



Butterfly 2

LH -BF2

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

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Index

1. Safety Instructions	2
2. Appearance	3
3. Technical Specifications	4
4. Operation	6
4.1 Board instruction	6
4.2 Front panel operation	7
5. DMX Protocol	9
6. Installation	19
6.1 Mounting & Rigging	19
6.2 Power connection	20
7. Maintenance & Cleaning	20
7.1 Cleaning	20
7.2 Lubrication	21
7.3 Troubleshooting	21

Accessories

Name	Quantity	Remark
User manual	1pc	
Power cable	1pc	
DMX signal cable	1pc	

1. Safety Instructions

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

- Check before use

Before operation, inspect the fixture for transportation damage. Do not use it if damaged. Unauthorized modification or improper use is not covered by warranty.

- Environment

The fixture is IP20-rated, suitable for indoor/outdoor use, and can operate in humid or dusty areas. Keep it away from excessive heat, fire, vibration, electrical surges, and strong light.

- Personnel & operation

Installation and operation must be performed by qualified personnel. Ensure all covers are securely in place, wear protective gear, and do not open the housing or attempt self-maintenance.

- Optical safety

Do not look directly into the light source. Do not use with dimmer packs. Maintain a minimum distance of 20 m from illuminated surfaces, and replace damaged optical components immediately.

- Electrical safety

Ensure correct voltage, proper grounding, and compliant power cords. Do not use damaged cables, and unplug by holding the plug. Avoid operating under heavy rain or extreme humidity, and avoid frequent on/off switching.

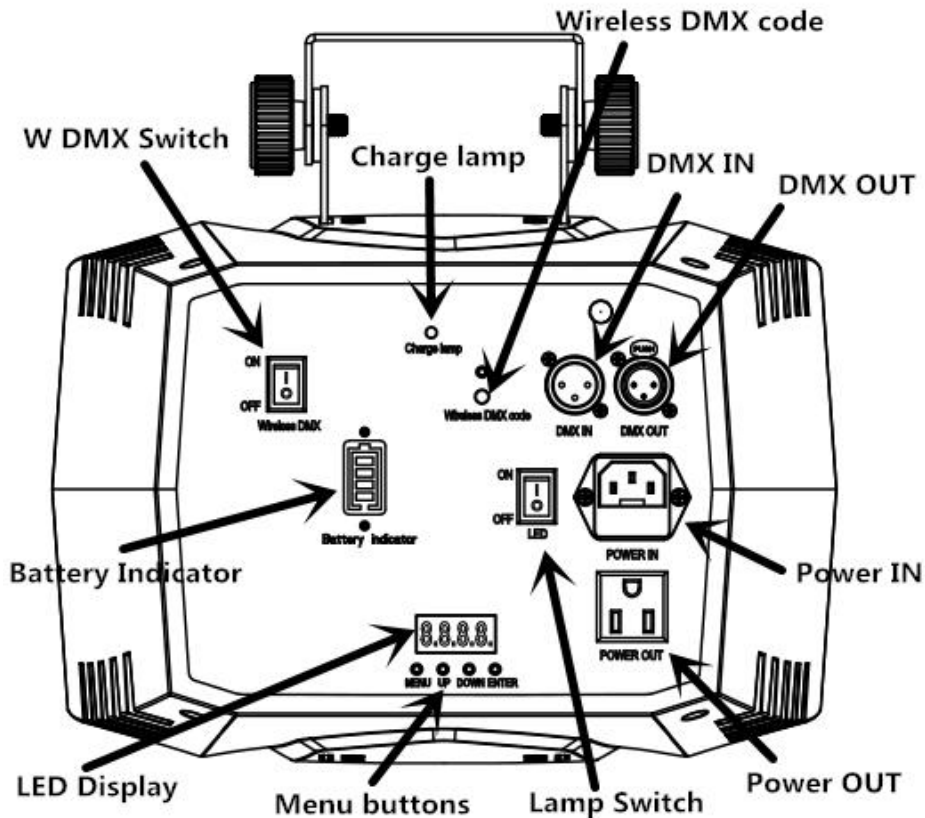
- Installation

Use the safety cord through the provided safety holes. Keep at least 50 cm ventilation clearance and do not mount on flammable surfaces or aim the beam at combustible objects (minimum 20 m).

