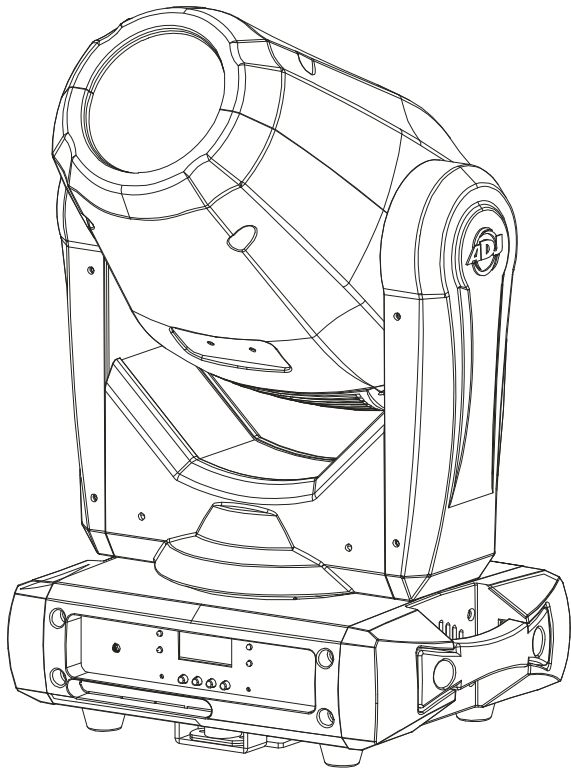




## FOCUS SPOT THREE Z PEARL



## User Instructions



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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!

## Focus Spot Three Z Pearl

## General Information

**Unpacking:** Thank you for purchasing the Focus Spot Three Z Pearl by ADJ Products, LLC. Every Focus Spot Three Z Pearl has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect your fixture for any damage and be sure all equipment necessary to operate the unit has arrived intact. In the event damage has been found or parts are missing, please contact our toll free customer support number for further instructions. Please do not return this unit to your dealer without contacting customer support first.

**Introduction:** The Focus Spot Three Z Pearl is a DMX intelligent, moving head, mini LED was. The Focus Spot Three Z Pearl can operate as a stand alone fixture or in a Master/Slave set up. The Focus Spot Three Z Pearl has three operating modes; a sound active, show mode, DMX controlled. This fixture is suitable for theaters, studios, retail stores, and other similar locations. *For best results use fog or special effects smoke to enhance the beams projections.*

**Customer Support:** ADJ Products, LLC provides a toll free customer support line, to provide help and to answer any question should you encounter problems during your set up or initial operation. You may also visit us on the web at [www.adj.com](http://www.adj.com) for any comments or suggestions. Service Hours are Monday through Friday 8:00 a.m. to 4:30 p.m. Pacific Standard Time.

Voice: (800) 322-6337

Fax: (323) 582-2941

E-mail: [support@americandj.com](mailto:support@americandj.com)

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

**Warning!** *This may cause severe eye damage. Avoid looking directly into the light source at all times!*

## Focus Spot Three Z Pearl

## General Instructions

To optimize the performance of this product, please read these operating instructions carefully to familiarize yourself with the basic operations of this unit. These instructions contain important safety information regarding the use and maintenance of this unit. Please keep this manual with the unit, for future reference.

## Focus Spot Three Z Pearl

## Features

- DMX-512 Protocol Compatible (2 DMX Channel Modes: 18 Channels & 21 Channels)
- 3 Operating Modes - Sound Active, Show Mode, & DMX Control
- 5 Dimmer Curves (Standard, Stage, TV, Architectural, & Theatre)
- Internal Microphone
- Digital Display for Address and Function Setting
- 4 Preprogrammed Shows
- UC IR and Airstream IR Compatible (Not Included)

## Focus Spot Three Z Pearl

## Warranty Registration

The Focus Spot Three Z Pearl carries a 2 year (730 days) limited warranty. Please fill out the enclosed warranty card to validate your purchase and warranty. You may also register your product online at [www.adjproducts.com](http://www.adjproducts.com). All returned service items whether under warranty or not, must be freight pre-paid and accompany a return authorization (R.A.) number. If the unit is under warranty you must provide a copy of your proof of purchase invoice. Please contact ADJ Products, LLC customer support for a R.A. number.

## Focus Spot Three Z Pearl

## Handling Precautions

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

*During operation the housing may become extremely hot. Avoid touching the unit with bare hands while in use.*

*ADJ Products, LLC will not accept any liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to this unit.*

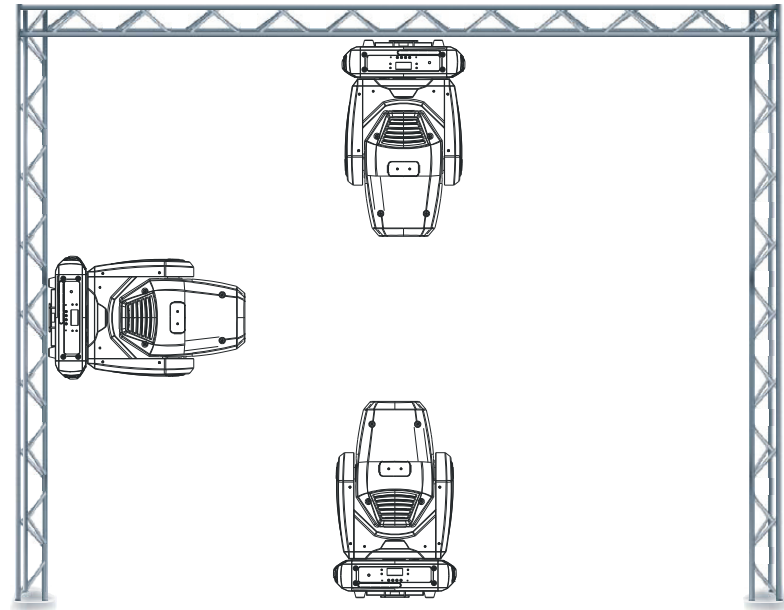
***For Your Own Personal Safety, Please Read and Understand This Manual Completely Before You Attempt To Install Or Operate This Unit!***

- To reduce the risk of electrical shock or fire, do not expose this unit rain or moisture
- Do not spill water or other liquids into or on to your unit.
- Be sure that the local power outlet match that of the required voltage for your unit.
- Do not attempt to operate this unit if the power cord has been frayed or broken.
- Do not attempt to remove or break off the ground prong from the electrical cord. This prong is used to reduce the risk of electrical shock and fire in case of an internal short.
- Disconnect from main power before making any type of connection.
- Do not remove the cover under any conditions. There are no user serviceable parts inside.
- Never operate this unit when it's cover is removed.
- Always be sure to mount this unit in an area that will allow proper ventilation. Allow about 6" (15cm) between this device and a wall.
- Do not attempt to operate this unit, if it becomes damaged.
- This unit is intended for indoor use only, use of this product outdoors voids all warranties.
- Always mount this unit in safe and stable matter.
- Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
- Cleaning -The fixture should be cleaned only as recommended by the manufacturer. See page 36 for cleaning details.
- Heat -This fixture should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
- The fixture should be serviced by qualified service personnel when:
  - A. Objects have fallen, or liquid has been spilled into the appliance.
  - B. The appliance has been exposed to rain or water.
  - C. The appliance does not appear to operate normally or exhibits a marked change in performance.

