

BSWF 1200 IP

User Manual



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TECHNICAL PARAMETERS

Light source

Input Voltage: AC100-240V, 50/60Hz

Light Source: 1200W White LED module

Power Consumption: 1200W

Life Span: ≥20000 H

Optical

Zoom Angle: 5-50°

Framing System: 4-Blade framing shutter system, Smooth, flexible blade movements at variable speed to create different shapes, 90° Bi-directional framing rotation

Strobe: 1-25HZ shutter with speed adjust

Dimmer: 0-100% Linear Dimmer

Focus: 0-100% Linear Focus

Controls

Control Mode: DMX 512, Master/Slave, Work Auto, Sound Activated, Support RDM control

DMX Channels: 34/46 DMX Channels

DMX Connector: 3-PIN IP XLR IN/OUT

Power Connector: IP Powercord IN

Effect

Color 1: CMY+CTO color mixing

Color 2: 5 Colors + Open

Static Gobo: 7 static Gobos + Open

Rotating Gobo: 6 Rotating Gobos + Open

Animation Gobos: Special dynamic flame or water effect

Prism: 3-facet Prism with bi-directional rotating at variable speeds

Frost: 0-100% linear frost

Iris: Smooth and quiet linear motorized Iris

Body

Movement: 540° pan and 270° tilt movement, 16 bit smooth and precise resolution for PAN/TILT movement

Body Structure: Aluminum Alloy Die-Cast + plastic

Working Environment: -20°C ~ 45°C

IP Rate: IP65 waterproof grade design

Dimensions

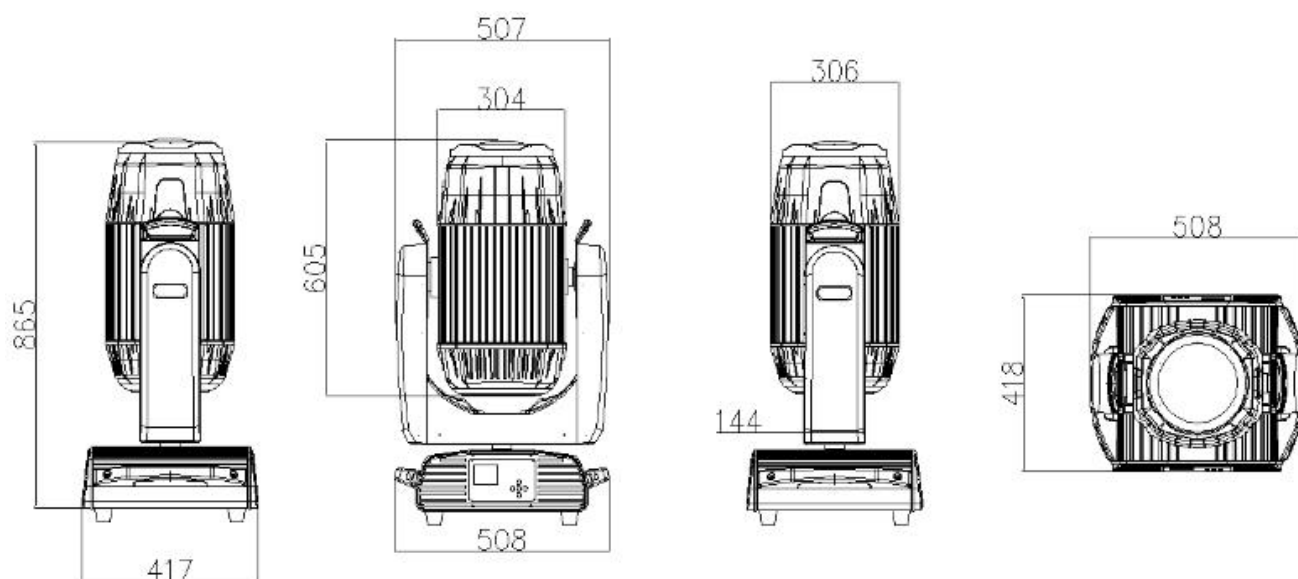
Product Size: 51x42x82cm

Packing Size: 66x62x89cm

N.W: 46.5kgs

G.W: 53kgs

SIZE DRAWING



COLOR



FIXED PATTERN



ROTATING PATTERN



1. Safety Instructions



WARNING

Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction manual.

