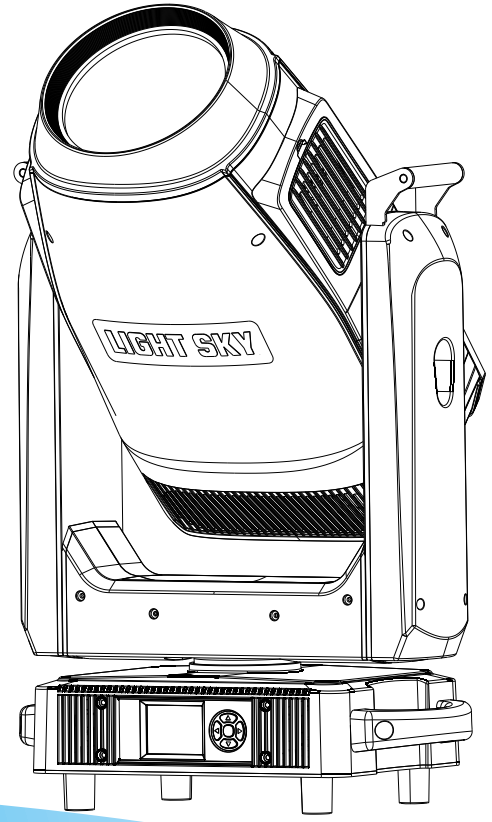
LiGHT SKY

FLY DRAGON LIGHTING EQUIPMENT CO.,LTD

SUPER SCOPE COLOR

User Manual



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LiGHT SKY

Please read the instruction carefully bef!

CONTENTS

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

◆Please note that this product, as all the others in the rich my company range, has been designed and made with total quality to ensure excellent performance and best meet your expectations and requirements.

◆Carefully read this user manual in its entirety and keep it safe for future reference.It is essential to know the information and comply with the instructions given in this manual to ensure the fitting is installed, used and serviced correctly and safely.

◆My company disclaims all liability for damage to the fitting or to other property or persons deriving from installation, use and maintenance that have not been carried out in conformity with this user manual, which must always accompany the fitting.

◆My company reserves the right to modify the characteristics stated in this user manual at any time and without prior notice.

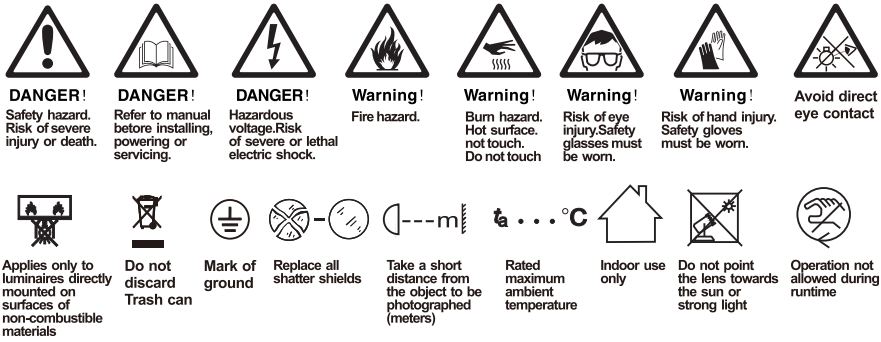
1.Safety Instructions

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

WARNING

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

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



Important:

Damages caused by the disregard of this user manual are not subject to warranty.

The dealer will not accept liability for any resulting defects or problems.

- ► Unpack and check carefully to ensure that there is no transportation damage before using the unit.
- ► 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.

- ► The unit must be installed in a location with adequate ventilation, at least 20cm from adjacent surfaces.
- ► Be sure that no ventilation slots is blocked, otherwise the unit will be overheated.
- ► Before operation, ensure that you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.
- ► It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- ► Minimum ambient temperature Ta: -10℃. Maximum ambient temperature Ta: 45℃. Do not operate this product at a lower or higher temperature.
- ► Do not connect the device to any dimmer pack.
- ► When the lamp is running, do not place combustible objects next to it. The shortest distance between the device and inflammable and explosive objects or materials is 0.5m.
- ► Make sure the power cord is not crimped or damaged; replace it immediately if damaged.
- ► Unit's surface temperature may reach up to 75℃. Do not touch the housing bare-handedduring its operation.
- ► Avoid any flammable liquids, water or metal from entering the unit. Once it happens, cut off the mains power immediately.
- ► Do not operate in a dirty or dusty environment. Do clean the fixture regularly.
- ► Do not touch any wire during operation as there might be a hazard of electric shock.
- ► Avoid entanglement of the power cord with other wires.
- ► The minimum distance to objects/surface must be more than 3 meters.
- ► In the event of serious operating problem, stop using the unit immediately.
- ► Never turn on and off the unit time after time.
- ► The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.
- ► Do not open the housing as there are no user serviceable parts inside.
- ► Do not attempt to operate this unit if it becomes damaged. Do not attempt any repairs yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.
- ► Disconnect this product from its power source before servicing.
- ► Do use the original packaging if the device is to be transported.
- ► Avoid direct eye exposure to the light source while the product is on.

► Do not operate this product if you see damage on the housing, shields, or cables. Have the damaged parts replaced by an authorized technician at once.

Installation:

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

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

2.Technical Specifications

OPTICS

- Light source: 600W five color LED module (RGBAL)
- Zoom range: 5.9 ° -52 °
- Optical lens: coated with high anti reflective film, diameter 180mm
- Color temperature: 2500-10000 K
- Color rendering index: Reachable 95
- Illuminance: 12500 Lux@10m
- Whole lamp output luminous flux: 17600 Lm
- LED source life expectancy: 40000 hours(*LED source life depends on several factors, including but not limited to:environmental conditions, control dimming, power supply and voltage, switchingcycle, fixture mode, etc.)

COLOUR

- 66 electronic color chips with rich colors
- Virtual CMY
- Virtual CTO

PATTERN

- 2 rotating pattern disks, 14 glass pattern pieces, with a dynamic stacking effect that can be plugged and replaced to achieve self rotation, flowing water, and shaking effects,
- Rotating disk A: 7 types of glass patterns+white circles, pattern piece outer diameter 26.9mm, pattern piece inner diameter 21.5mm.(When cutting and imaging patterns, using pattern disc A yields better results)
- Rotating disk B: 7 types of glass patterns+white circles, pattern piece outer diameter 26.9mm, pattern piece inner diameter 21.5mm.
- Dynamic Effect Disk
- Eight way cutting: 4 gratings achieve fast and smooth cutting, and the eight cutting directions and angles can be individually controlled. Each single grating can achieve complete light closure, and the entire cutting module can rotate ± 55° .

EFFECT

- Octagonal prism, capable of bidirectional rotation.
- Heavy atomization+light atomization, can be independently switched and stacked.
- Equipped with electric aperture, 5-100% linear adjustment, with macro functions and multi effect changes.
- Electronic dimming, 0-100% linear dimming, uniform light spot
- Electronic strobe speed is 1-25 times/second
- LED refresh rate: 1000Hz~25K Hz

CONTROL AND PROGRAMMING

- Control channels: 60CH, 35CH, 64CH, 49CH, see channel table for details
- Protocol: Standard DMX512 protocol, RDM protocol, Art Net protocol
- Data connection: Three core or five core signal input/output
- Display: LCD screen

SOFTWARE

- Upgrade software through DMX signal or USB interface
- Silent fan, three working modes (silent/standard/high brightness)

X/Y-AXIS MOTION ANGLE

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

POWER

- Input voltage: AC 100-240V 50/60Hz
- Maximum power: 1050W (100V input)
- Power factor: 0.996
- Maximum current of the lamp: 10.5A (100V input)

SIZE AND WEIGHT

- Product size: 442mm × 282mm × 788mm
- Carton packaging (default): 520mm × 370mm × 870mm
- Net weight: 37.6Kg Gross weight: 43.0kg

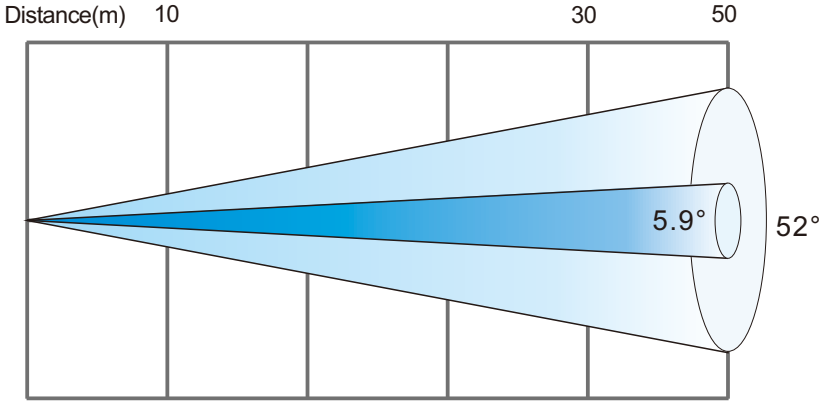
OTHER

- Protection level: Ip20
- Working environment: -10 ℃~45℃
- Maximum surface temperature of lamp body:75℃

