



## **300W Moving Head Beam (Model: YR-300BF)**



### **User Manual**

*Please read these instructions carefully before use*

**Notes:** The ideal working environment of this equipment is between 0-35 degrees, and the surface temperature of the lamp body is 40-70 degrees. In order to protect safe operation, users must follow the safety instructions and warnings in this manual.

**Qualification :**

**Light source parameters:**

Light source: 300W

Average life: 1500 hours

Color temperature: 8000K

Lumen: 14,000 LM

**Controlling parameter:**

Optical path lens: composite lens, the whole lamp light output Angle is 1.3°, can achieve focusing, and the beam is sharp

Strobe: dual-piece strobe 1-30 times/second, support pulse strobe + effect strobe + random strobe

Dimming: Linear dimming

Control signal: DMX512 (Digital MultipleX 512) +RDM, in line with international standard lighting control transmission

Agreement, support console address code setting, support DMX interface upgrade software

Control channel: standard mode 16CH/ extended mode 20CH

Operation mode: console, manual, master and slave, optional DMX512 wireless signal control

Light source heat dissipation: one turbine fan blows air accurately to the bulb + two high-power fans for convection and exhaust, active heat dissipation, to ensure more stable products.

Over-temperature protection: high sensitivity ceramic temperature control whole process inspection, can automatically cut off the protective light source

Color: 1 color disk: 14 high gloss coated colors + white light, step conversion color, with bidirectional variable speed flow effect and rainbow effect

controlled within 20 meters of the same signal line. If the range exceeds this, additional signal amplification equipment is required to amplify the signal before use.

10. The display screen and lens shall be replaced if visible damage, such as cracks or deep marks, occurs to the extent of failure;

11. The bulb is damaged or thermally deformed and should be replaced.

**5. Installation requirements:**

1. When installing this equipment, please ensure that there are no extreme, inflammable and explosive items (decorations) within 3 meters.

2. The distance between the light hole of the lamp and the illuminated object should be at least 6 meters.

3. The light emission direction of the lamp is an optical lens. In the process of use, there should be no external force to hit the glass. If the lens is damaged, it needs to find relevant professionals to replace the same specification of lens before it can be used.

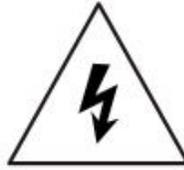
4. When the outer skin of the power cable is damaged, you must find a professional to replace the new power cable with the same specification before using it.

5. When the product is suspended and installed, the load of the hanging part shall be at least more than 3 times the weight of the product, and the safety rope shall be attached to the auxiliary hanging device of the lamp, and the load of the safety rope shall be more than 3 times the weight of the product.

6. The lens and bulb of this product must be used together in complete condition. When any accessory is damaged, it must be replaced by relevant professionals before it can be used again.

7. In the use environment of the product, it must be determined that the current and voltage provided are within the scope required by this specification. And it has good grounding.

#### 4. Instructions and remarks



### **Warning, danger of electric shock**

If the light source in this lamp needs to be replaced, it should be replaced by our company or our service agent or someone with similar qualifications.

The brightness of this lamp is relatively high, and the illumination temperature of the light source is relatively high. When using it, it must be kept more than 6 meters away from the object being irradiated, and it can not be directly irradiated to the face at any time or Angle.

1. Check whether the power supply and voltage are normal before use. If the voltage fluctuates greatly, it is recommended to use a voltage regulator or voltage regulator for power supply.
2. This equipment is IP20 grade, dry ice machine smoke screen covering lamps are strictly prohibited.
3. This equipment is a level 1 protected lamp, so the yellow and green double color lines must be grounded and cared for by professionals.
4. Do not touch the shell with your hands when this equipment is working.
5. Due to the use of gas discharge bulb in this equipment, when the use is interrupted, the bulb should be naturally cooled for 20 minutes After that, you can start the power again.
6. The internal components of this equipment must be purchased from the manufacturer.
7. The product power cord must be grounded and well grounded.
8. Use the console to control as far as possible without left and right neighbors and interference sources (e.g., wireless intercom, high frequency emission source, etc.).
9. When using this product, a maximum of 20 identical products can be

Gobo: 1 metal gobo disk: 13 gobos + white light, step conversion pattern, with variable speed jitter, two-way variable speed flow effect  
Prism: 1pcs 24 prism, 1pcs 8+8+8 three-layer honeycomb prism, 1pcs 8 prism, 1pcs six-row prism, can rotate bidirectionally with variable speed. It has angel adjustment function and can be equipped with other prisms.

