STORM

TECHNICAL SERVICES FOR EVENTS, THEATRE, MUSIC, EXHIBITION, FILM & TV
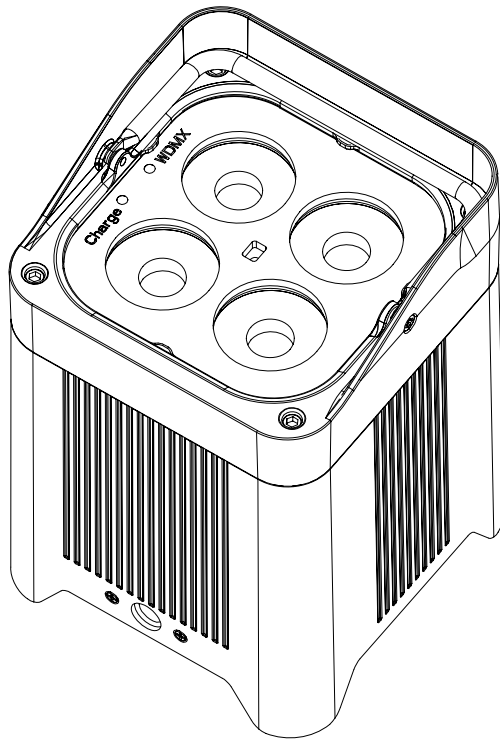
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SmartBat plus⁺

PORTABLE BATTERY-POWERED UPLIGHTER

MANUALE UTENTE
USER MANUAL

TABLE OF CONTENTS

⚠️ **WARNING! Before carrying out any operations with the unit, carefully read this instruction manual and keep it with cure for future reference. It contains important information about the installation, usage and maintenance of the unit.** ⚠️

SAFETY

General instruction
- The products referred to in this manual conform to the European Community Directives and are therefore marked with CE.
- Supply voltage of this product is DC24V; never connect directly to AC220V. Leave servicing to skilled personnel only. Never make any modifications on the unit not described in this instruction manual, otherwise you will risk an electric shock.
- Connection of the power adapter must be made to a power supply system fitted with efficient earthing (Class I appliance according to standard EN 60598-1). It is, moreover, recommended to protect the supply lines of the units from indirect contact and/or shorting to earth by using appropriately sized residual current devices.
- The connection to the main network of electric distribution must be carried out by a qualified electrical installer. Check that the voltage correspond to those for which the unit is designed as given on the electrical data label.
- This unit is not for home use, only professional applications.
- Never use the fixture under the following conditions:
  - in places subject to vibrations or bumps;
  - in places subject to excessive humidity.
- Make certain that no inflammable liquids, water or metal objects enter the fixture.
- Do not dismantle or modify the fixture.
- All work must always be carried out by qualified technical personnel. Contact the nearest sales point for an inspection or contact the manufacturer directly.
- If the unit is to be put out of operation definitively, take it to a local recycling plant for a disposal which is not harmful to the environment.

Warnings and installation precautions
- If this device will be operated in any way different to the one described in this manual, it may suffer damage and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short circuit, burns, electric shock, etc.
- Before starting any maintenance work or cleaning the projector, cut off power from the main supply.
- Always additionally secure the projector with the safety rope. When carrying out any work, always comply scrupulously with all the regulations (particularly regarding safety) currently in force in the country in which the fixture's being used.
- Install the fixture in a well ventilated place.
- Keep any inflammable material at a safe distance from the fixture.
- Shields, lenses or ultraviolet screens shall be changed if they have become damaged to such an extent that their effectiveness is impaired.
- The lamp (LED) shall be changed if it has become damaged or thermally deformed.
- Never look directly at the light beam. Please note that fast changes in lighting, e. g. flashing light, may trigger epileptic seizures in photosensitive persons or persons with epilepsy.
- Do not touch the product's housing when operating because it may be very hot.

- 1 - INTRODUCTION

1.1 DESCRIPTION
SMARTBATPLUS is the new outdoor IP65 version of the popular SMARTBAT, enlarging the possible application of this luminaire even in outdoor venues or for architectural applications. SMARTBATPLUS is equipped with a lithium battery pack and a built-in WiFi module for cable- free operation. The ultra- compact and lightweight design makes this projector truly portable and rechargeable countless times without "memory effect". The internal battery has an autonomy for 12 hours in color change mode and up to 8 hours in full output, while the charging time is only 4 hours. The light source is composed of 4x10W high-power RGBW LEDs / fullcolor for a color calibration in the full-spectrum and the extractable foot allows you to adjust the angle of the beam to assist tracking operations. Different control modes are available on-board, like 2.4GHz WDMX with built-in antenna, infra-red transmission by remote control and classic wired DMX.

