American DJ®

FAB4

User Instructions

American DJ
4295 Charter Street
Los Angeles Ca. 90058
www.americandj.com

Introduction: Congratulations and thank you for purchasing the FAB 4™ by American DJ®. You have just purchased one of the most innovative and reliable lighting systems on the market today! This system includes four units, a master and three slaves. This system was designed to give you an instant high power light show with the simplest set-up procedures possible. This system is expandable and DMX compatible. Please read and understand the instructions in this manual carefully and thoroughly before attempting to operate this unit. These instructions contain important information regarding safety during use and maintenance.

Customer Support: American DJ® provides a toll free customer support line, to provide set up and installation 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. Toll free customer 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

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 type of repair yourself without the manufactures consent, doing so will void your manufactures warranty. In the unlikely event your unit may require service please contact American DJ® customer support.

HALOGEN LAMP WARNING!

This fixture is fitted with a halogen lamp which is highly susceptible to damage if improperly handled. Never touch the lamp with your bare fingers as the oil from your hands will shorten the lamp life. Never install, mount, or place this fixture in areas prone to heavy vibration. Also, never move the fixture until the lamp has had ample time to cool. Remember, lamps are not covered under warranty conditions.

FAB 4™   Contents

FAB 4™   Unpacking

Every FAB 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 equipment necessary to operate the unit has arrived intact. In case damage has been found or parts are missing, please contact our toll free customer support number for further instructions, please do not return the unit to your dealer.

FAB 4™   Features

- 64 Vibrant Colored Beams.
- Linkable.
- Audio Sensitivity Knob.
- Uses One DMX Channels.
- Sound-Active.
- DMX-512 Protocol Compatible.
- Master/Slave Built-In Programs.
- Fan Cooled.

FAB 4™   Safety Precautions

- 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. Please route your power cord out of the way of foot traffic.
- 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 top cover under any conditions. 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 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 that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
- Cleaning -The fixture should be cleaned only as recommended by the manufacturer.
- 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® FAB 4.™ The American DJ® FAB 4™ is available in a 115v and 220v version. Due to variations in line voltage from venue to venue, be sure to plug your "Master" unit into a wall outlet with a matching power supply before attempting to operate.

Data Cable (DMX Cable) Requirements (For DMX Operation Only and Master-Slave): The FAB 4 can be controlled via DMX-512 protocol. The American DJ® FAB 4™ is a single channel DMX unit. The DMX address is set on the front panel of the FAB 4. 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 figure 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.
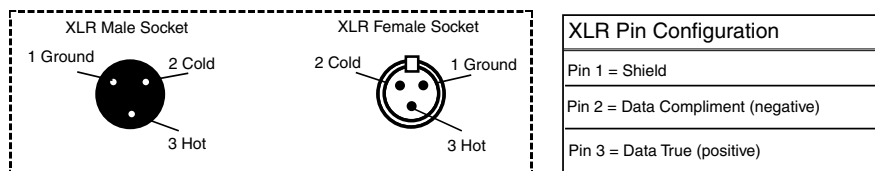
XLR Male Socket
1 Ground
2 Cold
3 Hot

XLR Female Socket
2 Cold
1 Ground
3 Hot

XLR Pin Configuration
Pin 1 = Shield
Pin 2 = Data Compliment (negative)
Pin 3 = Data True (positive)

Figure 2

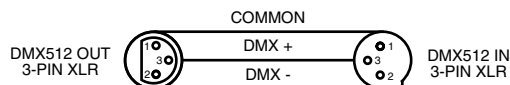COMMON
DMX512 OUT
3-PIN XLR
DMX +
DMX -
DMX512 IN
3-PIN XLR

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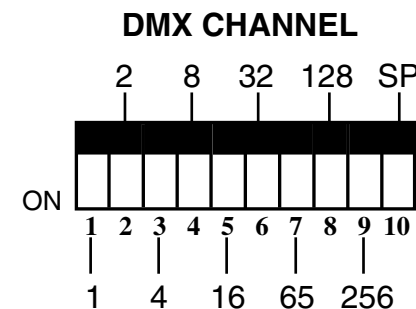
Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal, (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX +) of the last fixture.

