

FOCUS SPOT 5Z

User Guide

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DOCUMENT VERSION



Due to additional product features and/or enhancements, an updated version of this document may be available online.



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Date	Document Version	Software Version	DMX Channels	Notes
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GENERAL

INTRODUCTION

This fixture has been designed to perform reliably for years when the information in this manual are followed. Please read and understand all the instructions and guidelines carefully and thoroughly before operating this unit. This manual contains important information regarding safety, installation, use, and maintenance.

UNPACKING

Each fixture has been thoroughly tested and shipped in perfect operating condition. Carefully check the outer shipping carton for signs of any damage that may have occurred during shipping. If the outer carton appears to be damaged, carefully inspect the fixture for damage and be sure all included accessories have arrived intact. In the event damage has been found and/or parts are missing, please contact our customer support team for further instructions. Please do NOT return this fixture to your dealer without first contacting customer support at the number listed below. Please do NOT discard the outer shipping carton in the trash. Please recycle whenever possible.

CUSTOMER SUPPORT: Contact ADJ Service for any product related service and support needs. Also visit forums.adj.com with questions, comments or suggestions.

ADJ SERVICE USA - Monday - Friday 8:00am to 4:30pm PST

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REPLACEMENT PARTS please visit parts.adj.com

WARRANTY RETURNS

All returned service items, whether under warranty or not, must be freight pre-paid and accompanied by a return authorization (R.A.) number. The R.A. number must be clearly written on the outside of the return package. A brief description of the problem as well as the R.A. number must also be written down on a piece of paper and included in the shipping container. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. Items returned without an R.A. number clearly marked on the outside of the package will be refused and returned at customer's expense. You may obtain an R.A. number by contacting customer support.

LIMITED WARRANTY (USA ONLY)

- A. ADJ Products, LLC hereby warrants, to the original purchaser, ADJ Products, LLC products to be free of manufacturing defects in material and workmanship for a prescribed period from the date of purchase (see specific warranty periods below). 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—please contact ADJ Products, LLC Service Department at 800-322-6337. Send the product only to the ADJ Products, LLC factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, ADJ Products, LLC 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, ADJ Products, LLC shall have no liability whatsoever for loss of or damage to any such accessories, or 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 ADJ Products, LLC concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the ADJ Products, LLC factory unless prior written authorization was issued to purchaser by ADJ Products, LLC; 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 checkup. During the period specified above, ADJ Products, LLC 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 ADJ Products, LLC under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of ADJ Products, LLC. All products covered by this warranty were manufactured after August 15, 2012, and bear identifying marks to that effect.
- E. ADJ Products, LLC 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 ADJ Products, LLC 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 ADJ Products, LLC 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 ADJ Products, LLC Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

LIMITED WARRANTY PERIODS

- **Non-LED Lighting Products = 1-Year (365 Days)** (Including Special Effect Lighting, Intelligent Lighting, UV lighting, Strobes, Fog Machines, Bubble Machines, Mirror Balls, Par Cans, Trussing, Lighting Stands, Power/Data Distribution, etc. excluding LED and lamps)
- **Laser Products = 1-Year (365 Days)** (excluding laser diodes which have a 6-Month Limited Warranty)
- **LED Products = 2-Year (730 Days)** (excluding batteries which have a 180 Day Limited Warranty)
PLEASE NOTE: 2-Year (730 Days) Limited Warranty ONLY applies to product purchased within the USA.
- **StarTec Series = 1-Year (365 Days)** (excluding batteries which have a 180 Day Limited Warranty)
- **ADJ DMX Controllers = 2 Year (730 Days)**
- **American Audio Products = 1 Year (365 Days)**

SAFETY GUIDELINES

This fixture is a sophisticated piece of electronic equipment. To guarantee smooth operation, it is important to follow all instructions and guidelines in this manual. ADJ is not responsible for injury and/or damages resulting from the misuse of this fixture due to the disregard of the information printed in this manual. Only qualified and/or certified personnel should perform installation of this fixture and only the original rigging parts (omega brackets) included with this fixture should be used for installation. Any modifications to the fixture and/or the included mounting hardware will void the original manufacturer's warranty and increase the risk of damage and/or personal injury.



PROTECTION CLASS 1 - FIXTURE MUST BE PROPERLY GROUNDED.



THERE ARE NO USER SERVICEABLE PARTS INSIDE THIS UNIT. DO NOT ATTEMPT ANY REPAIRS YOURSELF, AS DOING SO WILL VOID YOUR MANUFACTURER'S WARRANTY. DAMAGES RESULTING FROM MODIFICATIONS TO THIS FIXTURE AND/OR THE DISREGARD OF SAFETY INSTRUCTIONS AND GUIDELINES IN THIS MANUAL VOID THE MANUFACTURER'S WARRANTY AND ARE NOT SUBJECT TO ANY WARRANTY CLAIMS AND/OR REPAIRS.



**DO NOT PLUG FIXTURE INTO A DIMMER PACK!
NEVER OPEN THIS FIXTURE WHILE IN USE!
DISCONNECT FIXTURE FROM POWER BEFORE SERVICING!
NEVER TOUCH THE FIXTURE DURING OPERATION, AS IT MAY BE HOT!
KEEP FLAMMABLE MATERIALS AWAY FROM THE FIXTURE!**



**NEVER LOOK DIRECTLY INTO THE LIGHT SOURCE!
RETINA INJURY RISK - MAY INDUCE BLINDNESS!
SENSITIVE PERSONS MAY SUFFER AN EPILEPTIC SHOCK!**



**MAXIMUM EXTERNAL SURFACE TEMPERATURE: 185° F (85° C)
MAXIMUM AMBIENT TEMPERATURE: 104° F (40° C)**

- **DO NOT TOUCH** the fixture housing during operation.
- Turn OFF the power and allow approximately 15 minutes for the fixture to cool down before serving.
- **DO NOT** shake fixture, avoid brute force when installing and/or operating fixture.
- **DO NOT** operate fixture if the power cord is frayed, crimped, damaged and/or if any of the power cord connectors are damaged and do not insert into the fixture securely with ease.
- **NEVER** force a power cord connector into the fixture. If the power cord or any of its connectors are damaged, replace it immediately with a new one of similar power rating.
- **DO NOT** block any air ventilation slots. All fan and air inlets must remain clean and never blocked. Allow approx. 6" (15cm) between fixture and a wall for proper cooling.
- When installing fixture in a suspended environment, always use mounting hardware that is at least M10 x 25 mm, and always install fixture with an appropriately rated safety cable.
- Always disconnect fixture from main power source before performing any type of service and/or cleaning procedure.
- Only handle the power cord by the plug end, and never pull out the plug by tugging the wire portion of the cord.
- During the initial operation of this fixture, a light smoke or smell may emit from the interior of the fixture. This is a normal process and is caused by excess paint in the interior of the casing burning off from the heat associated with the lamp and will decrease gradually over time.
- Consistent operational breaks will ensure fixture will function properly for many years.
- In the event that the fixture needs to be returned for servicing, use only the original packaging and materials to transport the fixture.

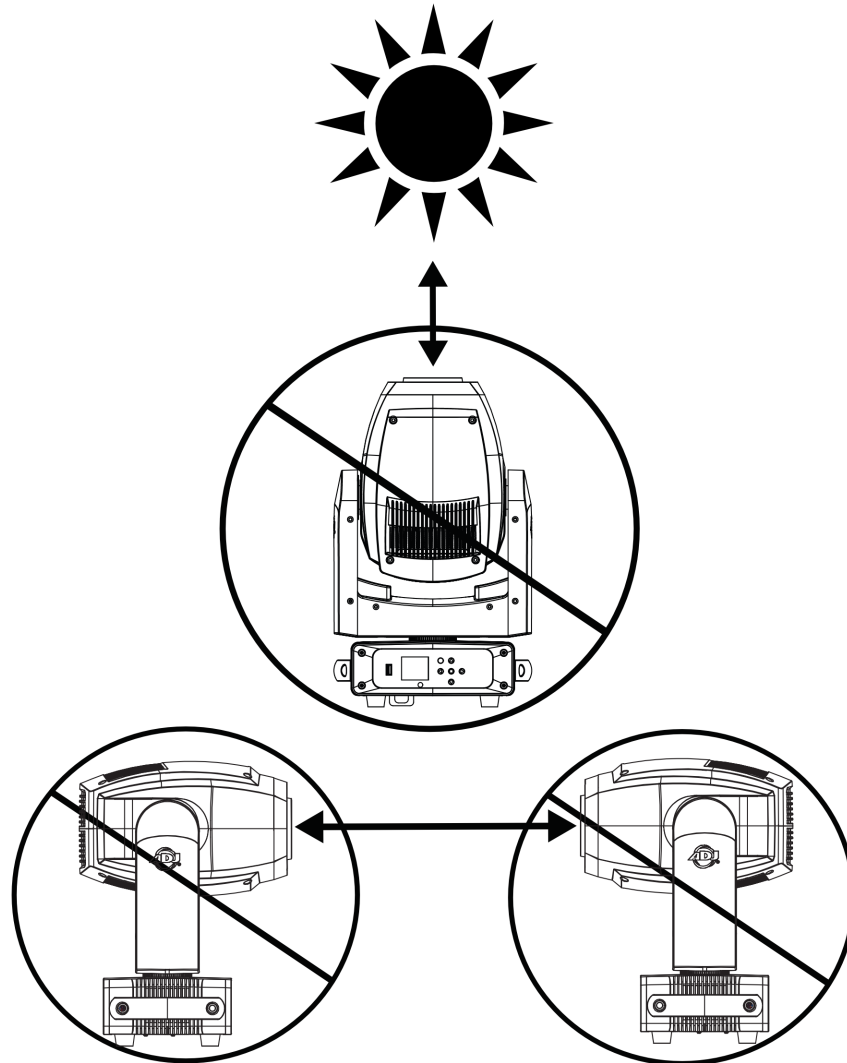
SAFETY GUIDELINES

POTENTIAL INTERNAL FIXTURE DAMAGE FROM EXTERNAL SOURCES OF LIGHT BEAMS

External sources of light beams from direct sunlight, lighting moving head fixtures, and lasers, which are focused directly towards the exterior housing and/or penetrate the front lens opening of ADJ lighting fixtures, can cause severe internal damage including burning to optics, dichroic color filters, glass and metal gobos, prisms, animation wheels, frost filters, iris, shutters, motors, belts, wiring, discharge lamps, and LEDs.

