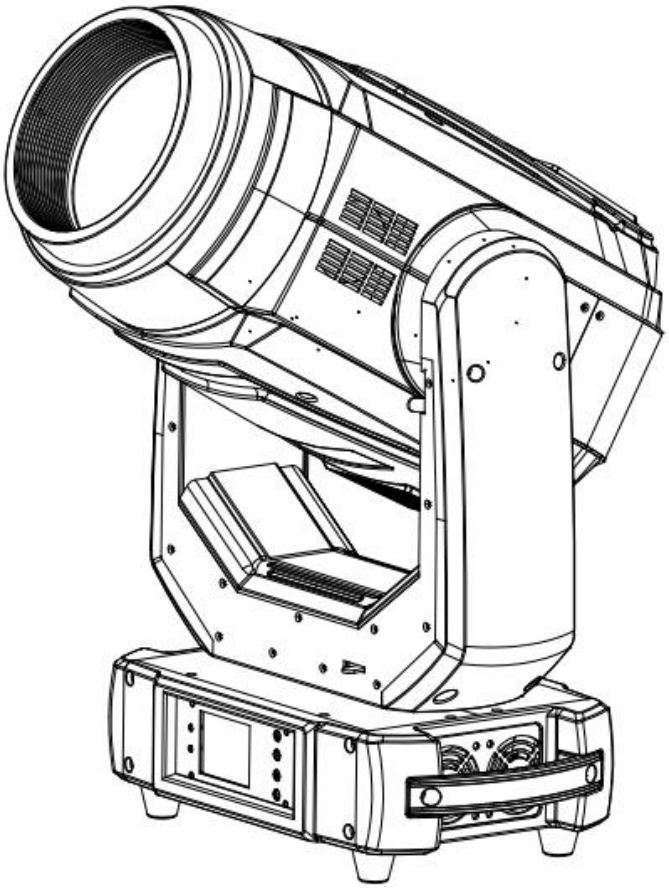
lighting PLUS

User manual



BSW480

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

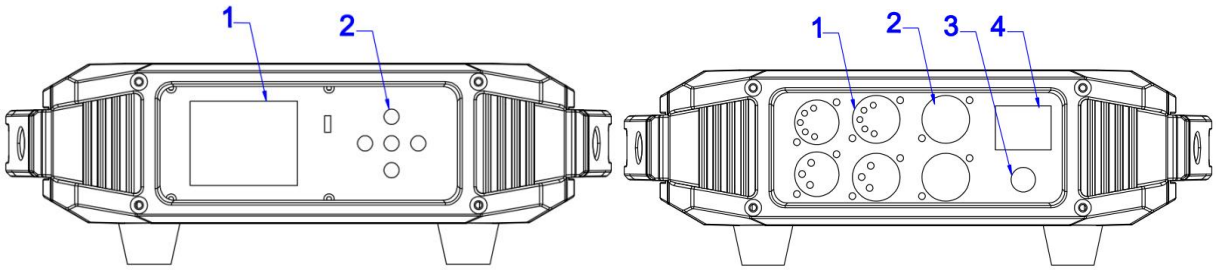
Light source: PHILIPS-MSD Silver 480W LL
Maximum power: 800W
Power supply: 100v-240v 50-60Hz
Color temperature: 7800k
Life span : 4000 hours
Beam angle: 1.6 ° - 44 °
Control mode: DMX512, master-slave operation, sound control,Support RDM function, DMX software upgrade function
Channel mode: 34CH/ 39CH

Pan: 540 degree + fine

Tilt: 270 degree + fine
Color wheel: 13colors + open,with rainbow effect
Virtual Colour wheel（Linear CMY）66 preset colours
Static gobo wheel: 10 gobos + open, with rotation and running water effect
Rotation gobo wheel: 9 gobos+open animation wheel
Frost: with frost effect
Focus: motorized focus
Prism: 2 prism wheel
Prism wheel 1: Rotating 6-facet linear prism with continuous rotation in both directions, Rotating 8-facet 12° circular prism with continuous rotation in both d irections, Rotating cylindrical prism with continuous rotation in both directions

