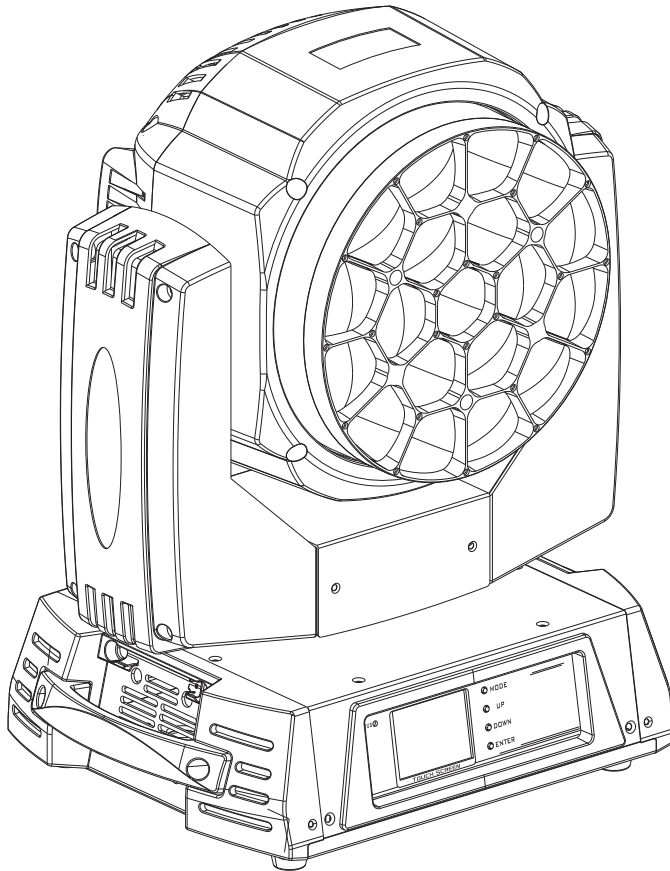


LED MH 1930

USER MANUAL



CE

INVOLIGHT

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Congratulations on choosing our products! Please carefully read this instruction manual in its entirety and keep it well for using reference. This manual contained about the installation and the relative using information of this products. Plese refere this manual's relative instruction when using this equipment.

1. Open–Package guidelines

This equipment is made of new style, high intensity plastic. It fully shows the modern times light characteristics with beauty structure. And it is made according to CE standard. Fully agree with the international standard of DMX512 agreement.

When receive the product, please be careful to take and put, check if the product has damage or not because of transportation, and check the following parts:

- | | |
|---------------------|----------------------|
| 1. Signal cable-1PC | 2. Safety cable-1PC |
| 3. User Manual-1PC | 4. Omega holder-2PCS |
| 5. Power cable-1PC | 5. Service card-1PC |

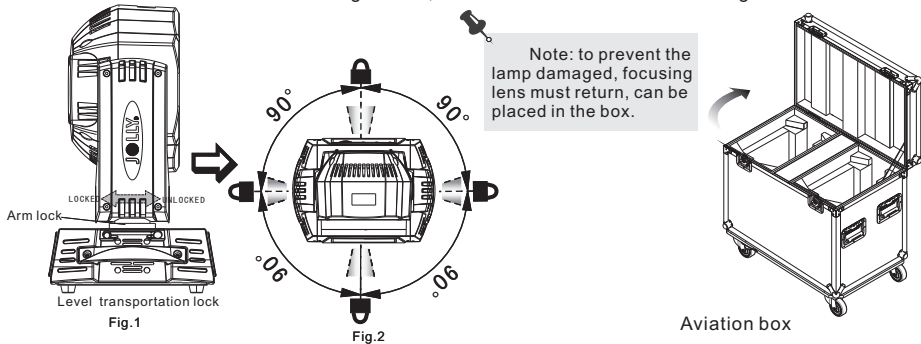
1.1 Package

Unpacking the fixture

1. Open the flight case cover
2. With one person on each side, lift the fixture out of the flight case.
3. Unlock pan and tilt before operating fixture

Packing the fixture

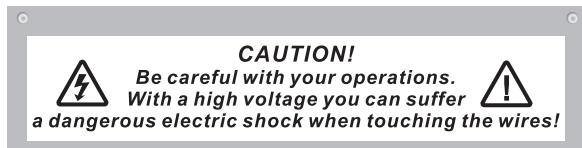
1. Disconnect the fixture from power and allow it to cool.
2. Lock arms as figure.- Fig.1(PAN Mechanism Lock and Release (every 90°) - Fig.2)
3. Place the fixture in the bottom of the flight case, and cover the case without forcing.



2. Safety instructions

Every person involved with installation and maintenance of this device to:

- Be qualified
- Follow the instructions of this manual.



This device has been shipped with our premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.











Important:

- The manufacturer will not accept liability for any resulting damages caused by the nonobservance of this manual or any unauthorized modification to the device.
- Please consider that damages caused by manual modifications to the device are not subject to warranty.

- Never let the power-cord come into contact with other cables! Handle the power cord and all connections with particular caution!
- Make sure that the available voltage is not higher than stated on the rearpanel.
- Always plug in the power plug least. Make sure that the power-switch is set to off-position before you connect with themains with particular caution!
- Make sure that the power-cord is never crimped or damaged by sharp edges. Check the device and the power-cord from time to time.
- Always disconnect from the mains, when the device is not in use or before cleaning it.
- Only handle the power-cord by the plug, Never pull out the plug by tugging the powercord.
- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- The electric connection, repairs and servicing must be carried out by a qualified employee.
- Do not connect this device to a dimmer pack.
- Do not switch the fixture on and off in short intervals as this would reduce the lamp's life.
- Do not touch the device's housing bare hands during its operation (housing becomes hot)!
- For replacement use lamps and fuses of same type and rating only.

Eye damage!

Avoid looking directly into the light source (meant especially for epileptics)!

- 
 ➤ Minimum distance of illuminated objects
 The projector needs to be positioned so that the objects hit by the beam of light are at least 0.20 metres from the lens of the projector.
- 
 ➤ Maximum ambient temperature
 Do not operate the fixture if the ambient temperature (T_a) exceeds 40°C (104°F).
- 
 ➤ Temperature of the external surface
 The maximum temperature that can be reached on the external surface of the fitting, in a thermally steady state, is 90°C (194°F).
- 
 ➤ IP20 protection rating
 The fitting is protected against penetration by solid of over 12mm (0.47") in diameter (first digit 2), but not against dripping water, rain, splashes or jets of water (second digit 0).
- 
 ➤ Indoor use only
- 
 ➤ Not suitable for household illumination
- 
 ➤ Photobiological Safety
 CAUTION. Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to the eyes.
- 
 ➤ Light collimation system
 This product contains internal light collimation system. Avoid intense light from any angle.
- 
 ➤ The products to which this manual refers comply with the European Directives pursuant to:
 - 2006/95/EC - Safety of electrical equipment supplied at low voltage (LVD)
 - 2004/108/EC - Electromagnetic Compatibility (EMC)
 - 2011/65/EU - Restriction of the use of certain hazardous substances (RoHS)
 - 2009/125/EC - EcoDesign requirements for Energy-related Products (ErP)
- 
 ➤ Protection against electrical shock
 Connection must be made to a power supply system fitted with efficient earthing (Class I appliance according to standard EN 60598-1). It is, moreover, recommended to protect the supply lines of the projectors from indirect contact and/or shorting to earth by using appropriately sized residual current devices.



➤ **Disposing**

This product is supplied in compliance with European Directive 2012/19/EU-Waste Electrical and Electronic Equipment (WEEE) .To preserve the environment please dispose/recycle this product at the end of its life according to the local regulation.



