PRESTIGE

LED LIGHTING

RAY 7R MOVING BEAM

USER MANUAL

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1. SUMMARY

Thank you for purchasing our Ray 7R Moving Beam. Please read these instructions carefully before operating the system to avoid any possible damage or misuse.

PRODUCT INTRODUCTION

The Ray 7R Moving Beam is an ultra-quiet product that encompasses advanced stage light technology which is smart, efficient, and smooth to operate. It has internationally advanced electronic control technology and an intuitive industrial design.

CONTENT LIST

- Ray 7R Moving Beam (x1)
- User Manual (x1)
- Drawbridge (x1)
- Signal Line (x1)
- Power cord (x1)
- Bulb (x1)

2. SAFETY INFORMATION

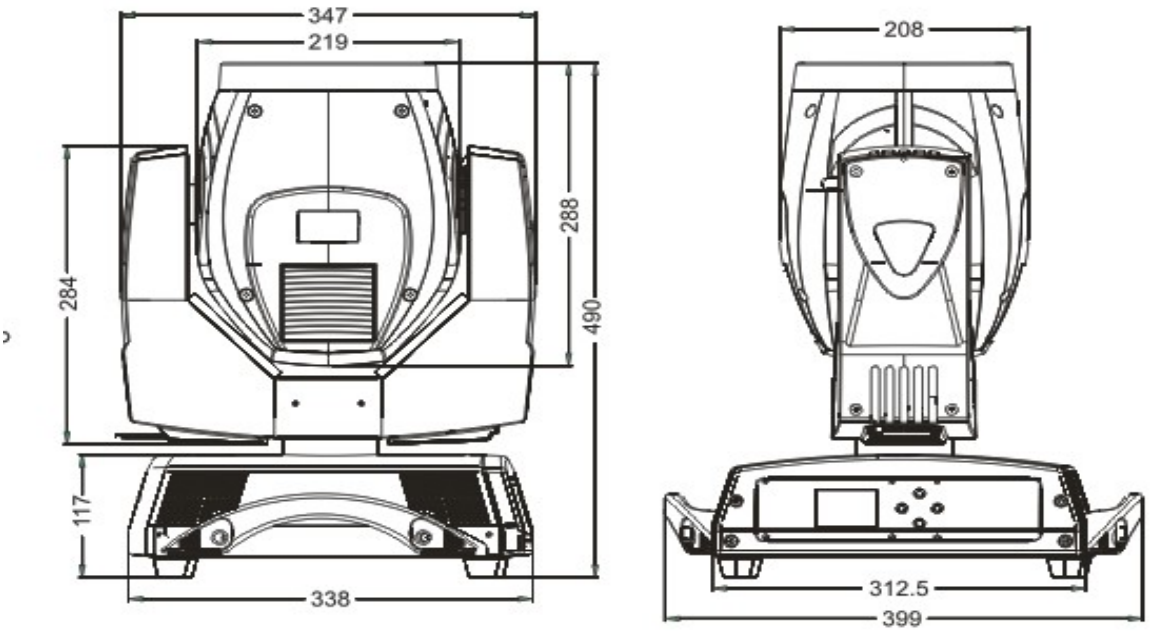
SAFETY NOTES

Seek advice from a professional prior to authoring any repairs
Always ensure the system is disconnected from the power source before assembling, deconstructing and moving
Avoid direct eye exposure when in use

SAFETY INSTRUCTIONS

- The projector needs to be positioned so that the projection surface is at least 12 meters away from the lens of the projector.
- The projector must be positioned so that it is at least 0.2 metres away from flammable objects. Do NOT mount the fixture on flammable surfaces.
- Do not operate the projector if the ambient temperature exceeds 40° C
- This fitting has an IP20 protection rating; it is not waterproof.
- The projector must be connected to a power supply system fitted with an efficient earthing line (Class I appliance according to standard EN 60598-1)
- A qualified electrical installer is required to connect the projector to the main electrical source.
- Ensure that the main frequency and voltage of the power source corresponds with projector (according to the electrical data label)
- The maximum temperature that can be reached on the external surface of the fitting in a thermally steady state is 100° C
- Before starting any maintenance work or cleaning the projector, disconnect from the main power supply.
- After switching off, do not remove any parts of the fitting for at least 35 minutes to avoid getting burnt.
- 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.
- Carefully read the 'operating instructions' provided by the lamp manufacturer before operating the lamp. Immediately replace the lamp if it is damaged or deformed.
- The products referred to in this manual conform to the European Community Directives to which they are:
- Low Voltage 2006/95/CE
- Electromagnetic Compatibility 2004/08/CE

