Budglit

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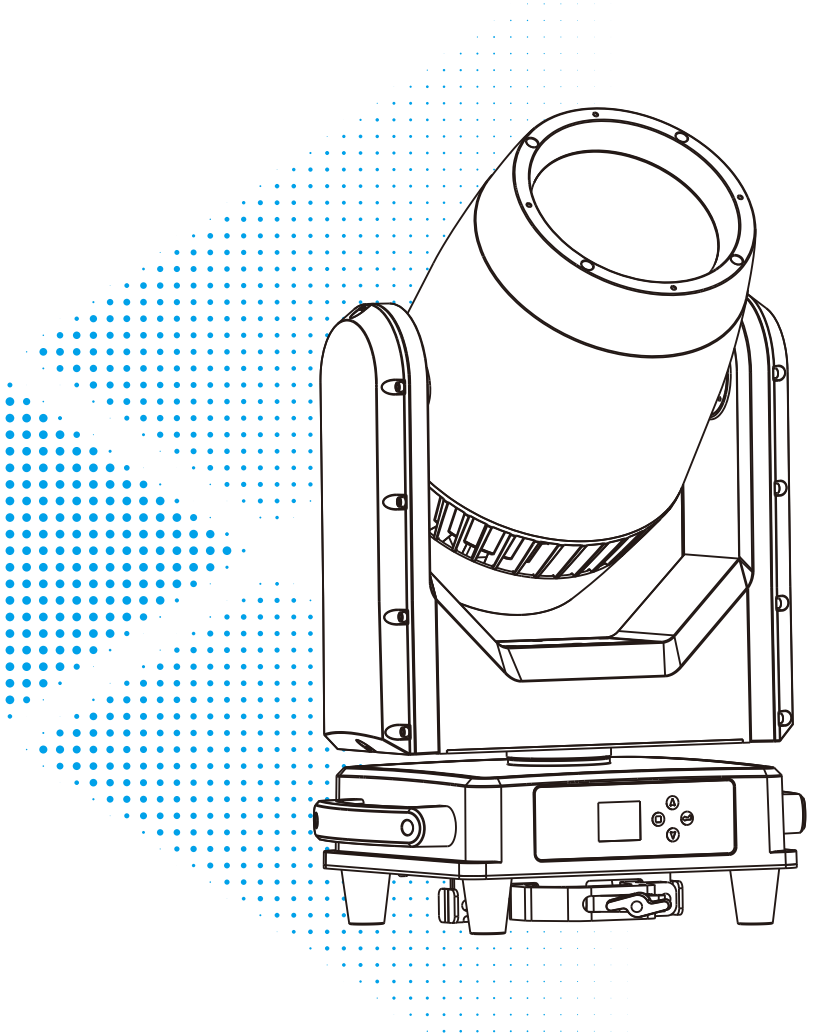

BUDGBEAM 300

User Manual

Please read the instruction carefully before use

Fly Dragon Lighting Equipment Co., Ltd.

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Social Media

LiGHT SKY Wechat

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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 theUse 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.

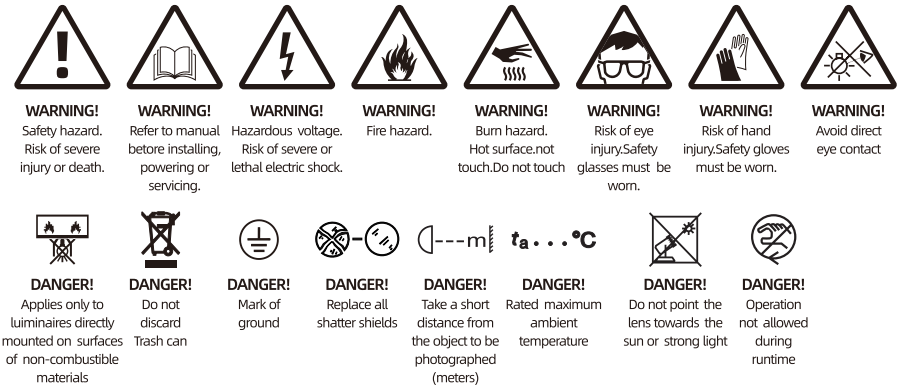
1.Safety Instructions

WARNING

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

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.

— This product is for indoor use only. Use only in a dry location.

— 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.

