# IP65 420W 21R Beam Moving Head Light

Item Number: LLIP21R

# Manual



This user manual includes important information for installation and operation. Please read this user manual carefully to install, operate, and maintain the lighting safety and correctly. A verified technician should do the installation and operation.

Please carefully check for any damages caused by transportation.

Before delivery, this device has passed strict quality control and inspection. Please follow the user manual for proper operation. If this fixture is damaged due to operation error or disregard of this manual, the fixture will be out of warranty, and the manufacture or dealer will not be held responsible.

#### **Installation:**

This unit is for indoor use only. Use only in a dry location. To prevent or reduce the risk of electrical shock or fire, do not expose to rain or moisture.

Maximum ambient temperature for operation is between 20°F and 113°F. Do not use under or above this range. Turn off the power and allow 15 minutes for the unit to cool down before handling. Do not open the unit within five minutes after switching off.

Keep the fixture at least 1.5ft. away from any combustible material, as it is not suitable for direct installation on these surfaces. The unit must be installed in a location with adequate ventilation, at least 20 inches from adjacent surfaces. Ensure that no ventilation slots are blocked.

We advise that an electrician confirms the safety of the electrical data prior to installation. Power off the fixture before installation or maintenance. Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.

Rigging:

Insert the quick-lock fasteners of the first holder into the respective holes on the bottom

of the device. Tighten the quick-lock fasteners fully clockwise.

Pull the safety rope through the holes on the bottom of the base and fasten it on the truss

or other fixing point. Ensure that the fixture is secure and will not drop due to clamp

damage.

The truss used for hanging this fixture must be able to hold 10 times the weight of this

fixture without deformation one hour after installation. Always use a safety

cable that can hold 12 times the weight of the unit. Do not stand directly under the fixture

while installing, uninstalling or adjusting the fixture.

**Product specification** 

Voltage: 100-240V, 50/60HZ

Power Consumption: 520W

Lamp: Japanese Ushio 420W

Fuse: 8A/250V, \$\psi\$5\*20

DMX Channel: 16CH

Operation mode: master-slave/DMX/Auto

Focus: Yes

Fixed gobo: 17 gobos+open

Strobe: 25Hz

Color: 14 colors+open

Prism 1: 8-facet

Prism 2: 16-facet

Pan: 540°

Tilt: 270°

Frost / Six-color effect: Yes

RDM: Yes

# **Display Operation:**

DMX	DMX signal indicator		
AUDIO	Sound control indicator		
Up	Menu up selection		
Down	Menu down selection		
Left	Menu left to select/return		
Right	Menu right to select		
ENTER	Confirm button		
Time on the left	Total system usage time		
Time on the right	Total time of this power-on		
Vertical signal at the top	Current DMX signal strength		
	Red: No signal / White: Current signal strength		
Saucra icon in the upper	Green: OK, no errors		
Square icon in the upper right corner	Red: There is an error (click the icon or "Information		
right comer	Menu/Error Information/View" to view the error		

### Display Menu:

Option	Function			
	DMX	Slave light: Receives DMX signal from console or master light		
Dave	scene	master light status: run auto and send signal to slave light		
Run	auto			
	sound			
Scene setting		can set 20 scenes manually		
DMX address	1 - 512	Press the "OK" button to enter editing mode. At this point, select the hundred digits and press the "Up" and "Down" keys to change the address code. Press the "OK" button again to select the ten editors. Press the "OK" button again to select a bit for editing. Press again to exit editing status		
Lamp	Lamp off lamp off			
	on	lamp on		
Motor reset	off			
	on	reset light		
Channel	16CH	16 DMX channel		
	20CH	20 DMX channels		
Language	English	set display in English		
	Chinese	set display in Chinese		
Display reverse	off	display reverse off		
	on	display reverse on		

