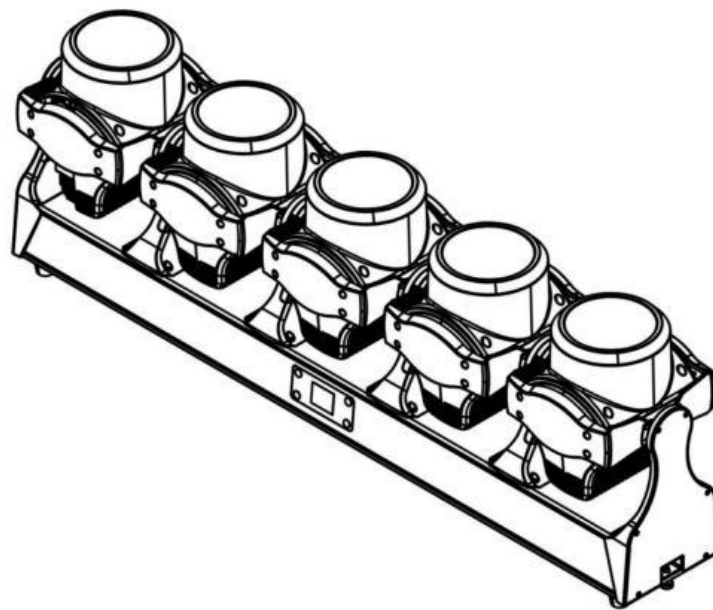


# **TORNADO**

## **User Manual**



**Guangzhou Mitek Light Co.,LTD**

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## TECHNICAL PARAMETERS

### Light source

Main Light: 5 x 120W LEDs

Outer Circle: 120 x 0.5W RGB LEDs

Total Lumen Output of Fixture: 13,000 lumens

Life Expectancy: 20,000 hours

Input Voltage Range: 100-240V~ 50/60Hz

Power Consumption: 935W

### Optical

Beam Angles: 3 °-30 °

Field Angles: 4 °-35 °

### Controls

4 button touch control panel Display: LCD display

Protocols: DMX512, RDM

DMX Protocol Modes: 2

Control Channels: 41/71CH

Firmware Upgrade: Upgrade via DMX link

Power In/Out: Waterproof power connector in/out (True1 type)

Data In/Out: 3-pin XLR

### Effect

Outstanding strobe effects with variable speed

Variable light adjustment from 0-100% dimming

Outstanding color mixing effects Outstanding color macro effects Linear focusing structure