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.

The installaiton should be checked by a skilled person once a year.

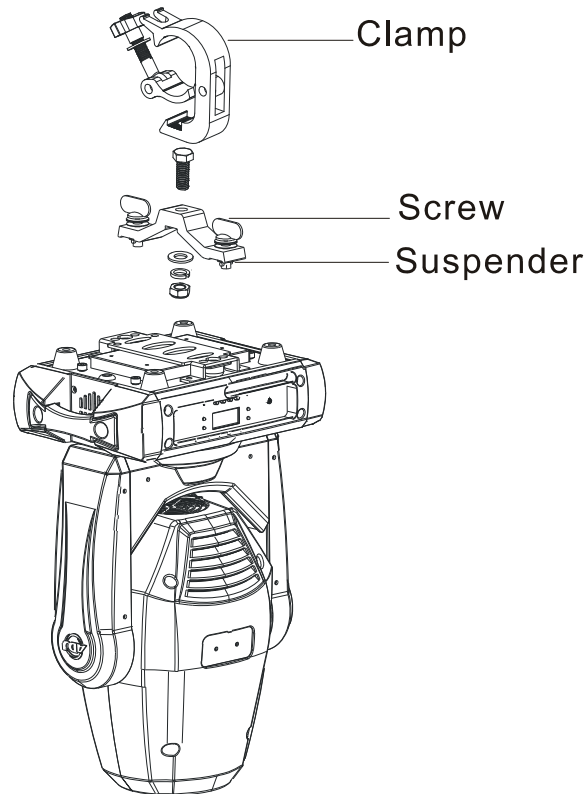


The Focus Spot Three Z Pearl is fully operational in three different mounting positions, hanging upside-down from a ceiling, mounted sideways on trussing, or set on a flat level surface. Be sure this fixture is kept at least 0.5m away from any flammable materials (decoration etc.). Always use and install the supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails (see next page).

## Focus Spot Three Z Pearl

## Mounting

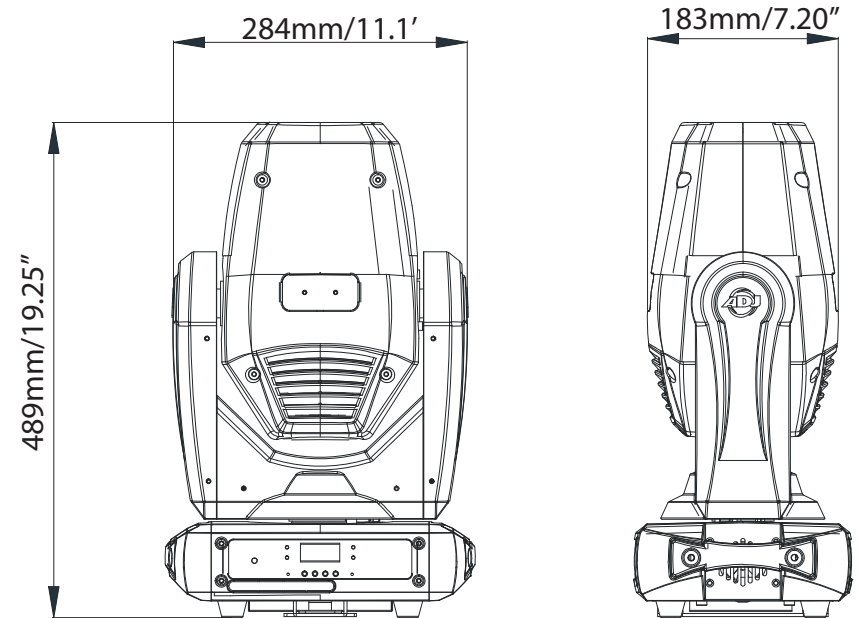
**NOTICE:** The suitable environmental temperature for this lighting fixture is between  $-25^{\circ}\text{C}$  to  $45^{\circ}\text{C}$ . Do not place this lighting fixture in an environment where the temperatures are under or above the temperatures stated above. This will allow the fixture to run at its best and help prolong the fixture life.

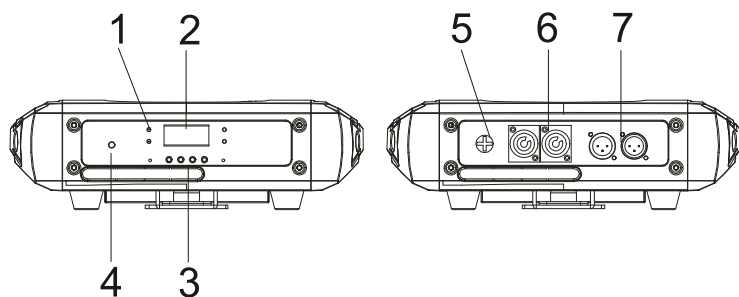


Screw one clamp via a M12 screw and nut to the included bracket. Attach the bracket using the omega locks to the bottom of the Focus Spot Three Z Pearl. Attach and pull the safety-cable through one of the safety holes located on the bottom base and over the trussing system or a safe fixation spot. Insert the end in the carabine and tighten the safety screw.

## Focus Spot Three Z Pearl

## CAD Drawing





1. LED:

DMX	On	DMX input present
MASTER	On	Master Mode
SLAVE	ON	Slave Mode
SOUND	Flashing	Sound activation

2. Display: To show the various menus and the selected function;

3. Button:

MENU	To select the programming functions
▼ UP	To go forward in the selected functions
▲ DOWN	To go backward in the selected functions
ENTER	To confirm the selected functions

4. IR receiver: To receive the IR signal;

5. Fuse (T5Amp): Protects the unit from over-voltage or short circuit;

6. Power In/out: power cable connectors for power input/output;

7. DMX In/Out: 3-pin XLR connectors for DMX 512 operation

**Power Supply:** The ADJ Focus Spot Three Z Pearl contains a automatic voltage switch, which will auto sense the voltage when it is plugged into the power source. With this switch there is no need to worry about the correct power voltage, this unit can be plugged in anywhere.