X reverse	off		
	on	X motor rotate 180 degrees	
Y reverse	off		
	on	Y motor rotate 180 degrees	
XY exchange	off		
	on	Exchange channels for the XY axis (including fine-tuning)	
XY encoder	on	Use encoder (optocoupler) to detect out of step and automatically correct position	
	off	Don't use encoder to detect to correct position	
DMX signal	keep	Continue running in the original state	
	clean	Motor return and stop running	
Lamp on when off			
light urns on	on	Lamp on when light turns on	
Color linearity	on	Color wheel linear change	
	off	Color wheel non-linear change, half color change	
Clear scene data	Clear scene data Clear scenario data		
Factory default	on		
	off	After pressing the "OK" button, you will see a confirmation dialog box. Press the "OK" button again to restore the default settings	

# **Scene Setting Description:**

Option		Function		
Scene	1-20	Programming can be done by selecting scenes 1 to 20		
Scene time	0-255	Set the running time for the current scenario to a maximum of 255 seconds		
	on			
Run scene	off	The default is on, and it will be executed when running automatically. If set to off, it will skip the current scene and run the next scene.		
Scene	0-255			
Scene time	0-255	Cat DMV value 0 255		
Run scene	0-255	Set DMX value 0-255		
	0-255			

#### **Manual Control:**

Option		Function			
1ch	0 - 255	Press the "OK" button to enter editing mode. At this point, select the hundreds and press the "Up" and "Down" keys to change the channel value. Press the "OK" button again to select the ten editors. Press the "OK" button again to select a bit for editing. Press again to exit editing status.			
	0 - 255				
15ch	0 - 255				
16ch	0 - 255	Lamp and reset			

#### **Product Information:**

Option	Function			
Ver		software version		
DIS		display software version		
FAN		fan software version		
MT		motor software version		
Temperature		30		
Time	1.total lamp on time	Record the total lamp-on time		
	2.total light work time	Record the total use time of the light		
Fan board monitoring		Fan board monitoring		
System mistake		If the red ERR indicator light is on, it indicates that the light is running incorrectly. Detailed information can be viewed from this sub interface. After viewing, you can press the "Clear" button to clear the error records		
Hall state	11100010	When magnetic is detected, it is 0; otherwise, it is 1		
X encoder step value		When run in the positive direction, the step value should increase, and when run in the opposite direction, the step value should decrease. The value remains normal every time you go to the same point		

Y encoder step value	When ran in the positive direction, the step value should increase, and when it runs in the opposite direction, the step value should decrease. The value remains normal every time it goes to the same point.
Permission duration	9999 without encryption. Other numerical values can be used with encrypted time.

# **Error Description:**

Common Error Messages			Description		
Motor b	oard		notor board does not respond there is a problem with the serial cation line connecting the display board and the motor board, or there is a problem with the motor board.		
X axis res	et error	There is	a problem with the X-axis photoelectric switch, X-axis motor, or motor board		
Y axis res	et error	There is	a problem with the Y-axis photoelectric switch, Y-axis motor, or motor board		
X axis ha	ll error		X-axis Hall or motor board issues		
Y axis ha	ll error		Y-axis Hall or motor board issues		
color whe			Color wheel Hall or color wheel motor problem		
gobo whe			Gobo wheel Hall or gobo wheel motor problem		
focus rese	et error		Problem with focusing Hall or focusing motor		
lamp contr	ol error	Failure to 1	ight up or extinguish bubbles, indicates a problem with the bulb or bulb ballast.		
correction	correction download data		After replacing the display board, download the calibration data of the original display board from the motor board.		
		axis	After entering the sub interface, the reset positions of the X-axis,		
		axis	Y-axis, and other motors can be adjusted to compensate for hardware installation errors. The adjustment range is -128		
		color	to+127, with+0 indicating no adjustment.		
		gobo	to 127, while o maleuting no defastment		
		ocos			
		mmer			
		zero point			
		1 stroke			
		zero point			
	Prism	2 stroke			

frost zero point	
frost stroke	
Zeroing	off
	On, Data recovery defaults
X hall	off, X hall error reporting off
	on, X hall error reporting on
Y hall	off, Y hall error reporting off
	on, Y hall error reporting on
half power	off, no half power
	on, have half power

