

# LED Beam 200 User Manual



# **Guangzhou Mitek Light Co.,LTD**

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#### **TECHNICAL PARAMETERS**

## **Light source**

Rated Voltage: AC100V-240V 50/60Hz Lamp Specifications: 200W White LED

Rated Lifespan: 20,000 hours, Color Temperature: 9000K

LED Ring: 36 high-brightness 3-in-1 LEDs with built-in various running effects and

master-slave synchronization, independent of the console

## **Optical**

Beam Angle: Zoom 0°-5°, 128mm wide aperture, beam angle 0-2.2°

#### Controls

Control Mode: 22 channels (standard), 1 channel control mode, standard DMX512 protocol, RDM protocol.

Control Interface: DMX512 interface (3-pin/optional 5-pin), power cord hand-in-hand socket. Sleep Function: Advanced technology enables remote sleep mode, automatically entering sleep mode when the signal is lost, ensuring greater stability and safety.

Display: 1.77-inch LCD, bilingual Chinese and English menu, sensor fault display, temperature display.

#### **Effect**

Color: Macro-controlled Color Wheel: 12 colors + white, full/half/linear, variable-speed bidirectional rainbow effect, built-in high-efficiency Hall effect device

Pattern: 1 fixed gobo wheel with 13 patterns + white, bidirectional variable-speed rotation, variable-speed dithering and bidirectional variable-speed flow effects, built-in high-efficiency Hall effect device

Prism: 1 (8-prism), with stackable bidirectional variable-speed rotation, indexing, and variable-speed dithering effects

Focus: DMX linear focus with autofocus

Fog Fog lens: 1

Electronic strobe, 0.3-25 times/second, with selectable synchronous or asynchronous random strobes

Dimming: Electronic dimming with 0-100% linear adjustment, gamma curve dimming frequency adjustable from 1.2kHz to 25kHz, and macro dimming for smooth, stable linearity and flicker-free operation. Stable constant current drive and power supply, suitable for video recording.

#### Construction

Rotation: 540° horizontal (16-bit scanning), 270° vertical (16-bit scanning). (Bit-accurate scanning) The X and Y axes are driven by high-speed, silent motors for faster and smoother operation. Automatic home position is achieved in the event of a misoperation, and the horizontal and vertical speeds are adjustable. X and Y axis rotation and reversal functions are also available. Photoelectric high-precision positioning is employed.

Cooling System: Lightweight aluminum heat sink with intelligent fan monitoring technology. Automatically adjusts fan speed based on fixture temperature. Built-in intelligent overheat protection system/intelligent temperature and noise balance module.



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Protection Rating: IP20, with optional rain cover up to IP44.

# Weight&Dimension

Product size: 25\*19\*41.2cm

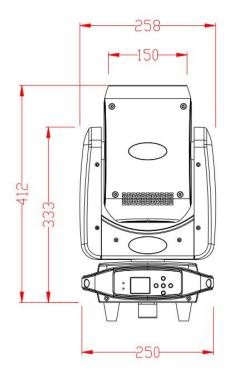
Net Weight: 7.4kg

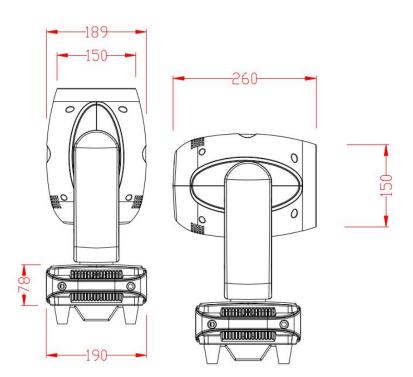
Carton size: 50\*35\*34cm Gross Weight: 10kg

Flycase size: 710\*500\*660mm

Gross Weight: 57kg

# SIZE DRAWING





# Safety instructions



Attention!

Please be careful before operating this product. This product is a high-voltage product and may receive an electric shock if it touches the wire!

This product is in perfect condition before delivery. To maintain the product in good condition and to ensure safe operation, users should follow the safety precautions and warnings in this manual.

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#### Important!

Damage caused by not following this manual is not covered by the warranty. The supplier is not responsible for any resulting problems with the product.

If the product has been exposed to extreme, unstable temperatures (such as after shipping), do not immediately connect it to the power supply. Water droplets formed by temperature fluctuations may damage the product. Wait until the product has returned to normal temperature before use.