This issue is not specific only to ADJ lighting fixtures, it is a common issue with lighting fixtures from all manufacturers. Although there is no true way to fully prevent this issue from happening, the guidelines below can prevent any potential damage from occurring if followed. Contact ADJ Service for more details.

DO NOT EXPOSE THE FIXTURE AND/OR FRONT LENS OPENING TO LIGHT BEAMS FROM DIRECT SUNLIGHT, OTHER LIGHTING MOVING HEAD FIXTURES, AND LASERS WHILE UNPACKING, INSTALLATION, USE, AND EXTENDED IDLE TIMES OUTDOORS.
DO NOT FOCUS A LIGHT BEAM FROM ONE LIGHTING FIXTURE DIRECTLY TOWARDS ANOTHER.



MAINTENANCE GUIDELINES



DISCONNECT POWER BEFORE PERFORMING ANY MAINTENANCE!

CLEANING

Frequent cleaning is recommended to insure proper function, optimized light output, and an extended life. The frequency of cleaning depends on the environment in which the fixture operates: damp, smoky, or particularly dirty environments can cause greater accumulation of dirt on the fixture's optics. Clean the external lens surface regularly with a soft cloth to avoid dirt/debris accumulation.

NEVER use alcohol, solvents, or ammonia-based cleaners.

MAINTENANCE

Regular inspections are recommended to insure proper function and extended life. There are no user serviceable parts inside this fixture. Please refer all other service issues to an authorized Elation service technician. Should you need any spare parts, please order genuine parts from your local Elation dealer.

Please refer to the following points during routine inspections:

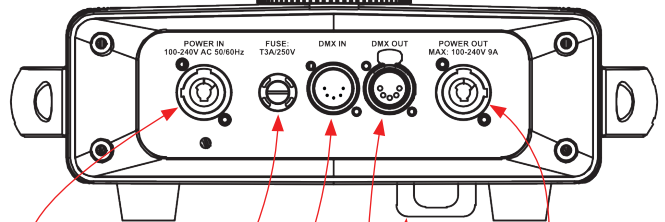
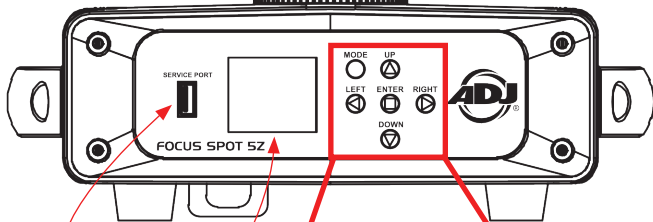
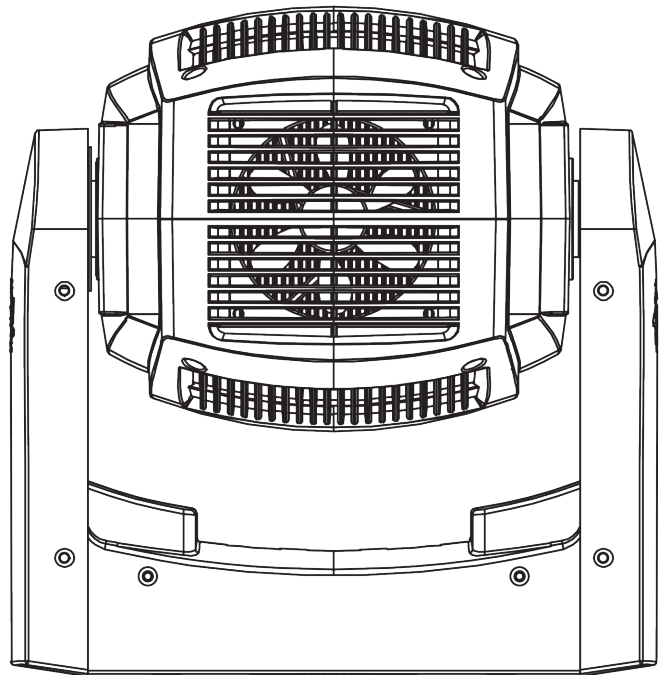
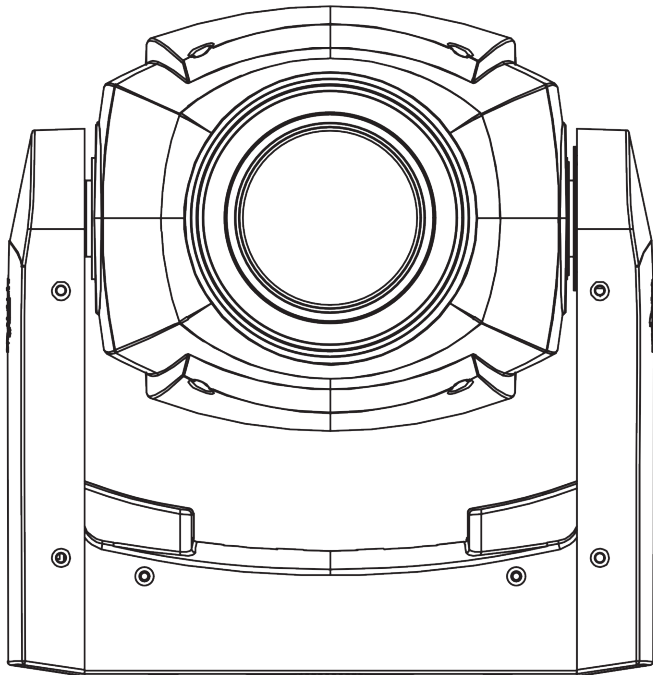
- A detailed electrical check by an approved electrical engineer every three months, to make sure the circuit contacts are in good condition and prevent overheating.
- Be sure all screws and fasteners are securely tightened at all times. Loose screws may fall out during normal operation, resulting in damage or injury as larger parts could fall.
- Check for any deformations on the housing, color lenses, rigging hardware, and rigging points (ceiling, suspension, trussing). Deformations in the housing could allow for dust to enter into the fixture. Damaged rigging points or unsecured rigging could cause the fixture to fall and seriously injure a person(s).
- Electric power supply cables must not show any damage, material fatigue, or sediments.

NEVER remove the ground prong from the power cable.

FUSE REPLACEMENT

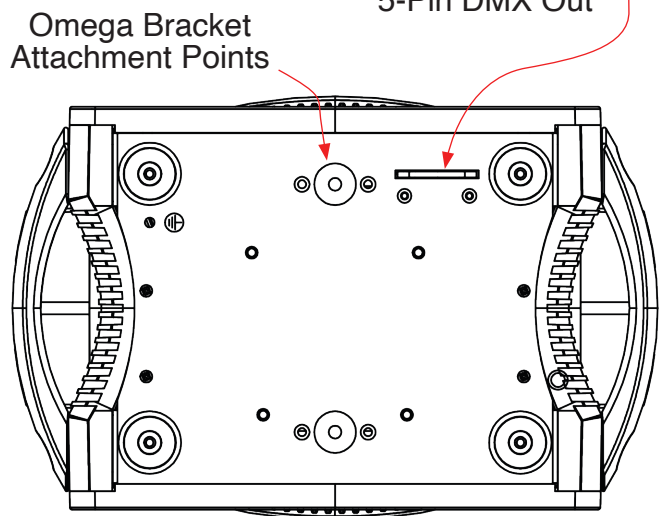
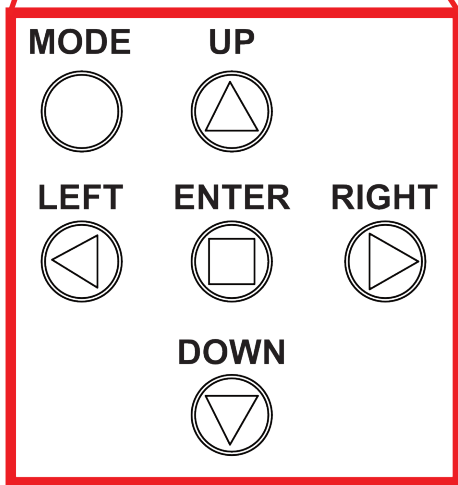
Unplug the unit from any power source it may be connected to. Once the power has been disconnected, use a flat head screw driver to unscrew the fuse holder located next to the power input. Remove the bad fuse and replace with a new one, and screw the fuse holder back in.

OVERVIEW



Service Port
LCD Display

Power Cable In/Out
Fuse: T3A/250V
5-Pin DMX In
5-Pin DMX Out
Power Cable Out
Safety Cable Anchor Point



INSTALLATION INSTRUCTIONS



DO NOT INSTALL THE FIXTURE IF YOU ARE NOT QUALIFIED TO DO SO!

Fixture **MUST** be installed following all local, national, and country commercial electrical and construction codes and regulations.

Before rigging/mounting a single fixture to any metal truss/structure or placing the fixture(s) on any surface, a professional equipment installer **MUST** be consulted to determine if the metal truss/structure or surface is properly certified to safely hold the combined weight of the fixture(s), clamps, cables, and accessories.

Ambient operating temperature range is **-13°F. (-25°C) to 113°F. (45°C)**.

Fixture(s) should be installed in areas outside walking paths, seating areas, or away from areas where unauthorized personnel might reach the fixture by hand.

NEVER stand directly below the fixture(s) when rigging, removing or servicing.