Important:

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

- Unpack and check carefully to ensure that there is no transportation damage before using the unit.
- This product is suitable for wet locations. Do not immerse in water.
- DO install and operate by qualified operator.
- DO NOT allow children to operate the fixture.
- Use safety chain when fixing the unit. Handle the unit by carrying its base instead of head only.
- 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, otherwise the unit will be overheated.
- Before operation, ensure that you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Minimum ambient temperature TA: 0°C. Maximum ambient temperature TA: 40°C. Do not operate this product at a lower or higher temperature.
- DO NOT connect the device to any dimmer pack.
- Keep flammable materials away from the fixture while operating to avoid fire hazard.
- Make sure the power cord is not crimped or damaged; replace it immediately if damaged.
- Unit's surface temperature may reach up to 75°C. DO NOT touch the housing bare-handed during its operation.
- Avoid any flammable liquids, water or metal from entering the unit. Once it happens, cut off the mains power immediately.
- DO NOT operate in a dirty or dusty environment. DO clean the fixture regularly.
- DO NOT touch any wire during operation as there might be a hazard or electric shock.
- Avoid entanglement of the Power cord with other wires.
- The minimum distance to objects/surface must be more than 3 meters.
- In the event of serious operating problem, stop using the unit immediately.
- Never turn on the off the unit time after time.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.
- DO NOT open the housing as there are no user serviceable parts inside.
- DO NOT attempt to operate this unit if it becomes damaged. DO NOT attempt any repairs yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.
- Disconnect this product from its power source before servicing.
- DO use the original packaging if the device is to be transported.
- Avoid direct eye exposure to the light source while the product is on.
- DO NOT operate this product if you see damage on the housing, shields or cables. Have the damaged parts replaced by an authorized technician at once.

2. DMX 512 Connection

Light fixtures feature standard DMX input and output 3-core or 5-core XLR sockets. Use a twisted-pair signal cable shielded specifically for DMX 512; The signal line is generally connected at a distance of 150 meters, and the DMX512 signal amplifier must be added for long distance signal transmission.

Important: The wires should not touch each other or the metal housing.

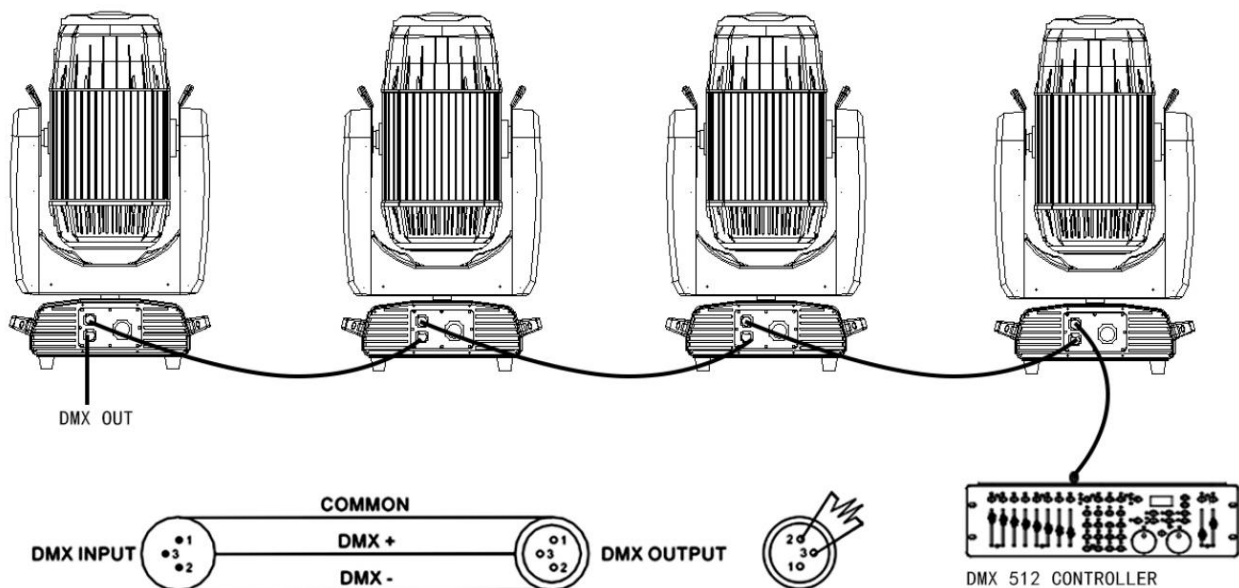


Figure 1 Schematic diagram of DMX signal wire connection

1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120-ohm 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.

2. Connect the unit together in a “daisy chain” by XLR plug cable from the output of the unit to the input of the next unit. The cable cannot be branched or split to a “Y” cable. DMX 512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.

3. The DMX output and input connectors are pass-through to maintain the DMX circuit, when one of the units' power is disconnected.

4. Each lighting unit needs to have a DMX address to receive the data by the controller. The address number is between 1-512.

5. The end of the DMX 512 system should be terminated to reduce signal errors.

6. 3 pin XLR connectors are more popular than 5 pins XLR.

3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+), Pin4, Pin5 not used.

➤ The calculation method of the starting address code of the lamp:

The initial address code of the current luminaire is equal to (the initial address code of the previous luminaire)+(the number of channels of the luminaire)

1: The initial address code value of the first luminaire A001.

