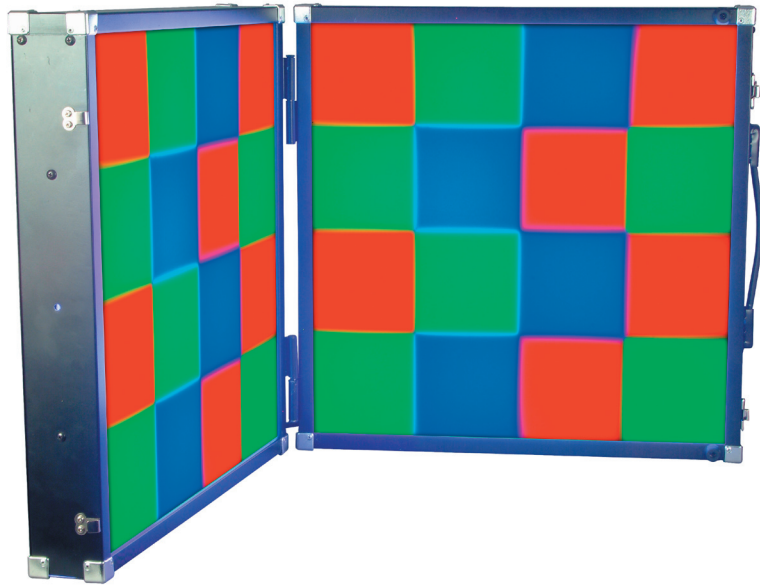


American DJ® LED MATRIX



User Instructions

American DJ®
4295 Charter Street
Los Angeles, CA. 90058
www.americandj.com

LED Matrix

Introduction

Introduction: Thank you for purchasing the LED Matrix by American DJ®. The LED Matrix is a sound active, stand alone unit. You can also connect the LED Matrix to a DMX controller and select one of the many programs and control the speed of the program. This system is great for displays, mood, architectural, interior decoration, and clubs.

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. For service related issue please contact American DJ®. Service Hours are Monday through Friday 9:00 a.m. to 5:00 p.m. Pacific Standard Time.

Voice: (800) 322-6337

Fax: (323) 582-2610

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 manufacturer's warranty. In the unlikely event your unit may require service please contact American DJ®.

PLEASE do not discard the shipping carton in the trash. Please recycle when ever possible.

LED Matrix

General Instructions

Please carefully read and understand the instructions in this manual thoroughly before attempting to operate 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.

LED Matrix

Unpacking

Every LED Matrix 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 unit for damage and be sure all accessories necessary to operate the unit have arrived intact. In the event damage has been found or parts are missing, please contact our toll free customer support number for further instructions. Please do not return this unit to your dealer without first contacting customer support.

LED Matrix

Warranty Registration

The LED Matrix carries a 1 Year (365 Days) limited warranty. We recommend you fill out the enclosed warranty card to validate your purchase. 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.

LED Matrix

Precautions

- Do not spill water or other liquids into or on to your unit.
- Be sure that the local power outlet matches that of the required voltage for your unit.
- Do not attempt to operate this unit if the power supply cord has been frayed or broken. Please route your power supply cord away from foot traffic.
- Disconnect from main power before making any type of connection.
- There are no user serviceable parts inside.
- 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 in any way.
- Never operate this unit when it's front cover is removed.
- To reduce the risk of electrical shock or fire, do not expose this unit rain or moisture
- 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-Cord Protection - Power-supply cords should be routed so they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords a plugs, convenience receptacles, and the point where they exit from the fixture.
- Cleaning -The fixture should be cleaned only as recommended by the manufacturer. Use a dry cloth to wipe down the LED Matrix.
- Heat -The fixture 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 fixture 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® LED Matrix. The American DJ® LED Matrix is only available in a 120v 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 LED Matrix can be controlled via DMX-512 protocol. The LED Matrix is a two channel DMX unit. The DMX address is set on the back panel of the LED Matrix. Your unit and your DMX controller require a standard 3-pin XLR connector for data input and data output (Figure 1). If you are making your own cables, be sure to use standard two conductor shielded cable (This cable may be purchased at almost all pro 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 can not 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.

