

American DJ[®]

Quadra Beam[™]

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User Instructions

Quadra Beam[™]

General Information

Unpacking: Thank you for purchasing the Quadra Beam[™] by American DJ[®]. Every Quadra Beam[™] 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 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: This unit use a single color/gobo wheel combination for vibrant colors and extravagant gobo patterns. The Quadra Beam[™] is an intelligent fixture that can run in DMX mode, as a stand alone sound active piece, or in a Master/Slave configuration. The Quadra Beam[™] comes with several build in programs and is best used in multiples of four. This piece is best used with a fog or haze machine to enhance the beam output. The Quadra Beam[™] comes with a swivel mirror that gives the allusion of X / Y movement, this mirror can be adjusted by hand. An optional *MINI/C* black out controller may be purchased separately.

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

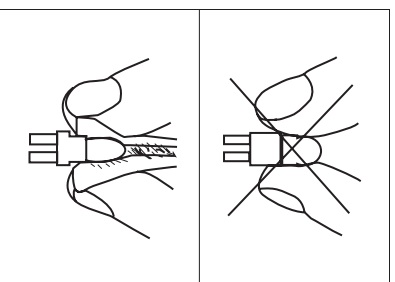
Fax: (323) 582-2610

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 repairs yourself, doing so will void your manufactures warranty. In the unlikely event your unit may require service please contact your nearest American DJ[®] dealer.

- 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 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. See page 7 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.



This fixture is fitted with halogen lamps which are highly susceptible to damage if improperly handled. Never touch the lamps with your bare fingers as the oil from your hands will shorten lamp life. Also, never move the fixture until the lamps have had ample time to cool. Remember, lamps are not covered under warranty conditions.

Quadra Beam™**Features**

- Micro-Stepping Motors for Smooth Color and Gobo Transitions
- Uses Two DMX Channels
- DMX-512 Protocol Compatible
- Full Focusing
- Fan Cooled.
- 10 Gobos Plus Spot.
- Two Split Color Gobos
- Master/Slave Operation
- Unique Four-Way Mirror
- Internal Microphone
- Volume Sensitivity Knob
- Easy Lamp Replacement
- Long Life ZB-JCR H5 (15v/150w) Lamp - 500 Hours
- Optional MINI/C Blackout Controller

Quadra Beam™**Product Registration**

The Quadra Beam™ carries a one year (365 days) limited warranty. Please 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.

Power Supply: Before plugging your unit in, be sure the source voltage in your area matches the required voltage for your American DJ® Quadra Beam.™ 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.

Data Cable (DMX Cable) Requirements (For DMX and Master/Slave Operation): The Quadra Beam can be controlled via DMX-512 protocol. The American DJ® Quadra Beam™ is a two channel DMX unit. The DMX address is set on the top panel of the Quadra Beam. 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.

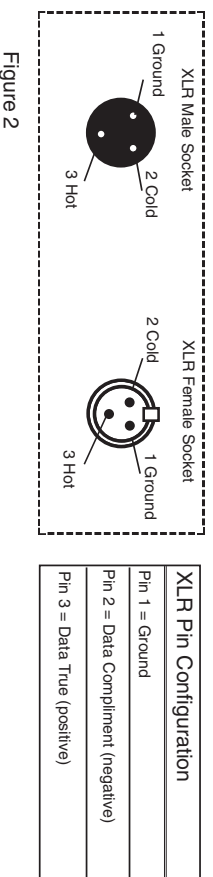


Figure 2



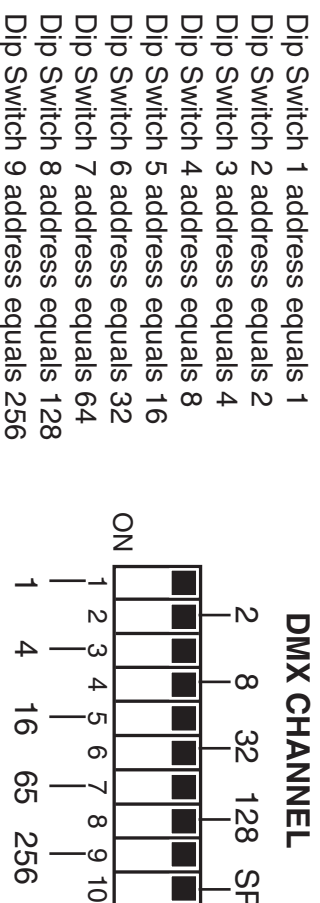
Figure 3

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 ZDMX/T) will decrease the possibilities of erratic behavior.



