



SmartBat PlusNeo

60W Outdoor battery uplighter with
RGB+WW LED source



USER MANUAL

Thank you for choosing PROLIGHTS

Please note that every PROLIGHTS product has been designed in Italy to meet quality and performance requirements for professionals and designed and manufactured for the use and application as shown in this document.

Any other use, if not expressly indicated, could compromise the good condition/operation of the product and/or be a source of danger.

This product is meant for professional use. Therefore, commercial use of this equipment is subject to the respectively applicable national accident prevention rules and regulations.

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Product user manual can be downloaded from the website www.prolights.it , or can be inquired to the official PROLIGHTS distributors of your territory (https://www.prolights.it/sales_network.html).

Scanning the below **QR Code**, you will access the download area of the product page, where you can find a broad set of always updated technical documentation: specifications, user manual, technical drawings, photometrics, personalities, fixture firmware updates.



**Visit the download area
of the product page**



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INDEX

1 - PACKAGING	07
1.1 PACKAGE CONTENT	07
1.2 OPTIONAL ACCESSORIES	07
2 - TECHNICAL DRAWING	07
3 - INSTALLATION	08
3.1 MOUNTING	08
4 - CONNECTION TO THE MAINS SUPPLY	09
5 - START UP	09
5.1 CHARGING AND POWERING THE PRODUCT	09
6 - PRODUCT OVERVIEW	10
7 - DMX CONNECTION	11
7.1 DMX ADDRESSING	11
7.2 WIRELESS DMX (CRMX)	11
8 - CONTROL PANEL	13
8.1 DISPLAY AND BUTTONS LAYOUT	13
9 - SHORTCUT	13
10 - MENU STRUCTURE	14
10.1 DIMMER CURVES	17
10.2 DIMMER SPEEDS	18
10.3 MASTER/SLAVE	18
10.4 STANDALONE OPERATIONS	19
11 - DMX CHARTS	20
11.1 DMX BASIC MODES	20
11.2 DMX LEGACY MODES	21
11.4 CHANNEL DEFINITION	22
12 - RDM FUNCTIONS	28
13 - UPDATE FIRMWARE	31
13.1 REQUIRED ACCESSORIES	31
13.2 FIRMWARE UPGRADE PROCEDURES	31
14 - RUNTIME	32
14.1 OPERATING DURATION FOR DIFFERENT RUNTIME SETUPS	32
15 - ERROR MESSAGES	33
16 - ACCESSORIES INSTALLATION	34
17 - TEST OF IP65 RATING	38
18 - MAINTENANCE	39

SAFETY INFORMATION



WARNING!

- See <https://www.prolights.it/product/SMARTBATPLUSNE#download> for installation instructions.
- Please read carefully the instruction reported in this section before installing, powering, operating or servicing the product and observe the indications also for its future handling.



Li-ion

Lithium-Ion Battery Maintenance Guidelines

Lithium-Ion rechargeable batteries products require routine maintenance and care in their use and handling. Read and follow the guidelines in this document to safely use Lithium-Ion batteries and achieve the maximum battery life span.

Misusing the battery projector may cause the battery to get hot, break, or ignite, and cause serious injury.

Overview

- Only specialised technicians may service the battery.
- Use only Prolights approved batteries in your Prolights products.
- Do not leave the projector unused for extended periods of time in storage.
- Lithium-Ion batteries continue to slowly discharge (self-discharge) when not in use or while in storage. Routinely check the battery's charge status.
- The typical estimated life of a Lithium-Ion battery is about two years or around 300 charge cycles, whichever occurs first. One charge cycle is a period of use from fully charged, to fully discharged, and fully recharged again.
- For batteries that do not complete full charge cycles the life expectancy can be less than two years also.
- Rechargeable Lithium-Ion batteries have a limited life and will gradually lose their capacity to hold a charge. This loss of capacity (ageing) is irreversible. As the battery loses capacity, the length of time it will power the product (run time) decreases.

Battery Maintenance

- The run time of your battery will vary depending on the product's configuration and the applications that you run.
- Routinely check the battery's charge status.
- Carefully monitor batteries that are approaching the end of their estimated life.
- It is mandatory to replace the battery with a new one to prevent eventual risk of overheating and subsequent explosion, if you note either of the following:
 1. The battery run time drops below about 70% of the original run time.
 2. The battery charging time increases significantly.
 3. The projector heats up while charging beyond normal temperatures.
 4. In case of any collisions, falls, particular thermal stresses.
- If a battery is stored or otherwise unused for an extended period, be sure to follow the storage instructions in this document.
- Always recharge immediately when the battery is low.
- If you do not follow the instructions, and the battery has no charge remaining when you check it, consider it to be damaged. Do not attempt to recharge it or to use it. Replace it with a new battery.

Charging

- Refer to your product's user manual and/or online help for detailed information about charging its battery. The latest version of your Prolights product user manual is available at www.prolights.it.
- Avoid charging if the projector has any damage, malfunction, tampering or signs of moisture inside.
- Do not charge unattended.
- Always charge with its packing/flight-case open.
- Always follow the charging instructions provided.
- Only charge the battery mounted in the fixture with the original charger. Do not use a third party charger.
- It is recommended to charge at a temperature between 15°C and 35°C.
- Do not recharge the product longer than required, it will affect the battery capacity and can cause overheating.
- For the IP product you need to make sure that the projector housing and charging connector are dry without any moisture.

Storage

- Store the product in an airy, dry place, and away from any inflammable object in order to ensure optimum storage conditions for the battery.
- Do not expose the battery projector to fire or heat.
- Charge or discharge the battery to approximately 50% of capacity before storage.
- Charge the battery to approximately 50% of capacity at least once every six months.
- Store the product projector at temperatures between 5 °C and 20 °C (41 °F and 68 °F).

Handling Precautions

- Do not disassemble, crush, or puncture a battery.
- Do not short the external contacts on a battery.
- Do not dispose of a battery in fire or water.
- Do not expose a battery to temperatures above 60 °C (140 °F).
- Avoid exposing the battery to excessive shock or vibration.
- Do not use a damaged battery.
- If a battery pack has leaking fluids, do not touch any fluids. Dispose of a leaking battery pack (see Disposal and Recycling in this document).
- In case of eye contact with fluid, do not rub eyes. Immediately flush eyes thoroughly with water for at least 15 minutes, lifting upper and lower lids, until no evidence of the fluid remains. Seek medical attention.

Transportation

- Always check all applicable local, national, and international regulations before transporting a Lithium-Ion battery.
- Transporting an end-of-life, damaged, or recalled battery may, in certain cases, be specifically limited or prohibited.

Disposal and Recycling

- Lithium-Ion batteries are subject to disposal and recycling regulations that vary by country and region. Always check and follow your applicable regulations before disposing of any battery. Contact your local battery recycling organisation.
- Many countries prohibit the disposal of waste electronic equipment in standard waste receptacles. Place only discharged batteries in a battery collection container.
- Use electrical tape or other approved covering over the battery connection points to prevent short circuits.



This unit is not for household and residential use, only professional applications.



Connection to mains supply

- The Connection to the mains supply must be carried out by a qualified electrical installer.
- Use only AC supplies 100-240V 50-60 Hz, the fixture must be electrically connected to ground (earth).
- Select the cable cross section in according with the maximum current draw of the product and the possible number of products connected at the same power line.
- The AC mains power distribution circuit must be equipped with magnetic+residual current circuit breaker protection.
- Do not connect it to a dimmer system; doing so may damage the product.
- The product has XLR sockets for DMX input and output.
- Connection of the control signal: DMX LINE.
- Notice: this control circuit is not isolated.
- Cumulative leakage current of less than 3.5mA on the control circuit.



Protection and Warning against electrical shock

- Do not remove any cover from the product, always disconnect the product from AC power before servicing.
- Ensure that the fixture is electrically connected to ground (earth). And use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault (earth-fault) protection.
- Before using the fixture, check that all power distribution equipment and cables are in perfect condition and rated for the current requirements of all connected devices.
- Isolate the fixture from power immediately if the power plug or any seal, cover, cable, or other components are damaged, defective, deformed or showing signs of overheating.
- Do not reapply power until repairs have been completed.
- Refer any service operation not described in this manual to PROLIGHTS Service team or an authorized PROLIGHTS service center.



Installation

- Make sure that all visible parts of the product are in good visible condition before its use or installation.
- Make sure the point of anchorage is stable before positioning the projector.
- When suspending the fixture above ground level, secure it against failure of primary attachments by attaching a safety cable that is approved as a safety attachment for the weight of the fixture to the attachment point on the main frame of the product. In case the safety cable, enter in action, it needs to be replaced with a new one.
- Install the product only in well ventilated places.
- For non temporary installations, ensure that the fixture is securely fastened to a load-bearing surface with suitable corrosionresistant hardware.
- For a temporary installation with clamps, ensure that the quarter-turn fastener and/or screws are turned fully, and secured with a suitable safety cable.



Minimum distance of illuminated objects

- The projector needs to be positioned so that the objects hit by the beam of light are at least 0.5 meters (1.64 ft) from the lens of the projector.

T_a 45°C

Max operating ambient temperature (T_a)

- Do not operate the fixture if the ambient temperature (T_a) exceeds 45 °C (113 °F).

T_a 0°C

Minimum operating ambient temperature (T_a)

- Do not operate the fixture if the ambient temperature (T_a) is below 0 °C (32 °F).



Protection from burns and fire

- The exterior of the fixture becomes hot during use. Avoid contact by persons and materials.
- Ensure that there is free and unobstructed airflow around the fixture.
- Keep flammable materials well away from the fixture
- Do not expose the front glass to sunlight or any other strong light source from any angle. Lenses can focus the sun's rays inside the fixture, creating a potential fire hazard.
- Do not attempt to bypass thermostatic switches or fuses.

IP65

Permanent Outdoor use

- This product is rated with an IP (Ingress protection) for permanent outdoor use when used and serviced according to the instruction contained in this document.
- Never use the fixture in places subject to vibrations or bumps.
- Make certain that no inflammable liquids, water or metal objects enter the fixture.
- Excessive dust, smoke fluid, and particle build up degrades performance, causes overheating and will damage the fixture.
- Damages caused by inadequate cleaning or maintenance are not covered by the product warranty.

$T_c 70^{\circ}\text{C}$

Temperature of the external surface

- The surface of the fixture can reach up to 70°C (158°F) during operation. Avoid contact with people and materials.



Maintenance

- Warning! Disconnect the fixture from AC mains power and allow to cool for at least 10 minutes before handling.
- Only technicians who are authorized by PROLIGHTS or Authorised service partners are permitted to open the fixture.
- Users may carry out external cleaning, following the warnings and instructions provided, but any service operation not described in this manual must be referred to a qualified service technician.
- Important! Excessive dust, smoke fluid, and particle build up degrades performance, causes overheating and will damage the fixture. Damages caused by inadequate cleaning or maintenance is not covered by the product warranty.



