CYCLOPS
LIGHTING

AQUARAY 500SBW

CMY Outdoor Spot, Beam, Wash Moving Head
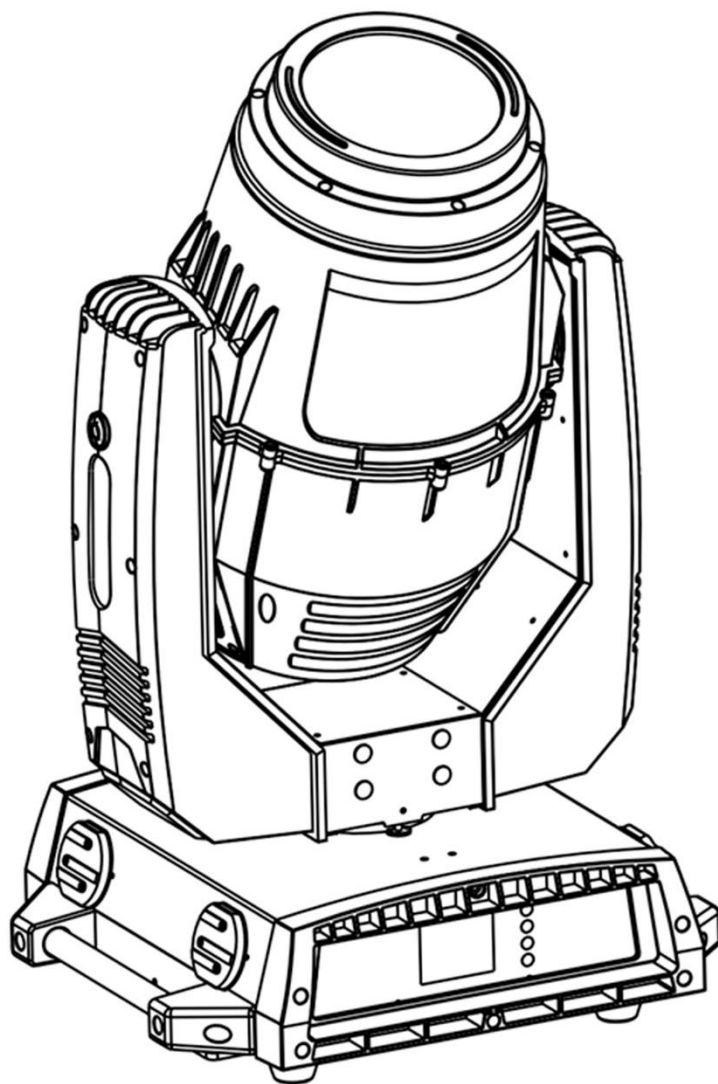
CE

User Manual

CONTENT

Statement:

This device is well packed and functions well before and upon delivery. Please follow the manual instructions and note well the warning details to avoid any technical issues. Damages and problems caused by overlooking and incorrect operation are beyond the dealer and factory responsibilities .This manual is subject to changes please ask if any updates were made following your purchase.

1. Brief Introduction

Thanks for choosing AQUARAY 500SBW the newest addition to our IP rated moving head AQUARAY series. This fixture was developed with the newest technologies, with advanced electronic controls and excellent user-friendly design, fully complying with CE standard, following international standard DMX512 signal mode.