Figure 4

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



Each dip switch has a preset value. A specific DMX address is set by combining the dip switches that sum your desired value. For example: To achieve a DMX address of 21, combine dip switches 1, 3, and 5. Sense dip switch 1 has a value of 1, dip switch 3 has a value of 4, and dip switch 5 has a value of 16, the combination of the create a DMX value of 21.

Set DMX address 21:

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

Set DMX address 201:

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

Quadra Beam™

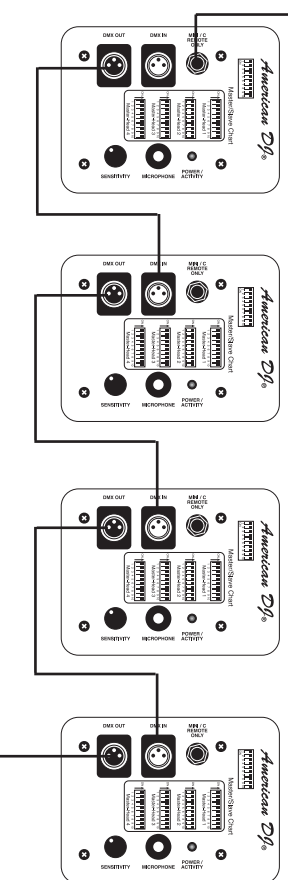
Linking

Linking: Your fixture comes with built-in programs. These programs are designed to work with up to 16 units when daisy-chained together in a master-slave configuration. Any unit can function as either a "Master Unit" or a "Slave Unit." Link the units together using standard DMX cable.

Master/Slave Linking:

For a more dramatic effect, link several Quadra Beams together.

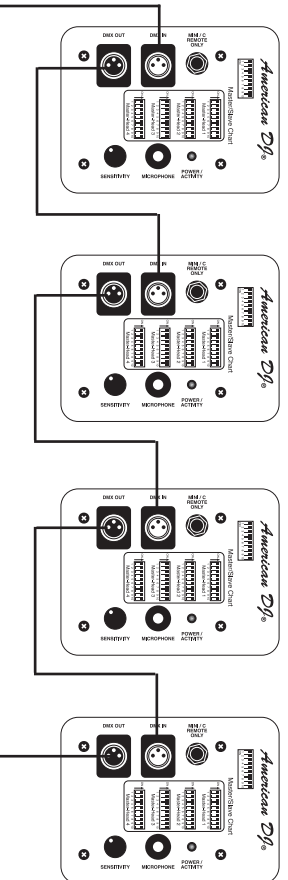
Optional MINI/C blackout controller



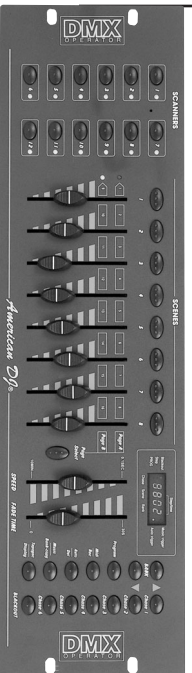
To next Quadra Beam if applicable

DMX Linking:

DMX function allows independent control of each fixture.

