

RHINOBAT412

Battery 4×12W LED Wireless DMX



USER MANUAL

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1. WARNING

1.1 Safety Instructions

This product guide contains important information about the safe installation and use of this product. Please read and follow these instructions carefully and keep this manual in a safe place for future reference.

When unpacking and before disposing of the carton, check there is no transportation damage before using the product. Should there be any damage caused by transportation, consult your dealer and do not use the apparatus.

The product is for indoor use only. Use only in dry locations. Keep this device away from rain and moisture, excessive heat, humidity and dust. Do not allow contact with water or any other liquids. The product is not designed or intended to be mounted directly on to inflammable surfaces. 

The product is only intended for installation, operation and maintenance by qualified personnel.

The product must be installed in a location with adequate ventilation, at least 50cm from adjacent wall surfaces. Be sure that no ventilation slots are blocked.

Do not directly look into the led. It can cause harm to your eyes. Do not look at the LEDs with a magnifying glass or any other optical instrument that may concentrate the light output.

Do not attempt to dismantle and/or modify the product in any way.

Electrical connection must only be carried out by qualified personnel.

Before charging the fixture, ensure that the voltage and frequency of power supply match the power requirements of the product.

Do not directly look into the light beam. It can cause harm to your eyes. Do not look at the led with a magnifying glass or any other optical instrument that may concentrate the light output.

A rechargeable lithium ion battery is built inside this fixture. Please avoid bumping or plunging, it may cause fire or explosion. Never store the battery when fully drained. Always recharge immediately when empty. Make sure to fully charge all fixtures before storing them. Partially charged batteries will lose capacity. Fully recharge every 6 months if not used.

When charging fixtures in flight case, always charge with the case open. It is recommended to charge at a temperature between 0°C and 35°C.

Please make sure the battery will be disposed of properly according to your local law when it runs out of its life, so that to protect the environment.

This product is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.

If this fixture is operated in any other way other than the one said in this manual, this device may suffer damages and thus the warranty becomes void.

Always switch off the fixture when it is not in use or before cleaning it or before attempting any maintenance work.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the fixture.

1.2 Rigging

Concerning rigging, trussing for this fixture, please follow the European and national guidelines.

Only the qualified technicians are allowed for the device installation,

The fixture must never be mounted for a possible swinging position, and a safety cord attached must always be used.

2. PRODUCT INTRODUCTION

2.1 Items Included in the Package

After receiving the fixture, please carefully unpack the product and make sure the following parts are all included inside the package and are all in good condition.

- This fixture x 1 pcs
- Power cable 1.5m x 1 pcs
- IR Remote controller x 1 pcs
- This manual x 1 pcs

In case the package is damaged from shipping, inform the carrier right away while keeping the damaged box for inspection. Failure to report damage to the carrier immediately may cause invalidity to your claim. The dealer or manufacture will not take any responsibilities for the damage.

In case there are parts missing from the box with a good condition, please contact your dealer or the manufacturer immediately by email or in other written form.

2.2 Product Overview

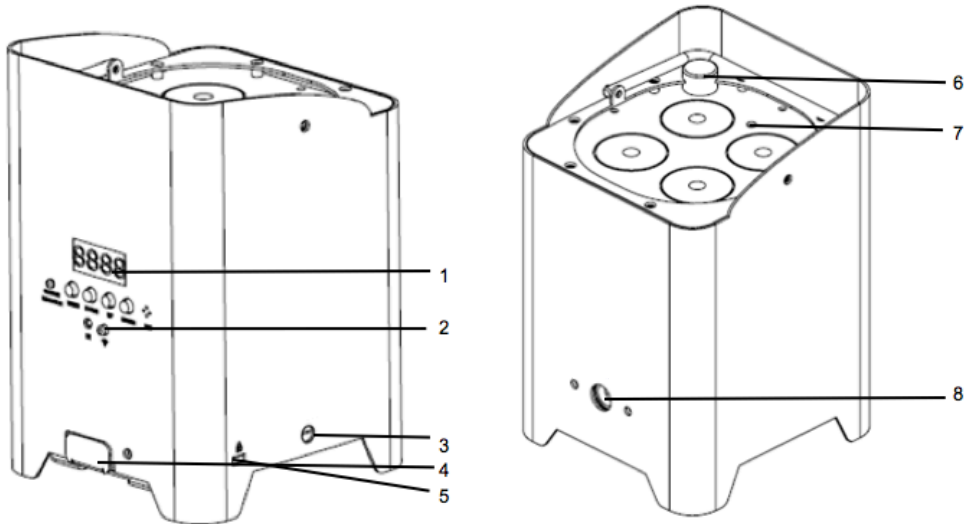
This lighting fixture is a battery powered led luminaire with wireless DMX receiver. This luminaire features 4 super bright RGBW 4-in1 led, and can create unlimited color changing effects and wide range of color temperatures.