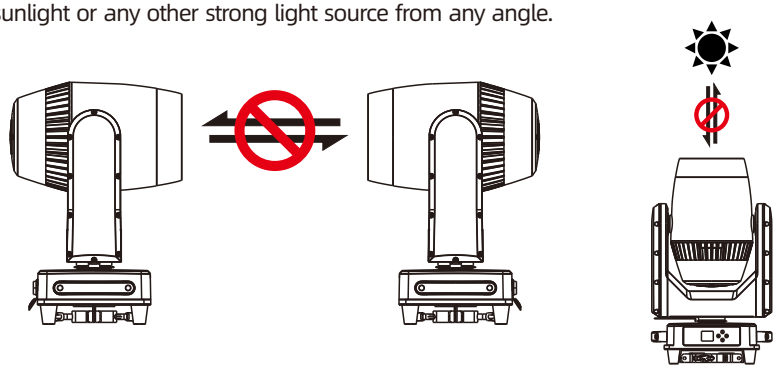
— Do not allow children to operate the fixture.

— 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 50cm 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: -10°C. Maximum ambient temperature Ta: 45°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 1 m.
— 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 distance between the luminaire and the irradiated surface shall be greater than 3 meters.
— Do not shine light directly into another fixture's lens. Intense beam can damage internal components.
— Direct sunlight or any other strong light beam penetrating the front lens of the luminaire can cause severe internal damage. During unpacking, installation, operation, and xtended idle periods outdoors, it is prohibited to expose the front lens of the luminaire to beams of direct sunlight or any other strong light source from any angle.



— 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 luminaire must be securely fastened to the quick-lock hook with screws to prevent vibration or slipping during operation. The supporting structure must be able to withstand 6 times the weight of the luminaire. Additionally, a safety cable must be installed that can endure 30 free-fall drops from 300mm without failure. Installation should only be performed by qualified professionals, and the luminaire must be mounted in an area inaccessible to unauthorized personnel or away from pedestrian traffic.

2.Technical Specifications

OPTICS

- Light source: USHIO NSL 301
- Lamp beam angle: 2.18 ° (6mm white circular hole)
- Optical lens: coated with high anti reflective film, ϕ152mm
- Color temperature: 7323 K
- Color rendering index: Ra ≥ 77
- Illuminance: 575000 Lux @ 10 m
- Expected service life of light source: 2000 hours (data provided by the light source supplier).

COLOUR

- 14 color chips+white light, can achieve bidirectional color rainbow, dual color step gradient (linear movement), color wheel bidirectional rotation.

PATTERN

- 1 fixed pattern plate: 17 patterns+white light, can achieve flowing and shaking effects.

EFFECT

- 8-prism+24 prism: can rotate in both directions, can switch independently, and can be stacked.
- Soft light effect: adjustable independent soft light effect.
- Focusing: High precision electric focusing
- Strobe: 0.5-10 times/second adjustable pulse flicker and random flicker.
- Dimming: 0-100% linear adjustment

CONTROL AND PROGRAMMING

- Control channel: 16CH, please refer to the channel table for details.
- Protocol: Standard DMX512 protocol, RDM protocol
- Data connection: Three core or five core signal input/output
- Display: 1.7-inch display screen, touch buttons
- Upgrade software through DMX signal port

X/Y AXIS MOTION ANGLE

- X-axis: 540 ° (8-bit/16bit precision scanning)
- Y-axis: 252 ° (8-bit/16 bit precision scanning)
- Reset function with automatic error correction
- Fixed lock: X-axis lock

POWER

- Input voltage: AC 100-240V 50/60Hz
- Maximum power: 450W
- Power factor: 0.95
- Maximum current of the lamp: 2.1A/220V, 4.2A/110V

DIMENSION

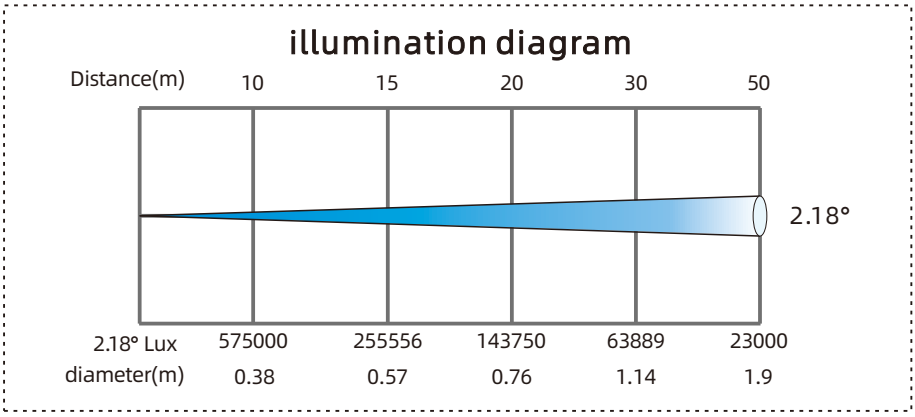
- Product size: 355 × 259 × 606mm
- N.W.: 22.3 kg
- Carton packaging (default): 430 × 320 × 735mm
- G.W.: 26.8 kg
- Flycase Size(2 units): 750x470x800mm
- G.W.:81.6 kg

