



# FOS Hydor BSW PRO

## User Manual



This manual contains important information.  
Please read before operating the fixture.

# 1 SECURITY TIPS

**WARNING!!! To reduce the risk of fire, electric shock, or injury to people, follow these important safety instructions:**

- Non-professionals, please do not disassemble the light or its lighting accessories arbitrarily.
- Rated voltage range: AC110V-120V/60Hz or AC200V-240V / 50Hz (to be selected).
- Do not beam irradiate flammable materials; maintain a distance of at least 1 meter between the flammable materials and the lamp.
- Lamps used in ambient temperature: -15 °C -40 °C, the highest temperature of the surface of the lamp: 60 °C.
- To keep away from the liquid substance and humid environment.
- Before using the lights, ensure good grounding, do not install charging and remove any parts.
- The installation of lights must be fixed with screw fasteners with an additional security cable and regular inspection.
- Lamps' consecutive working hours are not recommended for more than 10 hours.
- You should stop using the lights in time when unusual conditions occur during the process.
- Lamp parts of the rotation, external accessories and paste parts should be regularly inspected, such as the signs of looseness and moving should be reinforced promptly to prevent accidents.
- Lamps adopt strong winds to refrigerate, it easy to accumulate dust, so you have to clean it weekly, especially the cooling air opening, otherwise the dust will plug, leading to poor light output.

## 2 TECHNOLOGY DETAILS

Input: AC100v-240V 50/60HZ

Power Consumption:650w

Light source: 500W LED module

Led life:20000Hrs

Zoom angle:3°-45°

CTC:7000K, CRI: 69.5

Illuminance: 6013 lx @20m(beam);161 lx @20m(wash)

Working temperature: -10-40°C

Control mode: DMX512, Master-slave, Auto, RDM, Wireless

Channel: 29ch

Colour wheel: 12 fixed colours + blank, with half colour and linear adjustment.

CMY: Independent CMY wheel

CTO: Independent CTO wheel

Static gobos wheel :12 gobos+blank, with shake and bilateral rotation

Rotating gobos wheel : 7 gobos+blank, with shake and bilateral rotation

Dynamic wheel: One dynamic effect wheel.

4facet linear and circular combinable rotating prisms.

Frost filter

Dimmer:0-100% linear dimmer, 16bit

Strobe:1-20 flashes per second, variable speed.

IP rate: IP65 suitable for temporary outdoor events.

