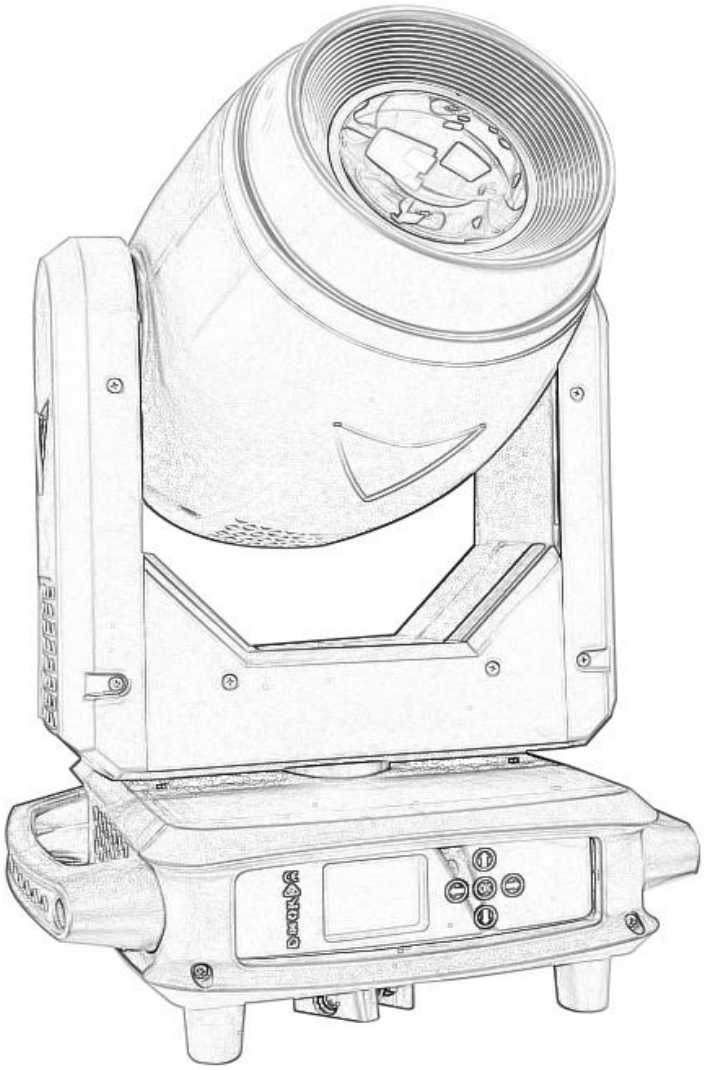
lighting PLUS

User manual



200 LED BSW

Please read the instructions carefully before use

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STATEMENT

The product has well capability and intact packing when leave factory. All of the user should comply with warning item and manual, any misuse cause of the damages are not included in our guarantee, and also can not be responsible for any malfunction & problem owing to ignore the manual.

1.Safety Instructions

Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.

•Unpack and check carefully there is no transportation damage before using the unit.

•Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.

•It's important to ground the yellow/green conductor to earth in order to avoid electric shock.

•The unit is for indoor use only. Use only in a dry location.

•The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked.

•Disconnect main power before replacement or servicing.

•Make sure there are no flammable materials close to the unit while operating as it is fire hazard.

•Use safety cable when fixes this unit. DO NOT handle the unit by taking its head only, but always by taking its base.

•Maximum ambient temperature is Ta: 40℃. DO NOT operate it where the temperature is higher than this Unit surface temperature may reach up to 85℃. DO NOT touch the housing bare-hand during its operation. Turn off the power and allow about 15 minutes for the unit to cool down before replacing or serving.

•the event of serious operating problem, stop using the unit immediately.Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.

•DO NOT touch any wire during operation as high voltage might be causing electric shock.

Warning:

•To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.

•The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

Caution:

•There are no user serviceable parts inside the unit. DO NOT open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact your nearest dealer.

Installation:

•The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly

fixed to avoid vibration and slipping while operating. And make sure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the unit's weight. Also always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.
•The equipment must be fixed by professionals. And it must be fixed at a place where is out of the touch of people.

