





**COMET CFK HYBRID** 



## 1. Unpack

Thanks for your chosen of our lights. In order to use this product correctly and safely, please read the manual carefully before installation and operation. This manual contains important installation and application information. When installing and operating the product, please strictly follow the operating steps of the manual. Meanwhile, please keep this manual in a safe place.

This item uses a new and beautiful high temperature resistant engineering plastic shell and high hardness metal body. This product is designed and produced in strict accordance with CE standards. It conforms to the international standard DMX512 signal protocol. It can be used for control alone or online. It has the characteristics of fast rotation, low noise and powerful functions. It is suitable for large and medium-sized concerts, theaters, Studios, nightclubs, bars and other places.

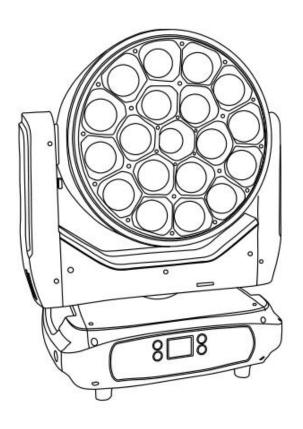
This product uses 18 40W 4-in-1 LED beads with high brightness and stability. Please remove the packaging carefully, then check whether the product has been damaged during transportation, and check whether the following contents are complete.

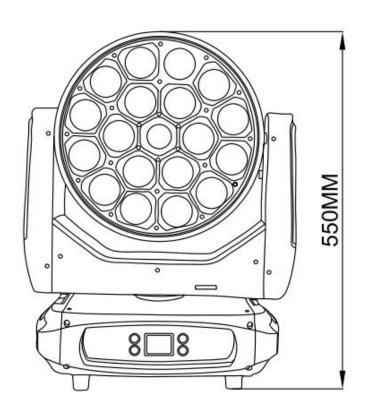
Light-----1PC Signal line----1PC

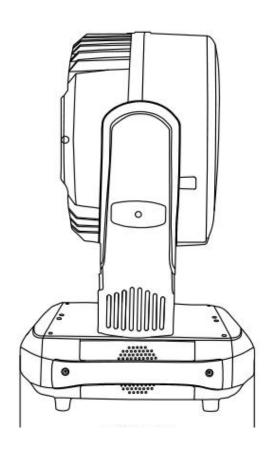
Fast Lock----- 2PCS Manual book----1PC

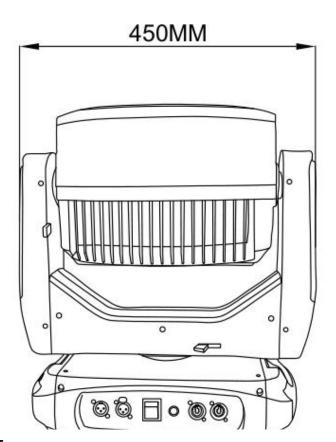
Power line-----1PC Safety rope----1PC

# 2. Product Size









## 3. Safety instructions

#### Notice!

Exercise caution before operating this product. This product is a high-voltage product, and you may receive an electric shock if you touch the wires!

This product is in good condition before leaving the factory. In order to keep the product in good condition and ensure safe operation, users should follow the safety precautions and warnings in this manual.

Important: Damage caused by fault operation is not covered under warranty. The supplier is not responsible for product problems caused by this.

If the product has been exposed to extreme unstable temperature environment (such as after transportation), please do not connect the product to the power supply immediately, as water droplets due to temperature changes may damage the product. Please use it after the product has returned to normal temperature.

This product can be used in the voltage range of 90-240V and is an indoor product. Please make sure that the voltage used is not higher than the product can withstand! ! The power plug must be inserted into a protected Class I socket. The green or teal conductor must be grounded.

Please check this product grade power cord frequently. Make sure the power cord is not folded or damaged and not connected to other wires! Special attention is required when connecting the power cord or related wiring. Always unplug this product when not in use or before cleaning.

Before using the product, please familiarize yourself with the operating functions of the product. Please keep the product away from children or unprofessional.