This lighting fixture has a rechargeable lithium battery that can support 9 hours working at led full-color mode. It can work longer time at ECO mode. The luminaire can continue working 12 hours to run its built-in programs and around 18 hours to run single color. Its battery is fully protected against overcharging to maximize battery life span.

This lighting fixture uses a very stable wireless DMX receiver from Wireless Solution Sweden to ensure maximum stability of wireless DMX signal. The fixtures are also fully compatible to infrared remote control. The IR controller can help users to achieve all working functions.

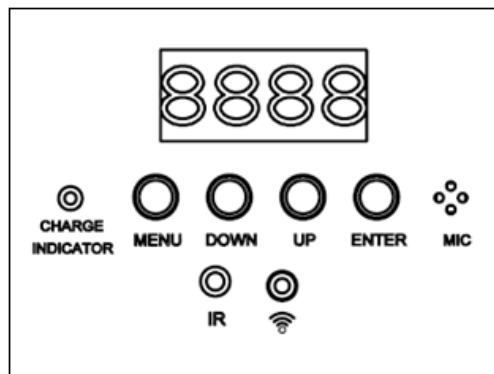
This highly compact luminaire has very small dimensions that can be used not only as an uplighter but also as truss warmer. Its tilt can manually move 25 degrees when needed. It is absolutely an ideal tool for mobile DJ/Bands, wedding, exhibitions, ball room and hotel banquet halls etc.

2.2.1 Fixture Elements




- 1. Led control panel 2. Wireless DMX Indicator 3. M8 hole for safety cord
- 4. Adjustable tilt support 5. Hole for laptop lock 6. Wireless DMX antenna
- 7. IR receiver (For receiving control from infrared remote controller) 8. Threaded hole M10 for clamp

