

# **SmartBat** PlusNeo 60W Outdoor battery uplighter with RGB+WW LED source



# **USER MANUAL**

**English** version

### 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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# SAFETY INFORMATION



### WARNING!

- See <u>https://www.prolights.it/product/SMARTBATPLUSNE#download</u> 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.



### 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 loadbearing 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.

### ( ,₅ m ∯ 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<sub>a</sub>45°C Max operating ambient temperature (Ta)

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

### T<sub>c</sub>0°C Minimum operating ambient temperature (Ta)

• Do not operate the fixture if the ambient temperature (Ta) 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.

### 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.



T<sub>c</sub>70°C

### 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 adistance 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).

### 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

### PACKAGE CONTENT

### For code SMARTBATPLUSNEO and SMARTBATPLUSNEOBK:

- 1x SMARTBATPLUSNEO.
- User Manual.

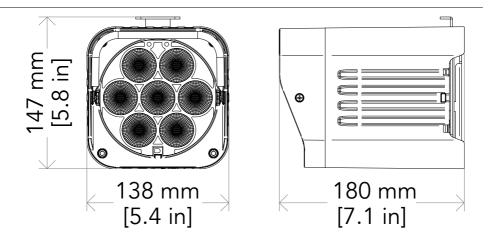
### For code SMARTBATPNEOPACK and SMARTBATPNEOPACKBK:

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

### **OPTIONAL ACCESSORIES**

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

# 2 - TECHNICAL DRAWING



# **3 - INSTALLATION**

### MOUNTING

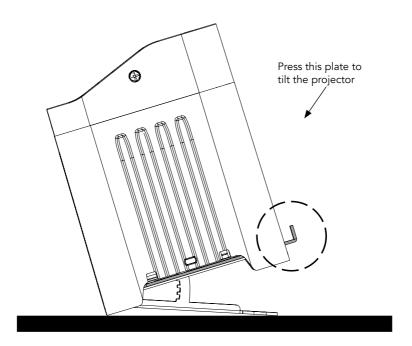
The fixture can be mounted on a solid and uniform surface. The unit can also be mounted upside down on a cross arm using the threaded M12 hole in the cabinet. A stable mounting clamp is required for fixing.

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.



# 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	Ν
Yellow+green	Green	Earth	

# 5 - START UP

### 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
- 2. When battery level is low, return the product to its charging base
- 3. The product is ready for operation and can be controlled through the available input signals on board
- 4. 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.

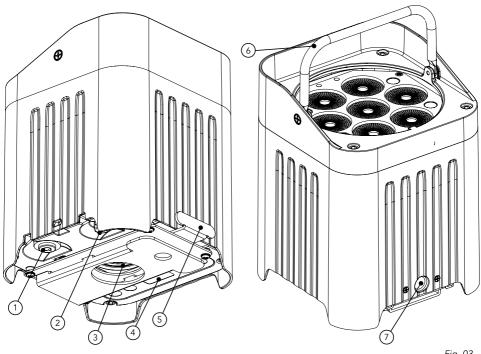


Fig. 03

# 7 - DMX CONNECTION

### 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 without 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.

### **OPERATION AS A WIRELESS TRANSMITTER**

SMARTBATWASH can be used as wireless transmitter to transmit DMX signal to different wireless receivers. To use SMARTBATWASH as wireless transmitter, please follow the procedure below:

- 1. Push ENTER button untill you show CONNECT on display, then press ENTER button to confirm.
- 2. Use UP/DOWN buttons for select WIRELESS, then press ENTER to confirm.
- 3. Push ENTER button on WDMX ON/OFF function and enable it to ON.
- 4. Select WDMX mode and set it on Transmitter (please note that WDMX mode will be available only if WDMX ON/OFF is set to ON).
- 5. Ensure that the receiver units are not connected to any other transmitter. Please refer to "Reset the receiver" paragraph.
- 6. Enable TX LINK to ON to link transmitter to receivers (please note that TX LINK will be available only if WDMX mode is set to Transmitter).
- The transmitter scans for all unlinked receivers for a period of about 5 seconds.
- If the connection fails, check the position of the receiver.
- The wireless icon on the receiver display indicates the received signal strength.

### Unlinking the transmitter

Follow the procedure below to unlink the transmitter from all receivers connected with the unit.

- 1. Push ENTER button untill you show CONNECT on display, then press ENTER button to confirm.
- 2. Use UP/DOWN buttons for select Wireless, then press ENTER to confirm.
- 3. Enable TX UNLINK to ON 8 (please note that TX UNLINK will be available only if WDMX mode is set to Transmitter).
- All connected receivers will be unlinked.

### **OPERATION AS A WIRELESS RECEIVER**

SMARTBATPLUSNEO can be used as wireless receiver connected to a wireless transmitter.

