

# **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 specification: 200W white LED

Rated life: 20000 hours, color temperature: 9000K

LED light circle: 36 LED high-brightness trinity of light beads, built-in a variety of running horse effect program, can be out of the console master-slave synchronous operation

## Optical

Beam angle: zoom 0° ~ 5 ° 128mm large aperture out of the light, beam angle 0-2.2 degrees

## Controls

Control mode: 22CH (standard) 1 kind of channel control mode, standard DMX512 protocol, RDM protocol

Control interface: DMX512 interface (3-core/optional 5-core), power cord hand-held socket Display function: 1.77 inch LCD display, bilingual menu, sensor fault display, temperature display

## Effect

Color: with macro command function color disk: 12 colors + white full color / half color / linear color variable speed two-way rainbow effect, built-in high-efficiency Hall device

Pattern: 1 fixed gobo: 13 kinds of patterns + white light, two-way variable speed rotation, with variable speed dithering effect, two-way variable speed flow effect, built-in high-efficiency Hall device

Prism: 1 (8 prisms), can be stacked bidirectional variable speed rotation, with index function variable speed dithering effect

Focusing: DMX linear focus, with automatic focus function

Fogging: 1 (fogging mirror)

Electronic strobe,  $0.3 \sim 25$  times / second, can choose synchronous, asynchronous random strobe

Dimming: electronic dimming 0 ~ 100% linear adjustment, with gamma curve dimming frequency  $1.2K \sim 25K$  adjustable, with macro command dimming linear stable and smooth without flicker, using a stable constant current driver and power supply, suitable for video shooting

## Construction

Rotation angle: 540° in the horizontal direction (16 bit precision scanning), 270° in the vertical direction (16 bit precision scanning) XY axis using high-speed silent motor drive, so that faster and smoother operation, when the misstep can automatically return to the horizontal, vertical speed adjustable; XY axis rotation function and take the reverse function; using photoelectric high-precision positioning

Hibernation function: the use of advanced technology to achieve remote hibernation function, when the lamps and lanterns disconnect the signal automatically into the hibernation state, so that the lamps and lanterns more stable and safer



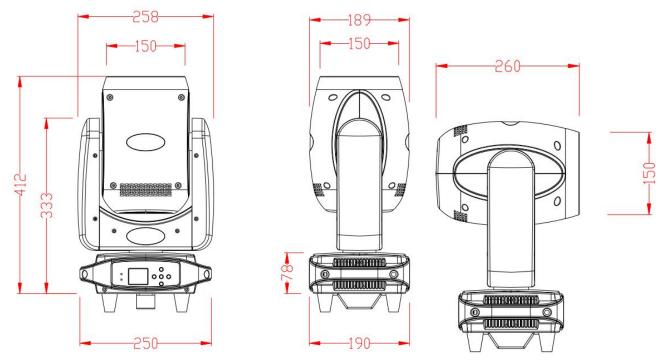
Heat dissipation system: using light aluminum radiator, fan intelligent monitoring technology According to the temperature of the lamps and lanterns automatically adjust the fan rotation, built-in overheating protection intelligent system / intelligent temperature and noise balance module

Protection grade: IP20, optional rain cover protection grade up to IP44

## Weight&Dimension

Lamp packaging: waterproof and shockproof air box or carton Product size:25\*19\*41.2CM Package Size:46\*31\*30CM Net weight:7.4KG Gross weight:7.8KG

# 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.





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 and unstable temperature conditions (e.g. after shipping), do not immediately connect the product to power, as water droplets due to temperature changes may damage the product. Please use the product after it has returned to normal temperature.

This product can be used in the voltage range of 90-260V and is for indoor use. Please make sure that the voltage of the ground used is not higher than the product can withstand!!! The power plug must be plugged into a well-protected Class I outlet. The green or teal conductor must be grounded.

