18R 380W Moving Head

BEAM+SPOT+WASH 3 IN 1

USER MANUAL

1. Maintenance

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

Intermittently using will extend this item's service life.

Please clear the fan ,fan net , and optical lens in order to keep good work state.

Do not use the alcohol or any other organic solvent to wipe the shell.

2. Statement

The product has perfect performance and integrity packing. All users should be strictly complying 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.

Note: All information is subject to change without prior notice.

3. Safety Precaution

In order to guarantee the product's life, please don't put it in the damp places or even the environment over 60degress.

Always mount this unit in safe and stable matter.

Install or dismantle should operate by professional engineer.

Using lamp，the change rate of power voltage should be within±10%，If the voltage is too high，it will shorten the light's life; If it's not enough, will influence the effect.

Please restart it 20 minutes later after turning off light , until full-cooling. Frequent switching will reduce the life span of lamps and bulbs; intermittent using will improve the life of bulbs and lamps.

In order to make sure the product is used well, please read the Manual carefully.

4. Product Specification

Lamp: 371W OSRAM SIRIUS HRI Lamp, 7650K, 1500 hours

Channel mode: 16 / 18 DMX512 Channel

Pan scan：540°(16bit) Electric correction

Tilt scan：270° (16bit) Electric correction

Amazing dot matix, four tact switch, 180° turning show

Color wheel: 14 colors + white

Metal Gobos: 14 gobos + white

Glass Rotation Gobos: 9 gobos + white

Effect Wheel: 8-facet Prism+ 7 Linear Prism effect move , frost

0-100% linear dimming, mechanical dimming and free dimming available.

strobe macro control available.

Lens optical system achanical focus, zoom range:5°-40°
Over heat protection
Voltage Input: 100-240V, 50/60Hz
Power：500W
IP level: IP20
Magnetic ballast and AC/Dc power supply
Packing Size: 460x460x580mm
Gross weight:21kg

5. Cable Connection（DMX）

Use a cable conforming to specifications EIA RS-485: 2-pole twisted, shielded, 120Ohm characteristic impedance, 22-24 AWG, low capacity. Do not use microphone cable or other cable with characteristics differing from those specified. The end connections must be made using XLR type 3 or 5-pin male/female connectors. A terminating plug must be inserted into the last projector with a resistance of 120Ohm (minimum 1/4 W) between terminals 2 and 3.
IMPORTANT: The wires must not make contact with each other or with the metal casing of the connectors. The casing itself must be connected to the shield braid and to pin 1 of the connectors.

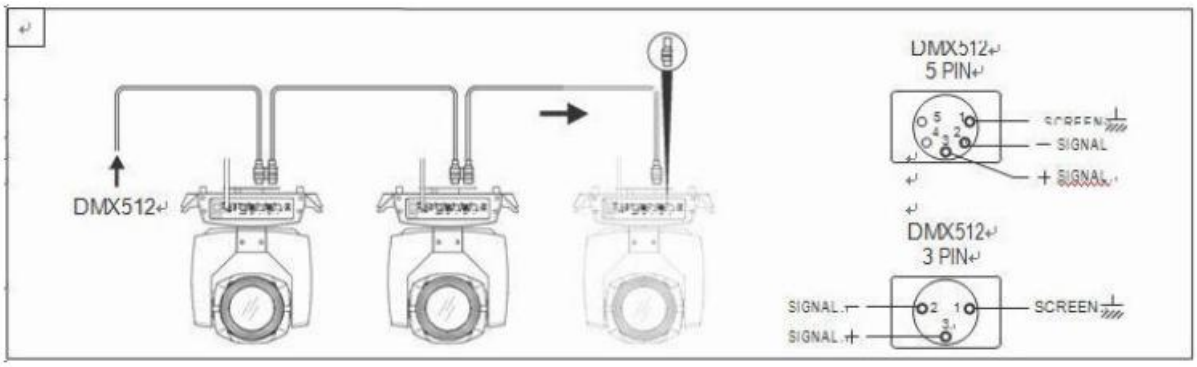


Figure 1 DMX Cable connection

6. Rigging (Optional)

This equipment can be positioned and fixed by clamp in every direction of the stage. Locking system makes it easy to fasten to the bracket.
Attention! Two clamps is needed to fix the equipment. Every clamp is locked by fastener of 1/4 kind. Fastener can only be locked clockwise.
Attention! Fasten a safety string to the additional hole of side aluminum piece. The secondary accessory can not hang on the delivery handle. Nip the equipment on bracket.