2.Technical Specifications

Input Voltage: 100-240V, 50/60Hz
Output Voltage: V1:36V(Master board+LED driver), V2:12V(cooling fan+Display)
Power consumption: 220W
Power supply: 300W
Light source: 200W Osram LED Chip (21-24V,8A)
Color temperature: 8000K
Diameter of optic lens: 97mm

Beam angle: 6-35°

Color wheel: 1 color wheel, 7fixed colors plus white
Static gobo: 8 gobos plus 1 white circle
Rotation Gobo: 7 Gobo plus 1 white circle
Prism: 3 prism,can be rotated in both directions
Frost filter: with smooth wash effect
DMX Channel: 20CH
Four dimming curves
Operate mode: DMX512, selfpropelled, master/slave, RDM
Fixture size: 338*530*225mm

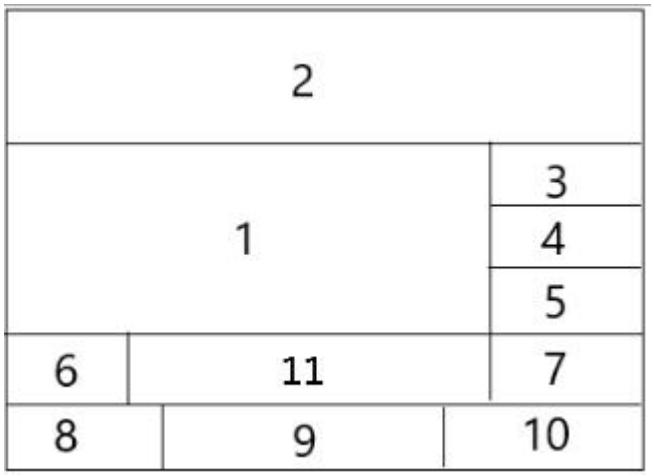
Features:
1.0-100% 16Bit smooth dimming,Four dimming curves
2. Overheating self-energy protection can extending lamp life
3.Three phase Motor with SY Brand (XY axis magnetic coding positioning is more accurate)

4. two angle lens 6° and 35° can change the gobo size

5. High quality LCD touch screen
6. Power in & Out connector,3 or 5pin XLR inout & output can optional
7. Folding clamp can optional

8. Housing material: PA6 Nylon(Solid,high temperature resistance up to 200°flame retardance)

3.Control Menu



1 — Displays the current DMX address in large font
2 — Logo display area
3 — DMX signal frame rate (FPS)
4 — Current channel mode, the displayed number indicates the current channel number
5 — Show current temperature
6 — Current Mode (Master, Slave)
7 — Current running mode (DMX512, Auto, User)
8 — Error message. If a red band "x" is displayed, the self-test found an error. (Press down to view specific error message)
9 - temperature display or other content (depending on lamp configuration)
10 — SN term display
11. Display the address code of the next fixture

menu operation

Option	Description
DMX address	set the DMX address
Channel Mode	Set the channel mode, the number of the menu option indicates the number of channels
Reset operation	reset the motor
	Motor power off: Select "On", all motors are powered off; select "Off", all motors are powered on and reset. Using this menu, it is possible to plug and unplug the motor and power-on reset without turning off the main switch.
XY Axis	Reset Pan and Tilt Motors
Run: Set the run mode.	The description of each menu option is as follows (Note: "Automatic" mode options may vary according to different product models): DMX: controlled and run by DMX512 console. Self-propelled (factory test): run the program set by the factory, this program is mainly used