To use SMARTBATPLUSNEO as wireless receiver, please follow the procedure below:

- 1. Push ENTER button untill you show CONNECT on display, then press ENTER button to confirm.
- 2. Use UP/DOWN buttons for select Wireless, then press ENTER to confirm.
- 3. Push ENTER button on WDMX ON/OFF function and enable it to ON.
- Select WDMX mode and set it on Receiver (please note that WDMX mode will be available only if WDMX ON/OFF is set to ON).
- 5. Enable RX RESET to ON to reset the receiver (please note that RX RESET will be available only if WDMX mode is set to Receiver).
- 6. On the transmitter, enable TX LINK to ON to link transmitter to the receivers.
- 7. If the connection is successful and DMX input is available the display the display on the receiver unit will shows the DMX address. If DMX signal is not available, the display will shows "No signal" but keeps the transmitter linked.
- 8. If the connection fails, check the position of the receiver.
- 9. The wireless icon on the receiver display indicates the received signal strength.

### Reset the receiver

Follow the procedure below to reset the receiver.

- 1. Push MENU button untill you show CONNECT on display, then press ENTER button to confirm.
- 2. Use UP/DOWN buttons for select Wireless, then press ENTER to confirm.
- 3. Enable RX RESET to ON.
- The wireless icon on the receiver display indicates the received signal strength.

# 8 - CONTROL PANEL

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



### 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.
$\bigcirc$	• 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 nu- meric value displayed.

# 9 - MENU STRUCTURE

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

1	CONNECT	DMX ADDRESS DMX MODE	<b>1</b> -512				
		DMX MODE					Set DMX Address.
			UNO	FIXED COLORS	R		Set DMX Mode.
					G		
					В		
					W		
					RG		
					RB		
					RW		
					GB		
					GW		
					BW		
					RGB		
					RGW		
					RBW		
					GBW		
					RGBW		
				COLOR	"Color		
				MACRO	Macro" on		
					page 25		
				WHITE	2700K		
				PRESETS	2800K		
					3200K		
					3500K		
					4000K		
					4500K		
					5000K		
					5600K		
					6000K		
					6500K		
				[	7000K		
					8000K		
					9000K		
					10000K		
				MANUAL	RED	0-255	
				COLORS	GREEN	0-255	
					BLUE	0-255	
					WHITE	0-255	
			BASIC				
			STANDARD				
			EXTENDED				
			LEGACY	4 ch			
				6 ch			
				10 ch			
				HSV			
				HSI			
		WIRELESS	CRMX ON/OFF	ON			Enable/Disable the wireless card.
			L	OFF			
			CRMX MODE	TX CRMX			Choose whether to set the wire-
				TX G4S			less card as Transmitter or Receiver.
				TX G3			WDMX mode is unlocked only if WDMX ON / OFF is ON.
				RECEIVER			
			TX LINK	YES NO			TX link unlock when the unit is set as a transmitter. <b>Only in Trasmitter mode</b> .
			TX UNLINK	YES			Disconnect the transmitter from all receivers.
				NO			TX unlink unlocks only if WDMX mode is on transmitter.
			RX RESET	YES			Total reset of the receiver. RX reset unlocks only if WDMX mode is receiver.

	1	0					1
		IR CONTROL	ON				Enable/Disable the IR Controller.
	CETUD	CODEEN	OFF	011			
2	SETUP	SCREEN	BACKLIGHT	ON			Select the timing after that display will switch automatically off when unactive.
				105			switch automatically on when unactive.
				205			
				305			
			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.
				NO			Press following combinations (password) in order to access to the user menu : UP, DOWN, UP, DOWN, ENTER.
			TEMPERATURE UNIT	° <b>C</b> °F			Allows you to choose temperature unit showed in home screen.
		DUMER					
		DIMMER	DIMMER CURVE	LINEAR			Choose dimmer curve.
			CONVE	S-CURVE			
				SQUARE LAW			
				INVERSE SQUARE LAW			
			DIMMER SPEED	AUTO			Set Dimmer Speed.
			SFEED	FAST			This parameter defines interpolation of DMX Changes for main functions.
				MEDIUM			Off turns off interpolation
				SLOW			,
		FIXTURE	DMX	HOLD			Define the behaviour of fixture in case of
			FAULT	BLACKOUT			DMX signal lost.
				STAND			Default value is STAND ALONE (if no standalone is selected, HOLD)
				ALONE			standalone is selected, HOLD)
				EMERGENCY			
			STATUS LED	ON			Define the behaviour of LED on the fixture.
				OFF			
				AUTO			
				AUTO			
		RUN TIME	3H				Select Run Time of the fixture. 3H: Max power available 53W.
			6H				6H: Max power available 30W.
			8H				8H: Max power available 26W.
			12H				12H: Max power available 18W.
			18H				18H: Max power available 13W. Run Time is calculated using fixture RGBW @ Full.
		TRANSFER CONFIGURATION	WITHOUT DMX ADDRESS				To transfer the same menu settings of one fixtures to all the other in the daisy chain,
			WITH DMX ADDRESS				including or not the dmx address.
3	ADVANCED	LED	600HZ				Select PWM frequency.
		FREQUENCY	1200HZ	1			, , ,
			2000HZ				
			4000HZ				
			6000HZ	-			
			25KHZ				
		RUN TIME	3H				Select Run Time of the fixture.
			6H				3H: Max power available 53W. 6H: Max power available 30W.
			8H				8H: Max power available 26W.
			12H	1			12H: Max power available 18W.
			18H				18H: Max power available 13W. Run Time is calculated using fixture RGBW @ Full with Calibration on.
		TUNGSTEN	ON				Enable/Disable Tungsten emulation.
		EMULATION	OFF	1			
		FACTORY RELOAD	ON				Reload fixture with Standard settings.
			OFF				
4	INFORMATION	DEVICE	FIXTURE HOURS	TOTAL	<99999H>		Total hour the fixture has been ON
		TIME		PARTIAL	<99999H>		Total hours the fixture has been ON since the last reset of this
			CURRENT HOURS	<99999H>			Current session hours
			SOURCE	<99999H>			LED PCBs hours
			HOURS POWER	<300>			How many times the fixture has been pow-
			ON CYCLE			-	ered on
			MAINTENANCE TIME	ELAPSED TIME	<99H>	-	How many hours elapsed from the last maintenance/reset
				ALERT PERIOD	10 - 750		Fixture will show maintenance allert after this amount of time (Default 500H)
	l	TEMPERATURE					<u> </u>

