



FOCUS WASH 400



User Manual

US SKU#: FOC615
EU SKU#: 1237000240
ITF-14#: 818651029130

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DOCUMENT VERSION

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

Please check www.adj.com for the latest revision/update of this manual before beginning installation and/or programming.

Date	Document Version	Software Version	DMX Channels	Notes
05/05/2021	1.0	1.1.1	16 / 21 / 23 ch	Initial Release
06/25/2021	2.0	1.1.2	17 / 22 / 24 / CMY 18 / CMY 24 ch	Update DMX Traits, System Menu, added Color Swatch Table, add Snoot and Linear Lens Installation
08/09/2021	3.0	N/C	No Change	Updated Dimensional Drawings
08/25/2021	4.0	N/C	No Change	Corrected DMX Traits
08/31/2021	5.0	N/C	No Change	Updated Color Macros Chart and Specifications

Europe Energy Saving Notice

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!

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GENERAL INFORMATION

Introduction: Congratulations on your purchase of the ADJ Focus Wash 400! This device is a 400W, RGBACL (Red, Green, Blue, Amber, Cyan, Lime), LED moving light wash, and has been designed to perform reliably for years when the guidelines in this booklet are followed. Please read and understand the instructions in this manual carefully and thoroughly before attempting to operate this device. These instructions contain important information regarding safety during use and maintenance.

Please keep this manual with the device for future reference.

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

Parts: To purchase parts online visit:

<http://parts.adj.com> (US)

<http://www.adjparts.eu> (EU)

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WARNING! To prevent or reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.

CAUTION! There are no user serviceable parts inside this unit. Do not attempt any repairs yourself, doing so will void your manufacturer's warranty. In the unlikely event your unit may require service, please contact ADJ Products, LLC.

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

KEY FEATURES

- 400W RGBACL LED
- 10 to 46-degree motorized zoom
- Flicker free operation for TV and film
- 16-bit pan/tilt movement
- RGBACL color mixing
- Variable dimming modes/curves and strobe effects
- DMX and RDM protocol support
- DMX and power in/out connections
- LCD menu display with 6 button control panel
- Multiple unit power linking
- Multi-voltage universal auto switching power supply (AC100-240V)

INCLUDED ITEMS:

- Twist-lock power cable (x1)
- Omega brackets (x2)
- Snoot (x1)
- Linear Lens (x1)
- Screws (x4)

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 included in the shipping carton. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. You may obtain an R.A. number by contacting our customer support team. All packages returned to the service department not displaying an R.A. number on the outside of the package will be returned to the shipper.

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 period on reverse). This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.
- B. For warranty service, you must obtain a Return Authorization number (RA#) before sending the product back—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 prepaid. 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 and packaging material. No accessories should be shipped with the product. If any accessories are shipped with the product, ADJ Products, LLC shall incur 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 product serial number and/or labels are 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 it was not properly maintained as set forth in the product instructions, guidelines and/or user 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.
- 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 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 all warranties, whether expressed or implied, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. 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 Product, LLC be liable for any loss and/or damage, direct and/or consequential arising out of the use of, and/or inability to use this product.
- G. 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.

MANUFACTURER'S LIMITED WARRANTY PERIODS:

- Non-LED Lighting Products = 1-Year (365 Days) (Including Special Effect Lighting, Intelligent Lighting, UV lighting, Strobos, 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)
- NOTE: 2-Year (730 Days) Limited Warranty ONLY applies to product purchased within the United States.
- 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

For Your Own Personal Safety, Please Read and Understand This Manual Completely Before You Attempt To Install Or Operate This Unit!

- Be sure to save the packing carton in the unlikely event the device may have to be returned for service
- Do not spill water or other liquids into or on to the device
- Be sure that the local power outlet matches the required voltage for the device
- Do not open up the device for any reason. There are no user serviceable parts inside
- Disconnect the device's main power when left unused for long periods of time
- Never connect this device to a dimmer pack
- Do not attempt to operate this device if it has been damaged in any way
- Never operate this device with the cover removed
- To reduce the risk of electrical shock or fire, do not expose this device to rain or moisture
- Do not attempt to operate this device 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
- Never block the ventilation holes. Always be sure to mount this device in an area that will allow proper ventilation. Allow about 6" (15cm) between this device and a wall
- This unit is intended for indoor use only. Use of this product outdoors voids all warranties
- Always mount this unit in a safe and stable manner
- Please route your power cord out of the way of foot traffic. Power cords should be routed so they are not likely to be walked on, or pinched by items placed upon or against them

Maximum ambient operating temperature for this fixture is 113 degrees F (45 degrees C). Do not operate this device when ambient temperature exceeds this value!

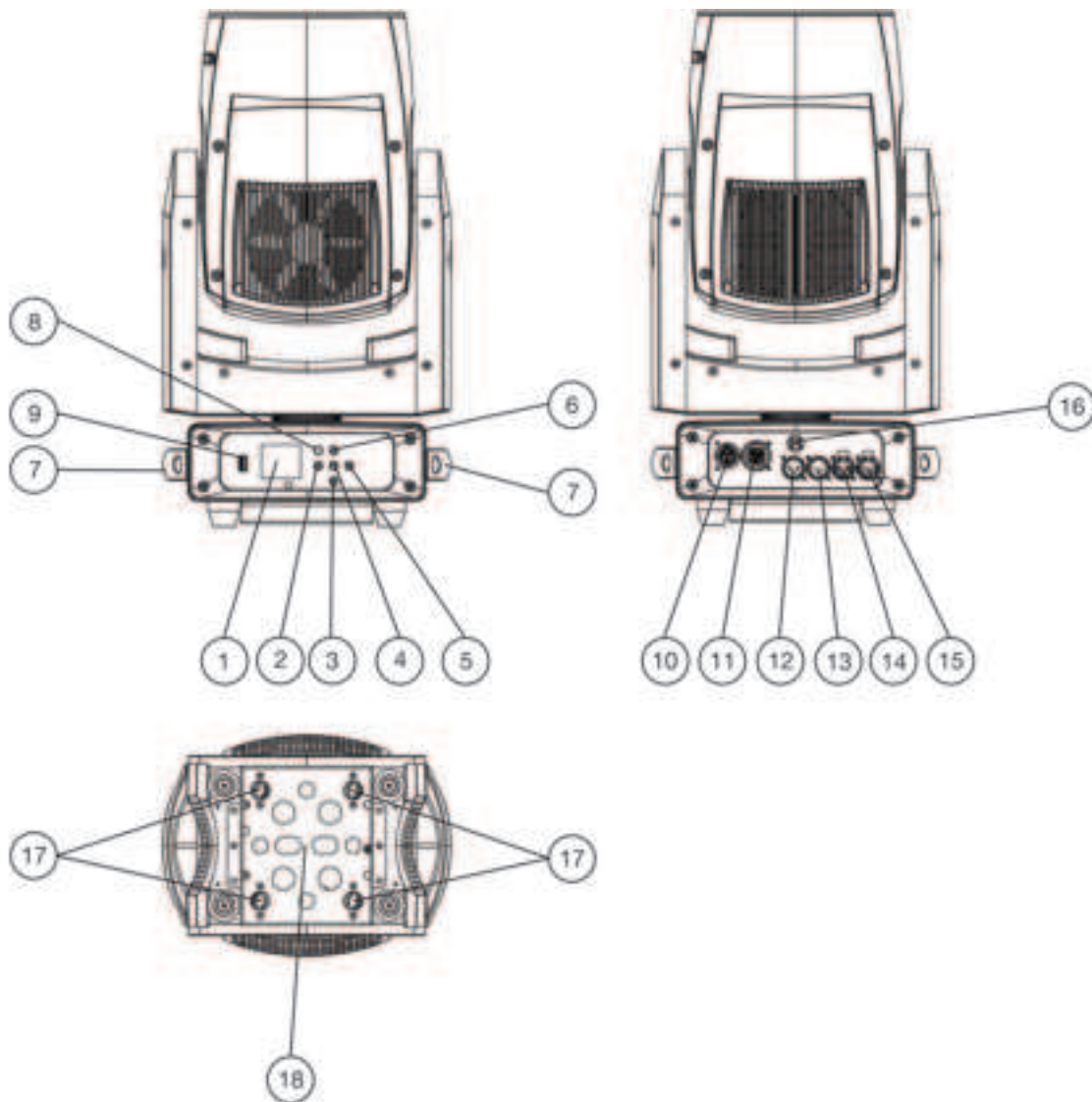
Keep flammable materials away from this fixture!