Please do not shake this product. Do not use brute force when installing or operating the product. Most of the damage is caused by unprofessional handling.

The product is not equipped with related maintenance parts. Maintenance and repair of the product should only be carried out by professionals!

Please do not modify this product without authorization, otherwise it may damage the product, so the damage caused is not covered by the warranty. Also, unprofessional handling may result in short circuits, burns or electric shocks, etc.

### 4. Instructions

- -- This product is a moving head wash beam light, used to create wash performance effects.
- -- If the product has undergone a large temperature difference (for example, after transportation), do not start the product immediately, because the heat and cold shrinkage will damage the product. Please wait until the device reaches normal room temperature before starting the product.
- -- Pay attention to shock resistance. Avoid strong collisions during product installation.
- -- Please do not lift the entire product by the light head, as the mechanics of the device may be damaged.
- -- When choosing an installation location, make sure that the product is not exposed to excessive heat, humidity or dust. Please do not place any wires on the ground, otherwise there is a risk of electric shock.
- -- Please secure the mounting point before installation.
- -- Please fasten the product with a safety rope and check that all screws are correct.
- -- Make sure the lens is in good condition. When the lens is damaged or scratched, please replace it.
- -- It is recommended that this product be operated by a technician who is familiar with this product. Operation of this equipment by non-technical personnel is prohibited, as many losses are the result of non-professional operation.
- -- Please keep the packing materials in a safe place for secondary transportation.
- -- Do not modify the product without the instructions of the manufacturer or distributor.
- -- Any equipment failure caused by the operation and use of this equipment not as specified in the instructions is not covered by the warranty. And any damage caused by short circuit, injury, electric shock, ultraviolet light, bulb explosion accident, etc. caused by this are not covered by the warranty.

## 5. Product hanging and installation

Note: For greater safety, please hang and install this product away from aisles, seating areas, or areas within reach. Before hanging this product, please make sure that the mounting point can bear 10 times the weight of the product.

Product installation must have double protection devices, such as safety ropes.

When hanging, dismantling or servicing this product, do not stand under the installation point

Please ensure that this product should be installed at least 0.5 meters away from flammable materials.

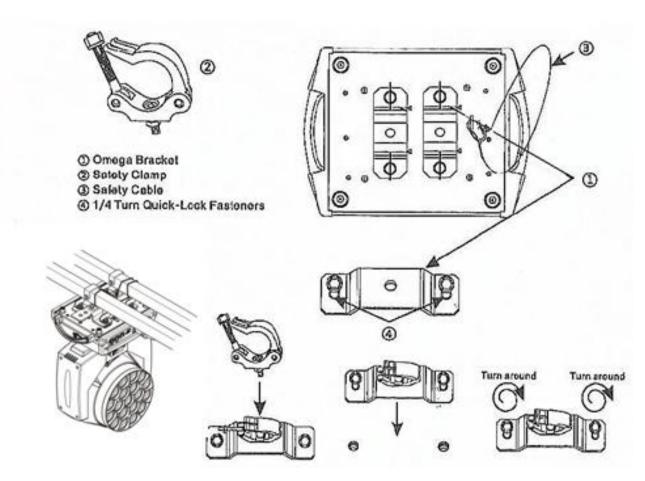
Please remember to use the safety rope as a safety guarantee to prevent accidents when the lock is released soon.

Hanging point: The top hanging requires that the installer must be experienced, including calculating the load-bearing requirements, the installation materials used, and the periodic inspection of the installation materials and the safety of the product. If you lack this knowledge, don't try to install it yourself. Incorrect operation may result in serious consequences such as personal injury.

Before the product is powered on, be sure to complete all required hanging and installation steps.

**Quick Lock Hanging:** There are specially designed professional hanging parts at the bottom of this product, including quick locking hanging parts and safety rope hanging points (please refer to the picture below).

