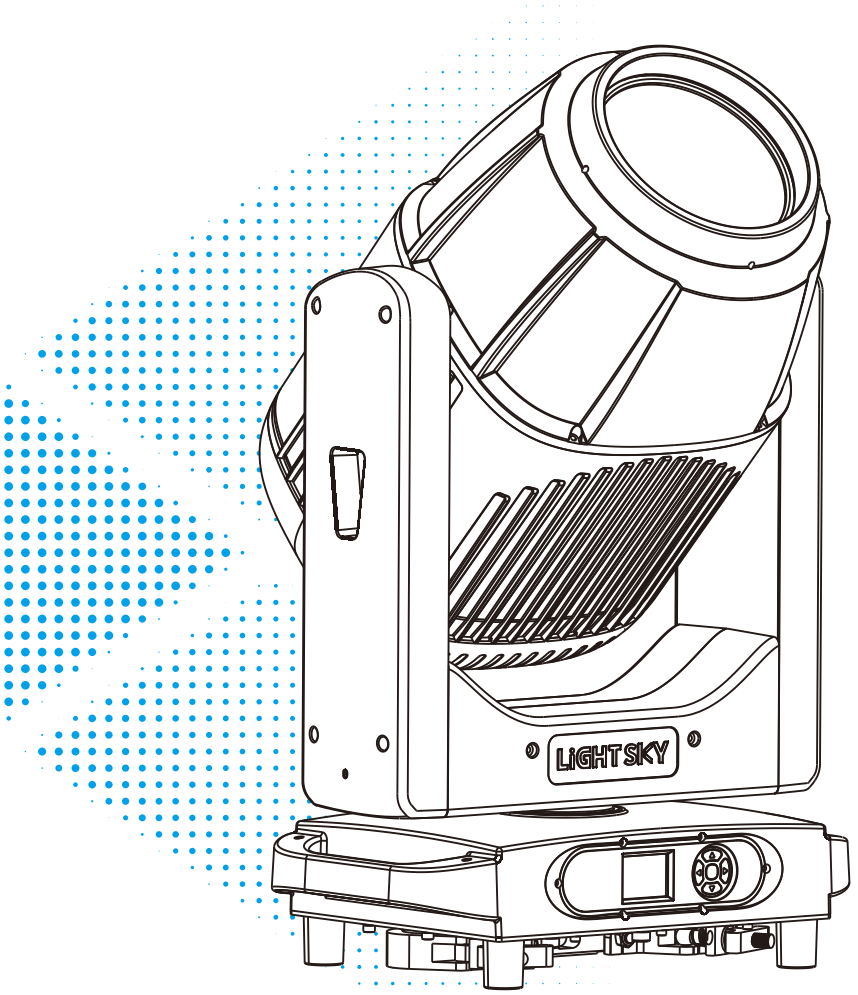
LiGHT SKY

www.lightsky.com.cn



AURORA AQUA

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:

WARNING! Safety hazard. Risk of severe injury or death.

WARNING! Refer to manual betore installing, powering or servicing.

WARNING! Hazardous voltage. Risk of severe or lethal electric shock.

WARNING! Fire hazard.

WARNING! Burn hazard. Hot surface.not touch.Do not touch

WARNING! Risk of eye injury.Safety glasses must be worn.

WARNING! Risk of hand injury.Safety gloves must be worn.

WARNING! Avoid direct eye contact

DANGER! Applies only to luiminaires directly mounted on surfaces of non-combustible materials

DANGER! Do not discard Trash can

DANGER! Mark of ground

DANGER! Replace all shatter shields

DANGER! Take a short distance from the object to be photographed (meters)

DANGER! Rated maximum ambient temperature

DANGER! Do not point the lens towards the sun or strong light

DANGER! Operation not allowed during runtime

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.

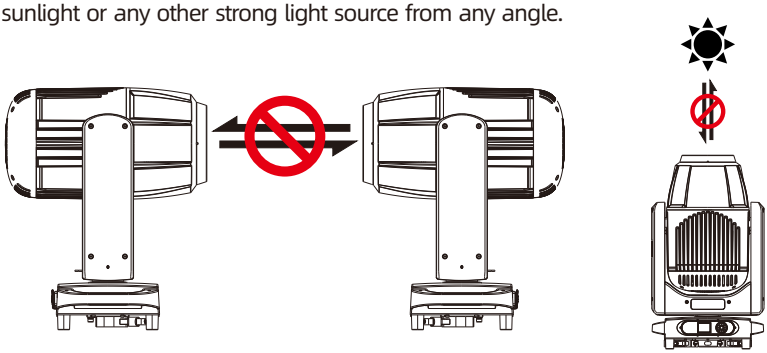
— Do not allow children to operate the fixture.

— 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 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: -20°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 12 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 U8
- Lamp angle: Beam mode 1.8°-24°, Spot mode 4°-45°, Spot mode 2.6°-43°
- Optical lens: High-transmittance anti-reflective coating, ϕ160mm
- Color temperature: 7000 K
- Luminous flux: 16000 lm
- Color rendering index: Ra≥80(Cut into the indicator piece Ra≥88)
- Illuminance: 620000 lx@10 m
- Light source lifespan: 8000 h(Data provided by the light source supplier)

COLOR

- Linear CMY color mixing system
- Linear CTO
- 13 color chips + CRI+white light, can achieve two-way color rainbow, two-color step gradient (linear movement), two-way rotation of color wheel, random color mode

PATTERN

- 1 fixed pattern plate: 13 patterns + white circles, which can achieve flowing water and shaking effects
- 1 rotating pattern plate: 9 kinds of glass patterns + white circles, pluggable and replaceable, can achieve rotation, running water and shaking effects, the outer diameter of the pattern piece is 14.0mm, the inner diameter of the pattern piece is 9.5mm
- Dynamic effects wheel

EFFECT

- 5 prisms: 2 beam prisms, 3 pattern prisms, rotatable in both directions, switchable independently, and stackable.
- 2 atomizer sheets: adjustable independent soft light effect
- Focus: High-precision electric focus
- Strobe: 0.5-12 times/second adjustable pulse strobe and random strobe
- Dimming: 0-100% linear adjustment

CONTROL AND PROGRAMMING

- Control channel: 33CH、35CH、36CH、39CH,Please refer to the channel table for details.
- Protocol: Standard DMX512 protocol, RDM protocol, Art-Net protocol, sACN protocol
- Data connection: three-core or five-core signal input/output、Network input
- Display: LCD screen
- Upgrade software through DMX interface

X/Y AXIS MOVEMENT ANGLE

- X-axis: 540°8bit/16bit precision scanning
- Y-axis: 270°8bit/16bit precision scanning
- Reset function with automatic error correction
- Fixed lock: X-axis/Y-axis lock

POWER AND POWER

- Input voltage: AC 100-240V 50/60Hz
- Maximum power: 700W
- Power factor: 0.98
- Maximum current of lamps: 3.18A/220V, 7A/110V

SIZE AND WEIGHT

- Product size: 401×272×691mm
- N.W.31.1 kg
- Carton packaging (default): 515×360×825mm
- G.W.: 36.6 kg

OTHER

- Protection level: IP66
- Working environment: -20℃～45℃
- Maximum temperature of lamp body surface: 80℃
- Hook: Suitable for pipes with a diameter of 40-60 mm
- Utilizes the DTCS™ Dynamic Temperature Control Cooling System

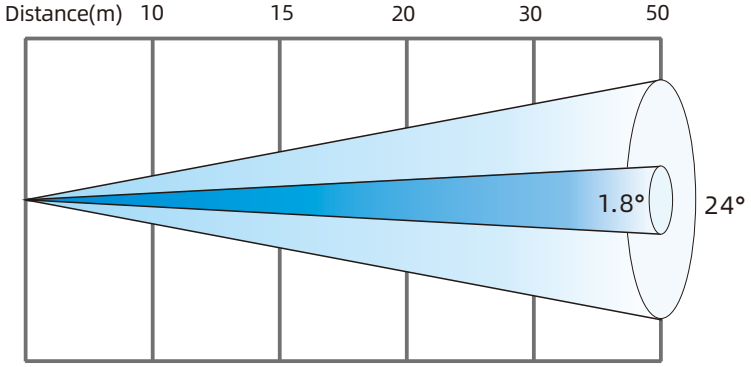
OPTIONAL ACCESSORIES / PACKAGING

- EPP Flycase Size (2 unit): 870×550 ×950mm
- G.W.: 104.7 kg

APPROVALS

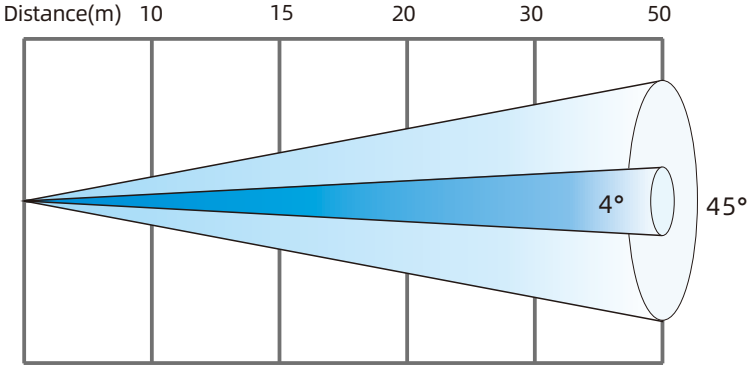
- The product implementation standard: IEC 60598-1、IEC 60598-2-17
- Approved certifications: CE、RoHs
- The product complies with the following EU directives:
- Low Voltage Directive 2014/35/EU . EMC Directive 2014/30/EU

illumination diagram-BEAM



1.8° lx	620000	275556	155000	68889	24800
Diameter(m)	0.3	0.45	0.6	0.9	1.5
24° lx	3900	2000	1125	500	180
Diameter(m)	4.04	6.06	8.08	12.12	20.20