	I.						1
		BATTERY CYCLE	<300>				
		BATTERY STATE	<100%>				
		ESTIMATED BATTER LIFE	3h 5m				
		WIRELESS QUALITY					
		CHANNEL VALUE					
		ERROR MESSAGE					
		FIXTURE MODEL					
		DEVICE LABEL					
		SOFTWARE VERSION RDM UID	<v1.0></v1.0>				
5	STAND ALONE	LEGACY MODE	OFF				Normal behaviour
5	STAND ALOINE	LEGACI MODE	ON				IR control is the same as old SMARTBA PLUS with same color output.
		MASTER/	MASTER DMX				Allow you to link and operating in synk mu
		SLAVE	MASTER NO DMX				tiple units without a DMX console. Choose a unit to perform as the Master. This unit must be the first unit in line; Se
			SLAVE				the successive units to be 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 RANDOM COLORS			Fade in and snap out 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.
					<>	-	
			SPEED	<1-100>	<10.000k2		Default value 50
		STATIC	FIXED COLORS	R			Static mode for Standalone will kee
				G	DIMMER <000- <b>255</b> >		the selected Color on to the selecte dimmer level
				W RG			
				RB			
				RW			
				GB			
				GW			
				BW			
				RGB			
				RGW			
				RBW			
				GBW RGBW			
			COLOR MACRO	"Color Macro"	DIMMER		
				on page 25	<000-255>		
							<u> </u>

WHITE PRESETS	2700K 2800K 3200K 3500K 4000K 4500K 5600K 5600K 6500K 7000K	DIMMER <000- <b>25</b> 5> HUE <-025- 025>		 
	7000K 8000K 9000K	-		
	10000K			
	RED	<000-255>		
MANUAL	GREEN	<000-255>		
COLORS	BLUE	<000-255>		
	WHITE	<000-255>		

# 10 - SHORTCUT

### SHORTCUTS

300010013								
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 Home Screen	Back to Home	Exit menu and go back to home screen						
ENTER for 3 sec in Home Screen	Stand Alone Menu	Quick access to Stand Alone menu						
DOWN for 3 sec in Home Screen	Factory reload Menu	Quick access to Factory reload						
MENU + UP keep pushed while powering on	Factory Default	Restore default value						

# **11 - 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	

	RD	M PIDs		,		1	1
Parameter	Category	PID Address	GET	SET	Value	Description	Defaul 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	х		N/A	x*
RECORD_SENSORS	Sensors	0x0202		х		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	х		N/A	
LOCK_STATE	Configuration	0x0641	x	х		N/A	
LOCK_STATE_DESCRIPTION	Configuration	0x0642	x			N/A	
IDENTIFY_DEVICE	Control	0x1000	x	х		N/A	
RESET_DEVICE	Control	0x1001		х		N/A	
POWER_STATE	Control	0x1010	X	х		N/A	
PERFORM_SELFTEST	Control	0x1020	x	х		N/A	
SELF_TEST_DESCRIPTION	Control	0x1021	X			N/A	
CAPTURE_PRESET	Control	0x1030	x	х		N/A	
PRESET_PLAYBACK	Control	0x1031	X	х		N/A	
IDENTIFY_MODE	Control	0x1040	X	х		N/A	
PRESET_INFO	Control Control	0x1041 0x1042	X			N/A N/A	
PRESET_STATUS POWER_ON_SELF_TEST	Control	0x1042 0x1044	X	x		N/A N/A	
DMX FAULT	Manufacturer PIDs	0x82DD	x	x	0-2	0: HOLD 1: BLCK 2:SA	2
MASTER/SLAVE	Manufacturer PIDs	0x8211	×	×	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:LEGACY MODE; 1:MASTER/ SLAVE; 2:DIMMER; 3:EFFECT; 4:STATIC	4
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	0
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	-
POWER CONSUMPTION	Manufacturer PIDs	0x82EF	x			**W	-
CURRENT HOURS	Manufacturer PIDs	0x82C5	x			**h	-

