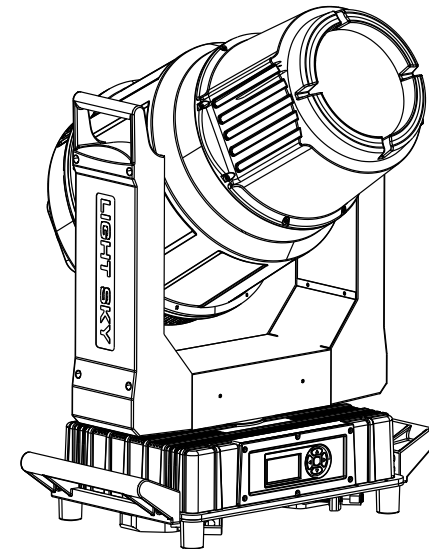


LIGHT SKY[®]

FLY DRAGON LIGHTING EQUIPMENT CO.,LTD



LIGHT SKY[®]

Tel:0086-20-61828288

Fax:0086-20-61828188 Pc:510800

Web:www.lightsky.com.cn

E-mail: flydragon@lightsky.com.cn

asia@lightsky.com.cn

india@lightsky.com.cn

europa@lightsky.com.cn

latinamerica@lightsky.com.cn

middle-east@lightsky.com.cn

american@lightsky.com.cn

Address: No. 43, Yunfeng Road, Xiuquan Street,
Huadu District, Guangzhou, China



LIGHT SKY[®]



SHARK 450BSW

USER MANUAL

Please read these user manual carefully before use!

Contents

1. Safety information.....	2
2. Technical information.....	4
3. Attachment and body size.....	7
4. Installation and connecting.....	8
5. Control panel.....	12
6. Menu setting.....	13
7. Channel function.....	16
8. Circuit connecting diagram.....	22
9. Cleaning and maintenances.....	23
10.Troubeshooting.....	23
11.Duty exonerative and copyright protection.....	25

Congratulations on choosing our company product! We thank you for your custom.

◆Please note that this product, as all the others in the rich my company range, has been designed and made with total quality to ensure excellent performance and best meet your expectations and requirements.

◆Carefully read this user manual in its entirety and keep it safe for future reference. It is essential to know the information and comply with the instructions given in this manual to ensure the fitting is installed, used and serviced correctly and safely.

◆My company disclaims all liability for damage to the fitting or to other property or persons deriving from installation, use and maintenance that have not been carried out in conformity with this user manual, which must always accompany the fitting.

◆My company reserves the right to modify the characteristics stated in this user manual at any time and without prior notice.

SAFETY INFORMATION



- This lighting fixture is for professional use only - it is not for household use.

■ Installation

Make sure all parts for fixing the projector are in a good state of repair.

Make sure the point of anchorage is stable before positioning the projector.

The safety chain must be properly hooked onto the fitting and secured to the framework.

When suspending the fixture, ensure that the supporting structure and all hardware used can hold at least 10 times the weight of all the devices they support.



■ Mounting surface and fire protection

Please do not install the fixture onto combustible surface.

Keep all combustible materials at least 1 m away from the fixture.

Ensure a minimum clearance of 0.5m around the cooling fans and ventilation.

Do not expose the front glass to sunlight or other strong light source from any angle.

Lenses can focus the sun's rays inside the fixture, creating a potential fire hazard.

$t_a 40^{\circ}\text{C}$

■ Maximum ambient temperature

The fixture is intended for indoor and outdoor application.

Do not operate the fixture if the ambient temperature (T_a) exceeds 40°C



■ Protection against electrical shock

Connection must be made to a power supply system fitted with efficient earthing (**Class I** appliance according to standard EN 60598-1).

It is, moreover, recommended to protect the supply lines of the projectors from indirect contact and/or shorting to earth by using appropriately sized residual current devices.

■ Connection to mains supply

The double insulation between the LV power supply and the control conductor on the fixture. Connection to the electricity mains must be carried out by a qualified electrical installer.

Check that the mains frequency and voltage correspond to those for which the projector is designed as given on the electrical data label.

This label also gives the input power to which you need to refer to evaluate the maximum number of fittings to connect to the electricity line, in order to avoid overloading.

Don't use the power cable when the insulation is damaged.

It must be the manufacturer or distributor or the professional person to change the damaged power cable in order to avoid any dangerous.



t_a 100°C



■ Temperature of the external surface

The maximum temperature that can be reached on the external surface of the fitting, in a thermally steady state, is 100°C.

■ Maintenance

Before starting any maintenance work or cleaning the projector, cut off power from the mains supply. After switching off, do not remove any parts of the fitting, to avoid getting burnt for at least 30 minutes. After this time the likelihood of the lamp exploding is virtually nil. The fitting is designed to hold in any splinters produced by a lamp exploding. The lenses must be mounted and, if visibly Damaged, they have to be replaced with genuine spares.

■ Lamp

The fitting mounts a high-pressure lamp that needs an external . Immediately replace the lamp if damaged or deformed by heat. The light source in this fixture shall be replaced by the manufacturer or its service agent or similar qualification. Always disconnect from mains before replacing the lamp.



■ Minimum distance of illuminated objects

When the luminaire projects an object, the minimum distance of the luminaire to the flammable object is 12 meters.



■ Protection against explosion

The protection screen, lens or ultraviolet screen on the lamp can be damaged to the degree of failure if visible damage, such as a crack or deep mark, should be replaced.



■ Protection optical radiation

Never look directly into the light source. You risk injury to your retina, which may induce blindness. Do not stare directly into the light output. Never look at an exposed lamp while it is lit.