**DMX-512:** DMX is short for Digital Multiplex. This is a universal protocol used by most lighting and controller manufactures 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. Therefore, the first fixture controlled by the controller could be the last fixture in the chain. 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 and Master/Slave Operation):** The Focus Spot Three Z Pearl can be controlled via DMX-512 protocol. The Focus Spot Three Z Pearl has 2 DMX channel modes; 18 channel mode & 21 channel mode. The DMX address is set electronically using the controls on the front panel of the unit. Your unit and your DMX controller require a approved DMX-512 110 Ohm Data cable for data input and data output (Figure 1). We recommend Accu-Cable DMX cables. If you are making your own cables, be sure to use standard 110-120 Ohm



Figure 1

shielded cable (This cable may be purchased at almost all professional sound and lighting stores). Your cables should be made with a male and female XLR connector on either end of the cable. Also remember that DMX cable must be daisy chained and cannot be split.

**Notice:** Be sure to follow figures two and three when making your own cables. Do not use the ground lug on the XLR connector. Do not connect the cable’s shield conductor to the ground lug or allow the shield conductor to come in contact with the XLR’s outer casing. Grounding the shield could cause a short circuit and erratic behavior.

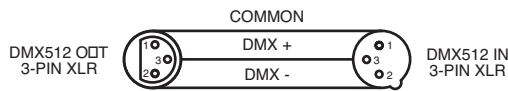


Figure 2

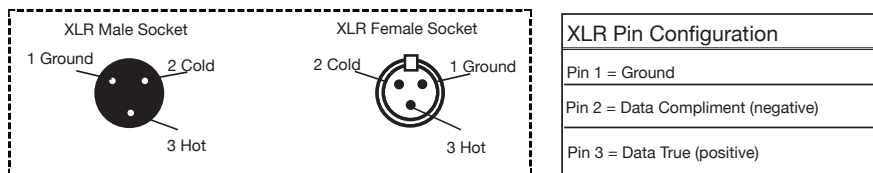


Figure 3

**Special Note: Line Termination.** When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behavior. A terminator is a 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.

Figure 4

**5-Pin XLR DMX Connectors.** Some manufactures 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 in to a 3-pin line a cable adaptor must be used, these adaptors are readily available at most electric stores. The chart below details a proper cable conversion.

3-Pin XLR to 5-Pin XLR Conversion		
Conductor	3-Pin XLR Female (Out)	5-Pin XLR Male (In)
Ground/Shield	Pin 1	Pin 1
Data Compliment (- signal)	Pin 2	Pin 2
Data True (+ signal)	Pin 3	Pin 3
Not Used		Pin 4 - Do Not Use
Not Used		Pin 5 - Do Not Use

Focus Spot Three Z Pearl		18 Channel Mode
Channel	Value	Function
1	0 - 255	PAN MOVEMENT 0° - 540°
2	0 - 255	TILT MOVEMENT 0° - 270°
3	0 - 7	COLOR WHITE
	8 - 14	RED
	15 - 21	ORANGE
	22 - 28	YELLOW
	29 - 35	GREEN
	36 - 42	BLUE
	43 - 49	PURPLE
	50 - 56	LIGHT BLUE
	57 - 63	PINK
	64 - 127	COLOR MIXING
	128 - 189	COUNTER CLOCKWISE ROTATION FAST - SLOW
	190 - 193	STOP
	194 - 255	CLOCKWISE ROTATION SLOW - FAST
4	0 - 7	GOBOS (STATIC) OPEN
	8 - 15	GOBO 1
	16 - 23	GOBO 2
	24 - 31	GOBO 3
	32 - 39	GOBO 4
	40 - 47	GOBO 5
	48 - 55	GOBO 6
	56 - 63	GOBO 7
	64 - 72	GOBO 1 SHAKE
	73 - 81	GOBO 2 SHAKE
	82 - 90	GOBO 3 SHAKE
	91 - 99	GOBO 4 SHAKE
	100 - 108	GOBO 5 SHAKE
	109 - 117	GOBO 6 SHAKE
	118 - 127	GOBO 7 SHAKE
	128 - 189	COUNTER CLOCKWISE ROTATION FAST - SLOW
	190 - 193	STOP
194 - 255	CLOCKWISE ROTATION SLOW - FAST	

Focus Spot Three Z Pearl		18 Channel Mode
Channel	Value	Function
5	0 - 9	GOBOS (ROTATING) OPEN
	10 - 18	GOBO 1
	19 - 27	GOBO 2
	28 - 36	GOBO 3
	37 - 45	GOBO 4
	46 - 54	GOBO 5
	55 - 63	GOBO 6
	64 - 73	OPEN
	74 - 82	GOBO 1 SHAKE
	83 - 91	GOBO 2 SHAKE
	92 - 100	GOBO 3 SHAKE
	101 - 109	GOBO 4 SHAKE
	110 - 118	GOBO 5 SHAKE
	119 - 127	GOBO 6 SHAKE
128 - 189	COUNTER CLOCKWISE ROTATION FAST - SLOW	
190 - 193	STOP	
194 - 255	CLOCKWISE ROTATION SLOW - FAST	
6	0 - 127	GOBO WHEEL 2 GOBO ROTATION INDEXING
	128 - 189	CLOCKWISE ROTATION FAST - SLOW
	190 - 193	NO ROTATION
	194 - 255	COUNTER-CLOCKWISE ROTATION SLOW - FAST
7	0	PRISM STOP
	1 - 126	6 FACET PRISM
	127	NO EFFECT
	128 - 255	LINEAR PRISM
8	0 - 3	PRISM ROTATION STOP
	4 - 127	COUNTER CLOCKWISE ROTATION FAST - SLOW
	128 - 131	STOP
	132 - 255	CLOCKWISE ROTATION SLOW - FAST

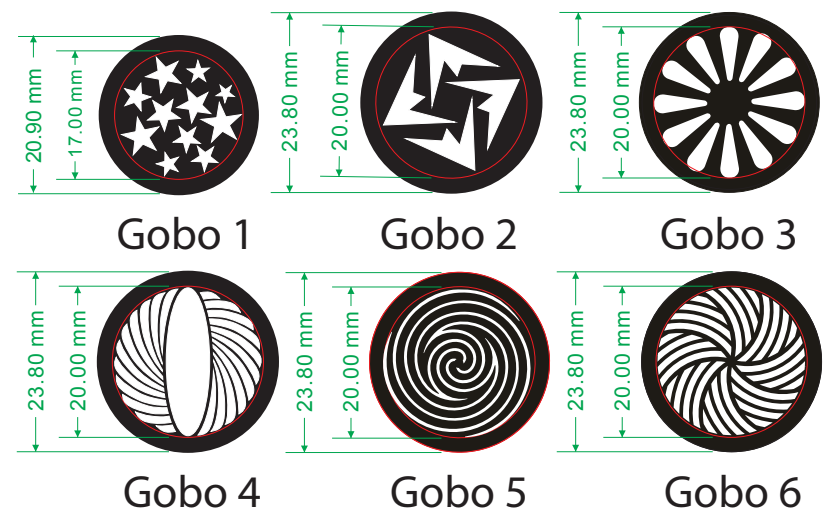
Focus Spot Three Z Pearl		18 Channel Mode
Channel	Value	Function
9	0 - 7	STROBE/SHUTTER OFF
	8 - 15	OPEN
	16 - 131	STROBING SLOW - FAST
	132 - 139	OPEN
	140 - 181	SLOW OPEN - FAST CLOSE
	182 - 189	OPEN
	190 - 231	FAST OPEN - SLOW CLOSE
	232 - 239	OPEN
	240 - 247	RANDOM STROBE SLOW - FAST
	248 - 255	OPEN
10	0 - 255	MASTER DIMMER 0% - 100%
11	0 - 255	FOCUS 0% - 100%
12		AUTO FOCUS
	0 - 7	NOTHING
	8 - 63	5M FOR AUTO FOCUS
	64 - 127	10M FOR AUTO FOCUS
	128 - 255	15M FOR AUTO FOCUS
13	0 - 255	ZOOM 18° - 12°
14		SHOWS
	0	OFF
	1 - 21	SHOW 1
	22 - 41	SHOW 2
	42 - 61	SHOW 3
	62 - 81	SHOW 4
	82 - 255	RANDOM SHOW WITH SOUND ACTIVITY
15	0 - 255	SHOW SPEED FAST - SLOW
16		DIMMER MODES
	0 - 20	STANDARD
	21 - 40	STAGE
	41 - 60	TV
	61 - 80	ARCHITECTURAL
	81 - 100	THEATRE
	101 - 255	DEFAULT TO UNIT
17	0 - 255	PAN/TILT SPEED FAST - SLOW

