control the various DMX fixture traits.
4. This will allow you to create your own programs.
5. Follow the instructions on page 9 to set the DMX address.
6. For longer cable runs (more than a 100 feet) use a terminator on the last fixture.
7. For help operating in DMX mode consult the manual included with your DMX controller.

Master-Slave Operation: This function will allow you to link up to 16 units together and operate without a controller. In Master-Slave operation one unit will act as the controlling unit and the others will react to the controlling units programs. Any unit can act as a Master or as a Slave.

1. Using standard XLR microphone cables, daisy chain your units together via the XLR connector on the rear of the units. Remember the Male XLR connector is the input and the Female XLR connector is the output. The first unit in the chain (master) will use the female XLR connector only - The last unit in the chain will use the male XLR connector only. For longer cable runs we suggest a terminator at the last fixture.
2. On the Master unit find your desired show or choose sound active mode and set that by pressing the ENTER button.
3. On the slave units tap the MENU button until “SLND” is displayed, and Press ENTER.
4. The slave units will now follow the Master unit.
5. The optional *UC3 Controller* (not included) may be used to control different functions including blackout.

Fusion FX Bar 4

Operation

Sound Active Mode: This mode allows a single unit or several units linked together, to run to the beat of the music.

1. Tap the MENU button until "SOUND" is displayed, and press ENTER.
2. Tap the UP or DOWN buttons until "ON" is displayed and press ENTER, and then press and hold the MENU button to confirm.
3. The optional *UC3 Controller* (not included) may be used to control different functions including blackout.

Program Mode: This mode allows a single unit or several units linked together, to run your desired factory program.

1. Tap the MENU button until "SHOW" is displayed, and press ENTER.
2. Tap the UP or DOWN buttons until you find your desired show, and press ENTER, and then press and hold the MENU button to confirm.
3. The optional *UC3 Controller* (not included) may be used to control different functions including blackout.

Fusion FX Bar 4

Power Cord Daisy Chaining

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.

Fusion FX Bar 4

DMX Channels & Functions

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

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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Model: Fusion FX Bar 4SPECIFICATIONS:

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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