FIXTURE IS DESIGNED FOR INDOOR USE ONLY! DO NOT EXPOSE TO RAIN OR MOISTURE!

The device should be serviced by qualified service personnel when:

- A. The power-supply cord or the plug has been damaged.
- B. Objects have fallen on, or liquid has been spilled into, the device.
- C. The device has been exposed to rain or water.
- D. The appliance does not appear to operate normally or exhibits a marked change in performance.

OVERVIEW



1. Display Screen
2. Left Button
3. Down Button
4. Enter Button
5. Right Button
6. Up Button
7. Carry Handle (x2)
8. Mode Button
9. Service Port

10. Power In
11. Power Out
12. DMX In, 3-pin
13. DMX In, 5-pin
14. DMX Out, 3-pin
15. DMX Out, 5-pin
16. Fuse
17. Mounting Clamp Attachment (x4)
18. Safety Cable Attachment

DMX SET UP

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 manufacturers 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, try to use the shortest cable path possible when linking several DMX fixtures. 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 Wash 400 can be controlled via DMX-512 protocol. The DMX address is set on the front panel of the fixture. Your unit and your DMX controller require a standard 3-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 XLR connector at one end and a female XLR connector on the other. Also remember that DMX cable must be daisy chained and cannot be split.

Notice: Be sure to follow figures 1 and 2 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 may result in erratic behavior.



Figure 1

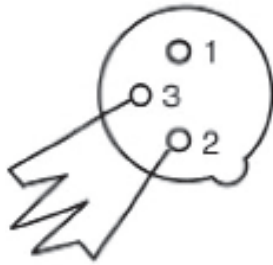


Figure 2

XLR Pin Configuration	
Pin 1 =	Ground
Pin 2 =	Data Complement (negative)
Pin 3 =	Data True (positive)

DMX SET UP

Special Note: Line Termination. When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behavior. A terminator is a 110-120 ohm 1/4 watt resistor which is connected between pins 2 and 3 of a male XLR connector (DATA + and DATA -). This unit is inserted in the female XLR connector of the last unit in your daisy chain to terminate the line. Using a cable terminator (ADJ part number Z-DMX/T) will decrease the possibilities of erratic behavior.



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

5-Pin XLR DMX Connectors. Some manufacturers use 5-pin DMX-512 data cables for DATA transmission in place of 3-pin. 5-pin DMX fixtures may be implemented in a 3-pin DMX line. When inserting standard 5-pin data cables into a 3-pin line, a cable adaptor must be used. These adaptors are readily available at most electronics 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

INSTALLATION

IP RATING

This device is **IP30** rated. It is protected against intrusion of solids larger than 2.5mm in size, such as tools and thick-gauge wires. ***The device is NOT protected against liquid intrusion of any kind.***

FLAMMABLE MATERIAL WARNING!

Keep device a minimum of 5.0 feet (1.5m) away from flammable material and/or pyrotechnics.

ELECTRICAL CONNECTIONS

A qualified electrician should be used for all electrical connections and/or installations.

MULTI-DEVICE DAISY CHAINING

- When connected to 240V power, up to 3 devices may be daisy chained together.
- ***When connected to 110V power, daisy chaining is NOT permitted. In this situation, only operate the fixture as a single standalone device!***

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

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

Before installing or mounting any device, a professional equipment installer **MUST** be consulted to determine whether the mounting structure or surface is properly certified to safely support the combined weight of the fixture, clamps, cables, and accessories.

Overhead fixture installations must always be secured with a secondary safety attachment, such as an appropriately rated safety cable that meets all local, national, and country codes and regulations.

Maximum ambient operating temperature is **113°F (45°C)**. Do not operate this device when ambient temperature exceeds this value.

This fixture should be installed in areas outside walking paths, seating areas, and areas where unauthorized personnel might be able to reach the device by hand.

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

Allow approximately 15 minutes for the fixture to cool down before servicing.

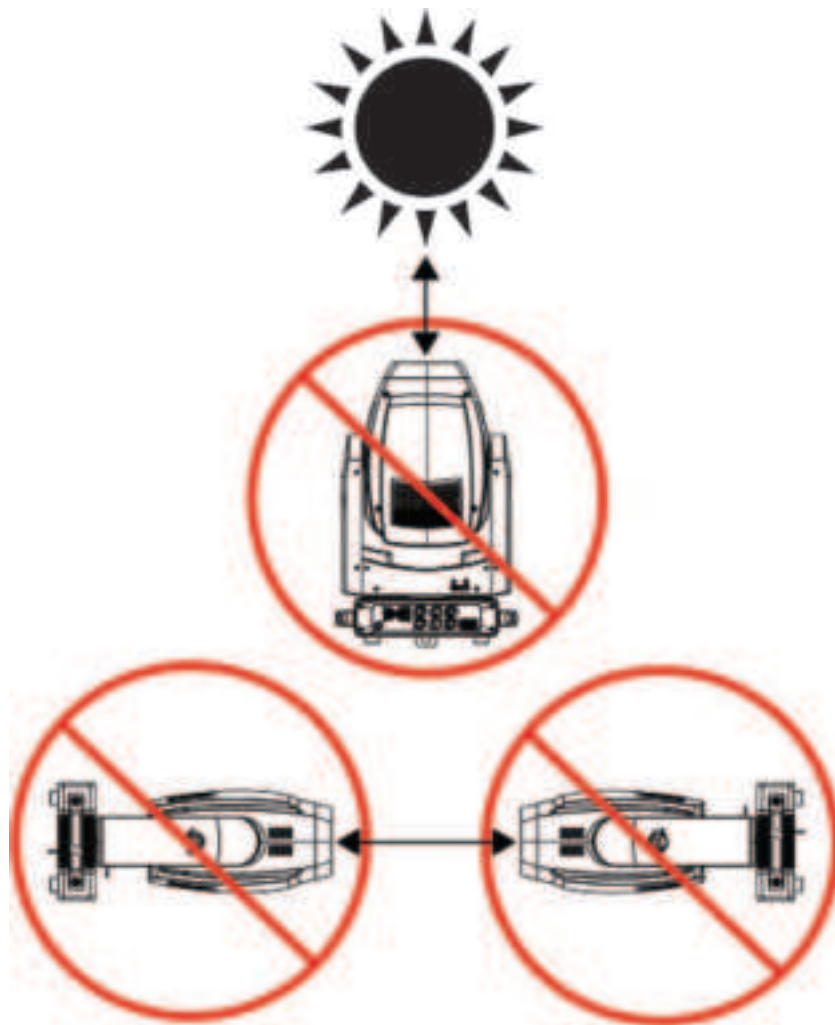
INSTALLATION

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 of optics, dichroic color filters, glass and metal gobos, prisms, animation wheels, frost filters, irises, shutters, motors, belts, wiring, discharge lamps, and LEDs.