1.2 TECHNICAL SPECIFICATIONS

LIGHT SOURCE
- Source: 4x10W RGBW LEDs
- Luminous Flux: 2064lm
- Lux: 2064lux @3m
- Source Life Expectancy: >50.000 h

OPTICS
- Beam Angle: 11°
- Field Angle: 19°

COLOR SYSTEM
- Color Mixing: RGBW/FC
- White Presets: 3200-9000K
- Color Wheel: Virtual color wheel with presets
- Macros: Built-in white presets

DYNAMIC EFFECTS
- Static Color Mode: Selection of static color
- Manual Color Mode: Manual adjustment of color
- Auto Mode: Built-in programs with execution speed adjustment

BODY
- Tilt Angle: 20° Adjustable foot support for tilt regulation (up to 20°)
- Body: Sturdy die-cast aluminium body conceived for long-time durability
- Body Color: Mirror finishing

CONTROL
- Protocols: DMX512
- Dmx Channels: 3/4/6/10ch
- W-DMX: Included, Wireless Solution receiver
- Display: Black OLED touch display
- Firmware Upgrade: Yes, via USB-DMX interface (UPBOX1) not included
- IR: Infra-Red sensor controlled by remote

ELECTRONICS
- Dimmer: Linear 0~100% electronic dimmer
- Dimmer Curves: 4 Different dimming curves available
- Strobe/Shutter: 1-25 Hz, electronic
- Operating Temperature: 0° / 35°
- Flicker: Flicker free operation

ELECTRICAL
- Power Supply: 100-240V – 50/60Hz

BATTERY
- Battery: 16,8V Lithium
- Autonomy (color change mode): 12h
- Autonomy (permanent white full-on): 8h
- Recharge Connection: Magnetic fast-charge in case
- Recharge Time: 4h/max
- Battery Status: Shown on Display

PHYSICAL
- IP: IP65 (front) - IP54 (bottom)
- Cooling: Natural cooling of the peculiar chassis and to absence of fans
- Suspension And Fixing: M12 threaded insert for easy clamp installation and a Kensington lock position
- Dimensions (WxHxD): 138x145x202 mm
- Weight: 3,6 kg

Technical drawing   Fig.1

11°

Illuminance at a Distance

0m		
1.0m	18580lx	0.23m
3.0m	2064lx	0.68m
5.0m	743.2lx	1.14m
7.0m	379.2lx	1.60m

Lux Center   Beam Angle: 11°   Beam Width   Fig.2
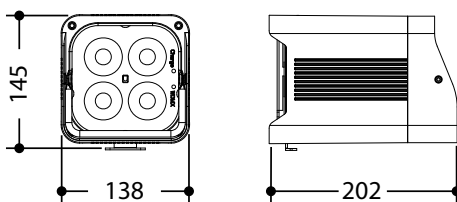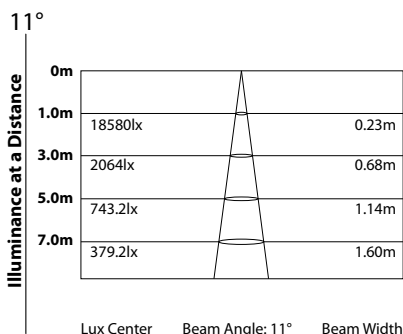
Photometric data

1.3 OPERATING ELEMENTS AND CONNECTIONS

Fig.3

1. CONTROL PANEL with display and 4 button used to access the control panel functions and manage them.
2. Adjustable foot support for tilt regulation (up to 20°).
3. ON/OFF SWITCH.
4. CHARGING CONTACT
5. RELEASE LEVER to adjustable foot support
6. CARRYING HANDLE
7. IR SENSOR
8. Wireless DMX RECEIVER

- 2 - INSTALLATION

2.1 MOUNTING

SMARTBATPLUS may be set up on a solid and even surface. The unit can also be mounted upside down to a cross arm. For fixing, stable mounting clips are required. The mounting place must be of sufficient stability and be able to support a weight of 10 times of the unit's weight.