➤ **Battery**

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

3. Operating determinations

- This device is a moving-head for creating decorative effects and was designed for indoor use only.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device, Leave the device switched off until it has reached room temperature.
- Never run the device without lamp!
- Do not shake the device, Avoid brute force when installing or operating the device.
- Never lift the fixture by holding it at the projector head, as the mechanics may be damaged. Always hold the fixture at the transport handles.
- When choosing the installation-spot, please make sure that the device is not exposed to heat, moisture or dust. There should not be any cables lying around. You endanger your own and the safety of others!
- The minimum distance between light output and the illuminated surface must be more than 0.2 meters.
- Make sure that the area below the installation place is blocked when rigging, derigging or servicing the fixture.
- Always fix the fixture with an appropriate safety rope, Fix the safety rope at the correct holes only.
- Operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.
- The lamp must never be ignited if the objective-lens or any housing-cover is open, as discharge lamps may explode and emit a high ultraviolet radiat, which may cause burns.
- The maximum ambient temperature 40° C must never be exceeded.
- Operate the device only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation!
- Please use the original packaging if the device is to be transported.
- Please consider that unauthorized modifications on the device are forbidden due to safety reasons!
- If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock, burns due to ultraviolet radiation, lamp explosion, crash etc.

4. Rigging the fixture

4.1 Mounting



***Pay attention to the regulations of CE.
Installation by qualified staff to complete.***

- ☞ For the various mounting positions of the FIXTURE (standing on the floor, sideways or hanging different accessories kits are available.
- ☞ Through this a safe and firm installation is assured.
- ☞ You'll find special connectors on the bottom side of the system which are put to use here.

4.2 Installing the Clamps

Please consider the respective national norms during the Installation! The installation must only be carried out by an authorized dealer!

The installation of the projector has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.

The installation must always be secured with a secondary safety attachment, e.g. an appropriate catch net. This secondary safety attachment must be constructed in a way that no part of the installation can fall if the main attachment fails.

When servicing the fixture staying in the area below the installation place, on bridges, under high working places and other endangered areas is forbidden.

The operator has to make sure that safety-relating and machine-technical installations are approved by an expert before taking into operation for the first time and after changes before taking into operation another time.

The operator has to make sure that safety-relating and machine-technical installations are approved by an expert after every four years in the course of an acceptance test.

The operator has to make sure that safety-relating and machine-technical installations are approved by a skilled person once a year.

The projector should be installed outside areas where persons may walk by or be seated.

Important! Overhead rigging requires extensive experience CE, including (but not limited to) calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the projector. If you lack these qualifications, do not attempt the installation yourself, but instead use a professional structural rigger. Improper installation can result in bodily injury and or damage to property.

The projector has to be installed out of the reach of people.

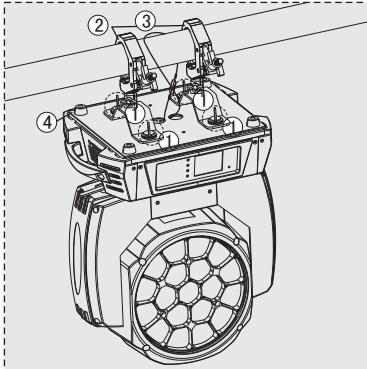
If the projector shall be lowered from the ceiling or high joists, professional trussing systems have to be used. The projector must never be fixed swinging freely in the room.

Caution Projectors may cause severe injuries when crashing down! If you have doubts concerning the safety of a possible installation, do not install the projector!

Before rigging make sure that the installation area can hold a minimum point load of 10 times the projector's weight.

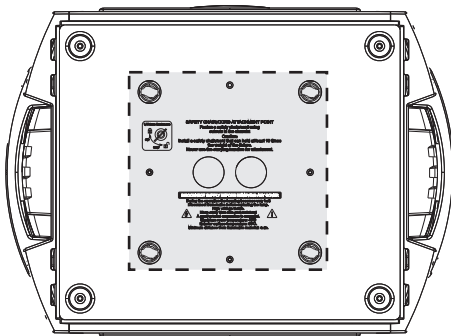
The projector can be placed directly on the stage floor or rigged in any orientation on a truss without altering its operation characteristics.

For overhead use, always install a safety-rope that can hold at least 10 times the weight of the fixture. You must only use safety-ropes with screw on carabines. Pull the safety-rope through the two apertures on the bottom of the base and over the trussing system etc.



- ① Lock catch
- ② omega holder
- ③ secure chain
- ④ mounting plate

Warning: it is necessary to make sure that the installation location is perfectly appropriate, and the installation location is safe and reliable.



SAFETY CHAIN/CORD ATTACHMENT POINT
Fasten a safety chain/cord using cutouts in the chassis!

Caution:
Install a safety chain/cord that can hold at least 10 times the weight of the fixture.
Never use the carrying handles for attachment.

DISCONNECT SUPPLY BEFORE REMOVING ANY COVER

During the operation the housing becomes very hot!
Disconnect from mains before replacing the lamp.
High voltage inside.

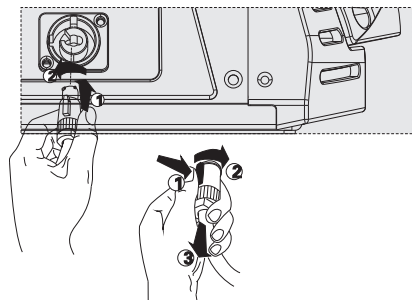
⚡ Keep away from rain and moisture! ⚡
A good ground connection is essential.
Maximum room temperature: 40°C.
Exterior surface temperature: 80°C.
Minimum distance from flammable material: 0.8m.

4.3 Power supply connection and cut off

Connect the light source to the main power source with the plug of the power cord, or cut off the power supply:

Connection: according to procedures, the power plug and socket is inserted into the groove one one alignment, rotation.

Cut off: according to procedures, press the button on the rotating plug, pull out.



4.4 Power Connection

If you wish to change the power supply settings, see the chapter appendix Connect the fixture to the mains with the enclosed power cable and plug.

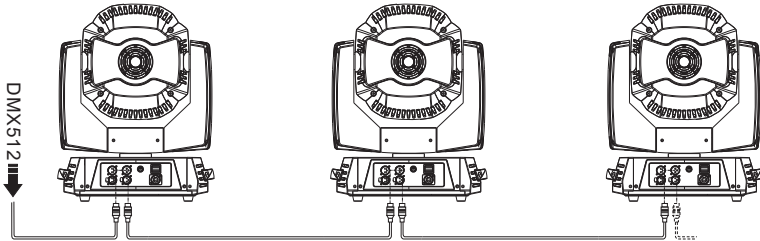
Warning: please verify the power of the power supply equipment prior to the connection! Earth wire must be grounded!

CABLE(EU)	CABLE(US)	Pin	INTERNATIONAL
Brown	Black	Live	L
Light blue	White	Neutral	N
Yellow/Green	Green	Earth	⊕

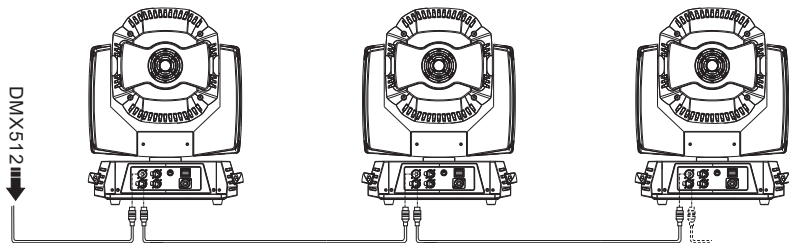
4.5 DMX-512 connection/connection between fixtures

Only use stereo shielded cable and 3-pin XLR-plugs and connectors in order to connect.

Standard edition



Online edition



Caution

At the last fixture, the DMX-cable has to be terminated with a terminator. solder a 120 resistor between signal(-) and Signal (+) into a 3-pin XLR-plug and plug it in the DMX-output of the last fixture.