- Temperature & normal conditions

Housing temperature may reach 45 – 75° C during operation. Slight smoke or odor may occur at first ignition and is considered normal.

2. Appearance



3. Technical Specifications

Power

Input Voltage: 100-240V~ 50/60Hz

Power Consumption:25W

Light source

Light Source:2×12W RGBW LED, 50mW red laser, 50mW green laser,
4×2W UV+CW LED

Life expectancy:About 20000hours (factory rated)

Rotating Gobo

2 rotating gobo wheels, rotating speed adjustable

Control

Display: Digital Display

Control Channel: 14CH

Control Mode:DMX512, master-slave, auto, sound, wireless, remote, RDM

Dimming/Strobe

Dimming:0-100% linear dimming system

Strobe: 0-20 F.P.S, speed adjustable

Housing

Housing: Plastic

Protection rate: IP20

Working temperature

Working temperature: -10℃-45℃

Battery

Battery Type: Lithium ion

Battery Power: 83.25Wh; 11.1V, 7500mAh

Battery Charge Time: About 3 hours (full power)

Butterfly 2

Battery Life: About 7-8 hours (all on)

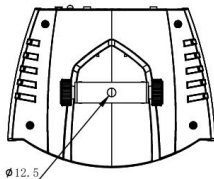
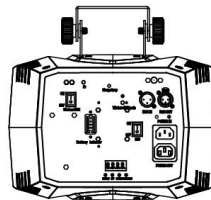
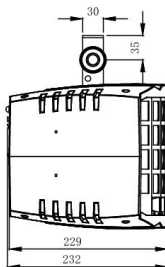
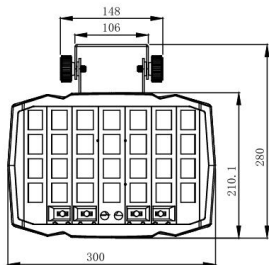
Product dimensions

300×232×280mm

Net weight

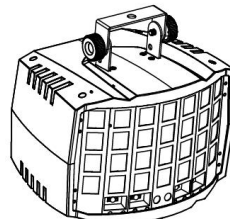
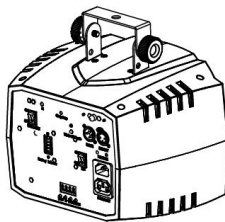
3.22kg

Dimensions:



Ø12.5

技术要求:
L 米为尺寸请参考3D图。



4. Operation

4.1 Board instruction:



A B C D

A. Menu

B. UP

C. Down

D. Enter

No	Display	Function
1	A001-A512	DMX address
2	Auto	Built-in mode 1
		Built-in mode 2
		Built-in mode 3
3	Sound	
4	MANU	Dim: 000-255(dimmer from 0%-100%)
		Str: 000-255 (from slow to fast)
		rEd: 000-255
		GrEn: 000-255
		bLuE:000-255
		WHIT:000-255
		rota: 000-255
5	IF	ON/OFF

4.2 Front panel operation



Instruction of remote

Dimmer	It will be 0-9 from dark to bright
	Up,Down key same function 0-9 from dark to bright
Auto	it has 1-3 different auto mode
Static	it will be 0-9 different colors
	Up,Down key rotation will be more and more fast
Flash	Strobe ON/OFF 0-off, 9- on
	Up, Down key it will be 0-9 different strobe speed
Sound	Sound control
	Up, Down key it is sensitivity 1-9 color different, higher of number,the better the sensitivity,

5. DMX Protocol

Mode/channel					DMX value	Function
49CH	42CH	50CH	43CH	51CH		
1	1	1	1	1		Pan
					0-255	0-540 degrees
2	2	2	2	2		Pan fine
					0-255	0-2 degrees
3	3	3	3	3		Tilt
					0-255	0-265 degrees
4	4	4	4	4		Tilt fine
					0-255	0-1 degree
5	5	5	5	5		Pan/ Tilt speed, Pan/ Tilt time
					0	Standard Mode
					1	Maximum speed
						In speed mode
					1-255	Speed from max. to min.
						In time mode
	1-255	Time from 0.1 seconds to 25.5 seconds				
6	6	6	6	6		Function Channel 1
					0-33	empty
					34-35	Dimming curve, cubic
					36-109	empty
					110-114	Dimming curve, square
					115-119	Dimming curve, linear
					120-139	empty
					140-149	P/T reset
					150-159	Color system reset
					160-169	Gobo wheel reset
					170-179	Stroboscopic reset (none for LED)