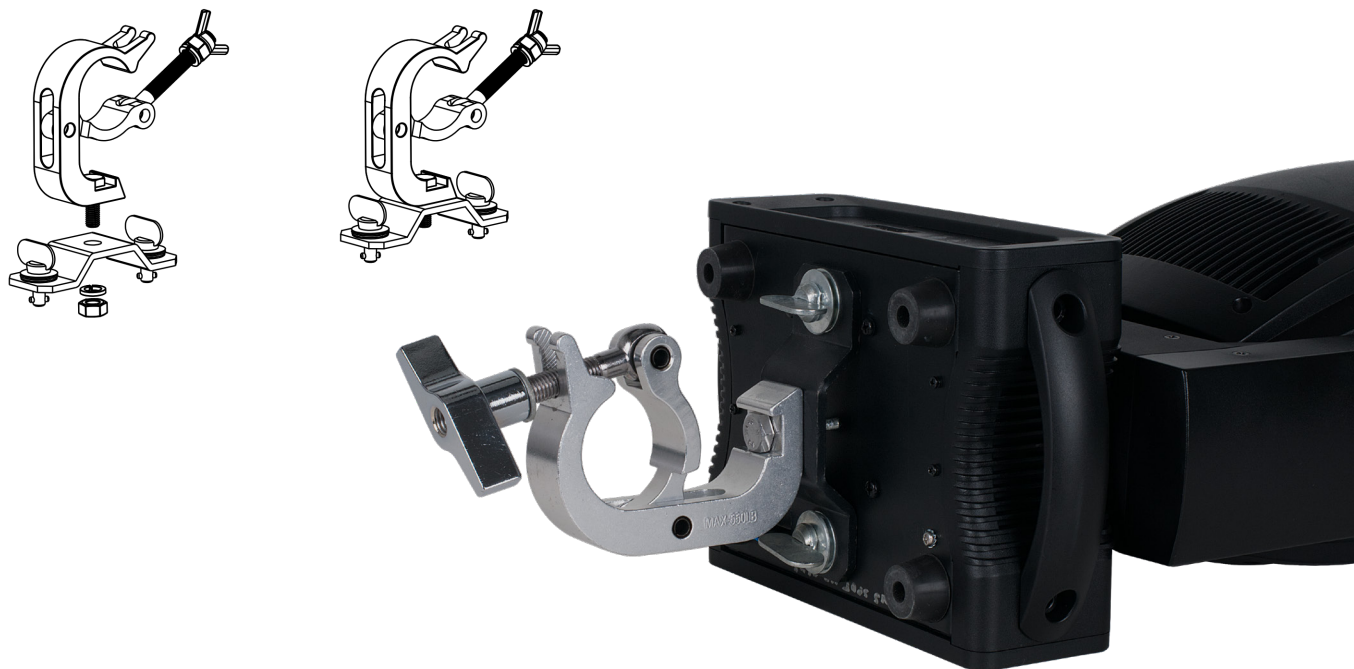
Overhead fixture installation must always be secured with a secondary safety attachment, such as an appropriately rated safety cable that can hold 10 times the weight of the fixture. Allow approximately 15 minutes for the fixture to cool down before serving.



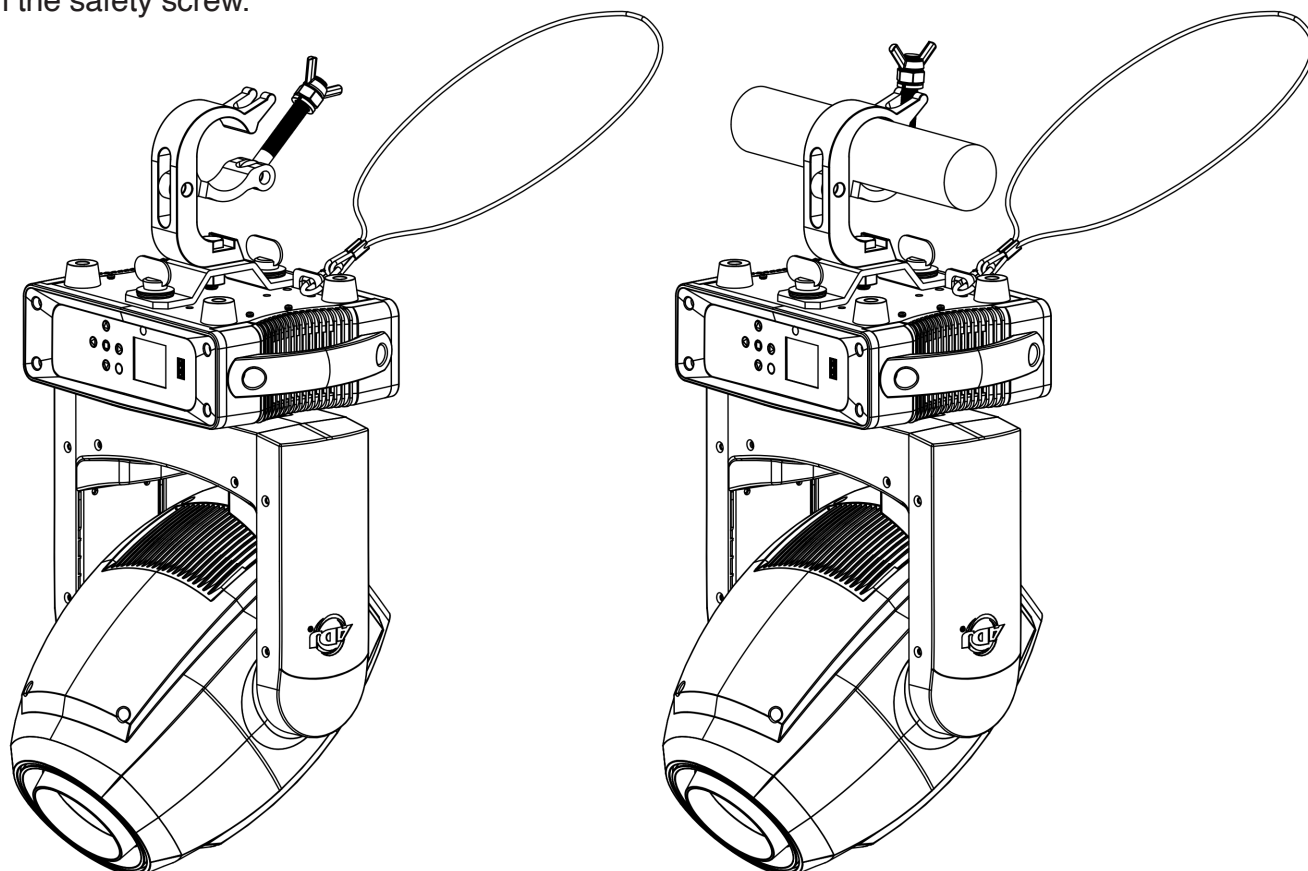
TO MAINTAIN IP RATING INTEGRITY, ALL UNUSED CONNECTION RUBBER CAPS MUST BE SEALED.

INSTALLATION INSTRUCTIONS

Screw one clamp via a M12 screw and nut into the Omega Bracket. Insert the quick-lock fasteners of the Omega Bracket into the respective holes of the fixture base. **NOTE: The clamp must be attached to the Omega Bracket before attaching the bracket to the fixture.**



Tighten the quick-lock fasteners fully clockwise. Pull the safety-cable through the opening located on the bottom of the unit and over the trussing system or a safe fixation spot. Insert the end in the carabiner, and tighten the safety screw.

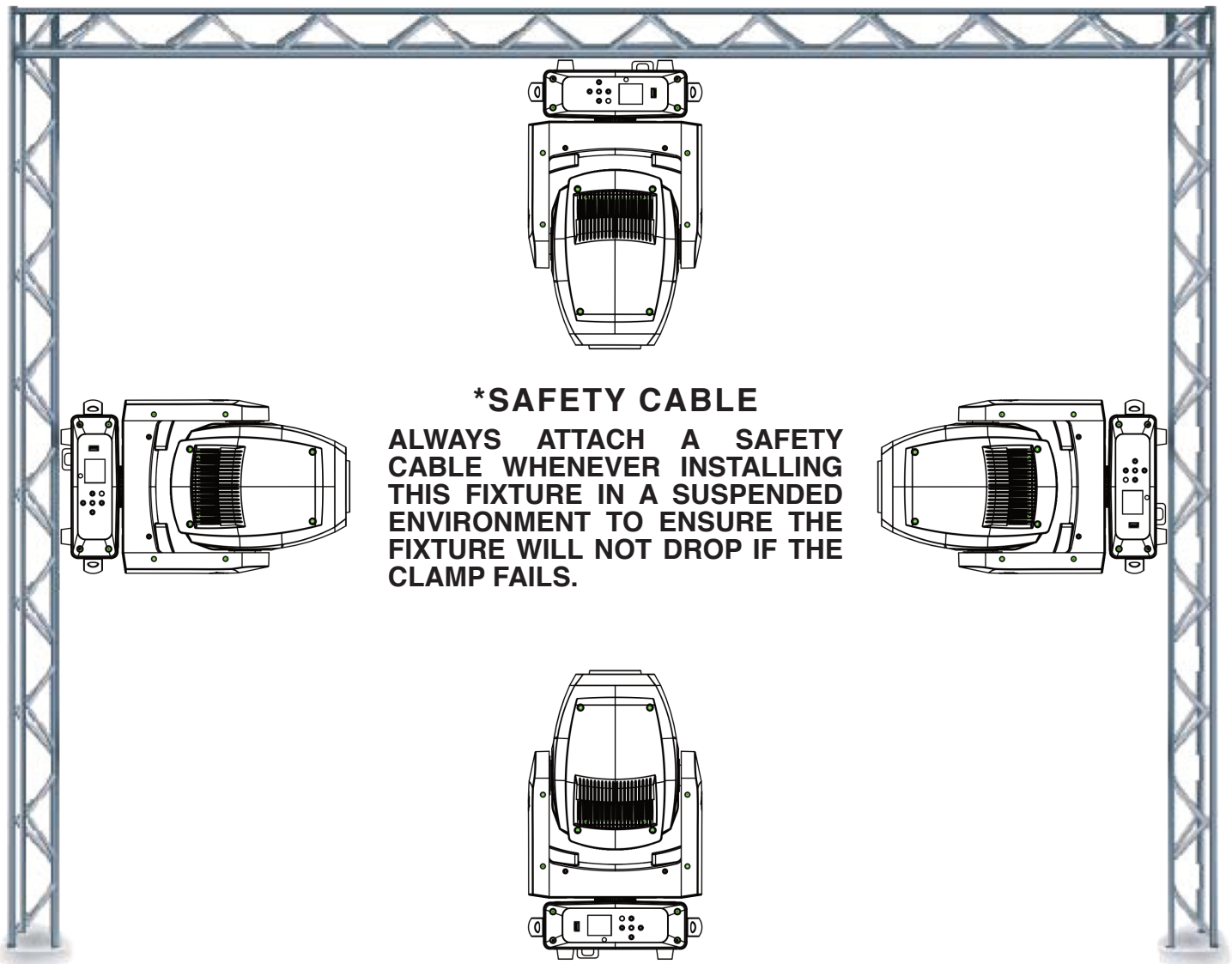


INSTALLATION INSTRUCTIONS

When installing the unit, the trussing or area of installation must be able to hold 10 times the weight without any deformation. When installing the unit must be secured with a secondary safety attachment, e.g. and appropriate safety cable. Never stand directly below the unit when mounting, removing, or servicing the unit.