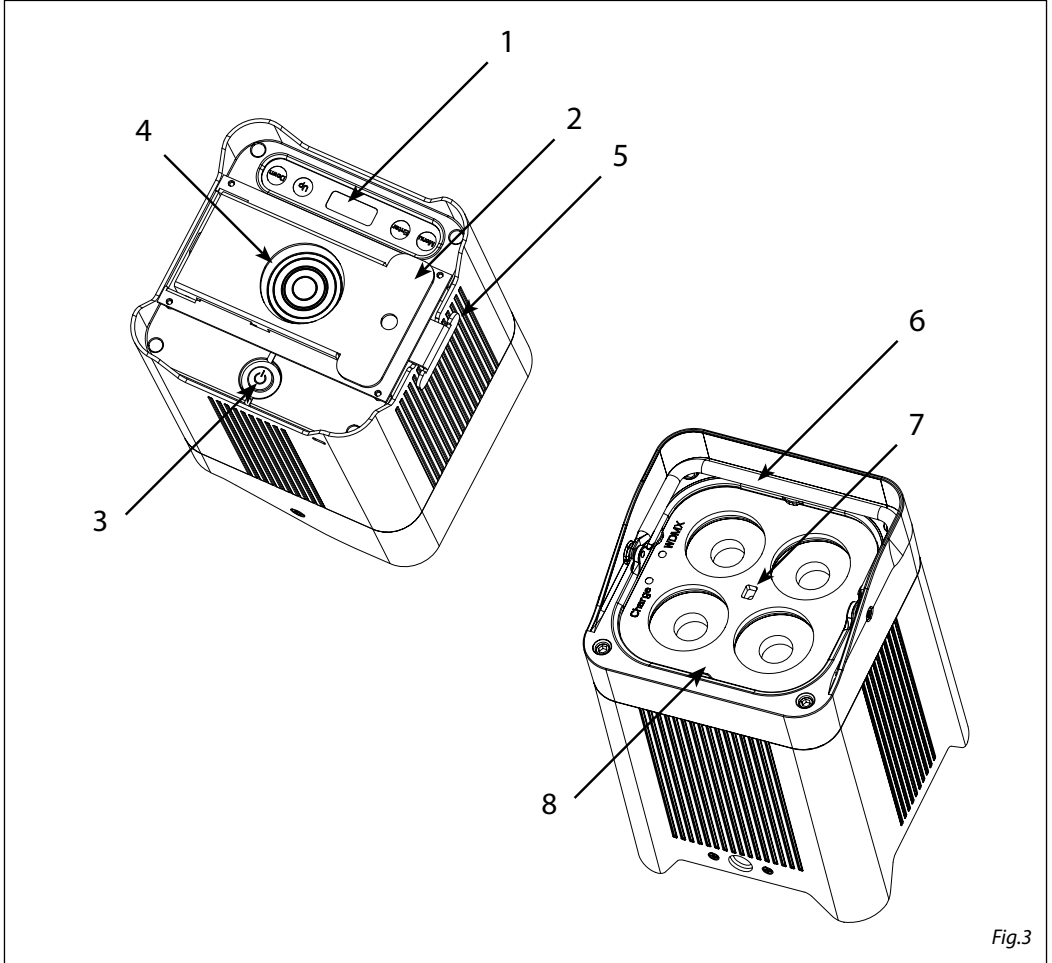When carrying out any installation, always comply scrupulously with all the regulations (particularly regarding safety) currently in force in the country in which the fixture's being used.

IMPORTANT

Always additionally secure the projector with the safety rope from falling down. For this purpose, fasten the safety rope at a suitable position so that the maximum fall of the projector will be 20 cm.