2: The basic channel number of the controller should be greater than or equal to the total number of channels used by the luminaire.

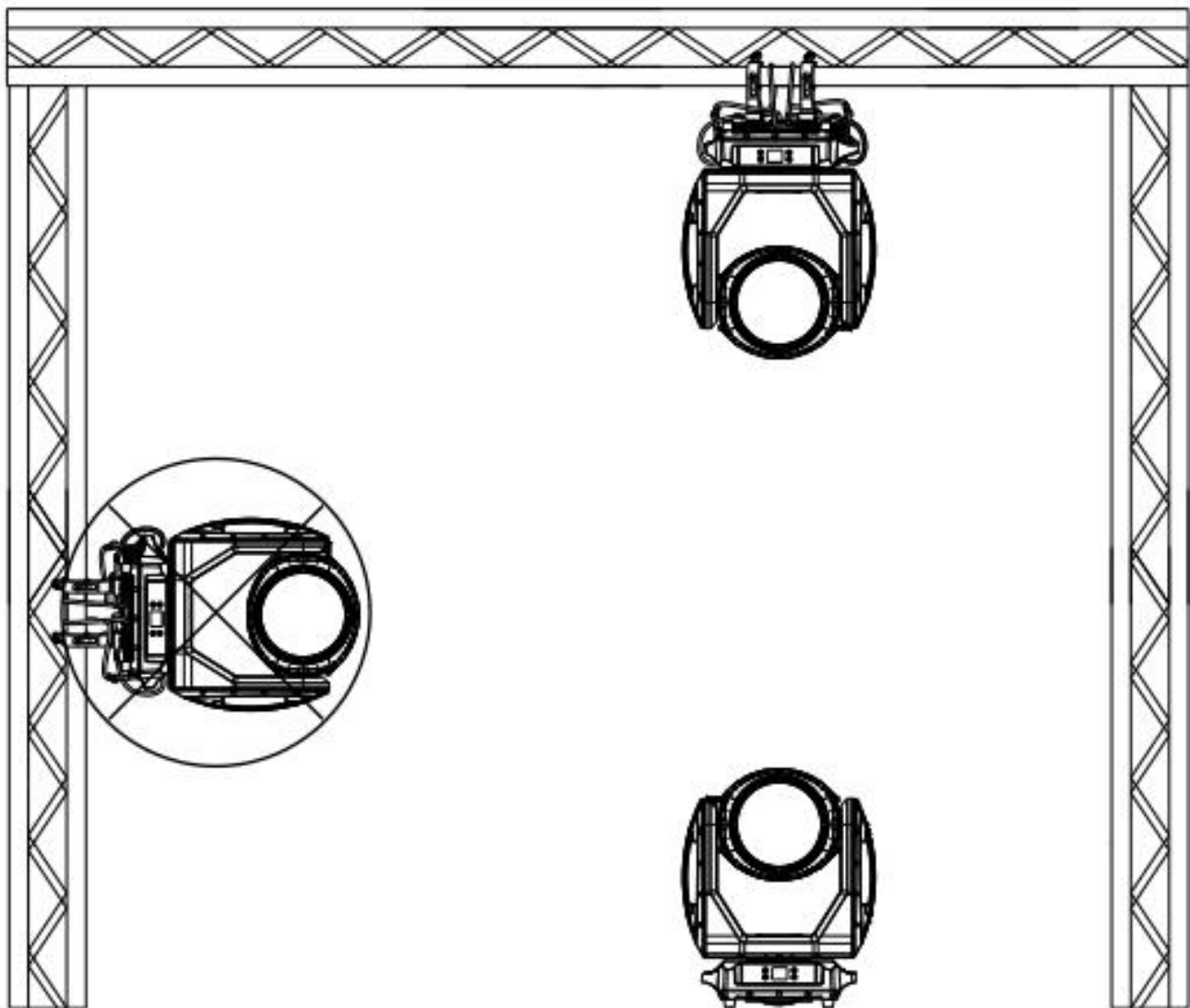
3: Note: when using any controller, each luminaire should have its own starting address code, if the first luminaire's starting address code is set A001, the number of luminaire channels is 34CH; Then the starting

address code of the second lamp is set to A035; The starting address code of the third lamp is set to A069; And so on,(this setting also needs to be determined according to different consoles)