Overhead mounting requires extensive experience, including calculating working load limits, installation material being used, and periodic safety inspection of all installation material and unit. If you lack these qualifications, do not attempt the installation yourself.

These installations should be checked by a skilled person once a year.



The Focus Spot 5Z is fully operational in three different mounting positions, hanging upside-down, mounted sideways on trussing, or set on a flat level surface. Always use and install a safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails. Never use the carrying handles for secondary attachment.

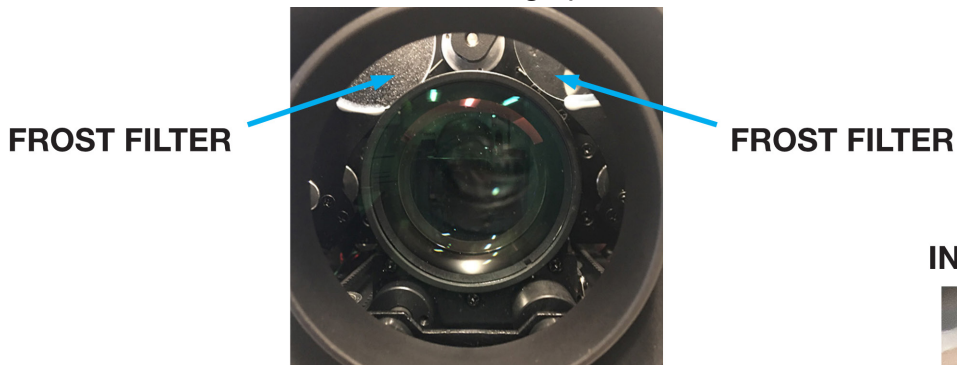
GOBOS & GOBO REPLACEMENT

The gobo's featured in this unit are interchangeable. Remember when changing these gobo's that they are thin and easy to bend.

If removing/replacing the glass gobo, please be very careful. Keep in mind that this is a glass gobo, which means it is delicate. Please take care when removing/replacing any of the gobos.

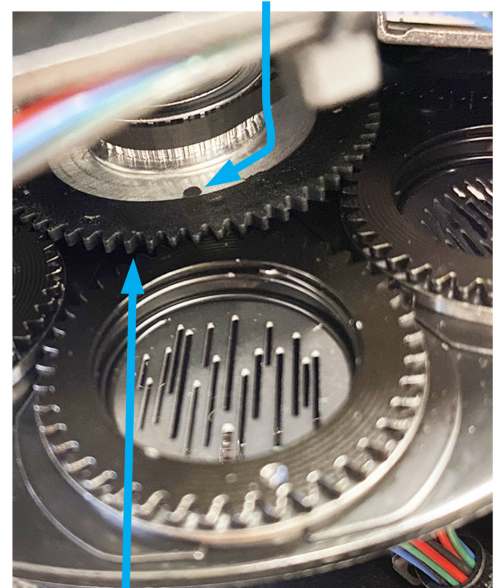
Caution! Never open the unit when in use. Always disconnect the main power before attempting to change the gobos.

Locating the Gobo wheel: After disconnecting the main power, position the head with the lens facing forward. When looking through the front lens, position the head so that the frost filters are located at the top (see image below). When the frost filters are located at the top, the shell that needs to be unscrewed and removed is now facing up.



1. To change a gobo, unscrew the 4 screws that secure the shell to the unit. Gently lift and remove the shell.
2. Once the shell is removed, you will be able to access the gobo wheel. Turn the wheel until you come across the gobo you would like to change.
3. Once you have found the gobo you would like to change, use your finger to carefully turn the small inner gear so that the "alignment dot" on the inner gear, lines up with the gobo you would like to replace.

INNER GEAR "ALIGNMENT DOT"



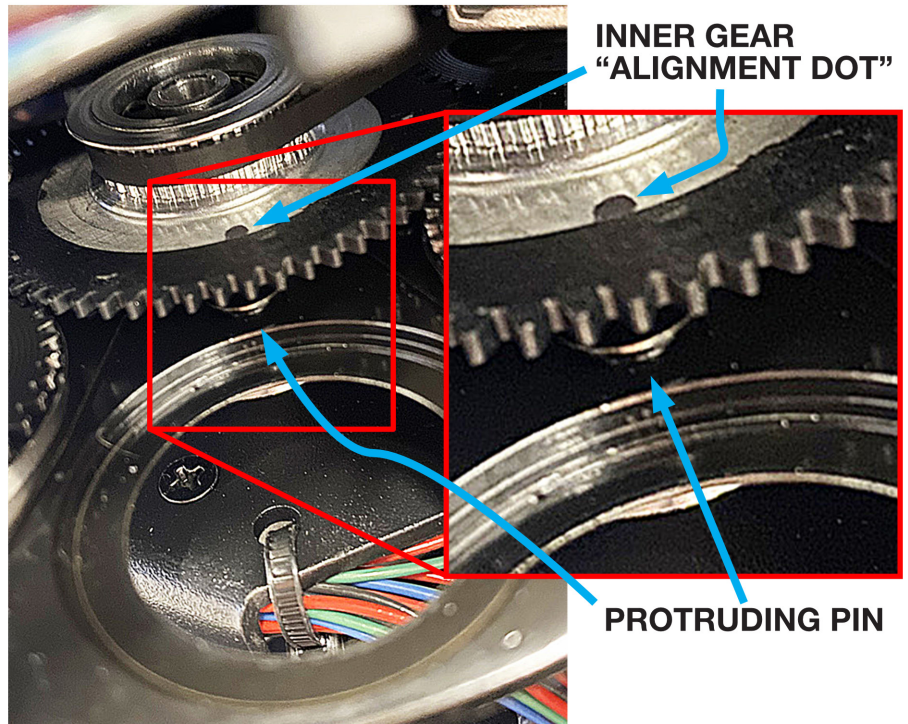
INNER GEAR

4. Once the gobo and "alignment dot" are lined up, CAREFULLY, from underneath the gobo wheel, push the gobo housing with gobo up and pull the housing out.
5. CAUTION! Do not put too much pressure on the gobo itself due to the fact it is thin and it can bend.
6. Using your fingernail or needle nose pliers, CAREFULLY remove the retainer ring that secures the gobo in place. After the retainer ring is removed, you are able to remove the gobo.

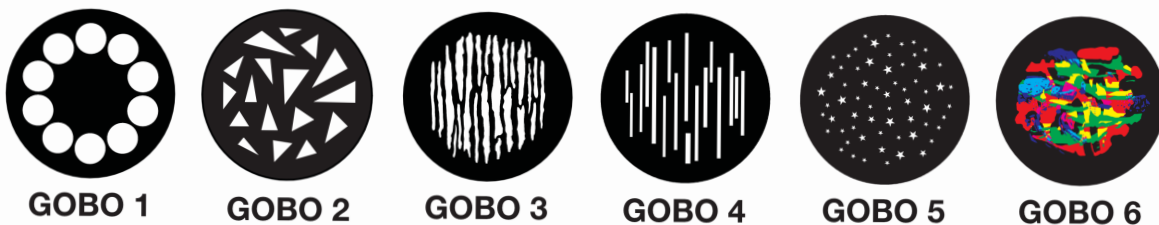
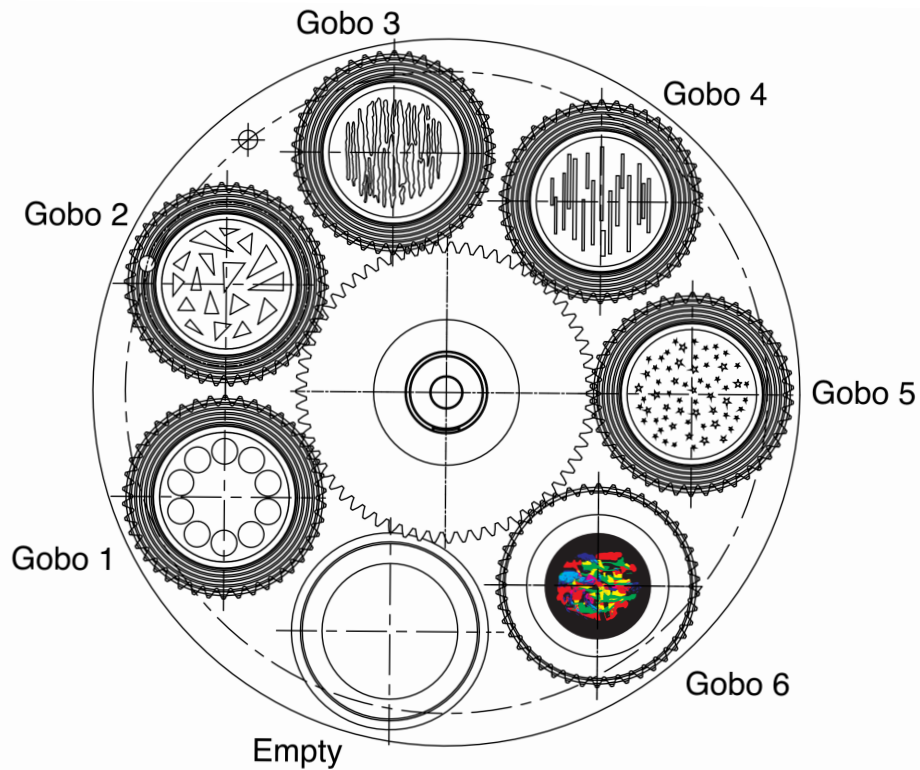