3. PRODUCT DIAGRAM



4. FEATURES

- Channel mode: 17 international standard DMX512 channels
- Scanning: A wide range of high-speed scanners, including a Horizontal scanner (540°) and aVertical scanner (270°), each with a 16 bit scanning accuracy. It is both smooth and precise, and the scanning speed is adjustable.
- Color wheel: 14 color film + white light;
- Gobo wheel: 17 fixed gobos + white circle;
- Prism wheel: includes an eight-prism, and can rotate in both a positive and negative direction with 16 macro functions;
- Dimming :0%~100% Linear dimming;

- Focusing :Electronic zoom, Advanced Micro Devices, smooth adjustment of focal distance;
- Atomization: 0%~100% Linear adjustment of atomization effect;
- LCD panel with blue and white which makes it clear and easy to read the content displayed;

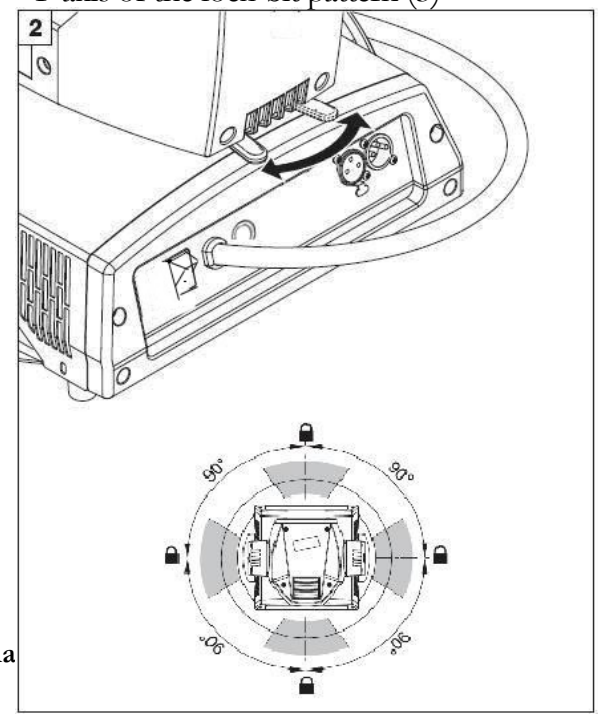
INSTALLATION

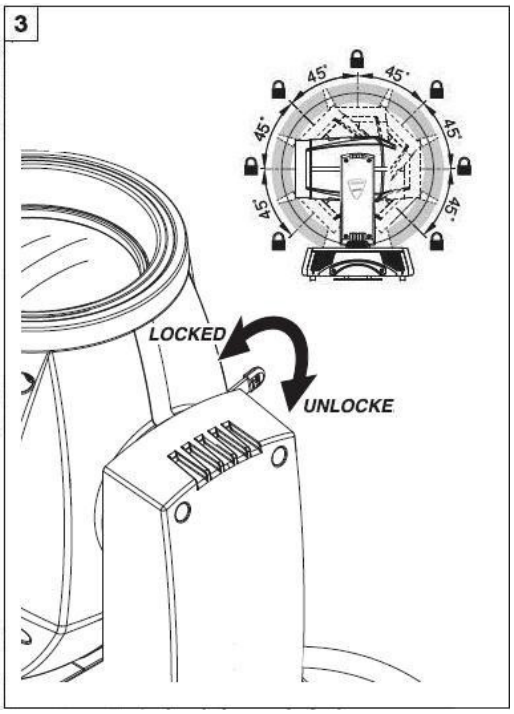
SAFETY

- This fixture requires professional installation. Please note that the customer takes full responsibility for the installation of this fixture.
- Ensure all parts of the fixture are in good condition before installing.
- Ensure 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, so that if the primary support system fails, the fitting falls as little as possible.