Focus Spot Three Z Pearl		18 Channel Mode
Channel	Value	Function
18		FUNCTION NOTHING
	0 - 69	ENABLE BLACKOUT WITH PAN/TILT
	70 - 79	DISABLE BLACKOUT WITH PAN/TILT
	80 - 89	ENABLE BLACKOUT W/ COLOR CHANGE
	90 - 99	DISABLE BLACKOUT W/ COLOR CHANGE
	100 - 109	ENABLE BLACKOUT W/ GOBO CHANGE
	110 - 119	DISABLE BLACKOUT W/ GOBO CHANGE
	120 - 129	PAN/TILT MOTOR RESET
	130 - 139	COLOR WHEEL MOTOR RESET
	140 - 149	GOBO WHEEL MOTOR RESET
	150 - 159	EFFECTS RESET (PRISM/FOCUS/ZOOM)
	160 - 169	NOTHING
	170 - 199	RESET ALL
	200 - 209	NOTHING
210 - 255	NOTHING	

Gobo Wheel 1



Gobo Wheel 2





Focus Spot Three Z Pearl		21 Channel Mode
Channel	Value	Function
1	0 - 255	PAN MOVEMENT 0° - 540°
2	0 - 255	PAN FINE 0% - 100%
3	0 - 255	TILT MOVEMENT 0° - 270°
4	0 - 255	TILT FINE 0% - 100%
5	0 - 7 8 - 14 15 - 21 22 - 28 29 - 35 36 - 42 43 - 49 50 - 56 57 - 63 64 - 127 128 - 189 190 - 193 194 - 255	COLOR WHITE RED ORANGE YELLOW GREEN BLUE PURPLE LIGHT BLUE PINK COLOR MIXING COUNTER CLOCKWISE FAST - SLOW STOP CLOCKWISE ROTATION SLOW - FAST
6	0 - 7 8 - 15 16 - 23 24 - 31 32 - 39 40 - 47 48 - 55 56 - 63 64 - 72 73 - 81 82 - 90 91 - 99 100 - 108 109 - 117 118 - 127 128 - 189 190 - 193 194 - 255	GOBOS (STATIC) OPEN GOBO 1 GOBO 2 GOBO 3 GOBO 4 GOBO 5 GOBO 6 GOBO 7 GOBO 1 SHAKE GOBO 2 SHAKE GOBO 3 SHAKE GOBO 4 SHAKE GOBO 5 SHAKE GOBO 6 SHAKE GOBO 7 SHAKE COUNTER CLOCKWISE FAST - SLOW STOP CLOCKWISE ROTATION SLOW - FAST

Focus Spot Three Z Pearl		21 Channel Mode
Channel	Value	Function
7	0 - 9 10 - 18 19 - 27 28 - 36 37 - 45 46 - 54 55 - 63 64 - 73 74 - 82 83 - 91 92 - 100 101 - 109 110 - 118 119 - 127 128 - 189 190 - 193 194 - 255	GOBOS (ROTATING) OPEN GOBO 1 GOBO 2 GOBO 3 GOBO 4 GOBO 5 GOBO 6 OPEN GOBO 1 SHAKE GOBO 2 SHAKE GOBO 3 SHAKE GOBO 4 SHAKE GOBO 5 SHAKE GOBO 6 SHAKE COUNTER CLOCKWISE ROTATION FAST - SLOW STOP CLOCKWISE ROTATION SLOW - FAST
8	0 - 127 128 - 189 190 - 193 194 - 255	GOBO WHEEL 2 GOBO ROTATION INDEXING CLOCKWISE ROTATION FAST - SLOW NO ROTATION COUNTER-CLOCKWISE ROTATION SLOW - FAST
9	0 1 - 126 127 128 - 255	PRISM STOP 6 FACET PRISM NO EFFECT LINEAR PRISM
10	0 - 3 4 - 127 128 - 131 132 - 255	PRISM ROTATION STOP COUNTER CLOCKWISE ROTATION FAST - SLOW STOP CLOCKWISE ROTATION SLOW - FAST

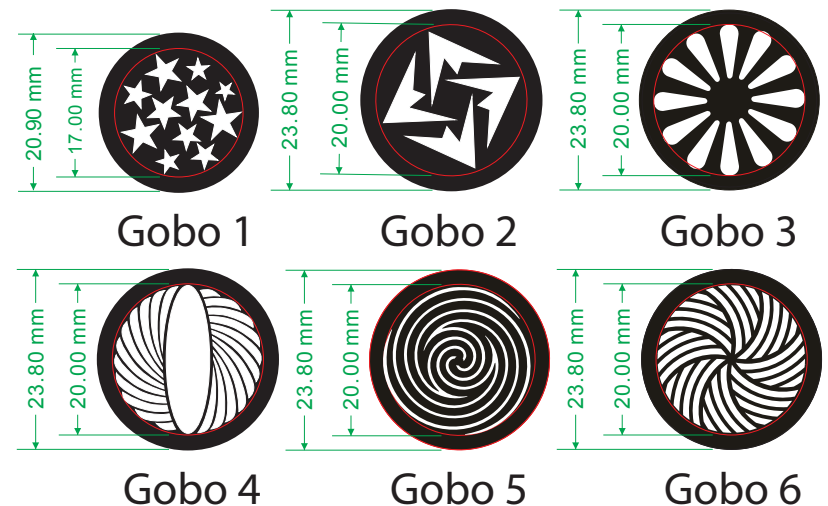
Focus Spot Three Z Pearl		21 Channel Mode
Channel	Value	Function
11	0 - 7	STROBE/SHUTTER OFF
	8 - 15	OPEN
	16 - 131	STROBING SLOW - FAST
	132 - 139	OPEN
	140 - 181	SLOW OPEN - FAST CLOSE
	182 - 189	OPEN
	190 - 231	FAST OPEN - SLOW CLOSE
	232 - 239	OPEN
	240 - 247	RANDOM STROBE SLOW - FAST
	248 - 255	OPEN
12	0 - 255	MASTER DIMMER 0% - 100%
13	0 - 255	MASTER DIMMER FINE 0% - 100%
14	0 - 255	FOCUS 0% - 100%
15	0 - 7	AUTO FOCUS NOTHING
	8 - 63	5M FOR AUTO FOCUS
	64 - 127	10M FOR AUTO FOCUS
	128 - 255	15M FOR AUTO FOCUS
	16	0 - 255
17	0	SHOWS OFF
	1 - 21	SHOW 1
	22 - 41	SHOW 2
	42 - 61	SHOW 3
	62 - 81	SHOW 4
	82 - 255	RANDOM SHOW WITH SOUND ACTIVITY
18	0 - 255	SHOW SPEED FAST - SLOW
19	0 - 20	DIMMER MODES STANDARD
	21 - 40	STAGE
	41 - 60	TV
	61 - 80	ARCHITECTURAL
	81 - 100	THEATRE
	101 - 255	DEFAULT TO UNIT
	20	0 - 255