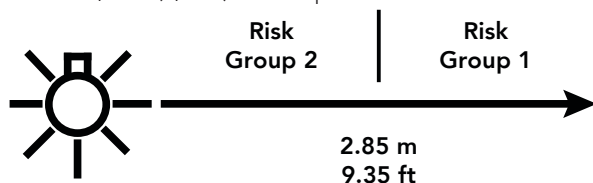
Photobiological safety

- This device emits potentially dangerous optical radiation and is identified in the category of Risk Group 1 according to EN 62471.



Do not stare at the operating light source

- Do not look directly at the LED source during operation. It can be harmful to the eyes and skin.
- During Installation, operation and maintenance, be prepared for the fixture to light and move suddenly when connected to power.
- The device should be positioned so that prolonged staring into the luminaire at a distance closer than 2,85 m (9,35 ft) is not expected.



Disposal

- This product is supplied in compliance with European Directive 2012/19/EU – Waste Electrical and Electronic Equipment (WEEE). To preserve the environment please dispose/ recycle this product at the end of its life according to the local regulation.



The products to which this manual refers comply with:

- 2014/35/EU - Safety of electrical equipment supplied at low voltage (LVD).
- 2014/30/EU - Electromagnetic Compatibility (EMC).
- 2011/65/EU - Restriction of the use of certain hazardous substances (RoHS).



The products to which this manual refers comply with:

- UL 1573 + CSA C22.2 No. 166 - Stage and Studio Luminaires and Connector Strips.
- UL 1310 + CSA C22.2 No. 223 - Standard for external battery charger class 2.
- UL 2595 + CSA C22.2 No. 0.23 - Standard for lithium battery pack in appliance according.



FCC Compliance:

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
 1. This device may not cause harmful interference, and
 2. This device must accept any interference received, including interference that may cause undesired operation.



Other approvals

- The product meets the safety requirements of the certification procedures of the market in which it is placed and sold.

1 - PACKAGING

1.1 PACKAGE CONTENT

For code SMARTBATPLUSNEO and SMARTBATPLUSNEOBK:

- 1x SMARTBATPLUSNEO.
- User Manual.

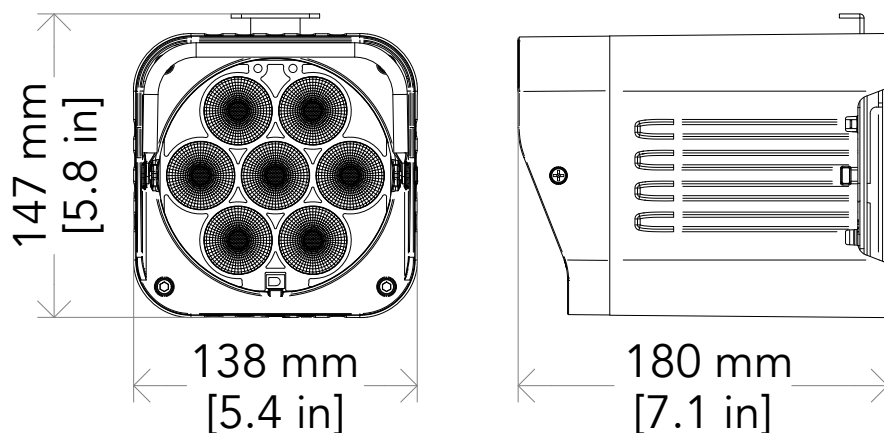
For code SMARTBATPNEOPACK and SMARTBATPNEOPACKBK:

- 6 pcs SMARTBATPLUSNEO.
- 1 FLIGHT CASE with integrated battery charger kit (FCLSMARTBATPNEO).
- 1 IR controller (PRL-IRC).
- 1 PowerCON power cable.
- User Manual.

1.2 OPTIONAL ACCESSORIES

Check the updated accessories list, description and informations of the product at the following link:
<https://www.prolights.it/product/SMARTBATPLUSNE#accessories>

2 - TECHNICAL DRAWING



Weight: 3,4 kg - 7,5 lbs

Fig. 01

3 - INSTALLATION

3.1 MOUNTING

The fixture can be mounted on a solid and uniform surface. The unit can also be mounted upside down on a cross arm using the threaded M12 hole in the cabinet. A stable mounting clamp is required for fixing.

Check that the supporting structure can safely bear the weight of all installed fixtures, clamps, cables, auxiliary equipment, etc. and complies with locally applicable regulations.

When suspending the fixture above ground level, secure it against failure of primary attachments by attaching a safety wire that is approved as a safety attachment for the weight of the fixture to an anchor point on the product main frame.

Do not use removable parts or weak anchors for secondary attachment.

Warning! When clamping the fixture to a truss or other structure at any angle, use clamps of half-coupler type. Do not use any type of clamp that does not completely encircle the structure when fastened.

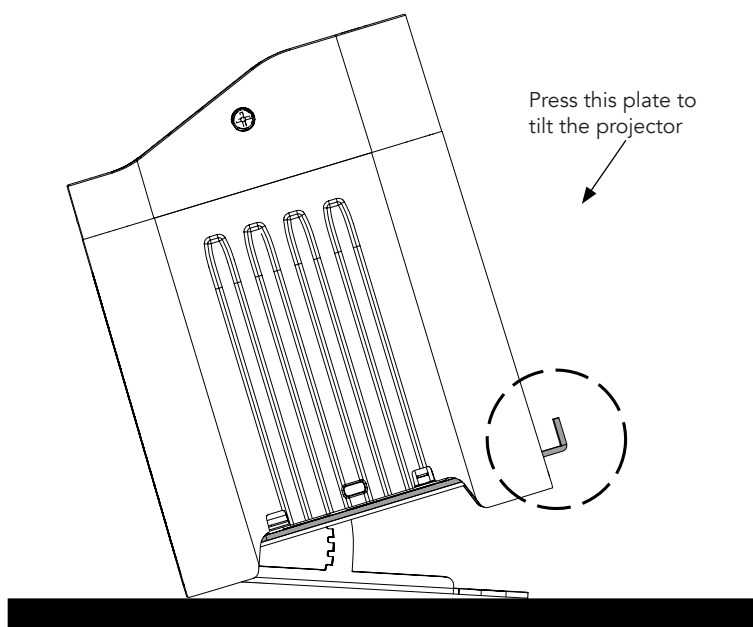


Fig. 02

4 - CONNECTION TO THE MAINS SUPPLY

WARNING: For protection from electric shock, the fixture must be earthed!
The product is equipped with auto-switching power supply that automatically adjusts to any 50-60Hz AC power source from 100-240 Volts.
If you need to install a power plug on the power cable to allow connection to power outlets, install a grounding-type (earthed) plug, following the plug manufacturer's instructions. If you have any doubts about proper installation, consult a qualified electrician.
The max power consumption when connected to the SBPNEOPOWER charging accessory is 75W, while the max power consumption when connected to the SMARTBATPNEOPACK is 570W.

Core (EU)	Core (US)	Connection	Plug terminal marking
Brown	Black	Live	L
Blue	White	Neutral	N
Yellow+green	Green	Earth	

5 - START UP

5.1 CHARGING AND POWERING THE PRODUCT

- To charge and operate the product:
- Check that the product and its charging base are installed and secured as indicated in the Safety Information, and that personal safety will not be put at risk when the fixture lights up.
 - Charging Operation:
 1. Connect the power connector to the charging base's input socket (100-240 VAC-50/60 Hz)
 2. Place the product on its charging base to initiate charging
 3. Allow the product to fully charge before first use
 - Regular operation:
 1. The product cannot be used while on the charging base or being charged, but can only be used when removed from the charging base and once charged
 1. When battery level is low, return the product to its charging base
 2. The product is ready for operation and can be controlled through the available input signals on board
 3. To completely power down the product, use the power switch located on the unit

Note: The charging base must remain connected to power for charging functionality. The product itself operates independently on battery power when removed from the base.

6 - PRODUCT OVERVIEW

1. ON / OFF SWITCH.
 2. GORE VALVE.
 3. CHARGING POINT.
 4. USER INTERFACE with display and buttons for access to the control panel functions.
 5. BUTTON to tilt the unit.
 6. HANDLE to transport the unit.
 7. M12 HOLE for truss installations.
-

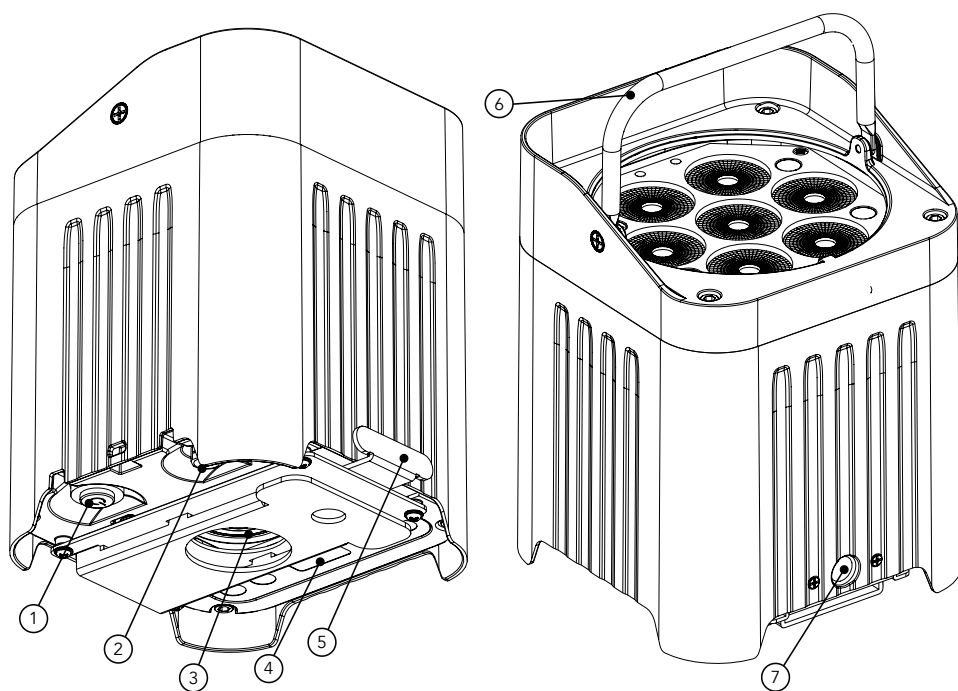


Fig. 03

7 - DMX CONNECTION

7.1 DMX ADDRESSING

In order to start controlling the product via DMX, the first step is to select a DMX address, also known as the start channel, this is the first channel used to receive instructions from a DMX controller. If you wish to control the product individually, it is necessary to assign a different starting address channel to each fixture.

The number of channels occupied from the product depends on the DMX mode selected, so always verify the DMX Mode in the MENU before start addressing.