3. Fixture Installation

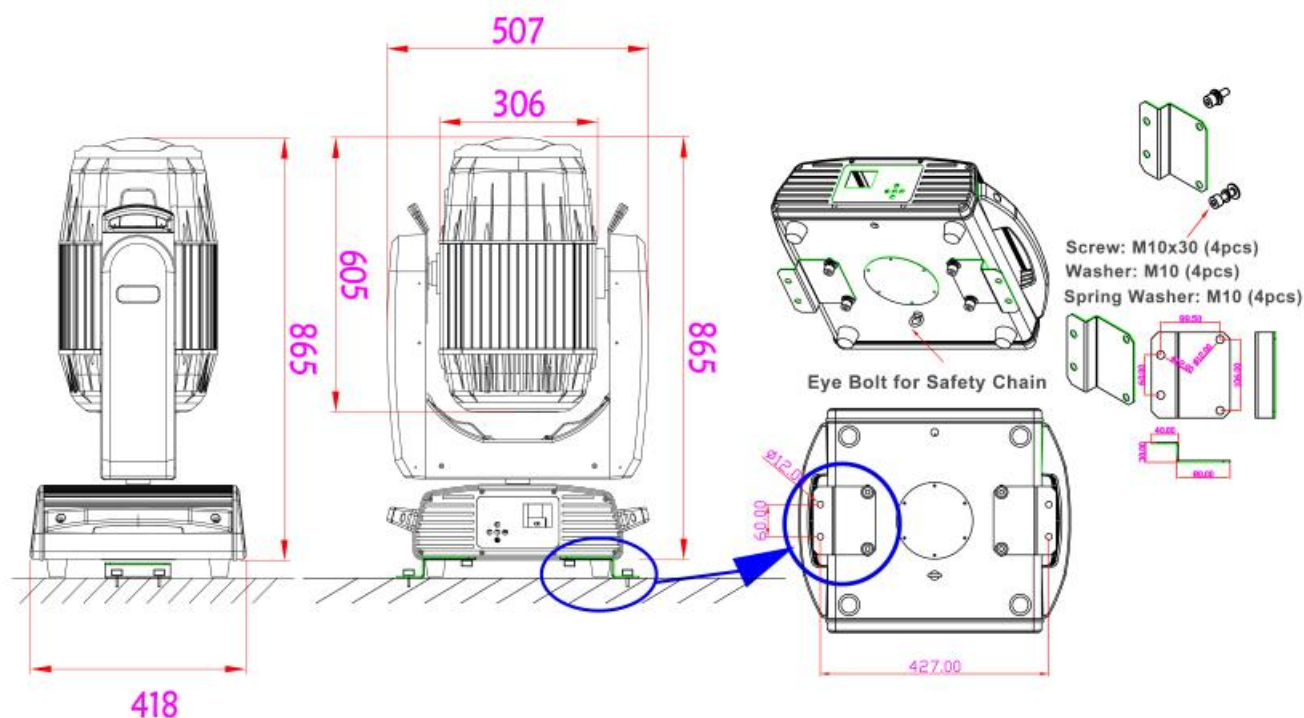
Mounting Points:

- DO install and operate by qualified operator. Fixture(s) should be installed in areas outside walking paths, seating areas, or away from areas where unauthorized personnel might reach the fixture by hand. NEVER stand directly below the fixture(s) when rigging, removing or servicing.
- Always ensure that the unit is firmly fixed to avoid vibration and slipping off during operation. Ensure that the trussing or area of installation must be able to hold 10 times the weight without any deformation. Always attach a safety cable that can hold at least 12 times the weight of the fixture whenever installing this fixture in a suspended environment to ensure that the fixture will not fall if the clamp fails.
- This fixture is fully operational in two different mounting positions: hanging upside-down or standing on the floor. We don't suggest to mount it sideways on trussing. Always use and install the supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.