THREADED HOLE
M12

Fig.4
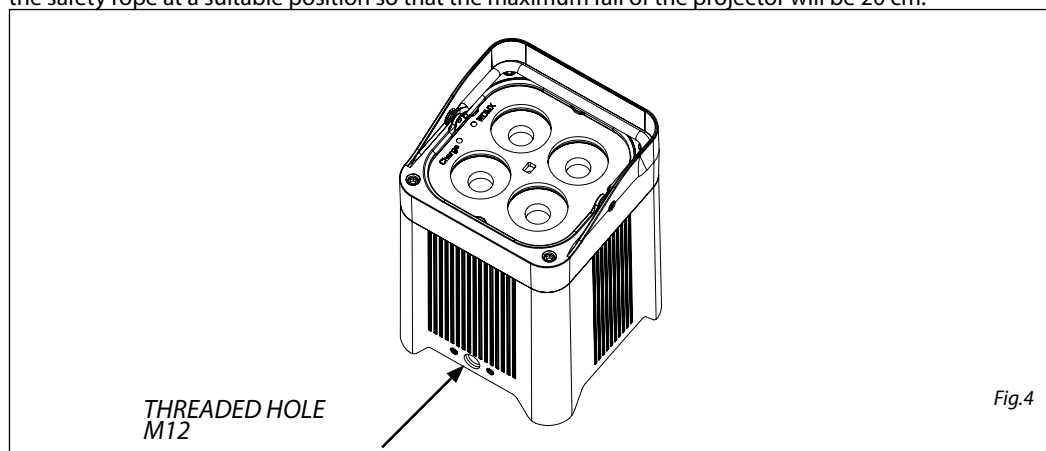
- 3 - FUNCTIONS AND SETTINGS

3.1 OPERATION

Switch on the SMARTBATPLUS with the power switch. The unit is ready for operation and can be operated via a DMX controller or it independently performs its show program in succession.

After operation, switch off the unit with the power switch.

3.2 BASIC SETUP

The SMARTBATPLUS has a OLED display and 4 buttons for access to the functions of the control panel (fig. 5).

MENU	UP	DOWN	ENTER
Used to access the menu or to return a previous menu option	Button to select the values in ascending order of the function	Button to select the values in descending order of the function	Used to select and store the current menu or confirm the current function value or option within a menu
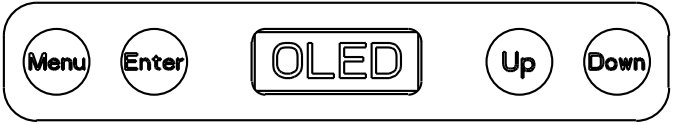
Fig.5 - Functions of the buttons

3.3 RECHARGE
To recharge SMARTBAT:
- connect the unit to the special battery charger through the lower connector
- connect the battery charger to the power supply

NOTE - The charging time are 4 h and autonomy is 12h

Flight-case SMARTBATPLUSPACK (optional)
Flight-case designed to contain 6pcs SMARTBATPLUS with battery charger kit included..
- Internal separated compartments with charger plug for every device
- Case power input: Powercon IN
- Dimensions (LxHxD): 537x540x470 mm

NOTE
Always charge with
flight-case open.
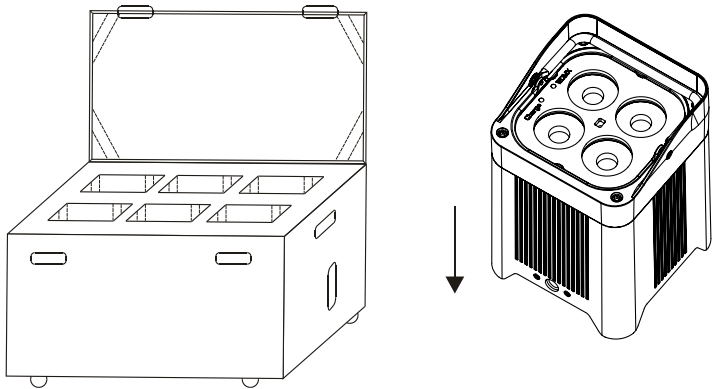
3.4 MENU STRUCTURE

	MENU							
1	**Autoshow**	⇨	Auto 1	⇨	001 - 100			
			Auto 2	⇨	001 - 100			
			Auto 3	⇨	001 - 100			
			Auto 4	⇨	001 - 100			
			Auto 5	⇨	001 - 100			
2	**Static**	⇨	Static	⇨	R			
					G			
					B			
					W			
					GB			
					RB			
					RG			
					RGB			
					RW			
					GW			
					BW			
					RGW			
					RBW			
					GBW			
					RGBW			
			Manual Color	⇨	R	⇨	000 - 255	
					G	⇨	000 - 255	
					B	⇨	000 - 255	
					W	⇨	000 - 255	
3	**Dimmer Mode**	⇨	Off					
			Dimmer 1					
			Dimmer 2					
			Dimmer 3					
4	**Back Light**	⇨	On					
			10 s					
			20 s					
			30 s					
5	**Information**	⇨	Fixture Hours	⇨	9999 H			
			Version	⇨	V 1.0			

