

# LIGHT SKY®

FLY DRAGON LIGHTING EQUIPMENT CO.,LTD



## LIGHT SKY®

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**LIGHT SKY®**



## Economic AURORA

## USER MANUAL

Please read these user manual carefully before use!

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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.



### ■ 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<sub>e</sub> 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 illum inated 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.

■ **Battery**

This product contains a rechargeable lead-acid battery. To preserve the environment, please dispose the battery at the end of its life according to the regulation in force.



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

- 620W PF0.988

### ● Lamp

- Brand: OSRAM SIRIUS HRI 471W SN
- Lamp power: 470W
- Colour temperature: 7500K
- CCT Light Output: 6300K
- Average life: 1500h

### ● Motors

- 23 ultra-quiet motors

### ● Inputs : DMX512

### ● Channel : 33CH

### ● Color

- 13 colors + white , Bi-direction rainbow effect

### ● CRI : $\geq 90$

### ● Static gobo wheel

- 14 static gobos + white, Bi-direction flow water animation effect

### ● Rotation Gobo Wheel

- 9 rotating Gobos + white, Bi-direction flow water animation effect, The inner diameter of the pattern is 11mm and the outer diameter is 15.9mm

### ● Prism

- 3+1 double prism disc and multiple prism combination effect.

### ● Beam angle :

- Beam Projection 2-21° , Spot Projection 3-42°

### ● Frost

- 1° and 5° two levels of atomization

### ● Focus and Lens

- High precision optical lens , linear adjustment

### ● Strobe

- Double lens strobe(0.5-12times/second)

### ● Dimmer

- 0-100% linear adjustment

### ● X/Y Travel: 540°/265°

### ● X/Y Resolution: 2.11°/0.98°

### ● X/Y Speed: 2.7S/1.6S

### ● Lighting Size (1sets) : 380X300X654MM

### ● Box Size : 490X390X725MM

N.W.: 29.0kg , G.W.: 32.50kg

### ● Flycase Size (2sets): 890X500X850MM

N.W.: 58.00kg , G.W.: 101.00kg

### ● IP set

- Automatic charge battery, IP could be set without electricity.

### ● 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: IP20

### ● 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.

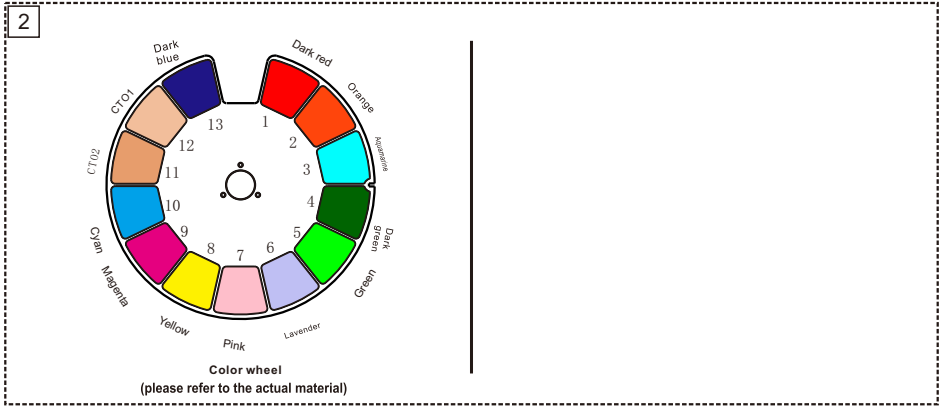
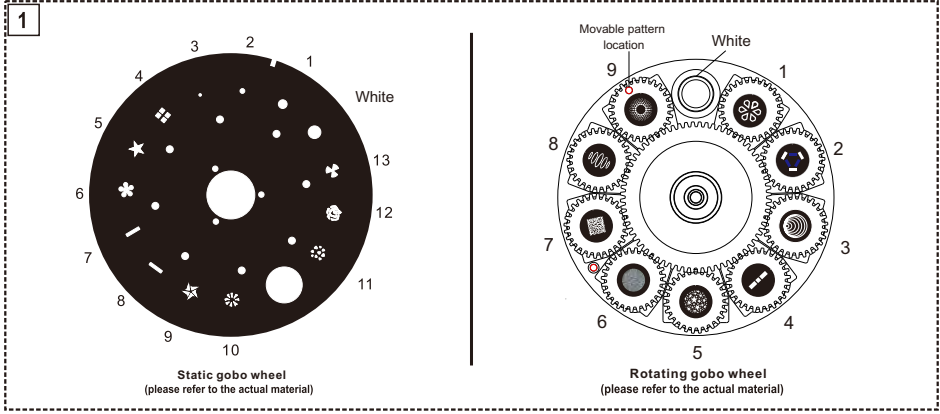
### ● Structure

- Heat-proof plastic+module pressing alloy materials.