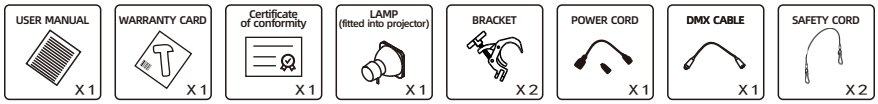
illumination diagram-SPOT



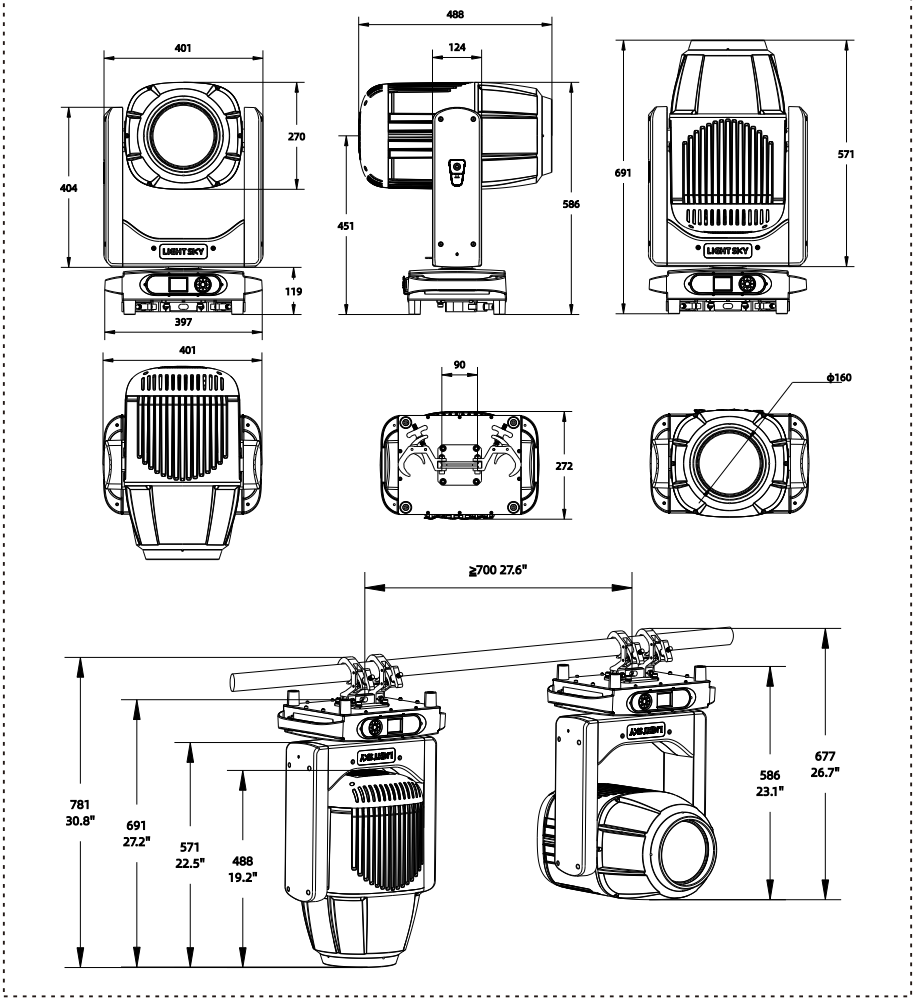
4° lx	161074	71588	40268	17897	6442
Diameter(m)	0.7	1.05	1.4	2.1	3.5
45° lx	1413	628	353	157	57
Diameter(m)	8.28	12.43	16.57	24.85	41.42

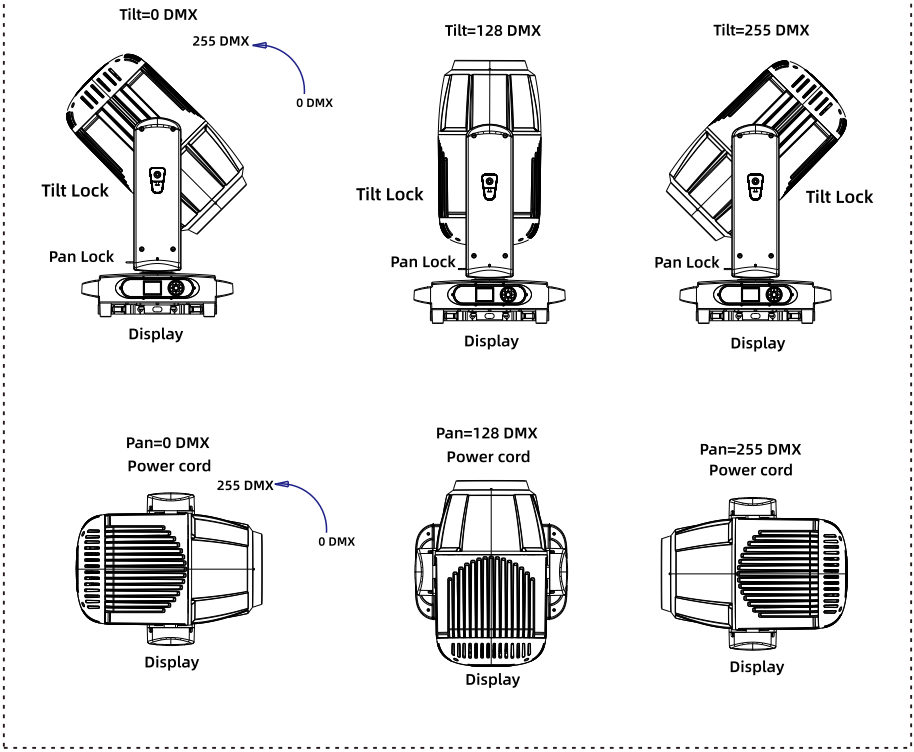
2.1.Attachment And Size

Attachment contents-Fig.1



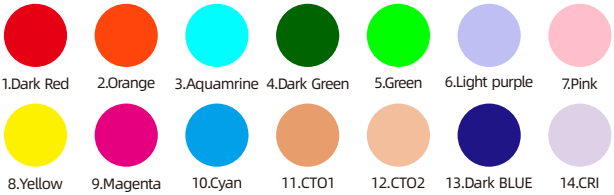
Size-Fig.2（Unit:mm）



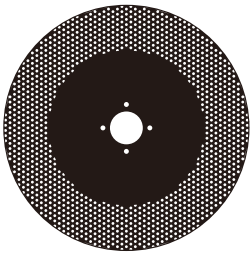

Tilt=0 DMX
255 DMX
0 DMX
Tilt Lock
Pan Lock
Display
Tilt=128 DMX
Tilt Lock
Pan Lock
Display
Tilt=255 DMX
Tilt Lock
Pan Lock
Display
Pan=0 DMX
Power cord
255 DMX
0 DMX
Display
Pan=128 DMX
Power cord
Display
Pan=255 DMX
Power cord
Display

3.Color/Gobo/Prism

Color/CMY/Effect

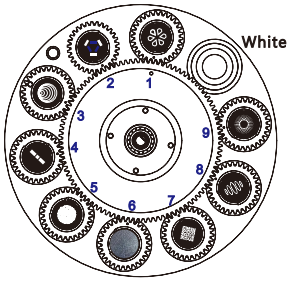


CMY+CTO

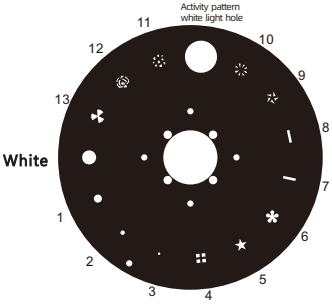


Effect wheel

Pattern



Rotating gobo wheel



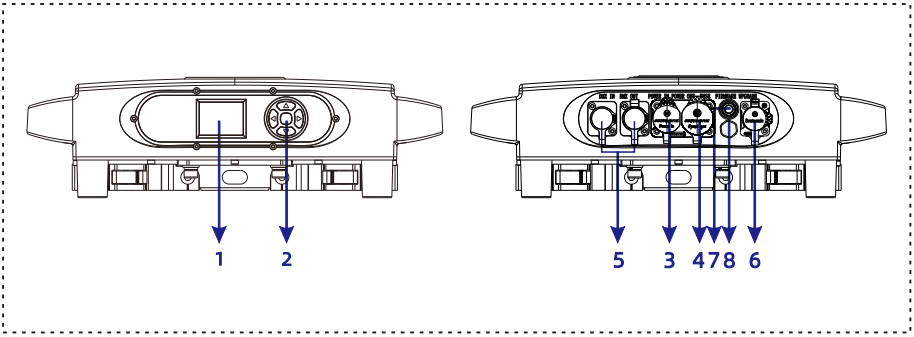
Static gobo wheel

DANGER! Attention: When installing GOBO chips, it is necessary to strictly follow the order of the pictures and not change the original order and direction of the GOBO chips at will.Please disconnect the power supply when installing/replacing the rotating pattern piece!