DMX output
3-pin XLR socket

DMX input
3-pin XLR socket

DMX output
5-pin XLR socket

DMX input
5-pin XLR socket



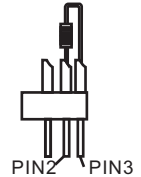
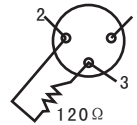
- 1: Ground
- 2: Signal (-)
- 3: Signal (+)



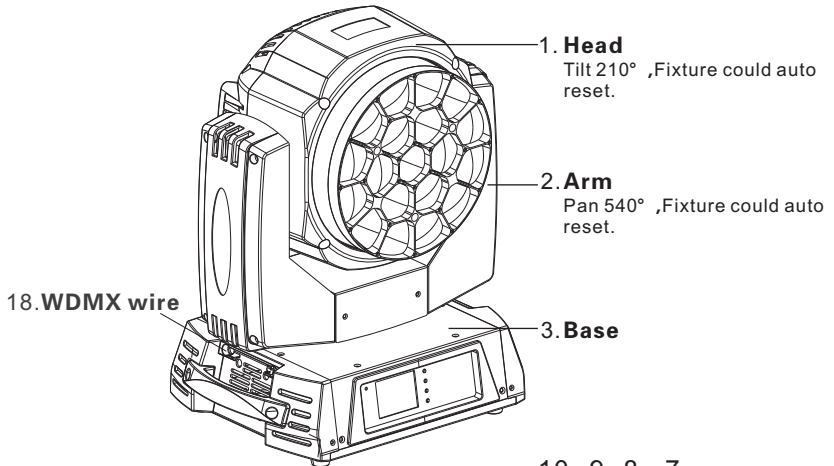
- 1: Ground
- 2: Signal (-)
- 3: Signal (+)
- 4: N. A.
- 5: N. A.

DMX Terminator Diagram

-For installations where the DMX cable has to run a long distance or is in an electrically noisy environment it is recommended to use a DMX terminator. This helps in preventing corruption of the signal by electrical noise. The DMX terminator is simply an XLR plug with a 120Ω resistor connected between pins 2 and pins 3, which is then plugged into the output XLR socket of the last fixture in the chain.



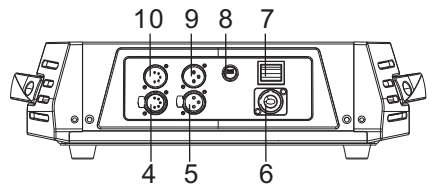
5. Description of the device



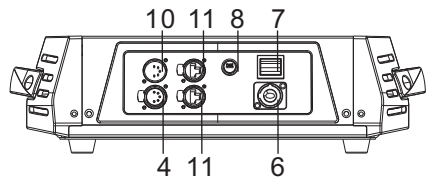
BACK PANEL

- 4. 5-pin XLR female
- 5. 3-pin XLR female
- 6. Power-in
- 7. Power switch
- 8. Main Fuse
- 9. 3-pin XLR male
- 10. 5-pin XLR male
- 11. Network interface

Standard edition

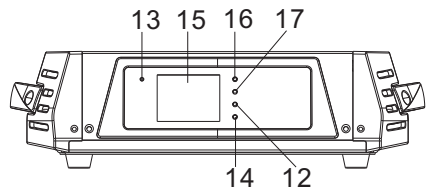


Online edition

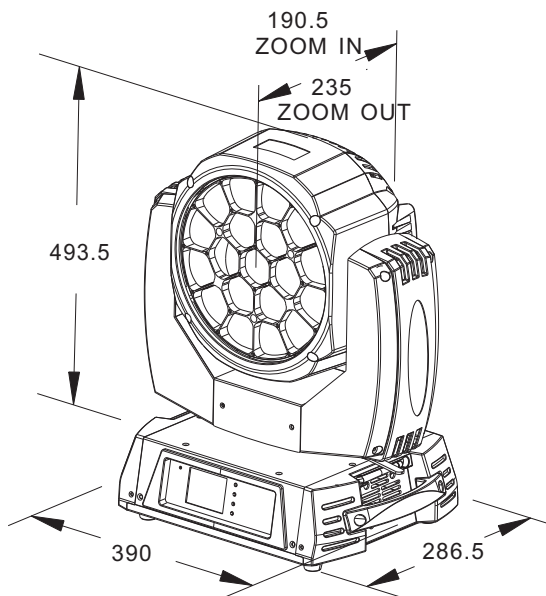
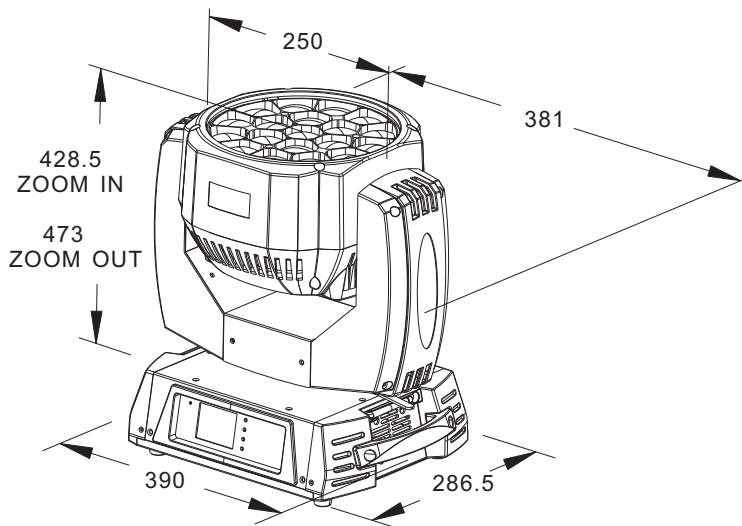


CONTROL PANEL

- 12. DOWN button
- 13. Status indicator lamp
- 14. ENTER button
- 15. Touch screen(LCD display)
- 16. MODE button
- 17. UP button
- 18. WDMX Wire



6.Dimension



7. Display control

7.1 Navigation in the Menu

Using the buttons or touch screen, and this can be simply and easily set the address code and functions code.

If you view or modify the lighting feature set, then press ENTER button, the display will enter the menu interface. Both there is sub menu corresponding to the functional operation of the main menu. Each of the menus is representative of the specific features of the lamp. The specific contents shows as the table menu below.

Set or browse lighting function, press UP or DOWN button.

Press ENTER to save your changes or enter the submenu. Press the UP or DOWN can change the numerical (increase or decrease in value).

Press the MODE button to return to menu. Set a time 0 to 10 minutes automatically exit menu interface and close the screen.

7.2 Display Operation

Put through power supply, open the power switch of lamps and lanterns, display show the company LOGO website. According to the main interface, as shown in figure:

In the main interface, press "MODE" button to view the software version, press the "UP" "DOWN" can modify the DMX address.

If the screen "⊙" icon is green, said DMX signal connection is normal, this state can be used to check the lamps and lanterns and connection between the control table is normal.

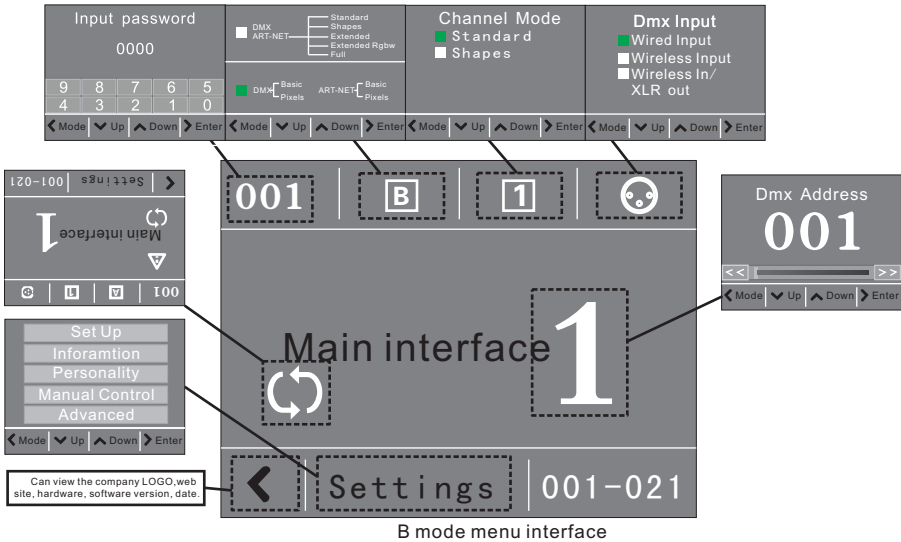
This lamp contains "A""B" two control modes are optional, see below; (A mode, also known as unit mode, its function as a network and only a single control console. B mode known as multivariate models, its function as a network and control console merge or separate two options.)