If you assign two fixtures the same address, they will be executing the same behaviour. Selecting the same address to multiple fixtures can be useful for diagnostic purposes and symmetrical control.

DMX addressing is limited to make it impossible to set the DMX address so high that you are left with-out enough control channels for the product.

To set the fixture's DMX address:

1. Press ENTER to open the main menu.
2. Reach the addressing menu, then select the DMX ADDRESS settings.
3. Select the address from 1 to 512 using the navigation arrows/buttons and confirm by pressing ENTER.
4. Press Menu to exit and return to the Home screen.

7.2 WIRELESS DMX (CRMX)

This device supports wireless DMX communication through the integrated CRMX module. The fixture can operate either as a transmitter (TX) or a receiver (RX), with access to a full set of features including linking, protocol selection, and data routing.

RX MODE			LINK STATUS	TX MODE	
SIGNAL QUALITY	DMX PRESENCE	ICON		DMX PRESENCE	ICON
N/A	N/A		NOT LINKED / OFF	-	
N/A	N/A		LINKING / READY TO PAIR	N/A	
< 25%	Yes		LINKED	Yes	
25% to 50%	Yes		LINKED	-	
50% to 75%	Yes		LINKED	-	
> 75%	Yes		LINKED	-	
< 25%	No		LINKED	No	
25% to 50%	No		LINKED	-	
50% to 75%	No		LINKED	-	
> 75%	No		LINKED	-	

OPERATION AS A WIRELESS TRANSMITTER (TX MODE)

This product can transmit DMX wirelessly to compatible CRMX receivers

1. Enter the **CONNECT** menu, navigate to **WIRELESS** and press **ENTER**.

2. Set **CRMX ON/OFF to ON** and **CRMX MODE to TX** (Transmitter).

3. To initiate linking, set **TX LINK to ON** (available only in TX mode).

The fixture will scan for unlinked receivers for ~5 seconds and attempt connection.

Ensure receivers are not already linked. If the connection fails, check the position of the receiver.

TX UNLINK

To disconnect all receivers linked to the product.

1. Enter the **CONNECT** menu, navigate to **WIRELESS** and press **ENTER**.

2. Set **TX UNLINK to ON**.

TX PROTOCOL SELECTION

To change the CRMX transmission protocol (G3, G4S, CRMX):

1. Perform **TX UNLINK** on the device and an **RX RESET** on the receiver.

2. Select the desired protocol in CRMX MODE (G3, G4S, CRMX).

3. Execute **TX LINK** again.

OPERATION AS A WIRELESS RECEIVER (RX MODE)

This product can receive a wireless DMX signal from a CRMX transmitter.

1. Enter the **CONNECT** menu.

2. Navigate to **WIRELESS** and press **ENTER**.

3. Set **CRMX ON/OFF to ON**.

4. Set **CRMX MODE to RX** (Receiver).

5. Set **RX RESET to ON** to clear previous links.

Then, from the transmitter, execute **TX LINK**.

Once linked:

- The display will show the DMX address if signal is present.
- It will show "No Signal" if no DMX input is detected, but the link remains active.

8 - CONTROL PANEL

The product has a display and buttons for access to the control panel functions.



Fig. 04

8.1 DISPLAY AND BUTTONS LAYOUT

The product has a display and buttons for access to the control panel functions:

	• MODE / ESC: used to access the menu tree or to return a previous menu window.
	• ENTER: used to confirm the current menu or confirm the current function value or option within a menu.
	• UP: browse upwards through the menu list and increases the numeric value displayed.
	• DOWN: browse downwards through the menu list and decreases the numeric value displayed.

9 - SHORTCUT

SHORTCUTS		
Keys	Mode	Description
UP + DOWN for 3 sec in Home Screen	Flip Display	Directly flip display without enter inside menu
MENU for 3 sec in Inside Menu	Back to Home	Exit menu and go back to home screen
DOWN for 3 sec in Home Screen	Factory reload Menu	Quick access to Factory reload menu
ENTER for 3 sec in Home Screen	Stand Alone Menu	Quick access to Stand Alone menu
UP for 3 sec in Home Screen	RX reset Menu	Quick access to enter the RX RESET menu (YES/NO).

10 - MENU STRUCTURE

The following chart describes the MENU tree of the product, the terms shown in **BOLD** indicates the default settings.

MAIN MENU	MENU LEVEL 2	MENU LEVEL 3	MENU LEVEL 4	MENU LEVEL 5	Description
CONNECT	DMX ADDRESS	1-512			Set DMX Address.
	DMX MODE	UNO	FIXED COLORS	R	Set DMX Mode.
				G	
				B	
				W	
				RG	
				RB	
				RW	
				GB	
				GW	
				BW	
				RGB	
				RGW	
				RBW	
				GBW	
				RGBW	
			COLOR MACRO	Check "Color Macro" on page 24	
			WHITE PRESETS	2700K	
				2800K	
				3200K	
				3500K	
				4000K	
				4500K	
				5000K	
				5600K	
				6000K	
				6500K	
				7000K	
				8000K	
				9000K	
				10000K	
			MANUAL COLORS	RED <0-255>	
				GREEN <0-255>	
				BLUE <0-255>	
				WHITE <0-255>	
		BASIC			
		STANDARD			
		EXTENDED			
		LEGACY	4 ch		When the device works with one of the legacy modes, colors match the old SmartBatPlus.
			6 ch		
			10 ch		
			HSV		
			HSI		
	WIRELESS	CRMX ON/OFF	ON		Enable/Disable the wireless card.
			OFF		
		CRMX MODE	TX CRMX		Choose whether to set the wireless card as Transmitter or Receiver. WDMX mode is unlocked only if WDMX ON / OFF is ON.
			TX G4S		
			TX G3		
			RECEIVER		
		TX LINK	YES		TX link unlock when the unit is set as a transmitter. Only in Trasmmitter mode.
			NO		
		TX UNLINK	YES		Disconnect the transmitter from all receivers. TX unlink unlocks only if WDMX mode is on transmitter.
			NO		
		RX RESET	YES		Total reset of the receiver.
			NO		RX reset unlocks only if WDMX mode is receiver.

SETUP	IR CONTROL	ON			Enable/Disable the IR Controller.
		OFF			
	SCREEN	BACKLIGHT	ON		Select the timing after that display will switch automatically off when unactive.
			10S		
			20S		
			30S		
		FLIP DISPLAY	YES		Allows you to rotate the display by 180°.
			NO		
		KEY LOCK	YES		Lock the buttons on the control panel by a password. Press following combinations (password) in order to access to the user menu : UP, DOWN, UP, DOWN, ENTER.
			NO		
		TEMPERATURE UNIT	°C		Allows you to choose temperature unit showed in home screen.
			°F		
	DIMMER	DIMMER CURVE	LINEAR		Check "10.1 DIMMER CURVES" on page 17
			S-CURVE		
			SQUARE LAW		
			INVERSE SQUARE LAW		
		DIMMER SPEED	AUTO		Check "10.2 DIMMER SPEEDS" on page 18
			FAST		
			MEDIUM		
			SLOW		
	FIXTURE	DMX FAULT	HOLD		Define the behaviour of fixture in case of DMX signal lost. Default value is STAND ALONE (if no standalone is selected, HOLD)
			BLACKOUT		
			STAND ALONE		
			EMERGENCY		
		STATUS LED	ON		Define the behaviour of LED on the fixture.
			OFF		
			AUTO		
	RUN TIME	3H			Check "14 - RUNTIME" on page 32
		6H			
		8H			
		12H			
		18H			
		24H			
		Legacy			
	TRANSFER CONFIGURATION	WITHOUT DMX ADDRESS			To transfer the same menu settings of one fixtures to all the other in the daisy chain, including or not the dmx address.
		WITH DMX ADDRESS			
ADVANCED	LED FREQUENCY	600HZ			Select PWM frequency.
		1200HZ			
		2000HZ			
		4000HZ			
		6000HZ			
		25KHZ			
	TUNGSTEN EMULATION	ON			Enable/Disable Tungsten emulation.
		OFF			
	FACTORY RELOAD	ON			Reload fixture with Standard settings.
		OFF			
INFORMATION	DEVICE TIME	FIXTURE HOURS	TOTAL	<99999H>	Total hour the fixture has been ON
			PARTIAL	<99999H>	Total hours the fixture has been ON since the last reset of this
		CURRENT HOURS	<99999H>		Current session hours
		SOURCE HOURS	<99999H>		LED PCBs hours
		POWER ON CYCLE	<300>		How many times the fixture has been powered on
		MAINTENANCE TIME	ELAPSED TIME	<99H>	How many hours elapsed from the last maintenance/reset
			ALERT PERIOD	10 - 750	Fixture will show maintenance alert after this amount of time (Default 500H)
		TEMPERATURE			
		BATTERY CYCLE	<300>		
		BATTERY STATE	<100%>		