Prism wheel 2:
Rotating 6-facet linear prism with continuous rotation in both directions
Rotating 32-facet circular prism with continuous rotation in both directions
Rotating 8-facet 18° circular prism with continuous rotation in both directions
Display: Color LCD display
Package size:650*600*495MM
Net weight: 21.5kg

3.Control Menu



Button

MENU	To select the programming functions
▼ **DOWN**	To go backward in the selected functions
▲ **UP**	To go forward in the selected functions
ENTER	To confirm the selected functions

MAIN	SECOND	THIRD
Dmx Address	Address	001 -512
	Dmx Mode	34/39CH
	SysRst	
Work Mode	Dmx Ctrl	
	Auto Run	
	Sound Ctrl	
	Scene Mode	Auto /1-10
	M/S Choose	Auto /1-10
	Light Switch	ON/OFF
Display	Language	English/CN
	Screen saver	Mode1-4/off
	Screen Rot	Auto/Forward
	DMX Indicate	Mode1-3

	Singnal Bright	1-10
	Screen Light	1-10
	Touch Enable	ON/off
	Touch Rectify	
Scene	Scene Select	1-10
	Scene times	0-255
	Control mode	ON/OFF
	01.Pan	0-255
	02.Pan Fine	0-255
	03.Tilt	0-255
	04.Reset	0 - 255
	05.Cyan	0 - 255
	06.Magenta	0 - 255
	07.Yellow	0 - 255
	08.Colour	0 - 255
	09.Colour F	0 - 255
	10.Eft Speed	0 - 255
	11.CMY times	0 - 255
	12.Colour3	0 - 255
	13.ZFFP times	0 - 255
	14.Eft Irt	0 - 255
	15.Eft gobo	0- 255
	16.MODE	0 - 255
	17.GOBO	0 - 255
	18.ROt gobo	0 - 255
	19.Gobo RF	0 - 255
	20.Prism1	0 - 255
	21.Prism 1R	0 - 255

	22.Prism2	0 - 255
	23.Prism 2R	0 - 255
	24.Pattern	0 - 255
	25.Pattern R	0 - 255
	26.Beam Shpae	0 - 255
	27.Beam Shpae	0 - 255
	28.Frost	0 - 255
	29.Zoom	0 - 255
	30.Zoom F	0 - 255
	31.Focus	0 - 255
	32.Focus F	0 - 255
	33.Hot-spot	0 - 255
	34.Strobe	0 - 255
	35.Dimmer	0 - 255
	36.Dimmer Spd	0 - 255
Advanced	Pan Invert	Close/Open
	Tilt Invert	Close/Open
	P/T Rectrify	Close/Open
	Pan offset	1-150
	Tilt offset	1-150
	Data hold	On/off
	Scene time	1-255
	Lamp when	Manual time
Status	Stepper info	01.Pan
		03.Tilt
		GOBO1
		GOBO2
		GOBO3

		CMY1
		CMY2
		CMY3
		COLOR1
		COLOR2
		PRISM1
		PRISM2
		PRISM ROT1
		PRISM ROT2
		FOCUS1
		ZOOM1
		FROST
		MILD
		DIMMER
		MT2
	Error logging	
	Fixture Status	Communication prec 100%
		Error CNT
		LIGHT Temperature
		Panel Temperature
		Sensor1 Temperature
		Sensor2 Temperature
	Version	H3.12
	Light time	000000
	Total time	000000
	Serial Number	
Escape		