The diagram illustrates the control interface of the lamp, showing various settings and status indicators. Key elements include:

- Input password:** 0000
- DMX Selection:** DMX-ART-NET (Standard, Shapes, Extended Rgbw, Full) and DMX-Basic (Basic, ART-NET, Basic Pixels).
- Channel Mode:** Standard, Shapes, Extended, Extended Rgbw, Full.
- Dmx Input:** Wired Input, Wireless Input, XLR out, Ethnet Input.
- Main interface:** Displays '001', 'A', '1', and a green '⊙' icon. A callout indicates that pressing the '1' for 2 seconds modifies the DMX address.
- Settings:** Shows '001-021'.
- Dmx Address:** Shows '001'.
- Error Logs:** E12: BusErr1 01, E15: Ballast Error 07, E17: BD1 BUS Error 99, E18: BD2 BUS Error 99, E19: BD3 BUS Error 99.
- Set Up Menu:** Information, Personality, Manual Control, Advanced.
- Callouts:**
 - Press this area for 2 seconds to modify the DMX address.
 - Can view the company LOGO, web site, hardware, software version, date.

A mode menu interface

This lamp can be set to turn off the automatic flip screen function, touch this "⊙" icon can be manually flip screen.



B mode menu interface

Click on the main interface of the icon, numerical to view view Settings related information of lamps and lanterns. Symbols such as the main interface appear "Δ", the following error message indicates that there might be a lamps and lanterns, can click to view and control information content to modify the lamps and lanterns.

CODE #	ERRO INFO	CHECK MEASUREMENT	NOTE
E02	Program Err 1	Check the welding of Chip	RESET ERROR
E04	MBDInit Error	Check the communication signal 485& 485 chip & memory	
E05	BD1Init Error	Check main cable ABAB (485) chip	
E06	BD2Init Error		
E12	Bus1 Error	Check main cable ABAB (485) chip	
E16	MFpga Error	Check the communication signal& welding of communication chip	
E17	BD1 BUS		
E18	BD2 BUS		
E21	Pan FB. Error	Check the light coupling line, optical coupling switch and a plate of the relative position measurement	
E23	Tilt FB. Error	Check cable of sensor, distance and location of ,magnets and sensor	
E22	Pan Zero		
E24	Tilt Zero Error		
E36	Zoom RT.		
E46	H.Fan Error	Check the fan of head	
E057	EthMDL Error	Check the fan of ArtNet、 communication signal	

Note : under standard version only mode A is working ,and without DMX input.

7.3 Menu list

		Remark		
Setup	DMX Address	Universe DMX Address 001~XXX	Remark	
	Channel Mode	STANDARD	1~21	default Mode1
		SHAPES	1~35	
		EXTENDED	1~78	
		EXTENDED RGBW	1~97	
		FULL	1~92	
Fixture Id	0001~XXXX	Lamps address		
*Multi Mode (use it under the module with art-net)	DMX Or ART-NET	DMX+ART-NET	Multi Mode (use it under the module with art-net)	
*Ethernet (use it under the module with art-net)	IPAddress	IP address setting (use it under the module with art-net)		
	Netmask			
Information	Fixture Times	XXXXX h XX m	Total working hours	
	LED Timeshare	LED On Times XXXXh XXm	Lamp Strike	
		Reset LED Time	Reset Lamp Time	
	Error List		Error details	
	Diagnosis	BOARD 1: XX.XX%	Diagnosis	
		BOARD 2: XX.XX%		
DMX Values		DMX Values		
Fans Monitor		Fans Values		
Personality	Pan/Tilt	Pan Reverse ON/OFF	Pan Reverse (default OFF)	
		Tilt Reverse ON/OFF	Tilt Reverse (default OFF)	
		Feedback ON/OFF	Pan/Tilt Auto Switch (default ON)	
	Dmx Input	Wired Input	Wired Input (default)	
		*Wireless Input	Wireless Input	
		*Wireless In/XLR out	Wireless In/XLR out	
		*Ethnet Input (use it under the module with art-net)	Ethnet Input (use it under the module with art-net)	
		Brightness	Brightness	
	Screen	Screen Time out 0-10m	Screen Time out	
		Touch Screen ON/OFF	Touch Screen (default ON)	
		Auto Screen ON/OFF	Auto Screen (default ON)	
	Fan Mode	Auto		
		High		
	Language	English	English	
		Simplified Chinese	Simplified Chinese	
Manual Control	Reset	Reset ALL		
		Reset Pan/Tilt		
		Reset Other		
Channel		Chanel Testing		
Advanced	Calibration		Chanel Adgusting	
	Factory Default		Reset to original parameters	
	Touch Calibration		Touch screen adjusting	

Note: under standard version, the content mark "*" are unable to use.

8.DMX protocol

8.1 Unit model(A mode)

Mode1	Mode2	Mode3	Mode4	Mode5	Fade Type	Function	Dmx Value
1	1	1	1	1	Red	Black→Red 0-100%	0-255
2	2	2	2	2	Red fine	Red fine	0-255
3	3	3	3	3	Green	Black→Green 0-100%	0-255
4	4	4	4	4	Green fine	Green fine	0-255
5	5	5	5	5	Blue	Black→Blue 0-100%	0-255
6	6	6	6	6	Blue fine	Blue fine	0-255
7	7	7	7	7	White	Black→White 0-100%	0-255
8	8	8	8	8	White fine	White fine	0-255
9	9	9	9	9	Linear CTO	Note: If CTO channel is active, the WHITE channel is disabled.	
						UNUSED RANGE	0-9
						8000K	10
						8000K→7000K	10-54
						7000K→6000K	54-99
						6000K→5600K	99-117
						5600K→5000K	117-144
						5000K→4000K	144-188
						4000K→3200K	188-224
						3200K→2500K	224-255
10	10	10	10	10	Macro colour	Macro color OFF	0-9
						Red	10
						Green	11
						Blue	12
						Cyan	13
						Yellow	14
						Magenta	15
						White 7000 K	16
						White 3700 K	17
						White 5000 K	18
						Black	19
						Medium Yellow	20-22
						Straw Tint	23-26
						Surprise Peach	27-28
						Fire	29
						Medium Amber	30
						Gold Amber	31
						Dark Amber	32-34
						Sunrise Red	35-44
						Light Pink	45
						Medium Pink	46-48
						Pink Carnation	49-61
						Light Lavender	62-67
						Lavender	68-77
						Sky Blue	78-88
						Just Blue	89-99
						Dark yellow green	100-109
						Spring Yellow	110-111
Light Amber	112						
Straw	113						
Deep Amber	114						