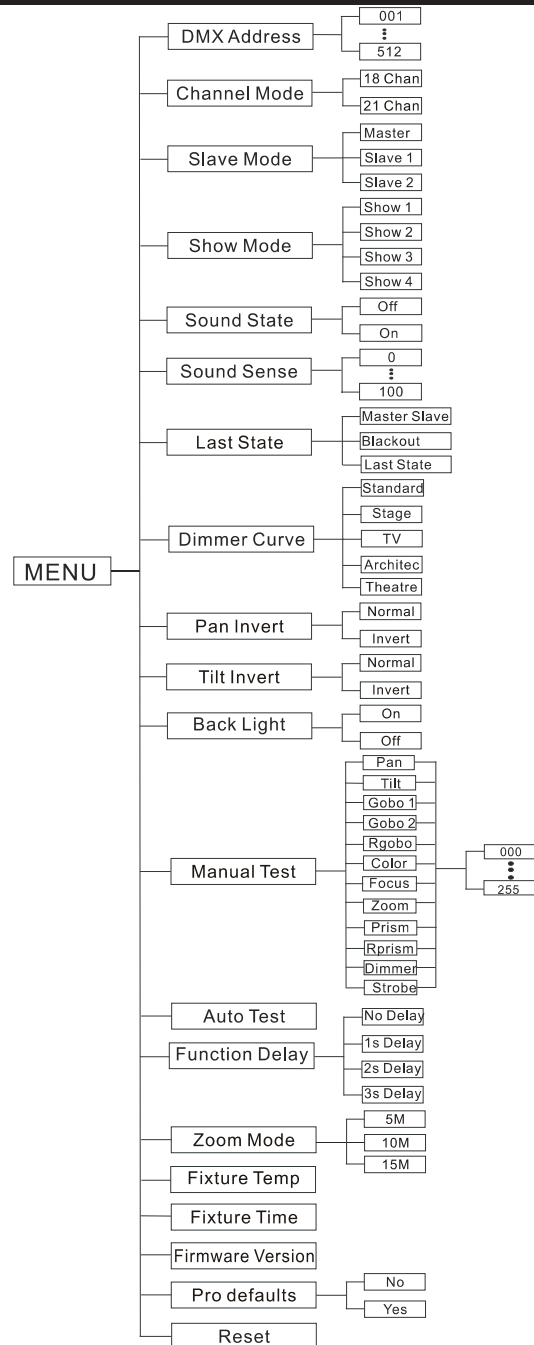
Focus Spot Three Z Pearl		21 Channel Mode
Channel	Value	Function
21	0 - 69	FUNCTION NOTHING
	70 - 79	ENABLE BLACKOUT WITH PAN/TILT
	80 - 89	DISABLE BLACKOUT WITH PAN/TILT
	90 - 99	ENABLE BLACKOUT W/ COLOR CHANGE
	100 - 109	DISABLE BLACKOUT W/ COLOR CHANGE
	110 - 119	ENABLE BLACKOUT W/ GOBO CHANGE
	120 - 129	DISABLE BLACKOUT W/ GOBO CHANGE
	130 - 139	PAN/TILT MOTOR RESET
	140 - 149	COLOR WHEEL MOTOR RESET
	150 - 159	GOBO WHEEL MOTOR RESET
	160 - 169	EFFECTS RESET (PRISM/FOCUS/ZOOM)
	170 - 199	NOTHING
	200 - 209	RESET ALL
	210 - 255	NOTHING

Gobo Wheel 1



Gobo Wheel 2





**System Menu:** When making adjustments press **ENTER** to confirm your setup then press and hold the **MENU** button for at least 3 seconds. To exit without making any adjustments press the **MENU** button. The display will lock after 30 seconds, press the **MENU** button for 3 seconds to unlock.

## DMX Address - Set the DMX Address -

1. Press the MENU button until “DMX Address” is displayed, press ENTER.
2. “X” will now be displayed, “X” represents the displayed address. Press the UP or DOWN buttons to find your desired address.
3. Press ENTER to confirm, and then press and hold the MENU button for at least three seconds to assign.

## Channel Mode - This will let you select your desired DMX Channel mode.

1. Press the MENU button until “Channel Mode” is displayed, press ENTER.
2. “X Chan” will now be displayed, “X” represents the displayed DMX channel mode. Press the UP or DOWN buttons to find your desired Channel mode.
3. Press ENTER to confirm.

## Slave Mode - This will let you set unit as a master or slave in a master/slave configuration.

1. Press the MENU button until “Slave Mode” is displayed, press ENTER. Either “Master”, “Slave 1” or “Slave 2” will be displayed.
2. Press the UP or DOWN buttons until your desired setting is displayed, then press ENTER to confirm.

**NOTE:** In a Master/Slave configuration you can make one fixture the Master and then set the next fixture to “Slave 2”, the fixtures will now have contrast movement to each other.

## Show Mode - Show modes 1 - 4 (Factory Shows).

1. Press the MENU button until “Show Mode” is displayed, press ENTER.
2. “Show X” will now be displayed, “X” representing a number between 1-4. Press the UP or DOWN buttons to find your desired show and press ENTER to confirm. After pressing ENTER, press and hold the MENU button for at least 3 seconds to activate.

## Sound State - In this mode the unit will run in sound active mode.

1. Press the MENU button until “Sound State” is displayed, press ENTER.
2. Either “On” or “Off” will now be displayed. Use the UP or DOWN buttons to toggle between “On” and “Off”.
3. Press ENTER to confirm your selection, the press and hold the MENU button to activate.