### Construction

Pan Movement: 59 ° Tilt Movement: 221 °

Automatic Pan/Tilt position correction Resolution: 16 bit

Maximum Ambient Temperature: 40 °C

Minimum Operating Temperature: -10 °C

Maximum Surface Temperature: 75 °C

Protection Rating: IP33

Horizontal or vertical mounting Universal working position

2 x omega brackets

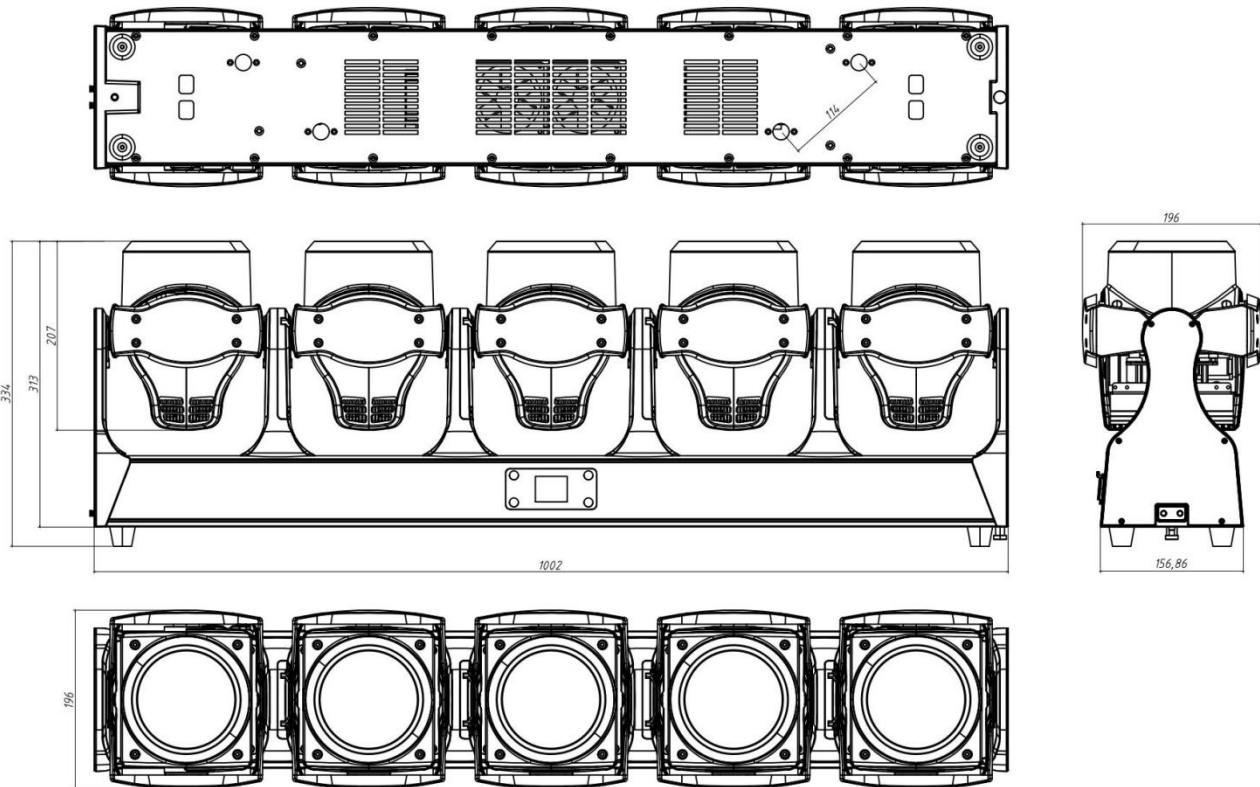
Safety cable attachment point

### Weight&Dimension

Fixture Size: 1002\* 196\*334mm

Net Weight: 26.7kg

## SIZE DRAWING



## Installation and attention

### 1. Maintenance

- ❖ To reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.
- ❖ Intermittently using will extend this item's service life.
- ❖ Please clear the fan ,fan net , and optical lens in order to keep good work state.
- ❖ Do not use the alcohol or any other organic solvent to wipe the shell.

### 2. Safety Precaution

- ❖ In order to guarantee the product's life, please don't put it in the damp places or even the environment over 60degrees.
- ❖ Always mount this unit in safe and stable matter.
- ❖ Install or dismantle should operate by professional engineer.
- ❖ Using lamp , the change rate of power voltage should be within $\pm 10\%$  , If the voltage is too high , it will shorten the light's life; If it's not enough, will influence the effect.
- ❖ Please restart it 20 minutes later after turning off light , until full-cooling. Frequent switching will reduce the life span of lamps and bulbs; intermittent using will improve the life of bulbs and lamps.
- ❖ In order to make sure the product is used well, please read the Manual carefully.

### 3. Rigging (Optional)

This equipment can be positioned and fixed by clamp in every direction of the stage. Locking system makes it easy to fasten to the bracket.

Attention! Two clamps is needed to fix the equipment. Every clamp is locked by fastener of 1/4 kind. Fastener can only be locked clockwise.

**Attention!** Fasten a safety string to the additional hole of side aluminum piece. The secondary accessory can not hang on the delivery handle. Nip the equipment on bracket.

- ❖ Check if rigging clamp (not including the one inside) damaged or not? If stand ten times weight as the equipment. Make sure the architecture can stand ten times weight as all the equipments, clamps, wirings and other additional fixtures.
- ❖ Screws for clamping must be fixed firmly. Take one M12 screw (Grade 8.8 or higher) to clamp bracket, and then screw the nuts.
- ❖ Level the two hanging points at the bottom of clamp. Insert fastener to the bottom, lock the two levers by 1/4 rotating clockwise; then install another clamp.
- ❖ Install on safety string which stands at least ten times weight as equipment. Terminal of the accessory is designed for clamps.
- ❖ Make sure pan/tilt lock unlocked or not. Keep the distance more than 1M from equipment to flammable material or lighting source.