Six-color disk: 6 high-gloss coated colors, combined with the prism can produce a six-color prism effect

Atomization: 1 independent atomization plate, which can convert the light beam into a dyeing effect

Scan: horizontal 540 degrees 1.9S/cycle, vertical 270 degrees 1.0S/cycle, three-phase motor, using photoelectric reset + Hall correction + zero point, end point detection of double precision reset, making the positioning more accurate, at the same time can automatically correct, with automatic return function, using smooth subdivision technology to run more stable

Display function: touch screen, the screen can be reversed, Chinese and English switching, automatic screen off/long lasting screen on, display the lighting time, fault detection and control, software version information, can restore factory Settings

Light bulb on mode: can set automatic light bulb on power on, manual light bulb on and console light bulb on

Safety protection: when the body is overheated or the system fails, the power supply is automatically cut off

#### **Working parameter:**

Working voltage: AC100V-240V (50/60HZ)

Rated total power: 450W

Power factor: 0.96

Rated current: 2.28A

Maximum ambient temperature: 40 degrees

**Lighting parameters:**

Wire: high temperature resistant silicone wire is used in the high voltage part, and 1332 Teflon high temperature wire is used in the low voltage part

Shell: high temperature resistant engineering plastic

Display: Touch LCD screen display +5 mechanical keys

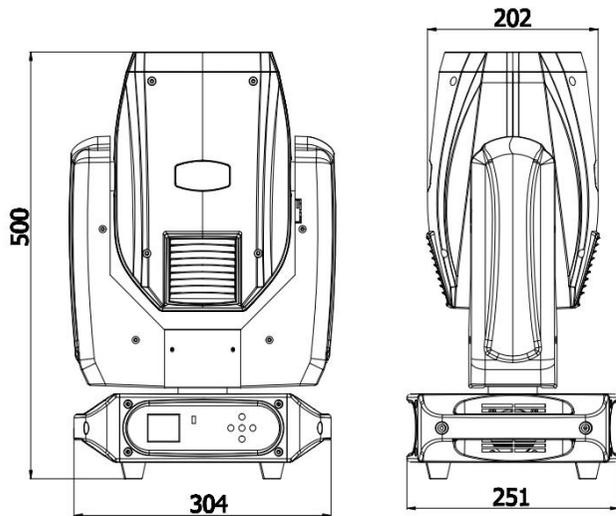
Power interface: twisted head, one blue (in) and one white (out), hand in hand connection for more convenient engineering projects

Signal interface: 3-pin signal socket, male and female, can be plugged into DMX512 wireless signal receiver

Waterproof grade: IP20

Net weight: 14KG, relatively light type of similar products

**1. Size:**



6	Prism 1 Rotation	000-127	Prism Angle adjustment	
		128-190	Rotate counterclockwise (from fast to slow)	
		191-192	Stop	
		193-255	Rotate clockwise (from slow to fast)	
7	Prism 2	000-127	Prism pops up	
		128-255	Prism 2 cuts in	
8	Prism 2 Rotation	000-127	Prism Angle adjustment	
		128-190	Rotate counterclockwise (from fast to slow)	
		191-192	Stop	
		193-255	Rotate clockwise (from slow to fast)	
9	Focus	000-255	Patter clarity from far to near	
10	Pan	000-255	Level 540 degree scan	
11	Pan Fine	000-255	Level 1.2 degree fine tuning	
12	Tilt	000-255	Vertical 270 degree scan	
13	Tilt Fine	000-255	Vertical 1.2 degree fine-tuning	
14	Frost	000-127	No use	
		128-191	Frost lens slide	
		192-255	Colorful lens slide	
15	Reset	000-209	No use	
		210-215	XY reset	
		220-225	All effect motors reset	
		250-255	All motors reset	
16	Lamp control	000-099	No use	
		100-105	Turn off the lamp	
		200-205	Turn on the lamp	
		250-255	All motor reset	
Expansion Channel	17	Pan-Tilt Time	000-255	Speed from fast to slow
	18	Colour Time		
	19	Beam Time		
	20	Gobo Time		