## Sound Sense - In this mode you can adjust the sound sensitivity of the sound active mode.

1. Press the MENU button until “Sound Sense” is displayed, press ENTER.
2. Press the UP or DOWN buttons to adjust the sensitivity level. The sensitivity level can be adjusted between 0 (the lowest) and 100 (most sensitive).
3. Press ENTER to set you desired level.

**DMX Last State - This mode can be used as a precaution mode, that in case the DMX signal is lost, the operating mode chosen in the setup is the running mode the fixture will go into when the DMX signal is lost. You can also set this as the operating mode you would like the unit to return to when power is applied.**

1. Press the MENU button until “DMX State” is displayed, press ENTER.
2. Either “Master/Slave”, “Blackout”, or “Last State” will be displayed. Choose an operating mode you would like the unit to start up in when power is applied or the DMX signal is lost.
  - Master/Slave - If the DMX signal is lost or power is applied, the unit will automatically go into Master Slave mode.
  - Blackout - If the DMX signal is lost or power is applied, the unit will automatically go into stand by mode.
  - Last State - If the DMX signal is lost the fixture will stay in the last DMX set up. If power is applied and this mode is set, the unit will automatically go into the last DMX set up.
3. Press ENTER to confirm your desired set up.

## Dimmer Curve - In this mode you can select the dimmer curve.

1. Press the MENU button until “Dimmer Curve” is displayed, press ENTER.
2. The current dimmer curve setting will be displayed.
3. Press the UP or DOWN buttons to find your desired dimmer curve and press ENTER to confirm. See the Dimmer Curve Chart on page 22 for the settings.

## Pan Invert - Pan Inversion

1. Press the MENU button until “Pan Invert” is displayed, press ENTER. Either “Yes” or “No” will be displayed.
2. To activate the Pan inversion press the UP or DOWN buttons until “Yes” is displayed, press ENTER to confirm. To deactivate Pan inversion, select “No” and press Enter.

## Tilt Invert - Tilt Inversion

1. Press the MENU button until “Tilt Invert” is displayed, press ENTER. Either “Yes” or “No” will be displayed.
2. To activate the Tilt inversion press the UP or DOWN buttons until “Yes” is displayed, press ENTER to confirm. To deactivate Tilt inversion, select “No” and press Enter.

## Back Light - With this function you can make the backlight automatically turn off after one minute.

1. Press the MENU button until “Back Light” is displayed, press ENTER.
2. Either “On” or “Off” will now be displayed. Press the UP or DOWN buttons to select “On” to keep the backlight on at all times, or “Off” to allow the backlight to turn off after 1 minute. Press any button to turn the backlight on again.

## Manual Test - This function will let you manually test the individual features.

1. Press the MENU button until “Manual Test” is displayed, press ENTER.
2. Use the UP or DOWN buttons to find the functions that you wish to test.

3. Once you find a function you wish to test, press the ENTER button, the displayed value will begin to flash. You can now adjust the values by pressing the UP and DOWN buttons. Once you have finished testing press the ENTER button.
4. To exit the manual test mode, press the MENU button.

## Auto Test - This function will run a self test program.

1. Press the MENU button until “Auto Test” is displayed, press ENTER.
2. The fixture will now run a self test. Press the MENU button to exit.

## Function Delay - With this function you can set a delay for the reset functions in DMX mode.

1. Press the MENU button until “Function Delay” is displayed, press ENTER.
2. Either “No Delay” or time between 1s - 3s will be displayed. This number represents the delay setting. Use the UP and DOWN buttons to adjust the blackout delay.  
*Example: If the delay is set to 3 seconds, and you go to reset the pan/tilt motors, it will take 3 seconds for the reset to begin.*
3. Press ENTER to confirm.

## Zoom Mode - With this function you can adjust the zoom.

1. Press the MENU button until “Zoom Mode” is displayed, press ENTER.
2. The current zoom setting will be displayed.
3. Press the UP or DOWN buttons to adjust the zoom between 5M, 10M, or 15M. Press ENTER to confirm your setting.

**Fixture Temp.** - With this function you can display the running temperature of the unit.

1. Press the MENU button until “Fixture Temp.” is displayed, press ENTER.
2. The current running temperature of the fixture will now be displayed. Press MENU to exit.

**Fixture Time** - With this function you can display the running time of the unit.

1. Press the MENU button until “Fixture Time” is displayed, press ENTER.
2. The running time of the fixture will now be displayed. Press MENU to exit.

**Firmware Version** - This will display the firmware/software version

1. Press the MENU button until “Firmware Version” is displayed. Press the ENTER button and the firmware/software version will be displayed.
2. Press the MENU button to leave this function.

**PRO Defaults** - This function will restore all factory settings.

1. Press the MENU button until “PRO defaults” is displayed, press ENTER. Either “Yes” or “No” will be displayed.
2. To restore factory settings press the UP or DOWN buttons until “Yes” is displayed, press ENTER to confirm. If you do not wish restore the settings, select “No” and press Enter.

**Reset** - Use this function to reset the motors.

1. Press the MENU button until “Reset” is displayed, press ENTER.
2. The fixture will now reset.

Offset Menu	Pan Offset	-127~127
	Tilt Offset	0~255
	Gobo 1 Offset	-127~127
	Gobo 2 Offset	-127~127
	Color Offset	-127~127
	Prism1 Offset	-127~127
	Prism2 Offset	-127~127
	Rprism Offset	-127~127
	Focus Offset	0~255
	Zoom Offset	0~255

To enter the Offset Menu, press the MENU button to unlock the display, then press the ENTER button for at least 5 seconds. In this submenu you are able to adjust the home position of the pan, tilt, gobo wheels, color wheel, prisms, focus, and zoom .

### Pan Offset - Adjustment of the pan home position.

1. Press the ENTER button for at least 5 seconds, then press the UP or DOWN buttons so that “**Pan Offset**” is displayed, press ENTER.
2. Use the UP and DOWN buttons to make your adjustments, and then press ENTER to confirm. Press the MENU button for one second to exit.

### Tilt Offset - Adjustment of the tilt home position.

1. Press the ENTER button for at least 5 seconds, then press the UP or DOWN buttons so that “**Tilt Offset**” is displayed, press ENTER.
2. Use the UP and DOWN buttons to make your adjustments, and then press ENTER to confirm. Press the MENU button for one second to exit.

### Gobo 1 Offset - Setting adjustment for the 1st gobo wheel.

1. Press the ENTER button for at least 5 seconds, then press the UP or DOWN buttons so that “**Gobo 1 Offset**” is displayed, press ENTER.
2. Use the UP and DOWN buttons to make your adjustments, and then press ENTER to confirm. Press the MENU button for one second to exit.