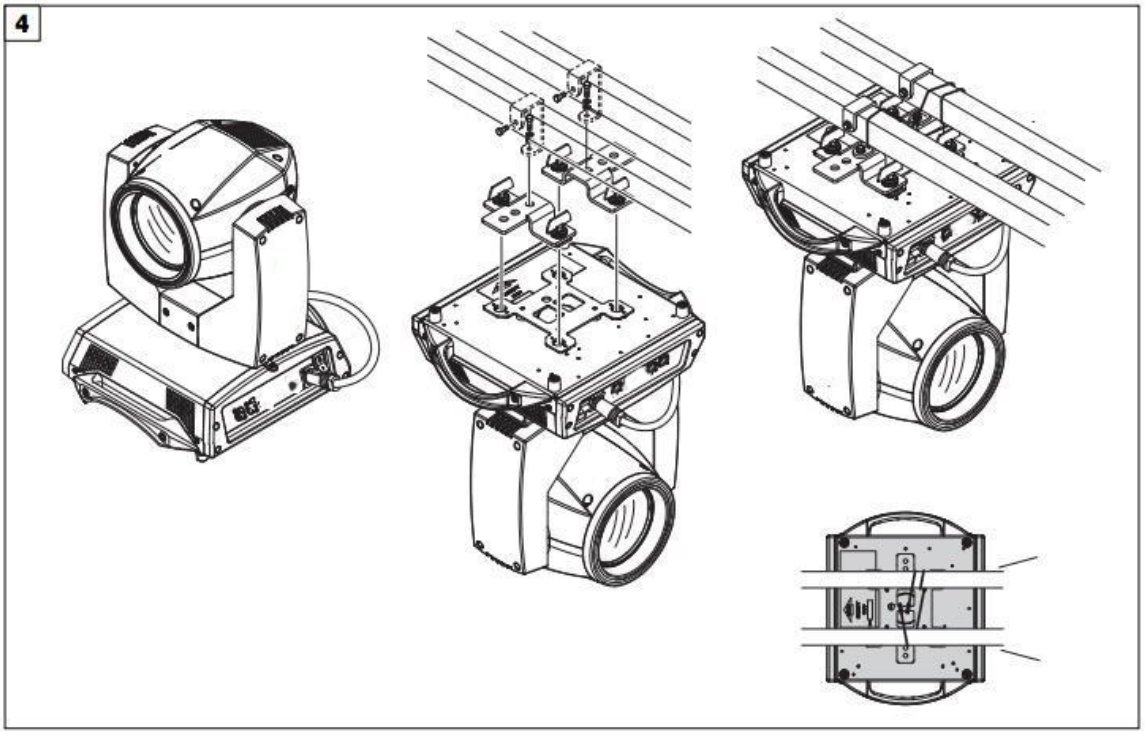
EQUIPMENT MOUNTING BRACKET INSTALLATION

There are transport protection locks on the X and Y axis to facilitate installation and removal.
The specific method is as shown below.
X-axis of the lock-bit pattern (2)
Y-axis of the lock-bit pattern (3)





The lights can be placed on the ground or installed on a truss or on the ceiling/wall.



Caution:

1. Before installation, ensure the clamps and drawbridges and ceiling/truss are good enough to withstand 10 time the weight of the equipment and other accessories
2. Fasten the clamps and drawbridge with the M12 screw and nuts.
3. Secure the drawbridge to the light base by screwing the fastener clockwise.
4. If the truss can go up and down, the device can be directly clamped from the flight box. When the equipment is lifted up, place the obstacles underneath the work area.
5. Secure the fixture with a safety rope and ensure that it can withstand 10 time the weight of the lamp.
6. Verify that is nothing combustible within 1 meter of the fixture
7. Unlock the protection lock after the installation to avoid damaging the fixture

DEVICE POWER

Fuse:

Power supply	Fuse
200-250V	5A (main fuse)
100-120V	7A （main fuse）

Power Connector:
The electrical professional must be qualified to connect the power for the fixture. Confirm the power voltage requirement with the power marked on the lamp. Ensure it has overload and leakage protection

Caution: Connect the equipment to the power supply directly. Do not connect to the silicon box color system, otherwise it may damage the device. The power line must have a standard 3-pin plug and socket, in which the yellow/green line can be connected to the ground. If in doubt, consult a qualified electrician

Power supply color	Brown	Blue	Yellow and green
plug	Fire wire	The zero line	Ground line
mark	L	N	⏚

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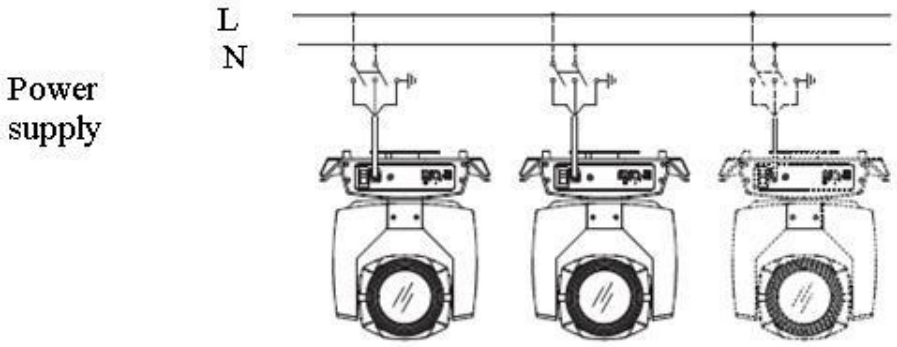


LIGHT BULB INSTRUCTIONS

□ Philips 189W bulb □ Osram 230W bulb □ Philips 260W bulb

Caution: Installing any other types of bulbs may cause potential safety hazard and equipment damage. In order to reduce the risk of lamp damage, change the bulb before the light bulb exceeds 125% of its lifespan.