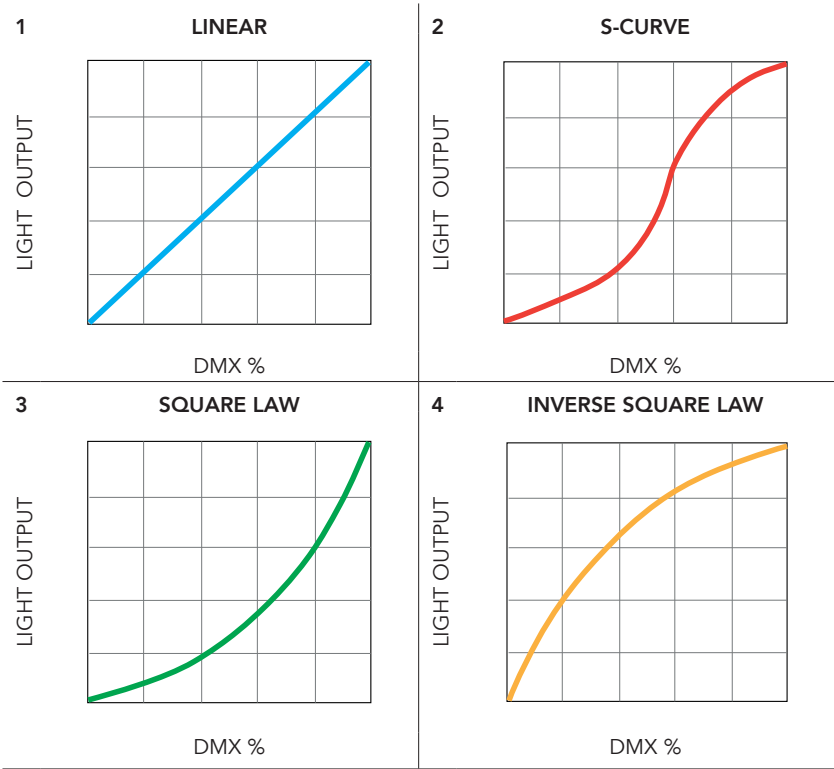
	ESTIMATED BATTERY LIFE	3h 5m			
	WIRELESS QUALITY				
	CHANNEL VALUE				
	ERROR MESSAGE				
	FIXTURE MODEL				
	DEVICE LABEL				
	SOFTWARE VERSION	<V1.0>			
	RDM UID	15D00228****			
STAND ALONE	LEGACY MODE	OFF			Normal behaviour
		ON			Standalone control is the same as old SMART-BATPLUS (same color output)
	MASTER/SLAVE	MASTER DMX			Allow you to link and operating in synk multiple units without a DMX console. Choose a unit to perform as the Master. This unit must be the first unit in line; Set the successive units to be slave.
		MASTER NO DMX			
		SLAVE			
	DIMMER	<1-100>			Master dimmer of fixture - Affects
	EFFECTS	MODE	FADE		Fade change between colors
			SNAP		Snap change between colors
			PULSE IN		Snap in and fade out
			PULSE OUT		Fade in and snap out
			RANDOM COLORS		Fixture play random color change
		COLORS	AUTO		Factory choosed colors
			PRIMARY		Only RGB are used
			PRIMARY+W		RGBW scroll
			PASTELS		RGB scroll with always WHITE
			FULL		All colors mixed from saturated to pastels
			WHITE	<2700k>	Select the basic color. Effect goes from 2700 to 10.000k from white presets list.
				<....>	
				<10.000k>	
		SPEED	<1-100>		Default value 50
	STATIC	FIXED COLORS	R	DIMMER <000-255>	Static mode for Standalone will keep the selected Color on to the selected dimmer level
			G		
			B		
			W		
			RG		
			RB		
			RW		
			GB		
			GW		
			BW		
			RGB		
			RGW		
			RBW		
			GBW		
			RGBW		
		COLOR MACRO	Check "Color Macro" on page 24	DIMMER <000-255>	
		WHITE PRESETS	2700K	DIMMER <000-255> HUE <-025-025>	
			2800K		
			3200K		
			3500K		
			4000K		
			4500K		
			5000K		
			5600K		
			6000K		
			6500K		
			7000K		
			8000K		

MANUAL COLORS	9000K	<000-255>
	10000K	
	RED	
	GREEN	
	BLUE	
	WHITE	<000-255>

10.1 DIMMER CURVES

Five dimming modes are available:

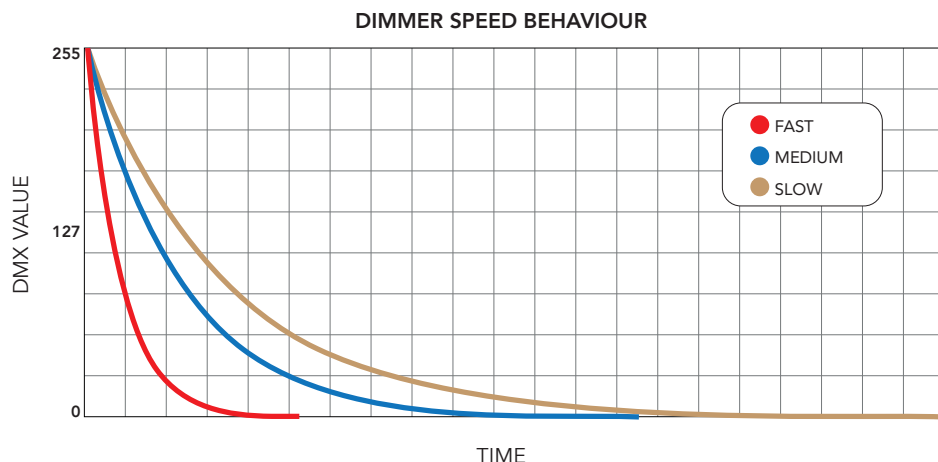
- 1. LINEAR** - Light intensity increases proportionally to the DMX value, creating a linear perception.
- 2. S-CURVE** - Light intensity is finer at low and high levels, with coarser control at mid-levels.
- 3. SQUARE LAW** - Light intensity is finer at low levels and becomes coarser at higher levels.
- 4. INVERSE SQUARE LAW** - Light intensity is coarser at low levels and finer at higher levels.
- 5. HIGHRES@LOW** - Provides very fine control at low light intensities, with coarser control at medium and high levels.



10.2 DIMMER SPEEDS

Five dimming speeds are available:

1. **AUTO** - When the DMX value changes by more than 50 DMX values, the intensity will instantly adjust to the new value. For changes less than 50 DMX values, the fast dimming curve will be applied.
2. **FAST** - Indicates the fast speed dimming curve. Refer to the diagram for reference.
3. **MEDIUM** - Indicates the medium speed dimming curve. Refer to the diagram for reference.
4. **SLOW** - Indicates the slow dimming curve. Refer to the diagram for reference.
5. **OFF** - The intensity will immediately adjust to the new value (essentially no delay effect).



10.3 MASTER/SLAVE

The MASTER/SLAVE function enables the fixture to operate in standalone mode, where it must be set to MASTER. When configured correctly, this allows one fixture to control multiple fixtures in a daisy chain setup, ensuring synchronized operation. Below are the available modes:

- **MASTER DMX** - The fixture operates as the master, with standalone mode active, and transmits the same standalone functionality via DMX to other fixtures in the daisy chain.
- **MASTER NO DMX** - The device works as master but does not transmit the DMX signal to the other devices connected in the daisy chain.
- **SLAVE** - The fixture remains in standby, waiting to receive a signal from another device set to MASTER DMX. If a standalone mode is selected on the fixture, it will automatically switch to MASTER NO DMX.saved presets or factory settings.

When set to MASTER DMX or MASTER NO DMX, if an external DMX IN signal is detected, it will take priority and automatically disable the standalone mode.

10.4 STANDALONE OPERATIONS

This mode allows you to operate the projector without an external DMX controller. Configuration is performed through the display menu, while basic functions are controlled with the infrared (IR) remote:

- **SINGLE UNIT (MASTER)** - In this mode, a single projector operates autonomously and responds to commands from the IR remote.
 - 1) Perform a factory reload
 - 2) Enable the IR controller from the menu
 - 3) Select "MASTER DMX" in the standalone menu.The projector is now ready. To use the IR remote press the POWER button to turn on the light, and then STATIC to select a static color.
- **LINKED MULTIPLE UNITS (MASTER/SLAVE)** - This configuration allows you to control a group of linked projectors by wireless DMX. One unit set as Master sends commands to all other units set as Slave:
 - Setting **SLAVE** units:
 - 1) Perform a factory reload
 - 2) Select "SLAVE" in the standalone menu
 - 3) Enable CRMX "ON" in the connect menu, then perform an "RX RESET"
 - Setting **MASTER** unit:
 - 1) Perform a factory reload
 - 2) Select "MASTER DMX" in the standalone menu
 - 3) Enable CRMX "ON" in the connect menu, then select CRMX MODE "TX CRMX" in the wireless section; now perform a "TX LINK"
 - 4) Enable the IR controller from the menuThe system is now ready. Using the IR remote on the Master unit, press POWER and then STATIC. All Slave projectors will respond instantly to the commands sent to the Master.

11 - DMX CHARTS

RDM Personality ID List

RDM Model ID: 0xD158

ID	DMX Mode	Footprint
1	UNO	1CH
2	BASIC	5CH
3	STANDARD	11CH
4	EXTENDED	17CH
5	LEGACY 4CH	4CH
6	LEGACY 6CH	6CH
7	LEGACY 10CH	10CH
8	LEGACY HSV	3CH
9	LEGACY HSI	3CH

11.1 DMX BASIC MODES

PARAMETER	UNO (1ch)	BASIC (5ch)	STANDARD (11ch)	EXTENDED (17ch)
DIMMER	1	1	1	1
DIMMER FINE	-	-	2	2
STROBE	-	-	3	3
CCT	-	-	4	4
GMP	-	-	-	5
CROSSFADE	-	-	5	6
RED	-	2	6	7
RED FINE	-	-	-	8
GREEN	-	3	7	9
GREEN FINE	-	-	-	10
BLUE	-	4	8	11
BLUE FINE	-	-	-	12
WARM WHITE	-	5	9	13
WARM WHITE FINE	-	-	-	14
COLOR MACRO	-	-	10	15
CTO ON COLORS	-	-	-	16
CONTROL	-	-	11	17

11.2 DMX LEGACY MODES

PARAMETER	4CH	6CH	10CH	HSV	HSI
DIMMER	-	1	1	-	-
RED	1	2	2	-	-
GREEN	2	3	3	-	-
BLUE	3	4	4	-	-
WARM WHITE	4	5	5	-	-
STROBE	-	6	6	-	-
COLOR MACRO	-	-	7	-	-
AUTO PROGRAM	-	-	8	-	-
AUTO SPEED	-	-	9	-	-
DIMMER CURVE	-	-	10	-	-
HUE	-	-	-	1	1
SATURATION	-	-	-	2	2
BRIGHTNESS	-	-	-	3	-
INTENSITY	-	-	-	-	3

11.4 CHANNEL DEFINITION

Dimmer

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Dimmer	0	255	0	65535	Default @ 0 (Linear Dimmer 0 - 100%)

Strobe

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Open	0	1	-	-	Default @ 255
Strobe from Slow to Fast	2	62	-	-	
Open	63	64	-	-	
Pulse In from slow to fast	65	125	-	-	
Close	126	127	-	-	
Pulse Out from slow to fast	128	188	-	-	
Open	189	190	-	-	
Random from slow to fast	191	251	-	-	
Open	252	255	-	-	

CCT (2800K - 10000K)

Function		8 bit value		16 bit value		Note
CCT(K) From	CCT(K) To	From	To	From	To	
2800	2900	0	4	0	910	Default @ 0
2900	3000	4	7	910	1820	
3000	3100	7	11	1820	2731	
3100	3200	11	14	2731	3641	
3200	3300	14	18	3641	4551	
3300	3400	18	21	4551	5461	
3400	3500	21	25	5461	6371	
3500	3600	25	28	6371	7282	
3600	3700	28	32	7282	8192	
3700	3800	32	35	8192	9102	
3800	3900	35	39	9102	10012	
3900	4000	39	43	10012	10923	
4000	4100	43	46	10923	11833	
4100	4200	46	50	11833	12743	
4200	4300	50	53	12743	13653	
4300	4400	53	57	13653	14563	
4400	4500	57	60	14563	15474	
4500	4600	60	64	15474	16384	
4600	4700	64	67	16384	17294	
4700	4800	67	71	17294	18204	
4800	4900	71	74	18204	19114	
4900	5000	74	78	19114	20025	
5000	5100	78	81	20025	20935	

CCT (2800K - 10000K)