GOBOS & GOBO REPLACEMENT

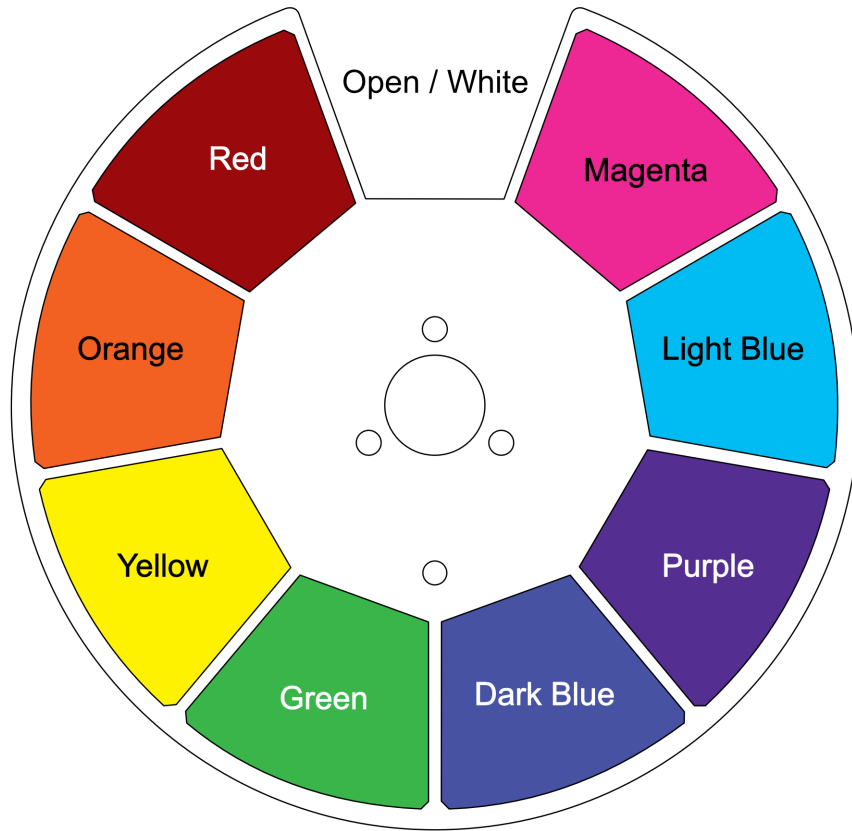
7. Change the gobo and replace the retainer ring.
8. NOTE: The black side of the gobo faces outwards in the gobo holder.
9. To reinsert the gobo housing back into the gobo wheel, make sure the "alignment dot" lines up with the "protruding pin" (Figure 3). The "protruding pin" secures the gobo housing to the gobo wheel. You will feel the gobo housing "lock" into place when the housing is inserted correctly.
10. Reassemble the unit.



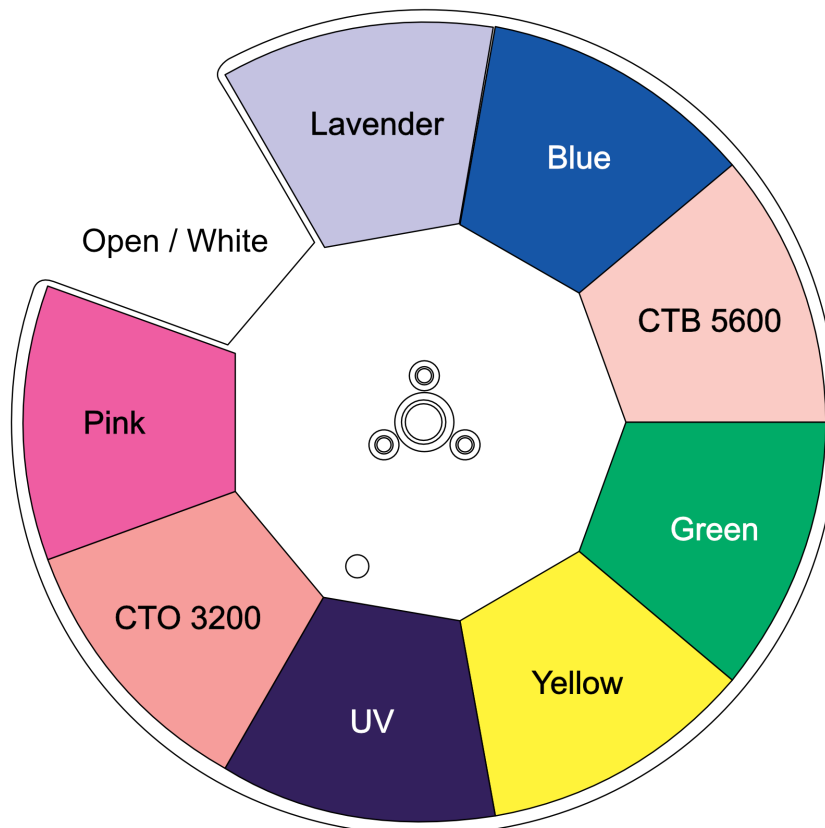
FACTORY DEFAULT GOBO POSITION ASSIGNMENTS



COLOR WHEELS



COLOR WHEEL 1



COLOR WHEEL 2

DMX SETUP

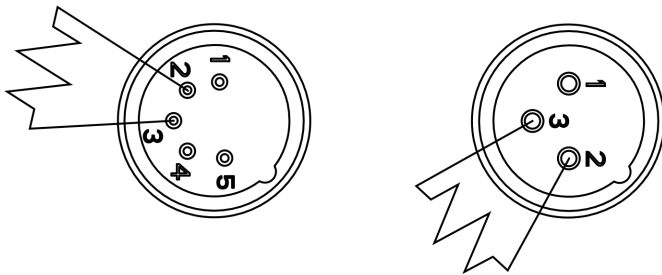
DMX-512: DMX is short for Digital Multiplex. This is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions from the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture 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 Focus Spot 5Z can be controlled via DMX-512 protocol. The DMX address is set on the front panel of the Focus Spot 5Z. Your unit and your DMX controller require a 5-pin XLR connector 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 pro 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.

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.



A DMX512 terminator reduces signal errors, avoiding most signal reflection interference. Connect PIN 2 (DMX-) and PIN 3 (DMX+) of the last fixture in series with a 120 Ohm, 1/4 W Resistor to terminate the DMX512.

DMX SETUP

5-Pin XLR DMX Connectors. The Focus Spot 5Z uses 5-pin DMX-512 data cables for DATA transmission in place of a 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 adapter must be used, these adapters 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

DMX ADDRESSING

All fixtures should be given a DMX starting address when using a DMX controller, so the correct fixture responds to the correct control signal. This digital starting address is the channel number from which the fixture starts to “listen” to the digital control signal sent out from the DMX controller. The assignment of this starting DMX address is achieved by setting the correct DMX address on the digital control display on the fixture.

You can set the same starting address for all fixtures or a group of fixtures, or set different addresses for each individual fixture. Setting all fixtures to the same DMX address will cause all fixtures to react in the same way, in other words, changing the settings of one channel will affect all the fixtures simultaneously.

If you set each fixture to a different DMX address, each unit will start to “listen” to the channel number you have set, based on the quantity of DMX channels of each fixture. That means changing the settings of one channel will only affect the selected fixture.

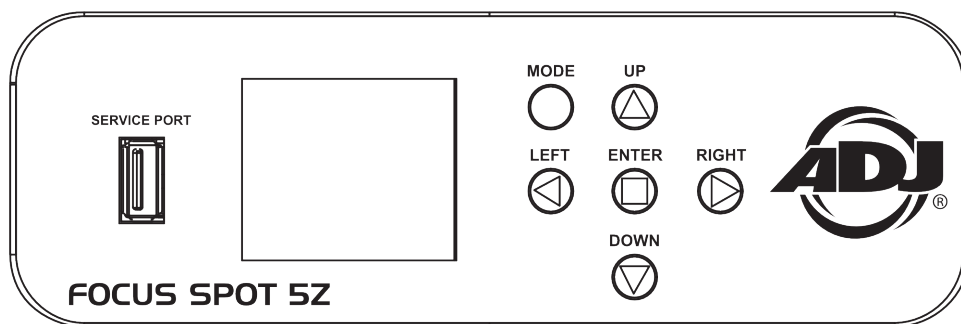
In the case of the Focus Spot 5Z, when in 19 channel mode you should set the starting DMX address of the first unit to 1, the second unit to 20 (19 + 1), the third unit to 39 (20 + 19), and so on. (See the chart below for more details.)

Channel Mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
19 Channels	1	20	39	58
22 Channels	1	23	45	64
26 Channels	1	27	53	79

SYSTEM MENU

The fixture includes an easy to navigate system menu control panel display where all necessary settings and adjustments are made. During normal operation, pressing the **MODE** button once will access the fixture's main menu. Once in the main menu, you can navigate through the different functions with the **UP** and **DOWN** buttons. When you reach a field that requires adjusting, press the **ENTER** button to access that field and use the **LEFT** and **RIGHT** buttons to adjust the field. Pressing the **ENTER** button once more will confirm your setting. You may exit the main menu at any time without making any adjustments by pressing the **MODE** button.

System Menu Access: To access the system menu when the fixture is not powered using the internal battery, press and hold the **MODE** button to illuminate the LCD screen until the **DMX** address is displayed. Then navigate to the desired system menu.



LCD CONTROL PANEL LOCKOUT

When the Key Lock function is activated, the control panel will automatically lock after the time set under the Display submenu "Screen Saver Delay".

When the Key Lock function is set to ON, the control panel will lock. Press and hold the MODE button for 3 seconds to unlock.

When the Key Lock function is set to ON1, the control panel will lock, and will not unlock without a code. To unlock the display follow these steps:

1. Press the UP button, and the display will change to:

*			
---	--	--	--

 (one * appears).
2. Press the DOWN button, and the display will change to:

*	*		
---	---	--	--

 (two * appear).
3. Press the UP button, and the display will change to:

*	*	*	
---	---	---	--

 (three * appear).
4. Press the DOWN button, and the display will change to:

*	*	*	*
---	---	---	---

 (four * appear).
5. Press the ENTER button, and the display will be unlocked.

If the button sequence was entered correctly, the display and control panel will unlock. If the button sequence was entered incorrectly, the display will return to the DMX address display.