					180-189	Optical path system reset
					190-199	Effect wheel reset
					200-209	Reset all
					210-255	empty
						Function Channel 2
					0-4	empty
					5-9	Dimming frequency: 2K
					10-14	Dimming frequency: 4K
					15-19	Dimming frequency: 15K
					20-24	Dimming frequency: 25K
					25-255	empty
8	8	8	8	8		empty
9	9	9	9	9		empty
						Color wheel 1
					0-124	Continual positioning
					125-129	white
					130-141	Color 1
					142-152	Color 2
					153-165	Color 3
					166-177	Color 4
					178-189	Color 5
					190-215	Forwards rainbow effect from fast to slow
					216-217	No rotation
					218-243	Backwards rainbow effect from slow to fast
					244-249	Reserved
					250-255	Random colors, from fast to slow
						Color wheel 1 fine
11	*	11	*	11	0-255	Fine positioning
						Color wheel 2
12	11	12	11	12	0-124	Continual positioning

					125-129	white
					130-141	Color 1
					142-153	Color 2
					154-165	Color 3
					166-177	Color 4
					178-189	Color 5
					190-215	Forwards rainbow effect from fast to slow
					216-218	No rotation
					219-243	Backwards rainbow effect from slow to fast
					244-249	Reserved
					250-255	Random colors, from fast to slow
13	*	13	*	13		Color wheel 2 fine
					0-255	Fine positioning
14	12	14	12	14		Cyan
					0-255	Cyan from min. saturation to full cyan
15	13	15	13	15		Magenta
					0-255	Magenta from min. saturation to full magenta
16	14	16	14	16		Yellow
					0-255	Yellow from min. saturation to full yellow
17	15	17	15	17		CTO
					0-255	The color saturation ranges from low to high
*	*	18	16	18		empty
18	16	19	17	19		empty
19	17	20	18	20		empty
20	18	21	19	21		CMY+CTO+ Color wheel time

					0-255	Time of CMY, CTO and Colour wheels movement from 0.1 seconds to 25.5 seconds
21	19	22	20	22		empty
22	20	23	21	23		Effect wheel
					0-50	empty
					51-255	Effect wheel cut in
23	21	24	22	24		Effect wheel rotation
					0	No rotation
					1-127	Forwards rotation from fast to slow
					128	No rotation
					129-255	Backwards rotation from slow to fast
24	22	25	23	25		Animation effect
					0-7	no
					8-9	Animation effect 1
					10-11	Animation effect 2
					12-13	Animation Effect 3
					14-15	Animation effect 4
					16-17	Animation effect 5
					18-19	Animation effect 6
					20-21	Animation Effect 7
					22-23	Animation Effect 8
					24-25	Animation Effect 9
					26-27	Animation Effect 10
					28-255	Random effect
25	23	26	24	26		Fixed gobo wheel
					0-8	Open/Hole
					9-17	Gobo 1
					18-26	Gobo 2
					27-35	Gobo 3

					36-44	Gobo 4
					45-53	Gobo 5
					54-62	Gobo 6
					63-71	Gobo 7
					72-80	Gobo 8
					81-91	Gobo 9
						<u>Shaking gobos from slow to fast</u>
					92-103	Gobo 1
					104-115	Gobo 2
					116-127	Gobo 3
					128-139	Gobo 4
					140-151	Gobo 5
					152-163	Gobo 6
					164-175	Gobo 7
					176-187	Gobo 8
					188-199	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	Reserved
					250-255	Auto random gobo selection, from fast to slow
						Rotating gobo wheel
						<i>Index- set indexing on channel 27/25/26/28/29</i>
26	24	27	25	27	0-3	Open/Hole
					4-7	Gobo 1
					8-11	Gobo 2
					12-15	Gobo 3
					16-19	Gobo 4