This product operates within a voltage range of 90-260V and is intended for indoor use. Ensure that the ground voltage does not exceed the product's tolerances! The power plug must be plugged into a properly protected Class I outlet. The green or tan conductor must be grounded.

Inspect the power cord regularly. Ensure that the power cord is not bent, damaged, or scratched, and that it is not connected to other wires. Exercise extreme caution when connecting the power cord or other related wiring. Always unplug the power cord when not in use or before cleaning.

Before using the product, familiarize yourself with its operating functions. Keep children and untrained personnel away from the product.

Do not shake the product. Do not use excessive force when installing or operating the product. Do not allow untrained personnel to operate the product. Most damage is caused by untrained personnel. This product does not come with any repair parts. Maintenance and repairs should only be performed by qualified personnel.

Please do not modify this product without authorization, otherwise it may be damaged and the resulting damage will not be covered by the warranty. In addition, unprofessional operation may cause short circuits, burns or electric shocks, etc.

## **Precautions**

- To ensure the duct's lifespan, do not place this product in humid or leaky locations, and do not operate it in environments with temperatures exceeding 60°C.
- Do not place this product in loose or vibrating locations.
- To avoid the risk of electric shock, please seek professional service for this product.
- When the lamp is in use, the power supply voltage should not fluctuate by more than ±10%. Excessive
  voltage will shorten the lifespan of the lamp, while excessive voltage will affect the color of the light.
- After a power outage, allow the lamp to cool thoroughly for 20 minutes before re-energizing.
- To ensure proper operation of this product, please read these instructions carefully. Signal Cable Connection (DMX)

Use a standard RS-485 cable: shielded, 120-ohm characteristic impedance, 22-24 AWG, low capacitance. Do not use microphone cables or cables with different specified characteristics. Terminal connections must use 3- or 5-pin XLR-type male/female connectors (minimum 1/4 W).

Important: Do not touch the wires to each other or to the metal case.



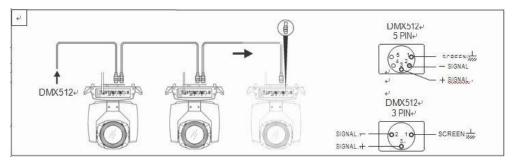


Figure 1 DMX signal line connection diagram

#### **Luminaire Installation**

Luminaires can be placed horizontally, hung at an angle, or hung upside down. When hanging at an angle or upside down, pay careful attention to the installation method.

As shown in Figure 2, before positioning the luminaire, ensure the stability of the installation site. When hanging the luminaire upside down, ensure that the luminaire does not fall from the support frame. A safety rope must be passed through the support frame and the luminaire handle to assist in hanging the luminaire. This ensures safety and prevents the luminaire from falling or sliding.

During installation and commissioning, pedestrians are prohibited from passing underneath the luminaire. Regularly check the safety rope for wear and the hook screws for looseness.

Our company assumes no responsibility for any consequences resulting from the luminaire falling due to insecure hanging.

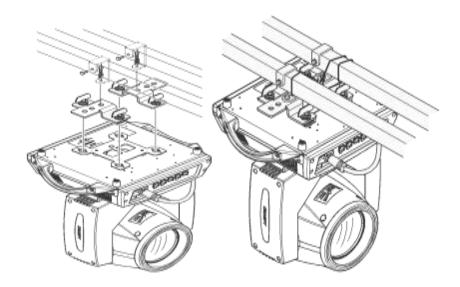
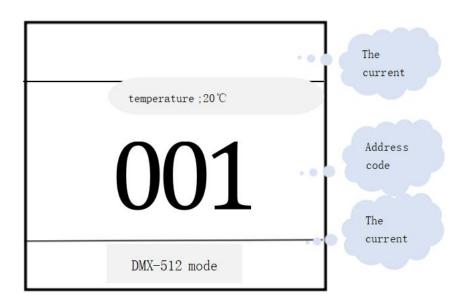


Figure 2 Schematic diagram of inverted lamp

# Menu desktop



#### Menu header interface



- ◆ Address: Click to enter the address code setting
- ◆ Setting: Click to enter system setting
- ◆ Manual: Click to enter the manual mode
- ◆ Calibration: Click to enter the system calibration mode by entering the password
- ◆ Reset: Click to enter the system reset mode
- ♦ Information: Click to enter to view system information

#### **Menu Structure**

Main Menu	Secondary menu	Level 3 menu/parameters
address	001 - 512	(The number of channels added each time is
		reduced by the normal number)