### Gobo 2 Offset - Setting adjustment for the 2nd gobo wheel.

1. Press the ENTER button for at least 5 seconds, then press the UP or DOWN buttons so that “**Gobo 2 Offset**” is displayed, press ENTER.
2. Use the UP and DOWN buttons to make your adjustments, and then press ENTER to confirm. Press the MENU button for one second to exit.

### Color Offset - Setting adjustment for the color wheel.

1. Press the ENTER button for at least 5 seconds, then press the UP or DOWN buttons so that “**Color**” is displayed, press ENTER.
2. Use the UP and DOWN buttons to make your adjustments, and then press ENTER to confirm. Press the MENU button for one second to exit.

### Prism 1 Offset - Setting adjustment for the 1st prism.

1. Press the ENTER button for at least 5 seconds, then press the UP or DOWN buttons so that “**Prism 1 Offset**” is displayed, press ENTER.
2. Use the UP and DOWN buttons to make your adjustments, and then press ENTER to confirm. Press the MENU button for one second to exit.

## Prism 2 Offset - Setting adjustment for the 2nd prism.

1. Press the ENTER button for at least 5 seconds, then press the UP or DOWN buttons so that “**Prism 1 Offset**” is displayed, press ENTER.
2. Use the UP and DOWN buttons to make your adjustments, and then press ENTER to confirm. Press the MENU button for one second to exit.

## Rprism Offset - Setting adjustment for the rotating prism.

1. Press the ENTER button for at least 3 seconds, then press the UP or DOWN buttons so that “**Rprsim Offset**” is displayed, press ENTER.
2. Use the UP and DOWN buttons to make your adjustments, and then press ENTER to confirm. Press the MENU button for one second to exit.

## Focus Offset - Setting adjustment for the focus.

1. Press the ENTER button for at least 3 seconds, then press the UP or DOWN buttons so that “**Focus Offset**” is displayed, press ENTER.
2. Use the UP and DOWN buttons to make your adjustments, and then press ENTER to confirm. Press the MENU button for one second to exit.

## Zoom Offset - Setting adjustment for the zoom.

1. Press the ENTER button for at least 3 seconds, then press the UP or DOWN buttons so that “**Zoom Offset**” is displayed, press ENTER.
2. Use the UP and DOWN buttons to make your adjustments, and then press ENTER to confirm. Press the MENU button for one second to exit.

**Universal DMX Control:** This function allows you to use a universal DMX-512 controller to control the chases and patterns, dimmer and strobe. A DMX controller allows you to create unique programs tailored to your individual needs.

1. The Focus Spot Three Z Pearl has 2 DMX channel modes; 18 channel mode, and 21 channel mode. See pages 12-19 for detailed description of the DMX values and traits.
2. To control your fixture in DMX mode, follow the set-up procedures on pages 9-11 as well as the set-up specifications that are included with your DMX controller.
3. Use the controller’s faders to control the various DMX fixture traits.
4. This will allow you to create your own programs.
5. Follow the instructions on page 21 to select your desired DMX channel mode and to set the DMX address.
6. For longer cable runs (more than a 100 feet) use a terminator on the last fixture.
7. For help operating in DMX mode consult the manual included with your DMX controller.

**Sound Active Mode:** This mode allows either single unit or several units linked together, to run to the beat of the music.

1. Press the MENU button until “**Sound State**” is displayed, and press ENTER. Press the UP or DOWN buttons so that “**ON**” is displayed and press ENTER.
2. Press the MENU button until “**Sound Sense**” is displayed, and press ENTER. Use the UP and DOWN buttons to adjust the sound sensitivity. Press ENTER when you have found your desired sensitivity level.

**Show Mode:** This mode allows either a single unit or several units linked together, to run one of four shows that you choose.

1. Press the MENU button until “**Show Mode**” is displayed, and press ENTER.
2. Press the UP or DOWN buttons to find your desired show, and press ENTER.



## Focus Spot Three Z Pearl

## Master-Slave Set Up

**Master-Slave Operation** This function will allow you to link up to 16 units together and operate without a controller. The units will be sound activated. In Master-Slave operation one unit will act as the controlling unit and the others will react to the controlling units programs. Any unit can act as a Master or as a Slave.

1. Using approved DMX data cables, daisy chain your units together via the XLR connector on the rear of the units. Remember the Male XLR connector is the input and the Female XLR connector is the output. The first unit in the chain (master) will use the female XLR connector only - The last unit in the chain will use the male XLR connector only. For longer cable runs we suggest a terminator at the last fixture.
2. On the Master unit press the MENU button until “**Slave Mode**” is displayed, and press ENTER. Use the UP and DOWN buttons to scroll to the “**Master**” setting and press ENTER.
3. After setting the Master unit to the master setting find and set your desired operating mode.
4. On the slave units press the MENU button until “**Slave Mode**” is displayed, and press ENTER. Choose either “**Slave 1**” or “**Slave 2**” and press ENTER.
5. The slave units will now follow the Master unit.

## Focus Spot Three Z Pearl

## Power Cord Daisy Chain

*With this feature you can connect the fixtures to one another using the PowerCon input and output sockets. The quantity that can be connected is 3 fixtures maximum @ 120V and 6 fixtures maximum @ 230V. After you have reached the maximum amount of fixtures you will need to use a new power outlet. They must be the same fixtures. DO NOT mix fixtures.*

## Focus Spot Three Z Pearl

## Remote Operation

The **UC IR (sold separately)** infrared remote gives you control of various functions (See below). To control the fixture you must aim the remote at the front of the fixture and be no more than 30 feet away.

The **Airstream IR (sold separately)** remote transmitter plugs into the headphone jack of your iOS phone or tablet. To control your IR fixture you must raise the volume to the maximum on your iOS phone or tablet and aim the transmitter at the fixture sensor and be no more than 15 feet away. After you have purchased the Airstream IR transmitters, the app is a free download from the app store for your iOS phone or tablet. The app comes with 3 pages of control depending on the fixture you are using. Please see below for IR functions. This unit works with App page 1.

**STAND BY** - Pressing this button will blackout the fixture.

**FULL ON** - Hold this button down to fully light up the unit. When you let the button go, the unit will return to its previous state.

**FADE/GOBO** - Press this button once to access gobo wheel 1, press the button again to access gobo wheel 2. Use the number buttons to find your desired gobo.

**“DIMMER +” and “DIMMER -”** - Use these buttons to adjust the output intensity in Color mode.

**STROBE** - This button will activate the strobe effect. Press and hold this button to activate strobing and release the button to stop strobing.

**COLOR** - Press this button to enter to access the color wheel. Use the number buttons to select your desired color. Adjust the output intensity using the “DIMMER +” and “DIMMER -” buttons.

**1-9** - In color mode and gobo mode, these buttons will allow you to select a desired color or gobo. In show mode buttons 1-4 will let you select your desired show.