Caution: When changing the bulb, handle it with care. Do not touch the surface of the bulb to avoid oil contamination. Bulbs must be kept clean. To clean the bulb, use the paper provided. Bulb leading wires must be inserted securely. Contact of terminal can damage bulbs. Ensure bulbs are in place and cooling fan wires are correctly positioned. Routing wires shouldn't block the fan blade or window otherwise it will affect the bulb's cooling effect.

1. Disconnect the power supply and let the lamps cool down. Position the lamp head horizontally with the Y-axle locked.

2. Screw off the four cross screws of the 4*12 type on the top.

3. Screw off the three wires of the speed fan of 80*80 type.

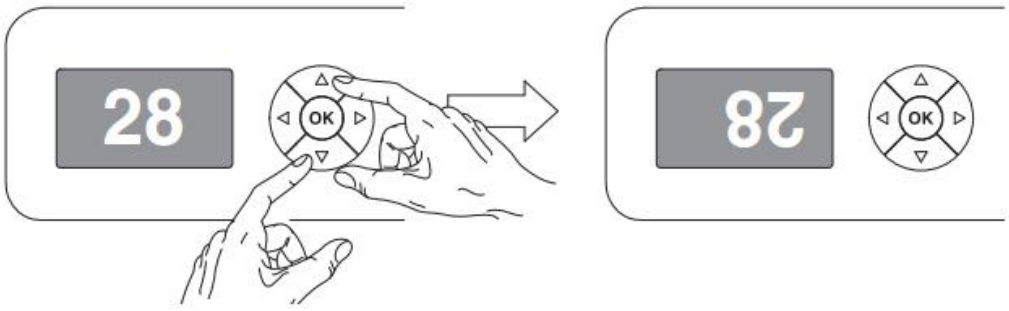
4. Screw off connection plug of the bulb, then change the bulb.