Please check this product level power cord frequently. Make sure that the power cord is not folded or scratched, and that it is not connected to other cords! Special care should be taken when connecting the power cord or related connections. When not using the product or before cleaning, be sure to disconnect the power.

Before using the product, please familiarize yourself with the operating functions of the product. Do not allow children or unprofessional persons to touch the product.

Do not shake the product. Do not use brute force when installing or operating the product. Do not allow unprofessional personnel to operate the product. Most of the damage is caused by unprofessional operation.

The product is not equipped with relevant repair parts. Maintenance and repair of the product should only be done by professionals!

Please do not tamper with the product, otherwise the product may be damaged, and the damage caused by this is not covered by the warranty. Moreover, unprofessional operation may lead to short circuit, burns or electric shock, etc.



To ensure the service life of the product, this product should not be p laced in a wet or leaky p lace, and should not work in an environment where the temperature exceeds 60 degrees.

Do not p lace this product in p laces that are prone to loosen or vibrate.

To avoid the risk of electric shock, p lease seek professional help for the maintenance of this product.

bulb use, the power supply voltage change should not exceed  $\pm$  10%, the voltage is too high, will shorten the life of the bulb, the voltage is too low, it will affect the light color of the bulb.

power off, it takes 20 minutes to use the lamps and lanterns fully cooled before they can be powered on again.

To ensure the normal use of this product, p lease read these instructions carefully. Signal line connection (DMX)





Use RS-485 cable that meets specifications: shielded, 120ohm characteristic impedance, 22-24 AWG, and low capacitive resistance. Do not use microphone cables or cables with different specified characteristics. Terminal connections must be made using 3 or 5 pin XLR type male/female connectors. (Minimum 1 / 4 W).

Important: The wires must not touch each other or come into contact with the metal housing.

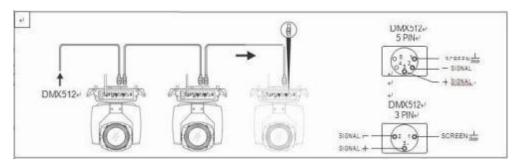


Figure 1 DMX signal line connection schematic

#### Luminaire installation

The luminaire can be placed horizontally, hung diagonally and upside down. The installation method must be paid attention to when hanging diagonally and upside down, .

As shown in Figure 2, before positioning the luminaire, ensure the stability of the installation site, and when reversing the hanging installation, must ensure that the luminaire does not fall down on the support frame, need to use safety ropes through the support frame and luminaire carrying handle to assist in hanging to ensure safety, . Prevent the luminaire from falling and sliding.

When the luminaire is installed and commissioned, it is forbidden for pedestrians to pass

underneath. Regularly check whether the safety rope is worn and whether the hook screw is loose.

We will not be responsible for all the consequences of falling lamps and lanterns due to unstable hanging installation.

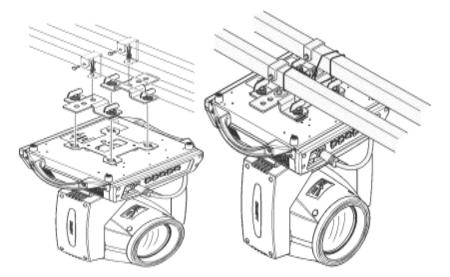
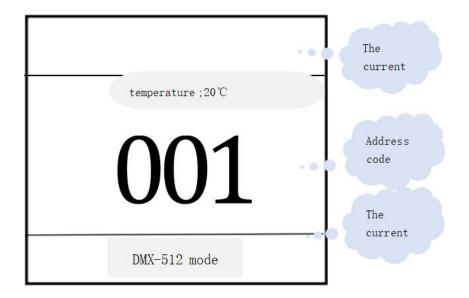