Equipped with Yodn MSD 440 watts lamp and multi-layer lens, it can cast bright beam and clear gobos as well as fresh colors thanks to the high brand color wheel .Three DMX channels mode, 2.8' full-color touch 180° reversible screen, convenient to hang on the truss. It has a fast and smooth movement with 540° Pan and 270° Tilt. It runs CMY color mixing effects with a color wheel of 11 different colors plus open. 2 gobo wheels, 15 fixed gobo plus open and 7 rotating gobos plus open. 2 rotating prisms, one 8 facet prism and one 24 facet prism with a rainbow color filter. Beside the linear dimmer and adjustable strobe functions, the light is also equipped with a fan speed cooling monitoring system. This fixture is ideal for multifunctional and dynamic indoor application and the perfect solution for all outdoor installations.
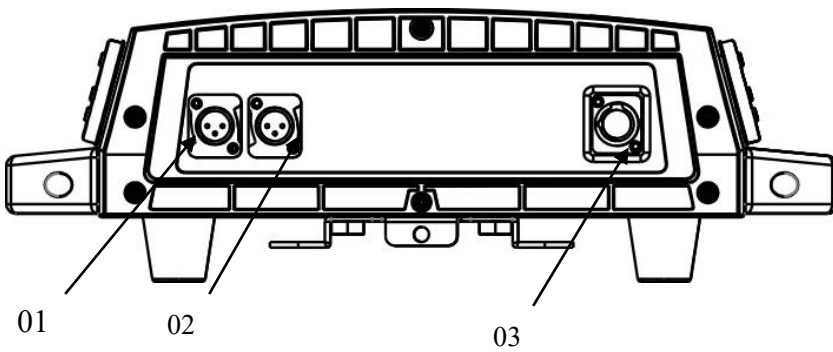
2. Dimensions
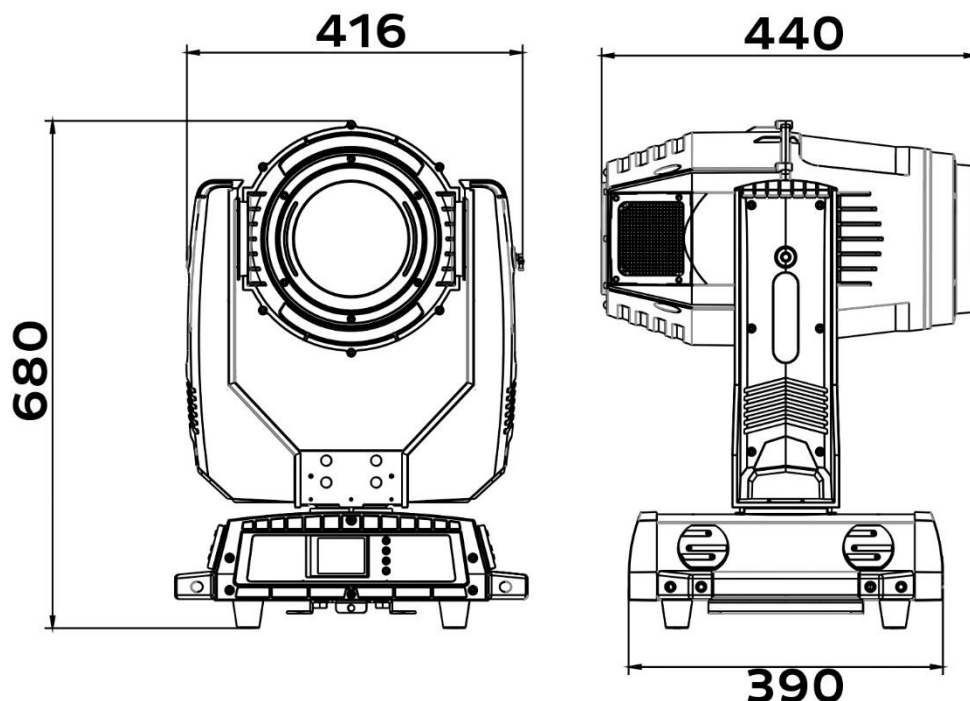
3. Components Info
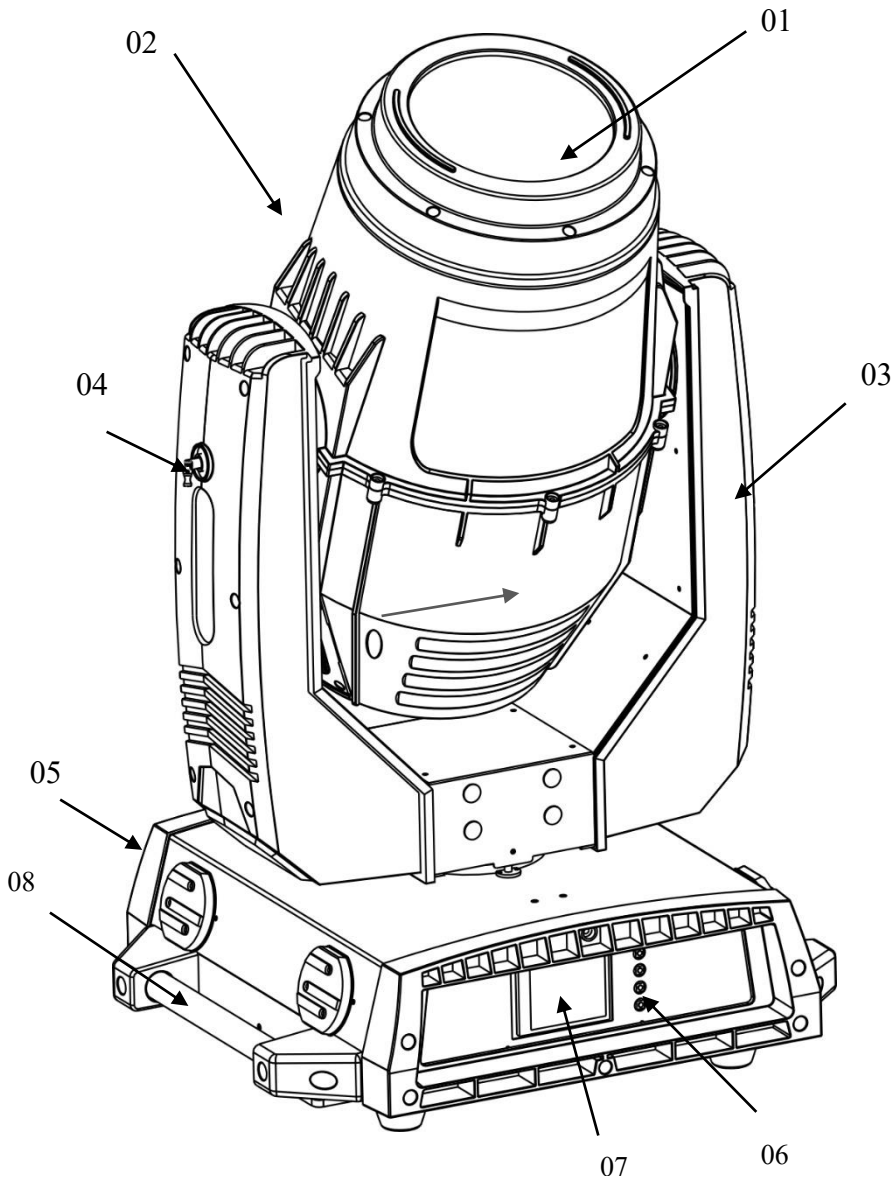
01 – Lens
02 – Lamp body
03 – Lamp arm
04 – Lock
05 – Lamp holders
06 – Control key
07 – Touch the display
08 – Handle

01 – 3Pin DMX In
02 – 3Pin DMX Out
03 – Power Switch

Attached components info above for your better understanding of the AQUARAY 500 SBW

4. Safety and Warning Info

This device is only suitable for professional purpose. Please examine well the items upon receipt, if any damages were inspected by delivery contact the company as soon as possible.