2.2.2 Fixture Display Panel

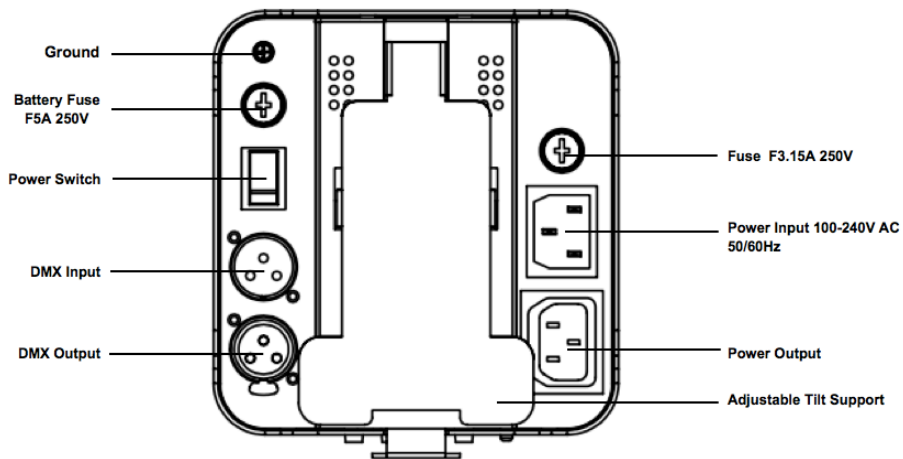


Led Display Panel

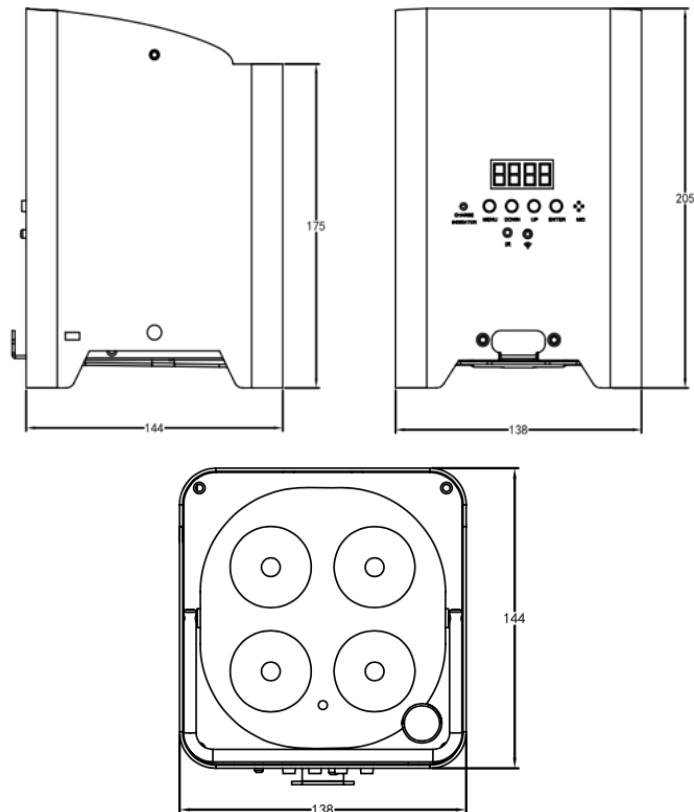
- 1. Menu To select the programming functions
- 2. Up Scroll "UP" through the menu list to increase the value of the current function
- 3. Down Scroll "DOWN" through the menu list to decrease value of the current function

- 4. Enter Enter the current menu or confirm the current function value
- 5. Charge Indicator
 - Yellow flashing – power less than 30%, need to charge battery
 - Red – charging battery
 - Green – battery fully charged
- 6. IR IR receiver (For receiving control from infrared remote controller)
- 7.  Wireless DMX Indicator

2.2.3 Fixture Connectors



2.2.4 Fixture Dimensions



2.3 Fixture Temperature

The fixture has temperature protection function. You can easily check fixture temperature via led display menu.

When fixture temperature is higher than 65 degrees, light output will decrease to 80%. When fixture temperature is higher than 65 degrees, light output will decrease to 60%. When fixture temperature is higher than 75 degrees, leds will go off automatically until temperature comes down to 55 degrees.

2.4 Storing the Fixture

Make sure to fully charge all fixtures before storing them. Partially charged batteries will lose capacity. Fully recharge every 6 months if not used.

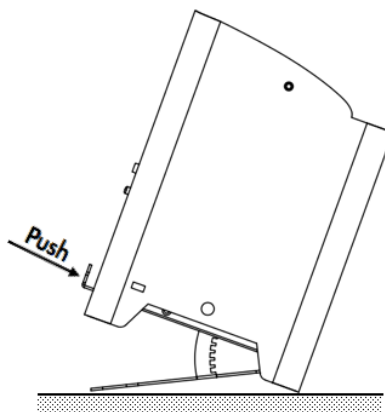
Always remove battery fuse if fixture will be stored for long time (more than 1 month).

2.5 Mounting

The fixture can be mounted in several orientations.

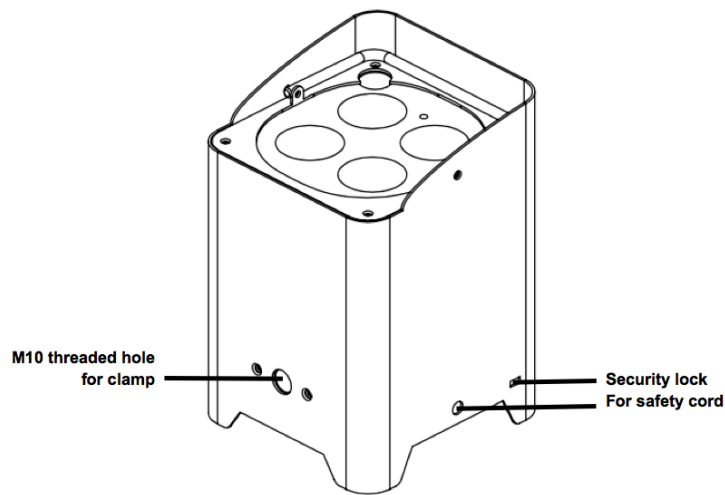
2.5.1 The fixture has a highly compact housing, and can be fit inside 300x300mm truss as truss warmer.