This issue is not unique 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 reduce the risk of any potential damage if followed. Contact ADJ Service for more details.

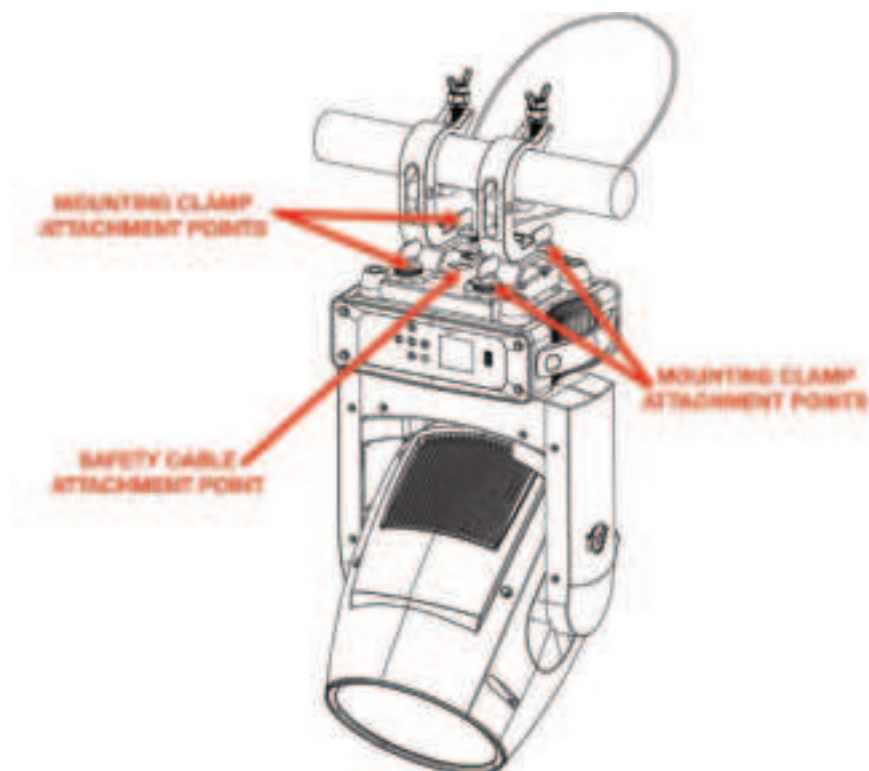
DO NOT EXPOSE THE FIXTURE AND/OR FRONT LENS OPENING TO LIGHT BEAMS FROM DIRECT SUNLIGHT, OTHER LIGHTING MOVING HEAD FIXTURES, AND LASERS DURING UNPACKING, INSTALLATION, USE, AND EXTENDED IDLE TIMES OUTDOORS. DO NOT FOCUS A LIGHT BEAM FROM ONE LIGHTING FIXTURE DIRECTLY TOWARDS ANOTHER.



INSTALLATION

CLAMP INSTALLATION

This fixture features multiple mounting clamp attachment points, as well as a safety cable attachment point, located on the bottom face of the fixture (see the illustration below). When mounting the fixture to a truss or any other suspended or overhead installation, be sure to secure appropriately rated clamps (not included) to the clamp attachment points and attach a separate **SAFETY CABLE** of the appropriate safety rating to the safety cable rigging point.



SAFETY CABLE

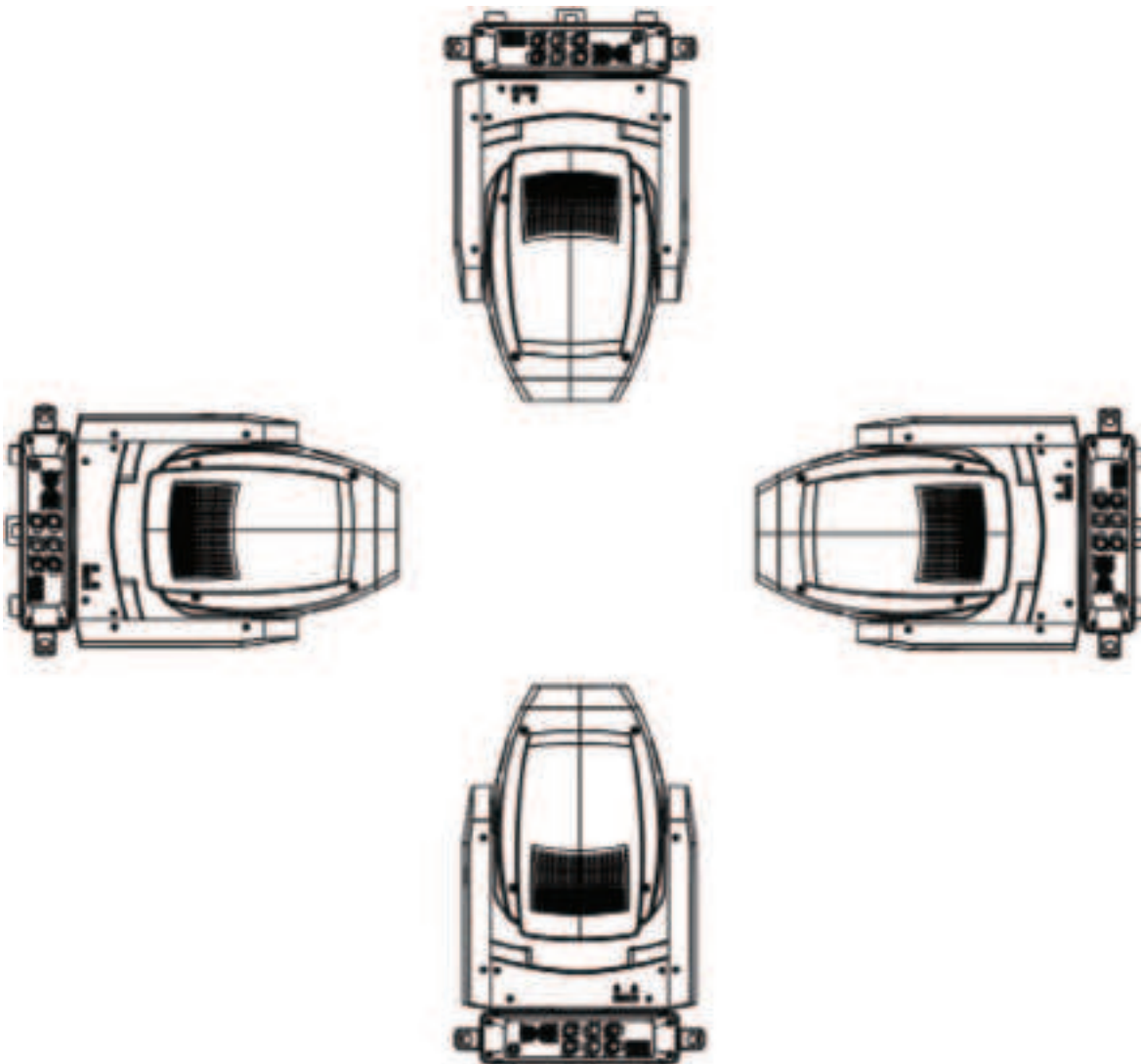
ALWAYS ATTACH A SAFETY CABLE WHENEVER INSTALLING THIS FIXTURE IN A SUSPENDED ENVIRONMENT TO ENSURE THAT THE FIXTURE WILL NOT FALL IF THE CLAMP FAILS.