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	operational mode	DMX/control/Self-run 1/self-run 2	
	Channel mode	22CH	
	Horizontal reversal	On/Off	
	Vertical Flip	On/Off	
	Hall error correction	On/Off	
Custom Cottings	Optocoupler Error Correction	On/Off	
System Settings	Signal Hold	On/Off	
	Screen protection	On/Off	
	Screen flip	Off/On/Auto	
	Synchronous Update	On/Off	
	language	Chinese/EN	
	restore factory setting	Confirm/Cancel	
manual made	Current channel mode	0.255	
manual mode	channel	0-255	
system calibration	enter password	Lamp calibration	
	Effect motor reset		
system reset	Scan motor reset		
	All motors reset		
	Reset error message	Display reset error message	
	DMX data monitoring	Receive channel value from console	
O. antonio		Hall information	
System	sensor information	X-ray coupler information	
Information		Y optocoupler information	
	Hardware version	Display hardware version	
	Software version	Display software version	

#### **Automatic Screen Rotation**

The system automatically rotates the screen based on gravity, eliminating the need for manual rotation. The automatic rotation function can also be disabled.

#### **Manual Control**

This screen is used to control the current lighting fixture.

Press the "OK" key to enter editing mode. Press the "Up" and "Down" keys to change channel values. Press "OK" again to save changes and exit editing. Press "Exit" to exit editing without saving changes.

# **System Calibration**

Enter the password "9188" and press the "OK" key to enter.

option	illustration
Initial position	After entering the sub-interface, you can adjust the initial positions of the X-axis, Y-axis, color wheel, image wheel, fog mirror, seven colors, prism, and focus motor. The adjustment range is 0~255, and 127 means no adjustment.



Trip calibration	After entering the sub-interface, you can adjust the travel of the X-axis, Y-axis, fog mirror, colorful mirror, prism, and focus motor. The adjustment range is 0~255, and
	127 means no adjustment.
power	After entering the sub-interface, you can adjust the power of the lamp beads, 255
	means the maximum power.
Other calibration	Voice control sensitivity calibration and password change.

# reset

Press "Up" and "Down" keys to switch the reset mode, press "OK" to reset directly.

Options	Description
Effect motor reset	Effect motor reset other than XY
Scan Motor Reset	XY axis reset
All motors reset	Lamp reset

**System Information** 

option	illustration
Reset information	If the red ERR indicator light is on, the lamp is running out of order. You can enter
	the sub-interface to view the details
DMX data	This leads to the sub-interface, where the channel values are displayed
monitoring	numerically for viewing
sensor information	Monitor the status of light coupling, Hall and other sensors in real time
Hardware version	Hardware information of the lamp
number	
Software version	Lighting software version
number	

# **Channel Settings**

22CH channel table			
channel	function	DMX value	describe
CH1	X Axis	0-255	0-540degree
CH2	X Axis fine adjustment	0-255	0-2degree
CH3	Y Axis	0-255	0-270degree
CH4	Y Axis fine adjustment	0-255	0-1degree
CH5	XY speed	0-255	From fast to slow
		0-3	Turn off the light
		4-99	Synchronous strobe
CLIC	Straha	100-149	Pulse strobe
CH6	Strobe	150-199	Explosion
		200-249	Random strobe
		250-255	opening the light
CH7	Dimming	0-255	0-100%Dimming
CH8	oolor	0-2	white
CHO	color	3-7	color1

		8-12	color2
		13-17	color3
		18-22	color4
		23-27	color5
		28-32	color6
		33-37	color7
		38-42	color8
		43-47	color9
		48-52	color10
		53-57	color11
		58-62	color12
		63-67	white +color1
		68-72	color1+color2
		73-77	color2+color3
		78-82	color3+color4
		83-87	color4+color5
		88-92	color5+color6
		93-97	color6+color7
		98-102	color7+color8
		103-107	color8+color9
		108-112	color9+color10
		113-117	color10+color11
		118-122	color11+color12
		123-127	color12+white
		128-189	Flow clockwise from fast to slow
		190-193	Stop the water flow
		194-255	Slow down and flow clockwise
		0-7	White light hole
		8-11	pattern1
		12-15	pattern2
		16-19	pattern3
		20-23	pattern4
CH9	pattern	24-27	pattern5
		28-31	pattern6
		32-35	pattern7
		36-39	pattern8
		40-43	pattern9