# 12 - 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	ЗСН
9	LEGACY HSI	ЗСН

### DMX BASIC MODES

PARAMETER	UNO (1ch)	BASIC (5ch)	STANDARD (11ch)	EXTENDED (17ch)
DIMMER	1	1	1	1
DIMMER FINE	-	-	2	2
STROBE	-	-	3	3
сст	-	-	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

### 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

### CHANNEL DEFINITION

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

Strobe											
Function	8 bit	value	value 16 bit value		Nete						
Function	From	То	From	То	Note						
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)

Fune	Function		8 bit value		value	
CCT(K) From	CCT(K) To	From	То	From	То	Note
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	

Fune	ction	8 bit	value	16 bit value			
CCT(K) From	CCT(K) To	From	То	From	То		
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	1	
7100	7200	152	156	39139	40049	]	
7200	7300	156	159	40049	40959	1	
7300	7400	159	163	40959	41870	1	
7400	7500	163	166	41870	42780	1	
7500	7600	166	170	42780	43690	1	
7600	7700	170	174	43690	44600	]	
7700	7800	174	177	44600	45510	]	
7800	7900	177	181	45510	46421	1	
7900	8000	181	184	46421	47331	1	
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	1	
8600	8700	205	209	52792	53702	1	
8700	8800	209	213	53702	54613	1	
8800	8900	213	216	54613	55523	1	
8900	9000	216	220	55523	56433	1	
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	1	
9800	9900	248	251	63715	64625	]	
9900	10000	251	255	64625	65535		

### CCT (2800K - 10000K)

Note

				GMP			
E	8 bit value		value 16 bit valu		it value 16 bit value		N. A.
Function	From	То	From	То	Note		
-25% to 0	0	127	-	-	Default @ 0		
Neutral	128	128	-	-			
0 to 25%	129	255	-	-			

Crossfade from CCT to Color											
·	8 bit	value	16 bit value		16 bit value		N .				
Function	From	То	From	То	Note						
Linear Crossfade	0	255	-	-	Default @ 255 (Linear Crossfade 0 - 100%)						

### Colors (RED - GREEN - BLUE - WARM WHITE)

	8 bit value		16 bit value		16 bit value		<b>N</b> .
Function	From	То	From	То	Note		
Color	0	255	0	65535	Linear 0 - 100% Default @ 255 (8bit) / 65535 (16bit)		

			Colo	or Macro	
Function	8 bit	value	16 bit	value	Note
Function	From	То	From	То	Note
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 BLLUE	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	-	-	
	50	51	-	L	

			Colo	or Macro	)
Eunstian	8 bit	value	16 bit	value	Nete
Function	From	То	From	То	Note
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	120	123	_	-	
PALE GOLD	124	125	-	_	
ORANGE	124	123		_	
DEEP STRAW	128	129		_	
ROSE PURPLE	130	131	-	_	
DEEP PURPLE	130	133	-	-	
SOFT GREEN					
	134	135	-	-	
Reserved for future use	136	209	-	-	
2700K	210	211	-	-	
2800K	212	213	-	-	
<u>3000K</u>	214	215			L

	Color Macro										
Europhian.	8 bit	value	16 bit value		Nata						
Function	From	То	From	То	Note						
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