To steer clear of the damages caused by electric shock, fire, UV, lamp burst and device falling etc. please read the manual through before charging and installation. Being aware of all the danger notices and abiding by the instructions mentioned is crucial before and during the operation of the fixture. If any other question, your dealer.

4.1 Anti-overheating

Ta =40°C

Switch off the device immediately once the ambient temperature is over 40℃.

4.2 Prevention of burst

Change the lens if there are cracks or dent on it.

Only the original brand lens is suitable to change.

Lens Dimension: ∅158×52 mm

4.3 Prevention of falling accidents

Do not carry the device alone.

Make sure the facility can withstand ten times the weight of the light before hanging.

Please make sure the mounting hardware is strong enough without any damage, and use the safety chain alongside for security. Let the pulley below the working place when installing or removing the device.

4.4 Anti UV

Staring at the casting beam is definitely forbidden.

Do not use the device without lens or cover.

Change the lens and cover if broken.

4.5 Prevention of electric shock

Do not open the device, there are no user-serviceable parts inside.

Only qualified electricians can connect the electric power.

Before connecting, make sure all the voltage comply with the specified type and equipped with overload and leakage protection. Ensure that power is cut off when wiring the device to the AC mains supply.

Ensure that the device is electrically connected to a solid ground.

Switch off the power before replacing and installing the lamp.

Do not immerse the fixture in the water or liquid.

Do not apply power if the device or mains cable is in any way damaged.
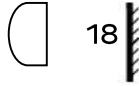
4.6 Prevention of fire and burning

Do not install the device on flammable material surface directly.

Do not short circuit the temperature protection terminal or fuse. Use the standard fuse.

Stay away of the inflammable material.

The fixture need to be positioned so that the objects hit by the beam of light are at least 18 meters from the lens.

The fan or the ventilation should be far from any material within the range of T 0.5m.

Do not put any item over the lens.

Cooling the device at least 20 minutes before package and delivery.

Do not change with the unoriginal brand spare parts.

4.7 PI 55 Protection Rating.

The fitting is protected against dripping water, rain, splashed or jets of water. It **cannot** be immersed in water.

Attention

In order to fix the device securely, using 2 omega holders and 4 quick lock fasteners correctly into the quick lock hole turned 90 clockwise is necessary .Adding a safety chain to the base hole not the handle is extra and necessary safety method .

Clamp

Safety chain

Omega Bridge
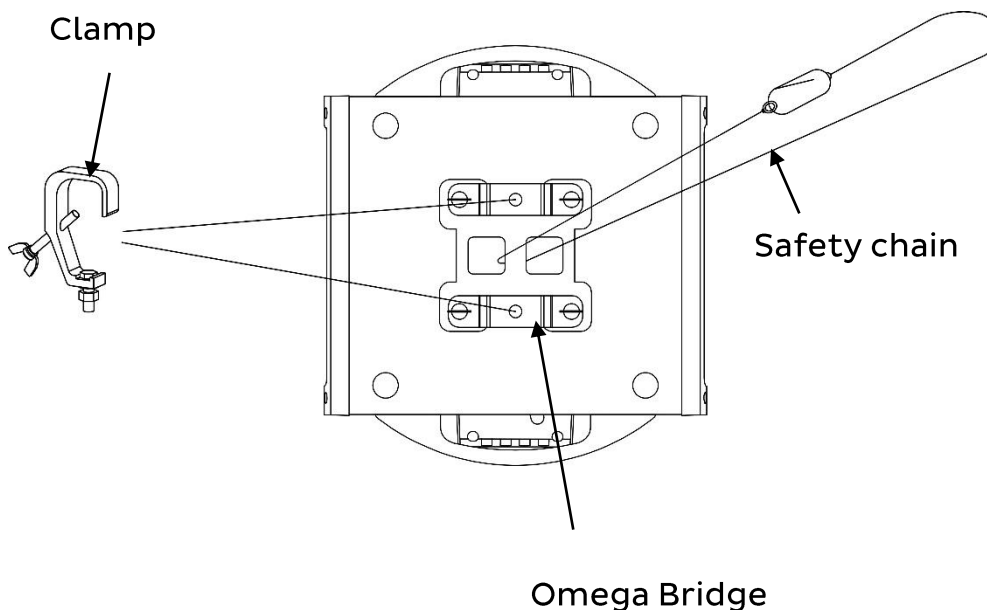
5. DMX512 Connection

DMX512 cable must use the professional shielded twisted pair cable. The standard loudspeaker cable is not reliable to control the long-range data. 24 AWG cable is suitable for more than 300 meters long-distance signal transmission and must add the DMX 512 signal amplifier.

Do not use two outputs to separate the connection, if separated, a DMX512 splitter is necessary. If use the DMX512 splitter, at first connect DMX512 Splitter input terminal to controller and then connect from the splitter output terminal to next device.

Do as above to connect other devices, and finally coupled with a 120 Ω loop resistance terminal insertion.

DMX-512 loop resistance terminal

If the DMX line is too long or placed in some noisy electric signals places like disco, nightclub, ballroom etc... Using DMX loop resistance terminal is necessary. Welding a 120Ω resistor terminal between the pin 2 and pin 3 as below and plug it into the last light XLR output terminal.