48-51   pattern11				
Se-59			48-51	pattern11
60-69			52-55	pattern12
70-79			56-59	pattern13
80-89   pattern3 Shake slowly and fast			60-69	pattern1 Shake slowly and fast
90-99   pattern4 Shake slowly and fast			70-79	pattern2 Shake slowly and fast
100-109			80-89	pattern3 Shake slowly and fast
110-119			90-99	pattern4 Shake slowly and fast
120-129			100-109	pattern5 Shake slowly and fast
130-139			110-119	pattern6 Shake slowly and fast
140-149			120-129	pattern7 Shake slowly and fast
150-159			130-139	pattern8 Shake slowly and fast
160-169			140-149	pattern9 Shake slowly and fast
170-179			150-159	pattern10 Shake slowly and fast
180-189   pattern13 Shake slowly and fast   190-221   Flow clockwise from fast to slow   222-223   Stop the water flow   224-255   Slow down and flow clockwise     0-127   invalid     128-199   Atomized cutting   200-255   Colorful Cut-in			160-169	pattern11 Shake slowly and fast
190-221			170-179	pattern12 Shake slowly and fast
222-223   Stop the water flow			180-189	pattern13 Shake slowly and fast
CH10			190-221	Flow clockwise from fast to slow
CH10         Atomization/Colorful         0-127         invalid           CH10         Atomization/Colorful         128-199         Atomized cutting           CH11         prism         0-127         invalid           CH11         prism         0-127         Angle adjustment           CH12         Prism rotation         128-189         Counterclockwise from fast to slow           190-193         stop           194-255         Clockwise from slow to fast           CH13         focus         0-255         From far to near           0-4         opening the light           CH14         Light strip strobe         251-255         opening the light           CH15         strip lights Dimming         0-255         Dimming(From dark to light)           CH16         Red light strip         0-255         Red (from dark to light)           CH17         Green light strip         0-255         Green (from dark to light)           CH18         Light strip blue         0-255         Blue (from dark to light)           CH19         Color Light strip         0-255         Foreground color gradient			222-223	Stop the water flow
CH10         Atomization/Colorful         128-199         Atomized cutting           200-255         Colorful Cut-in           CH11         prism         0-127         invalid           CH12         Prism rotation         128-255         Prism cut-in           CH12         Prism rotation         128-189         Counterclockwise from fast to slow           190-193         stop           194-255         Clockwise from slow to fast           CH13         focus         0-255         From far to near           0-4         opening the light           CH14         Light strip strobe         5-250         Synchronous strobe           251-255         opening the light           CH15         strip lights Dimming         0-255         Dimming(From dark to light)           CH16         Red light strip         0-255         Red (from dark to light)           CH17         Green light strip         0-255         Green (from dark to light)           CH18         Light strip blue         0-255         Blue (from dark to light)           CH19         Color Light strip         0-255         Foreground color gradient			224-255	Slow down and flow clockwise
CH11			0-127	invalid
CH11         prism         0-127         invalid           CH12         Prism rotation         128-255         Prism rotation         128-189         Counterclockwise from fast to slow           190-193         stop           190-193         stop           Clockwise from slow to fast         Clockwise from slow to fast           CH13         focus         0-255         From far to near           0-4         opening the light           CH14         Light strip strobe         5-250         Synchronous strobe           251-255         opening the light           CH15         strip lights Dimming         0-255         Dimming(From dark to light)           CH16         Red light strip         0-255         Red (from dark to light)           CH17         Green light strip         0-255         Green (from dark to light)           CH18         Light strip blue         0-255         Blue (from dark to light)           CH19         Color Light strip         0-255         Foreground color gradient	CH10	Atomization/Colorful	128-199	Atomized cutting
CH11         prism         128-255         Prism cut-in           CH12         Prism rotation         128-189         Counterclockwise from fast to slow           190-193         stop           190-193         stop           Clockwise from slow to fast           CH13         focus           0-255         From far to near           0-4         opening the light           CH14         Light strip strobe         5-250         Synchronous strobe           251-255         opening the light           CH15         strip lights Dimming         0-255         Dimming(From dark to light)           CH16         Red light strip         0-255         Red (from dark to light)           CH17         Green light strip         0-255         Green (from dark to light)           CH18         Light strip blue         0-255         Blue (from dark to light)           CH19         Color Light strip         0-255         Foreground color gradient			200-255	Colorful Cut-in
CH12         Prism rotation         128-255         Prism cut-in           CH12         Prism rotation         128-189         Counterclockwise from fast to slow           190-193         stop           190-193         stop           Clockwise from slow to fast           CH13         focus           0-255         From far to near           0-4         opening the light           CH14         Light strip strobe         5-250         Synchronous strobe           251-255         opening the light           CH15         strip lights Dimming         0-255         Dimming(From dark to light)           CH16         Red light strip         0-255         Red (from dark to light)           CH17         Green light strip         0-255         Green (from dark to light)           CH18         Light strip blue         0-255         Blue (from dark to light)           CH19         Color Light strip         0-255         Foreground color gradient	CU11	nriom	0-127	invalid
CH12         Prism rotation         128-189         Counterclockwise from fast to slow           190-193         Stop           194-255         Clockwise from slow to fast           CH13         focus         0-255         From far to near           0-4         opening the light           CH14         Light strip strobe         5-250         Synchronous strobe           251-255         opening the light           CH15         strip lights Dimming         0-255         Dimming(From dark to light)           CH16         Red light strip         0-255         Red (from dark to light)           CH17         Green light strip         0-255         Green (from dark to light)           CH18         Light strip blue         0-255         Blue (from dark to light)           CH19         Color Light strip         0-255         Foreground color gradient	CHII	prism	128-255	Prism cut-in
CH12         Prism rotation         190-193         stop           194-255         Clockwise from slow to fast           CH13         focus         0-255         From far to near           0-4         opening the light           CH14         Light strip strobe         5-250         Synchronous strobe           251-255         opening the light           CH15         strip lights Dimming         0-255         Dimming(From dark to light)           CH16         Red light strip         0-255         Red (from dark to light)           CH17         Green light strip         0-255         Green (from dark to light)           CH18         Light strip blue         0-255         Blue (from dark to light)           CH19         Color Light strip         0-255         Foreground color gradient			0-127	Angle adjustment
190-193   stop	CU12	Driam rotation	128-189	Counterclockwise from fast to slow
CH13 focus 0-255 From far to near  O-4 opening the light  Synchronous strobe  5-250 Synchronous strobe  251-255 opening the light  CH15 strip lights Dimming 0-255 Dimming(From dark to light)  CH16 Red light strip 0-255 Red (from dark to light)  CH17 Green light strip 0-255 Green (from dark to light)  CH18 Light strip blue 0-255 Blue (from dark to light)  CH19 Color Light strip 0-255 Foreground color gradient	CHIZ	Prism rotation	190-193	stop
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	CH18	Light strip blue	0-255	Blue (from dark to light)
CH20 动态effect 0-4 invalid	CH19	Color Light strip	0-255	Foreground color gradient
	CH20	动态effect	0-4	invalid