STANDARDS AND CERTIFICATION

- 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

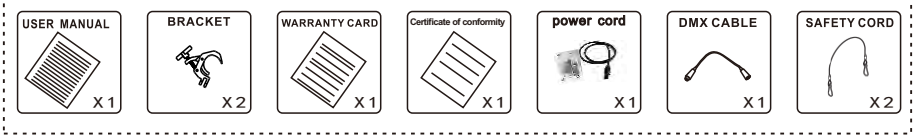
illumination diagram



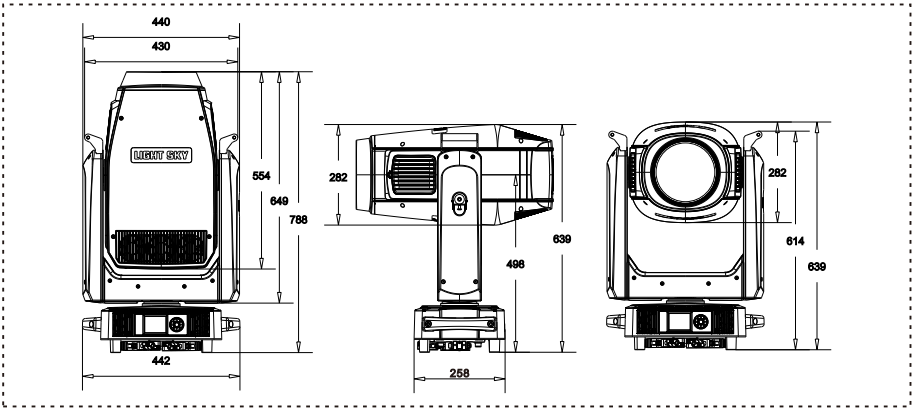
5.9° Lux R	720	320	180	80	30
G	2100	930	520	230	85
B	430	190	110	50	20
A	1580	700	400	180	60
L	8600	3800	2150	950	340
RGBAL	12500	5556	3125	1389	500
Diameter(m)	1.07	1.6	2.14	3.21	5.35
52° Lux R	20	9	5	2	1
G	50	22	13	6	2
B	10	4	3	1	0
A	36	16	9	4	1
L	200	89	50	22	8
RGBAL	300	130	75	30	12
Diameter(m)	9.82	14.73	19.64	29.46	49.1

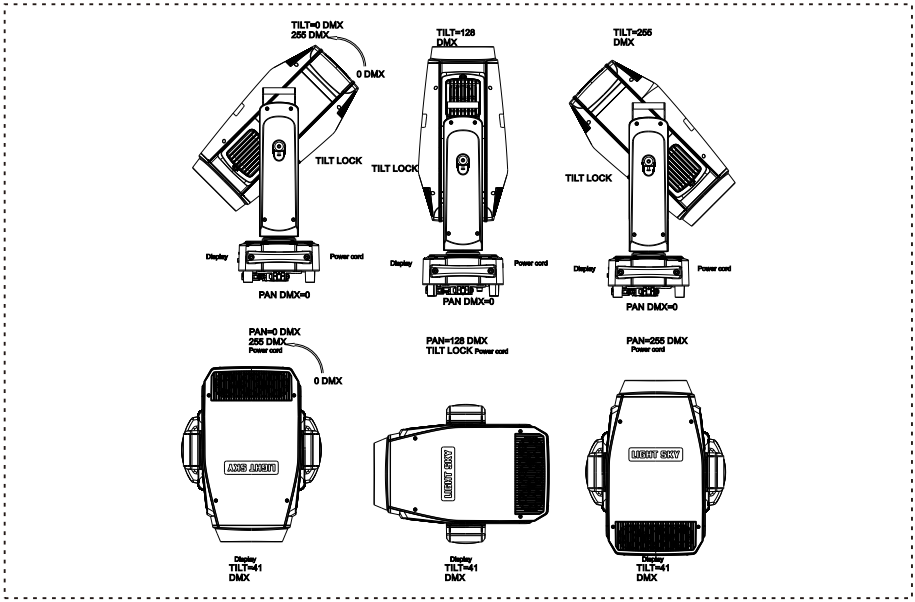
2.1.Attachment And Size

Attachment contents-Fig.1



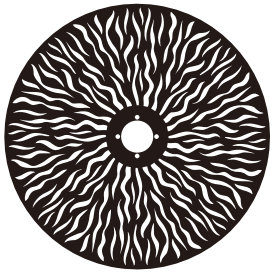
Size-Fig.2



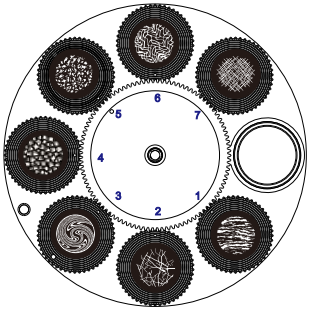


3.Prism/Effect/Pattern

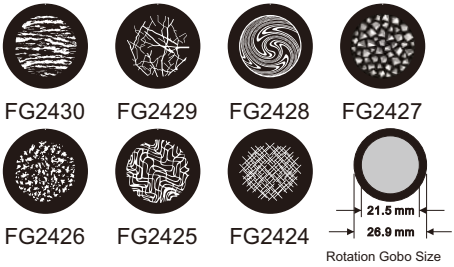
8 Prism

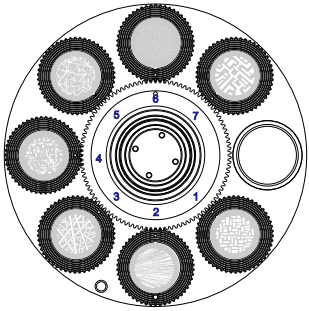


Effect disc

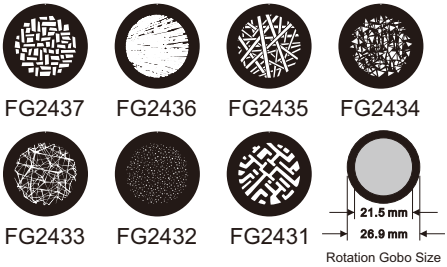


Rotating gobo wheel A





Rotating gobo wheel B

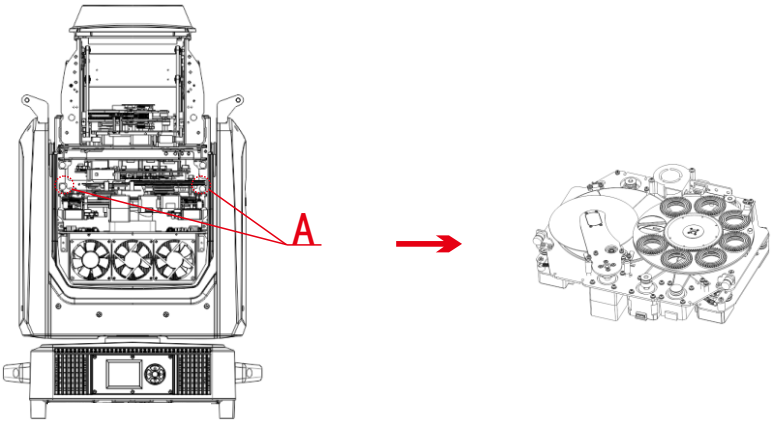


DANGER!

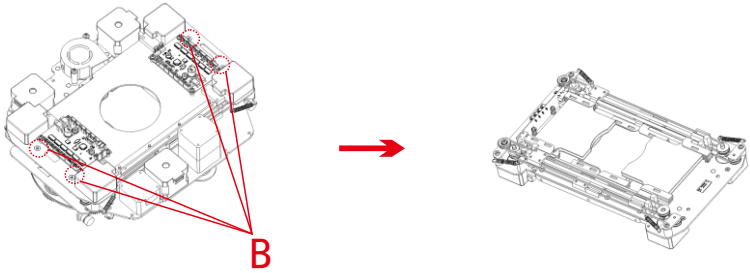
Install the rotating gobos with the device switched of f only.
Unplug from mains before changing the rotating gobos!

3.1.Replacing Rotating Gobos

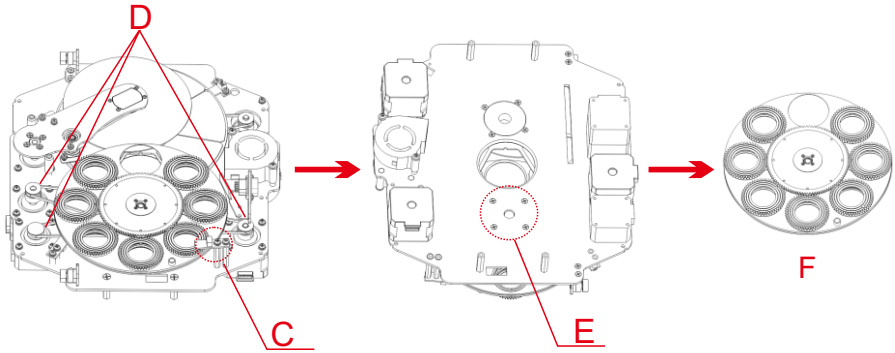
1. Use a screwdriver to unscrew the two screws at **A** to take out the pattern color module assembly;