Controller
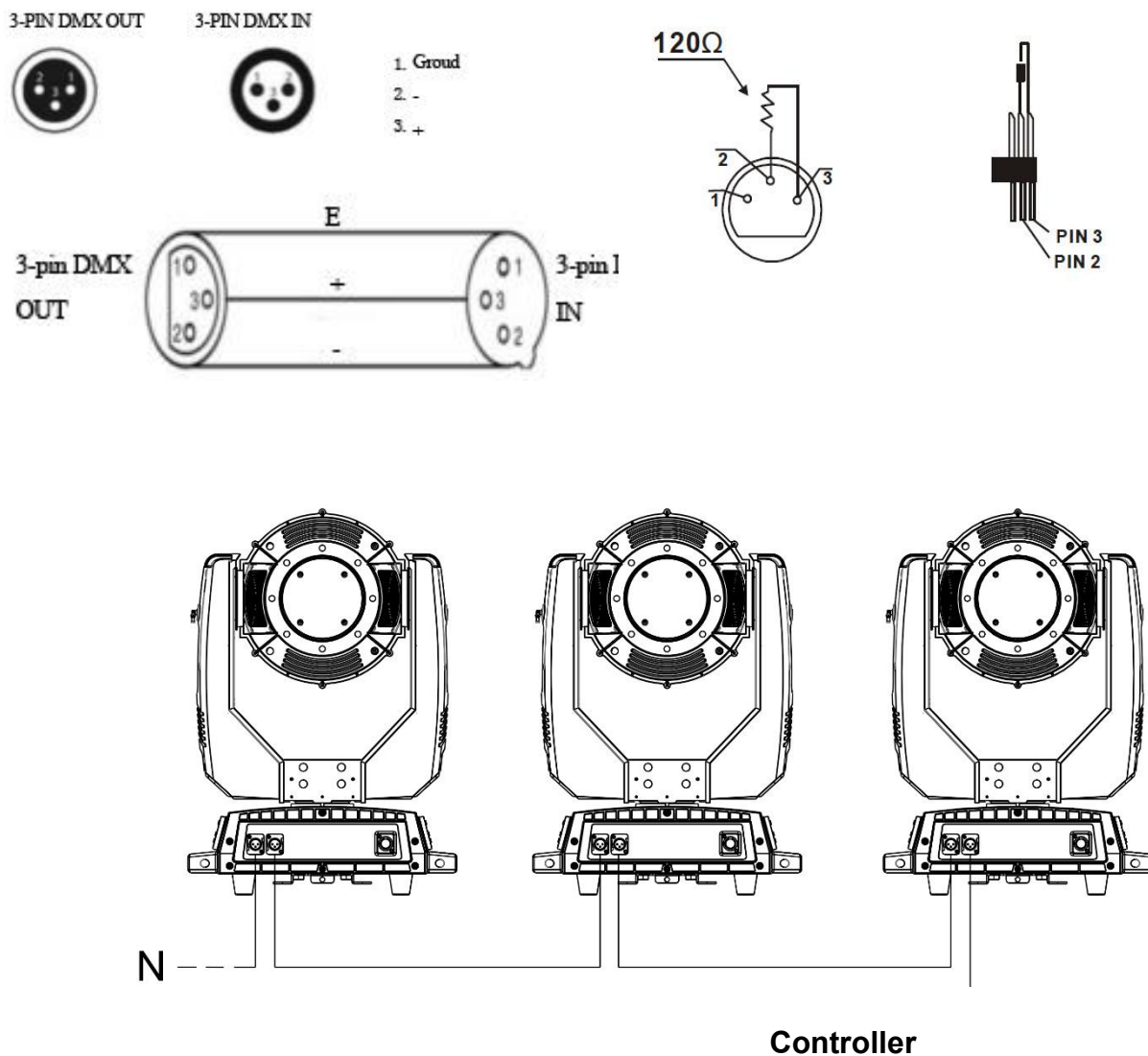
6. Package Info

AQUARAY 500 SBW are packed in 1 in 1 or 2 in 1 flight case or carton with accessories inside.

Accessories accompanied with one light

Item	Quantity
Manual	1
Safety chain	1
Omega clamp	2
DMX cable	1
Power wire	1

7. AC Input Power

AQUARAY 500 SBW input voltage, power consumption, and fuse standard

Input Voltage	Power Consumption	Frequency
110~240V	600W	50/60HZ

Fuse Voltage	Fuse Current	Size
250V	10A	5×20

Attention: Only qualified electrician can operate the power related work. Make sure the voltage input comply with the specified standard as well as grounded and equipped with overload and leakage protection.

Live	Neutral	Earth	
Red	Blue	Yellow-green	

8. Lamp Info

Brand	Power Consumption	Lifespan	Lumen
Yodn MSD 440 W	440 W	2000 hrs	114,900 Lux

Warning! In case of the extra potential damages caused by lamp burst, change the lamp before it's over 125% specified lifespan.

Note:

1.   After a successful starting attempt to keep the lamp burning for at least 15 minutes in order to complete the chemical cycle of the lamp to secure the lifetime.

2. Before re-light the lamp, is necessary to keep the lamp off at least 5 minutes.

Bulb replacement

Note! When replacing the bulb, do not touch the lamp wick with bare hands to avoid the oil stains on the lamp wick.

The lamp must be disconnected from the power and let it completely cool down.

The locked arm of Y-axis must be at 60°position, the specific operation is as follows:

1. Lock the Y-axis at 90° position, then open the cover. (Picture 1)

2. Move away the cover, you could see the bulb inside, any operation need to wait the lamp cool down. (Picture 2)

3. One hand press the lamp holder, the other hand hold the lamp and unplug the lamp power cable, then gently take out the lamp. (Picture 3 and 4)

4. Tidy the lamp with soft cloth, clear reflector will make the lamp better light efficiency;

5. Instead, install the lamp in order and make sure the lamp is in the holder tight and the power cable is connected properly before using.

