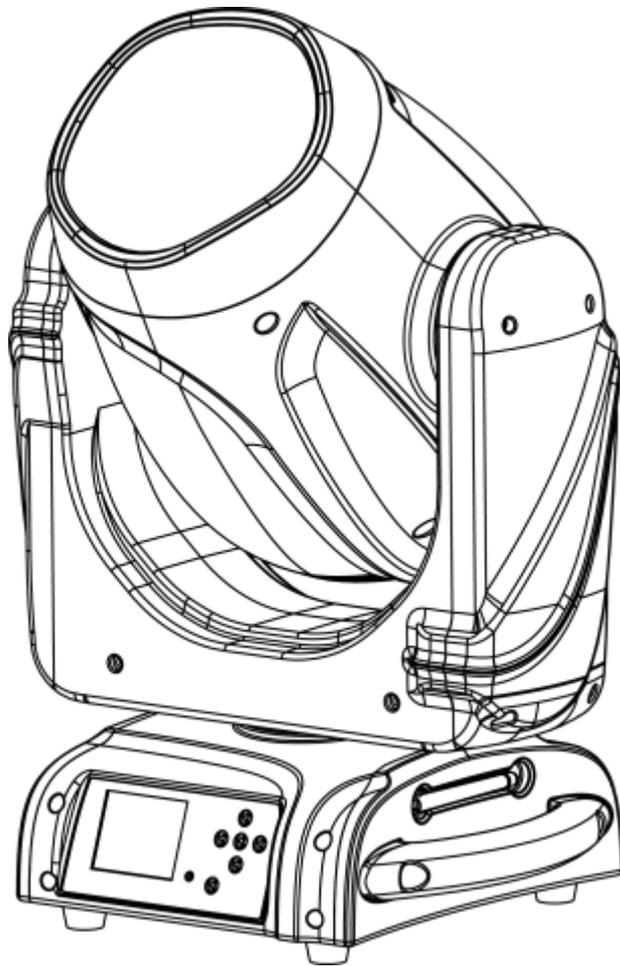




A120 LED BEAM HEAD **USERS GUIDE**



CE

1. Product Introduction:

1.1 Before unpacking the fixture, pls make sure that the packing is in good condition, following items will be found in the box:

- The fixture
- These users guide
- 3m DMX cable
- 1.5m power cable with powercon
- Omega bracket for hanging installation
- Safety chain

1.2 Specification

Source

- Light source: 120w white led.
- Led life: 60.000 hours.
- Luminous Flux: 2170lumen,150000lux@5m
- Control: Remote on/off via DMX
- Ballast: switching mode power supply

Optical System

- Beam angle: 1°

X/Y

- Pan: 630° (4.3 sec) or 540°(3.9 sec), Tilt: 233° (2.2 sec)
- 16-bit resolution
- Auto repositioning

Colors

- 14+open, indexable, and bidirectional rainbow effect
- color bounce effect

Gobos

- 17+ open fixed gobos

Features

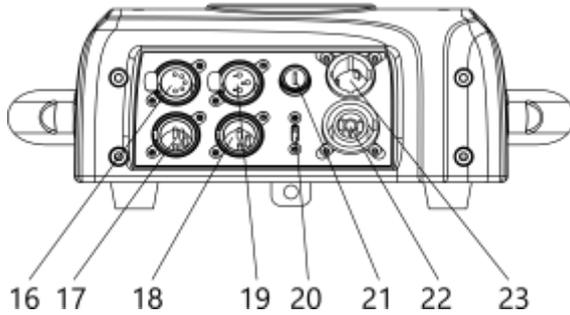
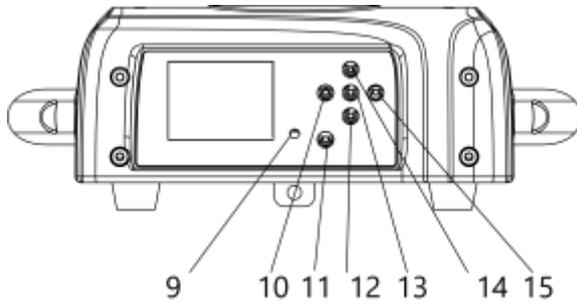
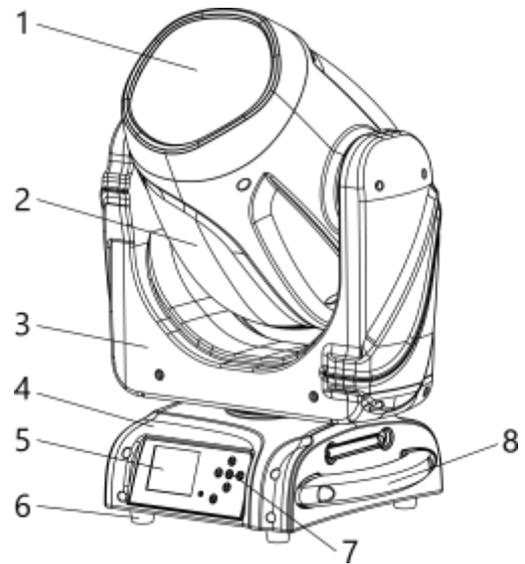
- DMX channels: 14/16
- Full range 0-100% dimmer
- Various strobe
- Frost
- 6-linear+8 facets prism can be overlap
- RDM function to change DMX address, display flip, X/Y Reverse and so on.
- Software upgrade via DMX or USB
- Hibernation when lost DMX for preset time.
- Indicate temperature info of base, led.
- Fan speed auto change according to temperature