4.DMX Channels

34/39CH Mode

34CH	39CH	DMX value	Function
1CH	1CH	000－255	Pan-540°
2CH	2CH	000－255	Pan Fine
3 CH	3 CH	000－255	Tilt -270°
4 CH	4 CH	000－255	Tilt Fine
5 CH	5 CH	000－255	PanTilt speed
6CH	6CH	0 - 129	
		130 - 139	Lamp On
		140 - 149	Pan/Tilt reset
		150 - 199	Effect wheel reset
		200 - 209	Total reset
		210 - 229	Reserved
		230 - 239	Lamp Off
		240 - 255	Reserved
7	7		Cyan
		0 - 255	Cyan from min. saturation --> full cyan (0=default)
8	8		Magenta
		0 - 255	Magenta from min. saturation --> full magenta (0=default)
9	9		Yellow
		0 - 255	Yellow from min. saturation --> full yellow (0=default)
10	10	0-129	Open/white (0=default)
		130-134	Deep Red

		135-138	Deep Blue
		139-143	Yellow
		144-147	Light green
		148-152	Magenta
		153-157	Lavender
		158-161	Pink
		162-166	Dark green
		167-171	CTO 2700K
		172-176	Blue
		177-180	Orange
		181-185	CTO 3200K
		186-189	UV (Kongo blue)
		190 - 215	Forwards rainbow effect from fast to slow
		216 - 217	No rotation
		218 - 243	Backwards rainbow effect from slow to fast
		244 - 249	Random colour selection by audio control
			(Set microphone sensitivity in menu „Personality”)
		250 - 255	Auto random colour selection from fast to slow
11	*		Colour wheel - fine positioning
		0 - 255	Fine positioning (0=default)
12	11	0-132	CMY Macro
		133-255	No rotation
13	12		Effect Speed
			Speed of Cyan and Magenta and Yellow movement
		0-255	Speed of CMY movement from max. to min. (0=default)
14	13		CMY & Colour wheel time
		0	Function is off (0=default)
		1 - 255	Time of CMY and col. wheel movement (0.1sec-->25.5sec.)
15	14		Zoom & Focus & Frost & Prism time

		0	Function is off (0=default)
		1 - 255	Time of zoom/ focus movement (0.1 sec-->25.5 sec.)
		1-100	Time of frost movement (0.1 sec -->10 sec)
		1-50	Time of prism movement (0.1 sec-->5 sec.)
16	15		Effect wheel positioning
		0-19	No function (0=default)
		20-127	Proportional indexing
		128-170	Ramping from open to full position (max--->min. speed)
		171-213	Ramping from open to half position (max. --->min. speed)
		214-255	Ramp. from half position to full position (max. --->min. speed)
17	16		Effect wheel rotation
		0	No rotation
		1 - 127	Forwards rotation from fast to slow
		128	No rotation (128=default)
		129 -255	Backwards rotation from slow to fast
18	17		Effect wheel animations
		0-3	No rotation
		4-43	Macro
		44-255	No rotation
19	18		Static gobo wheel
		0-3	Open/Hole (0=default)
			<u>Positioning</u>
		4-9	Gobo 1
		10-15	Gobo 2
		16-21	Gobo 3
		22-27	Gobo 4
		28-33	Gobo 5
		34-39	Gobo 6
		40-45	Gobo 7
		46-51	Gobo 8
		52-57	Gobo 9
		58-63	Gobo 10
		64-69	Beam reducer 1

		70-75	Beam reducer 2
		76-81	Beam reducer 3
		82-87	Beam reducer 4
			Shaking gobos from slow to fast
		88-95	Gobo 1
		96-103	Gobo 2
		104-111	Gobo 3
		112-119	Gobo 4
		120-127	Gobo 5
		128-135	Gobo 6
		136-143	Gobo 7
		144-151	Gobo 8
		152-159	Gobo 9
		160-167	Gobo 10
		168-175	Beam reducer 1
		176-183	Beam reducer 2
		184-191	Beam reducer 3
		192-199	Beam reducer 4
		200-201	Open/hole
		202 - 222	Forwards gobo wheel rotation from fast to slow
		223 - 243	Backwards gobo wheel rotation from slow to fast
		244 - 249	Random gobo selection by audio control
			(Set microphone sensitivity in menu „Personality”)
		250 - 255	Auto random gobo selection from fast to slow
20	19		Rotating gobo wheel
			Index - set indexing on channel 21/20
		0	Open/Hole (0=default)
		1-4	Hole (flat field)
		5-7	Gobo 1
		8-10	Gobo 2
		11-13	Gobo 3
		14-16	Gobo 4
		17-19	Gobo 5
		20-22	Gobo 6
		23-25	Gobo 7