Figure 2 Diagram of upside down luminaire

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	Three-level menu/parameters	
Address	001 - 512	(add the number of channels each time, minus normal)	
	Operation modes	DMX/voice control/self-propelled1/self-propel led2	
	Channel mode	22CH	
	Horizontal inversion	On/Off	
System Settings	Vertical Inversion	On/Off	
	Hall error correction	On/Off	
	Optocoupler error correction	On/Off	
	Signal Hold	On/Off	
	Screen Protection	On/Off	
	Screen Flip	Off/On/Auto	
	Synchronous update	On/Off	
	Language	Medium/EN	
	Restore factory settings	Confirm/Cancel	
Manual mode	Current channel 0-255 mode channel		
System calibration	Enter password Lamp calibration		
System Reset	Effect motor reset		
	Scan Motor Reset		
	All motors reset		
	Popot orror monogoo	Display of reset error	
	Reset error messages	messages	
	DMX data monitoring	Receive channel value of the console	
System Information		Hall information	
	Sensor Information	X optocoupler information	
		Y optocoupler information	
	Hardware Versions	Show hardware version	
	Software Versions	Show software version	

#### Automatic screen rotation function

The system can automatically rotate the screen according to the direction of gravity, without manual rotation. You can also turn off the auto-rotation function.

#### **Manual control**

This screen is used to control the current fixture.

Press "OK" to enter the editing state. Press "Up" and "Down" to change the channel value. Press "OK" again to save the modified value and exit editing, or press "Exit" to exit editing directly without saving the modified value.

## **System Calibration**

Password "6688", press the "OK" button to enter.

Options	Description			
Initial position	After entering the sub-interface, you can adjust the initial position of X-axis, Y-axis, color disk, chart disk, fog mirror, heptamer, prism and focus motor, the adjustment range is 0~255, 127 means no adjustment.			
Stroke Calibration	After entering the sub-interface, you can adjust the travel of X-axis, Y-axis, fog mirror, heptamer, prism and focus motor, the adjustment range is 0~255, 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	Sound sensitivity calibration, modify the password.			

#### 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**

Options	Description		
Reset Information	If the red ERR indicator lights up, it means the fixture is running in error, details can be viewed by entering the sub interface from here		
DMX data monitoring	Enter the sub-interface to display the channel value by value for viewing		
Sensor information	Real-time monitoring of the status of sensors such as optocoupler and Hall on the lamp		
Hardwar e version number	Luminaire hardware information		
Softwar e version number	Luminaire software version		



# **Channel Settings**

assage	Function	DMX Values	Description	
CH1	X-axis	0-255	0-540 degrees	
CH2	X-axis fine adjustmen t	0-255	0-2 degrees	
СНЗ	Y-axis	0-255	0-270 degrees	
CH4	Y-axis fine adjustmen t	0-255	0-1 degree	
CH5	XY speed	0-255	From fast to slow	
		0-3	Turn off the light	
		4-99	Synchronous strobe	
	Otrack a	100-149	Pulse strobe	
CH6	Strobe	150-199	Burst strobe	
		200-249	Random strobe	
		250-255	Open light	
CH7	Dimming	0-255	0-100% dimming	
		0-2	white	
			3-7	Color 1
		8-12	Color 2	
		13-17	Color 3	
		18-22	Color 4	
		23-27	Color 5	
		28-32	Color 6	
			33-37	Color 7
		38-42	Color 8	
		43-47	Color 9	
		48-52	Color 10	
		53-57	Color 11	
		58-62	Color 12	
		63-67	White light + color 1	
H8	Color	68-72	Color 1+Color 2	
	-	73-77	Color 2+Color 3	
		78-82	Color 3+Color 4	
		83-87	Color 4+Color 5	