When hanging this product on a truss, please remember to use a suitable quick-lock, fix it at the quick-lock hanger position of the product, and use M10 screws to hang it up. For further safety, please attach the safety rope to the safety rope hanging point at the bottom of the product and fasten it to the

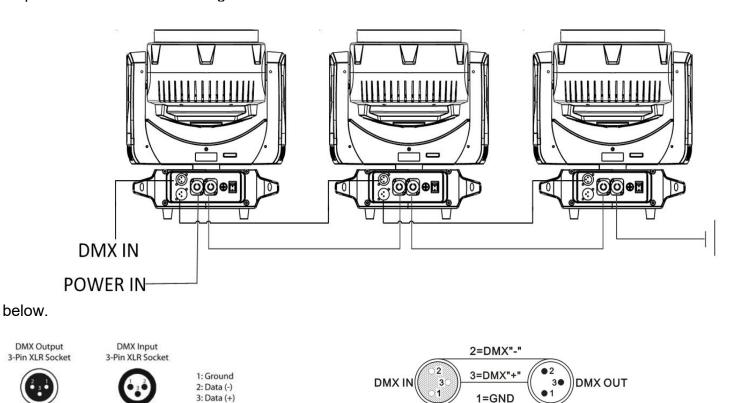


No matter which hanger you choose, remember to always use the safety line. The bottom of the product is equipped with a special safety rope hanging point, please refer to the picture above, and please remember to use the specially provided safety rope hanging point, and never install the safety rope on the handle.

truss.

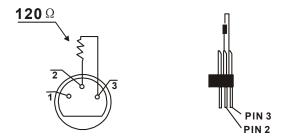
#### 6. DMX-512 connection

Please insert the male end of the XLR signal cable provided with this product into the signal output port of the controller, and the female end into the signal input port on the rear panel of this product. You can connect multiple products in series, the signal line needs to be three-core, shielded, with XLR input and output. Please refer to the image



#### DMX-512 connection requires a terminator (loop connection)

During the installation process, if the signal line is laid for a long distance, or in an environment with noisy electrical appliances, such as a dance hall, it is recommended to use a DMX terminator (loop connection). This avoids turbidity of the digital control signal due to electrical noise. The DMX terminator is composed of a simple XLR connector 2-pin and 3-pin connected to a 120 ohm resistor. Please insert the terminator into the XLR output port of the last product, please refer to the figure below.



# 7. Channel Mod

## 52 /76/148 channel mode

Channel		l	Function	DMX Value	Description
1	1	1	Red	0-255	Linear dimmer from dark to bright
2	2	2	Red fine	0-255	Red 16bit dimmer
3	3	3	Green	0-255	Linear dimmer from dark to bright
4	4	4	Green fine	0-255	Green 16bit dimmer
5	5	5	Blue	0-255	Linear dimmer from dark to bright
6	6	6	Blue fine	0-255	Blue 16bit dimmer
7	7	7	White	0-255	Linear dimmer from dark to bright
8	8	8	White fine	0-255	White 16bit dimmer
9	9	9	Linear CTO	0-255	Linear CTO
10	10	10	Macro colour	0-255	Macro colour
11	11	11	Strobe	0-255	Strobe
12	12	12	Total dimmer	0-255	Linear dimmer from dark to bright
13	13	13	Dimmer fine	0-255	16bit Total dimmer
14	14	14	Pan	0-255	0-540 degrees
15	15	15	Pan fine	0-255	16bit adjustable
16	16	16	Tilt	0-255	0-205 degrees
17	17	17	Tilt fine	0-255	16bit adjustable
18	18	18	Function	0-255	Function
19	19	19	Reset	0-255	Reset
20	20	20	Zoom	0-255	Angle can be linearly adjusted from small to big
21	21	21	Zoom rotation	0-255	Zoom rotation
22	22	22	Shape selection	0-255	Shape selection
23	23	23	Shape speed	0-255	Shape speed
24	24	24	Shape fade	0-255	Shape fade
25	25	25	Shape R	0-255	Red Linear dimmer from dark to bright