#### **DMX Channel:**

20CH	16CH	Function	Value	Details
1	1	Color wheel	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
			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

130 - 134				1	
135 - 139				125-129	Color 12+color 13
140-144				130 -134	
145-149				135 -139	Color 13+color 14
150-200   Forward flow (from fast to slow)   201-255   Reverse flow(from slow to fast)				140- 144	Color 14
2 2 Strobe    201-255   Reverse flow(from slow to fast)				145- 149	Color 14+White
2   2   Strobe     000-003   Shutter closed     004-103   Strobe from slow to fast   104-107   Open the shutter →(controlled by the dimming channel)   108-207   Pulse strobe from slow to fast   208-212   Open →(controlled by the dimming channel)   213-251   Random strobe from slow to fast   252-255   Open → (controlled by the dimming channel)   000-255   dimmer from dark to bright   000 - 004   White   000 - 004   White   000 - 004   White   000 - 009   gobo 1   010 - 014   gobo 2   015 - 019   gobo 3   020 - 024   gobo 4   025 - 029   gobo 5   030 - 034   gobo 6   035 - 039   gobo 7   040 - 044   gobo 8   045 - 049   gobo 10   055 - 059   gobo 11   060 - 064   gobo 12   065 - 069   gobo 13   070 - 074   gobo 14   075 - 079   gobo 15   080 - 084   gobo 16   085 - 089   gobo 17   090 - 094   gobo 15   080 - 084   gobo 16   085 - 089   gobo 17   090 - 094   gobo 1 shake slow to fast   095 - 099   gobo 2 shake slow to fast   100 - 104   gobo 3 shake slow to fast   100 - 104   gobo 5 shake slow to fast   110 - 114   gobo 5 shake slow to fast   110 - 114   gobo 5 shake slow to fast   110 - 114   gobo 5 shake slow to fast   110 - 114   gobo 5 shake slow to fast   110 - 114   gobo 5 shake slow to fast   110 - 114   gobo 5 shake slow to fast   110 - 114   gobo 5 shake slow to fast   110 - 114   gobo 5 shake slow to fast   110 - 114   gobo 5 shake slow to fast   110 - 114   gobo 5 shake slow to fast   110 - 114   gobo 5 shake slow to fast   110 - 114   gobo 5 shake slow to fast   110 - 114   gobo 5 shake slow to fast   110 - 114   gobo 5 shake slow to fast   110 - 114   gobo 6 shake slow to fast   110 - 114   gobo 6 shake slow to fast   110 - 114   gobo 6 shake slow to fast   110 - 114   gobo 6 shake slow to fast   110 - 114   1				150- 200	Forward flow (from fast to slow)
004-103   Strobe from slow to fast					
104-107   Open the shutter →(controlled by the dimming channel)     108-207	2	2	Strobe	000-003	Shutter closed
dimming channel     108-207				004-103	
108-207				104-107	
208-212   Open →(controlled by the dimming channel)					
Channel   213-251					
252-255				208-212	\ \
Channel   Channel   Channel   Channel   Channel				213-251	Random strobe from slow to fast
4 4 Gobo wheel 000 - 004 White 005 - 009 gobo 1 010 - 014 gobo 2 015 - 019 gobo 3 020 - 024 gobo 4 025 - 029 gobo 5 030 - 034 gobo 6 035 - 039 gobo 7 040 - 044 gobo 8 045 - 049 gobo 10 055 - 059 gobo 11 060 - 064 gobo 12 065 - 069 gobo 13 070 - 074 gobo 14 075 - 079 gobo 15 080 - 084 gobo 16 085 - 089 gobo 17 090 - 094 gobo 16 085 - 089 gobo 17 090 - 094 gobo 1 shake slow to fast 100 - 104 gobo 3 shake slow to fast 105 - 109 gobo 4 shake slow to fast 110 - 114 gobo 5 shake slow to fast 115 - 119 gobo 6 shake slow to fast				252-255	\ \
005 - 009 gobo 1 010 - 014 gobo 2 015 - 019 gobo 3 020 - 024 gobo 4 025 - 029 gobo 5 030 - 034 gobo 6 035 - 039 gobo 7 040 - 044 gobo 8 045 - 049 gobo 9 050 - 054 gobo 10 055 - 059 gobo 11 060 - 064 gobo 12 065 - 069 gobo 13 070 - 074 gobo 14 075 - 079 gobo 15 080 - 084 gobo 16 085 - 089 gobo 17 090 - 094 gobo 1 shake slow to fast 100 - 104 gobo 3 shake slow to fast 105 - 109 gobo 4 shake slow to fast 110 - 114 gobo 5 shake slow to fast 110 - 114 gobo 5 shake slow to fast	3	3	Dimmer	000-255	dimmer from dark to bright
010 - 014	4	4	Gobo wheel	000 - 004	White
015 - 019				005 - 009	gobo 1