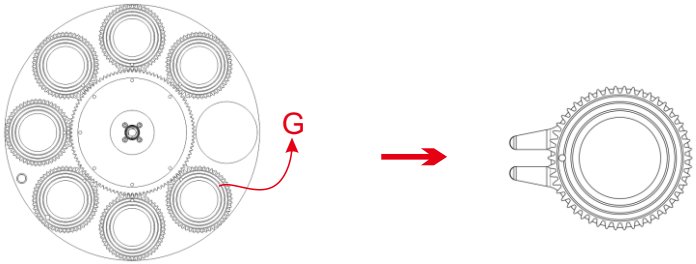
2. Reverse the assembly, and use a screwdriver to unscrew the four screws at **B** to separate the pattern color module from the CMY module;



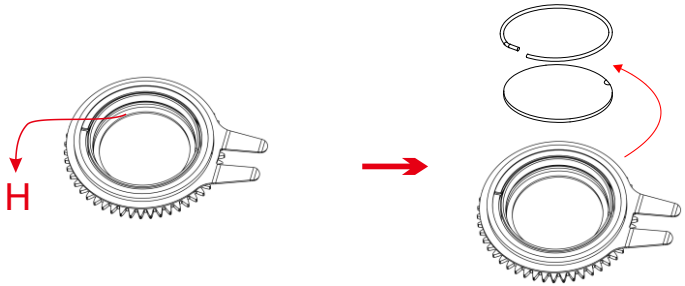
3. Use a screwdriver from the front of the pattern module to unscrew the two screws of the magnetic induction board at **C**, and remove the magnetic induction board; then half loosen the screws on the three motors at **D**, move the motor and take off the belt; turn the pattern module back Come here, unscrew the four screws at **E** with a screwdriver, and you can take out the rotating gobo and fixed gobo assembly (as shown in Figure **F**, the front is the rotating gobo, and the back is the fixed gobo)



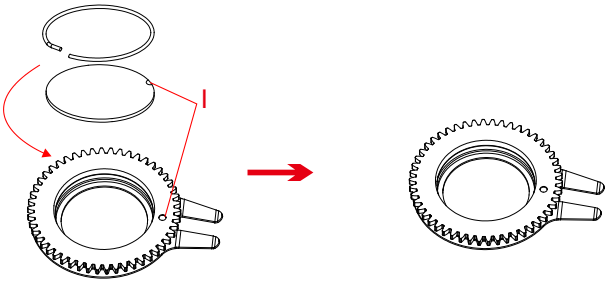
4. As shown in **G**, gently lift the gobo driven wheel from the edge upwards from the back of the gobo wheel and pull it out slowly to take out a single gobo;



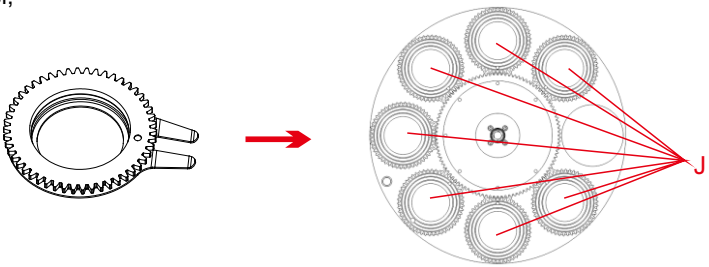
5.Take out the circlip at **H** with tweezers or other small objects that can be held (if the gobo is coated with glass glue for fixing, please use a professional cleaning agent to remove the glass glue and then take out the circlip to avoid damage to the gobo);



6. When assembling the gobo, avoid touching the gobo directly with your hands, and as shown in I, align the notched part of the gobo with the depression of the driven wheel assembly (the coating surface of the gobo should face the light source);

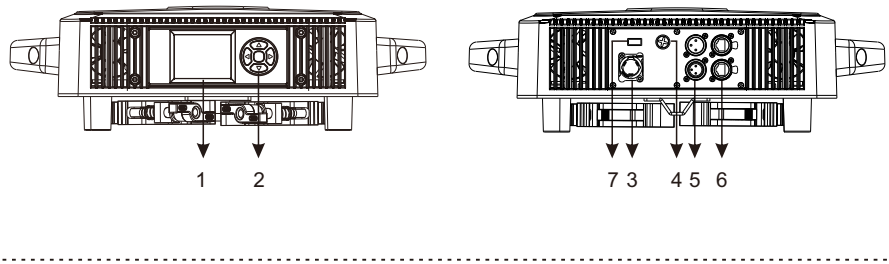


7. Insert the gobo driven wheel into the driving wheel assembly, as shown in J, the concave point of the gobo driven wheel must be positioned towards the center of the driving wheel;



8.After installation, put the component back to the fixture.

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. 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.)

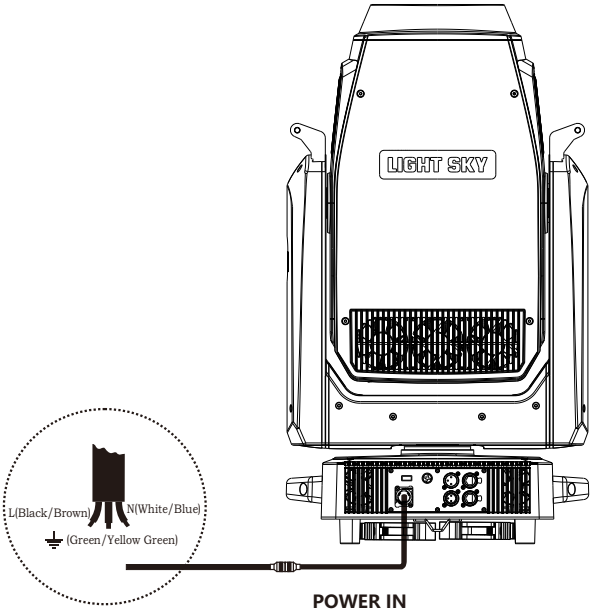
5.DMX inputloutput: Used for DMX512 connection, use 3/5 core XLR signal cable toconnect console and lamps,And input/output DMX signal.

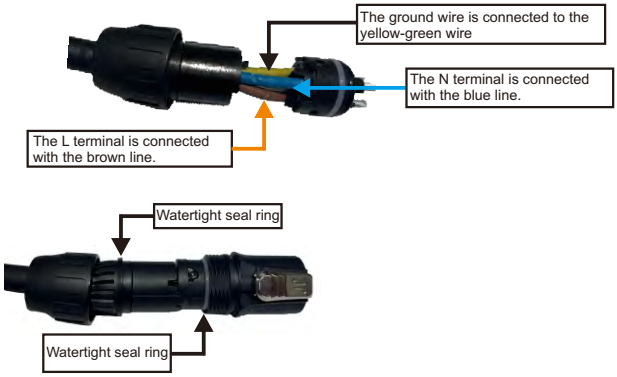
6.Art-net: The information of the lamp can be transmitted to the main controllerthrough the network cable, and the lamp can be controlled through RJ45(optional).

7.Firmware upgrade: Used to upgrade the fixture's firmware.

5.Connection and control

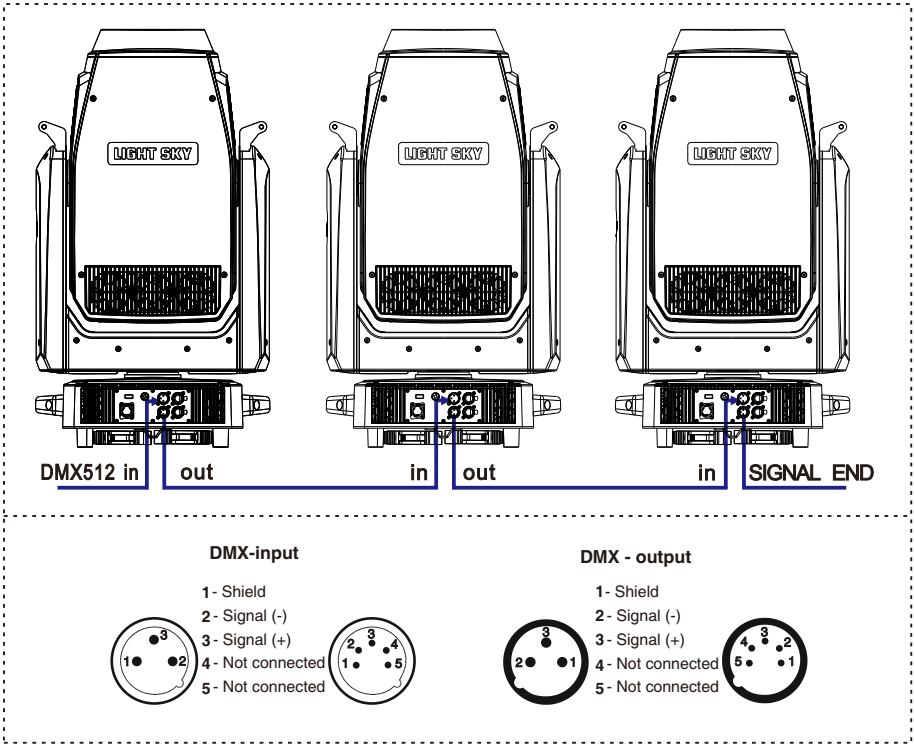
5.1.Power supply connection





- 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



1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 1200hm 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