Prism

6 Prism　8 Prism　4 Prism　8 Prism　24 Prism

4.Control Panel



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

2.Button:

●	OK confirmation key
▲	UP
▼	DOWN
◀	To the left
▶	To the right

3.Socket version power input: connect the power supply.

4.Power output: Connect the lamp power output adapter.

5.DMX inputl/output: Used for DMX512 connection, use 3/5 core XLR signal cable toconnect console and lamps,And input/output DMX signal.

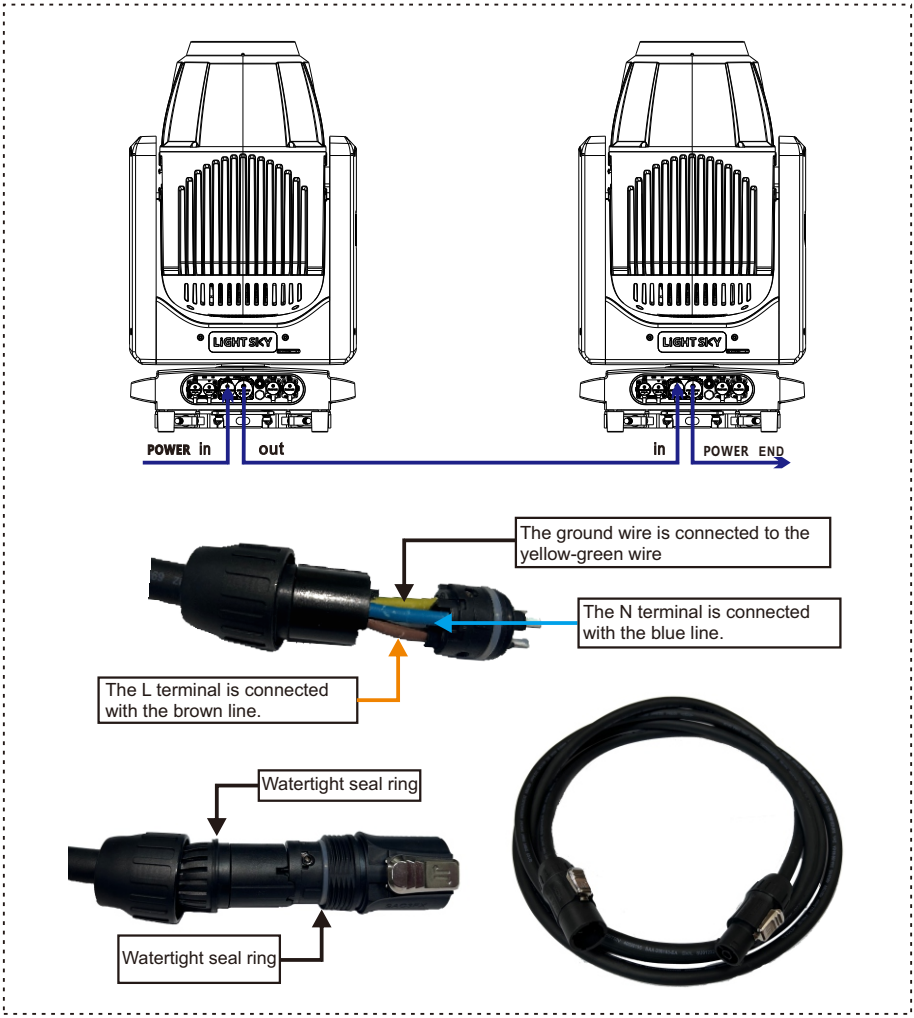
6/7.Art-net inputl/output: The information of the lamp can be transmitted to the main controllerthrough the network cable, and the lamp can be controlled through RJ45(USB optional).

8.Fuse holder: Used for the bottom box battery pack power supply display board when not powered on.(Note: In the case of air transportation, the lighting fixtures will require disassembly of fuses for shipment, and they must be installed by themselves upon receipt.)

9.Breathable valve.

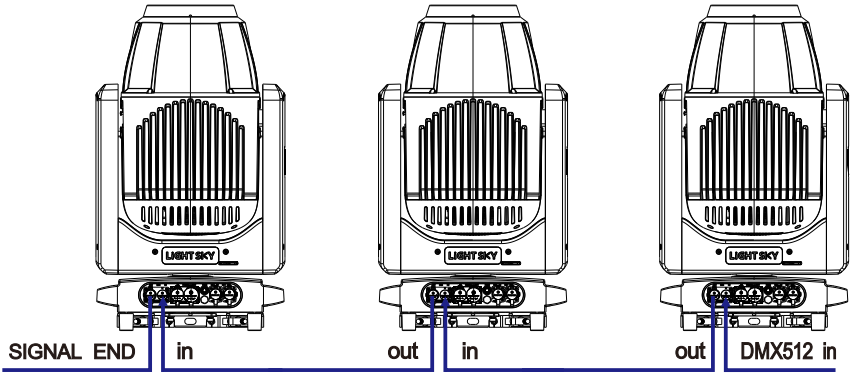
5.Connection and control

5.1.Power supply connection



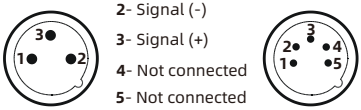
- The bus connecting the power supply must be installed by a qualified professional technician.
- After completing all the above operations and ensuring that it is installed, you can power on the lamp to operate.

5.2.DMX 512 Connection



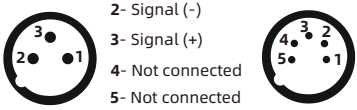
DMX-input

1- Shield
2- Signal (-)
3- Signal (+)
4- Not connected
5- Not connected



DMX - output

1- Shield
2- Signal (-)
3- Signal (+)
4- Not connected
5- Not connected



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.

6.How To Set The Unit

6.1.Main Function

The main functions are as follows:

Main menu	I menu	II menu	III menu
DMX Address	Address	1-512	
	Channel	35CH / 33CH (Default) / 36CH /39CH	
	State	Black (Default)	
		Hold	
	InputMode	DMX (Default)	Art-Net can only be selected when an Art-Net module is installed.
		ARTNET	
		sACN	
	DmxAddressLock	OFF	
		ON (Default)	
Information	Time	Total Power Time	
		Power Time	
		Total Light Time	
		Light time	
	Temperature	PVE_TEM	
		Head Temp	
	Fan Info	CMYFanVol	
		AirFan1Sp	
		AirFan2Sp	
		CMYFanSp	
		LampInOutFanVol	
		LampFanVol	
		OutFanVol	
		LampInFanSp	
		LampOutFanSp	
		LampFanSp	
		OutFanSp	
		GoboFanVol	
		GoboFanSp	
		FocusFan1Vol	
		FocusFan2Vol	
		FocusFan1Sp	
		FocusFan2Sp	
		FocusFan3Sp	
		BaseFanVol	
		BaseFan1Sp	
		BaseFan2Sp	
	Fixture state	1.MCU(XY) ***	
		2.MCU(COLOR) ***	
		3.MCU(GOBO) ***	
		4.MCU(ZOOM) ***	
		5.Pan ***	
		6.Tilt ***	
		7.Cyan ***	
		8.Magenta ***	
		9.Yellow ***	
		10.Cto ***	
		11.Color ***	
		12.FixGobo ***	
		13.Gobo ***	
		14.GoboRot ***	
		15.Zoom ***	
		16.Focus ***	
		17.GoboPrism ***	
		18.GoboPrismRot ***	
		19.LampRot ***	
		20.AirFan1 ***	
		21.AirFan2 ***	
		22.CMYFan ***	
		23.LampInFan ***	
		24.LampOutFan ***	

Main menu	I menu	II menu	III menu
		25.LampFan ***	
		26.OutFan ***	
		27.GoboFan ***	
		28.FocusFan1 ***	
		29.FocusFan2 ***	
		30.FocusFan3 ***	
		31.BaseFan1 ***	
		32.BaseFan2 ***	
		33.Ballast ***	
	RDM UID	3888：xxxxxxxx	
	DMX Live	DMX	
	Software	1.Display Ver. Vxxx	
		2.XY Ver. Vxxx	
		3.Color Ver. Vxxx	
		4.Gobo Ver. Vxxx	
		5.Zoom Ver. Vxxx	
		6.ETH Ver. Vxxx	This menu is only displayed when an Art-Net module is connected.
Personality	Auto Lamp On	OFF (Default)	
		ON	
	PanTilt Setting	Pan Invert	OFF (Default)
			ON
		Tilt Invert	OFF (Default)
			ON
		P/T Rectify	OFF
			ON (Default)
		P/T Mode	Normal (Default)
			Fast
			Precise
	Display Setting	Language	EN (Default)
			ZH
		Dis. Backlight	OFF (Default)
			ON
		Dis. Direction	Forward (Default)
			Reverse
		Dis. Blink	OFF
			ON (Default)
	Other Setting	CMY Mode	Standard (Default)
			Theater
		FX Auto Focus	OFF
			ON (Default)
	Ethernet Setting (This menu is only displayed when an Art-Net module is installed.)	IP Address	***.***.***.***
		Mask Address	***.***.***.***
		Universe Address	0-32767
		sACN Universe Address	1-63999
		DHCP	OFF (Default)
			ON
		Ethernet To DMX	OFF (Default)
			ON
Manual Control	Channel control	1.Pan ***	
	Reset	PanTilt	
		Color Module	
		Gobo Module	
		Zoom Module	
		All	
		1.Pan ***	
		2.Tilt ***	
		3.Dimmer1 ***	
		4.Dimmer2 ***	
		5.Cyan ***	