Figure 4

DMX is short for Digital Multiplex. This is a universal binary language used as a form of communication between intelligent fixtures. Each dip switch represents a binary value.

Dip Switch 1 address equals 1
Dip Switch 2 address equals 2
Dip Switch 3 address equals 4
Dip Switch 4 address equals 8
Dip Switch 5 address equals 16
Dip Switch 6 address equals 32
Dip Switch 7 address equals 64
Dip Switch 8 address equals 128
Dip Switch 9 address equals 256
Dip Switch 10 has no DMX value -
    This switch activates sound-active mode.

DMX CHANNEL

2   8   32   128   SP

ON

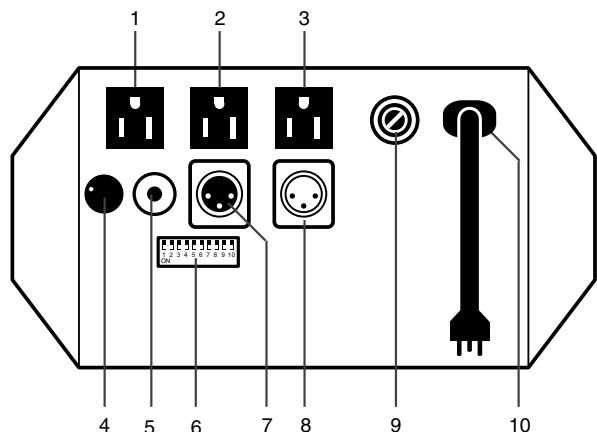1 2 3 4 5 6 7 8 9 10

1   4   16   65   256

A DMX value (address) is set by combining the different dipswitches that will add up to the value you wish to achieve, for example:

Setting DMX address for 21.
Flip switches 1, 3, & 5 to the "ON" position

Dipswitches #
$1 = 1$
$3 = 4$
$5 = 16$
$= 21$
Value

Set DMX address for 201.
Flip switches 1, 4, 7, & 8 to the "ON" position

Dipswitches #
$1 = 1$
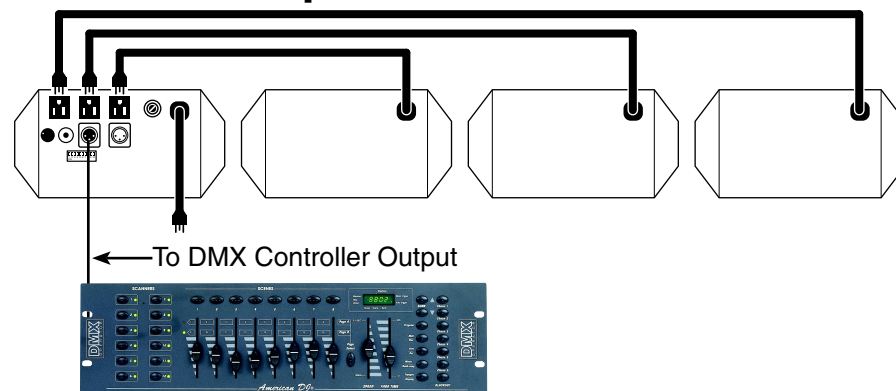$4 = 8$
$7 = 64$
$8 = 128$
$= 201$
Value

1. **Channel 1 Output -** This outlet will control the operation of any slave unit as channel one.
2. **Channel 2 Output -** This outlet will control the operation of any slave unit as channel two.
3. **Channel 3 Output -** This outlet will control the operation of any slave unit as channel three.
4. **Audio Sensitivity Knob -** Turning the sensitivity knob in the clock-wise direction will increase the sensitivity to sound. Turning the knob in the counter clockwise direction will decrease the fixture's sensitivity to sound.
5. **Microphone -** This mic receives external low frequencies to trigger the unit.
6. **Dip Switches -** These switches are used to set the DMX address. Each switch corresponds to a specific value based on binary code. See page 6 for a detailed explanation of DMX binary code.
7. **XLR Input Jack -** This jack is used to accept an incoming DMX signal.
8. **XLR Output Jack -** This jack is used to send the incoming DMX signal to another DMX fixture.
9. **Fuse Holder -** This housing stores the 5 amp GMA protective fuse. Always replace with the exact same type fuse, unless other-wise instructed to do so by an authorized American DJ service tech-nician.
10. **Power Cord -** Connect only to a matching power outlet. Never use this fixture if the ground prong has been removed or broken off.