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

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

Function         8 bit value         16 bit value         Note           Primer Speed         Fast         36         37         -         -           Medium         38         39         -         -         -           Medium         42         43         -         -         -           1200hz         44         45         -         -         -           200hz         48         49         -         -         -           6000hz         50         51         -         -         -           120hd         60         61         -         -         -           12h         60         61         -         -         -           1R Control         On         64         65 <th colspan="8">Control Channel</th>	Control Channel							
Hor         To         From         To           Auto         34         35         -         -           Fast         36         37         -         -           Medium         38         39         -         -           Medium         38         39         -         -           Medium         38         39         -         -           Slow         40         41         -         -           1200hz         44         45         -         -           1200hz         44         45         -         -           2000hz         50         51         -         -           6000hz         50         51         -         -           60         56         57         -         -           12h         60         61         -         -           12h         60         61         -         -           12h         66         67         -         -           12h         66         67         -         -           12h         66         7         -         -           18h	Europeien <u>8 bit value</u> 16 bit value						Neto	
Dimmer Speed         Fast         36         37         .         .           Medium         38         39         .         .         .           Slow         40         41         .         .           1200hz         44         45         .         .           1200hz         44         45         .         .           2000hz         46         47         .         .           4000hz         48         49         .         .           6000hz         50         51         .         .           6000hz         50         51         .         .           25khz         52         53         .         .           6h         56         57         .         .           12h         60         61         .         .           12h         60         61         .         .           12h         60         61         .         .           12h         66         67         .         .           18k         62         69         .         .           Dmx Faut         Blackout         70	Function		From	То	From	То	note	
Dimmer Speed         Medium         38         39         -         -           Slow         40         41         -         -           600hz         42         43         -         -           120hz         44         45         -         -           200hz         46         47         -         -           4000hz         48         49         -         -           6000hz         50         51         -         -           200hz         46         47         -         -           4000hz         50         51         -         -           25khz         52         53         -         -           25khz         52         53         -         -           6h         56         57         -         -           12h         60         61         -         -           18h         62         63         -         -           Dmx Fault         Blackout         70         71         -         -           Turgsten Emula-         On         64         67         -         -           Tungsten Emula- </td <td></td> <td>Auto</td> <td>34</td> <td>35</td> <td>-</td> <td>-</td> <td></td>		Auto	34	35	-	-		
Medium         38         39         -         -           Slow         40         41         -         -           Slow         40         41         -         -           1200hz         44         45         -         -           1200hz         46         47         -         -           2000hz         48         49         -         -           6000hz         50         51         -         -           6000hz         50         51         -         -           25khz         52         53         -         -           8h         58         59         -         -           12h         60         61         -         -           12h         60         61         -         -           18h         62         63         -         -           Dmx Fault         Blackout         70         71         -         -           Imagene Emula         Off         66         67         -         -           Dmx Fault         Blackout         70         71         -         -           Imagene Emula	Dimmer Speed	Fast	36	37	-	-		
600hz         42         43         -         -           1200hz         44         45         -         -           2000hz         46         47         -         -           4000hz         48         49         -         -           6000hz         50         51         -         -           25khz         52         53         -         -           25khz         52         53         -         -           8         58         59         -         -           12h         60         61         -         -           18h         62         63         -         -           18ccontrol         On         64         65         -         -           Master DMA         70         71         -         -         -           Dmx Fault         Blackout         70         71         -         -           Imgsten Emulation         Off         92         93         -         -           Tungsten Emulation         Off         96         97         -         -           Slave         100         101         -         <	Dimmer speed	Medium	38	39	-	-		
Led Frequency         1200hz         44         45         -         -           2000hz         46         47         -         -         -           4000hz         48         49         -         -         -           6000hz         50         51         -         -         -           6000hz         50         51         -         -         -           6000hz         50         51         -         -         -           60         56         57         -         -         -           6h         56         57         -         -         -           6h         56         57         -         -         -           12h         60         61         -         -         -           18h         62         63         -         -         -           18k         62         65         -         -         -           18k         62         67         -         -         -           18k         64         70         71         -         -           10mx Fault         Off         92         93		Slow	40	41	-	-		
Led Frequency         2000hz         46         47         -         -           4000hz         48         49         -         -         -           6000hz         50         51         -         -         -           25khz         52         53         -         -         -           25khz         52         53         -         -         -           8h         54         55         -         -         -           6h         56         57         -         -         -           8h         58         59         -         -         -           12h         60         61         -         -         -           18h         62         63         -         -         -           18k         66         67         -         -         -           18k         66         67         -         -         -           18k         69         -         -         -         -           19k         0n         71         -         -         -           10mx Fault         Off         92         93		600hz	42	43	-	-		
Led Frequency         4000hz         48         49         -         -           6000hz         50         51         -         -           25khz         52         53         -         -           3h         54         55         -         -           6h         56         57         -         -           6h         58         59         -         -           12h         60         61         -         -           12h         60         61         -         -           18h         62         63         -         -           18k         68         69         -         -           19         70         71         -         -           10mx Fault         10ff         92         93         -         -           10gten Emergency         74         75         <		1200hz	44	45	-	-		
Hold         48         49         -         -           6000hz         50         51         -         -           25khz         52         53         -         -           25khz         52         53         -         -           6h         56         57         -         -           6h         56         57         -         -           12h         60         61         -         -           12h         60         61         -         -           12h         60         61         -         -           18h         62         63         -         -           18h         62         63         -         -           18h         62         63         -         -           18h         64         67         -         -           18k         66         67         -         -           18k         70         71         -         -           10ms Fault         Off         92         93         -         -           10ngsten Emula-         Off         92         93         -		2000hz	46	47	-	-		
25khz         52         53         -         -           3h         54         55         -         -           6h         56         57         -         -           12h         60         61         -         -           18h         62         63         -         -           18control         On         64         65         -         -           Masterland         70         71         -         -         -           Dmx Fault         Off         92         93         -         -           Tungsten Emulation         On         94         95         -         -           Master DMX         96         97         -         -           Standalone <td>Lea Frequency</td> <td>4000hz</td> <td>48</td> <td>49</td> <td>-</td> <td>-</td> <td></td>	Lea Frequency	4000hz	48	49	-	-		
$3h$ $54$ $55$ -         - $\deltah$ $56$ $57$ -         - $8h$ $58$ $59$ -         - $12h$ $60$ $61$ -         - $12h$ $60$ $61$ -         - $18h$ $62$ $63$ -         - $Modellion$ $0n$ $64$ $65$ -         - $Modellion$ $0ff$ $66$ $67$ -         - $Dmx$ Fault $Blackout$ $70$ $71$ -         - $Bmx$ Fault $Blackout$ $70$ $71$ -         - $Emergency$ $74$ $75$ -         -           Tungsten Emulation $Off$ $92$ $93$ -         - $Master DMX$ $96$ $97$ -         - $Master no DMX$ $98$ $97$ -         - $Effect 1$ $102$ $103$ -         -     <		6000hz	50	51	-	-		