	for factory test. User program: run user self-programming program. The editing scene can be set in the [Run Settings] - [Self-Programming] menu.
Manual	Manually set the value of the channel
Run Settings	Run parameter settings.
Master-slave mode	set master-slave mode
XY axis general settings	
X-axis reverse	Select "Yes" to reverse the rotation direction of the Pan motor, select "No", and follow the rotation direction at the factory.
Y-axis reverse	select "Yes" to reverse the rotation direction of the Pan motor, select "No", and follow the rotation direction at the factory.
X-axis settings	start range: 0-254 End Range: 0-255
Y axis setting	start range: 0-254 End Range: 0-255
Dimming curve	select the dimming curve
Self programming	
Step count	When no signal: select the operation mode if no DMX512 signal is detected
	When powering on: Only when powering on, if no DMX signal is detected, the above operation mode will be executed, Otherwise, the last DMX action will be held
Centered	Except for Pan and Tilt, all other channels are cleared to zero. Self-propelled (factory test/pattern/color): Run the program set by the factory.
User program	run user self-programming program.
Runtime	The action to be performed at any time as long as the DMX signal is lost.
Hold	Hold the DMX value of the last frame
Shut off	close the shutter
Display settings	LCD screen settings
advanced settings	
Fine-tuning	Factory debugging function, which requires password authentication to enter.
Display	Menu screen flip setting
Language	Set the system language
Ignore errors	Some error reports may not affect the final use effect, or for the general purpose of the product, you can choose to close some meaningless error reports
Factory setting	Set the logo on and off
Trim Recovery	After replacing the display board, use this menu to restore the trim data saved by the motor board to the display board.
information	
DMX value	Display the current received DMX signal value
Channel	Select the channel to be observed
Value	Displays the DMX value of the selected channel

Error	Display error message (if any item in this menu is wrong, an exclamation mark will be displayed in the upper right corner of the menu cover)
Storage	Indicates whether the storage is functioning normally. If the memory is abnormal, the menu information cannot be recorded or read, and the lamp time record and self-programming data may also be lost.
RAM Error	Chip memory allocation failed, if this error occurs, please contact the manufacturer.
Bus communication	If there is an error, the motors of various functions will not operate normally. If this error occurs, please check whether the communication cables between the boards are in poor contact.
X-axis reset	X-axis reset failed, check whether the optocoupler or motor is normal.
Y-axis reset	Y-axis reset fails, check whether the optocoupler or motor is normal.
Color reset	Color wheel reset failed
Gutu reset	Gutu disk reset failed
Focus error	focus positioning failed
Zoom in error	Zoom in positioning failed
Prism Error	Prism positioning failed
LED	Displays the usage time of the bulb
Usage time	Displays the total time the lamp has been on since the lamp time was reset to zero
Time Clear	The total time the bulb is on is cleared to 0.
Test mode	For product testing only, temporary use
Product Code	The internal code of the product is only for reference in product production and maintenance