OTHER

- Protection level: IP66
- Working environment: -20 ℃~40 ℃ (Note: When the lamp is used in an environment below zero degrees Celsius, it needs to be electrified and lit for 30 minutes, and then all functions of the lamp must be reset before it can operate normally.)
- Maximum surface temperature of lamp body: 80 ℃

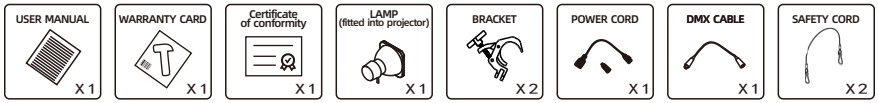
APPROVALS

- 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

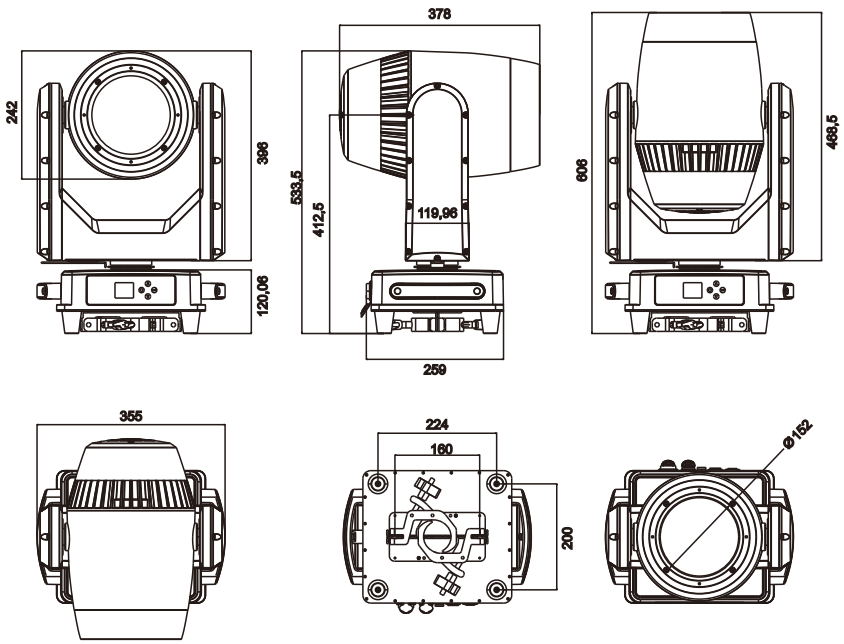


2.1.Attachment And Size

Attachment contents-Fig.1

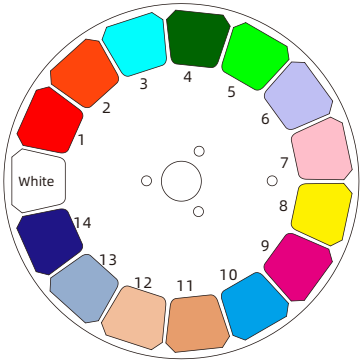


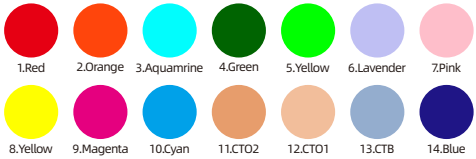
Size-Fig.2(Unit:mm)