Run Time		25khz	52	53	-	-		
Run Time $8h$ $58$ $59$ -         -           12h         60         61         -         -           18h         62         63         -         -           IR Control         On         64         65         -         -           IR Control         Off         66         67         -         -           Dmx Fault         Blackout         70         71         -         -           Blackout         70         71         -         -         -           Stand Alone         72         73         -         -         -           Tungsten Emula- tion         Off         92         93         -         -           Master DMX         96         97         -         -         -           Master no DMX         98         99         -         -         -           Slave         100         101         -         -         -           Effect 1         102         103         -         -         -           Effect 2         104         105         -         -         -           Effect 4         108 <td></td> <td>3h</td> <td>54</td> <td>55</td> <td>-</td> <td>-</td> <td></td>		3h	54	55	-	-		
12h         60         61         -         -           18h         62         63         -         -           IR Control         On         64         65         -         -           Off         66         67         -         -         -           Mold         68         69         -         -         -           Dmx Fault         Blackout         70         71         -         -           Stand Alone         72         73         -         -           Emergency         74         75         -         -           Tungsten Emulation         Off         92         93         -         -           Master DMX         96         97         -         -         -           Master DMX         96         97         -         -         -           Standalone         Effect 1         102         103         -         -           Effect 3         106         107         -         -         -           Standalone         Effect 5         110         111         -         -           Effect 5         106         107         -		6h	56	57	-	-		
18h         62         63         -         -           IR Control         On         64         65         -         -           Off         66         67         -         -           Dmx Fault         Blackout         70         71         -         -           Stand Alone         72         73         -         -         -           Emergency         74         75         -         -         -           Tungsten Emulation         Off         92         93         -         -           Master DMX         96         97         -         -           Master DMX         96         97         -         -           Standalone         Effect 1         102         103         -         -           Effect 3         106         107         -         -         -           Standalone         Effect 5         110         111         -         -           Effect 5         106         107         -         -         -           Master no DMX         98         109         -         -         -           Effect 3         106         107	Run Time	8h	58	59	-	-		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		12h	60	61	-	-		
IR Control         Off         66         67         -         -           Hold         68         69         -         -         -           Dmx Fault         Blackout         70         71         -         -           Stand Alone         72         73         -         -           Emergency         74         75         -         -           Tungsten Emula- tion         Off         92         93         -         -           Master DMX         96         97         -         -         -           Master no DMX         98         99         -         -         -           Standalone         Effect 1         102         103         -         -           Effect 2         104         105         -         -         -           Effect 3         106         107         -         -         -           Effect 5         110         111         -         -         -           Effect 5         110         111         -         -         -           Effect 5         110         111         -         -         -           Color macro		18h	62	63	-	-		
Off         66         67         -         -           Hold         68         69         -         -           Blackout         70         71         -         -           Stand Alone         72         73         -         -           Emergency         74         75         -         -           Reserved         76         91         -         -           Tungsten Emula- tion         Off         92         93         -         -           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 5         110         111         -         -         -           Fixed colors         112         113         -         -           <		On	64	65	-	-		
Blackout         70         71         -         -           Stand Alone         72         73         -         -           Emergency         74         75         -         -           Reserved         76         91         -         -           Tungsten Emula- tion         Off         92         93         -         -           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         -         -      <	IR Control	Off	66	67	-	-		
Dmx Fault         Stand Alone         72         73         -         -           Emergency         74         75         -         -           Reserved         76         91         -         -           Tungsten Emulation         Off         92         93         -         -           Master DMA         96         97         -         -         -           Master DMX         96         97         -         -         -           Master DMX         96         97         -         -         -           Master DMX         98         99         -         -         -           Slave         100         101         -         -         -           Effect 1         102         103         -         -         -           Effect 2         104         105         -         -         -           Effect 3         106         107         -         -         -           Effect 5         110         111         -         -         -           Fixed colors         112         113         -         -         -           Vhite presets         <		Hold	68	69	-	-		
Stand Alone         72         73         -         -           Emergency         74         75         -         -           Reserved         76         91         -         -           Tungsten Emulation         Off         92         93         -         -           Master DML         96         97         -         -           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         -         -           White presets         116         117         -         -           Manual colors         118         119         -         -		Blackout	70	71	-	-		
Reserved         76         91         -         -           Tungsten Emulation         Off         92         93         -         -           Master DMX         96         97         -         -           Master DMX         96         97         -         -           Master 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         -         -           Reserved         120         253         -         -	Dmx Fault	Stand Alone	72	73	-	-		
Tungsten Emula- tion         Off         92         93         -         -           Master DMX         96         97         -         -           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         -         -           Reserved         120         253         -         -		Emergency	74	75	-	-		
tion         On         94         95         -         -           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         -         -	Rese	erved	76	91	-	-		
Master DMX         96         97         -         -           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         -         -	Tungsten Emula-	Off	92	93	-	-		
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         -         -           Reserved         120         253         -         -	tion	On	94	95	-	-		
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         -         -           Reserved         120         253         -         -		Master DMX	96	97	-	-		
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         -         -           Reserved         120         253         -         -		Master no DMX	98	99	-	-		
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         -         -           Reserved         120         253         -         -		Slave	100	101	-	-		
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         -         -           Reserved         120         253         -         -		Effect 1	102	103	-	-		
Standalone         Effect 4         108         109         -         -           Effect 5         110         111         -         -         -           Fixed colors         112         113         -         -           Color macro         114         115         -         -           White presets         116         117         -         -           Manual colors         118         119         -         -           Reserved         120         253         -         -		Effect 2	104	105	-	-		
Effect 4       108       109       -       -         Effect 5       110       111       -       -         Fixed colors       112       113       -       -         Color macro       114       115       -       -         White presets       116       117       -       -         Manual colors       118       119       -       -         Reserved       120       253       -       -	Standalone	Effect 3	106	107	-	-		
Fixed colors         112         113         -         -           Color macro         114         115         -         -           White presets         116         117         -         -           Manual colors         118         119         -         -           Reserved         120         253         -         -		Effect 4	108	109	-	-		
Color macro         114         115         -         -           White presets         116         117         -         -           Manual colors         118         119         -         -           Reserved         120         253         -         -		Effect 5	110	111	-	-		
White presets         116         117         -         -           Manual colors         118         119         -         -           Reserved         120         253         -         -		Fixed colors	112	113	-	-		
Manual colors         118         119         -         -           Reserved         120         253         -         -		Color macro	114	115	-	-		
Reserved 120 253		White presets	116	117	-	-		
		Manual colors	118	119	-	-		
Reset all channel controlled 254 255	Reserved		120	253	-	-	]	
	Reset all channel controlled		254	255	-	-		