Main menu	I menu	II menu	III menu	IV menu
DMX SETTING	Address	1-512		
	Channel mode	Standard (60)		
		Basic(35)		
		Extended(64)		
		Compatible(49)		
	Dmx state	Black		
		Hold		
	Input mode	DMX 512		
		Art-Net		
		sACN		
Info	Fixture times	Power on time	0 - 99999H	
		LED on time	0 - 99999H	
		All time	0 - 99999H	
	Temperatures	LED TEMP	XXXX℃	
		Drive TEMP	XXXX℃	
	RDM info	UID:0x3888XXXXXXXX		
	DMX live	1.Pan	0 - 255	
		2.Pan fine	0 - 255	
		3.....	0 - 255	
	Version info	Display	VX.XXX	
		Pan/Tilt	VX.XXX	
		Gobo module	VX.XXX	
		Profile1	VX.XXX	
		Profile2	VX.XXX	
		Zoom module	VX.XXX	
		LedFanDrv	VX.XXX	
	Fan Info	InFan	xxx V	
		OutFan	xxx V	
		GoboFan	xxx V	
		ProfileFan	xxx V	
		FocusFan	xxx V	
		InFan1	OK/Error	
		InFan2	OK/Error	
		InFan3	OK/Error	
		OutFan1	OK/Error	
		OutFan2	OK/Error	
		OutFan3	OK/Error	
		GoboFan	OK/Error	
		ProfileFan	OK/Error	
		FocusFan1	OK/Error	
		FocusFan2	OK/Error	
Person	Tilt /Pan	PT swap	OFF	
			ON	
		Pan invert	OFF	
			ON	
		Tilt invert	OFF	
			ON	
		PT Encoder	OFF	
			ON	
		PT Mode	Speed	
			Time	
		PT move black	OFF	
			ON	
		PT Follow Spot	Off	
			Soft	
			Medium	
			Hard	
		PT Parking	OFF	
			ON	
	Noise mode	Silent		
		Standard		
		High Output		
	Display	Language	English	
			Chinese	
		Backlight time	Always	
			Auto (30S)	
		Intensity	0 - 100	
		Rotation	Normal	
			Rotate 180	
			Auto	

Main menu	I menu	II menu	III menu	IV menu
	Ethernet Set	IP Address	xxx.xxx.xxx.xxx	
		Mask Address	xxx.xxx.xxx.xxx	
		Net Address	0-127	
		Sub Net Address	0-15	
		Universe Address	0-15	
		sACN Universe Add.	1-63999	
		DHCP	OFF	
			ON	
	Dimmer Curve	Linear		
		Square(Default)		
		I-Square		
		SCurve		
	Led Preq Set	4000 Hz		
		8000 Hz		
		16000 Hz		
		25000 Hz		
	Zoom Invert Set	OFF		
		ON		
	Color Mixing Mode	CMY		
		RGB		
	Tungsten Effect	Off		
		750W		
		1000W		
		1200W		
		2000W		
		2500W		
	Light Out Stab.	OFF		
		ON		
	Led Calibration	OFF		
		ON		
Manual	Manual Control	1.Pan	0 - 255	
		2.Pan fine	0 - 255	
		3.....	0 - 255	
	Reset	Total reset		
		Pan/Tilt reset		
		Gobo reset		
		Profile reset		
		Focus reset		
		Effect reset		
Test	Test all	Testing		
	Test pan/tilt	Testing		
	Test effects	Testing		
	Fixture state	Memory IC	OK/Reset/Error	
		Angle Sensor	OK/Reset/Error	
		Pan Encodeer	OK/Reset/Error	
		Tilt Encoder	OK/Reset/Error	
		Pan	OK/Reset/Error	
		Tilt	OK/Reset/Error	
		Gobo1	OK/Reset/Error	
		Gobo1 Rot.	OK/Reset/Error	
		Gobo2	OK/Reset/Error	
		Gobo2 Rot.	OK/Reset/Error	
		Fram Rot.	OK/Reset/Error	
		Zoom	OK/Reset/Error	
		Focus	OK/Reset/Error	
		Prism	OK/Reset/Error	
		Prism Rot.	OK/Reset/Error	
	Adjust	Pan	0 - 255	
		Tilt	0 - 255	
		Red	0 - 255	
		Green	0 - 255	
		Blue	0 - 255	
		Amber	0 - 255	
		LightGreen	0 - 255	
		Gobo1	0 - 255	
		Gobo1 Rot.	0 - 255	
		Gobo2	0 - 255	
		Gobo2 Rot.	0 - 255	
		Blade 1A	0 - 255	
		Blade 1B	0 - 255	
		Blade 2A	0 - 255	
		Blade 2B	0 - 255	
		Blade 3A	0 - 255	
		Blade 3B	0 - 255	
		Blade 4A	0 - 255	

Main menu	I menu	II menu	III menu	IV menu
Service	Color Calibration	Blade 4B	0 - 255	
		FramingRot.	0 - 255	
		Prism	0 - 255	
		Prism Rot.	0 - 255	
		Effect	0 - 255	
		Light Frost	0 - 255	
		Medium Frost	0 - 255	
		Iris	0 - 255	
		Zoom	0 - 255	
		Focus	0 - 255	
		Dimmer	0 - 255	
		FosForGo1	0 - 255	
		FosForGo2	0 - 255	
		FosForIris	0 - 255	
		FosForEffect	0 - 255	
		Filter4	Red(xxx)	0-255
			Green(xxx)	0-255
			Blue(xxx)	0-255
			Amber(xxx)	0-255
			LightGreen(xxx)	0-255
		Filter10	Red(xxx)	0-255
			Green(xxx)	0-255
			Blue(xxx)	0-255
			Amber(xxx)	0-255
			LightGreen(xxx)	0-255
		Filter19	Red(xxx)	0-255
			Green(xxx)	0-255
			Blue(xxx)	0-255
			Amber(xxx)	0-255
			LightGreen(xxx)	0-255
		.....		
		Filter778	Red(xxx)	0-255
			Green(xxx)	0-255
			Blue(xxx)	0-255
			Amber(xxx)	0-255
			LightGreen(xxx)	0-255
		Filter793	Red(xxx)	0-255
			Green(xxx)	0-255
			Blue(xxx)	0-255
			Amber(xxx)	0-255
			LightGreen(xxx)	0-255
	Factory	Factory Reset	YES /NO	
		Reset timers	Reset power on timers	YES/NO
			Reset led timers	YES
			Reset all timers	YES
		Update	Simple update	Display
				Pan/Tilt
				Gobo module
				Framing module1
				Framing module2
				Zoom module
				LEDQD
				ALL
			Whole update	Display
				Pan/Tilt
				Gobo module
				Framing module1
				Framing module2
				Zoom module
				LEDQD
				ALL
		Power select		
		Logo select		
		Fixture Type		
		Framing Adjust Mode	OFF	
			ON	
		ICC Test	OFF	
			ON	

6.2.Channel Setting

Press the OK button to confirm, use the up/down buttons to select the channel mode:
mode 1 (60CH), mode 2 (35CH), mode 3 (64CH), mode 4 (49CH),press the OK button to save.
Press the left/right button to return to the previous menu.

6.3.Address Setting

When using a universal DMX controller to control the fixture, you need to set the starting address (1-512) for the fixture so that the machine can receiveto the DMX signal.Select the DMX address, press the OK button to confirm, the current DMX address will be shown on the display. Use the left/right buttons to select 001~512 address, press the OK button to save. Press the left/right 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
60 Channel	1	61	121	181
35 Channel	1	36	71	106
64 Channel	1	65	129	193
49 Channel	1	50	99	148

6.4.DMX 512 Configuration

60 Channel	35 Channel	64 Channel	49 Channel	DMX	Function	Note
1	1	1	1	0-255	**Pan** Pan movement/positioning	Angle: 0-540° Maximum: 3.65S
2	2	2	2	0-255	**Pan fine** Fine pan positioning	
3	3	3	3	0-255	**TILT** Tilt movement/positioning	Angle: 0-270° Maximum: 2.28S
4	4	4	4	0-255	**TILT fine** Fine tilt movement/positioning	
5	5	5	5		**PAN/TILT Speed, Pan/Tilt time**	
				0	Standard mode (0=default)	
				1	Max. Speed Mode	
					Pan/Tilt speed mode	
				2-255	Speed from max. to min.	
					Pan/Tilt time mode	
				2-255	Time from 0.2 sec. to 25.5 sec.	
6	6	6	6		**Punctions** **To activate following functions, stop in DMX value for at least 3 s**	
				0-9	Reserved (0=default)	
				10-14	DMX input: DMX	
				15-19	DMX input:Art-Net	
				20-24	Display Back light is on	
				25-29	Display Back light is auto(Default)	
				30-34	Zoom Invert	
				35-39	Zoom Forward(Default)	
				40-44	Pan/Tilt mode: Speed(Default)	
				45-49	Pan/Tilt mode: Time	
				50-54	Blackout while pan/tilt moving: On	
				55-59	Blackout while pan/tilt moving: Off (Default)	
				60-64	Reserved	
				65-69	Reserved	
				70-74	Fan mode:Silent	
				75-79	Fan mode:Standard (Default)	
				80-84	Fan mode:High Output	
				85-89	Dmx state: Black (Default)	
				90-94	Dmx state: Hold	
				95-99	Led calibration off	
				100-104	Led calibration on (Default)	
				105-119	Reserved	
				120-124	Parking position on	
				125-129	Parking position off (Default)	
				130-139	Fixture reset(except pan/tilt)	
				140-149	Pan/Tilt reset	
				150-159	Reserved	
				160-169	Gobo wheels/effect wheel reset	
				170-179	Reserved	
				180-189	Zoom/focus/frosts/prisms reset	
				190-199	Iris /framing shutters reset	
				200-209	Total fixture reset	
				210-211	Green correction calibration	
				212-218	Reserved	
					The following three commands define transition from gobo rotation to gobo indexing:	
				219-220	Maximum speed and shortcut (Use in future,now no function)	
				221-222	Follow speed and direction (Use in future,now no function)	
				223-224	Maximum speed and follow direction (Use in future,now no function)	
					The following RoboSpot related commands are only applicable when the RoboSpot is connected:(Use in future,now no function)	
				225-229	RoboSpot enabled(Use in future,now no function)	
				230-234	**RoboSpot disabled - except handle faders and pan/tilt(Use in future,now no function)**	
				235-239	RoboSpot fully disabled (Use in future,now no function)	
				240	Disabled "Quiet mode"	
				241-255	Quiet mode - fan noise control from min. to max.	