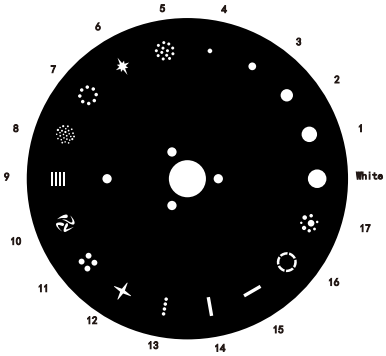
3.Color/Gobo/Prism

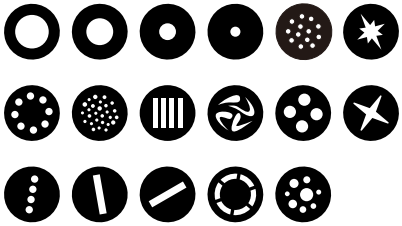
Color disk



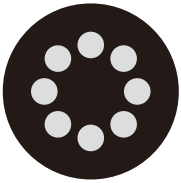


Static gobo wheel

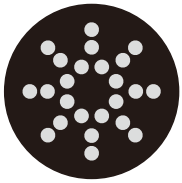




Prism



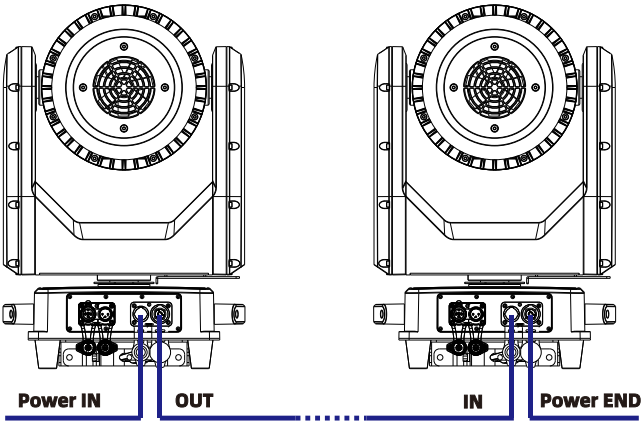
8 prism

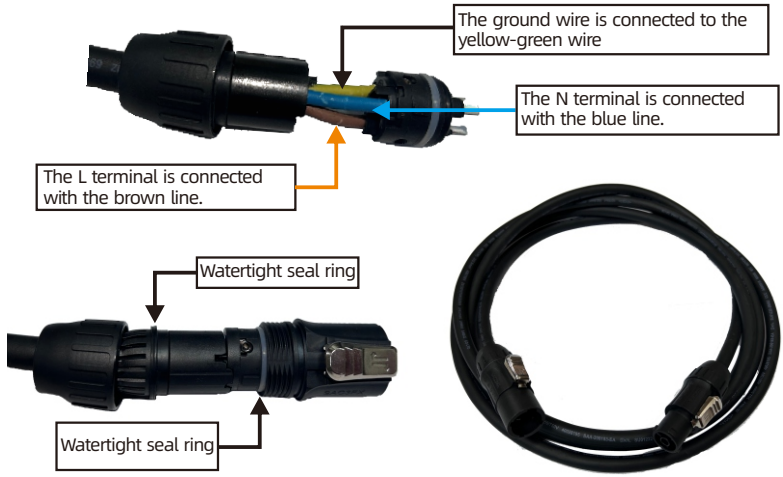


24 prism

4.Connection and control

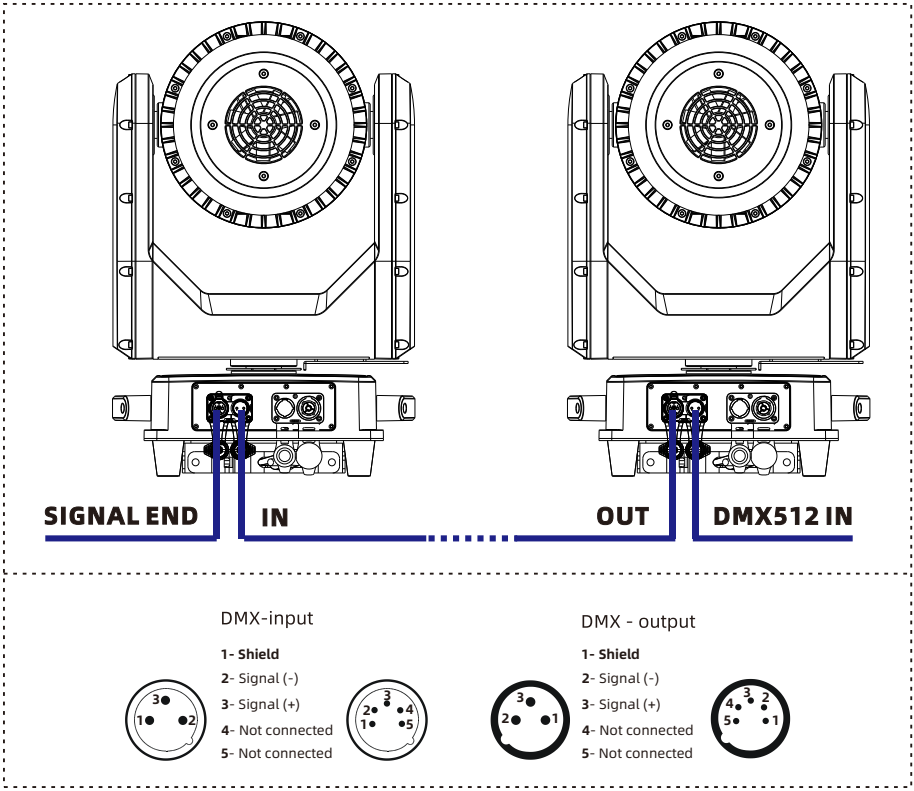
4.1.Power supply connection





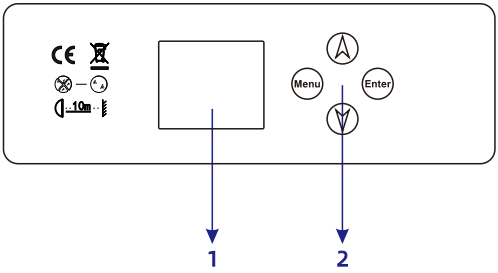
- The bus connecting the power supply must be installed by a qualified professional technician.
- The bus connecting the power supply must be installed by qualified professional technicians.
- At AC100V, the power cord can connect up to 3 lamps in series, and at AC220V, the power cord can connect up to 6 lamps in series.
- When the power supply of the lamp is connected in series, the maximum current of the power socket cannot exceed 16A.

4.2.DMX 512 Connection



1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120 Ω 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.
2. Connect the unit together in a "daisy chain" by XLR plug cable from the output of the unit to the input of the next unit. The cable cannot be branched or split to a "Y" cable. DMX 512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.
3. The DMX output and input connectors are pass-through to maintain the DMX circuit, when one of the units' power is disconnected.
4. Each lighting unit needs to have a DMX address to receive the data by the controller. The address number is between 1-512.
5. The end of the DMX 512 system should be terminated to reduce signal errors.
6. 3 pin XLR connectors are more popular than 5 pins XLR.
   3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)