26	26	26	Shape G	0-255	Green Linear dimmer from dark to bright
27	27	27	Shape B	0-255	Blue Linear dimmer from dark to bright
28	28	28	Shape W	0-255	White Linear dimmer from dark to bright
29	29	29	Shape dimmer	0-255	Shape dimmer
30	30	30	Background dimmer	0-255	Background dimmer
31	31	31	Shape transition	0-255	Shape transition
32	32	32	Shape offset	0-255	Shape offset
33	33	33	Foreground strobe	0-255	Foreground strobe
34	34	34	Background strobe	0-255	Background strobe
35	35	35	Background select	0-255	Background select
36	36	36	Frequency	0-255	Frequency
37	37	37	LED strips dimming	0-255	LED Strips dimming
38	38	38	LED strips strobe	0-255	LED strips strobe
39	39	39	Red LED strips	0-255	Red LED strips
40	40	40	Green LED strips	0-255	Green LED strips
41	41	41	Blue LED strips	0-255	Blue LED strips
42	42	42	LED strips effects	0-255	LED strips effects
43	43	43	LED strips effect speed	0-255	LED strips effect speed
4.4	44 44	44	Laser dimmer	0-1	off
44				2-255	on
45	45	45	Laser strobe	0-255	Strobe from slow to fast
46	46	46	Pattern size	0-255	Choose size of pattern from big to small
47	47	47	Pan position	0-255	From right to left

48	48	48	Tilt position	0-255	from top to bottom
49	49	49	Pattern file	0-255	Each 2 dmx values come with 1 different pattern (128 patterns)
50	50	50	Color	0-255	Built-in color effects
51	51	51 51 scan speed		0-255	From fast to slow
52	52	52 52 Pattern effect		0-255	Built-in pattern effects
				0-127	Z rotate 0°-360°
	53	53	Rotate Z	128-191	Rotate counterclockwise from slow to fast
				192-255	Rotate clockwise from slow to fast
				0-127	X rotate rotation 0°-360°
	54	54	Rotate X	128-191	Rotate counterclockwise from slow to fast
				192-255	Rotate clockwise from slow to fast
				0-127	Y rotate 0°-360°
	55	55	Rotate Y	128-191	Rotate counterclockwise from slow to fast
				192-255	Rotate clockwise from slow to fast
		56		0-127	Fixed position from right to left
			66 Pan movement	128-159	Move from right to left and from slow to fast
	56			160-191	Move from left to right and from slow to fast
				192-224	Pan move effect 1 from slow to fast
				225-255	Pan move effect 2 from slow to fast
		57		0-127	Fixed position from top to bottom
			Tilt movement	128-159	Move from top to bottom and from slow to fast
	57			160-191	Move from bottom to top and from slow to fast
				192-224	Tilt move effect 1 from slow to fast
				225-255	Tilt move effect 2 from slow to fast
	58	58	Zoom	0-255	Zoom
	59	59	Gradient	0-255	Gradient
	60	60	XY wave	0-255	XY wave

61	61	Strobe 2	0-255	Strobe 2
62	62	Pattern size 2	0-255	Pattern size 2
63	63	Pan position 2	0-255	Pan position 2
64	64	Tilt position 2	0-255	Tilt position 2
65	65	Pattern file 2	0-255	Pattern file 2
66	66	Color 2	0-255	Color 2
67	67	scan speed 2	0-255	scan speed 2
68	68	Pattern effect 2	0-255	Pattern effect 2
69	69	Rotate Z 2	0-255	Rotate Z 2
70	70	Rotate X 2	0-255	Rotate X 2
71	71	Rotate Y 2	0-255	Rotate Y 2
72	72	Pan movement 2	0-255	Pan movement 2
73	73	Tilt movement 2	0-255	Tilt movement 2
74	74	Zoom 2	0-255	Zoom 2
75	75	Gradient 2	0-255	Gradient 2
76	76	XY wave 2	0-255	XY wave 2
	77	LED1-R	0-255	LED1-Red dimmer
	78	LED1-G	0-255	LED1-Green dimmer
	79	LED1-B	0-255	LED1-Blue dimmer
	80	LED1-W	0-255	LED1-White dimmer
	81 LED2-R		0-255	LED2-Red dimmer
	82	LED2-G	0-255	LED2-Green dimmer
	83	LED2-B	0-255	LED2-Blue dimmer
	84	LED2-W	0-255	LED2-White dimmer
	85	LED3-R	0-255	LED3-Red dimmer
	86	LED3-G	0-255	LED3-Green dimmer
	87	LED3-B	0-255	LED3-Blue dimmer
	88	LED3-W	0-255	LED3-White dimmer
	89	LED4-R	0-255	LED4-Red dimmer