Main menu	I menu	II menu	III menu
Service	Calibration	6.Magenta ***	
		7.Yellow ***	
		8.Cto ***	
		9.Color ***	
		10.FixGobo ***	
		11.Gobo ***	
		12.GoboRot ***	
		13.Animation ***	
		14.AnimationRot ***	
		15.GoboPrism ***	
		16.GoboPrismRot ***	
		17.BeamPrism1 ***	
		18.BeamPrism1Rot ***	
		19.BeamPrism2 ***	
		20.BeamPrism2Rot ***	
		21.Frost1 ***	
		22.Frost2 ***	
		23.Zoom ***	
		24.Focus ***	
		25.GoboFocus ***	
		26.AnimationFocus ***	
		27.LampRot ***	
	Factory Reset	NO / YES	Password：1111
	Reset Timers	1.Total Power Time	NO / YES
		2.Total Light Time	NO / YES
		1.Power Time	NO / YES
		2.Light Time	NO / YES
	Developer		
	Firmware update		
Lamp Control	Off/On		
Test	Test PanTilt		
	Test Head Module		
	Test All		
Rotate Display			

6.2.Address Setting

Enter MENU, select the DMA setting function, select the address code setting, press the OK button to confirm, and the current DMA address will be displayed in the On screen display. Use the up/down buttons to select addresses 001-512, press the OK button to save the current address code, and return to the previous menu level.

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
33 CH	1	34	67	100
35 CH	1	36	71	106
36 CH	1	37	73	109
39 CH	1	40	79	118

6.3.DMX 512 Configuration

Please control the fixture by referring to the configurations below

33CH	DMX	Function	Note
1	0-255	**Pan positioning**	
2	0-255	**Fine Pan positioning**	
3	0-255	**Tilt positioning**	
4	0-255	**Fine Tilt positioning**	
5	0-255	**PTSpeed**	
6		**Function**	
	0-79	Unused Range	
	80-84	Dis.Blink off	
	85-89	Dis.Blink on	
	90-94	CMY Mode:Standard	
	95-99	CMY Mode:Theater	
	100-104	Pan/Tilt Mode Standard	
	105-109	Pan/Tilt Mode Fast	
	110-114	Pan/Tilt Mode Precise	
	115-119	FX Auto Focus off	
	120-124	FX Auto Focus on	
	125-129	No function	
	130-139	Lamp ON	
	140-149	PAN/TITL Reset	
	150-159	Color Reset	
	160-169	Gobo Reset	
	170-179	Unused Range	
	180-189	Zoom Reset	
	190-199	Unused Range	
	200-209	Complete Reset	
	210-229	Unused Range	
	230-239	Lamp OFF	
	240-255	Unused Range	
7	0-255	**Cyan**	
8	0-255	**Magenta**	
9	0-255	**Yellow**	
10		**ColorWheel**	
	0	White	
	1-127	Continual positioning	
	128-129	CRI	
	130-134	Red	
	135-138	Orange	
	139-143	Aquamarine	
	144-147	Green	
	148-152	Light Green	
	153-157	Lavender	
	158-161	Pink	
	162-166	Yellow	
	167-171	Magenta	
	172-176	Cyan	
	177-180	CTO 260/CTO2	
	181-185	CTO 190	
	186-189	Blue	
	190-215	CCW, Fast→Slow Rotation	
	216-217	Stop	
	218-243	CW, Slow→Fast Rotation	
	244-249	random colour selection	
	250-255	Auto random colour selection from fast to slow	
11	0-255	**Colour fine positioning**	
12		**Animation**	
	0-19	Open	
	20-127	Proportional indexing	
	128-170	Ramping from open to full position (max--->min. speed)	
	171-213	Ramping from open to half position (max. --->min. speed)	
	214-255	Ramp. from half position to full position (max. --->min. speed)	

33CH	DMX	Function	Note
		AnimationRot	
	0	AnimationRot indexing 0°	
13	1-127	AnimationRot CW fast to slow	
	128	Stop	
	129-255	AnimationRot CCW slow to fast	
		FixgoboWheel	
	0-3	Open	
	4-9	FixGobo 1(Open)	
	10-15	FixGobo 2	
	16-21	FixGobo 3	
	22-27	FixGobo 4	
	28-33	FixGobo 5	
	34-39	FixGobo 6	
	40-45	FixGobo 7	
	46-51	FixGobo 8	
	52-57	FixGobo 9	
	58-63	FixGobo 10	
	64-69	FixGobo 11	
	70-75	FixGobo 12	
	76-81	FixGobo 13	
	82-87	FixGobo 14	
	88-95	FixGobo1shake,slow to fast	
14	96-103	FixGobo2shake,slow to fast	
	104-111	FixGobo3shake,slow to fast	
	112-119	FixGobo4shake,slow to fast	
	120-127	FixGobo5shake,slow to fast	
	128-135	FixGobo6shake,slow to fast	
	136-143	FixGobo7shake,slow to fast	
	144-151	FixGobo8shake,slow to fast	
	152-159	FixGobo9shake,slow to fast	
	160-167	FixGobo10shake,slow to fast	
	168-175	FixGobo11shake,slow to fast	
	176-183	FixGobo12shake,slow to fast	
	184-191	FixGobo13shake,slow to fast	
	192-199	FixGobo14shake,slow to fast	
	200-201	Open/hole	
	202-222	FixGoboWheel CW fast to slow	
	223-228	Stop	
	229-249	FixGoboWheel CCW slow to fast	
	250-255	Auto random gobo selection from fast to slow	
		RotgoboWheel	
	0	Open	
	1-4	WhiteOpen	
	5-16	RotGobo1	
	17-28	RotGobo 2	
	29-40	RotGobo 3	
	41-52	RotGobo 4	
	53-64	RotGobo 5	
	65-76	RotGobo 6	
	77-88	RotGobo 7	
	89-100	RotGobo 8	
15	101-112	RotGobo 9	
	113-124	RotGobo1shake,slow to fast	
	125-136	RotGobo2shake,slow to fast	
	137-148	RotGobo3shake,slow to fast	
	149-160	RotGobo4shake,slow to fast	
	161-172	RotGobo5shake,slow to fast	
	173-184	RotGobo6shake,slow to fast	
	185-196	RotGobo7shake,slow to fast	
	197-208	RotGobo8shake,slow to fast	

33CH	DMX	Function	Note
	209-220	RotGobo9shake,slow to fast	
	221-249	WhiteOpen	
	250-255	Auto random gobo selection from fast to slow	
		GoboRot	
	0-127	GoboRot indexing 0°- 360°	
16	128-187	RotGobo CW fast to slow	
	188-195	Stop	
	196-255	RotGobo CCW slow to fast	
		GoboPrism	
	0-3	Prism out	
		Index - set indexing on channel GoboPrismRot	
	4-15	PrismPos1	
	16-27	PrismPos2	
17	28-39	PrismPos3	
		Rotation - set rotation on channel GoboPrismRot	
	40-51	PrismPos1	
	52-63	PrismPos2	
	64-75	PrismPos3	
	76-255	PrismPos3	
		GoboPrismRot	
		Prism indexing	
	0-255	Prism indexing	
		Prism rotation	
18	0	Prism indexing	
	1-127	Forwards prism rotation from fast to slow	
	128	Stop	
	129-255	Backwards prism rotation from slow to fast	
		BeamPrism1	
	0-3	Prism out	
		Index - set indexing on channel BeamPrismRot1	
19	4-15	Prism In	
		Rotation - set rotation on channel BeamPrismRot1	
	16-27	Prism In	
	28-255	Prism In	
		BeamPrismRot1	
		Prism indexing	
	0-255	Prism indexing	
		Prism rotation	
20	0	Prism indexing	
	1-127	Forwards prism rotation from fast to slow	
	128	Stop	
	129-255	Backwards prism rotation from slow to fast	
		BeamPrism2	
	0-3	Prism out	
		Index - set indexing on channel BeamPrismRot2	
21	4-15	Prism In	
		Rotation - set rotation on channel BeamPrismRot2	
	16-27	Prism In	
	28-255	Prism In	
		BeamPrismRot2	
		Prism indexing	
	0-255	Prism indexing	
		Prism rotation	
22	0	Prism indexing	
	1-127	Forwards prism rotation from fast to slow	
	128	Stop	
	129-255	Backwards prism rotation from slow to fast	

33CH	DMX	Function	Note
23		**Frost**	
	0	Frost Out	
	1-50	Frost1 indexing	
	51-53	Frost1 In	
	54-63	Frost1 Pulse closing from slow to fast	
	64-73	Frost1 Pulse opening from fast to slow	
	74-83	Frost1 Ramping from fast to slow	
	84-86	Frost Out	
	87-136	Frost2 indexing	
	137-139	Frost2 In	
	140-149	Frost2 Pulse closing from slow to fast	
	150-159	Frost2 Pulse opening from fast to slow	
	160-169	Frost2 Ramping from fast to slow	
	170-172	Frost Out	
	173-222	Frost1 In 2 indexing	
	223-225	Frost1/2 In	
	226-235	Frost1In 2 Pulse closing from slow to fast	
	236-245	Frost1In 2 Pulse opening from fast to slow	
	246-255	Frost1In 2 Ramping from fast to slow	
24	0-255	**Zoom**	
25	0-255	**ZoomFine**	
26	0-255	**Focus**	
27	0-255	**FocusFine**	
28	0-255	**AutoFocusFine**	
29		**AutoFocus**	
	0-15	Autofocus Off	
	16-55	10 metres	
	56-95	15 metres	
	96-135	20 metres	
	136-175	30 metres	
	176-215	40 metres	
	216-255	50 metres	
30		**Strobe**	
	0-31	Closed	
	32-63	Open	
	64-95	Slow-Fast Strobe	
	96-127	Open	
	128-143	Plus-Fast Close	
	144-159	Plus-Fast Open	
	160-191	Open	
	192-223	Random Slow-Fast Strobe	
	224-255	Open	
31	0-255	**Dimmer**	
32	0-255	**DimmerFine**	
33	0-255	**Hotspot control**	