2.5.2 The fixture can sit on even and solid floor and work as an uplight. It also has a built-in adjustable tilt support. By pushing the tilt support, the fixture tilt can move up to 25 degrees to wash walls or facades.



Make sure that the fixture is always placed on even and strong enough surface, and keep it 0.5m away from projected objects.

2.5.3 The fixture has a M10 threaded hold for clamp, and can be mounted on truss as truss warmer.



When install the fixture to crossbar or truss, always use an extra safety cord (not supplied with the fixture). Users also need to make sure the crossbar is stable or not moving, and can support a weight of 35 kg (fixture net weight 3.3kg).

For the rest of safety installation, please always respect your local regulations.

2.6 Specifications

Electrical

Power input	100-240VAC 50/60Hz
Power consumption	55W max.
Power input/output connector	IEC input/output

Battery

Battery type	Rechargeable lithium-ion battery
Charge time	Around 5 hours
Battery life	Around 9.0 hours full color from one charge Around 11.0 hours full color at ECO mode from one full charge Around 18 hours at running preset programs Around 27 hours at running single color

Light sources

Led	4x12W, RGBW 4-in-1 quad color
Beam angle	15°
Field angel	29°
Led average life span	50,000 hours

Control

Control mode	DMX512, Master/Slave, Stand Alone, Sound Activated mode; Wireless DMX, IR Remote Control
DMX channel	4/6/11 channels
Control panel	4-digit led display

Physical & Construction

Housing	Metal
Housing color	Black
Fixture dimensions	138 x 144 x 204mm
Net weight	3.3 kg
Working temperature	-10°C - 40°C
Charge temperature	0°C - 35°C
IP rating	IP20
Cooling	Natural cooling, silent operation

3. BATTERY

The fixture has a rechargeable lithium battery and auto-ranging charger built in. Always store the fixtures with full battery. Depleted batteries must be recharged immediately; otherwise fixture performance will suffer.

Battery runtime will decreased time by time. Battery runtime may be slightly shorter than predicted due to different working enviroments.

3.1 Battery Charging

To charge the fixture battery, plug the power cable into a local main socket. The auto-ranging charger has an input to 100-240V AC, 50/60Hz. A normal charging time is about 4-5 hours.

It is recommended to charge the fixture at an ambient temperature between 0°C and 35°C.

Battery always charges whenever it is plugged to main socket. If the fixture is plugged in but not in operation, please always keep the power switch "Off".

When charging fixtures in flight case, make sure to keep the case open.

3.2 Battery Life Indicator

The fixture has a charge indicator monitoring battery life status. When battery capacity is less than 30%, yellow light will start flashing. When this happens, charge the battery immediately till it is 100% fully charged. Red light will turn on during the whole charging time. Once the battery is fully chaged, the indicator will turn on green. Unplug the fixture from the main source, the fixture now can operate free of cable.

Note: The battery must be replaced with an original one from the manufacturer only.

4. PRODUCT SETUP

The fixture battery fuse (5A) is removed during transport for safety reasons. Before switching on your fixture, please put back the fuse to fuse holder at the bottom of the fixture.

This fixture has a built-in rechargeable lithium battery. After it is fully charged, switch on the fixture with the power switch at the bottom of the unit, it will start to run and can be controlled with wireless DMX desk or IR controller.

After operation, please switch off the fixture with its power switch.

4.1 Led Display Setup

There are 4 control buttons under the LED display: <MENU>, <ENTER>, <UP> and <DOWN>.