60 Channel	35 Channel	64 Channel	49 Channel	DMX	Function	Note
7	/	7	7		**LED frequency selection** **Factory display menu setting: 8000Hz** **Select PWM output frequency of LEDs. Selected PWM frequency can be fine adjusted in 127 steps up/down around selected PWM frequency on the channel below. Corresponding menu item (Frequency Setup) is temporarily overriden.**	
				0-4	PWM frequency from Display menu (fixture utilizes PWM frequency set in the display menu item Frequency Setup).	
				5-9	4000 Hz	
				10-14	8000 Hz (10=default)	
				15-19	16000 Hz	
				20-24	25000 Hz	
				25-255	Reserved (fixture utilizes PWM frequency set in the display menu item	
					LED frequency fine adjusting **Factory display menu setting: 8000Hz** **Select desired PWM output frequency of LEDs on the channel above.**	
				0-1	Selected LED Frequency	
				2	LED Frequency (step -126)	
				3	LED Frequency (step -125)	
				4	LED Frequency (step -124)	
				5	LED Frequency (step -123)	
				6	LED Frequency (step -122)	
				7	LED Frequency (step -121)	
				8	LED Frequency (step -120)	
				9	LED Frequency (step -119)	
				10	LED Frequency (step -118)	
				11	LED Frequency (step -117)	
				12	LED Frequency (step -116)	
				13	LED Frequency (step -115)	
				14	LED Frequency (step -114)	
				15	LED Frequency (step -113)	
				16	LED Frequency (step -112)	
				17	LED Frequency (step -111)	
				18	LED Frequency (step -110)	
				19	LED Frequency (step -109)	
				20	LED Frequency (step -108)	
				21	LED Frequency (step -107)	
				22	LED Frequency (step -106)	
				23	LED Frequency (step -105)	
				24	LED Frequency (step -104)	
				25	LED Frequency (step -103)	
				26	LED Frequency (step -102)	
				27	LED Frequency (step -101)	
				28	LED Frequency (step -100)	
				29	LED Frequency (step -99)	
				30	LED Frequency (step -98)	
				31	LED Frequency (step -97)	
				32	LED Frequency (step -96)	
				33	LED Frequency (step -95)	
				34	LED Frequency (step -94)	
				35	LED Frequency (step -93)	
				36	LED Frequency (step -92)	
				37	LED Frequency (step -91)	
				38	LED Frequency (step -90)	
				39	LED Frequency (step -89)	
				40	LED Frequency (step -88)	
				41	LED Frequency (step -87)	
				42	LED Frequency (step -86)	
				43	LED Frequency (step -85)	
				44	LED Frequency (step -84)	
				45	LED Frequency (step -83)	
				46	LED Frequency (step -82)	
				47	LED Frequency (step -81)	
				48	LED Frequency (step -80)	
				49	LED Frequency (step -79)	
				50	LED Frequency (step -78)	
				51	LED Frequency (step -77)	
				52	LED Frequency (step -76)	
				53	LED Frequency (step -75)	

60 Channel	35 Channel	64 Channel	49 Channel	DMX	Function	Note
				54	LED Frequency (step -74)	
				55	LED Frequency (step -73)	
				56	LED Frequency (step -72)	
				57	LED Frequency (step -71)	
				58	LED Frequency (step -70)	
				59	LED Frequency (step -69)	
				60	LED Frequency (step -68)	
				61	LED Frequency (step -67)	
				62	LED Frequency (step -66)	
				63	LED Frequency (step -65)	
				64	LED Frequency (step -64)	
				65	LED Frequency (step -63)	
				66	LED Frequency (step -62)	
				67	LED Frequency (step -61)	
				68	LED Frequency (step -60)	
				69	LED Frequency (step -59)	
				70	LED Frequency (step -58)	
				71	LED Frequency (step -57)	
				72	LED Frequency (step -56)	
				73	LED Frequency (step -55)	
				74	LED Frequency (step -54)	
				75	LED Frequency (step -53)	
				76	LED Frequency (step -52)	
				77	LED Frequency (step -51)	
				78	LED Frequency (step -50)	
				79	LED Frequency (step -49)	
				80	LED Frequency (step -48)	
				81	LED Frequency (step -47)	
				82	LED Frequency (step -46)	
				83	LED Frequency (step -45)	
				84	LED Frequency (step -44)	
				85	LED Frequency (step -43)	
				86	LED Frequency (step -42)	
				87	LED Frequency (step -41)	
				88	LED Frequency (step -40)	
				89	LED Frequency (step -39)	
				90	LED Frequency (step -38)	
				91	LED Frequency (step -37)	
				92	LED Frequency (step -36)	
				93	LED Frequency (step -35)	
				94	LED Frequency (step -34)	
				95	LED Frequency (step -33)	
				96	LED Frequency (step -32)	
				97	LED Frequency (step -31)	
				98	LED Frequency (step -30)	
				99	LED Frequency (step -29)	
				100	LED Frequency (step -28)	
				101	LED Frequency (step -27)	
				102	LED Frequency (step -26)	
				103	LED Frequency (step -25)	
				104	LED Frequency (step -24)	
				105	LED Frequency (step -23)	
				106	LED Frequency (step -22)	
				107	LED Frequency (step -21)	
				108	LED Frequency (step -20)	
				109	LED Frequency (step -19)	
				110	LED Frequency (step -18)	
				111	LED Frequency (step -17)	
				112	LED Frequency (step -16)	
				113	LED Frequency (step -15)	
				114	LED Frequency (step -14)	
				115	LED Frequency (step -13)	
				116	LED Frequency (step -12)	
				117	LED Frequency (step -11)	
				118	LED Frequency (step -10)	
				119	LED Frequency (step -9)	
				120	LED Frequency (step -8)	
				121	LED Frequency (step -7)	
8	/	8	8	122	LED Frequency (step -6)	
				123	LED Frequency (step -5)	

60 Channel	35 Channel	64 Channel	49 Channel	DMX	Function	Note
				124	LED Frequency (step -4)	
				125	LED Frequency (step -3)	
				126	LED Frequency (step -2)	
				127	LED Frequency (step -1)	
				128	Selected LED Frequency (128=default)	
				129	LED Frequency (step +1)	
				130	LED Frequency (step +2)	
				131	LED Frequency (step +3)	
				132	LED Frequency (step +4)	
				133	LED Frequency (step +5)	
				134	LED Frequency (step +6)	
				135	LED Frequency (step +7)	
				136	LED Frequency (step +8)	
				137	LED Frequency (step +9)	
				138	LED Frequency (step +10)	
				139	LED Frequency (step +11)	
				140	LED Frequency (step +12)	
				141	LED Frequency (step +13)	
				142	LED Frequency (step +14)	
				143	LED Frequency (step +15)	
				144	LED Frequency (step +16)	
				145	LED Frequency (step +17)	
				146	LED Frequency (step +18)	
				147	LED Frequency (step +19)	
				148	LED Frequency (step +20)	
				149	LED Frequency (step +21)	
				150	LED Frequency (step +22)	
				151	LED Frequency (step +23)	
				152	LED Frequency (step +24)	
				153	LED Frequency (step +25)	
				154	LED Frequency (step +26)	
				155	LED Frequency (step +27)	
				156	LED Frequency (step +28)	
				157	LED Frequency (step +29)	
				158	LED Frequency (step +30)	
				159	LED Frequency (step +31)	
				160	LED Frequency (step +32)	
				161	LED Frequency (step +33)	
				162	LED Frequency (step +34)	
				163	LED Frequency (step +35)	
				164	LED Frequency (step +36)	
				165	LED Frequency (step +37)	
				166	LED Frequency (step +38)	
				167	LED Frequency (step +39)	
				168	LED Frequency (step +40)	
				169	LED Frequency (step +41)	
				170	LED Frequency (step +42)	
				171	LED Frequency (step +43)	
				172	LED Frequency (step +44)	
				173	LED Frequency (step +45)	
				174	LED Frequency (step +46)	
				175	LED Frequency (step +47)	
				176	LED Frequency (step +48)	
				177	LED Frequency (step +49)	
				178	LED Frequency (step +50)	
				179	LED Frequency (step +51)	
				180	LED Frequency (step +52)	
				181	LED Frequency (step +53)	
				182	LED Frequency (step +54)	
				183	LED Frequency (step +55)	
				184	LED Frequency (step +56)	
				185	LED Frequency (step +57)	
				186	LED Frequency (step +58)	
				187	LED Frequency (step +59)	
				188	LED Frequency (step +60)	
				189	LED Frequency (step +61)	
				190	LED Frequency (step +62)	
8	/	8	8	191	LED Frequency (step +63)	
				192	LED Frequency (step +64)	
				193	LED Frequency (step +65)	