Display

- 2.4inch super nice LCD display with friendly English/ Chinese/French/Spanish menu
- Auto lock and flip
- Signal: DMX/WDMX.Artnet.sACN(optional)
- Back-up communicating IC

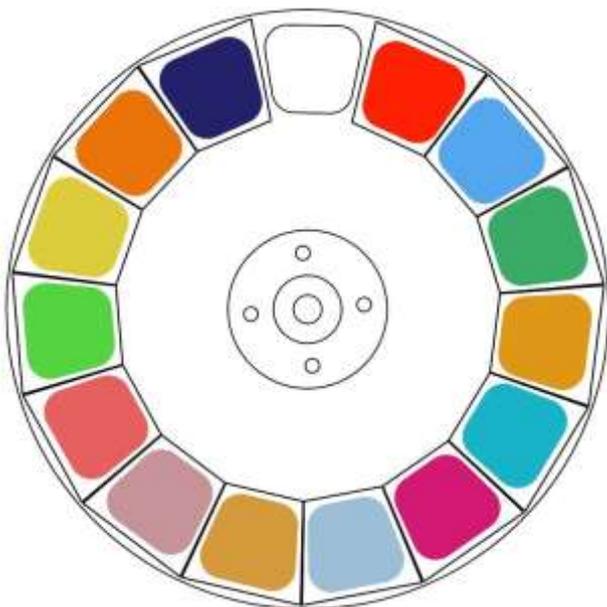
1.3 Description of the Device

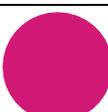
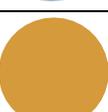
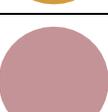
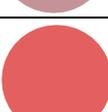
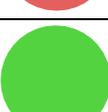
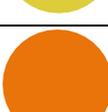
1. Project lens
2. Head
3. Arm
4. Base
5. Display
6. Foot stand
7. Operation button
8. Handle