5-9	effect1
10-14	effect2
15-19	effect3
20-24	effect4
25-29	effect5
30-34	effect6
35-39	effect7
40-44	effect8
45-49	effect9
50-54	effect10
55-59	effect11
60-64	effect12
65-69	effect13
70-74	effect14
75-79	effect15
80-84	effect16
85-89	effect17
90-94	effect18
95-99	effect19
100-104	effect20
105-109	effect21
110-114	effect22
115-119	effect23
120-124	effect24
125-129	effect25
130-134	effect26
135-139	effect27
140-144	effect28
145-149	effect29
150-154	effect30
155-159	effect31
160-164	effect32
165-169	effect33
170-174	effect34
175-179	effect35
180-184	effect36
185-189	effect37
190-194	effect38

		195-199	effect39
		200-204	effect40
		205-209	effect41
		210-214	effect42
		215-219	effect43
		220-224	effect44
		225-229	effect45
		230-234	effect46
		235-239	effect47
		240-244	effect48
		245-249	effect49
		250-254	effect50
		255	effect51
CLIDA		0-127	Positive from slow to fast
CH21	Effect speed	128-255	The reverse goes from slow to fast
		100-125	Head motor resets after 5 seconds
CH22	reset	150-175	XY motor resets after 5 seconds
		220-255	All reset after 5 seconds

#### **Routine Maintenance**

Cleaning and maintenance

- 1. The equipment requires daily cleaning and maintenance, the service life of the equipment depends largely on the operating environment and daily cleaning and maintenance, disconnect the power supply before opening any cover
- 2. Optical parts should be lightly wiped, the coating surface is brittle and easily scratched, do not use destructive solvents or it will damage the plastic or coating surface. Use a soft brush, cotton paper, air vacuum or pressure blower to remove dust from the fan and air holes.

#### REMARK

The product has perfect performance and intergrity 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.