Movement: Pan: 540degree 16bit; Tilt 270 degree 16bit

Display: LCD display with 4touch buttons

Cooling fan: Silent fan, speed changeable

Body: Magnesium alloy, Plastic

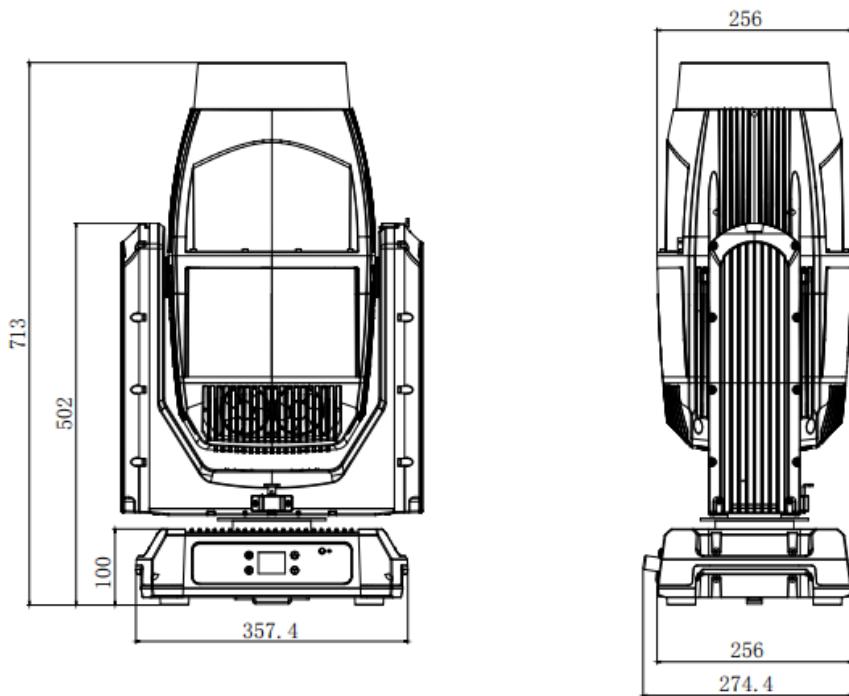
Signal data: XLR 3pin in/out

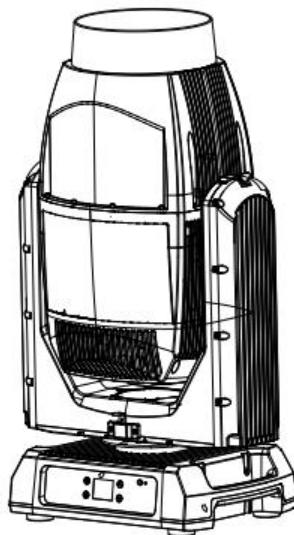
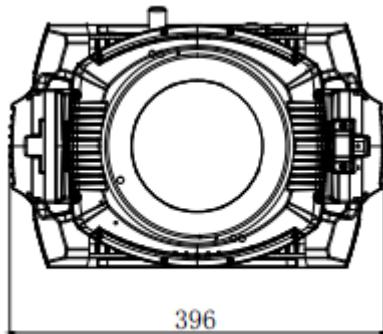
Power connector: TRUE1 Powercon in/out