Check if rigging clamp (not including the one inside) damaged or not? If stand ten times weight as the equipment. Make sure the architecture can stand ten times weight as all the equipment, clamps, wiring and other additional fixtures.

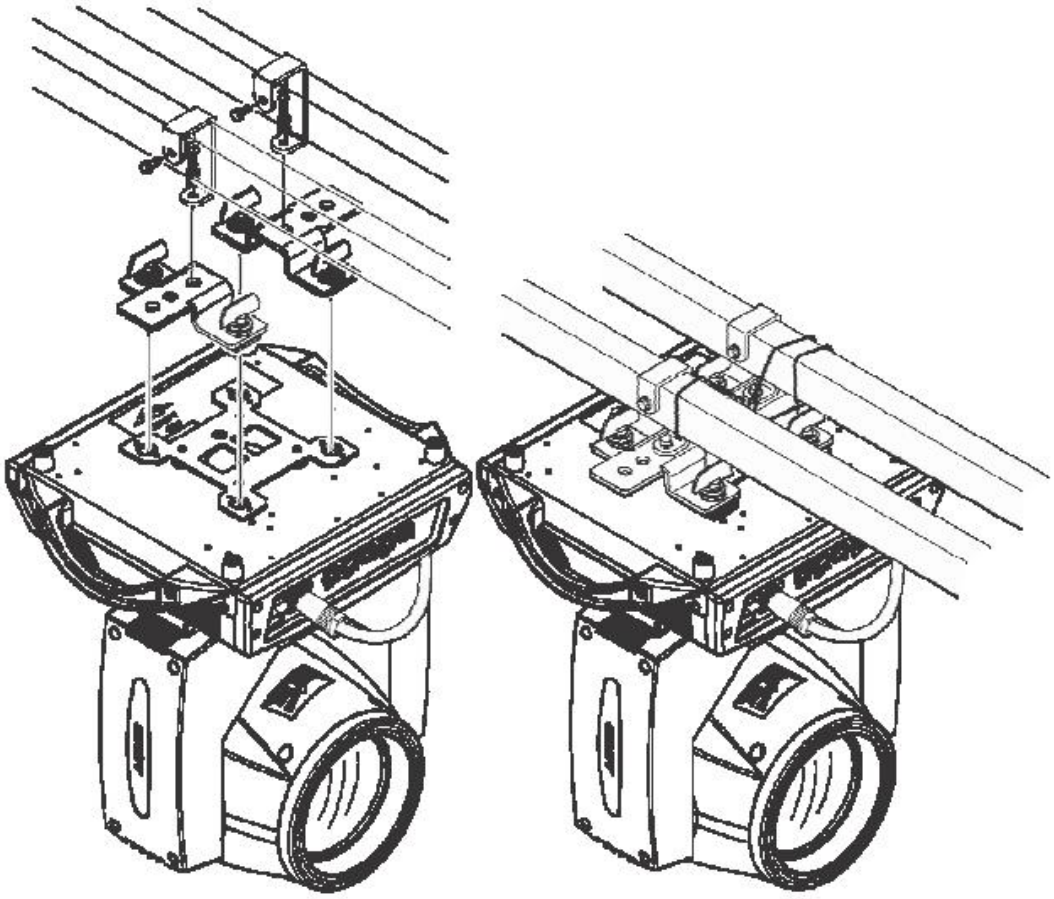
Screws for clamping must be fixed firmly. Take one M12 screw (Grade 8.8

or higher) to clamp bracket, and then screw the nuts.

Level the two hanging points at the bottom of clamp. Insert fastener to the bottom, lock the two levers by 1/4 rotating clockwise; then install another clamp.

Install on safety string which stands at least ten times weight as equipment. Terminal of the accessory is designed for clamps.