LAMP REPLACEMENT
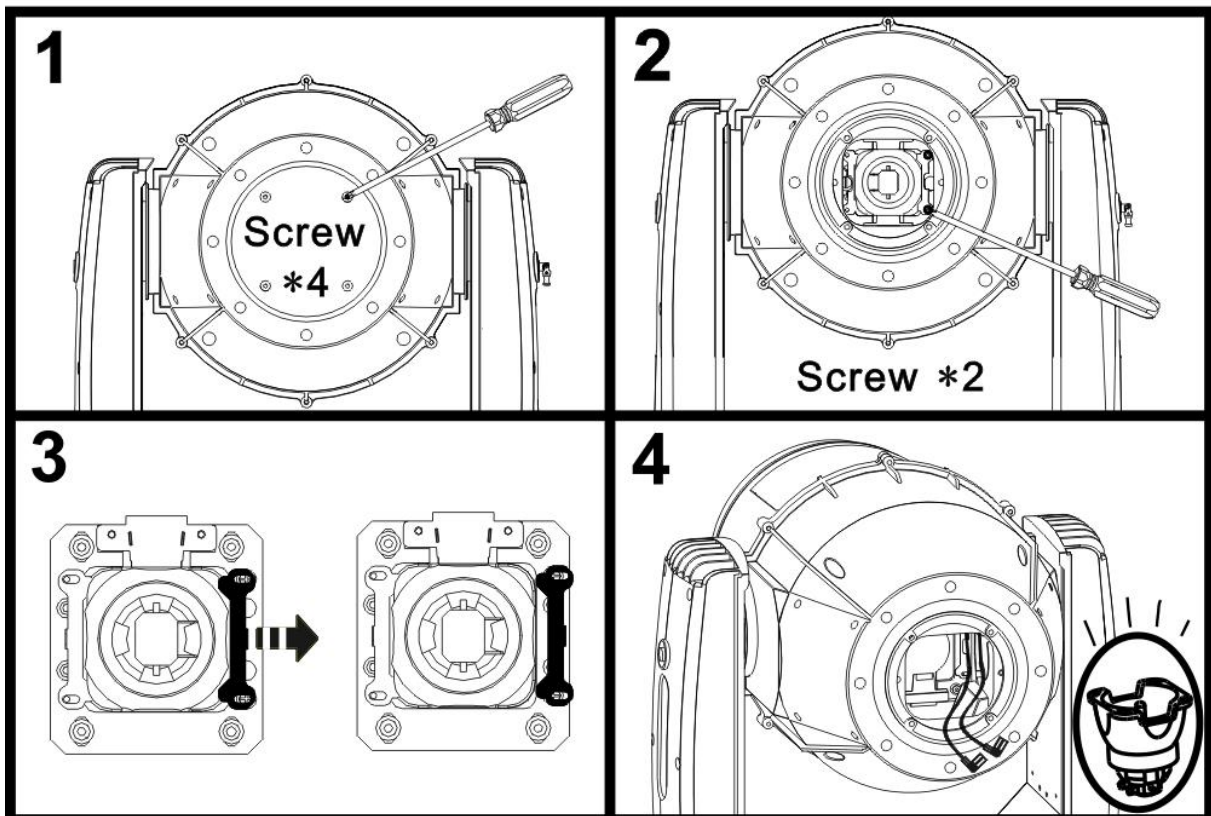
9. Gobo Wheels Info

AQUARAY 500 SBW is equipped with 2 gobo wheels, 15 fixed gobos plus open and 7 rotating gobos plus open with smooth gobo rotation
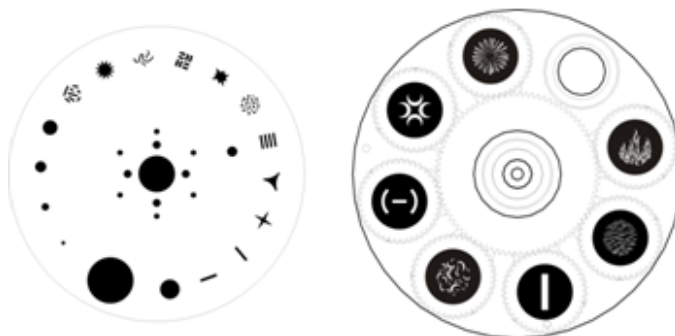
10.   Display Panel
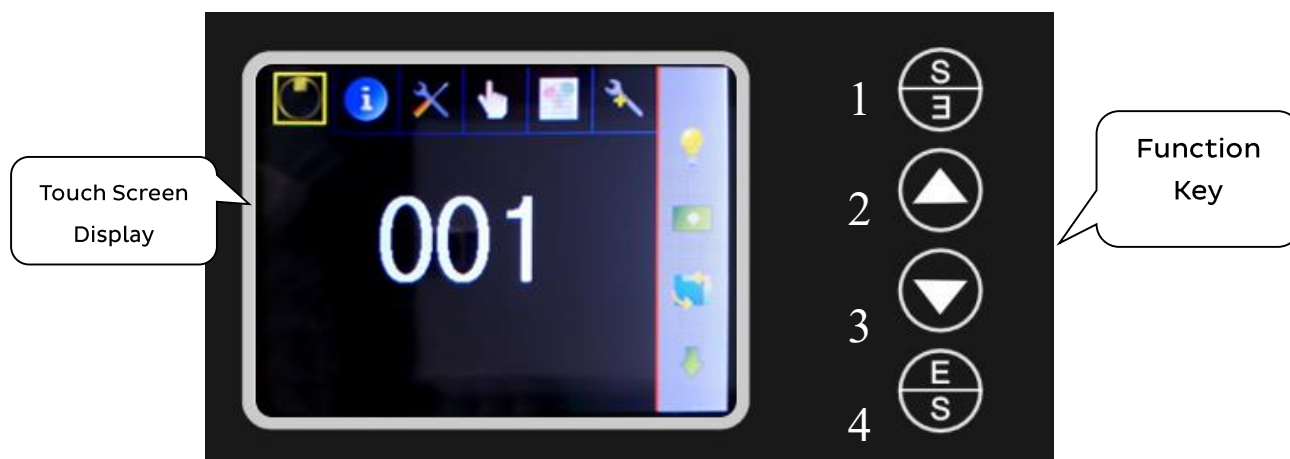
Touch screen display： Display product related information data.