35CH	DMX	Function	Note
1	0-255	**Pan positioning**	Angle：0-540°
2	0-255	**Fine Pan positioning**	Maximal Speed：3.16S
3	0-255	**Tilt positioning**	Angle：0-270°
4	0-255	**Fine Tilt positioning**	Maximal Speed：2S
5	0-255	**PTSpeed**	
6		**Function**	
	0-79	Unused Range	
	80-84	Dis.Blink off	
	85-89	Dis.Blink on	
	90-94	CMY Mode:Standard	
	95-99	CMY Mode:Theater	
	100-104	Pan/Tilt Mode Standard	
	105-109	Pan/Tilt Mode Fast	
	110-114	Pan/Tilt Mode Precise	
	115-119	FX Auto Focus off	
	120-124	FX Auto Focus on	
	125-129	No function	
	130-139	Lamp ON	
	140-149	PAN/TITL Reset	
	150-159	Color Reset	
	160-169	Gobo Reset	
	170-179	Unused Range	
	180-189	Zoom Reset	
	190-199	Unused Range	
	200-209	Complete Reset	
	210-229	Unused Range	
	230-239	Lamp OFF	
	240-255	Unused Range	
7	0-255	**Dimmer**	
8	0-255	**DimmerFine**	
9		**Strobe**	
	0-31	Closed	
	32-63	Open	
	64-95	Slow-Fast Strobe	0.5->12 HZ
	96-127	Open	
	128-143	Plus-Fast Close	0.5->12 HZ
	144-159	Plus-Fast Open	12->0.5 HZ
	160-191	Open	
	192-223	Random Slow-Fast Strobe	0.5->12 HZ
	224-255	Open	
10	0-255	**Cyan**	
11	0-255	**Magenta**	
12	0-255	**Yellow**	
13	0-255	**CTO**	
14		**ColorWheel**	
	0	White	
	1-127	Continual positioning	
	128-129	CRI	
	130-134	Red	
	135-138	Orange	
	139-143	Aquamarine	
	144-147	Green	
	148-152	Light Green	
	153-157	Lavender	
	158-161	Pink	
	162-166	Yellow	
	167-171	Magenta	
	172-176	Cyan	
	177-180	CTO 260/CTO2	

35CH	DMX	Function	Note
	181-185	CTO 190	
	186-189	Blue	
	190-215	CCW，Fast→Slow Rotation	125->0 RPM
	216-217	Stop	
	218-243	CW，Slow→Fast Rotation	0->125 RPM
	244-249	random colour selection	
	250-255	Auto random colour selection from fast to slow	
15	0-255	**Colour fine positioning**	
		FixgoboWheel	
	0-3	Open	
	4-9	FixGobo 1(Open)	
	10-15	FixGobo 2	
	16-21	FixGobo 3	
	22-27	FixGobo 4	
	28-33	FixGobo 5	
	34-39	FixGobo 6	
	40-45	FixGobo 7	
	46-51	FixGobo 8	
	52-57	FixGobo 9	
	58-63	FixGobo 10	
	64-69	FixGobo 11	
	70-75	FixGobo 12	
	76-81	FixGobo 13	
	82-87	FixGobo 14	
	88-95	FixGobo1shake,slow to fast	0.2->10 HZ
16	96-103	FixGobo2shake,slow to fast	0.2->10 HZ
	104-111	FixGobo3shake,slow to fast	0.2->10 HZ
	112-119	FixGobo4shake,slow to fast	0.2->10 HZ
	120-127	FixGobo5shake,slow to fast	0.2->10 HZ
	128-135	FixGobo6shake,slow to fast	0.2->10 HZ
	136-143	FixGobo7shake,slow to fast	0.2->10 HZ
	144-151	FixGobo8shake,slow to fast	0.2->10 HZ
	152-159	FixGobo9shake,slow to fast	0.2->10 HZ
	160-167	FixGobo10shake,slow to fast	0.2->10 HZ
	168-175	FixGobo11shake,slow to fast	0.2->10 HZ
	176-183	FixGobo12shake,slow to fast	0.2->10 HZ
	184-191	FixGobo13shake,slow to fast	0.2->10 HZ
	192-199	FixGobo14shake,slow to fast	0.2->10 HZ
	200-201	Open/hole	
	202-222	FixGoboWheel CW fast to slow	125->0 RPM
	223-228	Stop	
	229-249	FixGoboWheel CCW slow to fast	0->125 RPM
	250-255	Auto random gobo selection from fast to slow	
		RotgoboWheel	
	0	Open	
	1-10	WhiteOpen	
	11-16	RotGobo1	
	17-22	RotGobo 2	
	23-28	RotGobo 3	
	29-34	RotGobo 4	
	35-40	RotGobo 5	
	41-46	RotGobo 6	
	47-52	RotGobo 7	
	53-58	RotGobo 8	
	59-64	RotGobo 9	
17	65-71	RotGobo1shake,slow to fast	0.2->10 HZ
	72-78	RotGobo2shake,slow to fast	0.2->10 HZ
	79-85	RotGobo3shake,slow to fast	0.2->10 HZ
	86-92	RotGobo4shake,slow to fast	0.2->10 HZ

35CH	DMX	Function	Note
	93-99	RotGobo5shake,slow to fast	0.2->10 HZ
	100-106	RotGobo6shake,slow to fast	0.2->10 HZ
	107-113	RotGobo7shake,slow to fast	0.2->10 HZ
	114-120	RotGobo8shake,slow to fast	0.2->10 HZ
	121-127	RotGobo9shake,slow to fast	0.2->10 HZ
	128-190	RotGoboWheel CW fast to slow	125->0 RPM
	191-192	Stop	
	193-255	RotGoboWheel CCW slow to fast	0->125 RPM
		GoboRot	
	0-127	GoboRot indexing 0°- 360°	
18	128-187	RotGobo CW fast to slow	125->0 RPM
	188-195	Stop	
	196-255	RotGobo CCW slow to fast	0->125 RPM
		Animation	
19	0-19	Open	
	20-127	Proportional indexing	
	128-255	Animation	
		AnimationRot	
	0	AnimationRot indexing 0°	
20	1-127	AnimationRot CW fast to slow	125->0 RPM
	128	Stop	
	129-255	AnimationRot CCW slow to fast	0->125 RPM
		GoboPrism	
	0-3	Prism out	
		Index - set indexing on channel GoboPrismRot	
	4-15	PrismPos1	
	16-27	PrismPos2	
21	28-39	PrismPos3	
		Rotation - set rotation on channel GoboPrismRot	
	40-51	PrismPos1	
	52-63	PrismPos2	
	64-75	PrismPos3	
	76-255	PrismPos3	
		GoboPrismRot	
		Prism indexing	
	0-255	Prism indexing	0-360°
		Prism rotation	
22	0	Prism indexing	
	1-127	Forwards prism rotation from fast to slow	62.5->0 RPM
	128	Stop	
	129-255	Backwards prism rotation from slow to fast	0->62.5 RPM
		BeamPrism1	
	0-3	Prism out	
		Index - set indexing on channel BeamPrismRot1	
23	4-15	Prism In	
		Rotation - set rotation on channel BeamPrismRot1	
	16-27	Prism In	
	28-255	Prism In	
		BeamPrismRot1	
		Prism indexing	
	0-255	Prism indexing	0-360°
		Prism rotation	
24	0	Prism indexing	
	1-127	Forwards prism rotation from fast to slow	62.5->0 RPM
	128	Stop	
	129-255	Backwards prism rotation from slow to fast	0->62.5 RPM

35CH	DMX	Function	Note
		BeamPrism2	
	0-3	Prism out	
		Index - set indexing on channel BeamPrismRot2	
25	4-15	Prism In	
		Rotation - set rotation on channel BeamPrismRot2	
	16-27	Prism In	
	28-255	Prism In	
		BeamPrismRot2	
		Prism indexing	
	0-255	Prism indexing	0-360°
		Prism rotation	
26	0	Prism indexing	
	1-127	Forwards prism rotation from fast to slow	62.5->0 RPM
	128	Stop	
	129-255	Backwards prism rotation from slow to fast	0->62.5 RPM
27	0-255	**Frost**	
28	0-255	**Frost2**	
29	0-255	**Zoom**	
30	0-255	**ZoomFine**	
31	0-255	**Focus**	
32	0-255	**FocusFine**	
		AutoFocus	
	0-15	Autofocus Off	
	16-55	10 metres	
	56-95	15 metres	
33	96-135	20 metres	
	136-175	30 metres	
	176-215	40 metres	
	216-255	50 metres	
34	0-255	**AutoFocusFine**	
35	0-255	**Hotspot control**	