   5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+), Pin4, Pin5 not used.

4.3.Control Panel



1.Display: To show the various menus and the selected function.

2.Button:

Enter	Enter
Menu	Menu / Revert
▲	UP
▼	DOWN

5.How To Set The Unit

5.1.Main Function

Main menu	I menu	II menu	III menu
DMX Address			
Fixture	DMX Mode	16CH	
	Run Mode	DMX√	
		Host	
	Pan Invert	Close√	
		Open	
	Tilt Invert	Close√	
		Open	
	XY Sensor	Open√	
		Close	
	No DMX State	Clear√	
		Keep	
	Lamp On Power	Close√	
		Open	
	Lamp Control	Close	
		Open	
Manual	Color Wheel		
	Strobe		
	Dimmer		
	Fixed Gobo		
	Prism		
	Prism Rot		
	Prism Macro		
	Frost		
	Focus		
	Pan		
	Pan Fine		
	Tilt		
	Tilt Fine		
	Reserved		
	Reset		
	Lamp		
	Time	Current Time	
		Total Time	
		Lamp Time	
		Power Count	
		Lamp Count	
	Sensor		

Main menu	I menu	II menu	III menu
Information	Software Version	Panel	
		XY	
		Motor	
	Fan Speed	Board1 Temp	
		Board2 Temp	
		Fan1 Speed	
		Fan2 Speed	
		Fan3 Speed	
		Fan4 Speed	
Factory	Password		
	Pan		
	Tilt		
	Dimmer		
	Color		
	FixGobo		
	Frost Start		
	Frost		
	7Color		
	Prism1 Start		
	Prism1		
	Prism2 Start		
	Prism2		
	Focus		
Reset	XY Reset	Cance	
		Run	
	Motor Reset	Cance	
		Run	
	All Reset	Cance	
		Run	
	Factory	Cance	
		Run	
Display	Language	CH√	
		EN√	
	Display Flip	OFF√	
		ON	
	Display Mode	30S√	
		Show	

5.2.Address Setting

Enter MENU, select the DMX setting function, select the address code setting, press the OK button to confirm, the current DMX address will be displayed on the display. Use the up/down buttons to select addresses 001~512, and press the OK button to save. Press the OK button to return to the previous menu.

Please refer to the following diagram to address your DMX512 channel for the first 4 units.