Universal DMX Control: The FAB 4™ not only synchronizes your 4 lights together to create an intense light show, it also incorpo-rates DMX technology to call up individual programs when using any type of universal DMX Controller such as the American DJ® DMX Operator™ or Show Designer.™ The use of a DMX controller will allow you to create your own programs tailored to your own needs. In DMX mode you can also have the units run in sound active mode. The "master" unit comes with four sound-active, built-in programs. You can run any of the four programs or set the "master" to run through all four. See page 14 for the various DMX traits including program settings.

1. The FAB 4™ uses a single DMX channel, please see page 14 for detailed description of the DMX traits.
2. To run your fixture in DMX mode, plug in the fixture via the XLR connections to any universal DMX controller. Follow the set-up specifications that come with the controller.
3. Use your controller to control the various fixture traits.
4. This will allow you to create your own programs.
5. When using a DMX controller and setting up for DMX operation follow follow the standard DMX Binary Code for a one channel unit. See page 6.
6. For help running in DMX operation consult the manual that comes with your DMX controller.
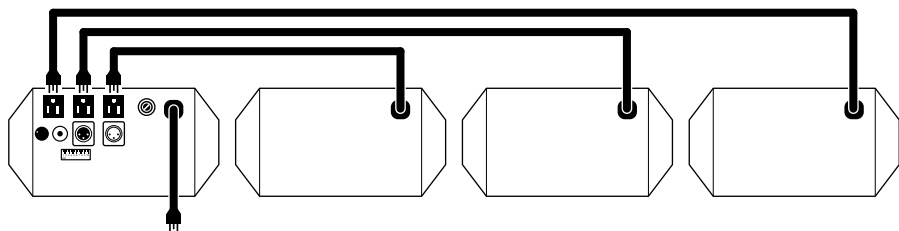7. For longer cable runs we suggest using a terminator on the last fixture.

DMX Controller Operation

←To DMX Controller Output

4-Unit Sound Active Operation: This function allows a system to run to the beat of the music without any type of controller. Only use this function when running a single system, or when running several systems as individuals.

1. Mount your units in a safe and secure manner.
2. Connect the "slave" units to the "master" unit as detailed in the illustration below.
3. To activate the Sound-Active mode, set dip switches #9 and #10, on the rear of the "master" unit to the ON position *(See the "4-Unit Operation" on chart on p*age 13).
4. The unit will now react to the bass sound of music via the internal microphone.
5. Adjust the audio sensitivity knob on the rear of the unit to make the unit more or less sensitive to sound. Turning the sensitivity knob in the clockwise direction will increase the sensitivity to sound. Turning the knob in the counter clockwise direction will decrease the fixture's sensitivity to sound.
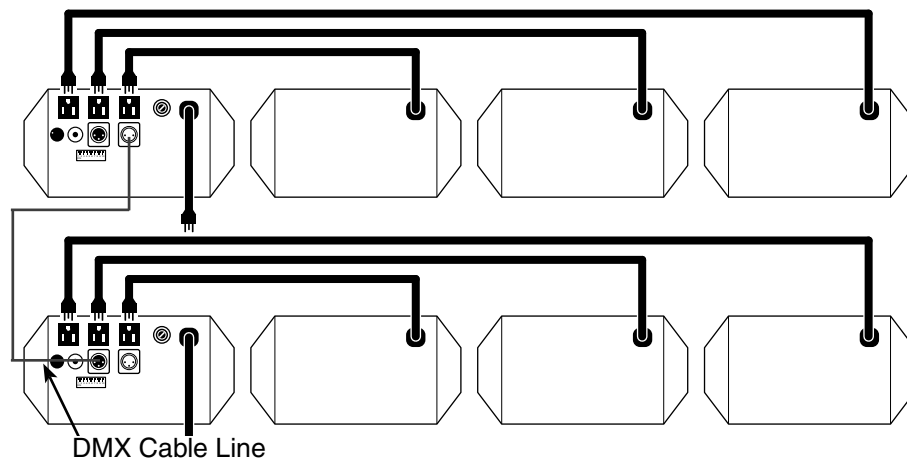
Four Unit Set-Up:

Linking Systems: Your FAB 4™ system comes with built-in programs for a four unit or eight unit system. Follow the step on page 10 for proper linking and set-up procedures for an 8-unit system.

8-Unit Master-Slave Operation (Sound Active): *For a more dramatic effect, link two FAB 4™ systems together.* This function will allow you to link two systems together and operate them in sound-active mode without the need for any type of controller. In Master-Slave operation the "slave" unit will react to the programs and sound sensitivity settings of the "master" unit.
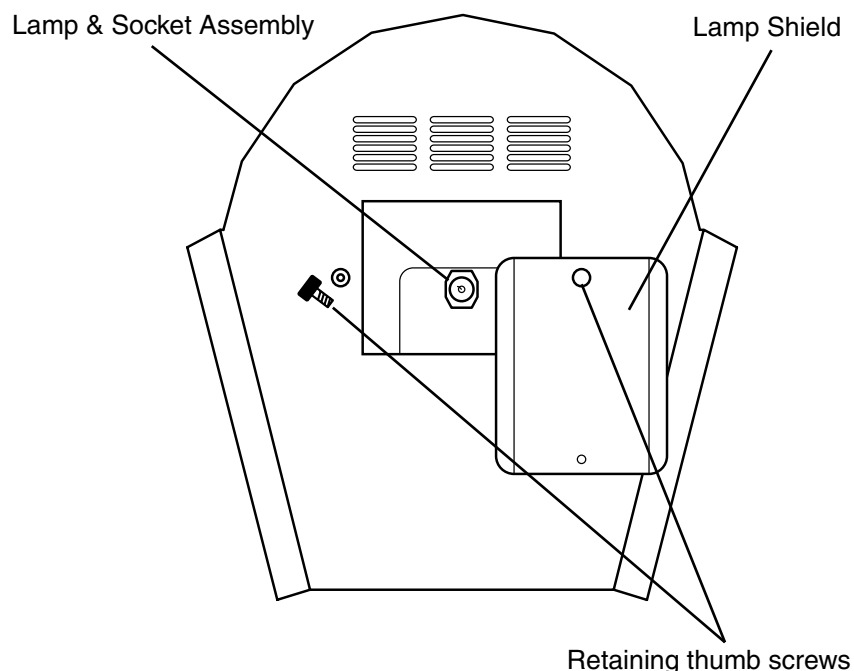
1. Mount your units in a safe and secure manner.
2. Using standard XLR microphone cables, daisy chain your units together via the XLR connector on the rear of the units. Remember the Male XLR connector is the input and the Female XLR connector is the output. The "master" will use the female XLR connector only, the slave will use the male XLR connector only. See the illustration below. For longer cable runs use a terminator at the slave fixture.
3. Follow the chart on page 13 for proper unit dip switch settings.
4. The unit will now react to the bass sound of music via the internal microphone.
5. Adjust the audio sensitivity knob on the rear of the unit to make the unit more or less sensitive to sound. Turning the sensitivity knob in the clockwise direction will increase the sensitivity to sound. Turning the knob in the counter clockwise direction will decrease the fixture's sensitivity to sound.

Note: Stand-Alone and Master-Slave operation require sound to activate! The units will blackout when no sound is present to conserve bulb life when there is no sound present.