- The vertical direction of the use of hidden locking device, convenient transportation and maintenance.

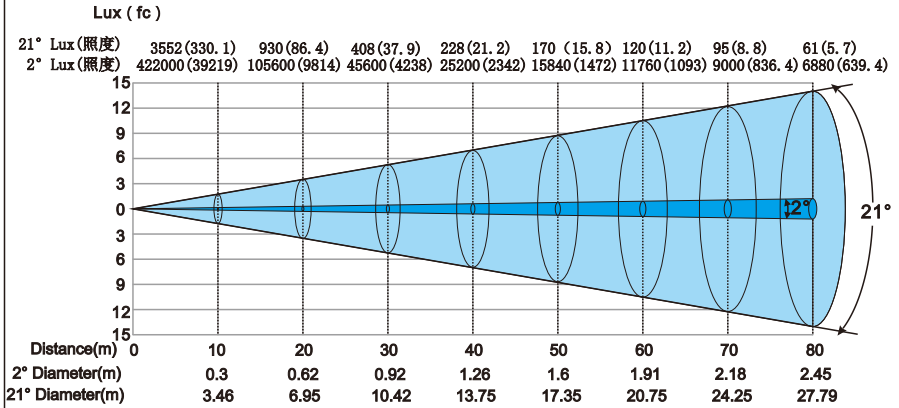
### ● CE Marking

- In conformity with the European Union Low Voltage Directive 2014/35/EU and Electromagnetic compatibility Directive 2014/30/EU.

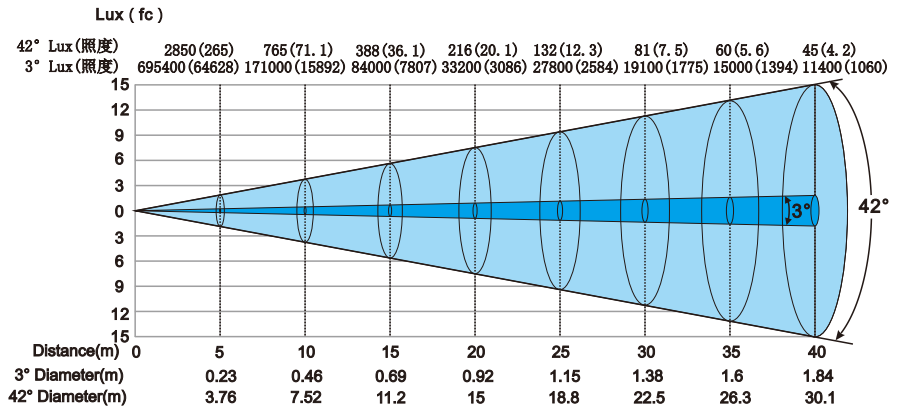


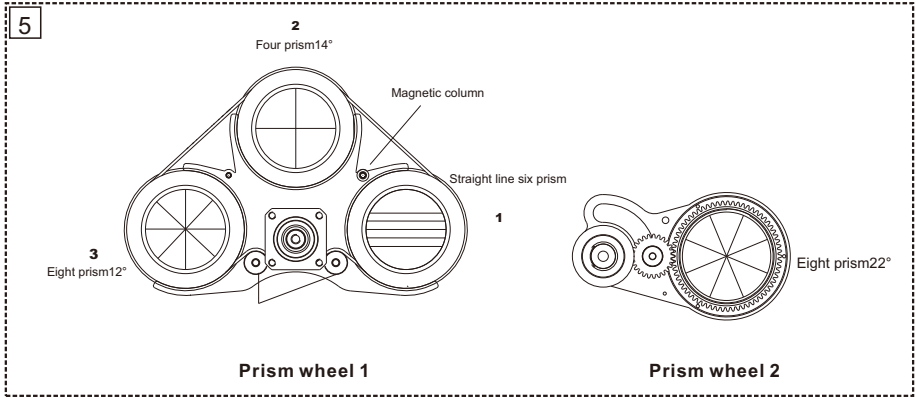
4

distance, spot diameter and illumination diagram (Beam model)

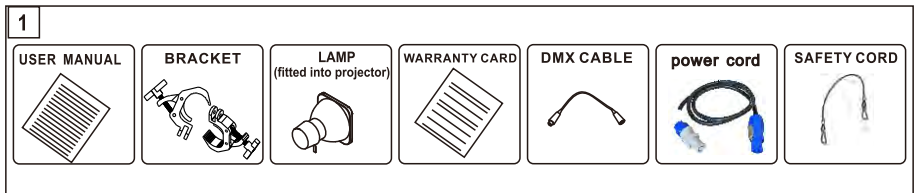


distance, spot diameter and illumination diagram (Spot model)