		26-28	Gobo 8
		29-31	Gobo 9
			Rotation - set rotation on channel 21/20
		32-34	Gobo 1
		35-37	Gobo 2
		38-40	Gobo 3
		41-43	Gobo 4
		44-46	Gobo 5
		47-49	Gobo 6
		50-52	Gobo 7
		53-55	Gobo 8
		56-59	Gobo 9
			Shaking gobo from slow to fast
			Index - set indexing on channel 21/20
		60-67	Gobo 1
		68-75	Gobo 2
		76-83	Gobo 3
		84-91	Gobo 4
		92-99	Gobo 5
		100-107	Gobo 6
		108-115	Gobo 7
		116-123	Gobo 8
		124-129	Gobo 9
			Shaking gobo from slow to fast
			Rotation - set rotation on channel 21/20
		130-137	Gobo 1
		138-145	Gobo 2
		146-153	Gobo 3
		154-161	Gobo 4
		162-169	Gobo 5
		170-177	Gobo 6
		178-185	Gobo 7
		186-193	Gobo 8
		194-199	Gobo 9
		200 - 201	Open/hole

		202 - 222	Forwards gobo wheel rotation from fast to slow
		223 - 243	Backwards gobo wheel rotation from slow to fast
		244 - 249	Random gobo selection by audio control
			(Set microphone sensitivity in menu „Personality”)
		250 - 255	Auto random gobo selection from fast to slow
21	20		Rot. gobo indexing and rotation
			Gobo indexing - set position on channel 20/19
		0 - 255	Gobo indexing
			Gobo rotation - set position on channel 20/19
		0	No rotation
		1 - 127	Forwards gobo rotation from fast to slow
		128	No rotation (128=default)
		129 - 255	Backwards gobo rotation from slow to fast
22	*		Rot. gobo indexing/rotation - fine
		0-255	Fine indexing/rotation (0=default)
23	21		Prism wheel 1
			This wheel is blocked If Rotating gobo wheel >0 DMX
		0 - 3	Open position/hole (0=default)
			Index - set indexing on channel 24/22
		4-7	Prism 1 - 6-facet linear
		8-11	Prism 2 - cylindrical
		12-15	Prism 3 - 8-facet 12° circular
			Rotation - set rotation on channel 24/22
		16-19	Prism 1 - 6-facet linear
		20-23	Prism 2 - cylindrical
		24-27	Prism 3 - 8-facet 12° circular
		28-255	Raw DMX
24	22		Prism wheel 1 indexing/rotation
			Prism indexing - set position on channel 23/21
		0 - 255	Prism 1 indexing
			Prism 1 rotation - set position on channel 23/21
		0	No rotation
		1 - 127	Forwards prism rotation from fast to slow
		128	No rotation (128=default)
		129-255	Backwards prism rotation from slow to fast