36CH	DMX	Function	Note
1	0-255	**Pan positioning**	Angle：0-540°
2	0-255	**Fine Pan positioning**	Maximal Speed：3.16S
3	0-255	**Tilt positioning**	Angle：0-270°
4	0-255	**Fine Tilt positioning**	Maximal Speed：2S
5	0-255	**PTSpeed**	
6		**Function**	
	0-79	Unused Range	
	80-84	Dis.Blink off	
	85-89	Dis.Blink on	
	90-94	CMY Mode:Standard	
	95-99	CMY Mode:Theater	
	100-104	Pan/Tilt Mode Standard	
	105-109	Pan/Tilt Mode Fast	
	110-114	Pan/Tilt Mode Precise	
	115-119	FX Auto Focus off	
	120-124	FX Auto Focus on	
	125-129	No function	
	130-139	Lamp ON	
	140-149	PAN/TITL Reset	
	150-159	Color Reset	
	160-169	Gobo Reset	
	170-179	Unused Range	
	180-189	Zoom Reset	
	190-199	Unused Range	
	200-209	Complete Reset	
	210-229	Unused Range	
	230-239	Lamp OFF	
	240-255	Unused Range	
7	0-255	**Dimmer**	
8	0-255	**DimmerFine**	
9		**Strobe**	
	0-31	Closed	
	32-63	Open	
	64-95	Slow-Fast Strobe	0.5->12 HZ
	96-127	Open	
	128-143	Plus-Fast Close	0.5->12 HZ
	144-159	Plus-Fast Open	12->0.5 HZ
	160-191	Open	
	192-223	Random Slow-Fast Strobe	0.5->12 HZ
	224-255	Open	
10	0-255	**Cyan**	
11	0-255	**Magenta**	
12	0-255	**Yellow**	
13	0-255	**CTO**	
14		**ColorWheel**	
	0	White	
	1-127	Continual positioning	
	128-129	CRI	
	130-134	Red	
	135-138	Orange	
	139-143	Aquamarine	
	144-147	Green	
	148-152	Light Green	
	153-157	Lavender	
	158-161	Pink	
	162-166	Yellow	
	167-171	Magenta	
	172-176	Cyan	
	177-180	CTO 260/CTO2	

36CH	DMX	Function	Note
	181-185	CTO 190	
	186-189	Blue	
	190-215	CCW，Fast→Slow Rotation	125->0 RPM
	216-217	Stop	
	218-243	CW，Slow→Fast Rotation	0->125 RPM
	244-249	random colour selection	
	250-255	Auto random colour selection from fast to slow	
15	0-255	**Colour fine positioning**	
		FixgoboWheel	
	0-3	Open	
	4-9	FixGobo 1(Open)	
	10-15	FixGobo 2	
	16-21	FixGobo 3	
	22-27	FixGobo 4	
	28-33	FixGobo 5	
	34-39	FixGobo 6	
	40-45	FixGobo 7	
	46-51	FixGobo 8	
	52-57	FixGobo 9	
	58-63	FixGobo 10	
	64-69	FixGobo 11	
	70-75	FixGobo 12	
	76-81	FixGobo 13	
	82-87	FixGobo 14	
	88-95	FixGobo1shake,slow to fast	0.2->10 HZ
16	96-103	FixGobo2shake,slow to fast	0.2->10 HZ
	104-111	FixGobo3shake,slow to fast	0.2->10 HZ
	112-119	FixGobo4shake,slow to fast	0.2->10 HZ
	120-127	FixGobo5shake,slow to fast	0.2->10 HZ
	128-135	FixGobo6shake,slow to fast	0.2->10 HZ
	136-143	FixGobo7shake,slow to fast	0.2->10 HZ
	144-151	FixGobo8shake,slow to fast	0.2->10 HZ
	152-159	FixGobo9shake,slow to fast	0.2->10 HZ
	160-167	FixGobo10shake,slow to fast	0.2->10 HZ
	168-175	FixGobo11shake,slow to fast	0.2->10 HZ
	176-183	FixGobo12shake,slow to fast	0.2->10 HZ
	184-191	FixGobo13shake,slow to fast	0.2->10 HZ
	192-199	FixGobo14shake,slow to fast	0.2->10 HZ
	200-201	Open/hole	
	202-222	FixGoboWheel CW fast to slow	125->0 RPM
	223-228	Stop	
	229-249	FixGoboWheel CCW slow to fast	0->125 RPM
	250-255	Auto random gobo selection from fast to slow	
		RotgoboWheel	
	0	Open	
	1-10	Open	
	11-16	RotGobo1	
	17-22	RotGobo 2	
	23-28	RotGobo 3	
	29-34	RotGobo 4	
	35-40	RotGobo 5	
	41-46	RotGobo 6	
	47-52	RotGobo 7	
	53-58	RotGobo 8	
	59-64	RotGobo 9	
17	65-71	RotGobo1shake,slow to fast	0.2->10 HZ
	72-78	RotGobo2shake,slow to fast	0.2->10 HZ
	79-85	RotGobo3shake,slow to fast	0.2->10 HZ
	86-92	RotGobo4shake,slow to fast	0.2->10 HZ

36CH	DMX	Function	Note
	93-99	RotGobo5shake,slow to fast	0.2->10 HZ
	100-106	RotGobo6shake,slow to fast	0.2->10 HZ
	107-113	RotGobo7shake,slow to fast	0.2->10 HZ
	114-120	RotGobo8shake,slow to fast	0.2->10 HZ
	121-127	RotGobo9shake,slow to fast	0.2->10 HZ
	128-190	RotGoboWheel CW fast to slow	125->0 RPM
	191-192	Stop	
	193-255	RotGoboWheel CCW slow to fast	0->125 RPM
		GoboRot	
	0-127	GoboRot indexing 0°- 360°	
18	128-187	RotGobo CW fast to slow	125->0 RPM
	188-195	Stop	
	196-255	RotGobo CCW slow to fast	0->125 RPM
		Animation	
19	0-19	Open	
	20-127	Proportional indexing	
	128-255	Animation	
		AnimationRot	
	0	AnimationRot indexing 0°	
20	1-127	AnimationRot CW fast to slow	125->0 RPM
	128	Stop	
	129-255	AnimationRot CCW slow to fast	0->125 RPM
		GoboPrism	
	0-3	Prism out	
		Index - set indexing on channel GoboPrismRot	
	4-15	PrismPos1	
	16-27	PrismPos2	
21	28-39	PrismPos3	
		Rotation - set rotation on channel GoboPrismRot	
	40-51	PrismPos1	
	52-63	PrismPos2	
	64-75	PrismPos3	
	76-255	PrismPos3	
		GoboPrismRot	
		Prism indexing	
	0-255	Prism indexing	0-360°
		Prism rotation	
22	0	Prism indexing	
	1-127	Forwards prism rotation from fast to slow	62.5->0 RPM
	128	Stop	
	129-255	Backwards prism rotation from slow to fast	0->62.5 RPM
		BeamPrism1	
	0-3	Prism out	
		Index - set indexing on channel BeamPrismRot1	
23	4-15	Prism In	
		Rotation - set rotation on channel BeamPrismRot1	
	16-27	Prism In	
	28-255	Prism In	
		BeamPrismRot1	
		Prism indexing	
	0-255	Prism indexing	0-360°
		Prism rotation	
24	0	Prism indexing	
	1-127	Forwards prism rotation from fast to slow	62.5->0 RPM
	128	Stop	
	129-255	Backwards prism rotation from slow to fast	0->62.5 RPM

36CH	DMX	Function	Note
		BeamPrism2	
	0-3	Prism out	
		Index - set indexing on channel BeamPrismRot2	
25	4-15	Prism In	
		Rotation - set rotation on channel BeamPrismRot2	
	16-27	Prism In	
	28-255	Prism In	
		BeamPrismRot2	
		Prism indexing	
	0-255	Prism indexing	0-360°
		Prism rotation	
26	0	Prism indexing	
	1-127	Forwards prism rotation from fast to slow	62.5->0 RPM
	128	Stop	
	129-255	Backwards prism rotation from slow to fast	0->62.5 RPM
27	0-255	**Frost**	
28	0-255	**Frost2**	
29	0-255	**Zoom**	
30	0-255	**ZoomFine**	
31	0-255	**Focus**	
32	0-255	**FocusFine**	
		AutoFocus	
	0-15	Autofocus Off	
	16-55	10 metres	
	56-95	15 metres	
33	96-135	20 metres	
	136-175	30 metres	
	176-215	40 metres	
	216-255	50 metres	
34	0-255	**AutoFocusFine**	
35	0-255	**Hotspot control**	
		Beam Mode	
36	0-127	Spot Mode	
	128-255	Beam Mode	