Mode1	Mode2	Mode3	Mode4	Mode5	Fade Type	Function	Dmx Value
10	10	10	10	10	Macro colour	Orange	115-116
						Light Rose	117
						English Rose	118
						Light Salmon	119
						Middle Rose	120
						Dark Pink	121-122
						Magenta	123-124
						Peacock Blue	125
						Med Blu Green	126
						Steel Blue	127
						Light Blue	128
						Dark Blue	129-130
						Leaf Green	131-133
						Dark Green	134-135
						Mauve	136-137
						Bright Pink	138-141
						Medium Blue	142-144
						Deep Golden Amber	145
						Pale Lavender	146
						Special lavender	147-148
						Primary Green	149-150
						Bright Blue	151-156
						Apricot	157-161
						Pale Gold	162-167
						Deep Orange	168-171
						Bastard Amber	172-173
						Flame Red	174
						Daylight Blue	175-178
						Lilac Tint	179
						Deep lavender	180-183
Dark Steel Blue	184-190						
Congo Blue	191-206						
Alice Blue	207						
Dirty White	208						
White	209-255						
11	11	11	11	11	Strobe	CLOSED	0-3
						STROBE SLOW→FAST (1→25 flash/sec)	4-103
						OPEN	104-107
						PULSATION SLOW→FAST (0.5-25	108-207
						OPEN	208-212
						RANDOM SLOW STROBE	213-225
						RANDOM MEDIUM STROBE	226-238
						RANDOM FAST STROBE	239-251
						OPEN	252-255
						12	12
13	13	13	13	13	Dimmer Fine	Dimmer Fine	0-255
14	14	14	14	14	Pan	Pan	0-255
15	15	15	15	15	Pan Fine	Pan Fine	0-255
16	16	16	16	16	Tilt	Tilt	0-255
17	17	17	17	17	Tilt Fine	Tilt Fine	0-255
18	18	18	18	18	Function	The functions are activated passing through the "unused range" and staying 5 seconds	
						Function off - rearmed	0-11
						Pan Tilt Fast (Default)	12-24
						Pan Tilt Normal	25-37
						Dimmer Curve 1	38-42
						Dimmer Curve 2	43-47
Dimmer Curve 3	48-52						

Mode1	Mode2	Mode3	Mode4	Mode5	Fade Type	Function	Dmx Value
18	18	18	18	18	Function	Dimmer Curve 4	53-57
						RGBW Gamma curve 1 - gamma = 1.0	58-62
						RGBW Gamma curve 2 - gamma = 1.5	63-67
						RGBW Gamma curve 3 - gamma = 2.0	68-72
						Halogen Lamp Simulation OFF (Default)	73-77
						Halogen Lamp Simulation, type 1 (750 W) Linear CTO @ 0 bit	78-82
						Halogen Lamp Simulation, type 2 (1000 W) Linear CTO @ 0 bit	83-87
						Halogen Lamp Simulation, type 3 (1200 W) Linear CTO @ 0 bit	88-92
						Halogen Lamp Simulation, type 4 (2000 W) Linear CTO @ 0 bit	93-97
						Halogen Lamp Simulation, type 5 (2500 W) Linear CTO @ 0 bit	98-102
					Reserved	103-255	
19	19	19	19	19	Reset	activated passing through the unused range and staying 5 seconds	
						UNUSED RANGE	0-25
						ZOOM RESET	26-76
						PAN / TILT RESET	77-127
20	20	20	20	20	Zoom	COMPLETE RESET	128-255
						ZOOM NARROW BEAM → WIDE BEAM	0-52
21	21	21	21	21	Zoom Rotation	ZOOM NARROW BEAM → WIDE BEAM	53-255
						Linear Rotaiton lens angle from 0 to 60	0-127
						CW Rotation speed from fast to slow	128-190
						Stop Rotation	191-192
						CW Rotation speed from slow to fast	193-255
22	22	22	22	22	Shape Selection	UNUSED RANGE	0-7
						Shape1	8
						Shape2	9
						Shape3	10
						UNUSED RANGE	11
						Shape4	12
						Shape5	13
						UNUSED RANGE	14
						Shape6	15
						Shape7	16
						Shape8	17
						Shape9	18
						Shape10	19
						Shape11	20
						Shape12	21
						Shape13	22
						Shape14	23
						Shape15	24
						Shape16	25
						Shape17	26
						Shape18	27
						Shape19	28
						Shape20	29
						Shape21	30
						Shape22	31
						Shape23	32
						UNUSED RANGE	33
						UNUSED RANGE	34
Shape24	35						
Shape25	36						
Shape26	37						
Shape27	38						
Shape28	39						

Mode1	Mode2	Mode3	Mode4	Mode5	Fade Type	Function	Dmx Value
	22			22	Shape Selection	Shape29	40
		UNUSED RANGE	41				
		Shape30	42				
		UNUSED RANGE	43				
		Shape31	44				
		Shape32	45				
		Shape33	46				
		Shape34	47				
		Shape35	48				
		Shape36	49				
		Shape37	50				
		Shape38	51				
		Shape39	52				
		Shape40	53				
		Shape41	54				
		Shape42	55				
		Shape43	56				
		Shape44	57				
		Shape45	58				
		Shape46	59				
		Shape47	60				
		Shape48	61				
		Shape49	62				
		Shape50	63				
		UNUSED RANGE	64				
		Shape51	65				
		Shape52	66				
	Shape53	67					
	Shape54	68					
	UNUSED RANGE	69					
	Shape55	70					
	UNUSED RANGE	71-255					
	23			23	Shape Speed	Radius size,Static	0-63
		max to min speed				64-158	
		Stop				159-160	
		min to max speed				161-255	
	24			24	Shape Fade	Shape Fade 0-100%	0-255
	25			25	Shape R	Shape R	0-255
	26			26	Shape G	Shape G	0-255
	27			27	Shape B	Shape B	0-255
	28			28	Shape W	Shape W	0-255
	29			29	Shape Dimmer	Shape Dimmer 0-100%	0-255
	30			30	Background Dimmer	Background Dimmer 0-100%	0-255
	31			31	Shape Transition	Shape Transition	0-255
	32			32	Shape Offset	Shape Offset	0-255
	33			33	Foreground Strobe	CLOSED	0-3
		STROBE SLOW →FAST (1→25 flash/sec)	4-103				
		OPEN	104-107				
		PULSATION SLOW →FAST (0.5-25	108-207				
		OPEN	208-212				
		RANDOM SLOW STROBE	213-225				
		RANDOM MEDIUM STROBE	226-238				
		RANDOM FAST STROBE	239-251				
	OPEN	252-255					

Mode1	Mode2	Mode3	Mode4	Mode5	Fade Type	Function	Dmx Value
						CLOSED	0-3
						STROBE SLOW →FAST (1→25	4-103
						OPEN	104-107
						PULSATION SLOW →FAST (0.5-25	108-207
						OPEN	208-212
						RANDOM SLOW STROBE	213-225
						RANDOM MEDIUM STROBE	226-238
						RANDOM FAST STROBE	239-251
						OPEN	252-255
						UNUSED RANGE	0-7
						NO selection	8
						pixe 1	9
						Ring 2	10
						Ring 3	11
						pixe 1 + Ring 3	12
						pixe 1 + Ring 2	13
						pixe 1 + Ring 2 + Ring 3	14
						Ring 2 + Ring 3	15
						UNUSED RANGE	16-255
		22	22	36	Red LED 1	Red 0-100%	0-255
		23	23	37	Green LED 1	Green 0-100%	0-255
		24	24	38	Blue LED 1	Blue 0-100%	0-255
			25		White LED 1	White 0-100%	0-255
		25	26	39	Red LED 2	Red 0-100%	0-255
		26	27	40	Green LED 2	Green 0-100%	0-255
		27	28	41	Blue LED 2	Blue 0-100%	0-255
			29		White LED 2	White 0-100%	0-255
		28	30	42	Red LED 3	Red 0-100%	0-255
		29	31	43	Green LED 3	Green 0-100%	0-255
		30	32	44	Blue LED 3	Blue 0-100%	0-255
			33		White LED 3	White 0-100%	0-255
		31	34	45	Red LED 4	Red 0-100%	0-255
		32	35	46	Green LED 4	Green 0-100%	0-255
		33	36	47	Blue LED 4	Blue 0-100%	0-255
			37		White LED 4	White 0-100%	0-255
		34	38	48	Red LED 5	Red 0-100%	0-255
		35	39	49	Green LED 5	Green 0-100%	0-255
		36	40	50	Blue LED 5	Blue 0-100%	0-255
			41		White LED 5	White 0-100%	0-255
		37	42	51	Red LED 6	Red 0-100%	0-255
		38	43	52	Green LED 6	Green 0-100%	0-255
		39	44	53	Blue LED 6	Blue 0-100%	0-255
			45		White LED 6	White 0-100%	0-255
		40	46	54	Red LED 7	Red 0-100%	0-255
		41	47	55	Green LED 7	Green 0-100%	0-255
		42	48	56	Blue LED 7	Blue 0-100%	0-255
			49		White LED 7	White 0-100%	0-255
		43	50	57	Red LED 8	Red 0-100%	0-255
		44	51	58	Green LED 8	Green 0-100%	0-255
		45	52	59	Blue LED 8	Blue 0-100%	0-255
			53		White LED 8	White 0-100%	0-255
		46	54	60	Red LED 9	Red 0-100%	0-255
		47	55	61	Green LED 9	Green 0-100%	0-255
		48	56	62	Blue LED 9	Blue 0-100%	0-255
			57		White LED 9	White 0-100%	0-255
		49	58	63	Red LED 10	Red 0-100%	0-255