RIGGING

Overhead rigging requires extensive experience, including but not limited to: calculating working load limits, understanding the installation material being used, and periodic safety inspection of all installation material and the fixture itself. If you lack these qualifications, do not attempt to perform the installation yourself. Improper installation can result in bodily injury.

INSTALLATION

NOTICE: The max suitable enviromental temperature for this lighting fixture is **45° C**. Do not place this lighting fixture in an environment where the temperatures exceed this rating. This will allow the fixture to run at its best and help prolong the fixture life.



The Focus Wash 400 is fully operational in three different mounting positions: hanging upside-down from a ceiling or trussing, sideways on trussing, or set on a flat level surface. Be sure this fixture is kept at least 12m (40ft) away from any flammable materials (decoration etc.). Always use and install a safety cable (not included) 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.

INSTALLATION

SNOOT INSTALLATION: This device can be fitted with a removable snoot, which can be installed by following the directions below.

1. Find the four (4) mounting holes located around the frame of the lens.
2. Align the mounting tabs on the snoot with the mounting holes on the frame of the lens.



3. Use a screwdriver to insert and tighten screws into each of the mounting tabs.
4. Installation is now complete!



INSTALLATION

LINEAR LENS INSTALLATION: This device can be fitted with a linear lens, which can be installed by following the directions below.

1. Find the four (4) mounting holes located around the frame of the fixture lens.
2. Align the mounting tabs on the linear lens with the mounting holes on the fixture lens.



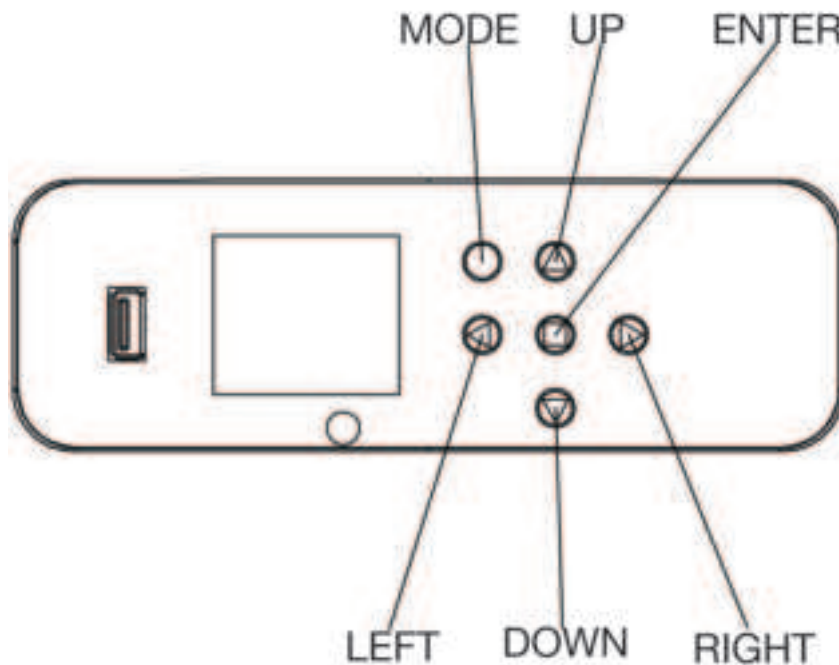
3. Use a screwdriver to insert and tighten screws into each of the mounting tabs.
4. Installation is now complete!



CONTROL PANEL

This fixture includes an easy to navigate control panel display, from which all necessary settings and adjustments can be made. During normal operating, pressing the **MODE** button once will access the fixture's main menu. Once in the main menu, the **UP** and **DOWN** buttons can be used to navigate through the different functions. Press the **ENTER** button to select the option displayed on the screen, and use the **LEFT** and **RIGHT** buttons to adjust the settings for the selected option. Press the **ENTER** button once more to confirm the setting. Pressing the **MODE** button at any time to return to the main menu without making any adjustments.

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



SYSTEM MENU

DMX SETTINGS	DMX Address	001 ~ 512		
	DMX Channel Mode	Basic		
		Standard		
		Extended		
		CMY St.		
		CMY Ext.		
	No DMX Status	Hold Last	Fixture adheres to most recent setting	
		Hold Last 2	Fixture adheres to most recent setting and Zoom will return to 0	
		Blackout	Fixture goes into standby mode	
Manual		Fixture reverts to manual mode settings		
PERSONALITY	Primary	On / Off		
	Secondary	On / Off		
	Status Settings	Pan Degree	630 / 540	
		Pan Invert	On / Off	
		Tilt Invert	On / Off	
		P/T Feedback	On / Off	
		P/T Speed	Speed 1 / Speed 2	
		Hibernation	Off, 1min ~ 99 min Default 15 min	
	Fan Settings	Head	Auto	
			High	
			Low	
	Dim Modes	Standard		
		Stage		
		TV		
		Architectural		
		Theatre		
		Stage 2		
		Dim Speed	0.1 s ~ 10 s	
	LED Refresh Rate	900 ~ 1500 Hz		Default = 1200 Hz
		2500 Hz		
		4000 Hz		
		5000 Hz		
CONTINUED ON NEXT PAGE				

SYSTEM MENU

PERSONALITY (cont'd from prev page)	LED Refresh Rate (cont'd from prev page)	6000 Hz		Default = 1200 Hz
		10 kHz		
		15 kHz		
		20 kHz		
		25 kHz		
	Dim Curve	Linear		
		Square		
		Inv Squa		
		S Curve		
	Reset Motors	Reset All Motors	Yes / No	
		Pan/Tilt Reset	Yes / No	
		Effect Reset	Yes / No	
	Display	Intensity	1 ~ 10	
		Display Invert	Yes / No	
		Screen Saver Delay	Off ~ 10 min	Default = 5 min
		Key Lock	Off / On / On1	
	Service	Passcode = 050	Effect Adjust (Calibration)	Pan -128 ~ 127
				Tilt -128 ~ 127
				...
			USB Port Power	Off / On
			Update Software	Off / On
			Factory Restore	Off / On Passcode = 011