60 Channel	35 Channel	64 Channel	49 Channel	DMX	Function	Note
				194	LED Frequency (step +66)	
				195	LED Frequency (step +67)	
				196	LED Frequency (step +68)	
				197	LED Frequency (step +69)	
				198	LED Frequency (step +70)	
				199	LED Frequency (step +71)	
				200	LED Frequency (step +72)	
				201	LED Frequency (step +73)	
				202	LED Frequency (step +74)	
				203	LED Frequency (step +75)	
				204	LED Frequency (step +76)	
				205	LED Frequency (step +77)	
				206	LED Frequency (step +78)	
				207	LED Frequency (step +79)	
				208	LED Frequency (step +80)	
				209	LED Frequency (step +81)	
				210	LED Frequency (step +82)	
				211	LED Frequency (step +83)	
				212	LED Frequency (step +84)	
				213	LED Frequency (step +85)	
				214	LED Frequency (step +86)	
				215	LED Frequency (step +87)	
				216	LED Frequency (step +88)	
				217	LED Frequency (step +89)	
				218	LED Frequency (step +90)	
				219	LED Frequency (step +91)	
				220	LED Frequency (step +92)	
				221	LED Frequency (step +93)	
				222	LED Frequency (step +94)	
				223	LED Frequency (step +95)	
				224	LED Frequency (step +96)	
				225	LED Frequency (step +97)	
				226	LED Frequency (step +98)	
				227	LED Frequency (step +99)	
				228	LED Frequency (step +100)	
				229	LED Frequency (step +101)	
				230	LED Frequency (step +102)	
				231	LED Frequency (step +103)	
				232	LED Frequency (step +104)	
				233	LED Frequency (step +105)	
				234	LED Frequency (step +106)	
				235	LED Frequency (step +107)	
				236	LED Frequency (step +108)	
				237	LED Frequency (step +109)	
				238	LED Frequency (step +110)	
				239	LED Frequency (step +111)	
				240	LED Frequency (step +112)	
				241	LED Frequency (step +113)	
				242	LED Frequency (step +114)	
				243	LED Frequency (step +115)	
				244	LED Frequency (step +116)	
				245	LED Frequency (step +117)	
				246	LED Frequency (step +118)	
				247	LED Frequency (step +119)	
				248	LED Frequency (step +120)	
				249	LED Frequency (step +121)	
				250	LED Frequency (step +122)	
				251	LED Frequency (step +123)	
				252	LED Frequency (step +124)	
				253	LED Frequency (step +125)	
				254	LED Frequency (step +126)	
				255	Selected LED Frequency	
					Colour functions **Factory display menu setting: Colour mixing mode-CMY, Dimmer Curve-Square Law, Tungsten effect simulation-Off, Chromatic white-Off, Light output stability-Off, Uniformity-Off**	
				0	No function (0=default)	

60 Channel	35 Channel	64 Channel	49 Channel	DMX	Function	Note
9	7	9	9		**To activate following functions, stop in DMX value for at least 3 seconds.** **Corresponding menu items are temporarily overriden**	
				1-39	Reserved	
				40-44	Colour mixing mode: CMY (DMX Standard, Basic and Compatible Mode only)	
				45-49	Colour mixing mode: RGB (DMX Standard, Basic and Compatible Mode), RGBAL (DMX Extended Mode only)	
				50-54	Dimmer curve: Square law	
				55-59	Dimmer curve: Linear	
				60-64	Dimmer curve: I-Square law	
				65-69	Dimmer curve: S Curve	
				70-79	Raw DMX	
					Tungsten effect simulation for whites 2700K-4200K only:	
				80-84	Tungsten effect simulation (750W/80V): On	
				85-89	Tungsten effect simulation (1000W/240V): On	
				90-94	Tungsten effect simulation (1200W/240V): On	
				95-99	Tungsten effect simulation (2000W/230V): On	
				100-104	Tungsten effect simulation (2500W/230V): On	
				105-109	Tungsten effect simulation: Off	
				110-114	Reserved	
				115-119	Chromatic white: On (Use in future,now no function)	
				120-124	Chromatic white: Off (Use in future,now no function)	
				125-129	Light output stability On	
				130-134	Light output stability Off	
				135-139	Uniformity On (Use in future,now no function)	
				140-144	Uniformity Off (Use in future,now no function)	
				145-149	Reserved	
				150-154	Reserved	
				155-159	Reserved	
				160-164	Reserved	
				165-169	Reserved	
				170-174	Reserved	
				175-179	Reserved	
				180-184	Reserved	
				185-189	Reserved	
				190-194	Reserved	
				195-199	Reserved	
				200-255	Reserved	
10	8	10	10		**CRI selection**	
				0-255	CRI selection from Standard(CRI90+/R9:95+) to High light (CRI90+/R9:80) (0=default)	
					Virtual Colour wheel	
				0	No function	
				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)	
				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)	

60 Channel	35 Channel	64 Channel	49 Channel	DMX	Function	Note
				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)	
					The following 35 multicolours are intended for using with prisma, rot. gobo, or effect wheel only. If none of the three effects is used, the colours wil not create multicolour effect.	
				133	Multicolour 1	
				134	Multicolour 2	
				135	Multicolour 3	
				136	Multicolour 4	
				137	Multicolour 5	
11	/	11	11	138	Multicolour 6	
				139	Multicolour 7	
				140	Multicolour 8	
				141	Multicolour 9	
				142	Multicolour 10	
				143	Multicolour 11	
				144	Multicolour 12	
				145	Multicolour 13	
				146	Multicolour 14	
				147	Multicolour 15	
				148	Multicolour 16	
				149	Multicolour 17	
				150	Multicolour 18	
				151	Multicolour 19	
				152	Multicolour 20	
				153	Multicolour 21	
				154	Multicolour 22	
				155	Multicolour 23	
				156	Multicolour 24	
				157	Multicolour 25	

60 Channel	35 Channel	64 Channel	49 Channel	DMX	Function	Note
				158	Multicolour 26	
				159	Multicolour 27	
				160	Multicolour 28	
				161	Multicolour 29	
				162	Multicolour 30	
				163	Multicolour 31	
				164	Multicolour 32	
				165	Multicolour 33	
				166	Multicolour 34	
				167	Multicolour 35	
				168	Multicolour 36	
				169	Multicolour 37	
				170	Multicolour 38	
				171	Multicolour 39	
				172	Multicolour 40	
				173	Multicolour 41	
				174	Multicolour 42	
				175	Multicolour 43	
				176	Multicolour 44	
				177	Multicolour 45	
				178	Multicolour 46	
				179	Multicolour 47	
				180	Multicolour 48	
				181	Multicolour 49	
				182	Multicolour 50	
				183	Multicolour 51	
				184	Multicolour 52	
				185	Multicolour 53	
				186	Multicolour 54	
				187	Multicolour 55	
				188	Multicolour 56	
				189	Multicolour 57	
				190	Multicolour 58	
				191	Multicolour 59	
				192	Multicolour 60	
				193	Multicolour 61	
				194	Multicolour 62	
				195	Multicolour 63	
				196	Multicolour 64	
				197	Multicolour 65	
				198	Multicolour 66	
				199	Multicolour 67	
				200	Multicolour 68	
				201	Multicolour 69	
				202	Multicolour 70	
				203-215	Reserved	
				216-217	User colour 1	
				218-219	User colour 2	
				220-221	User colour 3	
				222-223	User colour 4	
				224-225	User colour 5	
				226-227	User colour 6	
				228-229	User colour 7	
				230-231	User colour 8	
				232-233	User colour 9	
				234-235	User colour 10	
				236-245	Rainbow effect (with fade time) from slow-> fast	
				246-255	Rainbow effect (without fade time) from slow-> fast	
12	9	/	12	0-255	**Cyan /Red** Cyan/Red 0%-100%	
13	/	/	13	0-255	**Cyan Fine/Red Fine** Cyan fine/Red fine 0%-100%	
14	10	/	14	0-255	**Magenta/Green** Magenta/Green 0%-100%	
15	/	/	15	0-255	**Magenta Fine /Green Fine** Magenta fine/Green fine 0%-100%	
16	11	/	16	0-255	**Yellow/Blue** Yellow/Blue 0%-100%	
17	/	/	17	0--255	**Yellow Fine /Blue Fine** Yellow fine/Blue fine 0%-100%	