The product implementation standard: GB 7000.1-2015 GB7000.217-2008

The products referred to in this manual conform to the European Community Directives to which they are subject:

Low Voltage 2014/35/EU

Electromagnetic Compatibility 2014/30/EU

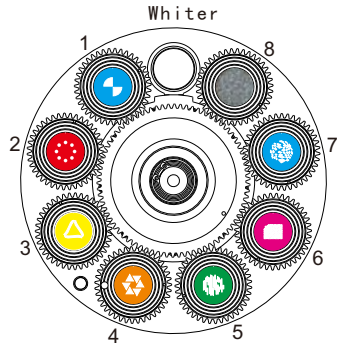
TECHNICAL INFORMATION

- **Power supplies available**
 - AC100~240V~50/60Hz
- **Power**
 - 700W PF0.985
- **Lamp**
 - Brand: NSL-450 USHIO LIGHTSKY
 - Lamp power: 450W
 - Averagelife: 1500h
- **Luminousflux:** 10057 Lm
- **Motors**
 - 18 ultra-quiet motors
- **Inputs:** DMX512
- **Ballast:** Electronic
- **Channel:** 28CH
- **Color**
 - 14colors+white , Bi-direction rainbow effect
- **Color mixing system**
 - CMY mixed color system
- **Color temperature :**
 - Colour temperature : 6900K
 - CCT Light Output: 3200-6500K
- **Static gobo wheel**
 - 10Gobo+1white+animation range
 - Bi-direction flow water animation effect
- **Rotation Gobo Wheel:**
 - 8 rotating Gobos+white,Bi-direction flow water animation effect
- **Prism**
 - 3+1 double prism disc and multiple prism combination effect.
- **Beam angle:**
 - Beam Projection: 2-21° , Spot Projection: 3-42°
- **Frost**
 - 5° of atomization
- **FocusandLens**
 - High precision optical lens , linear adjustment
- **Strobe**
 - Double lens strobe(0.5-9 times/second)
- **Dimmer**
 - 0-100% linear adjustment
- **X/Y Travel:** 540°/240°
- **X/Y Resolution:** 2.11°/0.98°
- **X/Y Speed:** 2.7S/1.6S
- **Lighting Size:** 509X320X754MM
- **BoxSize (1Sets):** 810X580X395MM
N.W.: 38.5kg G.W.: 42.5kg
- **FlycaseSize(1Sets):**
640X620X825MM
N.W.: 38.5kg G.W.: 72.5kg
- **IP set**
 - The lamp needs electricity when setting the address code.
- **Software upgrade**
 - Insert USB upgrade software.
- **Display Menu :**
 - The display panel adopts a 2.0-inch LCD12864 LCD screen, which is used in both Chinese and English languages to facilitate quick operation and browse menus.
 - Display board can record device's using time , show device's temperature, channel data and software version .
- **Features**
 - Remote control lamp's swith function display light and lamp's using time.automaticallay adjust cooling fan's speed,Drop power when strobe lens.
 - Remote reset DMX address.
 - The built-in gravity induction system can change the heat dissipation of the bulb in different directions of the lamp.
- **IP RATE:IP66**
- **Safety Devices**
 - BIPOlar circuit breaker with thermal protection.
 - Automatic break in power supply in case of overheating or failed operation of cooling system.
- **Cooling**
 - Forced ventilation with axial fans.
- **Structure**
 - Fully aluminum alloy Die-casting case, patent, fashion, simple & laconic.
- **The vertical direction of the use of hidden locking device, convenient transportation and maintenance.**
- **CE Marking**
 - In conformity with the European Union Low Voltage Directive 2014/35/EU and Electromagnetic compatibility Directive 2014/30/EU.

1

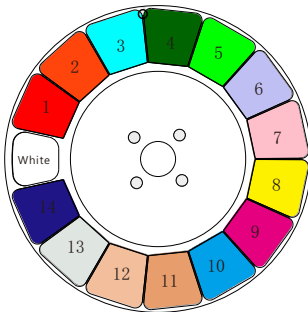


Static gobo wheel
(please refer to the actual material)



Rotating gobo wheel
(please refer to the actual material)

2



Color wheel
(please refer to the actual material)

1	Dark red
2	Orange
3	Aqua marine
4	Dark green
5	green
6	Lavender
7	Pink
8	Yellow
9	Magenta
10	Cyan
11	GT02
12	GT01
13	GTB
14	Dark blue

3



C



M

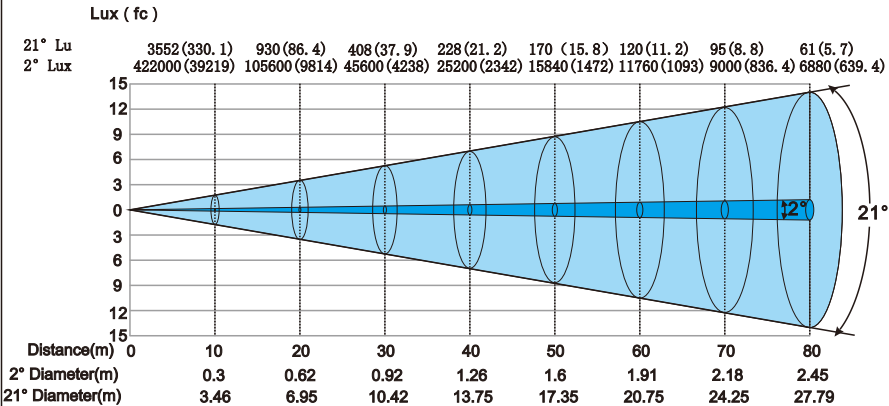


Y

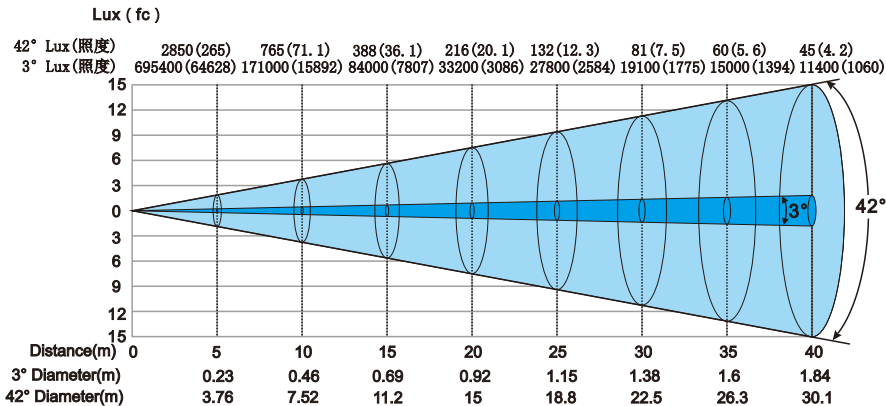
CMY color mixing system

4

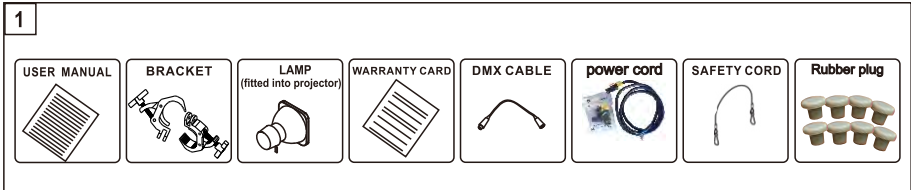
distance, spot diameter and illumination diagram (Beam model)