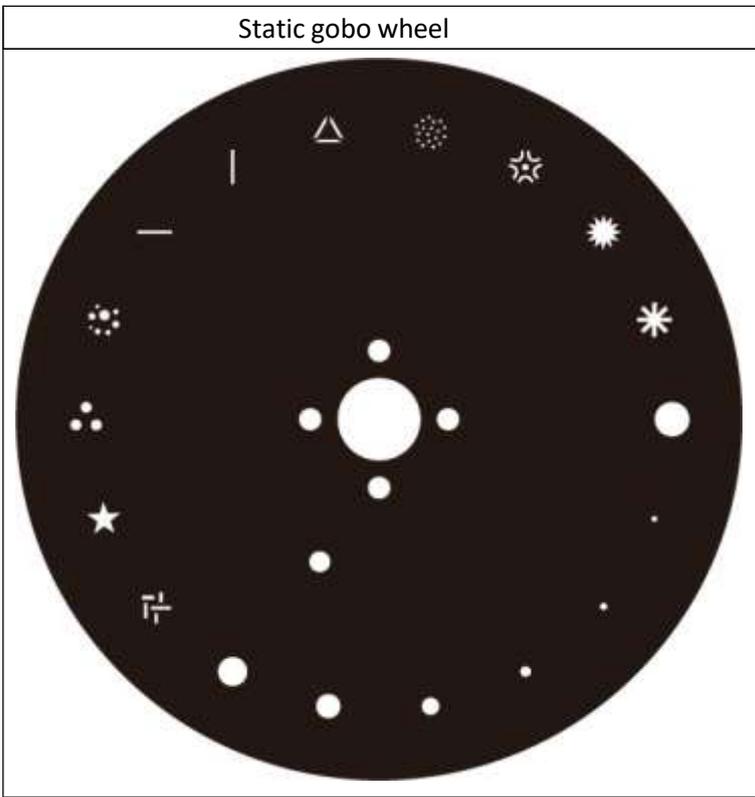


9. Mic
10. Left button.
11. Battery indicator
12. Down button
13. Enter button.
14. Up button
15. Right button
16. 3-pin DMX in
17. 3-pin DMX out
18. 5-pin DMX in
19. 5-pin DMX out
20. USB
21. Fuse
22. Powercon out
23. Powercon in

1.4 Colors and Gobos



	Open	
1		Red
2		Blue
3		Green
4		Orange
5		Cyan
6		Magenta
7		Cool White
8		Warm White
9		Pink
10		Purple red
11		Lime
12		Bright yellow
13		Dark yellow
14		Dark blue



2. Safety and maintenance Information

2.1 Safety Info

	Before operate this unit, please carefully read this users guide and keep if needed in future. It's necessary to respect following rules.
	The disposal of the device after lifecycle could damage the environment, need to take it to special company for recycling or return to authorized dealer.
	The products referred to in this manual conform to the European Community Directives and are therefore marked with CE logo.
	Keep this device away from children and unauthorized users, the manufacturer will not take responsibility for the damage due to any disregard of the information provided in this manual and wrong operation.
	Before operate the device, pls make sure the fixture is in good housing, ensure pan and tilt can rotate in its complete range.
	Pls make sure minimal 0.5m distance need to kept between the fixture to any flammable material.
	The device can only run with 100-240v voltage, 50/60Hz power, don't connect to any other wrong power. Disconnect the device from main power before open the shield or maintenance.
	The device is designed only for indoor usage, pls keep it away from moisture. Do not expose the device under the sun or directly to any other lighting source.
	Never look directly into the projecting lens when the fixture is power on, the light may trigger epileptic seizures in photosensitive persons or persons with epilepsy. Especially at beam effect, extreme caution and observance of these safety instructions is mandatory.
	Don't put or install the device on a surface that subject to vibration or bumps.
Ta=45°C	The device is supposed to work in the temperate range -15° C and +45° C, do not use the device when the temperate exceed this range.

	The lens, shield need to be replaced when obviously broken, never use the device when the shield is not completely closed.
	Safety I class device, need to be earth connected.
	When the fixture is hanged overhead, the safety rope must be fixed to the bottom of the device to the appropriate fixing point.
	Always carry the device by the handles, do not take the head or arm directly for transportation.

2.2 Maintenance

2.2.1 Operation only allowed to qualified person, damages due to unprofessional operation or remove of any parts inside will not be considered in warranty service. There are no serviceable parts inside the device or package, service only leaves to authorized dealers.

2.2.3 Never allow the optical components contact with oil, fat or any other liquid.

2.2.4 A regular clearance of the device is needed for long-term usage, this is very helpful to maintain the lifetime and brightness need to use a soft and lint-free cloth to clean the optical system, fan and air flowing tunnel.

2.2.5. Trouble Shooting

Problems	Possible reasons	Checking or solutions
Device not power up	Powercon or power cable damaged Faulty power supply	Change a good power cable to try Replace new power supply
Pan/Tilt error or vibrate	Faulty Pan/Tilt PCB Faulty opto sensor Cable loosen	Replace PT004 PCB Replace opto sensor OP001 Check the cable connect to OP001
LED off	Temperature protection Fan not working Faulty LED Dimmer and strobe set at 0 Faulty power supply	Check the temperature from menu Check the fan speed info from menu Replace new LED Set dimmer and strobe channel at 255 Replace new power supply
Device not response to DMX	Faulty communication IC Faulty display PCB Wrong DMX addressing Faulty DMX cable	Replace the IC with back-up one in the display PCB Replace new display PCB Check the address and setting Change to a good DMX cable

2.2.6 Replacement of the fuse

Need to replace with same type and rating, which originally installed in the device.