90	LED4-G	0-255	LED4-Green dimmer
91	LED4-B	0-255	LED4-Blue dimmer
92	LED4-W	0-255	LED4-White dimmer
93	LED5-R	0-255	LED5-Red dimmer
94	LED5-G	0-255	LED5-Green dimmer
95	LED5-B	0-255	LED5-Blue dimmer
96	LED5-W	0-255	LED5-White dimmer
97	LED6-R	0-255	LED6-Red dimmer
98	LED6-G	0-255	LED6-Green dimmer
99	LED6-B	0-255	LED6-Blue dimmer
100	LED6-W	0-255	LED6-White dimmer
101	LED7-R	0-255	LED7-Red dimmer
102	LED7-G	0-255	LED7-Green dimmer
103	LED7-B	0-255	LED7-Blue dimmer
104	LED7-W	0-255	LED7-White dimmer
105	LED8-R	0-255	LED8-Red dimmer
106	LED8-G	0-255	LED8-Green dimmer
107	LED8-B	0-255	LED8-Blue dimmer
108	LED8-W	0-255	LED8-White dimmer
109	LED9-R	0-255	LED9-Red dimmer
110	LED9-G	0-255	LED9-Green dimmer
111	LED9-B	0-255	LED9-Blue dimmer
112	LED9-W	0-255	LED9-White dimmer
113	LED10-R	0-255	LED10-Red dimmer
114	LED10-G	0-255	LED10-Green dimmer
115	LED10-B	0-255	LED10-Blue dimmer
116	LED10-W	0-255	LED10-White dimmer
117	LED11-R	0-255	LED11-Red dimmer
118	LED11-G	0-255	LED11-Green dimmer

119 120 121 122 123 124 125 126	LED11-B  LED11-W  LED12-R  LED12-G  LED12-B  LED12-W  LED13-R  LED13-G	0-255 0-255 0-255 0-255 0-255 0-255	LED11-Blue dimmer  LED11-White dimmer  LED12-Red dimmer  LED12-Green dimmer  LED12-Blue dimmer  LED12-White dimmer
121 122 123 124 125	LED12-R  LED12-G  LED12-B  LED12-W  LED13-R	0-255 0-255 0-255	LED12-Red dimmer  LED12-Green dimmer  LED12-Blue dimmer  LED12-White dimmer
122 123 124 125	LED12-G LED12-B LED12-W LED13-R	0-255 0-255 0-255	LED12-Green dimmer  LED12-Blue dimmer  LED12-White dimmer
123 124 125	LED12-B LED12-W LED13-R	0-255 0-255	LED12-Blue dimmer  LED12-White dimmer
124 125	LED12-W LED13-R	0-255	LED12-White dimmer
125	LED13-R		
		0-255	
126	LED13-G		LED13-Red dimmer
		0-255	LED13-Green dimmer
127	LED13-B	0-255	LED13-Blue dimmer
128	LED13-W	0-255	LED13-White dimmer
129	LED14-R	0-255	LED14-Red dimmer
130	LED14-G	0-255	LED14-Green dimmer
131	LED14-B	0-255	LED14-Blue dimmer
132	LED14-W	0-255	LED14-White dimmer
133	LED15-R	0-255	LED15-Red dimmer
134	LED15-G	0-255	LED15-Green dimmer
135	LED15-B	0-255	LED15-Bluedimmer
136	LED15-W	0-255	LED15-White dimmer
137	LED16-R	0-255	LED16-Red dimmer
138	LED16-G	0-255	LED16-Green dimmer
139	LED16-B	0-255	LED16-Bluedimmer
140	LED16-W	0-255	LED16-White dimmer
141	LED17-R	0-255	LED17-Red dimmer
142	LED17-G	0-255	LED17-Green dimmer
143	LED17-B	0-255	LED17-Bluedimmer
144	LED17-W	0-255	LED17-White dimmer
145	LED18-R	0-255	LED18-Red dimmer
146	LED18-G	0-255	LED18-Green dimmer
147	LED18-B	0-255	LED18-Bluedimmer
148	LED18-W	0-255	LED18-White dimmer