Function		8 bit value		16 bit value		Note
CCT(K) From	CCT(K) To	From	To	From	To	
5100	5200	81	85	20935	21845	
5200	5300	85	89	21845	22755	
5300	5400	89	92	22755	23665	
5400	5500	92	96	23665	24576	
5500	5600	96	99	24576	25486	
5600	5700	99	103	25486	26396	
5700	5800	103	106	26396	27306	
5800	5900	106	110	27306	28216	
5900	6000	110	113	28216	29127	
6000	6100	113	117	29127	30037	
6100	6200	117	120	30037	30947	
6200	6300	120	124	30947	31857	
6300	6400	124	128	31857	32768	
6400	6500	128	131	32768	33678	
6500	6600	131	135	33678	34588	
6600	6700	135	138	34588	35498	
6700	6800	138	142	35498	36408	
6800	6900	142	145	36408	37319	
6900	7000	145	149	37319	38229	
7000	7100	149	152	38229	39139	
7100	7200	152	156	39139	40049	
7200	7300	156	159	40049	40959	
7300	7400	159	163	40959	41870	
7400	7500	163	166	41870	42780	
7500	7600	166	170	42780	43690	
7600	7700	170	174	43690	44600	
7700	7800	174	177	44600	45510	
7800	7900	177	181	45510	46421	
7900	8000	181	184	46421	47331	
8000	8100	184	188	47331	48241	
8100	8200	188	191	48241	49151	
8200	8300	191	195	49151	50061	
8300	8400	195	198	50061	50972	
8400	8500	198	202	50972	51882	
8500	8600	202	205	51882	52792	
8600	8700	205	209	52792	53702	
8700	8800	209	213	53702	54613	
8800	8900	213	216	54613	55523	
8900	9000	216	220	55523	56433	
9000	9100	220	223	56433	57343	
9100	9200	223	227	57343	58253	
9200	9300	227	230	58253	59164	
9300	9400	230	234	59164	60074	
9400	9500	234	237	60074	60984	
9500	9600	237	241	60984	61894	
9600	9700	241	244	61894	62804	
9700	9800	244	248	62804	63715	
9800	9900	248	251	63715	64625	
9900	10000	251	255	64625	65535	

GMP

Function	8 bit value		16 bit value		Note
	From	To	From	To	
-25% to 0	0	127	-	-	Default @ 0
Neutral	128	128	-	-	
0 to 25%	129	255	-	-	

Crossfade from CCT to Color

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Linear Crossfade	0	255	-	-	Default @ 255 (Linear Crossfade 0 - 100%)

Colors (RED - GREEN - BLUE - WARM WHITE)

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Color	0	255	0	65535	Linear 0 - 100% Default @ 255 (8bit) / 65535 (16bit)

Color Macro

Function	8 bit value		16 bit value		Note
	From	To	From	To	
No Function	0	1	-	-	Default @ 0
RED	2	3	-	-	
GREEN	4	5	-	-	
BLUE	6	7	-	-	
CYAN	8	9	-	-	
MAGENTA	10	11	-	-	
YELLOW	12	13	-	-	
DIRTY WHITE	14	15	-	-	
ALICE BLUE	16	17	-	-	
CONGO BLUE	18	19	-	-	
DARK STEEL BLUE	20	21	-	-	
DEEP LAVENDER	22	23	-	-	
LILAC TING	24	25	-	-	
DAYLIGHT BLUE	26	27	-	-	
FLAME RED	28	29	-	-	
BASTARD AMBER	30	31	-	-	
DEEP ORANGE	32	33	-	-	
PALE GOLD	34	35	-	-	
APRICOT	36	37	-	-	
BRIGHT BLUE	38	39	-	-	
PRIMARY GREEN	40	41	-	-	
SPECIAL LAVENDER	42	43	-	-	
PALE LAVENDER	44	45	-	-	
DEEP GOLDEN AMBER	46	47	-	-	
MEDIUM BLUE	48	49	-	-	
BRIGHT PINK	50	51	-	-	

Color Macro

Function	8 bit value		16 bit value		Note
	From	To	From	To	
MAUVE	52	53	-	-	
DARK GREEN	54	55	-	-	
LEE GREEN	56	57	-	-	
DARK BLUE	58	59	-	-	
LIGHT BLUE	60	61	-	-	
STEEL BLUE	62	63	-	-	
MEDIUM BLUE-GREEN	64	65	-	-	
PEACOCK BLUE	66	67	-	-	
MAGENTA	68	69	-	-	
DARK PINK	70	71	-	-	
MIDDLE ROSE	72	73	-	-	
LIGHT SALMON	74	75	-	-	
ENGLISH ROSE	76	77	-	-	
LIGHT ROSE	78	79	-	-	
ORANGE	80	81	-	-	
DEEP AMBER	82	83	-	-	
STRAW	84	85	-	-	
LIGHT AMBER	86	87	-	-	
SPRING YELLOW	88	89	-	-	
DARK YELLOW GREEN	90	91	-	-	
JUST BLUE	92	93	-	-	
SKY BLUE	94	95	-	-	
LAVENDER	96	97	-	-	
LIGHT LAVENDER	98	99	-	-	
PINK CARNATION	100	101	-	-	
MEDIUM PINK	102	103	-	-	
LIGHT PINK	104	105	-	-	
SUNSET RED	106	107	-	-	
DARK AMBER	108	109	-	-	
GOLD AMBER	110	111	-	-	
MEDIUM AMBER	112	113	-	-	
FIRE	114	115	-	-	
SURPRISE PEACH	116	117	-	-	
STRAW TINT	118	119	-	-	
MEDIUM YELLOW	120	121	-	-	
LEE MINUS GREEN	122	123	-	-	
PALE GOLD	124	125	-	-	
ORANGE	126	127	-	-	
DEEP STRAW	128	129	-	-	
ROSE PURPLE	130	131	-	-	
DEEP PURPLE	132	133	-	-	
SOFT GREEN	134	135	-	-	
Reserved for future use	136	209	-	-	
2700K	210	211	-	-	
2800K	212	213	-	-	
3000K	214	215	-	-	

Color Macro

Function	8 bit value		16 bit value		Note
	From	To	From	To	
3200K	216	217	-	-	
3400K	218	219	-	-	
3600K	220	221	-	-	
3800K	222	223	-	-	
4000K	224	225	-	-	
4200K	226	227	-	-	
4400K	228	229	-	-	
4600K	230	231	-	-	
4800K	232	233	-	-	
5000K	234	235	-	-	
5200K	236	237	-	-	
5400K	238	239	-	-	
5600K	240	241	-	-	
6000K	242	243	-	-	
6500K	244	245	-	-	
7000K	246	247	-	-	
8000K	248	249	-	-	
9000K	250	251	-	-	
10000K	252	253	-	-	
FULL ON	254	255	-	-	

CTO on Colors

Function	8 bit value		16 bit value		Note
	From	To	From	To	
Linear CTO 0 - 100%	0	255	-	-	Default @ 0

Control Channel

Function		8 bit value		16 bit value		Note
		From	To	From	To	
No Function		0	1	-	-	Default @ 0
Backlight	Always on	2	3	-	-	Hold 3s to take function
	10s	4	5	-	-	
	20s	6	7	-	-	
	30s	8	9	-	-	
Flip Display	On	10	11	-	-	
	Off	12	13	-	-	
Key Lock	On	14	15	-	-	
	Off	16	17	-	-	
Reserved		18	25	-	-	
Dimmer Curve	Linear	26	27	-	-	
	S-curve	28	29	-	-	
	Square Law	30	31	-	-	
	Inverse Square Law	32	33	-	-	

		Control Channel				
Function		8 bit value		16 bit value		Note
		From	To	From	To	
Dimmer Speed	Auto	34	35	-	-	
	Fast	36	37	-	-	
	Medium	38	39	-	-	
	Slow	40	41	-	-	
Led Frequency	600hz	42	43	-	-	
	1200hz	44	45	-	-	
	2000hz	46	47	-	-	
	4000hz	48	49	-	-	
	6000hz	50	51	-	-	
	25khz	52	53	-	-	
Run Time	3h	54	55	-	-	
	6h	56	57	-	-	
	8h	58	59	-	-	
	12h	60	61	-	-	
	18h	62	63	-	-	
IR Control	On	64	65	-	-	
	Off	66	67	-	-	
Dmx Fault	Hold	68	69	-	-	
	Blackout	70	71	-	-	
	Stand Alone	72	73	-	-	
	Emergency	74	75	-	-	
Reserved		76	91	-	-	
Tungsten Emulation	Off	92	93	-	-	
	On	94	95	-	-	
Standalone	Master DMX	96	97	-	-	
	Master no DMX	98	99	-	-	
	Slave	100	101	-	-	
	Effect 1	102	103	-	-	
	Effect 2	104	105	-	-	
	Effect 3	106	107	-	-	
	Effect 4	108	109	-	-	
	Effect 5	110	111	-	-	
	Fixed colors	112	113	-	-	
	Color macro	114	115	-	-	
	White presets	116	117	-	-	
	Manual colors	118	119	-	-	
Run Time	Legacy	120	121	-	-	
	24h	122	123	-	-	
Reserved		124	253	-	-	
Reset all channel controlled		254	255	-	-	Reset to default all functions controlled by CONTROL channel.

12 - RDM FUNCTIONS

The product can communicate using RDM (Remote Device Management) protocol over a DMX512 Networks.

RDM is a bi-directional communications protocol for use in DMX512 control systems, it is the open standard for DMX512 device configuration and status monitoring.

The RDM protocol allows data packets to be inserted into a DMX512 data stream without affecting existing non-RDM equipment. It allows a console or dedicated RDM controller to send commands to and receive messages from specific fixtures.

The PIDs in the following tables are supported in the product.

RDM is also available on Wireless and Tiny's Downstead must be enabled in its custom PIDs to work.