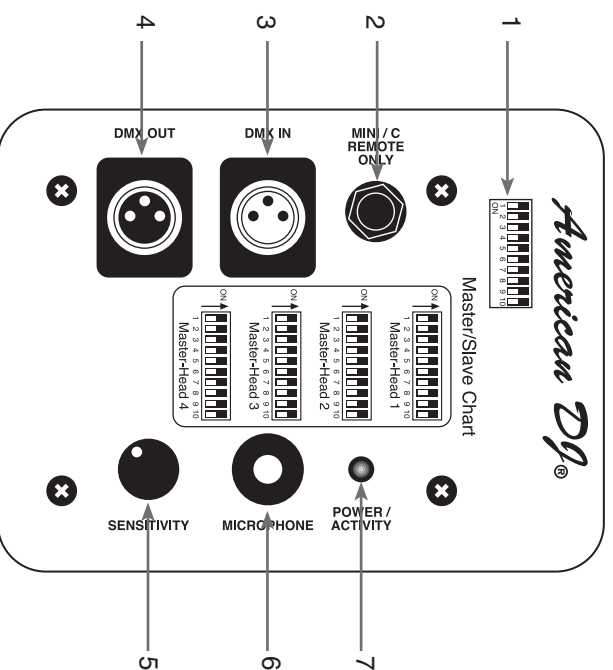


To next DMX unit or terminate.

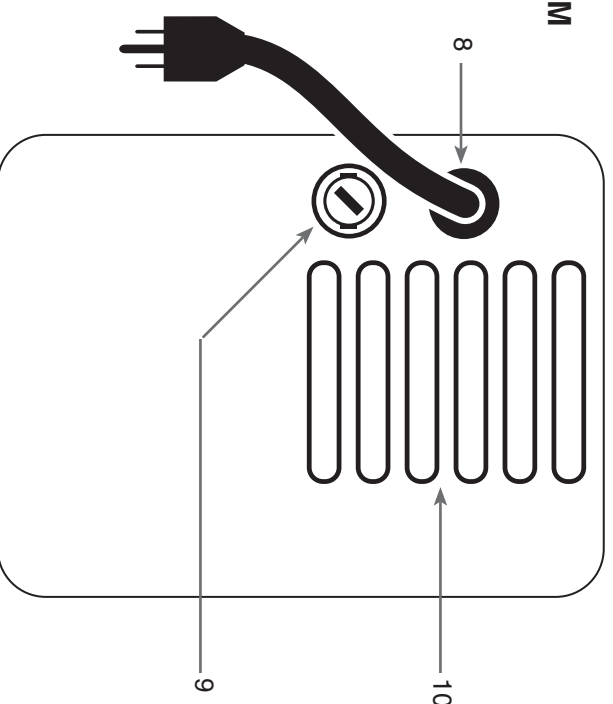


Quadra Beam™ Controls and Functions

TOP



BOTTOM



Quadra Beam™ Controls and Functions

1. **Dip Switches** - These switches serve two functions. In master slave mode these switches are used to assign a specific head address. In DMX mode these switches are used to assign a DMX address to the unit. In DMX mode each switch corresponds to a specific value based on binary code. See page 7 for a detailed explanation of DMX binary code.
2. **MINI/C Controller Jack** - This jack is for use with the optional MINI/C Blackout controller only. *Do not attempt to connect an audio signal this jack, this will damage the PC board and void your manufactures warranty!*
3. **XLR Input Jack** - This jack is used to accept an incoming DMX signal or Master/Slave signal.
4. **XLR Output Jack** - This jack is used to transmit the incoming DMX signal to another DMX fixture, or transmit a Master/Slave signal to the next Quadra Beam™ in the chain. For best results in DMX or Master/Slave mode terminate this jack if it is the last unit in the chain. See “Terminator” on page 7.
5. **Audio Sensitivity Knob** - This adjust audio sensitivity of the internal microphone (5). 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.
6. **Microphone** - This microphone receives external low frequencies to trigger the unit in Sound-Active and Master/Slave mode..
7. **Power Indicator** - This LED will flash when it receives either an audio or DMX signal.
8. **Power Cord** - Connect only to a matching power outlet. Never use this fixture is the ground prong has been removed or broken off.
9. **Fuse Holder** - This housing stores the 3 amp GMA protective fuse. Always replace with the exact same type fuse, unless otherwise instructed, by an authorized American DJ® service technician.
10. **Cooling Vents** - These vents are used to allow proper cooling. Keep the vents clean. Never block the vents, improper cooling may result in premature lamp failure.

Quadra Beam™ Operation

Universal DMX Control: This function allows you to use a universal DMX 512 controller as the American DJ® DMX Operator™ or Show Designer™ to control mirror movement and the color/gobo wheel. The use of a DMX controller will allow you to customize the use of fixtures allowing you to control the rotation direction as well as the rotation speed. Operating through a DMX controller allows the freedom to create unique programs tailored to one's individual needs.