		88-92	Color 5+Color 6
		93-97	Color 6+Color 7
		98-102	Color 7+Color 8
		103-107	Color 8+Color 9
		108-112	Color 9+Color 10
		113-117	Color 10+Color 11
		118-122	Color 11+Color 12
		123-127	Color 12+white light
		128-189	Flowing counterclockwise from fast to slow
		190-193	Stop flowing
		194-255	Slow to fast clockwise flow
CH9	Pattern	0-7	White light hole
		8-11	Pattern 1
		12-15	Pattern 2
		16-19	Pattern 3
		20-23	Pattern 4
		24-27	Pattern 5
		28-31	Pattern 6
		32-35	Pattern 7
		36-39	Pattern 8
		40-43	Pattern 9
		44-47	Pattern 10
		48-51	Pattern 11
		52-55	Pattern 12
		56-59	Pattern 13
		60-69	Pattern 1 jittering from slow to fast
		70-79	Pattern 2 slow to fast jitter
		80-89	Pattern 3 slow to fast jitter
		90-99	Pattern 4 slow to fast jitter
		100-109	Pattern 5 slow to fast jitter
		110-119	Pattern 6 slow to fast jitter
		120-129	Pattern 7 slow to fast jitter
		130-139	Pattern 8 slow to fast jitter
		140-149	Pattern 9 slow to fast jitter
		150-159	Pattern 10 slow to fast jitter
		160-169	Pattern 11 slow to fast jitter
		170-179	Pattern 12 slow to fast jitter
		180-189	Pattern 13 slow to fast jitter



		190-221	Flowing counterclockwise from fast to slo
		222-223	Stop flowing
		224-255	Slow to fast clockwise flow
0140	Prism	0-127	Prism cut out
CH10		128-255	Prism cut in
<u></u>	Fogging	0-127	Fogging cut out
CH11		128-255	Fogging cut in
	Prism Rotation	0-127	Angle adjustment
		128-189	Counterclockwise from fast to slow
CH12		190-193	Stop
		194-255	Clockwise from slow to fast
CH13	Focusing	0-255	From far to near
	Strip Strobe	0-4	Light on
CH14	·	5-250	Synchronized strobe
		251-255	On
CH15	Strip dimming	0-255	Dimming (from dark to light)
CH16	Strip Red	0-255	Red (dark to bright)
CH17	Green Ribbon	0-255	Green (dark to bright)
CH18	Ribbon Blue	0-255	Blue (dark to light)
CH19	Strip Color	0-255	Foreground color gradient
		0-4	Ineffective
		5-9	Effect 1
		10-14	Effect 2
		15-19	Effect 3
		20-24	Effect 4
		25-29	Effect 5
		30-34	Effect 6
		35-39	Effect 7
		40-44	Effect 8
		45-49	Effect 9
		50-54	Effect 10
		55-59	Effect 11
		60-64	Effect 12
		65-69	Effect 13
CH20	Dynamic effect	70-74	Effect 14
		75-79	Effect 15
		80-84	Effect 16
			Effect 17



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		90-94	Effect 18
		95-99	Effect 19
		100-104	Effect 20
		105-109	Effect 21
		110-114	Effect 22
		115-119	Effect 23
		120-124	Effect 24
		125-129	Effect 25
		130-134	Effect 26
		135-139	Effect 27
		140-144	Effect 28
		145-149	Effect 29
		150-154	Effect 30
		155-159	Effect 31
		160-164	Effect 32
		165-169	Effect 33
		170-174	Effect 34
		175-179	Effect 35
		180-184	Effect 36
		185-189	Effect 37
		190-194	Effect 38
		195-199	Effect 39
		200-204	Effect 40
		205-209	Effect 41
		210-214	Effect 42
		215-219	Effect 43
		220-224	Effect 44
		225-229	Effect 45
		230-234	Effect 46
		235-239	Effect 47
		240-244	Effect 48
		245-249	Effect 49
		250-254	Effect 50
		255	Effect 51
01/04	Effect Speed	0-127	Slow to fast in the forward direction
CH21		128-255	Reverse from slow to fast
		100-125	More than 5 seconds for head motor reset
CH22	Reset	150-175	More than 5 seconds to reset XY motor
		L	1



			220-255	More than 5 seconds to reset all
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#### **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.