CONTINUED ON NEXT PAGE

SYSTEM MENU

MANUAL	Pan	000 ~ 255		
	Pan Fine	000 ~ 255		
	Tilt	000 ~ 255		
	Tilt Fine	000 ~ 255		
	...	000 ~ 255		
INTERNAL PROGRAMS	Program 1	Speed	000 - 255	
		Fade	000 - 255	
	Program 2	Speed	000 - 255	
		Fade	000 - 255	
	Program 3	Speed	000 - 255	
		Fade	000 - 255	
	Program 4	Speed	000 - 255	
		Fade	000 - 255	
	Program 5	Speed	000 - 255	
		Fade	000 - 255	
	Program 6	Speed	000 - 255	
		Fade	000 - 255	
	Program 7	Speed	000 - 255	
		Fade	000 - 255	
INFORMATION	Fixture Life Time	Power On Time		
		P-On Time-R (Power On Resettable Time)		
		P-On Time-Reset (Power On Time Reset)	Passcode = 050	
	Total LED Time	LED On Time		
		LED On Time-R		
		LED Hours Reset	Passcode = 050	

CONTINUED ON NEXT PAGE

SYSTEM MENU

INFORMATION (cont'd from prev page)	Fixture Temps	LEDs	Current	
			Max Resettable	
		Base	Current	
			Max Resettable	
		Reset LED Temp	Yes / No	Passcode = 050
		Reset Base Temp	Yes / No	Passcode = 050
	Fan Info (RPM)	LED Fan		
		Base Fan		
	DMX Values	Pan		
		Pan Fine		
		...		
	Error Logs	Fixture Errors		scrolls through error list
		Reset Error Log	Yes / No	Passcode = 050
	Software Version			

DMX ADDRESSING

All fixtures should be given a DMX starting address when operating with a DMX controller, in order to ensure that 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. This starting DMX address is assigned 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 this case, please note that 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.

As an example, when operating this fixture model in Basic (17 channel) mode, you should set the starting DMX address of the first unit to 1, the second unit to 18 ($1 + 17$), the third unit to 35 ($1 + 17 + 17$), and so on. (See the chart below for more details.)

Channel Mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
Basic	1	18	35	52
Standard	1	23	45	67
Extended	1	25	49	73
CMY St.	1	19	37	55
CMY Ext.	1	25	49	73

DMX TRAITS

CHANNEL					VALUES	FUNCTION
Basic	Standard	Ext	CMY St.	CMY Ext		
1	1	1	1	1	000 - 255	Pan Movement , 540/630 Degrees
	2	2	2	2	000 - 255	Pan Fine Movement
2	3	3	3	3	000 - 255	Tilt Movement , 270 Degrees
	4	4	4	4	000 - 255	Tilt Fine Movement
3	5	5			000 - 255	Red , 0% - 100%
4	6	6			000 - 255	Green , 0% - 100%
5	7	7			000 - 255	Blue , 0% - 100%
6	8	8			000 - 255	Amber , 0% - 100%
7	9	9			000 - 255	Cyan , 0% - 100%
8	10	10			000 - 255	Lime , 0% - 100%
			5	5	000 - 255	Cyan , (0-100% Cyan)
				6	000 - 255	Cyan Fine
			6	7	000 - 255	Magenta , 0% - 100%
				8	000 - 255	Magenta Fine
			7	9	000 - 255	Yellow , 0% - 100%
				10	000 - 255	Yellow Fine
9	11	11	8	11	000 - 255	Color Temperature Linear 2700K - 10000K
10	12	12	9	12		Color Temperature Presets
					000 - 031	No Function
					032 - 076	2700K
					077 - 121	3200K
					122 - 166	4000K
					167 - 211	5600K
					212 - 255	6500K
11	13	13	10	13		Color Wheel
					000	Open
					001 - 060	Virtual Swatch Colors (see Virtual Swatch Colors section)
					061 - 179	Open
					180 - 201	Color Scroll Clockwise, fast to slow

CONTINUED ON NEXT PAGE

DMX TRAITS

CHANNEL					VALUES	FUNCTION
Basic	Standard	Ext	CMY St.	CMY Ext		
11	13	13	10	13		Color Wheel (cont'd)
					202 - 207	Stop
					208 - 229	Color Scroll Counter-Clockwise, slow to fast
					230 - 234	Open
					235 - 239	Random Slots Fast
					240 - 244	Random Slots Medium
					245 - 249	Random Slots Slow
					250 - 255	Open
	14	14	11	14		Color Temperature Red to Green
					000	No Function
					001 - 255	Shift CT, Red to Green
12	15	15		15	000 - 255	Color Macros (see Color Macros Chart)
13	16	16	12	16		Shutter
					000 - 031	Shutter Closed (LEDs Off)
					032 - 063	Shutter Open (LEDs On)
					064 - 095	Strobe effect, slow to fast
					096 - 127	Shutter Open (LEDs On)
					128 - 159	Pulse effect in sequences
					160 - 191	Shutter Open (LEDs On)
					192 - 223	Random strobe effect, slow to fast
					224 - 255	Shutter Open (LEDs On)
14	17	17	13	17	000 - 255	Dimmer Intensity , 0 to 100%
	18	18		18	000 - 255	Dimmer Fine
15	19	19	14	19	000 - 255	Zoom , wide to narrow
		20		20	000 - 255	Zoom Fine

CONTINUED ON NEXT PAGE

DMX TRAITS

CHANNEL					VALUES	FUNCTION
Basic	Standard	Ext	CMY St.	CMY Ext		
	20	21	15	21		<i>Dim Modes</i>
					000 - 020	Standard
					021 - 040	Stage
					041 - 060	TV
					061 - 080	Architectural
					081 - 100	Theatre
					101 - 120	Stage 2
						<i>Dimming Speed</i>
					121	0.1 s
					122	0.2 s
					123	0.3 s
					124	0.4 s
					125	0.5 s
					126	0.6 s
					127	0.7 s
					128	0.8 s
					129	0.9 s
					130	1.0 s
					131	1.5 s
					132	2.0 s
					133	3.0 s
					134	4.0 s
					135	5.0 s
					136	6.0 s
					137	7.0 s
					138	8.0 s
					139	9.0 s
					140	10.0 s
					141 - 255	Default

CONTINUED ON NEXT PAGE

DMX TRAITS

CHANNEL					VALUES	FUNCTION
Basic	Standard	Ext	CMY St.	CMY Ext		
		22	16	22		<i>Dim Curves</i>
					000 - 020	Linear
					021 - 040	Square
					041 - 060	Inv. Squa
					061 - 080	S. Curve
					081 - 255	No Function
16	21	23	17	23	000 - 255	<i>Pan/Tilt Speed</i> , max to min
17	22	24	18	24		<i>Special Functions</i>
					000 - 010	Default Refresh Rate (1200 Hz)
					011	900 Hz
					012	910 Hz
					013	920 Hz
					014	930 Hz
					015	940 Hz
					016	950 Hz
					017	960 Hz
					018	970 Hz
					019	980 Hz
					020	990 Hz
					021	1000 Hz
					022	1010 Hz
					023	1020 Hz
					024	1030 Hz
					025	1040 Hz
					026	1050 Hz
					027	1060 Hz
					028	1070 Hz
					029	1080 Hz
					030	1090 Hz
					031	1100 Hz
CONTINUED ON NEXT PAGE						