1. The Quadra Beam™ uses two DMX channels. Channel one controls the color/gobo wheel and channel two controls mirror movement, please see page 13 for detailed description of the DMX traits.
2. To control your fixture in DMX mode, follow the set-up procedures on pages 5 - 7 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. When using a DMX controller and setting up for DMX operation follow the dip switch settings on page 14.
6. For help operating in DMX operation consult the manual included with your DMX controller.
7. For longer cable runs (more than a 100 feet) use a terminator on the last fixture.

Stand-Alone Operation (Sound Active): This function allows a single unit to run to the beat of the music. Only use this function when running a single unit, or when running several units as individuals.

1. To activate the Sound-Active mode, set dip switch #10, to the ON position (See “Master Unit” on the DIP SWITCH chart on page 14).
2. The unit will now react to the low frequencies of music via the internal microphone.
3. Adjust the audio sensitivity knob on the top 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, turning the knob in the counter-clockwise direction will decrease the fixture's sensitivity to sound.
4. The optional MINI/C Blackout Controller may be used with this function for blackout.

Quadra Beam™ Operation

Master-Slave Operation (Sound Active): This function will allow you to link up to 4 units together and operate without a controller.

The units will be sound activated. 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. Follow the chart on page 13 for proper unit dip switch settings.
3. The optional *MIN/C Blackout Controller* may be used with this function for blackout.
4. After all the units settings have been set and are plugged in, adjust the sensitivity knob on the rear of the master unit to make them react to sound.

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

Quadra Beam™ Fuse & Lamp Replacement

Caution: Always replace with the exact same type lamp and fuse, unless otherwise specified by an authorized American DJ® technician. Replace with anything other than the specified part can damage your unit and will void your manufactures warranty.

Warning: If, after replacing the lamp or fuse either one continues to blow, **STOP** using the unit. Contact customer support for further instructions, you may have to return the unit for servicing. Continuing to use the unit may cause serious damage.

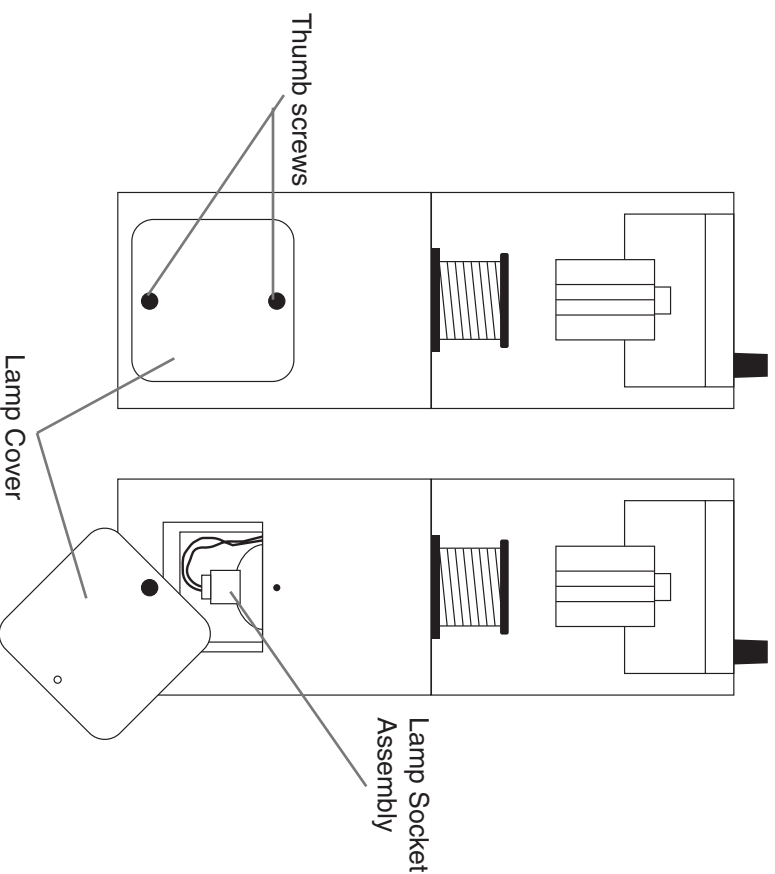
Fuse Replacement: Disconnect the unit's main power supply. Insert a standard flat head screw driver in to the fuse holder housing. Turn the screwdriver in counter-clockwise direction to remove the fuse holder. Remove the fuse holder to expose the fuse. Remove the old fuse and discard it. Replace the fuse with the same type. Insert the

Quadra Beam™ Fuse & Lamp Replacement

fuse holder back into it's housing and turn it in clockwise direction to lock the holder in place.