Mode1	Mode2	Mode3	Mode4	Mode5	Fade Type	Function	Dmx Value
		50	59	64	Green LED 10	Green 0-100%	0-255
		51	60	65	Blue LED 10	Blue 0-100%	0-255
			61		White LED 10	White 0-100%	0-255
		52	62	66	Red LED 11	Red 0-100%	0-255
		53	63	67	Green LED 11	Green 0-100%	0-255
		54	64	68	Blue LED 11	Blue 0-100%	0-255
			65		White LED 11	White 0-100%	0-255
		55	66	69	Red LED 12	Red 0-100%	0-255
		56	67	70	Green LED 12	Green 0-100%	0-255
		57	68	71	Blue LED 12	Blue 0-100%	0-255
			69		White LED 12	White 0-100%	0-255
		58	70	72	Red LED 13	Red 0-100%	0-255
		59	71	73	Green LED 13	Green 0-100%	0-255
		60	72	74	Blue LED 13	Blue 0-100%	0-255
			73		White LED 13	White 0-100%	0-255
		61	74	75	Red LED 14	Red 0-100%	0-255
		62	75	76	Green LED 14	Green 0-100%	0-255
		63	76	77	Blue LED 14	Blue 0-100%	0-255
			77		White LED 14	White 0-100%	0-255
		64	78	78	Red LED 15	Red 0-100%	0-255
		65	79	79	Green LED 15	Green 0-100%	0-255
		66	80	80	Blue LED 15	Blue 0-100%	0-255
			81		White LED 15	White 0-100%	0-255
		67	82	81	Red LED 16	Red 0-100%	0-255
		68	83	82	Green LED 16	Green 0-100%	0-255
		69	84	83	Blue LED 16	Blue 0-100%	0-255
			85		White LED 16	White 0-100%	0-255
		70	86	84	Red LED 17	Red 0-100%	0-255
		71	87	85	Green LED 17	Green 0-100%	0-255
		72	88	86	Blue LED 17	Blue 0-100%	0-255
			89		White LED 17	White 0-100%	0-255
		73	90	87	Red LED 18	Red 0-100%	0-255
		74	91	88	Green LED 18	Green 0-100%	0-255
		75	92	89	Blue LED 18	Blue 0-100%	0-255
			93		White LED 18	White 0-100%	0-255
		76	94	90	Red LED 19	Red 0-100%	0-255
		77	95	91	Green LED 19	Green 0-100%	0-255
		78	96	92	Blue LED 19	Blue 0-100%	0-255
			97		White LED 19	White 0-100%	0-255

8.2 Multivariable model(B mode)

BASIC ENGINE			
STANDARD		SHAPES	
CHAN- NEL	CHANNEL MODE	CHAN- NEL	CHANNEL MODE
1	Red	1	Red
2	Red fine	2	Red fine
3	Green	3	Green
4	Green fine	4	Green fine
5	Blue	5	Blue
6	Blue fine	6	Blue fine
7	White	7	White
8	White fine	8	White fine
9	Linear CTO	9	Linear CTO
10	Macro colour	10	Macro colour
11	Strobe	11	Strobe
12	Dimmer	12	Dimmer
13	Dimmer Fine	13	Dimmer Fine
14	Pan	14	Pan
15	Pan Fine	15	Pan Fine
16	Tilt	16	Tilt
17	Tilt Fine	17	Tilt Fine
18	Function	18	Function
19	Reset	19	Reset
20	Zoom	20	Zoom
21	Zoom Rotation	21	Zoom Rotation
		22	Shape Selection
		23	Shape Speed
		24	Shape Fade
		25	Shape R
		26	Shape G
		27	Shape B
		28	Shape W
		29	Shape Dimmer
		30	Background Dimmer
		31	Shape Transition
		32	Shape Offset
		33	Foreground Strobe
		34	Background Strobe
		35	Background Select

PIXEL ENGINE			
RGB		RGBW	
CHAN- NEL	CHANNEL MODE	CHAN- NEL	CHANNEL MODE
1	Red LED 1	1	Red LED 1
2	Green LED 1	2	Green LED 1
3	Blue LED 1	3	Blue LED 1
...	Red LED ...	4	White LED 1
...	Green LED	Red LED ...
...	Blue LED	Green LED ...
55	Red LED 19	...	Blue LED ...
56	Green LED 19	...	White LED ...
57	Blue LED 19	73	Red LED 19
		74	Green LED 19
		75	Blue LED 19
		76	White LED 19

Pixel Engine need to be enabled through the function channel.

NOTE: On conclusion of resetting in case of absence of DMX signal, Pan & Tilt move to the "Home" position (Pan 128 bit - Tilt 128 bit) all the others channels stay at 0 bit.

MACRO COLOUR

S/N	DMX VALUE	CHANNEL FUNCTION	BIT VALUE			
			R	G	B	W
1	0-9	Reserved	0	0	0	0
2	10	Red	255	0	0	0
3	11	Green	0	255	0	0
4	12	Blue	0	0	255	0
5	13	Cyan	0	255	255	0
6	14	Yellow	216	255	0	0
7	15	Magenta	255	0	160	0
8	16	White 7000 K	164	255	18	255
9	17	White 3700 K	255	255	57	0
10	18	White 5000 K	255	137	0	176
11	19	Black	0	0	0	0
12	20-22	Medium Yellow	207	126	0	0
13	23-26	Straw Tint	152	84	1	0
14	27-28	Surprise Peach	238	84	1	0
15	29	Fire	246	14	0	0
16	30	Medium Amber	246	72	0	0
17	31	Gold Amber	246	48	0	0
18	32-34	Dark Amber	246	22	0	0
19	35-44	Sunrise Red	246	34	0	0
20	45	Medium Pink	246	61	0	96
21	46-48	Medium Pink	255	46	0	56
22	49-61	Pink Carnation	255	63	0	94
23	62-67	Light Lavender	212	47	0	227
24	68-77	Lavender	212	41	22	255
25	78-88	Sky Blue	0	255	46	0
26	89-99	Just Blue	0	137	46	0
27	100-109	Dark yellow green	21	255	0	0
28	110-111	Spring Yellow	255	178	0	0
29	112	Light Amber	214	108	0	0
30	113	Straw	210	105	0	51
31	114	Deep Amber	255	130	0	3
32	115-116	Orange	255	80	0	0
33	117	Light Rose	255	106	0	11
34	118	English Rose	255	100	2	0
35	119	Light Salmon	255	77	3	7
36	120	Middle Rose	255	60	1	0
37	121-122	Dark Pink	253	39	3	0
38	123-124	Magenta	255	0	1	0
39	125	Peacock Blue	0	255	0	23
40	126	Med Blu Green	157	255	0	23
41	127	Steel Blue	0	7	255	0
42	128	Light Blue	0	255	4	23
43	129-130	Dark Blue	0	91	255	0
44	131-133	Leaf Green	167	255	0	0
45	134-135	Dark Green	11	255	2	0
46	136-137	Mauve	255	0	6	0
47	138-141	Bright Pink	255	6	2	0
48	142-144	Medium Blue	0	255	34	0
49	145	Deep Golden Amber	255	17	0	0
50	146	Pale Lavender	228	116	6	0
51	147-148	Special lavender	171	116	6	8
52	149-150	Primary Green	15	255	0	0
53	151-156	Bright Blue	0	255	14	0
54	157-161	Apricot	212	54	0	0
55	162-167	Pale Gold	248	94	2	0
56	168-171	Deep Orange	255	22	0	0
57	172-173	Bastard Amber	255	108	1	0
58	174	Flame Red	255	4	0	0
59	175-178	Daylight Blue	17	255	16	0
60	179	Lilac Tint	255	129	0	14
61	180-183	Deep lavender	255	75	0	28
62	184-190	Dark Steel Blue	66	182	0	53
63	191-206	Congo Blue	25	0	255	0
64	207	Alice Blue	49	255	30	0
65	208	Dirty White	255	255	20	255
66	209-255	White	255	255	13	255