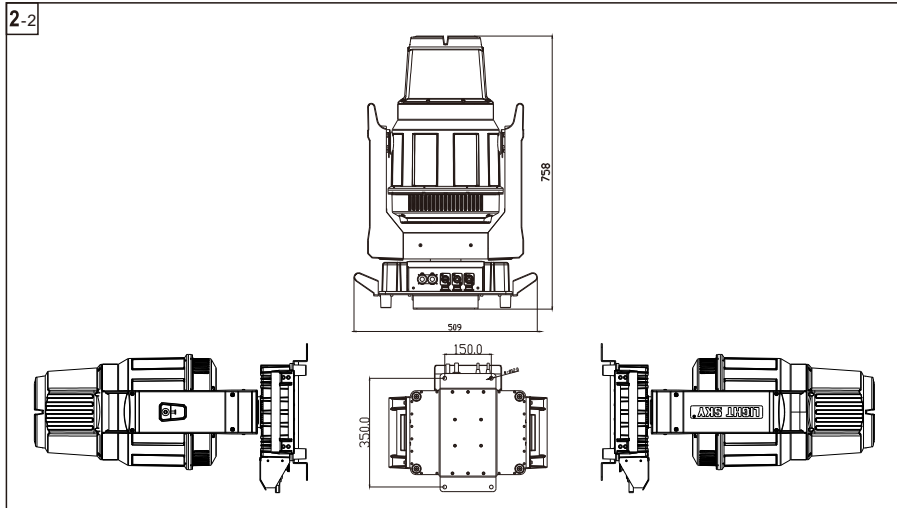
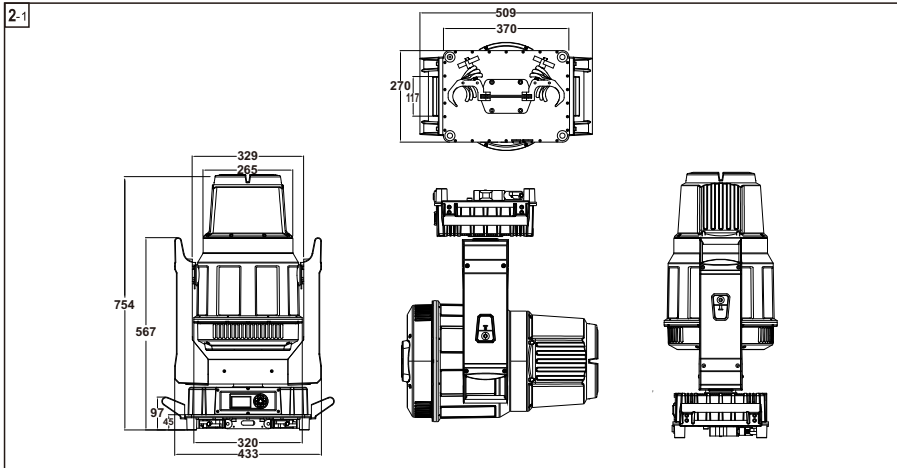
distance, spot diameter and illumination diagram (Spot model)