Lamp Replacement: Caution! Never attempt to change the lamp while the fixture is plugged in. Always disconnect the main power and allow the unit ample time to cool before attempting to replace the lamp. Lamp replacement has been made simple by incorporating the use of a flip-up front cover that is retained by thumb screws.

1. Be sure to follow the proper handling procedures that deal with halogen lamps. **Never touch the new lamp with your bare fingers.**
2. Remove the thumb screws on the front of the unit that hold the lamp socket assembly cover in place.
3. Carefully remove the old lamp and discard it in the trash.
4. Replace the lamp with an exact match and reassemble.



Fixture Cleaning:

Due to fog residue, smoke, and dust cleaning the internal and external optical lenses and mirror should be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates (I.e. smoke, fog residue, dust, dew). In heavy club use we recommend cleaning on a monthly basis. Periodic cleaning will ensure longevity, and crisp 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 and fan grill.
3. Clean the external optics and mirror with glass cleaner and a soft cloth every 20 days.
4. Clean the internal 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 back in.

Trouble Shooting:

Listed below are a few common problems that you may encounter, with solutions.

No light output from the unit;

1. Be sure you have connected your unit into a standard 120V wall outlet.
2. Be sure the external fuse has not blown. The fuse is located on the bottom panel of the unit.
3. Remove the lamp cover and be sure the lamp is seated in its socket properly. Occasionally lamps become loose during shipping be sure the lamp is push in to its socket all the way.
4. Be sure the fuse holder is completely and properly seated.

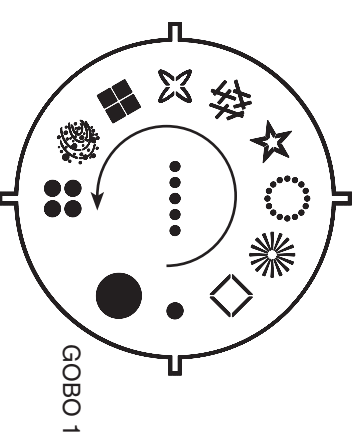
Unit does not respond to sound;

1. Low frequencies (bass) should cause the unit to react to sound. Tapping on the microphone, quiet or high pitched sounds may not activate the unit.
2. Be sure the *SENSITIVITY KNOB (5)* is not set to the minimum position

This chart below details the DMX traits of the fixture. The individual trait can only be accessed an universal DMX controller. Note: The Quadra Beam™ has a special DMX function

Channel 1 - COLOR/GOBO	Channel 2 - MIRROR ROTATION
255 SOUND ACTIVE MODE	255 SOUND ACTIVE MODE
205-254 CONTINUOUS SCROLL	
171-188 U.V./GOBO 11	234-244 FAST CW ROTATION
154-170 PINK/GOBO 10	
137-153 RED-GREEN/GOBO 9	222-233 MEDIUM CW ROTATION
120-136 BLUE-YELLOW/GOBO 8	
103-119 LT BLUE/GOBO 7	211-221 MD SLOW CW ROTATION
86-102 YELLOW/GOBO 6	
69-85 GREEN/GOBO 5	200-210 SLOW CW ROTATION
52-68 BLUE/GOBO 4	
35-51 RED/GOBO 3	01-199 CW STEP MOVEMENT
18-34 WHITE/SMALL SPOT	
01-17 WHITE/LARGE SPOT	
00 BLACKOUT	00 90° MIRROR POSITION

This chart detail the internal gobo wheel. Gobo one is the large spot. The arrow indicates the wheeler rotaion.



This chart details the Master/Slave dip switch setting for Master/Slave configuration. Use this configuration when you will be using two or more fixtures in a Master/Slave configuration. The Master - Head 1 settings should only be used once.