DMX Cable Line

Lamp Replacement: Caution! Never open the unit when in use. Always disconnect the main power and allow the unit ample time to cool before attempting to replace the lamp. Remember always replace with the same type lamp and fuse.

1. Be sure to follow the proper procedures when handling halogen lamps.
2. Lamp replacement has been made simple by incorporating the use of a removable lamp cover retained by two thumb screw.
3. Remove the thumb screws on the bottom of the unit that holds the lamp cover in place.
4. Carefully remove the protective lamp cover.
5. Remove and replace the lamp.
6. Reassemble in reverse order.

Lamp & Socket Assembly   Lamp Shield
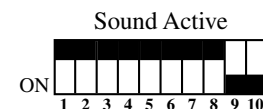
Retaining thumb screws

Due to fog residue, smoke, and dust, cleaning the internal and external optical lenses must be carried out periodically to optimize light output.
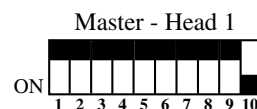
1. Use normal glass cleaner and a soft cloth to wipe down the outside casing.
2. Use a brush to wipe down the cooling vents.
3. Clean the external portion of the optics with glass cleaner and a soft cloth every 20 days. Situation may very. If used heavily in clubs with lots of fog, cleaning may be required more often.
4. Clean the internal portion of the optics with glass cleaner and a soft cloth every 30-60 days.
5. Always be sure to dry all parts completely before plugging the unit in.

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

This chart list the DMX dip switch setting for single system operation. When using this fixture as a stand alone unit or when using multiple FAB 4™ systems as stand alone units, be sure all the fixtures match the illustrated dip switch setting (9 and 10 to the on position - all others off).
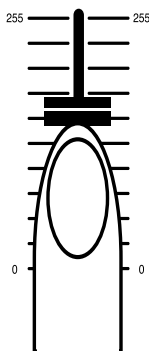
Sound Active

ON   1 2 3 4 5 6 7 8 9 10

This chart list the DMX dip switch setting for Master/Slave configuration. Use this configuration when you will be using two systems in a Master/Slave configuration. Head 1 (master) will control all functions of the slave system.

Master - Head 1   Slave - Head 2

ON   1 2 3 4 5 6 7 8 9 10   ON   1 2 3 4 5 6 7 8 9 10

This chart below details the DMX traits of the FAB 4 "Master" unit. The different trait options can only be initiated with an universal DMX controller. Note: The different program and "ON" options require the FAB 4 system to connect normally.

255	PROGRAMS 1~4
238-254	PROGRAM 4 ON
221-237	PROGRAM 3 ON
204-220	PROGRAM 2 ON
187-203	PROGRAM 1 ON
170-186	HEADS 3 & 4 ON
153-169	HEADS 2 & 4 ON
136-152	HEADS 2 & 3 ON
119-135	HEADS 1 & 4 ON
102-118	HEADS 1 & 3 ON
85-101	HEADS 1 & 2 ON
68-84	HEAD 4 ON
51-87	HEAD 3 ON
34-50	HEAD 2 ON
17-33	HEAD 1 ON
00-16	BLACKOUT

Use your controller's slider to adjust the DMX value to reach your desired setting

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.

```
MODEL: FAB 4™

SPECIFICATIONS:
VOLTAGE:                        120V / 220V
LAMP (PER UNIT):                LL-200 120v/200w or
                                LL-200/2 220v/200w
DIMENSIONS:                     12"L x 12.25"W x 9.5"H
                                (with yoke extended)
WEIGHT:                         10 LBS / 7.5 KGS. (system)
FUSE:                           5 AMP GMA
WORKING POSITION:               ANY SAFE POSITION
COOLING:                        AIR COOLED
DUTY CYCLE:                     30 MIN. ON, 10 MIN. OFF
GOBOS:                          NONE
LENSES:                         16 - COLORED
COLORS:                         MULTIPLE - 64 BEAMS
DMX CHANNELS:                   1
POWER CONSUMPTION:              TYPICAL 2 AMPS
```

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