- 【Menu】 Menu selection or return to previous menu.
- 【 Up 】 Scroll "UP" through the menu list to increase the value of the current function.
- 【Down】 Scroll "DOWN" through the menu list to decrease the value of the current function.
- 【ENTER】 Enter the current menu or confirm the current function value.

4.2 Led Display Protection

When slave fixtures receive DMX signal, the red dot will keep slow flashing;
When master fixture sends DMX signal, the red dot will keep fast flashing.

Led display turns off automatically after 10 seconds.

Press "Menu" button to activate led display.

4.3 Reset Fixture

To reset the fixture to factory default, press “Menu” and “Enter” buttons at the same time, your fixture will be reset to factory default immediately. To clear fixture run time, please press the 4 buttons at the same time.

4.4 Fixture Temperature Protection

4.4.1 When fixture temperature is higher than 65 degrees, light output will decrease to 80%.

4.4.2 When fixture temperature is higher than 65 degrees, light output will decrease to 60%.

4.4.3 When fixture temperature is higher than 75 degrees, led will go off automatically until temperature comes down to 55 degrees.

4.5 Menu Navigation

1 st Level	2 nd Level	3 rd Level	Description	Remarks
Addr Addr	d00 1 d5 12		d001~d512	
CHAN Channel mode	4CH		4 channels	
	6CH		6 channels	
	11CH		11 channels	
FAIL Fail	Hold		Hold on current mode	Fixture will go to this running mode
	BLAC		Black out	automatically in case
	AUTO		Auto run	DMX signal fails
CoLo Color	red	255	0~255	
	GrEE	255	0~255	
	BLUE	255	0~255	
	ANbE	255	0~255	
Prog Program	SEAt	Co0 1 Co25	Co01~Co25	Static color mode
	FADE Fade	FA0 1 ... FA05	SP0 1... SP09	FA01~FA05: fading SP01~SP09: speed from slow to fast
	AUTO Auto	SP0 1 SP09	SP01~SP09	Auto run speed from slow to fast
	SoUn Sound	SE0 1 SE09	SE01~SE09	Mic. Sensitivity from low to high
	Stro Strobe	St00 St 10	St00~St10	St00: no strobe St01~St10: Strobe from slow to fast.

M-5 Master/Slave mode	SLAU Slave	CLEAR Clear		
	MASt			Master fixture has a flashing red dot indicator
U1 F1 Wireless DMX	on off	10S~60S	Default 10 seconds	Wireless DMX indicator turns off automatically in 5 seconds
	CLEAR			To erase wireless DMX memory
uEr. Version	u2.10			Software version V2.1
Hour	0000			Fixture this run time hh:mm
bAtt	C 100	C000~C100		Battery capacity
ECon	on off			Available when 3 or more than 3 colors mixing.
tENP	t000			Fixture temperature
IR	on off			IR Remote control

4.6 DMX Addressing

Each fixture must be given a DMX address so that the correct fixture responds to the correct control signals. This DMX address is the channel number from which the fixture starts to "listen" to the digital control information being sent out from the controller.

This fixture has 3 DMX channel modes, 4, 6 and 11 DMX channel. To set up fixture DMX address, first select DMX channel mode. The highest DMX address for this fixture is 512. To set up fixture DMX starting address, follow the steps below:

- Switch on the fixture, Addr will appear, or press "Menu" and scroll up/down till CHAn appears;
- Press "Enter", and "Up" or "Down" button to select 4CH or 6CH or 11CH;
- Press "Enter" to confirm your select.
- Press "Menu" repeatedly to come back to Addr;
- Press "Enter" again to set up DMX address by scrolling "Up"/"Down" button.
- Press "Enter" to save your setting.

4.7 DMX Cable Requirements

This fixture can be controlled via standard DMX-512 protocol. You need to use a standard 3-pin XLR connector for data input and output.



3-pin XLR

Make sure to use standard two conductor shielded cable. Your cables should be made with a male and female XLR connector on either end of the cable. Also remember that DMX cable must be daisy chained and cannot be split.