DMX TRAITS

CHANNEL					VALUES	FUNCTION
Basic	Standard	Ext	CMY St.	CMY Ext		
17	22	24	18	24		<i>Special Functions</i> (cont'd)
					032	1110 Hz
					033	1120 Hz
					034	1130 Hz
					035	1140 Hz
					036	1150 Hz
					037	1160 Hz
					038	1170 Hz
					039	1180 Hz
					040	1190 Hz
					041	1210 Hz
					042	1220 Hz
					043	1230 Hz
					044	1240 Hz
					045	1250 Hz
					046	1260 Hz
					047	1270 Hz
					048	1280 Hz
					049	1290 Hz
					050	1300 Hz
					051	1310 Hz
					052	1320 Hz
					053	1330 Hz
					054	1340 Hz
					055	1350 Hz
					056	1360 Hz
					057	1370 Hz
					058	1380 Hz
					059	1390 Hz
					060	1400 Hz
CONTINUED ON NEXT PAGE						

DMX TRAITS

CHANNEL					VALUES	FUNCTION
Basic	Standard	Ext	CMY St.	CMY Ext		
17	22	24	18	24		<i>Special Functions</i> (cont'd)
					061	1410 Hz
					062	1420 Hz
					063	1430 Hz
					064	1440 Hz
					065	1450 Hz
					066	1460 Hz
					067	1470 Hz
					068	1480 Hz
					069	1490 Hz
					070	1500 Hz
					071	2500 Hz
					072	4000 Hz
					073	5000 Hz
					074	6000 Hz
					075	10 KHz
					076	15 KHz
					077	20 KHz
					078	25 KHz
					079	Disable LED Refresh Rate
					080 - 089	Enable blackout while pan/tilt moving
					090 - 099	Disable blackout while pan/tilt moving
					100 - 139	No function
					140 - 149	Reset all
					150 - 159	Reset pan/tilt
					160 - 169	Reset effect
					170 - 179	No function
180 - 189	Internal Program 1 (Scenes 1-8)					
190 - 199	Internal Program 2 (Scenes 9-16)					
200 - 209	Internal Program 3 (Scenes 17-24)					
CONTINUED ON NEXT PAGE						

DMX TRAITS

CHANNEL					VALUES	FUNCTION
Basic	Standard	Ext	CMY St.	CMY Ext		
17	22	24	18	24		<i>Special Functions</i> (cont'd)
					210 - 219	Internal Program 4 (Scenes 25-32)
					220 - 229	Internal Program 5 (Scenes 33-40)
					230 - 239	Internal Program 6 (Scenes 41-48)
					240 - 249	Internal Program 7 (Scenes 49-56)
					250 - 255	No Function

COLOR MACROS CHART

MACRO NUMBER	DMX VALUE	RED	GREEN	BLUE	AMBER	CYAN	LIME
1	001 - 004	80	255	234	80	0	0
2	005 - 008	80	255	164	80	0	0
3	009 - 012	77	255	112	77	0	0
4	013 - 016	117	255	83	83	0	0
5	017 - 020	160	255	77	77	0	0
6	021 - 024	223	255	83	83	0	0
7	025 - 028	255	243	77	77	0	0
8	029 - 032	255	200	74	74	0	0
9	033 - 036	255	166	77	77	0	0
10	037 - 040	255	125	74	74	0	0
11	041 - 044	255	97	77	74	0	0
12	045 - 048	255	71	77	71	0	0
13	049 - 052	255	83	134	83	0	0
14	053 - 056	255	93	182	93	0	0
15	057 - 060	255	96	236	96	0	0
16	061 - 064	238	93	255	93	0	0
17	065 - 068	196	87	255	87	0	0
18	069 - 072	150	90	255	90	0	0
19	073 - 076	100	77	255	77	0	0
20	077 - 080	77	100	255	77	0	0
21	081 - 084	67	148	255	67	0	0
22	085 - 088	77	195	255	77	0	0
23	089 - 092	77	234	255	77	0	0
24	093 - 096	158	255	144	144	0	0
25	097 - 100	255	251	153	153	0	0
26	101 - 104	255	175	147	147	0	0
27	105 - 108	255	138	186	138	0	0
28	109 - 112	255	147	251	147	0	0
29	113 - 116	151	138	255	138	0	0
30	117 - 120	99	0	255	100	0	0
31	121 - 124	138	169	255	138	0	0
32	125 - 128	255	255	255	255	0	0

COLOR MACROS CHART

MACRO NUMBER	DMX VALUE	RED	GREEN	BLUE	AMBER	CYAN	LIME
33	129 - 132	254	206	143	0	0	0
34	133 - 136	254	177	153	0	0	0
35	137 - 140	254	192	138	0	0	0
36	141 - 144	254	165	98	0	0	0
37	145 - 148	254	121	0	0	0	0
38	149 - 152	176	17	0	0	0	0
39	153 - 156	96	0	11	0	0	0
40	157 - 160	234	139	171	0	0	0
41	161 - 164	224	5	97	0	0	0
42	165 - 168	175	77	173	0	0	0
43	169 - 172	119	130	199	0	0	0
44	173 - 176	147	164	212	0	0	0
45	177 - 180	88	2	163	0	0	0
46	181 - 184	0	38	86	0	0	0
47	185 - 188	0	142	208	0	0	0
48	189 - 192	52	148	209	0	0	0
49	193 - 196	1	134	201	0	0	0
50	197 - 200	0	145	212	0	0	0
51	201 - 204	0	121	192	0	0	0
52	205 - 208	0	129	184	0	0	0
53	209 - 212	0	83	115	0	0	0
54	213 - 216	0	97	166	0	0	0
55	217 - 220	1	100	167	0	0	0
56	221 - 224	0	40	86	0	0	0
57	225 - 228	209	219	182	0	0	0
58	229 - 232	42	165	85	0	0	0
59	233 - 236	0	46	35	0	0	0
60	237 - 240	8	107	222	0	0	0
61	241 - 244	254	0	0	0	0	0
62	245 - 248	0	254	0	0	0	0
63	249 - 252	0	0	254	0	0	0
64	253 - 255	0	0	0	254	0	0