				20-23	Gobo 5
				24-27	Gobo 6
				28-31	Gobo 7
					<i>Rotation- set rotation on channel 27/25/26/28/29</i>
				32-35	Gobo 1
				36-39	Gobo 2
				40-43	Gobo 3
				44-47	Gobo 4
				48-51	Gobo 5
				52-55	Gobo 6
				56-59	Gobo 7
					<u>Continual positioning</u>
					<i>Index- set indexing on channel 27/25/26/28/29</i>
				60	Open/Hole
				68	Gobo 1
				76	Gobo 2
				84	Gobo 3
				92	Gobo 4
				101	Gobo 5
				109	Gobo 6
				117	Gobo 7
				125	Open/Hole
					<u>Continual positioning</u>
					<i>Rotation- set rotation on channel 27/25/28/26/29</i>
				125	Open/Hole
				133	Gobo 1
				141	Gobo 2
				149	Gobo 3
				157	Gobo 4
				166	Gobo 5

					174	Gobo 6
					182	Gobo 7
					189-201	Open/Hole
					202-222	Forwards gobo wheel rotation from fast to slow
					223-243	Backwards gobo wheel rotation from slow to fast
					244-249	Reserved
					250-255	Auto random gobo selection from fast to slow
*	*	*	*	28		Rotating gobo wheel- fine positioning
					0-255	Fine positioning
27	25	28	26	29		Rotation gobo indexing and rotation
					0	No rotation
					1-127	Forwards gobo rotation from fast to slow
					128	No rotation
					129-255	Backwards gobo rotation from slow to fast
28	*	29	*	30		Rotation gobo indexing and rotation- fine
					0-255	Fine indexing/ rotation
29	26	30	27	31		Prism
					0-19	Open position- hole
					20-73	Prism indexing
					74-255	Prism rotation
30	27	31	28	32		Prism indexing/ rotation
					0-255	Prism Index
						<u>Prism rotation</u>
					0	No rotation
					1-127	Forwards prism rotation from

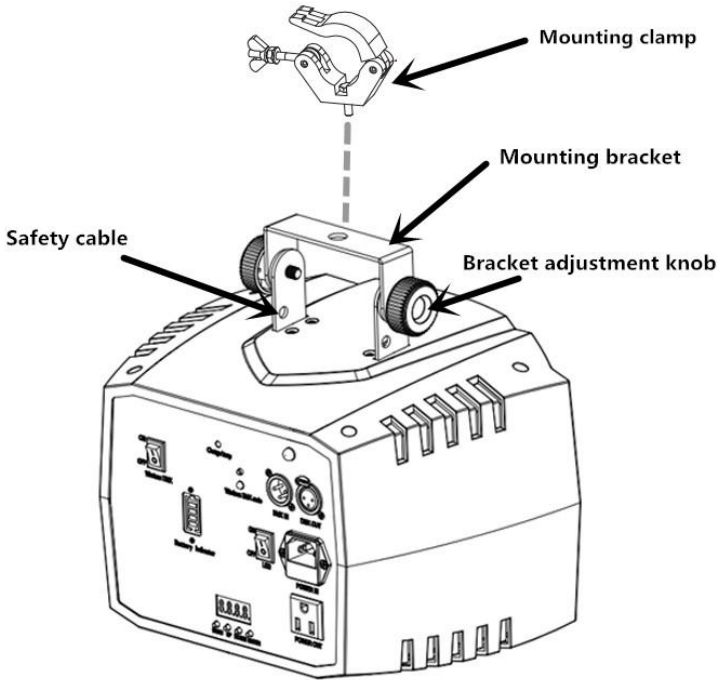
						fast to slow
					128	No rotation
					129-255	Backwards prism rotation from slow to fast
31	28	32	29	33		Frost
					0	empty
					1-127	Light frost
					128-255	Medium frost
32	29	33	30	34		Iris
					0	Open
					1-179	From max. diameter to min. diameter
					180-191	Open
					192-219	Pulse opening from slow to fast
					220-247	Pulse closing from fast to slow
248-255	Random pulse opening and closing					
33	*	34	*	35		Iris-fine
					0-255	Fine iris movement
34	30	35	31	36		Zoom
					0-255	Zoom: The beam Angle increases from small to large
35	*	36	*	37		Zoom- fine
					0-255	Fine zooming
36	31	37	32	38		Focus
					0-255	Continuously adjustment from far to near
37	*	38	*	39		Focus- fine
					0-255	Fine focusing
38	32	39	33	40		Framing shutters module rotation