### **Control Channel**

# **13 - 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
	Recharge the main battery, keeping the product under charge for some hours.	3
[BATTERY ERROR]	If the error still occurrs, 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

# 14 - RUNTIME

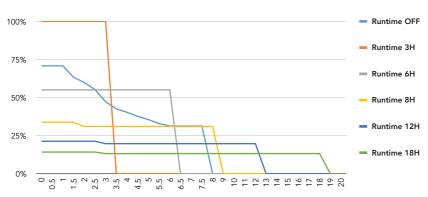
### **Operating Duration for different runtime setups**

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)			
R	10	10	10	12	18			
G	8	8	8	12	18			
В	8	8	8	12	18			
W	7	7	8	12	18			
RG	4	6	8	12	18			
BG	4	6	8	12	18			
RB	4,5	6	8	12	18			
RW	4	6	8	12	18			
BW	4	6	8	12	18			
RGB	3	6	8	12	18			
RGW	3	6	8	12	18			
GBW	3	6	8	12	18			
RGBW	3	6	8	12	18			

Runtime for different runtime setups

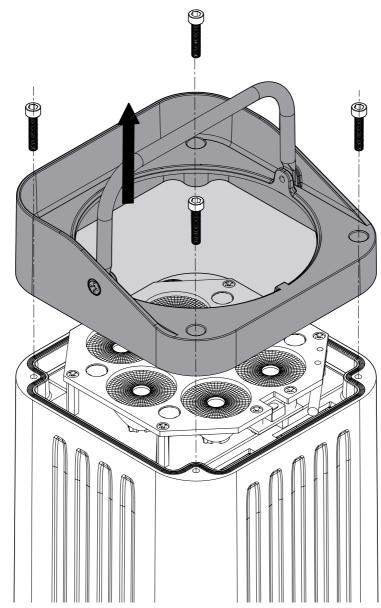
The following graph presents a detailed analysis of the performance of different SmartBat PlusNeo operating modes, highlighting how each mode behaves over time in terms of light intensity. The 3H mode represents the peak performance, delivering maximum light intensity (100%) for three complete hours. In contrast, the 18H 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.



### SmartBat PlusNeo Light Output/Runtime

# **15 - ACCESSORIES INSTALLATION**

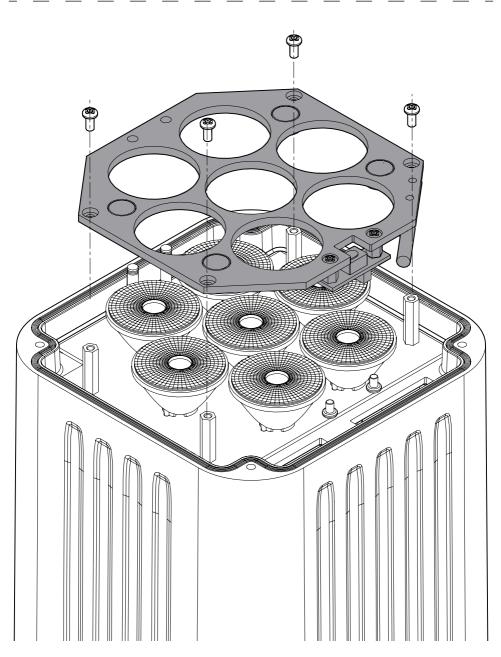
### LENSES (CODE SBPNEOL20/35/60 - OPTIONAL)