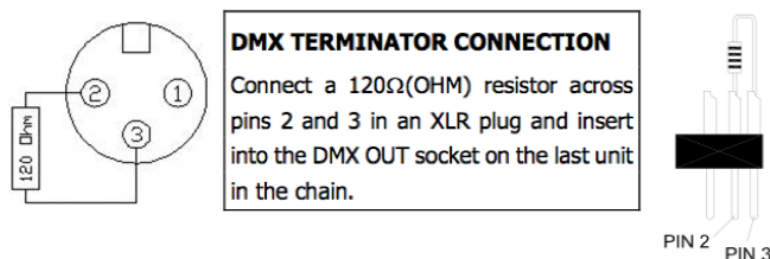
To ensure proper DMX data transmission, when using several DMX fixtures, try to use the shortest cable path. The order in which fixtures are connected in a DMX chain does not influence the DMX addressing. For example, a fixture assigned a DMX address as 1 may be placed anywhere in a DMX line, at the beginning, or at the end, or anywhere in the middle. When a fixture is assigned a DMX address as 1, the DMX controller understands to send DATA assigned to address 1 to that fixture, no matter where it is positioned in the DMX chain.

4.8 DMX Terminator

In DMX Control mode, at the last controller box in the chain, the DMX output has to be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting the DMX control signals.

The DMX terminator is simply an XLR connector with a 90 - 120Ω (ohm) 1/4-watt resistor connected across pins 2 and 3 of a male XLR connector (DATA+ and DATA-). This terminator is then plugged into the output socket on the last fixture in the daisy chain to terminate the line. Using a cable terminator will decrease the possibilities of erratic behavior.

The connections are illustrated below.



5. OPERATION

5.1 DMX Control Mode

This function will allow users to control individual fixture with a standard DMX 512 console. Below is fixture DMX Channel Chart.

Channel Mode	Channel	Function	DMX Value	Description
4 Channel	1	Red	0-255	0-100%
	2	Green	0-255	0-100%
	3	Blue	0-255	0-100%
	4	Amber	0-255	0-100%
6 Channel	1	Master dimming	0-255	0-100%
	2	Red	0-255	0-100%
	3	Green	0-255	0-100%
	4	Blue	0-255	0-100%
	5	Amber	0-255	0-100%
	6	Strobe	0-10 11-255	No function Strobe from slow to fast
11 Channel	1	Master dimming	0-255	0-100%
	2	Red	0-255	0-100%
	3	Green	0-255	0-100%
	4	Blue	0-255	0-100%
	5	Amber	0-255	0-100%
	6	Strobe	0-10	No function
			11-255	Strobe from slow to fast
	7	Color Macro & White balance	0-10	No function
			11-30	R: 100% G: 0-100% B: 0
			31-50	R: 100%-0 G: 100% B: 0
			51-70	R: 0 G: 100% B: 0-100%
			71-90	R: 0 G: 100%-0 B: 100%
			91-110	R: 0-100% G:0 B: 100%
		Color Macro & White balance	111-130	R: 100% G: 0 B: 100%-0
			131-150	R:100% G: 0-100% B: 0-100%
			151-170	R: 100%-0 G:100%-0 B: 100%
			171-200	R: 100% G: 100% B: 100%
			201-205	White 1
			206-210	White 2
			211-215	White 3
216-220			White 4	
221-225	White 5			
226-230	White 6			
231-235	White 7			
236-240	White 8			

	7	Color Macro & White balance	241-245	White 9
			246-250	White 10
			251-255	White 11
	8	White color temperature	0-5	No function
			6-25	R: 255 G: 215 B: 076 W: 251
			26-50	R: 255 G: 236 B: 095 W: 252
			51-75	R: 249 G: 249 B: 108 W: 253
			76-100	R: 229 G: 255 B: 125 W: 239
			101-125	R: 197 G: 242 B: 133 W: 207
			126-150	R: 187 G: 235 B: 136 W: 191
			151-175	R: 169 G: 236 B: 148 W: 207
			176-200	R: 168 G: 240 B: 156 W: 204
			201-225	R: 167 G: 244 B: 165 W: 201
			226-250	R: 167 G: 255 B: 183 W: 192
	9	Preset programs	251-255	No function
			0-10	No function
			11-40	RGB fading
			41-70	CMY fading
			71-100	RGBW fading
			101-130	RGBWCMY fading
			131-160	RGB color changing
			161-190	CMY color changing
			191-220	RGBW color changing
221-255	RGBWCMY color changing			
10	Speed	0-255	From slow to fast	
11	Sound control	10-255	Sound control	

5.2 Master/Slave Mode

Fixtures can operate Master/Slave mode with physical XLR cable linking. In Master/Slave mode, one fixture will work as the Master fixture, other fixtures in the daisy chain will work in synchronization with the Master fixture.