RDM PIDs							
Parameter	Category	PID Address	GET	SET	Value	Description	Default Value
DEVICE_INFO	Product Information	0x0060	x		---	N/A	
PRODUCT_DETAIL_ID_LIST	Product Information	0x0070	x		---	N/A	
DEVICE_MODEL_DESCRIPTION	Product Information	0x0080	x		---	N/A	x
MANUFACTURER_LABEL	Product Information	0x0081	x		---	N/A	
DEVICE_LABEL	Product Information	0x0082	x	x	---	N/A	
FACTORY_DEFAULTS	Product Information	0x0090	x	x	---	N/A	
SOFTWARE_VERSION_LABEL	Product Information	0x00C0	x		---	N/A	
BOOT_SOFTWARE_VERSION_ID	Product Information	0x00C1	x		---	N/A	
BOOT_SOFTWARE_VERSION_LABEL	Product Information	0x00C2	x		---	N/A	x
DMX_PERSONALITY	DMX512 Setup	0x00E0	x	x	---	N/A	
DMX_PERSONALITY_DESCRIPTION	DMX512 Setup	0x00E1	x		---	N/A	
DMX_START_ADDRESS	DMX512 Setup	0x00F0	x	x	---	N/A	
SLOT_INFO	DMX512 Setup	0x0120	x		---	N/A	
SLOT_DESCRIPTION	DMX512 Setup	0x0121	x		---	N/A	
DEFAULT_SLOT_VALUE	DMX512 Setup	0x0122	x		---	N/A	
DMX_BLOCK_ADDRESS	DMX512 Setup	0x0140	x	x	---	N/A	x*
DMX_FAIL_MODE	DMX512 Setup	0x0141	x	x	---	N/A	
DMX_STARTUP_MODE	DMX512 Setup	0x0142	x	x	---	N/A	
DIMMER_INFO	Dimmer Settings	0x0340	x		---	N/A	
MINIMUM_LEVEL	Dimmer Settings	0x0341	x	x	---	N/A	
MAXIMUM_LEVEL	Dimmer Settings	0x0342	x	x	---	N/A	

RDM PIDs							
Parameter	Category	PID Address	GET	SET	Value	Description	Default Value
CURVE	Dimmer Settings	0x0343	x	x	---	N/A	
CURVE_DESCRIPTION	Dimmer Settings	0x0344	x	x	---	N/A	
OUTPUT_RESPONSE_TIME	Dimmer Settings	0x0345	x	x	---	N/A	
OUTPUT_RESPONSE_TIME_DESCRIPTION	Dimmer Settings	0x0346	x		---	N/A	
MODULATION_FREQUENCY	Dimmer Settings	0x0347	x	x	---	N/A	
MODULATION_FREQUENCY_DESCRIPTION	Dimmer Settings	0x0348	x		---	N/A	
SENSOR_DEFINITION	Sensors	0x0200	x		---	N/A	
SENSOR_VALUE	Sensors	0x0201	x	x	---	N/A	x*
RECORD_SENSORS	Sensors	0x0202		x	---	N/A	
BURN_IN	Sensors	0x0440	x	x	---	N/A	x*
DEVICE_HOURS	Power/Lamp Settings	0x0400	x	x	---	N/A	
LAMP_HOURS	Power/Lamp Settings	0x0401	x	x	---	N/A	x*
LAMP_STRIKES	Power/Lamp Settings	0x0402	x	x	---	N/A	
LAMP_STATE	Power/Lamp Settings	0x0403	x	x	---	N/A	
LAMP_ON_MODE	Power/Lamp Settings	0x0404	x	x	---	N/A	
DEVICE_POWER_CYCLES	Power/Lamp Settings	0x0405	x	x	---	N/A	
DISPLAY_INVERT	Display Settings	0x0500	x	x	---	N/A	
DISPLAY_LEVEL	Display Settings	0x0501	x	x	---	N/A	
LOCK_PIN	Configuration	0x0640	x	x	---	N/A	
LOCK_STATE	Configuration	0x0641	x	x	---	N/A	
LOCK_STATE_DESCRIPTION	Configuration	0x0642	x		---	N/A	
IDENTIFY_DEVICE	Control	0x1000	x	x	---	N/A	
RESET_DEVICE	Control	0x1001		x	---	N/A	
POWER_STATE	Control	0x1010	x	x	---	N/A	
PERFORM_SELFTEST	Control	0x1020	x	x	---	N/A	
SELF_TEST_DESCRIPTION	Control	0x1021	x		---	N/A	
CAPTURE_PRESET	Control	0x1030	x	x	---	N/A	
PRESET_PLAYBACK	Control	0x1031	x	x	---	N/A	
IDENTIFY_MODE	Control	0x1040	x	x	---	N/A	
PRESET_INFO	Control	0x1041	x		---	N/A	
PRESET_STATUS	Control	0x1042	x	x	---	N/A	
POWER_ON_SELF_TEST	Control	0x1044	x	x	---	N/A	
DMX FAULT	Manufacturer PIDs	0x82DD	x	x	0-3	0: HOLD 1: BLCK 2:SA 3:EMGENCY	2
MASTER/SLAVE	Manufacturer PIDs	0x8211	x	x	0-2	0:MST DMX 1:MST NO DMX 2:SLAVE	2

RDM PIDs							
Parameter	Category	PID Address	GET	SET	Value	Description	Default Value
ST. AL. MODE	Manufacturer PIDs	0x82EC	x	x	0-4	0: FIXED COLOR 1: COLOR MACRO 2: WHITE PRESETS 3: MANUAL COLORS 4: EFFECTS	0
FIXED COLOR	Manufacturer PIDs	0x82BE	x	x	0-15	Refer to menu section	15
WHITE PRESETS	Manufacturer PIDs	0x82BF	x	x	0-13	Refer to menu section	15
COLOR MACROS	Manufacturer PIDs	0x82ED	x	x	0-64	Refer to menu section	0
MANUAL RED	Manufacturer PIDs	0x82C0	x	x	0-255	Refer to menu section	255
MANUAL GREEN	Manufacturer PIDs	0x82C1	x	x	0-255	Refer to menu section	255
MANUAL BLUE	Manufacturer PIDs	0x82C2	x	x	0-255	Refer to menu section	255
MANUAL WHITE	Manufacturer PIDs	0x82C3	x	x	0-255	Refer to menu section	255
EFFECT	Manufacturer PIDs	0x8209	x	x	0-4	Refer to menu section	0
IR SETUP 0:OFF 1:ON	Manufacturer PIDs	0x82E9	x	x	0-1	Enable/Disable IR control	1
RUN TIME	Manufacturer PIDs	0x82EB	x	x	0-4	0:3H 1:6H 2:8H 3:12H 4:18H 5: Legacy	5
CLEAN ALL DATA	Manufacturer PIDs	0x82C8	x	x	0-1	0:NO 1:YES	
CURRENT HOURS	Manufacturer PIDs	0x82C5	x			**h	
MAINTENANCE TIME:ALERT PERIOD	Manufacturer PIDs	0x82DF	x	x			
MAINTENANCE TIME:ELAPSED TIME	Manufacturer PIDs	0x82E0	x	x			
WIRELESS QUALITY	Manufacturer PIDs	0x82F4	x			***%	
ERROR MESSAGE	Manufacturer PIDs	0x82EA	x				
TUNGSTEN EMULATION	Manufacturer PIDs	0x82BC	x		---	0:OFF 1:ON	-
CURRENT HOURS	Manufacturer PIDs	0x82C5	x		---	**h	-

13 - UPDATE FIRMWARE

13.1 REQUIRED ACCESSORIES

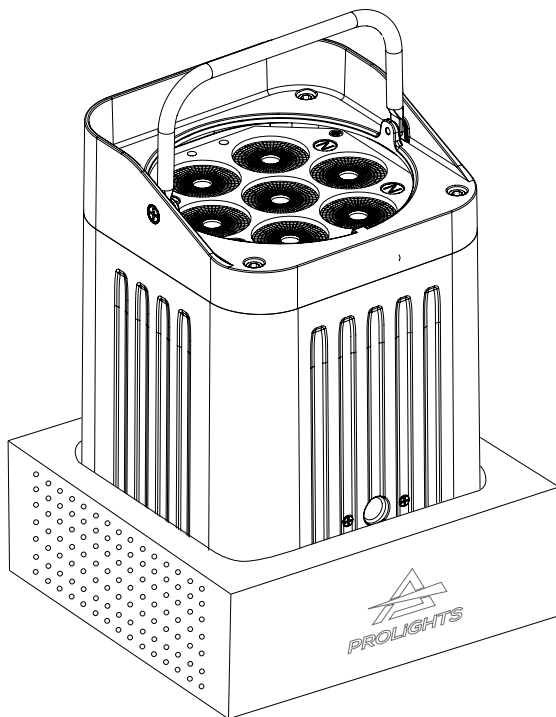
To update the device firmware, the following accessories are required:

- The upgrade base, SBPUPBOX1 (for some versions it will also be necessary to have the XLR 5M3F adapter, code SETMA5M3F)
- The UPBOXPRO USB/DMX upgrade interface.

13.2 FIRMWARE UPGRADE PROCEDURES

The update procedure is as follows:

- Download the update file from the site in the [download](#) area;
- Place the SmartBatPlusNeo on the charging base;
- Use the supplied power supply to power the update base;
- Connect the DMX/USB interface to the upgrade base (use XLR 5M3F adapter if necessary);
- Open the upgrade software and proceed with it



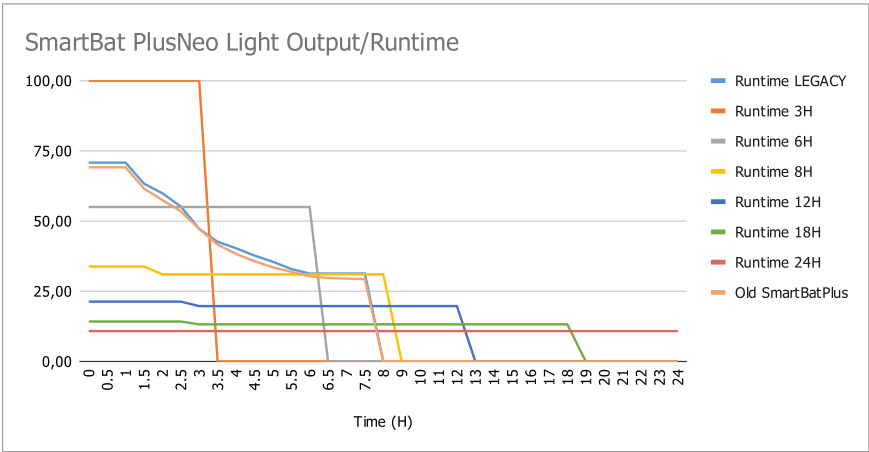
14 - RUNTIME

14.1 OPERATING DURATION FOR DIFFERENT RUNTIME SETUPS

The runtime value shown in the menu refers to the operating time when the fixture is set to full on (Red, Green, Blue, White set to maximum output value). Below is a table with different Runtime for different runtime setups:

Runtime for different runtime setups						
Color	3H (H)	6H (H)	8H (H)	12H (H)	18H (H)	24H (H)
R	10	10	10	12	18	24
G	8	8	8	12	18	24
B	8	8	8	12	18	24
W	7	7	8	12	18	24
RG	4	6	8	12	18	24
BG	4	6	8	12	18	24
RB	4,5	6	8	12	18	24
RW	4	6	8	12	18	24
BW	4	6	8	12	18	24
RGB	3	6	8	12	18	24
RGW	3	6	8	12	18	24
GBW	3	6	8	12	18	24
RGBW	3	6	8	12	18	24

The following graph presents a detailed analysis of the performance of different SmartBat PlusNeo operating modes, highlighting how each mode behaves over time in terms of light intensity. The 3H mode represents the peak performance, delivering maximum light intensity (100%) for three complete hours. In contrast, the 24H mode provides much dimmer illumination (about 13-14% of maximum intensity) but maintains this performance consistently for a significantly longer period. The intermediate modes (6H, 8H, and 12H) show an interesting spectrum of compromises between intensity and duration. The 6H mode maintains 55% intensity for six complete hours, the 8H operates at about one-third of maximum power for eight hours, while the 12H provides constant illumination at about 20% for twelve hours.