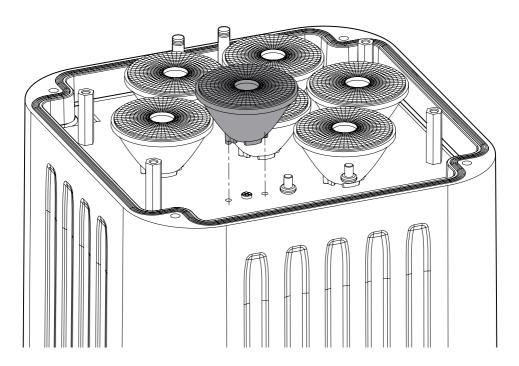
Place fixture on a stable surface.

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

Fig. 05

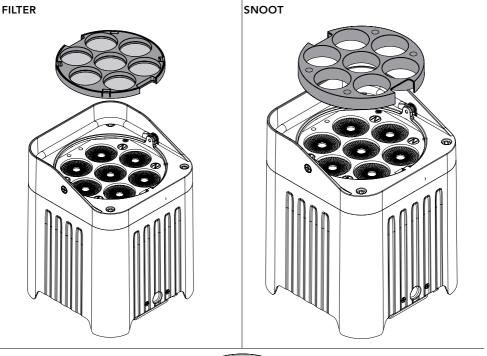


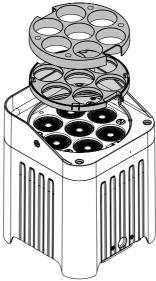
• Unscrew the lenses holder screws and remove the lens holder.



• Gently replace each lens as shown in figure

### SNOOT / FILTER (CODE SBPNEOSNOOT - SBPNEOFILT20/40/60/1060/3060 - OPTIONAL)

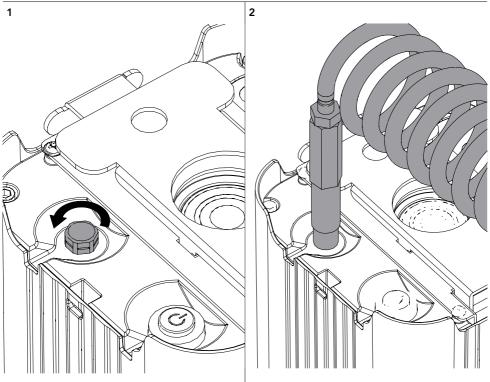




• Just place the accessory on the top of the projector, it will be fixed by included magnets NOTE: The snoot can be placed also on top of the filter.

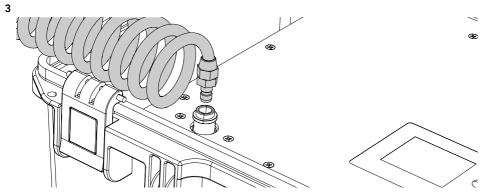
# 16 - TEST OF IP65 RATING

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: IPTBM6ADP 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

# **17 - 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.	<ul> <li>Check that power is switched ON and cables are plugged in.</li> </ul>
	<ul> <li>Fuse blown or internal fault.</li> </ul>	<ul> <li>Check if the Fuse is intact and eventually replace it if necessary.</li> <li>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.</li> </ul>
Product reset correctly but does not respond correctly	Bad signal connection.	<ul> <li>Inspect connections and cables. Fix eventual bad connections. Repair or replace damaged cables.</li> </ul>
to the contoller.	• Signal connection not terminated.	<ul> <li>Insert DMX termination plug in signal output socket of the last product on the signal line.</li> </ul>
	• Incorrect addressing of the product.	Check the product address and control settings.
	• One of the product is defective and is corrupt- ing the signal transmis- sion 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.	<ul> <li>Check product stored error messages for more information. Contact PROLIGHTS Service or an authorized service partner.</li> </ul>
Mechanical effect loses position.	<ul> <li>Mechanical hardware require cleaning, adjustment or lubrification.</li> </ul>	<ul> <li>Check product stored error messages for more information. Contact PROLIGHTS Service or an authorized service partner.</li> </ul>
Light output turn OFF Intermittently.	Fixture is too hot.	<ul> <li>Check product stored error messages.</li> <li>Allow product to cool.</li> <li>Clean the product and airflow filters.</li> <li>Reduce ambient temperature.</li> </ul>
	Hardware failure (tem- perature sensor, fans, Light source).	<ul> <li>Check product stored error messages for more information. Contact. PROLIGHTS Service or an authorized service partner.</li> </ul>
General low light intensity.	<ul><li>Dirty lens assembly.</li><li>Dirty or damaged filters.</li></ul>	<ul><li>Clean the fixture regularly.</li><li>Install lens assembly properly.</li></ul>

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.




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