Make sure pan/tilt lock unlocked or not. Keep the distance more than 1M from equipment to flammable material or lighting source.



7. Menu Description

➢ Menu structure

- Main interface
  - ----Settings
    - ----Operating mode
    - -----DMX address
    - ----Channel model
    - ----X reverse direction rotation
    - ----Y reverse direction rotation
    - ----XY reverse direction rotation
    - ---- XY Encoder
    - ---- No DMX signal
    - ---- Screen protection
    - ----Power is on , lamp is start up
    - ----Color wheel linear change
    - ----Restore default settings
  - ------ Manual
  - ------ System
    - -----Software version
    - -----DMX Channel value monitoring
    - -----System error record
    - ------Total usage time
    - ----Current usage time
    - ----Total light up time
    - ----Current light up time
  - -----Advanced
    - -----Sensor monitoring
    - -----Gobos color zero correction
    - -----Reset calibration
    - -----Light up time clear to be zero
    - -----Maximum light up time
    - ----Sensor monitoring
  - ---Chinese and English switching
  - ---Screen rotation

➢ LED Display Auto Rotation Function

Machine system will make display auto rotation according to gravity direction. User has no need to do manual rotation. User also can close this function

➢ **RDM Function**

Machine is with RMD function for DMX control

Settings

Options	Instructions	
Operating mode	DMX	Slave status: Receive DMX signal from console or host
	Random Self-running	
	Sound control	
DMX address	1~512	Press "ENTER" to enter editing mode. At this time, select one hundred places, press the "up" and "down" keys to change the address code. Press the “ENTER” button again to select the ten-digit editing. Press the "ENTER" button again to select the unit edit. Press again to exit editing
Channel mode	Standard 18CH	
	Simple 16CH	
Pan anticlockwise rotation	OFF	
	ON	
Tilt anticlockwise rotation	OFF	
	ON	
Pan/Tilt exchange	OFF	
	ON	Exchange channels for Pan/Tilt axes (including fine-tuning)
XY Encoder	ON	Using an encoder (optocoupler) to determine out-of-step and automatically correct position
	OFF	Do not use encoder (optocoupler) to correct position
No DMX signal	Keep	Continue to run as it was
	Clear	Motor return, stop running
Screen protection	ON	Turn off the backlight after 30 seconds idle
	OFF	Bright backlight
Power is on Lamp is start up	OFF	Direct reset after power on, no light the lamp （Need to use menu or console to manually bright the lamp）
	ON	Start up the lamp automatically after power on, And wait for the lamp to light up before resetting
Color wheel linear change	ON	Color wheel linear change
	OFF	Color wheel non-linear change, half color change
Restore default settings		Press "ENTER" button to see the confirmation dialog box, press "ENTER" again to restore the default settings

➢ Manual control

This interface is used to control this devices

Press "ENTER" to enter editing mode. At this time, select one hundred places, press the "up" and "down" keys to change the address code. Press the “ENTER” button again to select the ten-digit editing. Press the "ENTER" button again to select the unit edit. Press again to exit editing

➢ System message

Options	Instructions
Software version	current software version
DMX Channel value	This enters the sub-interface and displays the channel value as a value and percentage for viewing
System error record	If the red ERR LED is lit, it indicates that the lamp has run in error. Details can be viewed on the sub-interface. After you finish viewing, press "Clear" to clear the error log Note: Sometimes it is not really a Hall or optocoupler installation problem. But the motor cable is reversed
Total usage time	Cumulative use time (accurate to minutes)
Current usage time	The usage time from current power is on (accurate to minutes)
Total light up time	Total light up time (accurate to minutes)
Current light up time	Current light up time(accurate to minutes)