Product size: 357.4 x 274.4 x 713mm

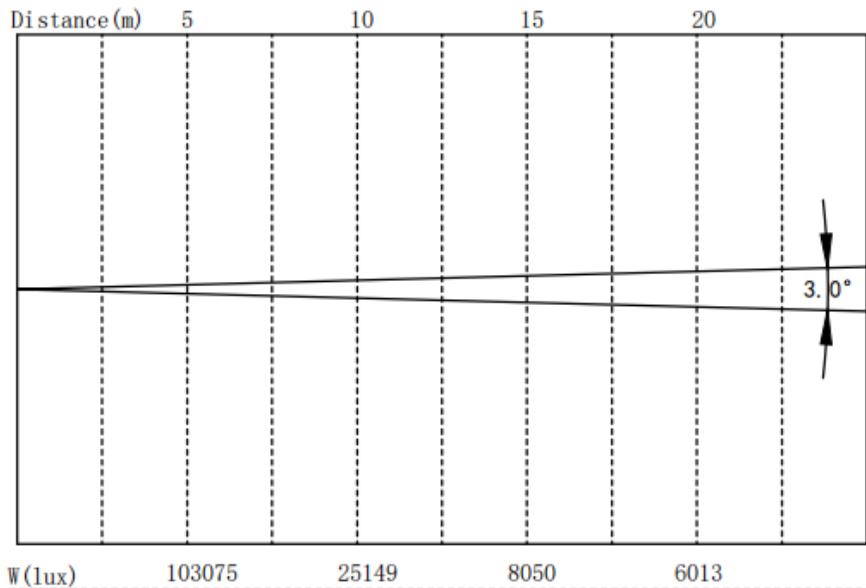
Net weight: 28.7kg

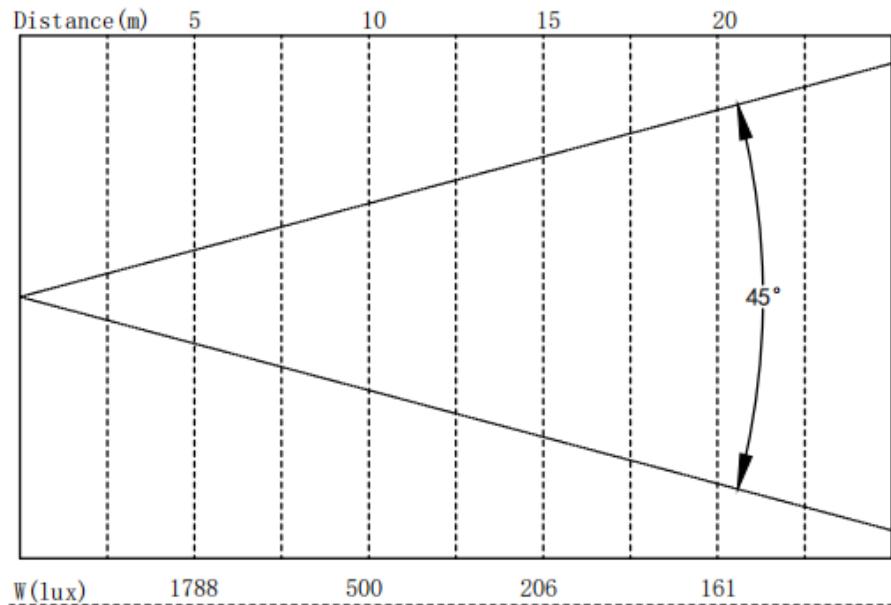
## Product dimension:





### Illuminance:





### 3 Board Instruction

DMX Settings	DMX Address	001-512
Channel mode	CH	29
Reset	Reset All	
	XY Reset	
	Effect Reset	
Manual	Manual Lock	Yes/No
	Pan	000-255
	Tilt	000-255
	P/T Speed	000-255
	Dim	000-255
	Strobe	000-255
	Color	000-255

	C	000-255			
	M	000-255			
	Y	000-255			
	CTO	000-255			
	CMY Macro	000-255			
	Gobo	000-255			
	Effect	000-255			
	Gobo wheel	000-255			
	Rot Gobo	000-255			
	Prism1	000-255			
	Prism1 Rot	000-255			
	Prism2	000-255			
	Prism2 Rot	000-255			
	Frost	000-255			
	Zoom	000-255			
	Focus	000-255			
Option	Run	DMX			
		Auto			
		User			
	M/S mode	Master/Slave			
	Pan/Tilt	XY correction	On/Off		
		Invert Pan	On/Off		
		Invert Tilt	On/Off		
		XY Speed RT	Yes/No		
	Dim Curve	S-Curve			
		Square Root			
		Square			
		Linear			
		Log			
	Fan Mode	Normal/Silent			
	User Program	Manual	Step01	Time	000-255
				Chn01	000-255

			.....	
			Chn29	000-255
			.....	.....
			Step12	Time 000-255 Chn01 000-255 ..... Chn29 000-255
		Record	Select step	01-12
			Time	000-255
			Record	
		Clear All	Input PSW:11-Enter	
	Auto Master	Yes/No		
	DMX Error	Hold		
		Black out		
	Boot No DMX	Middle		
		No Effect		
		User		
		Auto		
Advanced	Calibrate	Input PSW:260-Enter		
	Display	Auto Lock	On/Off(Password:Up-Down- Up-Down-Enter)	
		Sleep	30sec/60sec/180sec/No	
		Invert	On/Off	
	Language	English/中文		
	Factory Setting	Input PSW: 2600-Enter		
	Calibrate Recover	Input PSW: 260-Enter		
Information	DMX data	Chn01-Chn29: 000-255		
	System Errors			
	LED	Usage Times		
		Clear Times		