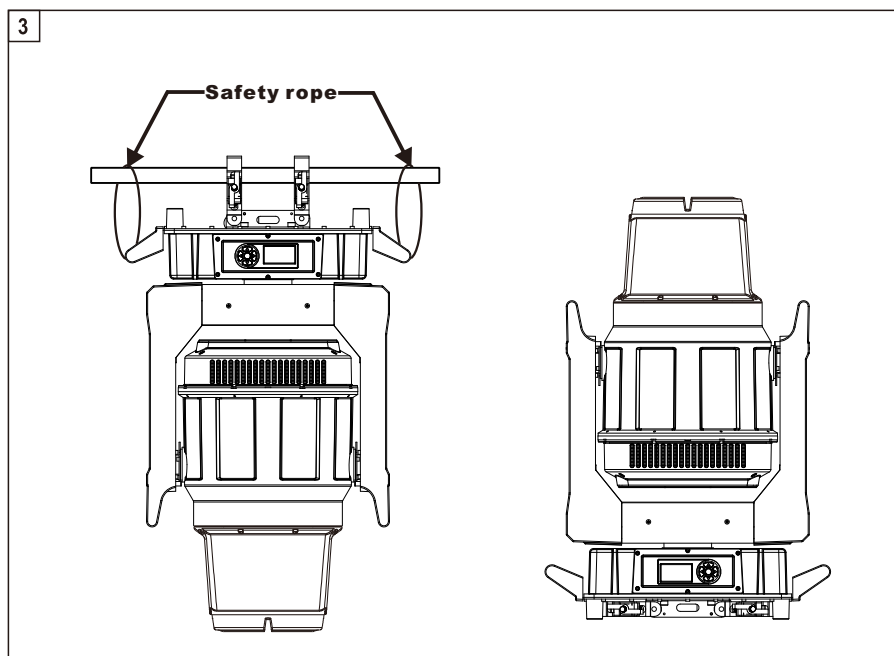
ATTACHMENT AND BODY SIZE



Attachment contents- Fig. 1



INSTALLATION AND CONNECTING



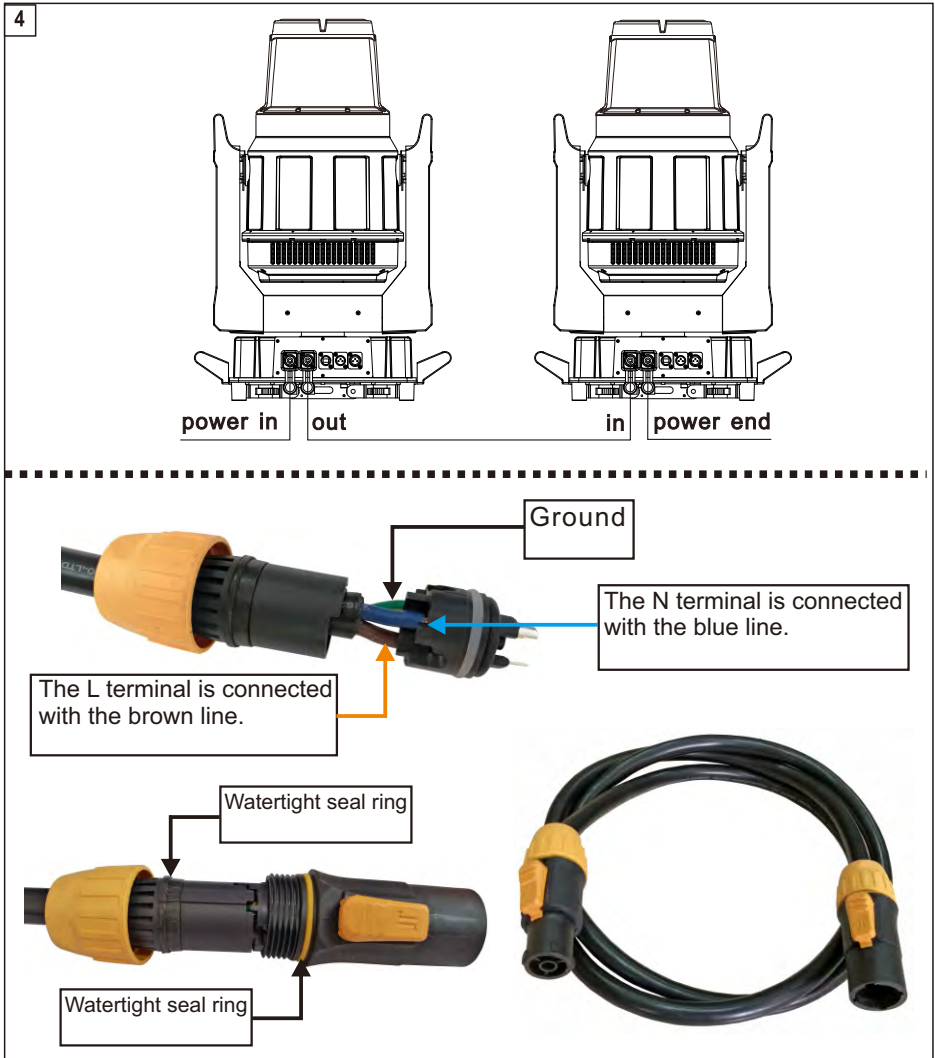
Installing the projector- Fig. 3

The projector can be installed on the floor resting on special rubber feet, on a truss or on the ceiling or wall.
WARNING: with the exception of when the projector is positioned on the floor, the safety rope must be fitted.
This must be securely fixed to the support structure of the projector and then connected to the base handle.

Make sure all parts for fixing the projector are in a good state of repair.

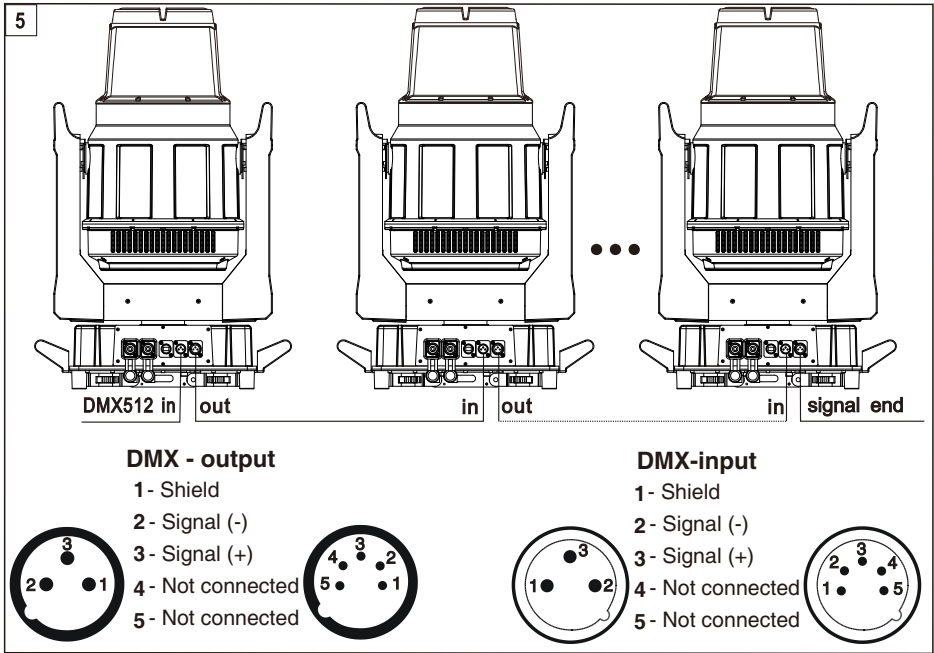
Make sure the point of anchorage is stable before positioning the projector.

When suspending the fixture, ensure that the supporting structure and all hardware used can hold at least 10 times the weight of all the devices they support.



Connecting to the mains supply ---Fig 4

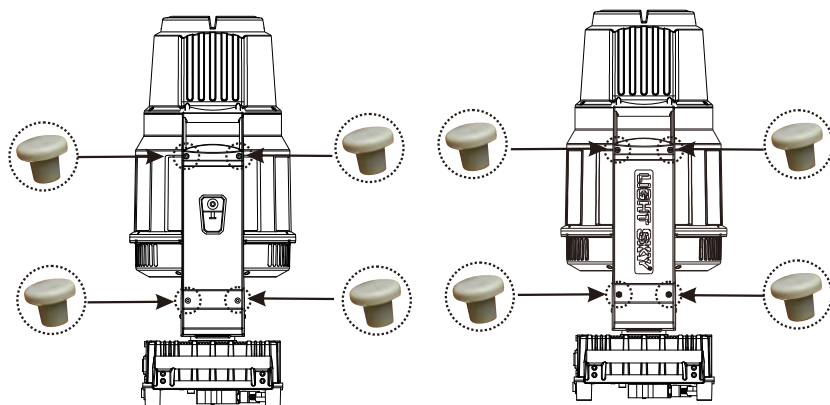
- The stage lighting delivers a three-core waterproof plug.
- The stage lighting power supply can not be more than 2pcs pre line.
- Connection to the electricity mains must be carried out by a qualified electrical installer.
- After doing the above operation and making sure all the devices had been installed with natural operate, press the power switch to check whether everything is working normally.