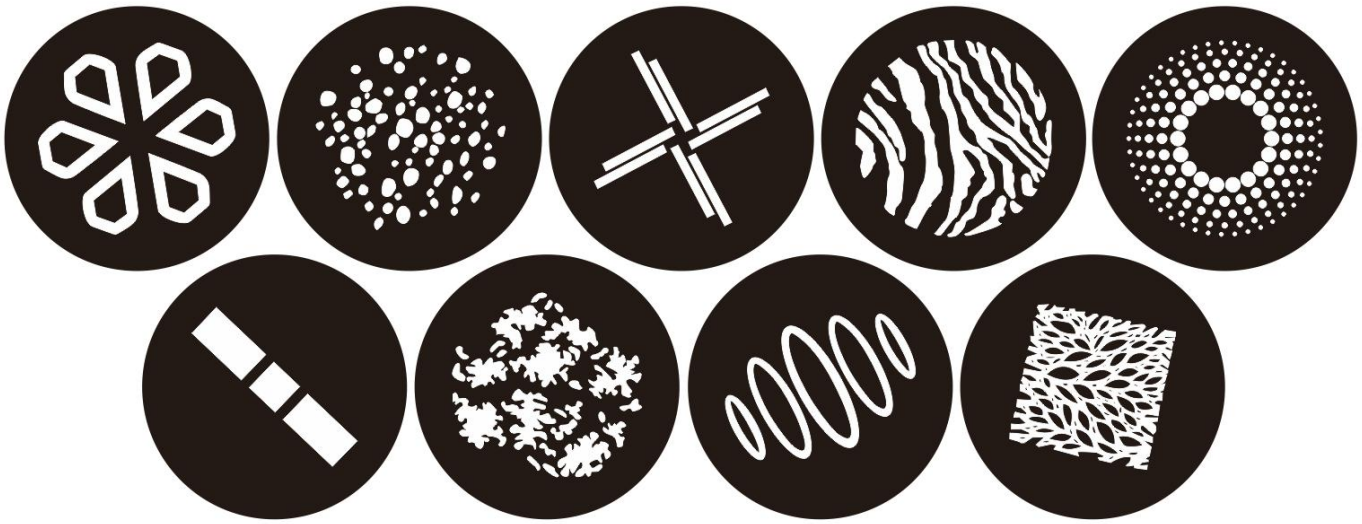
25	23		Prism wheel 2
		0 - 3	Open position/hole (0=default)
			Index - set indexing on channel 26/24
		4-7	Prism 1 - 6-facet linear
		8-11	Prism 2 - 32-facet circular
		12-15	Prism 3 - 8-facet 18° circular
			Rotation - set rotation on channel 26/24
		16-19	Prism 1 - 6-facet linear
		20-23	Prism 2 - 32-facet circular
		24-27	Prism 3 - 8-facet 18° circular
		28-255	Raw DMX
26	24		Prism wheel 2 indexing/rotation
			Prism indexing - set position on channel 25/23
		0 - 255	Prism 1 indexing
			Prism 1 rotation - set position on channel 25/23
		0	No rotation
		1 - 127	Forwards prism rotation from fast to slow
		128	No rotation (128=default)
		129-255	Backwards prism rotation from slow to fast
27	25		Pattern
		0-3	No rotation
		4-67	Macro
		68-255	No rotation
28	26		Pattern rotation and indexing
			The channels are blocked: Prism Wheel 1/2, Prism Wheel 1/2 rot.
			Pattern indexing - set position on channel 27/25
		0 - 255	Pattern indexing
			Pattern rotation - set position on channel 27/25
		0	No rotation
		1 - 127	Forwards pattern rotation from fast to slow
		128	No rotation (128=default)
		129-255	Backwards pattern rotation from slow to fast
29	27		Beam shaper selection
		0-3	No rotation

		4-35	Macro
		36-255	No rotation
30	28		Beam shaper rotation and indexing
			Beam shaper indexing - set position on channel 29/27
		0 - 255	Shaper indexing
			Beam shaper rotation - set position on channel 29/27
		0	No rotation
		1 - 127	Forwards shaper rotation from fast to slow
		128	No rotation (128=default)
		129-255	Backwards shaper rotation from slow to fast
31	29		Frost
		0	Open (0=default)
			Light Frost
			Max. time of Light frost movement 0 -->100% (100% -->0) is 10 sec.
		1-50	Light Frost from 0% to 100%
		51-53	100% Light Frost
		54-63	Pulse closing from slow to fast
		64-73	Pulse opening from fast to slow
		74-83	Ramping from fast to slow
		84-86	Open
			Medium Frost
			Max. time of Medium frost movement 0 -->100% (100% -->0) is 10 sec.
		87-136	Medium Frost from 0% to 100%
		137-139	100% Medium Frost
		140-149	Pulse closing from slow to fast
		150-159	Pulse opening from fast to slow
		160-169	Ramping from fast to slow
		170-172	Open
			Combined Frost
			Note: Combined Frost and Prism weeel 1 cannot be inserted into light beam at the same time . The Prism wheel 1 has priority to Combined Frost .
			Max. time of Medium frost movement 0 -->100% (100%