SYSTEM MENU

MAIN MENU	SUB MENU	OPTIONS / VALUES (Default Settings in BOLD)	DESCRIPTION	
DMX SETTING	Set Address	001 -XXX	DMX Addressing	
	DMX Channel Mode	Basic (19) / Standard (22) / Extended (26)	DMX Channel Mode Selection	
	No DMX Status	Hold Last / Blackout / Manual	DMX Lost Status	
PERSONALITY	Primary	ON / OFF	Primary Setting	
	Secondary	ON / OFF	Secondary Setting	
	Status Settings	Pan Degree: 630 / 540	Pan Degree Selection	
		Pan Invert: ON / OFF	Reverse Pan Motion	
		Tilt Invert: ON / OFF	Reverse Tilt Motion	
		P./T. Feedback: ON / OFF	Pan//Tilt Movement Feedback	
		P./T. Speed: Speed 1 / Speed 2	Pan/Tilt Movement Speed	
		Hibernation: Off / 01M~99M / 15M	Sleep Setting (No Activity)	
	Fan Settings	Head Fan: Auto / High / Silent (Low)	Fan Speed Setting	
	Dim Modes	Standard /Stage/TV/Architectur/Theatre/Stage2 Dim Speed: 0.1-10s	Dimming Modes Dimming Speed	
	LED Refresh Rate	1200 / 900-1500 / 2500 / 4000 / 5000 / 6000 / 10000 / 15000 / 20000 / 25000 (Hz)	LED Refresh Setting	
	Dim Curve	Linear / Square / Inverse Square / S-Curve	Dimming Curves	
	Reset Motors	Reset All Motors: YES / NO	Reset All Motors	
		Pan/Tilt Reset: YES / NO	Reset Pan/Tilt Motors	
		Color/Gobo Reset: YES / NO	Reset Color/Gobo Motors	
		Effect/Focus Reset: YES / NO	Reset Effect/Focus Motors	
	Display	Intensity: 1~ 10 (Dimmest-Brightest)	Display Intensity Adjustment	
		Display Invert: YES / NO	Display Inversion	
		Screen Saver Delay: OFF~ 10M	Display Shutoff Time	
		Key Lock: OFF / ON / ON1	Display Control Lock	
	Service	Pass Code = 050	Effect Adjust (Calibration) (Pass Code = 50)	Calibration Adjustment
			USB Port Power: ON / OFF	USB Port Activatio
			Update Software: YES / NO	Software Update
Factory Restore: YES / NO (Pass Code = 11)			Restore Factory Settings	

SYSTEM MENU

MAIN MENU	SUB MENU	OPTIONS / VALUES (Default Settings in BOLD)	DESCRIPTION
MANUAL CONTROL	Pan	000~255	Manual Control Settings
	Pan Fine	000~255	
	Tilt	000~255	
	Tilt Fine	000~255	
	Color 1	000~255	
	Color 2	000~255	
	Gobo	000~255	
	Gobo Rot	000~255	
	Shutter	000~255	
	Dimmer	000~255	
	Dimmer Fine	000~255	
	Prism 1	000~255	
	Prism 1 Rot.	000~255	
	Prism1Rot Fine	000~255	
	Prism 2	000~255	
	Prism 2 Rot.	000~255	
	Prism2Rot Fine	000~255	
	Focus	000~255	
	Zoom (Narrow to Wide)	000~255	
	Zoom Fine (Narrow to Wide)	000~255	
Frost 1	000~255		
Frost 2	000~255		
Dim Modes	000~255		
Dim Curves	000~255		
P/T Speed	000~255		
Special Function	000~255		
INTERNAL PROGRAMS	Program 1	Speed: 000~255 Fade: 000~255	Program 1 with Adjustments
	Program 2	Speed: 000~255 Fade: 000~255	Program 2 with Adjustments
	Program 3	Speed: 000~255 Fade: 000~255	Program 3 with Adjustments
	Program 4	Speed: 000~255 Fade: 000~255	Program 4 with Adjustments
	Program 5	Speed: 000~255 Fade: 000~255	Program 5 with Adjustments
	Program 6	Speed: 000~255 Fade: 000~255	Program 6 with Adjustments
	Program 7	Speed: 000~255 Fade: 000~255	Program 7 with Adjustments

SYSTEM MENU

MAIN MENU	SUB MENU	OPTIONS / VALUES (Default Settings in BOLD)	DESCRIPTION	
INFORMATION	Fixture Life Time	Power On Time: XXXXXX Hours	Total Running Time (Not Resettable)	
		P-On Time-R: XXXXXX Hours	Total Running Time (Resettable)	
		P-On Time-Reset: YES / NO Pass Code = 50	Reset Total Running Time	
	Total LED Time	LED On Time: XXXXXX Hours	Total LED On Running Time (Not Resettable)	
		LED On Time-R: XXXXXX Hours	LED On Running Time (Resettable)	
		LED Hours Reset: YES / NO Pass Code = 50	Reset LED Running Time	
	Fixture Temps	LEDs	Current: XXX°F / XXX°C	Current Head Temperature
			Max Resettable: XXX°F / XXX°C	Maximum Temperature ⁽¹⁾ Reached (Resettable) (See Note 1)
			Max Not Resettable: XXX°F / XXX°C	Maximum Temperature ⁽²⁾ Reached (Resettable) (See Note 2)
		Reset Lamp Temp: YES / NO (Pass Code = 050)	Reset LED Temperature (Max Resettable)	
	Fan Info. (RPM)	LED Fan1: XXXX RPM	LED Fan 1 Speed	
		LED Fan2: XXXX RPM	LED Fan 2 Speed	
	DMX Values	Pan / Pan Fine / Tilt / Tilt Fine / Color 1 / Color 2 / Gobo / Gobo Rot / Shutter / Dimmer / Dimmer Fine / Prism 1 / Prism 1 Rot / Prism1Rot Fine / Prism 2 / Prism 2 Rot / Prism2Rot Fine / Focus / Zoom / Zoom Fine / Frost 1 / Frost 2 / Dim Modes / Dim Curves / P/T Speed / SpecialFunction	Current DMX Values ⁽³⁾ (See Note 3)	
	Error Logs	Fixture Errors	List of Errors (One by One)	
		Reset Error Log - Pass Code = 50	Clear the Error Log	
Software Version	VX.X	Current Software Version		

Notes:

1. **Current Maximum Temperature** - Maximum fixture temp. that has been recorded, before reset and after reset.
2. **Maximum Temperature** - Overall maximum fixture temp. that has been recorded. (Not Resettable)
3. **DMX Value options** depend on the current DMX Channel mode setting.

SYSTEM MENU

DMX SETTINGS - The submenus listed under **DMX SETTINGS** are as follows: **Set Address, DMX Channel Mode**, and **No DMX Status**.

- **SET ADDRESS** - In this submenu you can find and set your desired DMX address.
- **DMX CHANNEL MODE** - In this submenu you can find and set your desired DMX channel mode.
- **NO DMX STATUS** - This submenu setting is used as a precaution mode in case the DMX signal or power is lost or interrupted. The operating mode chosen in this submenu is the running mode the fixture will go into when the DMX signal is lost. Listed below are the 3 modes.
 - **Hold Last** - This setting will have the fixture stay in the last DMX setup.
 - **Blackout** - This setting will have the fixture automatically go into stand by/blackout mode.
 - **Manual** - This setting will go into the current manual control set up. See **MANUAL CONTROL**.

PERSONALITY - The submenus listed under **PERSONALITY** are as follows: **Primary & Secondary Settings, Status Settings, Fan Settings, Dim Modes, LED Refresh Rate, Dimf Curves, Reset Motors, Display**, and **Service**.

- **PRIMARY & SECONDARY SETTINGS** - In this submenu you are able to designate the units as either “Primary” or “Secondary” unit in a primary-secondary set up.
- **STATUS SETTINGS** - In this submenu you are able to access and adjust/change: Pan Degree, Pan Invert, Tilt Invert, P./T. Feedback, P./T. Speed, and Hibernation.
- **FAN SETTINGS** - In this submenu you are able to select your desired fan speed setting.
- **DIM MODES** - In this submenu you are able to select your desired dimmer mode and adjust the dimming speed time. See the dimmer mode chart on page 26 for more information.
- **LED REFRESH RATE** - In this submenu you are able to select your desired LED refresh rate.
- **DIM CURVE** - In this submenu you are able to select your desired dimmer curve. See the dimmer curve chart on page 26 for more information.
- **RESET MOTORS** - In this submenu you are able to reset selected motors.
- **DISPLAY** - In this submenu you you are able to adjust the display intensity, invert the display, set the display lock time, and activate/deactivate the display lock.
- **SERVICE** - In this submenu you are able to access and adjust/change: calibration (effect adjust), activate/deactivate the USB port power, update the software, and restore the factory settings.

MANUAL CONTROL - This menu is for manual testing and manual control.

- **INTERNAL PROGRAMS** - In this menu you are able to select 1 of 7 internal programs to run. Program running speed and fade speed are adjustable.

SYSTEM MENU

INFORMATION - The submenus listed under **INFORMATION** are as follows: **Fixture Life Time**, **Total LED Time**, **Fixture Temps**, **Fan Info. (RPM)**, **DMX Values**, **Error Logs**, and **Software Version**.