OPERATING AND CONTROL METHODS

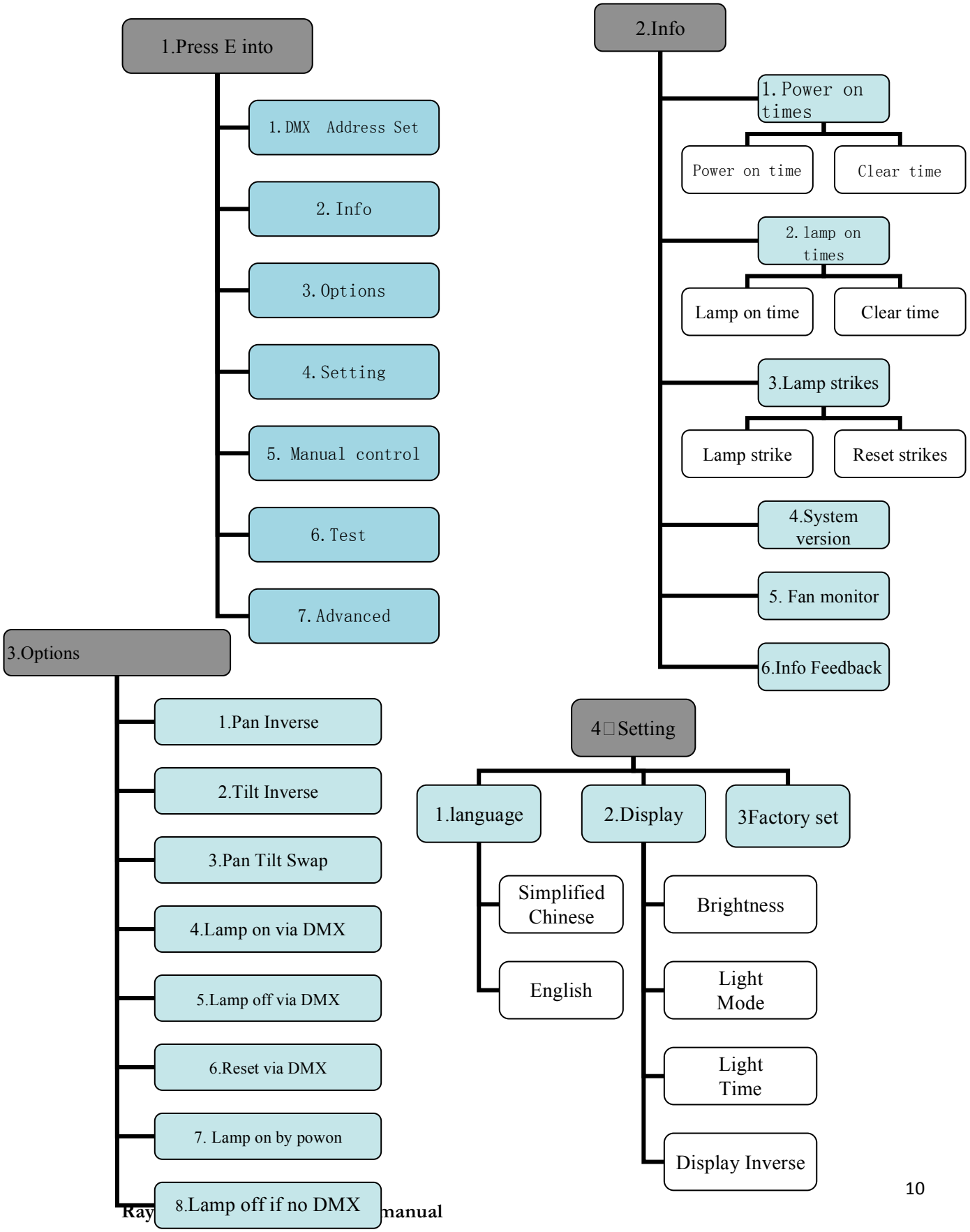
CONTROL PANEL INSTRUCTIONS

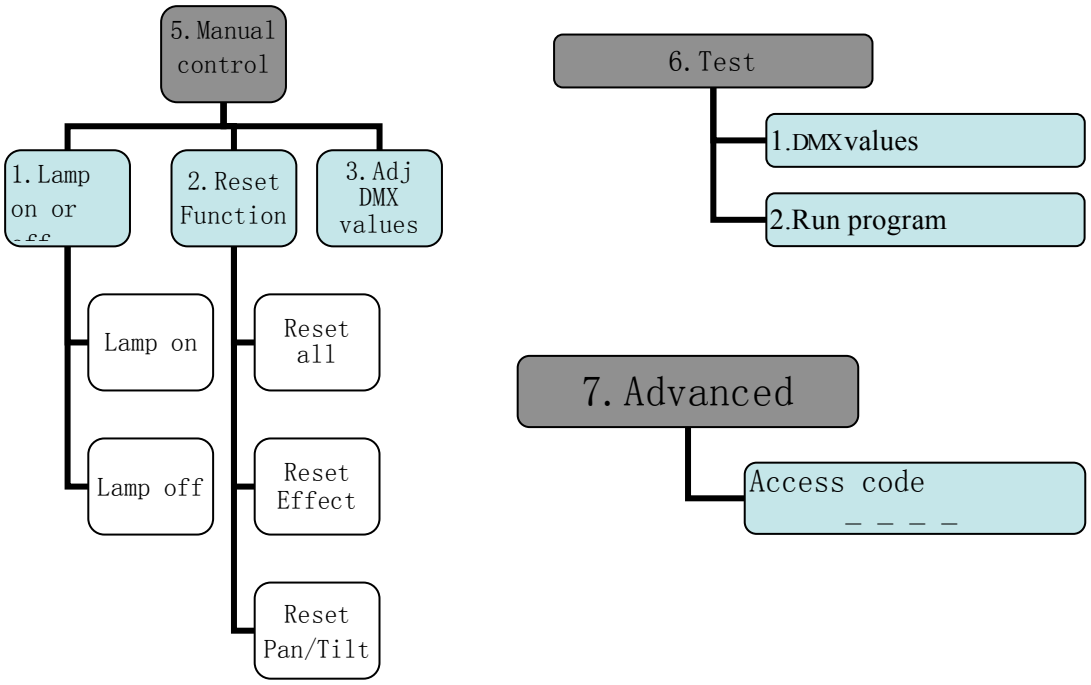
SELECT (S)	If in setting menu: Return to Previous Level without change (exit from the function).
DOWN	Reduce the value shown or continue to the next item. When setting parameters, keep holding the DOWN key to reduce the parameters rapidly.
UP	Increase the value shown or continue to the previous item. When setting parameters, keep holding the UP key to increase the parameter rapidly .
ENTER (E)	Enter into the setting menu whilst on standby, enter into the next menu or confirm and save the parameter. If you don't press the key, all the settings will not be saved.

Pressing the DOWN and UP keys simultaneously while the display is in the rest mode can activate the display reversal function. This is convenient whilst the fixture is hanging upside down! Please note that when upside down, the S and E function key will be opposite.