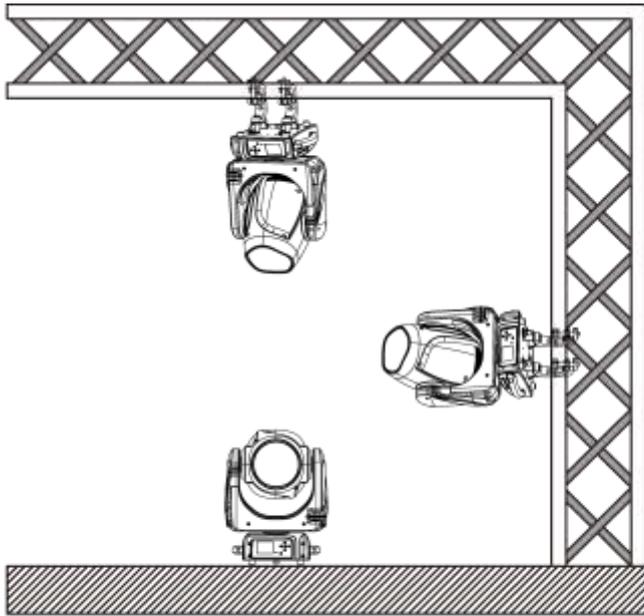
Step One: Unplug power cable from main power.

Step Two: Unscrew the fuse holder out of the housing with a screwdriver.

Step Three: Remove the broken fuse and replace with an exact same type of new fuse.

Step Four: Insert the fuse holder back to the housing and screw tight and reconnect power.

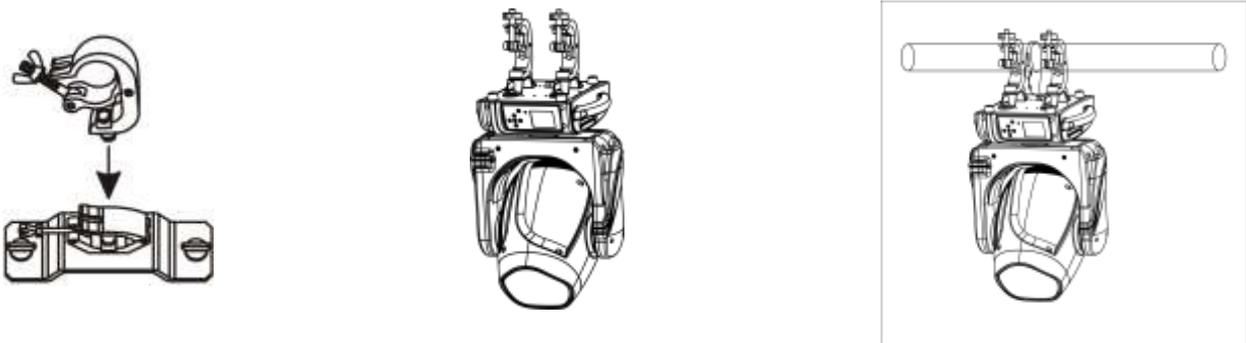
3. Installation



3.1 The device could be either put on a solid and even surface, or mounted upside down or sideways like left picture.

3.2 The mounting place must be sufficient stable and be able to support a weight of 10 times of the unit's weight. When the fixture is hanged, always additionally secure the device with the safety chain, fasten the safety rope at a suitable position so that the maximum fall of the projector will be 20 cm

3.3 How to do mounting installation.



Step one: Installation the clamp onto the omega bracket;

Step two: Install the clamp and bracket on the bottom of panel, fasten the quick-locks;

Step three: Install the whole device onto appropriate truss and fasten the clamps, tight the safety rope with the truss or other fixing point at a suitable position that drop down distance not exceed 20 cm.

4. Control menu

4.1 Meaning of the icon in menu

CONNECT	LIGHT	INFOMATION	SET	PROGRAM

4.2 Menu tree

Default setting shadowed. Mark with ① can be basic reloaded, ② be program reloaded, ③ can be private reloaded.