					0-255	Rotation
39	33	40	34	41		Framing shutter 1- movement
					0	empty
					1-255	Movement from Outward to Inward
40	34	41	35	42		Framing shutter 1- swivelling
					0	empty
					1-255	Swivelling from -30 degrees towards +30 degrees
41	35	42	36	43		Framing shutter 2- movement
					0	empty
					1-255	Movement from Outward to Inward
42	36	43	37	44		Framing shutter 2- swivelling
					0	empty
					1-255	Swivelling from -30 degrees towards +30 degrees
43	37	44	38	45		Framing shutter 3- movement
					0	empty
					1-255	Movement from Outward to Inward
44	38	45	39	46		Framing shutter 3- swivelling
					0	empty
					1-255	Swivelling from -30 degrees towards +30 degrees
45	39	46	40	47		Framing shutter 4- movement

					0	empty
					1-255	Movement from Outward to Inward
46	40	47	41	48		Framing shutter 4-swivelling
					0	empty
					1-255	Swivelling from -30 degrees towards +30 degrees
47	41	48	42	49		Shutter/strobe
					0-31	Close
					32-63	Open
					64-95	Shutter effect, from slow to fast
					96-127	Open
					128-143	Opening pulse in sequences from slow to fast
					144-159	Closing pulse in sequences from fast to slow
					160-191	Open
					192-223	Random strobe-effect, from slow to fast
					224-255	Open
48	42	49	43	50		Dimming intensity
					0-255	Dimmer intensity: from 0% to 100%
49	*	50	*	51		Dimming intensity- fine
					0-255	Fine dimming

6. Installation

6.1 Mounting & Rigging



- **Attach Mounting Hardware**

Install the 2 × ¼-turn quick-lock Omega brackets to the base, then secure suitable rated C- or O-clamps to the brackets.

- **Position and Rig the Fixture**

Mount the fixture onto a stable truss or structure using clamps rated to hold at least 10× the fixture's weight.

Always lift the fixture using the handles—not the clamps.

- **Install the Safety Cable**

Run the safety cable through the two safety-cable holes on the base and

secure it to an independent safety point.

Ensure the safety cable is rated for 10× the fixture's weight.

- Ensure Ventilation

Verify that fans and ventilation openings are unobstructed and that sufficient space is available around the fixture.

- Lock / Unlock Pan & Tilt

Lock Pan and Tilt before moving the fixture.

Unlock them before powering on.

Never operate the fixture while Pan/Tilt is locked.

- Final Stability Check

Ensure all clamps, screws, and safety cable connections are firmly secured, and confirm the mounting structure can support the fixture's weight.

6.2 Power connection

Please checking the power equipment supported.

Please put the plug of power source wire connect with 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	

7. Maintenance & Cleaning

Regular maintenance is essential to ensure optimal performance and extend the service life of the fixture.

7.1 Cleaning

Disconnect the unit from power before any cleaning work.

Use a soft, lint-free cloth slightly dampened with mild detergent to clean the exterior surfaces.

Gently remove dust from ventilation slots, optical lenses, and cooling components using compressed air or a soft brush.

Avoid using solvents, alcohol, or abrasive materials that may damage the housing or optical elements.

7.2 Lubrication

This fixture is designed with sealed or maintenance-free moving parts. Under normal operating conditions, no additional lubrication is required. If abnormal noise or movement resistance is observed, contact qualified service personnel before applying any lubricant.

7.3 Troubleshooting

If the fixture does not power on, verify the power supply, cables, and connectors.

For control issues, check DMX addressing, cable integrity, and ensure proper 3-pin/5-pin XLR connections.

Overheating or unexpected shutdown may indicate blocked ventilation; inspect and clean air inlets and outlets.

If problems persist after basic checks, discontinue use and contact authorized service technicians.



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