FIXTURE LIFE TIME

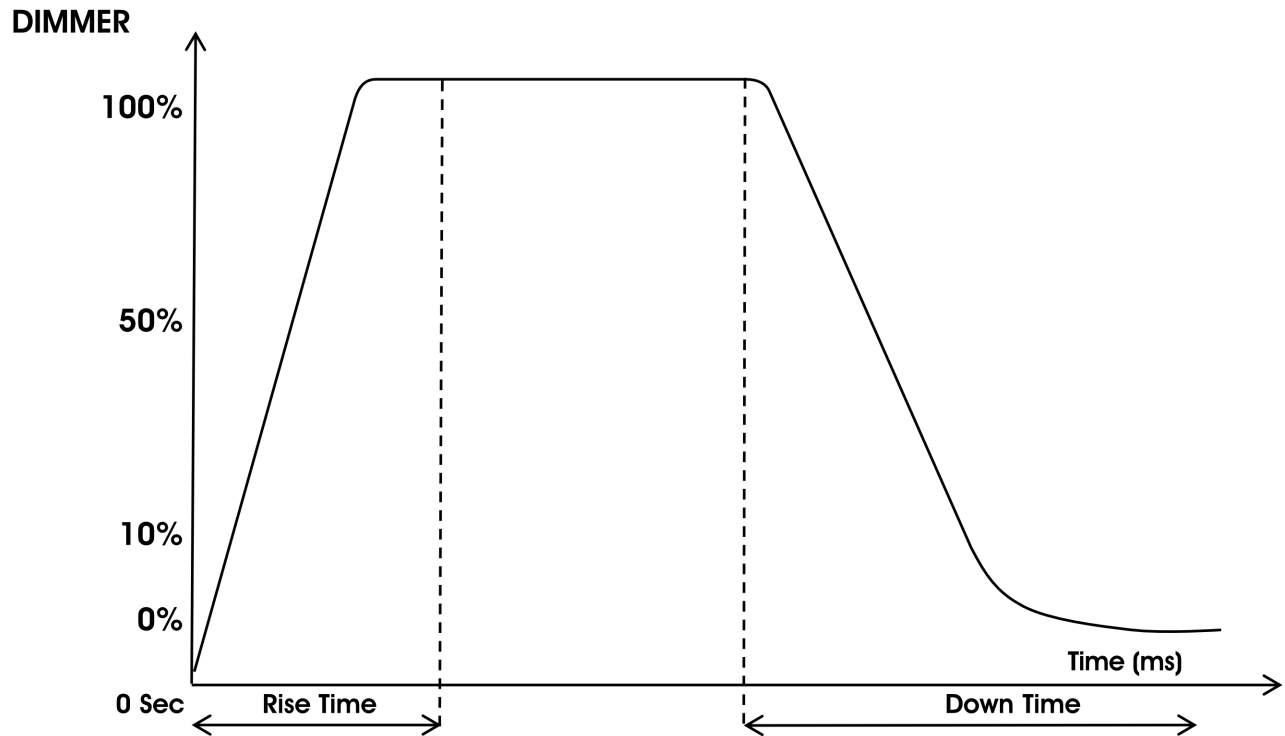
- **Power On Time** -The **TOTAL** power ON running time of the unit is displayed. This time **CANNOT** be reset.
 - **P-On Time-R** - The **CURRENT** power **ON** running time of the unit is displayed. This running time may not be the same as the **TOTAL** power **ON** running time displayed under “**Power On Time**”. This time **CAN** be reset. **NOTE: The displayed time represents the current power ON time since the last reset.**
 - **P-On Time-Reset** - With this function you can reset the **CURRENT** power ON running time that is displayed under “**P-On Time-R**”.
- **TOTAL LED TIME**
 - **LED On Time** - The **TOTAL** LED ON time is displayed. This total LED ON time **CANNOT** be reset.
 - **LED On Time-R** - The **CURRENT** LED ON running time is displayed. This running time may not be the same as the **TOTAL** LED ON time displayed under “**LED On Time**”. This current LED ON time **CAN** be reset. **NOTE: The displayed time represents the current LED ON time since the last reset.**
 - **LED Hours Reset** - With this function you can reset the **CURRENT** LED ON time that is displayed under “**LED On Time-R**”.

FIXTURE TEMPS

- **LED's:**
 - **Current** - The current LED temperature will be displayed.
 - **Max Resettable** - The current highest temperature the LED has reached will be displayed. This LED temperature may not be the same as the temperature displayed under“**CURRENT**” or “**MAX NOT RESETTABLE**”. This LED temperature **CAN** be reset. **NOTE: The displayed temperature represents the highest temperature the LED has reached since the last reset.**
 - **Max Not Resettable** - The highest temperature the LED has reached will be displayed. This LED temperature **CANNOT** be reset, and could continue rise.
- **RESET LED TEMP** - With this function you can reset the “**MAX RESETTABLE**” LED temperature. **NOTE: When the temperature is reset, the temperature will revert to the CURRENT LED temperature.**
- **FAN INFO. (RPM)** - In this submenu the current fan speed's will be displayed.
- **DMX VALUES** - Displays the DMX values of any DMX channel that is currently in use. **NOTE: DMX value options depend on the current DMX channel mode setting.**
- **ERROR LOGS** - In this submenu you are able to check any unit errors as well a clear the error log.
- **SOFTWARE VERSION** - Current software version is displayed.

DIMMING CURVE

The fixture includes 6 different dimming curve modes which can be selected from either the system menu or via DMX. The graph below provides details on each dimming curve mode.



Dimming Curve Ramp Effect	0 sec Fade Time		1 sec Fade Time	
	Rise Time (ms)	Down Time (ms)	Rise Time (ms)	Down Time (ms)
Standard (default)	0	0	0	0
Stage	780	1100	1540	1660
TV	1180	1520	1860	1940
Architectural	1380	1730	2040	2120
Theatre	1580	1940	2230	2280
Stage 2	0	1100	0	1660

DMX CHANNELS / VALUES / FUNCTIONS

Features subject to change without notice

Rotation direction (Clockwise/Counter-Clockwise) and control of effects depends on head orientation and Pan/Tilt settings

MODE / CHANNEL			VALUE	FUNCTION
Basic (19)	Standard (22)	Extended (26)		
1	1	1	000-255	PAN Movement 8-bit Pan Movement by 630/540
	2	2	000-255	PAN Fine 16-bit Fine control Pan movement
2	3	3	000-255	Tilt Movement 8-bit Tilt Movement
	4	4	000-255	Tilt Fine 16-bit Fine control of Tilt movement
3	5	5		Color Wheel 1
			000-007	Open / White
			008-014	Red
			015-021	Orange
			022-028	Yellow
			029-035	Green
			036-042	Dark Blue
			043-049	Purple
			050-056	Light Blue
			057-063	Magenta
			064-127	Color Indexing
			128-189	Clockwise Rotation Fast - Slow
			190-193	No Rotation
194-255	Counter-Clockwise Rotation Slow-Fast			
4	6	6		Gobo Wheel 2
			000-007	Open White
			008-014	Lavender
			015-021	Blue
			022-028	CTB 5600
			029-035	Green
			036-042	Yellow
			043-049	UV
			050-056	CTO 3200
			057-063	Pink
			064-127	Color Indexing
			128-189	Clockwise Rotation Fast - Slow
			190-193	Stop
194-255	Counter-Clockwise Rotation Slow - Fast			

DMX CHANNELS / VALUES / FUNCTIONS

Features subject to change without notice

Rotation direction (Clockwise/Counter-Clockwise) and control of effects depends on head orientation and Pan/Tilt settings

MODE / CHANNEL			VALUE	FUNCTION
Basic (19)	Standard (22)	Extended (26)		
5	7	7		Gobo Wheel
			000-004	Open
			005-019	Gobo 1
			020-034	Gobo 2
			035-049	Gobo 3
			050-064	Gobo 4
			065-079	Gobo 5
			080-094	Gobo 6
			095-109	Gobo 1 Shake (Slow-Fast)
			110-124	Gobo 2 Shake (Slow-Fast)
			125-139	Gobo 3 Shake (Slow-Fast)
			140-154	Gobo 4 Shake (Slow-Fast)
			155-169	Gobo 5 Shake (Slow-Fast)
			170-189	Gobo 6 Shake (Slow-Fast)
			190-221	Clockwise Rotation Fast-Slow
222-223	No Rotation			
224-255	Counter-Clockwise Rotation Slow-Fast			
6	8	8		Gobo Rotation
			000-127	Indexing
			128-189	Clockwise Rotation (Fast-Slow)
			190-193	No Rotation
			194-255	Counter-Clockwise Rotation Slow-Fast
7	9	9		Shutter & Strobe
			000-031	Shutter Closed (No Function)
			032-063	Shutter Open
			064-095	Strobing Slow-Fast
			096-127	Shutter Open
			128-159	Pulse Effect Slow-Fast
			160-191	Shutter Open
			192-223	Random Strobing Slow-Fast
224-255	Shutter Open			
8	10	10	000-255	Master Dimmer 0%-100%
		11	000-255	Dimmer Fine 16-bit 0%-100%

DMX CHANNELS / VALUES / FUNCTIONS

Features subject to change without notice

Rotation direction (Clockwise/Counter-Clockwise) and control of effects depends on head orientation and Pan/Tilt settings

MODE / CHANNEL			VALUE	FUNCTION
Basic (19)	Standard (22)	Extended (26)		
9	11	12		Prism 1 (6 Facet Circular)
			000-031	Open
			032-255	Shutter Open
10	12	13		Prism 1 Indexing & Rotation
			000-127	Indexing
			128-189	Clockwise Rotation Fast-Slow
			190-193	No Rotation
		14	194-255	Counter-Clockwise Rotation Slow-Fast
11	12	15	000-255	Prism 1 Indexing Fine 16-bit
				Prism 2 (5 Facet Linear)
			000-031	Open
			032-063	Shutter Open
12	14	16		Prism 2 Indexing & Rotation
			000-127	Indexing
			128-189	Clockwise Rotation Fast-Slow
			190-193	No Rotation
		17	194-255	Counter-Clockwise Rotation Slow-Fast
		17	000-255	Prism 2 Indexing Fine (16-bit)
13	15	18	000-255	Focus Far-Near
14	16	19	000-255	Zoom Zoom from narrow to wide
		20	000-255	Zoom Fine Indexing (16-bit) (narrow to wide)
15	17	21	000-255	Frost 1 0%-100%
16	18	22	000-255	Frost 2 0%-100%
	19	23		Dimmer Modes
			000-020	Standard
			021-040	Stage
			041-060	TV
			061-080	Architectural
			081-100	Theatre
			101-120	Stage 2
				Dimming Speed
			121	0.1 Sec.
			122	0.2 Sec.
			123	0.3 Sec.
			124	0.4 Sec.
			125	0.5 Sec.
			126	0.6 Sec.
			127	0.7 Sec.
			128	0.8 Sec.
			129	0.9 Sec.
			130	1.0 Sec.
			131	1.5 Sec.
			132	2.0 Sec.
			133	3.0 Sec.
			134	4.0 Sec.
			135	5.0 Sec.
136	6.0 Sec.			
137	7.0 Sec.			
138	8.0 Sec.			
139	9.0 Sec.			
140	10 Sec.			
		141-255	Default to Unit Setting	

DMX CHANNELS / VALUES / FUNCTIONS

Features subject to change without notice

Rotation direction (Clockwise/Counter-Clockwise) and control of effects depends on head orientation and Pan/Tilt settings

MODE / CHANNEL			VALUE	FUNCTION
Basic (19)	Standard (22)	Extended (26)		
				Dimmer Curves
			000-020	Linear
			021-040	Square
			041-060	Inverse Square
			061-080	S-Curve
			081-255	No Function
			000-255	Pan/Tilt Speed Fast-Slow
18	21	25	000-255	Pan/Tilt Speed Fast-Slow
				LED Refresh Rate & Special Functions
			000-010	Default LED Refresh Rate 1200Hz
			011-078	Refresh Rate (Hz)
			11	900
			12	910
			13	920
			14	930
			15	940
			16	950
			17	960
			18	970
			19	980
			20	990
			21	1000
			22	1010
			23	1020
			24	1030
			25	1040
			26	1050
			27	1060
			28	1070
			29	1080
			30	1090
			31	1100
			32	1110
			33	1120
			34	1130
			35	1140
			36	1150
			37	1160
			38	1170
			39	1180
			40	1190
			41	1210
			42	1220
			43	1230
			44	1440
			45	1250
			46	1260
			47	1270
			48	1280
			49	1290
			50	1300