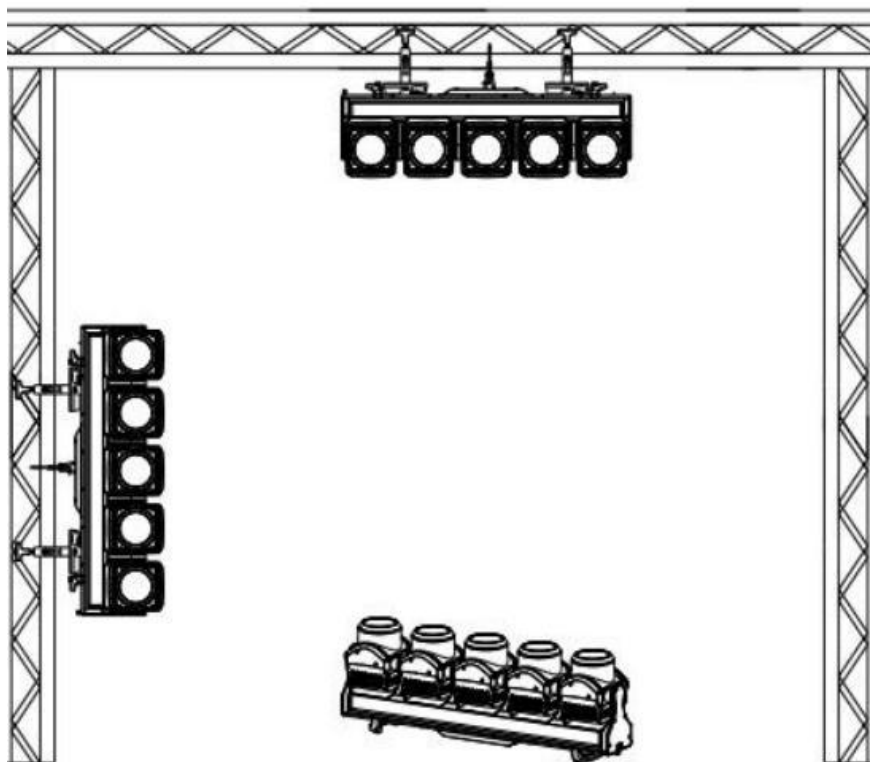


Figure 1 Installation

## 4. Signal line connection

The fixture features standard DMX input and output via 3-pin or 5-pin XLR sockets. Please use a shielded twisted pair signal line specially designed for DMX 512; the signal line is generally connected at a distance of 150 meters. When transmitting long-distance signals, a DMX512 signal amplifier must be added.

Use a shielded twisted pair signal cable to connect the DMX output port of the controller to the DMX input port of the first device, and connect the DMX output port of the first device to the DMX input port of the second device, and so on. Until all the lamps are connected, install a terminal plug on the output 3-pin jack of the last connected lamp in each circuit. (Solder a 4/ 1W , 120Ω resistor between pins 2 and 3 of the 3-pin XLR plug) .