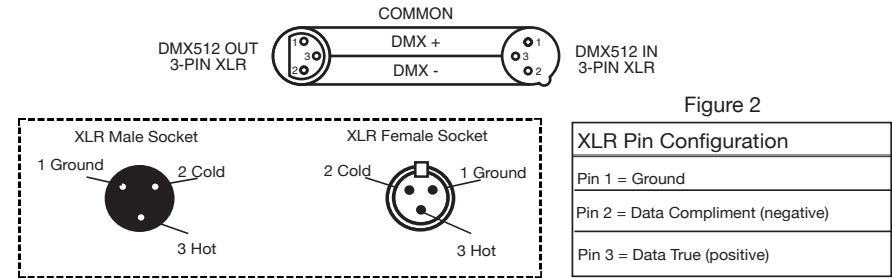


Figure 2

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 90-120 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 XLR connectors for DATA transmission in place of 3-pin. 5-pin XLR fixtures may be implemented in a 3-pin XLR DMX line. When inserting standard 5-pin XLR connectors 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.

3-Pin XLR to 5-Pin XLR 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

LED Matrix	Operation
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Operating Modes:

The LED Matrix has 2 modes to choose from:

- Sound-Active mode - The unit will react to sound, chasing through the built in programs. In this mode, the LED Matrix can only be used as a Stand-Alone unit.
- DMX control mode - This function will allow you to control each individual fixtures traits with a standard DMX 512 controller such as the Elation® Show Designer™.

Sound Active Mode:

In this mode the LED Matrix will react to sound, and chase through the different colors.

1. Plug the fixture in and put dipswitch #10 in the “ON” position.
2. The fixture will now change via sound.

DMX Mode:

Operating through a DMX controller give the user the freedom to create their own programs tailored to their own individual needs.

1. This function will allow you to control each individual fixture’s traits with a standard DMX 512 controller such as the Elation® Show Designer™ or the Elation® DMX Operator.™
2. The LED Matrix uses two DMX channels to operate see page 8 for the DMX traits.
3. To run your fixture in DMX mode, plug in the fixture via the XLR connections to any standard DMX controller. Set your DMX address by using dipswitches 1-9 located on the side. Make sure that dipswitch #10 stays in the “OFF” position. - Follow the set-up specifications that come with your DMX controller.
4. **To run more than one LED Matrix:** 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 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. **All units must be set to the same DMX address.**

LED Matrix	DMX Traits
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Channel	Value	Function
1	0-9	Nothing.
	10-19	7(W/R/G/B/C/M/Y) colors horizontal change to full screen.
	20-29	R/G apart changed from each vertical line.
	30-39	B/Y apart from each vertical line.
	40-49	C/M apart from each vertical line.
	50-59	R/W apart from each vertical line.
	60-69	R/G/B/Y apart from each horizontal line.
	70-79	W/B/C/M apart from each horizontal line.
	80-89	7(W/R/G/B/C/M/Y) colors full screen changed by turns.
	90-99	R/G apart from each small square
	100-109	B/Y apart from each small square.
	110-119	C/M apart from each small square.
	120-129	R/W apart from each small square.
	130-139	R/G/B apart from each small square.
	140-149	C/M/Y apart from each small square.
	150-159	7(W/R/G/B/C/M/Y) changed in random variable.
	160-169	7(W/R/G/B/C/M/Y) changed to move in circle.
	170-179	R/G changed like a pinwheel.
	180-189	R/G & R/B changed like a pinwheel.
	190-199	R background, W/G/B/C/M/Y scan changed in turn.
	200-209	R background, G/Y/C/M scan changed in turn.
	210-219	G background, R/B/C/Y scan changed in turn.
	220-229	R/B & G/C apart from each vertical line.
	230-239	R/G & W/B & C/Y changed in diagonal shape.
	240-249	G/M & R/Y & B/M changed in diagonal shape.
250-255	Above all the variation.	
2	0	Stop.
	1-255	Speed Adjustment - The greater the value the faster the speed.

1 YEAR LIMITED WARRANTY

A. American DJ® hereby warrants, to the original purchaser, American DJ® products to be free of manufacturing defects in material and workmanship for a period of 1 Year (365 days) from the date of purchase. 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, send the product only to the American DJ® 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® 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® 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® concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the American DJ® factory unless prior written authorization was issued to purchaser by American DJ®; 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® will replace defective parts at its expense, 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® 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® 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.

F. 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® 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® be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product.

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

H. Lamps are not covered under this or any other warranty either written or implied.

Model: LED MatrixSPECIFICATIONS:

Working Position:	Any safe working position
Voltage:	120V
Power Draw:	1.0 Amps
Breaker:	4 Amps
Weight:	39.24lbs./ 17.7Kgs.
Dimensions:	19.6" (L) x 19.6" (W) x 9.65" (H)
Colors:	RGB Color Mixing
DMX Channels:	2
Warranty:	1 Year (365 days)

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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