Connecting to the control signal line (DMX) - Fig. 5

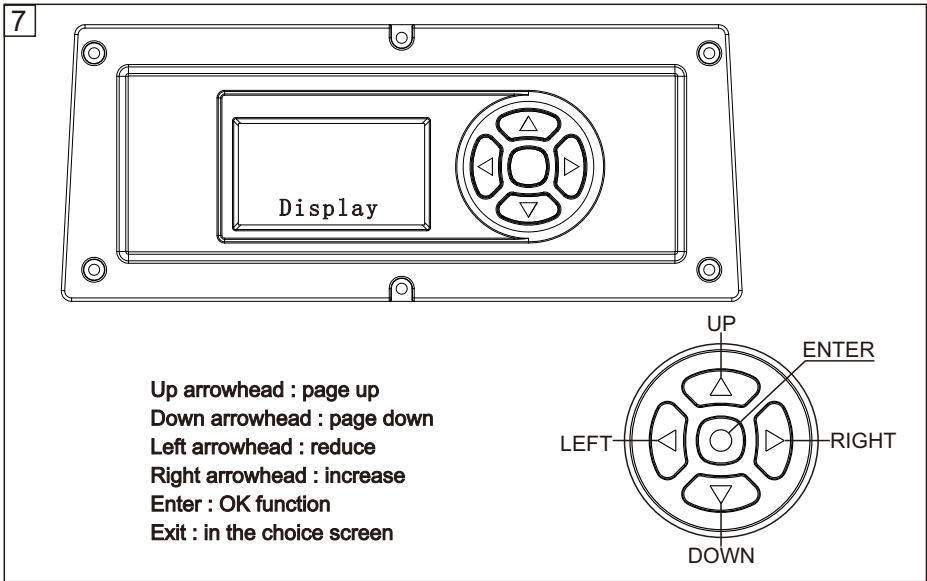
- © Please use the round 3 or 5-pin XLR plugs & sockets offered by menu facture to connect the first projector's output to the second projector' input and connect the second projector's output to the third projector's input. And in the same way for the rest, eventually connect the last projector's output, all the projectors are together.
- © The projectors's control signal output or input by using the 3 or 5-pin XLR pug and socket. If need to lengthen the communication cable, please make sure the both side of 3 or 5-pin plug is one to one . (one to one, two to two, three to three). Otherwise, the communication cable will be interrupted. The communicate cable is 2-cord screened cable 75Ω resistance with each core is at least a 0.5mm diameter. (**Caution:** All the inside leading wire of 3 or 5-pin XLR plug couldn't touch each other or plinth).
- © Recommend to use the DMX signal terminator for the installation to avoid the electronic noise dama -ge the digital control signal. Simply speaking, DMX terminator is an XLR connector with a 120Ω 1/2W resistor connected across pin 2 and 3. Which is then plugged into the output socket on the last projec -tor in the chain. Refer to the connection.

6

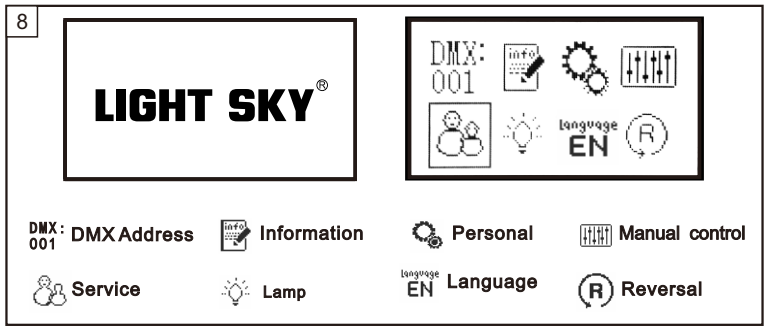


Please install the rubber plug before use.

CONTROL PANEL



- Press the switch.The projector starts resetting the effects.
At the same time,the following information scrolls on the display
(please refer to the actual material)



MENU SETTING(V1.0)

Main menu		I menu		II menu		III menu	
DMX Address	→	Address :001-512					
Information	→	Total Time	→	Power :****(h)			
				Lamp ON :****(h)			
		Lamp Hours	→	Total :****(h)			
				Lamp Open :****(h)			
		Temperature	→	E-ballast:000.0			
				Out Temp			
				In Temp :000.0			
		RDM UID	→	*****			
		Fan speed/Voltag	→	1. L Fan :*,*V			
				2. Out Fan :*,*V			
				3. In Fan :*,*V			
				4. L Fan :****R			
				5. OutFan1 :****R			
				6. OutFan2 :****R			
				7. OutFan3 :****R			
				8. In Fan1 :****R			
				9. In Fan2 :****R			
		DMX Live	→	1. Pan ***			
				2. Pan Fine ***			
				3. Tilt ***			
				4. Tilt Fine ***			
				5. Functions ***			
				6. Dimmer ***			
				7. Shutter ***			
				8. Cyan ***			
				9. Magenta ***			
				10. Yellow ***			
				11. Colour ***			
				12. StaticGobo ***			
				13. Rot Gobo ***			
				14. Gobo Rot ***			
				15. Prism 1 ***			
				16. Prism1 Rot ***			
				17. Prism 2 ***			
				18. Prism2 Rot ***			
				19. PrismMacro ***			
				20. Macro Rot. ***			
				21. Frost ***			
				22. Zoom ***			
				23. Zoom Fine ***			
				24. Focus ***			
				25. Focus Fine ***			
				26. Focus 2 ***			
				27. AutoFocus ***			
				28. Effect Mac			
		System Version	→	XY :V*,**			
				Gobo : V*,**			
				CMYCMY : V*,**			
				Fan : V*,**			
				Prism : V*,**			
				Display : V*,**			
		Return(ESC)					