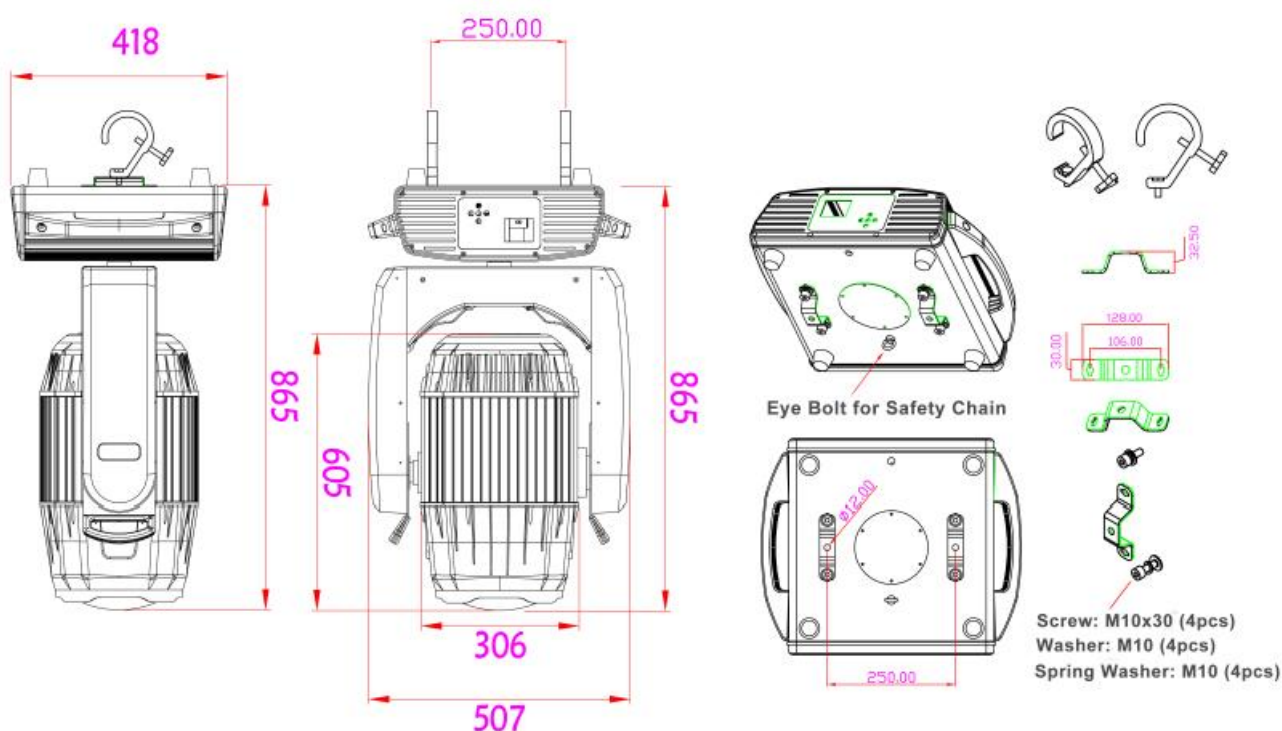


Installation:

The Fixture provides a unique mounting bracket assembly that integrates the bottom of the base, the included Omega-holders and safety cable rigging point in one unit (See the illustration below for Stand Install).



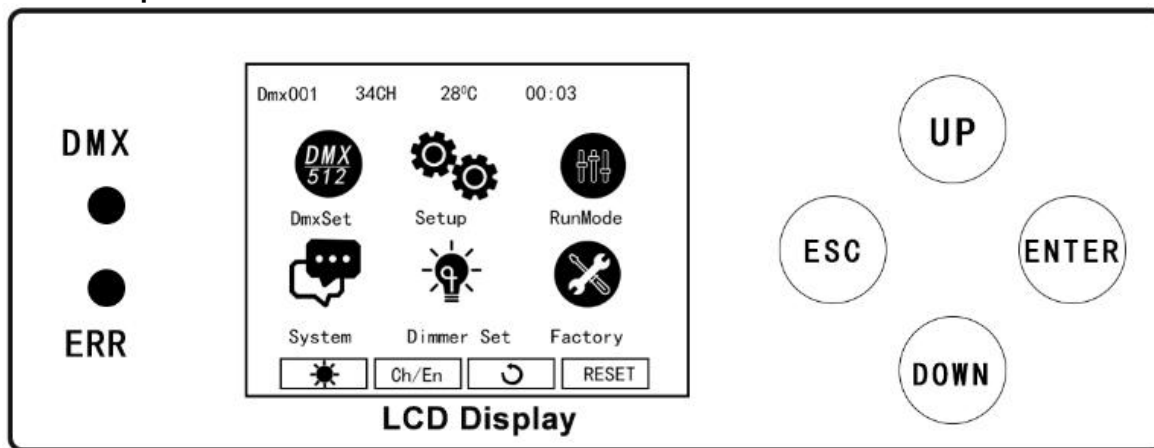
When mounting this fixture to truss be sure to secure an appropriately rated clamps to the included omega holders using a M10 screw fitted through the hole of the Omega Bracker. Be sure to attach an appropriate Safety Cable to the fixture using the safety cable rigging point integrated in the base assembly.



Attention:

Regardless of the rigging option you choose for your fixture always be sure to secure your fixture with a safety cable. The fixture provides a built-in rigging point for a safety cable on the hanging bracket as illustrated above. Be sure to only use the designated rigging point for the safety cable and never secure a safety cable to a carrying handle.

4. Control panel



DMX	DMX Signal
ERR	Error Signal
UP	UP button
DOWN	DOWN button
ESC	Exit or Return button
ENTER	Enter or Confirm the desired functions

- Turn on the unit, press the ESC button , enter the password UP-UP-DOWN-DOWN into menu mode
- Press the UP/DOWN button until the required function is shown on the monitor.
- Select the function by pressing the ENTER button.
- Use the UP/DOWN button to choose the submenu
- Press the ENTER button to store and automatically return to the last menu.
- Press the ESC button or let the unit idle 30 seconds to exit menu mode.
- The screen will be automatically locked if there is no operation for a long time, and can be unlocked by pressing the ESC button and enter the password again.

The screen will be automatically locked if there is no operation for a long time, and can be unlocked by long-pressing the [OK] button.

Figure 3 Schematic diagram of key description on the panel



4.1 DMX Set

DMX address	001-512	Press UP or DOWN to choose the desire DMX Value and press ENTER to confirm
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4.2 Set Up

Options	Submenu	Instruction
DMX Channel	34 CH	34 Channel Mode
	46 CH	46 Channel Mode
RDM Function	OFF/ON	Turn off/on the RDM function
Language	Chinese	Set the interface for Chinese
	English	Set the interface for English
Screen Rotation	OFF	Front display
	ON	Screen inverted display
Screen Auto Rotation	OFF	Screen Auto Rotation OFF
	ON	Screen Auto Rotation ON
DMX signal	KEEP	Keep running by the present setting
	CLEAR	Clearing all the DMX value to 0
Display	ON/OFF	Screen automatically locked setting, the screen will be off after 30's without operating
Invert Pan	ON/OFF	Pan Invert setting
Invert Tilt	ON/OFF	Tilt Invert setting
Pan Tilt Swap	ON/OFF	XY channel swap
Pan Tilt Encoder	ON	Use the encoder (optocoupler) to determine the out-of-step and automatically correct the position
	OFF	Correct position without using an encoder (optocoupler)
Load Default		Press ENTER to the default setting

5.3 Run Mode

4.3 Run Mode

Options	Submenu	Instruction
Auto Mode	DMX	Slave state: receives DMX signal from the console or host
	Auto	Host status: self-work and send DMX signal to slave
	Sound	Work by Sound activated
Manual Control	01.Pan	Manual control the DMX Channels, Press UP or DOWN to Choose the desire value from 000-255 (0%-100%), Press ENTER to Confirm or ESC to Exit
	02.Pan Fine	
	03.Tilt	
	04.Tilt Fine	
	05.Pan Tilt Speed	
	06.Strobe	
	07.Dimmer	
	08.Cyan	
	09.Magenta	
	10.Yellow	
	11.CTO	
	12.Color	
	13.Gobo	
	14.Glass Gobo	
	15.Glass Gobo	
	16.Effect Insert	
	17.Effect Gobo	
	18.Focus	
	19.Focus Fine	
	20.Zoom	
	21.Prism	
	22.Prism Rotation	
	23.Frost	
	24.Cut1	
	25.Cut2	
	26.Cut3	
	27.Cut4	
	28.Cut5	
	29.Cut6	
	30.Cut7	
	31.Cut8	
	32.Cut Rt	
	33.Iris	
	34.Reset	
Device Reset		All the motors reset
XY reset		XY reset
MT reset		the small motor reset

4.4 System Info

Options	Submenu	Instruction
Version		T236B-V.231213 (PCB Version)
	Dis	V.231213 (Display Version)
	XY	V.231204 (XY Version)
	Focus	V.231213 (Focus Version)
	Colour	V.231204 (Colour Version)
	Cut	V.231213 (Cut Version)
Temp Msg	Temp	Showing the temperature of the LEDs
Fan Msg	Fan1Speed	Showing inforamtion for the Rotational Speed of Fan
	Fan2Speed	
System time	Total Lamp	Total LED hour
	Partial Lamp	LED ON Hour
	Total User	Fixture total working hour
	Partial User	Fixture ON working hour
	Authority Hours	9999 without working hour locked, other value means the rest working hour, it will be auto locked when shows 0
Sensor Monitor	Pan Hall	Hall working condition
	Tilt Hall	
	Color Hall	
	CMY-Cyan	
	CMY-Magenta	
	CMY-Yellow	
	CTO	
	Gobo Hall	
	Gobo1 Hall	
	Gobo1 Rt Hall	
	Focus Hall	
	Zoom Hall	
	Prism Rt Hall	
	Cut Rt Hall	
	Pan Wheel State	
	Tilt Wheel State	
	Pan Wheel Step	
	Tilt Wheel Step	
System error		Check the error record, press “clean” to clean all the record
DMX Monitor	01.Pan	Check the current DMX value
	02.Pan Fine	
	03.Tilt	
	04.Tilt Fine	
	05.Pan Tilt Speed	
	06.Strobe	
	07.Dimmer	
	08.Cyan	
	09.Magenta	
	10.Yellow	
	11.CTO	
	12.Color	
	13.Gobo	
	14.Glass Gobo	
	15.Glass Gobo	
	16.Effect Insert	
	17.Effect Gobo	
	18.Focus	
	19.Focus Fine	