39CH	DMX	Function	Note
1	0-255	**Pan positioning**	
2	0-255	**Fine Pan positioning**	
3	0-255	**Tilt positioning**	
4	0-255	**Fine Tilt positioning**	
5	0-255	**PTSpeed**	
6		**Function**	
	0-79	Unused Range	
	80-84	Dis.Blink off	
	85-89	Dis.Blink on	
	90-94	CMY Mode:Standard	
	95-99	CMY Mode:Theater	
	100-104	Pan/Tilt Mode Standard	
	105-109	Pan/Tilt Mode Fast	
	110-114	Pan/Tilt Mode Precise	
	115-119	FX Auto Focus off	
	120-124	FX Auto Focus on	
	125-129	No function	
	130-139	Lamp ON	
	140-149	PAN/TITL Reset	
	150-159	Color Reset	
	160-169	Gobo Reset	
	170-179	Unused Range	
	180-189	Zoom Reset	
	190-199	Unused Range	
	200-209	Complete Reset	
	210-229	Unused Range	
	230-239	Lamp OFF	
	240-255	Unused Range	
7	0-255	**Cyan**	
8	0-255	**Magenta**	
9	0-255	**Yellow**	
10		**ColorWheel**	
	0	White	
	1-127	Continual positioning	
	128-129	CRI	
	130-134	Red	
	135-138	Orange	
	139-143	Aquamarine	
	144-147	Green	
	148-152	Light Green	
	153-157	Lavender	
	158-161	Pink	
	162-166	Yellow	
	167-171	Magenta	
	172-176	Cyan	
	177-180	CTO 260/CTO2	
	181-185	CTO 190	
	186-189	Blue	
	190-215	CCW, Fast→Slow Rotation	
	216-217	Stop	
	218-243	CW, Slow→Fast Rotation	
	244-249	random colour selection	
	250-255	Auto random colour selection from fast to slow	
11	0-255	**Colour fine positioning**	
		Virtual colour wheel	
	0	Open/white (0=default)	
	1-2	Filter 4 (Medium Bastard Amber)	
	3-4	Filter 10 (Medium Yellow)	
	5-6	Filter 19 (Fire)	
	7-8	Filter 26 (Bright Red)	
	9-10	Filter 58 (Lavender)	
	11-12	Filter 68 (Sky Blue)	
	13-14	Filter 71 (Tokyo Blue)	
	15-16	Filter 79 (Just Blue)	

39CH	DMX	Function	Note
12	17-18	Filter 88 (Lime Green)	
	19-20	Filter 90 (Dark Yellow Green)	
	21-22	Filter 100 (Spring Yellow)	
	23-24	Filter 101 (Yellow)	
	25-26	Filter 102 (Light Amber)	
	27-28	Filter 103 (Straw)	
	29-30	Filter 104 (Deep Amber)	
	31-32	Filter 105 (Orange)	
	33-34	Filter 106 (Primary Red)	
	35-36	Filter 111 (Dark Pink)	
	37-38	Filter 115 (Peacock Blue)	
	39-40	Filter 116 (Medium Blue-Green)	
	41-42	Filter 117 (Steel Blue)	
	43-44	Filter 118 (Light Blue)	
	45-46	Filter 119 (Dark Blue)	
	47-48	Filter 120 (Deep Blue)	
	49-50	Filter 121 (Filter Green)	
	51-52	Filter 128 (Bright Pink)	
	53-54	Filter 131 (Marine Blue)	
	55-56	Filter 132 (Medium Blue)	
	57-58	Filter 134 (Golden Amber)	
	59-60	Filter 135 (Deep Golden Amber)	
	61-62	Filter 136 (Pale Lavender)	
	63-64	Filter 137 (Special Lavender)	
	65-66	Filter 138 (Pale Green)	
	67-68	Filter 139 (Primary Green)	
	69-70	Filter 141 (Bright Blue)	
	71-72	Filter 147 (Apricot)	
	73-74	Filter 148 (Bright Rose)	
	75-76	Filter 152 (Pale Gold)	
	77-78	Filter 154 (Pale Rose)	
	79-80	Filter 157 (Pink)	
	81-82	Filter 158 (Deep Orange)	
	83-84	Filter 162 (Bastard Amber)	
	85-86	Filter 164 (Flame Red)	
	87-88	Filter 165 (Daylight Blue)	
	89-90	Filter 169 (Lilac Tint)	
	91-92	Filter 170 (Deep Lavender)	
	93-94	Filter 172 (Lagoon Blue)	
	95-96	Filter 179 (Chrome Orange)	
	97-98	Filter 180 (Dark Lavender)	
	99-100	Filter 181 (Congo Blue)	
	101-102	Filter 197 (Alice Blue)	
	103-104	Filter 201 (Full C.T. Blue)	
	105-106	Filter 202 (Half C.T. Blue)	
	107-108	Filter 203 (Quarter C.T. Blue)	
	109-110	Filter 204 (Full C.T. Orange)	
	111-112	Filter 205 (Half C.T. Orange)	
	113-114	Filter 206 (Quarter C.T. Orange)	
	115-116	Filter 247 (Filter Minus Green)	
	117-118	Filter 248 (Half Minus Green)	
	119-120	Filter 281 (Three Quarter C.T. Blue)	
	121-122	Filter 285 (Three Quarter C.T. Orange)	
	123-124	Filter 352 (Glacier Blue)	
	125-126	Filter 353 (Lighter Blue)	
	127-128	Filter 715 (Cabana Blue)	
	129-130	Filter 778 (Millennium Gold)	
	131-132	Filter 793 (Vanity Fair)	
	133-255	Raw DMX proportional	
13		**Effect Speed**	
		Speed of Cyan and Magenta and Yellow movement	
	0-255	Speed of CMY movement from max. to min. (0=default)	

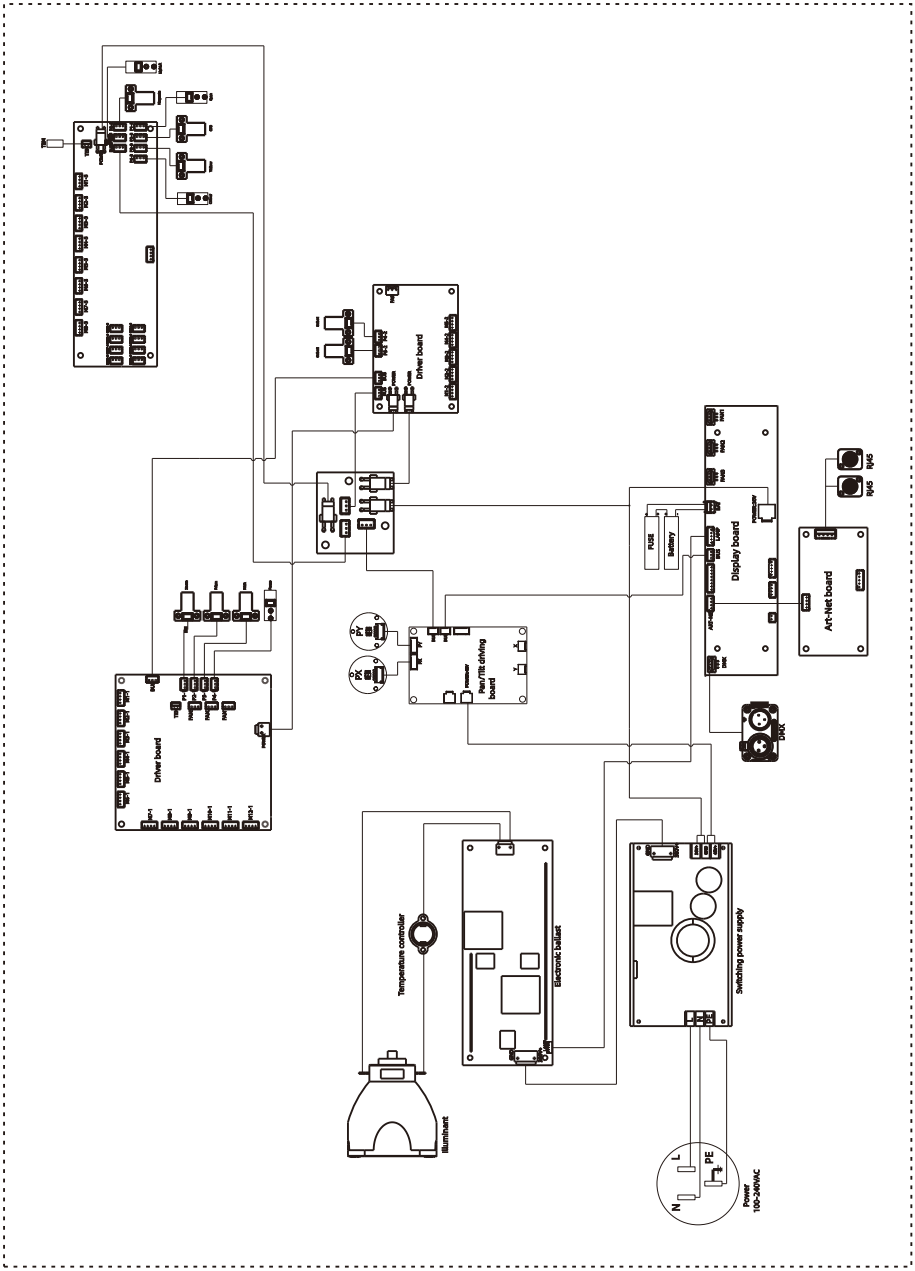
39CH	DMX	Function	Note
		CMY & Colour wheel time	
14	0	Function is off (0=default)	
	1 - 255	Time of CMY and col. wheel movement (0.1sec -->25.5sec.)	
		Zoom & Focus & Frost & Prism time	
	0	Function is off (0=default)	
15	1 - 255	Time of zoom/ focus movement (0.1 sec-->25.5 sec.)	
	1-100	Time of frost movement (0.1 sec -->10 sec)	
	1-50	Time of prism movement (0.1 sec-->5 sec.)	
		Animation	
	0-19	Open	
16	20-127	Proportional indexing	
	128-170	Ramping from open to full position (max--->min. speed)	
	171-213	Ramping from open to half position (max. --->min. speed)	
	214-255	Ramp. from half position to full position (max. --->min. speed)	
		AnimationRot	
	0	AnimationRot indexing 0°	
17	1-127	AnimationRot CW fast to slow	
	128	Stop	
	129-255	AnimationRot CCW slow to fast	
		Effect wheel animations	
	0-3	No animation (0=default)	
		Note : All animations were created at distance of 5 m from screen with zoom=16 DMX. Focus value for each animation is stated in brackets	
		Coloured animations. The channels are blocked: CMY , Colour wheel, Virtual colour wheel, Effect wheel positioning, Effect wheel rot., Rotat. Gobos and Rot. Gobo rotation	
	4-5	Animation Macro 1 (Focus=159 DMX at 5 m)	
	6-7	Animation Macro 2 (Focus=154 DMX at 5 m)	
	8-9	Animation Macro 3 (Focus=154 DMX at 5 m)	
	10-11	Animation Macro 4 (Focus=157 DMX at 5 m)	
	12-13	Animation Macro 5 (Focus=157 DMX at 5 m)	
	14-15	Animation Macro 6 (Focus=166DMX at 5 m)	
	16-17	Animation Macro 7 (Focus=145 DMX at 5 m)	
	18-19	Animation Macro 8 (Focus=162 DMX at 5 m)	
18	20-21	Animation Macro 9 (Focus=162 DMX at 5 m)	
	22-23	Animation Macro 10 (Focus=162 DMX at 5m)	
		Black and white animations . The channels are blocked: Effect wheel positioning, Effect wheel rot., Rotat. Gobos and Rot. Gobo rotation	
	24-25	Animation Macro 1 (Focus=159 DMX at 5 m)	
	26-27	Animation Macro 2 (Focus=154 DMX at 5 m)	
	28-29	Animation Macro 3 (Focus=154 DMX at 5 m)	
	30-31	Animation Macro 4 (Focus=157 DMX at 5 m)	
	32-33	Animation Macro 5 (Focus=157 DMX at 5 m)	
	34-35	Animation Macro 6 (Focus=166DMX at 5 m)	
	36-37	Animation Macro 7 (Focus=145 DMX at 5 m)	
	38-39	Animation Macro 8 (Focus=162 DMX at 5 m)	
	40-41	Animation Macro 9 (Focus=162 DMX at 5 m)	
	42-43	Animation Macro 10 (Focus=162 DMX at 5m)	
	44-255	Raw DMX	
		FixgoboWheel	
	0-3	Open	
	4-9	FixGobo 1(Open)	
	10-15	FixGobo 2	
	16-21	FixGobo 3	
	22-27	FixGobo 4	
	28-33	FixGobo 5	
	34-39	FixGobo 6	
	40-45	FixGobo 7	
	46-51	FixGobo 8	
	52-57	FixGobo 9	
	58-63	FixGobo 10	
	64-69	FixGobo 11	