4.DMX Channels

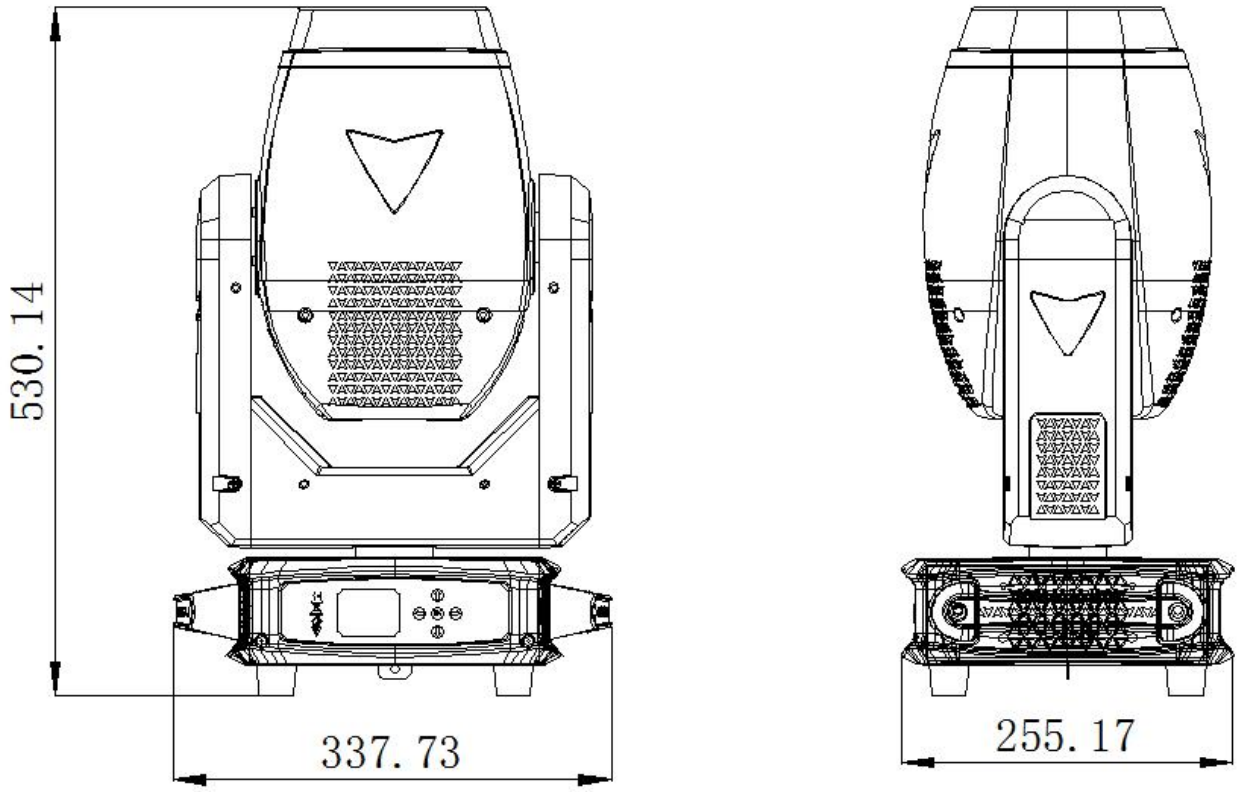
CH20

CH	DMX	describe
1	0-255	Pan
2	0-255	Pan fine
3	0-255	Tilt
4	0-255	Tilt fine
5		Pan/Tilt speed
	0	NO
	1-255	speed from fast to slow
6	0-255	Dimming
7	0-255	Dimming fine
8		Strobe
	0-3	closure
	4-103	Strobe from slow to fast
	104-107	Open
	108-207	Fast off and slow on, from fast to slow
	208-212	Open
	213-251	Random strobe, from slow to fast

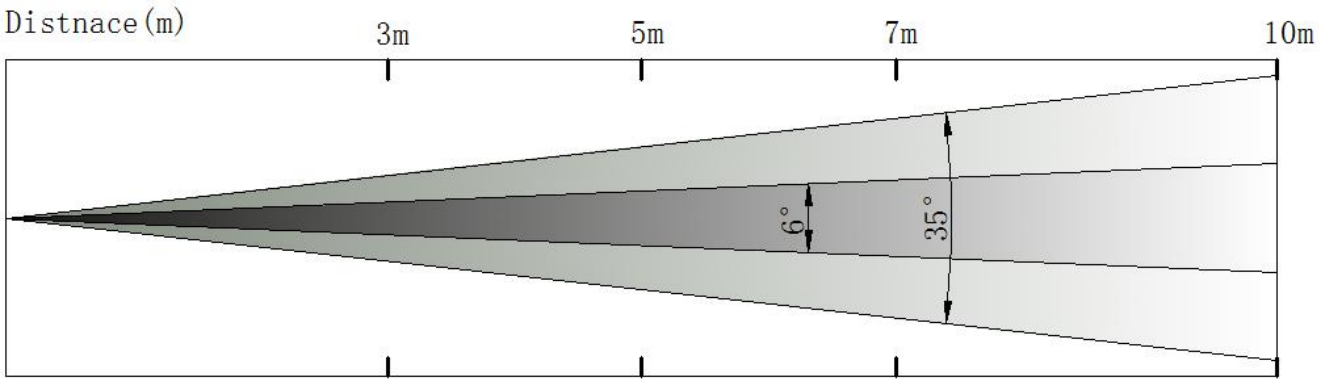
	252-255	Open
9		color wheel
	0-7	Color 1 (white light)
	8-15	color 1+color 2
	16-23	color 2
	24-31	color 2+color 3
	32-39	color 3
	40-47	color 3+color 4
	48-55	color 4
	56-63	color 4+color 5
	64-71	color 5
	72-79	color 5+color 6
	80-87	color 6
	88-95	color 6+color 7
	96-103	color 7
	104-111	color 7+color 8
	112-119	color 8
	120-127	color 8+color 1
	128-190	Rainbow effect from fast to slow
	191-192	rainbow effect stopped
	193-255	Rainbow effect from slow to fast
10		GOBO
	0-4	Open (white light hole)
	5-12	GOBO 1
	13-20	GOBO 2
	21-28	GOBO 3
	29-36	GOBO 4
	37-44	GOBO 5
	45-52	GOBO 6
	53-60	GOBO 7
	61-76	GOBO 8
	77-89	GOBO 1shaking from slow to fast
	90-102	GOBO 2 shaking from slow to fast
	103-115	GOBO 3 shaking from slow to fast
	116-128	GOBO 4 shaking from slow to fast
	129-141	GOBO 5shaking from slow to fast
	142-154	GOBO 6 shaking from slow to fast
	155-167	GOBO 7 shaking from slow to fast
	168-180	GOBO 8 shaking from slow to fast
	181-201	Open
	202-227	The shaking is scrolling forward, from fast to slow
	228-229	stop scrolling
	230-255	shaking scrolls in reverse, from slow to fast
11		Rotation GOBO
	0-5	Open (white light hole)
	6-15	GOBO1