CONNECT	ADDRESS	VALUE (1-512)(001)		
----------------	---------	--------------------	--	--

	CONTROL PROTOCOL	DMX/W-DMX/sACN/ARTNET			
	DMX MODE	STANDARD/EXTENDED			
	WIRELESS	WDMX ON/OFF		ON/OFF	
		WDMX MODE		TRANSMITTER/RECEIVER	
		TX LINK		ON/OFF	
		TX UNLINK		ON/OFF	
		RX RESET		ON/OFF	
		DMX TO WDMX (TX)		ON/OFF	
		WDMX TO DMX (RX)		ON/OFF	
	ETHERNET SETTING	ARTNET SETTINGS		IP ADDRESS	
				NET	0
				SUBNET	0
				UNIVERSE	0
		sACN SETTINGS		IP ADDRESS	
				UNIVERSE	0
				MERGE MODE	OFF/HTP/LTP
ETHERNET TO DMX			ON		
		OFF			
SETUP	FIXTURE SETTINGS	DMX FAULT	HOLD/BLACKOUT		
		TEMPERATURE UNIT	Fahrenheit /Celsius		
		HIBERNATION	OFF, 01M~99M(15MIN)		
		FAN MODE	AUTO/HIGH/SILENT		
		DIMMER CURVE	LINEAR/S-CURVE/SQUARE LAW/ INVERSE SQUARE LAW		
		DIMMER SPEED	AUTO/FAST/MEDIUM/SLOW		
		LED FREQUENCY	600HZ/1200 HZ/2000 HZ/4000 HZ/6000HZ/25KHZ/50KHz		
		MENU LANGUAGE	En/Fr/Sp/简/繁 (En)		
		TRANSFER CONFIGURATION		WITHOUT DMX ADDRESS	
				WITH DMX ADDRESS	
	MOVEMENT	PAN REVERSE		ON/OFF	
		TILT REVERSE		ON/OFF	
		PAN/TILT FEEDBACK		ON/OFF	
		PAN/TILT MODE		SLOW/MEDIUM/FAST	

	SCREEN	TOTEM MODE	OFF/UP/DOWN	
		BACKLIGHT	ON/10S/20S/30S	
		FLIP DISPLAY	ON/OFF/AUTO	
		STATUS LED	ON/OFF	
		KEY LOCK	ON/OFF	
INFORMATION	FIXTURE TIME	FIXTURE HOURS	TOTAL	(ONLY READ)
			PARTIAL	(READ AND RESET)
		CURRENT HOURS	TOTAL	(ONLY READ)
			PARTIAL	(READ AND RESET)
		LED HOURS	TOTAL	(ONLY READ)
			PARTIAL	(READ AND RESET)
	POWER ON CYCLE	TOTAL	(ONLY READ)	
		PARTIAL	(READ AND RESET)	
	TEMPERATURE	NEAR SOURCE TEMP, DRIVER PCB TEMP, LED PCB TEMP,...		
	FAN SPEED	NEAR SOURCE FAN, BASE FAN,...		
	CHANNEL VALUE	PAN...		
	ERROR MESSAGE	PAN, TILT...		
	FIXTURE MODEL	XXXXXXXXXX		
	RDM UID	(READ AND RESET)		
SOFTWARE VERSION	1U01 V1.0.00...			
SERVICE	RESET	ALL		
		PAN & TILT		
		...		
	CALIBRATION	PASSWORD		
		PAN		
		...		
		FOCUS		
		...		
		ENCODER RESET	clean values in encoder pcb	
	MANUAL	PAN		

	CONTROL	...		
	RELOAD DEFAULT	BASIC RELOAD	ON/OFF	
		PROGRAM RELOAD	ON/OFF	
		Password		
		FACTORY RELOAD	ON/OFF	
TRANSFER SOFTWARE				
FACTORY	RDM PID CODE	xxx		
	LOCKING	PASSWORD		
		xxxHOURS		
		unlocking CODE		
	CALIBRATION	PASSWORD		
		PAN		
		...		
		ZOOM		
		FOCUS		
		GOBO 1 FOCUS	FOCUS	
		...		
		GOBO 8 FOCUS	FOCUS	
		GOBO 1 INDEX	INDEX	
		...		
		GOBO 8 INDEX	INDEX	
		...		
		MAX TEMPERATURE	80~139°C/176~282°C	
		Reset All Data	xxx	

5. DMX connection and DMX protocol

5.1 DMX addressing:

5.1.1 The device is controlled by universal DMX 512 protocol, DMX address is the start channel used to receive instructions from the external controller. For independent control, each fixture must be assigned its unique address control channels. For example, this device has four channel modes: 13/14, if we set the mode at standard 13 channels mode, and there are several models need to be independently controlled, we just simply address first fixture at 1, and second fixture at 14, third one at 28, etc.