39CH	DMX	Function	Note
	70-75	FixGobo 12	
	76-81	FixGobo 13	
	82-87	FixGobo 14	
	88-95	FixGobo1shake,slow to fast	
19	96-103	FixGobo2shake,slow to fast	
	104-111	FixGobo3shake,slow to fast	
	112-119	FixGobo4shake,slow to fast	
	120-127	FixGobo5shake,slow to fast	
	128-135	FixGobo6shake,slow to fast	
	136-143	FixGobo7shake,slow to fast	
	144-151	FixGobo8shake,slow to fast	
	152-159	FixGobo9shake,slow to fast	
	160-167	FixGobo10shake,slow to fast	
	168-175	FixGobo11shake,slow to fast	
	176-183	FixGobo12shake,slow to fast	
	184-191	FixGobo13shake,slow to fast	
	192-199	FixGobo14shake,slow to fast	
	200-201	Open/hole	
	202-222	FixGoboWheel CW fast to slow	
	223-228	Stop	
	229-249	FixGoboWheel CCW slow to fast	
	250-255	Auto random gobo selection from fast to slow	
		RotgoboWheel	
		Index - set indexing on channel 21	
	0	Open	
	1-4	WhiteOpen	
	5-7	RotGobo1	
	8-10	RotGobo 2	
	11-13	RotGobo 3	
	14-16	RotGobo 4	
	17-19	RotGobo 5	
	20-22	RotGobo 6	
	23-25	RotGobo 7	
	26-28	RotGobo 8	
	29-31	RotGobo 9	
		Rotation - set rotation on channel 21	
	32-34	RotGobo1	
	35-37	RotGobo 2	
	38-40	RotGobo 3	
	41-43	RotGobo 4	
	44-46	RotGobo 5	
	47-49	RotGobo 6	
	50-52	RotGobo 7	
	53-55	RotGobo 8	
	56-59	RotGobo 9	
		Shaking gobo from slow to fast	
		Index - set indexing on channel 21	
20	60-67	RotGobo1	
	68-75	RotGobo 2	
	76-83	RotGobo 3	
	84-91	RotGobo 4	
	92-99	RotGobo 5	
	100-107	RotGobo 6	
	108-115	RotGobo 7	
	116-123	RotGobo 8	
	124-129	RotGobo 9	
		Shaking gobo from slow to fast	
		Rotation - set rotation on channel 21	
	130-137	RotGobo1	
	138-145	RotGobo 2	
	146-153	RotGobo 3	
	154-161	RotGobo 4	
	162-169	RotGobo 5	
	170-177	RotGobo 6	

39CH	DMX	Function	Note
	178-185	RotGobo 7	
	186-193	RotGobo 8	
	194-199	RotGobo 9	
	200 - 201	Open/hole	
	202 - 222	Forwards gobo wheel rotation from fast to slow	
	223 - 243	Backwards gobo wheel rotation from slow to fast	
	244 - 249	Random gobo selection by audio control	
	250-255	Auto random gobo selection from fast to slow	
		GoboRot	
		Gobo indexing - set position on channel	
	0 - 255	Gobo indexing	
		Gobo rotation - set position on channel	
21	0	GoboRot indexing	
	1-127	RotGobo CW fast to slow	
	128	Stop	
	129-255	RotGobo CCW slow to fast	
22		**Rot. gobo indexing/rotation - fine**	
	0-255	Fine indexing/rotation (0=default)	
		GoboPrism	
	0-3	Prism out	
		Index - set indexing on channel GoboPrismRot	
	4-7	PrismPos1	
	8-11	PrismPos2	
23	12-15	PrismPos3	
		Rotation - set rotation on channel GoboPrismRot	
	16-19	PrismPos1	
	20-23	PrismPos2	
	24-27	PrismPos3	
	28-255	Raw DMX	
		GoboPrismRot	
		Prism indexing	
	0-255	Prism indexing	
		Prism rotation	
24	0	Prism indexing	
	1-127	Forwards prism rotation from fast to slow	
	128	Stop	
	129-255	Backwards prism rotation from slow to fast	
25		**GoboPrism2**	
	0-255	Raw DMX	
26		**GoboPrismRot2**	
	0-255	Raw DMX	
27		**Pattern sellection**	
	0-255	Raw DMX	
28		**Pattern rotation and indexing**	
	0-255	Raw DMX	
		BeamPrism	
	0-3	Prism out	
		Index - set indexing on channel BeamPrismRot1	
	4-7	PrismPos1	
	8-11	PrismPos2	
	12-15	Raw DMX	
29	16-19	Raw DMX	
		Rotation - set rotation on channel BeamPrismRot1	
	20-23	PrismPos1	
	24-27	PrismPos2	
	28-31	Raw DMX	
	32-35	Raw DMX	
	28-255	Raw DMX	
		BeamPrismRot	
		Prism indexing	
	0-255	Prism indexing	
		Prism rotation	
30	0	Prism indexing	
	1-127	Forwards prism rotation from fast to slow	

39CH	DMX	Function	Note
	128	Stop	
	129-255	Backwards prism rotation from slow to fast	
		Frost	
	0	Frost Out	
	1-50	Frost1 indexing	
	51-53	Frost1 In	
	54-63	Frost1 Pulse closing from slow to fast	
	64-73	Frost1 Pulse opening from fast to slow	
	74-83	Frost1 Ramping from fast to slow	
	84-86	Frost Out	
	87-136	Frost2 indexing	
31	137-139	Frost2 In	
	140-149	Frost2 Pulse closing from slow to fast	
	150-159	Frost2 Pulse opening from fast to slow	
	160-169	Frost2 Ramping from fast to slow	
	170-172	Frost Out	
	173-222	Frost1 In 2 indexing	
	223-225	Frost1/2 In	
	226-235	Frost1In 2 Pulse closing from slow to fast	
	236-245	Frost1In 2 Pulse opening from fast to slow	
	246-255	Frost1In 2 Ramping from fast to slow	
32	0-255	**Zoom**	
33	0-255	**ZoomFine**	
34	0-255	**Focus**	
35	0-255	**FocusFine**	
36	0-255	**Hotspot control**	
		Strobe	
	0-31	Closed	
	32-63	Open	
	64-95	Slow-Fast Strobe	
	96-127	Open	
37	128-143	Plus-Fast Close	
	144-159	Plus-Fast Open	
	160-191	Open	
	192-223	Random Slow-Fast Strobe	
	224-255	Open	
38	0-255	**Dimmer**	
39	0-255	**DimmerFine**	

7.Electrical Connection Diagram



8.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 corresponding to the X and Y directions in the lamp is damaged.
- Restart the computer and reset it once.

9.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 .

CAUTION ! ! !

Disconnect from mains before starting maintenance operation.

10.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.