CONTROL PANEL MENU FUNCTIONS:




5. Manual control
1. Lamp on or off
2. Reset Function
3. Adj DMX values
Lamp on
Lamp off
Reset all
Reset Effect
Reset Pan/Tilt
6. Test
1. DMX values
2. Run program
7. Advanced
Access code
_ _ _ _

THE CONTROL PANEL:

Level 1 menu	Level 2 menu	Level 3 menu	Introductions
DMX Address Set	DMX address Set		Set DMX Address Code for the light
Info	Power on times	Power on times	Enter and see conduction time
		Clear times	Reset device conduction time
	Lamp on times	Lamp on times	Display bulb lighting time
		Clear time	Reset bulb lighting time
	Lamp strikes	Lamp strike	Display Bulb strike information
		Reset strikes	Reset strike number
	System version	Disp Board 1.50 Pan Tilt 1.50 8ch Board 1.50	Display version information
	Fan Monitor	Fan Speed (RPM) Lamp fan 1 **** Lamp fan 2****	Display the speed of bulb fan (Turn off the bulb when speed is abnormal to avoid breaking the bulb because of poor cooling) .reference value:Fan 1 : 4500-5500r Fan 2 : 3200-4000r
Options	Pan Inverse	ON/OFF	According to the scene choose the horizontal scan direction
	Tilt Inverse	ON/OFF	According to the scene choose the vertical scan direction
	Pan Tilt Swap	ON/OFF	Choose the lamp horizontal and vertical control exchange (For hanging lamps)
	Lamp on via DMX	ON /OFF	Choose to use the control table to open the bulb
	Lamp off	ON /OFF	Choose to use the control

	via DMX		table to close the bulb
	Reset via DMX	ON /OFF	Choose to use the control table to reset the equipment
	Lamp on by Power on	ON/OFF	Choose to power the light bulb automatically
	Lamp off if no DMX	ON/OFF	Choose to automatically turn off the bulb (if not using DMX)
Setting	Language	Simplified Chinese / English	Switch between Chinese or English
	Display	Brightness	Adjust LCD backlight brightness (automatically 100) .(Changeable values:5-100)
		Light Mode	Choose the light mode
		Light time	Screen lighting time (automatically 20s) (Changeable values 5-60s.)
		Inversion	Display inversion ON/OFF
	Factory reset	Cancel /Confirm	Factory reset
Manual control	Lamp on or off	Lamp on or off	Turn on or turn off
	Reset function	Reset all	Reset the entire light
		Reset Effect	After resetting all, select particular reset (eg. color、gobo、strobe、lens) reset
		Reset Pan/Tilt	After resetting all, select horizontal or vertical parts reset
	Adj DMX value		
Test	Display DMX value		After resetting all, display current DMX channel value
	Run Program		
Advanced	Access Code ____	Motor correction	Correct stepper motor site to bring out the full potential of the equipment (the function is suitable for persons familiar with stage

			light equipment)

FUNCTION TABLE OF DMX CONTROL CHANNEL

CH1 color wheel	DMX value	Effects	Attribute
	128——255	Clockwise rotate color wheel Slow ->Fast	Linearity
	124	Blue +White	Single step
	120	Blue	Single step
	116	CTB8000+Blue	Single step
	111	CTB8000	Single step
	107	CTO190+CTB8000	Single step
	103	CTO190	Single step
	99	CTO260+ CTO190	Single step
	94	CTO260	Single step
	90	Blue-green + CTO260	Single step
	86	Blue-green	Single step
	82	Purple +Blue-green	Single step
	77	Purple	Single step
	73	Yellow +Purple	Single step
	69	Yellow	Single step
	64	Pink +Yellow	Single step
	60	Pink	Single step
	56	Lavender +Pink	Single step
	52	Lavender	Single step
	47	Bright green +Lavender	Single step
	43	Bright green	Single step
	39	Green +Bright green	Single step
	35	Green	Single step
	30	Blue-green +Green	Single step
	26	Blue-green	Single step
	22	Orange +Blue–green	Single step
	18	Orange	Single step
	13	Red +Orange	Single step
	9	Red	Single step
	5	White +Red	Single step
	0	White	Single step
CH2 strobe	DMX VALUE	Effect	attribute
	250-255	Turn on	Single step
	240-249	Random strobe,fast–slow	Single step
	230-239	Random strobe,medium speed	Single step
	220-229	Random strobe,slow speed	Single step
	210-219	Effect 2	Single step
	200-209	Effect 1	Single step
	192-199	Turn on	Single step
	167-191	Strobe(quick close)fast->slow	Linear
	161-166	Turn on	Single step
	136-160	Strobe(quick start)fast->slow	Linear
	128-135	Turn on	Single step
	72-127	Symmetry strobe slow->fast	Linear
	64-71	Turn on	Single step