If the devices have the same address, they will behave synchronically.

DMX addressing is limited, don't set the address so high that without enough control channels for the fixtures.

Display is flashing when no DMX signal is received.

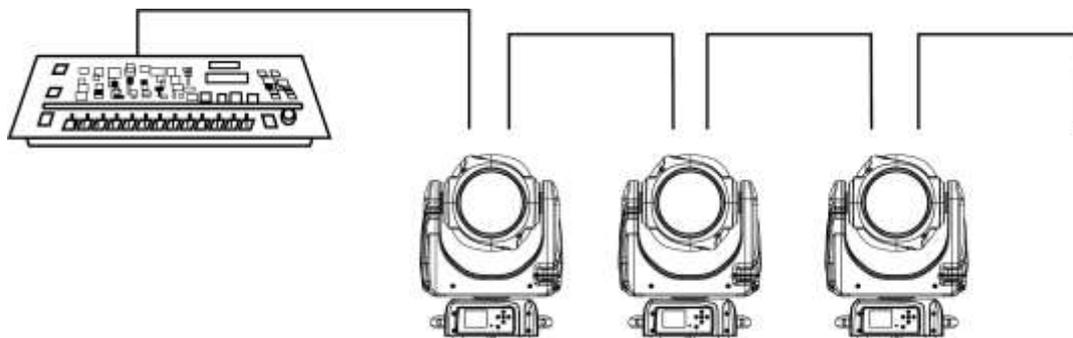
5.1.2 This device is equipped with 3-pins and 5-pins DMX in and out sockets only.



5.1.3 The termination is prepared by soldering a 120Ω resistor between pins 2 and 3.



5.1.4 Connection: use DMX cable with 3+5 pin XLR-plugs to connect the controller with the fixture or one fixture with another.



5.2 DMX chart

Channel		name	function	Min DMX	Max DMX
Std	Ex				
1	1	Pan	Pan Coarse	0	255
2	2	Pan fine	Pan Fine	0	255
3	3	Tilt	Tilt Coarse	0	255
4	4	Tilt fine	Tilt Fine	0	255
5	5	XY speed	fastest to Slowest	0	255
6	6	Shutter	Shutter closed	0	1
			Strobe effect slow to fast	2	62
			No function (shutter open)	63	64
			Pulse in from slow to fast	65	125
			No function (shutter open)	126	127
			Pulse out from slow to fast	128	188
			No function (shutter open)	189	190
			Random strobe effect slow to fast	191	251
No function (shutter open)	252	255			
7	7	Dimmer	Dimmer(0->100%)	0	255

	8	Dimmer Fine	Dimmer(0->100%)	0	255
			Indexed		
			Position 1 (Open)	0	1
			Position 2	2	3
			Position 3	4	5
			Position 4	6	7
			Position 5	8	9
			Position 6	10	11
			Position 7	12	13
			Position 8	14	15
			Position 9	16	17
			Position 10	18	19
			Position 11	20	21
			Position 12	22	23
			Position 13	24	25
			Position 14	26	27
			Position 15	28	29
			Position 16	30	31
			Position 17	32	33
			Position 18	34	35
			Position 19	36	37
			Position 20	38	39
			Position 21	40	41
8	9	Color	Position 22	42	43
			Position 23	44	45
			Position 24	46	47
			Position 25	48	49
			Position 26	50	51
			Position 27	52	53
			Position 28	54	55
			Position 29	56	57
			Color Bounce		
			Position 2 to 4(Slow To Fast)	58	62
			Position 3 to 5(Slow To Fast)	63	67
			Position 4 to 6(Slow To Fast)	68	72
			Position 5 to 7(Slow To Fast)	73	77
			Position 6 to 8(Slow To Fast)	78	82
			Position 7 to 9(Slow To Fast)	83	87
			Position 8 to 10(Slow To Fast)	88	92
			Position 9 to 11(Slow To Fast)	93	97
			Position 10 to 12(Slow To Fast)	98	102
			Position 11 to 13(Slow To Fast)	103	107
			Position 12 to 14(Slow To Fast)	108	112
			Position 13 to 15(Slow To Fast)	113	117
			Position 14 to 16(Slow To Fast)	118	122
			Position 15 to 17(Slow To Fast)	123	127