Main menu		I menu		II menu		III menu	
Personal	→						
		Auto lamp on	→	OFF ON			
		P/T invert	→	Pan invert	→	OFF ON	
				Tilt invert	→	OFF ON	
				Return (ESC)			
		Display	→	Language	→	English Chinese	
				Back Light	→	Open Auto close (15s)	
			→	Reversal	→	Normal Rota. 180	
				Backlight blink	→	ON OFF	
				Return (ESC)			
		Return (ESC)					
Manual control	→	Channel control	→	1. Pan ***			
				2. Pan Fine ***			
				3. Tilt ***			
				4. Tilt Fine ***			
				5. Functions ***			
				6. Dimmer ***			
				7. Shutter ***			
				8. Cyan ***			
				9. Magenta ***			
				10. Yellow ***			
				11. Colour ***			
				12. Static Gobo ***			
				13. Rot Gobo ***			
				14. Gobo Rot ***			
			→	15. Prism 1 ***			
				16. Prism1 Rot ***			
				17. Prism 2 ***			
				18. Prism2 Rot ***			
				19. PrismMacro ***			
				20. Macro Rot. ***			
				21. Frost ***			
				22. Zoom ***			
				23. Zoom Fine ***			
				24. Focus ***			
				25. Focus Fine ***			
				26. Focus 2 ***			
				27. AutoFocus ***			
				28. Effect Mac			
				Return (ESC)			
		Reset	→	System reset			
				Pan/Tilt reset			
				Gobo reset			
			→	Color reset			
				Dimmer reset			
				Zoom reset			

Main menu		I menu	II menu	III menu
Service	→	Test	Effects reset	
			Return (ESC)	
			Test P/T	→ STEP ***
			Test effect	→ STEP ***
			Test all	→ STEP ***
			Return (ESC)	
		Return (ESC)		
		Error list	→	
		Clean error	→	
		Calibration	Keep List	
			Empty List	
			Pan 000-255	
			Tilt 000-255	
			Dimmer 000-255	
			NC/NC 000-255	
			Focus 000-255	
			Zoom 000-255	
			Colour 000-255	
			Gobo 000-255	
			Prism 1 000-255	
			Prism 2 000-255	
			NC/NC 000-255	
			Frost 000-255	
			Cyan 000-255	
			Magenta 000-255	
			Yellow 000-255	
			Rota. Gobo 000-255	
			Return (ESC)	
		Factory	Load default	
			Reset timers	上电时间
				亮灯时间
				总时间
			Developer	升级字库
				LOGO选择
				升级LOGO
				总运行时间TotalTime
			Firmware update	
			Return (ESC)	
		return (ESC)		
Lamp	→	Off		
		On		
Language	→	English		
		Chinese		
Reversal	→	Normal		
		Rota. 180		

CHANNEL FUNCTION(V1.0)

Channel	DMX		Percentage	Function
1	0-255	0-100	Pan	
2	0-255	0-100	Pan Fine	
3	0-255	0-100	Tilt	
4	0-255	0-100	Tilt fine	
5			Function	
	0-9		Reserved (0=default)	
	10-14		Reserved	
	15-19		Reserved	
	20-24		Reserved	
	25-29		Reserved	
	30-34		Reserved	
	35-39		Reserved	
	40-44		Reserved	
	45-49		Reserved	
	50-54		Reserved	
	55-59		Reserved	
	60-64		Reserved	
	65-69		Reserved	
	70-74		Reserved	
	75-79		Reserved	
	80-84		Reserved	
	85-89		Reserved	
	90-94		Reserved	
	95-99		Reserved	
	100-101		Reserved	
	102-103		Reserved	
	104-105		Reserved	
	106-107		Reserved	
	108-119		Reserved	
	120-124		Reserved	
	125-129		Reserved	
	130 - 139		Lamp On	
	140 - 149		Pan/Tilt reset	
	150 - 159		Colour system reset	
	160 - 169		Gobo wheels reset	
	170 - 179		Dimmer/Shutter reset	
	180 - 189		Zoom/focus/frost/prism wheels reset	
	190 - 199		Effect wheel reset	
	200 - 209		Total reset	
	210 - 229		Reserved	
	230 - 239		Lamp Off	
	240 - 244		Reserved	
	245 - 249		Reserved	
	250 - 255		Reserved	
6			Dimmer intensity	
	0 - 255		Dimmer intensity from 0% to 100% (0=default)	
7			Shutter/ strobe	
	0 - 31		Shutter closed	
	32 - 63		Shutter open (32=default)	
	64 - 95		Strobe-effect from slow to fast	
	96 - 127		Shutter open	
	128 - 143		Opening pulse in sequences from slow to fast	

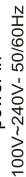
Channel	DMX	Percentage	Function
	144 – 159	Closing pulse in sequences from fast to slow	
	160 – 191	Shutter open	
	192 – 223	Random strobe-effect from slow to fast	
	224 – 255	Shutter open, Full lamp power	
8		Cyan	
	0 – 255	Cyan from min. saturation --> full cyan (0=default)	
9		Magenta	
	0 – 255	Magenta from min. saturation --> full magenta (0=default)	
10		Yellow	
	0 – 255	Yellow from min. saturation --> full yellow (0=default)	
11		Colour wheel	
		Continual positioning	
	0-4	White	
	5-8	White+Red	
	9-12	Red	
	13-16	Red+Orange	
	17-20	Orange	
	21-24	Orange+Aquamarine	
	25-28	Aquamarine	
	29-32	Aquamarine+Green	
	33-36	Green	
	37-40	Green+Light Green	
	41-44	Light Green	
	45-48	Light Green+Lavender	
	49-52	Lavender	
	53-56	Lavender+Pink	
	57-60	Pink	
	61-64	Pink+Yellow	
	65-68	Yellow	
	69-72	Yellow+Magenta	
	73-76	Magenta	
	77-80	Magenta+Cyan	
	81-84	Cyan	
	85-88	Cyan+CTO 260	
	89-92	CTO 260/CTO2	
	93-96	CTO 260+CTO 190/CTO2+CTO1	
	97-100	CTO 190/CTO1	
	101-104	CTO 190+CTB 8000/CTO1+CTB	
	105-108	CTB 8000/CTB	
	109-112	CTB 8000+Blue	
	113-116	Blue	
	117-120	Blue+White	
	121 – 181	Forwards rainbow effect from fast to slow	
	182 – 188	No rotation	
	189 – 249	Backwards rainbow effect from slow to fast	
	250 – 255	Auto random colour selection from fast to slow	
		Static gobo wheel	
	0-3	White	

