



Web:www.lightsky.com.cn

Tel: 0086-20-61828288

Fax:0086-20-61828188 Pc:510820 E-mail: flydragon@lightsky.com.cn

Address: No. 4, Jingneng Road 1, Huadu District, Guangzhou, China



SHARK 400 USER MANUAL

Please read these user manual carefully before use!

CONTENTS

1. Safety information	2
2. Technical information	5
3. Attachment and body size	8
4. Installation and connecting	9
5. Control panel	13
6. Menu setting	14
7. Channel function	18
8. Circuit connecting diagram	21
9. Cleaning and maintenances	22
10. Troubleshooting	22
11. Duty exonerative and copyright protectio	24

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

- ◆ Please keep in mind that this product, like other products of the company, adheres to the concept of people-oriented design and manufacture, and takes product quality as the foundation.
- ♦ We put the interests of customers first, and do our best to meet customer requirements.
- Please read this instruction manual carefully and keep it for future reference. In the case of fully understanding the product information, strictly abide by the Use the instruction manual to ensure that the product is installed, used and serviced correctly and safely.
- ◆ Our company is not responsible for any damage to lamps or other performance due to personal failure to follow the instructions during installation, use and maintenance.responsibility.
- Our company reserves the right to modify the manual at any time and without prior notice.

SAFETY INFORMATION

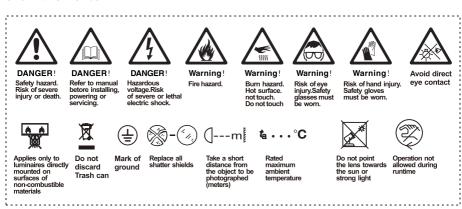


Please read the instruction carefully which includes important information about the installation, usage and maintenance.

WARNING

Please keep this User Manual for future consultation. If you sell the unit to another user, be sure that they also receive this manual.

The following symbols are used to identify important safety information on the product and in this manual:



Important:

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

- Unpack and check carefully to ensure that there is no transportation damage before using the unit.
- Do install and operate by qualified operator.
- The light source in this luminaire should be replaced by the manufacturer or its service agent or a similarly qualified person, always cut off the power supply before replacing he light source.
- Do not allow children to operate the fixture.
- Use safety chain when fixing the unit. Handle the unit by carrying its base instead of head only.

- The unit must be installed in a location with adequate ventilation, at least 20cm from adjacent surfaces.
- Be sure that no ventilation slots is blocked, otherwise the unit will be overheated.
- Before operation, ensure that you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Minimum ambient temperature Ta: -20°C. Maximum ambient temperature Ta: 40°C.
 Do not operate this product at a lower or higher temperature.
- Do not connect the device to any dimmer pack.
- When the lamp is running, do not place combustible objects next to it. The shortest distance between the device and inflammable and explosive objects or materials is 0.5m.
- Make sure the power cord is not crimped or damaged; replace it immediately if damaged.
- Unit's surface temperature may reach up to ≤80°C. do not touch the housing bare-handedduring its operation.
- Avoid any flammable liquids, water or metal from entering the unit. once it happens, cut off the mains power immediately.
- Do not operate in a dirty or dusty environment, do clean the fixture regularly.
- Do not touch any wire during operation as there might be a hazard of electric shock.
- Avoid entanglement of the power cord with other wires.
- The minimum distance to objects/surface must be more than 12 meters.
- In the event of serious operating problem, stop using the unit immediately.
- Never turn on and off the unit time after time.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.
- Do not open the housing as there are no user serviceable parts inside.
- Do not attempt to operate this unit if it becomes damaged. do not attempt any repairs
 yourself. Repairs carried out by unskilled people can lead to damage or malfunction.
 Please contact the nearest authorized technical assistance center if needed.

- Disconnect this product from its power source before servicing.
- Do use the original packaging if the device is to be transported.
- Avoid direct eye exposure to the light source while the product is on.
- Do not operate this product if you see damage on the housing, shields, or cables. Have the damaged parts replaced by an authorized technician at once.

Installation:

The fixture should be fixed on the clamp. Always ensure that the unit is firmly fixed to avoid vibration and slipping off during operation. Ensure that the trussing or area of installation must be able to hold 10 times the weight without any deformation. Always install a safety cable that can hold at least 12 times the weight of the fixture when installing.

Do install and operate by qualified operator. It must be installed in a place where there is out of the reach of people.

TECHNICAL INFORMATION

OPTICS

- Light source: NSL400S USHIO

- Optical angle: 2.0 °

- Optical lens: coated with high anti reflective film, φ160mm

- Color temperature: 6900K

- Color rendering index: Ra≥72 - Illuminance: 458000 lux@10 rice

- Expected service life of light source: 1500H (data provided by the light source supplier)

COLOUR

 Color: 14 color chips+white light, capable of achieving bidirectional color rainbow, dual color step gradient (linear movement), bidirectional rotation of color wheel, random color mode.

PATTERN

- Pattern: 11 patterns+white light+3 animations (animation effect patterns) with bi-directional shaking, animation, and flowing effects.

EFFECT

- Prism 8+Prism 24: capable of bidirectional independent rotation, independent switching, and stacking
- Soft light effect: adjustable independent soft light effect
- Strobe: 0.5-9 timescond adjustable pulse flicker and random flicker
- Dimming: 0-100% linear adjustment
- Focusing: High precision electric focusing

CONTROL AND PROGRAMMING

- Control channel: 17CH, please refer to the channel table for details
- Protocol: Standard DMX512 protocol and RDM protocol
- ArtNet protocol (optional)
- Data connection: Three core or five core signal input/output
- RJ45 interface (optional)
- Display: LCD screen
- Upgrade software through DMX signal

X/Y AXIS MOTION ANGLE

- X-axis: 540 ° 8-bit/16bit precision scanning

- Y-axis: 240 ° 8-bit/16bit precision scanning

- Reset function with automatic error correction

- Fixed lock: Vertical lock

POWER SUPPLY AND POWE

- Input voltage: AC 100-240V 50/60Hz

- Maximum power: 580W

- Power factor: 0.985

- Maximum current of the lamp: 3.0A/220V, 5.8A/100V

DIMENSION

- Product size: 509 × 320 × 711mm

- N.W.: 34.5kg

- Carton packaging (default): 810 × 580 × 395mm

- G.W.: 39kg

- Flycase Size (1 sets): 620 × 640 × 825 mm

- G.W.: 69.0kg

OTHER

- Protection level: IP66

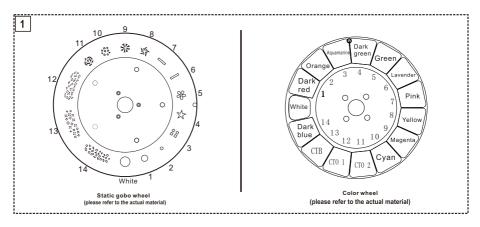
- Work environment: - 20°C ~ 40°C

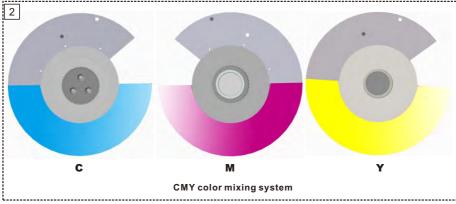
(Note: When the lamp is working in an environment below zero degrees Celsius and powered on, the bulb needs to be preheated for 30 minutes before resetting all functions of the lamp before it can be used normally.)

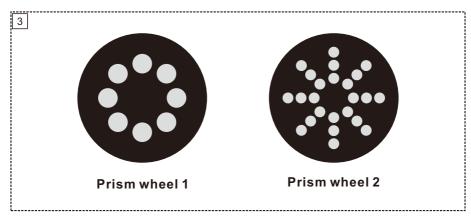
- Maximum surface temperature of lamp body: ≤ 80°C

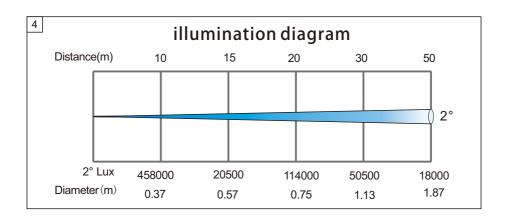
APPROVALS

- The product implementation standard: GB/T 7000.1-2023 GB/T 7000.217-2023
- Approved certifications: CE , RoHs
- The product complies with the following EU directives:
- Low Voltage Directive 2014/35/EU . EMC Directive 2014/30/EU

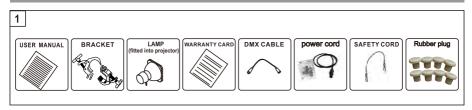




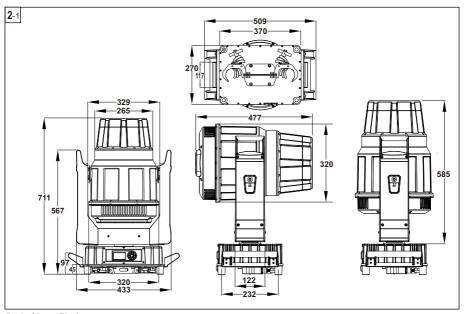




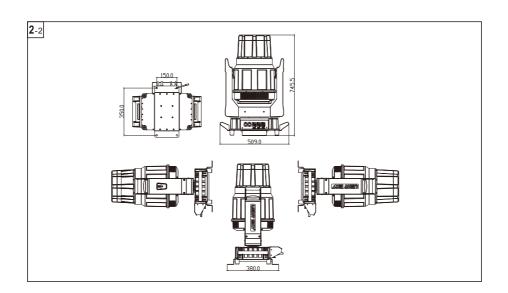
ATTACHMENT AND BODY SIZE



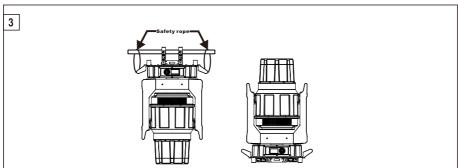
Attachment contents- Fig. 1



Body Size---Fig 2







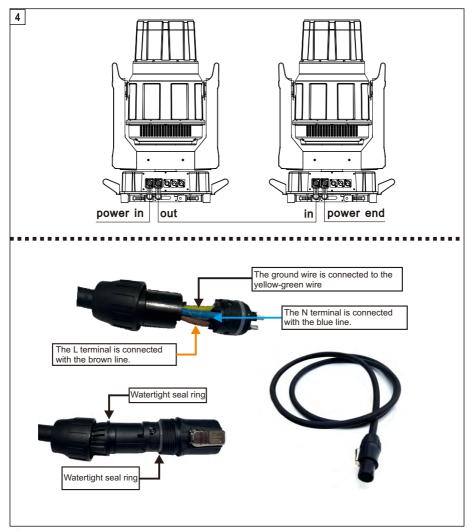
Installing the projector- Fig. 3

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.

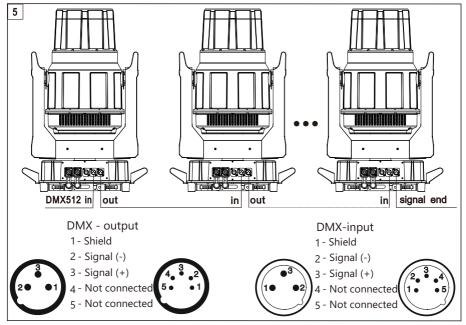
Make sure the point of anchorage is stable before positioning the projector.

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.



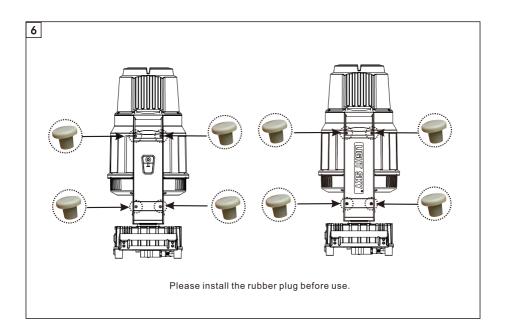
Connecting to the mains suppply --- Fig 4

- •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 electricty 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.

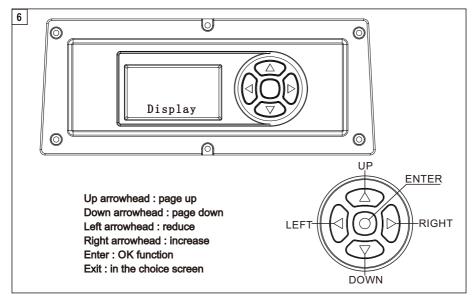


Connecting to the control signal line (DMX) - Fig. 5

- © 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 75 Ω 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).



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				
		Totel Time	→	Power::***(h)		
				Lamp ON::****(h)		
		Lamp hours	→	Total:****(h) Lamp open:****(h)	Н	
		Temperature	→	PVG_TEM: ***. * Board: ***. *	\exists	
		RDM UID	→	RDM UID 3888:00000000	П	
		MOTOR UID/UID	→	00000000000000000000000000000000000000		
				1. L_Fan:00. 0V		
				2. Fan1:00. 0 V		
				3. Fan2:00.0 V		
		D 1/7 1.		4. L_Fan: 0000 RPM		
		Fan speed/Voltag	_	5. Fan1:0000 RPM		
				6. Fan2:0000 RPM	П	
				7. Fan3:0000 RPM		
				8. Fan4:0000 RPM		
		DMX live		1. Cyan (***)		
				2. Magenta (***)		
				3. Yellow (***)	П	
Information				4. Colour (***)	П	
				5. Shutter (***)		
				6. Dimmer (***)		
				7. Gobo (***)	П	
			→	8. Prism(***)	П	
	\rightarrow			9. PrismRota. (***)		
				10. PrismMacro (***)	П	
				11. Frost (***)	H	
				12. Focus (***)	\Box	
				13. Pan (***)		
				14. Pan Fine (***)	\vdash	
				15. Tilt (***)	\vdash	
				16. Tilt Fine (***)	\vdash	
				17. Function (***)	\vdash	
				XY Board: V*. **	\vdash	
				12M Board: V*. **	\vdash	
		System version	-	CMY Board: V*. **	廿	
				Fan Board: V*. **		
		- ()		Dis Board:V*.**		
		Return (ESC)				

Main menu		l menu		II menu		III menu
		Auto lamp on		OFF		
		nato ramp on	→	ON	\top	
		P/T invert	→	Pan invert	→	OFF ON
		1,1111,010		Tilt invert	 	OFF ON
			→	Language	→	English
Personal						Chinese
	→			D 1 T 1 1 4		0pen
				Back Light		Auto close(15s)
		Display				Normal
		Display		Reversal		Rota. 180
			→		T	ON
				Backlight blink	→	OFF
				Return (ESC)	T	011
		Return (ESC)		1100011 (200)		
	_	Ketuin(LDC)	\vdash	1. Cyan (***)	Т	1
					+	
				2. Magenta (***) 3. Yellow (***)	+	
				4. Colour (***)	+	
				5. Shutter (***)	+	
				6. Dimmer (***)	+	
				7. Gobo (***)	+	
				8. Prism (***)	\top	
				9. PrismROTA. (***)		
		Channel control	→	10. PrismMacro (***)	T	
Manual control	→			11. Frost (***)		
				12. Focus (***)		
				13. Pan (***)		
				14. Pan Fine (***)		
				15. Tilt (***)		
				16. Tilt Fine (***)		
				17. Function (***)		
				Return (ESC)		
				system reset		
		Reset	_	Pan/Tilt reset	\perp	
				Head motor reset		
				Return (ESC)		

Main menu		l menu		II menu		III menu
		Test	→	Test P/T Test effect	→	STEP *** STEP ***
	→		Ĺ	Test all Return (ESC)		STEP ***
		Return (ESC)	-			
		Error list				
		Clean error	→	Keep Clean		
				Pan 000-255		
				Tilt 000-255		
				Dimmer1 000-255 Dimmer2 000-255		
				Focus 000-255		
				NC 000-255		
		Calibration →		Colour 000-255		
				Stat. Gobo 000-255		
				Prism1 000-255		
				Prism2 000-255		
				PrismRota. 000-255		
				Frost 000-255		
Service	1.			Cyan 000-255		
	→			Magenta 000-255		
				Yellow 000-255		
				Return (ESC)		T
				Defualt		
				Time clean		
		Factory	_	Developer		
		ractory				
				Firmware update		
				Manual Fan Vol		OFF
						ON

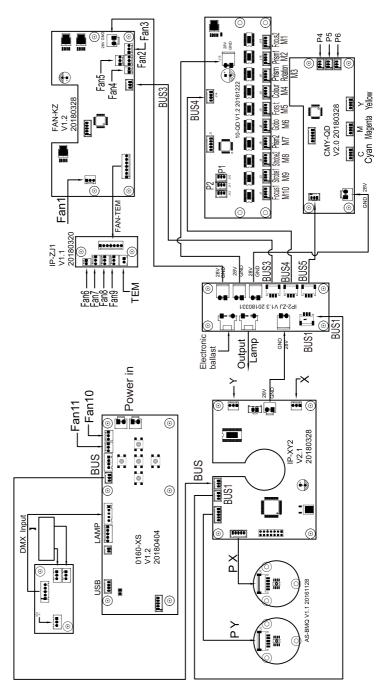
Main menu		l menu		II menu		III menu
				D 0 1 m 1		OFF
		Factory	→	Fan Speed To Lamp	→	ON
Service				Return (ESC)		
Service				Standard mode		
	→	Fan mode	→	3000-4000M		
				4000-5500M		
		Return (ESC)				
Lomp		0ff				
Lamp	→	0n				
Language	_	English				
	Ĺ	Chinese				
Reversal	→	Normal				
		Rota. 180				

CHANNEL FUNCTION(V1.0)

Channe1	DMX	Percentage	Function
1	0-255	0-100	Cyan
2	0-255	0-100	Magenta
3	0-255	0-100	Yellow
			Colour
	0-4	0-1.56	White
	5-8	1. 96-3. 14	White+Red
	9-12	3. 53-4. 71	Red
	13-17	5. 10-6. 67	Red+Orange
	18-21	7. 06-8. 24	Orange
	22-25	8. 63-9. 80	Orange+Aquamarine
	26-29	10. 2-11. 4	Aquamarine
	30-34	11. 8-13. 3	Aquamarine+Green
	35-38	13. 7-14. 9	Green
	39-42	15. 3-16. 5	Green+Light Green
	43-46	16. 9-18. 0	Light Green
	47-51	18. 4-20. 0	Light Green+Lavender
	52-55	20. 4-21. 6	Lavender
	56-59	22. 0-23. 1	Lavender+Pink
	60-63	23. 5-24. 7	Pink
4	64-68	25. 1-26. 7	Pink+Yellow
	69-72	27. 0-28. 2	Yellow
	73-76	28. 6-29. 8	Yellow+Magenta
	77-81	30. 2-31. 8	Magenta
	82-85	32. 2-33. 3	Magenta+Cyan
	86-89	33. 7-34. 9	Cyan
	90-93	35. 3-36. 5	Cyan+CTO 260
	94-98	36. 9-38. 4	CTO 260/CTO2
	99-102	38. 8-40. 0	CTO 260+CTO 190/CTO2+CTO1
	103-106	40. 4-41. 6	CTO 190/CT01
	107-110	42. 0-43. 1	CTO 190+CTB 8000/CT01+CTB
	111-115	43. 5-45. 1	CTB 8000/CTB
	116-119	45. 5-46. 7	CTB 8000+Blue
	120-123	47. 1-48. 2	Blue
	124-127	48. 6-49. 8	Blue+White
	128-191	50. 2-74. 9	CCW, Fast→Slow Rotation
	192-255	75. 3-100	CW, Slow→Fast Rotation

Channel	DMX	Percentage	Function
			Strobe
	0-3	0-1. 2	Closed
	4-103	1. 6-40. 4	Slow-Fast Strobe
	104-107	40. 8-42. 0	Open
5	108-157	42. 4-61. 6	Opening pulses in sequences from slow fast
	158-207	62. 0-81. 2	Closing pulses in sequences from fast slow
	208-212	81. 6-83. 1	0pen
	213-251	83. 5-98. 4	Random Slow-Fast Strobe
	252-255	99.8-100	0pen
6	0-255	0-100	Dimmer
			Gobo
	0-3	0-1.2	White
	4-7	1. 6-2. 7	Gobo1
	8-11	3. 1-4. 3	Gobo2
	12-15	4. 7-5. 9	Gobo3
	16-19	6. 3-7. 5	Gobo4
	20-23	7.8-9.0	Gobo5
	24-27	9. 4-10. 6	Gobo6
	28-31	11. 0-12. 2	Gobo7
	32-35	12. 5-13. 7	
	36-39	14. 1-15. 3	
	40-43	15. 7-16. 9	
	44-47	17. 3-18. 4	Gobo11
	48-51	18. 8-20. 0	Gobo12
7	52-55	20. 4-21. 6	
_	56-59	22. 0-23. 1	
	60-73	23. 5-28. 6	•
	74–87	29. 0-34. 1	-
	88-101	31. 4-39. 6	
	102-115	40. 0-45. 1	•
	116-129	45. 5-50. 6	-
	130-143	51. 0-56. 1	•
	144-157	56. 5-61. 6	•
	158-171	62. 0-67. 1	•
	172-185	67. 5-72. 6	
	186-199	72. 9-78. 0	Gobo10 Shake Slow-Fast Speed
	200-213	78. 4-83. 5	
	214-227	83. 9-89. 0	*
	228-241		Gobol3 Shake Slow-Fast Speed
	242-255	94. 9-100	Gobo14 Shake Slow-Fast Speed

Channel	DMX	Percentage	Function				
	Prism						
	0-63	0-24.7	Unused Range				
8	64-127	25-49.8	Prism1				
	128-191	50. 2-74. 9	Prism2				
	192-255	75. 3-100	Prism1+Prism2				
	Prism	Rotation					
	0	0	Unused Range				
	1-63	0. 4-24. 7	Angular linear regulation				
	Selection o	f three prism o	effects: setting prism (prism 1, prism 2 or prism 1+2) in channel 5;				
9	64-127	25. 1-49. 8	CCW, Fast → Slow				
9	128-191	50. 2-74. 9	CW, Slow → Fast				
	192-207	75. 3-81. 2	Slow → Fast, 90° Rotating back and forth				
	208-223	81. 6-87. 5	Slow → Fast, 180° Rotating back and forth				
	224-239	87. 8-93. 7	Slow → Fast, 270° Rotating back and forth				
	240-255	94. 1-100	Slow → Fast, 360° Rotating back and forth				
	Prism	Macro					
	0-15	0-5.9	Unused Range				
	16-55	6. 3-21. 6	Fast → Slow,8 prism free switch				
10	56-95	22. 0-37. 3	Fast → Slow,16prism free switch				
10	96-135	37. 6-52.	Fast → Slow, 8 prism+16prism Simultaneous free switch				
	136-175	53. 3-68.	Fast → Slow,8 prism The selected+ 16prism free switch				
	176-215	69.0-84.	Fast \rightarrow Slow, 16 prism The selected+ 8prism free switch				
	216-255	84. 7-100	Fast → Slow,8 prism and 16prism Interlock switch				
11	0-255	0-100	Frost				
12	0-255	0-100	Focus				
13	0-255	0-100	Pan				
14	0-255	0-100	Pan Fine				
15	0-255	0-100	TILT				
16	0-255	0-100	TILT Fine				
	Functi	on					
	0-25	0-9.8	Unused Range				
	26-30	10. 2-11. 8	Effects Reset				
17	31-35	12. 2-13. 7	PAN/TITL Reset				
	36-40	14. 4-15. 7	Complete Reset				
	41-180		Unused Range				
	181-200	71. 0-78. 4	Lamp OFF				
	201-220	78. 8-86. 3	Unused Range				
	221-255	86. 7-100	Lamp ON				



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 maintenaceor 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 losseness, 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.

TROUBESHOOTING

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

■Lamp off:

- OPlease 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.
- OPlease measure if the power supply is enough.
- ©Please check whether the DMX 512 controller pass the "turn on" order.
- OPlease check the connection of the trigger circuit is loose contact.
- $\tilde{\mathbb{Q}}$ Please check whether the connected point of the trigger point is loose contact ,faster the connect cable .
 - OPlease 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 inhomogeneou:

- @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.
- OPlease 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 machenical parts is jamging. After cleaning, please add some temperature -durable juice.

■The light works interruptly:

- OPlease check if the fan works normally or mote clogging.
- © Please check whether the abstract heat have the mote clogging.
- OPlease 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.
- OPlease 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 ongood connection or the cable is too long or interrupt.
- © Please check the control system is not valid, check the singal 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 separ-ately.
- OAdd the signal amplify isolator.
- \bigcirc Signal cable is used the excellent screening doublet (Resistance 75 Ω)
- OThe 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 deformating, inside parts is broken, become wet...etc will lead the loose contact.
- OPlease 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 responsied to the controlling order:

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

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

- OPlease check according to the above step by step.
- OPlease 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

- \Diamond 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.