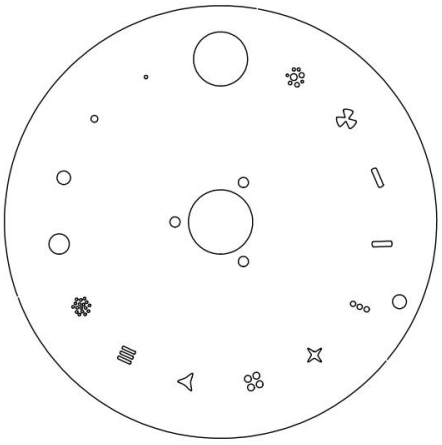
			-->0) is 10 sec.
		173-222	Medium Frost from 0% to 100% (Light Frost inserted)
		223-225	100% Medium Frost (Light Frost inserted)
		226-235	Pulse closing from slow to fast
		236-245	Pulse opening from fast to slow
		246-255	Ramping from fast to slow
32	30		Zoom
		0 - 255	Zoom from max. to min.beam angle (128=default)
33	*		Zoom - fine
		0-255	Fine zooming (0=default)
34	31		Focus
		0 - 255	Continuous adjustment from far to near (128=default)
35	*		Focus Fine
		0- 255	Fine focusing (0=default)
36	32		Hot-Spot control
		0	Automatic Hot-Spot control (0=default)
		1-255	Hot-Spot control (from min. to max. intensity of image centre)
37	33		Shutter/ strobe
		0 - 31	Shutter closed
		32 - 63	Shutter open (32=default)
		64 - 95	Strobe-effect from slow to fast
		96 - 127	Shutter open
		128 - 143	Opening pulse in sequences from slow to fast
		144 - 159	Closing pulse in sequences from fast to slow
		160 - 191	Shutter open
		192 - 223	Random strobe-effect from slow to fast
		224 - 255	Shutter open, Full lamp power
38	34		Dimmer intensity
		0 - 255	Dimmer intensity from 0% to 100% (0=default)
39	*		Dimmer intensity - fine
		0 - 255	Fine dimming (0=default)