**SOUND ON & OFF** - These buttons activate and deactivate the sound active mode.

**SHOW** - This activates the show mode. Use buttons 1-4 to select your desired show.

## Focus Spot Three Z Pearl

## Changing the Gobo

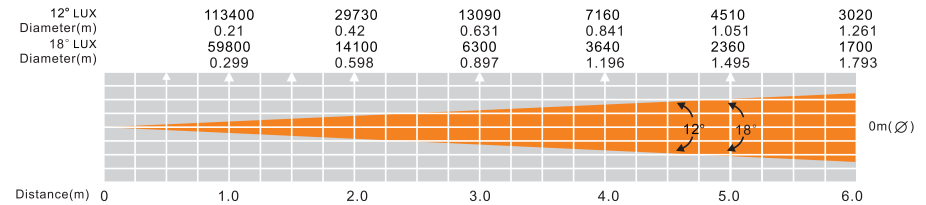
The gobo's in the second gobo wheel are the only gobo's that are interchangeable in this unit. Please be very careful when replacing the gobo.

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

1. To change a gobo, look inside the unit from the front lens and notice the prisms. Rotate the moving head so that prisms are facing down. The top shell facing you is the shell you need to remove.
2. Unscrew the 4 screws that secure the shell to the unit. Gently lift the shell off of the unit.
3. When you remove the shell you will be able to access the gobo wheel. Turn the wheel with your hand until you come across the gobo you would like to change.
4. Gently and carefully remove the fixture ring. You will notice that small dab of high temperature silicon holds the fixture ring. After the fixture ring is removed, carefully remove the gobo.
5. Change the gobo and replace the fixture ring.
6. Reassemble the unit.

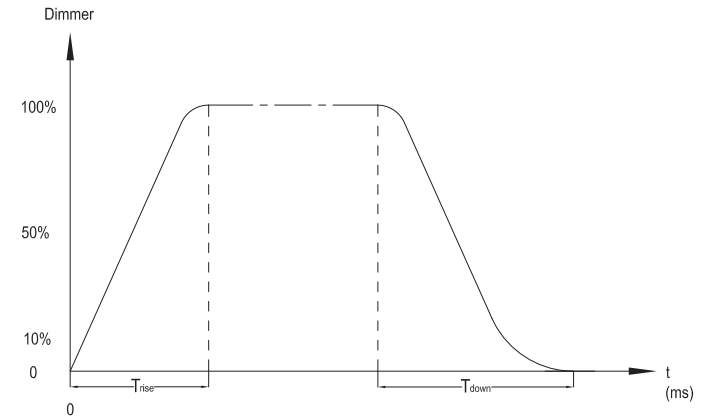
## Focus Spot Three Z Pearl

## Photometric Chart



## Focus Spot Three Z Pearl

## Dimmer Curve Chart



Ramp Effect	0 $\rightarrow$ 255 OS (Fade Time)		0 $\rightarrow$ 255 1S (Fade Time)	
	T <sub>rise</sub> (ms)	T <sub>down</sub> (ms)	T <sub>rise</sub> (ms)	T <sub>down</sub> (ms)
Standard	0	0	0	0
Stage	780	1100	1540	1660
TV	1180	1520	1860	1940
Architectural	1380	1730	2040	2120
Theatre	1580	1940	2230	2280

## Focus Spot Three Z Pearl

## Fuse Replacement

Locate and remove the unit's PowerCon cord. Once the cord has been removed the fuse holder is located next to the power socket. Use a philips-head screw driver unscrew the fuse holder. Remove the bad fuse and replace with a new one.

## Focus Spot Three Z Pearl

## Cleaning

Due to fog residue, smoke, and dust cleaning the internal and external optical lenses and mirror should be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates (i.e. smoke, fog residue, dust, dew). In heavy club use we recommend cleaning on a monthly basis. Periodic cleaning will ensure longevity, and crisp output.

1. Use normal glass cleaner and a soft cloth to wipe down the outside casing.
2. Use a brush to wipe down the cooling vents and fan grill.
3. Clean the external optics with glass cleaner and a soft cloth every 20 days.
4. Clean the internal optics with glass cleaner and a soft cloth every 30-60 days.
5. Always be sure to dry all parts completely before plugging the unit back in.

## Focus Spot Three Z Pearl

## Trouble Shooting

**Trouble Shooting:** Listed below are a few common problems that you may encounter, with solutions.

### **No light output from the unit;**

1. Be sure the external fuse has not blown. The fuse is located on the rear panel of the unit.
2. Be sure the fuse holder is completely and properly seated.

### **Unit does not respond to sound;**

1. Low frequencies (bass) should cause the unit to react to sound. Tapping on the microphone, quiet or high pitched sounds may not activate the unit.

## Focus Spot Three Z Pearl

## Warranty

### MANUFACTURER'S LIMITED WARRANTY

- 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 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, nor for the safe return thereof.
- C. This warranty is void if the serial number has been altered or removed; if the product is modified in any manner which 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 check up. 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 indentifying 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.

### MANUFACTURER'S LIMITED WARRANTY PERIODS:

- **Lighting Products = 1-year (365 days) Limited Warranty** (Such as: Special Effect Lighting, Intelligent Lighting, UV lighting, Strobes, Fog Machines, Bubble Machines, Mirror Balls, Par Cans, Trussing, Lighting Stands etc. excluding LED and lamps)
- **Laser Products = 1 Year (365 Days) Limited Warranty** (excluding laser diodes which have a 6 month limited warranty)
- **L.E.D. Products = 2-year (730 days) Limited Warranty** (excluding motors, PCB boards, and power supplies, which have a 1-year (365 day Limited Warranty) batteries which have a 180 day limited warranty). Only the L.E.D.s carry a 2-year warranty (excluding StarTec Series which carries a 1 Year Limited Warranty) **Note: 2 Year Warranty only applies to purchases within the United States.**
- **ADJ DMX Controllers = 2 Year (730 Days) Limited Warranty** (excluding faders and tact switches)

<b>Model:</b>	<b>Focus Spot Three Z Pearl</b>
<b>Voltage:</b>	100 - 240V, 50/60Hz
<b>LED:</b>	1 x 100W Cold White LED
<b>Power Consumption:</b>	230W
<b>Dimensions:</b>	7.25"(L) x 11.25"(W) x 19.75"(H) 183mm x 284mm x 489mm
<b>Weight:</b>	26 Lbs. / 12 kgs.
<b>Beam Angle:</b>	12-18 Degrees
<b>Fuse:</b>	5 Amp
<b>Power Cord Daisy Chain:</b>	3 Fixtures Max. (120V) 6 Fixtures Max. (230V)
<b>Duty Cycle:</b>	None
<b>DMX:</b>	2 DMX Channel Modes: 18 Channel Mode & 21 Channel Mode
<b>Sound Active:</b>	Yes
<b>Working Position:</b>	Any Safe, Secure Position
<b>Warranty:</b>	2 Year (730 days)

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

**Auto Sensing Voltage:** This fixture contains a automatic voltage switch, which will auto sense the voltage when it is plugged into the power source.

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