Channel mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
16 CH	01	17	33	49

5.3.DMX 512 Configuration

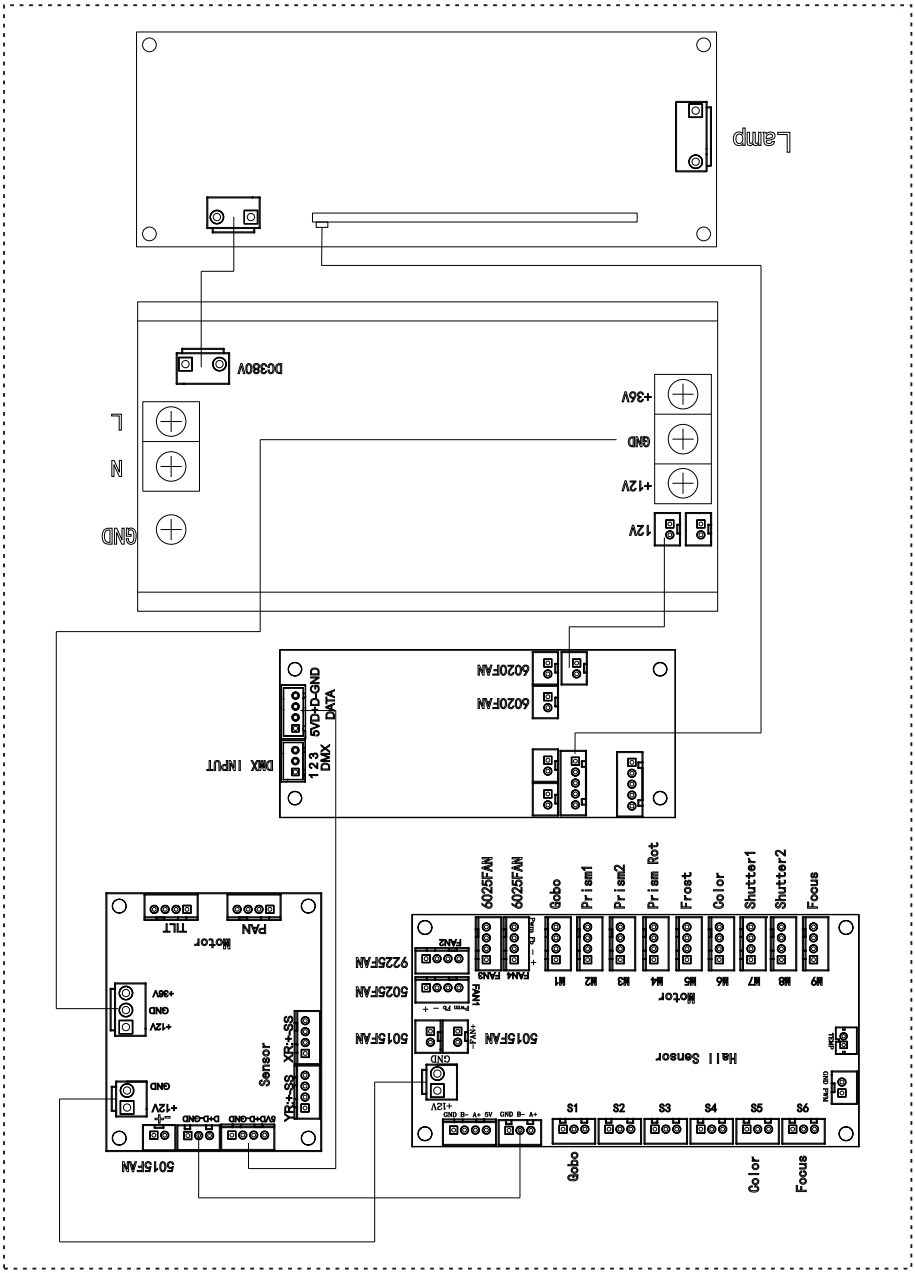
Please control the fixture by referring to the configurations below

16 CHANNEL	DMX	Function	NOTE
1		**Colour**	
	0-4	White	
	5-8	White+Red	
	9-12	Red	
	13-17	Red+Orange	
	18-21	Orange	
	22-25	Orange+Aquamarine	
	26-29	Aquamarine	
	30-34	Aquamarine+Green	
	35-38	Green	
	39-42	Green+Light Green	
	43-46	Light Green	
	47-51	Light Green+Lavender	
	52-55	Lavender	
	56-59	Lavender+Pink	
	60-63	Pink	
	64-68	Pink+Yellow	
	69-72	Yellow	
	73-76	Yellow+Magenta	
	77-81	Magenta	
	82-85	Magenta+Cyan	
	86-89	Cyan	
	90-93	Cyan+CTO2	
	94-98	CTO2	
	99-102	CTO2+CTO1	
	103-106	CTO1	
	107-110	CTO1+CTB	
	111-115	CTB	
	116-119	CTB+Blue	
	120-123	Blue	
	124-127	Blue+White	
	128-191	CCW，Fast→Slow Rotation	
	192-255	CW，Slow→Fast Rotation	
2		**Strobe**	
	0-3	Closed	
	4-103	Slow-Fast Strobe	
	104-107	Open	
	108-157	Slow → Fast，Fast clos，Slow open	
	158-207	Slow → Fast，Fast open，Slow clos	
	208-212	Open	
	213-251	Random Slow-Fast Strobe	