First of all, link the fixtures with 3-pin XLR cables (not included in the package).

To set a master fixture, press "Up" or "Down" repeatedly until **M-S** (master-Slave) appears, press "Enter" and scroll down to **MASTER** (master), press "Enter" to save your setting.

To set a slave fixture, press "Up" or "Down" repeatedly till **M-S** appears, press "Enter" and scroll "Down" to **SLAVE** (slave), press "Enter" to save your setting.

Now go to **Run** (run mode) to set the master fixture running mode, the slave fixtures will run

synchronously with the master fixture. Master fixture can run color, fade. Auto run, sound control and strobe.

5.3 Auto Run Mode

This fixture has preset color mixing and fading programs that can be activated from the led display menu for automatic running. To access this, follow below steps:

- Press button "Menu" until **Run** (run mode) appears.
- Press "Enter" and then press "Up" or "Down" to scroll up/down until **Auto** (auto) appears;
- Press "Enter" to select running speed from slow to fast.

5.4 Sound Activated Mode

To set the sound activated mode. In this operation mode, the fixture will respond to music rhythm. Follow the steps below:

- Press button "Menu" until **Run** (run mode) appears.
- Press "Enter" and then press "Up" or "Down" to scroll up/down until **Sound** (sound) appears;
- Press "Enter" to select microphone sensitivity from SE01 to SE09. SE01 is the lowest sensitivity, SE09 is the highest.
- Press "Enter" to save your setting.

5.5 Wireless DMX Operation

This fixture can be controlled via wireless DMX system. Users need to pair the fixture to wireless DMX transmitter first.

There is one wireless DMX indicator near the led display. This indicator shows status of wireless DMX connection.

Indicator Status	Description
Yellow light on	Fixture receiving wireless DMX signal from transmitter.
Yellow light slow flashing	Fixture already connected to transmitter, but no signal coming from transmitter.
Yellow light fast flashing	Fixture no connection to transmitter; fixture keeps. Wireless DMX memory from last pair.
Yellow light off	Fixture no connection to transmitter, and no any wireless DMX memory.

5.5.1 After fixture is switched on, and if there is no new transmitter, fixture will connect to the old transmitter automatically, no need to re-pair it.

5.5.2 To clear wireless DMX memory, go to "U_i F_i" scroll up till you see "CLEAR" (Clear), press both "Enter" button, the wireless DMX indicator will turn off.

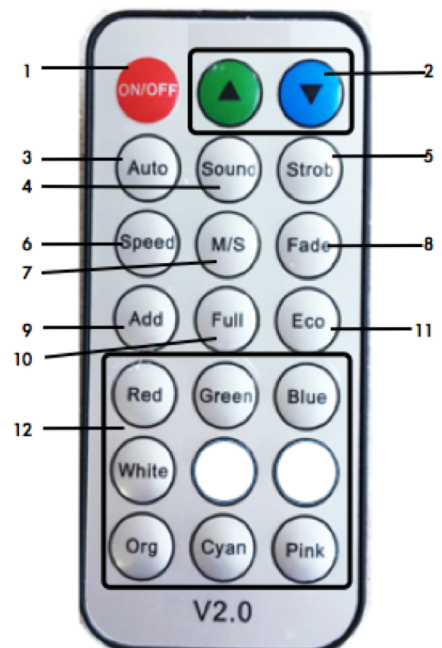
5.5.3 To pair fixture and transmitter, set the fixture to slave first, and make sure wireless DMX indicator is Off. Then press the pair button on the transmitter, fixture indicator will start to fast flashing, pair succeeds.

5.6 IR Remote Control

This operation mode allows users to control the fixture with an infrared remote controller. The remote controller can help you to achieve almost all functions.