	20.Zoom	
	21.Prism	
	22.Prism Rotation	
	23.Frost	
	24.Cut1	
	25.Cut2	
	26.Cut3	
	27.Cut4	
	28.Cut5	
	29.Cut6	
	30.Cut7	
	31.Cut8	
	32.Cut Rt	
	33.Iris	
	34.Reset	

Common error	Instructions
MT board connection failed	Motor PCB board didn't work, Check the Display PCB and Motor PCB Board wire connecting
X-axis reset failed	Pan switch , pan motor or PCB problem
Y-axis reset failed	Tilt switch , tilt motor or PCB problem
X-axis hall error	Pan hall or Motor PCB problem
Y-axis Hall error	Tilt hall or Motor PCB problem
Color disk reset failed	Color Hall or Color Motor problem
The pattern plate filed to reset	Gobo Hall or Gobo Motor problem
The focus reset failed	Focus hall or Focus motor problem
Bulb control failure	Power On/Off failure, lamp ballast or lamp problem

4.5 Dimmer Set

Options	Description	
Dimmer Curve	Scurve(sine)	Default Dimmer curve is Linear
	InSquare (logarithm)	
	Square (exponent)	
	Linear (straight line)	
Dimmer Mode	Mode1	Dimmer Mode Choosing
	Mode2	
	Mode3	
	Mode4	

4.6 Factory Settings

Options	Description	Note
Motor Calibration	Pan	Press UP or DOWN to choose the value from -128 to 127 to adjust the function value
	Tilt	
	Color	
	Static Gobo	
	Glass Gobo	

	Glass Gobo Rt	
	Effect Gobo Zero	
	Effect Gobo2 Cal	
	Cyan	
	Magenta	
	Yellow	
	CTO	
	Focus	
	Zoom	
	Prism Zero	
	Prism Cal	
	Prism Rt	
	Frost zero	
	Frost Cal	
	Cut Rt	
	Iris	
	Cut1	
	Cut2	
	Cut3	
	Cut4	
	Cut5	
	Cut6	
	Cut7	
	Cut8	
	Power	

5.DMX Channel

Channels		Function	Value	Description
46 CH	34CH			
1	1	Pan	0-255	0-540° Pan Movement
2	2	Pan Fine	0-255	Pan 0-2° fine adjustment
3	3	Tilt	0-255	0-270° Pan Movement
4	4	Tilt Fine	0-255	Tilt 0-1° fine adjustment
5	5	XY speed	0-255	XY speed adjust from fast to slow
6	6	Shutter	0-3	Open
			4-127	Pluse strobe from slow to fast
			128-191	Gradual strobe from slow to fast
			192-251	Random strobe from slow to fast
			252-255	Open
7	7	Dimming	0-255	0-100% dimmer
8		Dimmer Fine	0-255	Dimmer adjustment
9	8	Cyan	0-255	0-100% Cyan dimmer
10	9	Magenta	0-255	0-100% Magenta dimmer
11	10	Yellow	0-255	0-100% Yellow dimmer
12	11	CTO	0-255	0-100% CTO adjustment

13	12	Colors	0-127	Linear colors
			128-139	Color 1
			140-149	Color 2
			150-159	Color 3
			160-169	Color 4
			170-179	Color 5
			180-215	Clockwise rotation from fast to slow
			216-219	Stope
			220-255	Counter-clockwise rotation from slow to fast
14	13	Gobo 1	0-9	Open
			10-19	Gobo 1
			20-29	Gobo 2
			30-39	Gobo 3
			40-49	Gobo 4
			50-59	Gobo 5
			60-69	Gobo 6
			70-79	Gobo 7
			80-89	Gobo 1 Shaking from slow to fast
			90-99	Gobo 2 Shaking from slow to fast
			100-109	Gobo 3 Shaking from slow to fast
			110-119	Gobo 4 Shaking from slow to fast
			120-129	Gobo 5 Shaking from slow to fast
			130-139	Gobo 6 Shaking from slow to fast
			140-149	Gobo 7 Shaking from slow to fast
			150-200	Clockwise rotation from fast to slow
			201-204	Stope
			205-255	Counter-clockwise rotation from slow to fast
15	14	Rotating Gobo 2	0-9	Open
			10-19	Gobo 1
			20-29	Gobo 2
			30-39	Gobo 3
			40-49	Gobo 4
			50-59	Gobo 5
			60-69	Gobo 6
			70-79	Gobo 1 Shaking from slow to fast
			80-89	Gobo 2 Shaking from slow to fast
			90-99	Gobo 3 Shaking from slow to fast
			100-109	Gobo 4 Shaking from slow to fast
			110-119	Gobo 5 Shaking from slow to fast
			120-129	Gobo 6 Shaking from slow to fast
			130-190	Forward roation from fast to slow
			191-194	Stope
			195-255	Backward rotation from slow to fast
16	15	Gobo 2 Rotation	0-127	Rotation to any position
			128-190	Clockwise rotation from fast to slow
			191-192	Stop