6	**DMX Address**	⇨	001 - 509		
7	**DMX Channel**	⇨	4 Ch		
			6 Ch		
			10 Ch		
			HSV		
			HSI		
8	**White Balance**	⇨	R	⇨	125 - 255
			G	⇨	125 - 255
			B	⇨	125 - 255
9	**Wireless Setting**	⇨	Receive On/Off	⇨	On
					Off
			Receive Reset	⇨	No
					Yes
10	**IR Setup**	⇨	On		
			Off		
11	**Key Lock**	⇨	On		
			Off		
12	**Factory Reset**	⇨	No		
			Yes		

3.5 AUTO SHOW
This fixture has a built-in automatic program. To access this, please see the below instructions:
- Press the MENU button so many times until shows [**Autoshow**].
- Press the ENTER button to confirm.
- Using UP/DOWN button, select one of the programs [**Auto 1 - Auto 5**].
- Press the ENTER button save the setting.
- Using UP/DOWN button, select the speed value of the show [**S1 - S100**].
- Press the ENTER button save the setting.

3.6 STATIC COLOR
This fixture has the ability to accept custom static color settings. Access these chases via the control panel on the back of the fixture.
- Press the MENU button so many times until shows [**Static**].
- Press the ENTER button to confirm.
- Press the MENU button so many times until shows [**Fixed Color**].
- Press the ENTER button to confirm.
- Using UP/DOWN button, select one of the programs [**R,G,B,W,.....,RGB,....,RGBW**].
- Press the ENTER button save the setting.

3.7 MANUAL COLOR
To set the personal balance of the color refer to the following procedure:
• Press the MENU button so many times until the display shows **[Static]**
• Press the ENTER button to confirm.
• Press the MENU button so many times until shows [**Manual Color].**
• Press the ENTER button to confirm.
• Using UP/DOWN button, select one of the programs [**R,G,B,W**].
• Press the ENTER button to confirm.
• Using UP/DOWN button, select the wanted value of the program [**000-255**].
• Press the ENTER button save the setting and to pass to the successive color.
• Continue until obtain the wanted color mix

3.8 IR SETUP
To start up the IR recevitor refer to the following steps:
• Press the MENU button so many times until the display shows [**IR Setup].**
• Press the ENTER button to confirm.
• Press the UP/DOWN button, select one of the programs [**ON]** or **[OFF].**
• Press the ENTER button for save the setting.
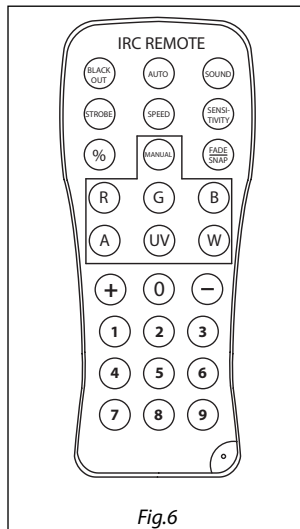NOTE - Make sure to point the controller directly at the receiver on the product.

Fig.6

3.9 WIRELESS SETTING
- To set the wireless mode refer to the following guide:
- Press the MODE button until the display shows Wireless Setting, then press the ENTER button.
- Use the UP/DOWN button until the display reads Wireless Receive, and then press the ENTER button and select the ON mode.
- Press the MODE button to go back or to meet the waiting time to exit the setup menu. NOTE - After you complete these steps, you have to synchronize with any wifi unit with which you want to communicate by pressing the sync button present on the same. Then connect any DMX console to wifi
- unit for to open the communication with the SMARTBATPLUS unit.
- To reset the unit press the MODE button until the display shows Wireless Reset, then press the ENTER-button.
- Use the UP/DOWN button until the display reads Yes, and then press the ENTER button.
- Press the MODE button to go back or to meet the waiting time to exit the setup menu.