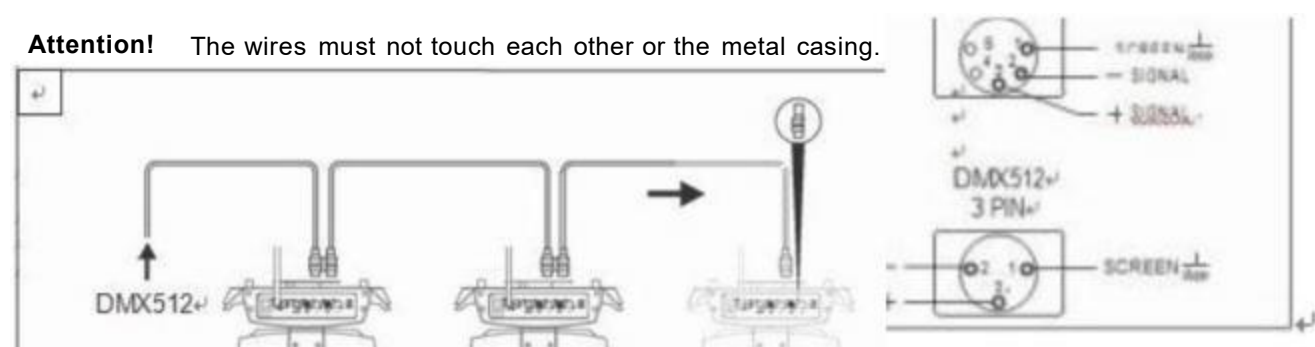


Figure 2 DMX signal connection

## Menu Function

	Address settings	001 - 512	
	Lighting settings	Channel mode	41CH /71CH
		Operation mode	DMX / Auto
		Horizontal inversion	On / Off
		Vertical inversion	On / Off
		Fan control	Silent / Low / Medium / High
		Dimming curve	Linear / Reverse Curve / Forward Curve / S Curve

<b>Menu</b>		Fast light collection	On / Off
		No DMX status	Reset / Hold
		LED refresh frequency	900Hz//5000Hz/ ...../15KHz/20KHz/25KHz
	Manual control	Horizontal 1	000 - 255
		Horizontal 1 fine-tuning	000 - 255
		Vertical 1	000 - 255
		Vertical 1 fine-tuning	000 - 255
		.....	.....
	Lighting information	Time information	Power-on time
			Total time
			Power-on times
		Sensor detection	Vertical 1
			Horizontal 1
			Zoom 1
			Temperature 1
			...
		Temperature	Lamp head 1 temperature
			Lamp head 2 temperature
			Lamp head 3 temperature
			Lamp head 4 temperature
			Lamp head 5 temperature
		Software version	Display version
			Motor version
	Factory		Dimming version 1
			Dimming version 2
			Dimming version 3
			Dimming version 4
			Dimming version 5
		Password input	000 - 255
		Vertical 1 correction	000 - 255
		Horizontal 1 correction	000 - 255
		Magnification 1 correction	000 - 255

	settings	Vertical 2 correction	000 - 255
		Horizontal 2 correction	000 - 255
		.....	.....
		.....	.....
	Lighting reset	Reset all	Execute / Cancel
		Factory settings	Execute / Cancel
	Display settings	Language settings	Chinese / English
		Display inversion	Normal / Reverse
		Display mode	60s / Constantly on

## Channel description

41CH	Function	71CH	Function
1	Pan1	1	Pan 1
2	Pan Fine1	2	Pan Fine 1
3	Tilt1	3	Tilt 1
4	Tilt Fine1	4	Tilt Fine 1
5	Zoom1	5	Main Red 1
...	...	6	Main Green 1
21	Pan5	7	Main Blue 1
22	Pan Fine5	8	Main Yellow 1
23	Tilt5	9	Zoom1
24	Tilt Fine5	10	Ring Red 1
25	Zoom5	11	Ring Green 1
26	Main Red	12	Ring Blue 1
27	Main Green	13	Ring Effect 1
28	Main Blue	...	...
29	Main White	53	Pan 5
30	Main CTO	54	Pan Fine 5
31	Main ColorMacro	55	Tilt 5
32	Ring Red	56	Tilt Fine 5
33	Ring Green	57	Main Red 5
34	Ring Blue	58	Main Green 5
35	Ring Effect	59	Main Blue 5
36	Dimmer	60	Main Yellow 5
37	Dimmer Fine	61	Zoom 5

38	Main Strobe	62	Ring Red 5
39	Ring Strobe	63	Ring Green 5
40	XY Speed	64	Ring Blue 5
41	Macro	65	Ring Effect 5
		66	Dimmer
		67	Dimmer Fine
		68	Main Strobe
		69	Ring Strobe
		70	XY Speed
		71	Macro

## REMARK

The product has perfect performance and integrity packing.

All users should be strictly comply with the warning and operating instructions as stated.

Or we aren't in charge of any result by misusing.

Any damage resulting by misuse is not within the Company's warranty.

Any fault or problem caused by neglecting the manual is also not in the charge of dealers.

Errors and omissions for every information given in this manual excepted.

All information is subject to change without prior notice.