Error message	Instructions
Motor reset failed, Serial port error	The driver board did not respond. There is a problem with the serial communication line connecting the display board and the driver board, or there is a problem with the driver board.
X-axis reset failed	X axis photoelectric switch, or X axis motor problem
Y axis failed to reset	Y axis photoelectric switch, or Y axis motor problem
X axis Hall error"	X-axis Hall has problems
Y axis Hall error"	Y-axis Hall has problems
Color wheel reset failed	Color wheel Hall, or color wheel motor problem
Gobo wheel reset failed	Gobo wheel Hall, or gobo wheel motor problem
Focus reset failed	Focus Hall, or focusing motor problems
Prism focus reset failed	Prism focusing Hall, or Prism focusing motor problem
Lamp control failed	Lamp start up or no start up failed, there is a problem with the lamp ballast or the lamp.
Light up time is too long, please change lamp	Total light up time exceeds maximum light up time set in the “Advanced” menu, prompting the user to change the lamp promptly. After the lamp is replaced, the light up time is cleared in the "Advanced" menu, and the light up time is re-timed.

➢ Advanced

A password is set here to prevent misoperation by non-professionals. The default password is "up and

down." Press "ENTER" to verify the password.

Options	Instructions
Reset calibration	After entering the sub-interface, you can adjust the reset position of the X-axis, Y-axis, etc. motor to make up for the error in the hardware installation, the adjustment range -128 ~ +127, +0 means no adjustment.
maximum light up time	0-9999 hours, operation maximum light up time system alarm alert
light up time clear	After clearing,light up time is re-timed
Sensor monitoring	Real-time monitoring of various photoelectric switches, Halls and other sensor status on the lamp

8. Channel List

Channel	Channel Mode	
	18CH	16CH
1	Pan	Pan
2	Pan Fine	Tilt
3	Tilt	Pan/Tilt Speed
4	Tilt Fine	Lamp Control/Reset
5	Pan/Tilt Speed	Color
6	Lamp Control/Reset	Metal Gobos
7	Color	Glass Gobos
8	Metal Gobos	Glass Gobos Rotation
9	Glass Gobos	Prism
10	Glass Gobos Rotation	Prism1 Rotation
11	Prism	Prism2 Rotation
12	Prism1 Rotation	Frost
13	Prism2 Rotation	Zoom
14	Frost	Focus
15	Zoom	Shutter/Strobe
16	Focus	Dimmer
17	Shutter/Strobe	
18	Dimmer	

➢ **Lamp Control/Reset**

BIT	EFFECT	Remark
240-255	UNUSED RANGE	Lamp switch passing through the unused range and staying 5 seconds.
230-239	LAMP OFF	
210-229	UNUSED RANGE	
200-209	COMPLETE RESET	
140-199	UNUSED	

	RANGE	
150-189	EFFECT RESET	
140-149	PAN-TILT RESET	
130-139	LAMP ON	
0-129	UNUSED RANGE	

➢ **Color**

BIT	EFFECT	Remark
255	FAST ROTATION	
……	……	
225	SLOW ROTATION	
221-224	STOP	
220	FAST ROTATION	
……	……	
190	SLOW ROTATION	
188-189	COLOUR 13+ WHITE	Each 5 value is one half color
186-187	COLOUR 13	
184-185	COLOUR 12+ COLOUR 13	
182-183	COLOUR 12	
180-181	COLOUR 11+ COLOUR 12	
178-179	COLOUR 11	
176-177	COLOUR 10+ COLOUR 11	
174-175	COLOUR 10	
172-173	COLOUR 9+ COLOUR 10	
170-171	COLOUR 9	
168-169	COLOUR 8+ COLOUR 9	
166-167	COLOUR 8	
164-165	COLOUR 7+ COLOUR 8	
162-163	COLOUR 7	
160-161	COLOUR 6+ COLOUR 7	
158-159	COLOUR 6	
156-157	COLOUR 5+ COLOUR 6	
154-155	COLOUR 5	
152-153	COLOUR 4+ COLOUR	

	5	
150-151	COLOUR 4	
148-149	COLOUR 3+ COLOUR 4	
146-147	COLOUR 3	
144-145	COLOUR 2+ COLOUR 3	
142-143	COLOUR 2	
140-141	COLOUR 1+ COLOUR 2	
138-139	COLOUR 1	
136-137	WHITE +COLOUR 1	
134-135-	WHITE	
0-133	Linear COLOUR	