4	Gobo	020- 024	Fixed gobo 4
		025- 029	Fixed gobo 5
		030- 034	Fixed gobo 6
		035- 039	Fixed gobo 7
		040- 044	Fixed gobo 8
		045- 049	Fixed gobo 9
		050- 054	Fixed gobo 10
		055- 059	Fixed gobo 11
		060- 064	Fixed gobo 12
		065- 069	Fixed gobo 13
		070- 074	White aperture shake (from slow to fast)
		075- 079	Fixed gobo 1 shake (from slow to fast)
		080- 084	Fixed gobo 2 shake (from slow to fast)
		085- 089	Fixed gobo 3 shake (from slow to fast)
		090- 094	Fixed gobo 4 shake (from slow to fast)
		095- 099	Fixed gobo 5 shake (from slow to fast)
		100- 104	Fixed gobo 6 shake (from slow to fast)
		105- 109	Fixed gobo 7 shake (from slow to fast)
		110- 114	Fixed gobo 8 shake (from slow to fast)
		115- 119	Fixed gobo 9 shake (from slow to fast)
120- 124	Fixed gobo 10 shake (from slow to fast)		
125- 129	Fixed gobo 11 shake (from slow to fast)		
130- 134	Fixed gobo 12 shake (from slow to fast)		
135- 139	Fixed gobo 13 shake (from slow to fast)		
140- 199	Counter Clockwise flow (From fast to slow)		
200- 255	Clockwise flow (From slow to fast)		
5	Prism 1	000-063	Prism pops up
		064-127	Prism 1 cuts in
		128-191	Prism 2 cuts in
		192-255	Prism 3 cuts in

## 2.Menu :



### 2.1 Setting

Option	Description	
Run Mode	DMX	Slave state: receive DMX signal
	AUTO1	Master status: auto runs and send DMX signal to slave
	AUTO 2	
	Random	
	Sound	
DMX Address	001~512	press the "up" and "down" keys to change the address code
Channel Mode	16CH	Standard 16 CH mode,Channels 17 to 20 are invalid
	20CH	Expanded to 20 CH mode,Channel 17 to 20 controls the speed
Invert Pan	OFF/ON	
Invert Tilt	OFF/ON	

Pan-Tlit Swap	OFF/ON exchange the XY axis channels (including fine tuning)	
Pan-Tlit Encoder	ON	Use an encoder (optocoupler) to determine the out-of-step and automatically correct the position
	OFF	Correct the position without using encoder (optocoupler)
No DMX signal	keep	Continue to run in its original state
	CLEAR	Motor reset, stop operation
Lamp On@Startup	ON/OFF	-----
Linear Color	OFF/ON	-----
Load Default	OK/CANC FL	-----

## 2.2、 Manual control

This interface is used to control the current fixture and automatically enter the master state (not receiving DMX signal, sending DMX signal to the slave).

The manual menu will display 16 channels or 20 channels according to the standard 16-channel or extended 20-channel mode set in the Settings menu.

Options	Description	
1 Ch. Color color	0~255	Press ok to enter the edit state. At this point, press "up" and "down" to change the channel value from 001. Press ok again to change values in the ten edits (01). Press ok again to change values in the ones bit (1). Press again to exit the edit state
...	0~255	
14 Ch. Atomization	0~255	
15 CH. Reset		Press "ok" to see the confirmation dialog box. Press "ok" again to enter the reset interface and reset all motors

1	Color	075- 079	Color 7+color 8
		080- 084	Color 8
		085- 089	Color 8+color 9
		090- 094	Color 9
		095- 099	Color 9+color 10
		100 -104	Color 10
		105 -109	Color 10+color 11
		110 -114	Color 11
		115 -119	Color 11+color 12
		120 -124	Color 12
		125 -129	Color 12+color 13
		130 -134	Color 13
		135 -139	Color 13+color 14
		140 -144	Color 14
		145 -149	Color 14+white
		150-200	Counter Clockwise flow (from fast to slow)
201- 255	Clockwise flow (from slow to fast)		
2	Strobe	000-003	Shutter closed
		004-103	Strobe from slow to fast
		104-107	Shutter opened (controlled by the dimming channel)
		108-207	Pulse strobe from slow to fast
		208-212	Shutter opened (controlled by the dimming channel)
		213-251	Random strobe from slow to fast
		252-255	Shutter opened (controlled by the dimming channel)
		3	Dimmer
4	Gobo	000- 004	White
		005- 009	Fixed gobo 1
		010- 014	Fixed gobo 2
		015- 019	Fixed gobo 3