3.10 DIMMER MODE
- Enter in Dimmer mode to select specific dimming curve, press the MENU button so many times until shows [**DIMMER MODE**], and press the ENTER button to confirm.
- Press the button UP/DOWN to select [**Off - Dimer 1 - Dimmer 2 - Dimmer 3**.]
- Press ENTER button to store.
- Press the MENU button to go back or to meet the waiting time to exit the setup menu.

3.11 DMX MODE
- Press the MENU button so many times until shows, **[DMX Channel]** and press the ENTER button to confirm.
- Press the UP/DOWN button to select the desired DMX mode **[4Ch], [6Ch], [10Ch], [HSV], [HSI]** and press the ENTER button to for save the setting.
- The tables on page 14 indicate the operating mode and DMX value.

3.12 DMX ADDRESSING
To be able to operate the SMARTBATPLUS with a light controller, set the unit DMX start address for the first DMX channel. To set the start address refer to following procedure:
- Use the UP/DOWN button until the display reads **[DMX Address]** and then press the ENTER button to confirm
- Press the UP/DOWN button to select the value [**d 1-509]** and then press the ENTER button **.**
If e. g. address 33 on the controller is provided for controlling the function of the first DMX channel, adjust the start address 33 on the SMARTBAT.
The other functions of the light effect panel are then automatically assigned to the following addresses. An example with the start address 33 is shown in the page 13.

3.13 KEY LOCK

Enter the **Key Lock** mode to select whether the access password is on or off.

- Press the button MODE so many times until show **Key Lock** and press the button ENTER to confirm.
- Use UP/DOWN button to select: ON or OFF.
- Press ENTER button to confirm the selection.

When the fixture is set as pass ON, after 30 seconds or turn on the fixture next time, the fixture will need an access password to enter the display menu control.

NOTE - The factory access password is **UP + DOWN + UP + DOWN** (press ENTER to confirm the access)

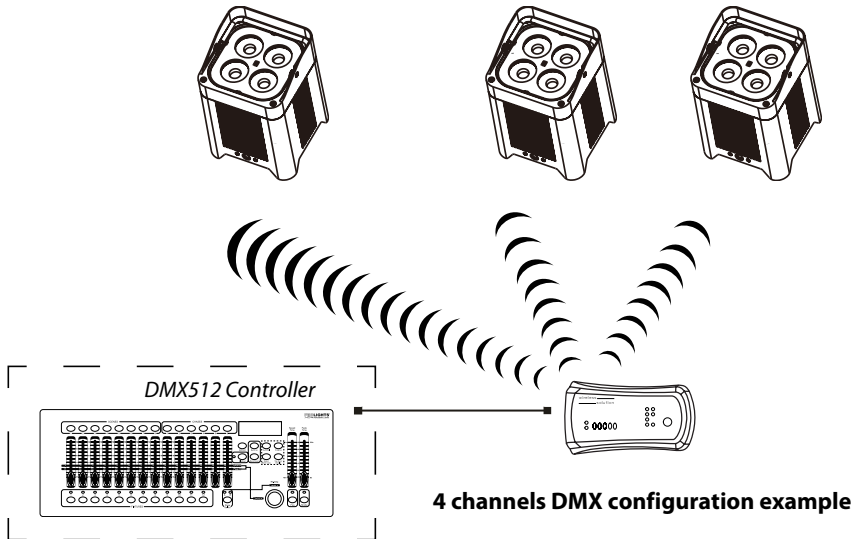| DMX Channels number	Start address (example)	Busy DMX address	Next possible start address for unit n°1	Next possible start address for unit n°2	Next possible start address for unit n°3
4	33	33-36	37	41	45