 DMX Address   SYSTEM INFO   FEATURES SETTING

 MANUAL   AUTOMATIC MODE   CALIBRATIONS

 LAMP SETTING   LANGUAGE SETTING   180° REVERSE DISPLAY AVAILABLE

Function Key :

1: Return   2: Up/Digit increase/Previous function

3: Down/Digit decrease/Next function   4: Mode choosing/Confirm function
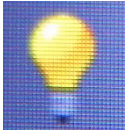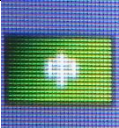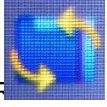
11.LCD Menu

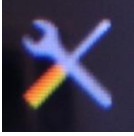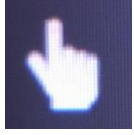| Main Menu	Submenu 1	Submenu2	Function SET	Function description
DMX Address				
	<<		1-512	to address 1
	<			address down
	>			address up
	>>			to address 512
			√	save and back
			×	back
SYSTEM INFO	Fixture times		Power On Times	xxh
			Power On Number	xx
			Lamp On Times	xxh
			Lamp On Number	xx
	Versions		Holder Control	xx
			Pan/Tilt Control	xx
			Display System	xx
	View Logs	1/6	ZOOM Status	OK/Er
			Focus Status	OK/Er
			Prism1 Status	OK/Er
		2/6	Prism1R Status	OK/Er
			Prism2 Status	OK/Er
			Colorful Mirror	OK/Er
		3/6	Color Status	OK/Er
			Static Gobo Status	OK/Er
			Rot. Gobo Status	OK/Er
		4/5	Rot. R Status	OK/Er
			Pan Status	OK/Er
			Tilt Status	OK/Er
		5/5	C Color Status	OK/Er
			M Color Status	OK/Er
			Y Color Status	OK/Er
		6/6	Fan1 Speed	Blower
			Fan2 Speed	Blower
			Fan3 Speed	Light body cooling fan
			Fan4 Speed	Light body cooling fan
			⬆	Page up
			⬇	Page down
			×	back
			DMX	Console mode

FEATURES SETTING	Control mode		Auto	Built-in program mode
			Sound	Reserved
	Display intensity	<<	001-500	to address 0
		<		address up
		>		address down
		>>		to address 500
			√	save and back
			×	back
	Display Saver Delay	<<	off-600	to address 0
		<		address up
		>		address down
		>>		to address 600
			√	save and back
			×	back
	Pan Reverse	Off		
		On		
			√	save and back
			×	back
	Tilt Reverse	Off		
		On		
			√	save and back
			×	back
	Default Settings	Load Default Set?	√	save and back
			×	back
MANUAL	Reset		Total System Reset	
			Pan/Tilt Reset	
			Color System Reset	
			Gobo System Reset	
			Strobe Reset	
			Optics Reset	
			√	save and back
			×	back
	Manual Control	Cyan		
		Magenta		
		Yellow		
		CTO		to address 0
		Color	<<	address up
		CMY	<	address down
		MACRO	>	to address 255
		Shutter	>>	save and back

		Dimmer		back
MANUAL	Manual Control	Dimmer fine		
		Static Gobo		
		Animation		
		Animation R		
		Rotating Gobo		
		Rot. Gobo		
		Rot. Gobo Fine		
		Prism		
		Prism Rotation	<<	to address 0 address up
		Frost	<	address down
		Zoom	>	to address 255
		Focus	>>	save and back
		Focus Fine		back
		Beam Mode		
		Pan		
		Pan Fine		
		Tilt		
		Tilt Fine		
		Pan–Tilt Time		
		Reset		
		Lamp Control		
		Macro Fuction		
			⬆	Page up
			⬇	Page down
			√	save and back
			×	back
AUTOMATIC MODE	Auto Mode 1			NULL
	Auto Mode 2			NULL
	Auto Mode 3			NULL
	Auto Mode 4			NULL
			√	save and back
			×	back

CALIBRATIONS		Used in factory		
LAMP SETTING	Lamp status	Off		
		On		
			√	save and back
			×	back
	Settings	Lamp On Power	Off	
			On	
			√	save and back
			×	Back
LANGUAGE	English			
	Chinese			
180° R display available	Forward side			
	Reverse side			