VIRTUAL SWATCH COLORS

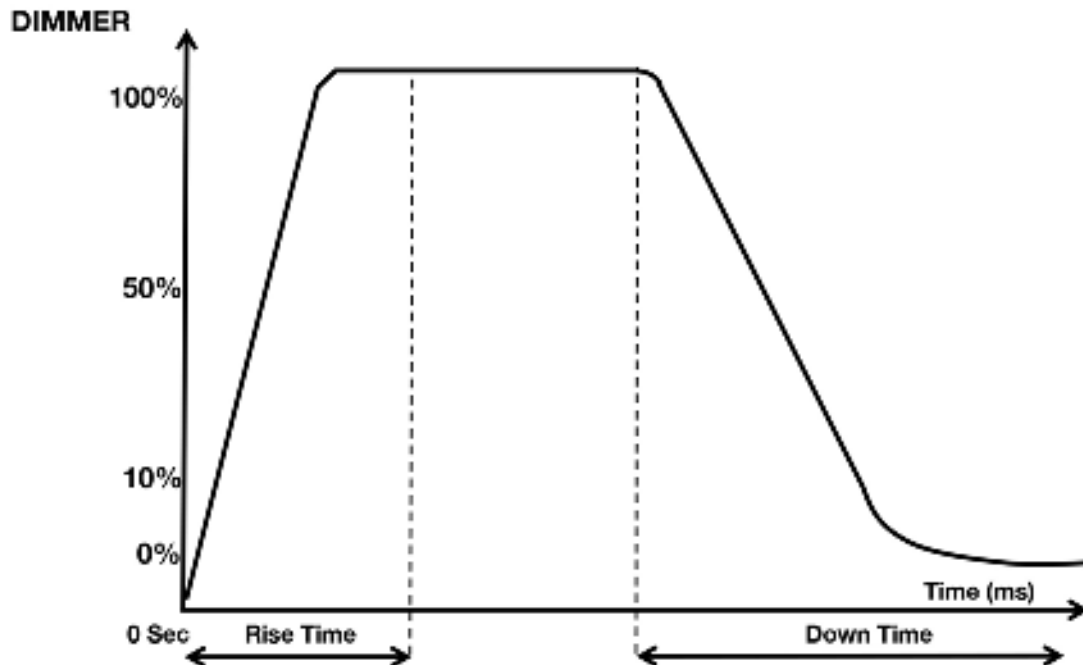
Value	Filter Number	Name
1	7	pale yellow
2	103	straw
3	151	gold tint
4	100	spring yellow
5	10	medium yellow
6	101	yellow
7	104	deep amber
8	15	deep straw
9	179	loving amber
10	21	gold amber
11	105	orange
12	158	deep orange
13	22	dark amber
14	778	millenium gold
15	135	deep golden amber
16	24	scarlet
17	106	primary red
18	26	bright red
19	27	medium red
20	19	fire
21	157	pink
22	36	medium pink
23	111	dark pink
24	128	bright pink
25	148	bright rose
26	332	special rose pink
27	793	vanity fair
28	113	magenta
29	46	dark magenta
30	48	rose purple

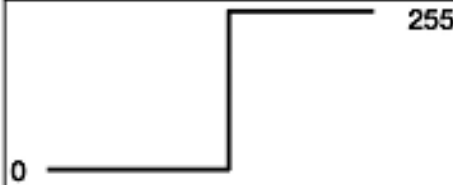

Value	Filter Number	Name
31	126	mauve
32	49	medium purple
33	58	lavender
34	199	palace blue
35	119	dark blue
36	132	medium blue
37	120	deep blue
38	165	daylight blue
39	161	slate blue
40	118	light blue
41	68	sky blue
42	143	pale navy blue
43	131	marine blue
44	115	peacock blue
45	172	lagoon blue
46	116	medium blue green
47	90	dark yellow green
48	139	primary green
49	122	fern green
50	89	moss green
51	124	dark green
52	88	lime green
53	138	pale green
54	203	Quarter CT Blue
55	202	Half CT Blue
56	201	FULL CT Blue
57	200	double CT Blue
58	206	Quarter CT Orange
59	205	Half CT Orange
60	204	FULL CT Orange

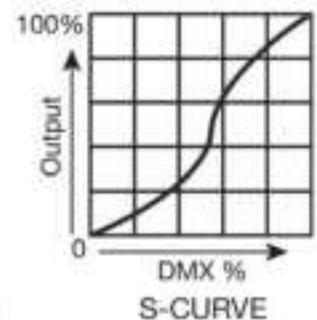
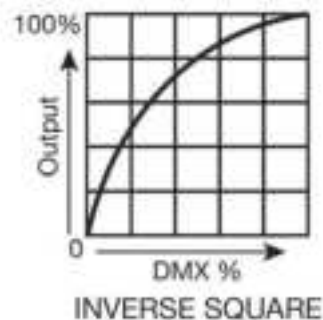
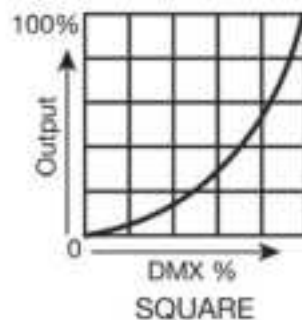
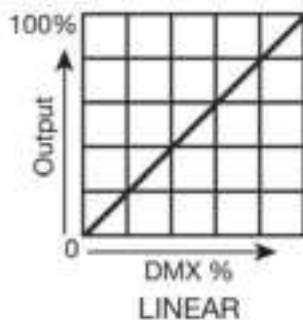
COLOR TEMPERATURE CHART

DMX VALUES	COLOR TEMPERATURE	DMX VALUES	COLOR TEMPERATURE
000 - 026	No function	047	4700
027	2700	048	4800
028	2800	049	4900
029	2900	050	5000
030	3000	051	5100
031	3100	052	5200
032	3200	053	5300
033	3300	054	5400
034	3400	055	5500
035	3500	056	5600
036	3600	057	5700
037	3700	058	5800
038	3800	059	5900
039	3900	060	6000
040	4000	061	6100
041	4100	062	6200
042	4200	063	6300
043	4300	064	6400
044	4400	065	6500
045	4500	066 - 255	10000
046	4600		

DIMMER MODES & CURVES



Dimming Curve Ramp Effect	0 sec Fade Time		1 sec Fade Time	
		255		255
	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



CLEANING & MAINTENANCE

WARNING! DISCONNECT UNIT FROM POWER BEFORE PERFORMING ANY CLEANING OR MAINTENANCE PROCEDURES!

ALWAYS ALLOW THE FIXTURE TO COOL FOR AT LEAST 15 MINUTES BEFORE PERFORMING ANY CLEANING OR MAINTENANCE!

CLEANING

Frequent cleaning is recommended to ensure 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 periodically with a soft cloth to avoid dirt/debris accumulation.

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

MAINTENANCE

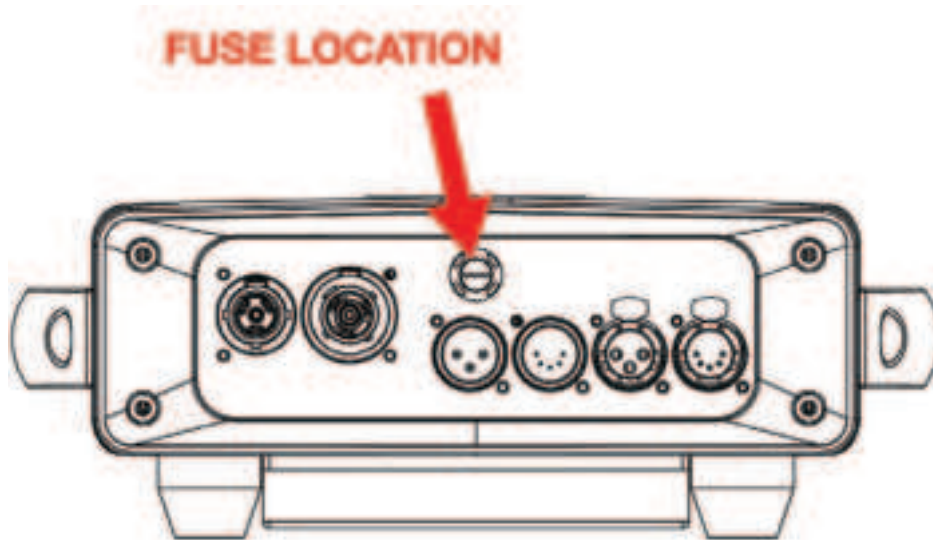
Regular inspections are recommended to ensure proper function and extended life. There are no user serviceable parts inside this fixture. Please refer all other service issues to an authorized ADJ service technician. Should you need any spare parts, please order genuine parts from an authorized ADJ dealer.