CH4 Fixed Gobo	DMX Value	Effect	Attribute
	250—255	Gobo 16 shake Slow ->Fast	Linearity
	249—244	Gobo 15 shake Slow ->Fast	Linearity
	237—243	Gobo 14 shake Slow ->Fast	Linearity
	231—236	Gobo 13 shake Slow ->Fast	Linearity
	224—230	Gobo 12 shake Slow ->Fast	Linearity
	218—223	Gobo 11 shake Slow ->Fast	Linearity
	212—217	Gobo 10 shake Slow ->Fast	Linearity
	205—211	Gobo 9 shake Slow ->Fast	Linearity
	199—204	Gobo 8 shake Slow ->Fast	Linearity
	192—198	Gobo 7 shake Slow ->Fast	Linearity
	186—191	Gobo 6 shake Slow ->Fast	Linearity
	180—185	Gobo 5 shake Slow ->Fast	Linearity
	173—179	Gobo 4 shake Slow ->Fast	Linearity
	167—172	Gobo 3 shake Slow ->Fast	Linearity
	160—166	Gobo 2 shake Slow ->Fast	Linearity
	118—159	Gobo clockwise rotate Slow ->Fast	Linearity
	114-117	Stop	Single-step
	72—113	Gobo anticlockwise rotate Fast->Slow	Linearity
	68-71	Gobo17	Single-step
	64-67	Gobo16	Single-step
	60-63	Gobo15	Single-step
	56-59	Gobo14	Single-step
	52-55	Gobo13	Single-step
	48-51	Gobo13	Single-step
	44-47	Gobo11	Single-step
	40-43	Gobo10	Single-step
	36-39	Gobo9	Single-step
	32-35	Gobo8	Single-step
	28-31	Gobo7	Single-step
	24-27	Gobo6	Single-step
	20-23	Gobo5	Single-step
	16-19	Gobo4	Single-step
	12-15	Gobo3	Single-step
	8-11	Gobo2	Single-step
	4-7	Gobo 1	Single-step
	0-3	White	Single-step
CH5 Prism load	DMX Value	Effect	Attribute
	128—255		Single-step
	0—127		Single-step

	8-63	Strobe slow->fast	Linear
	2-7	Turn on	Single step
	1-0	Turn off	Single step
CH3 Dimmer	DMX value	Effect	Attribute
	0—255	↑Rays bright ->dim	Linearity

CH6 Prism Rotation	DMX Value	Effect	Attribute
	193—255 191—192 128—190 0—127	Clockwise Rotation, Slow ->Fast Stop Anticlockwise ,Rotation, Fast->Slow 0°->540°	Linearity Single-step Linearity Linearity
CH7 Effect Movement	DMX Value	Effect	Attribute
	0—255		Linearity
CH8 Atomization	DMX Value	Effect	Attribute
	0—255	Atomization white ->full	Linearity
CH9 ZOOM	DMX Value	Effect	Attribute
	0-255	ZOOM near->far	Linearity
Explanation： CH10 Each unit adjust angle 2.12°			
CH10 X axle movement	DMX value	Effect	Attribute
	0—255	X axle movement 0°—540°	Linearity
Explanation： CH11 Each unit adjust angle 0.008°			
CH11 X axle fine adjustment	DMX Value	Effect	Attribute
	0—255	X axle Micro rotation 0°—2.12°	Linearity
Explanation： CH11 Each unit adjust angle 0.98°			
CH12 Y axle Movement	DMX Value	Effect	Attribute
	0—255	Y axle rotation 0°—540	Linearity
Explanation： CH13 Each unit adjust angle 0.004°			
CH13 Y axle fine adjustment	DMX value	Effect	Attribute
	0—255	Y axle fine tuning 0°—0.98°	Linearity
CH 14 macro function	DMX value	Effect	Attribute
CH15 Reset	DMX value	Effect	Attribute
	128—255 77—127 26—76 0—25	The complete machine reset XY axles reset Effective parts reset （color 、 Gobo 、 Lens, etc. ） Free	single step delay 5seconds single step delay 5seconds single step delay 5seconds
CH16 Bulb switch	DMX value	Effect	Attribute
	101—255 26—100 0—25	Turn on Turn off Free	single step delay 5seconds single step delay 5seconds
CH17 The speed of XY axle	DMX value	Effect	Attribute
	251-255 1-250 0	The Fastest Speed Linear reduction The Fastest	Linearity Linearity Linearity

Routine Maintence
Routine maintenance is vital for the operation of the equipment. The life span can be maintained and extended if regularly maintenance checks take place.

Caution: Switch off the power supply before opening/disassembling the fixture.