020 - 024       gobo 4         025 - 029       gobo 5         030 - 034       gobo 6         035 - 039       gobo 7         040 - 044       gobo 8         045 - 049       gobo 9         050 - 054       gobo 10         055 - 059       gobo 11         060 - 064       gobo 12         065 - 069       gobo 13         070 - 074       gobo 14         075 - 079       gobo 15         080 - 084       gobo 16         085 - 089       gobo 17         090 - 094       gobo 1 shake slow to fast         100 - 104       gobo 3 shake slow to fast         105 - 109       gobo 4 shake slow to fast         110 - 114       gobo 5 shake slow to fast         115 - 119       gobo 6 shake slow to fast				010 - 014	gobo 2
025 - 029       gobo 5         030 - 034       gobo 6         035 - 039       gobo 7         040 - 044       gobo 8         045 - 049       gobo 9         050 - 054       gobo 10         055 - 059       gobo 11         060 - 064       gobo 12         065 - 069       gobo 13         070 - 074       gobo 14         075 - 079       gobo 15         080 - 084       gobo 16         085 - 089       gobo 1 shake slow to fast         095 - 099       gobo 2 shake slow to fast         100 - 104       gobo 3 shake slow to fast         105 - 109       gobo 4 shake slow to fast         110 - 114       gobo 5 shake slow to fast         115 - 119       gobo 6 shake slow to fast				015 - 019	gobo 3
030 - 034 gobo 6 035 - 039 gobo 7 040 - 044 gobo 8 045 - 049 gobo 9 050 - 054 gobo 10 055 - 059 gobo 11 060 - 064 gobo 12 065 - 069 gobo 13 070 - 074 gobo 15 080 - 084 gobo 16 085 - 089 gobo 17 090 - 094 gobo 1 shake slow to fast 100 - 104 gobo 3 shake slow to fast 105 - 109 gobo 4 shake slow to fast 110 - 114 gobo 5 shake slow to fast 110 - 114 gobo 5 shake slow to fast				020 - 024	gobo 4
035 - 039				025 - 029	gobo 5
040 - 044       gobo 8         045 - 049       gobo 9         050 - 054       gobo 10         055 - 059       gobo 11         060 - 064       gobo 12         065 - 069       gobo 13         070 - 074       gobo 14         075 - 079       gobo 15         080 - 084       gobo 16         085 - 089       gobo 17         090 - 094       gobo 1 shake slow to fast         100 - 104       gobo 3 shake slow to fast         105 - 109       gobo 4 shake slow to fast         110 - 114       gobo 5 shake slow to fast         115 - 119       gobo 6 shake slow to fast				030 - 034	gobo 6
045 - 049       gobo 9         050 - 054       gobo 10         055 - 059       gobo 11         060 - 064       gobo 12         065 - 069       gobo 13         070 - 074       gobo 14         075 - 079       gobo 15         080 - 084       gobo 16         085 - 089       gobo 17         090 - 094       gobo 1 shake slow to fast         100 - 104       gobo 3 shake slow to fast         105 - 109       gobo 4 shake slow to fast         110 - 114       gobo 5 shake slow to fast         115 - 119       gobo 6 shake slow to fast				035 - 039	gobo 7
050 - 054       gobo 10         055 - 059       gobo 11         060 - 064       gobo 12         065 - 069       gobo 13         070 - 074       gobo 14         075 - 079       gobo 15         080 - 084       gobo 16         085 - 089       gobo 17         090 - 094       gobo 1 shake slow to fast         095 - 099       gobo 2 shake slow to fast         100 - 104       gobo 3 shake slow to fast         105 - 109       gobo 4 shake slow to fast         110 - 114       gobo 5 shake slow to fast         115 - 119       gobo 6 shake slow to fast				040 - 044	gobo 8
055 - 059       gobo 11         060 - 064       gobo 12         065 - 069       gobo 13         070 - 074       gobo 14         075 - 079       gobo 15         080 - 084       gobo 16         085 - 089       gobo 17         090 - 094       gobo 1 shake slow to fast         095 - 099       gobo 2 shake slow to fast         100 - 104       gobo 3 shake slow to fast         105 - 109       gobo 4 shake slow to fast         110 - 114       gobo 5 shake slow to fast         115 - 119       gobo 6 shake slow to fast				045 - 049	gobo 9