12. Channel Data
1 Mode 30

30 CHs

Channel	Function	Value	Description
1	Cyan	0 --> 255	0% to 100% Cyan
2	Magenta	0 --> 255	0% to 100% Magenta
3	Yellow	0 --> 255	0% to 100% Yellow
4	CTO	0 --> 255	0% to 100% CTO
5	Color Wheel	0 --> 9	Open
		10 --> 19	Color 1
		20 --> 29	Color 2
		30 --> 39	Color 3
		40 --> 49	Color 4
		50 --> 59	Color 5
		60 --> 69	Color 6
		70 --> 79	Color 7
		80 --> 89	Color 8
		90 --> 99	Color 9
		100 --> 109	Color 10
		110 --> 119	Color 11

		120 --> 187	Fast to Slow CW Rotation
		188 --> 255	Slow to Fast CCW Rotation
6	Soft Filter	0	Open
		255	Soft Filter
7	Strobe	0 --> 31	Close
		32 --> 63	Open
		64 --> 95	Strobe
		96 --> 127	Open
		128 --> 143	Slow to Fast Close Pulsation
		144 --> 159	Fast to Slow Open Pulsation
		160 --> 191	Open
		192 --> 223	Random Strobe Slow to Fast
		224 --> 255	Open
8	Dimmer	0 --> 255	0% to 100% Dimmer
9	Dimmer Fine	0 --> 255	Dimmer Fine
10	Gobo Wheel 1	0 --> 7	Open
		8 --> 11	Gobo 1
		12 --> 15	Gobo 2
		16 --> 19	Gobo 3
		20 --> 23	Gobo 4
		24 --> 27	Gobo 5
		28 --> 31	Gobo 6
		32 --> 35	Gobo 7
		36 --> 39	Gobo 8
		40 --> 43	Gobo 9
		44 --> 47	Gobo 10
		48 --> 51	Gobo 11
		52 --> 55	Gobo 12
		56 --> 59	Gobo 13
		60 --> 63	Gobo 14
		64 --> 67	Gobo 15
		68 --> 121	Fast to Slow CW Rotation
		122 --> 175	Slow to Fast CCW Rotation
		176 --> 180	Slow to Fast Gobo 1 Shake
		181 --> 185	Slow to Fast Gobo 2 Shake
		186 --> 190	Slow to Fast Gobo 3 Shake
		191 --> 195	Slow to Fast Gobo 4 Shake
		196 --> 200	Slow to Fast Gobo 5 Shake
		201 --> 205	Slow to Fast Gobo 6 Shake
		206 --> 210	Slow to Fast Gobo 7 Shake
		211 --> 215	Slow to Fast Gobo 8 Shake
		216 --> 220	Slow to Fast Gobo 9 Shake
		221 --> 225	Slow to Fast Gobo 10 Shake
		226 --> 230	Slow to Fast Gobo 11 Shake
		231 --> 235	Slow to Fast Gobo 12 Shake
		236 --> 240	Slow to Fast Gobo 13 Shake

		241 --> 245	Slow to Fast Gobo 14 Shake
		246 --> 255	Slow to Fast Gobo 15 Shake
11	Animation Wheel	0	Open
		255	Animation Wheel
12	Animation Rotation	0 --> 255	Animation Speed Slow to Fast
13	Gobo Wheel 2	0 --> 2	Safe
		3 --> 4	Open
		5 --> 9	Gobo 1
		10 --> 14	Gobo 2
		15 --> 19	Gobo 3
		20 --> 24	Gobo 4
		25 --> 29	Gobo 5
		30 --> 34	Gobo 6
		35 --> 39	Gobo 7
		40 --> 44	Slow to Fast Gobo 1 Shake
		45 --> 49	Slow to Fast Gobo 2 Shake
		50 --> 54	Slow to Fast Gobo 3 Shake
		55 --> 59	Slow to Fast Gobo 4 Shake
		60 --> 64	Slow to Fast Gobo 5 Shake
		65 --> 69	Slow to Fast Gobo 6 Shake
		70 --> 74	Slow to Fast Gobo 7 Shake
		75 --> 164	Fast to Slow CCW Rotation
		165 --> 255	Slow to Fast CW Rotation
14	Gobo Rotation	0 --> 127	Index
		128 --> 191	Fast to Slow CCW Rotation
		192 --> 193	Stop
		194 --> 255	Slow to Fast CW Rotation
15	Fine Gobo Rotation	0 --> 255	Fine Gobo Rotation
16	Prism	0 --> 127	Open
		128 --> 147	Prism 1
		148 --> 192	Colored Prism 1
		193 --> 229	Prism 2
		230 --> 255	Colored Prism 2
17	Prism Rotation	0 --> 127	Index
		128 --> 191	Fast to Slow Rotation
		192 --> 193	Stop
		194 --> 255	Slow to Fast Rotation
18	Frost	0	Open
		255	Frost
19	Zoom	0 --> 255	0% to 100% Zoom
20	Focus	0 --> 255	0% to 100% Focus
21	Focus Fine	0 --> 255	Focus Fine
22	Beam Mode	0 --> 127	Spot Mode
		128 --> 255	Beam Mode (no Zoom)
23	Pan	0 --> 255	540° Pan
24	Pan Fine	0 --> 255	Pan Fine

25	Tilt	0 --> 255	270° Tilt
26	Tilt Fine	0 --> 255	Tilt Fine
27	Pan/Tilt Speed	0 --> 255	Pan/Tilt Speed
28	Reset	0 --> 25	Safe
		26 --> 76	Reset Effects
		77 --> 127	Reset P/T
		128 --> 159	Reset All
29	Lamp	0 --> 25	Safe
		26 --> 100	Lamp Off
		101 --> 255	Lamp On
30	Macros	0 --> 105	Safe
		106 --> 145	Soft Filter Auto
		146 --> 155	Safe
		156 --> 185	Close Focus
		186 --> 215	Mid Focus
		216 --> 245	Long Focus
		246 --> 255	Safe