Channel	DMX		Percentage	Function
12	4-7		Gobo1	
	8-11		Gobo2	
	12-15		Gobo3	
	16-19		Gobo4	
	20-23		Gobo5	
	24-27		Gobo6	
	28-31		Gobo7	
	32-35		Gobo8	
	36-39		Gobo9	
	40-43		Gobo10	
	44-47		Gobo11	
			<i>Shaking gobos from slow to fast</i>	
	48-60		Gobo1 Shake Slow-Fast Speed	
	61-73		Gobo2 Shake Slow-Fast Speed	
	74-86		Gobo3 Shake Slow-Fast Speed	
	87-99		Gobo4 Shake Slow-Fast Speed	
	100-112		Gobo5 Shake Slow-Fast Speed	
	113-125		Gobo6 Shake Slow-Fast Speed	
	126-138		Gobo7 Shake Slow-Fast Speed	
	139-151		Gobo8 Shake Slow-Fast Speed	
	152-164		Gobo9 Shake Slow-Fast Speed	
	165-177		Gobo10 Shake Slow-Fast Speed	
	178-190		Gobo11 Shake Slow-Fast Speed	
	191-207		Effect Shake Slow-Fast Speed	
	208-226		Forwards gobo wheel rotation from fast to slow	
	227-230		No rotation	
	231-249		Backwards gobo wheel rotation from slow to fast	
	250-255		Auto random gobo selection from fast to slow	
13			Rotating gobo wheel	
			/index - set indexing on channel 14	
	0		Open/Hole (0=default)	
	1-8		Hole (flat field)	
	9-21		Gobo 1	
	22-34		Gobo 2	
	35-47		Gobo 3	
	48-60		Gobo 4	
	61-73		Gobo 5	
	74-86		Gobo 6	
	87-99		Gobo 7	
	100-112		Gobo 8	
			<i>Shaking gobo from slow to fast</i>	
			Index - set indexing on channel 14	
	113-125		Gobo 1	
	126-138		Gobo 2	
	139-151		Gobo 3	
	152-164		Gobo 4	
	165-177		Gobo 5	
	178-190		Gobo 6	
	191-203		Gobo 7	
	204-216		Gobo 8	
	217-249		Open/hole	

Channel	DMX	Percentage	Function
	250-255	Auto random gobo selection from fast to slow	
14		Rot. gobo indexing and rotation	
	0 - 127	Gobo indexing	
	128 - 187	Forwards gobo rotation from fast to slow	
	188-195	No rotation	
	196 - 255	Backwards gobo rotation from slow to fast	
15		Prism wheel 1	
		This wheel is blocked If Rotating gobo wheel >0 DMX	
	0-3	Open position/hole (0=default)	
		Index - set indexing on channel 16	
	4-15	Prism 3 - 6-facet linear	
	16-27	Prism 2 - 4-facet 12° circular	
	28-39	Prism 1 - 8-facet 12° circular	
		Rotation - set rotation on channel 16	
	40-51	Prism 3 - 6-facet linear	
	52-63	Prism 2 - cylindrical	
16	64-75	Prism 1 - 8-facet 12° circular	
	76-255	Raw DMX	
		Prism wheel 1 indexing/rotation	
		Prism indexing - set position on channel 15	
	0 - 255	Prism 1 indexing	
		Prism 1 rotation - set position on channel 15	
	0-3	No rotation	
	4-34	Slow → Fast, 90° Rotating back and forth	
	35-65	Slow → Fast, 180° Rotating back and forth	
	66-96	Slow → Fast, 270° Rotating back and forth	
17	97-127	Slow → Fast, 360° Rotating back and forth	
	128-188	Forwards prism rotation from fast to slow	
	189-194	No rotation (128=default)	
	195-255	Backwards prism rotation from slow to fast	
		Prism wheel 2	
	0-3	Open position/hole (0=default)	
		Index - set indexing on channel 18	
	4-15	Prism - 8-facet 18° circular	
		Rotation - set rotation on channel	
	16-27	Prism - 8-facet 18° circular	
18	28-255	Raw DMX	
		Prism wheel 2 indexing/rotation	
		Prism indexing - set position on channel 17	
	0-255	Prism indexing	
		Prism rotation-set position on channel 17	
	0	No rotation	
	4-34	Slow → Fast, 90° Rotating back and forth	
	35-65	Slow → Fast, 180° Rotating back and forth	
	66-96	Slow → Fast, 270° Rotating back and forth	
	97-127	Slow → Fast, 360° Rotating back and forth	

Channel	DMX	Percentage	Function
	128-188	Forwards prism rotation from fast to slow	
	189-194	No rotation (128=default)	
	195-255	Backwards prism rotation from slow to fast	
19		Pattern selection	
	0-3	Open position/hole (0=default)	
		Index - set indexing on channel 20	
	4-14	Prism macro Index 1	
	15-25	Prism macro Index 2	
	26-36	Prism macro Index 3	
	37-47	Prism macro Index 4	
	48-58	Prism macro Index 5	
	59-69	Prism macro Index 6	
	70-80	Prism macro Index 7	
		Rotation - set rotation on channel 20	
	81-91	Prism macro rotation 1	
	92-102	Prism macro rotation 2	
	103-113	Prism macro rotation 3	
	114-124	Prism macro rotation 4	
	125-135	Prism macro rotation 5	
	136-146	Prism macro rotation 6	
	147-157	Prism macro rotation 7	
	158-168	Prism macro rotation 8	
	169-179	Prism macro rotation 9	
	180-190	Prism macro rotation 10	
	191-255	Raw DMX	
20		Pattern rotation and indexing	
		The channels are blocked: Prism Wheel 1/2, Prism Wheel 1/2 rot.	
		Pattern indexing - set position on channel 19	
	0 - 255	Pattern indexing	
		Pattern rotation - set position on channel 19	
	0	No rotation	
	1-127	Forwards pattern rotation from fast to slow	
	128	No rotation (128=default)	
	129-255	Backwards pattern rotation from slow to fast	
21		Frost	
	0-19	Open (0=default)	
	20-128	100% Light Frost	
	129-169	Pulse closing from slow to fast	
	170-210	Pulse opening from fast to slow	
	211-255	Ramping from fast to slow	
22		Zoom	
	0 - 255	Zoom from max. to min.beam angle (128=default)	
23		Zoom - fine	
	0 - 255	Fine zooming (0=default)	
24		Focus	
	0 - 255	Continuous adjustment from far to near (128=default)	
25		Focus Fine	
	0 - 255	Fine focusing (0=default)	