	Factory Test	Input PSW:2320
	Product Code	

## 4 DMX CHANNEL SHEET

29CH	Function	DMX value	Description
1	Pan	0-255	Pan movement range 540°
2	Pan fine	0-255	Pan fine 16bit
3	Tilt	0-255	Tilt movement range 270°
4	Tilt fine	0-255	Tilt fine 16bit
5	Pan/Tilt speed	0-255	Pan/Tilt speed from fast to slow
6	Dimmer	0-255	0-100% linear dimmer
7	Dimmer fine	0-255	Dimmer fine 16bit
8	Strobe	0-3	Close
		4-103	Strobe from slow to fast
		104-107	Open
		108-157	Strobe slow close fast open, from fast to slow
		158-207	Strobe fast close slow open, from fast to slow
		208-212	Open
		213-251	Random strobe, from slow to fast
		252-255	Open
9	Color wheel	0-2	Open
		3-7	Open+Color1
		8-12	Color1
		13-17	Color1+Color2
		18-22	Color2
		23-27	Color2+Color3
		28-32	Color3

		33-37	Color3+Color4
		38-42	Color4
		43-47	Color4+Color5
		48-52	Color5
		53-57	Color5+Color6
		58-62	Color6
		63-67	Color6+Color7
		68-72	Color7
		73-77	Color7+Color8
		78-82	Color8
		83-87	Color8+Color9
		88-92	Color9
		93-97	Color9+Color10
		98-102	Color10
		103-107	Color10+Color11
		108-112	Color11
		113-117	Color11+Color12
		118-122	Color12
		123-127	Color12+Blank
		128-190	Rainbow effects forward from fast to slow
		191-192	Rainbow effects stop
		193-255	Rainbow effects backward from slow to fast
10	CMY-C	0-255	Cyan Linear dimmer 0-100%
11	CMY-M	0-255	Magenta Linear dimmer 0-100%
12	CMY-Y	0-255	Yellow Linear dimmer 0-100%
13	CTO	0-255	Cold white to Warm white
14	CMY Macro	0-9	No function
		10-19	Color1
		20-29	Color2
		30-39	Color3

		.....	.....
		240-249	Color24
		250-255	Color25
15	Static Gobo wheel	0-4	Open
		5-12	Gobo1
		13-20	Gobo2
		21-28	Gobo3
		29-36	Gobo4
		37-44	Gobo5
		45-52	Gobo6
		53-60	Gobo7
		61-68	Gobo8
		69-76	Gobo9
		77-84	Gobo10
		85-92	Gobo11
		93-102	Gobo12
		103-110	Gobo1 shake from slow to fast
		111-118	Gobo2 shake from slow to fast
		119-126	Gobo3 shake from slow to fast
		127-134	Gobo4 shake from slow to fast
		135-142	Gobo5 shake from slow to fast
		143-150	Gobo6 shake from slow to fast
		151-158	Gobo7 shake from slow to fast
		159-166	Gobo8 shake from slow to fast
		167-174	Gobo9 shake from slow to fast
		175-182	Gobo10 shake from slow to fast
		183-190	Gobo11 shake from slow to fast
		191-199	Gobo12 shake from slow to fast
		200-201	Open
		202-227	Gobo backward change from fast to slow
		228-229	Stop
		230-255	Gobo forward change from slow to fast

16	Dynamic effect Wheel	0-4	No function
		5-127	Dynamic effect Step movement
		128-255	Dynamic effect movement from slow to fast
17	Rotate gobo	0-5	Open
		6-15	Gobo1
		16-25	Gobo2
		26-35	Gobo3
		36-45	Gobo4
		46-55	Gobo5
		56-65	Gobo6
		66-75	Gobo7
		76-92	Gobo1 shake from slow to fast
		93-109	Gobo2 shake from slow to fast
		110-126	Gobo3 shake from slow to fast
		127-143	Gobo4 shake from slow to fast
		144-160	Gobo5 shake from slow to fast
		161-177	Gobo6 shake from slow to fast
		178-199	Gobo7 shake from slow to fast
18	Rotate gobo rotation	200-201	Open
		202-227	Gobo forward change from fast to slow
		228-229	Stop
		230-255	Gobo backward change from slow to fast
		0	No function
19	Rotate gobo rotation fine	1-127	Rotate gobo Step rotation
		128-190	Gobo Clockwise rotate from fast to slow
		191-192	Stop
		193-255	Gobo Anticlockwise rotate from slow to fast
		0-255	Rotate gobo rotation 16bit