1. Only operate the projector after having checked that the housing is firmly closed and all screws are tightly fastened.
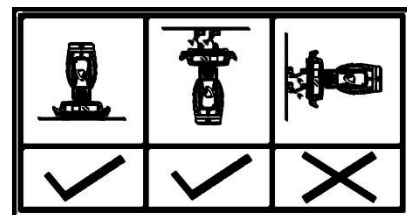2. 2. Mounting positions: 0° and 90°. (Fig.1)

Fig.1

3. Do not touch the projector when it is electrified on rainy days. If the operating is necessary, the operator must wear insulating gloves, so as to avoid electric shock.
4. Connection must be made to a power supply system fitted with efficient earthling. It is moreover, recommended to protect the supply lines of the projectors from indirect contact and/or shorting to earth by using appropriately size residual current devices.
5. Do not cut the power when the lamp is on. Before shutting the power, need to turn off the lamp by controller and keep the fan running 3-5 minutes to cool down the lamp.
6. Use a soft wet textile or an air-jet for cleaning glass to remove the dirt from reflectors/lenses, filters. Do not use solvents or any other aggressive cleaning fluid.

13. Common malfunctions

①. The bulb can't be lit or will go off automatically after a few minutes.

1. This lighting is equipped with wind speed detection function, when the fan is abnormal, the lighting will automatically cut the power to protect the light bulb, so the first step should be test these four fans.

    A. Check if the display flashes quickly after the bulb goes out, and if so, then enter information menu to Error Massage-Fan information. The fan speed value is 0 when the bulb is off, after the bulb is lit around 45 second, the fans start working, if one of these fans value is less than 2000, the bulb will be turn off.

    B. solution: re-plug the terminal of the fans, make sure they have good connection with PCB. If the fan is broken, then change it.


2. Check the display PCB, see if the display PCB has at least 11.5v output to fan.
   (1, 3 and 4, 6 wires, as pictures)，sometimes the loosen terminals can also cause poor contact with the circuit board.
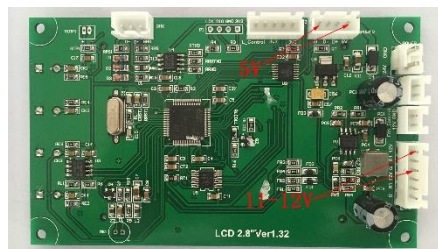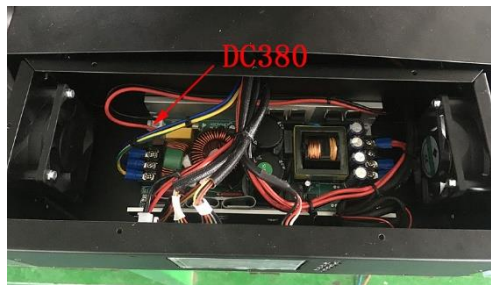

3. Please check that the heat dissipation fan is working properly. If the fan does not work properly, it will cause the lamp igniter or power supply temperature to be too high and the automatic protection.
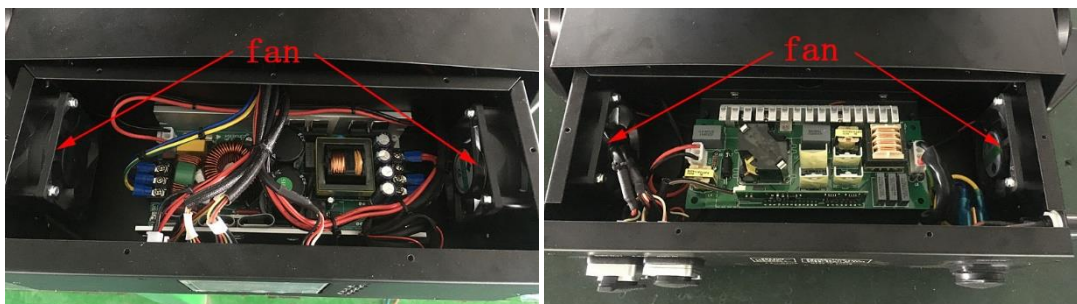
4. Please check that the lamp igniter has 380v input and 60-100v output. An abnormal voltage can cause the bulb to fail to start.
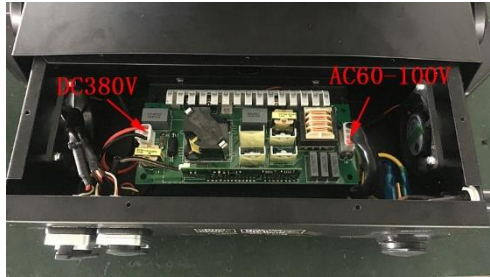
5. Check the PFC, see if it has 380v output.

②. Reduced Luminosity

A. Lamp exhausted or defective. Please replace the lamp

B .Dust or grease deposited. Regular cleaning of optical parts is recommended.

③. Electronics non-operational, address flashing.

A. Incorrect addressing or No signal received.

B. Signal cable disconnected.

C. signal transmission cable faulty

D. Signal attenuation.

E. Controller faulty or peripheral signal interference or Control protocol incompatibility.

F. Running Built-in program.

④. The image projected has a halo.

Check that the value of the auto focus channel is appropriate for the current projection distance,

⑤.The device intermittent work.

Check if the fan is dirty and working properly.

⑥.The device will not operate

A. Ensure the power switch on.

B. Check if the fuse is broken.

C. Check if the power supply has AC100-240V input and DC 12V+36V output

www.cyclopslighting.com