1. Clean the optical parts
The optical parts should be wiped gently as there is a coating on the surface which can be scraped easily. Solvent must not be applied as if can cause damage to the plastic and coating surfaces.
Cleaning steps:

Turn off the power supply and allow to cool.
Blow away any dust and floats with vacuum or blower.
Wipe off the graininess with odorless tissue or cotton saturated with rinsing or distilled water. Do not wipe surface.
Wipe off the dust with cotton soaked in propanol, odorless tissue or glass cleaner.

Residue dust must be wiped off with distilled water then scrubbed clean with soft cotton.

2. Clean the fan and air hole
Overheating the equipment is caused by a blockage in the fan air hole, and can lead to operation failure.
Wipe off dust stuck in the fan and air hole with a soft brush, cotton, vacuum or blower.

3. Cleaning regularly
Wipe off the dust from the light body, lens, reflector, inside and PCB regularly.
Tighten pendent parts, swing and twirling nuts regularly
Add lubricant to the rolling part regularly
Check the working motor wires and connecting wires regularly.

4. Gobo plate swabbing
In order to keep the gobo plate swirling continually and freely, swabbing should be done every six months with lubricant. Do not overuse the lubricant to avoid splashing and spillage.
5. In order to keep the light in the best working state, clean and dust it regularly. Wipe off the dust on gobo and optical filter with soft cotton soaked with glass cleaner. Do NOT use solvent or alcohol.
6. Deliver the light to professionals to apply a routine maintenance after one year of use.

5. TROUBLE SHOOTING

Problem	Suggestions
The bulb wont light up	A. Bulb has not cooled down completely because of improper operation. First, cool the fan inside the light body for 10 minutes, and then switch off the power for another 5 minutes. After all the inner parts have returned to a normal temperature, restart the power. B. The inner temperature is overheated and has activated the overheat protection mode. Check if the fan and air hole are blocked. C. Check if the bulb has expired. If so, change the bulb D. Check if it has a leakage, detachment, or poor connection between the bulb and trigger wire. E. Check whether the fan speed is abnormal or damaged on the panel menu F. The ballast has been damaged G. Service voltage is insufficient.
The bulb has become dim	A. The bulb may have expired. If so, change the bulb. B. Check if the optical parts are clean C. Conduct a routine maintenance check to the bulb and other inner parts
The motor is not working.	A. Check whether the power is the correct voltage and the fuses have not burnt out B. Check whether the motor wire and connecting wire are damaged C. Check whether the fastening flange screw is loose or blocked. D. Check whether the plug-in on the PCB and IC components is loose, has poor connection or is damaged. E. Check whether the power output voltage suitable F. Motor or PCB is damaged

Communion is out of control	A. Check whether communication cable is incorrectly linked, is loose or is an open circuit B. Check whether the address code is set correctly C. The IC on the PCB has had a high-voltage breakdown D. The connection line is too long and cannot maintain a signal. You can cascade the signal amplifier and equip the "2", "3" cannon plug of last light with one 1W/120□ terminal resistance E. Interfered by peripheral equipment signal or voltage. G. Controller has been damaged or the signal is incompatible
The shadow casted has a halo	A. Check whether the channel value of focusing is suitable for the projection distance
The lights work intermittently	A. Check whether the fan is working, and ensure it is free from dust.
The lights can't be instructed by the controller (although it is light)	A. Check the digit start site and connection condition of the communication control line B. The IC crystal oscillator has been burnt out due to a high voltage
The set cannot be started	A. The set may have a poor connection because of the vibration during the transportation. Check the panel

Note: Seek advice from a professional prior to authoring any repairs

6. TECHNICAL SPECIFICATIONS

- Bulbs：□ Philips 189W bulb □ Osram 230W bulb □ Philips 260W bulb
- Channel ：17 international standard DMX signal channels
- Horizontal scan：540°(16bit precise scan) Automatically correct
- Tilt scan：270° (16bit precise scan) Automatically correct
- HD LCD ,four Touch switches ,reversible 180°display and operate
- Color Wheel :one color wheel, consist of 14 color sheets plus white
- Gobo Wheel :17 Gobo effects
- Effects wheel：One rotatable 8 lens， Effects movement ,Frost function
- 0—100%Mechanical dimmer, supports mechanical strobe， support strobe macro function
- •Lens unit optical system , Electric focus， Beam angle 0～4°
- Overheating protection measures to turn off the bulb
- Bulb cooling fan damage and irregular rotation speed protection measures to turn off the bulb
- Power ：100-240V， 50/60Hz
- Rate of work：230W
- IP protection grade :IP20
- Electric ballast AC/DC power supply
- Flight case size : 75CM （length）×46CM （width）×69CM（height）
    - 2Sets within one case ,face up .
- Net weight ：19.5KG