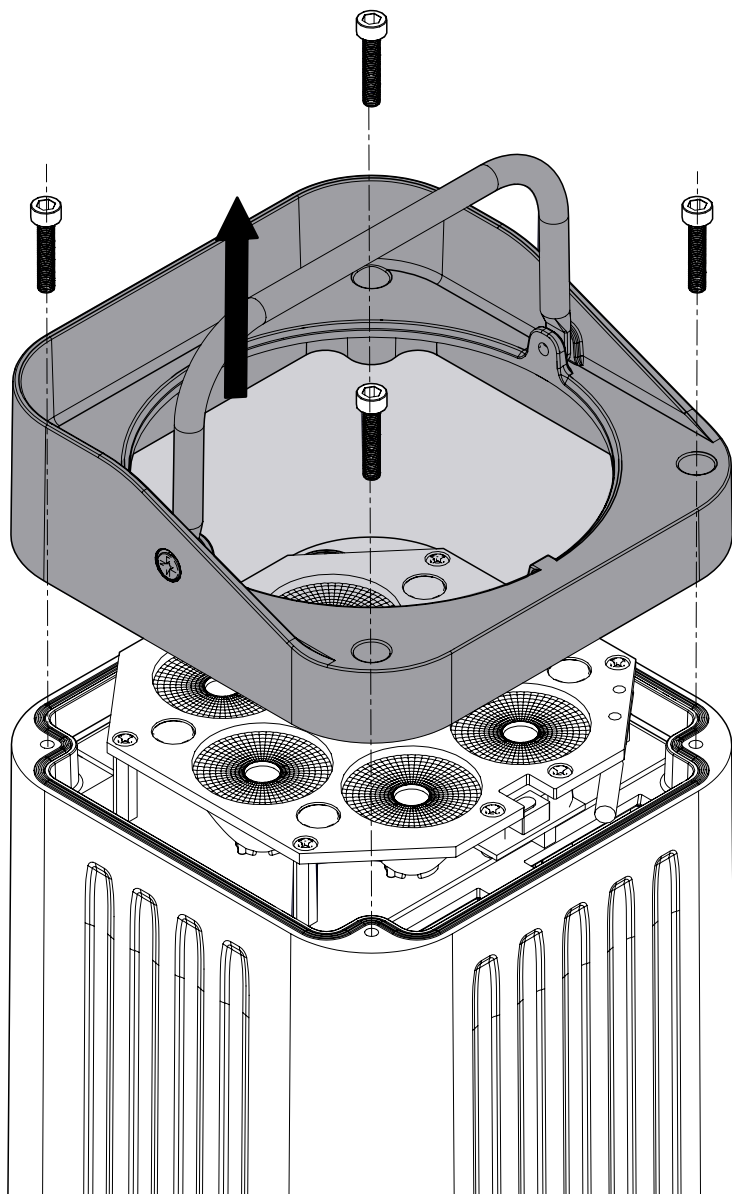
15 - ERROR MESSAGES

The error is shown on the unit display. In the table below, the "ERROR SHOWED ON SCREEN" column lists the possible errors, accompanied by a possible cause ("POSSIBLE" CAUSES "column) and a code error.

ERROR SHOWED ON SCREEN	POSSIBLE CAUSES	CODE ERROR
[DMX ACTIVE]	DMX Signal is present when using TRANSFER CONFIG function	1
[TEMPERATURE ERROR]	TEMPERATURE is out of standard temperature range use (minus or plus)	2
[BATTERY ERROR]	Recharge the main battery, keeping the product under charge for some hours.	3
	If the error still occurs, the battery is faulty. Replace the battery.	4
[LOW BATTERY]	Battery is almost empty (20%). Need to recharge	5
[BATTERY CHARGER ERROR]	Battery charger circuit not working	6
[DRV ERROR]	Communication failure between DISP and DRV	7
[CALIBRATION ERROR]	Communication failure between calibration chip and DRV2 or Calibration returning unexpected/wrong datas	8
[MAINTENANCE]	The maintenance time exceeds the set maintenance time	9
[SENSOR ERROR]	Sensor damaged (open or in short circuit)	10
[LED TEMPERATURE HIGH]	This error message indicates that an overheating on the lamp has occurred and the lamp has been switched OFF by the product protection system.	11

16 - ACCESSORIES INSTALLATION

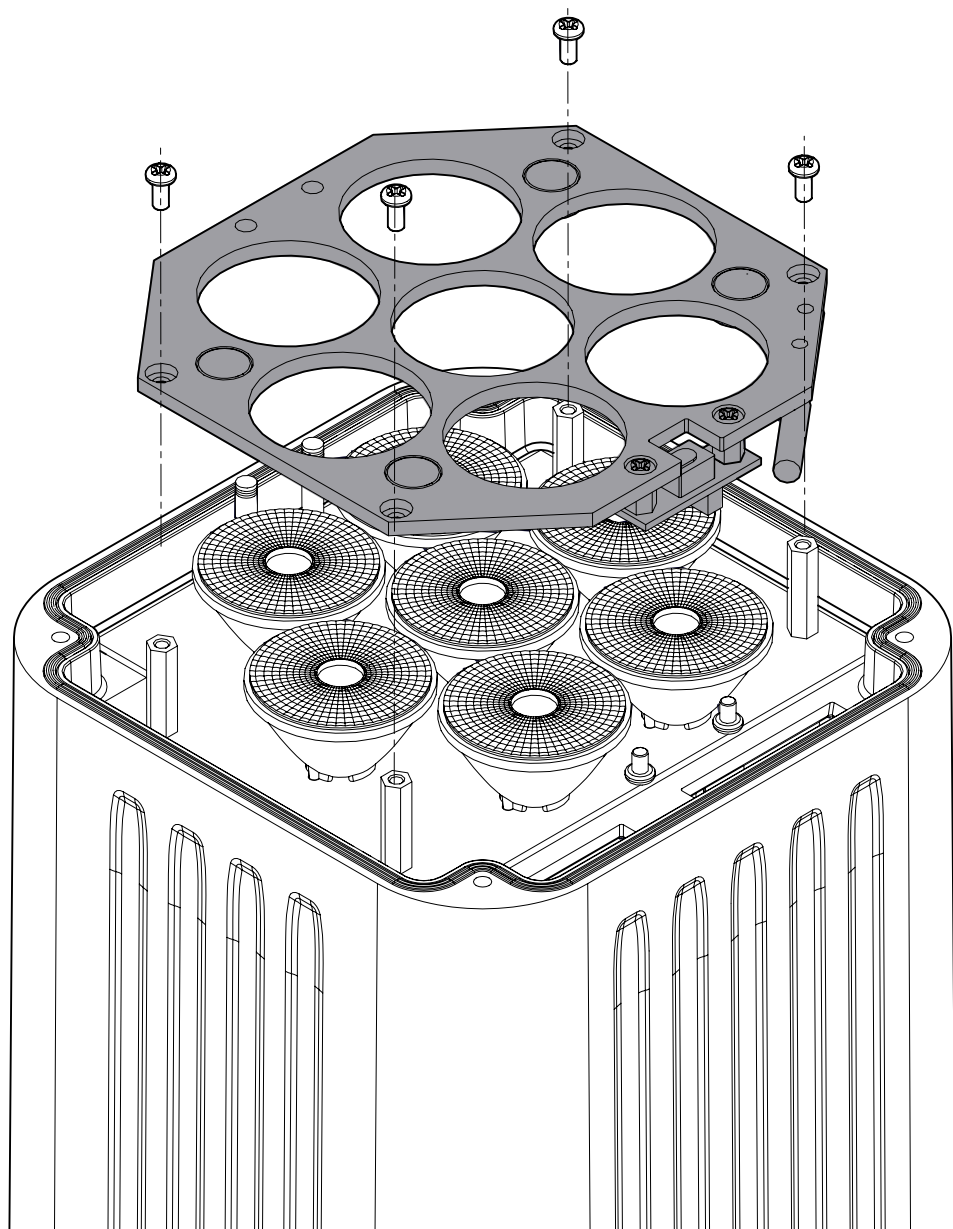
LENSES (CODE SBPNEOL20/35/60 - OPTIONAL)



Place fixture on a stable surface.

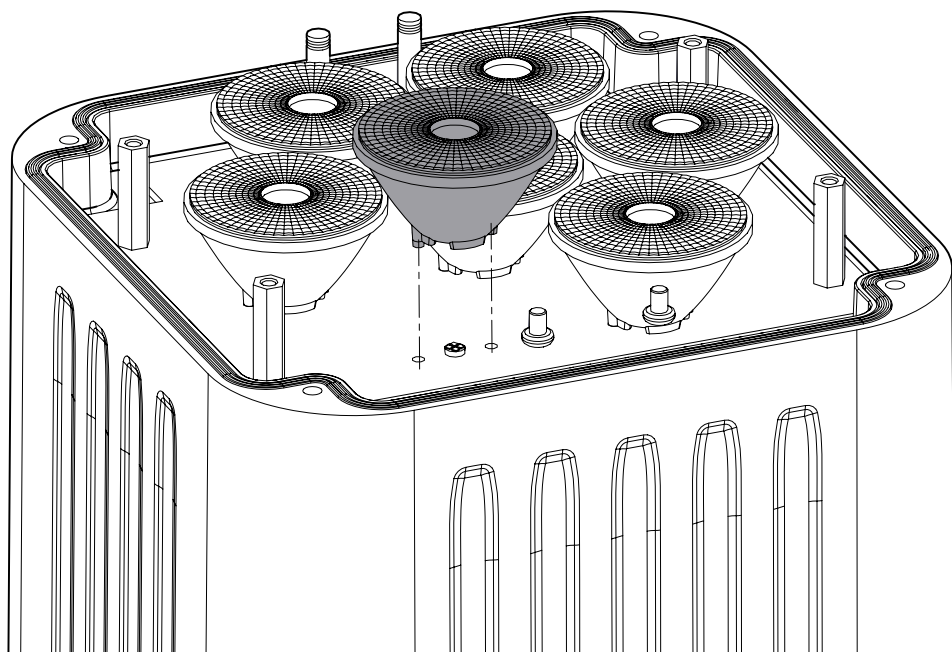
- Remove the 4 screws and remove the top hat by the onboard handle

Fig. 05



- Unscrew the lenses holder screws and remove the lens holder.