DMX CHANNELS / VALUES / FUNCTIONS

Features subject to change without notice

Rotation direction (Clockwise/Counter-Clockwise) and control of effects depends on head orientation and Pan/Tilt settings

MODE / CHANNEL			VALUE	FUNCTION
Basic (19)	Standard (22)	Extended (26)		
			51	1310
			52	1320
			53	1330
			54	1340
			55	1350
			56	1360
			57	1370
			58	1380
			59	1390
			60	1400
			61	1410
			62	1420
			63	1430
			64	1440
			65	1450
			66	1460
			67	1470
			68	1480
			69	1490
			70	1500
			71	2500
			72	4000
			73	5000
			74	6000
			75	10K
			76	15K
			77	20K
			78	25K
			79	Disable LED Refresh Rate
			080-089	Enable Blackout w/Pan/Tilt Movement
			090-099	Disable Blackout w/Pan/Tilt Movement
			100-109	Enable Blackout w/Color Change
			110-119	Disable Blackout w/Color Change
			120-129	Enable Blackout w/Gobo Change
			130-139	Disable Blackout w/Gobo Change
			140-149	Reset All
			150-159	Reset Pan/Tilt
			160-169	Reset Color & Gobo
			170-179	Reset Effect & Focus
			180-185	Internal Program 1 (Scenes 1-8)
			186-191	Internal Program 2 (Scenes 9-16)
			192-197	Internal Program 3 (Scenes 17-24)
			198-199	Internal Program 4 (Scenes 25-32)
			200-205	Internal Program 5 (Scenes 33-40)
			206-211	Internal Program 6 (Scenes 41-48)
			212-216	Internal Program 7 (Scenes 49-56)
			217-227	Fan Mode Low
			228-238	Fan Mode High
			239-249	Fan Mode Auto
			250-255	No Function

SPECIFICATIONS

Light Source:

- 200W Cool White LED Engine (50,000 hr.)

Features:

- Motorized Focus
- 2 Frost Filters to create wash effects
- Motorized Zoom: 11 ~ 22 degrees (Wide to Narrow)
- 2 Prism FX: Rotating 5-facet Linear & rotating 6-facet Circular
- 0-100% smooth dimming
- Various strobe speeds
- USB firmware update port
- 2 cooling fans

Color Wheels:

- 8 dichroic colors + white on two separate wheels (includes CTO, CTB and UV filters)

GOBO Wheels:

- 6 Gobos (5 aluminum GOBOs, 1 glass GOBO) + open
- All GOBOs are removable & rotatable
- GOBO Shake Effect
- Aluminum GOBO size: 23mm (outer); 19mm (viewable); 0.5mm (thickness)
- Glass gobo size: 23mm (outer); 19mm (viewable); 3.3mm (thickness)

Prism Wheel:

- Prism Wheel 1: Rotatable 6-facet Circular
- Prism Wheel 2: Rotatable 5-facet Linear
- Each Prism is indexable

Frost Filters:

- Frost 1: Heavy frost for wash effect
- Frost 2: Light frost creates lightly blurred edges for GOBO and Prism FX

Control:

- 3 DMX Channel Modes: 19/22/26
- Color LCD display with 6-button function menu
- Control Mode: DMX512 or internal programs
- 6 Dimming Curve Modes: Standard, Stage, TV, Architectural, Theatre, Stage 2
- 0-100% smooth dimming
- Various strobe speeds
- USB firmware update port
- With Wired Digital Communication Network
- RDM (Remote Device Management)

Pan/Tilt:

- Pan: 630 degrees
- Tilt: 270 degrees

Connections:

- DMX Connections: 5-pin XLR In/Out
- Power Connections: PowerLock In/Out to daisy chain power

Electrical:

- Multi-voltage operation: 90-240V, 50/60Hz
- Max power consumption: 280W

Dimensions & Weight:

- Dimensions: 7.15" (L) x 10.97" (W) x 18" (H) (181.5 x 278.61 x 457.4mm)
- Weight: 23 lbs. / 10 kg.

What's Included:

- Omega Bracket
- 1.83M locking power cable

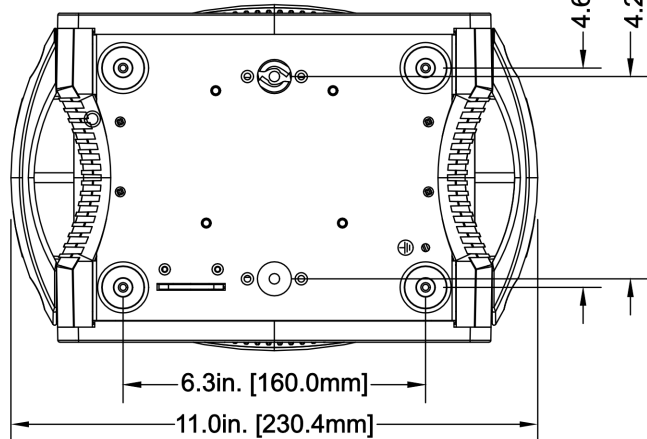
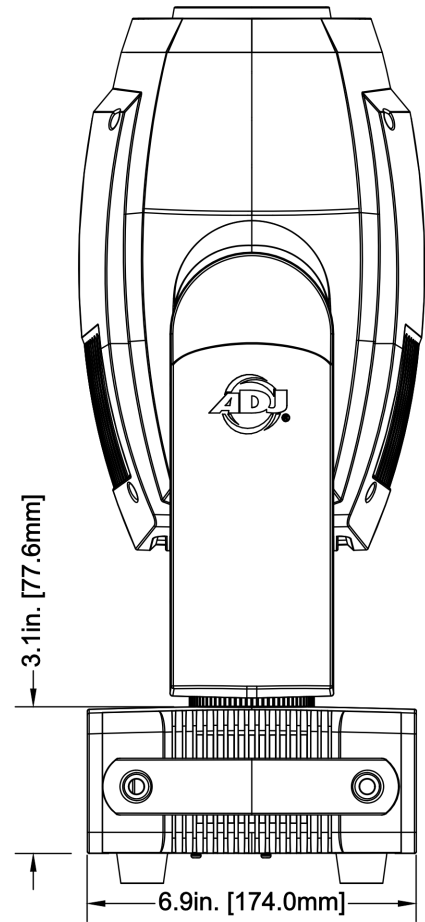
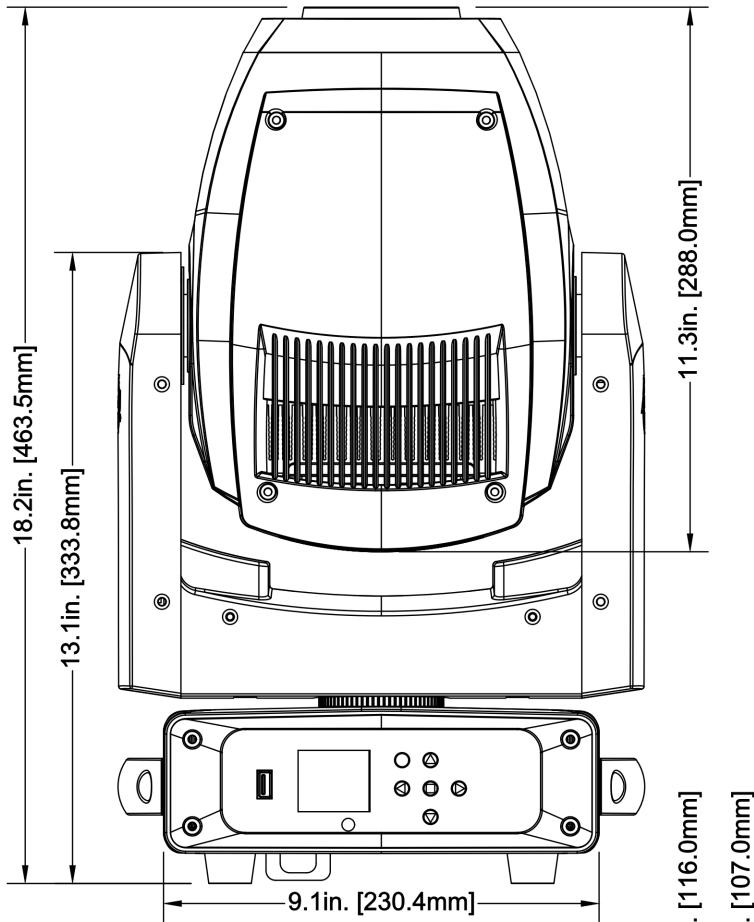
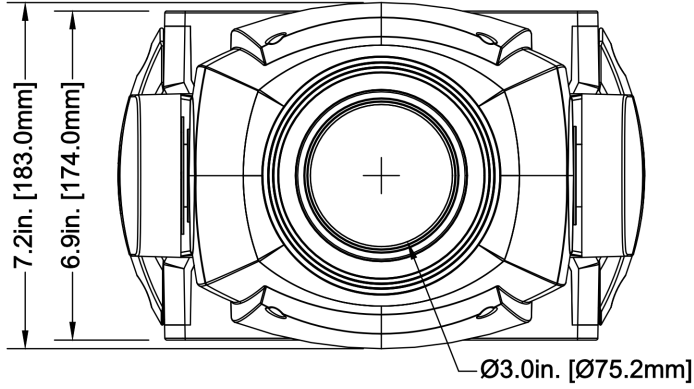
Approvals / Rating:

ETL Approved / CE Certified

Specifications and improvements in the design of this unit and this manual are subject to change without notice.

DIMENSION DRAWINGS

Dimensions not to scale



FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC RADIO FREQUENCY INTERFERENCE WARNINGS & INSTRUCTIONS

This product has been tested and found to comply with the limits as per Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device uses and can radiate radio frequency energy and, if not installed and used in accordance with the included instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by turning the device off and on, the user is encouraged to try to correct the interference by one or more of the following methods:

- Reorient or relocate the device.
- increase the separation between the device and the receiver.
- Connect the device to an electrical outlet on a circuit different from which the radio receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Energy Saving Matters (EuP 2009/125/EC)

Saving electric energy is a key to help protecting the environment. Please turn off all electrical products when they are not in use. To avoid power consumption in idle mode, disconnect all electrical equipment from power when not in use. Thank you!