Channel	DMX	Percentage	Function
26		Focus2 AutoFocus on channel 27	
	0-255	AutoFocus	
27		Autofocus (priority & distance selection)	
		Select desired distance and effect on which you need to focus and use "Focus2" channel (26) to focus the image.	
	0-15	Autofocus Off	
	16-55	10 metres	
	56-95	15 metres	
	96-135	20 metres	
	136-175	30 metres	
	176-215	40 metres	
	216-255	50 metres	
28		Effect Macro	
	0-15	Reserved	
	16-25	Effect 1	
	26-35	Effect 2	
	36-45	Reserved	
	46-55	Reserved	
	56-65	Reserved	
	66-75	Reserved	
	76-85	Reserved	
	86-95	Reserved	
	96-105	Reserved	
	106-115	Reserved	
	116-125	Reserved	
	126-135	Reserved	
	136-145	Reserved	
	146-155	Reserved	
	156-165	Reserved	
	166-175	Reserved	
	176-185	Reserved	
	186-195	Reserved	
	196-205	Reserved	
	206-215	Reserved	
	216-225	Reserved	
	226-235	Reserved	
	236-245	Reserved	
	246-255	Reserved	



CLEANING AND MAINTENANCES

- In order to ensure the projector could work normally. It should be kept clean always. It is recommended that the fans and ventilation in let should be cleaned every 15 days. The lens and dichroic colour filters should also be regularly cleaned to maintain an optimum light output. Do not use any type of solvent on dichroic colour filters. It will damage the projector.
- Suggestion: The continue usage of the light don't exceed 4 hours. Or it will shorter the usage of the lamp. Please use the alternative operation to solve this problems.
- Please disconnect the power supply when begin to maintain or takedown the light. Please let the parts cool down 10 minute at least then begin to install. If need to replace the lamp, please wait 10 minute again at least to let the lamp cool down completely or which maybe burned down.
- Please inspect the lens or other moving parts timing and keep them clear and static. If find anything damaged or looseness, must change a lamp or fix the lamp in order to avoid the accident.
- The light use the strong cool system. It is easy for the dirty to be collected. Please do clear the hot-sak one time two week at least.
- After you use the light, please check the intake place whether there are some wastepaper, please clean it up, or the windmill will break down and causing fire.

TROUBLESHOOTING

It is recommended some solution for some normal trouble shooting. Any unsolved problems should always be handle by the professional person. Disconnect the power supply before maintenance the light.

■ Lamp off:

- Please check if install the suitable lamp.
- Please check the connection of the power supply or switch is ok.
- Please check whether the lamp will reach the end of their life can explode, please replace a same description lamp.
- Please measure if the power supply is enough.
- Please check if the operation is correct. Please wait 30 minutes at least till the lamp cool down enough, then could the connect the power supply, which could be normal work.
- Please check whether the DMX 512 controller pass the "turn on" order.
- Please check the connection of the trigger circuit is loose contact.
- Please check whether the connected point of the trigger point is loose contact, faster the connect cable.
 - Please check if the switch of the temperature is damaged.
- Check the bottom box driver board "WK" socket if the resistance 0 between the two line.

■ The light beam is dark, not inhomogeneous:

- When the lamp is to the usage life, the light is not enough, please change a new one for the same description.
- Please check the reflector parts is dirty. Keep them clear.
- Please measure if the power supply is enough.
- Small adjusting is suitable for change height or screw system till get a ideal light beam.

■ **The light shadow is fogging:**

- ◎ Please check the data on the DMX 512 controller is suitable for the electric focus.
- ◎ Please check the mechanical parts is jamming. After cleaning, please add some temperature -durable juice.

■ **The light works interruptly:**

- ◎ Please check if the fan works normally or mote clogging.
- ◎ Please check whether the abstract heat have the mote clogging.
- ◎ Please check if the lamp is to the usage life.
- ◎ Please check if the power supply is enough, the connection of the power supply or the circuit are good.
- ◎ Please check if the switch of the sup-temperature is good.

■ **Though the light is lighting, but it couldn't accept the control order:**

- ◎ Please check the start code address and the function option are correct.
- ◎ Please check whether the communicate control cable is on good connection or the cable is too long or interrupt.
- ◎ Please check the control system is not valid, check the signal amplifier of chain connected is valid.
- ◎ Please check whether the communicate cable is too long or the other equipment is mutually conjugate.
- ◎ Please arrange the wire well, Shorter the signal cable, put the high voltage cable and low voltage cable separately.
- ◎ Add the signal amplify isolator.
- ◎ Signal cable is used the excellent screening doublet (Resistance 75Ω)
- ◎ The end of the light end and the end resistance.
- ◎ When the lamp don't cool down enough but do the incorrect operation will let the trigger up to super- high voltage leak. It will damage the electric circuit and communicate IC or CPU. Under this condition, please change the PCB board.

■ **the light can't move:**

- ◎ Please check if the power supply is suitable for the light voltage data.
- ◎ Please check the fuse of input voltage is defective.
- ◎ Please check the light if they are deforming, inside parts is broken, become wet...etc will lead the loose contact.
- ◎ Please check if the inside lead wire and the connector is loose.
- ◎ Please check the electric parts (such as the switch, transformer, ballast, electric capacity, piezoresistor, filter, PCB board, controller to motor) is short-circuit or burn down.

■ **Part of the projector couldn't be responsed to the controlling order:**

- ◎ Please check the order is correct to the moving.
- ◎ Please check the mechanical part is deformation or loose.
- ◎ Please check the function to the motor socket is loose or drive chip is burn down.
- ◎ Please check the wire of the motor is cut at zig point.
- ◎ Please check these function to the motor is damaged.

■ **On working, the pan & tilt couldn't work normally:**

- ◎ Please check according to the above step by step.
- ◎ Please check the belt of the X.Y is broken.
- ◎ Please check the X/Y direction data to the receiver is damage.
- ◎ Re-projector reset.

DUTY EXONERATIVE AND COPYRIGHT PROTECTION

- ◇The lamp belongs to consumption products that is not guarantee to keep it in good repair.
- ◇Any products broken that didn't according to the instruction is not guarantee to keep it in good repair.
- ◇The commentary for all the instruction belongs to the supplier in final.
- ◇No authorize can't copy.
- ◇The information in this manual may be changed in the future,the company reserve the right to change the data without any advise.