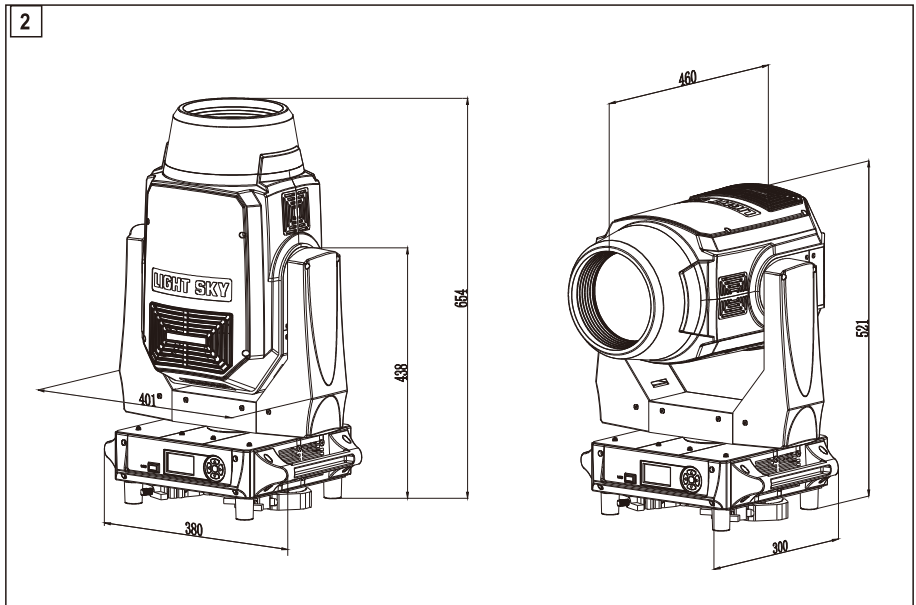




**ATTACHMENT AND BODY SIZE**



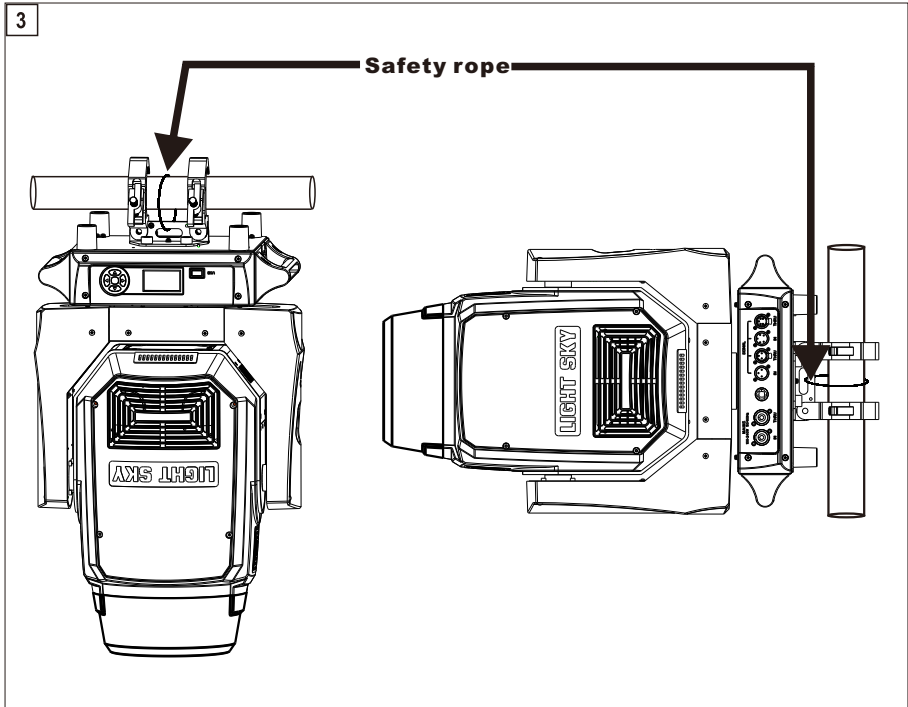
Attachment contents- Fig. 1



Body Size---Fig 2



## INSTALLATION AND CONNECTING



Installing the projector- Fig. 3

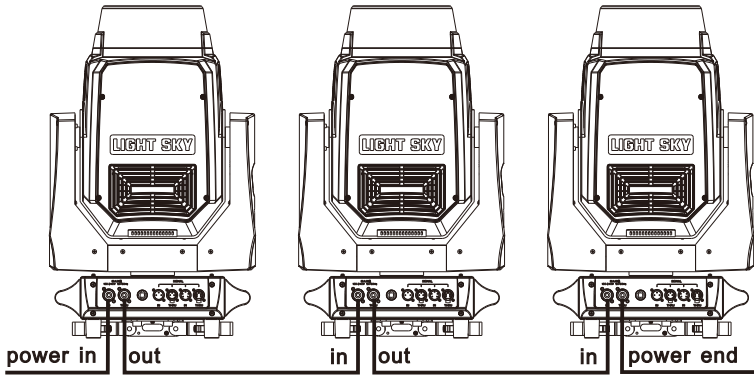
The projector can be installed on the floor resting on special rubber feet, on a truss or on the ceiling or wall.  
**WARNING:**with the exception of when the projector is positioned on the floor, the safety rope must be fitted. This must be securely fixed to the support structure of the projector and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