			193-255	Counter-clockwise rotation from slow to fast
17		Gobo 2 Rotation Fine	0-255	Gobo 2 Rotation fine adjust
18	16	Effect	0-9	No function
			10-255	Effect Insert
19	17	Gobo 3 Rotation	0-2	No Function
			3-128	Clockwise rotation from fast to slow
			129-255	Counter-clockwise rotation from slow to fast
20	18	Focus	0-255	Focus
21	19	Focus Fine	0-255	Focus fine adjustment
22	20	Zoom	0-255	Zoom in and Zoom out
23		Zoom Fine	0-255	Zoom fine adjustment
24	21	Prism	0-127	No function
			128-255	Prism insert
25	22	Prism rotation	0-127	Prism rotation to any angle
			128-187	Clockwise rotation from fast to slow
			188-195	Stop
			196-255	Counter-clockwise rotation from slow to fast
26	23	Frost	0-127	No function
			128-255	Frost Insert
27	24	Blade 1	0-255	Blade 1 work
28		Blade 1 fine	0-255	Blade 1 fine adjustment
29	25	Blade 2	0-255	Blade 2 work
30		Blade 2 fine	0-255	Blade 2 fine adjustment
31	26	Blade 3	0-255	Blade 3 work
32		Blade 3 fine	0-255	Blade 3 fine adjustment
33	27	Blade 4	0-255	Blade 4 work
34		Blade 4 fine	0-255	Blade 4 fine adjustment
35	28	Blade 5	0-255	Blade 5 work
36		Blade 5 fine	0-255	Blade 5 fine adjustment
37	29	Blade 6	0-255	Blade 6 work
38		Blade 6 fine	0-255	Blade 6 fine adjustment
39	30	Blade 7	0-255	Blade 7 work
40		Blade 7 fine	0-255	Blade 7 fine adjustment
41	31	Blade 8	0-255	Blade 8 work
42		Blade 8 fine	0-255	Blade 8 fine adjustment

43	32	Blade Wheel	0-255	Blade rotation to any position
44		Blade Wheel fine	0-255	Blade rotation fine adjustment
45	33	Iris	0-127	Iris from large to small
			128-255	Iris
46	34	Reset	0-209	No Function
			210-215	XY reset after 6's
			220-235	Effect motor reset after 6's
			240-255	Reset All after 6's

6. Troubleshooting

Following are a few common problems that may occur during operation. Here are some suggestions for easy troubleshooting:

The light bulb is not working

- Check the voltage that matches the light fixture is installed;
- Check whether the lamp power supply connection or control switch is in poor contact;
- Check whether the power supply is insufficient;
- Check the DMX512 controller is sending instructions.

The light fixture does not accept control from the console after normal reset

- Check luminaire digital start address value and function options are correct;
- Check whether the connection of the communication control line is correct, the communication line is too long or has been interrupted;
- Check whether the control equipment is invalid, check whether the signal amplifier connected to the series is invalid;
- Check whether the communication line is too long or other devices interfere with each other;
- Optimize wiring, shorten the length of the control signal line, high-voltage and low-voltage lines separate wiring;
- Add signal amplifiers;
- Signal line adopts high quality shielded twisted pair wire;
- Connect the signal terminal resistor (120 ohms) at the end of the lamp.

Luminaire does not start

- Check that the power supply parameters are consistent with the luminaire;
- Check the lamps in the long distance transportation process due to extrusion deformation, internal parts vibration, moisture and other reasons, resulting in poor contact Or fall off.
- Please check whether the internal wire integration connector of the lamp has fallen off and is loose.
- Check whether the electronic components of the lamp (such as electronic transformer, PCB board, motor control board, etc.) are loose, short circuit and burned out.

When working, the action of the X axis or Y axis of the luminaire is abnormal

- Check them one by one by following the previous step;
- Check whether the transmission belt corresponding to the X and Y axis direction in the lamp falls off and breaks;
- Check whether the data feedback receiver (optocoupler) corresponding to the X and Y directions in the lamp is damaged;
- Restart and reset once.

7. Fixture Cleaning

It is absolutely essential that the fixture is kept clean to ensure the maximum light-output and allow the fixture to function reliably throughout its life. The fixture must be cleaned regularly to avoid dust, dirt and smoke-fluid residues building up on or within the fixture. The cleaning frequency depends on the application environment. Clean the fixture immediately if the dust enters it to avoid damage to the optical lens due to excessive dust.

- A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should solvents be used..
- Always dry the parts carefully.
- Clean the external optics at least every 20 days.
- Clean the internal optics at least every 30 days.

REMARK

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

Errors and omissions for every information given in this manual excepted.

All information is subject to change without prior notice.