# 8: Menu diagram

		001-512				
		Run mode	DMX/auto run1/auto run 2/Sound active			
		Channel Mode	32CH/128CH			
		Horizontal inversion	ON/OFF			
		Vertical inversion	ON/OFF			
		Hall error correction	ON/OFF			
	Catura	Sensor error correction	ON/OFF			
	Setup	Signal hold	ON/OFF			
		Screen protector	ON/OFF			
		Screen flip	Auto/ON/OFF			
		Synchronization	ON/OFF			
		Language	中文/EN			
		Reset	Enter/Cancel			
	Manual Mode					
		X motor	001-255			
		Y motor	001-255			
		Focus motor	001-255			
Menu		Rotation motor	001-255			
		Red fine	001-255			
		Green fine	001-255			
	System calibration	Blue fine	001-255			
		White fine	001-255			
		Power	001-255			
		Red 1 fine	001-255			
			00000			
		Red 19 fine	001-255			
		MIC sensitivity	001-255			
		Change password				
	System reset	Effect motor reset				
		Scan motor reset				
		All motors reset				
		Reset info				
	System info	DMX data monitoring				
	System into	Sensor Information	Hardware Version			
		Jensor information	Software version			

### 9. Parameter

Voltage: AC90-240v 50-60HZ

Rated power: 850W

Light source: 18\*40-watt (4-in-1 RGBW) high-brightness LED lamp

Laser source: 8W RGB laser

LED Strips: 5050RGB 83PCS\*0.12W

Beam angle: 6-60°

Strobe: 1-25 times/second with various strobe effects

Dimming: 0-100% linear dimming.

Channel: Built-in 7 channel modes 52CH/76/148CH

Control: DMX512, self-propelled, voice control, RDM.

Horizontal scan: 540 degrees + 16 bit fine-tuning,

Vertical scan: 250 degrees + 16 bit fine-tuning

Display: Chinese and English display

Carton packaging size (one in one): 64.5\*39\*51cm

Net weight :22kg

#### Features:

- 1. Each lamp bead can be controlled individually.
- 2. The lens with unique honeycomb design can be rotated infinitely to bring a variety of fantastic effects.
- 3. The display can be automatically rotated 180° to adapt to different installation angles.
- 4. It integrates various effects and uses such as focusing, beam, dyeing, and pattern.
- 5. Scanning position memory function, which can be reset automatically.
- 6. With fan cooling and temperature automatic detection function, the system will automatically stop working when the temperature is too high to protect the lamp.

### 10. Product Care and Cleaning

Please note the following points when testing this product:

- 1. All screws and parts for installing the product must be tightly connected and not rusted.
- 2. The shell, lens, fixtures and installation locations (such as ceilings, hangers, trusses, etc.) cannot be deformed
- 3. The mechanical moving parts must not be worn or rotated unbalanced.
- 4. The power cord must not have any damage, material breakage or scars, etc. The installation and use of the product must be carried out by trained professional and technical personnel, and safety hazards must be eliminated.

  Note: Please unplug the power cord before maintenance.

To keep the product in good condition and prolong its lifespan, we recommend regular cleaning of the product.

- 1. Clean the outer lens and inner lens of the product every week to prevent the light output of the product from being reduced due to dust accumulation on the lens.
- 2. Clean the fan every week.
- 3. Every three months, a professional electrical engineer will conduct a detailed circuit inspection of the product to ensure that the circuit contacts are in good condition to prevent the circuit contacts from aging due to overheating.

We recommend that the product should be cleaned regularly, please be careful not to use damp or linen cloth, and never use alcohol or solvents for cleaning.

This product does not come with replacement parts, please refer to the "Installation Instructions" section.

If the user needs any spare parts, please purchase from the local dealer.