✕ RED
GREEN
BLUE
WHITE



VALUE	EFFECT
255	LED ON
0	LED OFF

✕ RED FINE
GREEN FINE
BLUE FINE
WHITE FINE



VALUE	EFFECT
255	UP
0	LOW

✕ LINEAR CTO

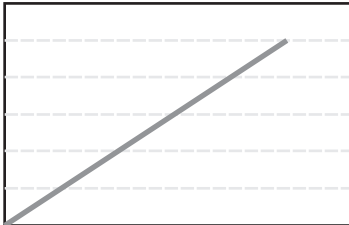
VALUE	EFFECT
255	2500K
...	...
224	3200K
...	...
188	4000K
...	...
144	5000K
...	...
117	5600K
...	...
99	6000K
...	...
54	7000K
...	...
10	8000K
0-9	未使用的范围

Note: If CTO channel is active, the white channel is disabled.

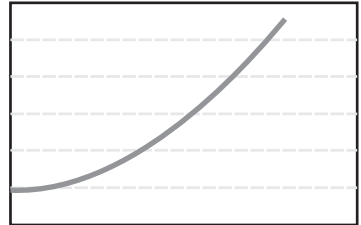
Function

CHANNEL FUNCTION	DMX VALUE
To activate following functions, stop in DMX value for at least 5 seconds(Use of the light channel):	
Reserved	0–11
Pan Tilt Fast (Default)	12–24
Pan Tilt Normal	25–37
Dimmer Curve 1	38–42
Dimmer Curve 2	43–47
Dimmer Curve 3	48–52
Dimmer Curve 4	53–57
RGB Gamma curve(gamma=1.0)	58–62
RGB Gamma curve(gamma=1.5)	63–67
RGB Gamma curve(gamma=2.0)	68–72
Activation of the following functions ninth channel linear CTO is automatically shut down	
Halogen Lamp Simulation OFF (Default)	73–77
Halogen Lamp Simulation,type1 (750W)	78–82
Halogen Lamp Simulation,type2 (1000W)	83–87
Halogen Lamp Simulation,type3 (1200W)	88–92
Halogen Lamp Simulation,type 4 (2000W)	93–97
Halogen Lamp Simulation,type 5 (2500W)	98–102
Reserved	103–255

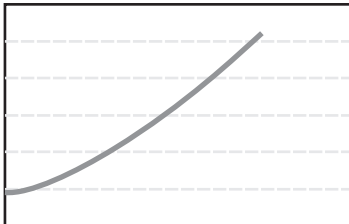
DIMMER CURVE 1 - GAMMA 1 LINEAR



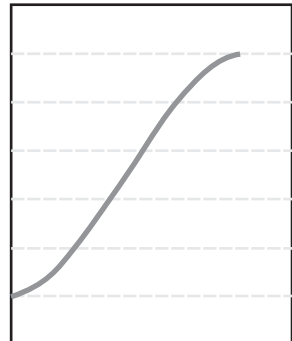
DIMMER CURVE 3 - GAMMA 2,0



DIMMER CURVE 2 - GAMMA 1,5



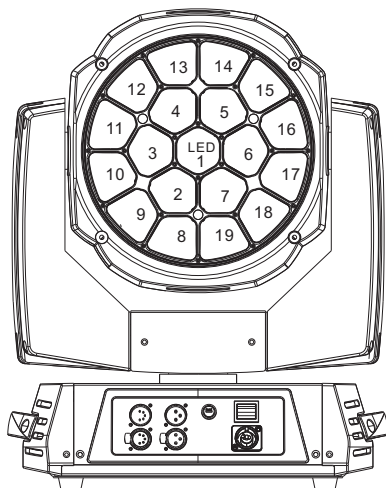
DIMMER CURVE 4 - S



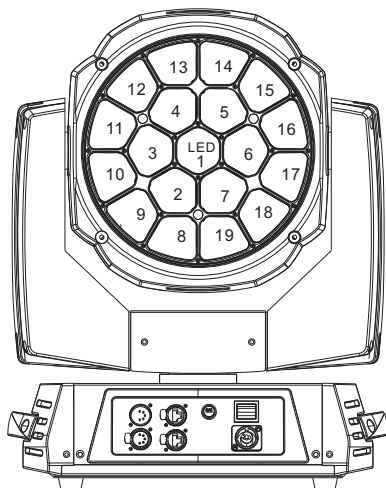
LED reference number for pixel mapping

TILT: channel 16 @ 200 bit

Standard edition



Online edition



9. Maintenance and cleaning

DANGER: Disconnect from the mains before starting any maintenance work.

It is absolutely essential that the fixture is kept clean and that dust, dirt and smoke fluid residues must not build up on or within the fixture. Otherwise, the fixtures light-output will be significantly reduced. Regular cleaning will not only ensure the maximum light-output, but will also allow the fixture to function reliably through out its life. A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should alcohol or solvents be used!

The front objective lens will require weekly cleaning as smoke-fluid tends to building up residues, reducing the light-output very quickly. The cooling-fans should be cleaned monthly.

The gobos may be cleaned with a soft brush, The interior of the fixture should be cleaned at least annually using a vacuum-cleaner or an air-jet.

There are no serviceable parts inside the device except for the lamp and the fuse.

Replacing the fuse: If the lamp burns out, the fine-wire fuse of the device might fuse, too. Only replace the fuse by a fuse of same type and rating. Before replacing the fuse, unplug mains lead.

Maintenance and maintenance of the operation, please contact the manufacturer or distributor.

10. Electric equipment specification

10.1 Electrical parameters

SOURCE: RGBW LED-30W

POWER: 650W

VOLTAGE: AC100-240V 50/60HZ

Color Temperature: 6500K

10.2 Weight and dimensions

Dimensions : 390X286.5X493.5mm

NET WEIGHT: 16Kg

Dimensions (Carton Package) : 526X496X596mm

WEIGHT (Carton Package) : 22.5Kg

Dimensions (Flight Case -4 lights): 1016X650X699mm

NET WEIGHT/WEIGHT (Flight Case -4 lights) : 45.6Kg/119.6Kg

10.3 Channel Characteristics

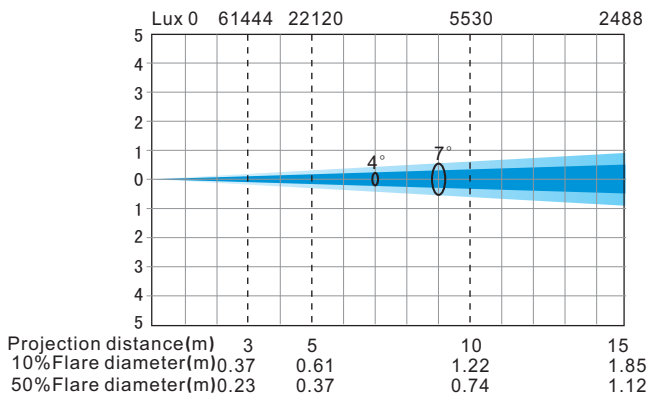
1. 21, 35, 78, 97, 92 five standard DMX channel model or 21, 35 two standard DMX channel model and network control mode optional.
2. Scan: Pan540° ,Tilt210° ,Fixture could auto reset.
3. Dimmer: linear dimmer.
5. Zoom: linear amplifier.
6. Enlarged rotation: Can be 360° degrees clockwise, counterclockwise rotation.
7. 19 RGBW lamp can be controlled separately.
8. The network control mode and DMX control mode have independent control and combined control.
9. Shutter: electronic shutter, random strobe.
10. Focus: linear focus.