➢ **Dimmer**

BIT	EFFECT	Remark
255	100%	BEAM DIMMER and CONTROL
……	……	
0	0%	

➢ **Shutter/Strobe**

BIT	EFFECT	Remark
224-255	SHUTTER OPEN	Control via Dimmer Channel
192-223	RANDOM STROBE SLOW - FAST	
160-191	SHUTTER OPEN	
144-159	SLOW STROBE - FAST STROBE	
128-143	FAST STROBE-SLOW STROBE	
96-127	SHUTTER OPEN	
64-95	SLOW STROBE - FAST STROBE	
31-63	SHUTTER OPEN	
0-31	SHUTTER CLOSE	

➢ **Metal Gobos**

BIT	EFFECT	Remark
255	FAST ROTATION	
……	……	
230	SLOW ROTATION	
228-229	STOP	
227	SLOW ROTATION	
……	……	

202	FAST ROTATION	
200-201	WHITE	
199	GOBO 13 SHAKE, FAST SPEED	Each 5 value is one gobo
……	……	
192	GOBO 13 SHAKE, SLOW SPEED	
……	……	
95	GOBO 1 SHAKE, FAST SPEED	
……	……	
88	GOBO 1 SHAKE, SLOW SPEED	
82-87	GOBO 14	
76-81	GOBO 13	
70-75	GOBO 12	
64-69	GOBO 11	
58-63	GOBO 10	
52-57	GOBO 9	
46-51	GOBO 8	
40-45	GOBO 7	
33-39	GOBO 6	
28-33	GOBO 5	
22-27	GOBO 4	
16-21	GOBO 3	
10-15	GOBO 2	
4-9	GOBO 1	
0-3	WHITE	

➢ **Glass Gobos**

BIT	EFFECT	Remark
255	FAST ROTATION	
……	……	
190	SLOW ROTATION	
186-189	STOP	
185	SLOW ROTATION	
……	……	
120	FAST ROTATION	
113-119	WHITE	
112	GOBO 8 SHAKE, FAST SPEED	Each 5 value is one gobo
……	……	
105	GOBO 8 SHAKE, SLOW SPEED	
……	……	
48	GOBO 1 SHAKE, FAST	

	SPEED	
……	……	
41	GOBO 1 SHAKE, SLOW SPEED	
37-40	GOBO8	Value amount is multiple of ten
33-36	GOBO7	
29-32	GOBO 7	
25-28	GOBO 6	
21-24	GOBO 5	
17-20	GOBO 4	
13-16	GOBO 3	
9-12	GOBO 2	
5-8	GOBO 1	
1-4	L WHITE	
0	S WHITE	

- **Glass Gobos Rotation**

BIT	EFFECT	Remark
255	FAST ROTATION	
……	……	
193	SLOW ROTATION	
191-192	STOP	
190	SLOW ROTATION	
……	……	
127	FAST ROTATION	
0-127	POSITION	

- **Prism**

BIT	EFFECT	Remark
192-255	PRISM1& PRISM2 INSERTED	
128-191	PRISM2 INSERTED	
64-127	PRISM1 INSERTED	
0-63	PRISM EXCLUDED	

- **Prism1 Rotation**

BIT	EFFECT	Remark
255	FAST ROTATION	
……	……	
193	SLOW ROTATION	
190-192	STOP	
189	SLOW ROTATION	
……	……	
128	FAST ROTATION	
0-127	POSITION	

- **Prism2 Rotation**

BIT	EFFECT	Remark
255	FAST ROTATION	
……	……	
193	SLOW ROTATION	
190-192	STOP	
189	SLOW ROTATION	
……	……	
128	FAST ROTATION	
0-127	POSITION	

- **Focus**

BIT	EFFECT	Remark
255	100%	
……	……	
0	0%	

- **Zoom**

BIT	EFFECT	Remark
255	100%	
……	……	
0	0%	

- **Pan**
- **PAN Fine**
- **Tilt**
- **TILT Fine**
- **Pan/Tilt Speed**

	Timing Channel	Channel function	Remark	
0-255	Pan-Tilt time	Pan-Tilt-(Pan fine-Tilt fine)	255 …… 0	SLOW SPEED …… FAST SPEED