Gobo Wheel

1.Rotating Gobo



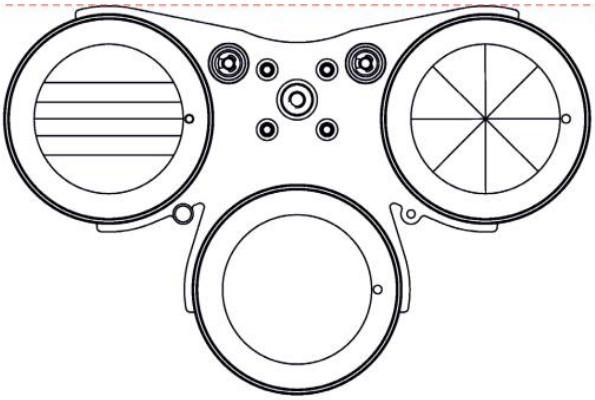
2.Fixed Gobo



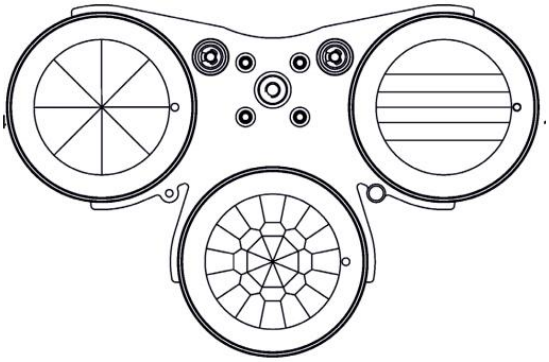
3.Animation Wheel



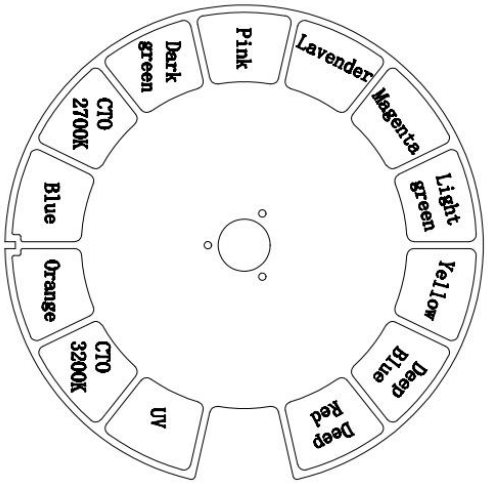
4.Prism Wheel 1



5.Prism Wheel 2



6.Colour wheel



7.Virtual Colour wheel

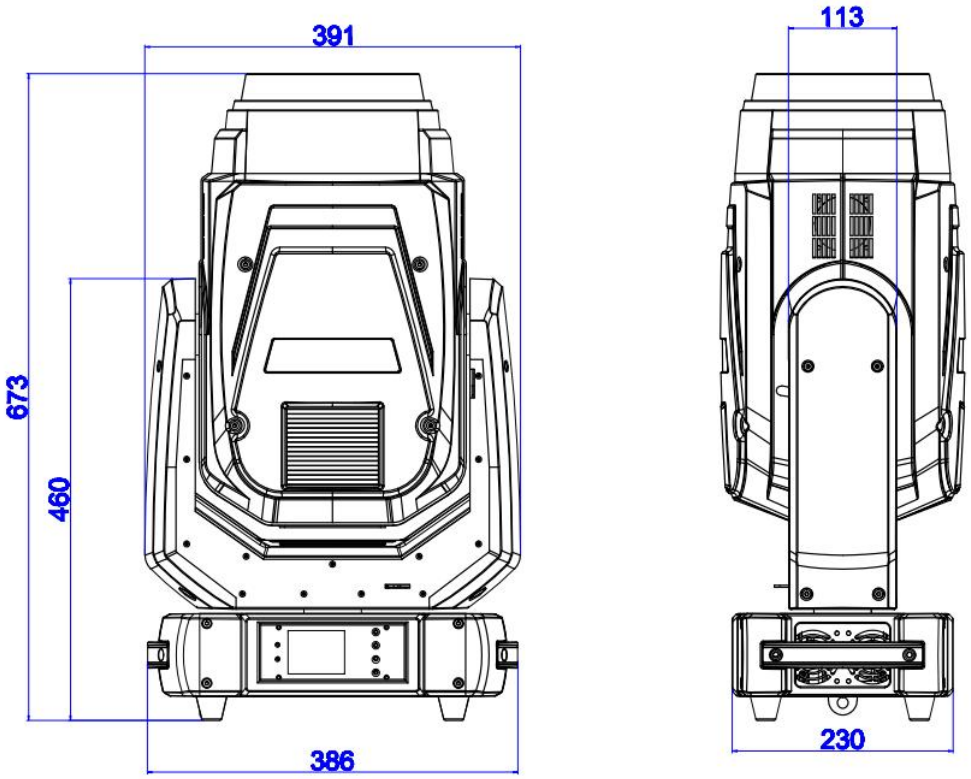


DANGER!

Install the gobos with the device switched off only.

Unplug from mains before changing gobos!

5.Dimension



6.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

7.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.