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.

FUSE REPLACEMENT

Disconnect the unit from the power source, then use a flat head screw driver to unscrew the fuse holder located above the DMX ports. Remove the bad fuse and replace with a new one, then screw the fuse holder back in. Replace only with a new fuse of the same type and rating.



SOFTWARE UPDATES

ONLY QUALIFIED TECHNICIANS SHOULD PERFORM THIS FUNCTION! NOTE ALL MENU SETTINGS BEFORE UPDATING SOFTWARE!

FIXTURE SOFTWARE CANNOT BE DOWNGRADED!

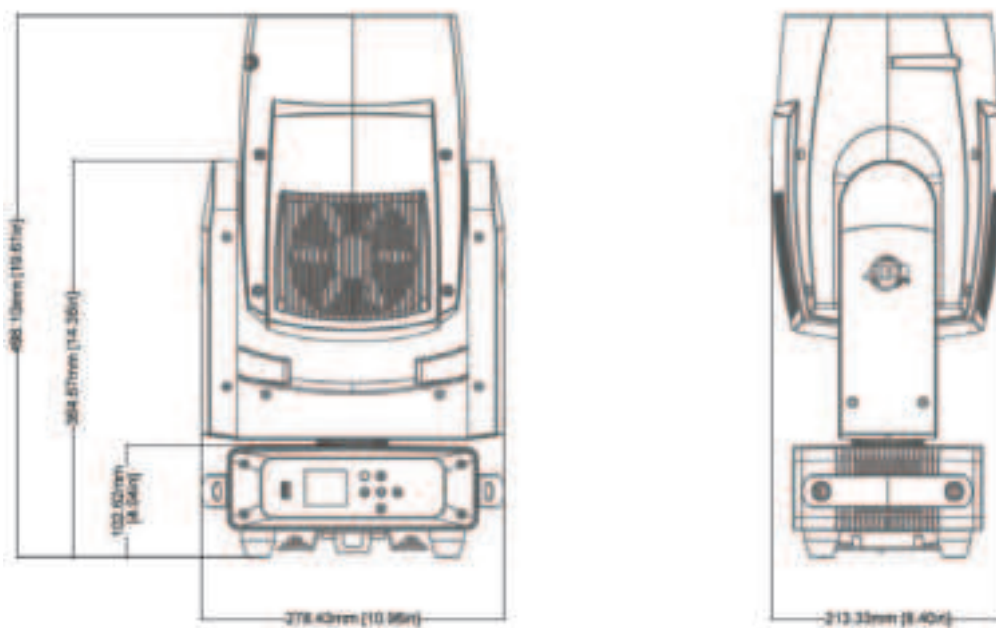
DOWNLOAD FIXTURE SOFTWARE TO PC ONLY! (NO MAC SUPPORT)

PLEASE CONTACT ADJ CUSTOMER SERVICE FOR FURTHER INFORMATION.

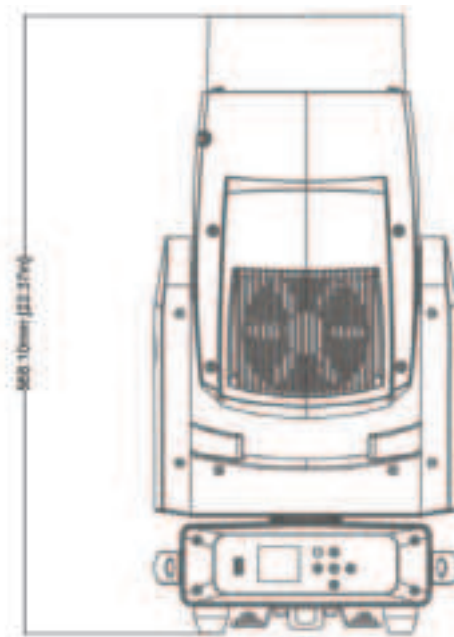
1. Contact ADJ customer service to obtain the updated software. Download software to a USB flash drive. In order to minimize the risk of downloading the incorrect software to your device, make sure that the desired update files are the only files on the USB flash drive.
2. Disconnect any DMX connections from your device. Insert the USB flash drive into the service port on your device.
3. Use the display screen control panel to navigate to Personality > Service > USB Port Power. See the **System Menu** section of this manual for detailed instructions. Enter the passcode when prompted, and switch the USB Port Power setting to ON.
4. Highlight the desired file and press ENTER to select it and begin the download.
5. The unit will now update, run an automatic software check, and reset. This may take some time.
6. Repeat this process for each software update file.
7. Verify by navigating to Information > Software Version and confirming that the correct software version number is shown there (see the **System Menu** section of this manual for detailed instructions).

DIMENSIONAL DRAWINGS

Without Snoot



Snoot Installed



Drawings may not be to scale.

SPECIFICATIONS

SOURCE:

- 400W RGBACL LED
- 50,000 Hour Average LED Life*

*May vary depending on several factors including but not limited to: Environmental Conditions, Power/Voltage, Usage Patterns (On-Off Cycling), Control, and Dimming.

PHOTOMETRIC DATA:

- Zoom Range 10° - 46°
- Color Temperature: 10000K
- 4,600 Total Lumen Fixture Output
- Lux @ 10': 10,384 lx (965 foot candles), 1.8' diameter
- CRI: 94
- CRI R9: 87.3
- TM30 Rf: 90.8
- TM30 Rg: 99.5

COLOR:

- RGBWACL (Red, Green, Blue, Amber, Cyan, Lime)

EFFECTS:

- RGBACL Color Mixing
- 10~46-degree Motorized Zoom
- Electronic Strobe
- Color Temperature Red to Green control via DMX
- Linear Color Temperature control, 2700k to 10,000k
- Preset Color Temperatures (2700k, 3200k, 4000k, 5600k and 6500k)

CONTROL / CONNECTIONS:

- 3 DMX Channel Modes (16, 21 & 23 Channel Modes)
- Selectable LED Refresh Rates, 900Hz to 25K Hz.
- Linear Dimming with user selectable Dim Curves, Dim Modes and Dim Speeds
- 6-button Control Panel and LCD Menu Display
- RDM (Remote Device Management)
- Locking 3-pin and 5-pin XLR Connector In/Out
- IP65 Locking Power Connector In/Out
- With Wired Digital Communication Network

SIZE / WEIGHT:

- Length: 10.96" (278.43mm)
- Width: 8.40" (213.33mm)
- Vertical Height (Without Snoot): 19.61" (498.1mm)
- Vertical Height (Snoot Installed): 22.37" (568.1mm)
- Weight: 23.5 lbs. (10.7 kg)

ELECTRICAL / THERMAL:

- Multi-voltage: AC 100-240V - 47/63Hz
- 438W Max Power Consumption
- Multiple Unit Power Linking
- 5°F to 113°F (-15°C to 45°C)

APPROVALS / RATINGS:

- CE | cETLus (Pending) | IP20

Specifications and documentation subject to change without notice.