nnel	49 Channel	DMX	Punction	Note
	/	0-255	**Red** Red 0%-100%	
	/	0-255	**Red Fine** Red fine 0%-100%	
	/	0-255	**Green** Green 0%-100%	
	/	0-255	**Green Fine** Magenta fine/Green fine 0%-100%	
	/	0-255	**Blue** Blue 0%-100%	
	/	0-255	**Blue Fine** Blue fine 0%-100%	
	/	0-255	**Amber** Amber 0%-100%	
	/	0-255	**Amber Fine** Amber fine 0%-100%	
	/	0-255	**Light Green** Light Green 0%-100%	
	/	0-255	**Light Green Fine** Light Green fine 0%-100%	
	18	0-1 2-64 65 66-109 110 111-179 180 181-229 230 231-254 255	**Colour temperature correction (CTC)** 8000K Colour temperature changing 7978 K ->6622 K (22 K /1 DMX) 6600 K Colour temperature changing 657 8K ->5622 K (22 K/1 DMX) 5600 K (110=default) Colour temperature changing 5580 K ->4220 K (20 K/1 DMX) 4200 K Colour temperature changing 4180 K ->3220 K (20 K/1 DMX) 3200 K Colour temperature changing 3180 K ->2720 K (20K /1 DMX) 2700K	
	19	0 1-127 128 129-254 255	**Green correction** Uncorrected white Minus green --> uncorrected white Uncorrected white (128=default) Uncorrected white --> Plus green Uncorrected white	
	20	0-9 10-19 20-29 30-39 40-49 50-59 60-69 70-79 80-128 129 130-254 255	**Colour mix control** **Defines relation between Virtual Colour wheel and colour channels:"Virtual" = Virtual Colour Wheel"Colour mix" = Colour channels (CMY/RGBALight Green/CTC)** Virtual has priority over "Colour mix" (0=default) Maximum mode (highest values have priority) Minimum mode (lowest values have priority) Multiply mode (multiply "Virtual" and "Colour mix") Addition mode ("Virtual" + "Colour mix") Subtraction mode ("Virtual" - "Colour mix") Inverted Subtraction mode ("Colour mix"-"Virtual") White Point Off (CTC+Green Cor.+Virtual Colour Wheel deactivated) Reserved Crossfade "Virtual" only Crossfade between "Virtual" and "Colour mix" Crossfade "Colour mix" only	
	21	0-255	**Speed of rot. Gobo selection** Speed of rot. gobo selection from max. to min. (0=default)	
	22	0 1-255 1-255 1-50	**Rot. Gobo carousel/ Framing shutters/Zoom/Focus/Iris/Frost/Prism time** Function is off (0=default) Time of rot. Gobo carousel movement (0.1 sec-->25.5 sec.) Time of framing shutters, zoom, focus, iris and frost movement (0.1sec-->25.5 sec.) Time of prism movement (0.1 sec-->5 sec.)	Temporarily ineffective
	23	0-19 20-127 128-170 171-213 214-255	**Effect** No function (0=default) Proportional indexing (73-center) Ramping from open to full position (max--->min. speed) Ramping from open to half position (max. --->min. speed) Ramp. from half position to full position (max. --->min. speed)	

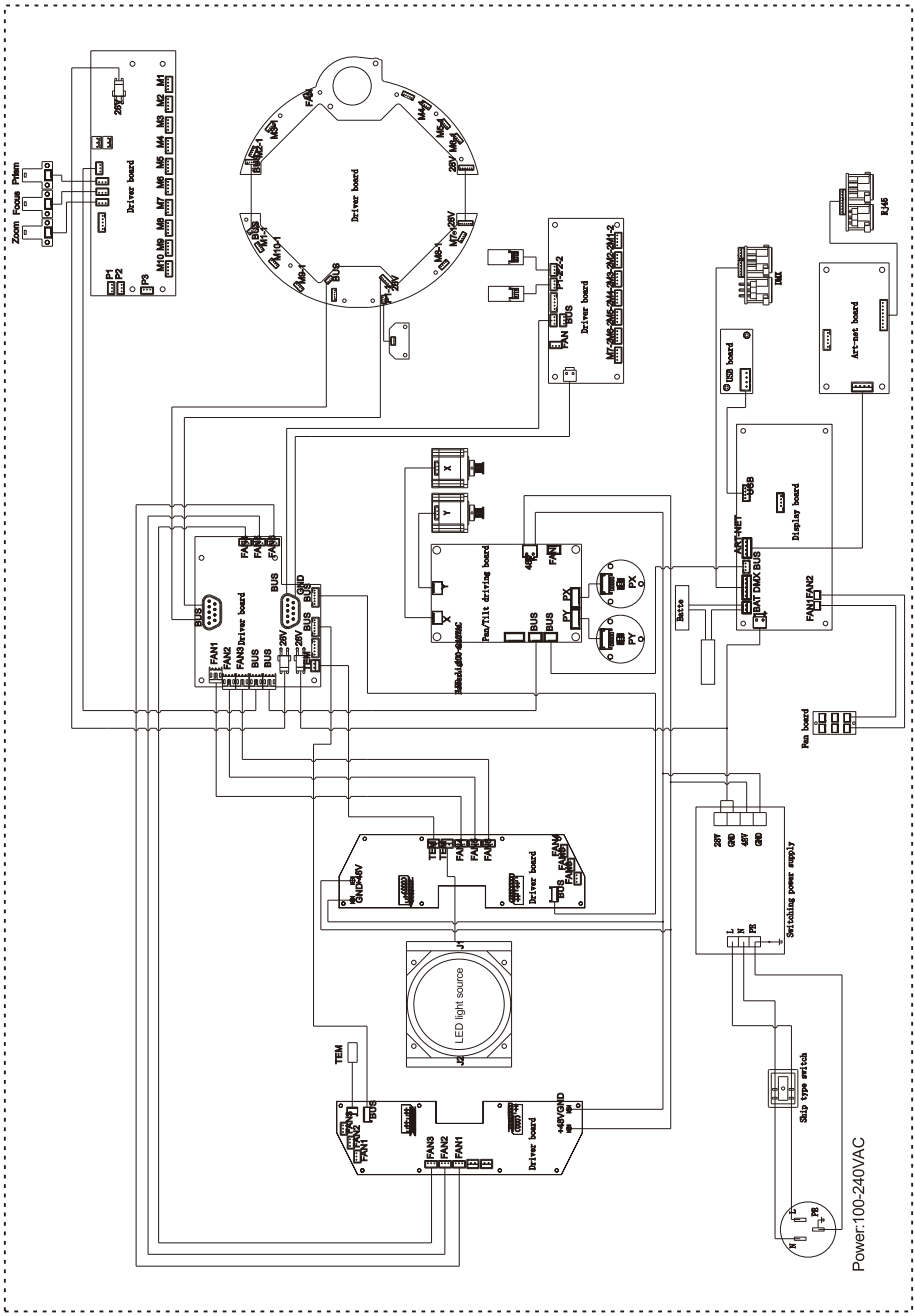
60 Channel	35 Channel	64 Channel	49 Channel	DMX	Function	Note
					Effect Rotation	
				0	No Function	
24	**14**	**28**	**24**	1-127	Forwards rotation from fast to slow	
				128	No rotation (128=default)	
				129-255	Backwards rotation from fast to slow	
					Effect wheel animations	
				0-7	No animation (0=default)	
					Note : Set suitable DMX value at Focus channel to get desired animation. All animations were created at distance of 5 m from screen with zoom=88 DMX, Focus value is different for each effect (focus value is stated in parentheses for this distance)	
					The following channels are blocked: Effect wheel positioning, Effect wheel rotation, Rotating gobo wheel, Rot. Gobo indexing and rotation.	
				8-9	Macro 1 (Focus=94)	
				10-11	Macro 2 (Focus=95)	
				12-13	Macro 3 (Focus=96)	
				14-15	Macro 4 (Focus=97)	
				16-17	Macro 5 (Focus=98)	
				18-19	Macro 6 (Focus=99)	
25	**/**	**29**	**25**	20-21	Macro 7 (Focus=100)	
				22-23	Macro 8 (Focus=101)	
				24-25	Macro 9 (Focus=102)	
				26-27	Macro 10 (Focus=103)	
				28-29	Macro 11 (Focus=103)	
				30-31	Macro 12 (Focus=103)	
				32-33	Macro 13 (Focus=103)	
				34-35	Macro 14 (Focus=103)	
				36-37	Macro 15 (Focus=103)	
				38-39	Macro 16 (Focus=103)	
				40-41	Macro 17 (Focus=103)	
				42-43	Macro 18 (Focus=103)	
				44-45	Macro 19 (Focus=103)	
				46-47	Macro 20 (Focus=103)	
				48-255	Reserved	
					Rotating gobo wheel	
					Index - set indexing on channel 27/16/31/27	
				0-3	Open/hole (0=default)	
				4-7	Gobo 1	
				8-11	Gobo 2	
				12-15	Gobo 3	
				16-19	Gobo 4	
				20-23	Gobo 5	
				24-27	Gobo 6	
				28-31	Gobo 7	
					Rotation - set rotation on channel 27/16/31/27	
				32-35	Gobo 1	
				36-39	Gobo 2	
				40-43	Gobo 3	
				44-47	Gobo 4	
				48-51	Gobo 5	
				52-55	Gobo 6	
				56-59	Gobo 7	
					Shaking gobos from slow to fast	
					Index - set indexing on channel 27/16/31/27	
26	**15**	**30**	**26**	60-69	Gobo 1	
				70-79	Gobo 2	
				80-89	Gobo 3	
				90-99	Gobo 4	
				100-109	Gobo 5	
				110-119	Gobo 6	
				120-129	Gobo 7	
					Shaking gobos from slow to fast	
					Rotation - set rotation on channel 27/16/31/27	
				130-139	Gobo 1	
				140-149	Gobo 2	
				150-159	Gobo 3	
				160-169	Gobo 4	
				170-179	Gobo 5	
				180-189	Gobo 6	