060 - 064       gobo 12         065 - 069       gobo 13         070 - 074       gobo 14         075 - 079       gobo 15         080 - 084       gobo 16         085 - 089       gobo 17         090 - 094       gobo 1 shake slow to fast         095 - 099       gobo 2 shake slow to fast         100 - 104       gobo 3 shake slow to fast         105 - 109       gobo 4 shake slow to fast         110 - 114       gobo 5 shake slow to fast         115 - 119       gobo 6 shake slow to fast				050 - 054	gobo 10
065 - 069       gobo 13         070 - 074       gobo 14         075 - 079       gobo 15         080 - 084       gobo 16         085 - 089       gobo 17         090 - 094       gobo 1 shake slow to fast         095 - 099       gobo 2 shake slow to fast         100 - 104       gobo 3 shake slow to fast         105 - 109       gobo 4 shake slow to fast         110 - 114       gobo 5 shake slow to fast         115 - 119       gobo 6 shake slow to fast				055 - 059	gobo 11
070 - 074       gobo 14         075 - 079       gobo 15         080 - 084       gobo 16         085 - 089       gobo 17         090 - 094       gobo 1 shake slow to fast         095 - 099       gobo 2 shake slow to fast         100 - 104       gobo 3 shake slow to fast         105 - 109       gobo 4 shake slow to fast         110 - 114       gobo 5 shake slow to fast         115 - 119       gobo 6 shake slow to fast				060 - 064	gobo 12
075 - 079       gobo 15         080 - 084       gobo 16         085 - 089       gobo 17         090 - 094       gobo 1 shake slow to fast         095 - 099       gobo 2 shake slow to fast         100 - 104       gobo 3 shake slow to fast         105 - 109       gobo 4 shake slow to fast         110 - 114       gobo 5 shake slow to fast         115 - 119       gobo 6 shake slow to fast				065 - 069	gobo 13
080 - 084       gobo 16         085 - 089       gobo 17         090 - 094       gobo 1 shake slow to fast         095 - 099       gobo 2 shake slow to fast         100 - 104       gobo 3 shake slow to fast         105 - 109       gobo 4 shake slow to fast         110 - 114       gobo 5 shake slow to fast         115 - 119       gobo 6 shake slow to fast				070 - 074	gobo 14
085 - 089       gobo 17         090 - 094       gobo 1 shake slow to fast         095 - 099       gobo 2 shake slow to fast         100 - 104       gobo 3 shake slow to fast         105 - 109       gobo 4 shake slow to fast         110 - 114       gobo 5 shake slow to fast         115 - 119       gobo 6 shake slow to fast				075 - 079	gobo 15
085 - 089       gobo 17         090 - 094       gobo 1 shake slow to fast         095 - 099       gobo 2 shake slow to fast         100 - 104       gobo 3 shake slow to fast         105 - 109       gobo 4 shake slow to fast         110 - 114       gobo 5 shake slow to fast         115 - 119       gobo 6 shake slow to fast				080 - 084	gobo 16
095 - 099       gobo 2 shake slow to fast         100 - 104       gobo 3 shake slow to fast         105 - 109       gobo 4 shake slow to fast         110 - 114       gobo 5 shake slow to fast         115 - 119       gobo 6 shake slow to fast				085 - 089	gobo 17
100 - 104       gobo 3 shake slow to fast         105 - 109       gobo 4 shake slow to fast         110 - 114       gobo 5 shake slow to fast         115 - 119       gobo 6 shake slow to fast				090 - 094	gobo 1 shake slow to fast
105 - 109 gobo 4 shake slow to fast 110 - 114 gobo 5 shake slow to fast 115 - 119 gobo 6 shake slow to fast				095 - 099	gobo 2 shake slow to fast
110 - 114 gobo 5 shake slow to fast 115 - 119 gobo 6 shake slow to fast				100 - 104	gobo 3 shake slow to fast
110 - 114 gobo 5 shake slow to fast 115 - 119 gobo 6 shake slow to fast				105 - 109	gobo 4 shake slow to fast
115 - 119 gobo 6 shake slow to fast					gobo 5 shake slow to fast
120 - 124 gobo 7 shake slow to fast				115 - 119	gobo 6 shake slow to fast
				120 - 124	gobo 7 shake slow to fast