			Position 16 to 18(Slow To Fast)	128	132
			Position 17 to 19(Slow To Fast)	133	137
			Position 18 to 20(Slow To Fast)	138	142
			Position 19 to 21(Slow To Fast)	143	147
			Position 20 to 22(Slow To Fast)	148	152
			Position 21 to 23(Slow To Fast)	153	157
			Position 22 to 24(Slow To Fast)	158	162
			Position 23 to 25(Slow To Fast)	163	167
			Position 24 to 26(Slow To Fast)	168	172
			Position 25 to 27(Slow To Fast)	173	177
			Position 26 to 28(Slow To Fast)	178	182
			Position 27 to 29(Slow To Fast)	183	187
			Wheel Spin		
			CW Fastest to Slow	188	219
			Stop	220	223
			CCW Slow to Fastest	224	255
			Indexed		
			Gobo 1 (Open)	0	1
			Gobo 2	2	4
			Gobo 3	5	7
			Gobo 4	8	10
			Gobo 5	11	13
			Gobo 6	14	16
			Gobo 7	17	19
			Gobo 8	20	22
			Gobo 9	23	25
			Gobo 10	26	28
			Gobo 11	29	31
			Gobo 12	32	34
			Gobo 13	35	37
			Gobo 14	38	40
			Gobo 15	41	43
			Gobo 16	44	46
			Gobo 17	47	49
			Gobo 18	50	51
			Indexed With Shake		
			Gobo 2 (From Slow To Fast)	52	59
			Gobo 3 (From Slow To Fast)	60	67
			Gobo 4 (From Slow To Fast)	68	75
			Gobo 5 (From Slow To Fast)	76	83
			Gobo 6 (From Slow To Fast)	84	91
			Gobo 7 (From Slow To Fast)	92	99
			Gobo 8 (From Slow To Fast)	100	107
			Gobo 9 (From Slow To Fast)	108	115
			Gobo 10 (From Slow To Fast)	116	123
			Gobo 11 (From Slow To Fast)	124	131
9	10	Gobo			

			Gobo 12 (From Slow To Fast)	132	139
			Gobo 13 (From Slow To Fast)	140	147
			Gobo 14 (From Slow To Fast)	148	155
			Gobo 15 (From Slow To Fast)	156	163
			Gobo 16 (From Slow To Fast)	164	171
			Gobo 17 (From Slow To Fast)	172	179
			Gobo 18 (From Slow To Fast)	180	187
			Wheel Spin		
			CW Fastest to Slow	188	219
			Stop	220	223
			CCW Slow to Fastest	224	255
10	11	Prism 1	Indexed		
			Lineary from 0° to 360°	0	187
			Prism Rotation Spin		
			CW Fastest to Slow	188	219
			Stop	220	223
			CCW Slow to Fastest	224	255
11	12	Prism 2	Indexed		
			Lineary from 0° to 360°	0	187
			Prism Rotation Spin		
			CW Fastest to Slow	188	219
			Stop	220	223
			CCW Slow to Fastest	224	255
12	13	Frost	Lineary from in to out	0	255
13	14	Focus	Lineary from in to out	0	255
	15	Focus Fine	Lineary from in to out	0	255
14	16	Control	No Function/Safe	0	5
			Pan Reverse On	6	7
			Pan Reverse Off	8	9
			Tilt Reverse On	10	11
			Tilt Reverse Off	12	13
			XY Speed Mode Fast	14	15
			XY Speed Mode Medium	16	17
			XY Speed Mode Slow	18	19
			XY Blackout On	20	21
			XY Blackout Off	22	23
			Color Wheel Blackout On (index)	24	25
			Color Wheel Blackout Off (index)	26	27
			Fixed Gobo Wheel Blackout On (index)	28	29
			Fixed Gobo Wheel Blackout Off (index)	30	31
			All Blackout On	32	33
			All Blackout Off	34	35
			Flip Display On	36	37
			Flip Display Off	38	39
			Flip Display Auto	40	41
			No Signal Hold	42	43