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

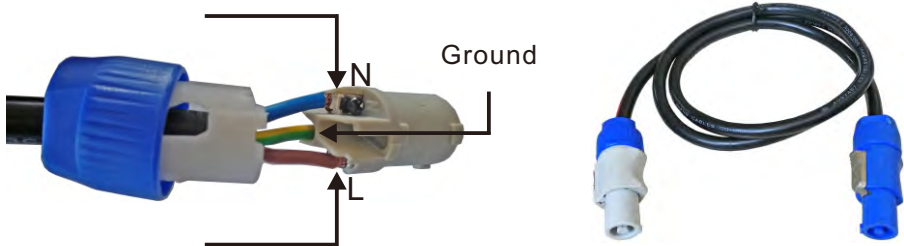
Make sure the point of anchorage is stable before positioning the projector.

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.

4



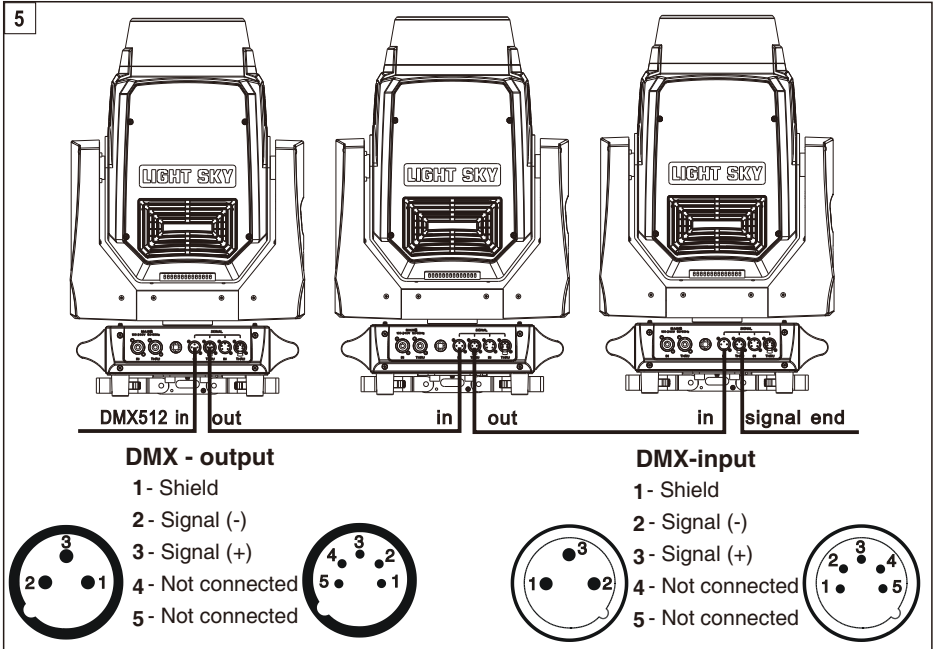
The N terminal is connected with the blue line.



The L terminal is connected with the brown line.

Connecting to the mains supply ---Fig 4

- 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 every -thing is working normally.



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

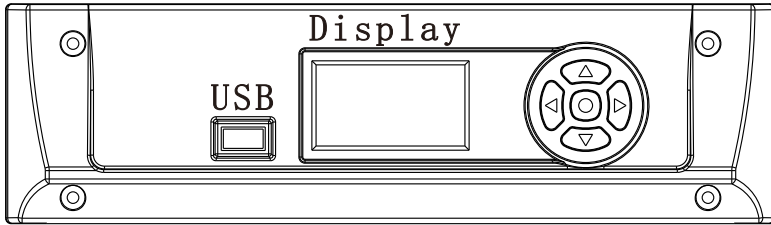
© Please use the round 3 or 5-pin XLR plugs & sockets offered by menu manufacture to connect the first projector's output to the second projector's input and connect the second projector's output to the third projector's input. And in the same way for the rest, eventually connect the last projector's output, all the projectors are together

© The projectors's control signal output or input by using the 3 or 5-pin XLR plug 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-core 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).