20	Prism1	0-63	No prism
		64-255	Prism 1 Open
21	Prism1 rotation	0	No function
		1-127	Prism 1 Step rotation
		128-190	Prism 1 anticlockwise rotate from fast to slow
		191-192	Prism 1 stop rotation
		193-255	Prism 1 clockwise rotate from slow to fast
22	Prism2	0-63	No prism
		64-255	Prism2 Open
23	Prism2 rotation	0	No function
		1-127	Prism 2 Step rotation
		128-190	Prism 2 anticlockwise rotate from fast to slow
		191-192	Prism 2 stop rotation
		193-255	Prism 2 clockwise rotate from slow to fast
24	Frost	0-63	No function
		64-255	Frost effect
25	Zoom	0-255	Zoom range from small to large
26	Zoom Fine	0-255	Zoom fine
27	Focus	0-255	Focus
28	Focus fine	0-255	Focus fine
29	Reset	0-199	No function
		200-209	Effect reset
		210-219	Pan/Tilt reset
		220-229	All motor reset
		230-255	No function

## 5 FIXED EQUIPMENT

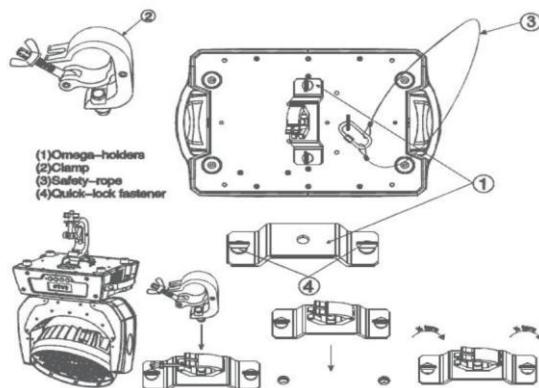
Please keep the equipment far away from flammable objects like finishing material, etc. Keep at least 0.5m distance from the flammable objects.

Warning: using two lamp clamps to fix the equipment on the bottom of the lamp holder according to the instructions. to make sure the place of installing the lamp is safe and suitable, and the installation point that has been chosen is safe and reliable.

The place of installing the lamp must support 10 times the weight of the lamp itself.

Must install the second protection when fixing the equipment, like proper protective screening. Wire protection is used to prevent the drop off and loss of the lamp and components.

The fixture can be installed with clamps, as shown in the figure:



## 6 MAIN MACHINE CONNECTION

Please check the power equipment supported.

Please plug the power source wire into the main power source.

( EU )Wire	Wire(America)	Direction of wire	General marks
Brown	Black	Live	L
Light blue	White	Neutral	N
Yellow/Green	Green	Earth	



### Warranty Card

Name	Model
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Production	Purchase
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End User
Company Name:
Add:

Sale Store	
Link man:	
Tel:	Stamp

Description: These must be truthfully fill, seal by the end-user and point-of-sale, or else the warranty will not work (warranty period and terms, see the following)

warranty period: one year since purchase warranty terms: 1、If fail when using the product in normal state, you can made under the provisions of the warranty, show the warranty card and purchase bills(copy), and enjoy free maintenance service in a specific service center or the manufacturer.

2. The following will be the implementation of paid service:

- (1)Without the effective warranty card
- (2)There's blank, alter and no point-of-sale name
- (3)Fail caused by short circuit
- (4)Fail caused by transportation or unloading
- (5)Fail caused by not operate by manual
- (6)Fail caused by disassemble without unauthorized
- (7)Fail caused by using the unauthorized control system

**Note:**

Based on our company continuing to improve the product, we hold the right to change the functionality/data, without any prior notice. The manufacturer retains its right to change specifications when the product is improved.

Thank you for your understanding.