	X Encoder Value	The value increases when following original setting and decreases when moving from another direction. It is normal for the value to be the same every time it is transferred to the same point
	Y Encoder Value	The value increases when following original setting and decreases when moving from another direction. It is normal for the value to be the same every time it is transferred to the same point

16 CH. Bulb control	Open	
	Close	
17 CH. Keep	0~255	Display when channel mode is "expand CH20"
18CH. Color wheel speed	0~255	Display when channel mode is "expand CH20"
19 CH. Dimming - prism - atomization speed	0~255	Display when channel mode is "expand CH20"
20CH. Gobo wheel speed	0~255	Display when channel mode is "expand CH20"

**3、Channel table (1-16 channels for 16CH mode, 1-20 channels for 20CH mode):**

CH	Function	Channel values	Effect
1	Color	000-004	White
		005 -009	White+color 1
		010- 014	Color 1
		015- 019	Color 1+color 2
		020- 024	Color 2
		025- 029	Color 2+color 3
		030- 034	Color 3
		035- 039	Color 3+color 4
		040- 044	Color 4
		045- 049	Color 4+color 5
		050- 054	Color 5
		055- 059	Color 5+color 6
		060- 064	Color 6
		065- 069	Color 6+color 7
070- 074	Color 7		

**2.3、System**

Options	Description
DIS	Present software version
MT	Motor software version
DMX Monitor	Enter the sub-interface from here, and display the channel value in number and percentage for viewing
System Errors	If the red ERR indicator is on, it means that the operation of the luminaire went wrong, and you can enter the sub-interface for details. After checking, you can press "Clear" to clear the error record.
Authority Hours	9999
Total Fixture Hours	Cumulative operation time (accurate to minutes)
Partial Fixture Hours	Present operation time (accurate to minutes)

Error information	Description
MT board connection failed	The motor board does not respond. There is a problem with the serial communication line connecting the display board and the motor board, or there is a problem with the motor board.
X reset failed	Problem may occur on X photoelectric switch, or X motor or motor board
Y reset failed	Problem may occur on Y photoelectric switch, or Y motor or motor board
X Hall error	The X hall, or X motor board has error
Y Hall error	The Y hall, or Y motor board has error
Color wheel reset failed	The Color wheel hall, or Color wheel motor has error
Gobo wheel reset failed	The Gobo wheel hall, or Gobo wheel motor has error
Focus reset failed	The focus hall, or focus motor has error
Lamp control failed	Failed to light up or turn off the bulb, there is a problem with the ignitor or bulb

## 2.4、Advance

A password is set here to prevent non-professionals from operating by mistake. The default password is "up, down,up,down." Press "OK" for password verification.

Option		Description
Reset calibration	X calibration	Enter sub-menu,reset for Pan/tilt motor can be adjusted to compensate the errors caused by hardware installation. Adjustment range: -128~+127,+0
	Y calibration	
	Color calibration	
	Gobo calibration	

	Focus calibration	means no adjustment
	Dimmer calibration	
	Prism 1 calibration	
	Prism 2 calibration	
	Frost calibration	
Sensor monitoring	X Hall	When detected the value is 0; otherwise, it's 1
	Y Hall	When magnet is detected, 0; otherwise 1.
	Color wheel hall	When magnet is detected, 0; otherwise 1.
	Gobo wheel hall	When magnet is detected, 0; otherwise 1.
	Tune in the Hall	When magnet is detected, 0; otherwise 1.
	Prism 1 Hall	When magnet is detected, 0; otherwise 1.
	Prism 2 Hall	When magnet is detected, 0; otherwise 1.
	Atomization Hall	When magnet is detected, 0; otherwise 1.
	X Encoder State	2 figures, each one is corresponding to Photoelectric switch for the encoder involved
	Y Encoder State	2 figures, each one is corresponding to Photoelectric switch for the encoder involved