10.4 Menu Function

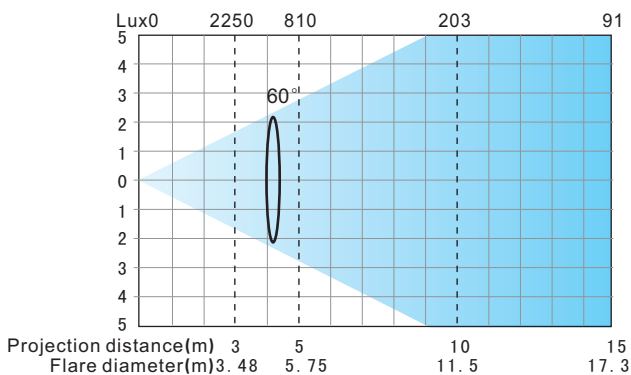
1. Touch screen, English menu.
2. DMX values and communication quality values can be displayed in each channel. .
3. Monitor could ON/OFF automatically.
4. Show fixture use time.
5. After the DMX signal is disconnected, the display will be bright and dark.
6. The screen can be set automatically to flip or hand over.
7. Auto error detection.
8. Wireless input,wired input,wireless in/xlr out,ethnet input.
9. With DMX software upgrade.
10. 5 seconds after the DMX signal is disconnected, the amplification is automatically retracted.

10.5 light table

Minimum Zoom with WHITE,RED,GREEN&BLUE(10%-50%)

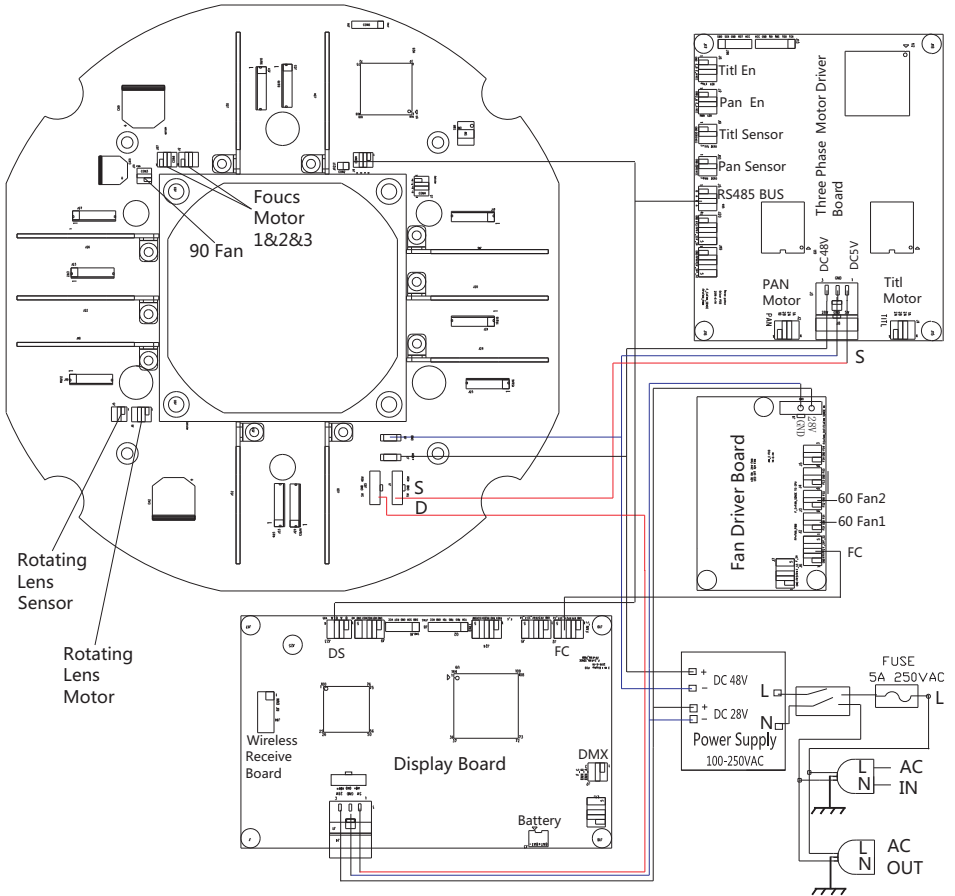


Maximum Zoom with WHITE,RED,GREEN&BLUE(10%)

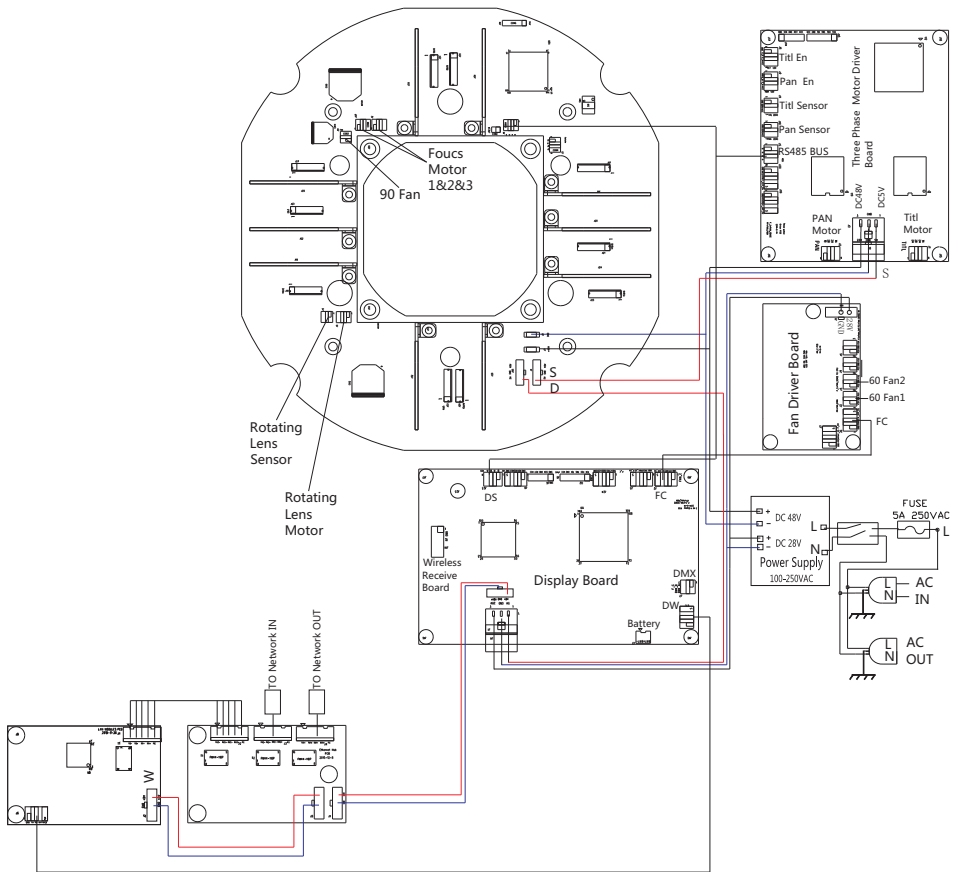


11. Electronic drawing

Standard edition



Online edition



Note: The above contents for reference only and is subject to change without prior notice, please take specification you have on hand and our company reserves the final right of interpretation.