	I	T	T	
			125 - 129	gobo 8 shake slow to fast
			130 - 134	gobo 9 shake slow to fast
			135 - 139	gobo 10 shake slow to fast
			140 - 144	gobo 11 shake slow to fast
			145 - 149	gobo 12 shake slow to fast
			150 - 154	gobo 13 shake slow to fast
			155 - 159	gobo 14 shake slow to fast
			160 - 164	gobo 15 shake slow to fast
			165 - 169	gobo 16 shake slow to fast
			170 - 174	gobo 17 shake slow to fast
			175- 200	Forward flow (from slow to fast)
			250 - 255	Reverse flow (from fast to slow)
5	5	Prism1	000-127	no prism
			128-255	prism 1
6	6	Prism1 rotation	000-127	Prism1 angle adjustment
			128-190	Reverse rotation (fast to slow)
			191-192	Stop
			193-255	Forward rotation (slow to fast)
7	7	D: 0	000-31	no prism
		Prism 2	32-255	prism 2
8	8		000-127	prism2 angle adjustment
		D.:	128-190	Reverse rotation (fast to slow)
		Prism2 rotation	191-192	Stop
			193-255	Forward rotation (slow to fast)
9	9	Focus	000-255	Pattern clarity from near to far
10	10	pan	000-255	0-540 degree
11	11	pan fine	000-255	0-1.2 degree
12	12	tilt	000-255	0-270 degree
13	13	tilt fine	000-255	0-1.2 degree
14	14	XY speed	000-255	speed fast to slow
15	15	T 0 . c . 1	000-127	no function
		Frost & 6-color effect	128-191	6-color effect
		effect	192-255	Frost
16	16		000-025	no function
		T	026-050	small motors reset
		Lamp control and reset	061-085	XY motors reset
			100-109	Lamp off
			200-209	Lamp on
			251-255	all motors reset
17		keep	0-255	Speed from slow to fast
18		color wheel speed	0-255	speed fast to slow

dimmer-prism-frost 0-255 speed	dimmer-prism-frost speed
20 gobo wheel speed 0-255	

# **Symbol Instruction on Fixture:**



CE certificate



RoHS certificate