		No Signal Blackout	44	45
		Status Led On	46	47
		Status Led Off	48	49
		Reset All	50	51
		Reset Pan/Tilt	52	53
		Reset Color	54	55
		Reset Gobo	56	57
		Reset Other	58	59
		Reserved	60	253
		FACTORY DEFAULT OF CONTROL FUNCTIONS	254	255

6. Unique Features

6.1 RDM, stand for “Remote Device Management”, with this function, users can realize remote control of the device, such as remotely changing DMX address, reverse pan/tilt setting, check a lot of useful information such as temperature, power consumption, fan speed. Etc. Every single device has a unique RDM code before left factory to distinguish from each other, usually not suggest users change this code freely.

6.2 Software upgrade function via DMX cable, if there is any new firmware for this device come out, it can be upgraded simply via a software upgrade box, no need to change any mechanical parts. The upgrade box is not included in the package, if need any further assistance pls just contact authorized dealers.

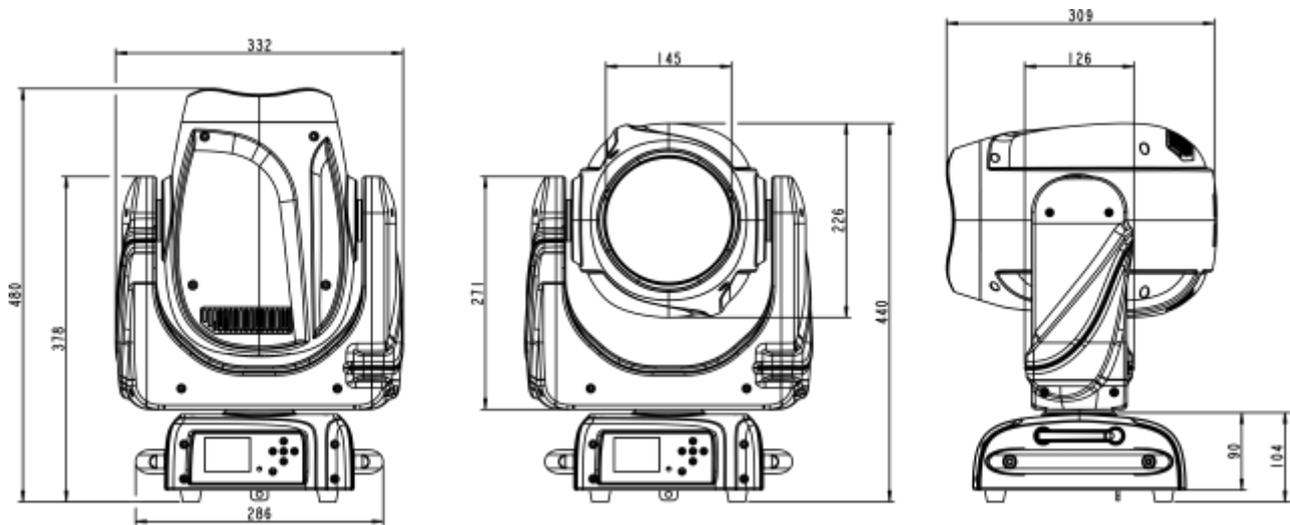
6.3 Hibernation, the device will enter sleeping mode if activated after a period of disconnecting DMX signal to save the power consumption, and will return immediately as soon as the DMX signal is sent again.

6.4 Display battery, this function is prepaid in the display PCB, users just need to install a normal 10440 600mAh 3.7V rechargeable lithium battery, then users could power on the display and do setting without connect to main power.

6.5 Display back-up communication IC, there is a back-up communication IC installed in the display PCB, so users could replace at once if the working one is broken, no need to wait long time from service.

6.6 Display flip, by press up and down button for more than 3 seconds, the display will flip automatically, this function is useful to read menu conveniently when device is hanged.

7. Dimensions Drawing



8. Technical specification

Power supply	100-240 V AC, 50/60 Hz ~
Power consumption	172W
LED	120w white led
DMX channels	14/16 ch
Beam angle	1°
Luminous flux	2170lumen,150000lux@5m
Fuse	T 3.15 A, 250 V
Device dimensions	332x309x480mm
Net Weight	12.75KG