16 CHANNEL	DMX	Function	NOTE
	252-255	Open	
3	0-255	**Dimmer**	
		Gobo	
	0-3	White	
	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	
	48-51	Gobo12	
	52-55	Gobo13	
	56-59	Gobo14	
	60-63	Gobo15	
	64-67	Gobo16	
4	68-71	Gobo17	
	72-113	ROTATION Fast→ Slow	
	114-117	STOP	
	118-159	ROTATION Slow → Fast	
	160-166	Gobo2 Shake Slow→Fast Speed	
	167-172	Gobo3 Shake Slow→Fast Speed	
	173-179	Gobo4 Shake Slow→Fast Speed	
	180-185	Gobo5 Shake Slow→Fast Speed	
	186-191	Gobo6 Shake Slow→Fast Speed	
	192-198	Gobo7 Shake Slow→Fast Speed	
	199-204	Gobo8 Shake Slow→Fast Speed	
	205-211	Gobo9 Shake Slow→Fast Speed	
	212-217	Gobo10 Shake Slow→Fast Speed	
	218-223	Gobo11 Shake Slow→Fast Speed	
	224-230	Gobo12 Shake Slow→Fast Speed	
	231-236	Gobo13 Shake Slow→Fast Speed	
	237-243	Gobo14 Shake Slow→Fast Speed	
	244-249	Gobo16 Shake Slow→Fast Speed	
	250-255	Gobo17 Shake Slow→Fast Speed	
		Prism	
	0-63	Unused Range	

16 CHANNEL	DMX	Function	NOTE
5	64-127	Prism1	
	128-191	Prism2	
	192-255	Prism1+Prism2	
6		**Prism Rotation**	
	0	Unused Range	
	1-63	Angle linear adjustment	
		Three kinds of prism effect options: set the prism (prism 1, prism 2 or prism 1+2) in the 5th channel	
	64-127	CCW，Fast → Slow	
	128-191	CW，Slow → Fast	
	192-207	Slow →Fast，90°Rotate back and forth	
	208-223	Slow →Fast,180°Rotate back and forth	
	224-239	Slow →Fast,270°Rotate back and forth	
	240-255	Slow →Fast,360°Rotate back and forth	
7		**Prism Macro**	
	0-15	Unused Range	
	16-55	Fast →Slow，Prism1 Free switch	
	56-95	Fast →Slow,Prism2 Free switch	
	96-135	Fast →Slow,Prism1+Prism2 Switch freely at the same time	
	136-175	Fast →Slow,Prism 1 selected + Prism 2 free switch	
	176-215	Fast →Slow,Prism 2 selected + Prism 1 free switch	
	216-255	Fast →Slow,Prism 1 and prism 2 are interlocked and switched	
8	0-255	**Frost**	
9	0-255	**Focus**	
10	0-255	**Pan**	
11	0-255	**Pan Fine**	
12	0-255	**TILT**	
13	0-255	**TILT Fine**	
14	0-255	Unused Range	
15		**Reset**	
	0-25	Unused Range	
	26-76	Effects Reset	
	77-127	PAN/TITL Reset	
	128-255	Complete Reset	
16		**Lamp Control**	
	0-25	Unused Range	
	26-100	Lamp OFF	
	101-255	Lamp ON	

6.Electrical Connection Diagram



7.Troubleshooting

The following are common faults of lamps and corresponding solutions. Faults that cannot be repaired by yourself should be handled by professionally qualified personnel. Disconnect the power supply to the lamp during maintenance!

● The light source is not bright
- Check that a suitable light source is installed for the luminaire.
- Check whether the power supply connection of the lamp or the control switch is in poor contact.
- Check whether the light source has reached the end of its service life or is damaged, and replace it with a high-quality light source of the same specification.
- Measure whether the power supply is insufficient.
- Check whether the light source has not cooled down completely due to abnormal operation. Let the lamp cool down for more than 15 minutes to allow the light source to cool down. After returning to the normal start-up range, turn the power on again and it can be used normally.
- Check whether the DMX512 controller sends a command to turn on the light source.
- Check whether the light source and trigger circuit are disconnected or defective.
- Check whether the wiring terminals on the internal trigger are in poor contact and tighten the plug.
- Check the "Fan Speed and Voltage" in the "Basic Information" menu to see if the speed of FAN1/FAN2/FAN3 is above 500RPN. If it is below 500RPM, the light source will not light up. Replace the fan with the same specification.
- Check whether the over-temperature protection temperature switch inside the lamp is damaged. Go to the menu "Basic Information" and select "Equipment Temperature" to check - whether the temperature measuring plate shows that the temperature is too high or there is no temperature display.