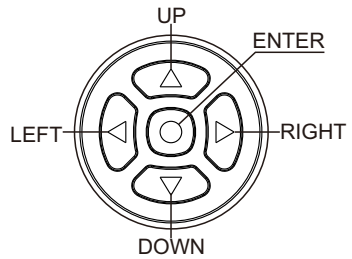
© Recommend to use the DMX signal terminator for the installation to avoid the electronic noise damage the digital control signal. Simply speaking, DMX terminator is an XLR connector with a 120Ω 1/2W resistor connected across pin 2 and 3. Which is then plugged into the output socket on the last projector in the chain. Refer to the connection.

**CONTROL PANEL**

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- Up arrowhead : page up
- Down arrowhead : page down
- Left arrowhead : reduce
- Right arrowhead : increase
- Enter : OK function
- Exit : in the choice screen



- 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)

7



- |              |             |                |                |
|--------------|-------------|----------------|----------------|
| DMX :<br>001 | Information | Personal       | Manual control |
| Service      | Lamp        | Language<br>EN | Reversal       |

**GOBO & BEAM CALIBRATION**

■ **GOBO**

- 1, Distance 2.5M : Focus channel DMX data set as 50, Zoom Channel DMX data set as 50,
- Gobo Position : Display board--Menu-Service - Calibration - Gobo Calibration
- Gobo Focus : Display board -Menu -Service -Calibration -Focus
- Gobo Size : Display board -Menu -Service -Calibration -Zoom

■ **BEAM**

- 1, Focus Channel DMX Data set as 185, Zoom Channel DMX data set as 90,
- Display board--Menu-Service-Calibration-Rotation gobo

**MENU SETTING(V1.0)**

Main menu	I menu	II menu	III menu	
DMX Address/	→ Address/:001- 512			
Information	Total Time [时]	→ Power on: :**** (h)		
		Lamp on: :**** (h)		
	Lamp hours	→ Total :**** (h)		
		Lamp open :**** (h)		
	Temperature	→ E-ballast :000.0		
		TEMP-Boar :000.0		
	RDM UID	→ Undistributed		
	MOTOR UID	→		
	Fan speed/Voltag	→	1. U_Fan :00.0V	
			2. Mid_Fan :00.0V	
			3. L_Fan 3&4:00.0V	
			4. L_Fan 2:00.0V	
			5. L_Fan 1:00.0V	
			6. FAN-1/FAN-1:0000R	
			7. FAN-2/FAN-2:0000R	
			8. FAN-3/FAN-3:0000R	
			9. FAN-4/FAN-4:0000R	
			10. FAN-5:/FAN-5:0000	
			11. U-Fan 1:0000R	
			12. U-Fan 2:0000R	
	→	1. Pan ***		
		2. Pan Fine ***		
		3. Tilt ***		
		4. Tilt Fine ***		
		5. P/T ***		
		6. Functions ***		
		7. Color ***		
		8. Color Fine ***		
		9. Static Gob ***		
		10. Rot Gobo ***		
		11. Gobo Rot ***		
		12. Prism 1 ***		
		13. Prism1 Rot ***		
		14. Prism 2 ***		

Main menu	I menu	II menu	III menu	
	DMX live	→ 15.Prism2 Rot ***		
		→ 16.PrismMacro ***		
		→ 17.Macro Rot ***		
		→ 18.Frost ***		
		→ 19.Zoom ***		
		→ 20.Zoom Fine ***		
		→ 21.Focus ***		
		→ 22.Focus Fine ***		
		→ 23.Focus 2 ***		
		→ 24.AutoFocus ***		
		→ 25.Shutter ***		
		→ 26.Dimmer ***		
		→ 27.DimmerFine ***		
		→ 28.Hotspot ***		
	System version	→ XY Board :V*. **		
		→ Colour B V*. **		
		→ Zoom B V*. **		
		→ Prism B V*. **		
→ DIS Board :V*. **				
Return(ESC)				
Personal/ →	Auto lamp on	→ OFF		
		ON		
	P/T invert	→ Pan invert	→ OFF	
			ON	
		Tilt invert	→ OFF	
			ON	
		Return(ESC)		
	CRI	Standard CRI		
High CRI				
	Language	→ English		
		Chinese		