60 Channel	35 Channel	64 Channel	49 Channel	DMX	Function	Note
				190-199	Gobo 7	
				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	Stop	
				250-255	Auto random gobo selection from fast to slow	
					Rot. gobo indexing and rotation	
					Gobo indexing - set position on channel 26/15/30/26	
				0-255	Gobo indexing (128=default)	
27	**16**	**31**	**27**		**Gobo rotation - set position on channel 26/15/30/26**	
				0	No rotation	
				1-127	Forwards gobo rotation from fast to slow	
				128	No rotation (128=default)	
				129-255	Backwards gobo rotation from slow to fast	
28	**/**	**32**	**28**		**Rot. gobo indexing/rotation - fine**	
				0-255	Fine indexing/rotation (0=default)	
					Rotating gobo wheel2	
					Index - set indexing on channel 30/18/34	
				0-3	Open/hole (0=default)	
				4-7	Gobo 1	
				8-11	Gobo 2	
				12-15	Gobo 3	
				16-19	Gobo 4	
				20-23	Gobo 5	
				24-27	Gobo 6	
				28-31	Gobo 7	
					Rotation - set rotation on channel 30/18/34	
				32-35	Gobo 1	
				36-39	Gobo 2	
				40-43	Gobo 3	
				44-47	Gobo 4	
				48-51	Gobo 5	
				52-55	Gobo 6	
				56-59	Gobo 7	
					Shaking gobos from slow to fast	
					Index - set indexing on channel 30/18/34	
29	**17**	**33**	**/**	60-69	Gobo 1	
				70-79	Gobo 2	
				80-89	Gobo 3	
				90-99	Gobo 4	
				100-109	Gobo 5	
				110-119	Gobo 6	
				120-129	Gobo 7	
					Shaking gobos from slow to fast	
					Rotation - set rotation on channel 30/18/34	
				130-139	Gobo 1	
				140-149	Gobo 2	
				150-159	Gobo 3	
				160-169	Gobo 4	
				170-179	Gobo 5	
				180-189	Gobo 6	
				190-199	Gobo 7	
				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	Reserved	
				250-255	Auto random gobo selection from fast to slow	
					Rot. gobo2 indexing and rotation	
					Gobo indexing - set position on channel 29/17/33	
				0-255	Gobo indexing (128=default)	
30	**18**	**34**	**/**		**Gobo rotation - set position on channel 29/17/33**	
				0	No rotation	
				1-127	Forwards gobo rotation from fast to slow	
				128	No rotation (128=default)	
				129-255	Backwards gobo rotation from slow to fast	
31	**/**	**35**	**/**		**Rot. gobo2 indexing/rotation - fine**	
				0-255	Fine indexing/rotation (0=default)	
					Prism	
				0-19	Open position - hole (0=default)	
				20-127	Rotating prism inserted	

60 Channel	35 Channel	64 Channel	49 Channel	DMX	Function	Note
32	19	36	29		Prism/gobo macros: The following channels are blocked: Prism, Prism rotation, Rotating gobo	
				128-135	Macro 1	
				136-143	Macro 2	
				144-151	Macro 3	
				152-159	Macro 4	
				160-167	Macro 5	
				168-175	Macro 6	
				176-183	Macro 7	
				184-191	Macro 8	
				192-199	Macro 9	
				200-207	Macro 10	
				208-215	Macro 11	
				216-223	Macro 12	
				224-231	Macro 13	
				232-239	Macro 14	
				240-247	Macro 15	
				248-255	Macro 16	
33	20	37	30		**Prism rotation**	
				0	No Function	
				1-127	Forwards prism rotation from fast to slow	
				128	No rotation (128=default)	
				129-255	Backwards prism rotation from slow to fast	
34	21	38	31		**Frost**	
				0	Open (0=default)	
					Light Frost	
				1-50	Light Frost from 0% to 100%	
				51-53	100% Light Frost	
				54-63	Pulse closing from slow to fast	
				64-73	Pulse opening from fast to slow	
				74-83	Ramping from fast to slow	
				84-86	Open	
					Medium Frost	
				87-136	Medium Frost from 0% to 100%	
				137-139	100% Medium Frost	
				140-149	Pulse closing from slow to fast	
				150-159	Pulse opening from fast to slow	
				160-169	Ramping from fast to slow	
				170-172	Open	
					Combined Frost	
				173-222	Medium Frost from 0% to 100%	
				223-225	100% Medium Frost	
				226-235	Pulse closing from slow to fast	
				236-245	Pulse opening from fast to slow	
				246-255	Ramping from fast to slow	
35	22	39	32		**Iris**	
				0	Open (0=default)	
				1-179	From max.diameter to min.diameter	
				180-191	Closed	
					Pulse effects with Iris blackout	
				192-219	Pulse opening from slow to fast	
				220-247	Pulse closing from fast to slow	
				248-249	Random pulse opening (fast)	
				250-251	Random pulse opening (slow)	
				252-253	Random pulse closing (fast)	
				254-255	Random pulse closing (slow)	
36	/	40	33		**Iris - fine**	
				0-255	Fine iris movement (0=default)	
37	23	41	34		**Zoom**	
				0-255	Zoom from max. to min.beam angle (128=default)	
38	/	42	35		**ZoomFine**	
				0-255	Fine Zoom positioning	
39	24	43	36		**Focus**	
				0-255	Continuous adjustment from far to near (128=default)	
40	/	44	37		**Focus Fine**	
				0-255	Fine Focus positioning	

60 Channel	35 Channel	64 Channel	49 Channel	DMX	Function	Note
41	25	45	38		**Framing Rotation**	
				0-127	Rotation from right (0°) to 60°	
				128	Center (128=default)	
				129-255	Rotation from 60° to left (120°)	
42	26	46	39		**Framing shutter 1- movement**	
				0-255	Movement from Outward to Inward (0=default)	
43	/	47	/		**Framing shutter 1 fine- movement fine**	
				0-255	Movement from Outward to Inward (0=default)	
44	27	48	40		**Framing shutter 1- swivelling**	
				0-127	Swivelling towards 0 degrees	
				128	0 degrees (128=default)	
				0-255	Swivelling from 0 degrees	
45	/	49	/		**Framing shutter 1 fine- swivelling fine**	
				0-127	Swivelling towards 0 degrees	
				128	0 degrees (128=default)	
				0-255	Swivelling from 0 degrees	
46	28	50	41		**Framing shutter 2- movement**	
				0-255	Movement from Outward to Inward (0=default)	
47	/	51	/		**Framing shutter 2 fine- movement fine**	
				0-255	Movement from Outward to Inward (0=default)	
48	29	52	42		**Framing shutter 2- swivelling**	
				0-127	Swivelling towards 0 degrees	
				128	0 degrees (128=default)	
				0-255	Swivelling from 0 degrees	
49	/	53	/		**Framing shutter 2 fine- swivelling fine**	
				0-127	Swivelling towards 0 degrees	
				128	0 degrees (128=default)	
				0-255	Swivelling from 0 degrees	
50	30	54	43		**Framing shutter 3- movement**	
				0-255	Movement from Outward to Inward (0=default)	
51	/	55	/		**Framing shutter 3 fine- movement fine**	
				0-255	Movement from Outward to Inward (0=default)	
52	31	56	44		**Framing shutter 3- swivelling**	
				0-127	Swivelling towards 0 degrees	
				128	0 degrees (128=default)	
				0-255	Swivelling from 0 degrees	
53	/	57	/		**Framing shutter 3 fine- swivelling fine**	
				0-127	Swivelling towards 0 degrees	
				128	0 degrees (128=default)	
				0-255	Swivelling from 0 degrees	
54	32	58	45		**Framing shutter 4- movement**	
				0-255	Movement from Outward to Inward (0=default)	
55	/	59	/		**Framing shutter 4 fine- movement fine**	
				0-255	Movement from Outward to Inward (0=default)	
56	33	60	46		**Framing shutter 4- swivelling**	
				0-127	Swivelling towards 0 degrees	
				128	0 degrees (128=default)	
				0-255	Swivelling from 0 degrees	
57	/	61	/		**Framing shutter 4 fine- swivelling fine**	
				0-127	Swivelling towards 0 degrees	
				128	0 degrees (128=default)	
				0-255	Swivelling from 0 degrees	
58	34	62	47		**Shutter/ strobe**	
				0-31	Shutter closed	
				32-63	Shutter open (32=default)	
				64-95	Strobe-effect from slow to fast	
				96-127	Shutter open	
				128-143	Opening pulse in sequences from slow to fast	
				144-159	Closing pulse in sequences from fast to slow	
				160-191	Shutter open	
				192-223	Random strobe-effect from slow to fast	
				224-255	Shutter open	
59	35	63	48		**Dimmer**	
				0-255	Dimmer intensity from 0% to 100% (0=default)	
60	/	64	49		**Dimmer Fine**	
				0-255	Dimmer Fine	

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 (photoelectric sensor) 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 and the internal optical lens every 30 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.
* All the information in this manual shall be interpreted by the manufacturer.
* 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.