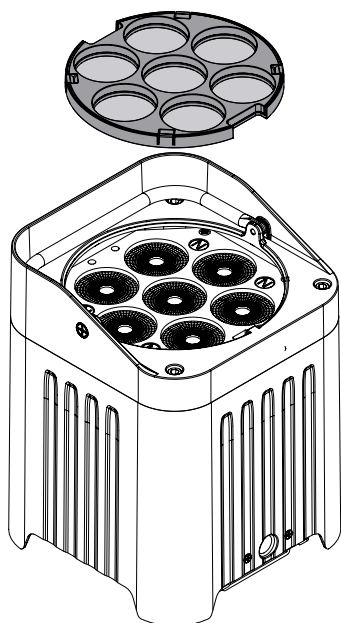
Fig. 06



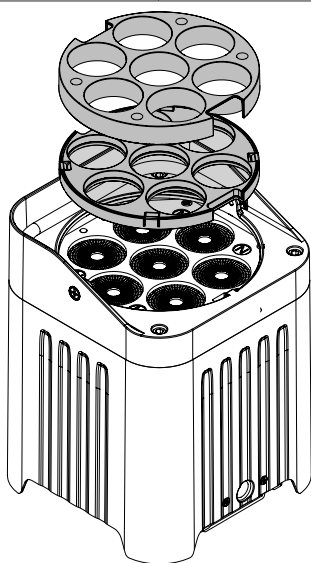
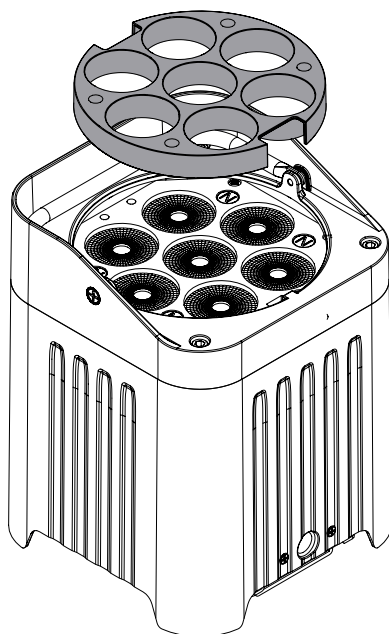
- Gently replace each lens as shown in figure

Fig. 07

FILTER



SNOOT

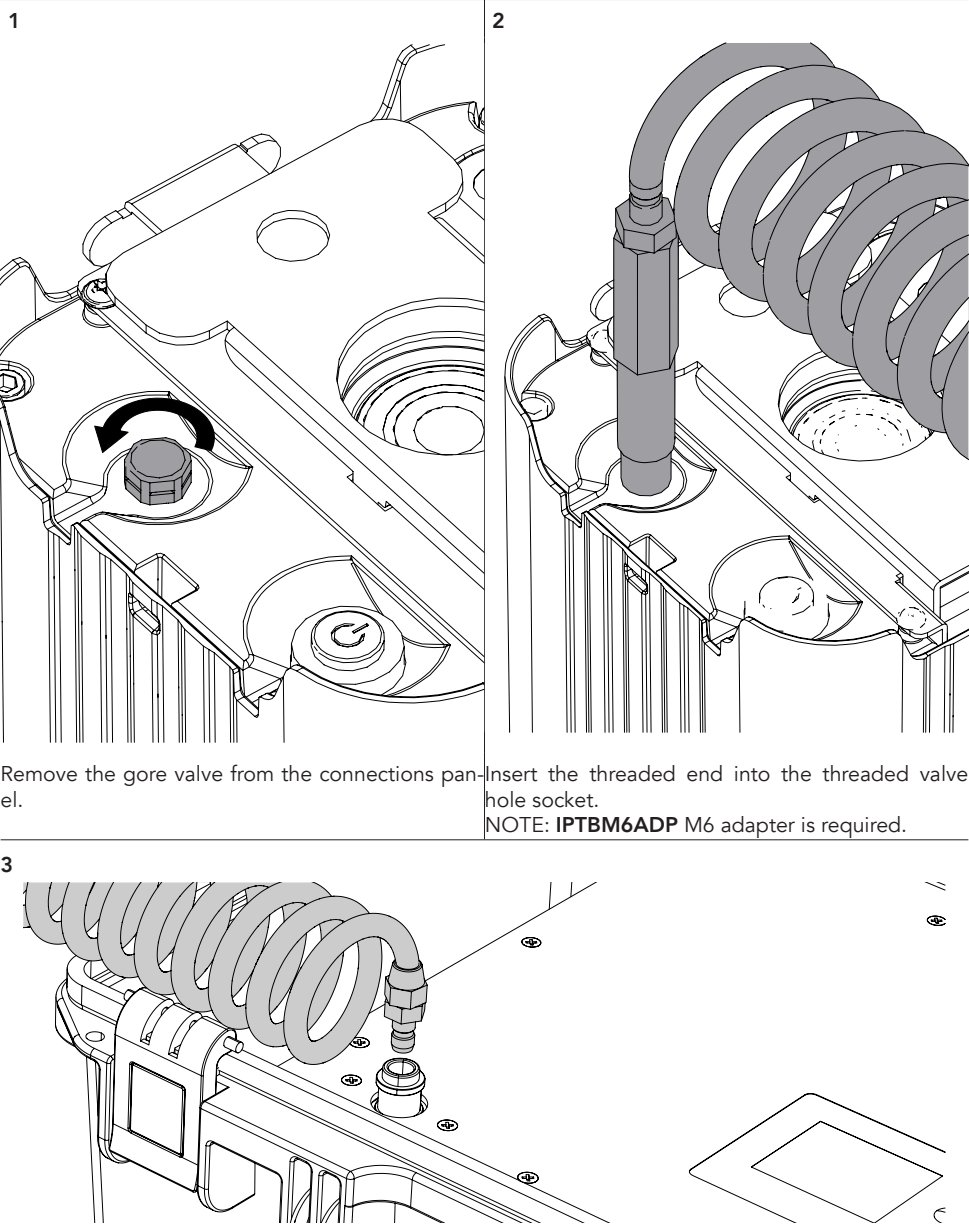


- Just place the accessory on the top of the projector, it will be fixed by included magnets
- NOTE: The snoot can be placed also on top of the filter.

Fig. 08

17 - TEST OF IP65 RATING

To check sealing after servicing use the IPTESTBOX.



Remove the gore valve from the connections panel.
Insert the threaded end into the threaded valve hole socket.
NOTE: **IPB6M6ADP** M6 adapter is required.

Connect the air hose to the IPTESTBOX by inserting the quick-connect fitting into the coupler.
For the operating procedure using the instrument, refer to the IPTESTBOX user manual.

Fig. 09

18 - MAINTENANCE

MAINTENANCE AND CLEANING THE PRODUCT

WARNING: Disconnect from the mains before starting any maintenance work

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.
- The user must clean the product periodically to maintain optimum performance and cooling. The user may also upload firmware (product software) to the fixture via the DMX signal input port or USB port using firmware and instructions from PROLIGHTS.
- The frequency of such maintenance operations is to be performed according to various factors, such as the amount of the use and the condition of the installation environment (air humidity, presence of dust, salinity, etc.). It is recommended that the product is subject to annual service by a qualified technician for special maintenance involving at least the following procedures:
- General cleaning of internal parts.
- For all the parts subject to friction, using lubricants specifically supplied by PROLIGHTS.
- General visual check of the internal components, cabling, mechanical parts, etc.
- Electrical, photometric and functional checks; eventual repairs.
- Cleaning the lenses. Only use neutral soap and water to clean the lenses, then dry it carefully with a soft, non-abrasive cloth.

WARNING: the use of alcohol or any other detergent could damage the lenses.

- **Only for IP65/IP66 projectors:** It is recommended to verify IP grade using IPTESTBOX every time the bodies are removed for maintenance, this tool helps to double check the correct assembling of the covers with a check of the IP grade of the fixture.
- All other service operations on the product must be carried out by PROLIGHTS, its approved service agents or trained and qualified personnel.
- It is PROLIGHTS policy to apply the strictest possible calibration procedures and use the best quality materials available to ensure optimum performance and the longest possible component lifetimes. However, optical components are subject to wear and tear over the life of the product, resulting in gradual changes in colours over many thousands of hours of use. The extent of wear and tear depends heavily on operating conditions and environment, so it is impossible to specify precisely whether and to what extent performance will be affected. However, you may eventually need to replace optical components if their characteristics are affected by wear and tear after an extended period of use and if you require fixtures to perform within very precise optical and colour parameters.
- Do not apply filters, lenses or other materials on lenses or other optical components. Use only accessories approved by PROLIGHTS.

VISUAL CHECK OF PRODUCT HOUSING

- The parts of the product cover/housing should be checked for eventual damages and breaking start at least every two months. In addition, especially the parts of the front lens holder have to be checked mechanically (by means of movement by the part) if it is firmly fastened to the fixture. If hint of a crack is found on some plastic part, do not use the product until the damaged part will be replaced.
- Cracks or another damages of the cover/housing parts can be caused by the product transportation or manipulation and also ageing process may influence materials.
- This checking is necessary for both fixed installations and preparing product for renting. Any free moving parts inside of the product, cracked cover/housing or any part of front lens not sitting properly in place need to be immediately replaced.

TROUBLESHOOTING

Problems	Possible causes	Checks and remedies
Product doesn't power ON.	No power to the product.	Check that power is switched ON and cables are plugged in.
	Fuse blown or internal fault.	- Check if the Fuse is intact and eventually replace it if necessary. - Contact the PROLIGHTS Service or authorized service partner. Do not remove parts and/or covers, or carry out any repairs or service that are not described in this Safety and User Manual unless you have both authorization from PROLIGHTS and the service documentation.
Product reset correctly but does not respond correctly to the controller.	Bad signal connection.	Inspect connections and cables. Fix eventual bad connections. Repair or replace damaged cables.
	Signal connection not terminated.	Insert DMX termination plug in signal output socket of the last product on the signal line.
	Incorrect addressing of the product.	Check the product address and control settings.
	One of the product is defective and is corrupting the signal transmission on the signal line.	Unplug the XLR in and out connectors and connect them directly together to bypass one product at a time until normal operation is regained. Once found the error, have that fixture serviced by a qualified technician.
Timeout error after fixture reset.	One or more hardware components requires mechanical adjustments.	Check product stored error messages for more information. Contact PROLIGHTS Service or an authorized service partner.
Mechanical effect loses position.	Mechanical hardware require cleaning, adjustment or lubrication.	Check product stored error messages for more information. Contact PROLIGHTS Service or an authorized service partner.
Light output turn OFF Intermittently.	Fixture is too hot.	- Check product stored error messages. - Allow product to cool. - Clean the product and airflow filters. - Reduce ambient temperature.
	Hardware failure (temperature sensor, fans, Light source...).	Check product stored error messages for more information. Contact PROLIGHTS Service or an authorized service partner.
General low light intensity.	Dirty lens assembly.	Clean the fixture regularly.
	Dirty or damaged filters.	Install lens assembly properly.

Contact an authorized service center in case of technical problems or not reported in the table can not be resolved by the procedure given in the table.

Note

Note