4 channels DMX configuration example

DMX512 Controller

Fig.7

3.14 DMX CHANNELS

MODE 10 Ch	FUNCTION	DMX Value
1	**DIMMER** 0~100%	000 - 255
2	**RED** 0~100%	000 - 255
3	**GREEN** 0~100%	000 - 255
4	**BLUE** 0~100%	000 - 255
5	**WHITE** 0~100%	000 - 255
6	**STROBE** No Function Strobe slow to fast	000 - 010 011 - 255
7	**COLOR PRESET + WHITE BALANCE** No Function R 100% G 0~100% B 0 R 100%~0 G 100% B 0 R 0 G 100% B 0~100% R 0 G 100%~0 B 100% R 0~100% G 0 B 100% R 100% G 0 B 100%~0 R 100% G 0~100% B 0~100% R 100%~0 G 100%~0 B 100% R 100% G 100% B 100% W 100% White Balance 1 White Balance 2 White Balance 3 White Balance 4 White Balance 5 White Balance 6 White Balance 7 White Balance 8 White Balance 9 White Balance 10 White Balance 11	000-010 011-030 031-050 051-070 071-090 091-110 111-130 131-150 151-170 171-200 201-205 206-210 211-215 216-220 221-225 226-230 231-235 236-240 241-245 246-250 251-255
8	**AUTO/SOUND PROGRAMS** No Function Auto Program 1 Auto Program 2 Auto Program 3 Auto Program 4	000-051 052-101 102-152 153-203 204-254

MODE 10 Ch	FUNCTION	DMX Value
8	Auto Program 5	255
9	**AUTO SPEED** Speed slow to fast	000 - 255
10	**DIMMER CURVE** Preset dimmer speed from display menu Dimmer speed mode off Dimmer speed mode1 (fast speed) Dimmer speed mode2 (middle speed) Dimmer speed mode3 (slow speed)	000-051 052-101 102-152 153-203 204-255

MODE 4 Ch	FUNCTION	DMX Value
1	**RED** 0~100%	000 - 255
2	**GREEN** 0~100%	000 - 255
3	**BLUE** 0~100%	000 - 255
4	**WHITE** 0~100%	000 - 255

MODE 6 Ch	FUNCTION	DMX Value
1	**MASTER DIMMER** 0~100%	000 - 255
2	**RED** 0~100%	000 - 255
3	**GREEN** 0~100%	000 - 255
4	**BLUE** 0~100%	000 - 255
5	**WHITE** 0~100%	000 - 255
6	**STROBE** No Function Strobe slow to fast	000 - 010 011 - 255

MODE HSV	FUNCTION	DMX Value
1	**HUE** 0~100%	000 - 255
2	**SATURATION** 0~100%	000 - 255
3	**BRIGHTNESS VALUE** 0~100%	000 - 255

MODE HSI	FUNCTION	DMX Value
1	**HUE** 0~100%	000 - 255
2	**SATURATION** 0~100%	000 - 255
3	**INTENSITY** 0~100%	000 - 255

- 4 - MAINTENANCE

4.1 MAINTENANCE AND CLEANING THE UNIT
- Make sure the area below the installation place is free from unwanted persons during setup.
- Switch off the unit, unplug the main cable and wait until the unit has cooled down.
- All screws used for installing the device and any of its parts should be tightly fastened and should not be corroded.
- Housings, fixations and installation spots (ceiling, trusses, suspensions) should be totally free from any deformation.
- The main cables must be in impeccable condition and should be replaced immediately even when a small problem is detected.
- It is recommended to clean the front at regular intervals, from impurities caused by dust, smoke, or other particles to ensure that the light is radiated at maximum brightness. For cleaning, disconnect the main plug from the socket. Use a soft, clean cloth moistened with a mild detergent. Then carefully wipe the part dry. For cleaning other housing parts use only a soft, clean cloth. Never use a liquid, it might penetrate the unit and cause damage to it.

Battery Guide

New Lithium Battery Initialisation

Any new fixture containing a Lithium battery should be initialised when first purchased to maximise its battery life.
To do this:

1. Fully charge the unit for a minimum of 5 to 6 hours.

2. Fully discharge, then fully recharge the battery.

3. Repeat this cycle another 2 times for optimum battery life.

Maximizing Battery Performance

1. Lithium batteries perform best when in regular use. Long idle periods will reduce the battery life.

2. Recharge the battery at the earliest opportunity, leaving batteries discharged for long periods will reduce battery life.

3. Store units containing Lithium batteries at cool temperatures. High ambient temperatures significantly reduce the life of a Lithium battery.

4. Disconnect power from the unit when charging is complete.

5. Do not use fixtures whilst charging.

Long term storage

1. Charge your fixture's battery to around 50%. If you store a fixture with a fully discharged battery, it could fall into a deep discharge state. If you store it fully charged, the battery may lose some capacity, leading to shorter battery life.

2. Power down the device to avoid additional battery use.

3. Place your device in a cool, moisture-free environment that's less than 32° C (90° F).

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ISO 9001:2008 Certified Company