Main menu	I menu	II menu	III menu
Personal	Display	Backlight	→ Always on Auto off (15s)
		Rotate	→ Normal Rotate 180
		Backlight blink	→ ON OFF
		Return (ESC)	
	Return (ESC)		
Manual control	Channel control	1. Pan/ I***	
		2. Pan Fine ***	
		3. Tilt ***	
		4. Tilt Fine ***	
		5. P/T ***	
		6. Functions ***	
		7. Color ***	
		8. Color Fine ***	
		9. Static Gob ***	
		10. Rot Gobo ***	
		11. Gobo Rot ***	
		12. Prism 1 ***	
		13. Prism1 Rot ***	
		14. Prism 2 ***	
		15. Prism2 Rot ***	
		16. PrismMacro ***	
		17. Macro Rot ***	
		18. Frost ***	
		19. Zoom ***	
		20. Zoom Fine ***	
		21. Focus ***	
		22. Focus Fine ***	
		23. Focus 2 ***	
		24. AutoFocus ***	
		25. Shutter ***	
		26. Dimmer ***	
		27. DimmerFine ***	
		28. Hotspot ***	

Main menu	I menu	II menu	III menu
	Reset	Return(ESC)	
		System reset	
		Pan/Tilt	
		Gobo reset	
		Color reset	
		Dimmer reset	
		Zoom reset	
		Effect reset	
		Return(ESC)	
	Test	Test P/T	→ STEP *** ***
		Test effect	→ STEP *** ***
		Test all	→ STEP *** ***
		Return(ESC)	
	Return(ESC)		
	Service	Error list	→
Clean error		→ Keep	
		→ Clean	
→ Calibration		Pan 000-255	
		Tilt 000-255	
		Dimmer -255 000	
		Effect 000-255	
		Focus 000-255	
		Zoom 000-255	
		Color 000-255	
		Gobo 000-255	
		Frost 1 000-255	
		Frost 2 000-255	
		Rot Gobo 000-255	
Prism 1 000-255			
Prism 2 000-255			
Cyan 000*255			



Main menu	I menu	II menu	III menu		
Service		Magenta 000*255			
		Yellow 000*255			
		Return(ESC)			
	Factory	Load default			
		Reset timers		Power on time Lights on time	
		Developer	Firmware update	Upgrade word stock	
				LOGO choose	
				upgrade LOGO	
				TotalTime (ESC)	
		Return(ESC)			
		return (ESC)			
Lamp	Off				
	On				
Language	English				
	Chinese				
Reversal	Normal				
	Rota. 180				

**CHANNEL FUNCTION(V1.0)**

Channel	DMX	Percentage	Function	Note
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			Pan/Tilt speed , Pan/Tilt time	
	0		Standard mode (0=default)	
	1		Max. Speed Mode	
	2-255		Speed from max. to min.	
6			Power/Special functions	
	0-9		Reserved (0=default)	
	10-14		Reserved	
	15-19		Reserved	
			* function is active only10 seconds after switching the fixture on	
	20-24		LCD display On	
	25-29		LCD display Off	
	30-34		High CRI (CRI=90+)	
	35-39		Standard CRI (CRI=80)	
	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		

Channel	DMX	Percentage	Function	Note
	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	
7	0-255	0-100	Colour wheel	
			Continual positioning	
	0		Open/white (0=default)	
	9		Deep Red	
	18		Orange	
	27		Aquamarine	
	37		Dark green	
	46		Light green	
	55		Lavender	
	64		Pink	
	73		Yellow	
	82		Magenta	
	91		Cyan	
	101		CTO 3200K CTO 2	
	110		CTO 2700K CTO 1	
	119		Dark blue	
	128-129		White	
			Positioning	
	130-134		Deep Red	
	135-138		Orange	
139-143		Aquamarine		
144-147		Dark green		
148-152		Light green		
153-157		Lavender		

Channel	DMX	Percentage	Function	Note
	158-161		Pink	
	162-166		Yellow	
	167-171		Magenta	
	172-176		Cyan	
	177-180		CTO 3200K CTO 2	
	181-185		CTO 2700K CTO 1	
	186-189		Dark blue	
	190-215		Forwards rainbow effect from fast to slow	
	216-217		No rotation	
	218-243		Backwards rainbow effect from slow to fast	
	244-249		random colour selection	
	250-255		Auto random colour selection from fast to slow	
8			Colour wheel - fine positioning	
	0-255		Fine positioning (0=default)	
9			Staticgobo wheel	
	0-3		Open/Hole (0=default)	
			Positioning	
	4-9		Beam reducer 1	
	10-15		Beam reducer 2	
	16-21		Beam reducer 3	
	22-27		Beam reducer 4	
	28-33		Gobo 1	
	34-39		Gobo 2	
	40-45		Gobo 3	
	46-51		Gobo 4	
	52-57		Gobo 5	
	58-63		Gobo 6	
	64-69		Gobo 7	
	70-75		Gobo 8	
	76-81		Gobo 9	
	82-87		Gobo 10	
			Shaking gobos from slow to fast	
	88-95		Beam reducer 1	
96-103		Beam reducer 2		
104-111		Beam reducer 3		
112-119		Beam reducer 4		

Channel	DMX	Percentage	Function	Note
	120-127		Gobo 1	
	128-135		Gobo 2	
	136-143		Gobo 3	
	144-151		Gobo 4	
	152-159		Gobo 5	
	160-167		Gobo 6	
	168-175		Gobo 7	
	176-183		Gobo 8	
	184-191		Gobo 9	
	192-199		Gobo 10	
	200-201		Open/hole	
	202-222		Forwards gobo wheel rotation from fast to slow	
	223-228		No rotation	
	229-249		Backwards gobo wheel rotation from slow to fast	
	250-255		Auto random gobo selection from fast to slow	
10			Rotating gobo wheel	
			Index -set indexing on channel 16	
		0	Open/Hole (0=default)	
		1-4	Hole (flatfield)	
		5-16	Gobo 1	
		17-28	Gobo 2	
		29-40	Gobo 3	
		41-52	Gobo 4	
		53-64	Gobo 5	
		65-76	Gobo 6	
		77-88	Gobo 7	
		89-100	Gobo 8	
		101-112	Gobo 9	
			Shaking gobo from slow to fast	
			Index-on set indexing 11 channel	
		113-124	Gobo 1	
		125-136	Gobo 2	
		137-148	Gobo 3	
		149-160	Gobo 4	
		161-172	Gobo 5	
		173-184	Gobo 6	
		185-196	Gobo 7	
		197-208	Gobo 8	
		209-220	Gobo 9	
		221-249	Open/hole	
	250-255		Auto random gobo selection from fast to slow	

Channel	DMX	Percentage	Function	Note
11			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	
12			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 13	
	4-15		Prism 1-8-facet 12° circular	
	16-27		Prism 2-4-facet 12° circular	
	28-39		Prism 3-6-facet linear	
			Rotation -set rotation on channel 13	
	40-51		Prism 1-8-facet 12° circular	
	52-63		Prism 2-cylindrical	
64-75		Prism 3-6 - facet linear		
76-255		Raw DMX		
13			Prism wheel 1 indexing/rotation	
			Prism indexing-set position on channel 12	
	0-255		Prism 1 indexing	
			Prism 1 rotation set position on channel 12	
	0		No rotation	
	1-127		Forwards prism rotation from fast to slow	
	128		No rotation (128=default)	
129-255		Backwards prism rotation from slow to fast		
14			Prism wheel 2	
	0-3		Open position/hole (0=default)	
			Index-set indexing on channel 15	
	4-15		Prism -8-facet 18° circular	
			Rotation-set rotation on channel 15	
	16-27		Prism -8-facet 18° circular	
28-255		Raw DMX		
15			Prism wheel 2 indexing/rotation	
			Prism indexing -set position on channel 14	
	0-255		Prism indexing	
			Prism rotation - set position on channel 14	
	0		No rotation	
	1-127		Forwards prism rotation from fast to slow	
	128		No rotation (128=default)	
129-255		Backwards prism rotation from slow to fast		

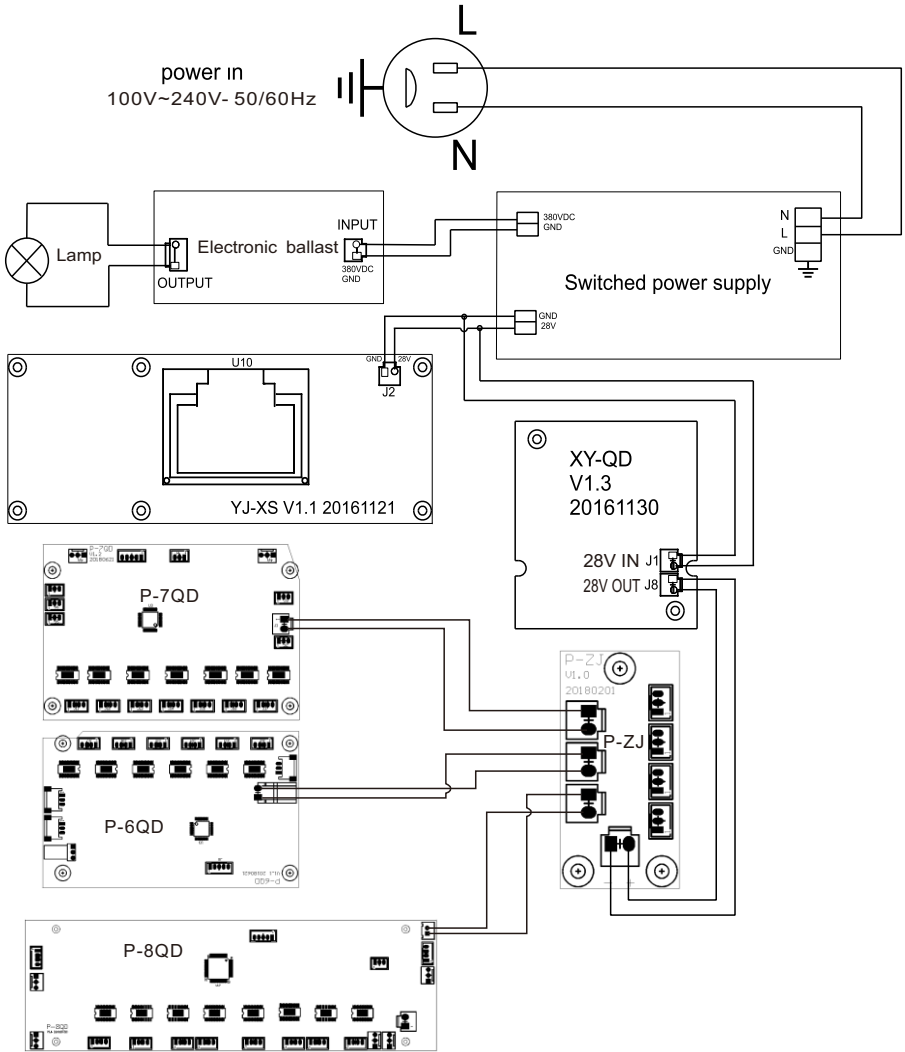
Channel	DMX	Percentage	Function	Note
16			Pattern selection	
		0-3	Open position/hole(0=default)	
			Index -set indexing on channel 17	
		4-14	Prism macro Index 1	
		15-25	Prism macro Index 2	
		26-36	Prism macro Index 3	
		37-47	Prism macro Index 4	
		48-58	Prism macro Index 5	
		59-69	Prism macro Index 6	
		70-80	Prism macro Index 7	
			Rotation -set rotation on channel 17	
		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		
17			Pattern rotation and indexing	
			The channels are blocked: Prism Wheel 1/2	
			Pattern indexing -set position on channel 16	
		0 -255	Pattern indexing	
			Pattern rotation -set position on channel 16	
		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		
			Frost	
		0	Open (0=default)	
			Light Frost	
			Max. time of Light Frost movement 0 →100% (100% →0) is 10 sec.	
		1-50	Light Frost from 0% to 100%	
		51-53	100% Light Frost	
	54-63	Pulse closing from slow to fast		

Channel	DMX	Percentage	Function	Note
18	64-73		Pulse opening from fasttoslow	
	74-83		Ramping from fasttoslow	
	84-86		Open	
			Medium Frost	
			Max. time of Medium frost movement 0 →100% (100% →0) is10 sec.	
	87-136		Medium Frostfrom 0% to100%	
	137-139		100% Medium Frost	
	140-149		Pulse closing from slow tofast	
	150-159		Pulse opening from fasttoslow	
	160-169		Ramping from fasttoslow	
	170-172		Open	
			Frost Combined	
			Max. time of Medium frostmovement 0 →100% (100% →0) is10 sec.	
		173-222		Medium Frostfrom 0% to100% (Light Frost inserted)
	223-225		100% Medium Frost (Light Frost inserted)	
	226-235		Pulse closing from slow tofast (both frosts together)	
	236-245		Pulse opening from fasttoslow (both frosts together)	
	246-255		Ramping from fasttoslow (both frosts together)	
19			Zoom	
	0-255		Zoom from max. to min. beam angle (128=default)	
20			Zoom - fine	
	0-255		Fine zooming (0=default)	
21			Focus	
	0-255		Continuous adjustment from far to near (128=default)	
22			Focus Fine	
	0-255		Fine focusing (0=default)	
23			Focus2 AutoFocus on channel 24	
	0-255		AutoFocus	
24			Autofocus (priority&distance selection)	
			Select desired distance and effect on which you need to focus and use "Focus2" channel 23 (28) to focus the image.	
	0-15	0-5.69	Autofocus Off	
	16-55	5.69-21.37	10 metres	
	56-95	21.37-37.06	15 metres	
	96-135	37.06-52.75	20 metres	
	136-175	52.75-68.43	30 metres	
	176-215	68.43-84.12	40 metres	
	216-255	84.12-100	50 metres	



Channel	DMX	Percentage	Function	Note
25			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	
	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	
26			Dimmer intensity	
	0 -255		Dimmer intensity from 0% to 100% (0=default)	
27			Dimmer intensity -fine	
	0 -255		Fine dimming (0=default)	
28	0 -255		Hotspot control	
			Hotspot control	

**CIRCUIT CONNECTING DIAGRAM**



## 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 maintenace 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 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 unsoluted 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 separ -ately .
- ⊙ Add the signal amplify isolator.
- ⊙ Signal cable is used the excellent screening doublet (Resistance  $75 \Omega$  )
- ⊙ 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.