	16-25	GOBO2
	26-35	GOBO3
	36-45	GOBO4
	46-55	GOBO5
	56-65	GOBO6
	66-75	GOBO7
	76-92	GOBO 1shaking from slow to fast
	93-109	GOBO 2 shaking from slow to fast
	110-126	GOBO 3 shaking from slow to fast
	127-143	GOBO 4 shaking from slow to fast
	144-160	GOBO 5shaking from slow to fast
	161-177	GOBO 6 shaking from slow to fast
	178-199	GOBO 7 shaking from slow to fast
	200-201	null
	202-190	Forward gobo flow effect: from fast to slow
	191-192	gobo stops spinning
	193-255	Reverse gobo Flow Effect: Slow to Fast
12		GOBO rotation
	0-127	Rotation gobo indexing
	128-190	Forward gobo Rotation: Fast to Slow
	191-192	stop
	193-255	Reverse gobo Rotation: Slow to Fast
13		Prism
	0-63	no prism
	64-255	Prism Insert
14		Prism Rotation
	0-127	Prism Positioning and Rotation
	128-190	The prism rotates in reverse, from fast to slow
	191-192	Prism stops spinning
	193-255	The prism rotates forward, from slow to fast
15		frost
	0-63	null
	64-255	frost
16	0-255	ZOOM
17	0-255	Zoom fine
18	0-255	Focus
19	0-255	Focus fine
20		reset
	0-199	null
	200-209	Pan/Tilt reset
	210-219	effect reset
	220-229	reset all

5.Dimension



6.LUX DATA



6° LUX	21600	12600	7200	4300
Diameter(m)	0.314	0.524	0.733	1.048
35° LUX	4620	2400	1860	1512
Diameter(m)	1.607	2.679	3.751	5.358

7.Trouble Shooting

Following are a few common problems that may occur during operation. Here are some suggestions for easy troubleshooting:

A. The unit does not work, no light and the fan does not work

1. Check the connection of power and main fuse.
2. Measure the mains voltage on the main connector.
3. Check the power on LED.

B. Not responding to DMX controller

1. DMX LED should be on. If not, check DMX connectors, cables to see if link properly.
2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
3. If you have intermittent DMX signal problems, check the pins on connectors or on

PCB of the unit or the previous one.

4. Try to use another DMX controller.
5. Check if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

C. One of the channels is not working well

1. The stepper motor might be damaged or the cable connected to the PCB is broken.
2. The motors drive IC on the PCB might be out of condition

8.Fixture Cleaning

The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics.

Clean with soft cloth using normal glass cleaning fluid.

Always dry the parts carefully.

Clean the external optics at least every 20 days. Clean the internal optics at least every 30/60 days.