● The beam appears dim and uneven
- The light source may have reached the end of its service life and does not emit enough light. Replace it with a light source of the same specification.
- Check whether there is dust accumulated in the optical part and clean it.
- Measure whether the power supply is insufficient.
- Finely adjust the screw device used to change the height of the lamp until the ideal light is achieved. Enter the menu "Service Options" and select "Calibration" to enter color and pattern adjustment, which can be adjusted to the center.

● The projected image is blurry
- Check whether the DMX512 controller channel value corresponding to the electronic focus system is suitable for the current projection distance.
- Check whether the mechanical part of the focusing system is stuck, remove the dust and add antifreeze and temperature-resistant lubricating oil.

● The light source of the lamp works intermittently
- Check whether the fan is running normally or is blocked by dust and paper debris.
- Check whether the inlet and outlet cooling air vents are blocked by dust.
- Check whether the lamp has reached the end of its service life.

- Check whether the power supply is insufficient, and whether the power switch and wiring are in poor contact or aging.
- Check whether the over-temperature protection temperature switch inside the lamp is damaged.

● Although it emits light, the lamp does not accept instructions from the controller

- Check whether the digital start address value and function options of the lamp are correct.
- Check whether the connection of the communication control line is correct. The communication line is too long or has been interrupted.
- Check whether the control equipment fails and whether the signal amplifier connected in series fails.
- Check whether the communication line is too long or if other devices interfere with each other.
- Optimize wiring, shorten the length of control signal lines, and route high-voltage and low-voltage lines separately
- Add signal amplifier isolator.
- The signal line is made of high-quality shielded twisted pair (impedance characteristic is 75Ω), and the signal terminal resistor is connected at the end of the lamp.
- Check that the circuit board communication IC or CPU is burned out because the bulb performs an abnormal operation when it is not completely cooled, causing the instantaneous ultra-high voltage leakage generated by the trigger, and replace the PCB board.

● The lamp cannot be started

- Check whether the power supply parameters match the lamps.
- Check whether the fuse at the light fixture's power input is blown.
- Check that the lamp has poor contact or falls off due to extrusion deformation, vibration of internal parts, moisture, etc. during long-distance transportation.
- Check whether the internal wires and connectors of the lamp are desoldered or loose.
- Check whether the electrical components of the lamp (such as power switch, transformer, ballast, capacitor, varistor, filter, power supply PCB board, motor control PCB board, etc.) are loose, short-circuited, burned out, etc.

● Some functions of the lamp cannot accept controller instructions

- Check whether the control device sends correct action instructions for these functions.
- Check whether the mechanical parts corresponding to these functions are loose or deformed.
- Check whether the motor sockets corresponding to these functions are loose or the corresponding driver chips are burned out.
- Check whether the motor wires corresponding to these functions are broken at the corners.
- Check whether the motors corresponding to these functions are damaged.

● During operation, the x or Y direction of the lamp does not move normally

- Click the previous step to check one by one.
- Check whether the corresponding drive belts in the X and Y directions of the lamp are detached or broken.
- Check whether the data feedback receiver (photoelectric sensor) corresponding to the X and Y directions in the lamp is damaged.
- Restart the computer and reset it once.

8.Fixture Cleaning

It is absolutely essential that the fixture is kept clean to ensure the maximum light-output and allow the fixture to function reliably throughout its life. The fixture must be cleaned regularly to avoid dust, dirt and smoke-fluid residues building up on or within the fixture. The cleaning frequency depends on the application environment. Clean the fixture immediately if the dust enters it to avoid damage to the optical lens due to excessive dust.

- A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should solvents be used.
- Always dry the parts carefully.
- Clean the external optical lens at least every 20 days and the internal optical lens every 30 days.

CAUTION ! ! !

Disconnect from mains before starting maintenance operation.

9.Duty exonerative and copyright protectio

- Light source belongs to consumption products, not within the scope of warranty.
- The manufacturer shall not bear any responsibility for any damage caused by failure to operate in accordance with this instruction.
- The manufacturer reserves the right of final interpretation for all information in this manual. For any questions, please refer to the official website.
- All the information in this manual shall not be copied without permission.
- The data contained in this statement are subject to change in the future without prior notice.