To activate IR remote control, press "Menu" until "IR" appears, press "Up" or "Down" button and select "On". Press "Enter" to save the setting.



To control the fixture with this IR remote controller, make sure to point the controller directly to the IR receiving sensors on the product. Make sure there are no objects between the controller and the fixture.



1 - Set the fixture into blackout (LED on/off).

2 - Adjust auto, strobe & fade speed, sound sensitivity, DMX address, DMX channel, brightness etc.

3 - Run auto mode, use "Speed" button followed by the

  buttons to adjust auto speeds.





4 - Run sound program, use   buttons to adjust sound sensitivity.



5 - Run strobe program, use   buttons to adjust strobe speed.

6 - Set auto/fade speed, Press this button followed by   buttons to adjust program speed.

7 - Set the fixture into master or slave mode.

8 - Run fade mode. Use "Speed" button followed by   buttons to adjust fade speed.

9 - Set DMX address. Press this button followed by   to set up DMX address. Press this button again followed by   to select DMX channel.

10 – Set the fixture in full brightness. Press this button followed by   buttons to adjust brightness on/off.

11 – Set fixture to Eco mode. Fixture battery will run about 30 minutes longer in Eco mode.

12 – Set static color. Select static color from this area. This fixture has RGBW led, so “Amber” and “UV” buttons are invalid.

6. MAINTENANCE

6.1 General Maintenance

The operator has to make sure that the safety-related and machine-technical installations are to be inspected by an expert once a year in the course of an acceptance test.

The operator has to make sure that safety-related and machine-technical installations are to be inspected by a skilled person once a year.

The following points have to be considered during the inspection:

- The electric power supply cables must not show any damages or material fatigue.
- Make sure connections are clean and totally dry before linking equipments or supplying electric power.
- All screws used for installing the fixture or parts of the fixture have to be tightly connected and must not be corroded.

The fixture has optical lenses; users should clean the lenses periodically to optimize light output. The cleaning frequency depends on the environment in which the curtain system is installed. Damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the lenses. Even in a clean type of surroundings, it is suggested to clean the lens and housing at least once a month. It is suggested to use a soft cloth using normal glass cleaning fluid.

The following points have to be considered during the maintenance:

- Unplug the system from main power.
- Use a vacuum or dry compressed air and a soft brush to remove dust on the cloth.
- Clean the lens with a mild solution of glass cleaner or isopropyl alcohol, and a soft, lint free cotton cloth

or a lens cleaning tissue.

- Gently polish the external glass surfaces until they are free of haze and lint.

6.2 Fuse Replacement

The fixture has two fuses, power fuse is 3.15A 250V, and battery fuse 5A 250V. Battery fuse is removed for safety reasons during transportation. So always place back battery fuse to its fuse holder before starting to use the fixture. When fixture is stored more than 4 months, for a safe storage, always remove the fuse and keep it in a safe place for future use.

In case fuse(s) is blown, you need to replace it(them). Unplug the fixture from power, use a flat-head screwdriver to turn the fuse holder anticlockwise and take out the fuse holder; remove the blown fuse from the holder and replace it with the exact same type and rating one. Insert the fuse hold back to the housing, and turn the fuse holder clockwise to tighten it.

Do the same way to replace blown battery fuse when needed.

Always replace a blown fuse with another of the same type and rating.

7. WARRANTY

The manufacturer hereby warrants, to the original purchaser, our products to be free of manufacturing defects in material and workmanship for a period of one year (365 days) from the date of purchase. Battery is guaranteed for 90 days from the date of purchase. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought. This warranty is void if the serial number has been altered or removed; if the product is modified in any manner which the manufacturer concludes, after inspecting, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the manufacturer unless prior written authorization was issued to purchaser by the manufacturer. If the product is damaged because not properly maintained as set forth in the instruction manual. No warranty, whether expressed or implied, is given or made with respect to any accessory supplier with products described above. The consumer's and or Dealer's sole remedy shall be such repair or replacement as is expressly provided.; and under no circumstances shall the manufacturer be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product. This warranty is the only written warranty applicable to the manufacturer. Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published. The manufacturer reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured.